

PRELIMINARY/FINAL  
SUBDIVISION & LAND DEVELOPMENT PLAN  
FOR  
THE TERRACES AT SHEPHERDSTOWN  
LOCATED IN  
UPPER ALLEN TOWNSHIP,  
CUMBERLAND COUNTY, PA.

DRAWING INDEX

SHEET NO.	TITLE
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	SUBDIVISION AND LAND DEVELOPMENT PLAN
4	GRADING PLAN
5	LANDSCAPE & BUFFER PLAN
6	EROSION CONTROL PLAN
7	PLAN AND PROFILE OF TERRACE VIEW LANE
8	PLAN AND PROFILE OF MISCELLANEOUS STORM AND SANITARY SEWERS
9 THROUGH 11	MISCELLANEOUS DETAILS
12 THROUGH 13	EROSION CONTROL DETAILS

STORMWATER BMP OPERATION, MAINTENANCE AND INSPECTION NOTES:

The storm water volume and quality control Best Management Practices (BMPs) constructed for The Terraces at Shepherdstown will be maintained to function as designed, and shall implement the procedures described below; this shall be in the homeowners association documents. Facilities located within dedicated and accepted street rights-of-way shall be owned and maintained by the Upper Allen Township. For facilities located outside of dedicated and accepted rights-of-way, or within undedicated street rights-of-way, the owner of the lot (Shepherdstown Associates LLC) on which facilities are located shall own the facility, but the homeowners association for the development will be responsible for the maintenance of facilities as shown on the drawings, once the association is created by the developer.

The approved facilities are to be permanent, and can only be removed or altered after approval by one or more of the following entities which may have jurisdiction: Upper Allen Township; and/or PA D.E.P. The tasks outlined herein shall be accomplished by the homeowners association, possibly via a contractor, once the homeowners association is in effect. Until such time, the developer shall be responsible for all maintenance.

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

--stormwater pipes;  
--riprap aprons at pipe outlets;  
--drain inlets, manholes and open pipe ends;  
-- stormwater detention facility;  
--retention areas / rain gardens; and  
--drainage easements associated with all of the above, with respect to accessing and maintaining the listed features, and not day to day maintenance of the ground surface, such as mowing, weeding and the like.

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

Stormwater basins and retention / rain garden areas, inspection and maintenance tasks

--inspect annually at a minimum;  
--The basin and retention areas bottoms can be maintained as mowed grass, maintained meadow, or natural brush succession, per the desires and budget of the lot owner or homeowners association as applicable. The basin berms shall be maintained as turfgrass or meadow, being mowed at least several times per year. Removal of sediment / debris shall take place when the basin bottom has dried, if possible. Man-made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler.  
--Examine for and clean out the outlet structure and trash rack, of accumulated trash, grit and the like.  
--Remove grit, sand, soil or organic matter if it accumulates to a depth of 3" or more, so that storage volume is maintained.

Riprap Aprons inspection and maintenance tasks

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

Inspection and maintenance tasks for Storm Pipes and Inlets

--Examine annually at a minimum. Remove non-made trash and dispose of properly.  
--Examine inlet bottoms via grate, for accumulated debris. Remove accumulated grit and other debris. Check for any obvious structural deterioration.  
--Examine contributory swales for obstructions and erosion. Any scouring of earth should be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary.  
--All inlets, storm piping, swales and drainage structures shall be kept free of any obstructions and foreign material that would cause disruption of water flow in a manner not designed for the facility, such as sediment, vegetation, wood, sand, debris, or vegetative growth in excess of 12 inches if not part of the landscape design. Such facilities shall also be kept cleansed of spent liquids such as oils, fuels, petroleum products, antifreeze, and greases.  
Removal of sediment/debris shall take place when the area has dried, if possible. Man-made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler.  
--Any erosion shall be corrected with an appropriate groundcover material to prevent such in the future.  
--All impervious surfaces shall be maintained clean of oil, fuel or other toxic spills, in accordance with State, Federal or local regulations.

Drainage Easements inspection and maintenance tasks

--inspect annually at a minimum.  
--Note that day to day maintenance of the ground surface such as trash pickup, mowing, weeding and the like is the responsibility of the owner of the lot.  
--Notify the landowner if any obstructions or alteration of the ground surface interfere with the purpose and use of the easement, and request removal / correction of the problem.

UPPER ALLEN TOWNSHIP ZONING REQUIREMENTS:

(for single-family attached dwellings with public water and sewer)

1. Site is zoned Medium-Density Residential District (R-2).
2. Minimum lot size: 2,000 square feet per lot
3. Minimum front yard: 25 feet
4. Minimum side yard: 10 feet on exterior units
5. Minimum rear yard: 25 feet
6. Minimum street frontage: 20 feet for interior units; 35 feet for exterior units
7. Maximum number of units per building: 8
8. Maximum lot coverage: 50% with buildings, and 45% with impervious surfaces
9. Maximum building height: 35 feet
10. Off-street parking requirement: 2 spaces per unit

WAIVERS

The following waivers are requested from the Upper Allen Township Subdivision and Land Development Ordinance:

WAIVER SECTION	REQUIREMENT	DATE OF WAIVER REQUEST	DATE OF WAIVER APPROVAL
220-9	Pertaining to submission and processing of a separate preliminary plan	9/1/10	
220-11.G	Pertaining to a Park and Recreation Report; fee-in-lieu is proposed.	9/1/10	
220-15.D.(1)	Pertaining to horizontal street redius of 150 feet on the one-way loop street.	9/1/10	
220-15.F.(2)	Pertaining to street cartway and right-of-way width on the one-way loop street.	9/1/10	
220-16.A.(3)	Pertaining to curb construction; rolled curb is proposed.	9/1/10	
220-16.B.(4)&(2)	Pertaining to sidewalk on both sides of a street; and 4-foot grass planting strip between curb and sidewalk.	9/1/10	
220-26	Pertaining to screening/buffering of the stormwater facilities.	9/1/10	

WAIVERS

The following waivers are requested from Chapter 214: Stormwater Management: Upper Allen Township:

WAIVER SECTION	REQUIREMENT	DATE OF WAIVER REQUEST	DATE OF WAIVER APPROVAL
214-22.B	Pertaining to plan sheet size of 18" x 24"	2/1/10	

DEFERRALS

The following deferrals are requested:

DEFERRAL SECTION	REQUIREMENT
220-15.B.(11)	Pertaining to improvement of existing street frontage.
220-16.A.(2)	To provide curbing along existing streets until such time as the Township determines the improvements are necessary.
220-16.B.(3)	To provide sidewalk along existing streets until such time as the Township determines the improvements are necessary.

SITE DATA:

1. Record owner and applicant: Shepherdstown Associates, LLC 555 Gettysburg Pike, Suite C-100 Mechanicsburg, Pa 17055 Phone: (717) 697-3223 Deed reference: Deed book 279, page 3363
2. Property is zoned R-2 Medium Density Residential.
3. Existing lot area: 9.07 acres
4. Existing number of lots: 1
5. Proposed number of lots: 3, as follows lot #1: lot for townhouses (single family attached dwellings) lot #2: lot reserved for common area, and stormwater management lot #3: Property addition to the land of Jeffrey Crownover.
6. Existing number of dwelling units: 0
7. Proposed number of dwelling units: 37
8. Existing use: vacant field
9. Proposed uses: 37 townhouse units (lot #1); open space (Lot #2); Crownover lot addition (lot #3).
10. Proposed total length of new public streets: 1,650 linear feet.
11. Proposed minimum lot area: 23,611 sq. ft. (lot #2)
12. There are no streams, wetlands, significant rock outcrops, soil subsidences, floodplains, slopes in excess of 25%, or contaminated soils known to exist on this site.
13. Proposed water supply: public (United Water)
14. Proposed sewage disposal: public
15. Maximum proposed building height is 35 feet.
16. Site is tax parcel number 42-09-2456-003.
17. Lot #1 proposed building coverage: 68,200 sq.ft. or 26.8% of the lot.
18. Lot #1 proposed impervious coverage: 100,500 sq.ft. or 39.5% of the lot.
19. Density of lot #1: 6,870 sq.ft. per dwelling (min. 2,000 sq.ft. per unit is required).

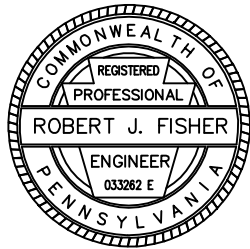
GENERAL NOTES:

1. This project shall be developed in one phase.
2. Lot #2 shall be maintained by a homeowners association(s) established with this development as a common area for aesthetics and stormwater management. Accessory recreational structures, as well as development identification signage, are permitted provided they comply with applicable setbacks and regulations.
3. Lot #3 will be incorporated into the existing lands now or formerly of Jeffrey Crownover, and shall not remain a separate lot.
4. Boundary and topographic survey information was prepared by C.W. Jenkins Associates Inc. 550 Coventry Drive, Mechanicsburg, PA. 17055 on July 27, 2007. Benchmark: Coast and Geodetic Survey Monument #1 1960 (PID) KW1252 located in USGS Quad Steelton near the Pennsylvania Turnpike administration building. Horizontal datum: NAVD 1988, elevation 393.95.
5. The Public Street will be offered for dedication to Upper Allen Township.
6. Proposed sanitary sewer mains will be offered for dedication to Upper Allen Township; all sanitary sewer construction methods and materials shall conform to the latest standards of Upper Allen Township, Cumberland County, Pennsylvania and shall be subject to approval by the appropriate Township official or Township Engineer.
7. Within clear sight triangles shown, no structure or growing material shall exceed a height of 3 feet above the grade of the street, and no branch of a tree, or obstruction, shall be lower than 9 feet above the grade of the street, with the exception of traffic signs, public utility poles, and similar-type structures.
8. The developer shall be responsible to install street name signs at each street intersection, at his expense. All traffic control signs and devices are to be installed prior to any certificates of occupancy being issued. Street signs shall conform to PennDOT Publication 236M, dated April 1997, as amended.
9. All new utilities shall be placed underground.
10. All stormwater drainage facilities located outside of dedicated and accepted public street rights-of-way shall be private, and be maintained by the developer until such responsibility is transferred to a homeowners association. The developer or the homeowners association(s) shall maintain the drainage facilities to the design, dimensions and elevations indicated on these drawings, and such facilities shall be permanent unless and until a revised stormwater management plan is approved by Upper Allen Township, and/or PA D.E.P.
11. The proposed water system shown hereon is schematic only, and shall be superseded by the water company design when Final Plans are approved.
12. A minimum of 10-foot separation, or an 18" vertical separation, shall be maintained wherever possible between water lines and sanitary sewer lines.
13. Approval by the Cumberland County Conservation District of a soil erosion and sedimentation control plan must be obtained prior to any earthmoving. Implementation of the erosion control plan is the responsibility of the developer.
14. According to FEMA maps, there is no designated floodplain on this site.
15. Concrete monuments will be set where indicated. All other property corners not already marked shall be marked with iron pins.
16. All public improvements shall comply with the Upper Allen Township construction specifications.
17. A minimum of two parking spaces of a minimum size 9.5 feet wide by 18 feet deep shall be provided on each building lot, either within a garage and/or in the paved driveway to the garage. Maximum driveway width at the street right-of-way line is 10 feet for a driveway leading to a single car garage, and 24 feet for a driveway leading to a double-car garage.
18. All work shall be in accordance with PennDOT Publication 408, Specifications and Publication 72, Roadway Construction Standards, unless otherwise noted.
19. Work Zone Traffic Control shall be in accordance with PennDOT Publication 213.
20. The property owner shall be responsible for the initial installation and maintenance of all the traffic control signs and pavement markings. All pavement markings shall be hot thermoplastic.
21. Traffic control signs and pavement markings shall be installed in accordance with PennDOT standards and regulations in effect at the same time of street dedication.
22. Lot owners are required to maintain lot grading and surface drainage patterns and characteristics in accordance with the approved plan.
23. The developer shall be responsible for the implementation and maintenance of soil erosion control measures.
24. Manhole covers for storm manholes shall be cast with the word "Storm" for identification purpose.
25. Construction of all work within the public street right-of-way and work related to storm drainage facilities requires inspection by Upper Allen Township. Provide a minimum 48 hours notice to the Township before starting work.
26. Contractor shall schedule a preconstruction site meeting with the Upper Allen Township Engineer at least 48 hours prior to starting site construction activities.
27. Site disturbance is permitted to start only if and when sufficient time is available to stabilize disturbed areas in accordance with PaDEP requirements and with the approved plan.
28. Nothing shall be placed, planted, set or put within the area of an easement that would adversely affect the function of the easement or conflict with the easement agreement.
29. Driveways must be paved and slope may not exceed 15% within 50 feet of the street right-of-way.
30. The developer shall pay the Township recreation fee of \$1,500 for each new dwelling unit.
31. The developer shall be permitted to adjust the location or the footprint of the buildings, provided, however, that it maintains at least the minimum setbacks shown on the plan. Such adjustments shall be reviewed by the Zoning Officer prior to issuance of building permits and to the extent that they are considered to be consistent with the requirements of the site plan and the zoning ordinance they shall be permitted. Proposed impervious coverages shall not be exceeded.

OWNER & APPLICANT

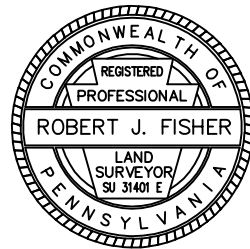
SHEPHERDSTOWN ASSOCIATES, LLC  
555 GETTYSBURG PIKE, SUITE C-100  
MECHANICSBURG, PA  
(717) 697-3223

I, DAVID NESBIT, HEREBY ACKNOWLEDGE THAT THE STORMWATER MANAGEMENT FACILITIES AND A BMP'S ARE TO BE PERMANENT FEATURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL OF A REVISED PLAN BY UPPER ALLEN TOWNSHIP.



ENGINEER & SURVEYOR

R.J. FISHER & ASSOCIATES  
ENGINEERING, PLANNING & SURVEYING  
1546 BRIDGE STREET  
NEW CUMBERLAND, PA 17070  
(717) 774-7534



I, ROBERT J. FISHER, P.E., P.L.S. HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND A REGISTERED ENGINEER IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT THIS PLAN CORRECTLY REPRESENTS A SURVEY COMPLETED BY ME OR THAT ALL THE MONUMENTS SHOWN THEREON ACTUALLY EXIST; AND THAT THEIR LOCATIONS, SIZE, TYPE AND MATERIAL ARE ACCURATELY SHOWN.

ROBERT J. FISHER P.L.S., P.E.

I, ROBERT J. FISHER, P.E., P.L.S. HEREBY CERTIFY THAT NONE OF THIS SITE IS DIRECTLY UNDERLAIN BY LIMESTONE BEDROCK BASED UPON GEOLOGIC MAPS AND SOIL TESTING.

ROBERT J. FISHER P.L.S., P.E.

REVIEWED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011  
BY CUMBERLAND COUNTY PLANNING DEPARTMENT

DIRECTOR OF PLANNING

APPROVED BY THE PLANNING COMMISSION OF UPPER ALLEN TOWNSHIP.  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011.

\_\_\_\_\_, ATTEST \_\_\_\_\_  
SECRETARY CHAIRMAN

APPROVED BY THE BOARD OF COMMISSIONERS OF UPPER ALLEN TWP.  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011.

\_\_\_\_\_, ATTEST \_\_\_\_\_  
SECRETARY CHAIRMAN

REVIEWED BY THE UPPER ALLEN TOWNSHIP ENGINEER  
REVIEWED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011

ENGINEER

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011  
ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011, BEFORE ME, A NOTARY PUBLIC, THE UNDERSIGNED DID, PERSONALLY APPEAR JEFFREY CROWNOWER WHO ACKNOWLEDGED THE WITHIN PLAN OF LOTS TO BE HIS ACT AND DEED AND DESIRED THE SAME TO BE RECORDED AS SUCH.  
IN WITNESS WHEREOF I HERE UNTO SET MY HAND AND SEAL.

MY COMMISSION  
EXPIRES \_\_\_\_\_ DATE \_\_\_\_\_  
NOTARY PUBLIC

IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN AND THAT ALL STREETS OR ROADS OR PARTS THEREOF, IF NOT PREVIOUSLY DEDICATED, ARE HEREBY RENDERED FOR DEDICATION TO PUBLIC USE.

Owner: JEFFREY CROWNOWER

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011  
ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2011, BEFORE ME, A NOTARY PUBLIC, THE UNDERSIGNED DID, PERSONALLY APPEAR DAVID NESBIT WHO ACKNOWLEDGED THE WITHIN PLAN OF LOTS TO BE HIS ACT AND DEED AND DESIRED THE SAME TO BE RECORDED AS SUCH.  
IN WITNESS WHEREOF I HERE UNTO SET MY HAND AND SEAL.

MY COMMISSION  
EXPIRES \_\_\_\_\_ DATE \_\_\_\_\_  
NOTARY PUBLIC

IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED IS THE OWNER OF THE PROPERTY SHOWN ON THIS PLAN AND THAT ALL STREETS OR ROADS OR PARTS THEREOF, IF NOT PREVIOUSLY DEDICATED, ARE HEREBY RENDERED FOR DEDICATION TO PUBLIC USE.

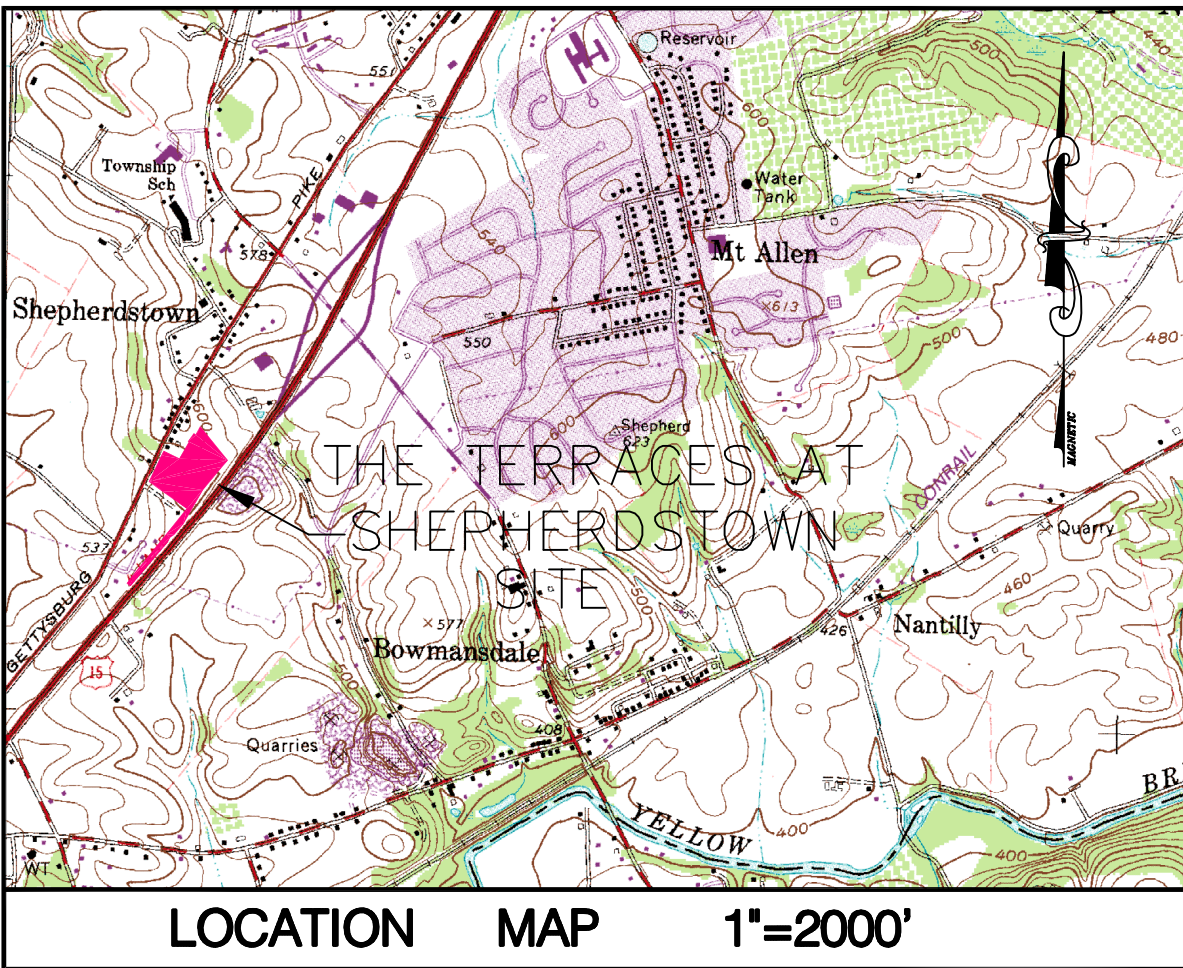
Owner: DAVID NESBIT

No.	REVISION	DATE
1		
2		
3		
4		
5		

R.J. FISHER  
& ASSOC., INC.

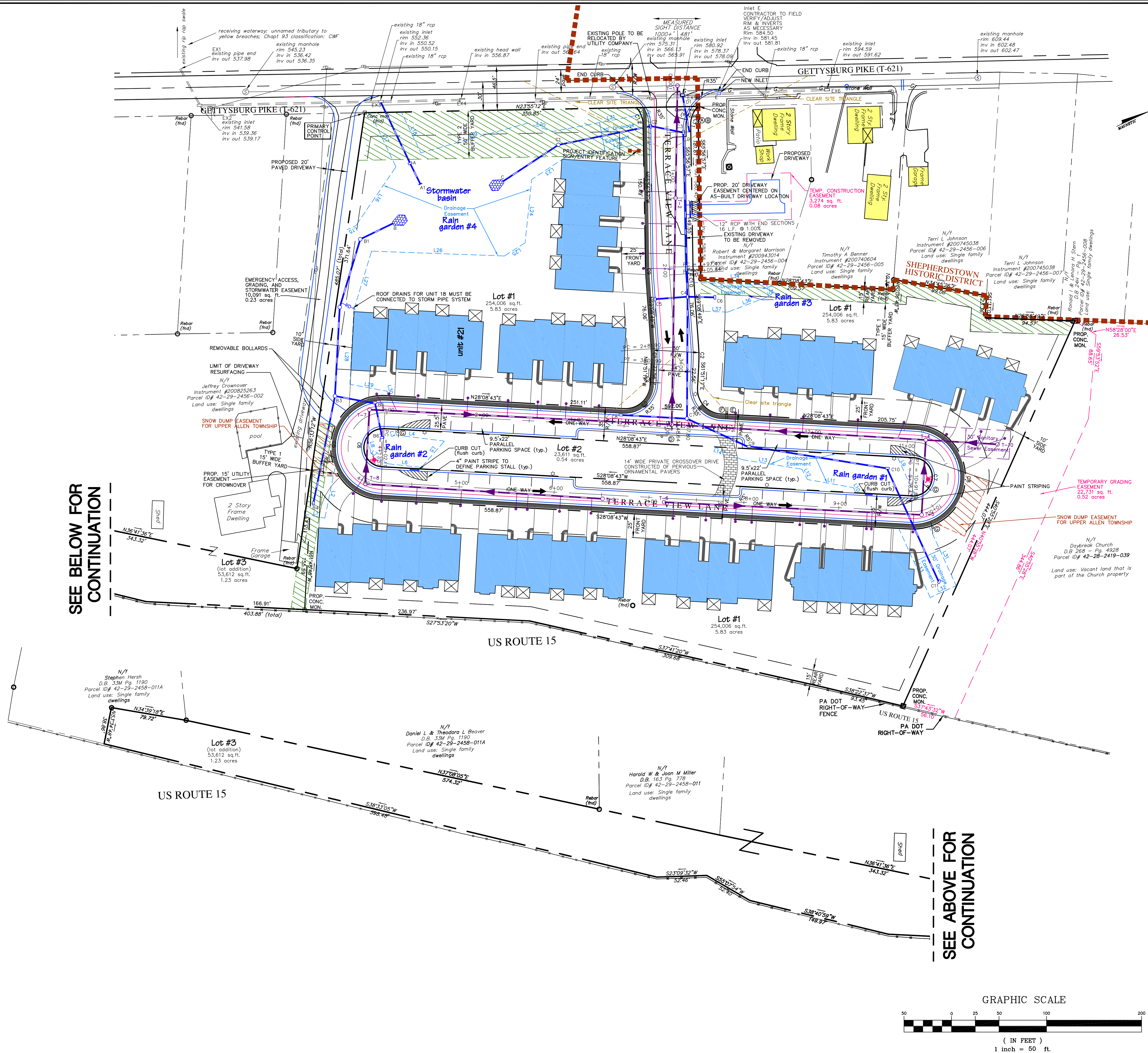
COPYRIGHT © 2010

DRAWING ID	210014-COV
DATE	10/28/10
SHEET	1 OF 13





SEE BELOW FOR  
CONTINUATION



DRAINAGE EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
L1	21.30	N36°24'22"E
L2	53.55	N53°35'38"W
L3	6.14	S76°48'04"E
L4	51.04	N32°09'49"E
L5	36.70	S23°56'21"E
L6	35.95	S31°08'33"W
L7	20.44	S56°44'35"W
L8	18.08	N76°48'04"W
L9	44.89	S89°31'58"E
L10	5.93	S89°42'15"W
L11	49.07	S35°00'35"E
L12	12.42	S66°17'13"W
L13	64.25	S34°05'46"W
L14	31.77	S49°47'28"W
L15	10.18	N00°50'37"W
L16	74.68	N30°42'15"W
L17	63.27	S89°27'35"W
L18	47.59	N89°27'35"E
L19	116.39	N89°27'35"E
L20	28.16	N42°57'09"E
L21	104.66	N14°15'50"E
L22	93.48	S14°15'50"W
L23	40.38	S08°22'04"E
L24	66.97	S59°01'56"E
L25	25.91	S07°31'56"E
L26	139.93	S27°04'39"W
L27	64.33	S48°11'56"E
L28	78.69	S61°55'04"E
L29	39.83	N35°27'32"E
L30	4.79	S76°48'04"W
L31	68.34	S89°31'58"E
L32	30.00	S00°28'02"W
L33	79.95	N89°31'58"W
L34	76.80	N27°01'54"E
L35	12.36	S72°07'47"E
L36	45.87	S04°12'00"W
L37	33.24	S27°01'54"W
L38	183.08	S65°56'57"E

CURVE TABLE			
CURVE	LENGTH	RADIUS	CHORD BEARING
C1	15.91	115.00	N85°30'03"W
C2	22.27	175.00	N85°30'03"W
C3	40.84	26.00	N16°51'17"W
C4	40.84	26.00	N13°08'43"E
C5	172.79	55.00	S81°51'17"E
C6	62.83	20.00	S81°51'17"E
C7	62.83	20.00	N61°51'17"W
C8	172.79	55.00	N61°51'17"W
C9	8.77	175.00	S87°32'53"E
C10	6.98	125.00	S87°32'53"E
C11	21.11	27.35	S43°05'15"E
C12	19.55	27.00	N86°41'40"W

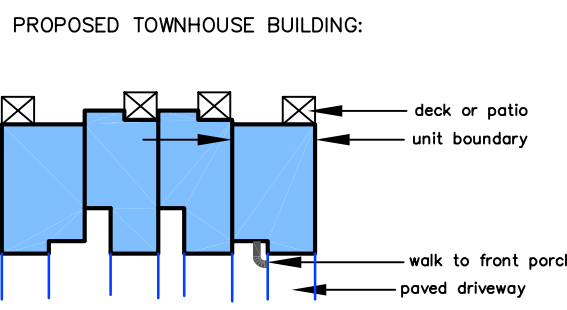
PLAN SYMBOL	PENNDOT DESCRIPTION	SIGN DESCRIPTION	SIZE
⊙	R1-1	STOP	24" X 24"
⊙	-	STANDARD STREETS IDENTIFICATION SIGN	PER TOWNSHIP STANDARDS
⊙	R3-7-1R	ALL TRAFFIC MUST TURN RIGHT	30" X 30"
⊙	R6-1R	ONE WAY	36" X 12"
⊙	R1-2	YIELD	36" X 36"
⊙	R5-1	DO NOT ENTER	30" X 30"
⊙	-	NO PARKING SYMBOL	12" X 12"

NOTE: SIGN MATERIALS, COLORS, LETTERING, HEIGHT, CLEARANCE, POST  
AND MOUNTING SHALL CONFORM TO PENNDOT PUBLICATION TITLE  
67, CHAPTER 211: "OFFICIAL TRAFFIC-CONTROL DEVICES".

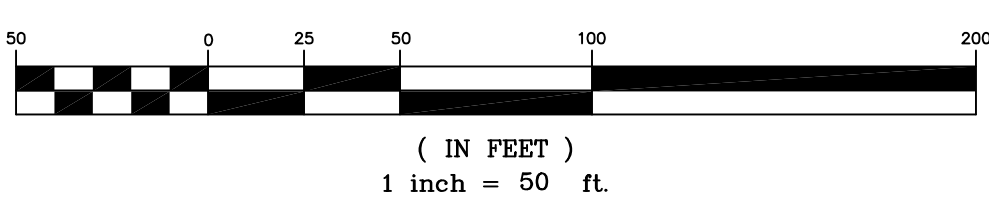
#### TRAFFIC SIGN CHART

#### LEGEND

- PROPOSED RETAINING WALL
- PROPOSED 8" SANITARY SEWER LATERAL, C.O.
- PROPOSED 8" SANITARY SEWER, MH, ID#
- PROPOSED STORM SEWER, INLET, ID#
- PROPOSED DRAINAGE EASEMENT
- PROPOSED SANITARY SEWER EASEMENT
- PROPOSED 8" WATER MAIN & HYDRANT
- PROPOSED EDGE OF PAVING
- PROPOSED ROLLED CURBING (see detail)
- PROPERTY LINE
- PROPOSED RIP RAP
- PROPOSED STREET LIGHT
- PROPOSED WALK
- Road Sign
- Existing Utility Pole
- Existing Sanitary Sewer, MH, ID#
- Existing Storm Sewer, Inlet
- Existing Edge of Pave
- Existing Building



#### GRAPHIC SCALE



No.

REVISION

DATE

1		
2		
3		
4		
5		
6		
7		
8		

Associates, Inc.

FISHER & ASSOCIATES, INC.

SUBDIVISION AND LAND DEVELOPMENT PLAN  
FOR  
**THE TERRACES  
AT SHEPHERDSTOWN**  
LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

DRAWING ID  
210014-SUB

DATE: 10/28/10

SHEET 3 OF 13

SEE BELOW FOR  
CONTINUATION

SEE ABOVE FOR  
CONTINUATION

R. J. FISHER & ASSOCIATES, INC.

LAND PLANNING & DEVELOPMENT DESIGN • PROPERTY & TOPO. SURVEYS  
LANDSCAPE ARCHITECTURE • WETLANDS IDENTIFICATION & DELINEATION  
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7634 FAX (717) 774-7190

COPYRIGHT © 2010 BY  
R. J. FISHER & ASSOCIATES, INC.

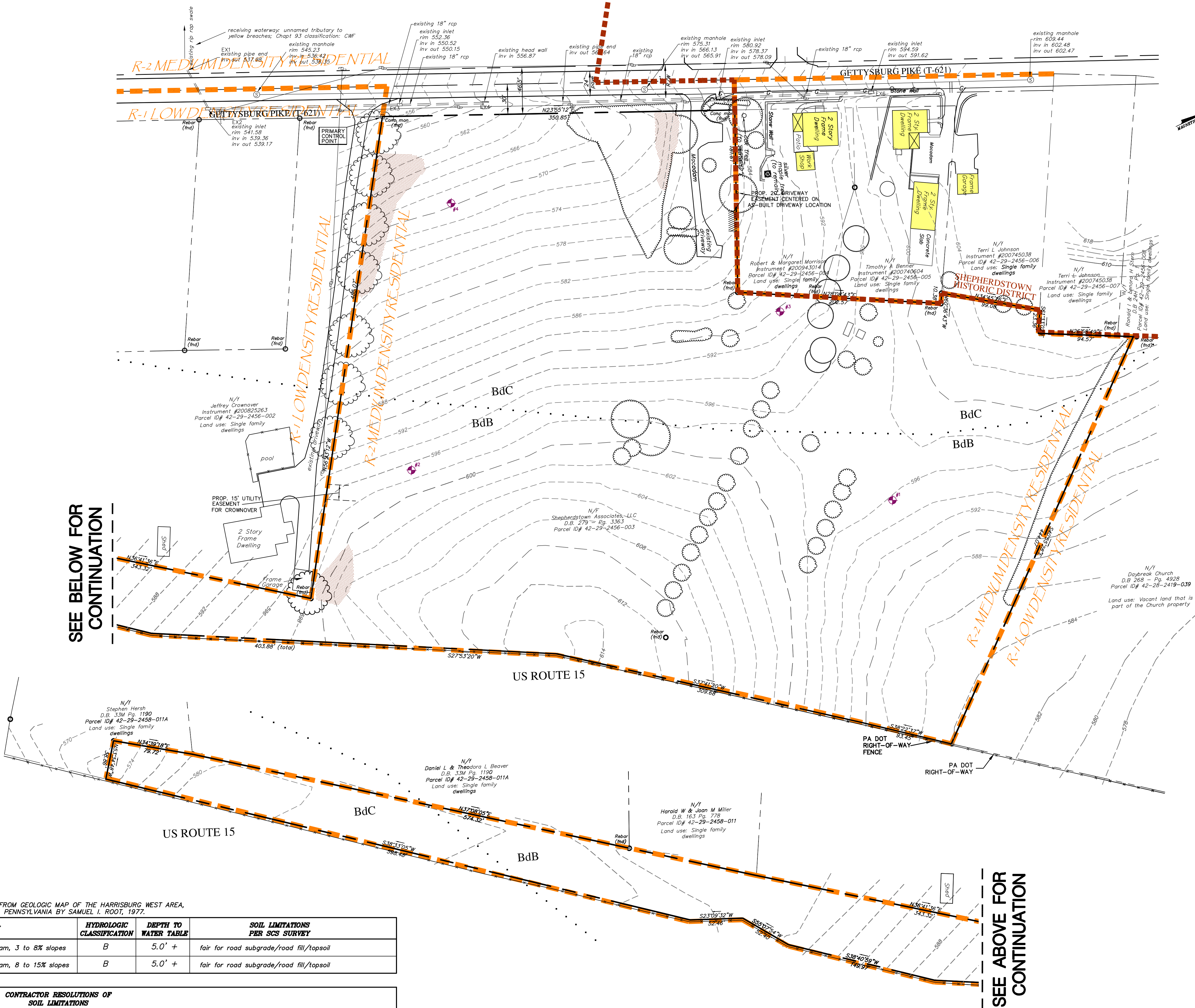


NOTE:  
GEOLOGIC INFORMATION SHOWN IS FROM GEOLOGIC MAP OF THE HARRISBURG WEST AREA,  
CUMBERLAND AND YORK COUNTIES, PENNSYLVANIA BY SAMUEL I. ROOT, 1977.

SOIL TYPE	DESCRIPTION	HYDROLOGIC CLASSIFICATION	DEPTH TO WATER TABLE	SOIL LIMITATIONS PER SCS SURVEY
BdB	Bedington shaly silt loam, 3 to 8% slopes	B	5.0' +	fair for road subgrade/road fill/topsoil
BdC	Bedington shaly silt loam, 8 to 15% slopes	B	5.0' +	fair for road subgrade/road fill/topsoil

CONTRACTOR RESOLUTIONS OF  
SOIL LIMITATIONS

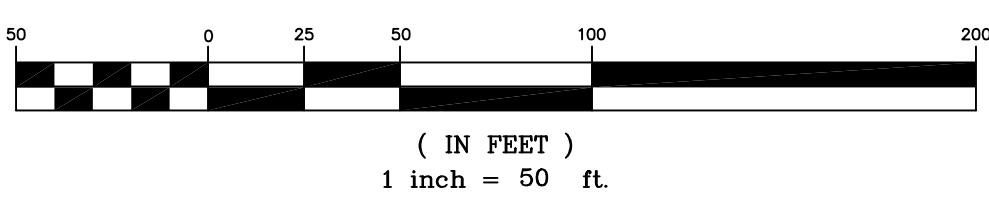
- In general, there are no unusual site characteristics here that are unlike those found elsewhere in the region where similar soils are present. No special construction methods or procedures seem necessary.
- Any rock encountered will be ripped or blasted as necessary, and used for compacted fill in other areas.
- Slope will not be an adverse factor to construction since all slopes on this site are not greater than those found on other construction sites in the region. Slopes will be re-shaped with the proposed grading. Any accelerated runoff or erosion from slopes will be handled by the sediment basin, matting and silt fence control measures on the site.
- Drainage within the project area will be manipulated by proposed grading, storm piping and swales.
- Bedington soils are found on other construction sites in this region. Ground surface will be reshaped and compacted with the proposed grading.



LEGEND

- 418 Existing 2' Contour
- 420 Existing 10' Contour
- Soil test site, ID #
- Soil Boundary & Type per SCS Survey
- Zoning District Boundary Line
- Existing Sanitary Sewer, MH, ID#
- Existing Storm Sewer, Inlet
- Existing Water Line, Valve, Hydrant
- Existing Gas Line
- Existing Easement Line
- Existing Edge of Pavement
- Existing Overhead Electric
- Existing Tree or Brush Line
- Existing Individual Tree
- Existing Spot Elevation
- Road Sign
- Existing Utility Pole
- Existing Building
- Areas Having Slopes 15 To 25 Percent

GRAPHIC SCALE



EXISTING CONDITIONS PLAN  
FOR  
**THE TERRACES**  
AT SHEPHERDSTOWN

LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

DRAWING ID  
210014-EXC

DATE: 10/28/10

SHEET 2 OF 13

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

- LAND PLANNING & DEVELOPMENT DESIGN
- PROPERTY & TOPO. SURVEYS
- LANDSCAPE ARCHITECTURE
- WETLANDS IDENTIFICATION & DELINEATION

1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7634 FAX (717) 774-7190



No.	REVISION	DATE
1		
2		
3		
4		
5		
6		
7		
8		

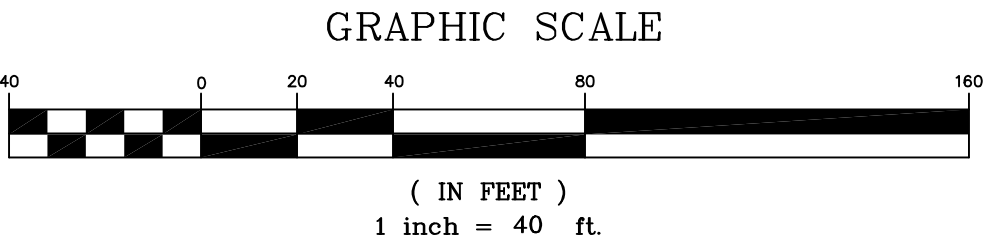
COPYRIGHT © 2010 BY  
R. J. FISHER & ASSOCIATES, INC.





**LEGEND**

- SOIL TEST SITE, ID #
- SURFACE FLOW DIRECTION
- PROPOSED 1' or 2' CONTOUR
- PROPOSED 10' CONTOUR
- Existing 2' Contour
- Existing 10' Contour
- PROPOSED SPOT ELEVATION
- PROPOSED 8" SANITARY SEWER, MH, ID#
- PROPOSED STORM SEWER, INLET, ID#
- PROPOSED 8" WATER MAIN & HYDRANT; VALVE
- PROPOSED EDGE OF PAVING
- PROPOSED ROLLED CURBING (see detail)
- PROPERTY LINE
- PROPOSED RIP RAP
- PROPOSED STREET LIGHT
- PROPOSED SIDEWALK
- Road Sign
- Existing Utility Pole
- Existing Sanitary Sewer, MH, ID#
- Existing Storm Sewer, Inlet
- Existing Edge of Pave
- Existing Building
- PROPOSED TOWNHOUSE BUILDING:
- deck or patio
- unit boundary
- first floor elev.
- basement floor elev.
- walk to front porch
- paved driveway



**GRADING PLAN**  
FOR  
**THE TERRACES**  
AT SHEPHERDSTOWN

LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

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

LAND PLANNING & DEVELOPMENT DESIGN    PROPERTY & TOPO. SURVEYS  
LANDSCAPE ARCHITECTURE    WETLANDS IDENTIFICATION & DELINEATION

1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7634 FAX (717) 774-7190

No.	REVISION	DATE
1		
2		
3		
4		
5		
6		
7		
8		

**DRAWING ID**  
210014-GRD

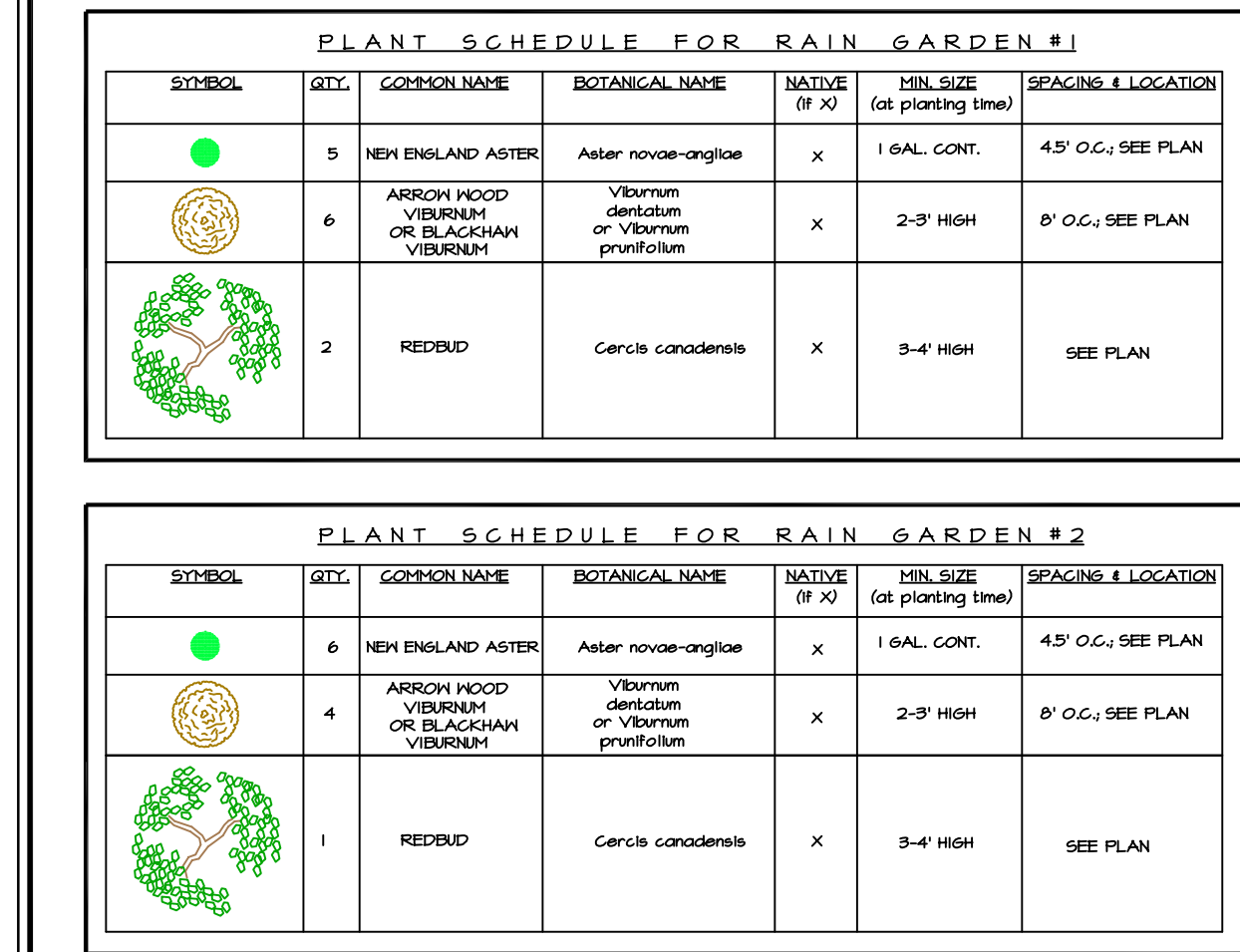
**DATE:** 10/28/10



**SHEET 4 OF 13**

**FISHER & ASSOCIATES, INC.**


COPYRIGHT © 2010 BY  
R.J. FISHER & ASSOCIATES, INC.







PLANT SCHEDULE FOR RAIN GARDEN #3						
SYMBOL	QTY.	COMMON NAME	BOTANICAL NAME	NATIVE (Y/N)	MIN. SIZE (at planting time)	SPACING & LOCATION
	5	NON INLAND ASTER	<i>Aster novae-angliae</i>	X	1 GAL. CONT.	4' O.C.; SEE PLAN
	1	ARISH HOOD VIBURNUM OR BLACKBERRY VIBURNUM	<i>Viburnum dentatum</i> or <i>Viburnum prunifolium</i>	X	2-3' HIGH	8' O.C.; SEE PLAN

GRAPHIC SCALE



( IN FEET )  
1 inch = 40 ft.

Required Type 1 Buffer between townhouses and single family lots now or formerly of Timothy F Straub, Timothy A Benner, and Terri L Johnson	
SYMBOL	BUFFER REQUIREMENTS AND CALCULATIONS
	Requirement: 1 deciduous shade tree required per 50 linear feet. Calculation: 421 linear feet ÷ 50 = 8 trees required 8 trees are provided. Type may include the following: cherry; birch; redbud; dogwood; serviceberry.
	Requirement: 1 evergreen tree required per 40 linear feet. Calculation: 421 linear feet ÷ 40 = 11 trees required. 11 trees are provided. Species may include the following: pine; spruce; fir; cedar; leland cypress.


# LEGEND

	PROPOSED 1' or 2' COUROUT
	PROPOSED 10' COUROUT
	Existing 2' CouROUT
	Existing 10' CouROUT
	PROPOSED 8" SANITARY SEWER, MH, ID#;
	PROPOSED STORM SEWER, INLET, ID#
	PROPOSED 8" WATER MAIN & HYDRANT; VALVE
	PROPOSED EDGE OF PAVING
	PROPOSED ROLLED CURBING (see detail)
	PROPERTY LINE
	PROPOSED RIP RAP
	PROPOSED STREET LIGHT
	PROPOSED WALK
	Road Sign
	Existing Utility Pole
	Existing Sanitary Sewer, MH, ID#
	Existing Storm Sewer, Inlet
	Existing Edge of Pave
	Existing Building
	PROPOSED STREET TREE (see detail)
PROPOSED TOWNHOUSE BUILDING:	
	<ul style="list-style-type: none"><li>deck or patio</li><li>unit boundary</li><li>first floor elev.</li><li>basement floor elev.</li><li>walk to front porch</li><li>paved driveway</li></ul>

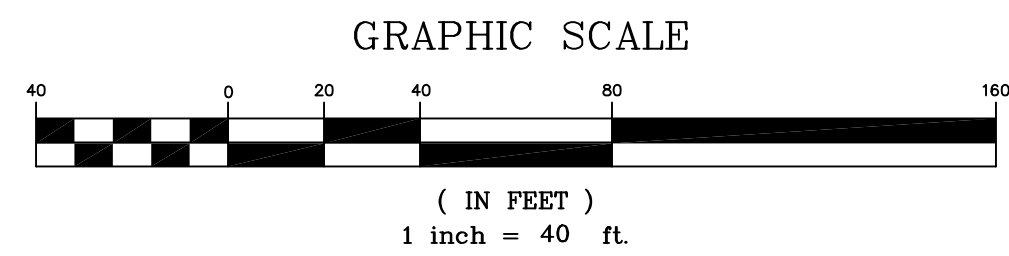
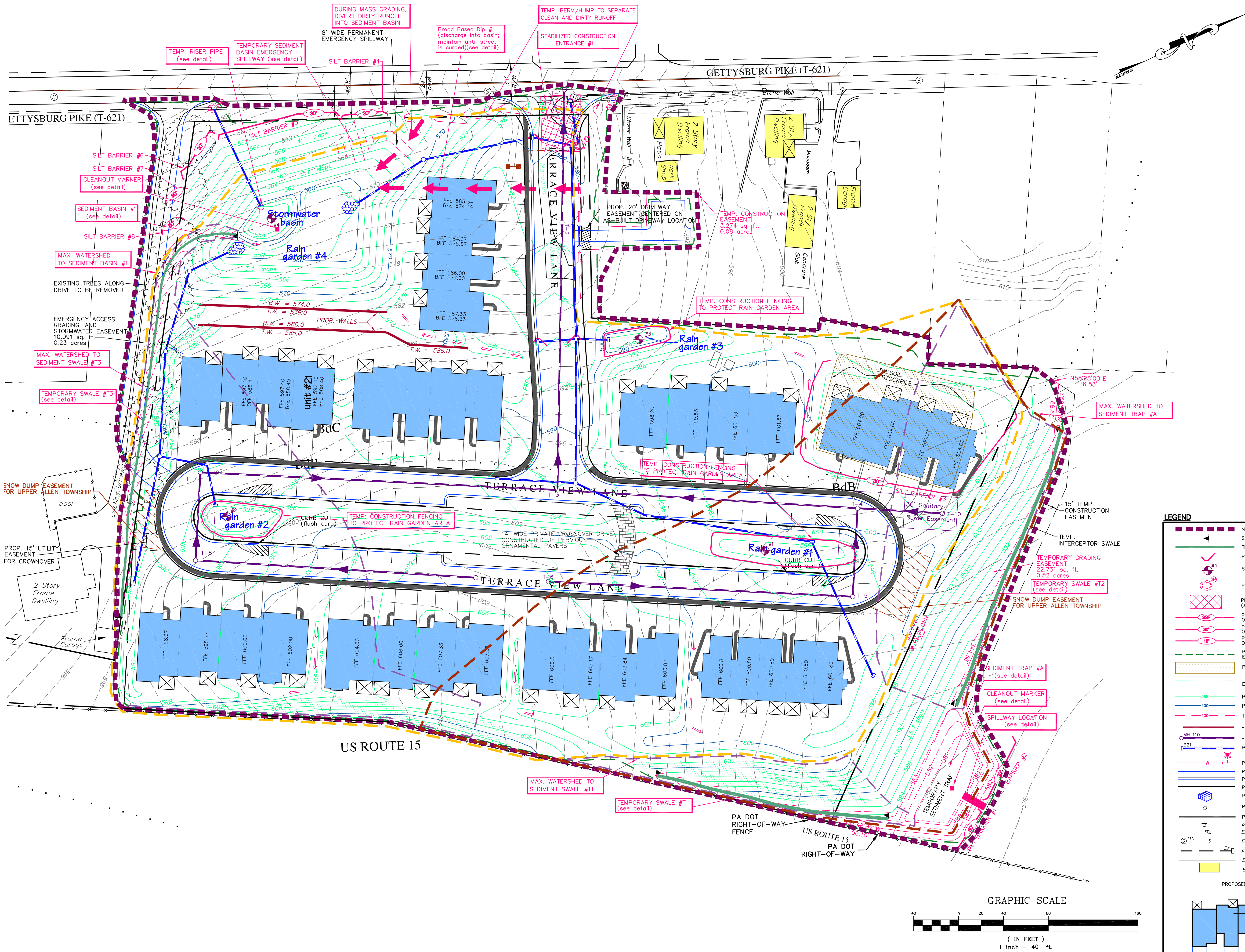
**LANDSCAPE & BUFFER PLAN**  
*FOR*  
**THE TERRACES**  
**AT SHEPHERDSTOWN**  
*LOCATED IN*  
*UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA*

DRAWING ID 210014-LANDSCAPE	
DATE:	10/28/10
SHEET 5 OF 13	

**R. J. FISHER & ASSOCIATES, INC.**  
 ■ LAND PLANNING & DEVELOPMENT DESIGN ■ PROPERTY & TOPO. SURVEYS  
 ■ LANDSCAPE ARCHITECTURE ■ WETLANDS IDENTIFICATION & DELINEATION  
 1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
 (717) 774-7534 FAX (717) 774-7190

	No.	REVISION	DATE
	1		
	2		
	3		
	4		
	5		
	6		





**LEGEND**

- NPDES PERMIT BOUNDARY
- SWALE END
- TEMPORARY CHANNEL LINING (see detail)
- PROPOSED TEMP. WATER BAR AT INLET
- Soil test site, ID #
- PROPOSED INLET PROTECTION
- PROPOSED ROCK CONSTRUCTION ENTRANCE (see detail)
- PROPOSED SUPER SILT FENCE OR SILT SOXX ALTERNATE (see silt barrier details)
- PROPOSED 30" SILT FENCE OR SILT SOXX ALTERNATE (see silt barrier details)
- PROPOSED 18" SILT FENCE OR SILT SOXX ALTERNATE (see silt barrier details)
- PROPOSED LIMIT OF EARTH DISTURBANCE
- PROPOSED TOPSOIL STOCK PILE
- EROSION CONTROL MATTING ON SLOPE (see detail)
- PROPOSED 1' or 2' CONTOUR
- PROPOSED 10' CONTOUR
- TEMPORARY CONTOUR FOR EROSION CONTROL
- PROPOSED RETAINING WALL
- PROPOSED 8" SANITARY SEWER, MH, ID#
- PROPOSED STORM SEWER, INLET, ID#
- PROPOSED 8" WATER MAIN & HYDRANT; VALVE
- PROPOSED EDGE OF PAVING
- PROPOSED ROLLED CURBING (see detail)
- PROPERTY LINE
- PROPOSED RIP RAP
- PROPOSED STREET LIGHT
- PROPOSED WALK
- Road Sign
- Existing Utility Pole
- Existing Sanitary Sewer, MH, ID#
- Existing Storm Sewer, Inlet
- Existing Edge of Pave
- Existing Building
- PROPOSED TOWNHOUSE BUILDING:
  - deck or patio
  - unit boundary
  - first floor elev.
  - basement floor elev. (if exposed)
  - walk to front porch
  - driveway

EROSION CONTROL PLAN  
FOR  
**THE TERRACES  
AT SHEPHERDSTOWN**  
LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

No.

REVISION

DATE

1		
2		
3		
4		
5		
6		
7		
8		

Associates, Inc.

**FISHER**

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

LAND PLANNING & DEVELOPMENT DESIGN    PROPERTY & TOPO. SURVEYS  
LANDSCAPE ARCHITECTURE    WETLANDS IDENTIFICATION & DELINEATION

1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7634    FAX (717) 774-7190

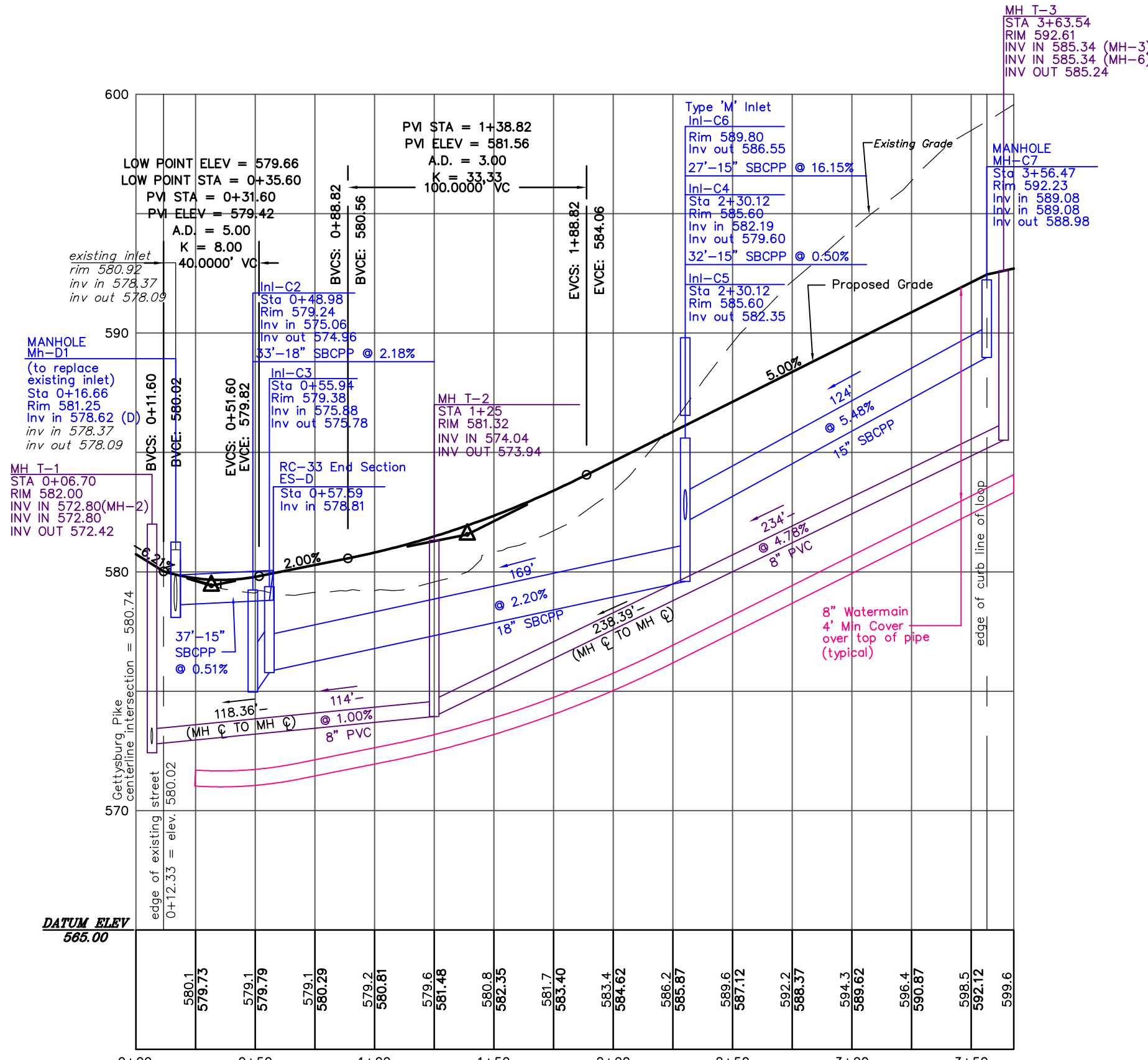
DRAWING ID  
210014-ES

DATE: 10/28/10

SHEET 6 OF 13

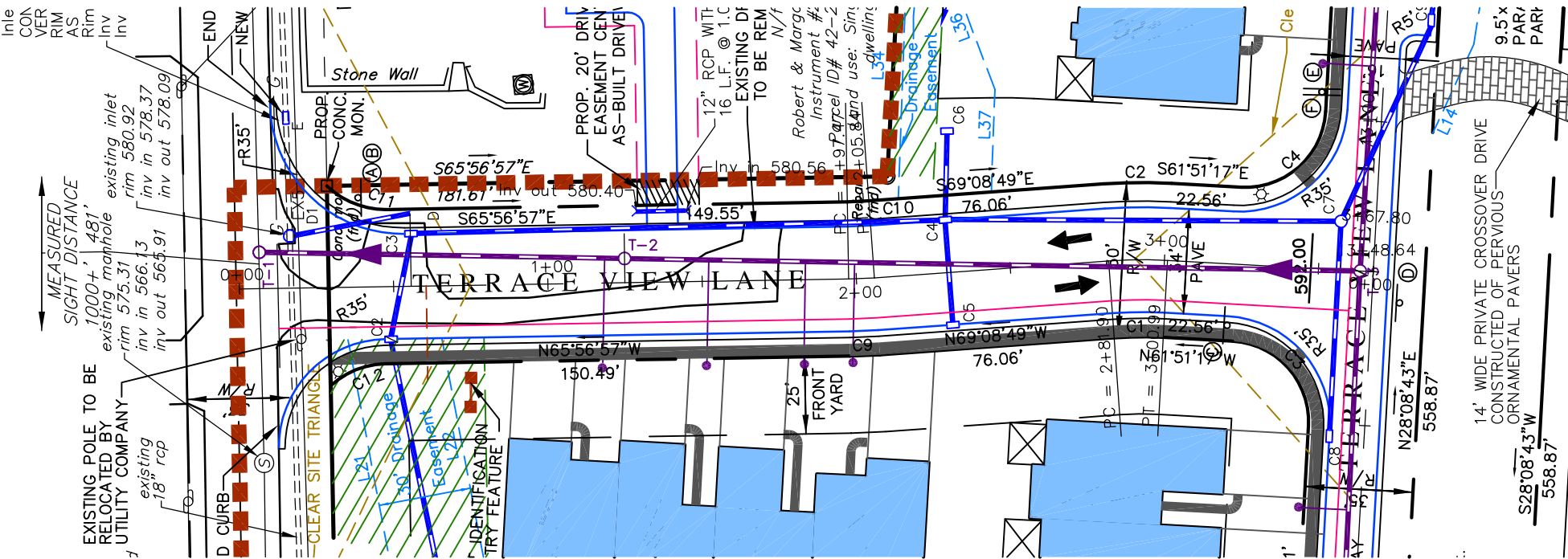
COPYRIGHT © 2010 BY  
R.J. FISHER & ASSOCIATES, INC.





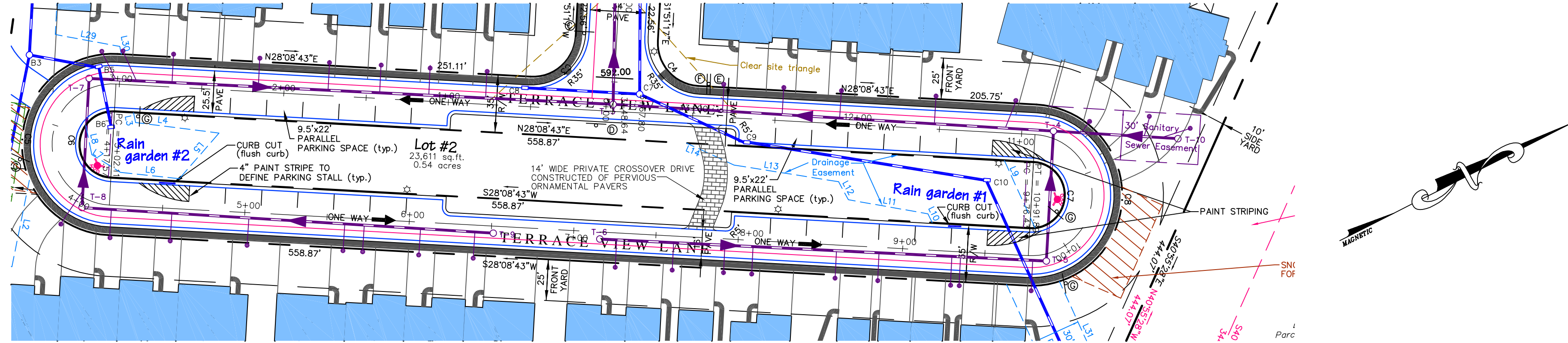
Centerline Profile of Terrace View Lane (two-way entry section)

Scale: Horz: 1"=50'  
Vert: 1"=5'



Plan View of Terrace View Lane (two-way entry section)

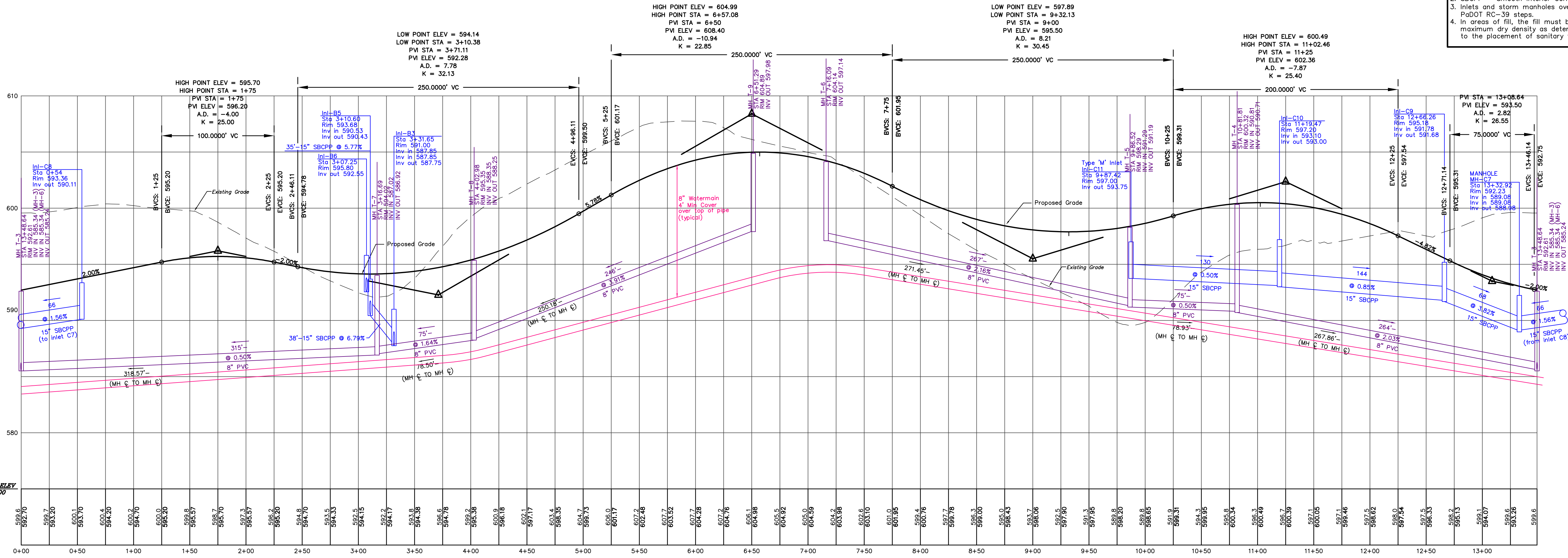
Scale: 1"=50'



Plan View of Terrace View Lane (loop section: one-way traffic)

Scale: 1"=50'

- NOTES:
1. All inlets are PaDOT RC-34 with Rolled curb inlet top, unless otherwise noted.
  2. SBCPP = Smooth Interior Corrugated Plastic Pipe
  3. Inlets and storm manholes over 5 feet in depth shall have PaDOT RC-39 steps.
  4. In areas of fill, the fill must be compacted to 95% or greater of the maximum dry density as determined by ASTM 698 standard proctor prior to the placement of sanitary facilities.



Centerline Profile of Terrace View Lane (loop section: one-way traffic)

Scale: Horz: 1"=50'  
Vert: 1"=5'

PLAN AND PROFILE OF  
TERRACE VIEW LANE  
FOR  
**THE TERRACES  
AT SHEPHERDSTOWN**  
LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

DRAWING ID  
210014-PR

DATE: 10/28/10

SHEET 7 OF 13

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

■ LAND PLANNING & DEVELOPMENT DESIGN ■ PROPERTY & TOPO. SURVEYS

■ LANDSCAPE ARCHITECTURE ■ WETLANDS IDENTIFICATION & DELINEATION

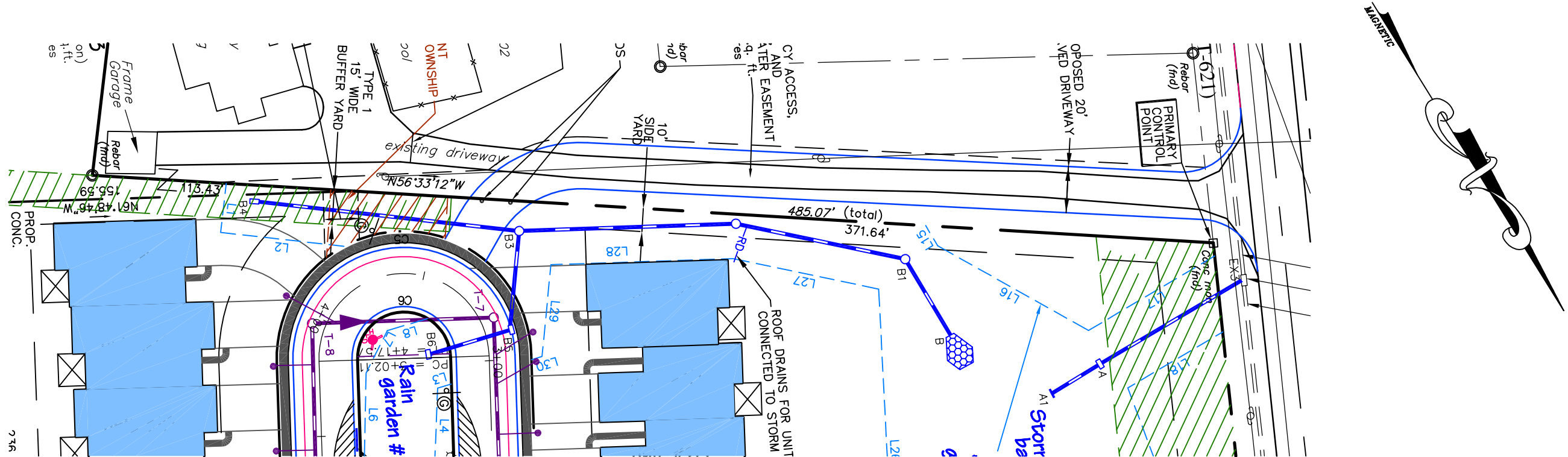
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7634 FAX (717) 774-7190



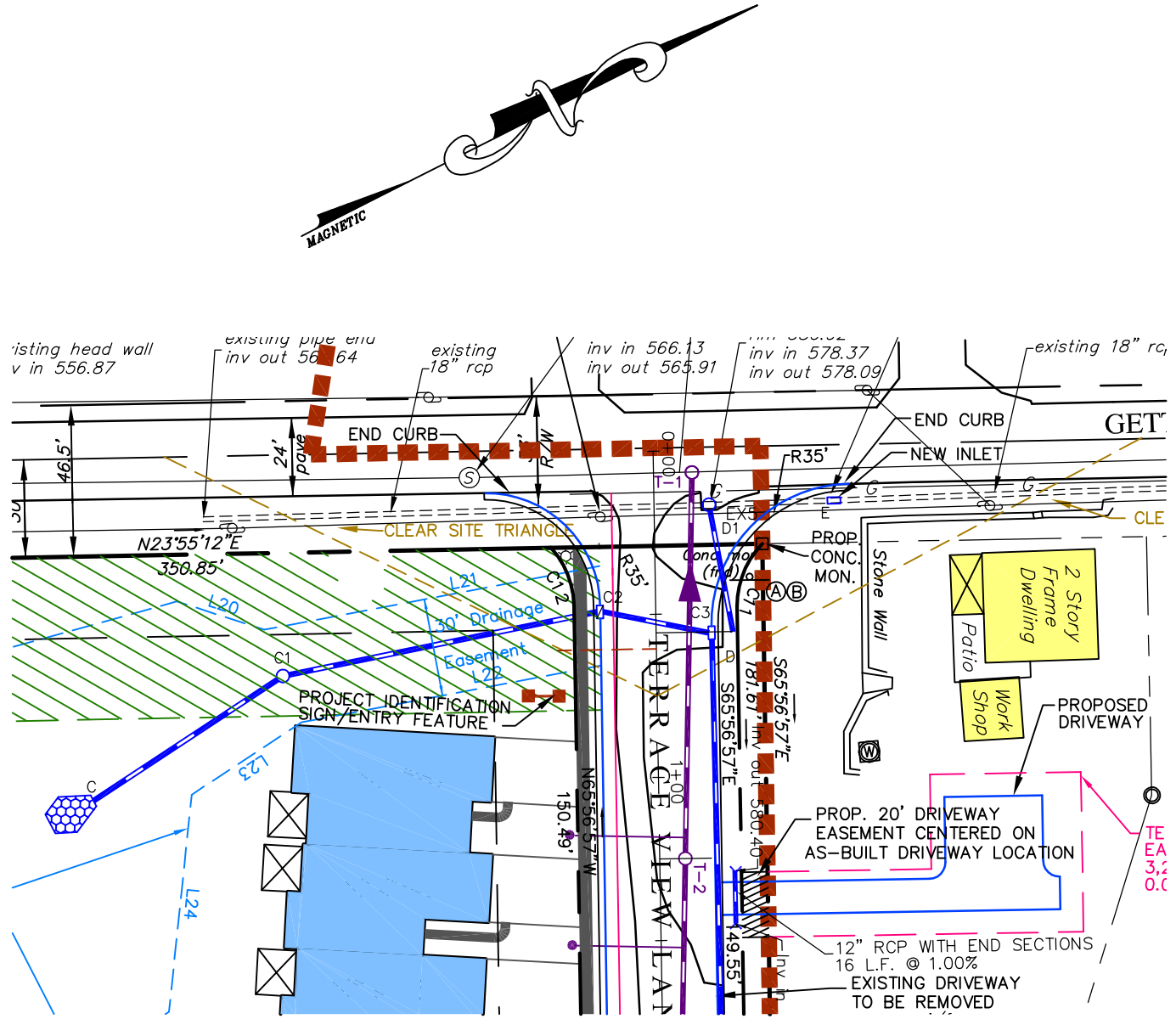
No.	REVISION	DATE
1		
2		
3		
4		
5		
6		
7		
8		

COPYRIGHT © 2010 BY  
R. J. FISHER & ASSOCIATES, INC.

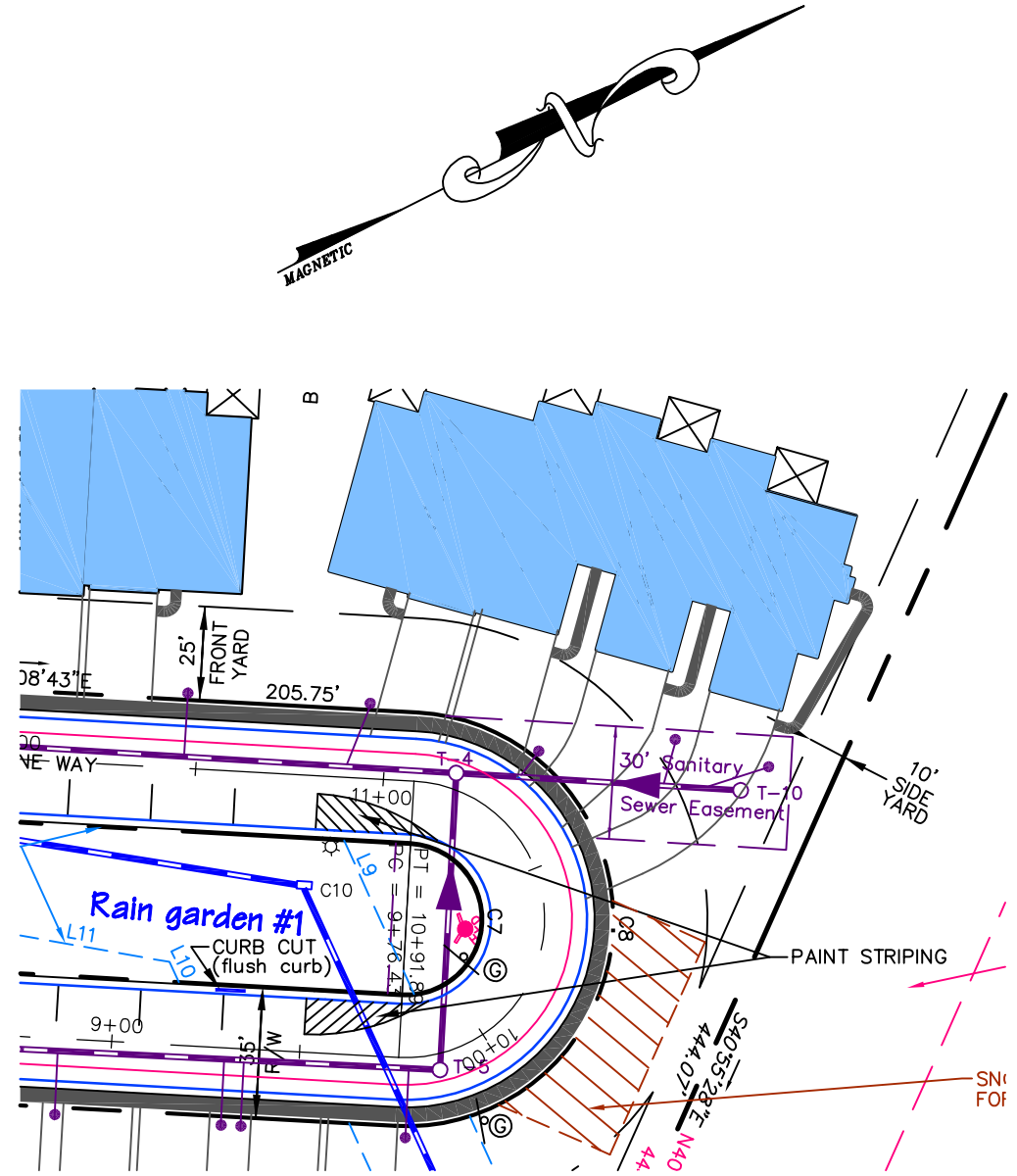




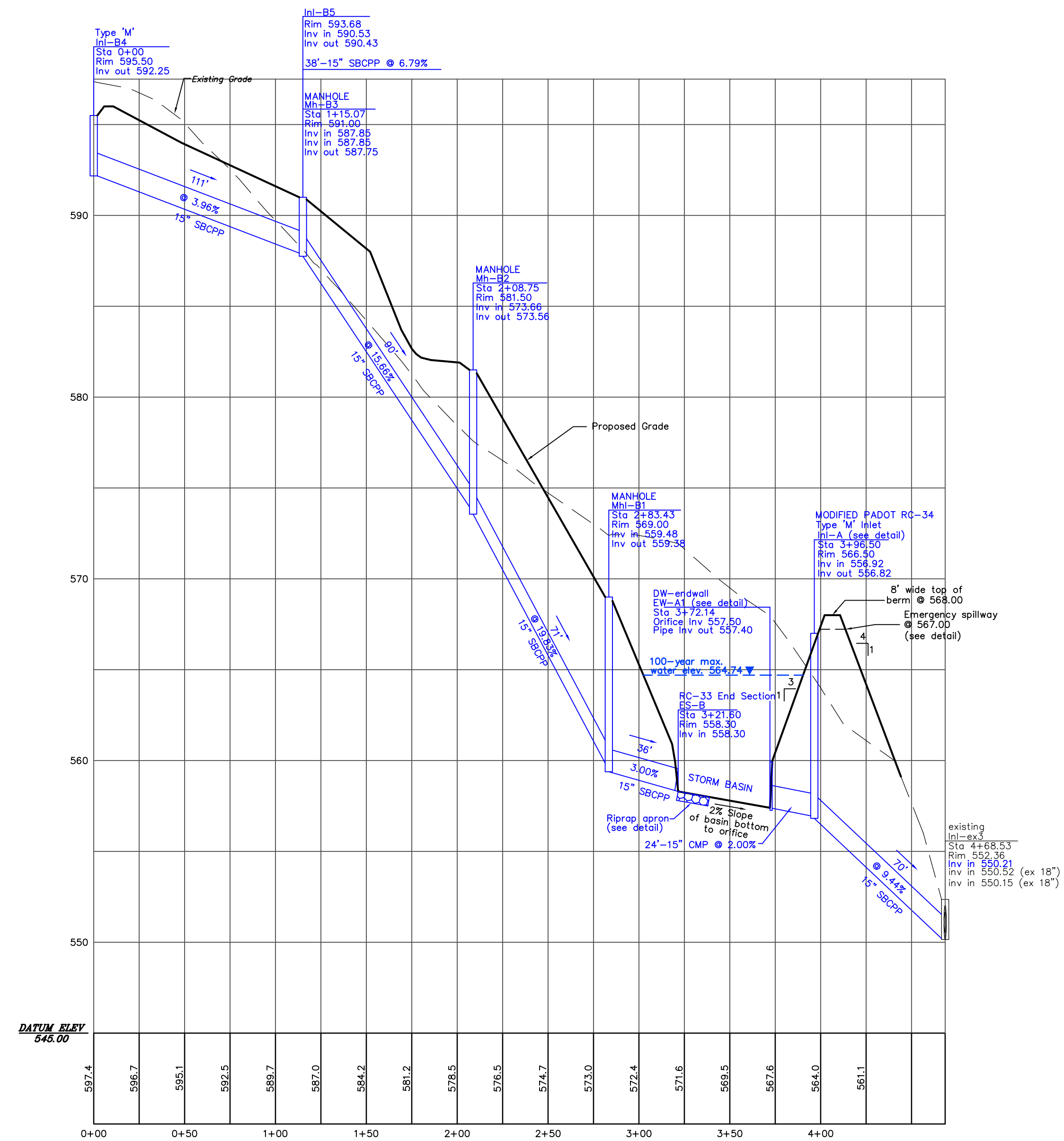
Plan View of Storm Sewer Inl B4 to Ex. Inl 3  
Scale: 1"=50'



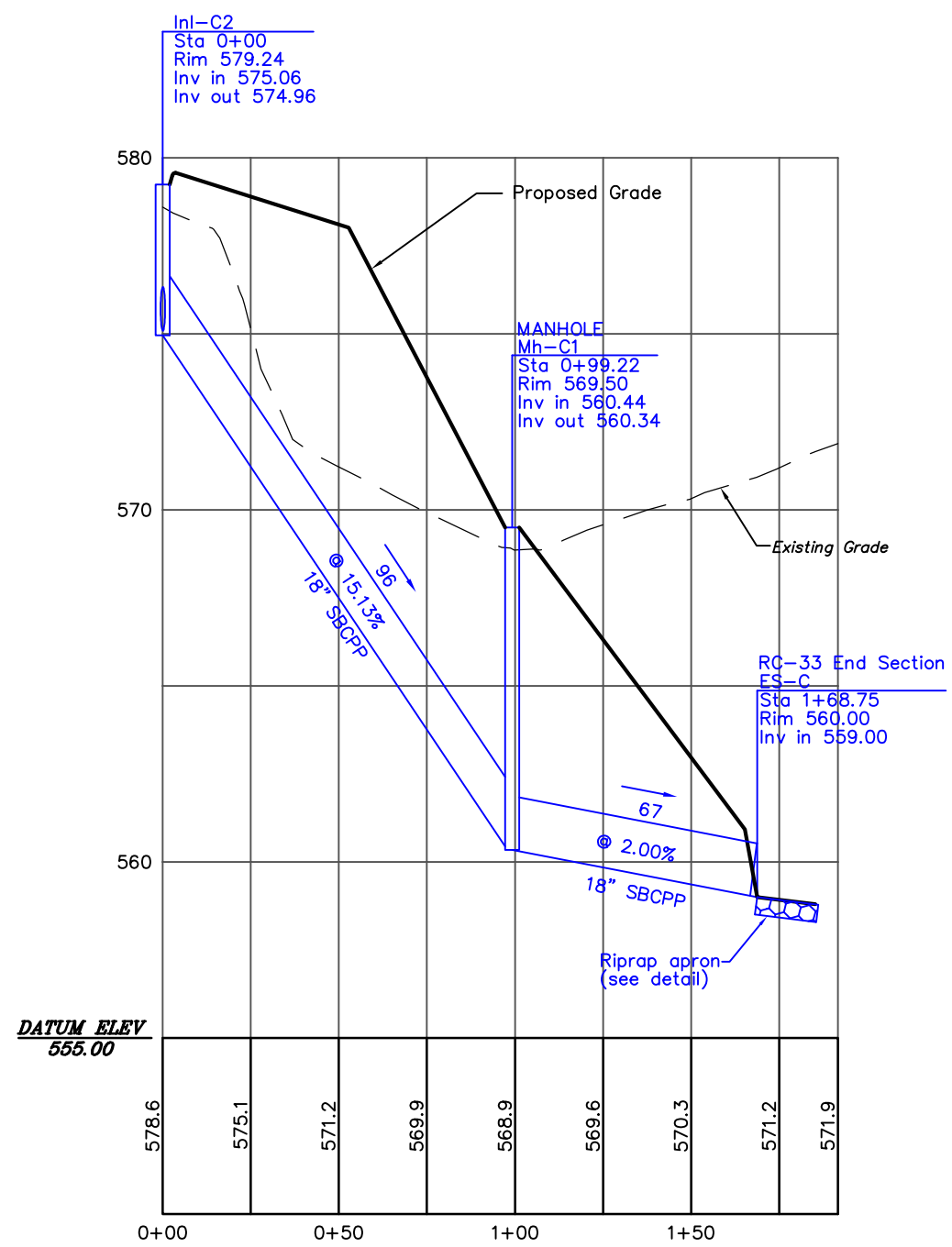
Plan View of Storm Sewer Inl C2 to End Section C  
Scale: 1"=50'



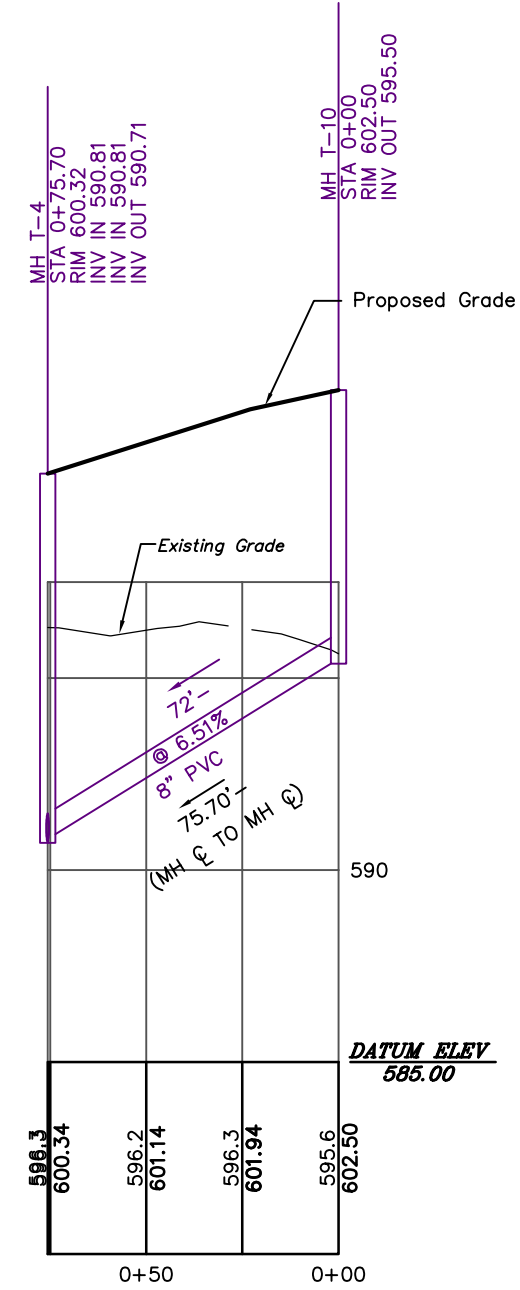
Plan View of Sanitary Sewer MH 10 to MH 4  
Scale: 1"=50'



Centerline Profile of Storm Sewer Inl B4 to Ex. Inl 3  
Scale: Horiz: 1"=50'  
Vert: 1"=5'



Centerline Profile of Storm Sewer Inl C2 to End Section C  
Scale: Horiz: 1"=50'  
Vert: 1"=5'



Centerline Profile of Sanitary Sewer MH T-10 to MH T-4  
Scale: Horiz: 1"=50'  
Vert: 1"=5'

- NOTES:
1. All inlets are PaDOT RC-34 with Rolled curb inlet top, unless otherwise noted.
  2. SBCPP = Smooth Interior Corrugated Plastic Pipe
  3. Inlets and storm manholes over 5 feet in depth shall have PaDOT RC-39 steps.
  4. In areas of fill, the fill must be compacted to 95% or greater of the maximum dry density as determined by ASTM 698 standard proctor prior to the placement of sanitary facilities.

No.	REVISION	DATE
1		
2		
3		
4		
5		
6		
7		
8		

FISHER & Associates, Inc.

COPYRIGHT © 2010 BY  
R.J. FISHER & ASSOCIATES, INC.

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

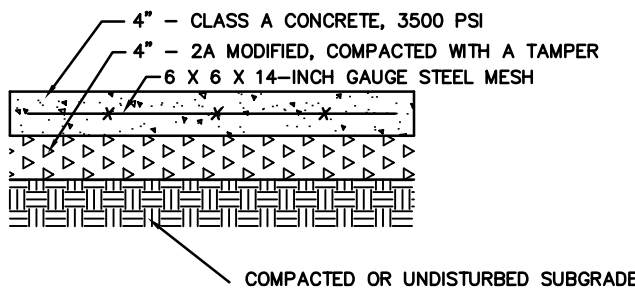
■ LAND PLANNING & DEVELOPMENT DESIGN ■ PROPERTY & TOPO. SURVEYS  
■ LANDSCAPE ARCHITECTURE ■ WETLANDS IDENTIFICATION & DELINEATION

1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7634 FAX (717) 774-7190

PLAN AND PROFILE OF  
MISCELLANEOUS STORM AND SANITARY SEWERS  
FOR  
**THE TERRACES  
AT SHEPHERDSTOWN**  
LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

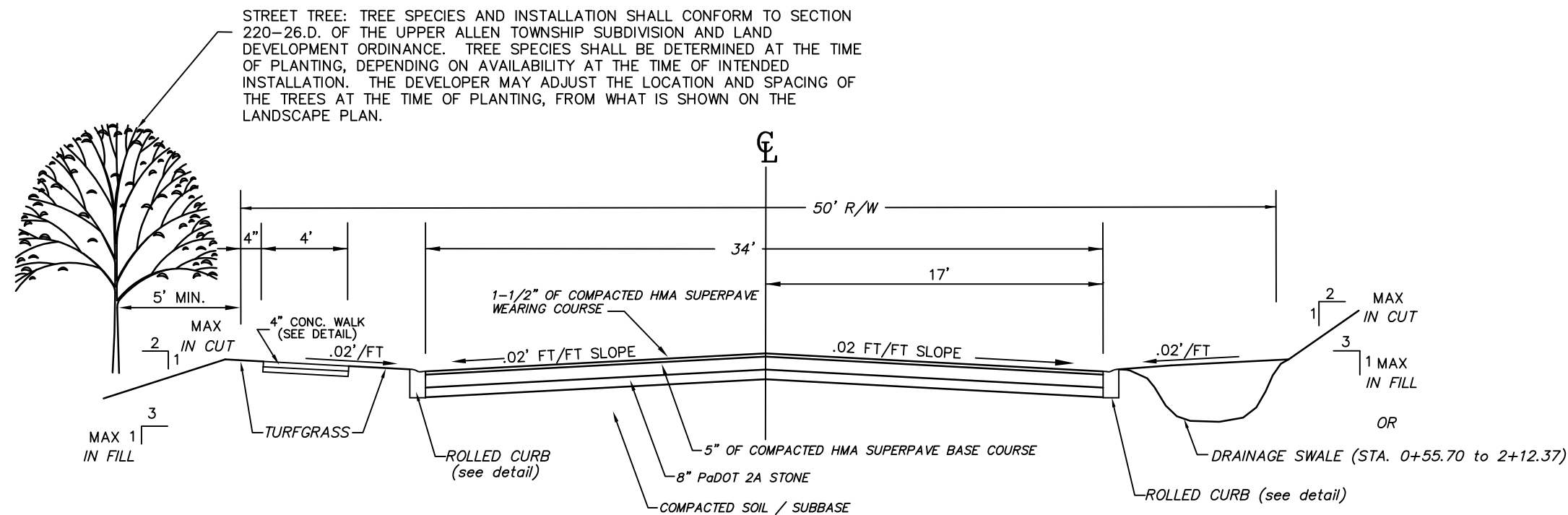
DRAWING ID	210014-PR
DATE:	10/28/10
SHEET	8 OF 13





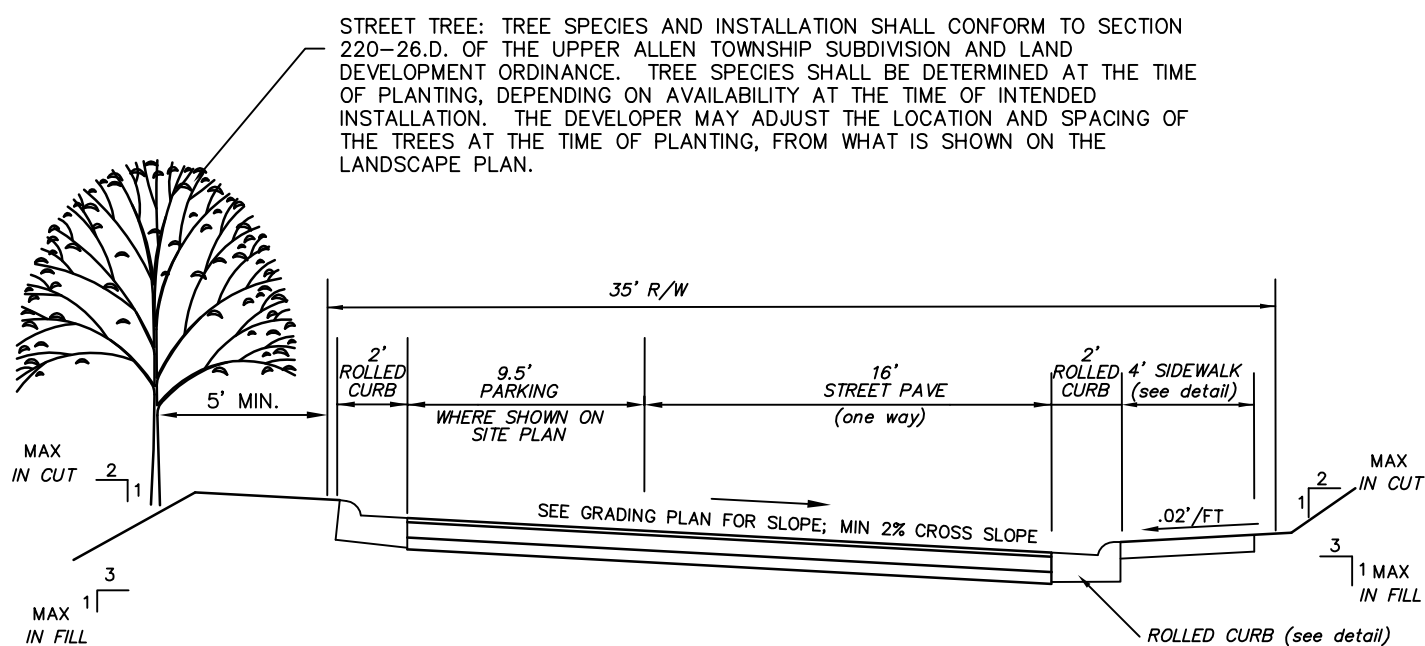
- NOTE: 1. PROVIDE TRANSVERSE ASPHALT TYPE EXPANSION JOINTS SPACED 30' MAX.  
2. PROVIDE TRANSVERSE DUMMY JOINTS @ 4' INTERVALS OR AS SPECIFIED.  
3. A TOOLED EDGE SHALL BE PROVIDED ON ALL EDGES INCLUDING EXPANSION JOINTS.  
4. IN THE CASE WHERE SIDEWALKS ARE PROPOSED DIRECTLY AGAINST CURB OR BUILDING, EXPANSION MATERIAL SHALL BE INSTALLED CONTINUOUSLY ALONG THE COMMON EDGE.  
5. PROVIDE A BROOM FINISH.  
6. WHERE PROPOSED SIDEWALKS CROSS A DRIVEWAY, A CONCRETE APRON SHALL BE PROVIDED FROM THE EDGE OF THE STREET CARRYWAY TO THE FAR EDGE OF THE SIDEWALK. CONCRETE DRIVEWAY APRONS SHALL HAVE A MINIMUM DEPTH OF SIX INCHES AND CONSTRUCTED WITH REINFORCED MESH OF FIBERGLASS SUBSTITUTE FOR STRENGTHENING PURPOSES.

**PUBLIC CONCRETE SIDEWALK  
SECTION DETAIL**  
N.T.S.

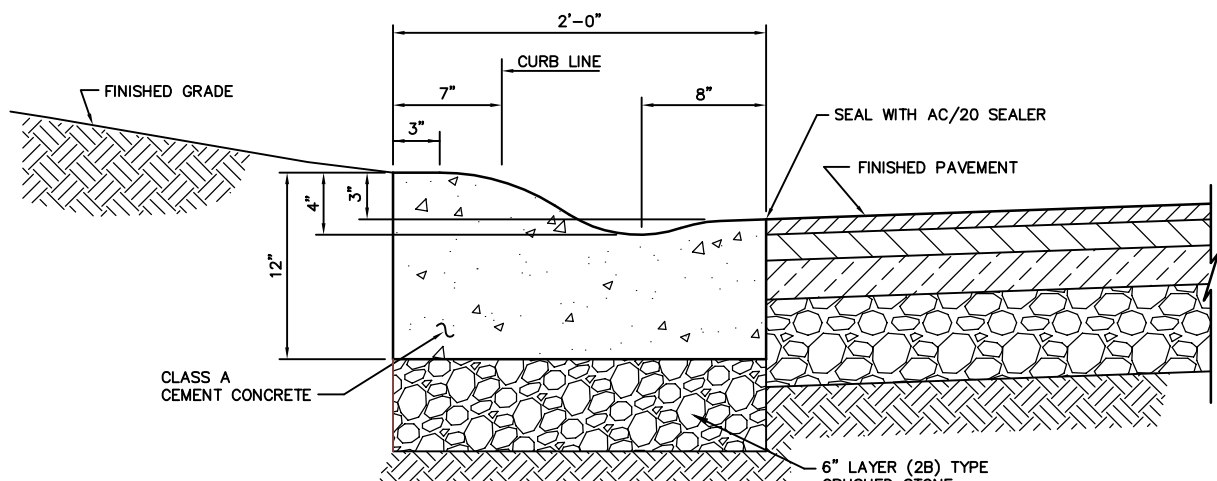


NOTE: SEE SECTION 220-15.G. OF THE UPPER ALLEN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE FOR VARIOUS CONSTRUCTION SPECIFICATIONS.

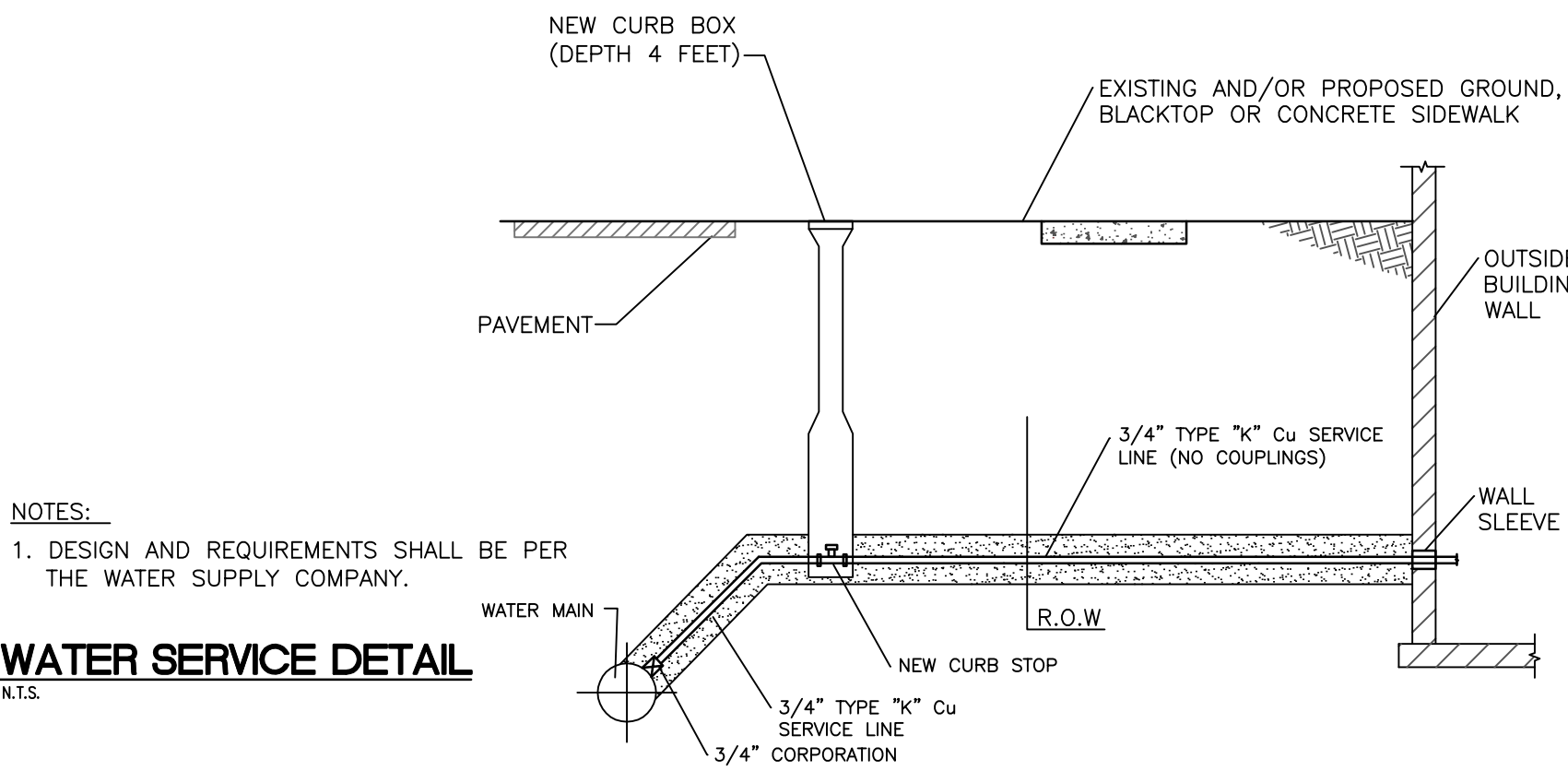
**TYPICAL ENTRY (NON-LOOP) CROSS-SECTION**  
N.T.S.



**ONE-WAY LOOP STREET CROSS SECTION**  
N.T.S.



**STANDARD ROLLED CURB DETAIL**  
N.T.S.



- NOTES:  
1. DESIGN AND REQUIREMENTS SHALL BE PER THE WATER SUPPLY COMPANY.

**WATER SERVICE DETAIL**  
N.T.S.

No.	REVISION	DATE
1		
2		
3		
4		
5		
6		
7		
8		



**R. J. FISHER & ASSOCIATES, INC.**  
■ LAND PLANNING & DEVELOPMENT DESIGN ■ PROPERTY & TOPO. SURVEYS  
■ LANDSCAPE ARCHITECTURE ■ WETLANDS IDENTIFICATION & DELINEATION  
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7534 FAX (717) 774-7190

MISCELLANEOUS DETAILS  
FOR  
**THE TERRACES  
AT SHEPHERDSTOWN**  
LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

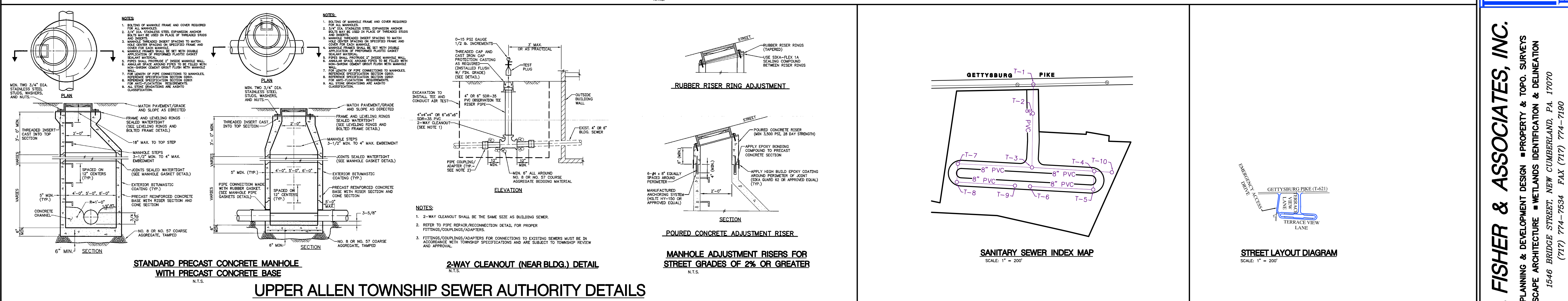
DRAWING ID:  
210014-DTL

DATE: 10/28/10

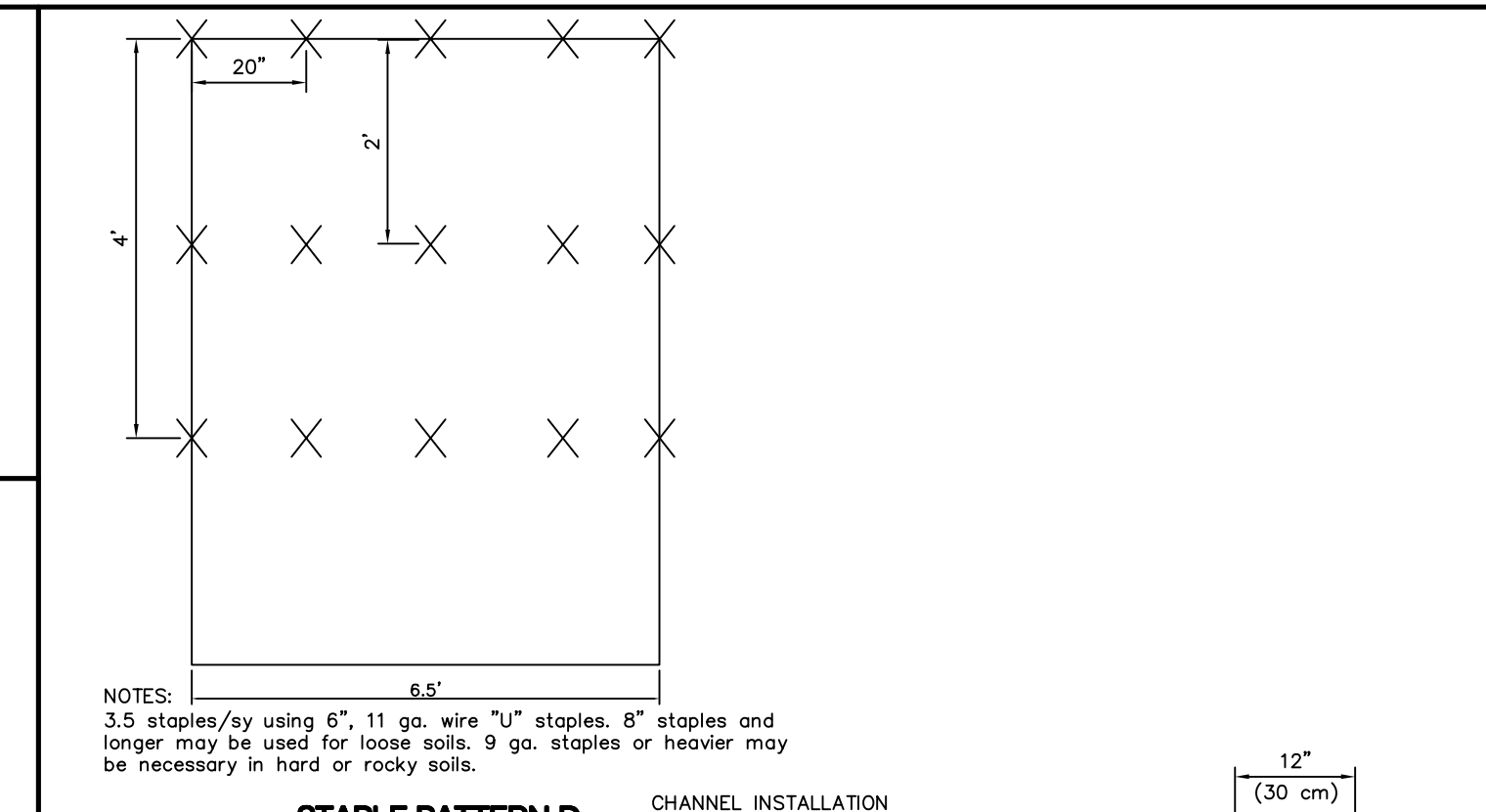
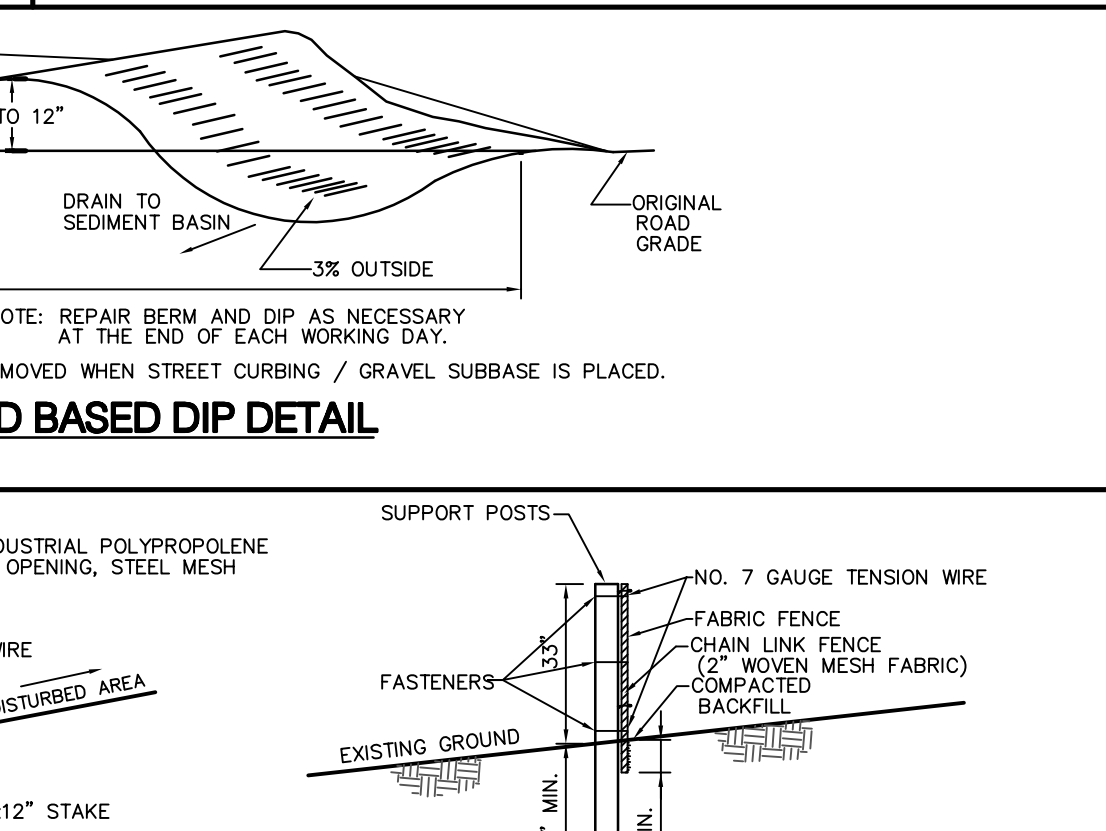
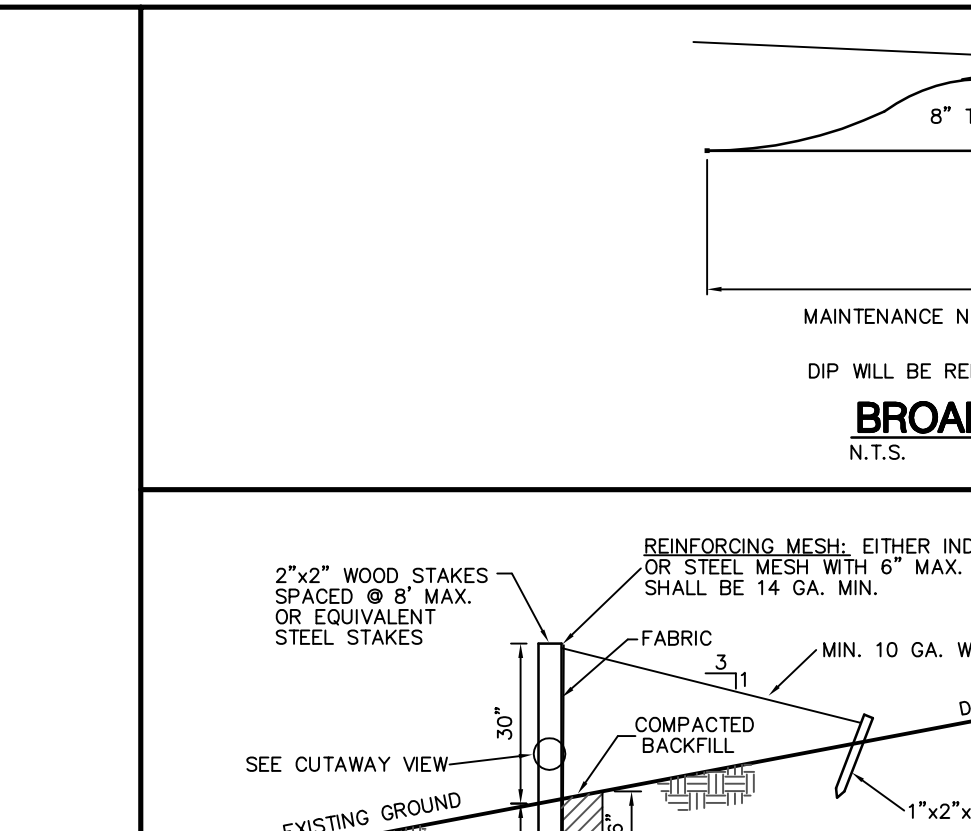
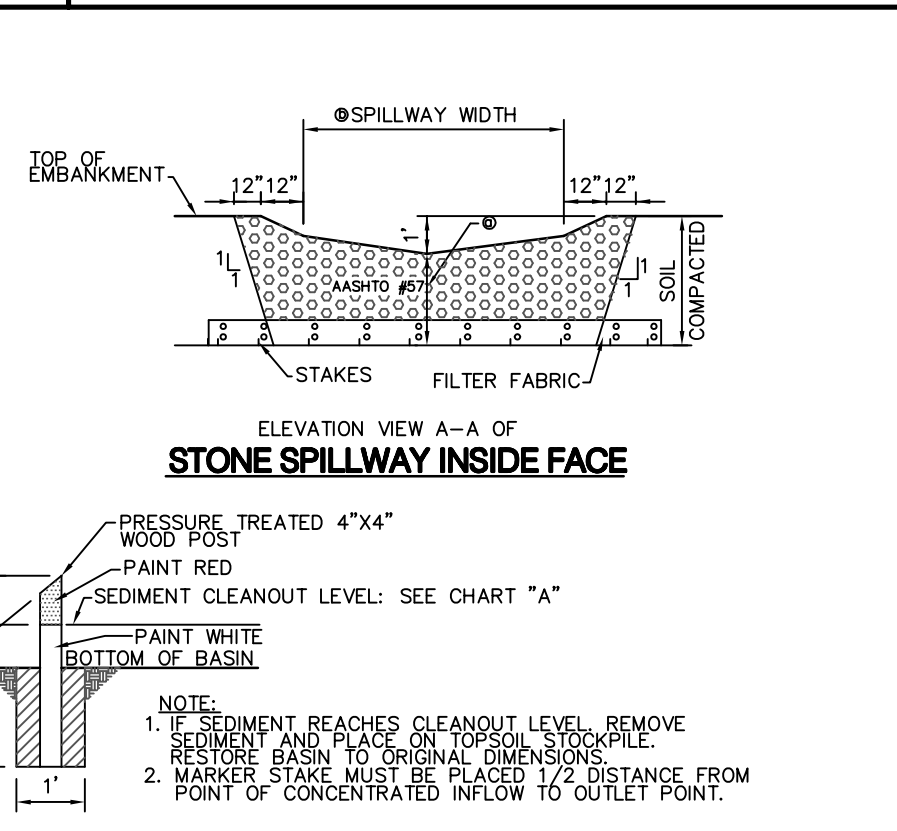
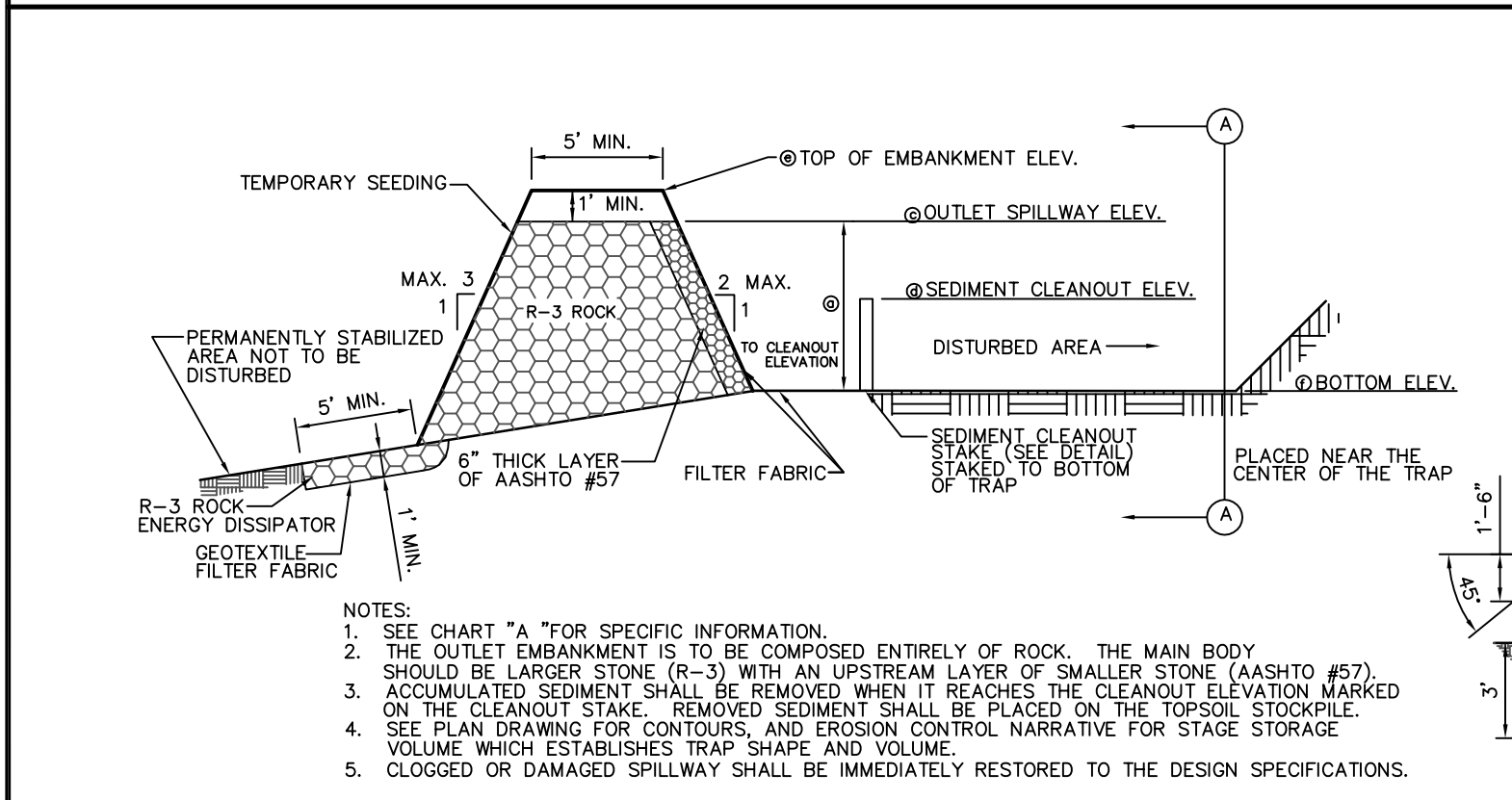
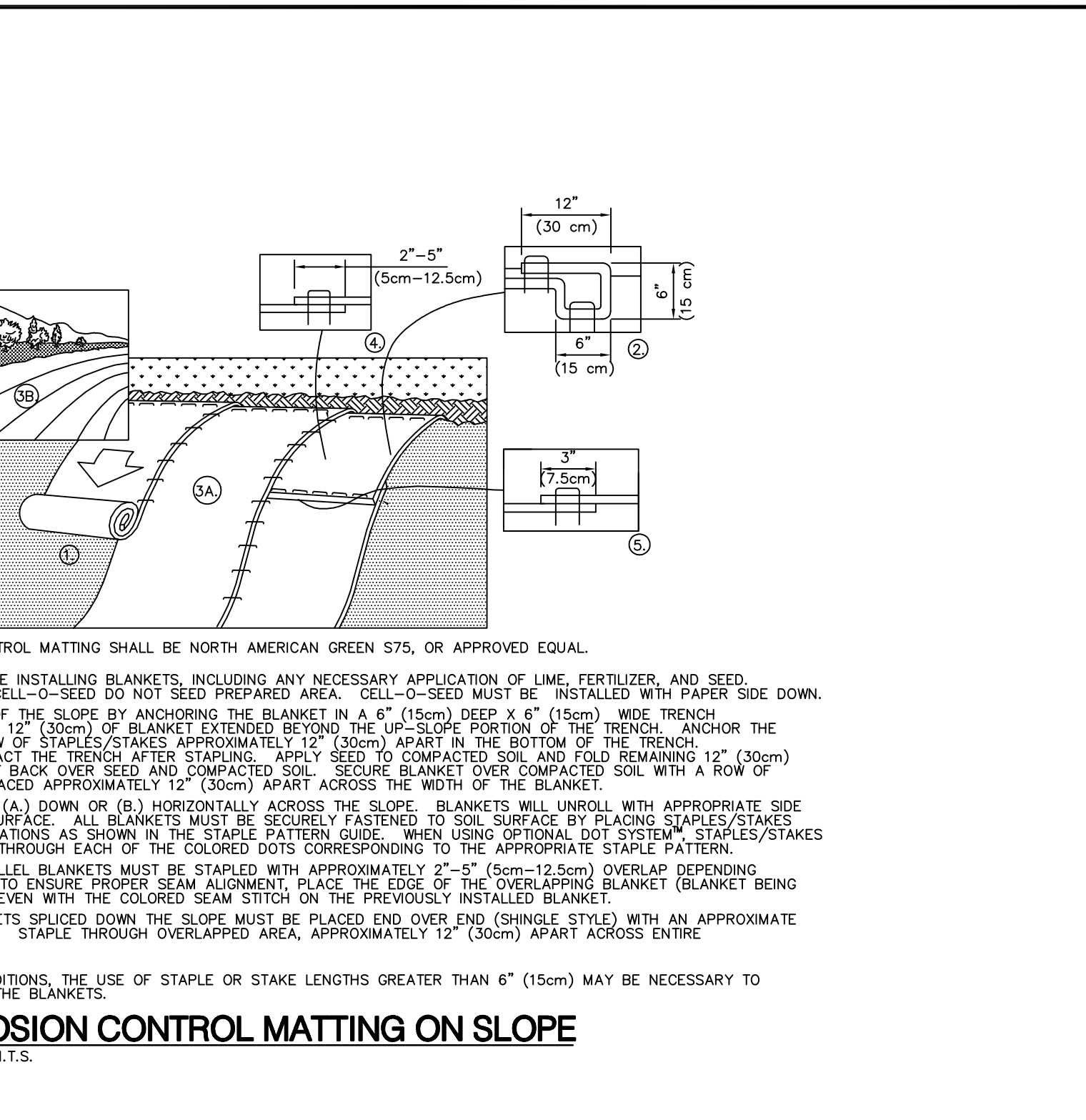
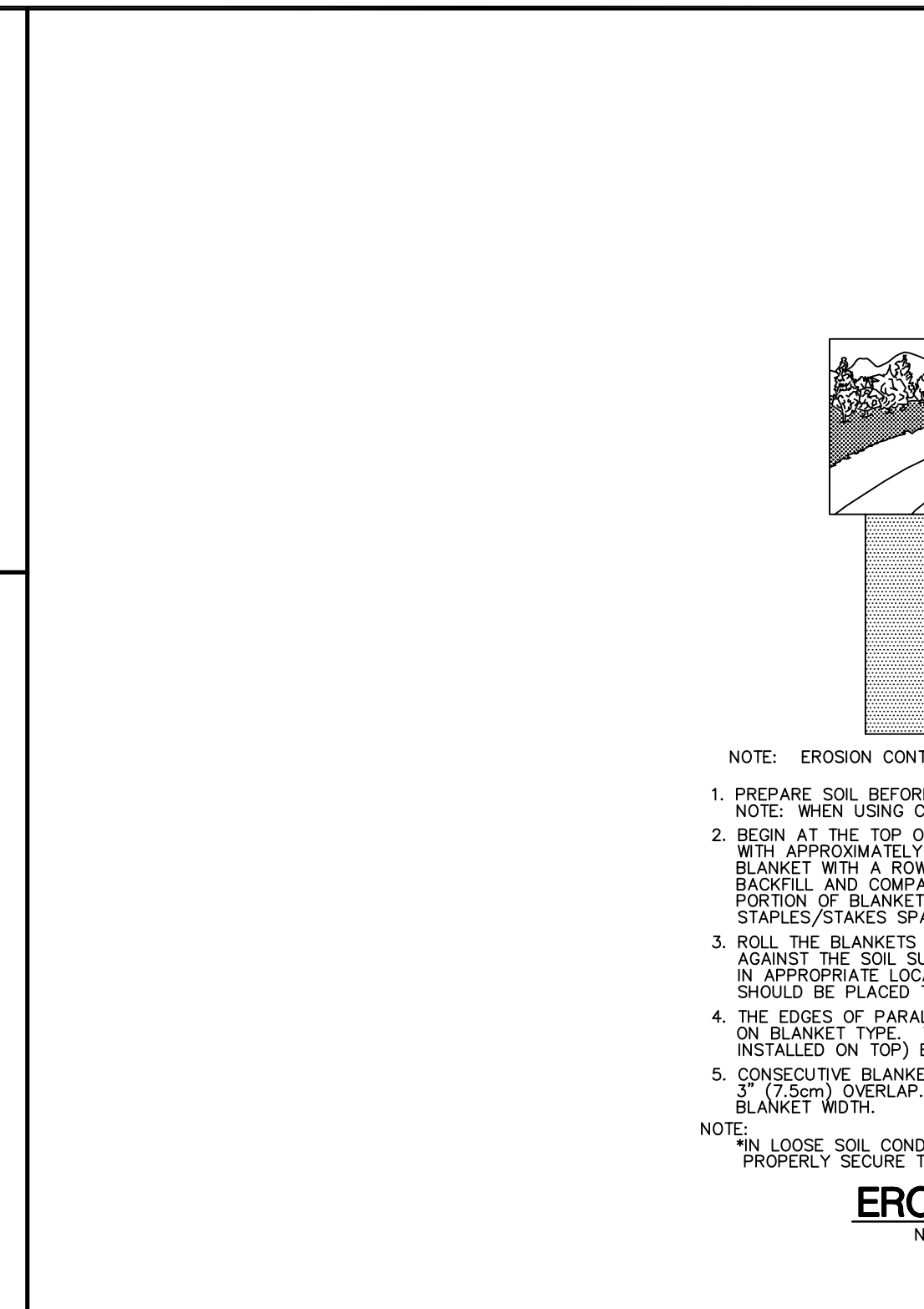
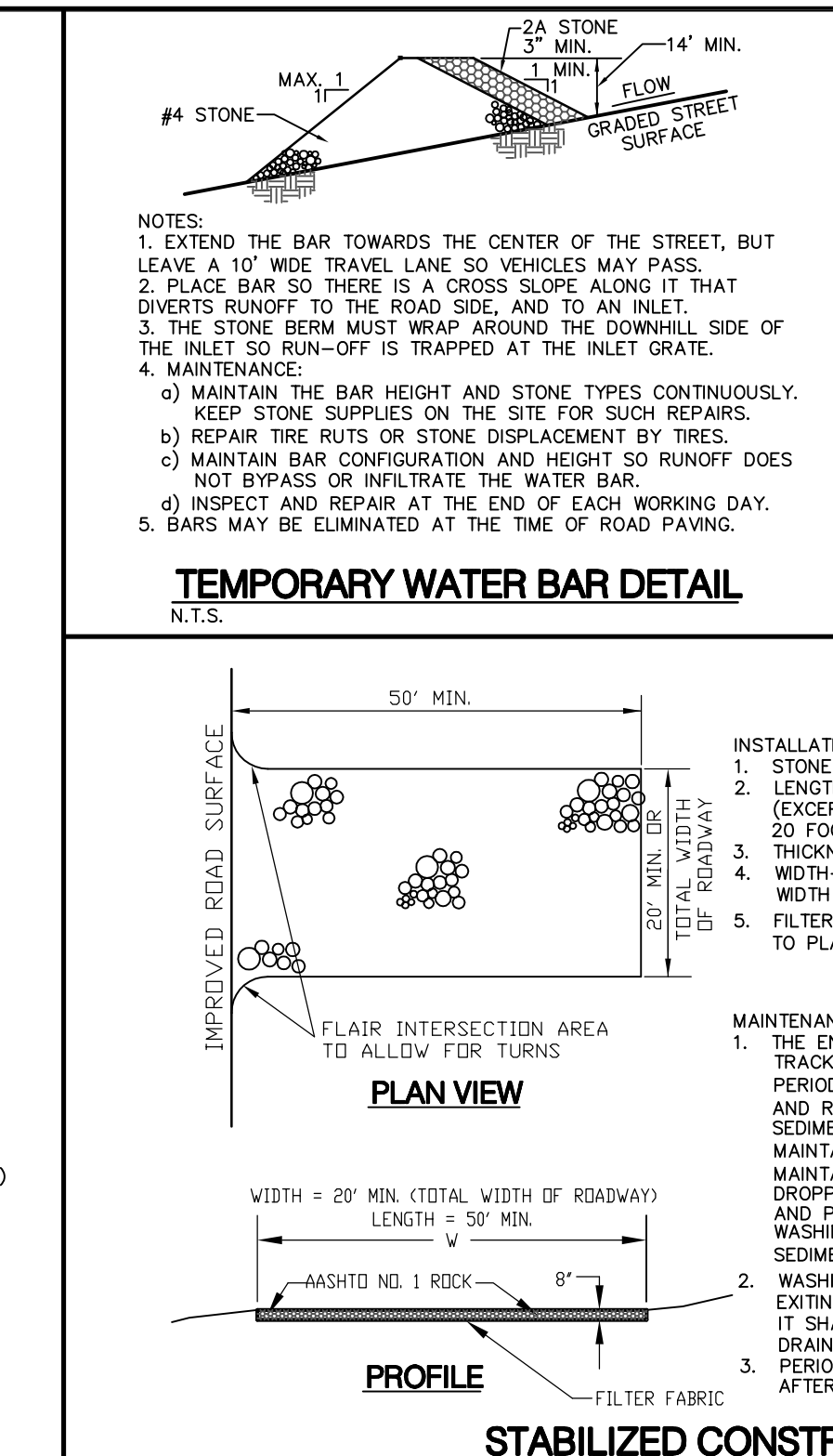
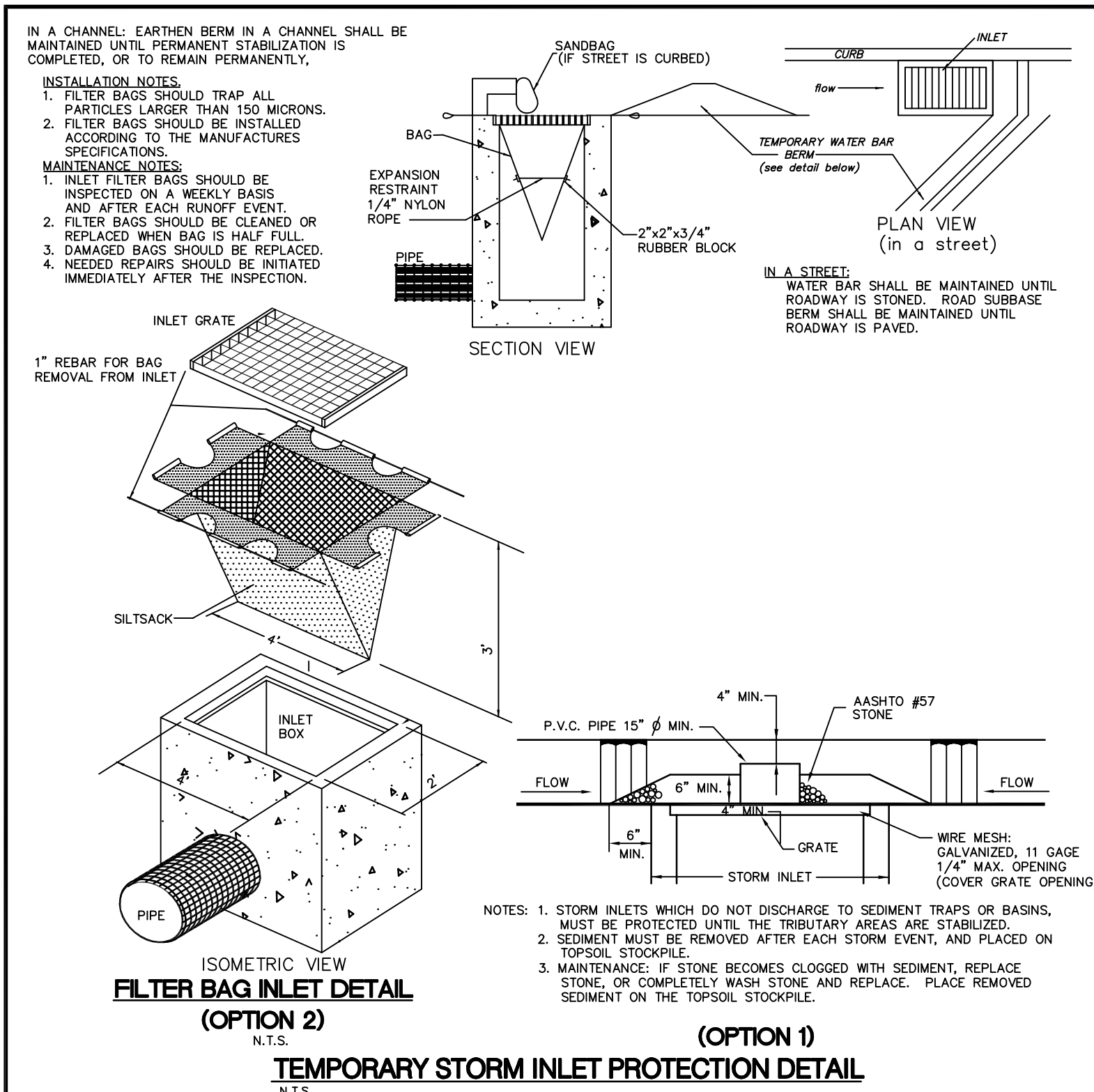
SHEET 10 OF 13

COPYRIGHT © 2010 BY  
R. J. FISHER & ASSOCIATES, INC.





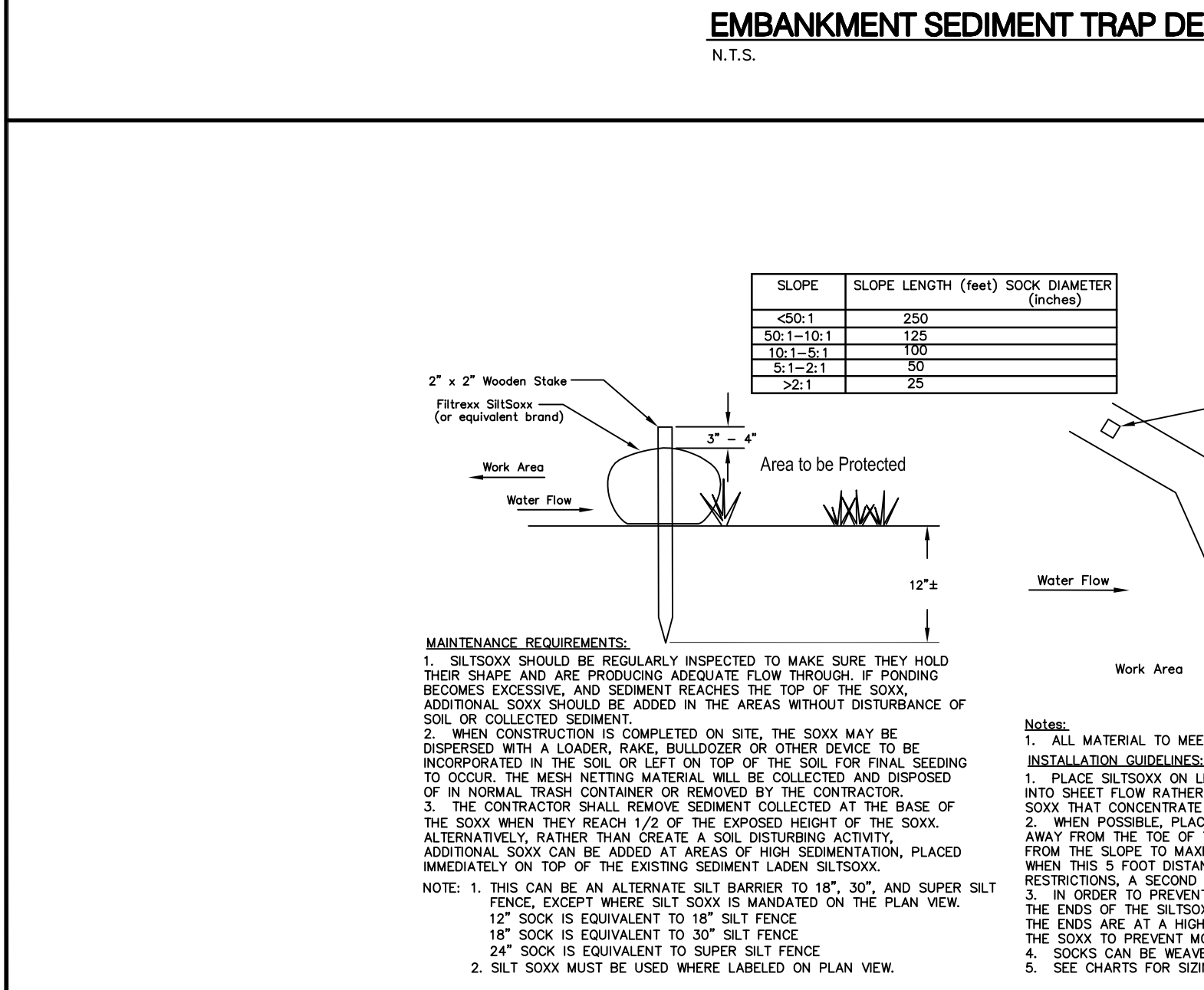




**CHART "A"**

DATA	SEDIMENT TRAP #
MAX. DRAINAGE AREA (ACRES)	3.14
REQUIRED CAPACITY (CF)	6,280
ACTUAL CAPACITY (CF)	6,708
@SPILLWAY EMBANK. HEIGHT (FT)	2.0
@MIN. SPILLWAY WIDTH (FT)	6.3
SPILLWAY ELEVATION	583.00
@CLEANOUT ELEVATION	581.80
@TOP OF BERM ELEVATION	584.00
@ELEVATION OF BOTTOM	581.00
TRAP BOTTOM L (FT) X W (FT)	

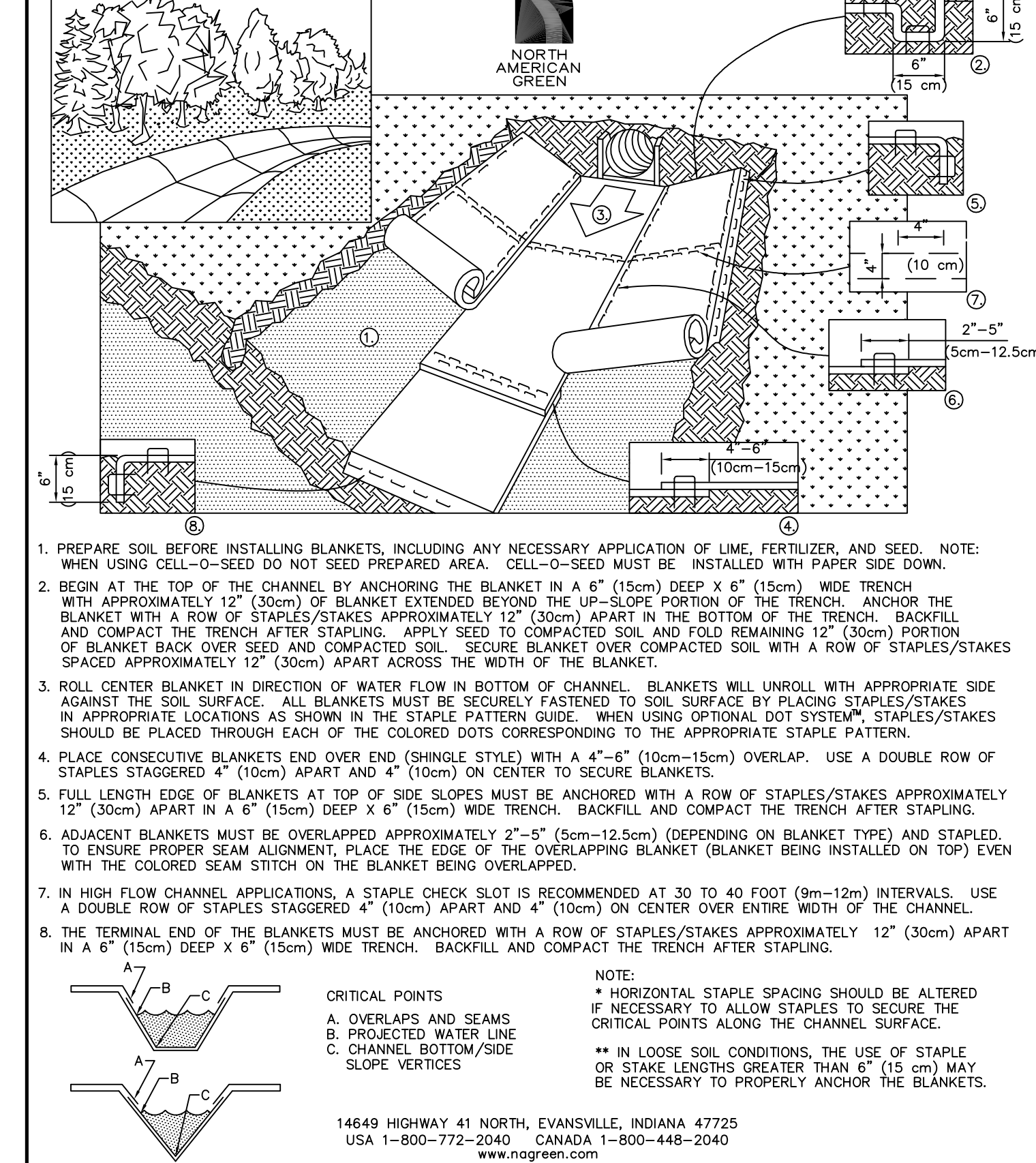
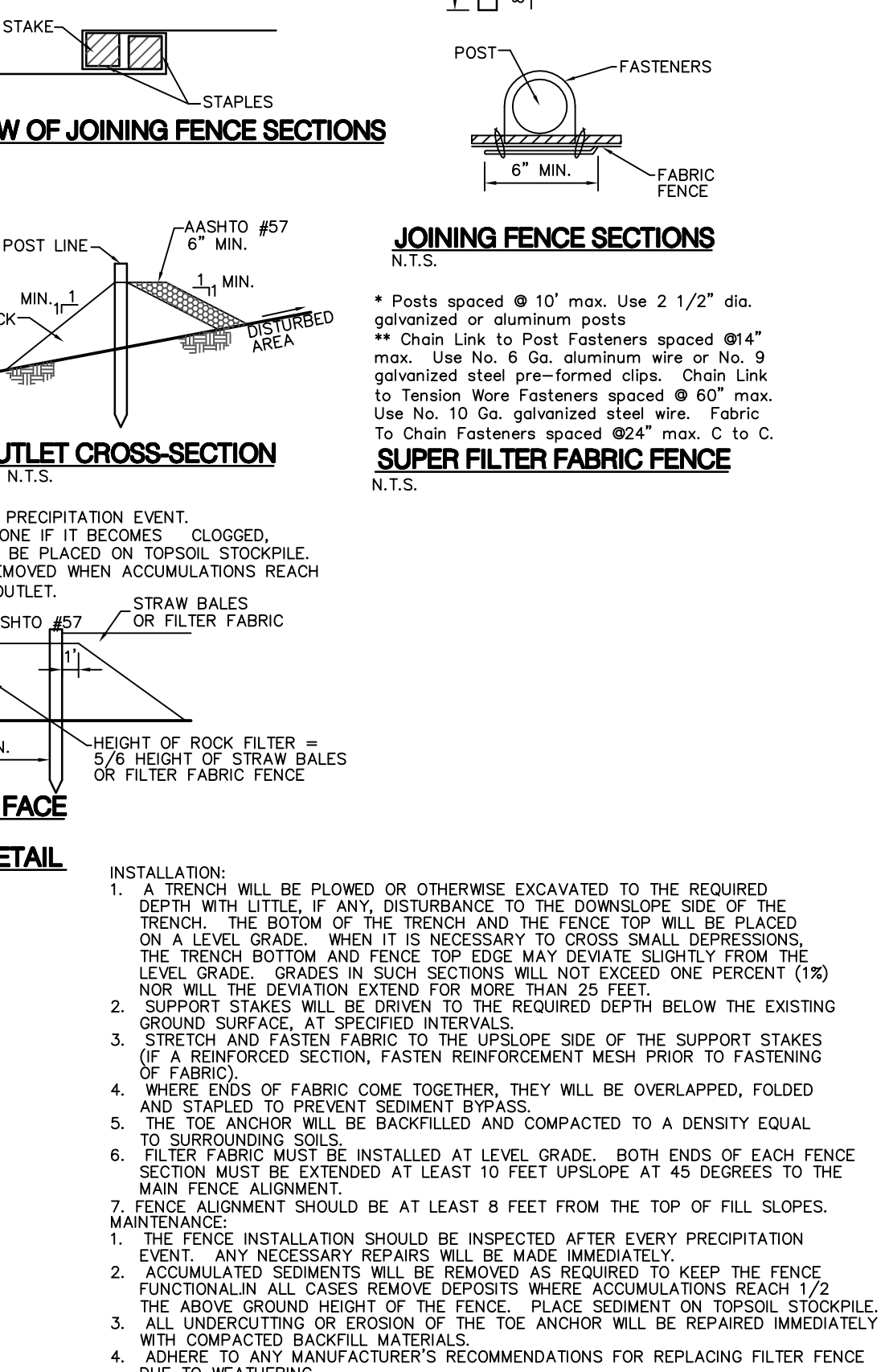
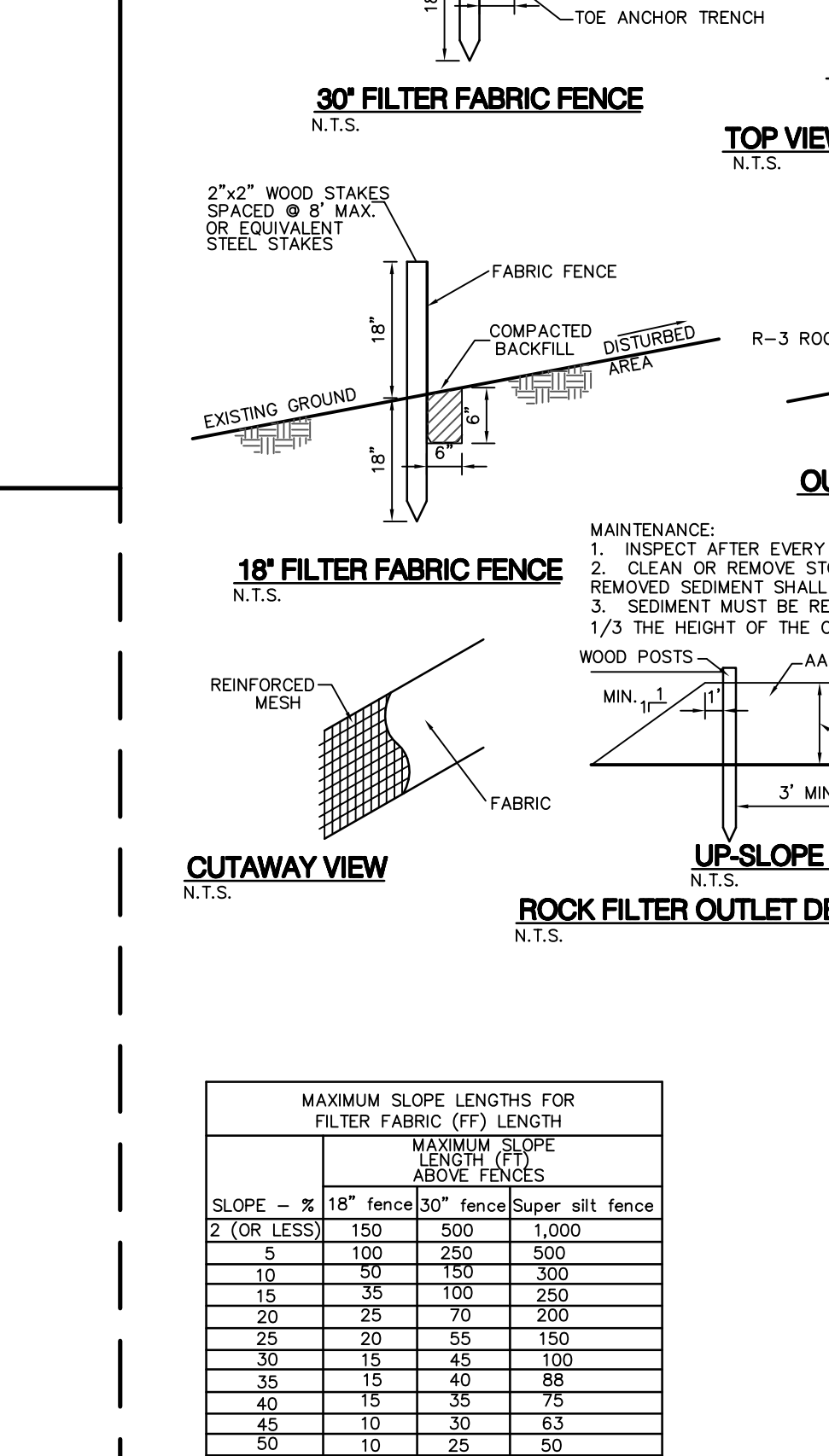
\* SEE NOTE #4 BECAUSE TRAP SHAPE IS IRREGULAR



**MAINTENANCE REQUIREMENTS:**

1. SILT SOXX SHOULD BE REGULARLY INSPECTED TO MAKE SURE THEY HOLD THEIR SHAPE AND ARE PRODUCING ADEQUATE FLOW THROUGH. IF PONDING BECOMES EXCESSIVE, AND SEDIMENT REACHES THE TOP OF THE SOXX, ADDITIONAL SOXX SHOULD BE ADDED IN THE AREAS WITHOUT DISTURBANCE OF SOIL OR COLLECTED SEDIMENT.
2. WHEN CONSTRUCTION IS COMPLETED ON SITE, THE SOXX MAY BE DISPERSED WITH A LOADER, RAKE, BULLDOZER OR OTHER DEVICE TO BE INCORPORATED IN THE SOIL OR LEFT ON TOP OF THE SOIL FOR FINAL SEEDING TO OCCUR. THE MESH NETTING MATERIAL WILL BE COLLECTED AND DISPOSED OF IN NORMAL TRASH CONTAINER OR REMOVED BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SOXX WHEN THEY REACH 1/2 OF THE EXPOSED HEIGHT OF THE SOXX. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, MAINLINE SOXX CAN BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOXX.

**NOTE:** 1. THIS CAN BE AN ALTERNATE SILT BARRIER TO 18", 30", AND SUPER SILT FENCE, EXCEPT WHERE SILT SOXX IS MANDATED ON THE PLAN VIEW. 12" SOXX IS EQUIVALENT TO 18" SILT FENCE. 18" SOXX IS EQUIVALENT TO 30" SILT FENCE. 24" SOXX IS EQUIVALENT TO SUPER SILT FENCE. 2. SILT SOXX MUST BE USED WHERE LABELED ON PLAN VIEW.



**SILT SOXX SILT BARRIER OPTION**  
N.T.S.

**SILT BARRIER FENCE**  
N.T.S.

**SILT BARRIER FENCE**  
N.T.S.

**SILT BARRIER FENCE**  
N.T.S.

**SILT BARRIER FENCE**  
N.T.S.

DATE

REVISION

No.

1

2

3

4

DATE

10/28/10

SHEET 12 OF 13

EROSION CONTROL DETAILS FOR THE TERRACES AT SHEPHERDSTOWN

LOCATED IN UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

DRAWING ID 210014-DTL

DATE 10/28/10

SHEET 12 OF 13

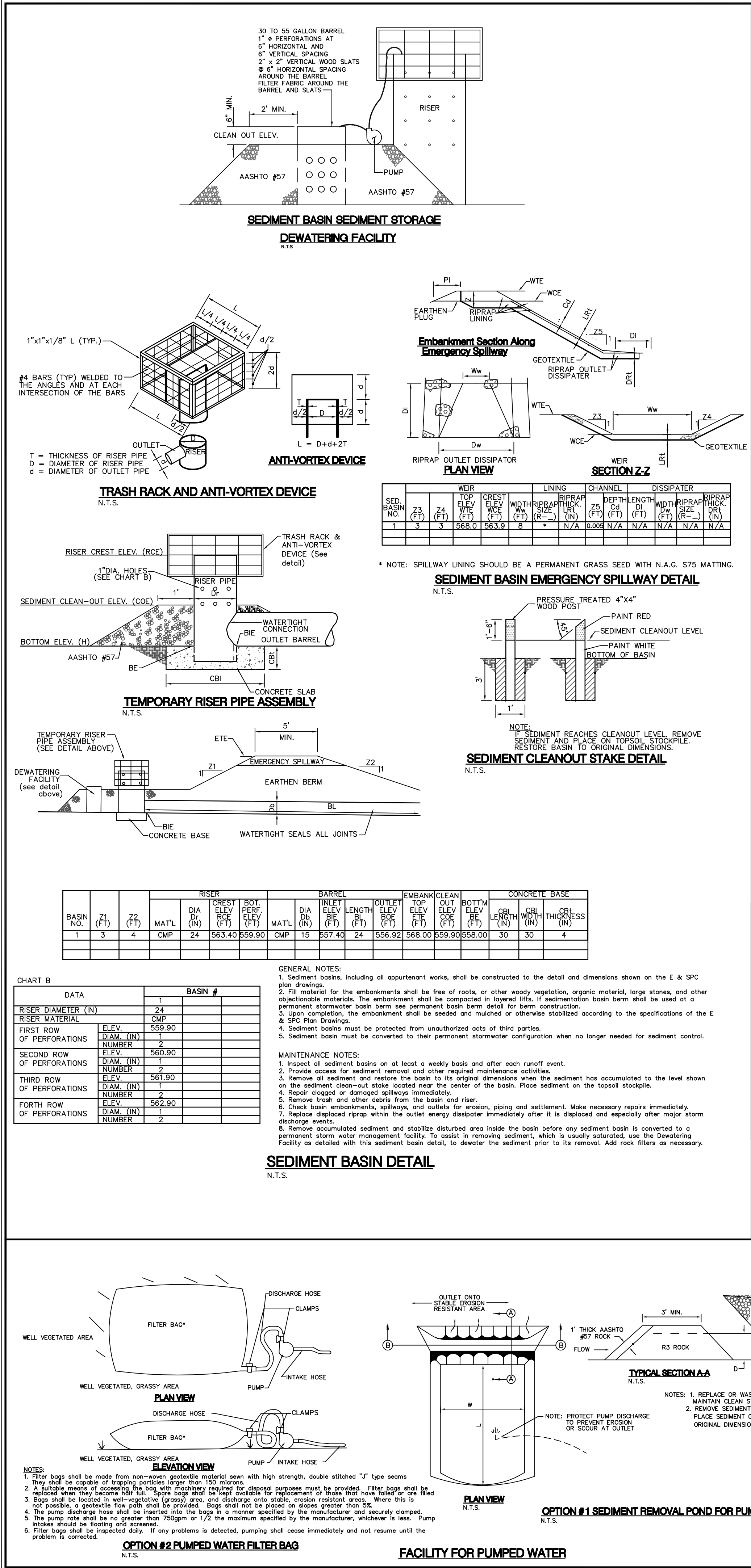
R. J. FISHER & ASSOCIATES, INC.

LAND PLANNING & DEVELOPMENT DESIGN ■ PROPERTY & TOPO. SURVEYS ■ LANDSCAPE ARCHITECTURE ■ WETLANDS IDENTIFICATION & DELINEATION

15-16 BRIDGE STREET, NEW CUMBERLAND, PA. 17070 (717) 774-7634 FAX (717) 774-7190

COPYRIGHT © 2010 BY R.J. FISHER & ASSOCIATES, INC.





EROSION CONTROL PLAN

GENERAL NOTES  
1. The site contractor and their designees shall familiarize themselves with this Erosion Control Plan.  
2. The site contractor shall be responsible for implementation of this Erosion Control Plan.  
3. The site contractor shall not disturb more area than is necessary for the task to be done, so the potential for erosion is minimized.  
4. Erosion and sedimentation controls must be constructed, stabilized, and functional before site disturbance within the tributary areas to the controls.  
5. At least 7 days before starting any earth disturbance activities, the owner and/or operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, and a representative of the Cumberland County Conservation District to an on-site pre-construction meeting.  
6. A copy of the approved Erosion and Sediment Control Plan must be available at the project site during all times.  
7. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter.  
8. After final site permanent stabilization has been achieved, temporary erosion and sedimentation controls must be removed. Area disturbed during removal of the controls must be stabilized immediately. Vegetated areas shall be considered "permanently stabilized" when a uniform 70% vegetative cover of erosion resistant perennial species has been achieved over the entire watershed tributary to the control measure, or the disturbed area is covered with an acceptable BMP which permanently minimizes accelerated erosion and sedimentation. Until such time as this standard is achieved, interim stabilization measures and temporary erosion and sediment control BMPs that are used to treat project runoff may not be removed.  
9. Only limited disturbance will be permitted to initially access and acquire borrow to construct control facilities, before general site alteration begins.  
10. The contractor will be responsible for the removal of any excess material and make sure the site(s) receiving the excess has an approved erosion and sediment control plan that meets the conditions of Chapter 102 and/or other State or Federal regulations.  
11. Solids, trash and other pollutants shall be disposed in accordance with federal and state regulations in order to prevent any pollutant in such materials from adversely affecting the environment. All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department of Environmental Protection's Solid Waste Management regulations at 25 Pa. Code 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be buried, dumped, or discharged at the site.  
12. The Permittee must ensure that visual site inspections are conducted weekly and after each precipitation event by a qualified person trained and experienced in erosion and sediment control, to ascertain that the BMP's are operational and effective in preventing pollution to the waters of the Commonwealth.  
13. The Permittee shall take all reasonable steps to minimize or prevent any discharge violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.  
14. If any other dangerous chemicals are stored on site, then a Preparedness, Prevention and Contingency (PPC) Plan must be developed and kept on site.  
15. Prior to commencement of earth disturbance activities for additional phase or portion of the project, the Permittee shall submit an erosion and sediment control plan for each additional phase or portion of the project for review and authorization by the Cumberland County Conservation District.  
16. At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call system incorporated at 1-800-242-1776 for the location of existing underground utilities.  
17. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate the potential for accelerated erosion and/or sediment pollution.  
18. Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the Cumberland County Conservation District for a final inspection prior to the removal of BMPs.  
19. An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows.  
20. Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed areas. During non-germinating periods, mulch must be applied at the rate of 31 gallons per 1,000 square yards. Disturbed areas which are not at finished grade or which will be re-disturbed within 1 year must be stabilized in accordance with the temporary seeding be re-disturbed within 1 year must be stabilized in accordance with the permanent seeding vegetative stabilization specifications.  
21. Fill Materials--  
The NPDES Permit covers the "moving, depositing, stockpiling, or storing of soil rock or earth materials." Use the check boxes to identify the fill activities for the project site. If the site will need to have fill imported from an off site location, the responsibility for performing environmental due diligence and the determination of clean fill will in most cases reside with the Operator. The designer must include a note on the drawings to identify the Operator's responsibility and provide the definition of Clean Fill and Environmental Due Diligence. If the site will have excess fill that will need to be exported to an off site location, the responsibility of clean fill determination and the environmental due diligence rests on the applicant. This information should be completed prior to submitting a permit application. If all cut and fill materials will be used on the site, a clean fill determination is not required by the operator unless there is a belief that a spill or release of a regulated substance occurred on site.

Applicants and/or operators must use environmental due diligence to ensure that the fill material associated with this project qualifies as Clean Fill. Definitions of Clean Fill and Environmental Due Diligence are provided below. All fill material must be used in accordance with the Department's policy "Management of Fill", document number 258-2182-773. A copy of this policy is available online at [www.depweb.state.pa.us](http://www.depweb.state.pa.us). Under the heading Quick Access on the left side of the screen, click on "Forms and Publications." On the left side of the screen click on "Technical Guidance Documents-- Final." Then type the document number 258-2182-773 into the search window and conduct the search. Click on "Management of Fill."

Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolding 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 melted 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 of 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: 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."

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.

TEMPORARY SEEDING SCHEDULE

The contractor shall immediately temporarily stabilize any rough graded area, topsoil stockpile or unused excavated fill material that will be left idle for less than 1 year. The grass will provide interim protection against the impact of precipitation, running water and wind. Permanently seed any area that will be idle for more than 1 year.

Temporary seeding schedule is as follows:

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

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

Maintenance procedure:

- 1) Maintain a minimum 70% uniform soil surface coverage with grass and/or mulch.
- 2) If a washout, slope failure or similar disturbance occurs, correct drainage problem if necessary, then reapply soil to the proper grade, reapply soil amendments, seed and mulch.

PERMANENT SEEDING SCHEDULE--

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

FOR RETENTION AREAS--

Species: 100% Tall Fescue, varieties such as K-31, Alta or other recently released dwarf variety tolerant of wetness.  
% Pure live seed: 98%  
Application rate: 6 lbs./1,000 sq. ft.  
Fertilizer type: general purpose granular, 10-20-20  
Fertilizer application rate: 11 lbs./1,000 sq. yds.  
Liming rate: per soil test; minimum of 6 tons per acre  
Seeding dates: between 4/1 and 10/15  
Strawbale mulching rate: 3 tons per acre  
Mulch anchoring: Asphalt, either emulsified or cut-back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards.  
Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

FOR NON-RETENTION AREAS / GENERAL LAWN PLANTING--

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

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

A minimum of 4" of topsoil shall be placed prior to seeding.

Maintenance procedure:

- 1) Maintain a minimum 70% soil surface coverage with grass and/or mulch.
- 2) If a washout, slope failure or similar disturbance occurs, correct drainage problem if necessary, then reapply soil to the proper grade, reapply soil amendments, seed and mulch.

MAINTENANCE PLAN

1. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Responsibility for implementing and maintaining erosion and sedimentation control measures shall be designated to a minimum of one individual who will be present at the project site each working day. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis, to ensure that they are in place, stable, and functioning properly. All preventative and remedial maintenance work, including clean out, repair, replacement, re-grading, reseeding, re-mulching, and re-netting must be completed immediately before the control measure is to be replaced. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed, will be required.
2. Any sediment removed from BMPs during construction will be returned to upland areas within the project area, and incorporated into the site grading.
3. See the construction details and seeding specifications for maintenance procedures for the various control measures.
4. Mud must be removed from vehicle tires before they exit the site. Washing the paved roadway, or sweeping the mud deposits into roadway ditches, sewers, culverts, or other drainage ways is not acceptable.

STAGING OF EARTH MOVING ACTIVITIES

General Notes on sequencing of any work:

- A. At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call system incorporated at 1-800-242-1776 for the location of existing underground utilities.
- B. All earth disturbance activities shall proceed in accordance with the following specific sequencing. Each stage shall be completed and immediately stabilized before the following stage is initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage.
- C. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate the potential for accelerated erosion and/or sediment pollution.
- D. At least 7 days before starting any earth disturbance activities, the owner and/or operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, and a representative of the Cumberland County Conservation District to an on-site pre-construction meeting.
- E. Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed areas. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within 1 year must be stabilized in accordance with the temporary seeding vegetative stabilization specifications.
- F. All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.

SPECIFIC STAGING OF EARTHMOVING ACTIVITIES --

- Stage 1--  
The maximum limits of earth disturbance should be staked for the contractor. The three rain garden locations should be fenced off with temporary construction fencing, as shown on the drawing. Install all silt barriers.
- Stage 2--  
Install construction entrance #1, and the temporary berm / hump parallel and next to Gettysburg Pike so that clean street runoff does not enter the site; temporary seed the berm. Incorporate a mountable stump in the construction entrance in conjunction with the berm mentioned above.
- Stage 3--  
Install storm inlets #D and E and the associated pipe with D; place inlet protection on the grades immediately. Then install the swale / berm / driveway culvert along the Straub property line so off-site runoff follows the property line and enters inlet #D; permanently seed, mulch and mat the swale / berm immediately and install gravel for the driveway to the Morrison property. The measures in this stage and stage 2 will eliminate off-site runoff from entering the project area.
- Stage 4--  
Strip topsoil as necessary, and stockpile where indicated, and install sediment basin #1, including berm, permanent outlet pipe to the existing storm inlet, temporary riser, cleanout marker, and emergency spillway; permanently seed the basin as soon as it is graded. Immediately permanently seed disturbed soil downhill of silt barriers where the storm pipe connects into the existing inlet. Install temporary swale #13 with the basin beginning at the bottom end and working uphill, stabilizing the portion of swale created each day.
- Stage 5--  
Install sediment trap #1, including berm, spillway and cleanout marker; temporary seed the trap as soon as it is graded. Concurrently with trap creation, install temporary swales #1 and 2 and stabilize the portion of swale created that day.
- Stage 6--  
Remove trees and existing driveway, and rough grade the site and streets. With the initial street grading, create broad based dip so that runoff from the street is conveyed into the sediment basin. With the initial street grading, continuously maintain a gravel driveway to the adjacent Morrison property. Do not install disturb the rain garden areas yet. Once the cut slope behind inlet #10 to 17 is completed, replace topsoil, seed, mulch and mat as this area will not be disturbed again. Once the fill zone on the Douglas Church property is completed, replace topsoil and permanently seed this area which will not be disturbed again.

STAGING OF EARTH MOVING ACTIVITIES (CONTINUED)

- Stage 7--  
Install underground utilities (water, sanitary sewer, electric, gas) and storm piping. During trenching for pipe installation, limit the amount of open trench to that which will be backfilled that day, and immediately stabilizing, and immediately reaping or affected BMPs or rain garden fencing. Where a utility trench disturbs or conflicts with a control measure, the measure must be temporarily removed until the trench is backfilled, then the measure must be immediately restored. During trenching, should any water accumulate in trenches or elsewhere, to a depth that must be pumped, then the contractor shall use a Facility for Sediment Removal From Pumped Water as detailed on the drawings. As soon as a storm pipe outlet is placed, the riprap apron must be installed. Install water bars in graded streets where indicated, as soon as the receiving inlet and pipe are in place. Install inlet protection where shown as soon as the inlet is placed. Install walls where shown.
- Stage 8--  
Install curbing, gravel subbase, and binder pavement of streets and driveway on the adjacent Morrison property, thereby eliminating construction entrance #1 and broad based dip #1. Note that the driveway expansion on the Crowner property must be done in one short-term continuous operation when precipitation is not expected and disturbed soil must be permanently stabilized immediately. Maintain water bars in streets until streets are ready for paving.
- Stage 9--  
Building construction may begin at any time now. For building construction, connect loters, pave driveway, and install front sidewalks and rear patio/deck. Replace topsoil, and permanently seed and mulch remaining disturbed soil along the streets and on the building pads not being used. Replace minimum 4" depth of topsoil when construction and paving is completed, and permanently seed and mulch immediately. Install erosion control matting where roof drains discharge onto soil area, or as an interim measure until grass is established, place flexible plastic pipe to convey the runoff from the downspout to a paved or gravel-paved area (the driveway or street) or to an undisturbed vegetated area that does not drain to undisturbed area.
- Stage 10--  
Temporary control measures can be removed when the watershed draining to the measure is permanently stabilized, meaning a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density capable to resist accelerated surface erosion, and subsurface characteristics sufficient to resist sliding and other movements. The location of the control measure must be immediately permanently stabilized upon its removal. All areas to be permanently seeded shall have a minimum depth of 4" of topsoil before seeding.

- Control measure removal instruction specifics:  
-- Sediment basin #1 will remain until all buildings are constructed, after which it must be converted to its permanent stormwater and rain garden configuration. Conversion to its permanent stormwater configuration must be done in one continuous short-term operation, as follows: 1) remove the temporary riser pipe assembly, and install the permanent stormwater basin outlet structure and spillway; 2) install a minimum 2-foot high horsehoe-shaped stone filter berm of clean 2A stone with 2:1 side slopes around the permanent outlet structure lower orifice opening before altering the basin; 3) re-grade the basin, including the berm and spillway as required to final contours, then permanently seed, mulch and mat any disturbed basin area. Conversion of a basin cannot occur during non-germinating periods, and should not occur when precipitation is anticipated during this short-term work. Should there be any standing water accumulated in a basin to be removed, to a depth that can be pumped, then the contractor shall use a Facility for Sediment Removal From Pumped Water or basin dewatering as detailed on the drawings, before altering the basin. Silt fence outside and downhill of the basin must remain until the ultimate stormwater basin configuration is installed and stabilized.
- Sediment trap #1 must be removed.
- Temporary swales #11 and 12 must be removed prior to trap #1 removal.
- Temporary swale #13 can be removed when the street is curbed and the contributory area to it is permanently graded and stabilized.
- All inlet protection must be removed.
- All water bars must be removed.
- All silt barriers must be removed.
- Solids, trash and other pollutants shall be disposed in accordance with federal and state regulations in order to prevent any pollutant in such materials from adversely affecting the environment. All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department of Environmental Protection's Solid Waste Management regulations. No building materials or wastes or unused building materials shall be buried, dumped, or discharged at the site. Stone from removed construction entrances can be stockpiled within the project area, and used later as fill against the building foundation walls.
- Stage 11--  
When the site is permanently stabilized, in a short-term continuous operation install rain gardens #1, 2, 3 and 4. Seed, plant and mulch the areas immediately. Inlet protection must be present on the inlet in the rain garden until the garden is permanently stabilized.

Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the Cumberland County Conservation District for a final inspection prior to the removal of the BMPs.

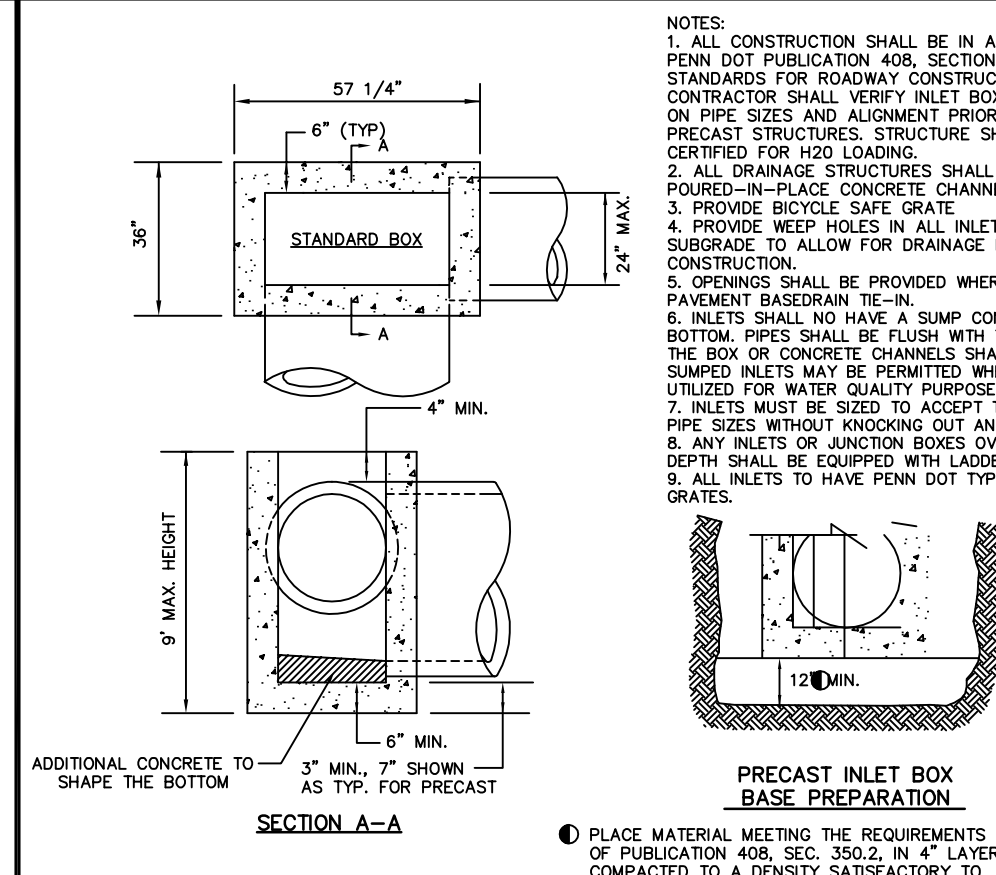
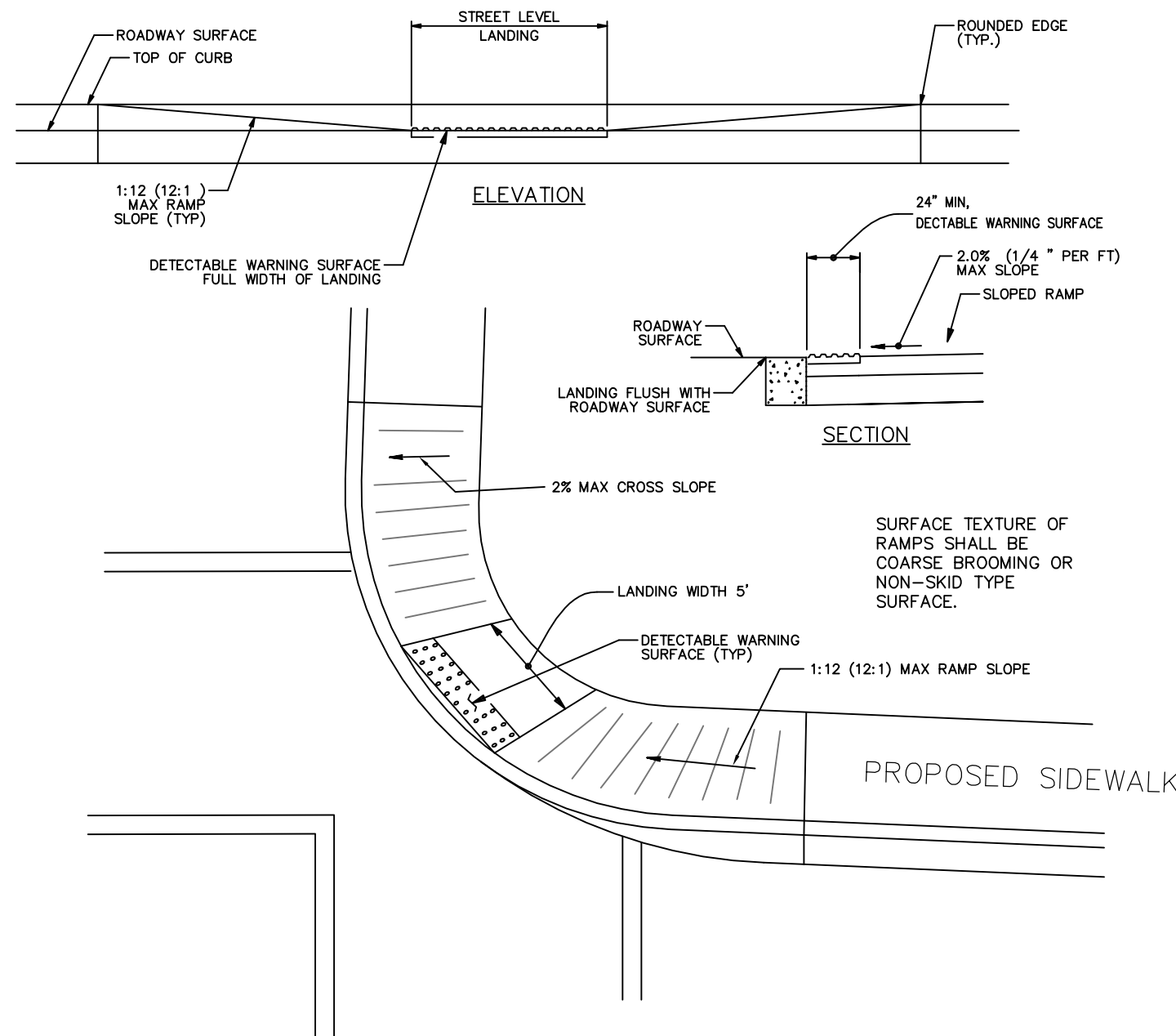
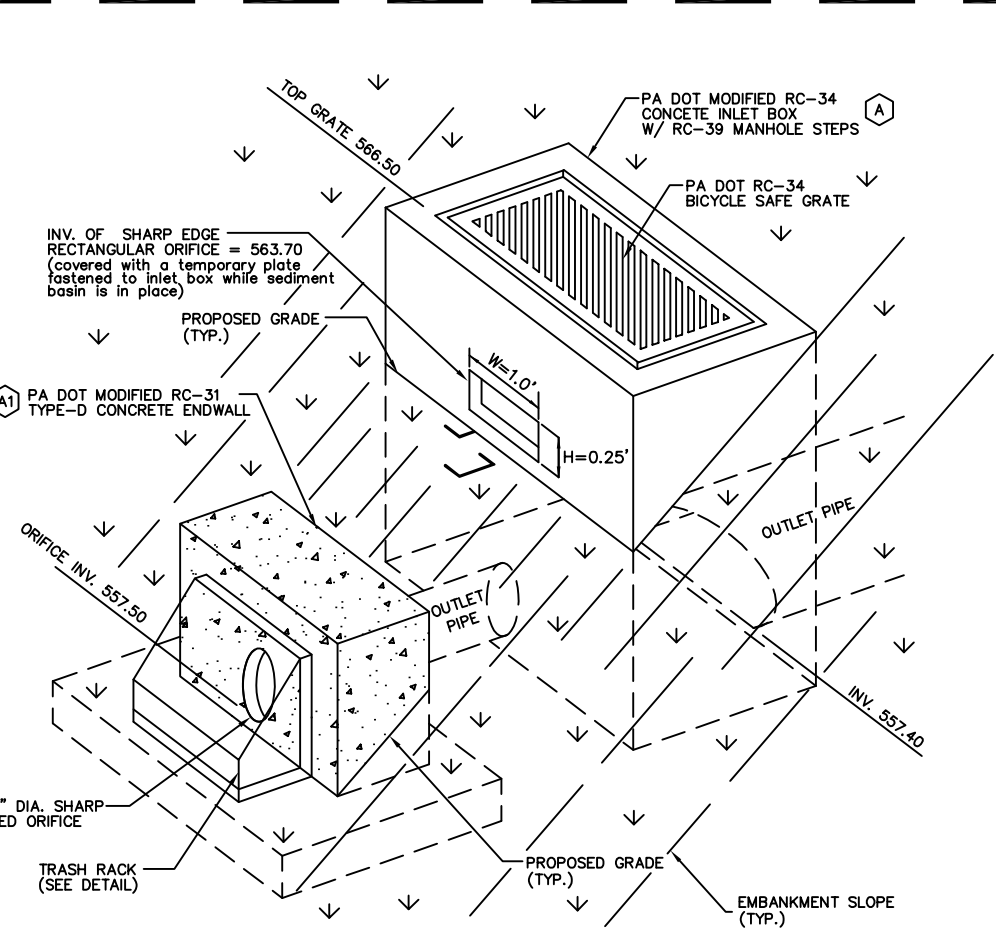
EROSION CONTROL DETAILS FOR THE TERRACES AT THE SHEPHERDSTOWN  
DRAWING ID 210014-DTL  
DATE 10/28/10  
SHEET 13 OF 13  
R. J. FISHER & ASSOCIATES, INC.  
LAND PLANNING & DEVELOPMENT DESIGN ■ PROPERTY & TOPO. SURVEYS  
LANDSCAPE ARCHITECTURE ■ WETLANDS IDENTIFICATION & DELINEATION  
15-46 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
(717) 774-7634 FAX (717) 774-7190  
COPYRIGHT © 2010 BY R.J. FISHER & ASSOCIATES, INC.



The diagram illustrates a pipe end section. On the left, a horizontal pipe is shown with an arrow labeled 'FLOW' pointing to the right. The pipe has a diameter labeled 'D'. The section of the pipe shown has a length labeled 'L'. The pipe is shown in cross-section, revealing a textured interior surface. The diagram is labeled 'PIPE END SECTION'.


SECTION A-A  
N.T.S.

SECTION B-B



NOTES:

1. PRECAST INLET BOX CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENN DOT PUBLICATION 3408, SECTION 7.14 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34.
2. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURE. STRUCTURE SHALL BE CERTIFIED FOR H20 LOADING.
3. ALL DRAINAGE STRUCTURES SHALL HAVE FLOW-IN-PLACE CONSTRUCTION CHANNEL BOTTOMS.
4. PROVIDE BUILT-IN BUILT-IN GRATE.
5. PROVIDE WEED HOLES IN ALL INLET BOXES AT SUBGRADE TO ALLOW FOR DRAINAGE DURING CONSTRUCTION.
6. GRATE SHALL BE PROVIDED WHERE NECESSARY FOR PAVEMENT BASEPANS THIN.
7. INLET SHALL BE IN FIRM MOUND CONDITION IN THE BOTTOM SHALL BE FLUSH WITH THE BOTTOM OF THE DRAINAGE DITCH. ANY UNDESIRABLE MOUNDING, SLUMPS OR SETTLES MAY BE PERMITTED WHERE SPECIFICALLY NOTED.
8. INLETS MUST BE SIZED TO ACCEPT THE SPECIFIED FLOW RATE. INLETS SHALL BE:
- 8.1. 18" INLETS OR LARGER.
- 8.2. ANY INLETS OR JUNCTION BOXES OVER FIVE FEET IN LENGTH.
- 8.3. ALL INLETS TO HAVE PENN DOT TYPE BICYCLE SAFE GRATES.



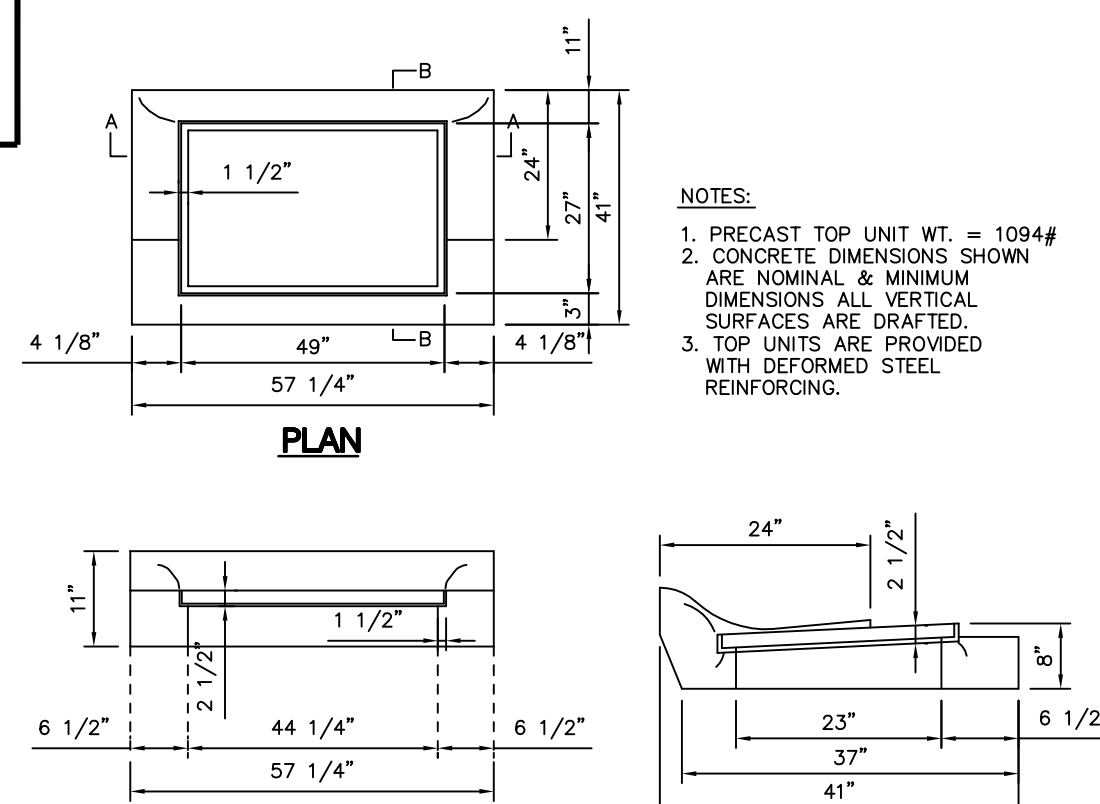
12

INCHES

FOOT

PRECAST INLET BOX  
BASE PREPARATION

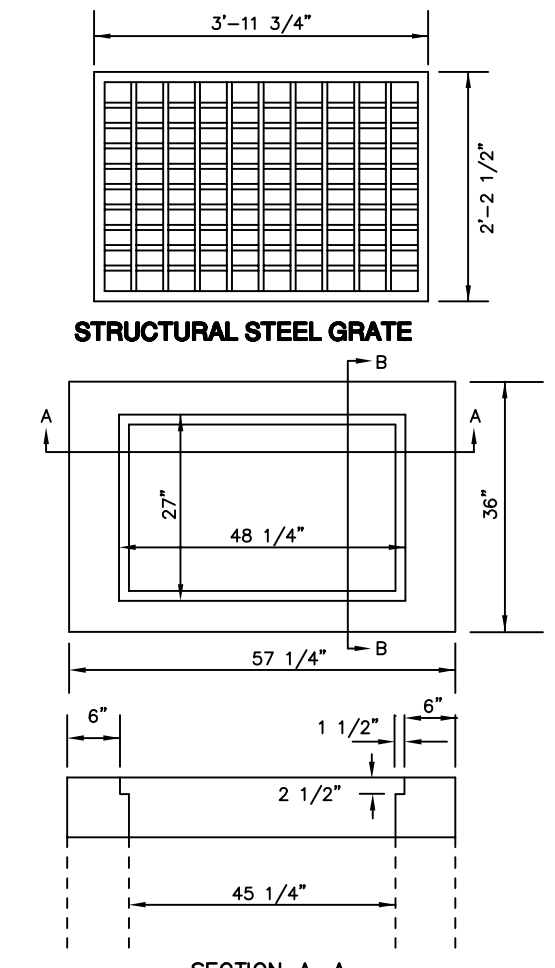
MATERIAL, MEETING THE REQUIREMENTS  
SPECIFIED IN RC-350, 350.2, 4 IN LAYERS



N.T.S. NOTE: ALL INLETS TO  
SAFE GRATES.

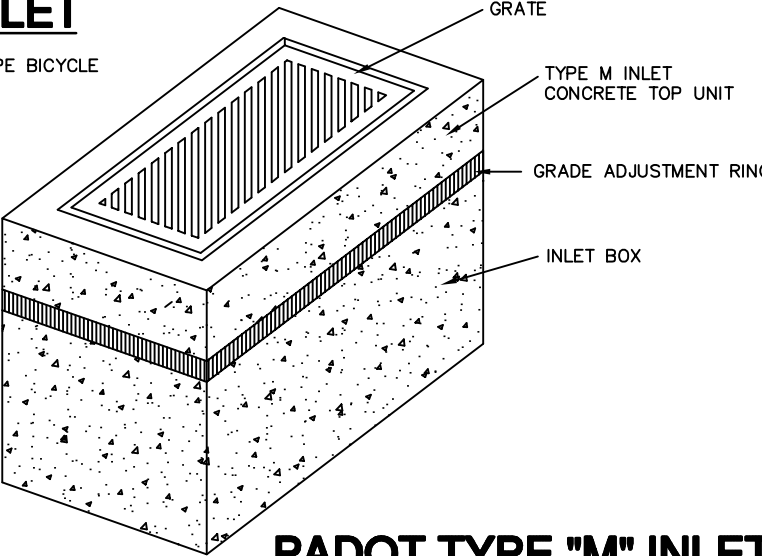
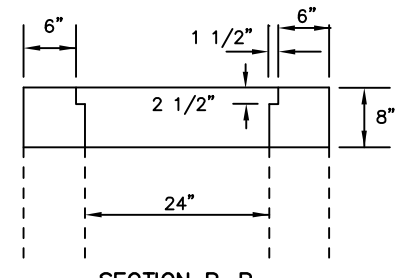
NOTE: ALL INLETS TO HAVE PENN DOT TYPE BICYCLE  
SAFE GRATES.

NOTE: ALL INLETS TO HAVE PENN DOT TYPE BICYCLE  
SAFE GRATES.

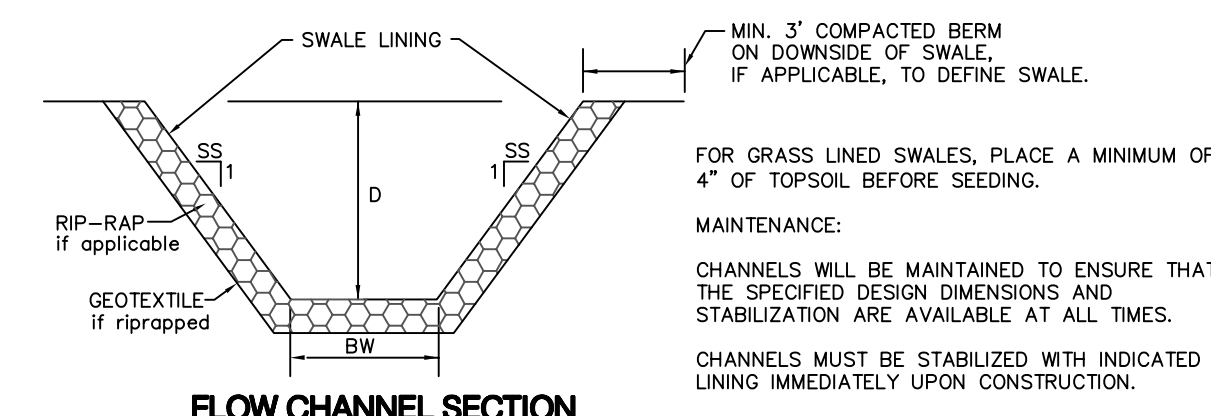
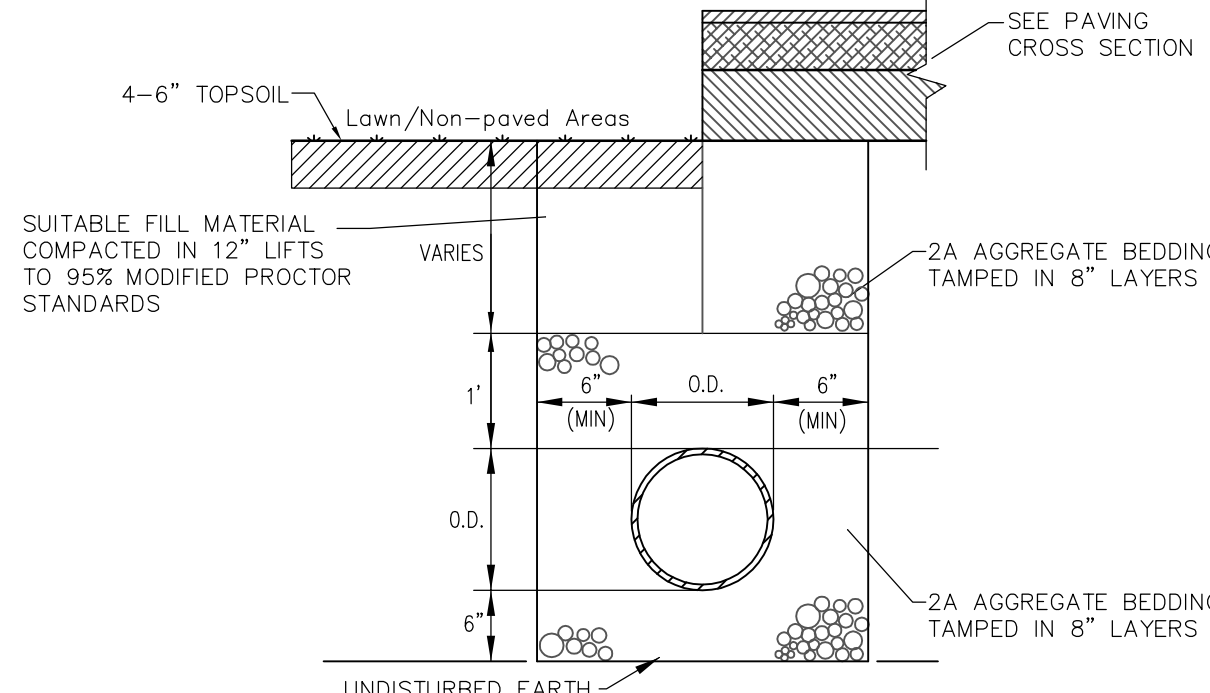
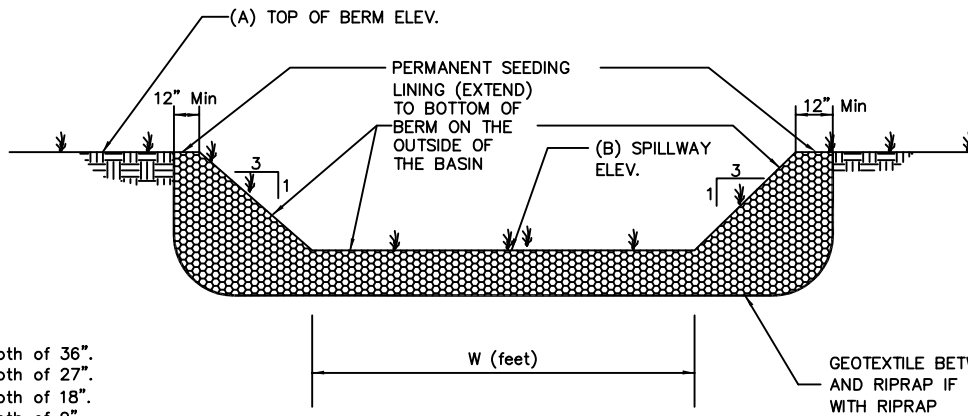


NOTE: ALL INLETS TO HAVE PENN DOT TYPE BICYCLE  
SAFE GRATES.

NOTE: ALL INLETS TO HAVE PENN DOT TYPE BICYCLE  
SAFE GRATES.



DATA	DETENTION BASIN ID	
	1	
W (width)	8.0	
(B) ELEVATION	567.0	
(A) ELEVATION	568.0	
LINING *	GRASS	



SWALE DESIGNATION	CHANNEL SLOPE (%)	SS	BW (FT.)	D (MIN.) (FT.)	ROCK SIZE	MIN ROCK SIZE DEPTH OR LINING TEMPORARY	MIN ROCK SIZE DEPTH OR LINING PERMANENT
SWALE #11	10.80	2	1.0	0.80	---	N.A.G. S75	CLASS C VEG.
SWALE #12	5.50	2	2.0	1.00	---	N.A.G. S75	CLASS C VEG.
SWALE #13, SEG. 1	10.30	2	2.8	0.90	---	N.A.G. S75	CLASS C VEG.
SWALE #13, SEG. 2	20.0	2	2.9	0.8	R-5	27"	27"

NOTE:  
S75 = NORTH AMERICAN GREEN S75 MAT.

No.	REVISION	DATE
1		
2		
3		
4		
5		
6		
7		
8		

CONVINCIENTE @ 2000 BY

R.J. FISHER & ASSOCIATES, INC.



B : I FISHER &amp; ASSOCIATES INC

LAND PLANNING & DEVELOPMENT DESIGN ■ PROPERTY & TOPOG. SURVEYS  
■ LANDSCAPE ARCHITECTURE ■ WETLANDS IDENTIFICATION & DELINEATION

1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070

(717) 774-7534 FAX (717) 774-7190

## MISCELLANEOUS DETAILS FOR

**THE TERRACES  
AT SHEPHERDSTOWN**

LOCATED IN  
UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, PA.

DRAWING ID  
210014-DTL

DATE: 10/28/1

*SHEET 9 OF 13*