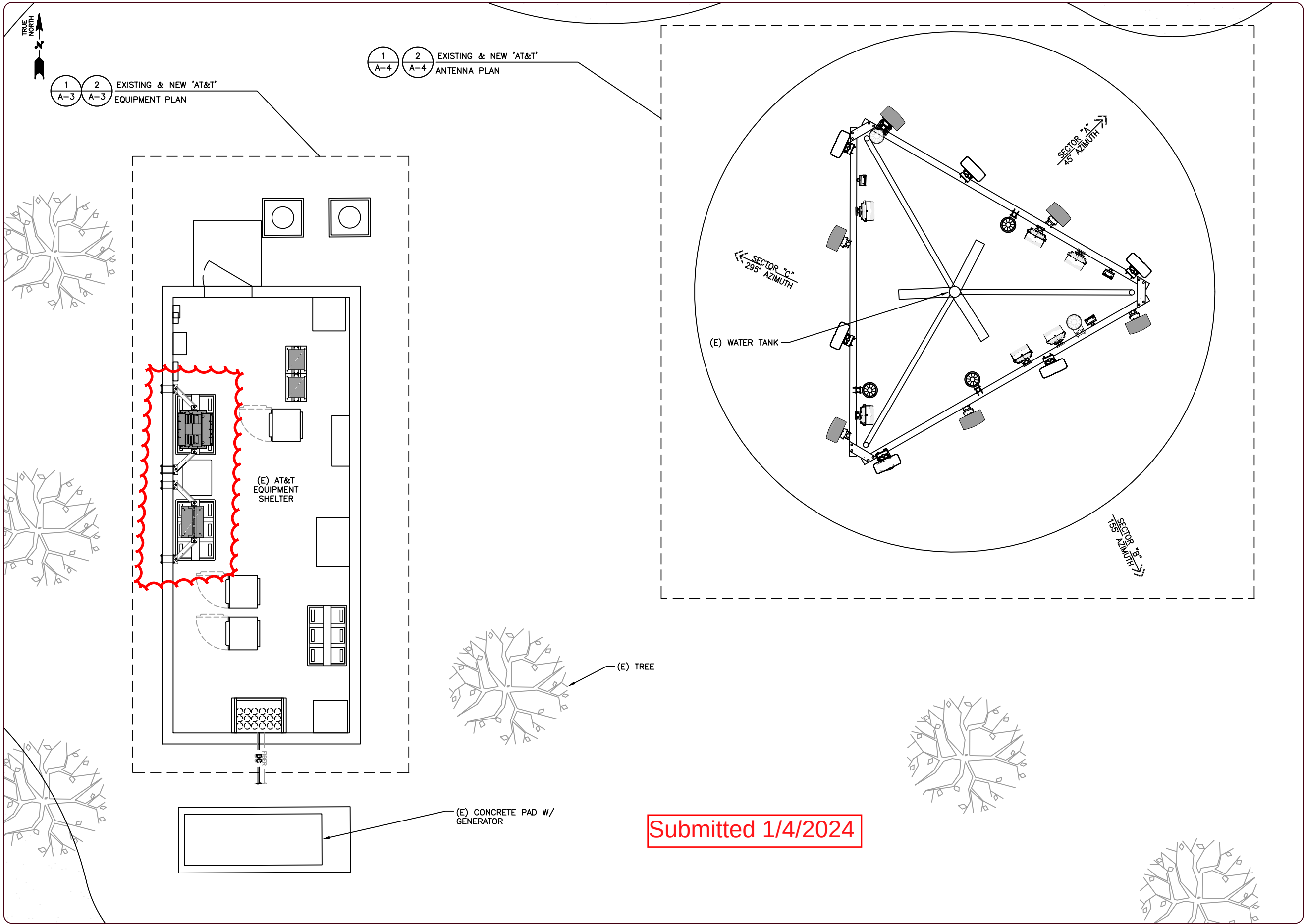




Submitted 1/4/2024



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



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SUBMITTALS				
REV	DATE	DESCRIPTION	BY	
3	04/27/22	100% CD UPDATE	RC	
4	02/13/23	100% CD UPDATE	RC	
5	02/24/23	100% CD UPDATE	RC	
6	05/16/23	100% CD UPDATE	RC	
7	05/19/23	100% CD UPDATE	RC	
8	06/02/23	100% CD UPDATE	RC	
9	12/22/23	100% CD UPDATE	RC	

SITE INFORMATION

SITE ID:
PR15

RFDS NAME:
ORL00127

SITE NAME:
CAPITOL HIGHWAY

SITE ADDRESS:
5010 SOUTHWEST ALFRED STREET
PORTLAND, OR 97219

SHEET DESCRIPTION

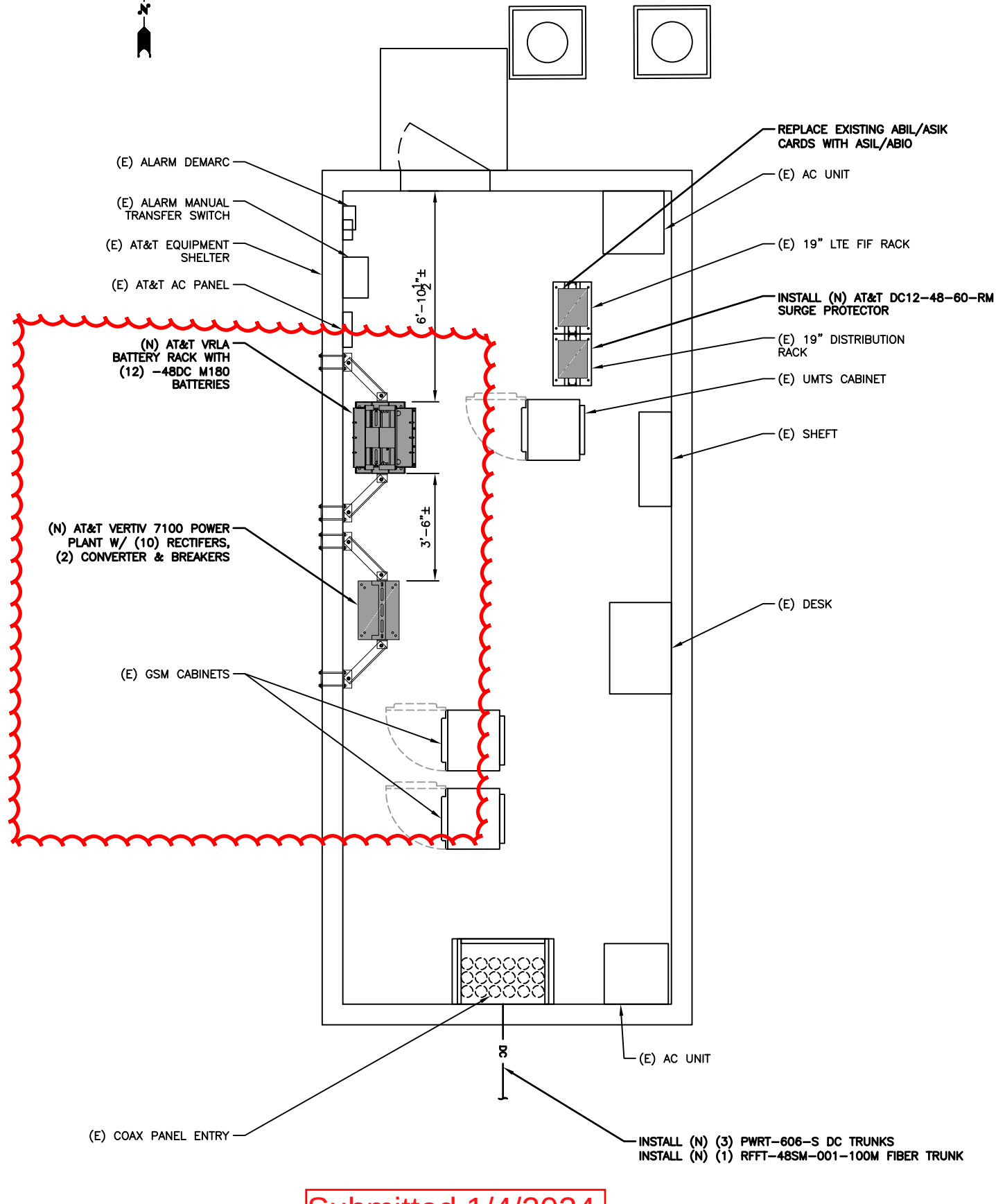
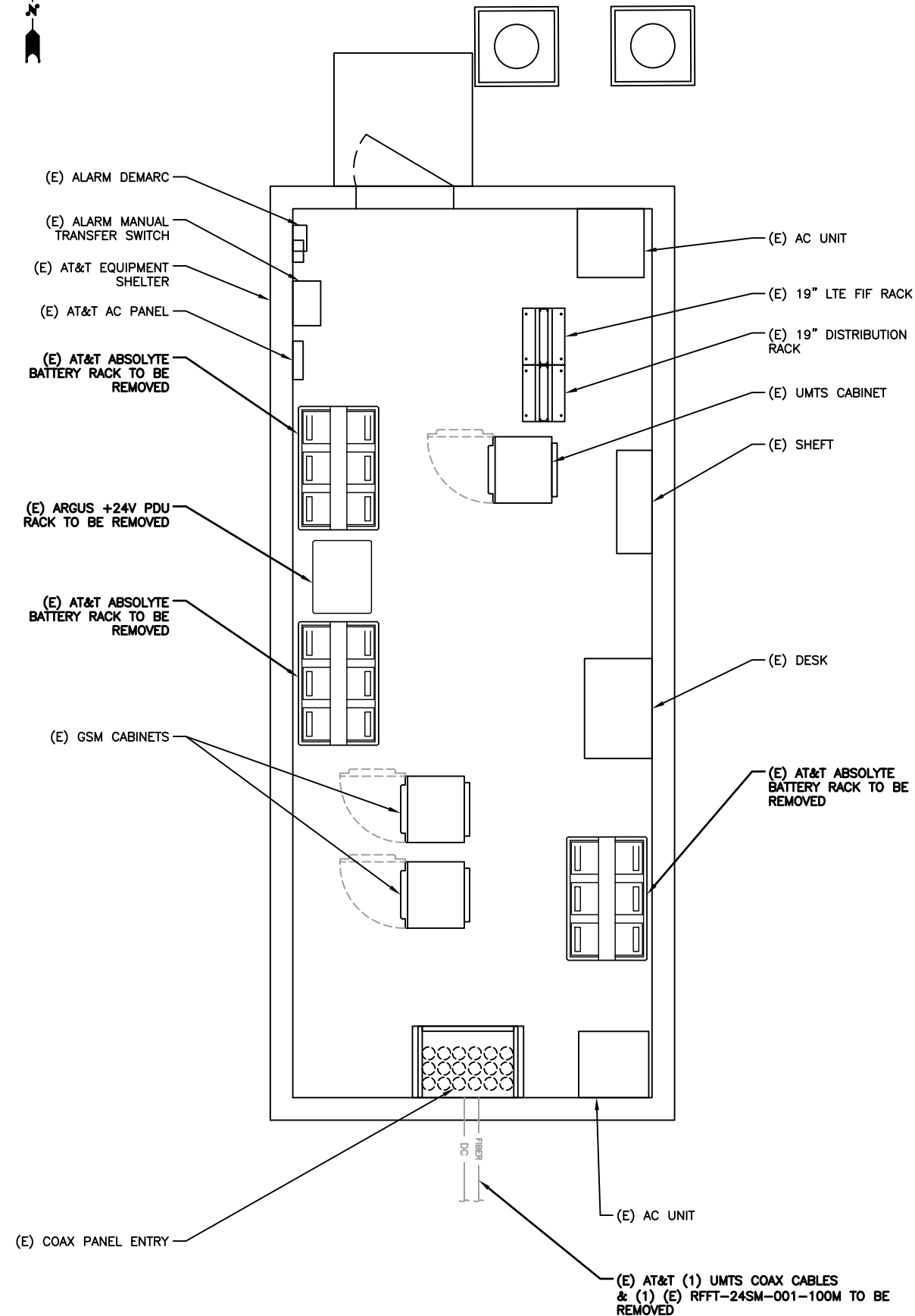
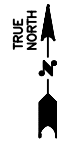
ENLARGED SITE PLAN
City of Portland

Reviewed SHEET No. Compliance

Date: 01/05/24

Permit #:
22-113416-REV-01-CO

1 ENLARGED SITE PLAN
A-2 SCALE (11" X 17"): 3/8" = 1'-0"



Submitted 1/4/2024



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



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SUBMITTALS				
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3	04/27/22	100% CD UPDATE	RC	
4	02/13/23	100% CD UPDATE	RC	
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7	05/19/23	100% CD UPDATE	RC	
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SITE INFORMATION

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RFDS NAME:
ORL00127

SITE NAME:
CAPITOL HIGHWAY

SITE ADDRESS:
5010 SOUTHWEST ALFRED STREET
PORTLAND, OR 97219

SHEET DESCRIPTION

EXISTING & PROPOSED
EQUIPMENT SHELTER PLANS

City of Portland

Reviewed for Code Compliance
SHEET No.

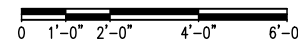
Date: 01/05/24
A-3

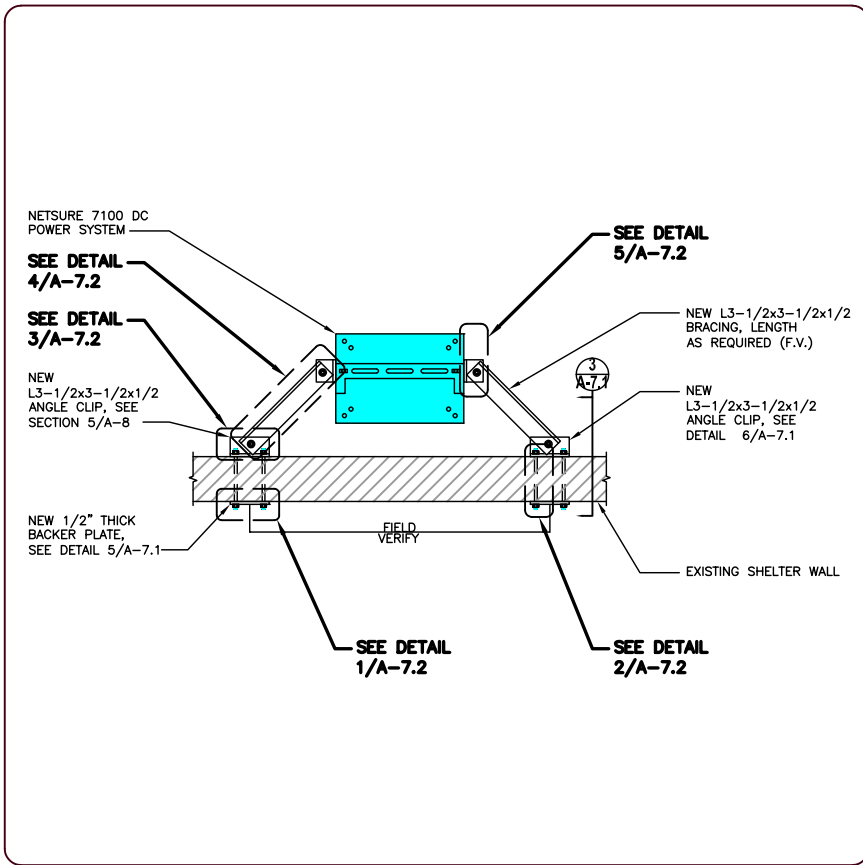
Permit #:
22-113416-REV-01-CO

1
A-3
EXISTING EQUIPMENT SHELTER PLAN
SCALE (11" X 17"): 1" = 1/2"

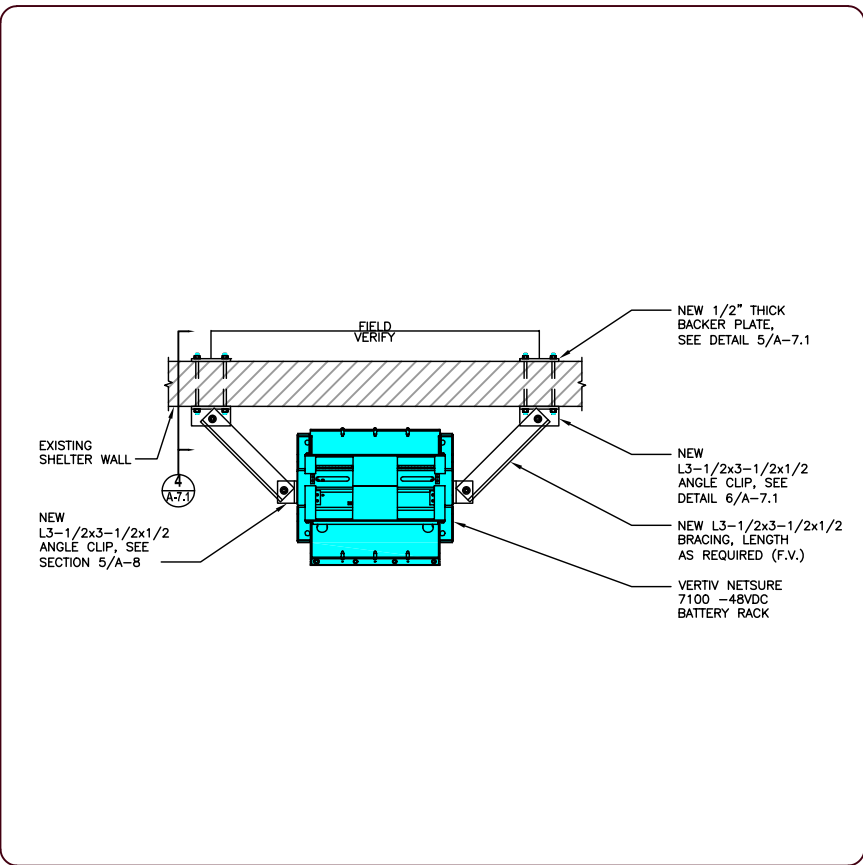


2
A-3
PROPOSED EQUIPMENT SHELTER PLAN
SCALE (11" X 17"): 1" = 1/2"

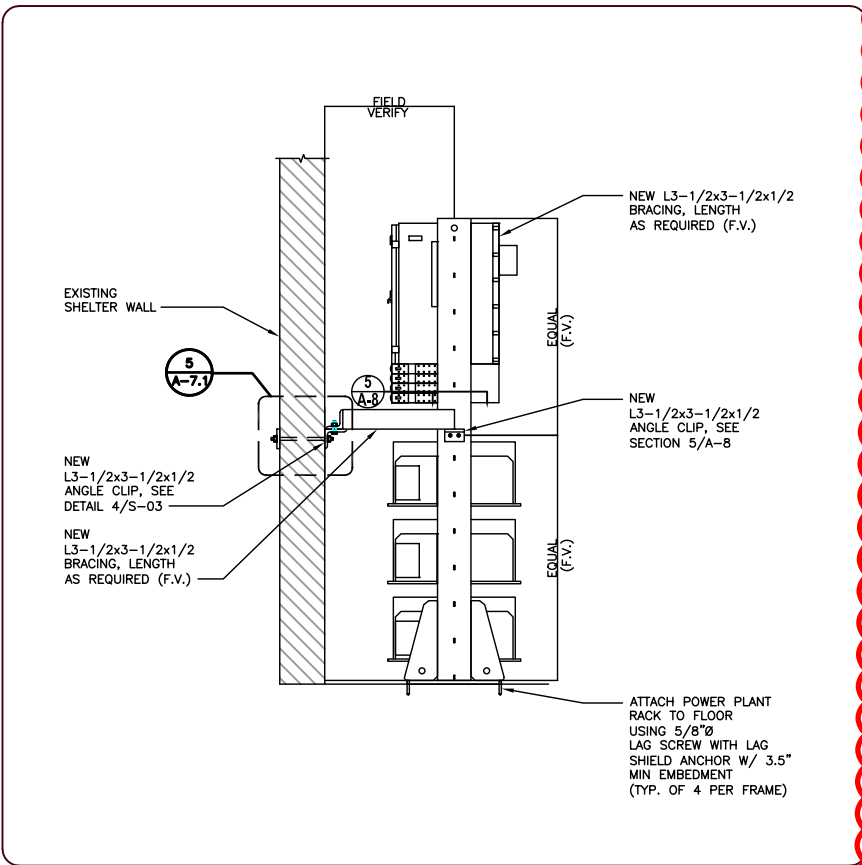




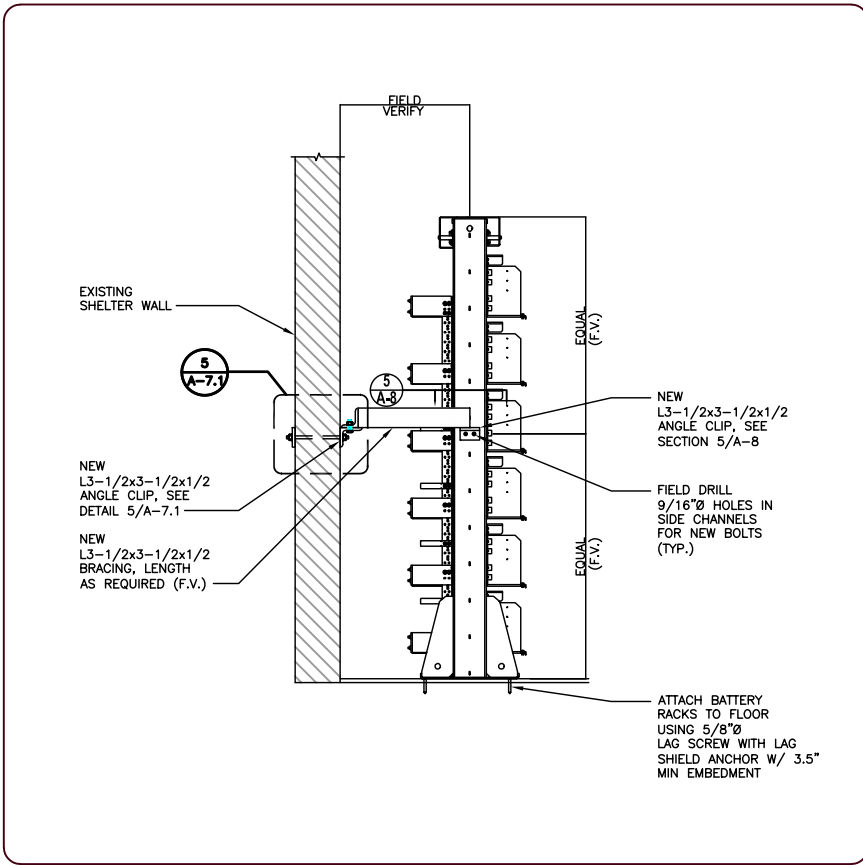
1 PROPOSED NETSURE 7100 DC PLAN DETAIL
A-7.1 SCALE: NTS



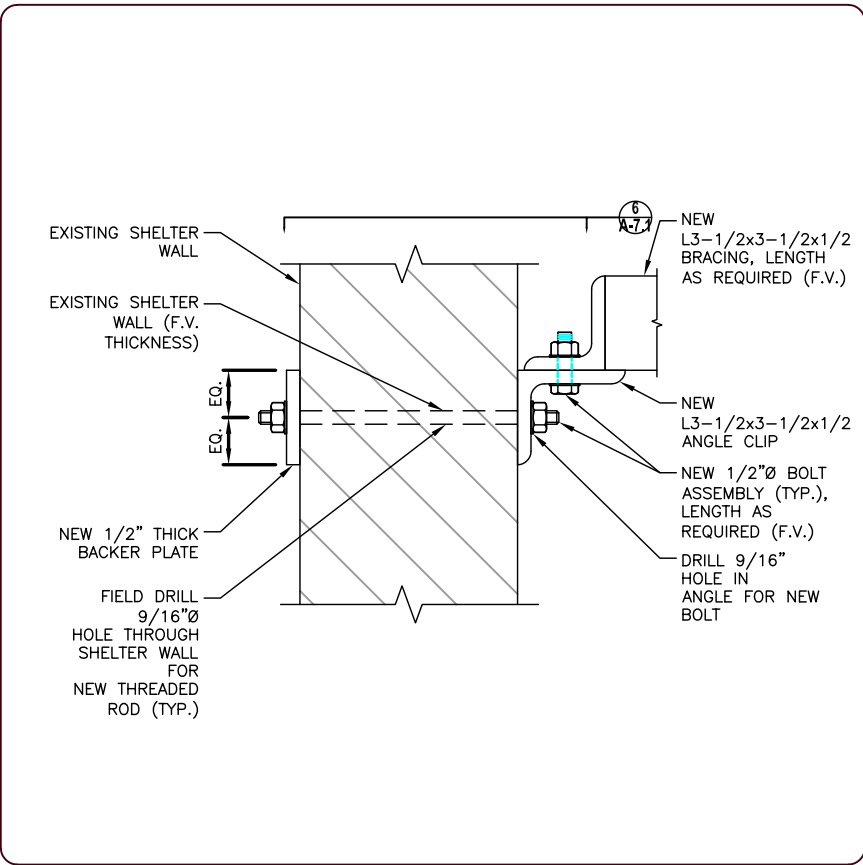
2 PROPOSED VERTIV NETSURE-48VDC PLAN DETAIL
A-7.1 SCALE: NTS



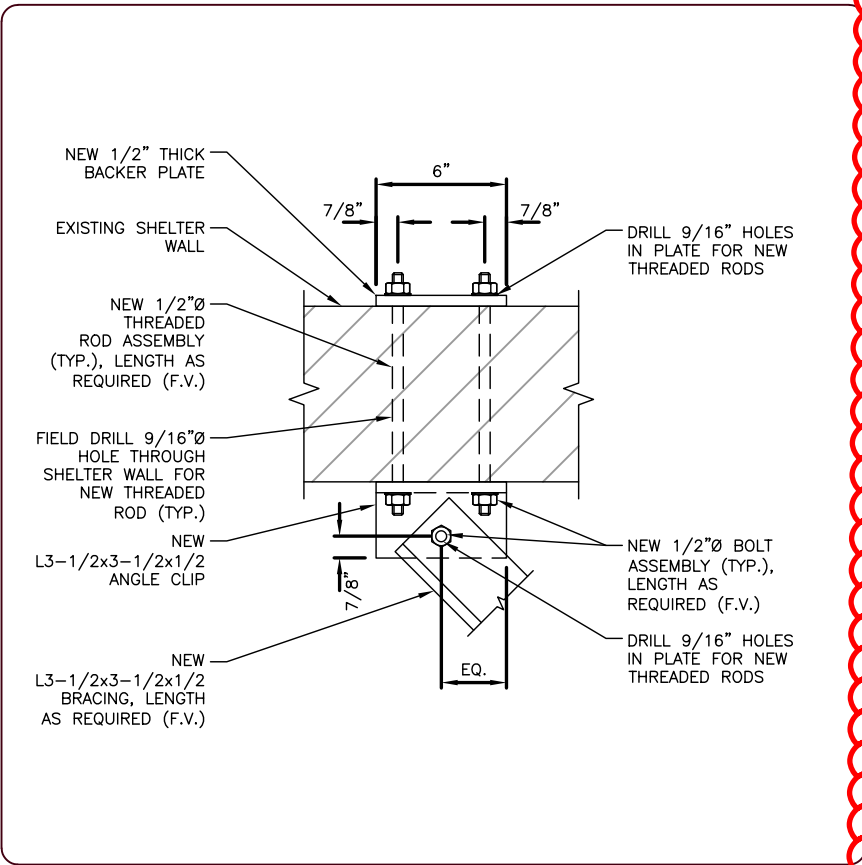
3 SECTION DETAIL
A-7.1 SCALE: NTS



4 SECTION DETAIL
A-7.1 SCALE: NTS



5 CLIP DETAIL
A-7.1 SCALE: NTS



6 SECTION
A-7.1 SCALE: NTS



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



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7	05/19/23	100% CD UPDATE	RC
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9	12/22/23	100% CD UPDATE	RC

SITE INFORMATION

SITE ID:
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RFDS NAME:
ORL00127

SITE NAME:
CAPITOL HIGHWAY

SITE ADDRESS:
5010 SOUTHWEST ALFRED STREET
PORTLAND, OR 97219

SHEET DESCRIPTION

EQUIPMENT DETAILS

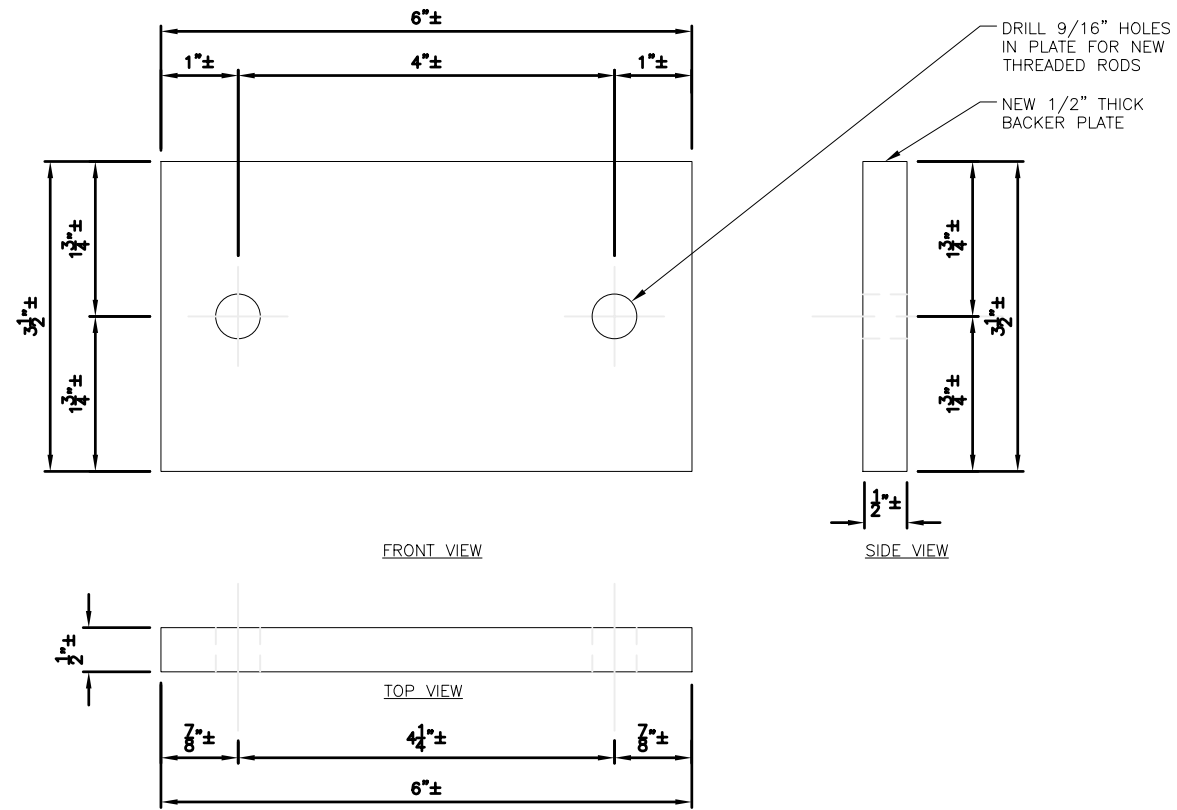
City of Portland

SHEET No.
Reviewed for Code Compliance

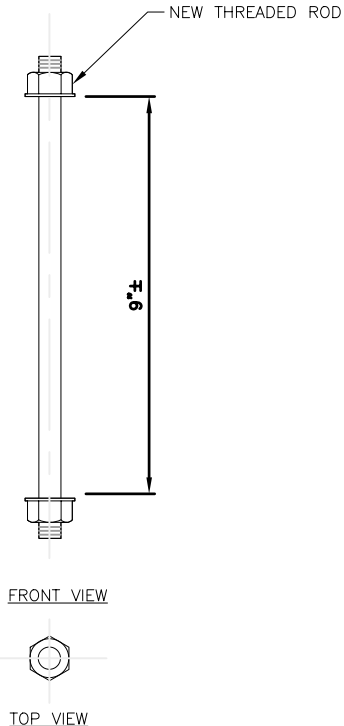
Date: 07/05/24

Permit #:
22-113416-REV-01-CO

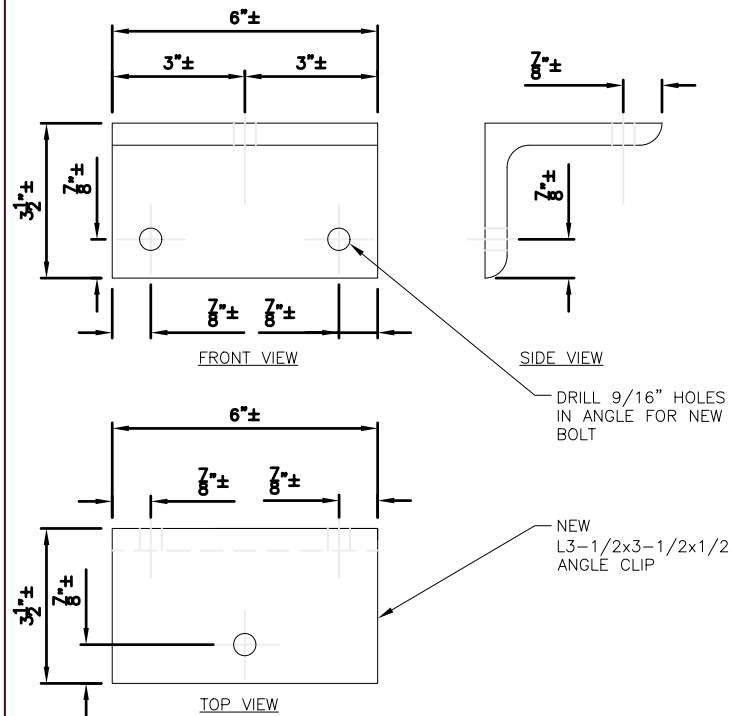
Submitted 1/4/2024



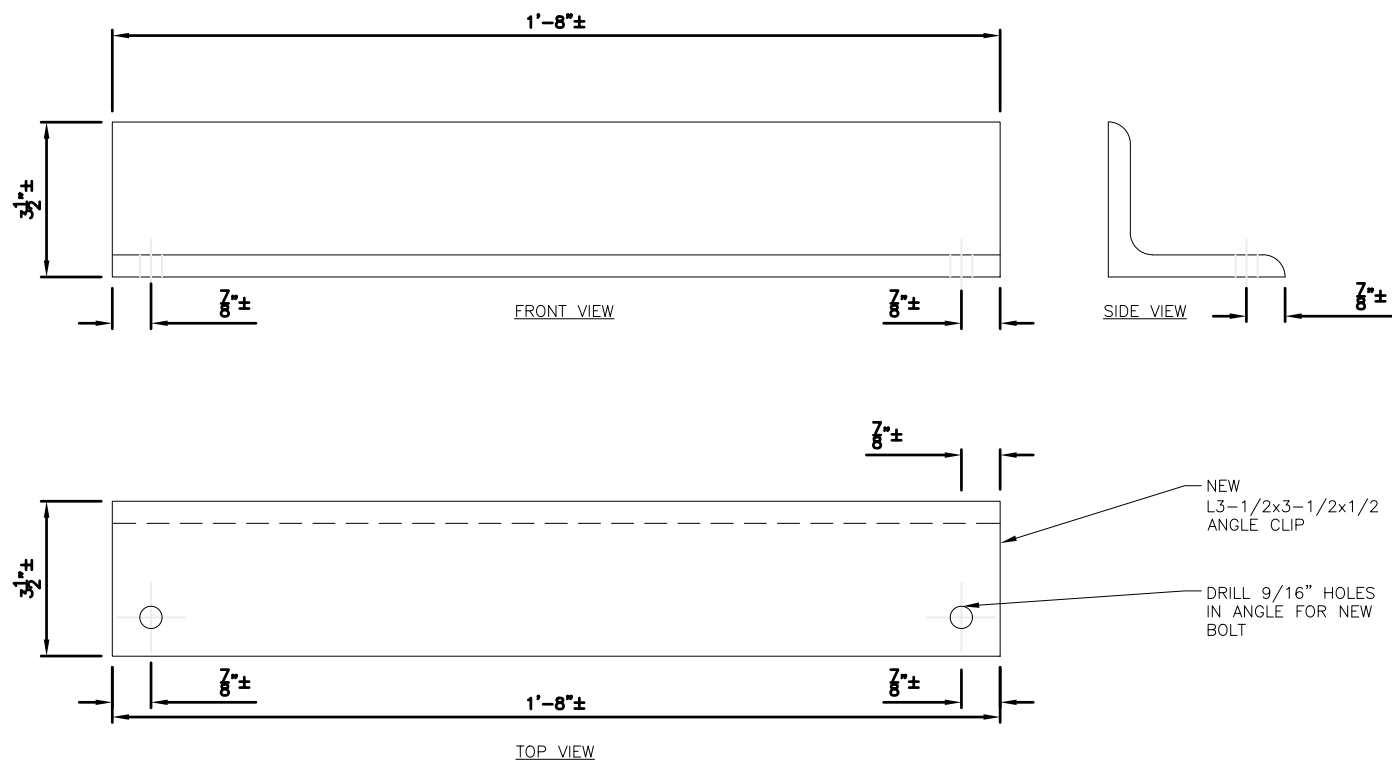
1 STEEL BASE PLATE
A-7.2 SCALE: NTS



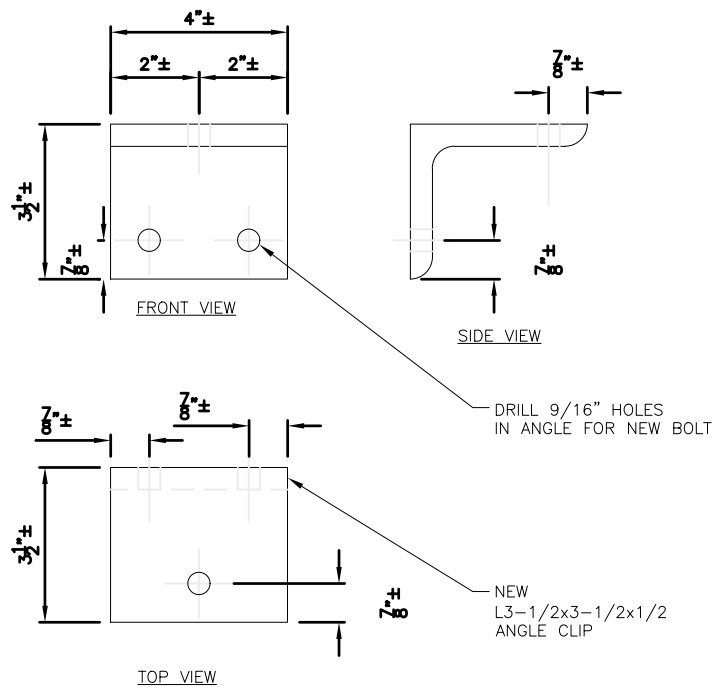
2 THREADED ROD DETAIL
A-7.2 SCALE: NTS



3 ANGLE DETAIL
A-7.2 SCALE: NTS



4 ANGLE DETAIL
A-7.2 SCALE: NTS



5 ANGLE DETAIL
A-7.2 SCALE: NTS

Submitted 1/4/2024



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



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7	05/19/23	100% CD UPDATE	RC
8	06/02/23	100% CD UPDATE	RC
9	12/22/23	100% CD UPDATE	RC

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5010 SOUTHWEST ALFRED STREET
PORTLAND, OR 97219

SHEET DESCRIPTION

EQUIPMENT DETAILS
City of Portland

Reviewed for Code Compliance

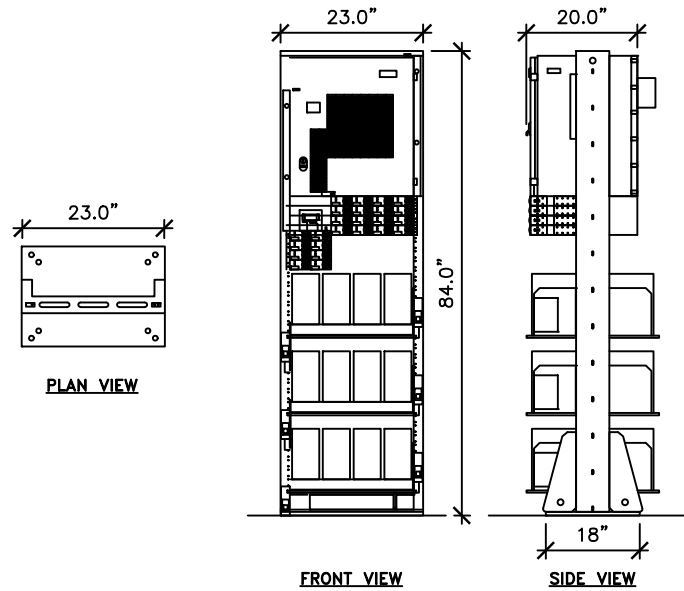
Date: 01/05/24

Permit #:
22-113416-REV-01-CO

A-7.2

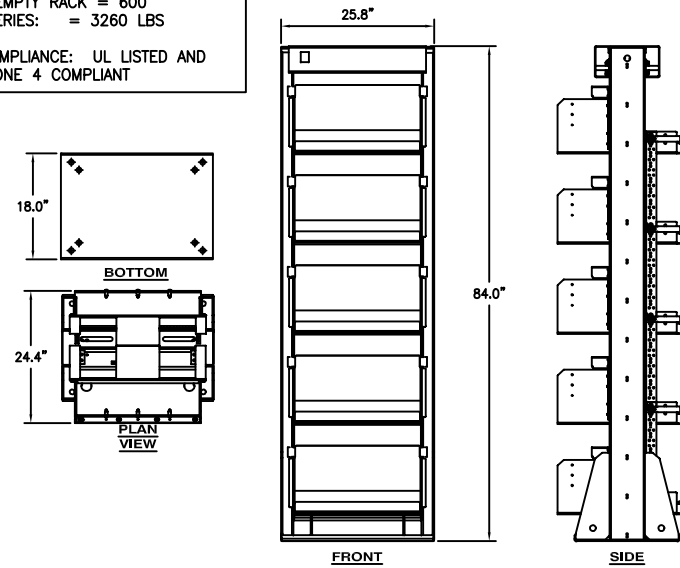
EMERSON NETSURE 7100 -48VDC POWER SYSTEM [NEQ.19735]

DIMENSIONS (WxDxH): 23.0"x20.0"x84.0"
WEIGHT: 170 KG (375 LBS) FULLY EQUIPPED W/O BATTERIES
894 KG (1971 LBS) FULLY EQUIPPED W/ BATTERIES

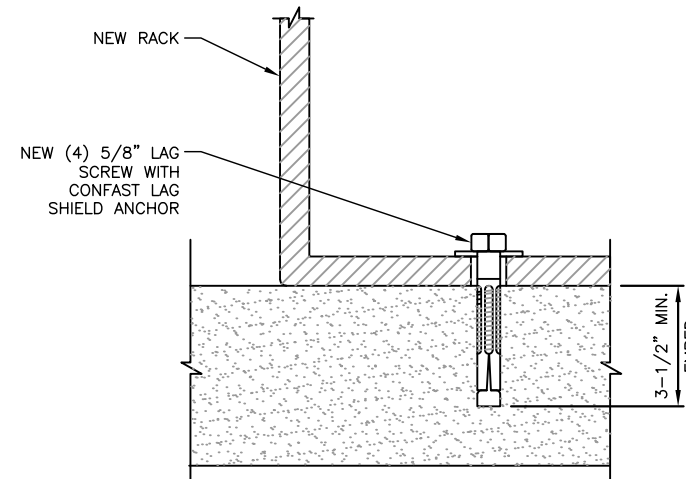


1 NETSURE 7100 DC POWER PLANT DETAIL
SCALE: NTS

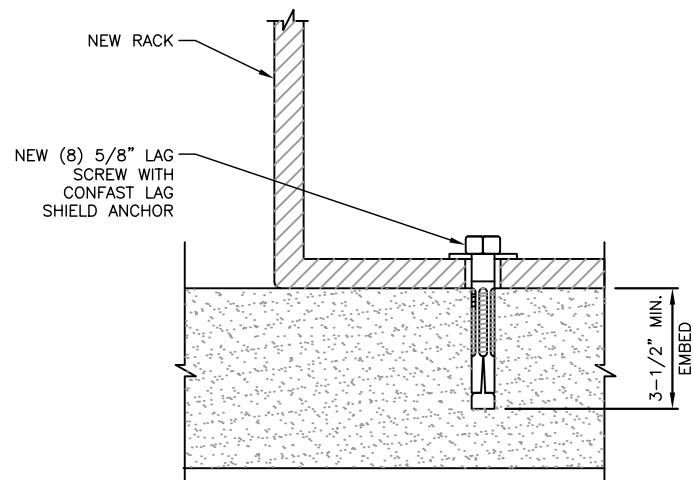
EQUIPMENT SPECIFICATIONS
MANUFACTURER: EMERSON/VERTIV
ATTM NUMBER: NEQ.20326
EMERSON NUMBER: 588820400200
HEIGHT: 84.0 IN
WIDTH: 27.5 IN
DEPTH: 22.7 IN
WEIGHT: EMPTY RACK = 600
WITH BATTERIES: = 3260 LBS
SAFETY COMPLIANCE: UL LISTED AND
SEISMIC ZONE 4 COMPLIANT



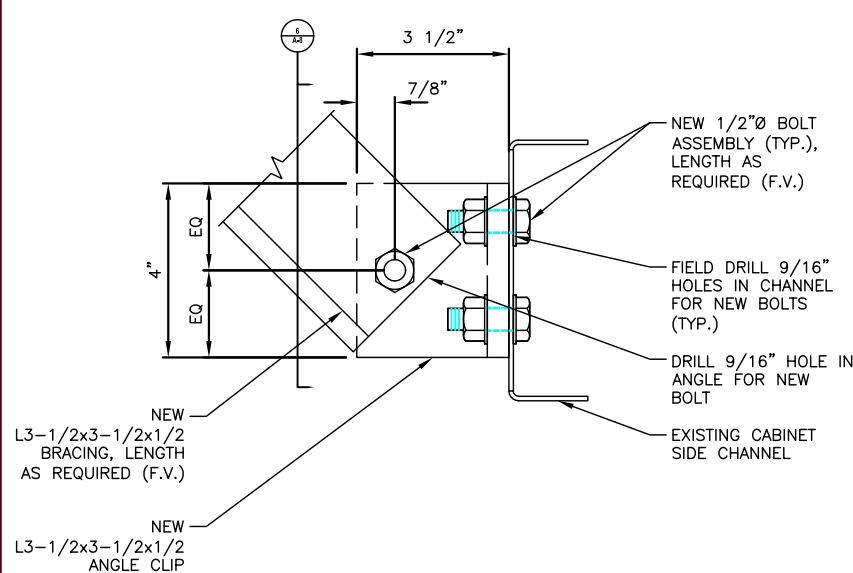
2 NETSURE VRLA BATTERY RACK DETAIL
SCALE: NTS



3 7100 DC CABINET ANCHORAGE DETAIL
SCALE: NTS

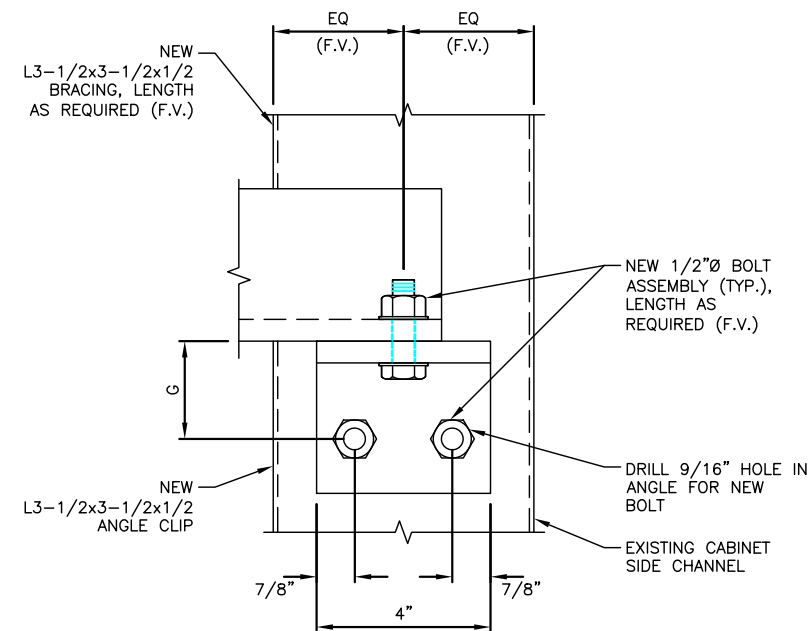


4 VRLA BATTERY RACK ANCHORAGE DETAIL
SCALE: NTS



NOTES:
1. ALL FIELD DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZRC ZINC RICH OLD GALVANIZING COMPOUND.

5 SECTION
SCALE: NTS

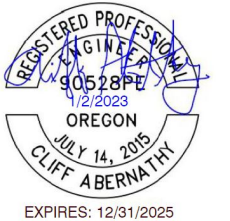


NOTES:
1. ALL FIELD DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZRC ZINC RICH OLD GALVANIZING COMPOUND.

6 SECTION
SCALE: NTS



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



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SUBMITTALS

REV	DATE	DESCRIPTION	BY
3	04/27/22	100% CD UPDATE	RC
4	02/13/23	100% CD UPDATE	RC
5	02/24/23	100% CD UPDATE	RC
6	05/16/23	100% CD UPDATE	RC
7	05/19/23	100% CD UPDATE	RC
8	06/02/23	100% CD UPDATE	RC
9	12/22/23	100% CD UPDATE	RC

SITE INFORMATION

SITE ID:
PR15
RFDS NAME:
ORL00127
SITE NAME:
CAPITOL HIGHWAY
SITE ADDRESS:
5010 SOUTHWEST ALFRED STREET
PORTLAND, OR 97219

SHEET DESCRIPTION

EQUIPMENT DETAILS

City of Portland

SHEET No.
Reviewed for Code Compliance

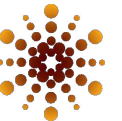
Date: 01/05/24

Permit #:

22-113416-REV-01-CO

Submitted 1/4/2024





Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



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REV	DATE	DESCRIPTION	BY
3	04/27/22	100% CD UPDATE	RC
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7	05/19/23	100% CD UPDATE	RC
8	06/02/23	100% CD UPDATE	RC
9	12/04/23	100% CD UPDATE	RC

SITE INFORMATION

SITE ID:
PR15

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ORL00127

SITE NAME:
CAPITOL HIGHWAY

SITE ADDRESS:
5010 SOUTHWEST ALFRED STREET
PORTLAND, OR 97219

SHEET DESCRIPTION

EQUIPMENT DETAILS

City of Portland

SHEET No.
Reviewed for Code Compliance

Date: 01/05/24

Permit #:
22-113416-REV-01-CO



Analysis date: 6/7/2023

BOLT TOOL 1.5.3

Project Data	
Job Code:	206523
Carrier Site ID:	ORL00127
Carrier Site Name:	Capitol Highway

Code	
Design Standard:	TIA-222-H
Slip Check:	No
Pretension Standard:	AISC

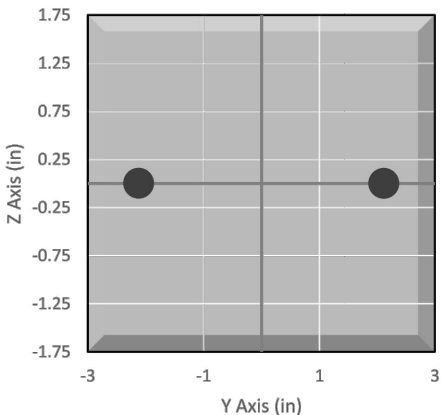
Bolt Properties		
Connection Type:	Threaded Rod	
Diameter:	0.5	in
Grade:	A325	--
Yield Strength (Fy):	92	ksi
Ultimate Strength (Fu):	120	ksi
Number of Bolts:	2	--
Threads Included:	Yes	--
Double Shear:	No	--
Connection Pipe Size:	-	in

Connection Description	
Wall Mount (7100)	

Bolt Check*		
Tensile Capacity (ϕT_n):	12770.9	lbs
Shear Capacity (ϕV_n):	8835.7	lbs
Tension Force (T_u):	1580.1	lbs
Shear Force (V_u):	802.3	lbs
Tension Usage:	11.8%	--
Shear Usage:	8.6%	--
Interaction:	11.8%	Pass
Controlling Member:	M18	--
Controlling LC:	55	--

*Rating per TIA-222-H Section 15.5

Bolt Layout



1825 W. Walnut Hill Lane, Suite 120
Irving, Texas 75038



Analysis date: 6/7/2023

BOLT TOOL 1.5.3

Project Data	
Job Code:	206523
Carrier Site ID:	ORL00127
Carrier Site Name:	Capitol Highway

Code	
Design Standard:	TIA-222-H
Slip Check:	No
Pretension Standard:	AISC

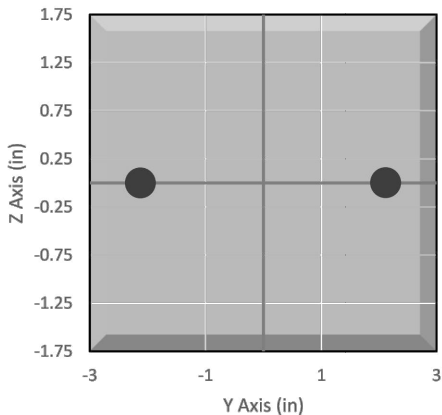
Bolt Properties		
Connection Type:	Threaded Rod	
Diameter:	0.5	in
Grade:	A325	--
Yield Strength (Fy):	92	ksi
Ultimate Strength (Fu):	120	ksi
Number of Bolts:	2	--
Threads Included:	Yes	--
Double Shear:	No	--
Connection Pipe Size:	-	in

Connection Description	
Wall Mount (VRLA)	

Bolt Check*		
Tensile Capacity (ϕT_n):	12770.9	lbs
Shear Capacity (ϕV_n):	8835.7	lbs
Tension Force (T_u):	2603.1	lbs
Shear Force (V_u):	1322.7	lbs
Tension Usage:	19.4%	--
Shear Usage:	14.3%	--
Interaction:	19.4%	Pass
Controlling Member:	M18	--
Controlling LC:	55	--

*Rating per TIA-222-H Section 15.5

Bolt Layout



1825 W. Walnut Hill Lane, Suite 120
Irving, Texas 75038

Submitted
12/11/2023



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



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SUBMITTALS

REV	DATE	DESCRIPTION	BY
2	03/31/22	100% CD UPDATE	RC
3	04/27/22	100% CD UPDATE	RC
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5	02/24/23	100% CD UPDATE	RC
6	05/16/23	100% CD UPDATE	RC
7	05/19/23	100% CD UPDATE	RC
8	06/02/23	100% CD UPDATE	RC

SITE INFORMATION

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PR15

RFDS NAME:
ORL00127

SITE NAME:
CAPITOL HIGHWAY

SITE ADDRESS:
5010 SOUTHWEST ALFRED STREET
PORTLAND, OR 97219

SHEET DESCRIPTION

EQUIPMENT DETAILS

City of Portland

SHEET NO.
Reviewed for Code Compliance

Date: 01/05/24

Permit #:
22-TT3416-REV-01-00



Analysis date: 6/7/2023

BOLT TOOL 1.5.3

Project Data	
Job Code:	206523
Carrier Site ID:	ORL00127
Carrier Site Name:	Capitol Highway

Code	
Design Standard:	TIA-222-H
Slip Check:	No
Pretension Standard:	AISC

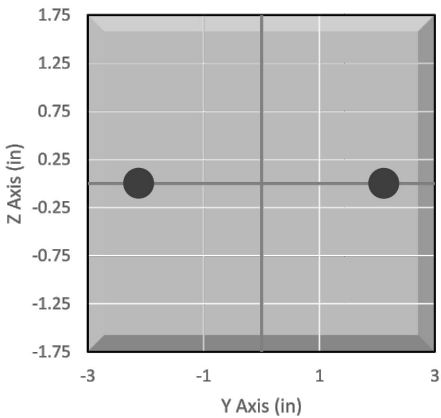
Bolt Properties		
Connection Type:	Threaded Rod	
Diameter:	0.5	in
Grade:	A325	--
Yield Strength (Fy):	92	ksi
Ultimate Strength (Fu):	120	ksi
Number of Bolts:	2	--
Threads Included:	Yes	--
Double Shear:	No	--
Connection Pipe Size:	-	in

Connection Description	
Wall Mount (7100)	

Bolt Check*		
Tensile Capacity (ϕT_n):	12770.9	lbs
Shear Capacity (ϕV_n):	8835.7	lbs
Tension Force (T_u):	1580.1	lbs
Shear Force (V_u):	802.3	lbs
Tension Usage:	11.8%	--
Shear Usage:	8.6%	--
Interaction:	11.8%	Pass
Controlling Member:	M18	--
Controlling LC:	55	--

*Rating per TIA-222-H Section 15.5

Bolt Layout



1825 W. Walnut Hill Lane, Suite 120
Irving, Texas 75038



Analysis date: 6/7/2023

BOLT TOOL 1.5.3

Project Data	
Job Code:	206523
Carrier Site ID:	ORL00127
Carrier Site Name:	Capitol Highway

Code	
Design Standard:	TIA-222-H
Slip Check:	No
Pretension Standard:	AISC

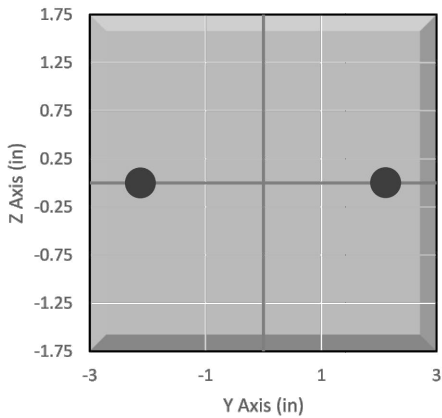
Bolt Properties		
Connection Type:	Threaded Rod	
Diameter:	0.5	in
Grade:	A325	--
Yield Strength (Fy):	92	ksi
Ultimate Strength (Fu):	120	ksi
Number of Bolts:	2	--
Threads Included:	Yes	--
Double Shear:	No	--
Connection Pipe Size:	-	in

Connection Description	
Wall Mount (VRLA)	

Bolt Check*		
Tensile Capacity (ϕT_n):	12770.9	lbs
Shear Capacity (ϕV_n):	8835.7	lbs
Tension Force (T_u):	2603.1	lbs
Shear Force (V_u):	1322.7	lbs
Tension Usage:	19.4%	--
Shear Usage:	14.3%	--
Interaction:	19.4%	Pass
Controlling Member:	M18	--
Controlling LC:	55	--

*Rating per TIA-222-H Section 15.5

Bolt Layout



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9	12/04/23	100% CD UPDATE	RC

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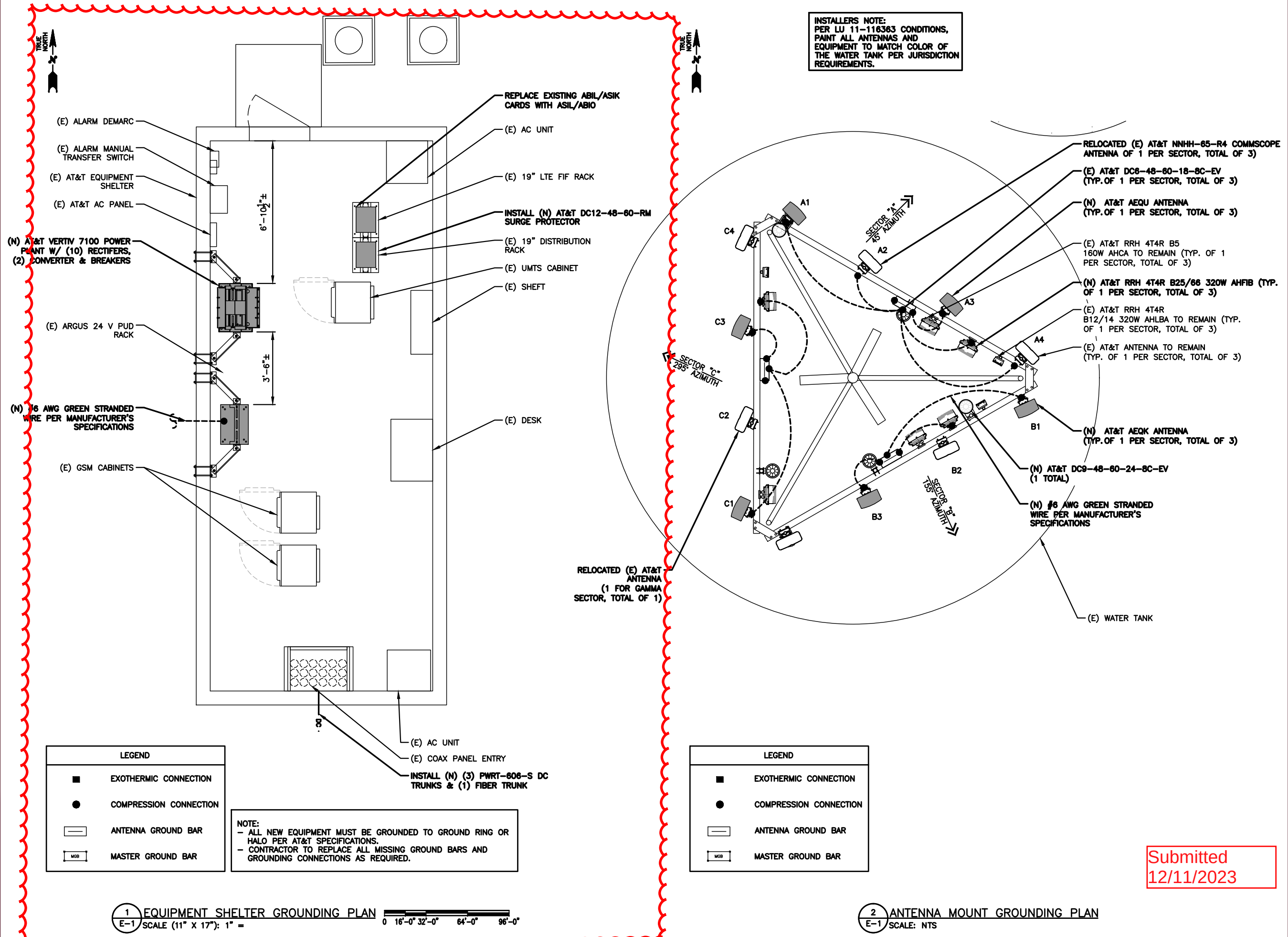
SHEET DESCRIPTION

GROUNDING PLAN

SHEET No.

E-1

INSTALLERS NOTE:
PER LU 11-116363 CONDITIONS,
PAINT ALL ANTENNAS AND
EQUIPMENT TO MATCH COLOR OF
THE WATER TANK PER JURISDICTION
REQUIREMENTS.



Submitted
12/11/2023