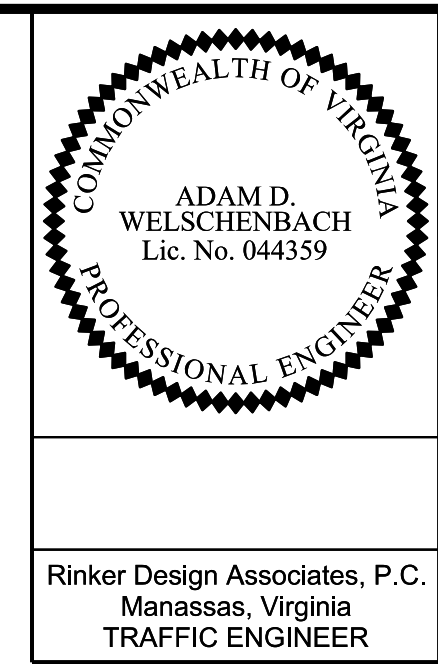
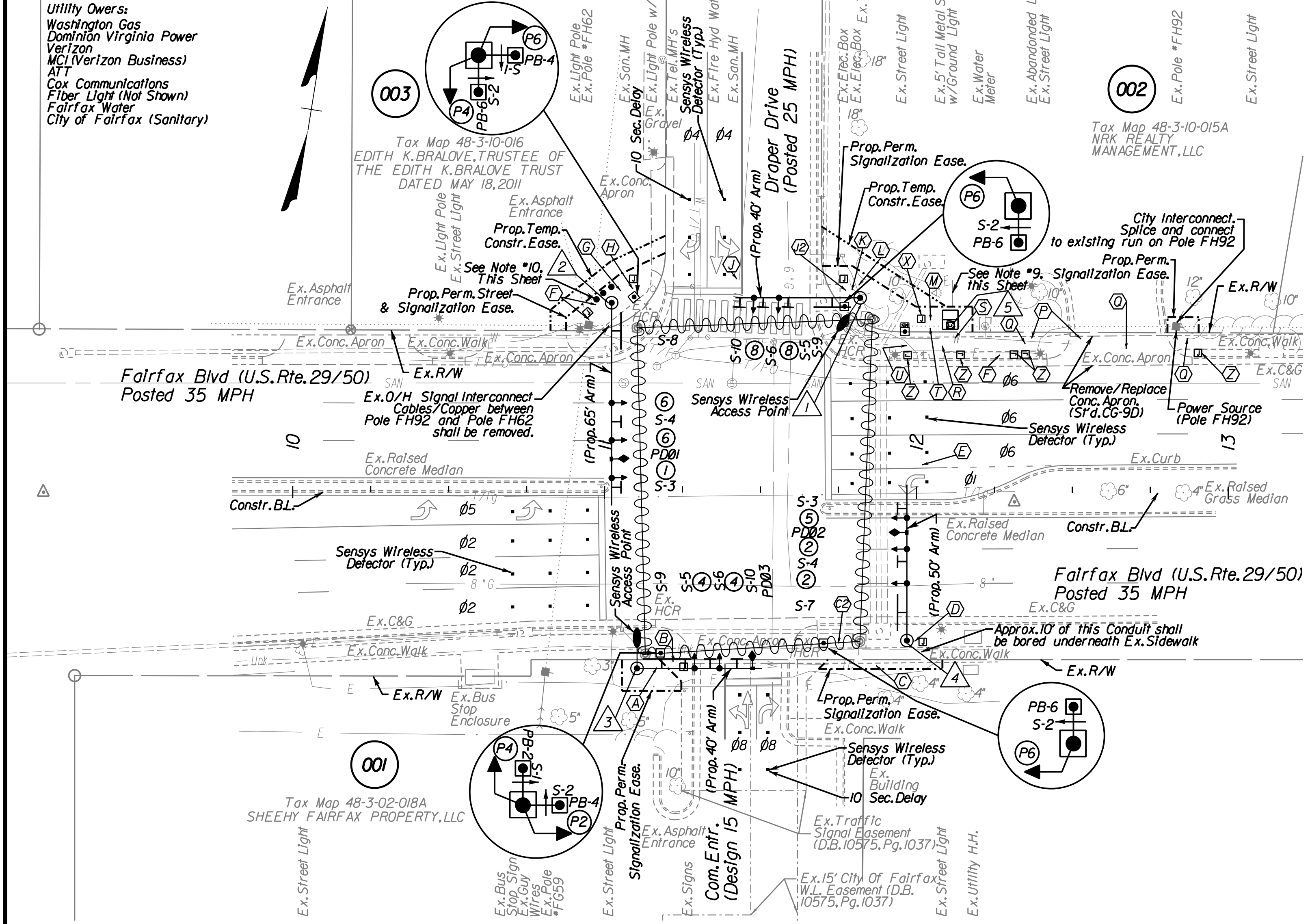


PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
 DESIGN SUPERVISED BY Mark A. Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

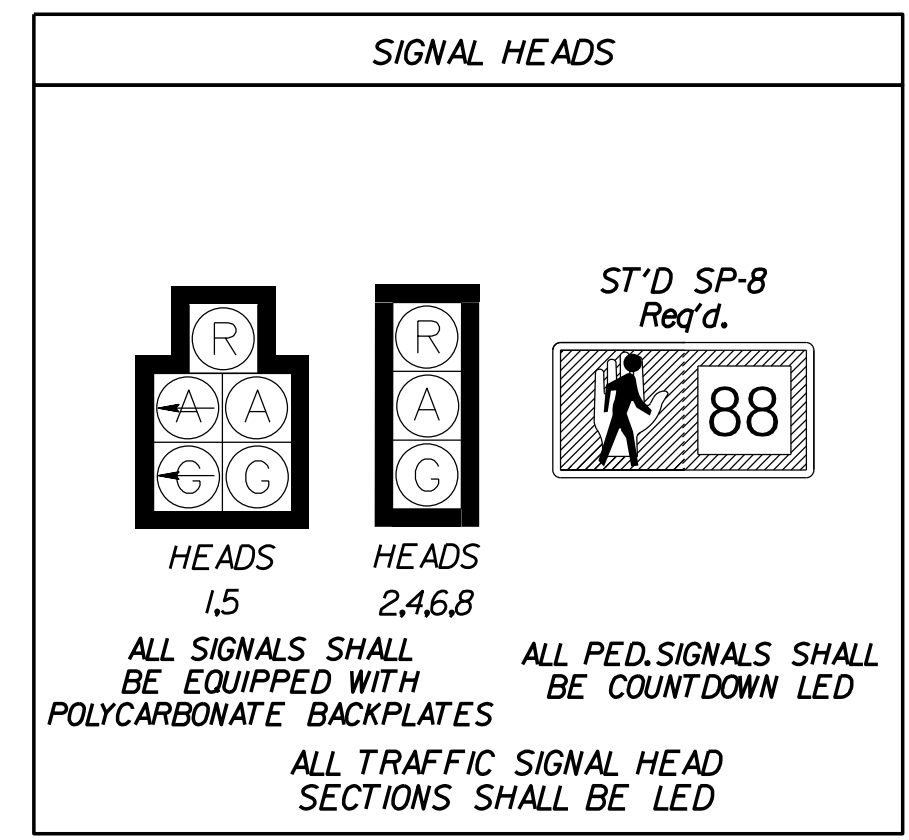
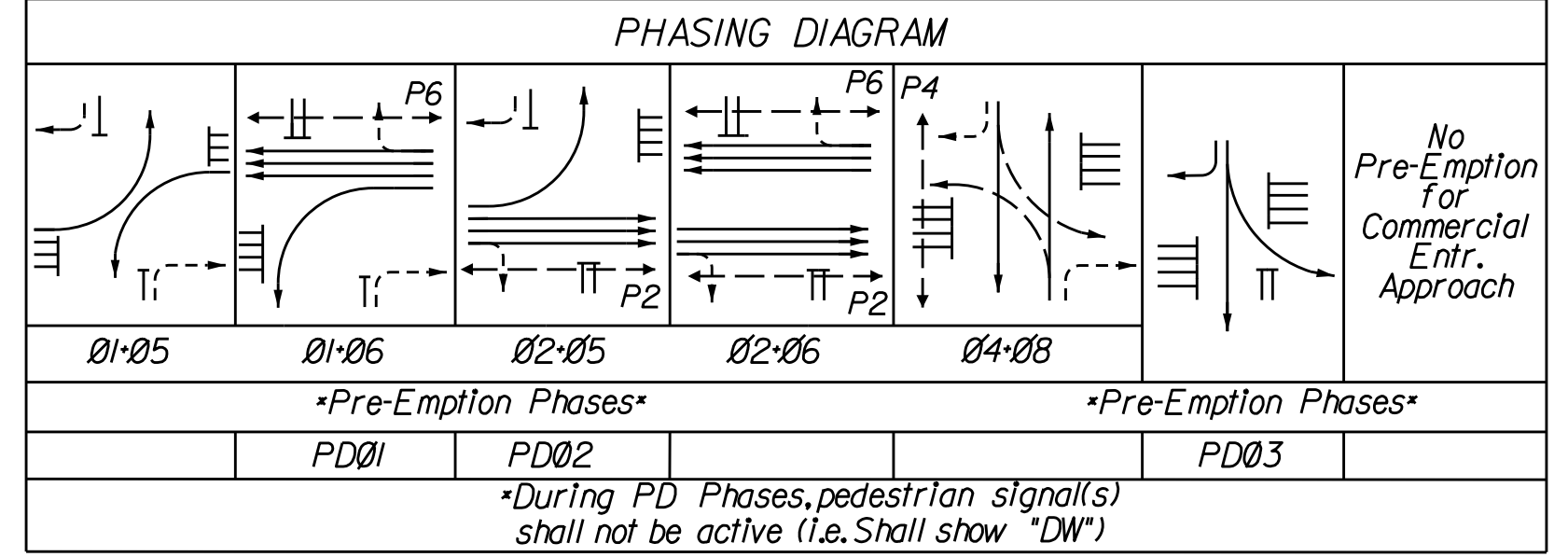


REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
12/15/2015	VA.	50	0050151-151	3



CABLE/CONDUIT RUNS & JUNCTION BOX LEGEND

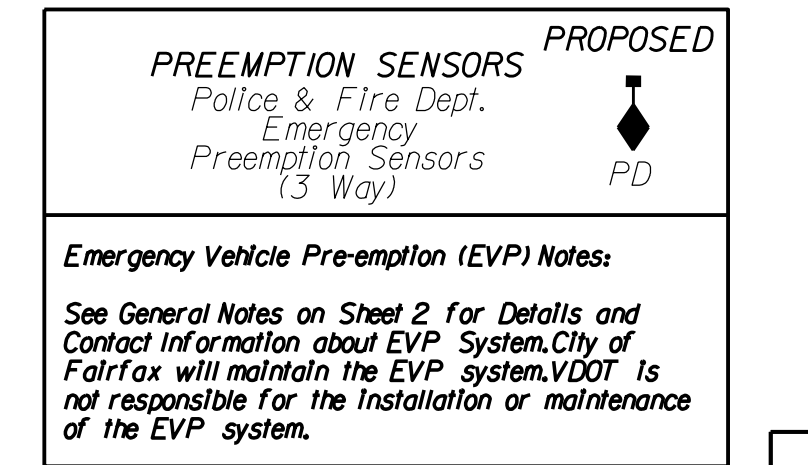
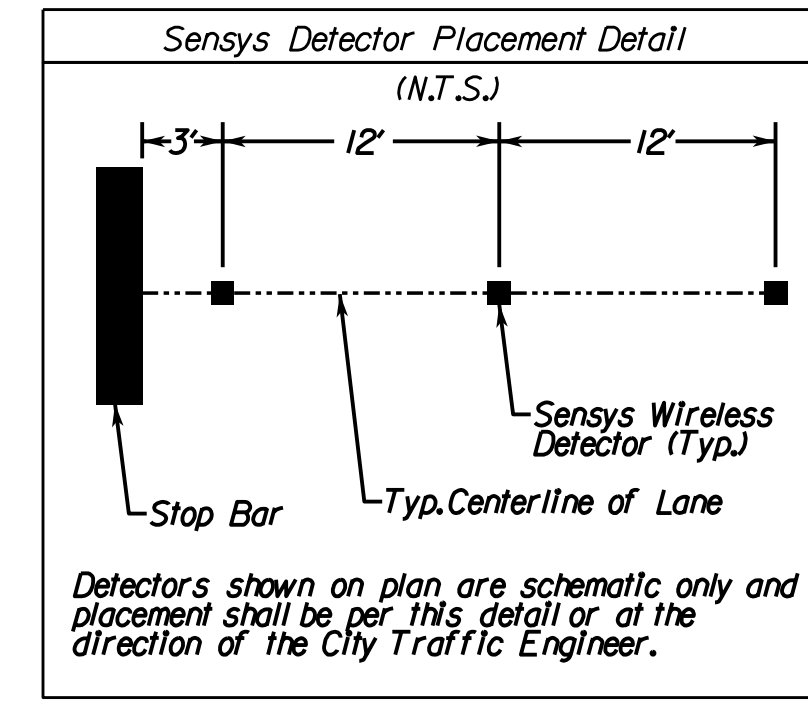
- All Junction Boxes shall be S'd JB-S2 unless otherwise noted by legend symbols
- EGC = Equipment Grounding Conductor
- (A) 1- 3" Conduit
 1- 14/7C for Heads 4 (Signal Heads)
 1- Emer. Preemption Detect. Cable
 1- CAT-5 Wire (for Veh. Detection)
 1- *6 AWG (EGC)
 - (B) 1- 3" Conduit
 2- 14/7C for P4,P2 (Ped. Heads)
 2- 14/2C for PB-4, PB-2 (Push Buttons)
 1- *6 AWG (EGC)
 - (C) 1- 4" Conduit (BORED)
 2- 14/2C for PB-4, PB-2 (Push Buttons)
 2- 14/7C for P4,P2 (Ped. Heads)
 1- 14/7C for Heads 4 (Signal Heads)
 1- Emer. Preemption Detect. Cable
 1- CAT-5 Wire (for Veh. Detection)
 1- *6 AWG (EGC)
 - (C2) 1- 3" Conduit
 1- 14/7C for P2 (Ped. Heads)
 1- 14/2C for PB-2 (Push Buttons)
 1- *6 AWG (EGC)
 - (D) 1- 3" Conduit
 2- 14/7C for Heads 2,5 (Signal Heads)
 1- Emer. Preemption Detect. Cable
 1- *6 AWG (EGC)
 - (E) 1- 4" Conduit (BORED)
 3- 14/2C for PB-4, PB-2 (Push Buttons)
 3- 14/7C for P4,P2 (Ped. Heads)
 2- 14/7C for Heads 2,4,5 (Signal Heads)
 1- Emer. Preemption Detect. Cable
 1- CAT-5 Wire (for Veh. Detection)
 1- *6 AWG (EGC)
 - (F) 1- 2" Conduit
 1- Signal Interconnect Wire
 - (G) 1- 3" Conduit
 2- 14/7C for Heads 1,6 (Signal Heads)
 1- Emer. Preemption Detect. Cable
 1- *6 AWG (EGC)
 - (H) 1- 3" Conduit
 2- 14/7C for P4,P6 (Ped. Heads)
 2- 14/2C for P4-4, PB-6 (Push Buttons)
 1- *6 AWG (EGC)
 - (J) 1- 4" Conduit (BORED)
 3- 14/2C for PB-6, PB-4 (Push Buttons)
 2- 14/7C for P6, PB-4 (Ped. Heads)
 1- 14/7C for Heads 1,6,8 (Signal Heads)
 1- Emer. Preemption Detect. Cable
 1- Signal Interconnect Wire
 1- *6 AWG (EGC)
 - (J2) 1- 3" Conduit
 1- 14/7C for P6 (Ped. Heads)
 1- 14/2C for PB-6 (Push Buttons)
 1- *6 AWG (EGC)
 - (K) 1- 3" Conduit
 1- 14/7C for Heads 8 (Signal Heads)
 1- CAT-5 Wire (for Veh. Detection)
 1- *6 AWG (EGC)
 - (L) 1- 4" Conduit
 3- 14/2C for PB-4, PB-6 (Push Buttons)
 3- 14/7C for P4, P6 (Ped. Heads)
 2- 14/7C for Heads 1,6,8 (Signal Heads)
 1- Emer. Preemption Detect. Cable
 1- CAT-5 Wire (for Veh. Detection)
 1- Signal Interconnect Wire
 1- *6 AWG (EGC)
 - (M) 1- 4" Conduit
 4- 14/7C for P2,P6,P4 (Ped. Heads)
 6- 14/7C for Heads 1,2,4,5,6,8 (Signal Heads)
 1- Signal Interconnect Wire
 1- *6 AWG (EGC)
 - (N) 1- 4" Conduit (Spare)
 1- *6 AWG (EGC) for Spare
 - (O) 1- 2" Conduit (Bored)
 1- 100 Lbs. Pull-Line Req'd.
 1- Signal Interconnect Wire
 - (P) 1- 2" Conduit (BORED)
 1- 100 Lbs. Pull-Line Req'd.
 3- *6 AWG (EGC) for Elec. Service Connect to Pole *FH92
 - (S) 1- 2" Conduit
 1- Signal Interconnect Wire
 Connect 100 lbs. Pull-Line to CC-2 Panel
 - (R) 1- 2" Conduit
 1- 100 Lbs. Pull-Line Req'd.
 3- *6 AWG (EGC) for Elec. Service
 - (T) 1- 1/4" Conduit (M)
 3- *6 AWG (EGC) for Elec. Service
 - (U) 1- 1" Conduit
 1- *6 AWG (EGC) for Elec. Grounding
 - (Z) S'd JB-S1 Req'd.
 - (Y) S'd JB-S2 Req'd.
 - (X) S'd JB-S3 Req'd.



Signal Pole & Controller Legend

(ALL DIMENSIONS ARE TO CENTER OF POLE)

- The MP-1 (and Mast Arms) shall be designed to meet any NESC utility clearance requirements
- Note: The Contractor may omit wings for PF-8, provided the structural engineers and geotechnical engineer provide supporting evidence it's not needed and the foundation, mast arms, poles etc. will meet all AASHTO and VDOT standards.
- Note: Contractor shall utilize a modified MP-1 for Pole #2. See Contract Special Provisions for details.
- Note: Contractor shall verify pole height/mast arm mounting heights with engineer in the field prior to ordering of materials.
- 1 S'd Mast Arm Pole (MP-1) with S'd PF-8 Foundation and Vehicle Detection Antenna/Radio
 62.8' Left of Rte. 29/50 Constr. Baseline Sta. 11-81.92
 40' Mast Arm 180° Angle to Rte. 29/50 Constr. Baseline
 Signal Head Placement: 28.3', 38.2'
 Sign Placement: 9' 23.3"
 Pre-emption Placement: None
 - 2 S'd Mast Arm Pole (Modified MP-1) with S'd PF-8 Foundation
 60.8' Left of Rte. 29/50 Constr. Baseline Sta. 11-02.23
 65' Mast Arm 210° Angle to Rte. 29/50 Constr. Baseline
 Signal Head Placement: 56.3', 44', 32.1'
 Sign Placement: 59', 38.1'
 Pre-emption Placement: City Traffic Engineer's Discretion
 - 3 S'd Mast Arm Pole (MP-1) with S'd PF-8 Foundation and Vehicle Detection Antenna/Radio
 56.4' Right of Rte. 29/50 Constr. Baseline Sta. 11-10.49
 40' Mast Arm 0° Angle to Rte. 29/50 Constr. Baseline
 Signal Head Placement: 18.4', 25.4'
 Sign Placement: 7', 15', 23.5', 39.3"
 Pre-emption Placement: City Traffic Engineer's Discretion
 - 4 S'd Mast Arm Pole (MP-1) with S'd PF-8 Foundation
 47.4' Right of Rte. 29/50 Constr. Baseline Sta. 11-02.23
 50' Mast Arm 90° Angle to Rte. 29/50 Constr. Baseline
 Signal Head Placement: 18.3', 29.3', 39.3'
 Sign Placement: 9', 25.3', 42.3"
 Pre-emption Placement: City Traffic Engineer's Discretion
 - 5 Prop. Controller Cabinet and Foundation
 S'd CF-2 Controller Foundation Req'd
 Cabinet Doors located on left side of pad
 when looking towards Route 29/50



Emergency Vehicle Pre-emption (EVP) Notes:
 See General Notes on Sheet 2 for Details and Contact Information about EVP System. City of Fairfax will maintain the EVP system. VDOT is not responsible for the installation or maintenance of the EVP system.

PROP. SIGNAL SIGNS

S-1	S-2	S-3	S-4	S-5
9'x15"	9'x15"	30'x36"	24'x30"	30'x36"

S-7	S-8	S-6
144"x24"	144"x24"	30'x36"

S-9	S-10
126"x24"	30'x30"

SEE SHEETS 4 FOR STREET NAME SIGN DETAILS

Note: The existing Fairfax Blvd/Lee Hwy Decorative Sign(s) shall be returned to the City. The City will provide new ones to be installed on Mast Arm poles. This is not shown on the plans and the signs shall be installed per the discretion of the City Traffic Engineer. Contractor is responsible only for sign installation and purchase of mounting brackets.

COLOR SEQUENCE CHART

PHASE	1	2	4**	5	6	1-5	1-6	2-5	2-6	4-8
SIGNAL	R/W	R/W		R/W	R/W	R/W	R/W	R/W	R/W	FLASH
1	←G/R				G	←G/R	←G/G		G	A
2		G						G	G	A
4			G							R
5		G		←G/R		←G/R		←G/G	G	A
6				G			G		G	A
8										R
P2		*WALK						*WALK	*WALK	BLANK
P6				*WALK		*WALK		*WALK		BLANK
P4									*WALK	BLANK

NOTE: BLANK SPACES REPRESENT A RED DISPLAY.
 * WALK INDICATION DISPLAYED AFTER PEDESTRIAN CALL IS SERVICED.
 OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.
 ** PHASE 04 IS A PRE-EMPTION PHASE ONLY. SEE PHASING DIAGRAM FOR PD-03

- Notes:**
- For Power Service Connection details, See General Notes, Sheet 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 2 for more information.
 - Cost to relocate impacted utilities caused by signal installation shall be incidental to signal construction and must be paid for as a separate item.
 - All signal heads and signal mast arms shall have a minimum of 10' horizontal and vertical clearance from nearby aerial utilities.
 - 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 2 for contact information and details.
 - Note Removed.
 - All pavement markings are to remain. No changes to pavement markings are permitted.
 - 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.
 - Contractor shall not impact existing sign or ground lights. Contractor responsible for any damage to signage/light.
 - Three bollards shall be installed 3' apart. (Center to Center.)
 - Between 11-91.28 and 12-94.48, the existing sidewalk and ex. concrete driveway apron shall be removed and replaced (in-kind) to permit the installation of conduits and junction boxes as shown. The existing electrical conduits for street lights shall be shifted by the Contractor to not conflict with new junction boxes.

TRAFFIC SIGNAL MODIFICATION

Fairfax Blvd. (U.S. 29/50) and Draper Drive
 Signal Modification Plan
 City of Fairfax, Virginia

SCALE: 0 25' 50' DATE: December 2015

DRAWN: ADW DESIGNED: ADW CHECKED: ADW

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0050151-151	-	3

Rinker Design Associates, P.C.
 CITY OF FAIRFAX DEPARTMENT OF PUBLIC WORKS
 12/15/2015