

Section 1: IP Video Wireless Backhaul Using 900MHz PTP NLOS Link (~600ft)

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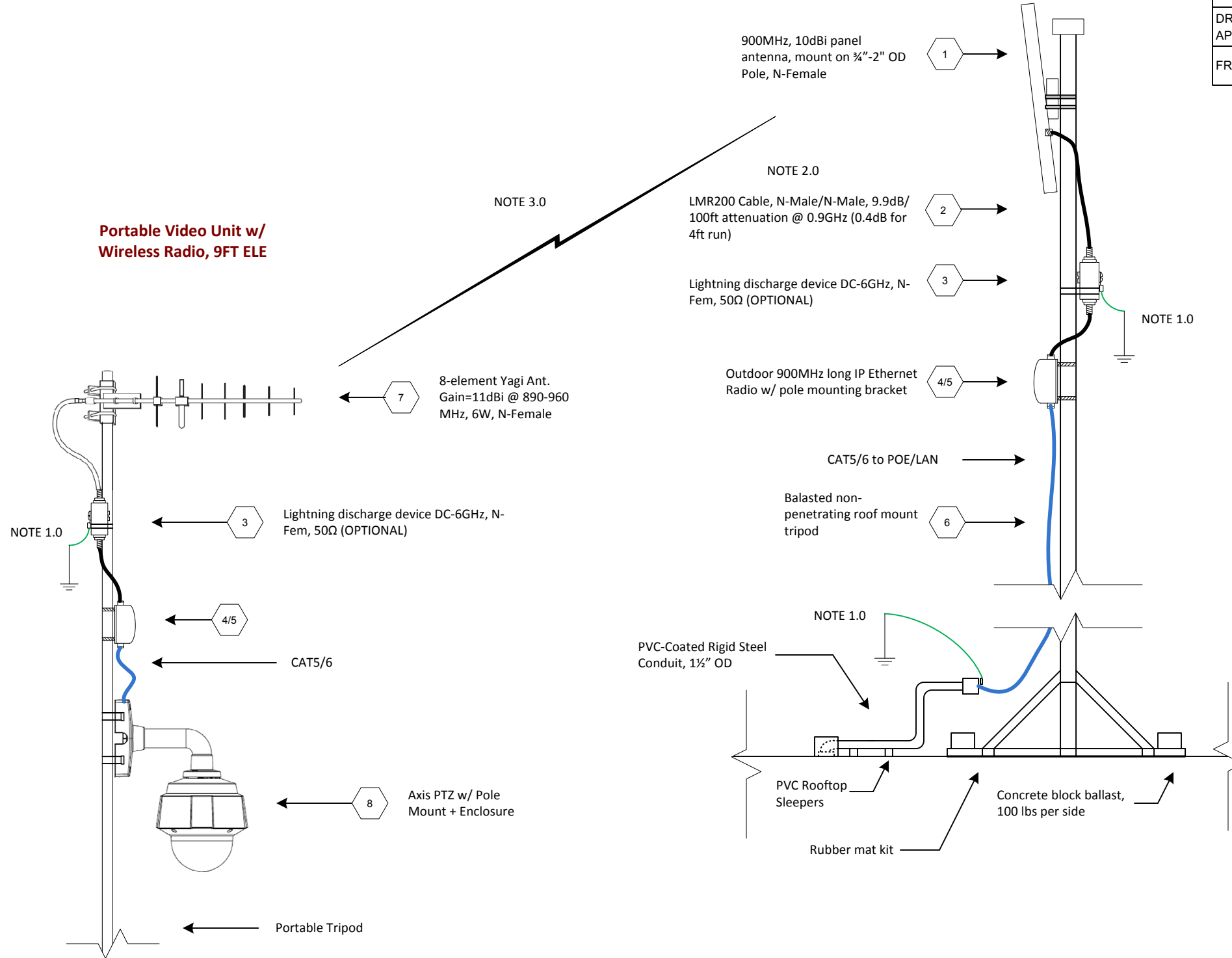
Reference Design: Portable Wireless Video Surveillance

600ft NLOS 900MHz Wireless Video Backhaul
JOB # BWA-40879-xxxx
Section 1.0: System Overview

DRAWN BY: RT (Engr) APPROVED BY:	SIZE	LIC NO AZ ROC # 253407	DWG NO DWG-BW-40879-xxxx-001	REV 1A
FREQ(s): 900/2.4GHz ISM	SCALE NO SCALE	FRN: 0018086041	SHEET 1 OF 1	

Fixed Radio Site – Network Backhaul Site, 35ft ELE

Portable Video Unit w/ Wireless Radio, 9FT ELE



Bill of Materials			
ITEM	QTY.	RFWEL SKU	DESCRIPTION
1	1	CLARC-PA0910B01	902-928 MHz 10dBi Panel Antenna, N-Female
2	4	CX24NMNM	4' LMR-200 Low loss coax, N-M/N-M
3	2	LPNFNF276V	Coax Lightning protector DC-6GHz, IL<0.7dB, 276VDC, N-Fem
4	2	AW900XTR	Outdoor 900MHz LR Radio (incl. POE, AC/DC power brick)
5	2	AW-XPM	AW900X Pole Mounting Bracket (2" OD)
6	1	R-fRm125+MAT	5' Non-Penetrating Roof Mount w/ Roof Pads
7	1	CTWL82-3155	890-960 MHz 8-Element 11dBi Yagi Antenna (w/ N-Fem)
8	1	AXIS225FD+	Axis 225FD Fixed Dome IP Camera w/ Pole Mounting Kit
NOTE2.0	2	ADPRPTNCMNF	RP-TNC-Male/ N-Female Adapter

NOTES:

1.0 Ground per NEC-2005 Art820 using 14AWG+ grounding electrode

2.0 Radio has RP-TNC-Female port so include RP-TNC-Male/N-Female adapter to interface N-Male/N-Male coax.

3.0 Careful RF link analysis required to estimate Non-Line-of-Sight Range for this designs EIRP. For a clear RF Line-of-sight (70% 1st Fresnel Zone Clearance) link distance is > 1mile. Consider Proxim Tsunami QB100 MIMO Radios at 2.4GHz or 5GHz for long-range, high datarate NLOS coverage.