



ARLINGTON
VIRGINIA

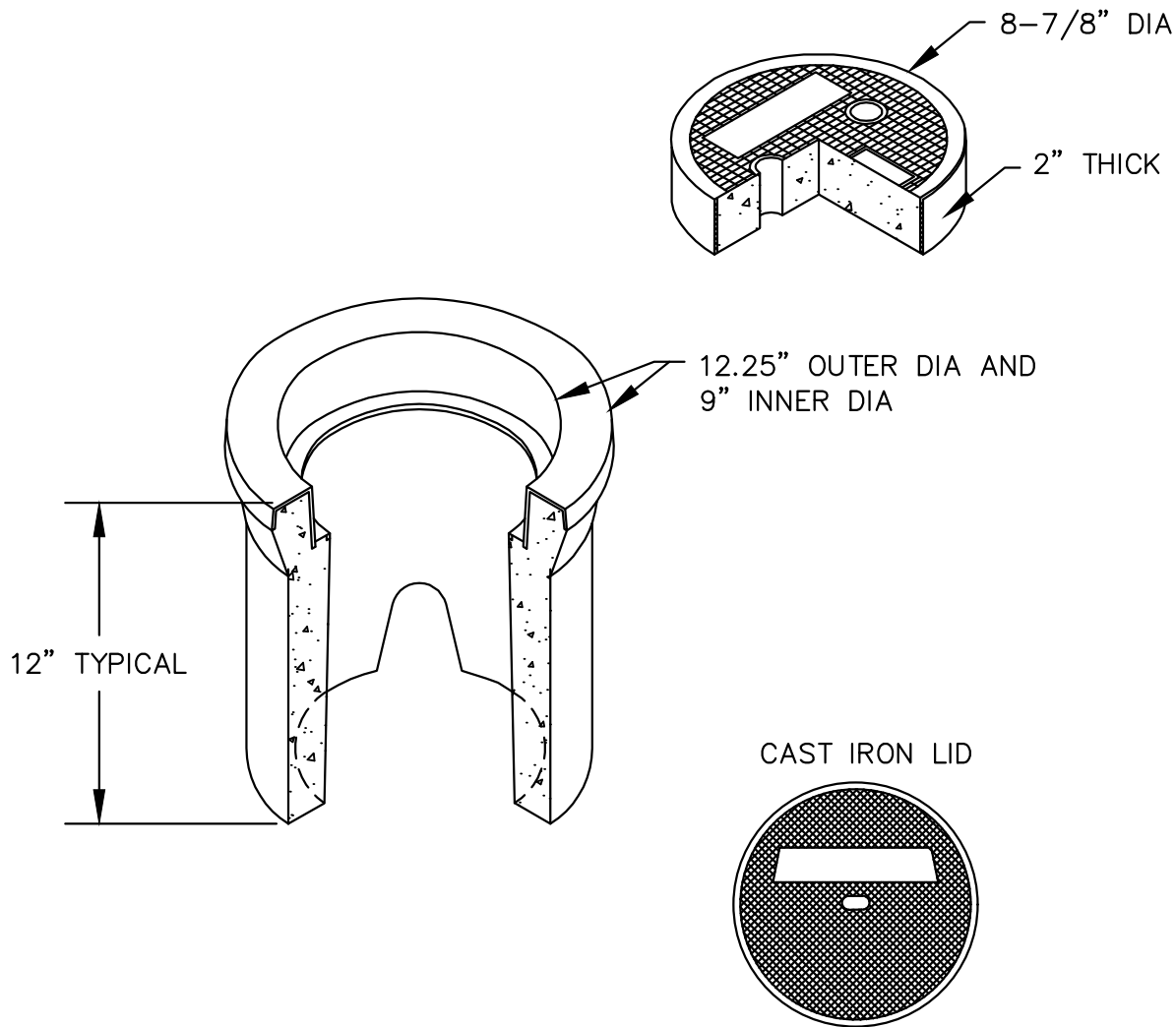
2024

Traffic Signal Standards

This document contains the construction detail drawings for traffic signals within Arlington County.

TRAFFIC SIGNAL STANDARDS

Standard	Description	Latest Revision
61-01	Small Junction Box (Ground Rod)	04/2024
61-02	Traffic Rated Circular Junction Box	04/2024
61-03	Traffic Rated Circular Junction Box Frame and Cover	04/2024
61-04	Rectangular Junction Box (Non-Traffic Use)	04/2024
62-01	Non-Ornamental Pole	04/2024
63-01	Ornamental Pole	04/2024
66-01	Controller Cabinet Foundation (1 of 2)	04/2024
66-02	Controller Cabinet Foundation (2 of 2)	04/2024
66-03	Pedestal Pole Foundation	04/2024
66-04	Beacon Foundation	04/2024
67-01	Pedestal Pole Mounting& Pedestrian Signals	04/2024
68-01	Accessible Pushbutton Station	04/2024
68-02	Pedestrian Bollard Pole	04/2024
70-01	Cabinet Equipment Layout A	04/2024
70-02	Cabinet Equipment Layout B	04/2024
70-03	Cabinet Equipment Layout C & D	04/2024
73-01	School Beacon Assembly	04/2024
78-01	Loop Detector Stub Out	04/2024
78-02	Induction Loop Detector (6'x20')/(6'x40')	04/2024
80-01	Electric Signal Service	04/2024
83-01	Rectangular Rapid Flashing Beacon (RRFB) Layout	04/2024
83-02	AC Powered Roadside Beacon Wiring Detail	04/2024
86-01	Radar Speed Indicator Sign Assembly	04/2024



NOTES :

1. LID SHALL BE CAST IRON UNLESS NOTED OTHERWISE.
2. BOX SHALL BE A HIGH DENSITY REINFORCED CONCRETE BOX WITH NON-SETTING SHOULDERS POSITIONED TO MAINTAIN GRADE AND FACILITATE BACK FILLING.
3. THIS BOX IS INTENDED TO BE USED ONLY FOR PROVIDING ACCESS TO THE CABINET GROUND ROD IF THERE IS NO NEARBY JUNCTION BOX FROM WHICH TO ACCESS THE GROUNDING (ROD IS BURIED).

SMALL JUNCTION BOX (GROUND ROD)

1

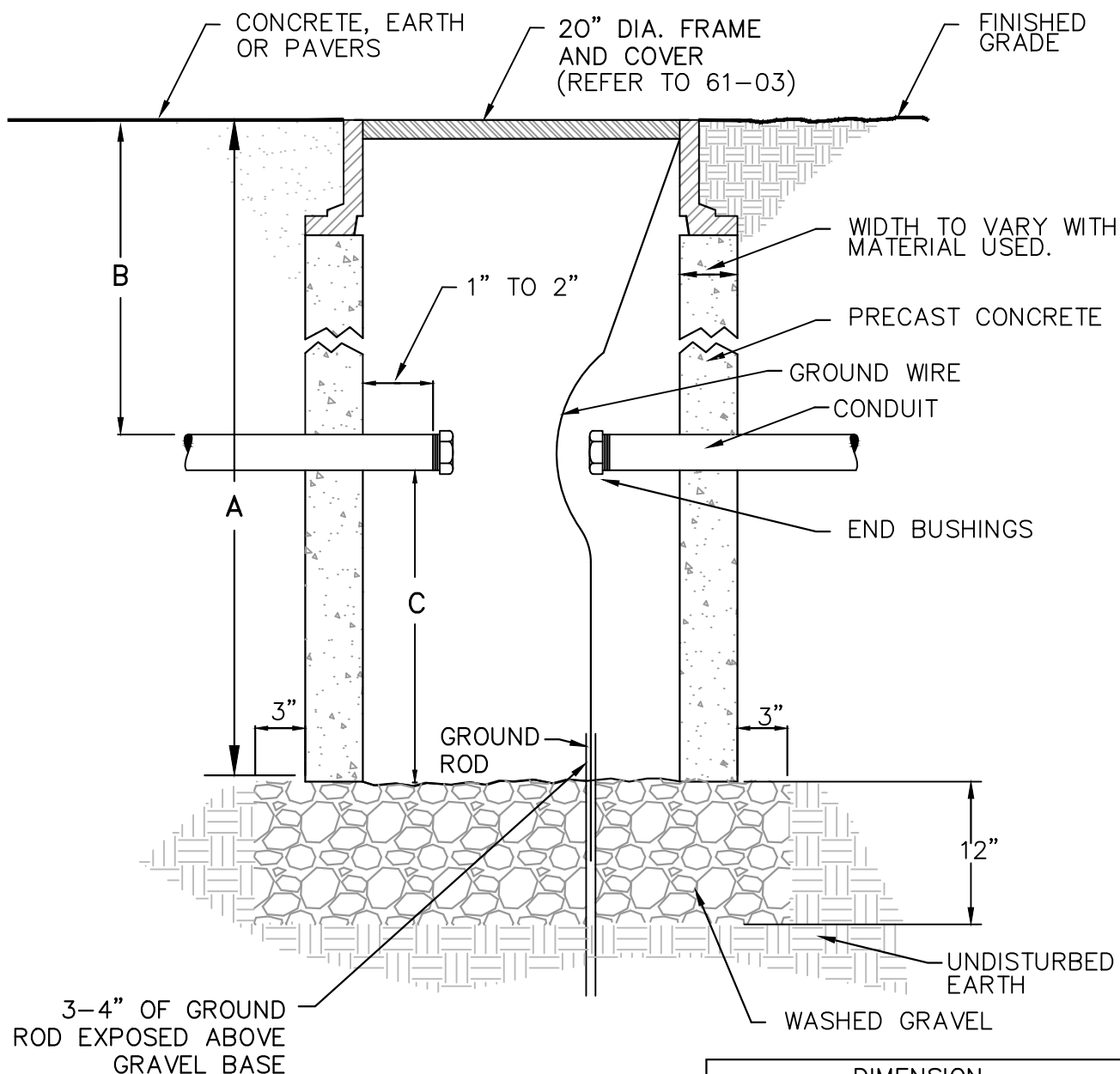
04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
61-01



USE	DIMENSION		
	A	B	C
COMM. JB	36" MIN	24" MIN	4" MIN
SIGNAL JB	24" MIN	18" MIN	4" MIN

NOTES :

1. TOP OF BOXES SHALL BE FLUSH WITH EXISTING GRADE.
2. JUNCTION BOX SHALL BE TRAFFIC RATED PER AASHTO AND ASTM.
3. THIS JUNCTION BOX SHALL ONLY BE INSTALLED WHERE SPECIFICALLY APPROVED BY THE COUNTY CONSTRUCTION MANAGER.

TRAFFIC RATED CIRCULAR JUNCTION BOX

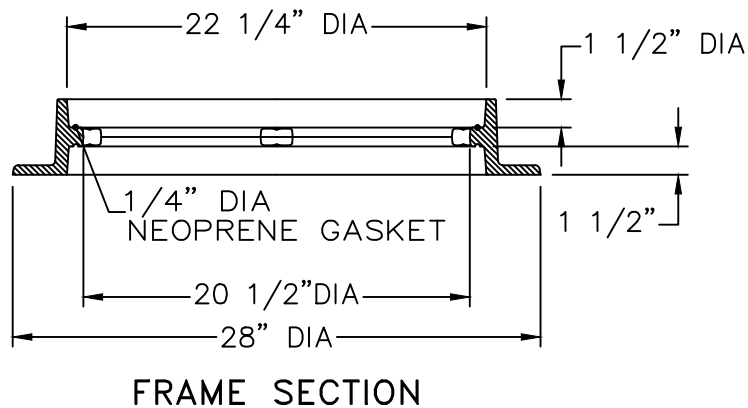
1 04/24

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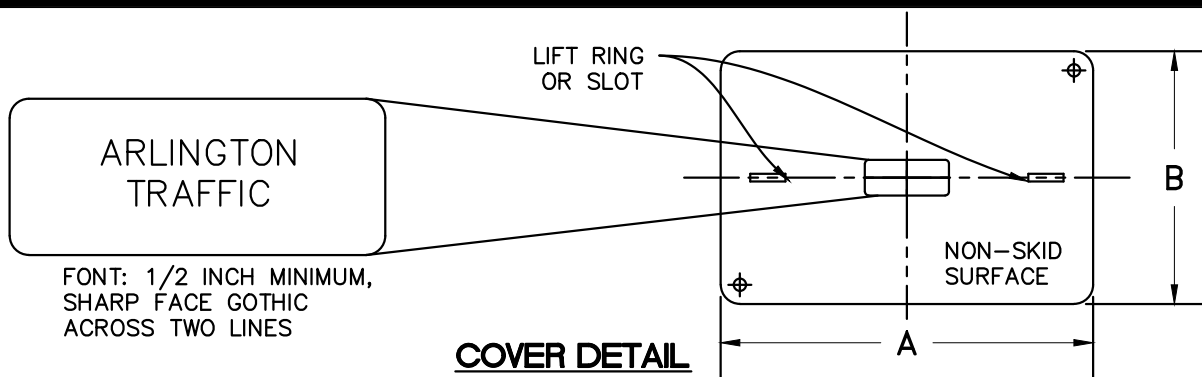


ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
61-02



TRAFFIC RATED CIRCULAR JUNCTION BOX FRAME AND COVER		1	04/24
		REVISION & DATE	
 ARLINGTON VIRGINIA	ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES		DRAWING NO. 61-03



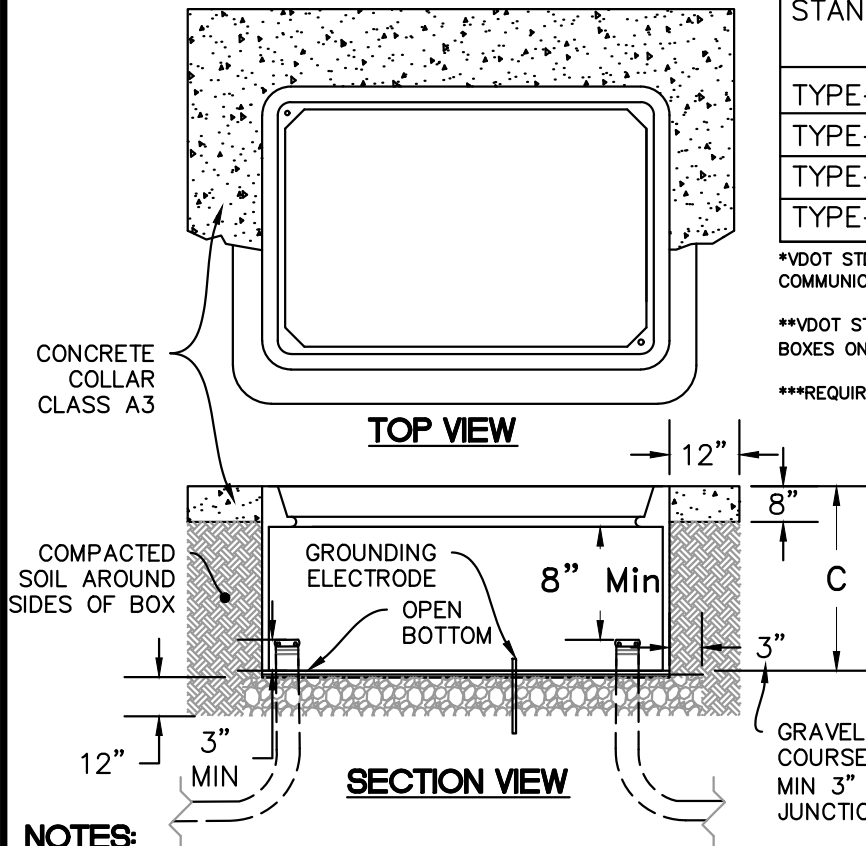
COVER DETAIL

STANDARD	DIMENSIONS		
	A	B	C
TYPE-2*	24"	13"	36"
TYPE-3**	24"	36"	36"
TYPE-4***	30"	48"	36"
TYPE-5	36"	60"	36"

*VDOT STD JB-S2 MAY BE SUBSTITUTED FOR DETECTORS AND COMMUNICATIONS.

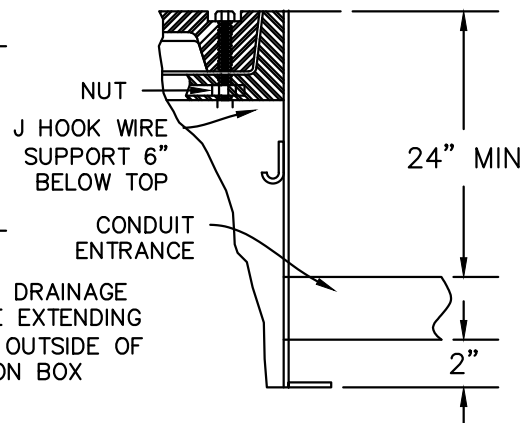
**VDOT STD JB-S3 MAY BE SUBSTITUTED FOR SIGNAL JUNCTION BOXES ONLY (NOT FOR COMMUNICATIONS)

***REQUIRED FOR HOME RUN BOX UNLESS DIRECTED OTHERWISE



TOP VIEW

SECTION VIEW



SECTION A-A

NOTES:

1. JUNCTION BOXES SHALL BE STRAIGHT WALL IN DESIGN.
2. BELL ENDS SHALL BE INSTALLED ON THE ENDS OF PVC CONDUITS.
3. GROUNDING BUSHINGS SHALL BE INSTALLED ON THE ENDS OF METAL CONDUITS.
4. BELL ENDS AND BUSHINGS SHALL BE PLUGGED TO PREVENT MOISTURE AND RODENT ENTRY.
5. CONDUIT ENTRANCES SHALL BE LOCATED AS SHOWN ON THE PLANS.
6. THE COVER SHALL HAVE A NON-SKID SURFACE WITH LETTERS CAST IN THE DEPRESSION ON TOP.
7. IF NOT OTHERWISE SPECIFIED, CONDUITS SHALL ENTER THE OPPOSITE ENDS OF THE JUNCTION BOX WITH THE JUNCTION BOX ORIENTED WITH THE LONG AXIS PARALLEL TO THE CONDUIT PATH.
8. ALL JUNCTION BOXES SHALL BE INSTALL WITH AN R.U.S. APPROVED GROUNDING ELECTRODE WITH BRONZE UNIT.
9. TWO RECESSED 3/8"-16 S.S. HEX HEAD BOLTS ARE REQUIRED FOR EACH COVER.
10. CONDUITS SHALL EXTEND 1" TO 3" MAX INTO THE INSIDE WALL OF THE JUNCTION BOX. SIDE ENTRY SHALL ONLY BE USED IF SPECIFICALLY APPROVED BY THE COUNTY CONSTRUCTION MANAGER.
11. THE JUNCTION BOX MAY BE A TWO PIECE DESIGN WITH THE TOP SECTION NO LESS THAN 17" IN DEPTH.
12. VOIDS RESULTING FROM THE ENTRANCE TO THE JUNCTION BOX SHALL BE COMPLETELY FILLED WITH AN APPROVED MATERIAL.
13. PLUG CONDUIT ENDS WITH CONDUIT PLUGS TO PROTECT CONDUIT FROM DEBRIS AND WATER.
14. TYPE-4 AND TYPE-5 SHALL HAVE SPLIT LIDS, EACH SIDE WITH CHARACTERISTICS OF COVER DETAIL ABOVE.
15. ONLY ANSI/SCTE 77 TIER 22 HANDHOLES ARE PERMITTED.

**RECTANGULAR JUNCTION BOX
(NON-TRAFFIC USE)**

1 04/24

REVISION & DATE



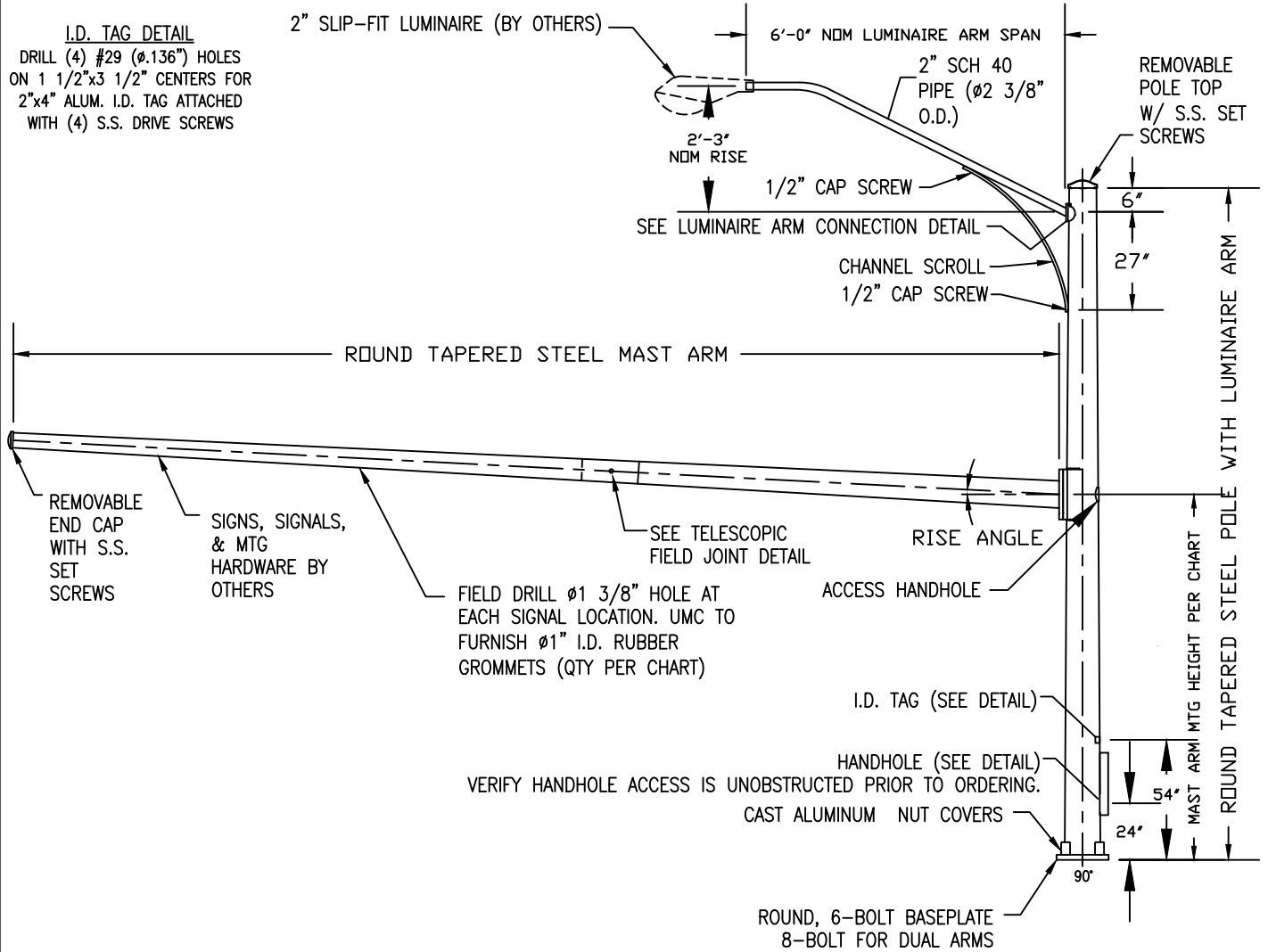
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
61-04

ARLINGTON COUNTY, VA
MFG & DATE OF MFG
POLE HEIGHT & GAGE
ARM LENGTH & GAGE
BOLT CIRCLE DIA

I.D. TAG DETAIL

DRILL (4) #29 ($\phi 0.136"$) HOLES
ON 1 1/2"x3 1/2" CENTERS FOR
2"x4" ALUM. I.D. TAG ATTACHED
WITH (4) S.S. DRIVE SCREWS



NON-ORNAMENTAL POLE

1

04/24

REVISION & DATE



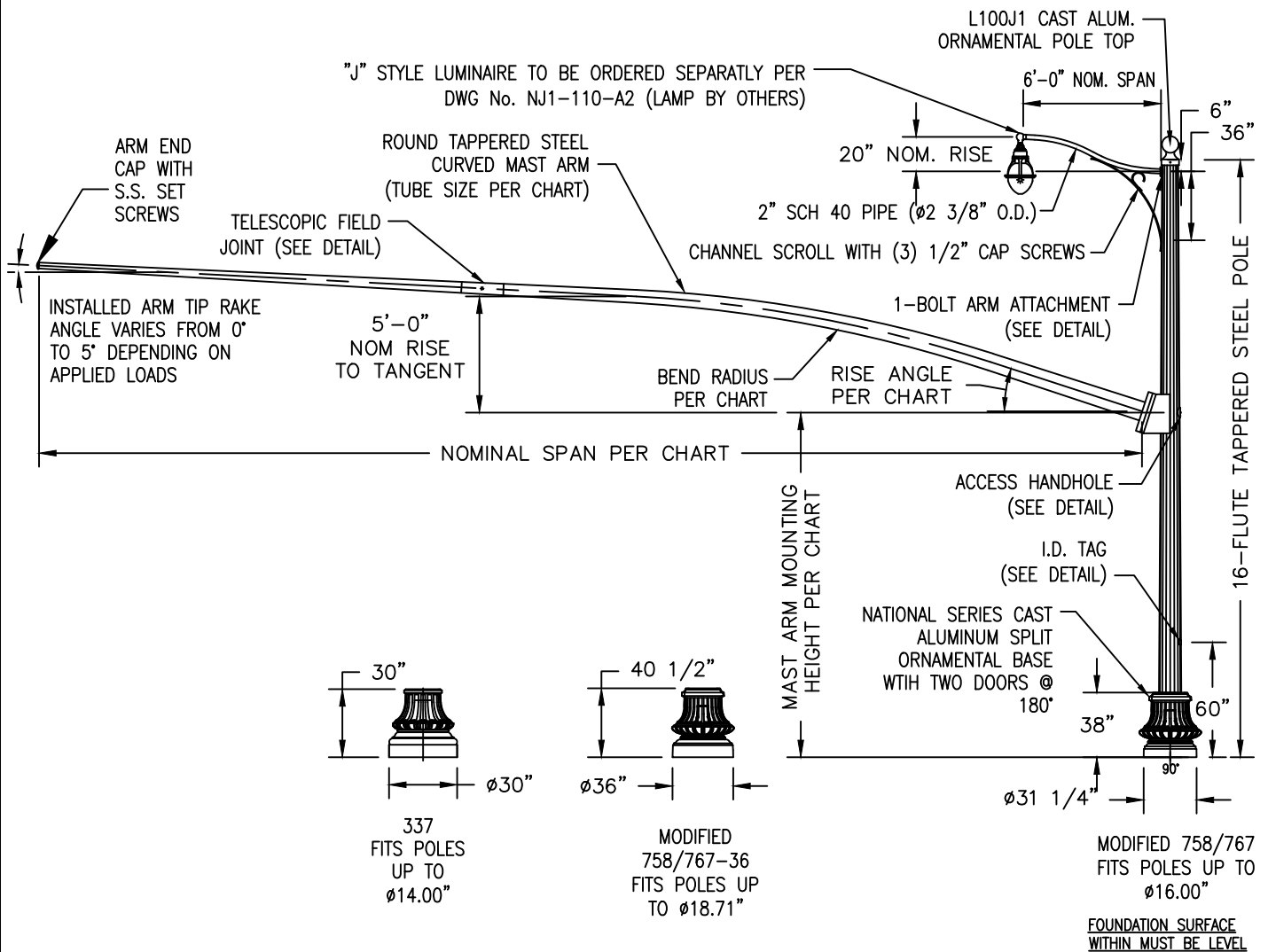
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
62-01

ARLINGTON COUNTY, VA
MFG & DATE OF MFG
POLE HEIGHT & GAGE
ARM LENGTH & GAGE
BOLT CIRCLE DIA

I.D. TAG DETAIL

DRILL (4) #29 ($\phi.136"$) HOLES
ON 1 1/2"x3 1/2" CENTERS FOR
2"x4" ALUM. I.D. TAG ATTACHED
WITH (4) S.S. DRIVE SCREWS



ORNAMENTAL POLE

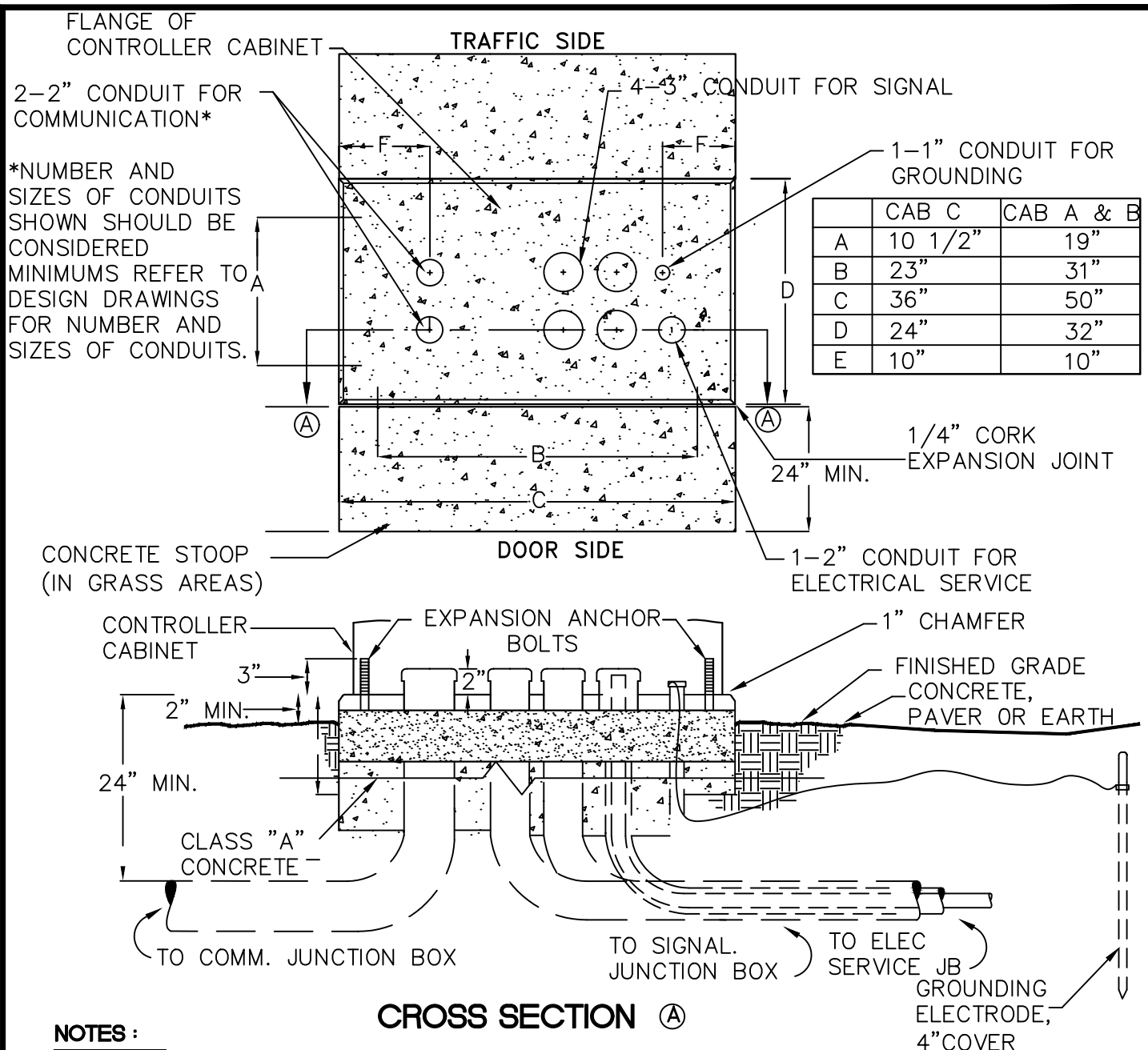
1 04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
63-01



NOTES :

1. ALL CONDUIT SHALL BE GALVANIZED STEEL OR PVC AND SHALL HAVE A 2" MINIMUM SEPARATION. ALL CONDUIT RADII ARE 90° 24" SWEEPS.
2. ALL CONDUIT INSIDE THE CABINET SHALL HAVE GROUNDING END BUSHING.
3. ALL GROUNDING END BUSHING, GROUNDED BUS BAR AND THE GROUND RODS SHALL BE A CONTINUOUS GROUNDING SYSTEM WITHOUT SPLICE.
4. RODS SHALL HAVE AT LEAST 8' IN CONTACT WITH THE EARTH.
5. TWO - 1/2" DIAMETER WEEPHOLES SHALL BE PROVIDED IN THE FOUNDATION AND LOCATED 2" INSIDE OF THE BACK OR SIDE EDGES OF THE CONTROLLER CABINET. WEEPHOLES SHALL BE SLOPED TO ALLOW OUTLET TO BE 3" BELOW TOP OF FOUNDATION. TWO INCHES OF THE OUTLET END SHALL BE FIBER FILLED.
6. FOR ALTERNATE STYLE OF CABINET, WORKING PAD CAN BE RELOCATED.
7. ALL CONDUITS SHOULD BE A MINIMUM OF 8" FROM THE EDGE OF CABINET.

CONTROLLER CABINET FOUNDATION (1 OF 2)

1

04/24

REVISION & DATE

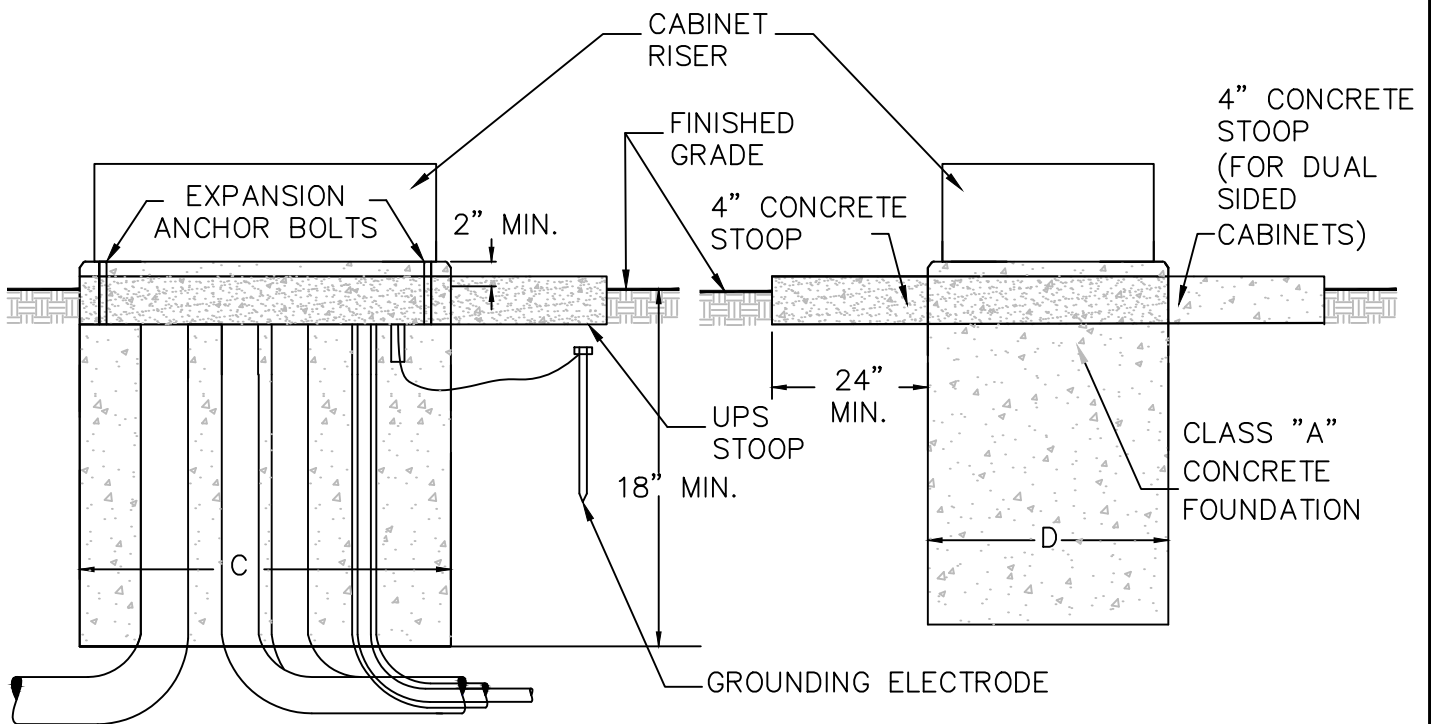


ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
66-01

FRONT VIEW

SIDE VIEW



	CAB C	CAB A & B
C	36"	50"
D	24"	32"

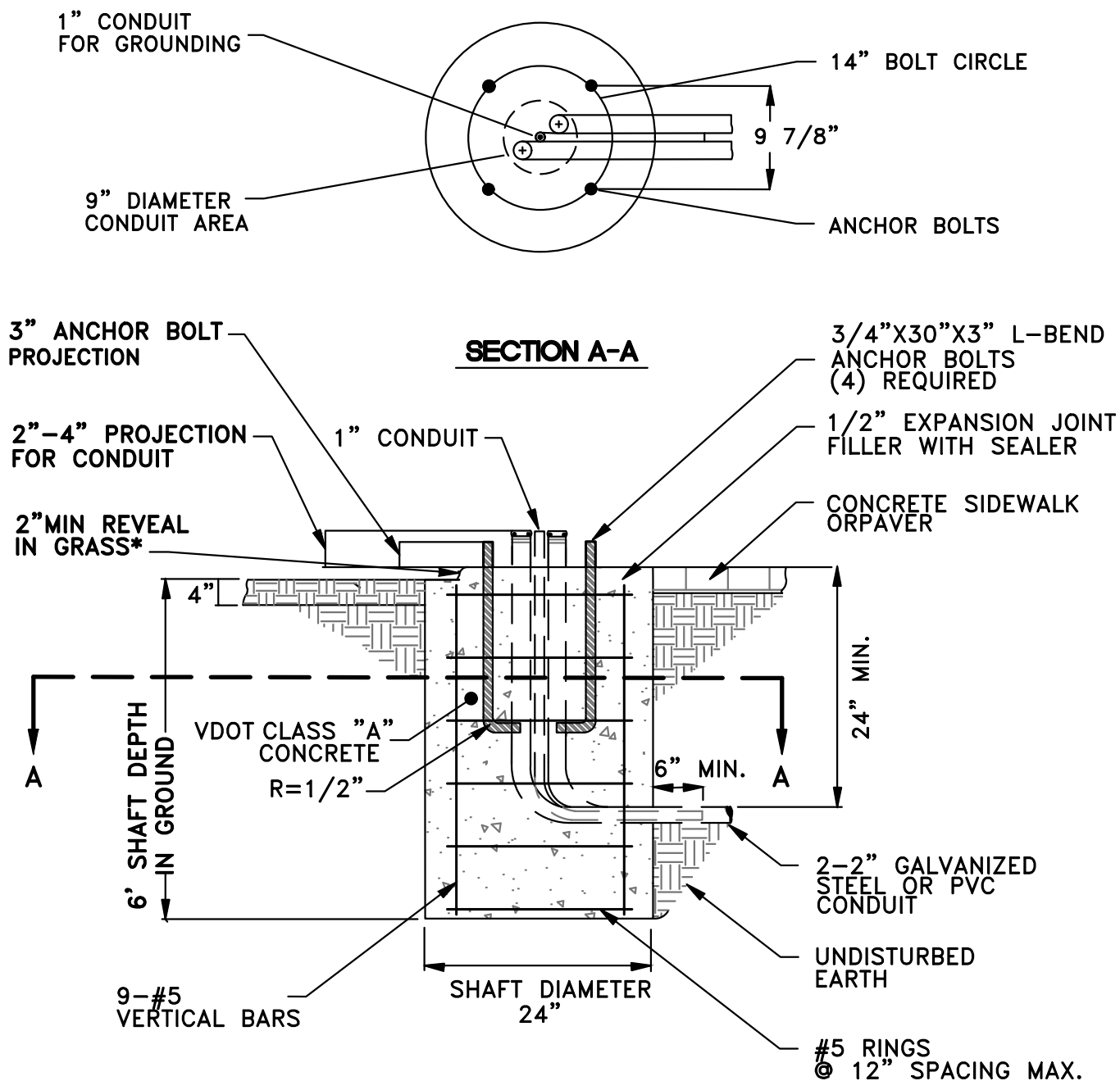
CONTROLLER CABINET FOUNDATION (2 OF 2)

1	11/21
2	04/24
REVISION & DATE	



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
66-02



NOTES:

1. FOUNDATION TOP SHALL BE FINISHED AND LEVEL.
2. ANCHOR BOLTS SHALL BE 3/4"X18".
3. BOLT PATTERN SHALL BE PARALLEL TO THE CURB.
4. ALL CONDUIT RADII ARE 90 (R) 24" SWEEPS.
5. THIS DETAIL DOES NOT APPLY TO CARLYLE STREETLIGHT POLES.
6. REVEAL IS FLUSH IN SIDEWALK/CONCRETE.*

BEACON FOUNDATION

1

04/24

REVISION & DATE



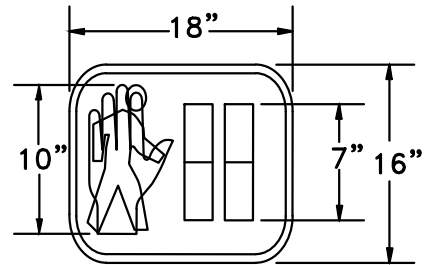
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
66-04

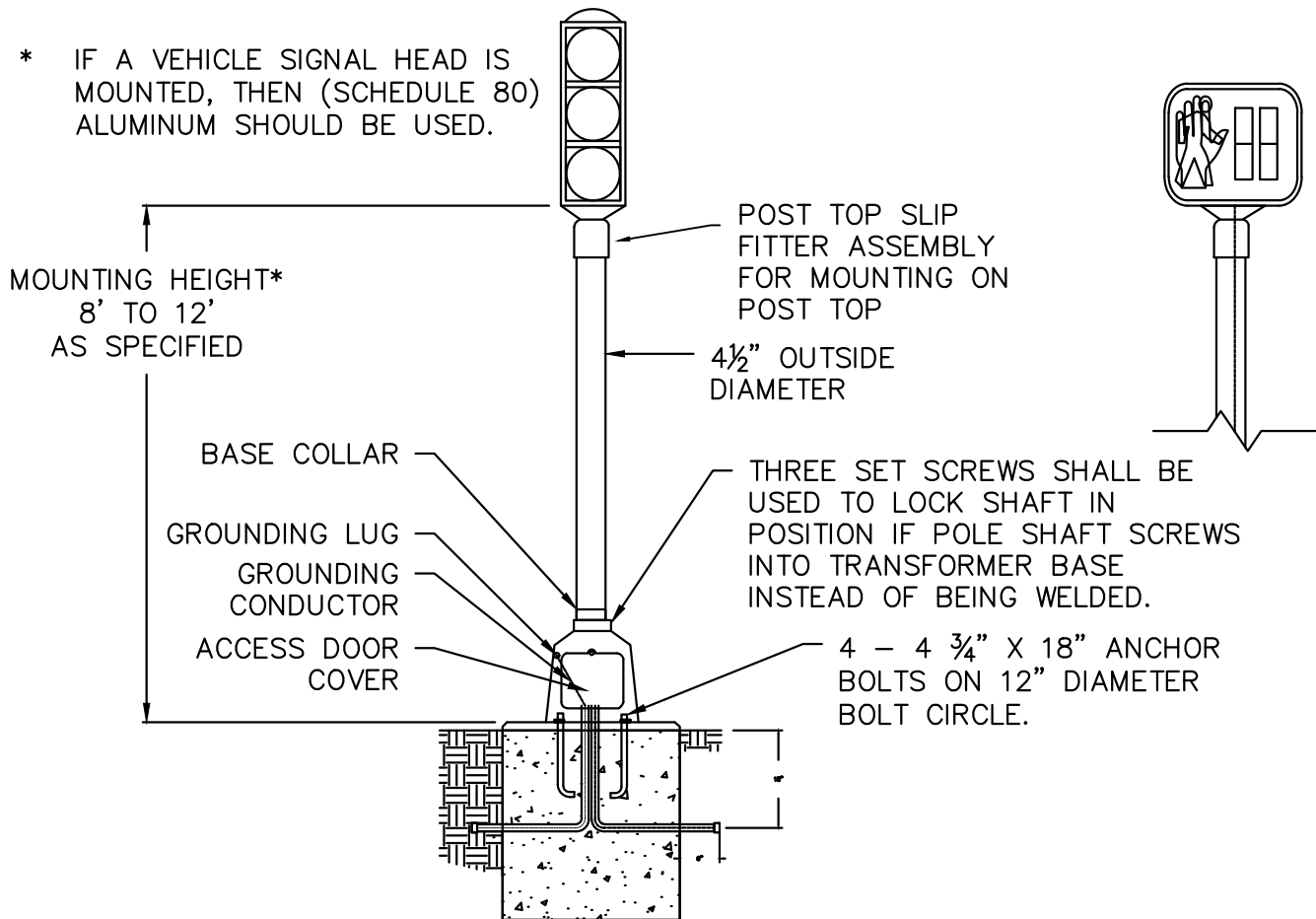
PEDESTRIAN SIGNAL HEAD

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE LED, COUNTDOWN STYLE PER SPECIFICATIONS.
2. FOR ROUND STEEL POLES, PEDESTRIAN SIGNAL HEADS SHALL BE DRILLED AND BOLTED TO THE POLE UNLESS OTHERWISE APPROVED BY THE COUNTY.
3. MOUNTING BRACKETS FOR PEDESTRIAN SIGNAL HEAD SHALL MATCH THE COLOR OF THE PEDESTRIAN SIGNAL HEAD SIGN.



PEDESTAL POLE MOUNTING DETAILS



PEDESTAL POLE MOUNTING & PEDESTRIAN SIGNALS

1 11/21

2 04/24

REVISION & DATE

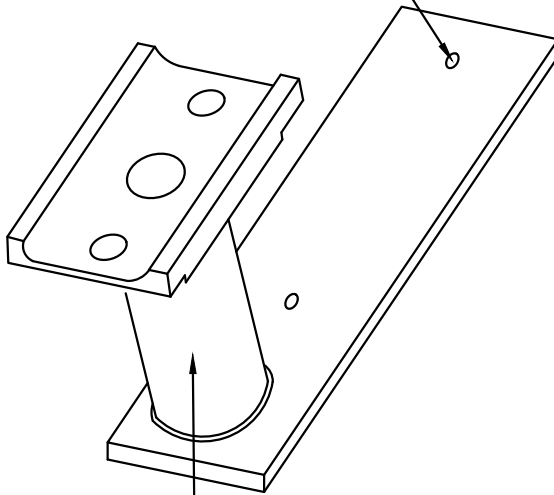


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DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
67-01

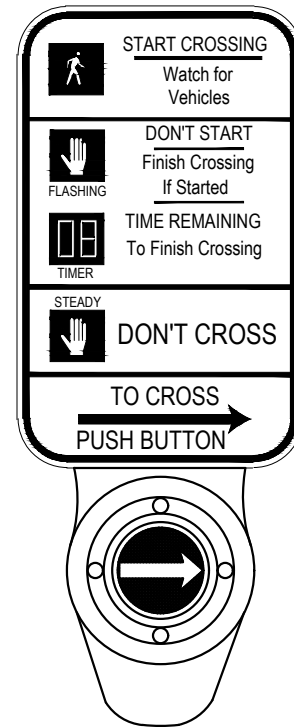
R10-3e TO BE MOUNTED
TO APS BRACKET/FACE

EXTENDER SHALL BE
BOLTED TO POLE OR
BANDED



ROUTE WIRES IN
EXTENDER TUBE

R10-3(e)
9" x 15"



PUSHBUTTON FRAME EXTENDER

PUSHBUTTON SCHEMATIC

NOTES:

1. ACCESSIBLE PUSHBUTTON STATION (APS) SHALL BE POLARA TYPE UNLESS OTHERWISE NOTED OR AS APPROVED BY THE COUNTY TRAFFIC ENGINEER.
2. APS SHALL BE POWDER COAT BLACK.
3. APS SHALL BE INSTALLED IN A LOCATION IN ACCORDANCE WITH ADA AND MUTCD STANDARDS.
4. A CCU SHALL BE PLACED INSIDE THE CABINET AND CONFIGURED PRIOR TO INSPECTION.
5. CENTER OF PUSHBUTTON SHALL BE MOUNTED AT 42" PER ADA AND MUTCD REQUIREMENTS.
6. IF THE PUSHBUTTON MOUNTING HEIGHT IS IN CONFLICT WITH A POLE SKIRT OR OTHER OBSTRUCTIONS, AN EXTENDER SHALL BE INSTALLED.
7. EXTENDERS SHALL BE POWDER COAT BLACK, GALVANIZED STEEL, 6" OR 12" LENGTH (PART PBFE-06 OR PBFE-12).
8. EXTENDERS MAY BE USED TO PROVIDE PROWAG COMPLIANT BUTTON ORIENTATION IF REQUESTED BY THE COUNTY.

ACCESSIBLE PUSHBUTTON STATION

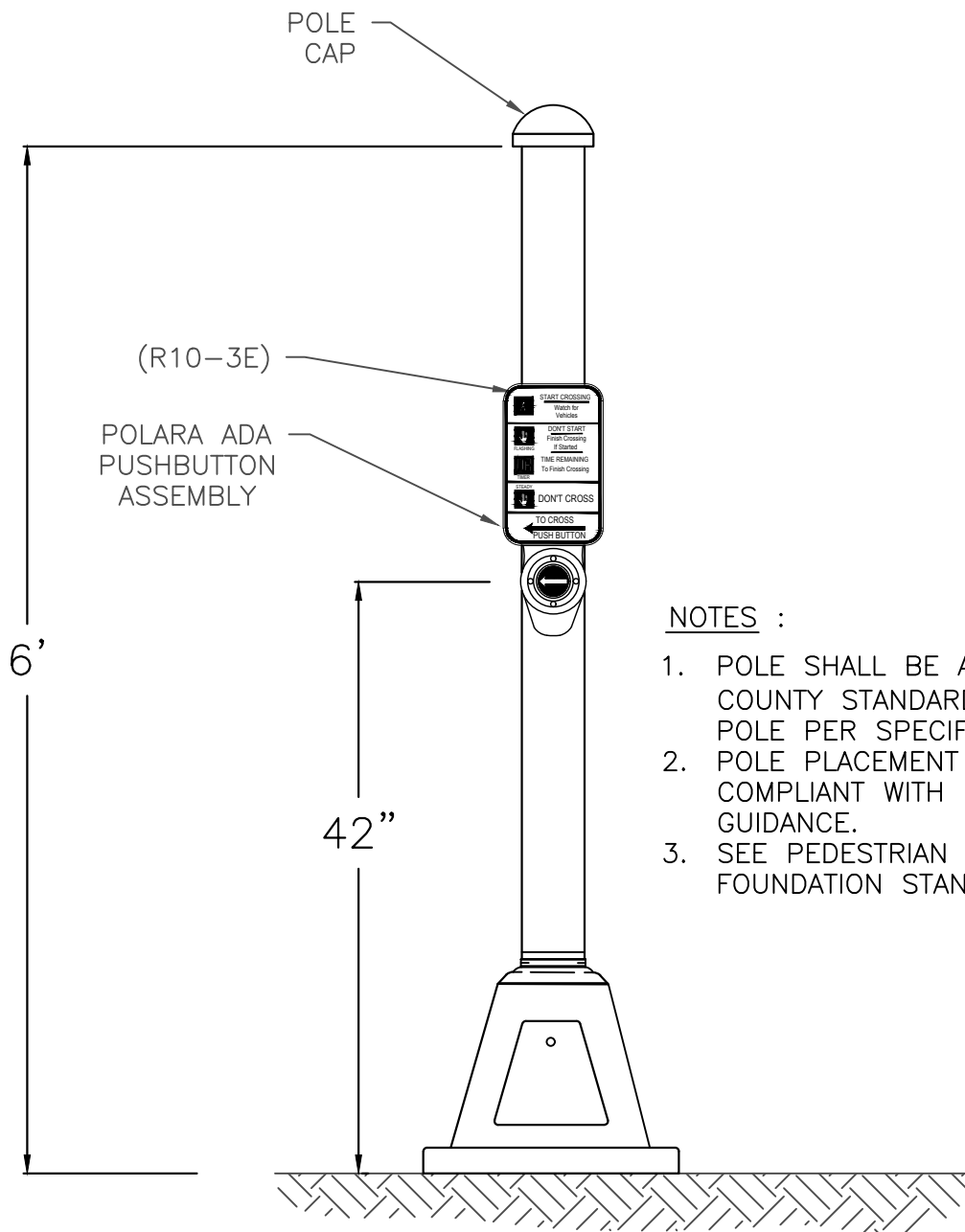
1	01/19
2	04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
68-01



NOTES :

1. POLE SHALL BE ARLINGTON COUNTY STANDARD 6' ALUMINUM POLE PER SPECIFICATIONS.
2. POLE PLACEMENT SHALL BE COMPLIANT WITH LATEST PROWAG GUIDANCE.
3. SEE PEDESTRIAN POLE FOUNDATION STANDARD 66-04.

PEDESTRIAN BOLLARD POLE

1

04/24

REVISION & DATE

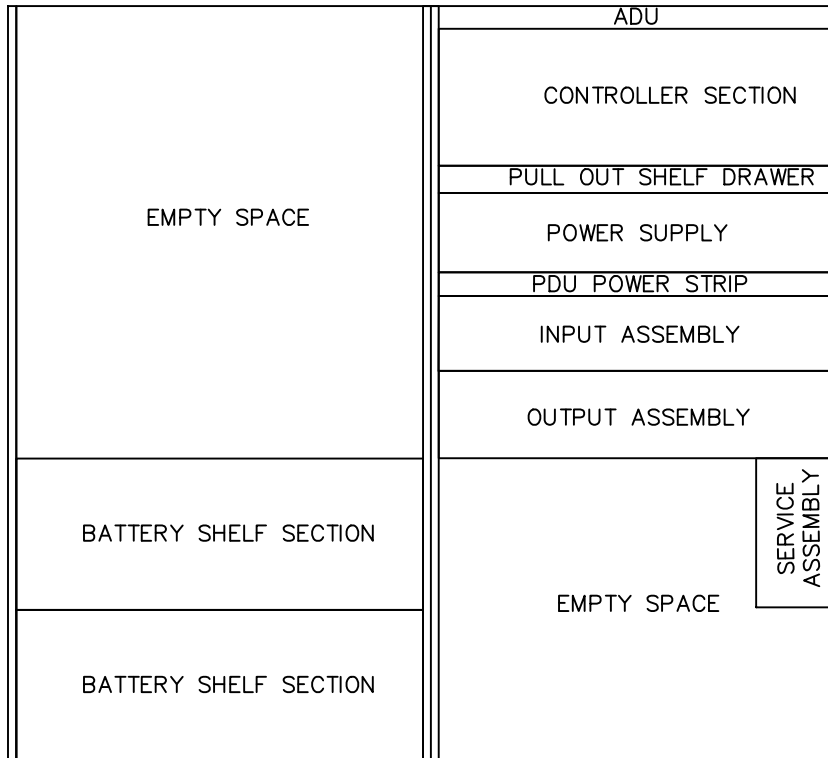


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DRAWING NO.
68-03

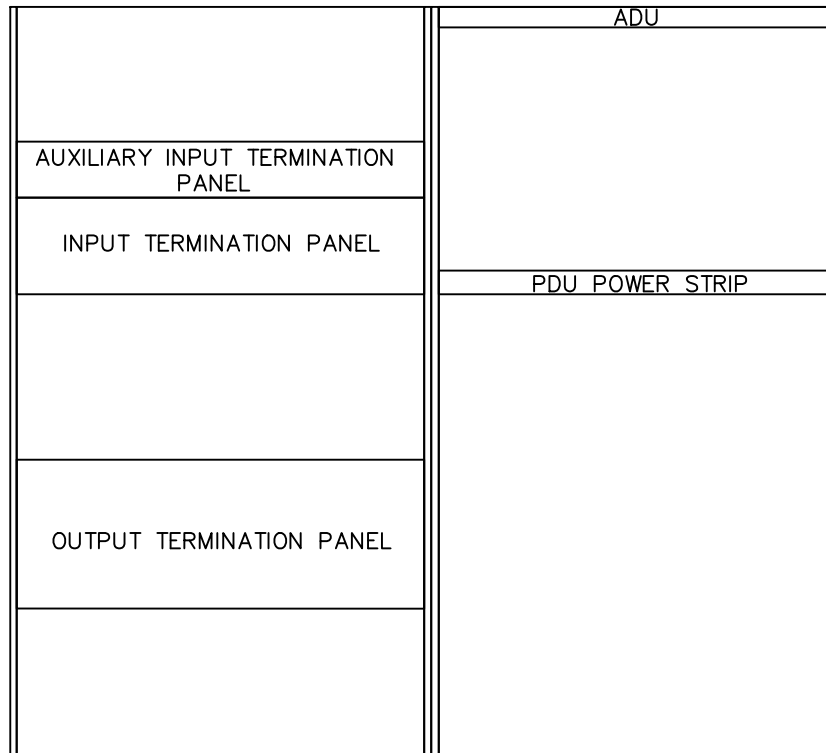
FRONT LEFT

FRONT RIGHT



REAR LEFT

REAR RIGHT



CABINET EQUIPMENT LAYOUT A

1	04/24
REVISION & DATE	

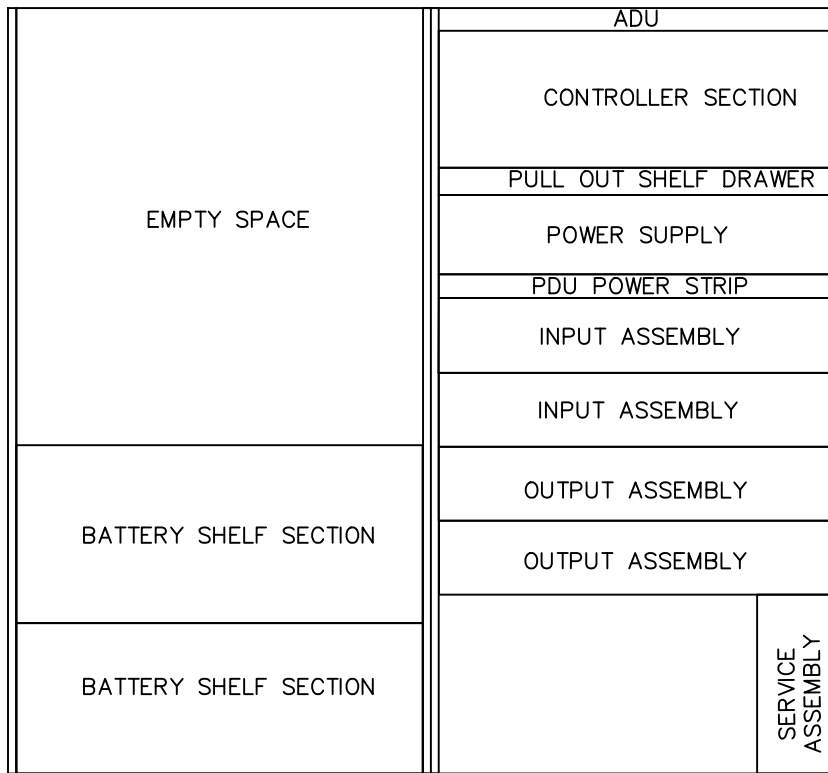


ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
70-01

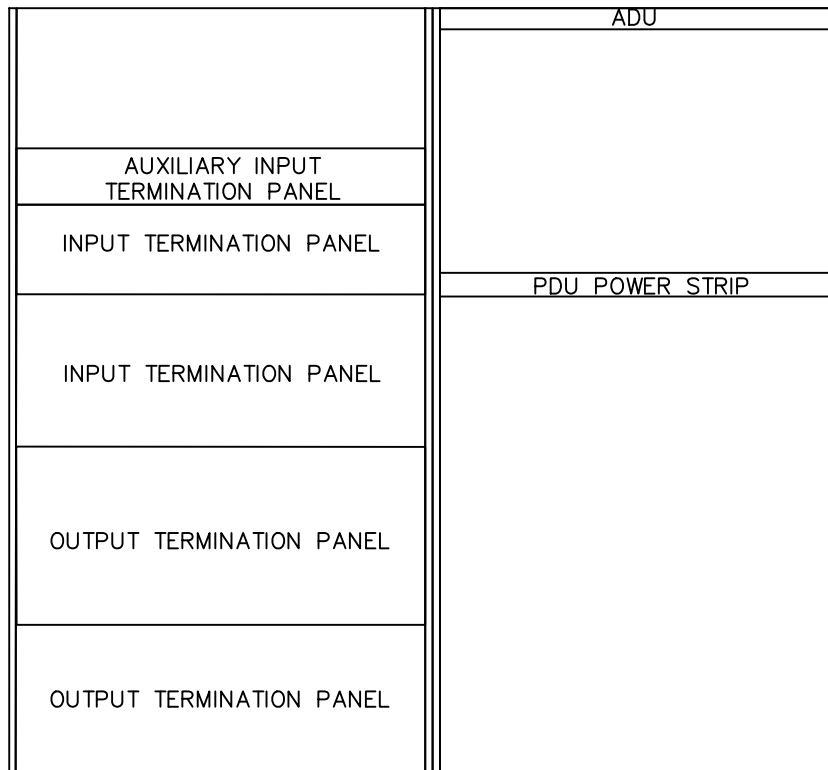
FRONT LEFT

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REAR LEFT

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CABINET EQUIPMENT LAYOUT B

1

04/24

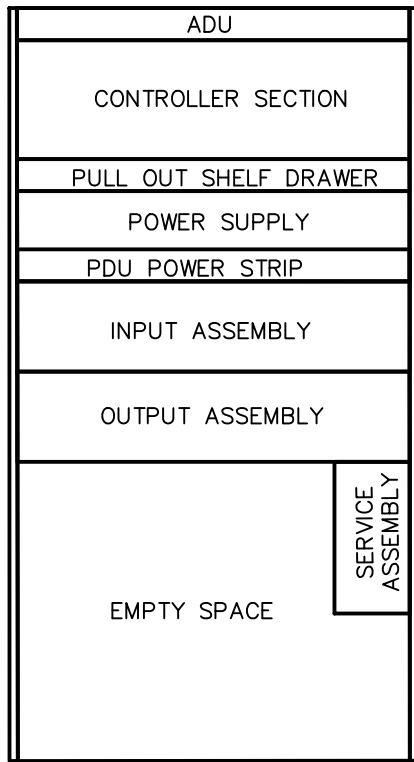
REVISION & DATE



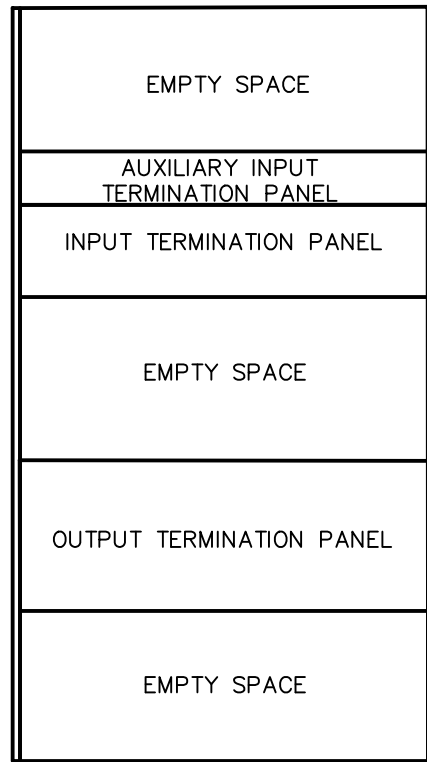
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
70-02

FRONT

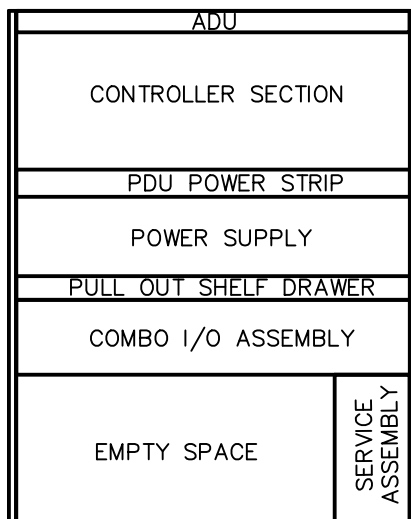


REAR

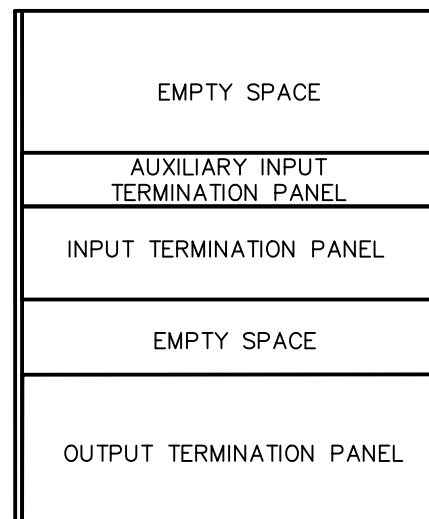


CABINET EQUIPMENT LAYOUT C

FRONT



REAR



CABINET EQUIPMENT LAYOUT D

CABINET EQUIPMENT LAYOUT C & D

1

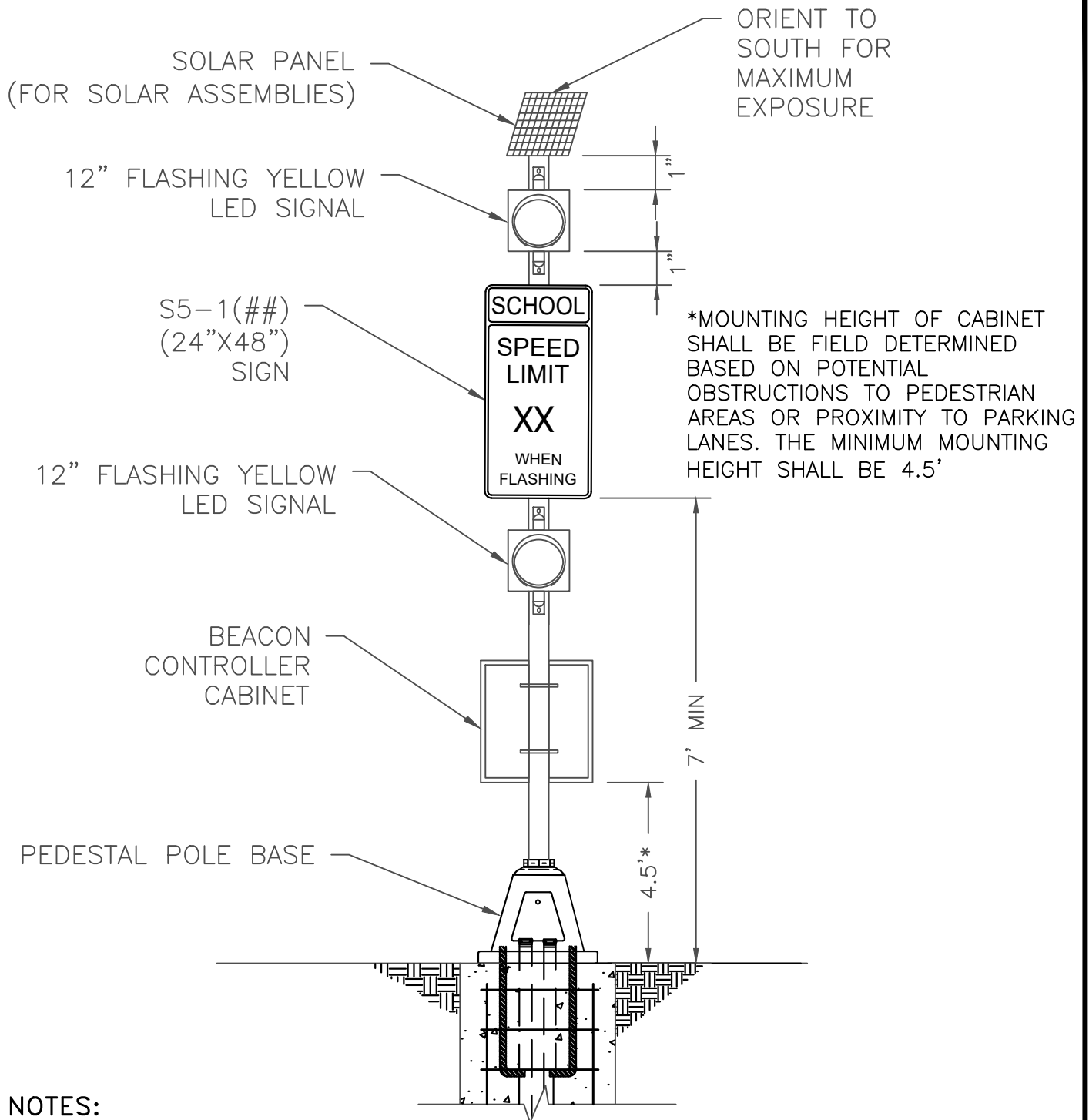
04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
70-03



NOTES:

1. SPEED LIMIT (##) DETERMINED PER PLANS
2. ARLINGTON COUNTY STANDARD 15' TREADED NOMINAL 4" (SCH.80) ALUMINUM POLE.
3. SEE BEACON POLE FOUNDATION SPECIFICATION (66-05).
4. 2" CONDUIT STUB OUT SHALL BE PROVIDED FOR ALL INSTALLATIONS (BOTH A/C AND SOLAR UNITS). STUB OUT SHALL BE PARALLEL TO ROADWAY.

SCHOOL BEACON ASSEMBLY

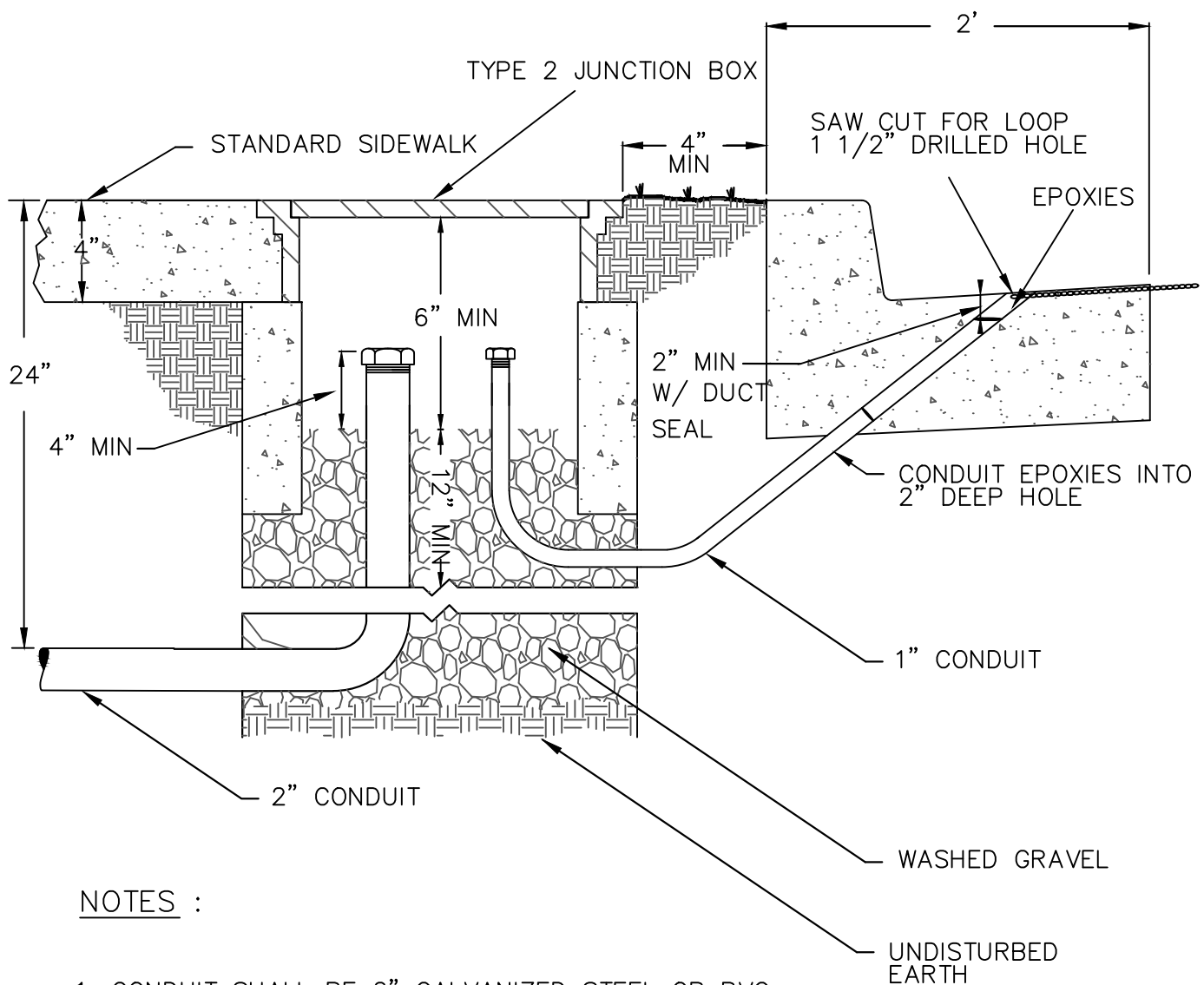
1 04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
73-01



NOTES :

1. CONDUIT SHALL BE 2" GALVANIZED STEEL OR PVC UNLESS SPECIFIED ON THE PLANS.
2. CONDUIT SHALL HAVE 2" SEPARATION AND WITH GROUNDING END BUSHING INSTALLED.
3. TOP OF BOXES SHALL BE FLUSH WITH EXISTING GRADE.

LOOP DETECTOR STUB OUT

1

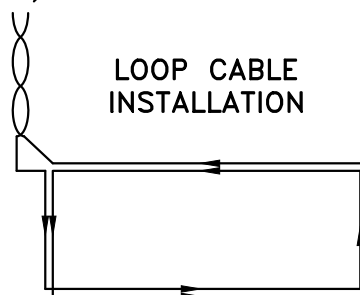
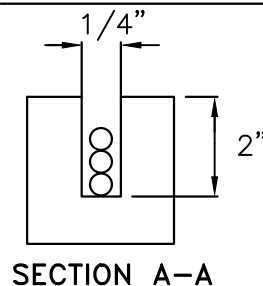
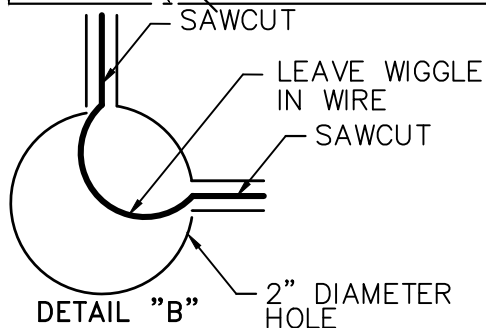
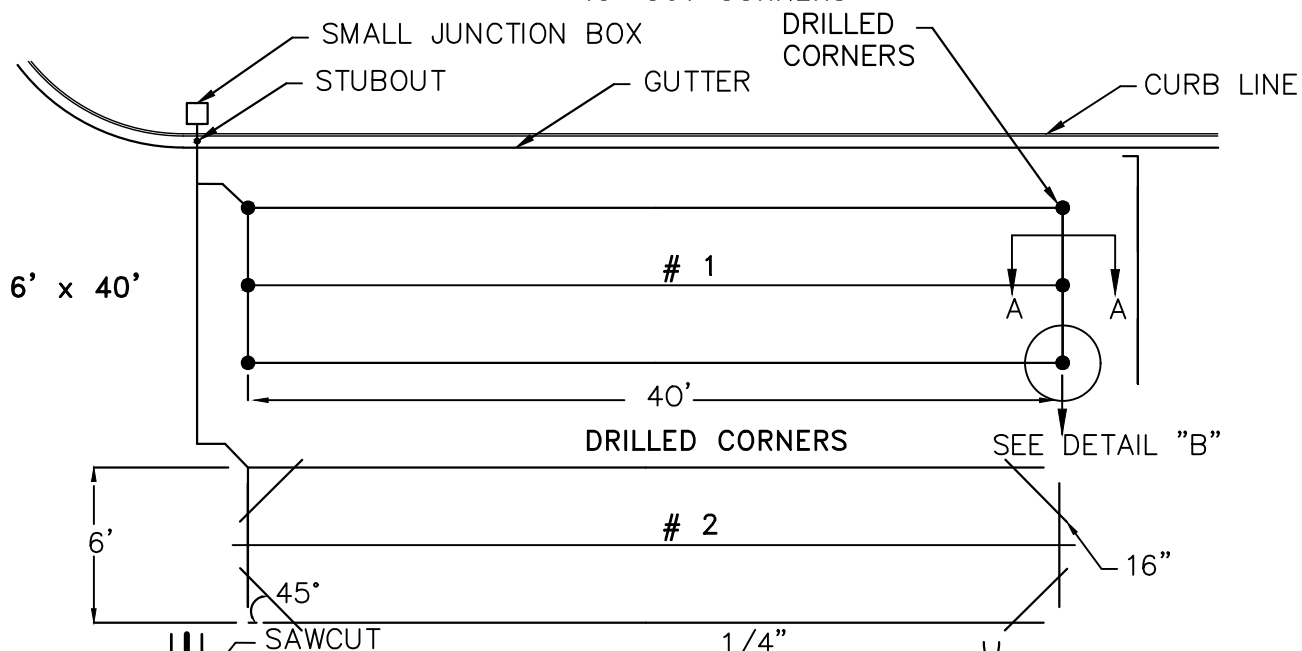
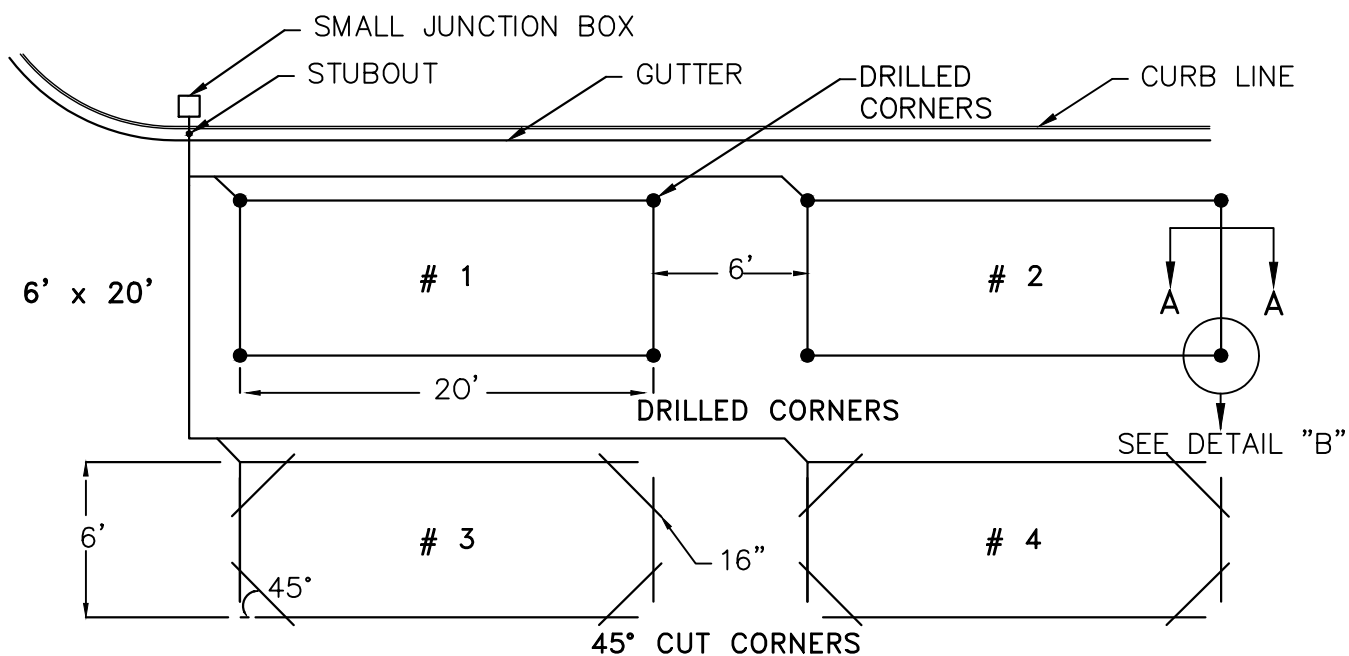
04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
78-01



- NOTES : DETAIL "B"
1. DRILLED CORNERS SHALL BE 3" DIAMETER HOLES DRILLED TO THE DEPTH OF SAWCUT. AFTER INSTALLATION OF LOOP WIRE, FILL SAWCUT WITH SEALANT.
 2. CONTRACTOR HAS THE OPTION TO USE DETAIL "B" FOR 90° DRILLED CORNERS IN PLACE OF 45° CUT CORNERS.

INDUCTION LOOP DETECTOR (6' x 20') / (6' x 40')

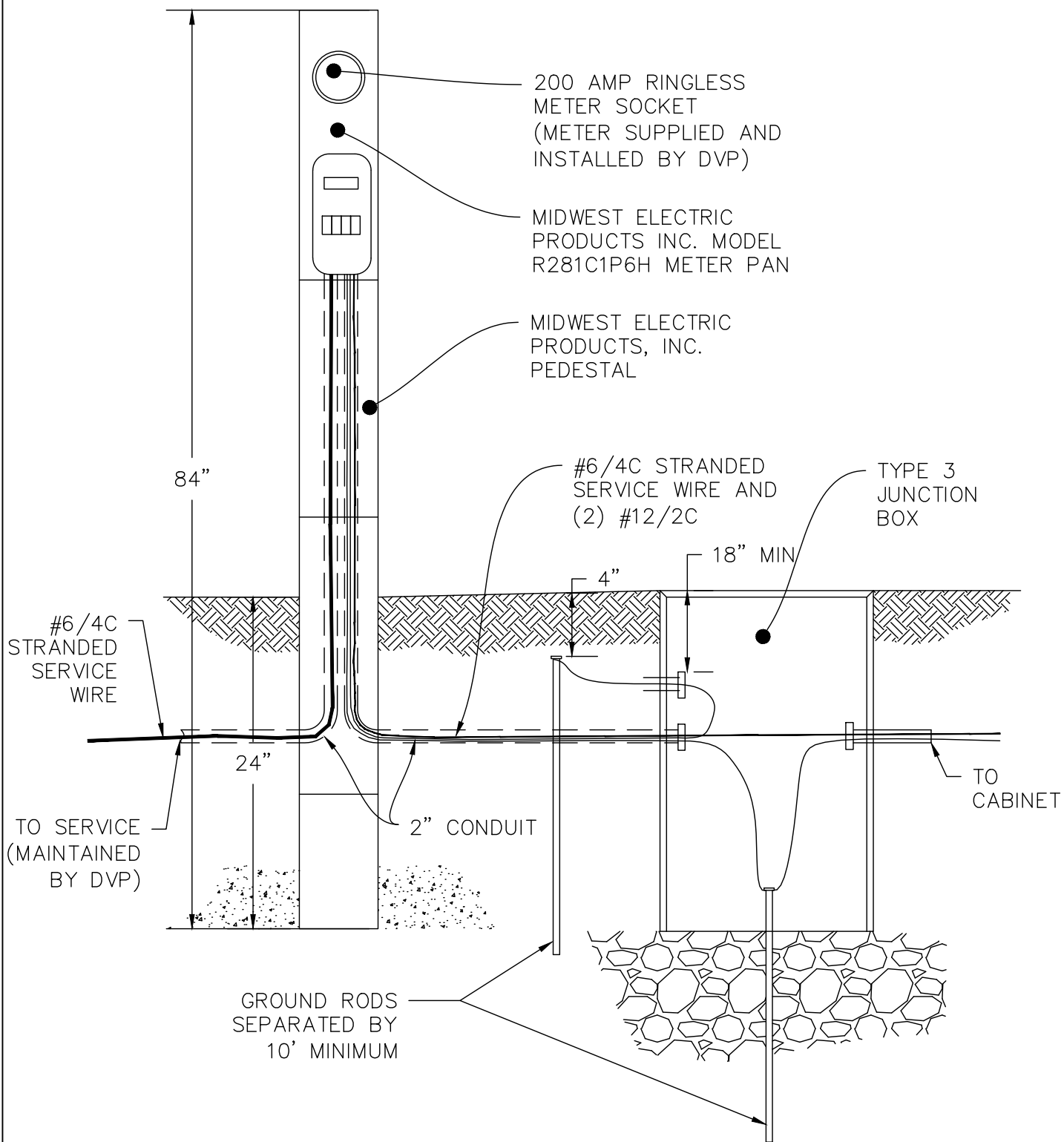
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ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
78-02



ELECTRIC SIGNAL SERVICE

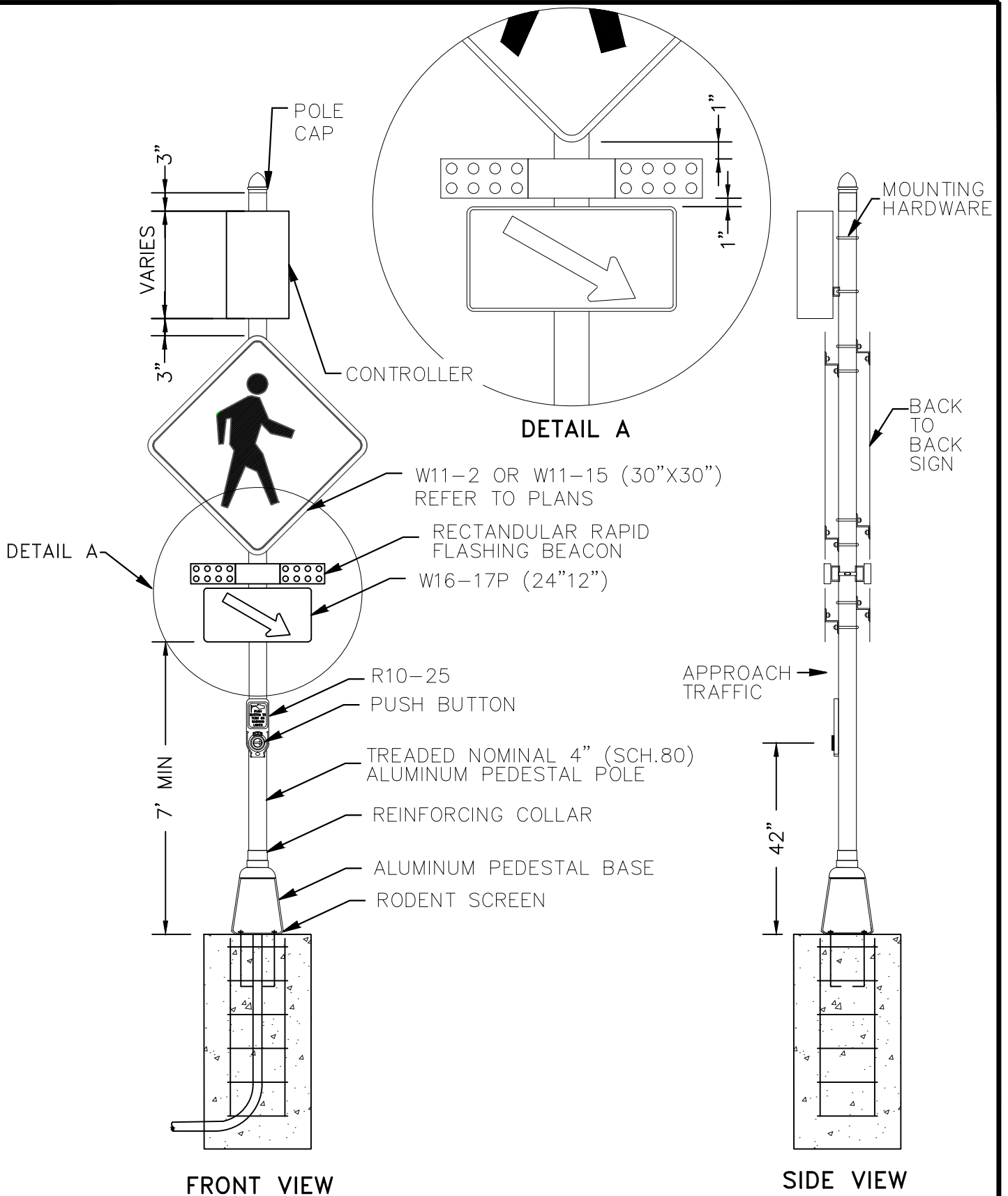
1 04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
80-01



RECTANGULAR RAPID FLASHING BEACON (RRFB) LAYOUT

1

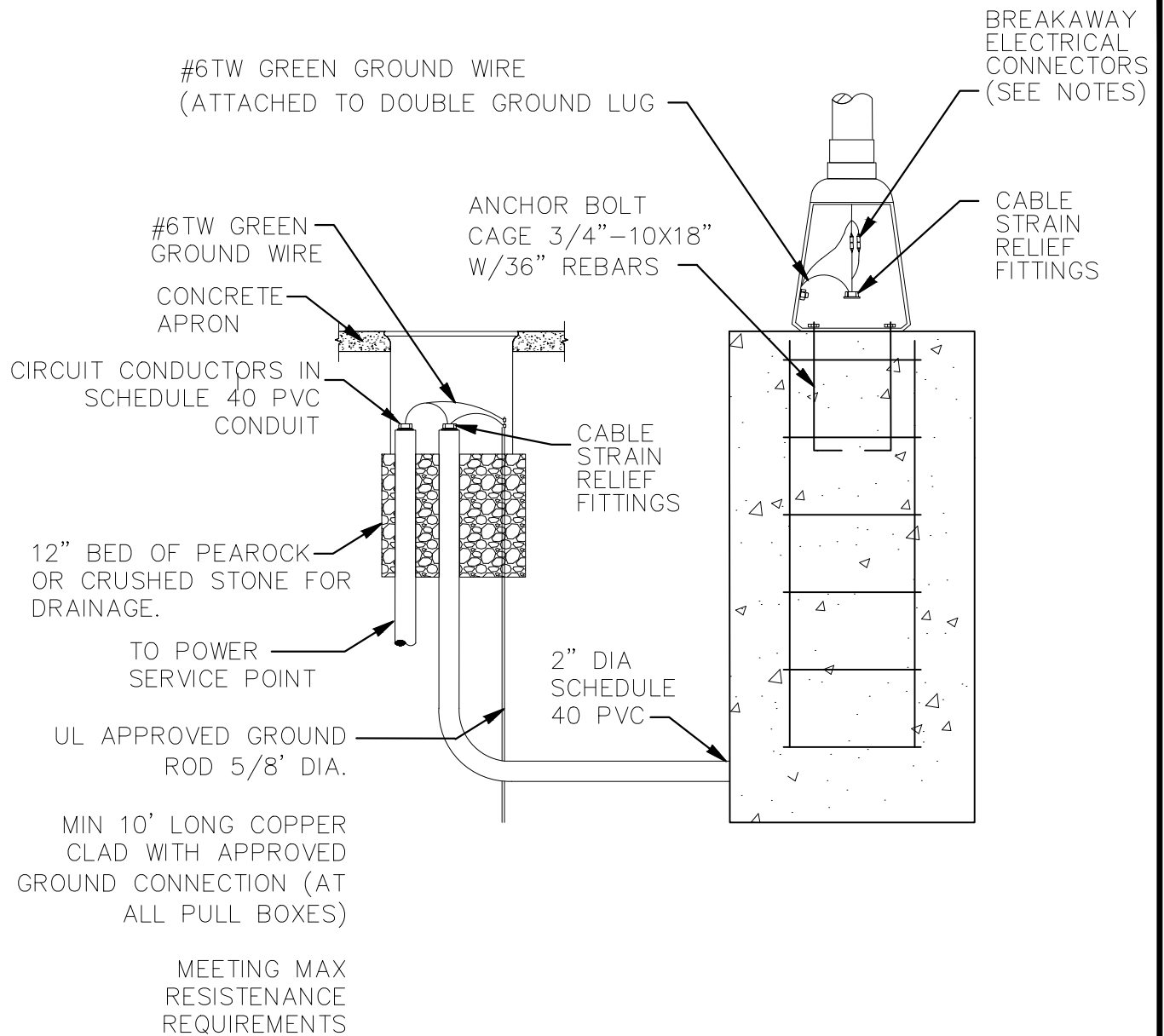
04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
83-01



NOTES:

1. FUSES: CLASS CC, 600 VAC, 15 AMPS, CURRENT LIMITING TIME–DELAY UL LISTED, 200KA VAC RMS SYM. INTERRUPTING RATING; LIMITRON CLASS CC FNQ–R–15 OR APPROVED EQUAL.
2. SINGLE–POLE IN–LINE FUSE HOLDER WITH SOLID BREAKAWAY OPTION FOR IMPACT SEPARATION: RATED 30A, 600V; LIMITRON HEB–AW–RLC–J FOR THE FUSED DISCONNECT AND HET–AW–RLC=J HAVING A PERMANENTLY INSTALLED SOLID NEUTRAL (FOR THE NON–FUSED DISCONNECT), OR APPROVED EQUAL.
3. CORD MUST BE SOW OR SOOW TYPE WITH A 600V RATING, MIN 12 AWG.

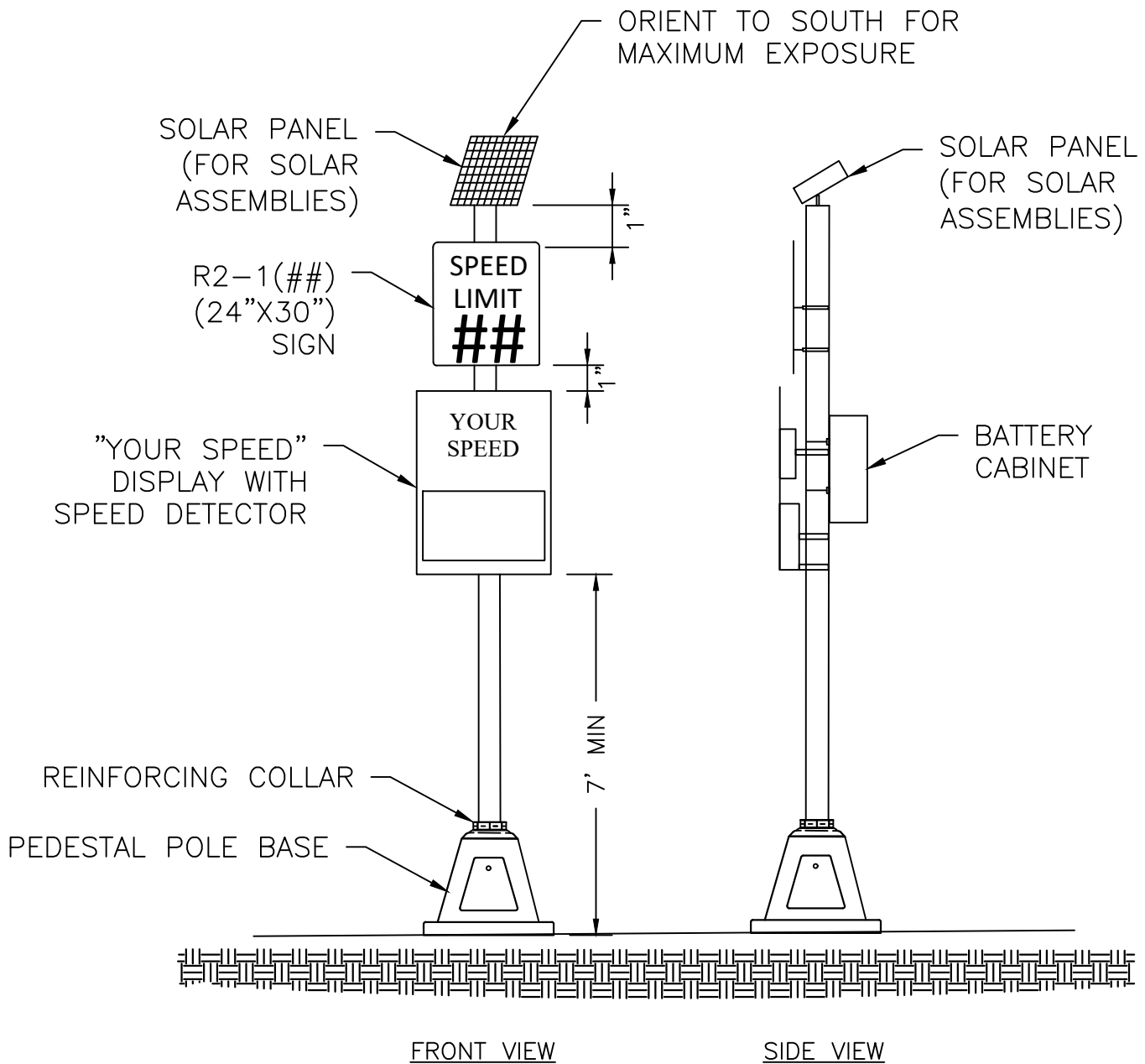
AC POWERED ROADSIDE BEACON WIRING DETAIL



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	04/24
REVISION & DATE	

DRAWING NO.
83-02



NOTES:

1. SPEED LIMIT (##) DETERMINED PER PLANS
2. ARLINGTON COUNTY STANDARD 15' TREADED NOMINAL 4" (SCH.80) ALUMINUM POLE.
3. SEE BEACON POLE FOUNDATION SPECIFICATION (66-05).
4. ALIGN RADAR SPEED DETECTOR PER MANUFACTURER'S GUIDELINES

RADAR SPEED INDICATOR SIGN ASSEMBLY

1

04/24

REVISION & DATE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO.
86-01