PROJECT MANAGER Wendy Block Sanford, City of Fairfax (703) 385-7889
SURVEYED BY Rinker Design Assoc. P.C. (703) 368-7373 (2011)
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc. P.C. (703) 368-7373
SUBSURFACE UTILITY PROVIDED BY Accumark (2011)

TMP/SOC Signal Plan General Notes

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IL

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Transportation Management Plan and Sequence of Construction:
Signalization During Construction

General Notes:

1.The temporary signalization plans (Sheets IL Series are intended as a guide.They are not to enumerate every detail which must be considered in the construction of the temporary signals,but instead to serve as conceptual plans for the handling of traffic and signalization during construction.It shall be the responsibility of the Contractor to provide formal temporary signalization plans to City of Fairfax for approval prior to any construction activity that may affect existing traffic or existing signals,and prior to purchasing any signal equipment.

2.The Contractor shall leave the existing signal in place/operation for a long as it can serve the intersection channelization of the traffic.The Contractor shall is permitted to shift any signal heads or signs on any existing strain wire,provided documentation from the Contractor is provided proving the existing infrastructure can handle the change in loads.(The Contractor may utilize pole guys as needed.) The Contractor shall install temporary strain pole with span wires and signalization equipment in accordance with VDOT's standards when the existing signals cannot serve their purpose and the ultimate pole and mast arms have not be constructed,or in any situation where the ultimate poles cannot be utilized.No additional compensation will be provided if the existing infrastructure cannot be utilize and the Contractor must provide wood pole/strain wire system.

3.All of the ultimate signal poles,mast arms and foundations shall be designed to accommodate the placement of signal heads and signs for all TMP/SOC phases of construction,at no additional cost to the project.

4.The Contractor shall be responsible for the coordination and maintenance (continued service) of City interconnect cables and power to all signals within the project,for the duration of the project and through all phases of construction.This shall not be paid for as a separate item and all related/associated costs shall be incidental to the project.

5.The Project's Maintenance of Traffic pay item shall also include all labor,equipment,signalization materials per VDOT/City Standards,and all things necessary to maintain signals for all intersections within the project,through each phase and change in traffic patterns,for the life of construction until the City accepts the signals back into their system.This pay item shall also include the regular maintenance of existing signals,temporary signals and ultimate signals (or any parts thereof as some signal are constructed in multiple phases) for the life of construction for the project.This pay item shall also require the Contractor have available 24 hours a day for the life of construction,a qualified crew to fix any issues that may arise with any signal.

6.If additional cable wiring is required for any shifting of signal heads during TMP/SOC,the Contractor shall include this cost in the price of other items,and it shall not be paid for as a separate item.No splicing of cables shall be permitted.Contractor shall replace entire cable run at no additional cost to the project.

7.Once the existing signal's vehicle detection devices/loops are impacted,the Contractor is solely responsible for providing vehicle detection for all signals,for all phases of Construction until all signals have their vehicle detection pucks installed and accepted by City.The price to maintain detection (by use of video detection) shall be incidental to the project,and not paid for as a separate item.

8.Contractor shall be responsible for providing signal timings for all temporary signals during project construction.Contractor shall adjust signal timings as necessary or as directed by City Traffic Engineer to allow for proper traffic movement.

9.Cost to relocate impacted utilities caused by signal installation shall be incidental to signal construction and shall NOT be paid for as a separate item.

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TMP/SOC Signal Plan Phase I

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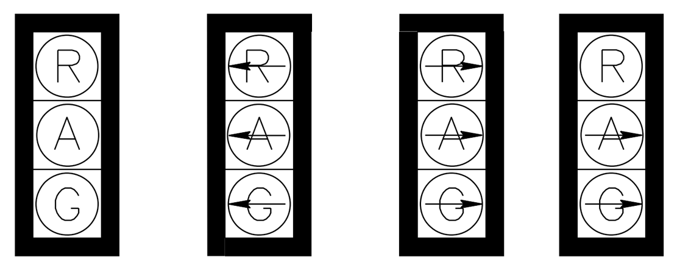
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IL(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SIGNAL HEADS



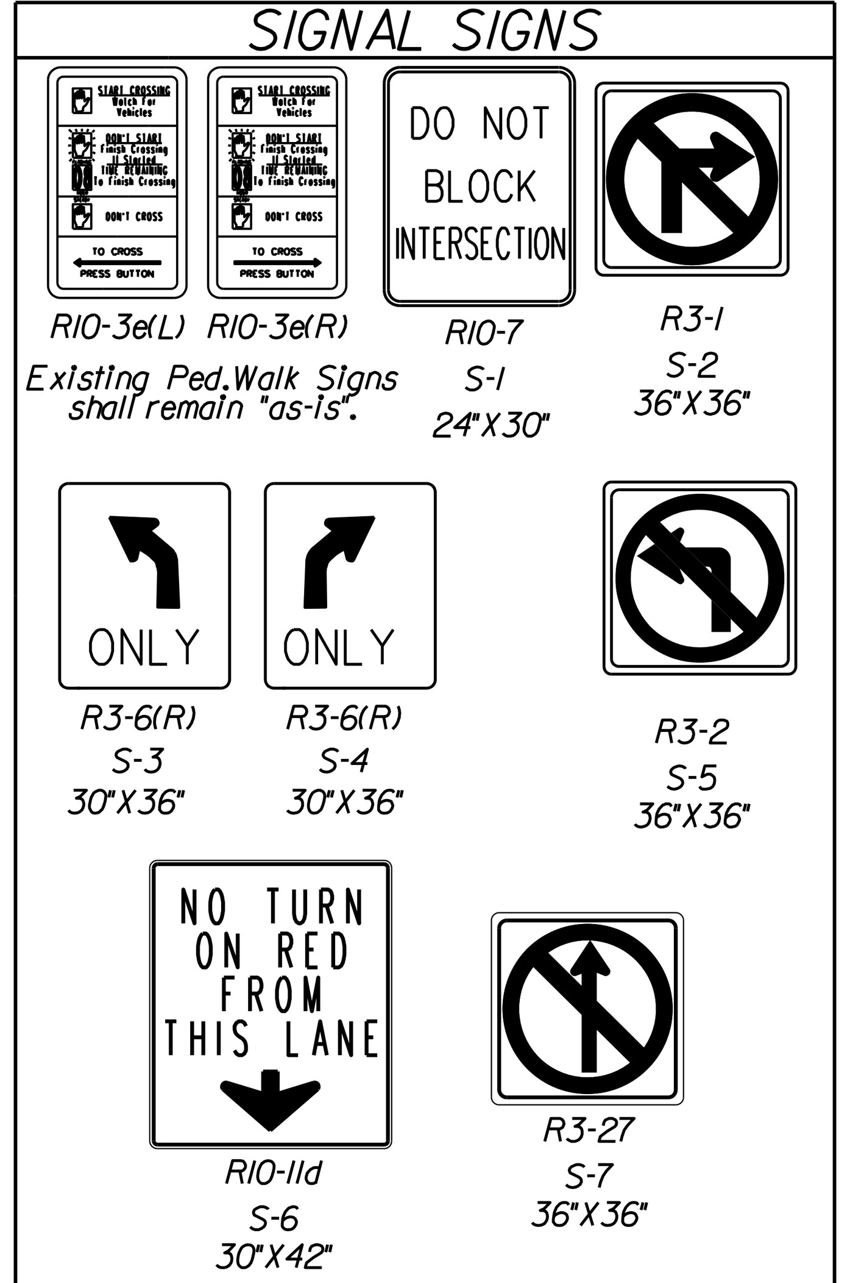
HEADS 2,8,6 — HEADS 3,5,7 — HEADS 4 — HEADS 4A

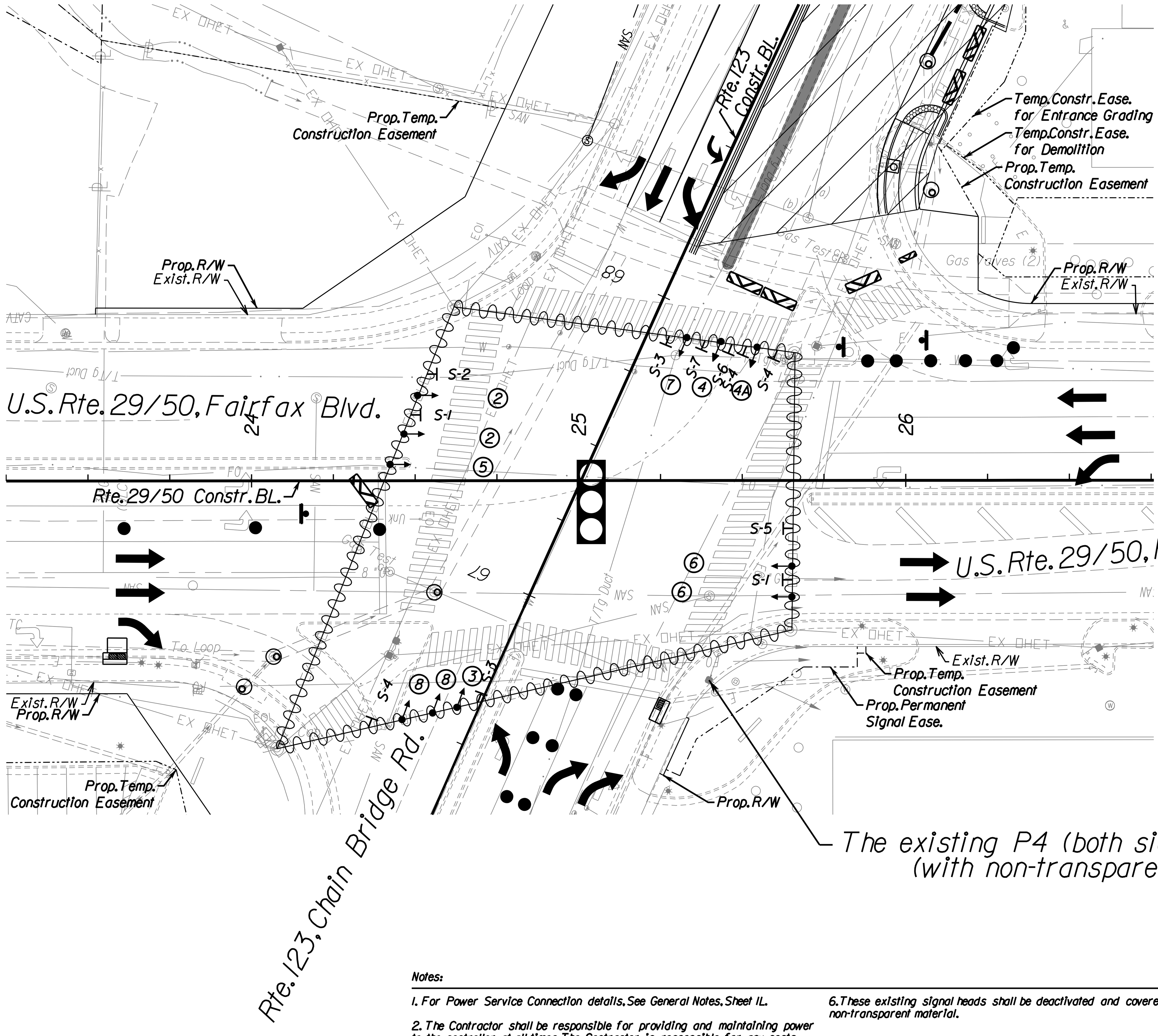
ALL SIGNALS SHALL BE EQUIPPED WITH POLYCARBONATE BACKPLATES

ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED

EXISTING PEDESTRIAN HEADS TO REMAIN OPERATIONAL, EXCEPT AS NOTED ON THIS SHEET.

SIGNAL SIGNS





The existing P4 (both sides) crossing shall be covered up (with non-transparent material) and deactivated.

R/W LEGEND

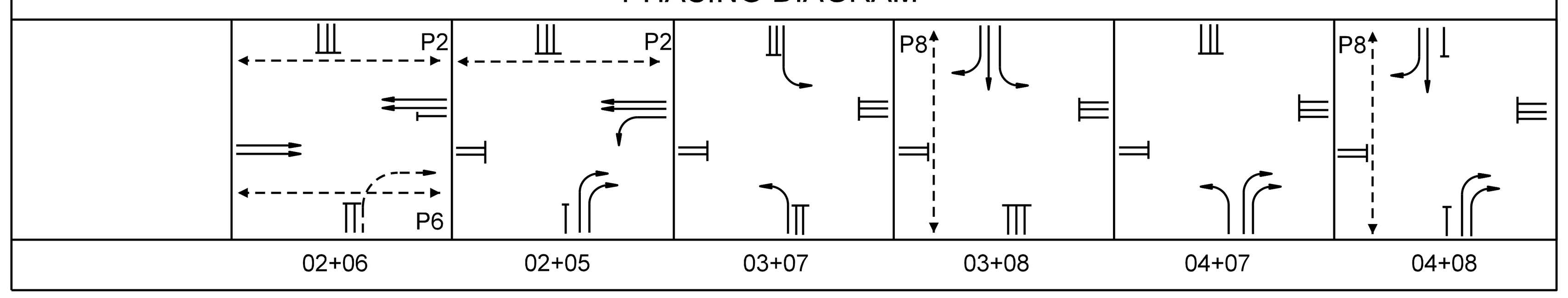
Denotes Prop. Perm. Easement

Denotes Prop. Temp. Construction Easement

TMP/SOC Legend:

- Denotes Traffic Flow
- Denotes Group 2 Channelizing Devices
- Denotes Construction Work Zone
- Denotes Type 3 Barricade
- Denotes Temporary Pavement [See Sheet 2A(4)]
- Denotes Temporary Signal Modification Req'd
- Denotes Temporary Sign for TMP/SOC (See Applicable TMP/SOC Phase for Details)

PHASING DIAGRAM



Notes:

1. For Power Service Connection details, See General Notes, Sheet IL.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet IL for more information.

3. The contractor shall be responsible for providing and maintaining communication/interconect to the controller at all times. The contractor is responsible for any costs associated with providing/maintaining communication to the traffic signal. See Sheet General Notes on Sheet IL for details.

5. This plan represents the signal head and signal signs to be operational/installed for this phase. The contractor is responsible for modifying the signal heads and signal signs to match what is shown on this plan. The contractor may re-use existing heads/signs as appropriate. The Contractor is also responsible for making Controller adjustments/relocations and relocating/providing temporary signal infrastructure to accomodate TMP/SOC Signal at no additioal cost to the project.

6. These existing signal heads shall be deactivated and covered with non-transparent material.

SCALE 0 25' 50'

4/20/2016 35x23 (in.) default_rda.tbl I663200IL02.dgn
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TMP/SOC Signal Plan Phase 1 & 2

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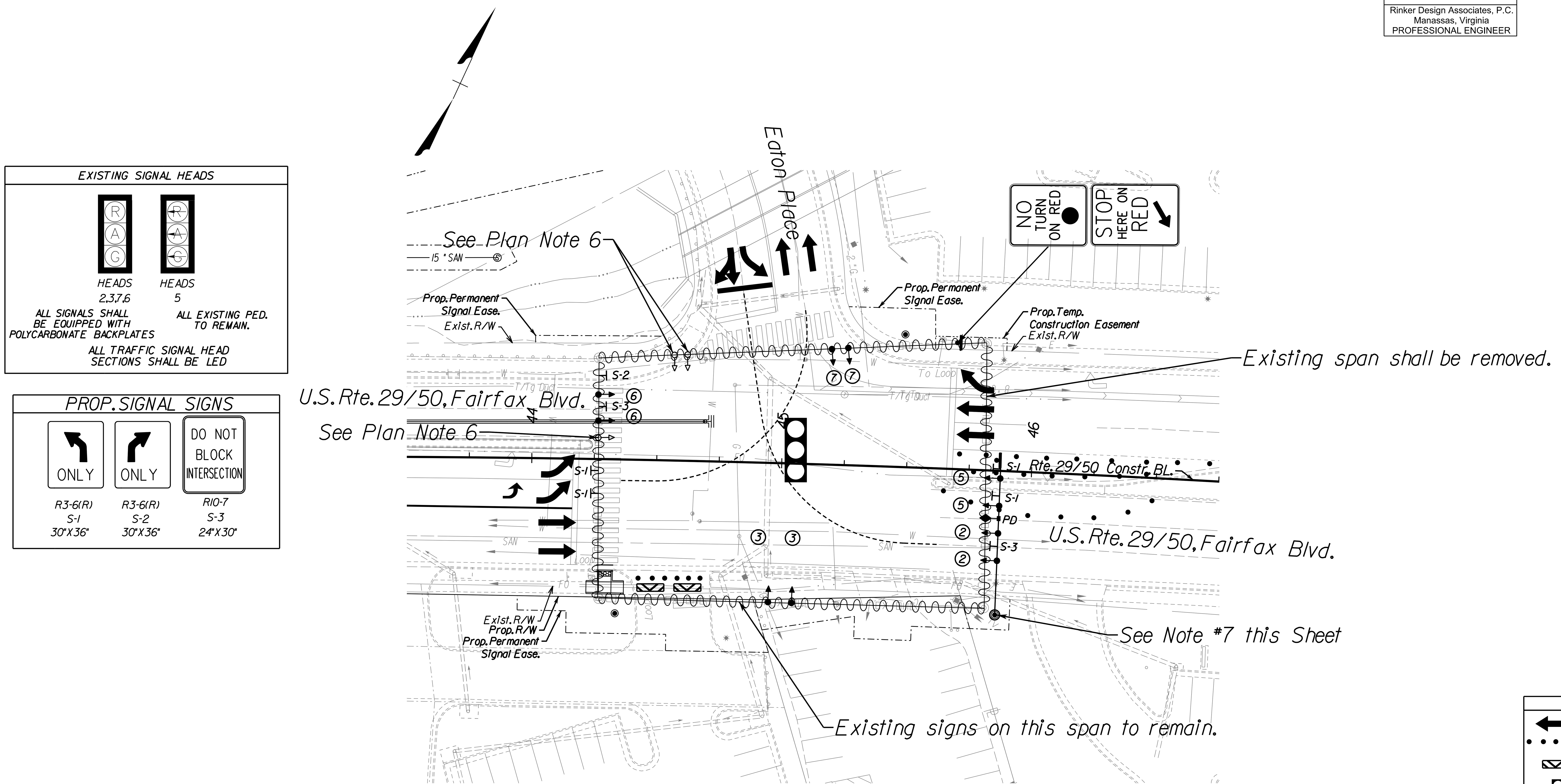
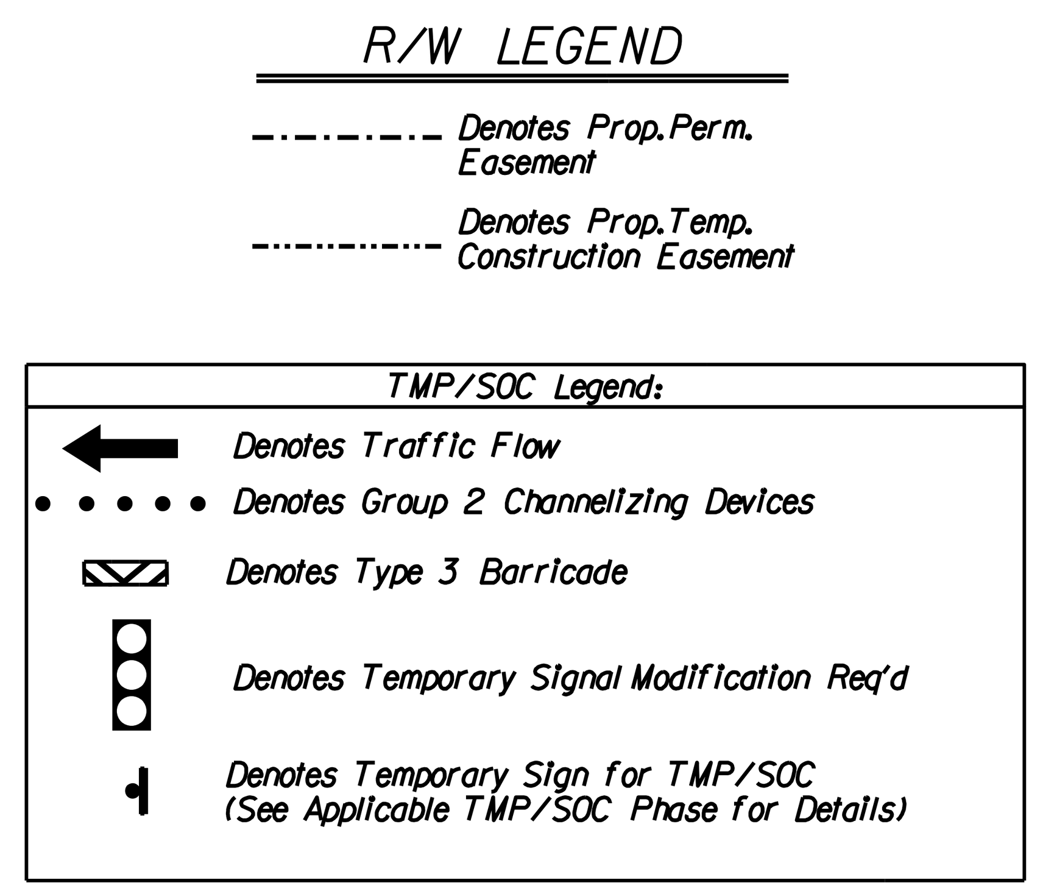
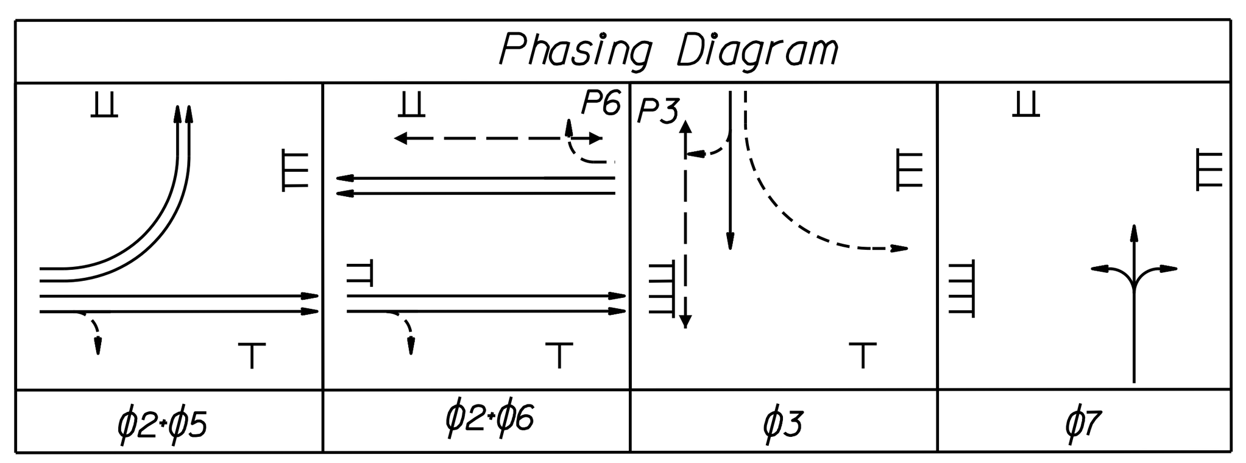
REVISED	STATE	STATE ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	1L(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.







Notes:

1. For Power Service Connection details, See General Notes, Sheet 1L.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet 1L for more information.

3. The contractor shall be responsible for providing and maintaining communication/interconect to the controller at all times. The contractor is responsible for any costs associated with providing/maintaining communication to the traffic signal. See Sheet General Notes on Sheet 1L for details.

5. This plan represents the signal head and signal signs to be operational/installed for this phase. The contractor is responsible for modifying the signal heads and signal signs to match what is shown on this plan. The contractor may re-use existing heads/signs as appropriate. The Contractor is also responsible for making Controller adjustments/relocations and relocating/providing temporary signal infrastructure to accomodate TMP/SOC Signal at no additioal cost to the project.

6. These existing signal heads shall be deactivated and covered with non-transparent material.

7. This is the ultimate pole/mast arm. This pole, mast arm and foundation shall be design to handle all necessary loadings for all phases of construction and ultimate condition. The Contractor is permitted (due to scheduling/ordering of materials and at no additional cost to the project) to install a WP-1 system or re-use the existing span (provided additional bracing is added, or proof of adequacy is provided) to achieve the the necessary signal head/phasing required/shown on this plan. Contractor is solely responsible for the maintenance and intregrity of the signal infrastructure once the project begins.

SCALE 0 25' 50'

PROJECT	SHEET NO.
0029-151-105	1L(2)

4/20/2016

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TMP/SOC Signal Plan Phase 2

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IL(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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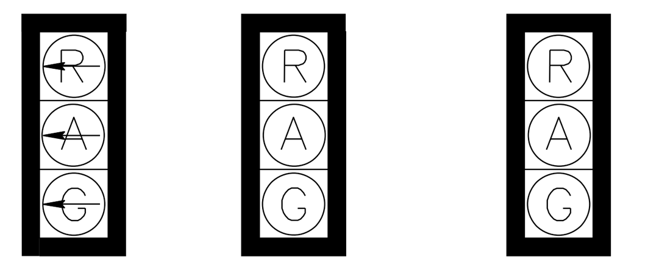
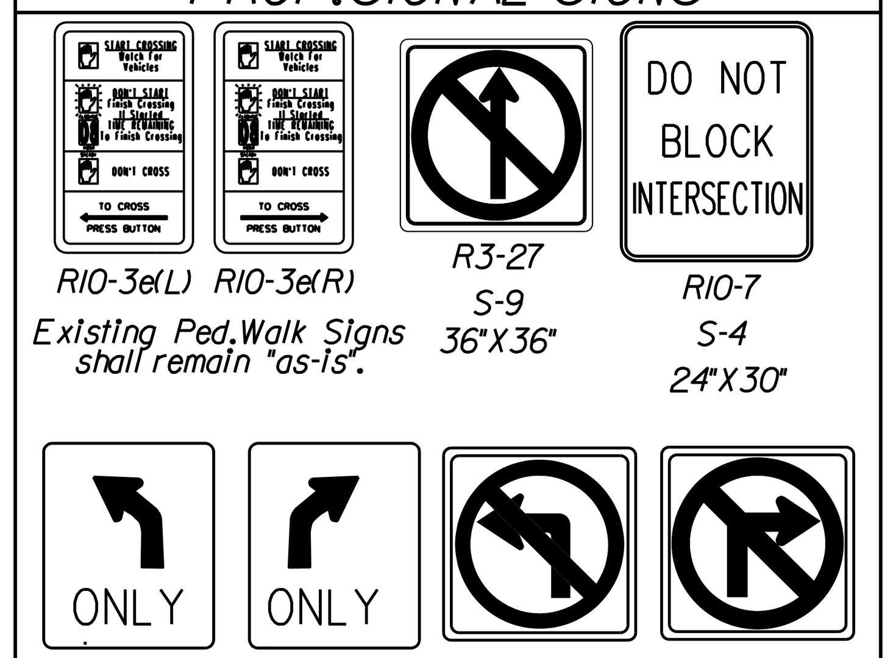
SIGNAL HEADS

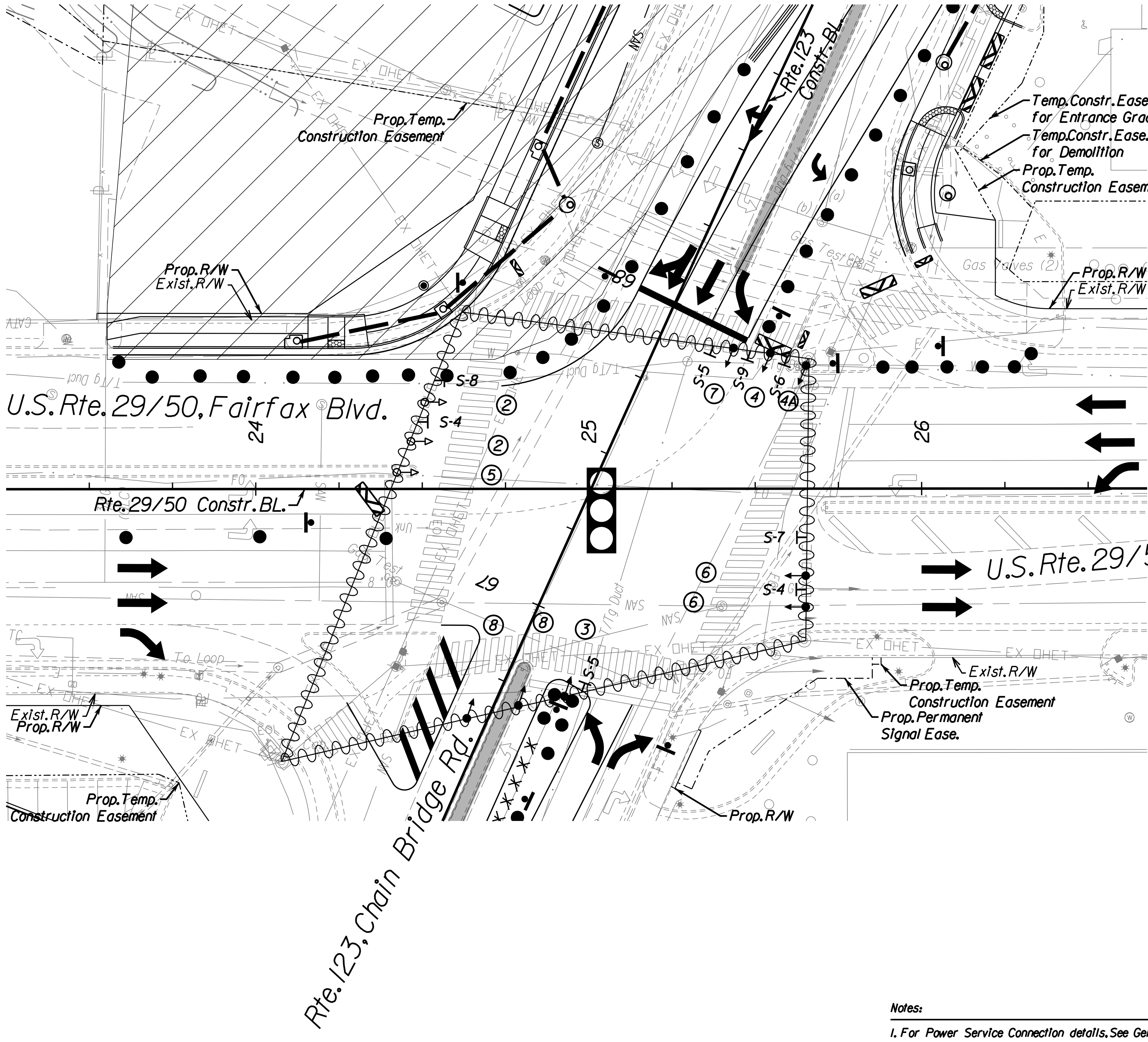


HEADS 3,7,5	HEADS 2,6,8	HEADS 4,4A
ALL SIGNALS SHALL BE EQUIPPED WITH POLYCARBONATE BACKPLATES		NOTE: ONLY P6 & P4 PED CROSSING IS ACTIVE IN THIS PHASE. ALL OTHERS SHALL BE COVERED AND DEACTIVATED.
ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED		

PROP. SIGNAL SIGNS



R10-3e(L)	R10-3e(R)	R3-27	R10-7
Existing Ped. Walk Signs shall remain "as-is".		S-9 36"X36"	S-4 24"X30"
R3-6(R) S-5 30"X36"	R3-6(R) S-6 30"X36"	R3-2 S-7 36"X36"	R3-1 S-8 36"X36"



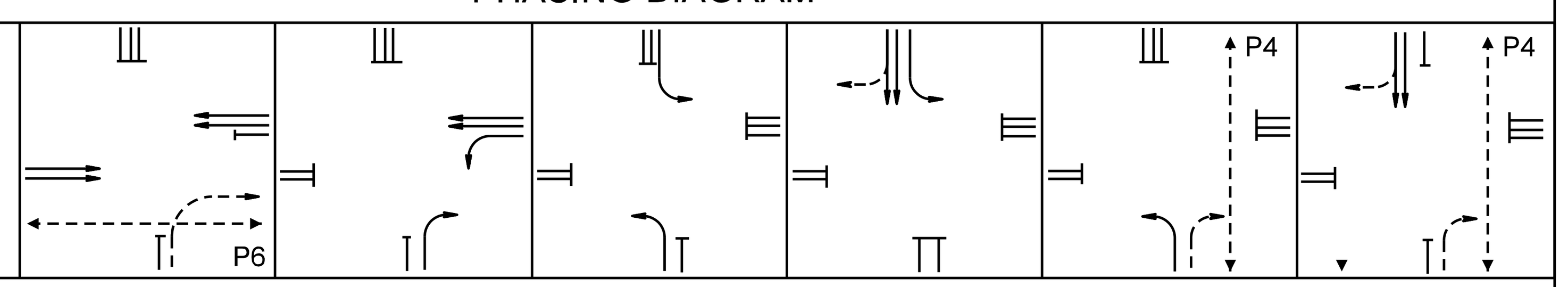
R/W LEGEND

Denotes Prop. Perm. Easement
Denotes Prop. Temp. Construction Easement

TMP/SOC Legend:

Denotes Traffic Flow
Denotes Group 2 Channelizing Devices
Denotes Construction Work Zone
Denotes Impact Attenuator
Denotes Type 3 Barricade
Denotes Temporary Pavement [See Sheet 2A(4)]
Denotes Temporary Signal Modification Req'd
Denotes Temporary Sign for TMP/SOC (See Applicable TMP/SOC Phase for Details)

PHASING DIAGRAM



02+06	02+05	03+07	03+08	04+07	04+08

Notes:

1. For Power Service Connection details, See General Notes, Sheet IL.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet IL for more information.

3. The contractor shall be responsible for providing and maintaining communication/interconect to the controller at all times. The contractor is responsible for any costs associated with providing/maintaining communication to the traffic signal. See Sheet General Notes on Sheet IL for details.

5. This plan represents the signal head and signal signs to be operational/installed for this phase. The contractor is responsible for modifying the signal heads and signal signs to match what is shown on this plan. The contractor may re-use existing heads/signs as appropriate. The Contractor is also responsible for making Controller adjustments/relocations and relocating/providing temporary signal infrastructure to accomodate TMP/SOC Signal at no additioal cost to the project.

6. These existing signal heads shall be deactivated and covered with non-transparent material.

SCALE 0 25' 50'

PROJECT	SHEET NO.
0029-151-105	IL(3)

4/20/2016

PROJECT MANAGER Wendy Block Sanford, City of Fairfax (703) 385-7889
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TMP/SOC Signal Plan Phase 3A & 3B

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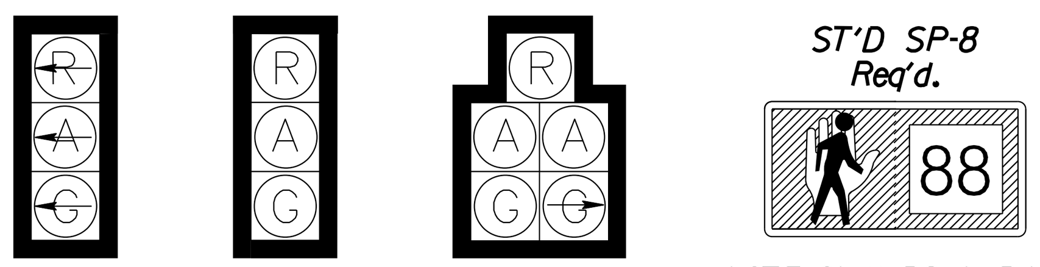
REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IL(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SIGNAL HEADS



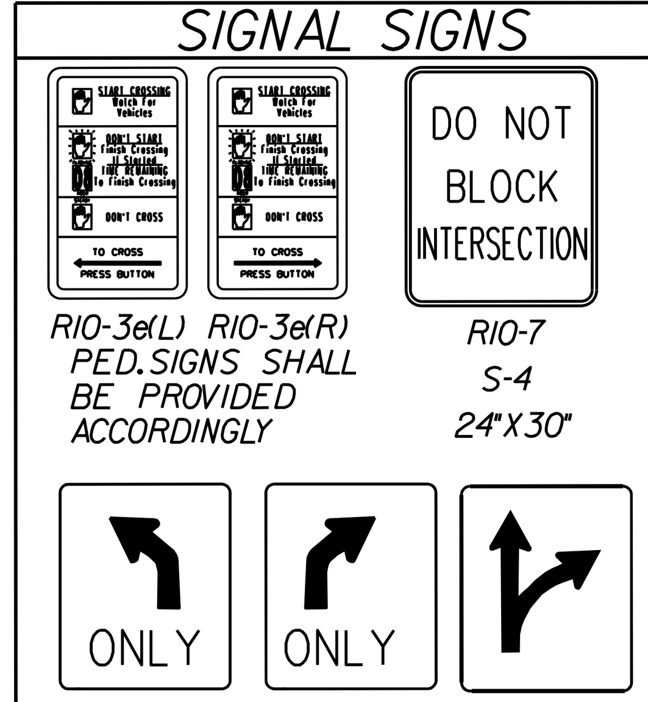
HEADS 1,3,7,5 | HEADS 2,4,6,8 | HEADS 2A | ST'D SP-8 Req'd.

ALL SIGNALS SHALL BE EQUIPPED WITH POLYCARBONATE BACKPLATES

ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED

NOTE: ONLY P2 & P4 CROSSING IS ACTIVE IN THIS PHASE. ALL OTHERS SHALL BE COVERED AND DEACTIVATED.

SIGNAL SIGNS



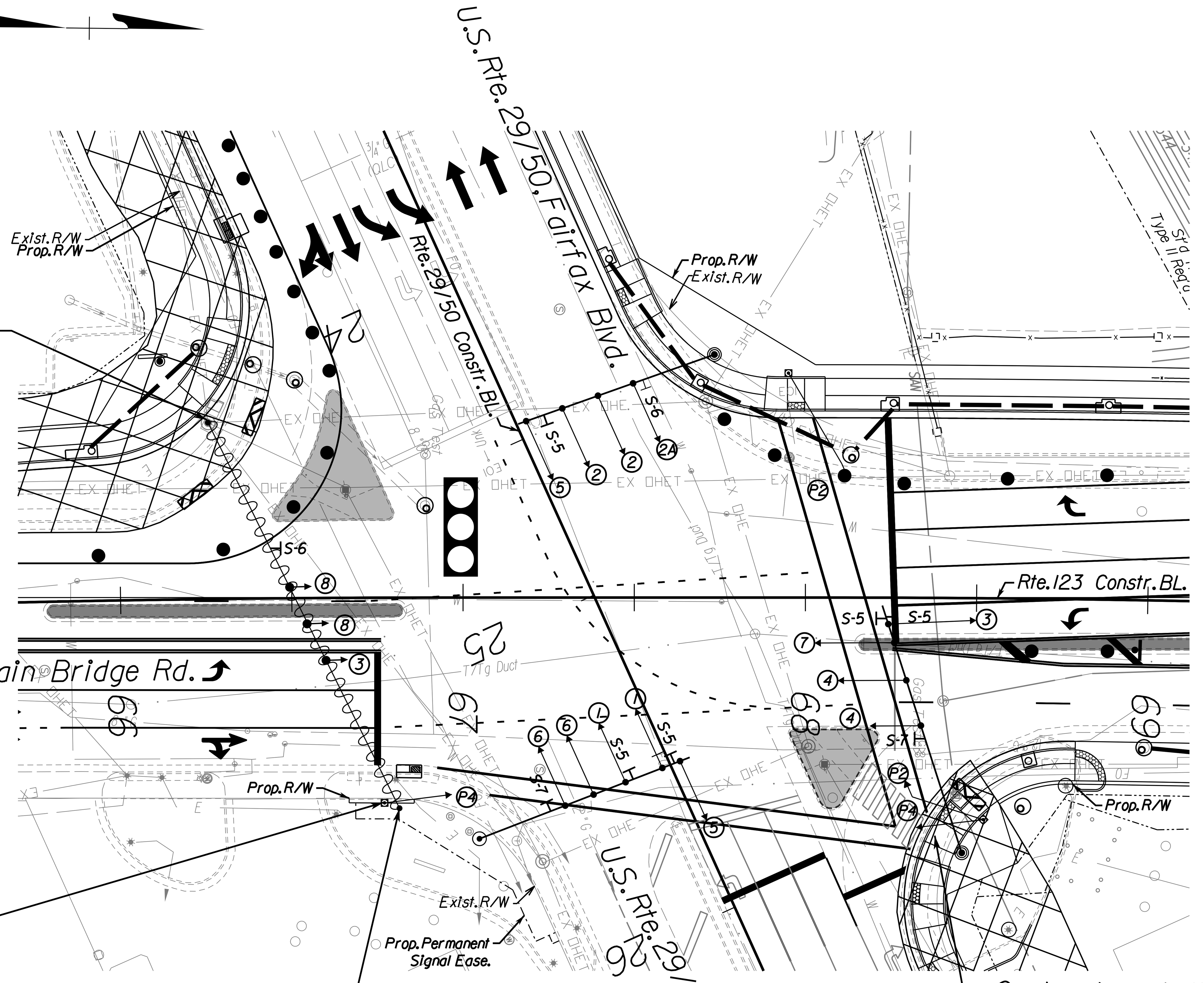
R10-3e(L) R10-3e(R) PED. SIGNS SHALL BE PROVIDED ACCORDINGLY

R10-7 S-4 24"X30"

R3-6(R) S-5 30"X36"

R3-6(R) S-6 30"X36"

R3-5(R) S-7 30"X36"



St'd. Wood Pole - Bracing Req'd. Pole to be shifted as needed to accomodate construction activity in the Constr. Work Zone

Contractor may utilize existing PF-2 to provided pedestrian signalization.

St'd. Wood Pole - Bracing Req'd. Pole to be shifted as needed to accomodate construction activity in the Constr. Work Zone

Contractor shall maintain ADA Compliant Curb Ramp/Access at this corner

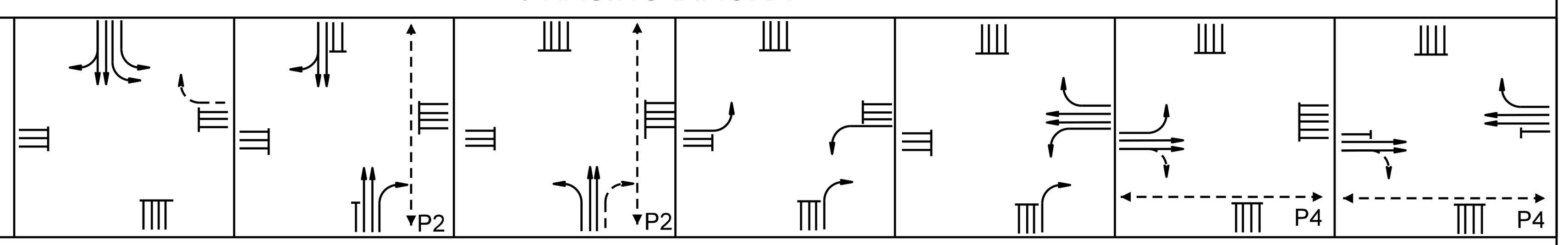
R/W LEGEND

- Denotes Prop. Perm. Easement
- Denotes Prop. Temp. Construction Easement

TMP/SOC Legend:

- Denotes Traffic Flow
- Denotes Group 2 Channelizing Devices
- Denotes Construction Work Zone
- Denotes Impact Attenuator
- Denotes Type 3 Barricade
- Denotes Temporary Pavement [See Sheet 2A(4)]
- Denotes Temporary Signal Modification Req'd
- Denotes Temporary Sign for TMP/SOC (See Applicable TMP/SOC Phase for Details)

PHASING DIAGRAM



01+06 | 02+06 | 02+05 | 03+07 | 03+08 | 04+07 | 04+08

Notes:

1. For Power Service Connection details, See General Notes, Sheet IL.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet IL for more information.

3. The contractor shall be responsible for providing and maintaining communication/interconect to the controller at all times. The contractor is responsible for any costs associated with providing/maintaining communication to the traffic signal. See Sheet General Notes on Sheet IL for details.

5. This plan represents the signal head and signal signs to be operational/installed for this phase. The contractor is responsible for modifying the signal heads and signal signs to match what is shown on this plan. The contractor may re-use existing heads/signs as appropriate. The Contractor is also responsible for making Controller adjustments/relocations and relocating/providing temporary signal infrastructure to accomodate TMP/SOC Signal at no additioal cost to the project.

6. These existing signal heads shall be deactivated and covered with non-transparent material.

SCALE 0 25' 50'

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Office Locations

4/20/2016

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TMP/SOC Signal Plan Phase 3A

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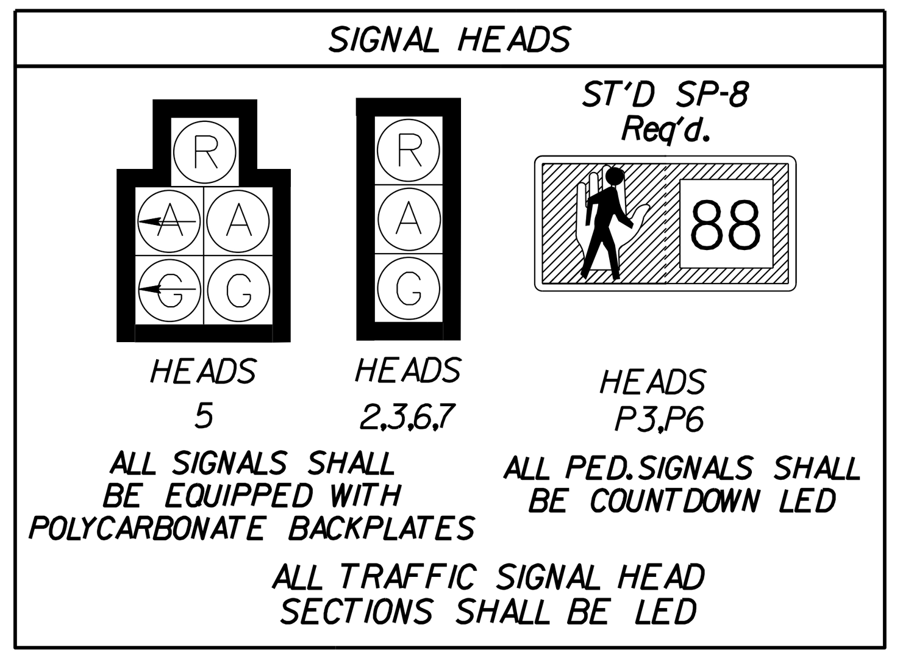
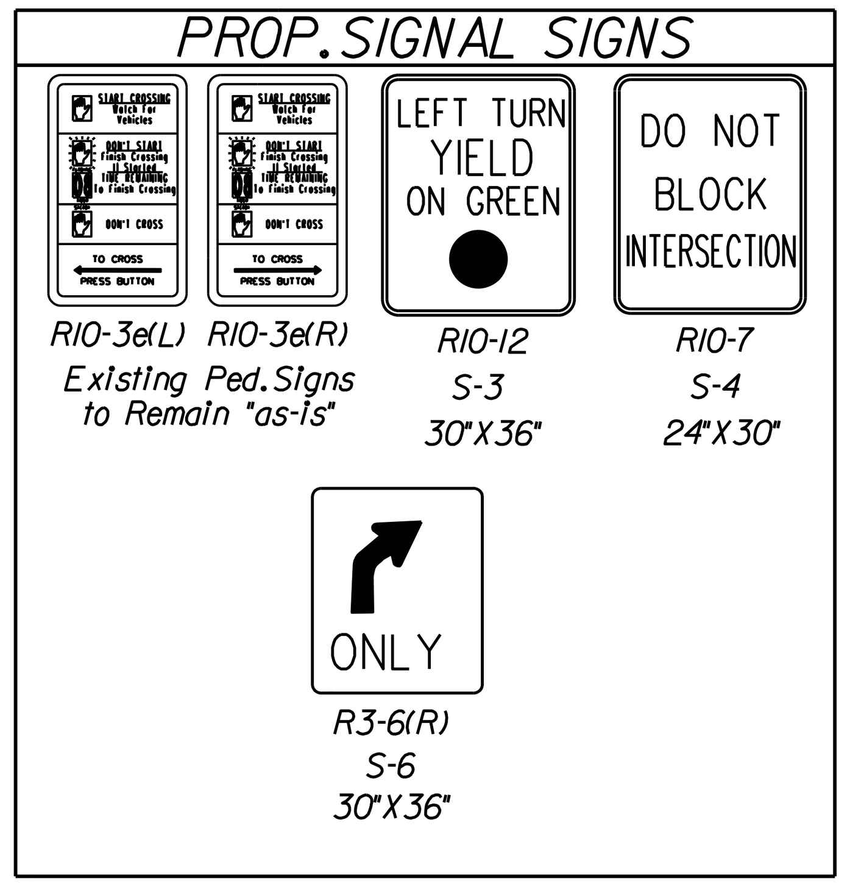
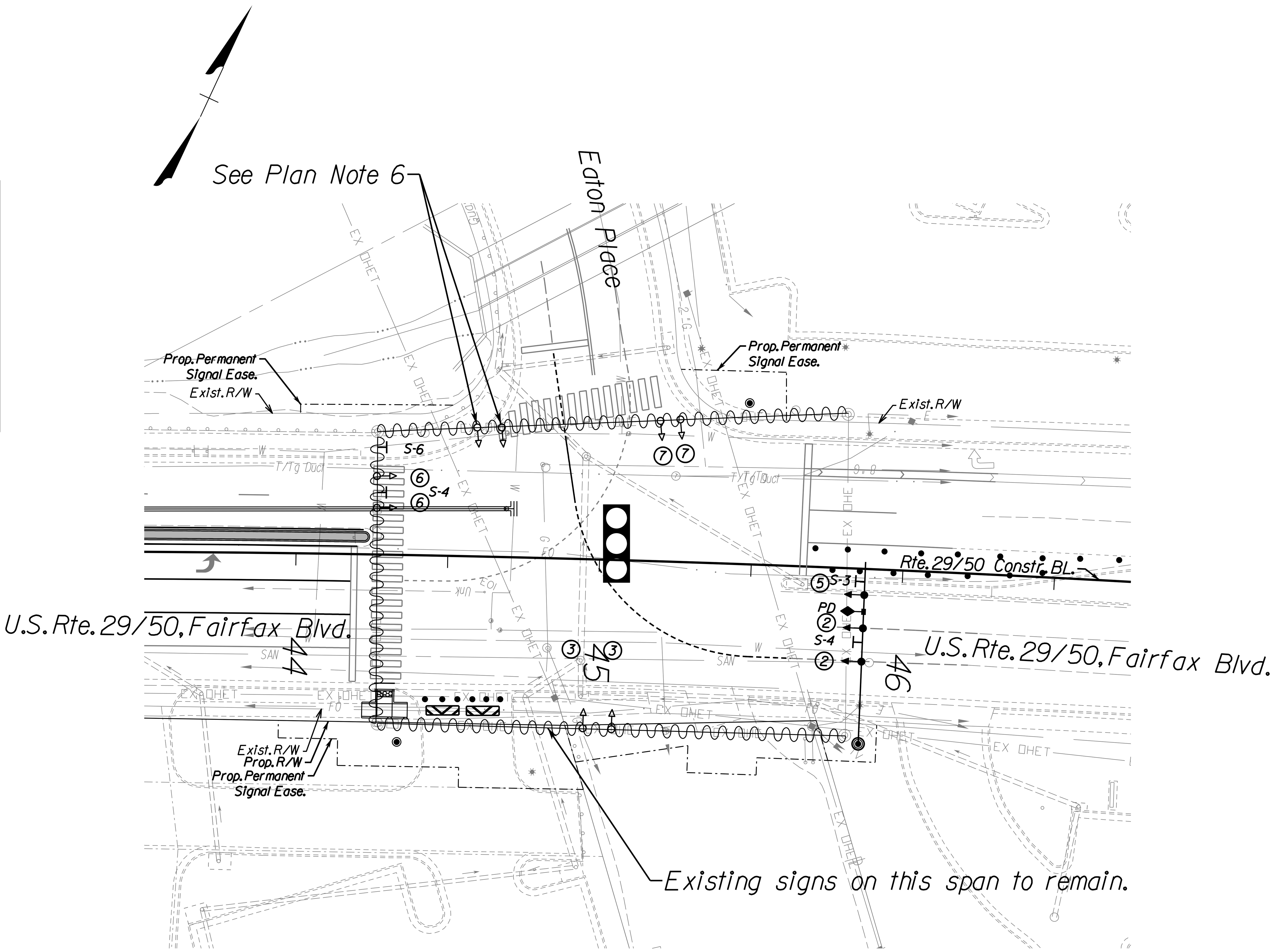
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IL(5)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT







R/W LEGEND

Denotes Prop. Perm. Easement

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TMP/SOC Legend:

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- Denotes Group 2 Channelizing Devices
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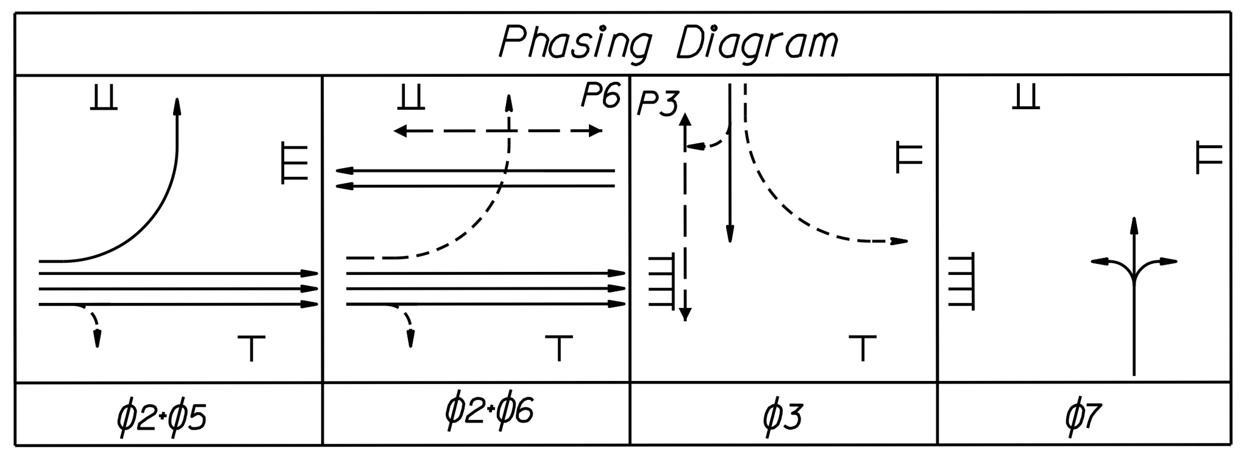

Note: When Waterline Construction is in vicinity of the P3 crosswalk, the crosswalk shall be closed with applicable VWAPM TTC's and ped. head shall be covered up with non-transparent material, until waterline construction is on longer within 50' of the P3 crosswalk.

Notes:

1. For Power Service Connection details, See General Notes, Sheet IL.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet IL for more information.

3. The contractor shall be responsible for providing and maintaining communication/interconect to the controller at all times. The contractor is responsible for any costs associated with providing/maintaining communication to the traffic signal. See Sheet General Notes on Sheet IL for details.

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6. These existing signal heads shall be deactivated and covered with non-transparent material.

SCALE 0 25' 50'

4/20/2016

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TMP/SOC Signal Plan Phase 3C

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IL(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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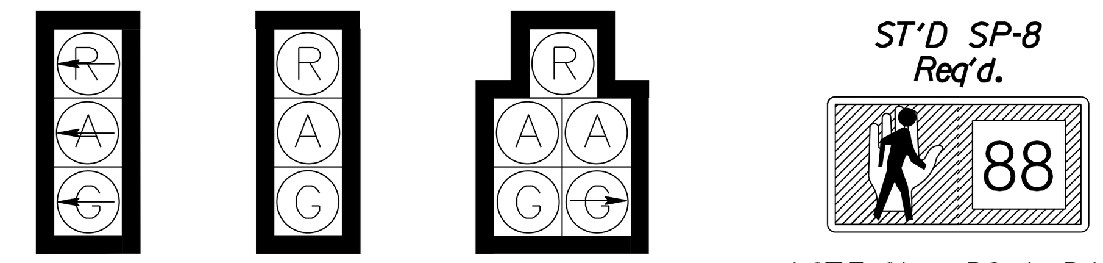
Office Locations

SIGNAL HEADS



HEADS 1,3,7,5 — HEADS 2,4,6,8 — HEADS 2A,4A

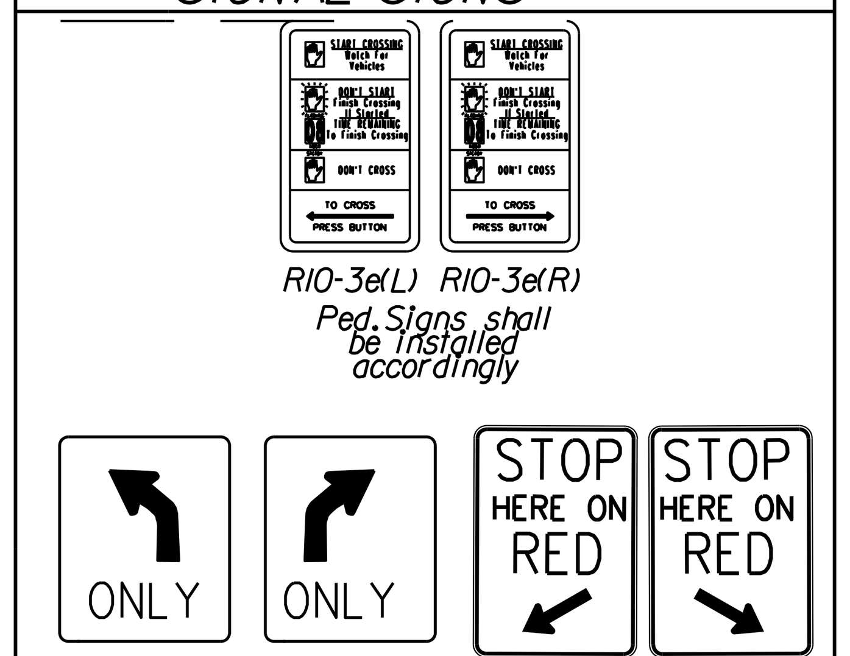
ST'D SP-8 Req'd.

ALL SIGNALS SHALL BE EQUIPPED WITH POLYCARBONATE BACKPLATES

ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED

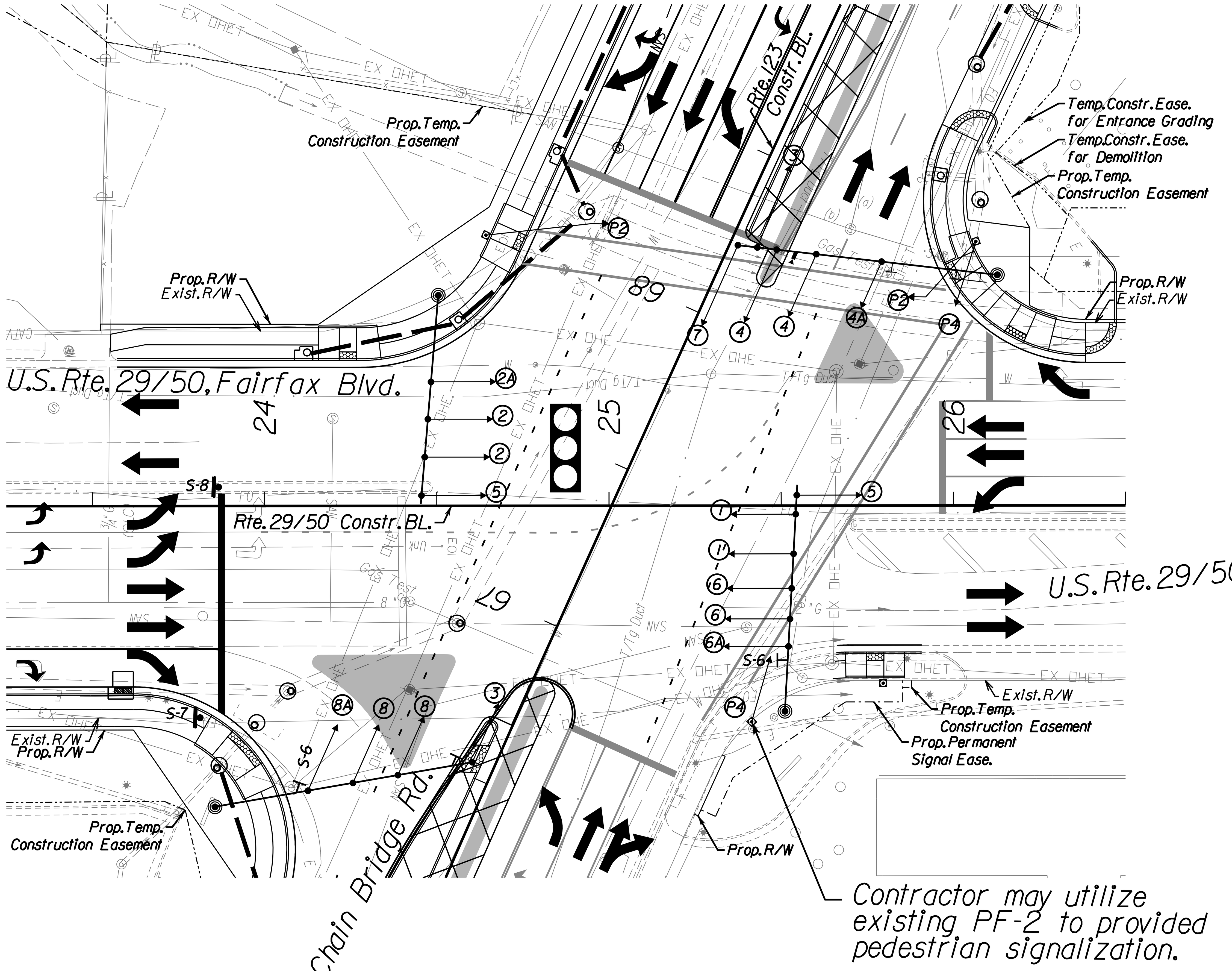
NOTE: ONLY P2 & P4 CROSSING IS ACTIVE IN THIS PHASE. ALL OTHERS SHALL BE COVERED AND DEACTIVATED.

SIGNAL SIGNS



R10-3e(L) R10-3e(R)
Ped. Signs shall be installed accordingly

R3-6(R)	R3-6(R)	R10-6	R3-6(R)
S-5	S-6	S-7	S-8
30"X36"	30"X36"	24"X36"	24"X36"



Notes:

1. For Power Service Connection details, See General Notes, Sheet IL.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet IL for more information.

3. The contractor shall be responsible for providing and maintaining communication/interconect to the controller at all times. The contractor is responsible for any costs associated with providing/maintaining communication to the traffic signal. See Sheet General Notes on Sheet IL for details.

5. This plan represents the signal head and signal signs to be operational/installed for this phase. The contractor is responsible for modifying the signal heads and signal signs to match what is shown on this plan. The contractor may re-use existing heads/signs as appropriate. The Contractor is also responsible for making Controller adjustments/relocations and relocating/providing temporary signal infrastructure to accomodate TMP/SOC Signal at no additioal cost to the project.

6. These existing signal heads shall be deactivated and covered with non-transparent material.

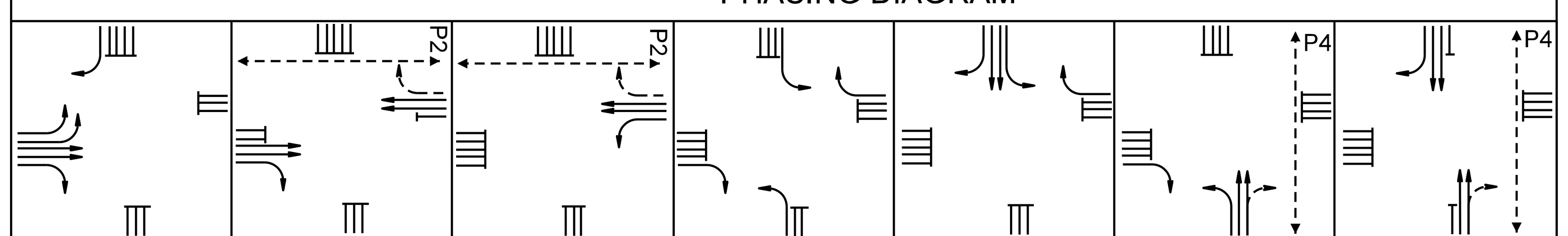
R/W LEGEND

- Denotes Prop. Perm. Easement
- Denotes Prop. Temp. Construction Easement

TMP/SOC Legend:

- Denotes Traffic Flow
- Denotes Group 2 Channelizing Devices
- Denotes Construction Work Zone
- Denotes Impact Attenuator
- Denotes Type 3 Barricade
- Denotes Temporary Pavement [See Sheet 2A(4)]
- Denotes Temporary Signal Modification Req'd
- Denotes Temporary Sign for TMP/SOC (See Applicable TMP/SOC Phase for Details)

PHASING DIAGRAM



01+06	02+06	02+05	03+07	03+08	04+07	04+08

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SUBSURFACE UTILITY PROVIDED BY Accumark (2011)

TMP/SOC Signal Plan Phase 4

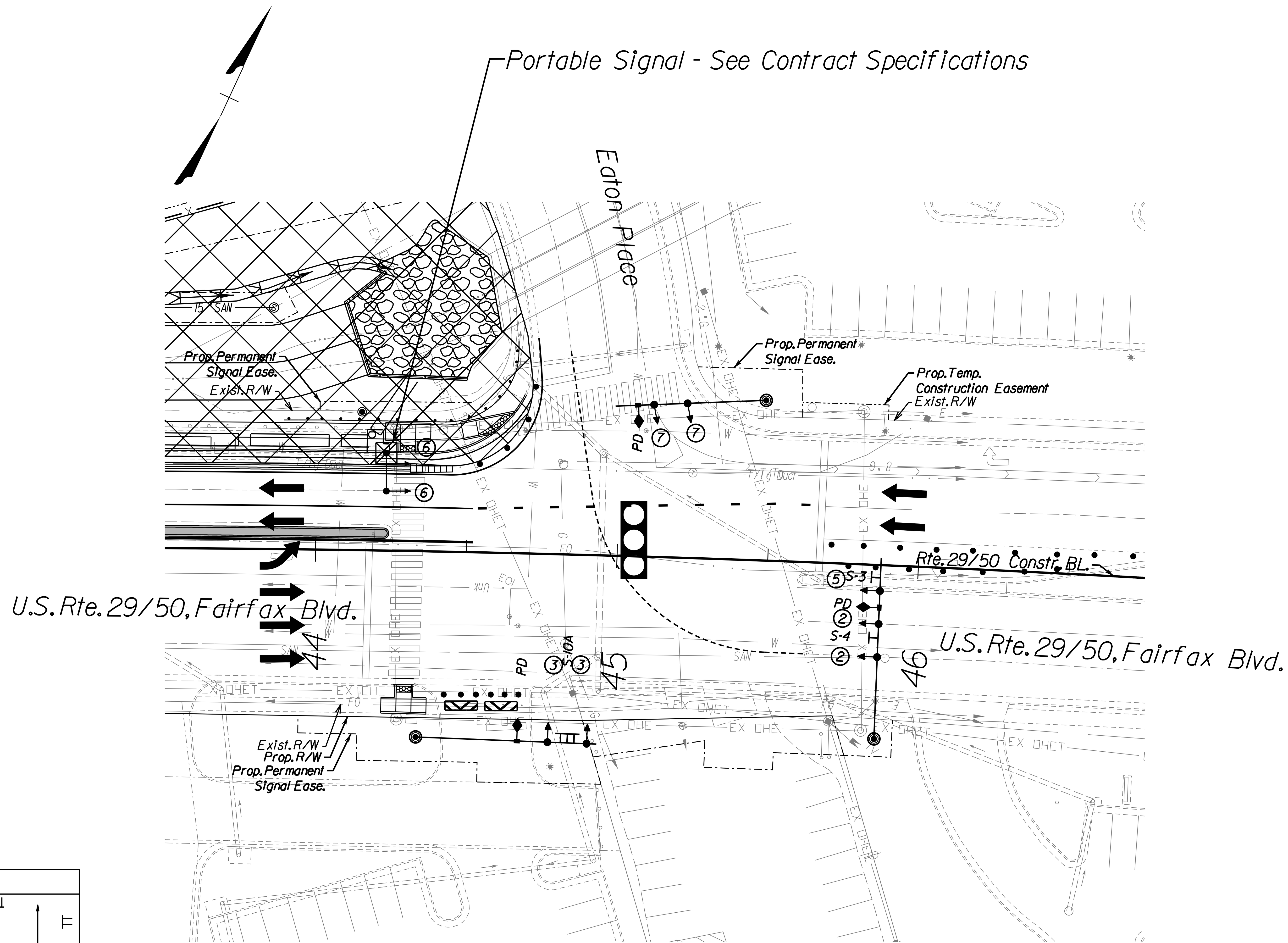
COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

Adam D Welschenbach
2016.04.20 15:54:59 -04'00'

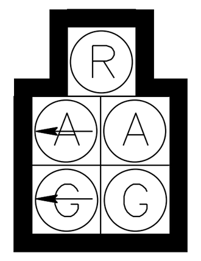
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	1L(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



SIGNAL HEADS

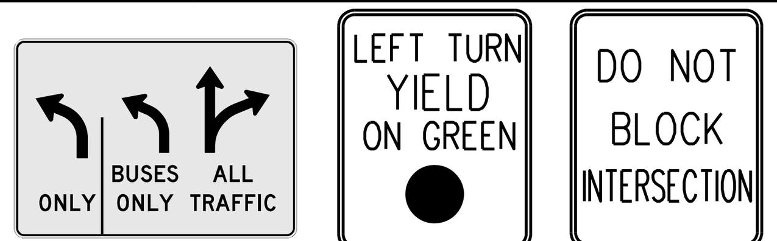


ALL PED. SIGNALS SHALL BE DE-ACTIVATED AND COVERED UP.

ALL SIGNALS SHALL BE EQUIPPED WITH POLYCARBONATE BACKPLATES

ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED

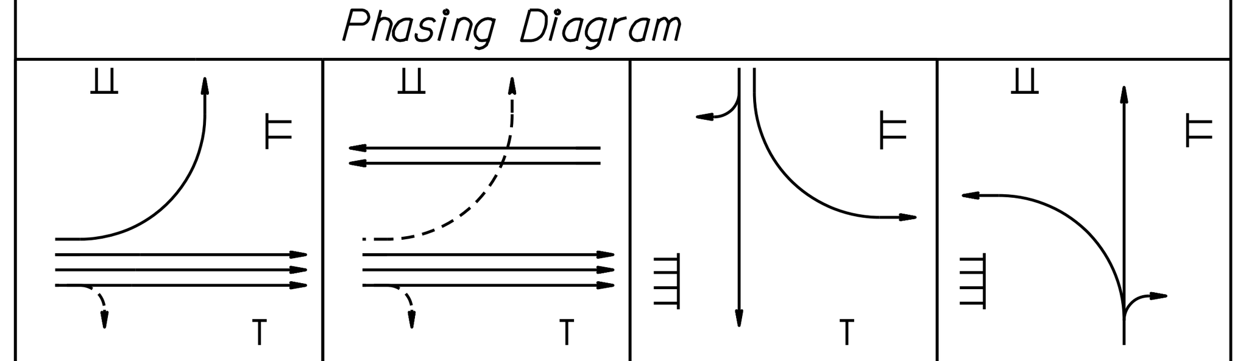
SIGNAL SIGNS



Special S-10A 60"x96"	R10-12 S-3 30"X36"	R10-7 S-4 24"X30"

SEE SHEETS 1I(6) AND 1I(7) FOR SPECIAL SIGN DETAILS

Phasing Diagram



R/W LEGEND

- Denotes Prop. Perm. Easement
- Denotes Prop. Temp. Construction Easement

TMP/SOC Legend:

- Denotes Traffic Flow
- Denotes Group 2 Channelizing Devices
- Denotes Construction Work Zone
- Denotes Impact Attenuator
- Denotes Type 3 Barricade
- Denotes Temporary Pavement [See Sheet 2A(4)]
- Denotes Temporary Signal Modification Req'd
- Denotes Temporary Sign for TMP/SOC (See Applicable TMP/SOC Phase for Details)

Notes:

1. For Power Service Connection details, See General Notes, Sheet 1I.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet 1I for more information.

3. Cost to relocate impacted utilities caused by signal installation shall be incidental to signal construction and must be paid for as a separate item.

4. All signal heads and signal mast arms shall have a minimum of 10' horizontal and vertical clearance from nearby aerial utilities.

5. The contractor shall be responsible for providing and maintaining communication to the controller at all times. The contractor is responsible for any costs associated with providing communication to the traffic signal. See Sheet General Notes on Sheet 1I for contact information and details.

6. Ped. Heads shall be installed and oriented so that pedestrians in the crosswalk or ramp area do not have an obstructed view of the Ped. Head.

7. All pavement markings that will conflict with the proposed pavement markings as shown on this sheet shall be completely eradicated.

8. See Sheet 1I(5) for overview plan of signal interconnect in the City of Fairfax.

9. Contractor shall take care to ensure existing sidewalk and utilities are not disturbed during installation of conduits. Contractor is responsible for any damage to existing sidewalk or utilities, including disruption in utility service.

SCALE 0 25' 50'

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TMP/SOC Signal Plan Phase 5

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101,P102,R201,C501	1L(8)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SIGNAL HEADS

HEADS
2,4,6

ALL SIGNALS SHALL BE EQUIPPED WITH POLYCARBONATE BACKPLATES

ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED

NOTE: ONLY P2 PED CROSSING IS ACTIVE IN THIS PHASE. ALL OTHERS SHALL BE COVERED AND DEACTIVATED.

SIGNAL SIGNS

R10-3e(L) Existing

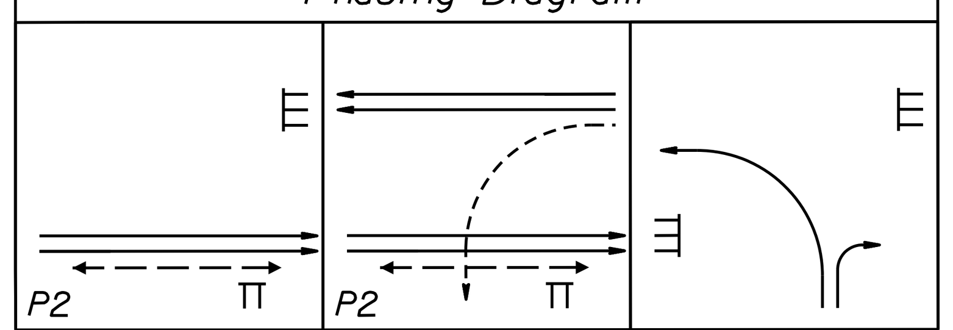
R10-3e(R) Existing

LEFT TURN YIELD ON GREEN — R10-12, S-1, 30"X36"

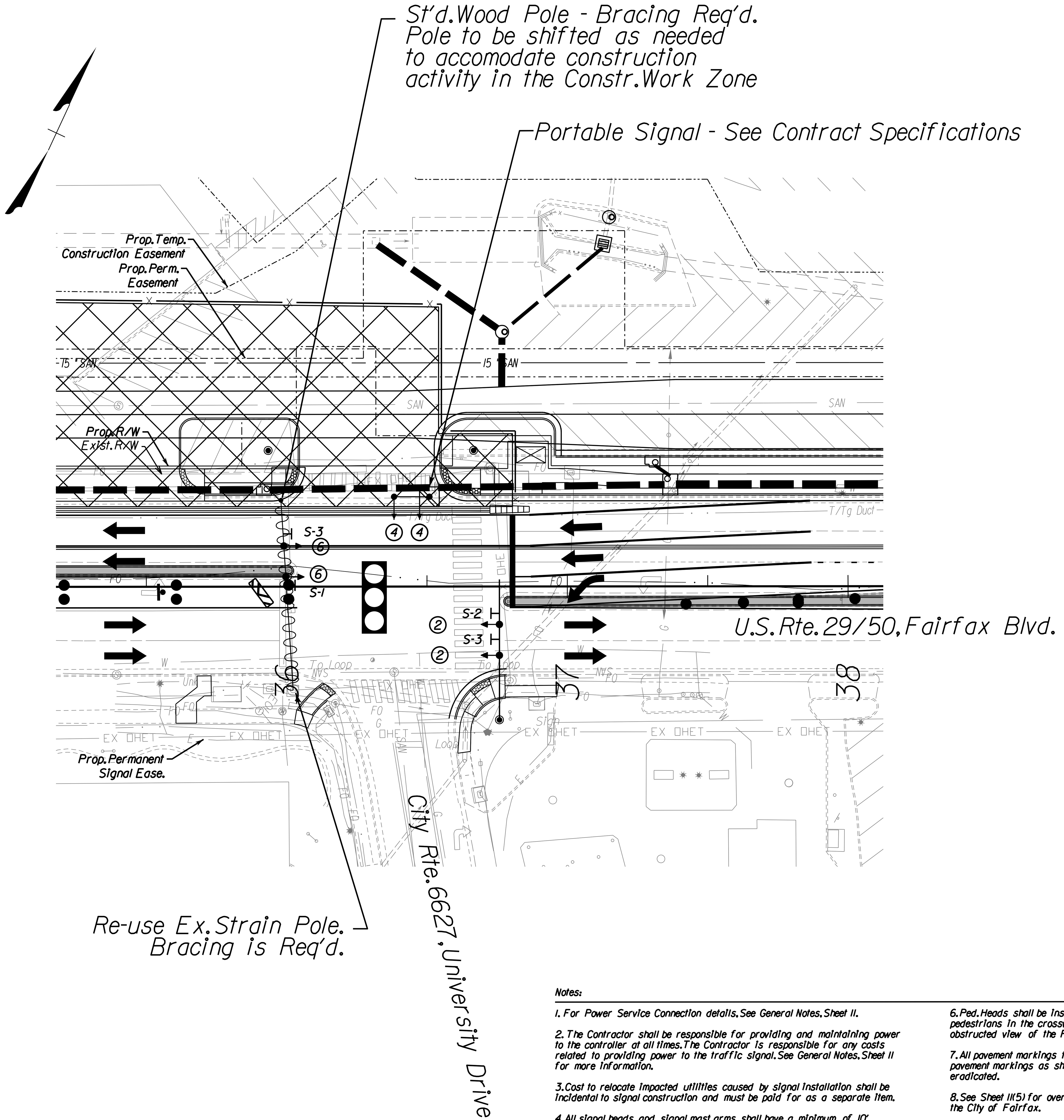
R3-2, S-2, 36"X36"

DO NOT BLOCK INTERSECTION — R10-7, S-3, 24"X30"

Phasing Diagram



ϕ2-ϕ5 | ϕ2-ϕ6 | ϕ4



R/W LEGEND

- Denotes Prop.Perm. Easement
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TMP/SOC Legend:

- Denotes Traffic Flow
- Denotes Group 2 Channelizing Devices
- Denotes Construction Work Zone
- Denotes Impact Attenuator
- Denotes Type 3 Barricade
- Denotes Temporary Pavement [See Sheet 2A(4)]
- Denotes Temporary Signal Modification Req'd
- Denotes Temporary Sign for TMP/SOC (See Applicable TMP/SOC Phase for Details)

Notes:

1. For Power Service Connection details, See General Notes, Sheet 11.

2. The Contractor shall be responsible for providing and maintaining power to the controller at all times. The Contractor is responsible for any costs related to providing power to the traffic signal. See General Notes, Sheet 11 for more information.

3. Cost to relocate impacted utilities caused by signal installation shall be incidental to signal construction and must be paid for as a separate item.

4. All signal heads and signal mast arms shall have a minimum of 10' horizontal and vertical clearance from nearby aerial utilities.

5. The contractor shall be responsible for providing and maintaining communication to the controller at all times. The contractor is responsible for any costs associated with providing communication to the traffic signal. See Sheet General Notes on Sheet 11 for contact information and details.

6. Ped.Heads shall be installed and oriented so that pedestrians in the crosswalk or ramp area do not have an obstructed view of the Ped.Head.

7. All pavement markings that will conflict with the proposed pavement markings as shown on this sheet shall be completely eradicated.

8. See Sheet 1I(5) for overview plan of signal interconnect in the City of Fairfax.

9. Contractor shall take care to ensure existing sidewalk and utilities are not disturbed during installation of conduits. Contractor is responsible for any damage to existing sidewalk or utilities, including disruption in utility service.

SCALE 0 25' 50'

PROJECT	SHEET NO.
0029-151-105	1L(8)

4/20/2016

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Soils Map

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IP

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SCALE	PROJECT	SHEET NO.
0 100' 200'	0029-151-105	IP

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4/20/2016

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301 Concourse Boulevard, Suite 120, Glen Allen, VA 23059, Phone: (703) 612-0665, Fax: (703) 612-0668
927 Maple Grove Drive, Suite 105, Fredericksburg, VA 22407, Phone: (540) 548-4470, Fax: (540) 548-4471

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SUBSURFACE UTILITY PROVIDED BY Accumark (2011)

Soils Table

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IP(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

CITY OF FAIRFAX

Mapping Unit	Soil Name	NRCS Description	Erodibility	Permeability	Depth of Soil (in)	AASHTO or USCS Classification	Depth (in)	Max Water Velocity (ft/s)	Manning's n-Flow Depth 0.5-2.0 ft
29A	Codorus silt loam, 0 to 2% slopes, occasionally flooded	The Codorus component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on piedmonts. The parent material consists of alluvium derived from igneous, metamorphic and sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.	severe	moderately slow	>80	A-6	0-8	3.5	0.025
						A-6	8-50	3.5	0.025
						A-4	50-62	2.3	0.020
95	Urbanland	Generated brief soil descriptions are created for major soil components. The Urban Land is a miscellaneous area.	-	-	-	-	-	-	-
101	Urbanland-Wheaton Complex	Generated brief soil descriptions are created for major soil components. The Urban Land is a miscellaneous area.	-	-	-	-	-	-	-
		The Wheaton component makes up 49 percent of the map unit. Slopes are 2 to 25 percent. This component is on interfluves on piedmonts. The parent material consists of mine spoil or earthy fill derived from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.		rapid	>80	A-4	0-9	2.3	0.020
						A-4	9-60	2.3	0.020
103A	Wheaton - Codorus Complex, 0 to 2% slopes	The Wheaton component makes up 45 percent of the map unit. Slopes are 2 to 15 percent. This component is on interfluves on piedmonts. The parent material consists of mine spoil or earthy fill derived from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.	severe	rapid	>80	A-4	0-9	2.3	0.020
						A-4	9-60	2.3	0.020
		The Codorus component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on piedmonts. The parent material consists of alluvium derived from igneous, metamorphic and sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.		moderately slow	>80	A-4	0-8	2.3	0.020
						A-6	8-50	3.5	0.025
						A-4	50-62	2.3	0.020
105B	Wheaton - Glenelg complex, 2 to 7% slopes	The Wheaton component makes up 45 percent of the map unit. Slopes are 2 to 15 percent. This component is on interfluves on piedmonts. The parent material consists of mine spoil or earthy fill derived from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.	severe	rapid	>80	A-4	0-9	2.3	0.020
						A-4	9-60	2.3	0.020
		The Glenelg component makes up 40 percent of the map unit. Slopes are 2 to 7 percent. This component is on interfluves on piedmonts. The parent material consists of residuum weathered from mica schist and/or residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.		rapid	>80	A-4	0-6	2.3	0.020
						A-6	6-27	3.5	0.025
						A-4	27-71	2.3	0.020
105C	Wheaton - Glenelg complex, 7 to 15% slopes	The Wheaton component makes up 45 percent of the map unit. Slopes are 2 to 25 percent. This component is on interfluves on piedmonts. The parent material consists of mine spoil or earthy fill derived from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.	severe	rapid	>80	A-4	0-9	2.3	0.020
						A-4	9-60	2.3	0.020
		The Glenelg component makes up 40 percent of the map unit. Slopes are 7 to 14 percent. This component is on interfluves on piedmonts. The parent material consists of residuum weathered from mica schist and/or residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.		rapid	>80	A-4	0-6	2.3	0.020
						A-6	6-27	3.5	0.025
						A-4	27-71	2.3	0.020
107B	Wheaton - Meadowville complex, 2 to 7% slopes	The Wheaton component makes up 46 percent of the map unit. Slopes are 2 to 15 percent. This component is on interfluves on piedmonts. The parent material consists of mine spoil or earthy fill derived from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.	severe	rapid	>80	A-4	0-9	2.3	0.020
						A-4	9-60	2.3	0.020
		The Meadowville component makes up 44 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on piedmonts. The parent material consists of local alluvium over residuum weathered from schist. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 44 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.		rapid	>80	A-4	0-12	2.3	0.020
						A-6	12-31	3.5	0.025
						A-6	31-39	3.5	0.025
						A-4	39-72	2.3	0.020

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SUBSURFACE UTILITY PROVIDED BY Accumark (2011)

Erosion & Sediment Control Narrative

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
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PROFESSIONAL ENGINEER
Nikhil V Deshpande
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IP(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Rinker Design Associates, P.C.
Civil Engineering · Surveying · Land Planning · Transportation · Environmental · Right of Way Services
Office Locations

Erosion and Sediment Control Standard Notes

1. The owner/developer must notify the City of Fairfax at 703-385-7810 at least 24 hours prior to the start of construction in accordance with applicable county ordinances and policies.

2. The owner/developer grants the right-of-entry on to this property to the designated City of Fairfax personnel for the purpose of inspecting and monitoring for compliance with title 10.01, chapter 5, article 4 of the code of virginia, erosion and sediment control law and the design and construction standards manual section 750.04 (c).

3. All erosion control measures shown on the approved plan must be in place and inspected and approved by the department of Public Works prior to clearing, stripping of topsoil, or grading.

4. A copy of the approved erosion and sediment control plan and permit shall be kept on the site at all times.

5. The developer/developer's representative is responsible for the installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by City of Fairfax.

6. All disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until complete and adequate stabilization is achieved.

EROSION AND SEDIMENT CONTROL (ESC) GENERAL NOTES

E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.

E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.

E-3 The following symbols are used to depict Erosion and Sediment Control items in the plan assembly:

EC-2	Denotes Protective Covering, St'd EC-2
SF	Denotes Temporary Silt Fence, St'd EC-5
DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
CIP	Denotes Culvert Inlet Protection, St'd EC-6
OP	Denotes Outlet Protection, St'd EC-1
RCD-2	Denotes Rock Check Dam Type II, St'd EC-4
TP	Denotes Tree Protection
DB	Denotes Dewatering Basin, St'd. EC-8
PS	Denotes Permanent Seeding

EROSION AND SEDIMENT CONTROL NARRATIVE

Site Location: The project site is located in the City of Fairfax at the intersection of Fairfax Blvd (Route 29/50) and Chain Bridge Road (Route 123). The project extends 1404.48 ft west and 2001.12 ft east along Fairfax Blvd and 1082.40 ft north and 628.32 ft south along Chain Bridge Road.

Project Description: This project consists of improvements to the existing intersection of Fairfax Blvd and Chain Bridge Road. The construction includes milling and overlay of existing lanes, the improvement of turn lanes, improved sidewalk, improvements to the existing storm sewer system and the addition of a double barrel box culvert. The project disturbed area is 14.39 ac.

Existing Site Conditions: Fairfax Blvd is an existing four-lane divided road with curb and gutter in rolling terrain. Chain Bridge Road is an existing four- to six-lane divided road with curb and gutter in rolling terrain. Land use in the area is a mix of commercial and residential, mostly urban and developed. Runoff from the project is within the Accotink Creek watershed. Vegetation in the area varies from existing lawn to wooded areas.

Adjacent Areas: Adjacent areas vary from shopping centers to multi-home lots to single family homes.

Off-site Areas: There will be impacts to adjacent parcels associated with the construction of this project. All necessary right-of-way, easements, and provisions will be acquired prior to the start of construction. The Contractor shall be responsible for the locations of acceptable borrow and/or disposal sites, and these shall be in accordance with VDOT regulations.

Soils: For complete soils information, please see the map and table on sheets IP and IP(1).

Critical Areas: Runoff flows into North Fork Accotink creek contractor to take care that sediment does not flow into the stream.

Erosion and Sediment Control Measures: Unless otherwise directed, all vegetative and structural erosion and sediment control practices shall be constructed and maintained in accordance with the most current minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook. Filter barrier and silt fence for existing storm structures shall be placed prior to earth moving operations. The minimum standards of the VESCH shall be adhered to unless otherwise waived or approved by variance.

At the time of land disturbing activities within the state right-of-way the Contractor shall have a representative with Erosion and Sediment Control Contractor Certification (ESCCC) at the project site.

Land Disturbing/Construction Sequence:
1. Flag limits of clearing and grading.
2. Install temporary perimeter controls including filter barriers and silt fence.
3. Obtain site inspector's approval of Phase I controls.
4. After site inspector's approval of the initial controls, clear and grub the remainder of the site as necessary.
5. Construct storm sewer system and install inlet protection at all applicable locations. Construct ditches and lining at all applicable locations. For all pipes 48" and above use a dewatering basin during construction.
6. Rough grade the remainder of the site.
7. Install all curb and gutter and place base stone pavement.
8. Fine grade site and install all landscaping including permanent seeding and fertilize all grassed areas.
9. Clean site of all trash and debris.
10. Have the inspector inspect all areas to determine if they are adequately stabilized.

Maintenance Program: The Contractor shall make a visual inspection of all mechanical controls and newly stabilized areas (i.e. seeded, mulched, or sodded areas) on a daily basis and after each rainfall event to ensure that all controls are functioning properly. The following items will be checked in particular: outlet protection will be checked regularly for sediment buildup which will prevent drainage, and if the gravel is clogged by sediment, it shall be removed and cleaned or replaced; the silt fence barrier will be checked regularly for undermining or deterioration of the fabric, and sediment shall be removed when the level of sediment deposition reaches halfway to the top of the barrier; and the seeded areas will be checked regularly to ensure that a good stand is maintained, and areas shall be fertilized and reseeded as needed. Any damaged controls shall be repaired by the end of the work day, including reseeding and mulching if necessary. The Contractor may install additional measures should he or she deem it necessary, at the Inspector's approval.

Permanent Stabilization: Permanent stabilization shall be done in accordance with the VESCH.

Stormwater Runoff Considerations: Stormwater runoff has been taken into consideration, drainage computations and outfall analysis can be found in drainage books under separate cover.

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SUBSURFACE UTILITY PROVIDED BY Accumark (2011)

Erosion & Sediment Control Narrative

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IP(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

4VAC50-30-40. Minimum Standards. (MS-19)

A VESCP must be consistent with the following criteria, techniques and methods:

1. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
2. During construction of the project, soil stock piles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.
3. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.
4. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place.
5. Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.
6. Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.
   a. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres.
   b. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a 25-year storm of 24-hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized.
7. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.
8. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.
9. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.
10. All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.
11. Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel.
12. When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Non-erodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by non-erodible cover materials.
13. When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of non-erodible material shall be provided.
14. All applicable federal, state and local chapters pertaining to working in or crossing live watercourses shall be met.
15. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.
16. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
   a. No more than 500 linear feet of trench may be opened at one time.
   b. Excavated material shall be placed on the uphill side of trenches.
   c. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.
   d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.
   e. Restabilization shall be accomplished in accordance with this chapter.
   f. Applicable safety chapters shall be complied with.
17. Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities.
18. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the VESCP authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.
19. Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels:
   a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.
   b. Adequacy of all channels and pipes shall be verified in the following manner:
      1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or
      2)
         a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks.
         b) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and
         c) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system.
   c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:
      1) Improve the channels to a condition where a ten-year storm will not overtop the banks and a two-year storm will not cause erosion to channel the bed or banks; or
      2) Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances;
      3) Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a ten-year storm to increase when runoff outfalls into a man-made channel; or
      4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.
   d. The applicant shall provide evidence of permission to make the improvements.
   e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.
   f. If the applicant chooses an option that includes stormwater detention, he shall obtain approval from the VESCP of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance.
   g. Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.
   h. All on-site channels must be verified to be adequate.
   i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.
   j. In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations.
   k. All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.
   l. Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and (iii) reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to 10.1-562 or 10.1-570 of the Act.
   m. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of 10.1-561 A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (10.1-603.2 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 4VAC50-60-48 of the Virginia Stormwater Management Program (VSMP) Permit Regulations.
   n. Compliance with the water quantity minimum standards set out in 4VAC50-60-66 of the Virginia Stormwater Management Program (VSMP) Permit Regulations shall be deemed to satisfy the requirements of Minimum Standard 19.

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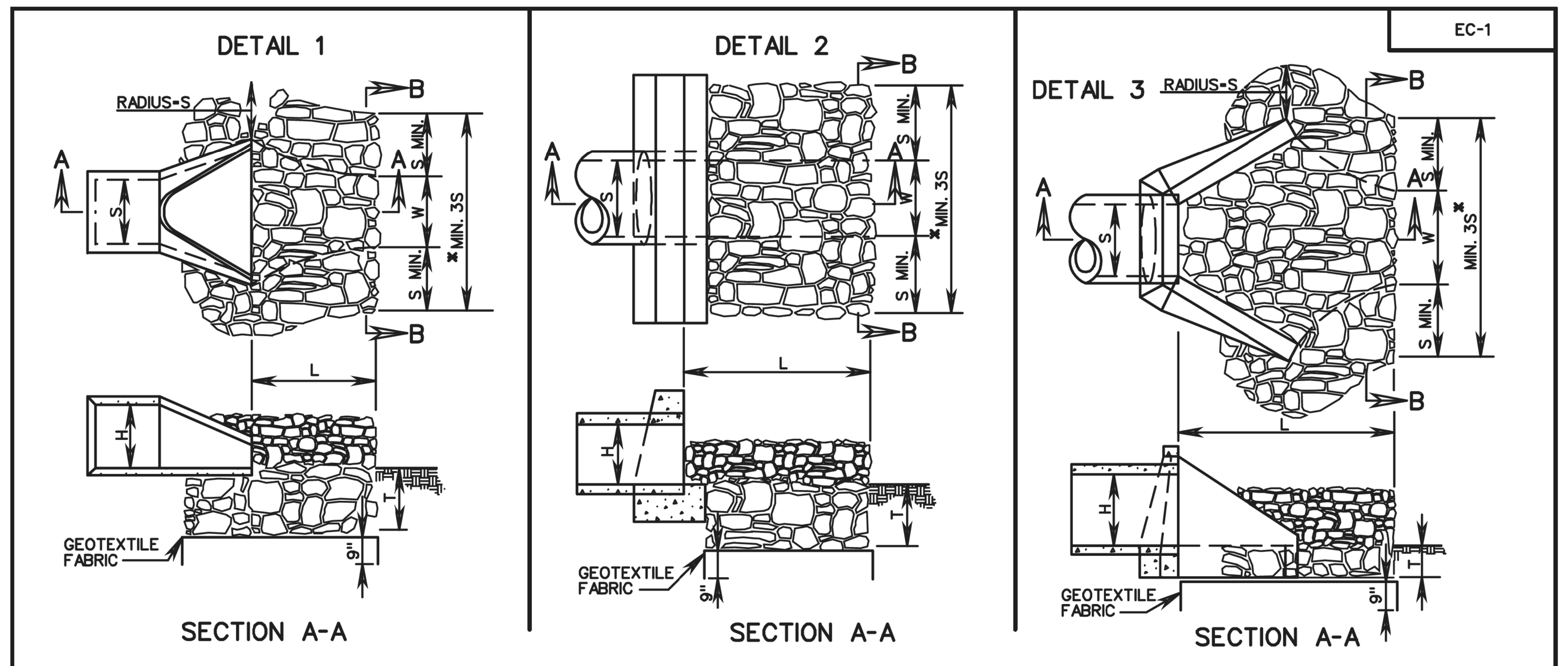
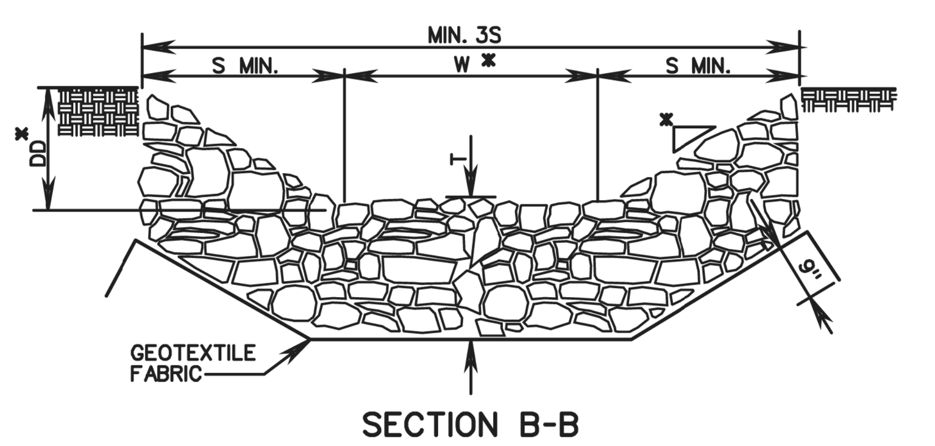
Erosion & Sediment Control Details

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IP(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

EC-1





TYPE OF OUTLET PROTECTION MATERIAL		MAXIMUM OUTLET VELOCITY (FOR DESIGN STORM)	MINIMUM "T" (INCHES)
CLASS A1	CLASS A1 DRY RIPRAP	8 fps	18
CLASS I	CLASS I DRY RIPRAP	14 fps	24
CLASS II	CLASS II DRY RIPRAP	19 fps	36

NOTES:

1. FOR MULTIPLE LINE INSTALLATIONS, DIMENSION S IS TO GOVERN THE PROTECTION OUTSIDE THE CHANNEL WIDTH (W).
2. ON ANY INSTALLATION REQUIRING CULVERT OUTLET PROTECTION WHERE NO ENDWALL OR ENDSECTION IS SPECIFIED ON THE PLANS, CONSTRUCTION IS TO BE IN ACCORDANCE WITH DETAIL 2 SHOWN ABOVE.
3. GEOTEXTILE FABRIC TO BE INSTALLED UNDER CLASS A1, I, AND II MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
4. S = DIAMETER OF CIRCULAR CULVERT OR SPAN FOR BOX, ELLIPTICAL OR ARCH CULVERT. H = DIAMETER OF CIRCULAR CULVERT OR RISE/HEIGHT FOR BOX, ELLIPTICAL OR ARCH CULVERT.

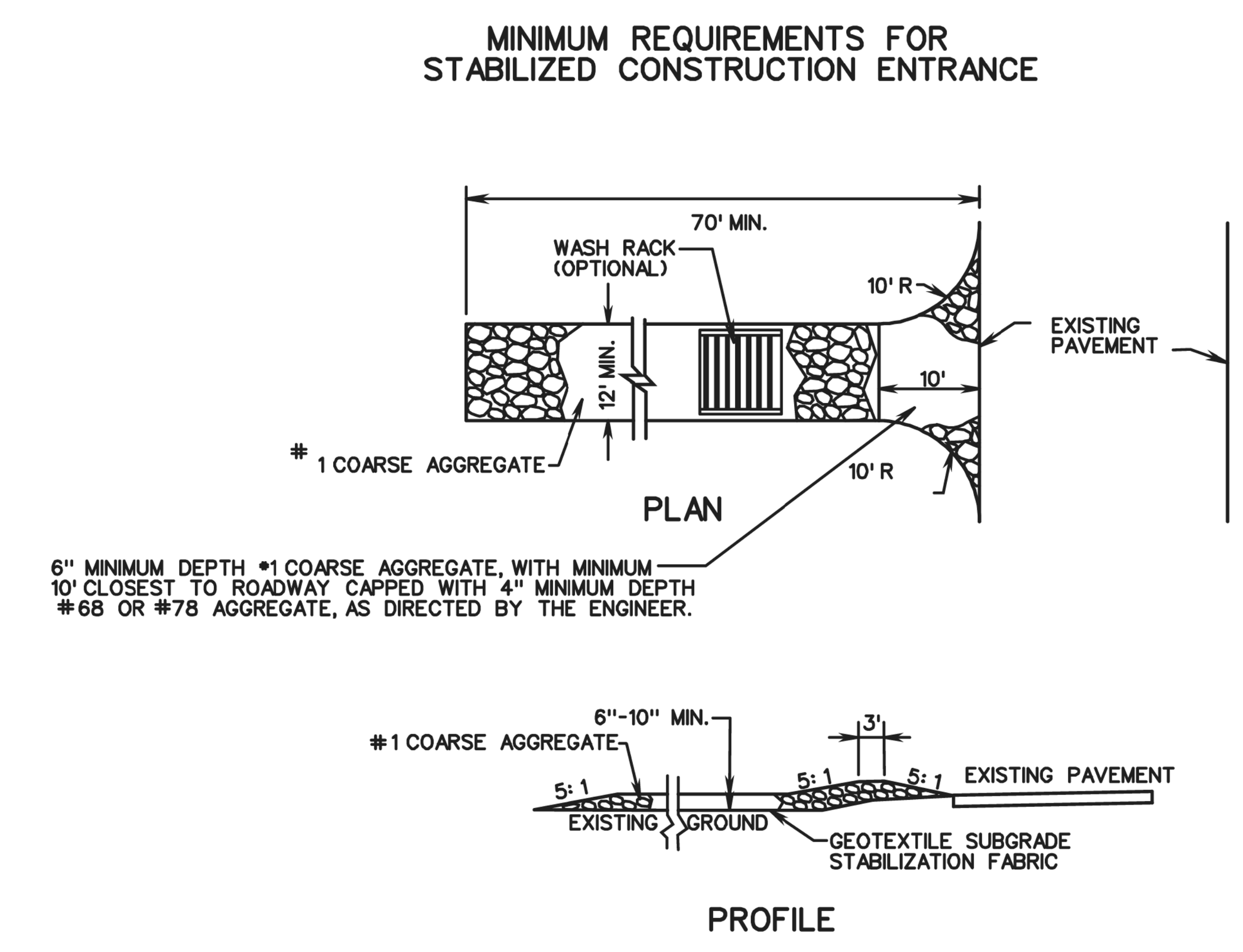
* USE TYPICAL SECTION SHOWN ON PLANS FOR SIDE SLOPE, BOTTOM WIDTH AND DEPTH OF CHANNEL OR MATCH EXISTING DITCH OR NATURAL GROUND.

OUTLET PROTECTION MINUMUM LENGTH (L)	
TYPE A INSTALLATION	3H
TYPE B INSTALLATION	5H

SPECIFICATION REFERENCE		VDOT ROAD AND BRIDGE STANDARDS	
204 245 303 414	CULVERT OUTLET PROTECTION — VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE	SHEET 1 OF 1 — 113.01

EC-11

MINIMUM REQUIREMENTS FOR STABILIZED CONSTRUCTION ENTRANCE

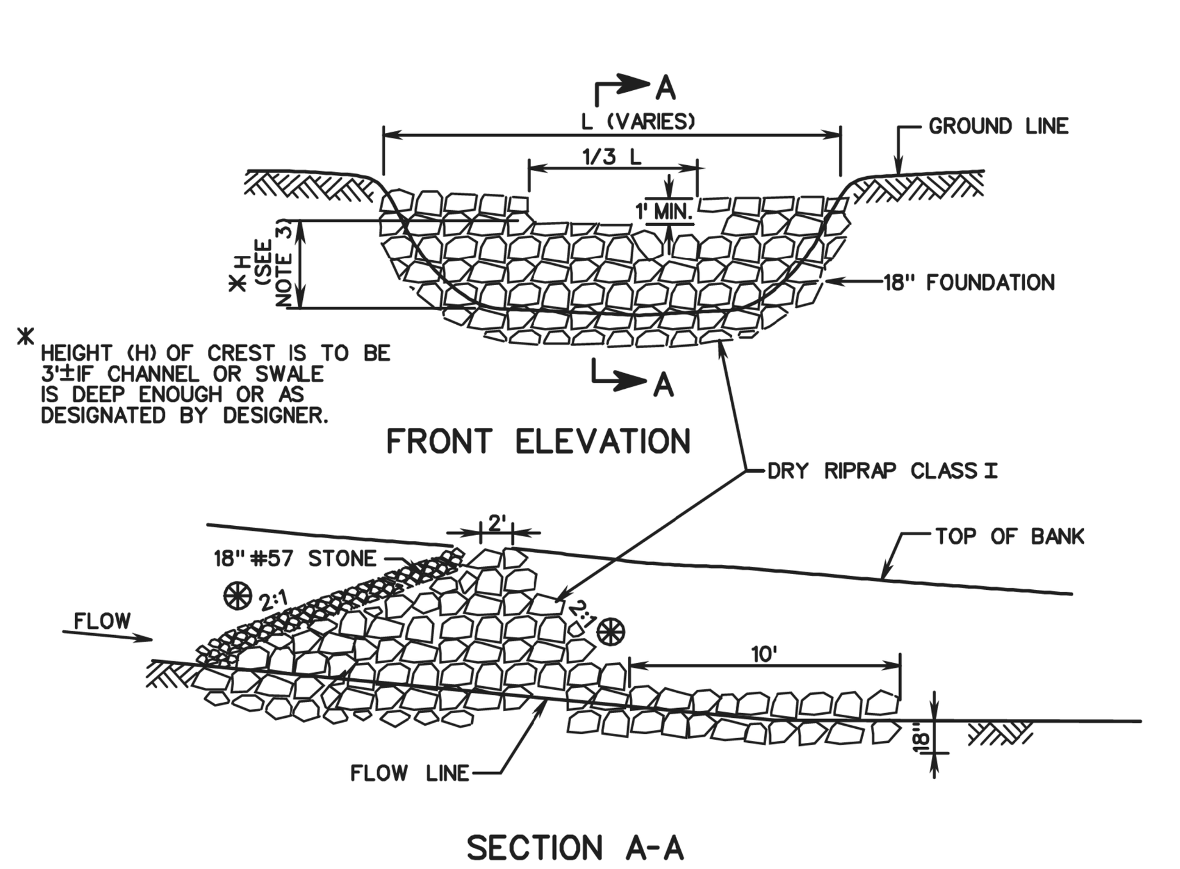


1. SURFACE WATER SHALL BE PIPED UNDER THE CONSTRUCTION ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY SHALL BE REMOVED IMMEDIATELY.
3. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
4. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER HEAVY USE AND EACH RAIN.

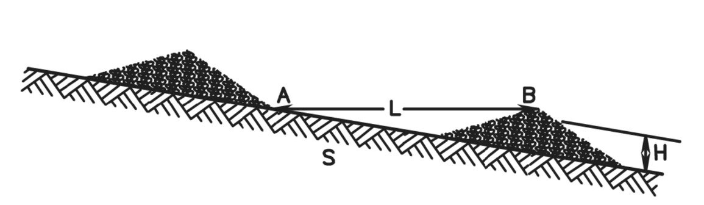
SPECIFICATION REFERENCE		VDOT ROAD AND BRIDGE STANDARDS	
107 303	STABILIZED CONSTRUCTION ENTRANCE — VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE	SHEET 1 OF 1 — 113.15

EC-4

TYPICAL DETAIL FOR ROCK CHECK DAM TYPE I



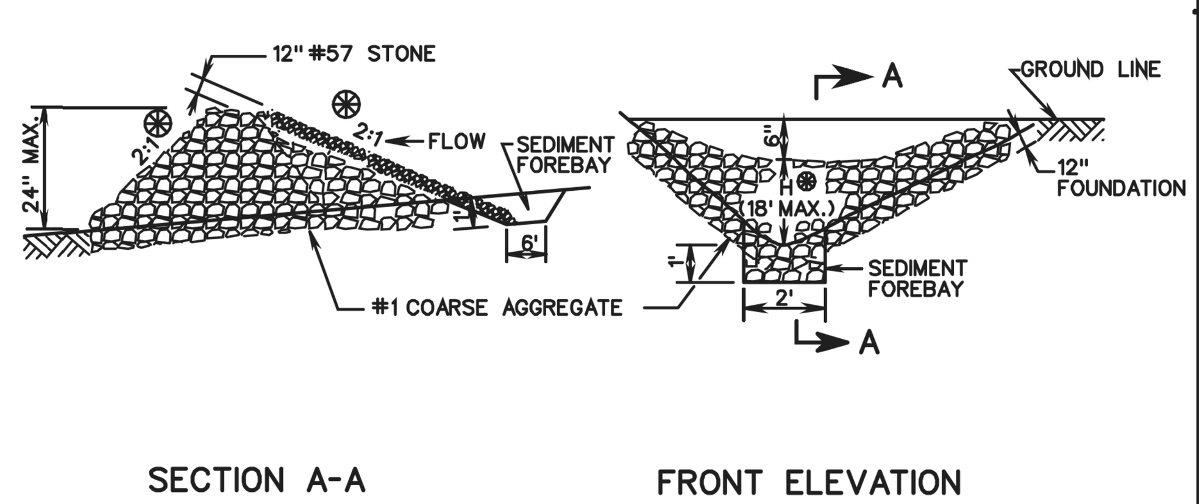
SUGGESTED ROCK CHECK DAM SPACING



L = H/S WHERE:
H = HEIGHT OF DAM CREST IN FEET
S = CHANNEL SLOPE IN FT/FT
L = CHECK DAM SPACING IN FEET: THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

CHECK DAM SPACING, L TO BE DETERMINED FROM THE EQUATION. IN STEEP SLOPE AREAS THE CHECK DAM SPACING IS NOT TO BE LESS THAN 25'.

TYPICAL DETAIL FOR ROCK CHECK DAM TYPE II



NOTES:

1. ROCK CHECK DAMS THAT ARE DESIGNATED ON THE PLANS AS A STORMWATER MANAGEMENT (SWM) ITEM ARE TO BE LEFT IN PLACE AS A PERMANENT INSTALLATION.
2. WHERE DRAINAGE AREAS EXCEED 1 ACRE OR DITCH GRADE EXCEEDS 3%, A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 6' LENGTH.
3. IF CHECK DAMS IS LOCATED INSIDE CLEAR ZONE AND ADJACENT TO A TRAVELWAY, SLOPE FACING ON COMING TRAFFIC IS TO BE 6:1 AND MAXIMUM H IS TO BE 12".
4. ALTERNATIVE MATERIALS ON VDOT'S SPEL LIST MAY BE SUBSTITUTED AT NO ADDITIONAL COST TO THE DEPARTMENT.
5. SEE STANDARD EC-5 FOR DETAILS FOR ROCK CHECK DAMS IN ROADSIDE DITCHES
6. CHECK DAM SHALL NOT BE USED FOR LOCATIONS IN LIVE STREAM.

VDOT ROAD AND BRIDGE STANDARDS			SPECIFICATION REFERENCE
SHEET 1 OF 1 — 113.06	REVISION DATE	ROCK CHECK DAMS TYPE I & II — VIRGINIA DEPARTMENT OF TRANSPORTATION	107 303

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Rinker Design Associates, P.C.

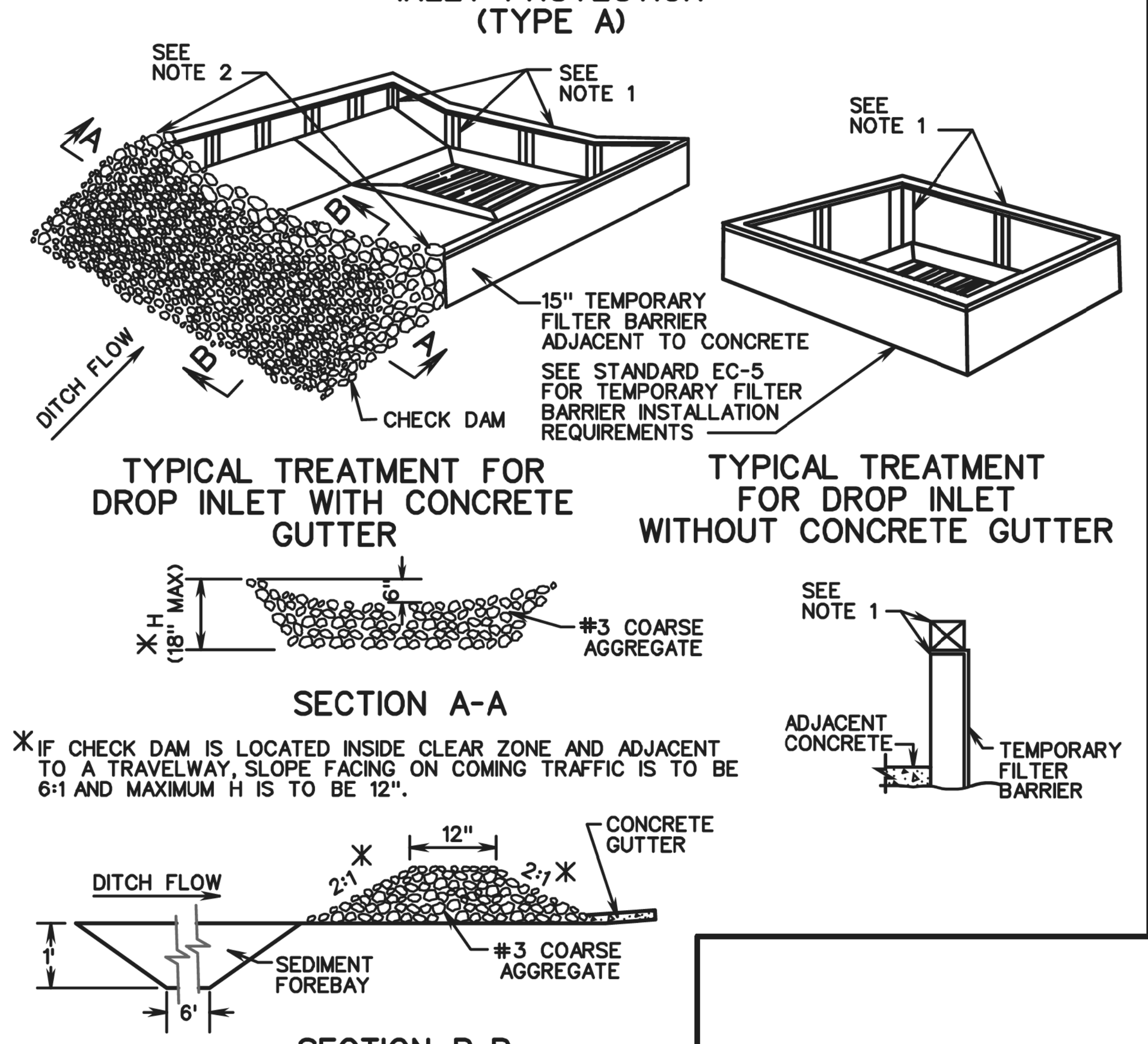
Erosion & Sediment Control Details

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IP(5)

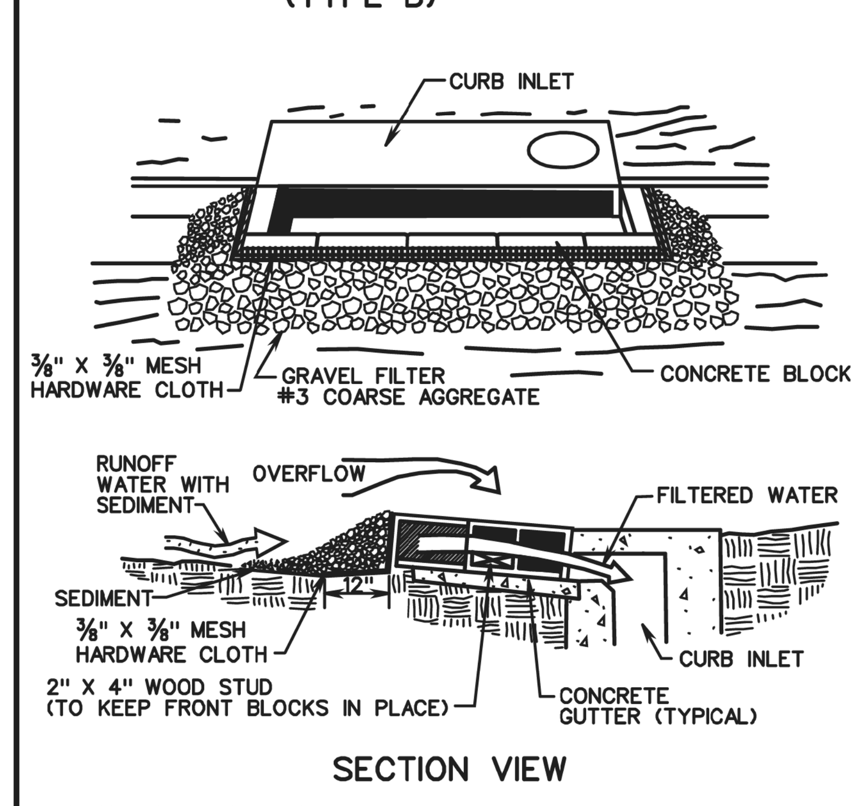
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

INLET PROTECTION (TYPE A) / INLET PROTECTION (TYPE B)

EC-6



*IF CHECK DAM IS LOCATED INSIDE CLEAR ZONE AND ADJACENT TO A TRAVELWAY, SLOPE FACING ON COMING TRAFFIC IS TO BE 6:1 AND MAXIMUM H IS TO BE 12".



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

NOTES

1. POSTS AND TOP RAIL SHALL BE A NOMINAL 2½" X 2½" OR A 3" DIA. NO. 2 SOUTHERN PINE, A NOMINAL 2" X 2" OAK, OR STEEL HAVING A MIN. WEIGHT OF 1.25 LBS. PER LINEAR FOOT AND A MIN. LENGTH OF 5' FOR TEMPORARY SILT FENCES.
2. END OF FILTER BARRIER TO BE EMBEDDED INTO AGGREGATE.
3. IF A DROP INLET IS LOCATED IN A SAG IN THE DITCH GRADE, A CHECK DAM IS REQUIRED FOR EACH SIDE OF THE INLET THAT RECEIVES DITCH FLOW.
4. WHERE DRAINAGE AREAS EXCEED ONE ACRE OR DITCH GRADE EXCEEDS 3%, A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 6' LENGTH.

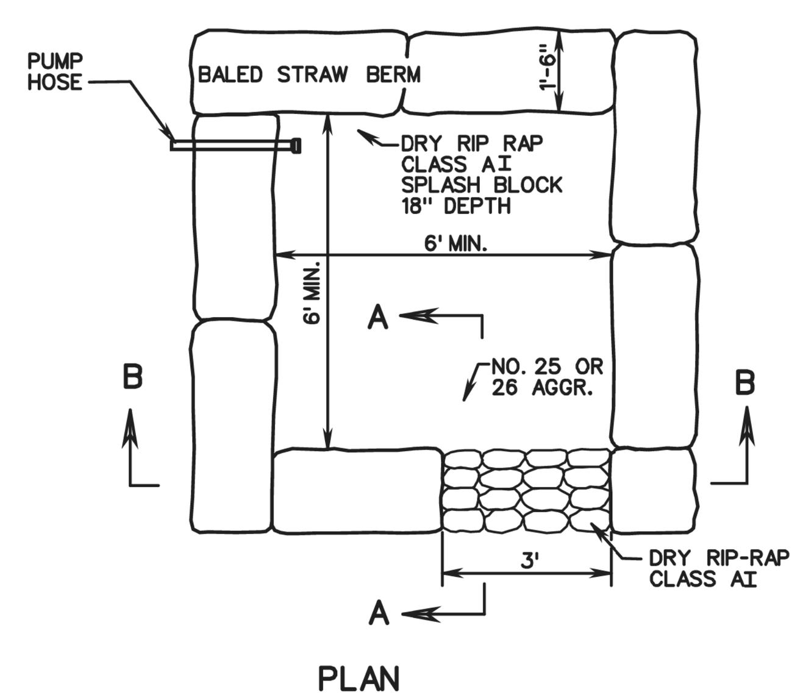
NOTE:

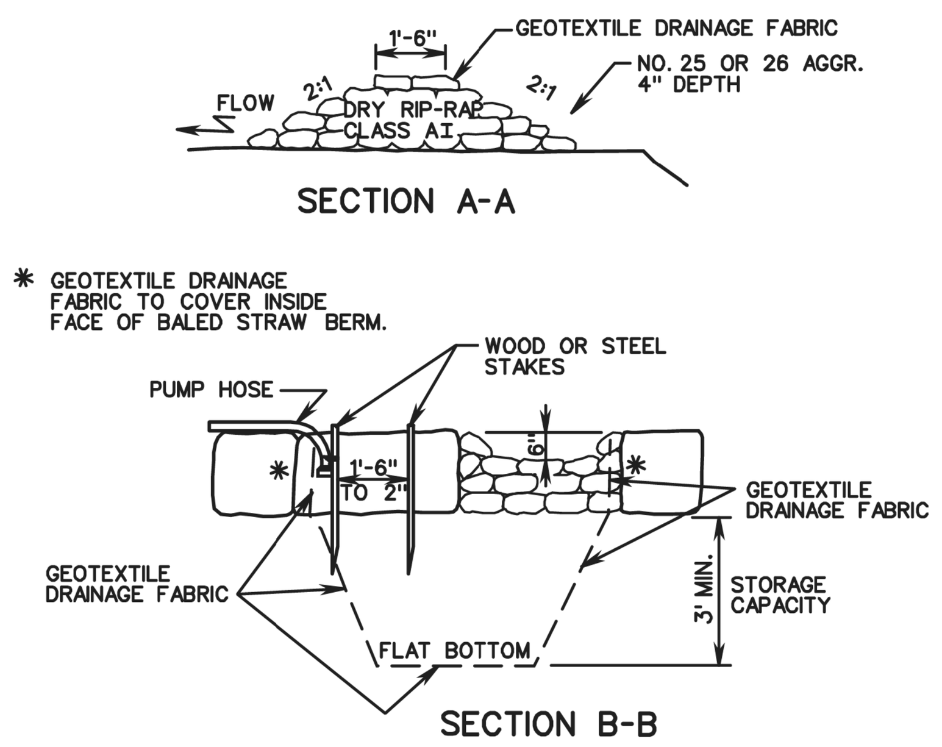
GEOTEXTILE PRODUCTS DESIGNED TO BE INSERTED INTO GRATED DROP INLETS OR DESIGNED TO COVER THE SLOTS OF SLOT DROP INLETS, THAT HAVE BEEN APPROVED FOR USE ON VDOT PROJECTS AND ARE FOUND ON VDOT'S SPEL LIST, MAY BE SUBSTITUTED FOR THE DROP INLET PROTECTION DEVICES DETAILED HEREON.

SPECIFICATION REFERENCE	INLET PROTECTION (TYPE A AND B)	VDOT ROAD AND BRIDGE STANDARDS	
107 242 303	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE	SHEET 1 OF 2
			113.09

TYPICAL DEWATERING BASIN

EC-8

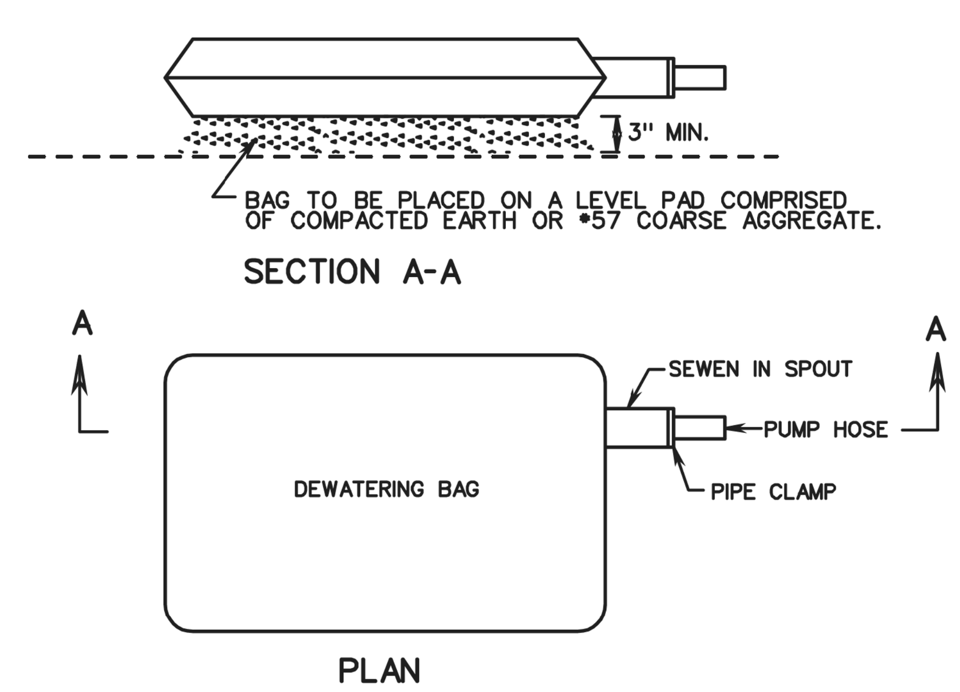




NOTES:

1. DEWATERING BASIN SIZE SHALL BE DETERMINED BY THE FORMULA 16 X GAL./MIN. OF PUMP = CU. FT. OF STORAGE CAPACITY.
2. THIS WORK SHALL CONSIST OF THE CONSTRUCTION OF A DEWATERING BASIN FOR THE PURPOSE OF RECEIVING SEDIMENT-LADENED WATER PUMPED FROM A CONSTRUCTION SITE TO ALLOW FOR FILTRATION BEFORE IT REENTERS THE WATERWAY. PUMPING INTO THESE BASINS SHALL CEASE WHEN THE FLOW FROM THE BASIN BECOMES SEDIMENT-LADENED.
3. SURFACE WATER FLOW SHALL BE DIVERTED AROUND THIS DEVICE.
4. THE OUTFALL FROM THE BASIN(S) SHALL HAVE A STABILIZED CONVEYANCE TO RECEIVING WATERS.
5. ONCE THE DEWATERING BASIN BECOMES FILLED TO HALF OF THE STORAGE CAPACITY, ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED DISPOSAL AREA OUTSIDE OF THE 100-YEAR FLOODPLAIN UNLESS OTHERWISE APPROVED ON THE PLANS.
6. SEDIMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED AND THE ENGINEER APPROVES THEIR REMOVAL. GROUND CONTOURS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION UNLESS SPECIFICALLY APPROVED OTHERWISE BY THE ENGINEER.
7. SYNTHETIC PRODUCTS THAT HAVE BEEN APPROVED FOR USE ON VDOT PROJECTS AND FOUND ON VDOT'S SPEL LIST MAY BE USED IN LIEU OF THIS DESIGN. HOWEVER, VDOT WILL ONLY COMPENSATE THE CONTRACTOR UP TO THE BID PRICE PER EACH AT EACH SITE.

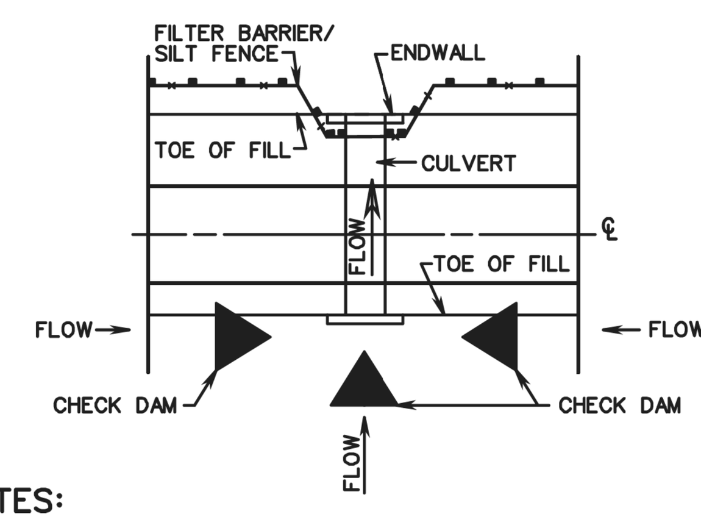
TYPICAL SYNTHETIC PRODUCT



VDOT ROAD AND BRIDGE STANDARDS		DEWATERING BASIN	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE	VIRGINIA DEPARTMENT OF TRANSPORTATION	107 303
113.12			

TYPICAL DETAIL FOR INSTALLATION OF TEMPORARY FILTER BARRIER/SILT FENCE/CHECK DAM AT CULVERT

EC-6



NOTES:

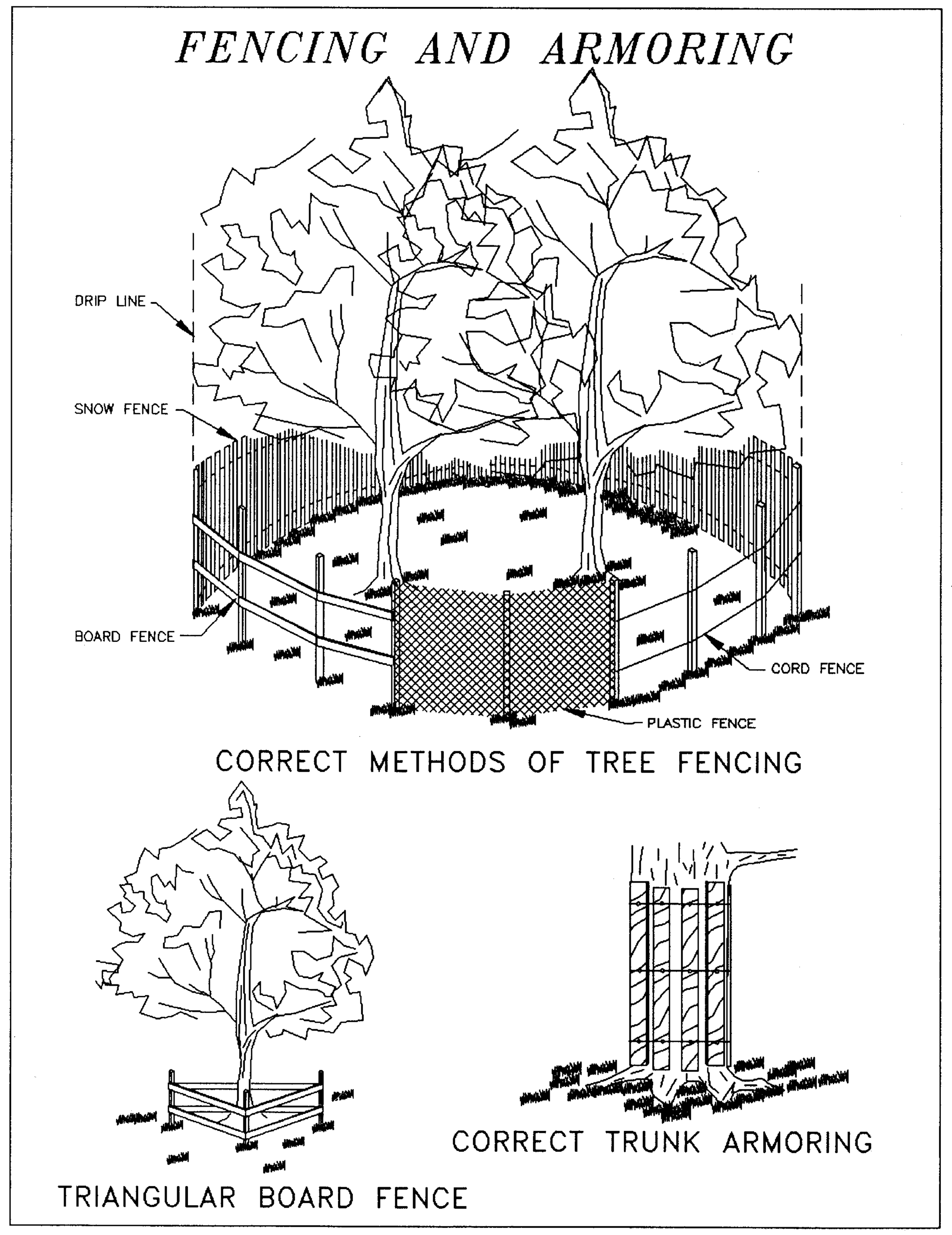
1. IF ANY PORTION OF FILL IS GREATER THAN 5', SILT FENCE IS REQUIRED. IF FILL HEIGHT IS LESS THAN 5', FILTER BARRIER IS REQUIRED.
2. ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.
3. FILTER BARRIER/SILT FENCE IS TO BE INSTALLED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-5.

* INSTALLATION DETAIL ONLY - ROCK CHECK DAMS, FILTER BARRIER, AND SILT FENCE TO BE PAID FOR IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS		INLET PROTECTION (TYPE C)	SPECIFICATION REFERENCE
SHEET 2 OF 2	REVISION DATE	VIRGINIA DEPARTMENT OF TRANSPORTATION	107 242 303
113.10			

TREE PROTECTION

1992 3.38



Source: Va. DSWC Plate 3.38-2

III - 401

PROJECT	SHEET NO.
0029-151-105	IP(5)

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Civil Engineering · Surveying · Land Planning · Transportation · Environmental · Right of Way Services
Office Locations

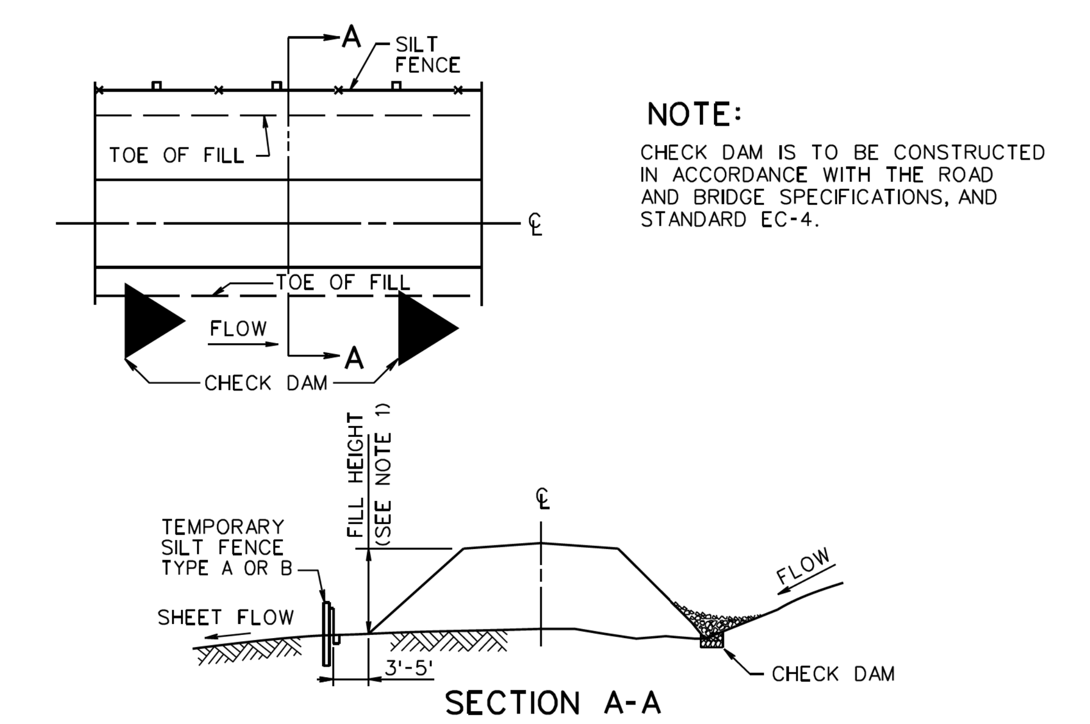
Erosion & Sediment Control Details

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IP(6)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

EC-5

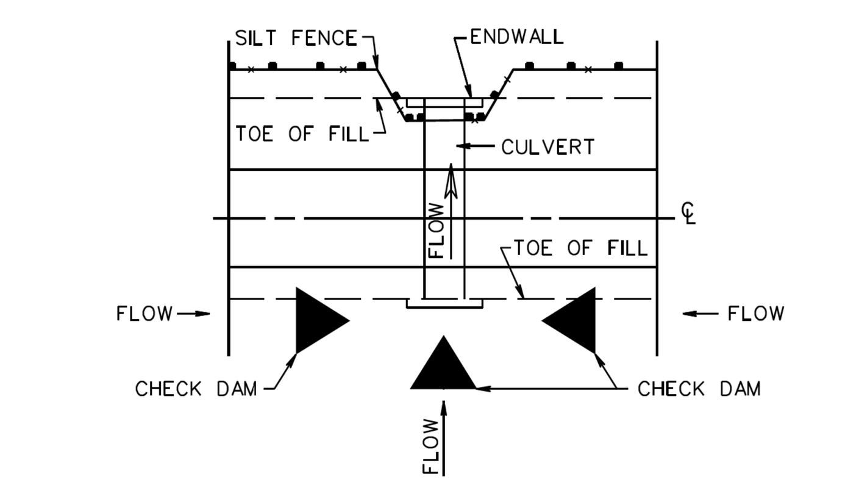
TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT TOE OF FILL



SECTION A-A

NOTE:
CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT CULVERT



NOTE:
CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

NOTES FOR SILT FENCE TYPE A & B:

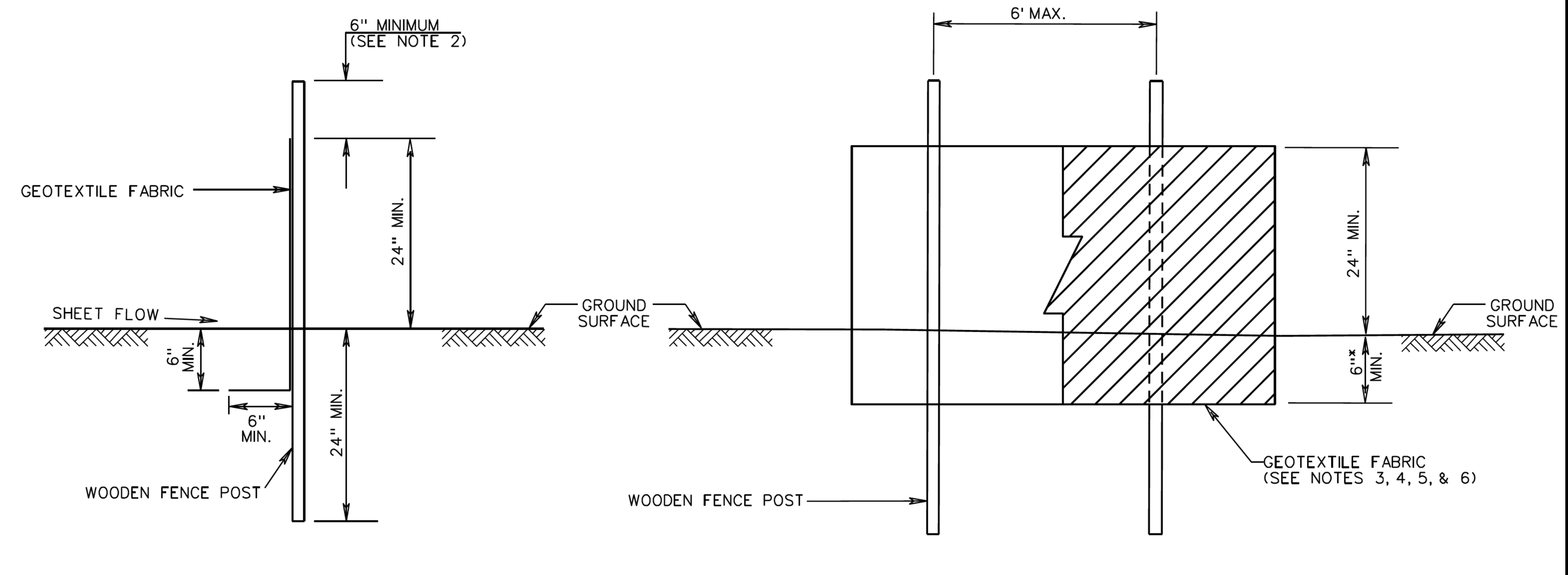
1. USE OF TYPE A SILT FENCE IS LIMITED TO A FILL HEIGHT OF 20 FEET OR LESS. TYPE B SILT FENCE MUST BE USED WHERE THE FILL HEIGHT EXCEEDS 20 FEET.
2. ALL POSTS SHALL BE DRIVEN 24" MIN. INTO THE GROUND AND SHALL EXTEND 6" ABOVE THE FILTER FABRIC (TYPE A) OR WIRE FENCE (TYPE B). WOODEN POSTS SHALL BE OAK AND HAVE MIN. DIMENSIONS OF 2" BY 2". STEEL POSTS SHALL HAVE A MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT.
3. GEOTEXTILE FABRIC SHALL BE EMBEDDED 12" INTO THE GROUND (6" VERTICALLY AND 6" HORIZONTALLY ALONG THE BOTTOM OF TRENCH) AS SHOWN IN DETAILS A(2) & B(2) ON SHEETS 2 AND 3.
4. SLICING IS AN APPROVED ALTERNATIVE TO TRENCHING FOR ANCHORING THE GEOTEXTILE FABRIC INTO THE GROUND SHOWN IN DETAILS A(2) & B(2) ON SHEETS 2 AND 3. SLICING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 303 OF THE ROAD AND BRIDGE SPECIFICATIONS.
5. WHEN TWO SEPARATE SECTIONS OF GEOTEXTILE FABRIC ADJOIN EACH OTHER, THEY SHALL OVERLAP BY 6" AND BE DOUBLE FOLDED.
6. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO THE POSTS (TYPE A & B) AND WIRE FENCE (TYPE B ONLY). THE ATTACHMENTS TO THE WIRE FENCE SHALL BE MADE WITH TIES SPACED EVERY 24" HORIZONTALLY AT BOTH THE TOP AND VERTICAL MIDPOINT OF THE GEOTEXTILE FABRIC.
7. WIRE FENCE (TYPE B ONLY) SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES AND EMBEDDED A MINIMUM OF 2" IN THE GROUND.
8. WIRE FENCE (TYPE B ONLY) SHALL BE A MINIMUM OF 14 GAUGE WELDED WIRE WITH A MESH SPACING OF 2" BY 4". ALTERNATIVE MESH SPACING MAY BE APPROVED BY THE ENGINEER, BUT MUST BE NO MORE THAN 6" BY 6".
9. FOR AREAS REQUIRING TYPE B SILT FENCE, A MINIMUM LENGTH OF 100 LINEAR FEET SHALL BE INSTALLED.
10. AS AN ALTERNATIVE TO UTILIZING TYPE B SILT FENCE, TWO ROWS OF TYPE A SILT FENCE MAY BE PLACED PARALLEL TO EACH OTHER WITH 3' TO 5' BETWEEN THE TWO ROWS. THIS OPTION MAY BE USED AT ALL LOCATIONS SPECIFYING TYPE B SILT FENCE UNLESS OTHERWISE PROHIBITED BY THE PLANS. SEE DETAIL ON SHEET 3 (BOTTOM RIGHT).
11. MATERIALS FOR ALL SILT FENCE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 242 OF THE VDOT ROAD & BRIDGE SPECIFICATIONS.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
107 242 245 303		REVISION DATE 08/14	SHEET 1 OF 4 113.07

EC-5

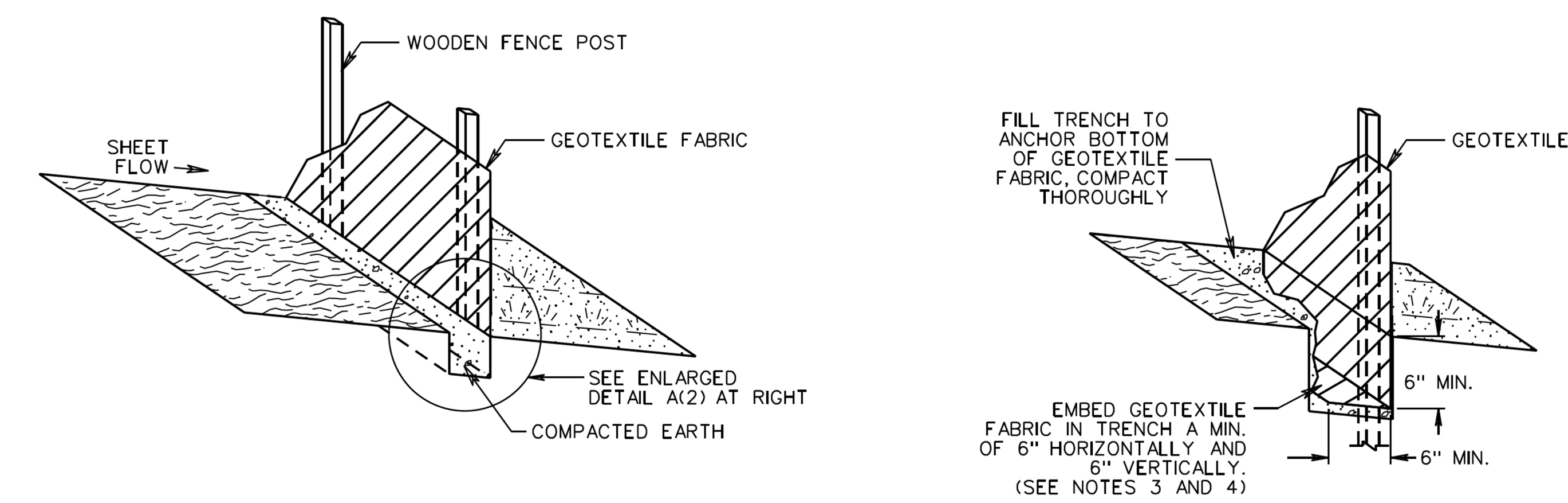
SILT FENCE TYPE A

SEE SHEET 1 FOR NOTES



SECTION VIEW

PROFILE VIEW



DETAIL A(1)

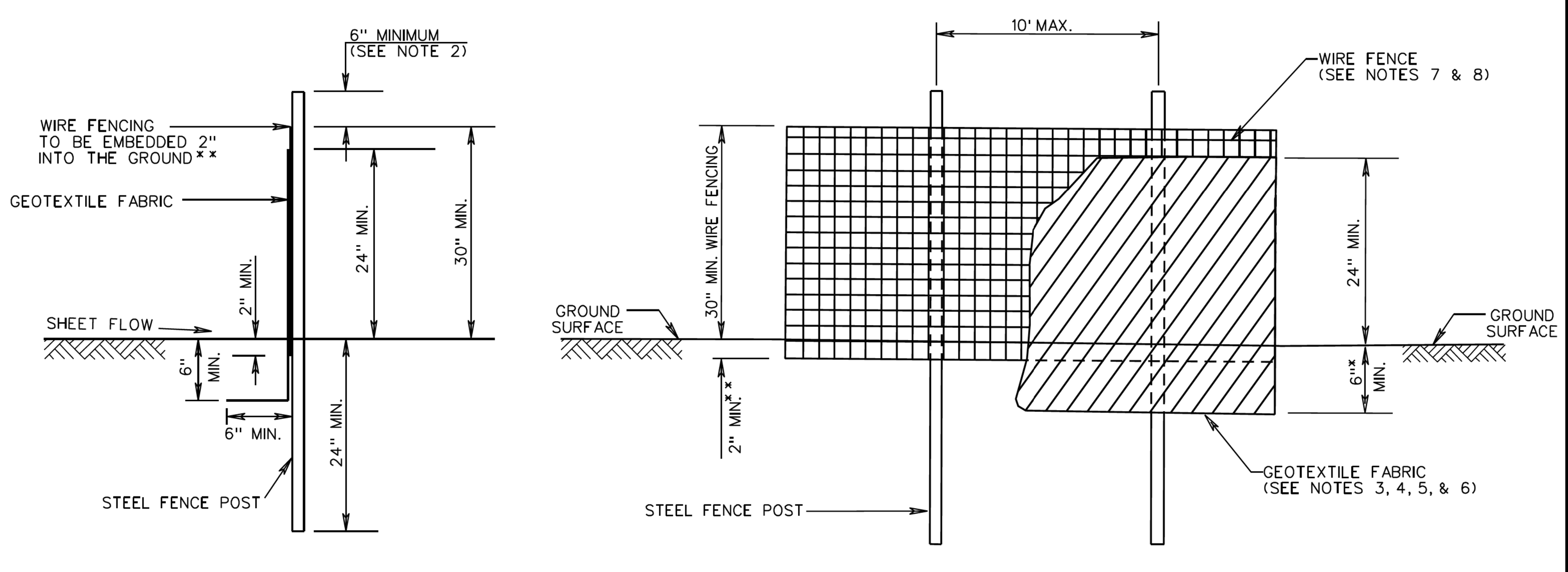
DETAIL A(2)

VDOT ROAD AND BRIDGE STANDARDS		A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 2 OF 4 113.07A	REVISION DATE 08/14		107 242 245 303

EC-5

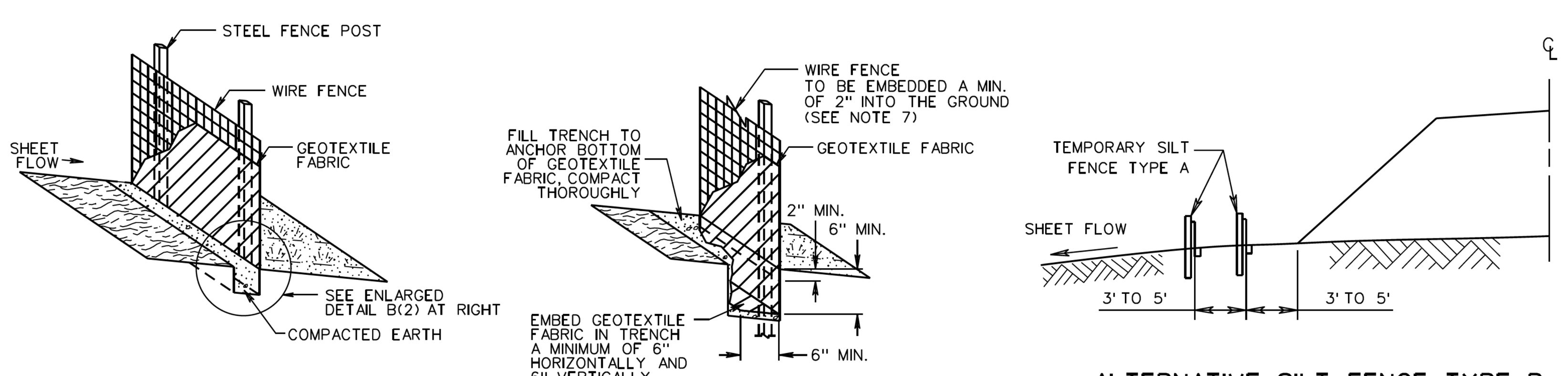
SILT FENCE TYPE B

SEE SHEET 1 FOR NOTES



SECTION VIEW

PROFILE VIEW



DETAIL B(1)

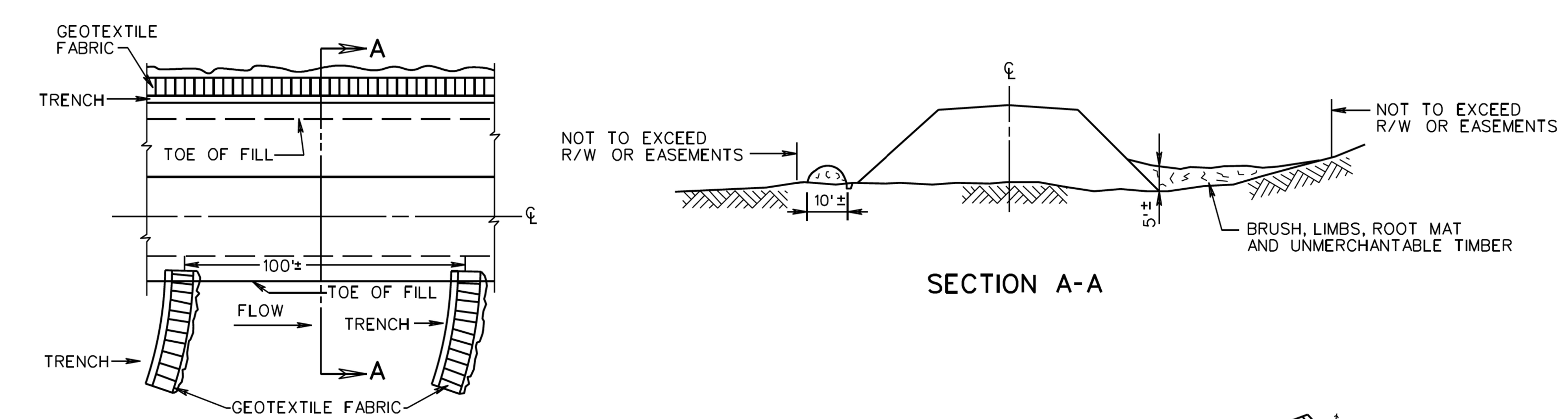
DETAIL B(2)

ALTERNATIVE SILT FENCE TYPE B
(SEE NOTE 10)

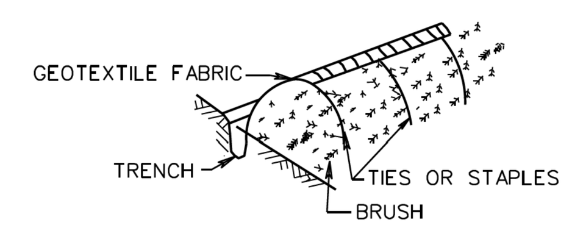
SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
107 242 245 303		REVISION DATE 08/14	SHEET 3 OF 4 113.07B

EC-5

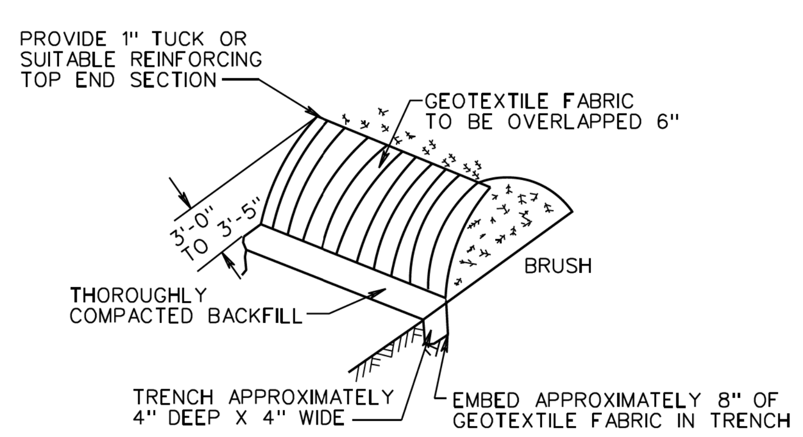
SILT BARRIERS TYPICAL DETAIL FOR BRUSH BARRIER (TO BE USED AT ALL APPLICABLE LOCATIONS)



SECTION A-A



BACK ISOMETRIC



FRONT ISOMETRIC

NOTES:

1. BRUSH BARRIERS SHALL BE CONSTRUCTED AT LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. BRUSH SHALL BE PILED AGAINST EXISTING TREES TO PREVENT MOVEMENT OF BARRIER. BRUSH SHALL BE PILED AS TIGHTLY AS POSSIBLE AND WEIGHTED DOWN BY UNMERCHANTANTABLE LOGS.
2. GEOTEXTILE FABRIC CONFORMING TO THE ROAD AND BRIDGE SPECIFICATIONS SHALL BE INSTALLED AS DETAILED ABOVE. GEOTEXTILE FABRIC MAY ALSO BE ATTACHED TO EXISTING FENCES WHEN SPECIFIED ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. NO BRUSH WILL BE DESTROYED OR REMOVED FROM THE PROJECT UNTIL ALL BRUSH SILT BARRIERS ARE IN PLACE AND HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.
4. DIMENSIONS SHOWN ARE APPROXIMATE ONLY.

VDOT ROAD AND BRIDGE STANDARDS		TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B), AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 4 OF 4 113.08	REVISION DATE 08/14		107 303

PROJECT MANAGER Wendy Block Sanford, City of Fairfax (703) 385-7889
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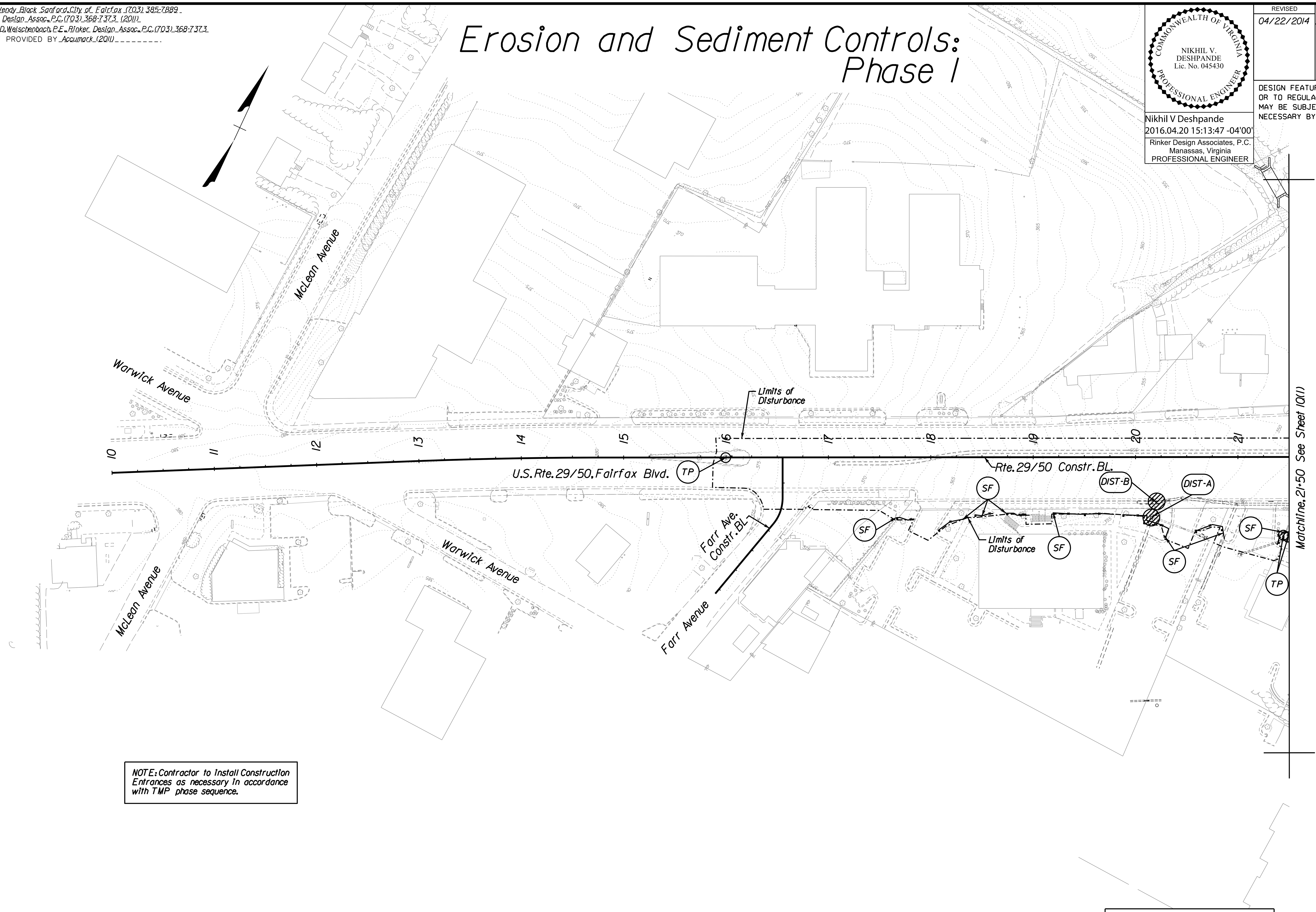
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc. P.C. (703) 368-7373
SUBSURFACE UTILITY PROVIDED BY Accumark (2011)

Erosion and Sediment Controls: Phase I



LEGEND

(silt fence symbol)	SF	Denotes Temporary Silt Fence, St'd EC-5
(hatched circle)	DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
(hatched circle)	DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
(tree symbol)	TP	Denotes Tree Protection

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

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PROFESSIONAL ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
04/22/2014	VA.	-	0029-151-105 P101, P102, R201, C501	10

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SCALE 0 50' 100'

PROJECT	SHEET NO.
0029-151-105	10

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PROJECT MANAGER Wendy Block Sanford, City of Fairfax (703) 385-7889
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Erosion and Sediment Controls: Phase I Cont.

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	10(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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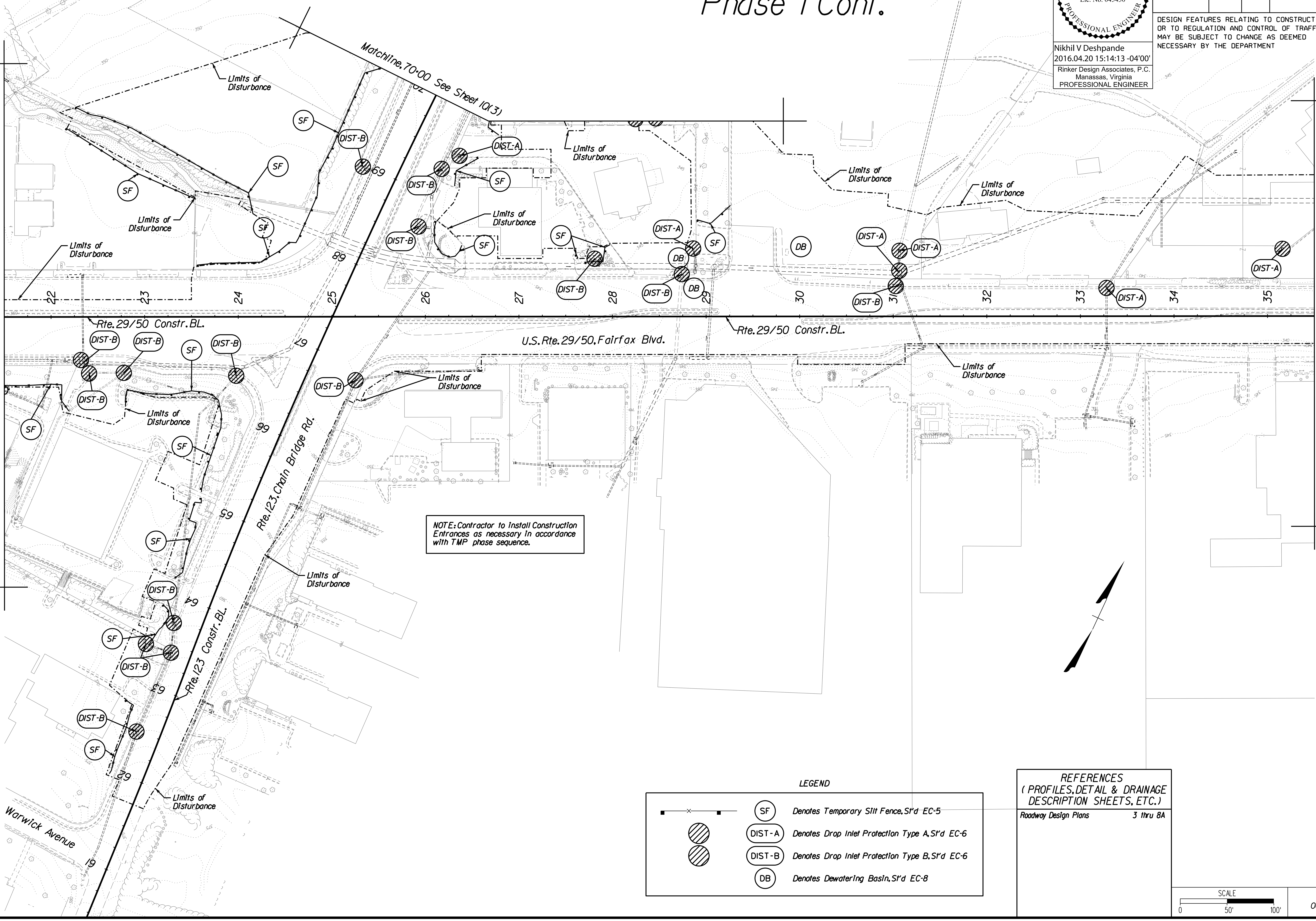

LEGEND

Symbol	Description
SF	Denotes Temporary Silt Fence, St'd EC-5
DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
DB	Denotes Dewatering Basin, St'd EC-8

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

SCALE 0 50' 100'

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Erosion and Sediment Controls: Phase I Cont.

REVISED	STATE	STATE ROUTE	PROJECT	SHEET NO.
04/22/2014	VA.	-	0029-151-105 P101, P102, R201, C501	10(2)

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NOTE: Contractor to install Construction Entrances as necessary in accordance with TMP phase sequence.

LEGEND

Symbol	Description
SF	Denotes Temporary Silt Fence, St'd EC-5
DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
OP	Denotes Outlet Protection, St'd EC-1
TP	Denotes Tree Protection
DB	Denotes Dewatering Basin, St'd EC-8

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

SCALE 0 50' 100'

PROJECT	SHEET NO.
0029-151-105	10(2)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax (703) 385-7889
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Erosion and Sediment Controls: Phase I Cont.

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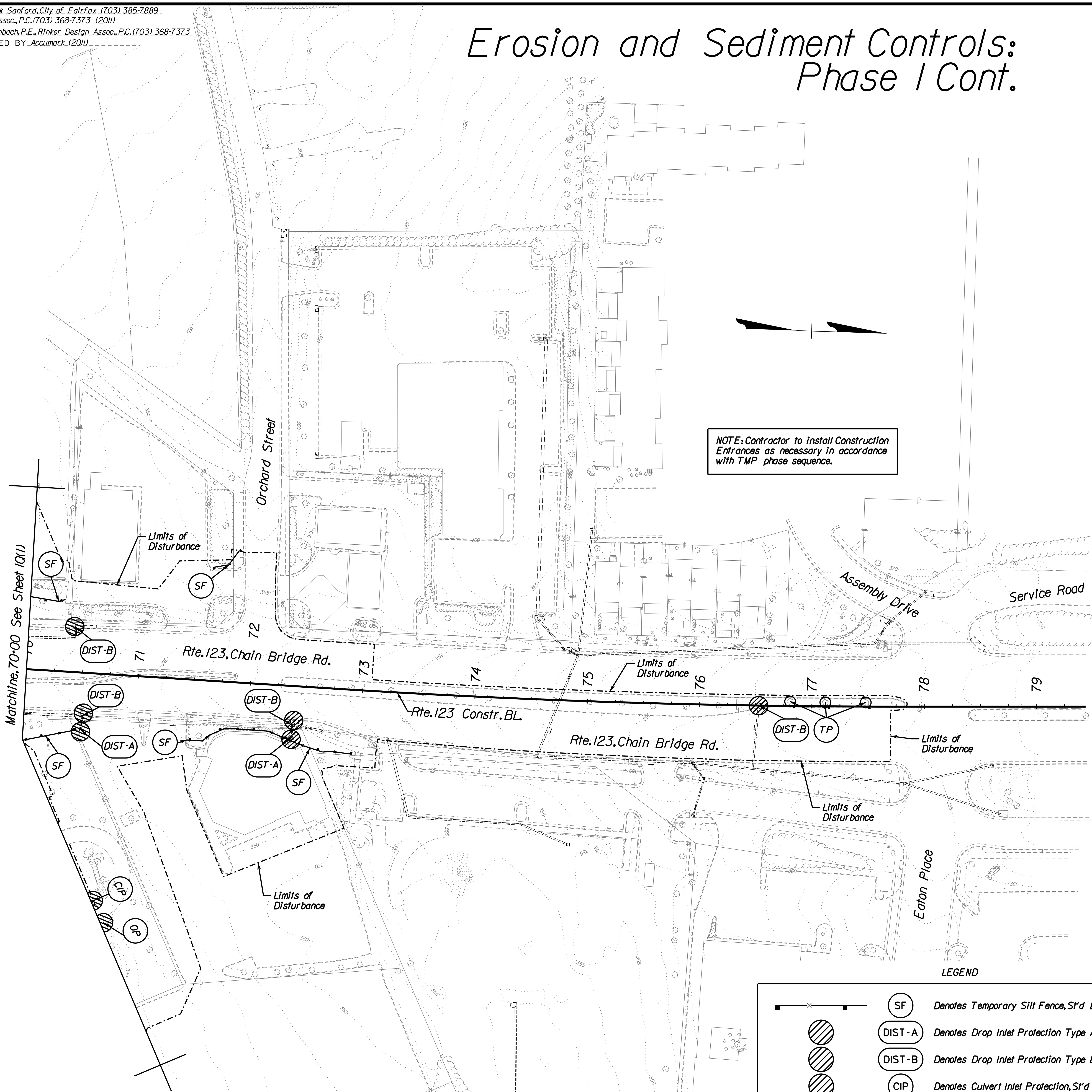
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	10(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LEGEND

Symbol	Label	Description
—x—	SF	Denotes Temporary Silt Fence, St'd EC-5
(hatched circle)	DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
(hatched circle)	DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
(hatched circle)	CIP	Denotes Culvert Inlet Protection, St'd EC-6
(hatched circle)	OP	Denotes Outlet Protection, St'd EC-1
(circle)	TP	Denotes Tree Protection

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

SCALE 0 50' 100'

PROJECT	SHEET NO.
0029-151-105	10(3)

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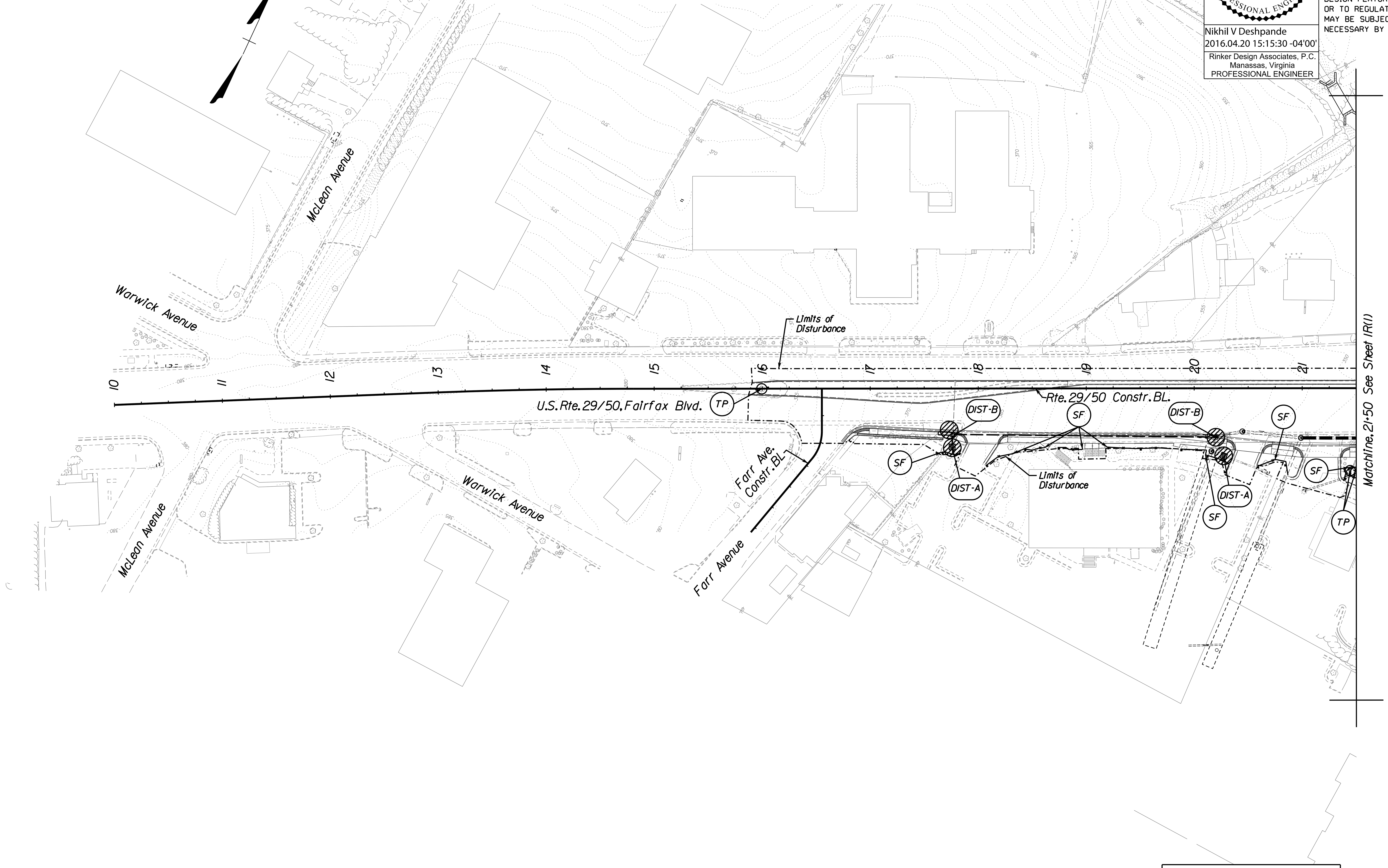
Erosion and Sediment Controls: Phase II



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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
04/22/2014	VA.	-	0029-151-105 P101, P102, R201, C501	IR

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

LEGEND

Symbol	Description
—x—	SF Denotes Temporary Silt Fence, St'd EC-5
DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
TP	Denotes Tree Protection

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

SCALE 0 50' 100'

PROJECT	SHEET NO.
0029-151-105	IR

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PROJECT MANAGER Wendy Block Sanford, City of Fairfax (703) 385-7889
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Erosion and Sediment Controls: Phase II Cont.

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IR(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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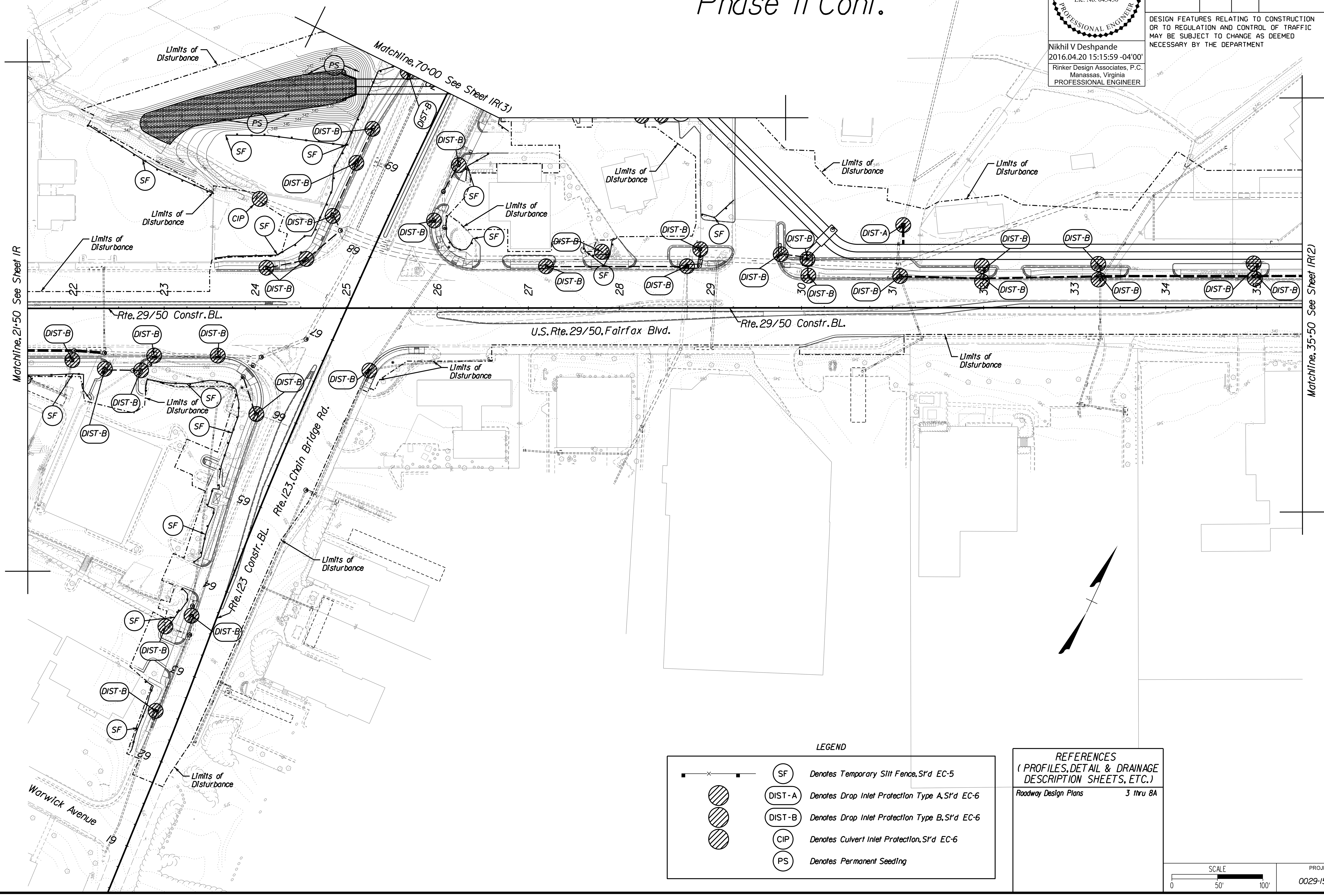

LEGEND

Symbol	Description
(fence line)	
SF	Denotes Temporary Silt Fence, St'd EC-5
DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
CIP	Denotes Culvert Inlet Protection, St'd EC-6
PS	Denotes Permanent Seeding

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

SCALE 0 50' 100'

PROJECT	SHEET NO.
0029-151-105	IR(1)

4/20/2016

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Erosion and Sediment Controls: Phase II Cont.

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
04/22/2014	VA.	-	0029-151-105 P101, P102, R201, C501	IR(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

LEGEND

Symbol	Label	Description
—■—×—■—	SF	Denotes Temporary Silt Fence, St'd EC-5
(hatched circle)	DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
(hatched circle)	DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
(hatched circle)	OP	Denotes Outlet Protection, St'd EC-1
▶	RCD-2	Denotes Rock Check Dam Type II, St'd EC-4
(circle)	TP	Denotes Tree Protection
	PS	Denotes Permanent Seeding

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

SCALE 0 50' 100'

PROJECT	SHEET NO.
0029-151-105	IR(2)

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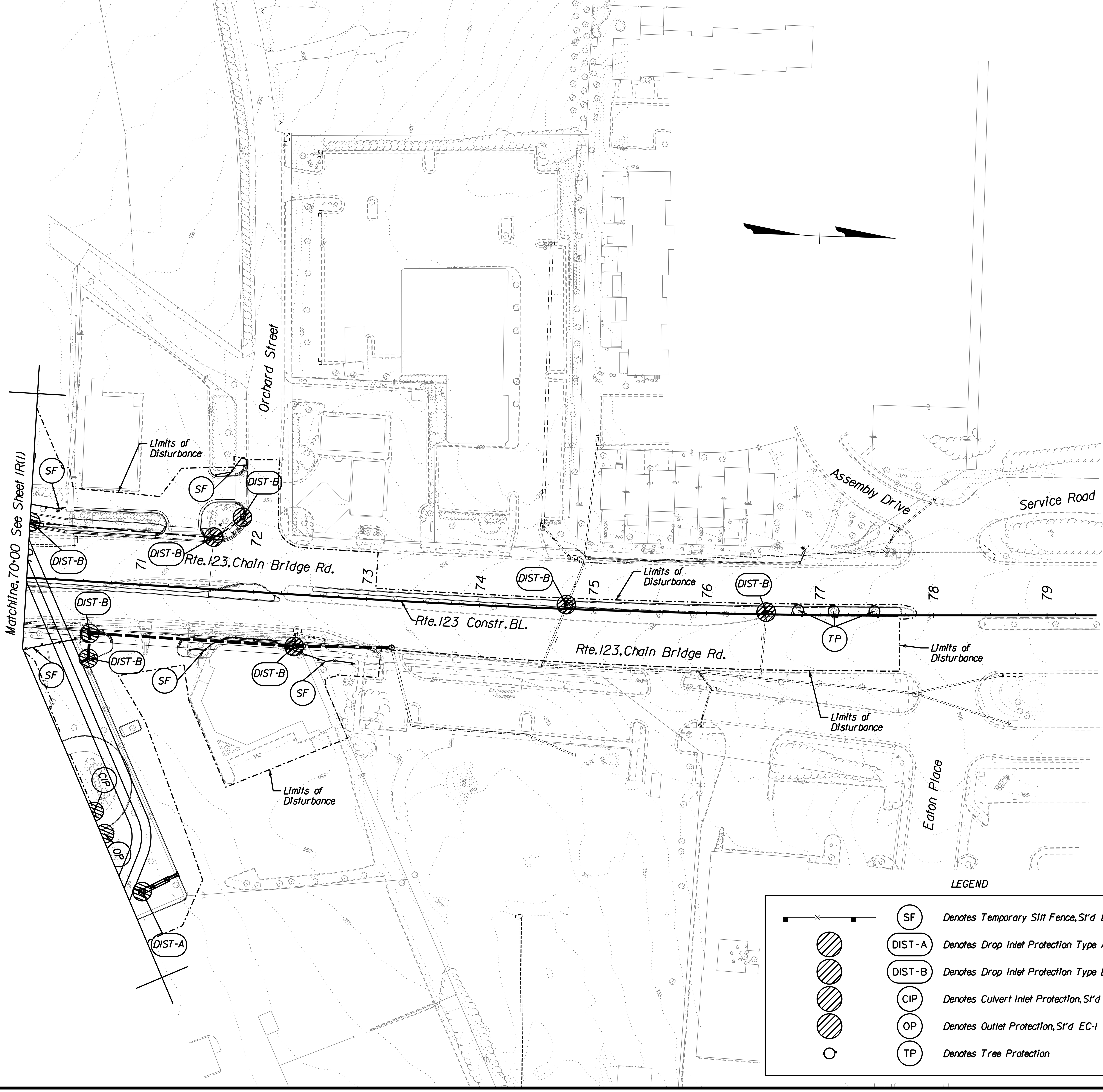
Erosion and Sediment Controls: Phase II Cont.



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	-	0029-151-105 P101, P102, R201, C501	IR(3)

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DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

LEGEND

Symbol		Description
—x—	SF	Denotes Temporary Silt Fence, St'd EC-5
(hatched circle)	DIST-A	Denotes Drop Inlet Protection Type A, St'd EC-6
(hatched circle)	DIST-B	Denotes Drop Inlet Protection Type B, St'd EC-6
(hatched circle)	CIP	Denotes Culvert Inlet Protection, St'd EC-6
(hatched circle)	OP	Denotes Outlet Protection, St'd EC-1
(circle)	TP	Denotes Tree Protection

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Design Plans	3 thru 8A

SCALE 0 50' 100'

PROJECT	SHEET NO.
0029-151-105	IR(3)