

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

WYCO
FIELD SERVICES
Where quality still counts.

6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

EL ML PR

RFDS REV #: ---

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER

DNDEN00119B

DISH WIRELESS, LLC.
PROJECT INFORMATION

DNDEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

SHEET TITLE

PARCEL
MAP

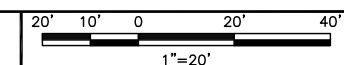
SHEET NUMBER

A-1.1

SEE OVERALL SITE PLAN
(SHEET A-1.2)



OVERALL SITE PLAN



NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
EL	ML	PR

RFDS REV #: ---

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

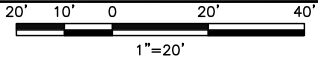
A&E PROJECT NUMBER
NDNEN00119B

DISH WIRELESS, LLC.
PROJECT INFORMATION
NDNEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

SHEET TITLE
ENLARGED
SITE PLAN

SHEET NUMBER

A-1.2



E 25TH AVE.

HAVANA ST.

HANOVER ST.

EXISTING PROPERTY LINE
(TYP.)

EXISTING
PLAYGROUND

EXISTING
BUILDING

GAMMA

BETA

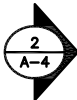
ALPHA

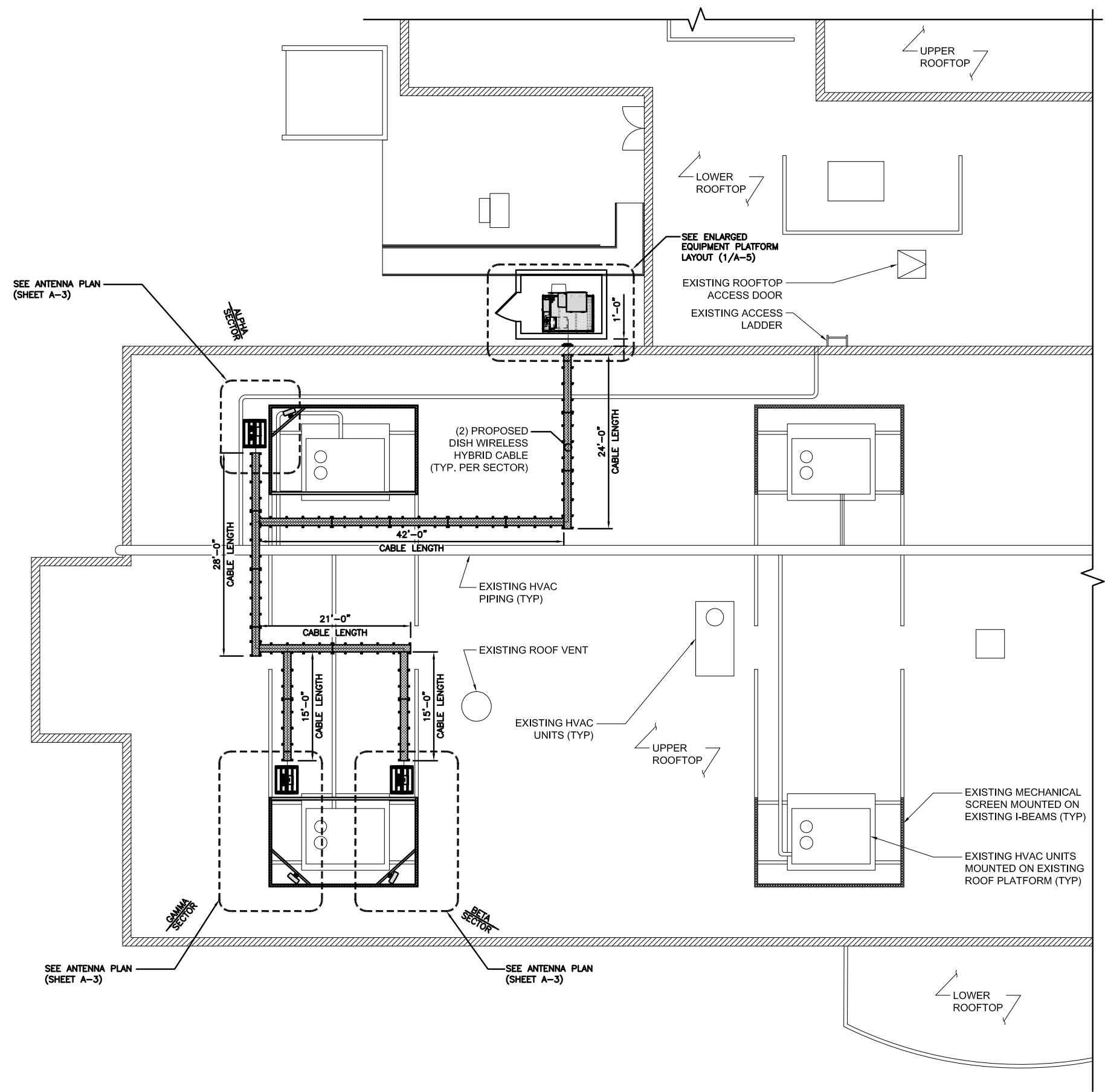
EXISTING ADA RAMP

SEE BUILDING PLAN
(SHEET A-2)

ACCESS EASEMENT

UTILITY EASEMENT





NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. CONTRACTOR TO VERIFY WITH DISH WIRELESS, LLC. C.M. THE LOCATION OF THE POWER AND FIBER SOURCE PRIOR TO CONSTRUCTION.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
EL	ML	PR

RFDS REV #: ---

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

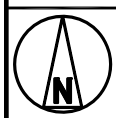
A&E PROJECT NUMBER
NDNEN00119B

DISH WIRELESS, LLC.
PROJECT INFORMATION
NDNEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

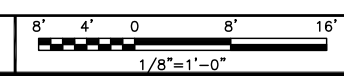
SHEET TITLE
ENLARGED BUILDING
PLAN

SHEET NUMBER

A-2



ENLARGED BUILDING PLAN



PROPOSED ANTENNAS TO
BE PAINTED TO MATCH
EXISTING BUILDING

(1) PROPOSED DISH WIRELESS
ANTENNA (TYP. PER SECTOR)

(1) PROPOSED DISH
WIRELESS RRU BALLAST
FRAME (TYP. PER SECTOR)

(2) PROPOSED DISH
WIRELESS RRUS
(TYP. PER SECTOR)

(1) PROPOSED DISH WIRELESS
OVP (TYP. PER SECTOR)

EXISTING SCREEN WALLS
TO BE EXTENDED 6.5'

PROPOSED STELL TUBING TO
BE ADDED FOR SUPPORT
(FINAL DESIGN PENDING)

(2) PROPOSED DISH WIRELESS
CABLE (TYP. PER ALPHA)

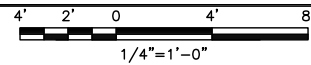
PROPOSED DISH WIRELESS
CABLE TRAY (TYP.)

20'-5"

7'-0"

12'-3"

ANTENNA PLAN - ALPHA SECTOR



1

PROPOSED ANTENNAS TO
BE PAINTED TO MATCH
EXISTING BUILDING

PROPOSED DISH WIRELESS
CABLE TRAY (TYP.)

(2) PROPOSED DISH
WIRELESS CABLES (TYP.
PER BETA & GAMMA)

(1) PROPOSED DISH WIRELESS
OVP (TYP. PER SECTOR)

(2) PROPOSED DISH
WIRELESS RRUS
(TYP. PER SECTOR)

(1) PROPOSED DISH
WIRELESS RRU BALLAST
FRAME (TYP. PER SECTOR)

PROPOSED STELL TUBING TO
BE ADDED FOR SUPPORT
(FINAL DESIGN PENDING)

EXISTING SCREEN WALLS
TO BE EXTENDED 6.5'

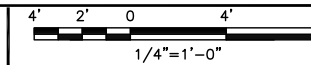
(1) PROPOSED DISH WIRELESS
ANTENNA (TYP. PER SECTOR)

20'-5"

12'-4"

6'-11"

ANTENNA PLAN - BETA & GAMMA SECTOR



2

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (HxW)x8.0"	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH
ALPHA	A1	PROPOSED	JMA - MX08FRO665-21	5G	72.0"x20.0"x8.0"	340°	36'-0"	2 CABLES (100')
BETA	B1	PROPOSED	JMA - MX08FRO665-21	5G	72.0"x20.0"x8.0"	120°	36'-0"	2 CABLES (130')
GAMMA	C1	PROPOSED	JMA - MX08FRO665-21	5G	72.0"x20.0"x8.0"	220°	36'-0"	2 CABLES (130')
SECTOR	POSITION	RRH		NOTES				
		MANUFACTURER - MODEL NUMBER	TECHNOLOGY					
ALPHA	A1	FUJITSU - TA08025-B605	5G	1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS. 2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.				
	A1	FUJITSU - TA08025-B604	5G					
BETA	B1	FUJITSU - TA08025-B605	5G					
	B1	FUJITSU - TA08025-B604	5G					
GAMMA	C1	FUJITSU - TA08025-B605	5G					
	C1	FUJITSU - TA08025-B604	5G					

NOT USED

NO SCALE

3

ANTENNA SCHEDULE

NO SCALE

4

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

WYCO
FIELD SERVICES
Where quality still counts.

6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

EL ML PR

RFDS REV #: ---

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER

DNDEN00119B

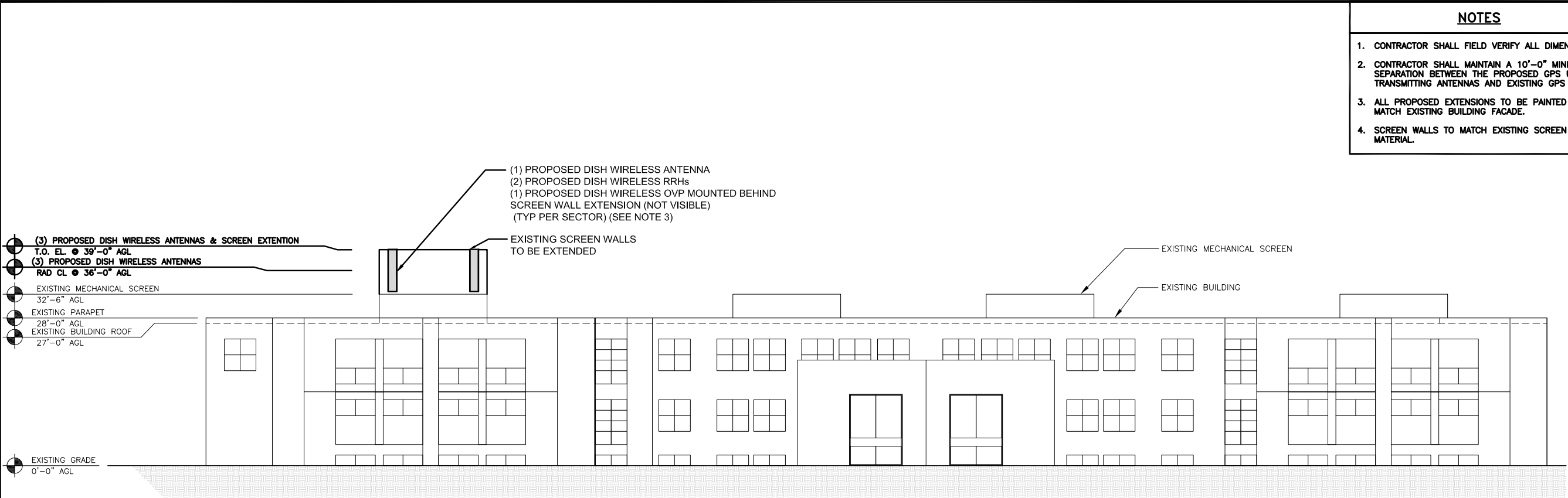
DISH WIRELESS, LLC.
PROJECT INFORMATION

DNDEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

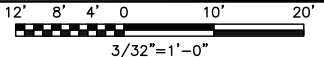
SHEET TITLE
ANTENNA PLAN
AND SCHEDULE

SHEET NUMBER

A-3



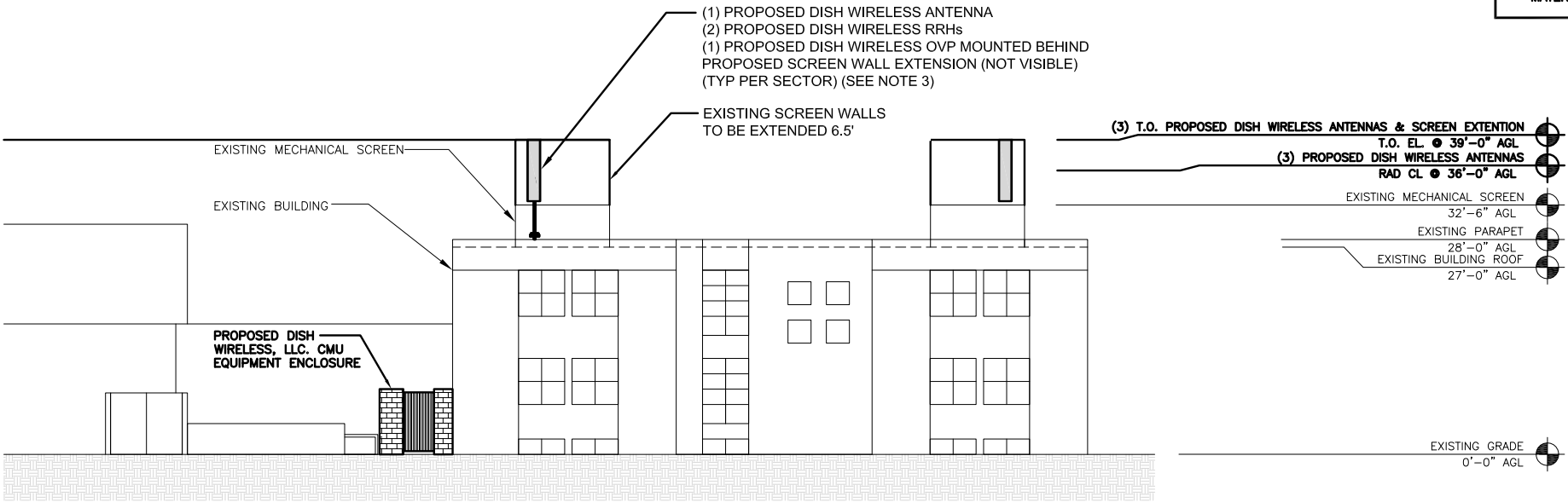
BUILDING SOUTH ELEVATION



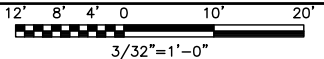
1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ALL PROPOSED SCREEN WALL EXTENIONS TO BE PAINTED TO MATCH EXISTING BUILDING FACADE.
4. SCREEN WALLS TO MATCH EXISTING SCREEN WALL MATERIAL.



BUILDING WEST ELEVATION



2

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ALL PROPOSED EXTENSIONS TO BE PAINTED TO MATCH EXISTING BUILDING FACADE.
4. SCREEN WALLS TO MATCH EXISTING SCREEN WALL MATERIAL.



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
EL	ML	PR

RFDS REV #: ---

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

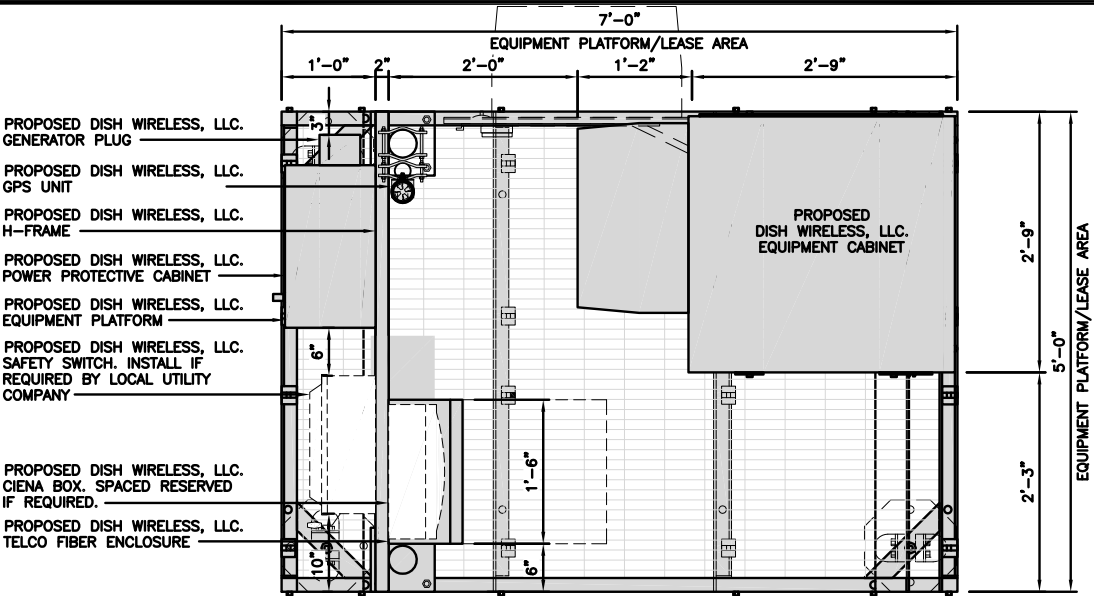
A&E PROJECT NUMBER
NDNEN00119B

DISH WIRELESS, LLC.
PROJECT INFORMATION
NDNEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

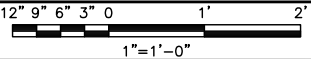
SHEET TITLE
BUILDING ELEVATIONS

SHEET NUMBER

A-4

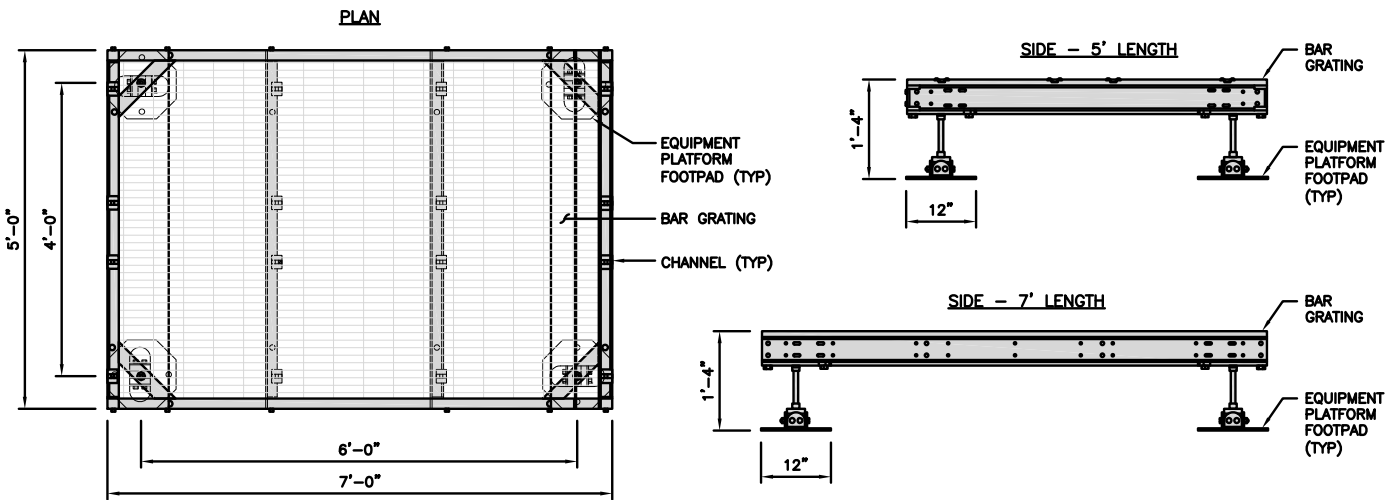


PLATFORM EQUIPMENT PLAN



1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

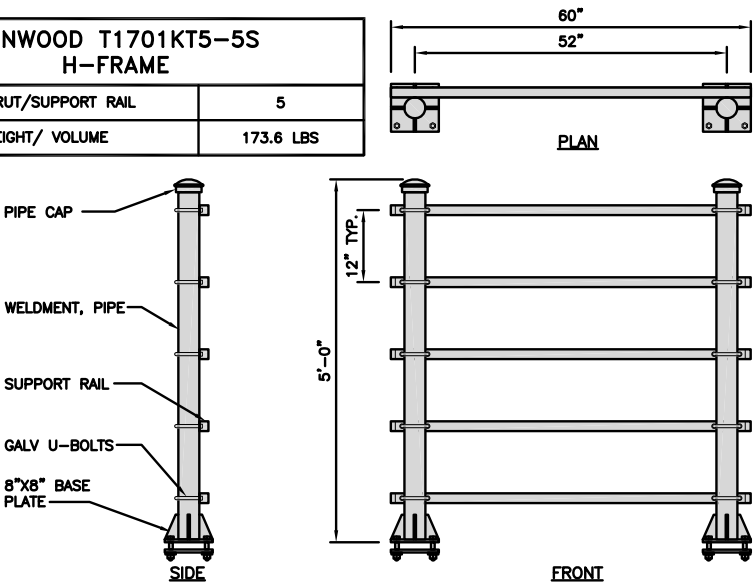


PLATFORM DETAIL

NO SCALE

2

KENWOOD T1701KT5-5S H-FRAME	
UNISTRUT/SUPPORT RAIL	5
WEIGHT/ VOLUME	173.6 LBS



H-FRAME DETAIL

NO SCALE

3

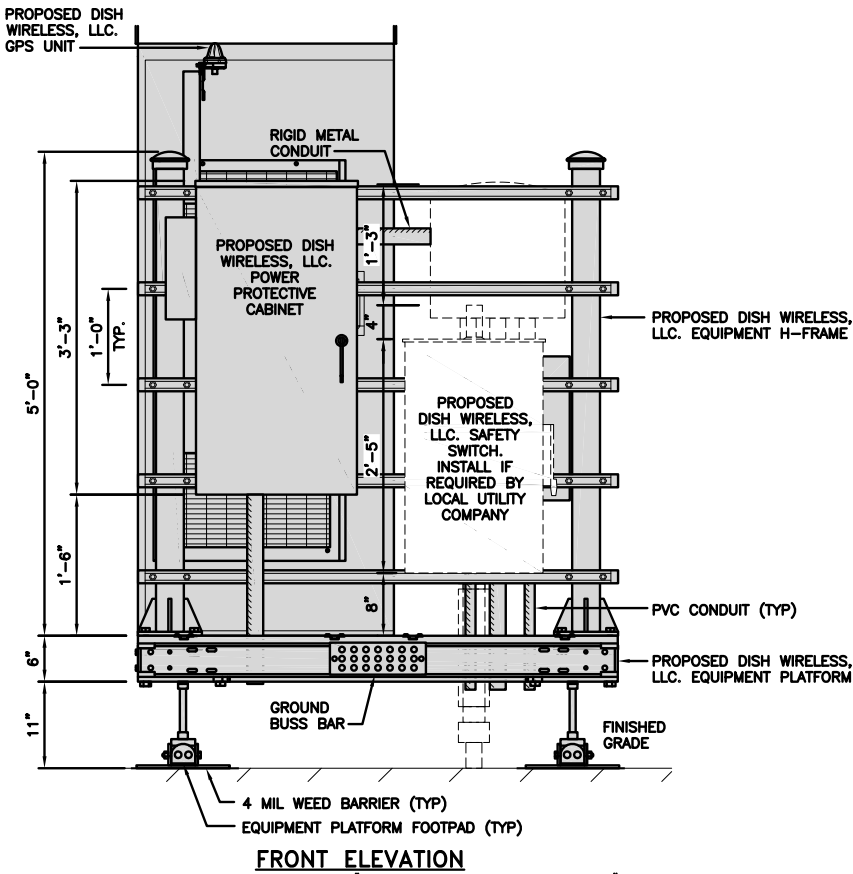
NOT USED

NO SCALE

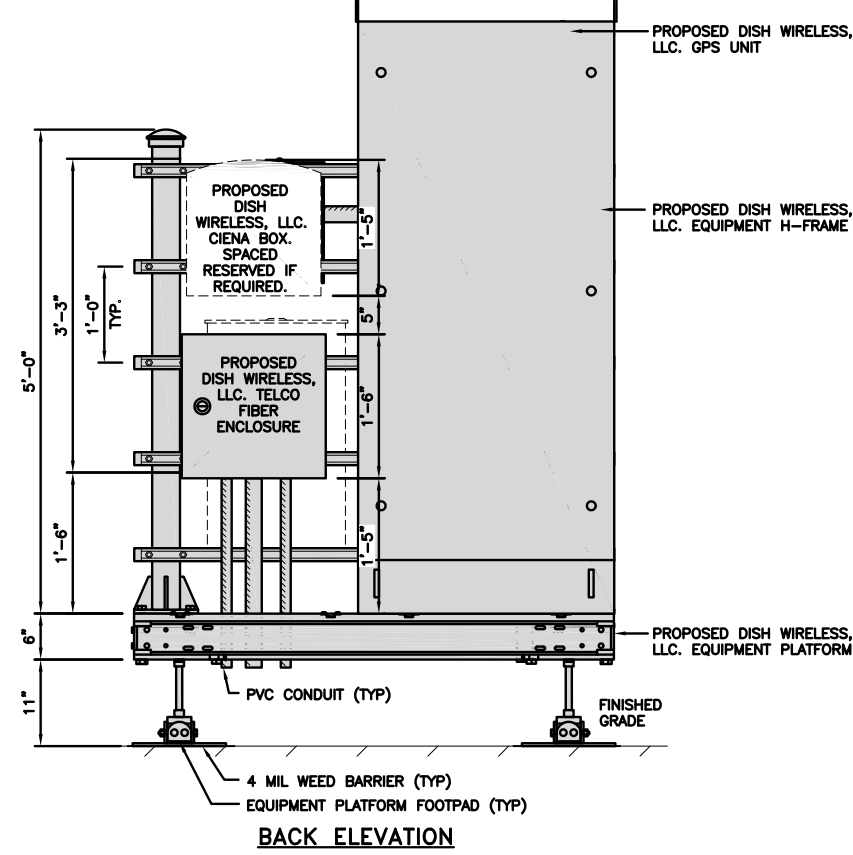
4

NOTE

1. EQUIPMENT CABINET OMITTED FOR CLARITY

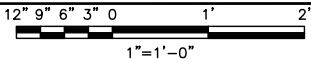


FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION



5

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

WYCO
FIELD SERVICES
where quality still counts.

6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

EL ML PR

RFDS REV #: ---

PRELIMINARY
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
DNDEN00119B

DISH WIRELESS, LLC.
PROJECT INFORMATION
DNDEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

SHEET TITLE
EQUIPMENT PLATFORM AND
H-FRAME DETAILS

SHEET NUMBER

A-5

CHARLES INDUSTRY
PM639155N4 AC CABINET

DIMENSIONS (HxWxD):	74"x32"x32"
POWER PLANT:	48VDC ABB
HVAC	6000W DC
TOTAL WEIGHT (EMPTY)	394 LBS

PLAN

SIDE

BACK

SIDE

FRONT

CABINET DETAIL

NO SCALE

1

SQUARE D SAFETY SWITCH
D324NRB

ENCLOSURE DIM (HxWxD)	29.25"x17.25"x8.25"
TOTAL WEIGHT (EMPTY)	45.33 LBS
MAX VOLTAGE/AMPS/WATT	240V/200A/48000W
ENCLOSURE RATING	OUTDOOR NEMA 3R

PLAN

SIDE

BACK

FRONT

SAFETY SWITCH

NO SCALE

2

RAYCAP RDIAC-6512-P-240-MTS
POWER & TELCO PROTECTION CABINET

DIMENSIONS (HxWxD)	40"x20"x10"
WEIGHT/ VOLUME	124 LBS
MANUAL TRANSFER SWITCH	200A
LOAD CENTER	30 POSITION
MAIN BREAKER	200A, 65kA AIC
GENERATOR RECEPTACLE	CAMLOCK
NEMA RATING	3R POWDER COATED ALUMINUM
SURGE PROTECTION DEVICE	UL 1449 4TH EDITION LISTED

PLAN

SIDE

FRONT

POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

3

ROSENBERGER
GPSGLONASS-36-N-S

DIMENSION (DIA x H)	69mm x 98.5mm
WEIGHT (WITH ACCESSORIES)	515.74g
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1559 MHz ~ 1610.5MHz

BACK

GPS UNIT

GROUNDING KIT

MOUNTING BRACKET

TOP

GPS UNIT

GROUNDING KIT

MOUNTING BRACKET

SIDE

GPS UNIT

GROUNDING KIT

MOUNTING BRACKET

GPS ANTENNA DETAIL

NO SCALE

5

GPS MINIMUM SKY VIEW REQUIREMENTS

MINIMUM OF 75% OR 270° IN ANY DIRECTION

GPS

GPS UNIT

OBSTRUCTIONS MUST BE BELOW 10°

GPS MINIMUM SKY VIEW REQUIREMENTS

NO SCALE

6

CIENA 3931
SERVICE DELIVERY SWITCH

DIMENSIONS (HxWxD)	17.0"x16.8"x7.0" 431x427x178mm
WEIGHT	28.6 LBS/13.0 KG
POWER INPUT	60W MAX

PLAN

FRONT

SIDE

BACK

CIENA DETAIL

NO SCALE

8

CHARLES
FIBER TELCO ENCLOSURE
CUBE-MP1818WB-A

ENCLOSURE DIM (HxWxD)	18.0"x18.0"x9.25"
NEMA RATING	4X
THERMAL	SEALED
MOUNTING BACKBOARD	WOOD

PLAN

SIDE

BACK

FRONT

FIBER TELCO ENCLOSURE DETAIL

NO SCALE

9

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

EL ML PR

RFDS REV #: ---

PRELIMINARY
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
DNDEN00119B

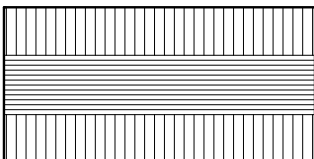
DISH WIRELESS, LLC.
PROJECT INFORMATION
DNDEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

SHEET TITLE
EQUIPMENT DETAILS

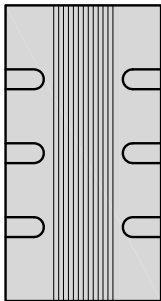
SHEET NUMBER

A-6

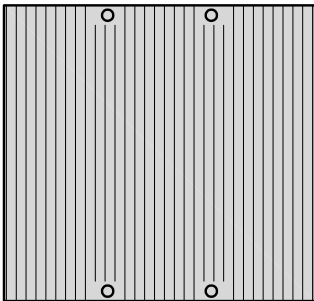
FUJITSU TA08025-B604 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x200/14.9"x15.7"x7.8"
WEIGHT(KG,LB)/ VOLUME	29kg,63.9lb/ 30L
POWER SUPPLY	DC-58~-36V



PLAN

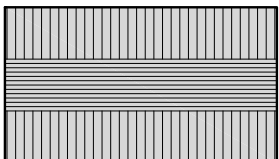


SIDE

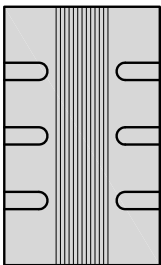


FRONT

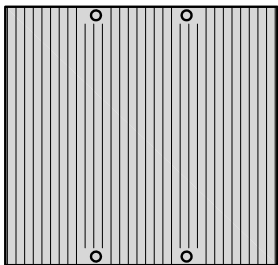
FUJITSU TA08025-B605 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x230/14.9"x15.7"x9.0"
WEIGHT(KG,LB)/ VOLUME	34kg,74.9lb/ 35L
POWER SUPPLY	DC-58~-36V



PLAN

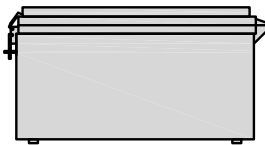


SIDE

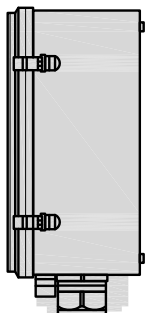


FRONT

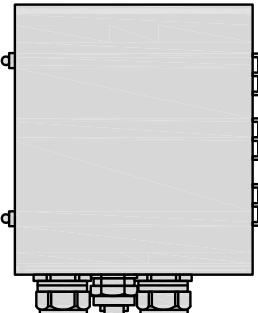
RAYCAP RDIDC-3045-PF-48 SURGE PROTECTION DEVICE (OVP)	
DIMENSIONS (HxWxD)	14" x 16" x 8"
WEIGHT	21.85 LBS



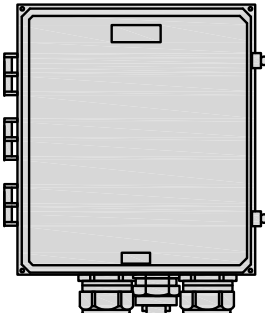
PLAN



SIDE



BACK



FRONT

REMOTE RADIO HEAD DETAIL

NO SCALE

1

REMOTE RADIO HEAD DETAIL

NO SCALE

2

SURGE PROTECTION DEVICE DETAIL (OVP)

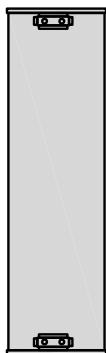
NO SCALE

3

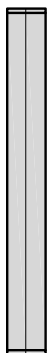
JMA WIRELESS MX08FRO665-21 ANTENNA	
DIMENSIONS (HxWxD)	72.0"x20.0"x8.0"
TOTAL WEIGHT	64.5 LB
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE



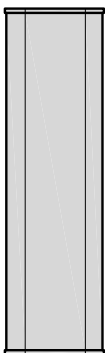
PLAN



BACK



SIDE



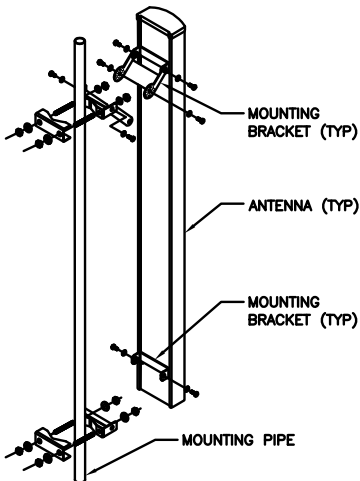
FRONT

ANTENNA DETAIL

NO SCALE

4

M04 MOUNTING BRACKET HPA-33R-BUU-H4-K	
WIDTH	5" (135mm)
DEPTH	2" (51mm)
HEIGHT	8" (213mm)
TOTAL WEIGHT (WITH BRACKETS)	1.5 LBS (15.50 Kg)
HOUSING MATERIAL	ASA/ABS/ALUMINUM
RADOME COLOR	LIGHT GRAY
CONNECTOR	1X8-PIN DAISY CHAIN

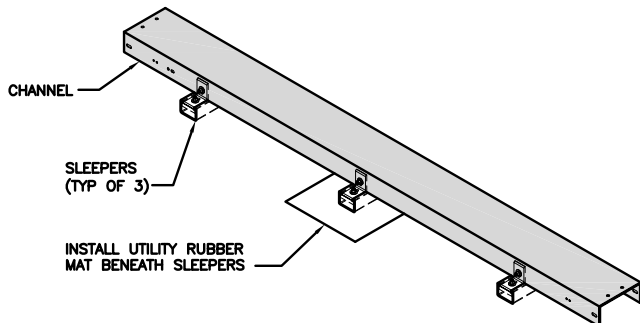


ANTENNA MOUNTING DETAIL

NO SCALE

5

COMMSCOPE MT-F1543 ROOFTOP CABLE BRIDGE KIT	
DIMENSIONS (HxWxL)	7"x30"x96"
WEIGHT	112.3 lbs
CABLE RUN, QUANTITY	8
NOTE: NON-PENETRATING, 12-GAUGE COVER, OR APPROVED EQUAL. INCLUDES: CHANNEL, HARDWARE AND (3) SLEEPERS	

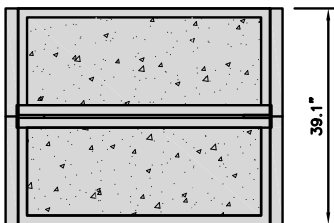


ROOFTOP CABLE TRAY DETAIL

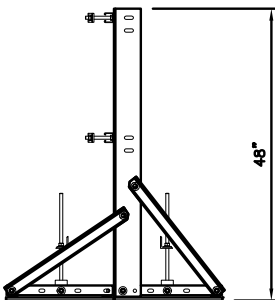
NO SCALE

6

COMMSCOPE RR-TFS BALLAST MOUNT	
DIMENSIONS (HxWxD)	48"x42"x36.1"
WEIGHT	161.77 lb
NOTE: NON-PENETRATING	



PLAN



SIDE

WELDMENT BALLAST
SLED FRAME

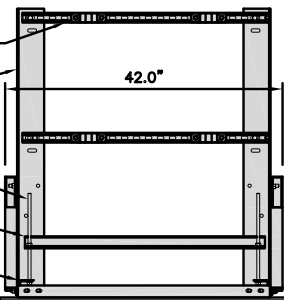
UNISTRUT (TYP OF 2)

VERTICAL ANGLE
(TYP OF 2)

16" THREADED ROD
(TYP OF 4)

BRACE ANGLE
(TYP OF 2)

CLIP ANGLE
(TYP OF 4)



FRONT

BALLAST MOUNT DETAIL

NO SCALE

7

NOT USED

NO SCALE

8

NOT USED

NO SCALE

9

dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

WYCO
FIELD SERVICES
where quality still counts.

6335 DOWNING ST.
DENVER, CO 80216
WYCOFS.COM

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

EL

ML

PR

RFDS REV #: ---

PRELIMINARY DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	03/23/2021	ISSUED FOR REVIEW
B	07/12/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER

DNDEN00119B

DISH WIRELESS, LLC.
PROJECT INFORMATION

DNDEN00119B
FLETCHER ELEMENTARY
10455 E 25TH AVE
AURORA, CO 80010

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-7