

KENNETH C. BALDWIN

280 Trumbull Street  
Hartford, CT 06103-3597  
Main (860) 275-8200  
Fax (860) 275-8299  
kbaldwin@rc.com  
Direct (860) 275-8345

Also admitted in Massachusetts  
and New York

October 20, 2021

*Via Federal Express and Electronic*

Melanie A. Bachman, Esq.  
Executive Director/Staff Attorney  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: **Docket No. 489 - Application of The First Taxing District Water Department For A Certificate Of Environmental Compatibility And Public Need For The Construction, Maintenance And Operation Of A Wireless Telecommunications Facility at 173 ½ West Rocks Road, Norwalk, Connecticut**

Dear Ms. Bachman:

On behalf of The First Taxing District Water Department of Norwalk (“The First Taxing District”), enclosed please find the original and fifteen (15) copies of The First Taxing District’s Responses to the Siting Council’s D&M Plan Interrogatories related to Docket No. 489.

Please note that two (2) full size sets (24” x 36”) of the revised D&M Plans are being sent overnight to the Council’s office, Attention: Michael Perrone, for delivery tomorrow

If you have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,



Kenneth C. Baldwin

KCB/kmd  
Enclosure  
Copy to:

Harry Rilling, Mayor, City of Norwalk  
Kristen Motel, Esq. (via electronic mail)  
Lucia Chiochio, Esq. (via electronic mail)

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
 :  
APPLICATION OF THE FIRST TAXING : DOCKET NO. 489  
DISTRICT WATER DEPARTMENT OF :  
NORWALK FOR A CERTIFICATE OF :  
ENVIRONMENTAL COMPATIBILITY AND :  
PUBLIC NEED FOR THE CONSTRUCTION, :  
MAINTENANCE AND OPERATION OF A :  
WIRELESS TELECOMMUNICATIONS :  
FACILITY AT 173½ WEST ROCKS ROAD IN :  
NORWALK, CONNECTICUT : OCTOBER 20, 2021

RESPONSES OF THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK  
TO CONNECTICUT SITING COUNCIL D&M PLAN INTERROGATORIES

On October 7, 2021, the Connecticut Siting Council (“Council”) issued D&M Plan Interrogatories to The First Taxing District Water Department of Norwalk (the “FTD”) relating to Docket No. 489. The Petitioner offers the following responses.

Question No. 1

Provide an update on the current schedule for removal of the existing water tank facility and the installation of the new water tank. Approximately when would the approved tower facility be constructed?

Response

As discussed during the Docket No. 489 hearing, the work associated with the construction of the new water tank, new water mains and telecommunications tower will occur generally as follows. The contract for the water main work and site clearing for the new water tank and tower site has been awarded and work on site will commence shortly (within the next two weeks). The site clearing contractor will clear the area for the new water tank and the

approved tower site. The FTD has also awarded the contract for the fabrication and installation of the new water tank and its foundation. The FTD anticipates the new water tank will be installed in the Spring of 2022.

The FTD expects that it will go out to bid for a contractor who will construct the tower foundation, install equipment and generator pads, install the new tower, install the compound fence and tower grounding system and install all underground conduit for the wireless carriers in November or December of this year. The FTD intends to award the telecommunications facility construction contract as soon as possible after the Council's approval of the D&M Plan. Each of the wireless carriers will be responsible for the installation of its equipment at the new tower site. Demolition of the existing water tank will occur immediately following the removal of all carrier telecommunications equipment from that structure.

#### Question No. 2

Referencing Condition 2(f) of the Council's Decision and Order (D&O), provide the hours and days of the week for construction activities.

#### Response

Due to the nature of the various construction contracts which will be undertaken at the Property, the FTD will limit its hours of construction to Monday through Friday from 7 a.m. to 8 p.m. and Saturday 8 a.m. to 8 p.m., the designated "daytime hours" in the Norwalk Noise Ordinance.

#### Question No. 3

Referencing Condition 2(a) of the D&O and Docket 489 Finding of Fact (FOF) #40, provide the "finish/color" of the monopole. Would tower mounted equipment (e.g. antennas, remote radio heads, antenna mounts) be painted to match the color of the monopole?

Response

The tower and all tower-mounted equipment will be painted “Sherwin Williams SW 4069 Emerald Ice” which is the same color as the top portion of the new water tank, in accordance with the requirements imposed by the State Historic Preservation Officer.

Question No. 4

Referencing FOF #86, would the compound fence have black vinyl privacy slats?

Response

FTD proposes to install black vinyl privacy slats only along the south-facing facility compound fence line. Privacy slats, together with the proposed landscaping approved as a part of the application will provide an effective visual screen of the facility compound for the only adjacent residential uses to the south. A note referencing the vinyl slats has been added to the Revised D&M Plans, Plan Sheets C-2 and C-4. The extensive landscaping improvements that FTD intends to install were included as a part of the City’s approval of the new water tank. (*See* Sheet LP.1).

Question No. 5

Referencing Sheet S-1 of the D&M Plan, the New Cingular Wireless PCS, LLC (AT&T) and Cellco Partnership d/b/a Verizon Wireless (Cellco) equipment pads only depict the backup generators. Please respond to the following:

- a) Identify Cellco’s and AT&T’s radio equipment and battery backup cabinets on the equipment pads on this drawing; and
- b) Sheets C-2 and S-1 identify 10-foot by 20-foot concrete pads for both carriers, and Sheet C-3, left side of sheet, indicates 5-foot by 10-foot equipment pad for the generators. Please correct the sheet(s) as necessary.

Response

- a) *See* revised D&M Plan Sheets C-2 and S-1 showing Cellco and AT&T equipment is attached.
- b) The incorrect reference to a 5-foot by 10-foot equipment pad on Plan Sheet C-3 has been incorrect.

Question No. 6

Referencing Sheet S-1 of the D&M Plan, “Canopy Support,” provide the approximate heights of the ice canopies for AT&T’s equipment pad; Cellco’s equipment pad; and the propane tank equipment pad.

Response

The approximate height of the equipment and propane tank canopies are now included in the notes for each canopy framing detail shown on Plan Sheet S-1. The canopy height for the propane tank, and for Verizon’s and T-Mobile’s equipment will be 10 feet. AT&T’s equipment canopy will be 12 feet tall to accommodate its taller walk-in equipment cabinet.

Question No. 7

Referencing Sheet S-1, what is the status of Sprint Spectrum’s (Sprint) and T-Mobile Northeast LLC’s (T-Mobile) planned equipment pad(s) with radio equipment and battery cabinets? Sheet C-3 depicts these carriers as co-located on the tower, but no ground equipment is depicted in the D&M Plan. Please include Sprint’s and T-Mobile’s ground equipment and equipment pad(s) and canopies (including canopy height), as applicable, on Sheet S-1.

Response

The T-Mobile and Sprint equipment will be combined into one carrier space both on the tower, with antennas located at the 106-foot level, and within the facility compound. *See*

Revised D&M Plans. All equipment and antenna specifications, canopy details and equipment locations has been added to the revised D&M Plans.

CERTIFICATE OF SERVICE

I hereby certify that on the 20<sup>th</sup> day of October 2021, a copy of the foregoing was sent, via electronic mail, to:

Kristen Motel, Esq.  
Lucia Chiocchio, Esq.  
Cuddy & Feder, LLP  
445 Hamilton Avenue, 14th Floor  
White Plains, NY 10601  
kmotel@cuddyfeder.com  
lchiocchio@cuddyfeder.com

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin", written over a horizontal line.

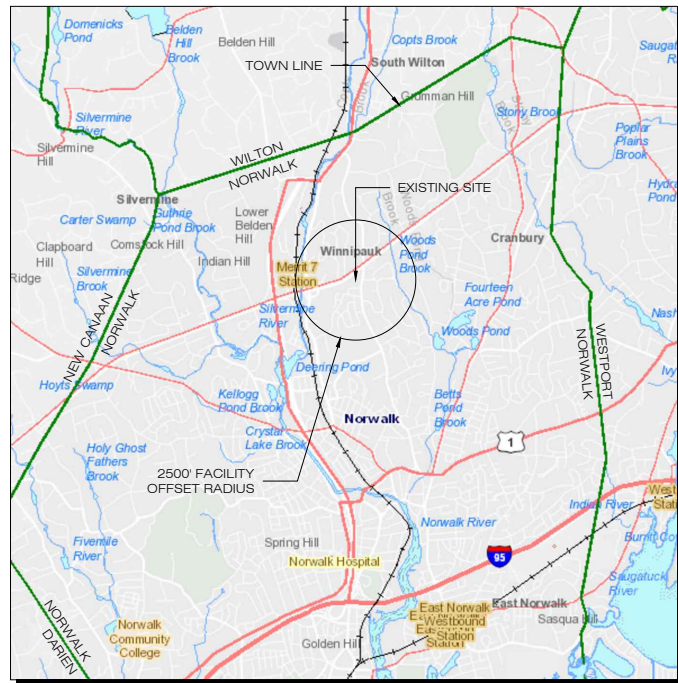
Kenneth C. Baldwin



# FIRST TAXING DISTRICT - NORWALK

## 173.5 WEST ROCKS ROAD

### NORWALK, CT 06851



**MUNICIPAL NOTIFICATION LIMIT MAP**  
SCALE : 1" = 4000'-0"



**VICINITY MAP**  
SCALE : 1" = 500'-0"

#### SITE INFORMATION

SITE TYPE: PROP. 130'± A.G.L. MONOPOLE TOWER

SCOPE OF WORK: WIRELESS EQUIPMENT ON A PROP. 130'± A.G.L. MONOPOLE WITHIN NEW IRREGULARLY SHAPED (3518± SF) EQUIPMENT COMPOUND. INSTALLATION OF TWO (2) NEW 500 GAL LPG TANKS AND TWO (2) PROPANE FUELED EMERGENCY STANDBY GENERATORS. EXISTING 110'± A.G.L., 100,000 GAL. ELEVATED WATER TANK TO BE DEMOLISHED (BY OTHERS).

SITE NAME: FIRST TAXING DISTRICT - NORWALK

SITE ADDRESS: 173.5 WEST ROCKS ROAD  
NORWALK, CT 06851

JURISDICTION: CONNECTICUT SITING COUNCIL

COUNTY: FAIRFIELD

ASSESSORS TAX ID#: MAP: 5, BLOCK 22A, LOT: 18-0

LATITUDE: 41° 08' 36.6271" N (41.14350753° N)

LONGITUDE: 73° 25' 08.2799" W (73.41896665° W)

GROUND ELEVATION: 220.9± AMSL

PROPERTY OWNER: FIRST TAXING DISTRICT (WATER DEPARTMENT)  
12 NEW CANAAN AVENUE  
NORWALK, CT 06852

APPLICANT: FIRST TAXING DISTRICT (WATER DEPARTMENT)  
12 NEW CANAAN AVENUE  
NORWALK, CT 06852

LEGAL: ROBINSON & COLE, LLP  
280 TRUMBULL STREET  
HARTFORD, CT 06103

SITE ENGINEER: ALL-POINTS TECHNOLOGY CORP., P.C.  
567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385

MONOPOLE COORDINATES & GROUND ELEVATION INDICATED HEREIN WERE ESTABLISHED FROM AN FAA 1-A SURVEY CERTIFICATION, AS PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES, P.C. DATED 10.01.19

#### LIST OF DRAWINGS

- T-1 TITLE SHEET & INDEX
- 1 OF 1 TOPOGRAPHIC SURVEY
- C-1 ABUTTERS MAP
- C-2 PARTIAL SITE PLAN
- C-3 EQUIPMENT PLANS & SOUTH ELEVATION
- C-4 SITE DETAILS
- C-5 SITE DETAILS
- C-6 CARRIER BASE EQUIPMENT DETAILS
- C-7 CARRIER ANTENNA & EQUIPMENT DETAILS
- S-1 STRUCTURAL PLAN & DETAILS
- LP.1 LANDSCAPE PLAN
- EC-1 EROSION CONTROL NOTES
- N-1 ENVIRONMENTAL NOTES
- N-2 NOTES & SPECIFICATIONS

GOVERNING CODES  
CONNECTICUT STATE BUILDING CODE,  
LATEST EDITION NATIONAL ELECTRICAL  
CODE, LATEST EDITION TIA-222-H

**FIRST TAXING DISTRICT  
WATER DEPARTMENT**  
12 NEW CANAAN AVENUE  
NORWALK, CT 06851

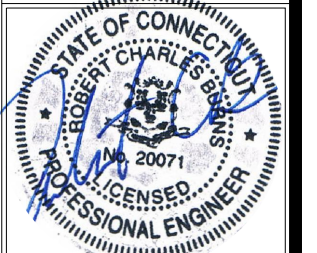
**ALL-POINTS  
TECHNOLOGY CORPORATION**

567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-963-1697  
WWW.ALLPOINTSTECH.COM FAX: (860)-963-0935

D&M DOCUMENTS		
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**DESIGN PROFESSIONALS OF RECORD**  
PROF: ROBERT C. BURNS P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385

**OWNER:** FIRST TAXING DISTRICT (WATER DEPARTMENT)  
**ADDRESS:** 12 NEW CANAAN AVENUE  
NORWALK, CT 06852



**FIRST TAXING DISTRICT -  
NORWALK**

**SITE** 173.5 WEST ROCKS ROAD  
**ADDRESS:** NORWALK, CT 06851

**APT FILING NUMBER:** CT544100

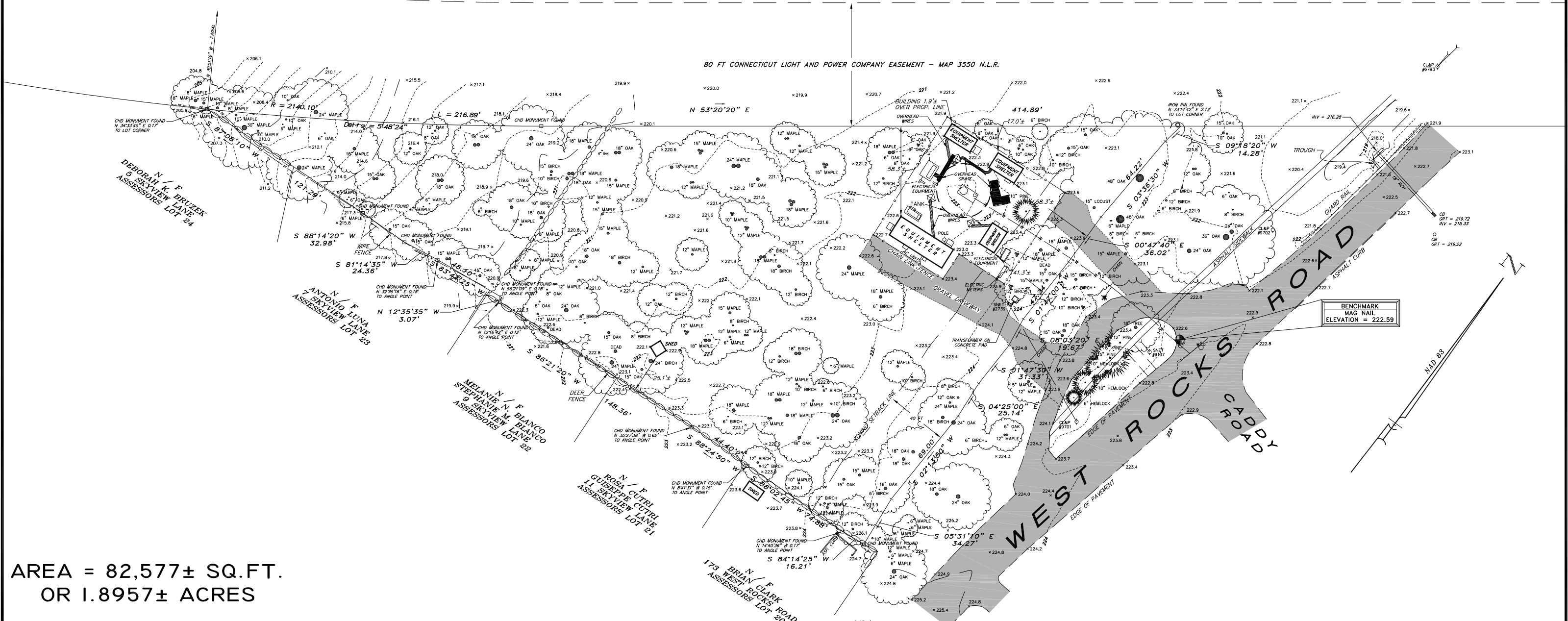
**DRAWN BY:** CSH  
**DATE:** 09/30/21 **CHECKED BY:** RCB

**SHEET TITLE:**  
**TITLE SHEET  
& INDEX**

**SHEET NUMBER:**  
**T-1**



STATE OF CONNECTICUT  
 15 MERRITT PARKWAY 15



AREA = 82,577± SQ.FT.  
 OR 1.8957± ACRES

THIS SURVEY AND MAP HAVE BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS A ZONING LOCATION AND TOPOGRAPHIC SURVEY THE BOUNDARY DETERMINATION CATEGORY OF WHICH IS A RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS 'A - 2', TOPOGRAPHIC ACCURACY CLASS 'T-2', VERTICAL ACCURACY CLASS 'V - 2' AND IS INTENDED TO DEPICT OR NOTE THE POSITION OF EXISTING OR PROPOSED IMPROVEMENTS WITH RESPECT TO APPLICABLE MUNICIPAL SETBACK REQUIREMENTS IN ORDER TO ENABLE DETERMINATION OF COMPLIANCE WITH SAID REGULATIONS.

THIS SURVEY WAS PREPARED FOR A SPECIFIC PURPOSE. ANY USE OTHER THAN FOR THAT WHICH WAS INTENDED IS A MISUSE OF THIS INFORMATION AND RENDERS THE PREPARER'S DECLARATION NULL AND VOID.

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS MAP RENDERS THE PREPARER'S DECLARATION NULL AND VOID.

DISTANCES NOTED +/- FROM BUILDINGS TO PROPERTY LINES ARE FOR REFERENCE PURPOSES ONLY AND ARE NOT TO BE USED TO ESTABLISH PROPERTY BOUNDARIES.

UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS, IF ANY, ARE NOT DEPICTED HEREON.

PROPERTY IS LOCATED IN AN 'A - RESIDENCE' ZONE.

REFER TO MAP 3550 OF THE NORWALK LAND RECORDS.

REFER TO A QUIT CLAIM DEED RECORDED IN BK. 365, PG. 140 OF THE NORWALK LAND RECORDS.

INLAND WETLANDS, IF ANY, ARE NOT DEPICTED HEREON. THERE ARE NO WETLANDS ON THIS PROPERTY AS DEPICTED ON THE CITY OF NORWALK INLAND WETLANDS AND WATERCOURSES MAP AMENDED OCTOBER 29, 2009.

PROPERTY IS DEPICTED AS LYING OUTSIDE OF ANY 1% ANNUAL CHANCE FLOOD ZONE BOUNDARY AS NOTED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 0900100393G REVISED ON OCTOBER 16, 2013.

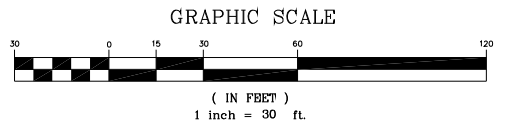
THIS INFORMATION IS PROVIDED FOR REFERENCE PURPOSES AND DOES NOT NECESSARILY REPRESENT THE ACTUAL POTENTIAL FOR FLOOD DAMAGE TO ANY EXISTING OR PROPOSED STRUCTURES OR IMPROVEMENTS LOCATED ON THIS PROPERTY.

ZONING DATA CHART 'A - RESIDENCE' ZONE

	REQUIRED / ALLOWED	EXISTING	PROPOSED
LOT AREA	12,500 SQ. FT.	82,577± SQ. FT.	
LOT WIDTH	100 FT. MIN.	VARIES	
FRONT YARD	40 FT. MIN. (1)	41.3± FT.	
REAR YARD	20% OR 20 FT. MAX.		
SIDE YARD	10 FT. MIN.		
AGGREGATE SIDE YARD	25%		
BUILDING HEIGHT (2)	35 FT.	NOT MEASURED	
	40 FT. MAX. TO PEAK	NOT MEASURED	
# OF STORIES	2 1/2 MAX.	NOT MEASURED	
BUILDING COVERAGE	25% MAX. (20,644 SQ. FT.)	1.6±% (1,280± SQ. FT.)	

- (1) SUBJECT TO SECTION 118-900F.
- (2) EXCEPT FOR STRUCTURES LOCATED IN FLOOD ZONES A OR V, WHERE ONE (1) ADDITIONAL FOOT IN HEIGHT SHALL BE PERMITTED TO THE MIDPOINT AND TO THE PEAK.

ZONING LOCATION & TOPOGRAPHIC SURVEY  
 173 1/2 WEST ROCKS ROAD  
 PREPARED FOR  
**FIRST TAXING DISTRICT**  
**WATER DEPARTMENT**  
 NORWALK, CONNECTICUT  
 SCALE: 1" = 30 FT. APRIL 20, 2016  
**WILLIAM W. SEYMOUR & ASSOCIATES, P.C.**  
 LAND SURVEYORS ~ ZONING & LAND USE CONSULTANTS  
 170 NOROTON AVENUE ~ 203-655-3331 ~ DARIEN, CONN. ©



VERTICAL DATUM: N.A.V.D. 88

**MAP NOTES:**

- THIS SURVEY AND MAP HAVE BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS A ZONING LOCATION AND TOPOGRAPHIC SURVEY THE BOUNDARY DETERMINATION CATEGORY OF WHICH IS A RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS 'A - 2', TOPOGRAPHIC ACCURACY CLASS 'T-2', VERTICAL ACCURACY CLASS 'V - 2' AND IS INTENDED TO DEPICT OR NOTE THE POSITION OF EXISTING OR PROPOSED IMPROVEMENTS WITH RESPECT TO APPLICABLE MUNICIPAL SETBACK REQUIREMENTS IN ORDER TO ENABLE DETERMINATION OF COMPLIANCE WITH SAID REGULATIONS.
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NOTE:  
157 RESIDENCES ARE LOCATED WITHIN 1,000' OF PROPOSED FACILITY.

**SITE AREAS & VOLUMES OF EARTHWORK**

SITWORK ENTAILS APPROXIMATELY 160 CY OF EXCESS MATERIAL. THE COMPOUND AND ROADWAY WILL IMPORT APPROXIMATELY 160 CUBIC YARDS OF CLEAN BROKEN STONE. THE UTILITY TRENCH FROM THE DEMARC TO THE COMPOUND WILL EXCAVATE APPROXIMATELY 185 CUBIC YARDS OF MATERIAL THAT WILL BE USED TO BACKFILL THE TRENCH.

COMPOUND AREA SLOPES:  
EXISTING - 1%-3%  
PROPOSED - 1%-3%

TOTAL AREA OF DISTURBANCE = 10,500± SF

STORMWATER VELOCITY:  
PRIOR TO GROUND COVER < 3.0 FT/SEC  
FOLLOWING GROUND COVER < 3.0 FT/SEC

STORMWATER VOLUME:  
PROPOSED IMPERVIOUS AREA = 6,502 SF  
WATER QUALITY STD VOLUME (1") = 542 CF  
STORAGE VOLUME (6" DEPTH, 40% VOIDS) = 703 CF

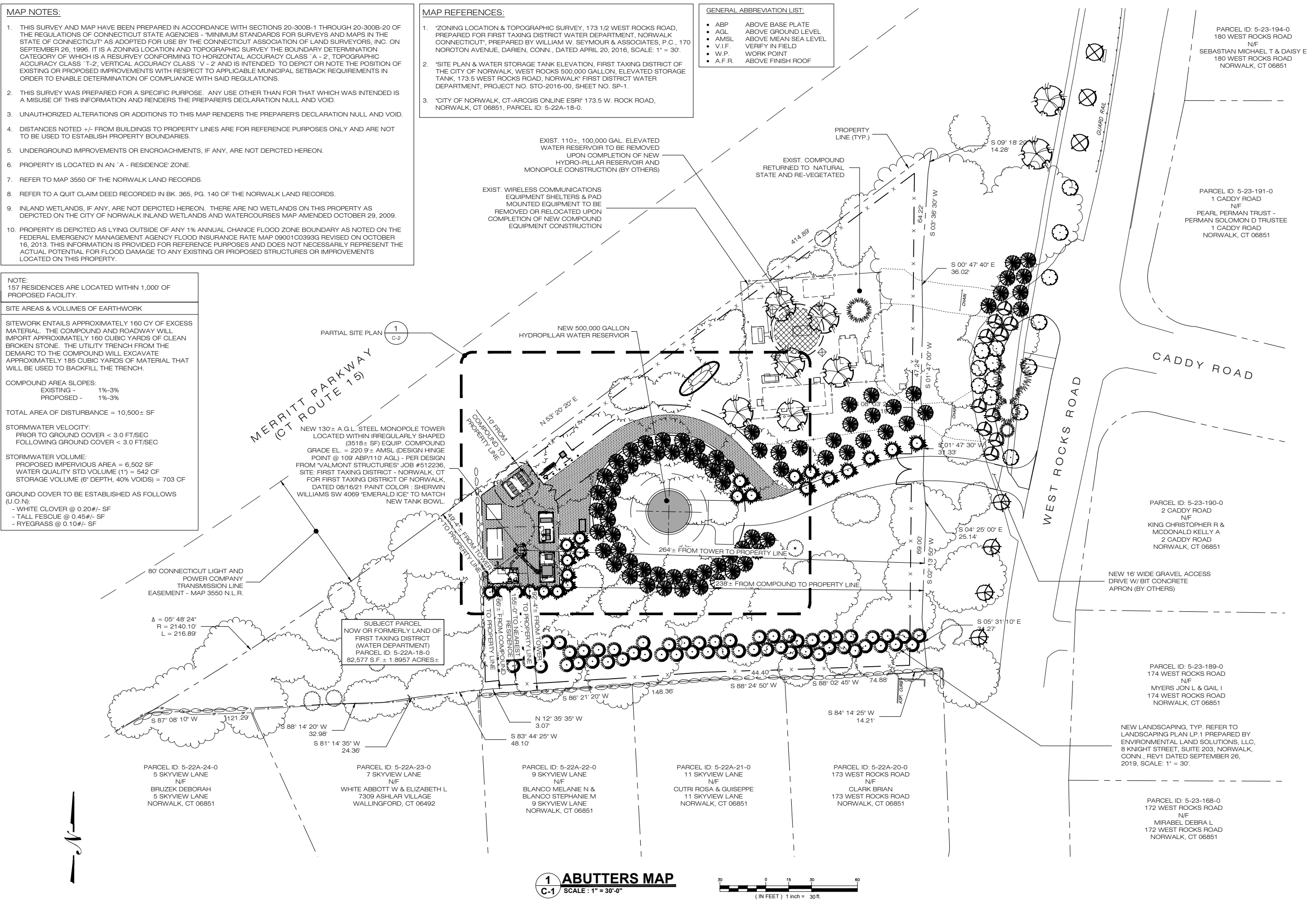
GROUND COVER TO BE ESTABLISHED AS FOLLOWS (U.O.N.):  
- WHITE CLOVER @ 0.20#/- SF  
- TALL FESCUE @ 0.45#/- SF  
- RYEGRASS @ 0.10#/- SF

**MAP REFERENCES:**

- 'ZONING LOCATION & TOPOGRAPHIC SURVEY, 173 1/2 WEST ROCKS ROAD, PREPARED FOR FIRST TAXING DISTRICT WATER DEPARTMENT, NORWALK CONNECTICUT, PREPARED BY WILLIAM W. SEYMOUR & ASSOCIATES, P.C., 170 NOROTON AVENUE, DARIEN, CONN., DATED APRIL 20, 2016, SCALE: 1" = 30'.
- 'SITE PLAN & WATER STORAGE TANK ELEVATION, FIRST TAXING DISTRICT OF THE CITY OF NORWALK, WEST ROCKS 500,000 GALLON, ELEVATED STORAGE TANK, 173.5 WEST ROCKS ROAD, NORWALK' FIRST DISTRICT WATER DEPARTMENT, PROJECT NO. STO-2016-00, SHEET NO. SP-1.
- 'CITY OF NORWALK, CT-ARCGIS ONLINE ESRI' 173.5 W. ROCK ROAD, NORWALK, CT 06851, PARCEL ID: 5-22A-18-0.

**GENERAL ABBREVIATION LIST:**

- ABP ABOVE BASE PLATE
- AGL ABOVE GROUND LEVEL
- AMSL ABOVE MEAN SEA LEVEL
- V.I.F. VERIFY IN FIELD
- W.P. WORK POINT
- A.F.R. ABOVE FINISH ROOF



**FIRST TAXING DISTRICT WATER DEPARTMENT**  
12 NEW CANAAN AVENUE  
NORWALK, CT 06851

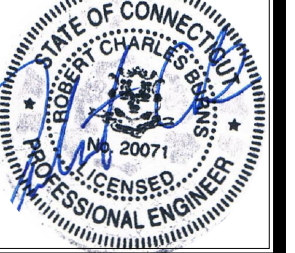
**ALL-POINTS TECHNOLOGY CORPORATION**  
567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-963-1697  
WWW.ALLPOINTS.TECH.COM FAX: (860)-963-0935

**D&M DOCUMENTS**

NO	DATE	REVISION
0	09/30/21	FOR FILING: RCB
1	10/19/21	FOR FILING: RCB
2		
3		
4		
5		
6		

**DESIGN PROFESSIONALS OF RECORD**  
PROF. ROBERT C. BURNS P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

**OWNER:** FIRST TAXING DISTRICT (WATER DEPARTMENT)  
**ADDRESS:** 12 NEW CANAAN AVENUE NORWALK, CT 06852

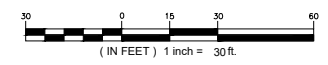


**FIRST TAXING DISTRICT - NORWALK**  
**SITE** 173.5 WEST ROCKS ROAD  
**ADDRESS:** NORWALK, CT 06851  
**APT FILING NUMBER:** CT544100  
**DRAWN BY:** CSH  
**DATE:** 09/30/21 **CHECKED BY:** RCB

**SHEET TITLE:**  
**ABUTTERS MAP**

**SHEET NUMBER:**  
**C-1**

**1 ABUTTERS MAP**  
C-1 SCALE: 1" = 30'-0"





**NOTES:**  
 1. ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE, AND RF ENGINEER.

**TOWER DESIGN NOTE:**  
 THE NEW EQUIPMENT INSTALLATION INDICATED HEREIN IS SUBJECT TO A GEO-TECHNICAL INVESTIGATION & THE COMPLETION OF A STRUCTURAL DESIGN OF THE NEW SUPPORTING TOWER STRUCTURE.

**GENERAL ABBREVIATION LIST:**

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- V.I.F. VERIFY IN FIELD
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**FIRST TAXING DISTRICT WATER DEPARTMENT**  
 12 NEW CANAAN AVENUE  
 NORWALK, CT 06851

**ALL-POINTS TECHNOLOGY CORPORATION**  
 567 VAUXHAUL STREET EXTENSION - SUITE 311  
 WATERFORD, CT 06385 PHONE: (860)-963-1697  
 WWW.ALLPOINTS.TECH.COM FAX: (860)-963-0935

**D&M DOCUMENTS**

NO	DATE	REVISION
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**DESIGN PROFESSIONALS OF RECORD**  
**PROF. ROBERT C. BURNS P.E.**  
 COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
 ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

**OWNER: FIRST TAXING DISTRICT (WATER DEPARTMENT)**  
 ADDRESS: 12 NEW CANAAN AVENUE NORWALK, CT 06852



**FIRST TAXING DISTRICT - NORWALK**

**SITE** 173.5 WEST ROCKS ROAD  
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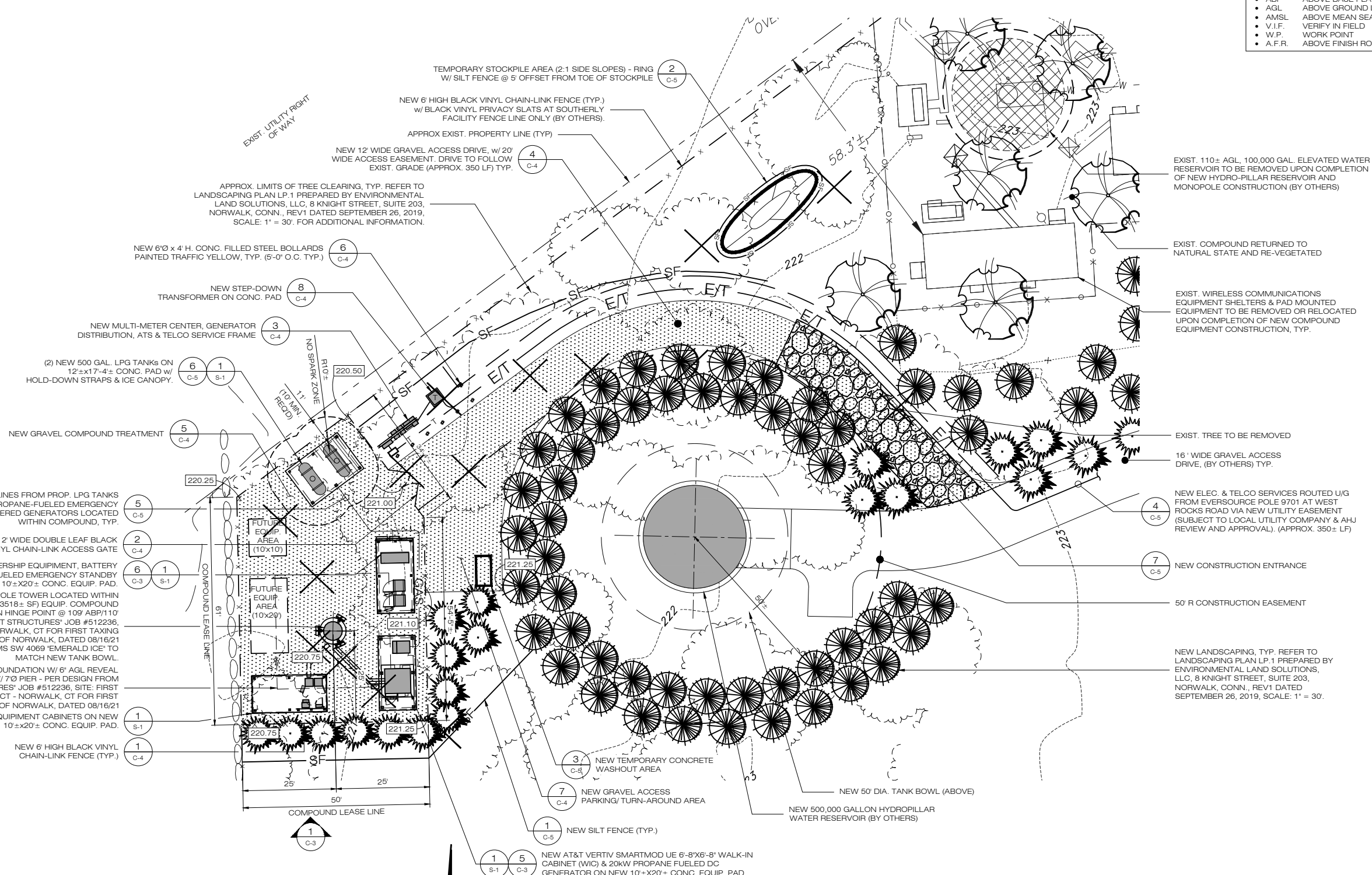
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**DRAWN BY:** CSH  
**CHECKED BY:** RCB

**DATE:** 09/30/21

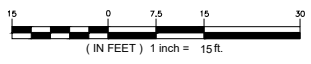
**SHEET TITLE:**  
**PARTIAL SITE PLAN**

**SHEET NUMBER:**  
**C-2**



NOTE: ESTIMATED 14 TREES WILL BE REMOVED WITHIN THE PROPOSED WIRELESS COMMUNICATIONS FACILITY CONSTRUCTION AREA

**1 PARTIAL SITE PLAN**  
**C-2 SCALE: 1" = 15'-0"**

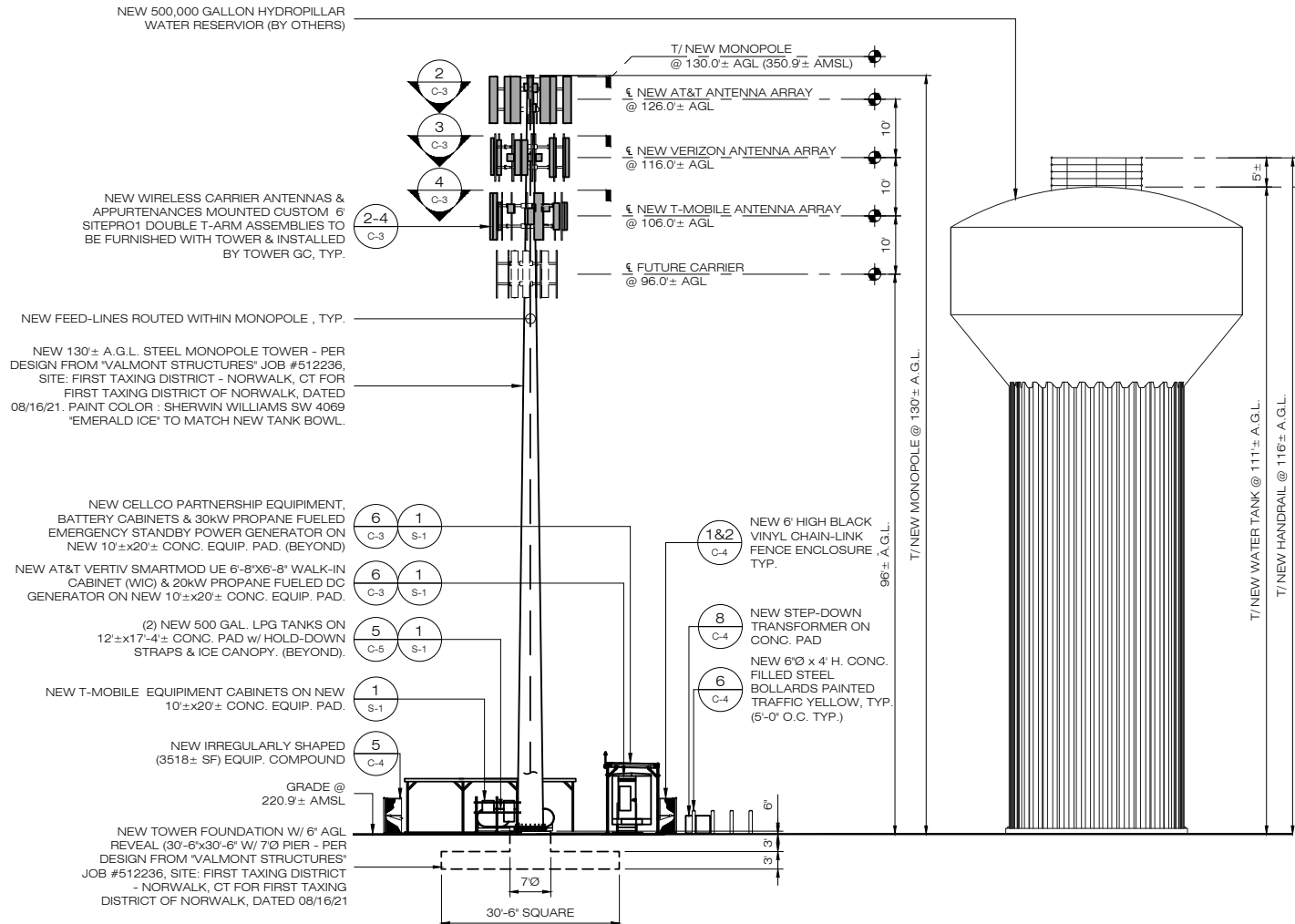


**ENGINEERING ANALYSIS AND CERTIFICATION**

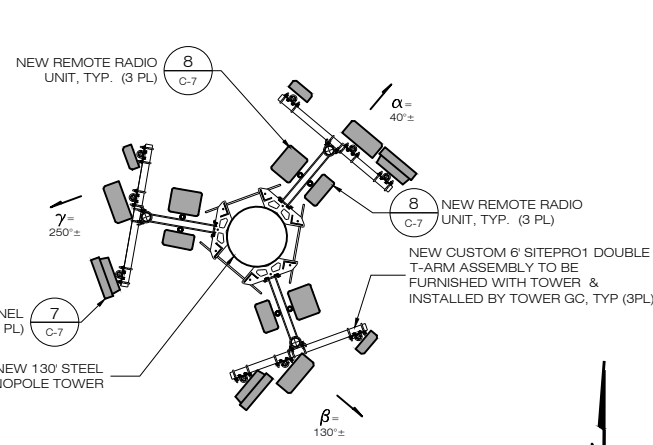
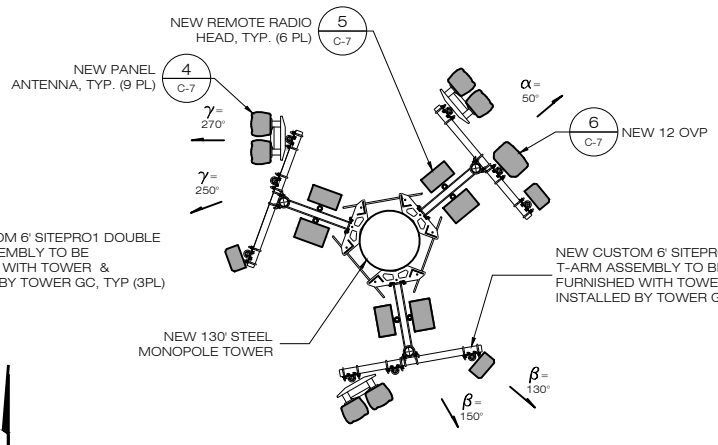
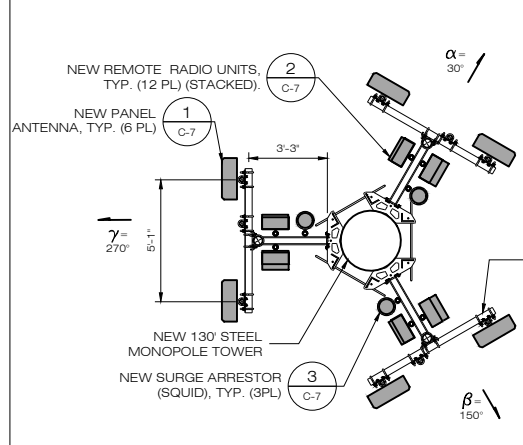
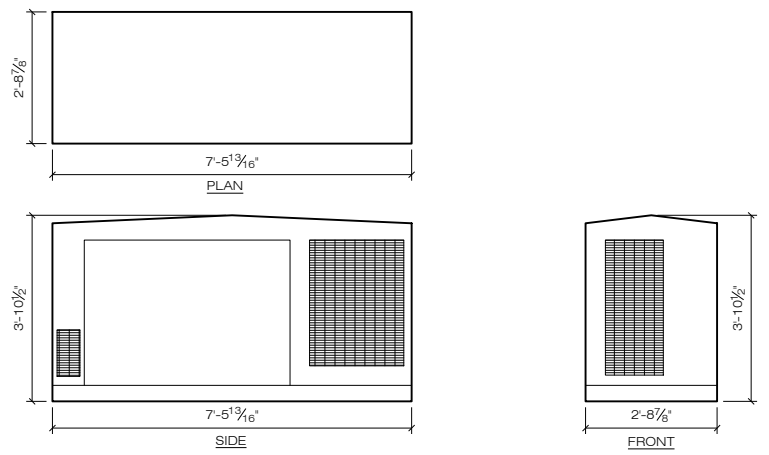
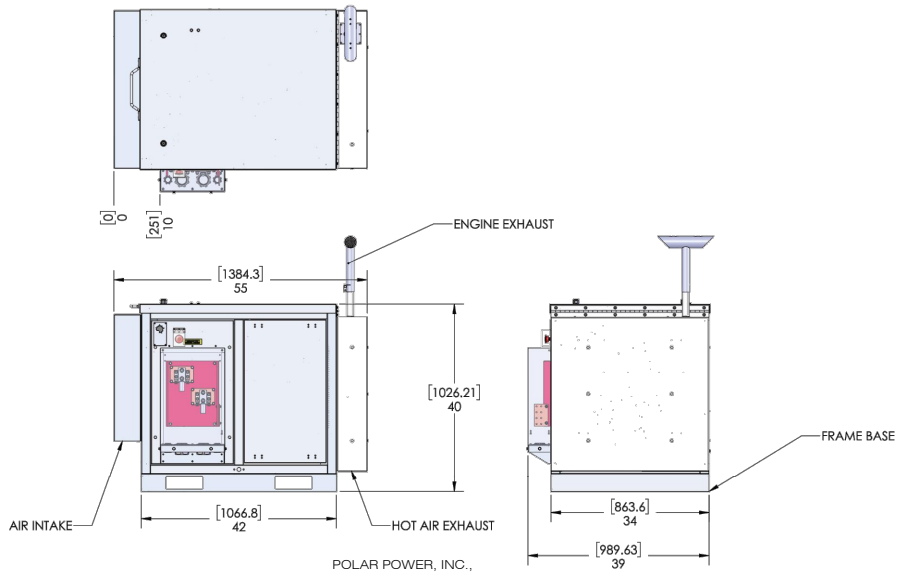
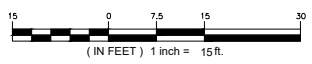
IN ACCORDANCE WITH THE 2018 CONNECTICUT STATE BUILDING CODE AND THE TELECOMMUNICATIONS INDUSTRIES ASSOCIATION STANDARD TIA-222-H 'STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORT STRUCTURES' FOR FAIRFIELD COUNTY, THE TOWER WOULD BE DESIGNED TO WITHSTAND PRESSURES EQUIVALENT TO A MAXIMUM 120 MPH ULTIMATE BASIC WIND SPEED EQUIVALENT TO 93 MPH NOMINAL BASIC WIND SPEED. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.

**D&M DOCUMENTS**

NO	DATE	REVISION
0	09/30/21	FOR FILING: RCB
1	10/19/21	FOR FILING: RCB
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**NOTE:**  
EXISTING AND PROPOSED PLANTINGS OMITTED FOR CLARITY.



**DESIGN PROFESSIONALS OF RECORD**

PROF: ROBERT C. BURNS P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: FIRST TAXING DISTRICT (WATER DEPARTMENT)  
ADDRESS: 12 NEW CANAAN AVENUE NORWALK, CT 06852



**FIRST TAXING DISTRICT - NORWALK**

SITE: 173.5 WEST ROCKS ROAD  
ADDRESS: NORWALK, CT 06851

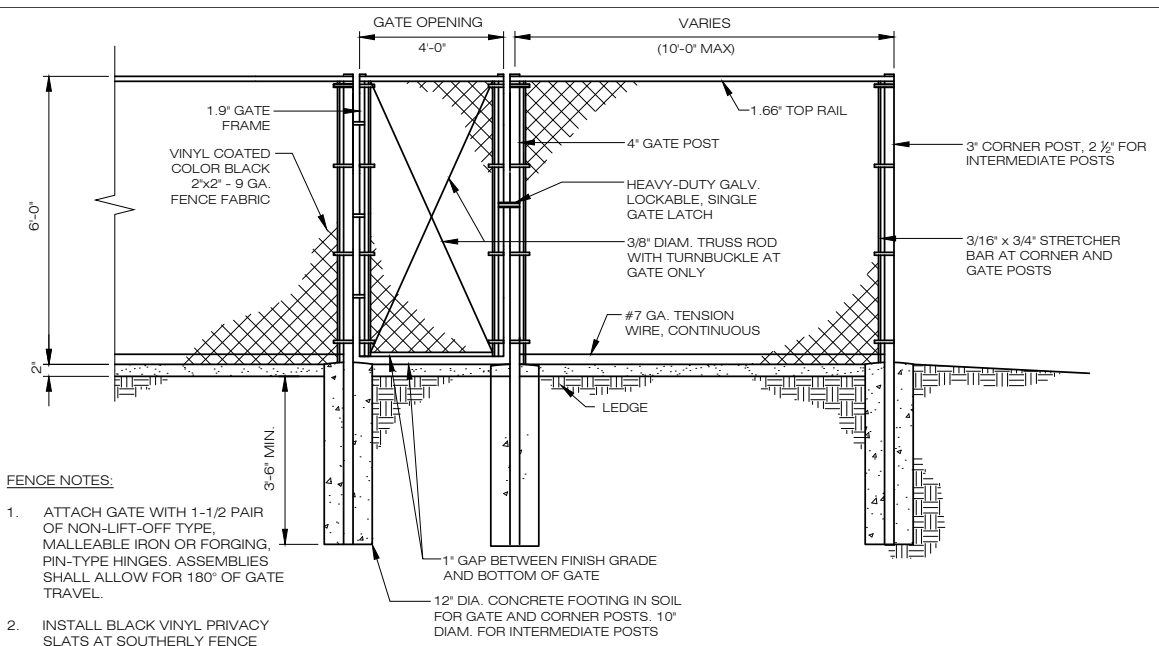
APT FILING NUMBER: CT544100

DATE: 09/30/21  
DRAWN BY: CSH  
CHECKED BY: RCB

**SHEET TITLE:**  
EQUIPMENT PLANS & SOUTH ELEVATION

**SHEET NUMBER:**  
C-3

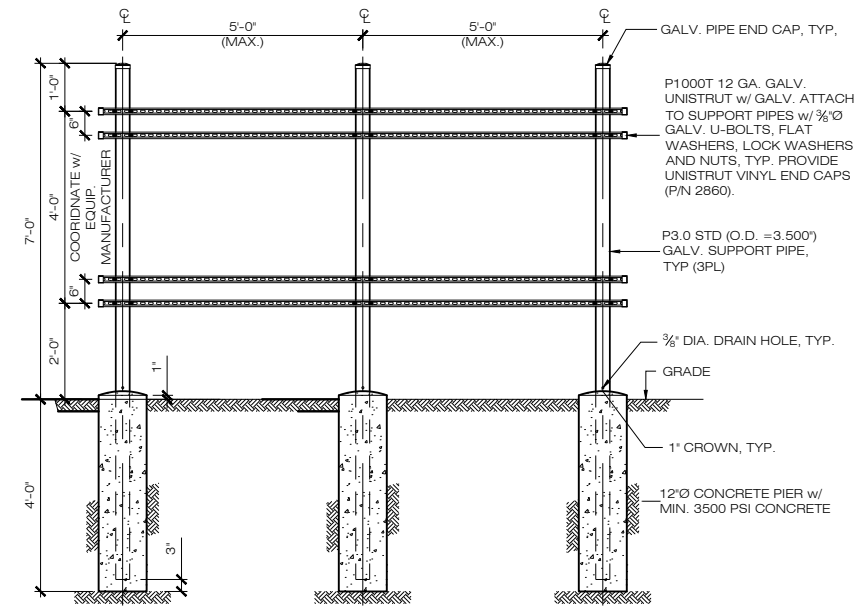




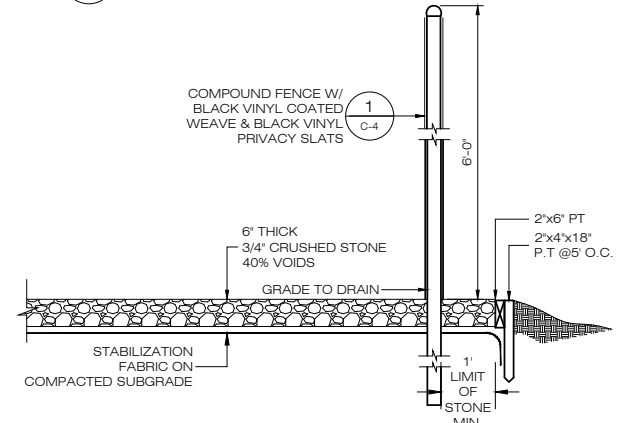
**FENCE NOTES:**

- ATTACH GATE WITH 1-1/2 PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.
- INSTALL BLACK VINYL PRIVACY SLATS AT SOUTHERLY FENCE LINE ONLY (BY OTHERS).

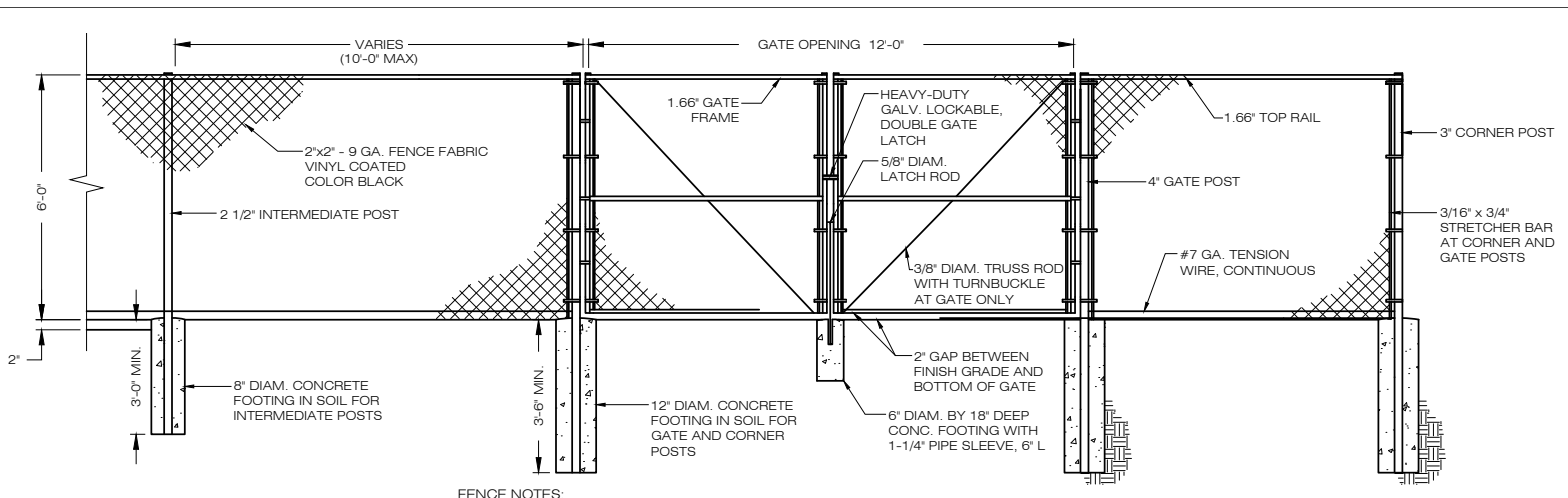
**1 CHAIN-LINK FENCE & SWING GATE**  
C-4 SCALE: N.T.S.



**3 UTILITY SERVICE FRAME DETAIL**  
C-4 SCALE: 1/2" = 10"



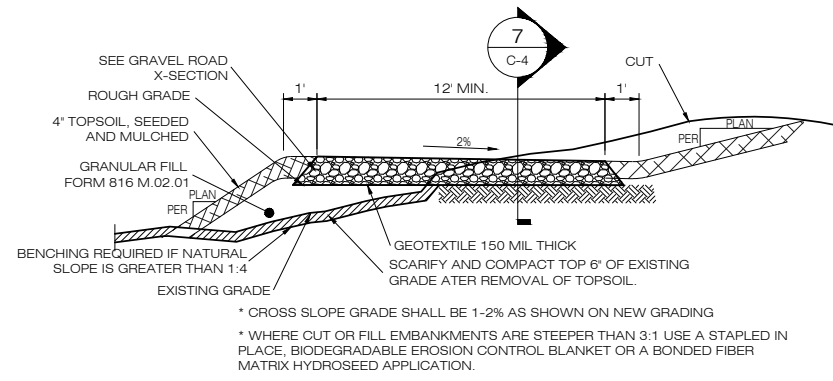
**5 COMPOUND DETAIL**  
C-4 SCALE: N.T.S.



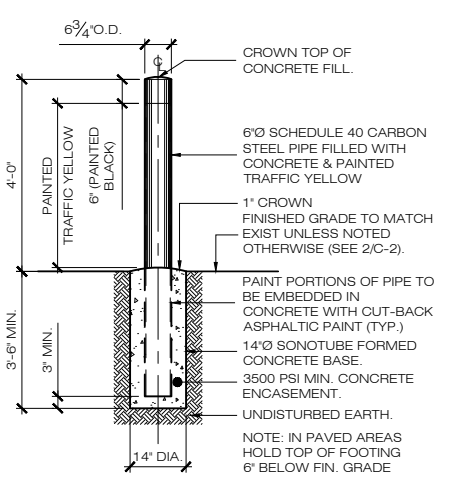
**FENCE NOTES:**

- ATTACH GATE WITH 1-1/2 PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.

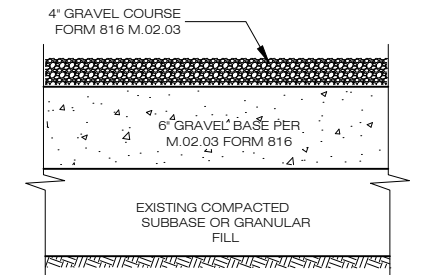
**2 CHAIN-LINK FENCE & DOUBLE SWING ACCESS GATE**  
C-4 SCALE: N.T.S.



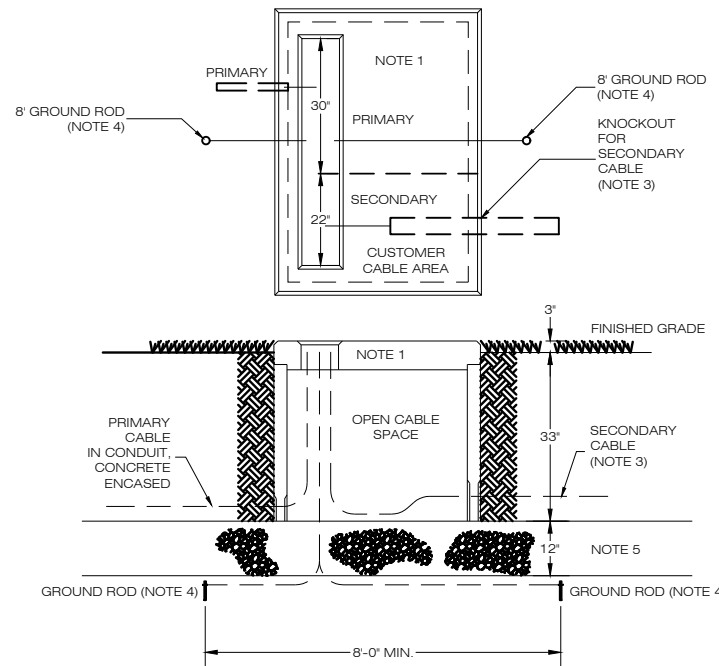
**4 TYPICAL ROAD CROSS SECTION**  
C-4 SCALE: N.T.S.



**6 BOLLARD DETAIL**  
C-4 SCALE: N.T.S.



**7 GRAVEL ROAD SECTION**  
C-4 SCALE: N.T.S.



**NOTES:**

- 75 - 300KVA - INSTALL 76"x54"x36" PAD AS PER SPC P-013 AND P-014. 500-2500KVA - INSTALL 76"x70"x36" PAD AS PER SPC P-01.5 AND P-016. (COORDINATE REQUIRED PAD SIZE FOR PROJECT WITH UTILITY COMPANY)
- PRIMARY CABLE: BY UTILITY COMPANY
- SECONDARY CABLE: LEAVE SLACK FOR FUTURE RECONNECTING TO TRANSFORMERS WITH HIGHER SECONDARY TERMINALS. CUSTOMER CABLE(S) SHALL ENTER FROM THE REAR AND SHALL BE CONFINED TO THE AREA DEFINED AS THE 'CUSTOMER CABLE AREA'.
- GALVANIZED GROUND RODS: INSTALL IN TRENCH AND CONNECT A #2 COPPER CONDUCTOR FROM ROD THROUGH PAD OPENING AND EXTENDING 5'-0" ABOVE PAD. GROUND RODS SHALL BE A MINIMUM OF 8' FROM EACH OTHER.
- THE EXCAVATION FOR THE PAD SHALL BE CARRIED TO A DEPTH OF 12 INCHES BELOW THE BOTTOM OF THE PAD WALLS. THE BACKFILL UNDER THE PAD WALLS SHALL BE A CLEAN GRAVEL, FREE OF FOREIGN MATTER AND CONSTRUCTION DEBRIS, AND IN ACCORDANCE WITH CONNECTICUT DOT SPEC M 02.06 GRADING 'A'; BACKFILL SHALL BE PLACED IN 6 INCH LAYERS AND COMPACTED WITH MECHANICAL TAMPERS TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD COMPACTION TESTS, AASHTO T180 OR ASTM D698.
- ALL WORK SHALL CONFORM TO EVERSOURCE TRANSFORMER PAD INSTALLATION REQUIREMENTS. REFER TO EVERSOURCE CONSTRUCTION STANDARD DTR 58.301 FOR ADDITIONAL INFORMATION.

**8 UTILITY PAD TRANSFORMER DETAIL**  
C-4 SCALE: N.T.S.

FIRST TAXING DISTRICT  
WATER DEPARTMENT  
12 NEW CANAAN AVENUE  
NORWALK, CT 06851

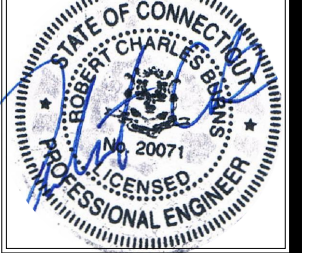
ALL-POINTS  
TECHNOLOGY CORPORATION  
567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-963-1697  
WWW.ALLPOINTS.TECH.COM FAX: (860)-963-0935

**D&M DOCUMENTS**

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**DESIGN PROFESSIONALS OF RECORD**  
PROF. ROBERT C. BURNS P.E.  
COMP. ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385

**OWNER:** FIRST TAXING DISTRICT (WATER DEPARTMENT)  
**ADDRESS:** 12 NEW CANAAN AVENUE  
NORWALK, CT 06852



**FIRST TAXING DISTRICT - NORWALK**

**SITE** 173.5 WEST ROCKS ROAD  
**ADDRESS:** NORWALK, CT 06851

**APT FILING NUMBER:** CT544100

**DRAWN BY:** CSH

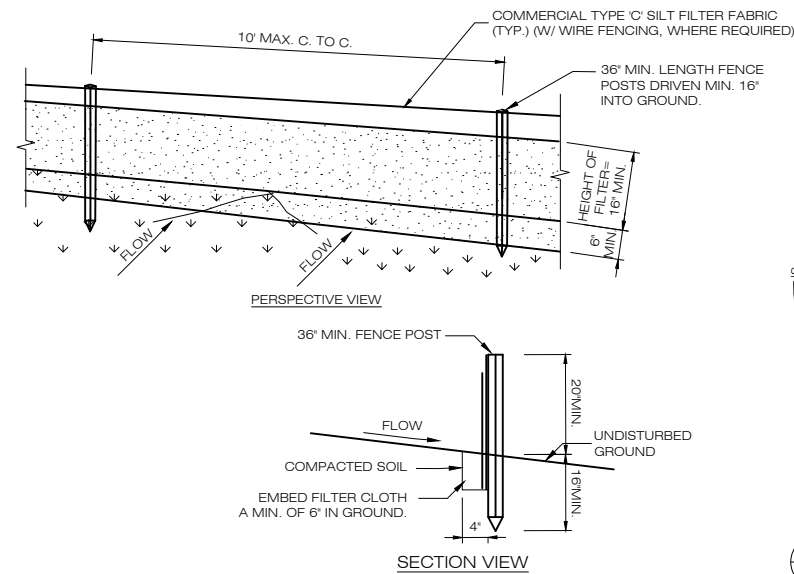
**DATE:** 09/30/21 **CHECKED BY:** RCB

**SHEET TITLE:**

**SITE DETAILS**

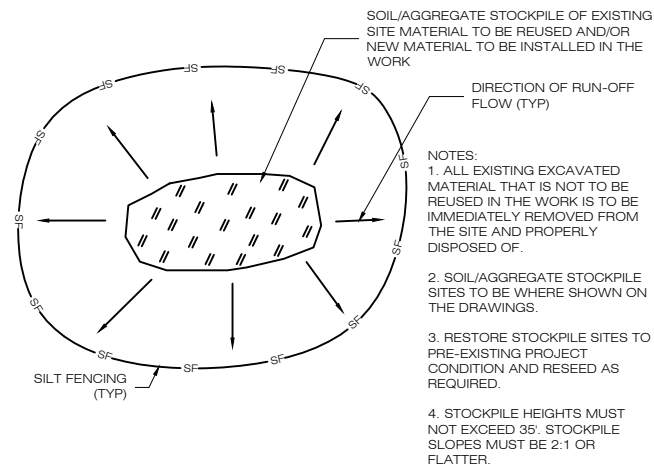
**SHEET NUMBER:**

**C-4**

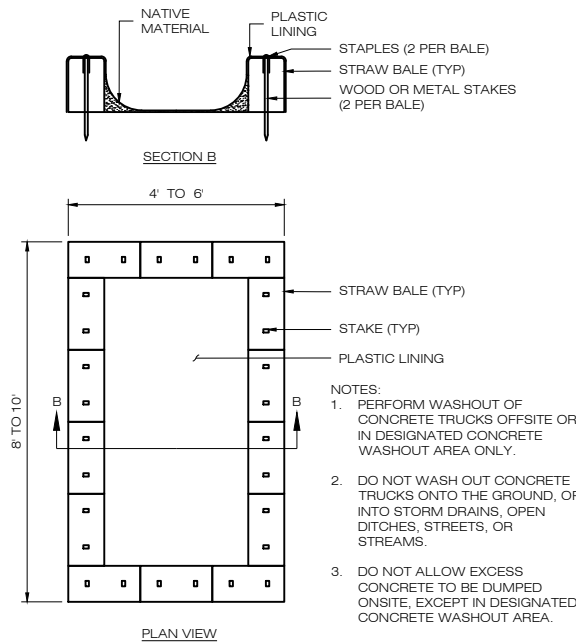


- CONSTRUCTION SPECIFICATIONS**
- POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
  - PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

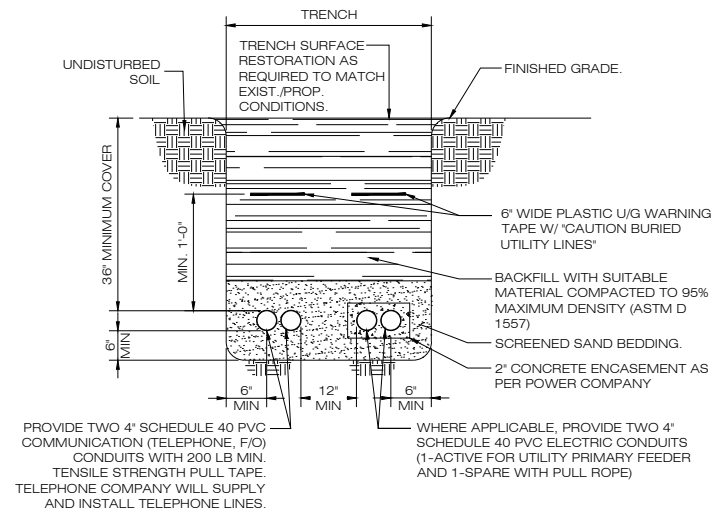
**1 GEOTEXTILE SILT FENCE DETAIL**  
SCALE : N.T.S.



**2 TEMPORARY STOCKPILE DETAIL**  
SCALE : N.T.S.

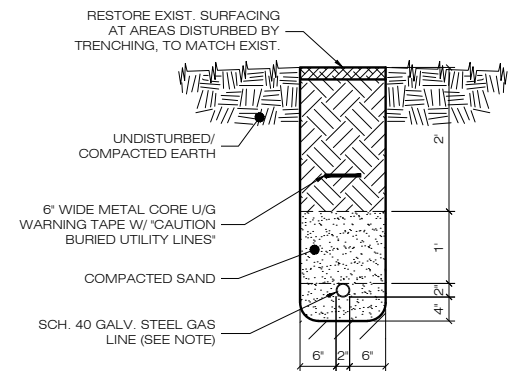


**3 DEWATERING STRAW BALE BASIN**  
SCALE : N.T.S.



- NOTES:**
- THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DERBIES OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED.
  - CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
  - EXISTING PAVEMENT SHALL BE SAW-CUT PRIOR TO TRENCH EXCAVATION

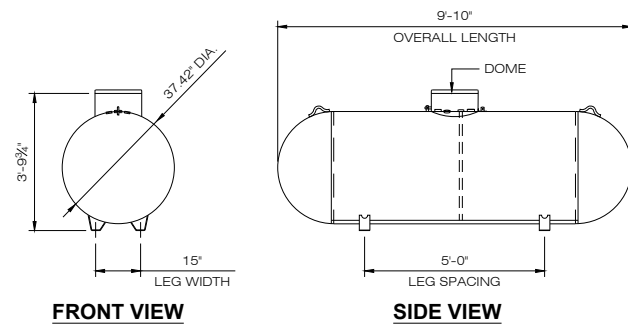
**4 PRIMARY UTILITY TRENCH**  
SCALE : N.T.S.



- NOTE:**  
STEEL PIPE SHALL COMPLY WITH NFPA 54 CHAPTER 5 FOR DESIGN, MATERIALS & COMPONENTS, BE SUITABLE FOR DIRECT BURIAL & WITH AN ELECTRICALLY INSULATING & CORROSION RESISTANT MATERIAL ON ALL EXPOSED SURFACES APPLIED PER COATING MANUFACTURERS INSTRUCTION.
- PIPE SIZING SHALL COMPLY WITH NFPA 54 CHAPTER 6 OR AS OTHERWISE NOTED.
- PIPING INSTALLATION SHALL COMPLY WITH NFPA 54 CHAPTER 7 OR AS OTHERWISE NOTED AND SHALL HAVE A CATHODIC PROTECTION SYSTEM INSTALLED.

**5 PROPANE GAS TRENCH**  
SCALE : N.T.S.

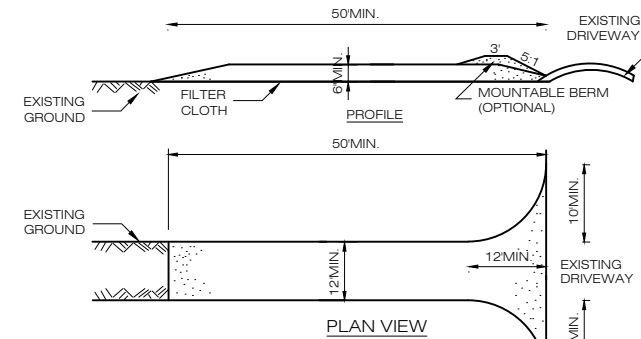
- NOTES:**
- PROPANE TANKS SHALL BE REFILLED FROM HOSE PULLED FROM A REFILLING VEHICLE PARKED AT THE NEW PARKING AREA.
  - PER NFPA 58 TABLE 5.9.4.1(B) FILLER VALVE REQUIRED ON ALL TANKS BUT MAY BE MANUAL OR BACKFLOW CHECK VALVE, NFPA 58 5.9.4.1(C)(7).
  - ALL ABOVE-GROUND GAS SERVICE LINES SHALL MEET STATE CODE REGULATIONS.



- 500 USWG AMSE VIII, DIV. 1 ABOVE GROUND LPG TANK
- WEIGHT (EMPTY) = 871 lbs

**NOTE:**  
PROVIDE TANK MANUFACTURER SHOP DRAWING FOR REVIEW BY ENGINEER OF RECORD PRIOR TO PURCHASE

**6 ABOVE GROUND PROPANE TANK DETAIL**  
SCALE : N.T.S.



- CONSTRUCTION SPECIFICATIONS:**
- STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
  - LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
  - THICKNESS - NOT LESS THAN SIX (6) INCHES.
  - WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
  - GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
  - SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
  - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
  - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
  - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

**7 CONSTRUCTION ENTRANCE DETAIL**  
SCALE : N.T.S.

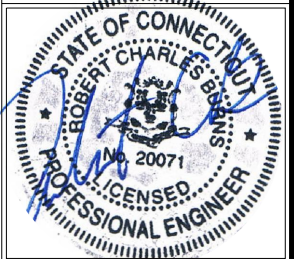
**D&M DOCUMENTS**

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**DESIGN PROFESSIONALS OF RECORD**

PROF: ROBERT C. BURNS P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: FIRST TAXING DISTRICT (WATER DEPARTMENT)  
ADDRESS: 12 NEW CANAAN AVENUE NORWALK, CT 06852



**FIRST TAXING DISTRICT - NORWALK**

SITE 173.5 WEST ROCKS ROAD  
ADDRESS: NORWALK, CT 06851

APT FILING NUMBER: CTS44100

DRAWN BY: CSH  
DATE: 09/30/21 CHECKED BY: RCB

**SHEET TITLE:**

**SITE DETAILS**

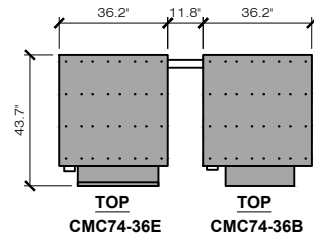
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**C-5**

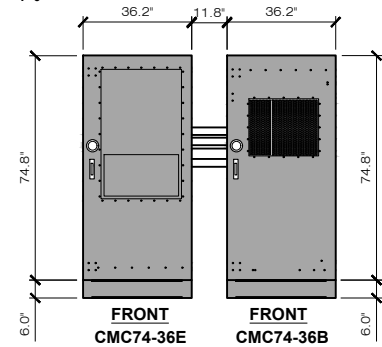
COMMSCOPE  
CMC74-36E OUTDOOR  
EQUIPMENT CABINET

COMMSCOPE  
CMC74-36B OUTDOOR  
BATTERY CABINET

Hx80.8"Wx36.2"Dx43.7" Hx80.8"Wx36.2"Dx43.7"



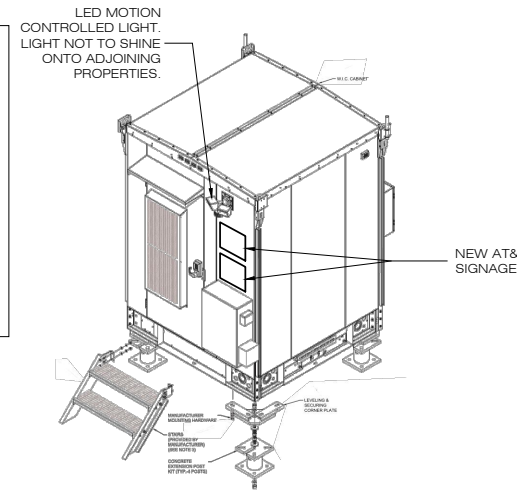
**1**  
**C-6** **CELLCO PARTNERSHIP OUTDOOR CABINET CMC74-36E & CMC74-36B PLAN VIEW**  
SCALE: 3/8" = 1'-0"



**2**  
**C-6** **CELLCO PARTNERSHIP OUTDOOR CABINET CMC74-36E & CMC74-36B ELEVATION VIEW**  
SCALE: 3/8" = 1'-0"

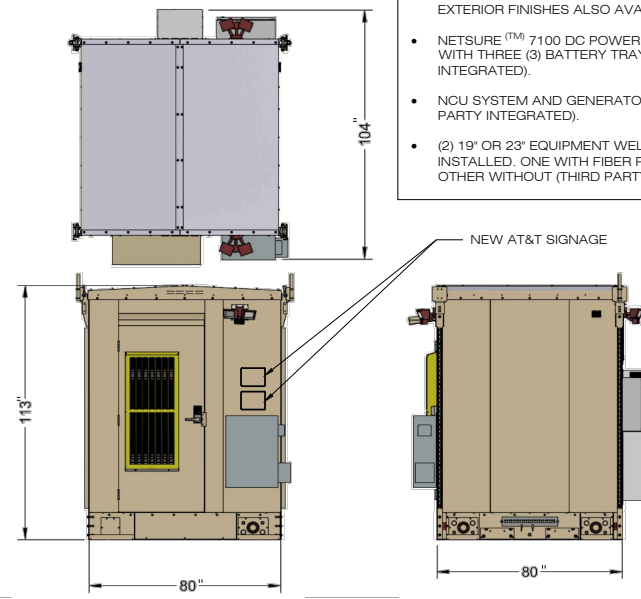
**WALK-IN CABINET SPECIFICATIONS:**

- COLOR - PEBBLE GRAY, RAL7032
- FINISH - STANDARD FINISH IS MULTI-STAGE DRY POWER POLYESTER PAINT FOR MAXIMUM DURABILITY AND PERFORMANCE AGAINST CORROSION. OPTIONAL EXTERIOR FINISHES ALSO AVAILABLE UPON REQUEST.
- NETSURE™ 7100 DC POWER SYSTEM IN 23" RACK WITH THREE (3) BATTERY TRAYS (THIRD PARTY INTEGRATED).
- NCU SYSTEM AND GENERATOR CONTROL (THIRD PARTY INTEGRATED).
- (2) 19" OR 23" EQUIPMENT WELDED FRAMES INSTALLED. ONE WITH FIBER PATCH PANEL AND THE OTHER WITHOUT (THIRD PARTY INTEGRATED).

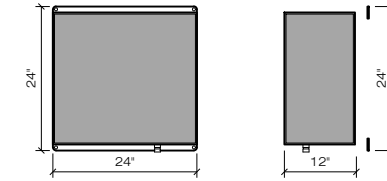
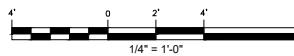


**WALK-IN CABINET NOTES:**

- WALK-IN CABINET(WIC) TO BE INSTALLED ACCORDING TO MANUFACTURER RECOMMENDATIONS & SPECIFICATIONS.
- CONTRACTOR TO CONFIRM PARTS & HARDWARE PRIOR TO CONSTRUCTION & COORDINATE W/ AT&T CM.
- FOUNDATION TO BE FLUSH W/ EXISTING GRADE. CONTRACTOR SHALL MAINTAIN A MAXIMUM OF 18" CLEARANCE FROM GRADE TO BOTTOM OF WIC TO ACCOMMODATE STAIRS. VERIFY IN FIELD PRIOR TO INSTALLATION.
- COORDINATE POWER & TELCO CONDUIT STUB UP PLACEMENT WITH ELECTRICAL TRADES. SEE E-1 FOR ADDITIONAL INFORMATION.
- PROVIDE HVAC & ELECTRICAL WORKING SPACE CLEARANCES PER MANUFACTURER RECOMMENDATIONS & NEC REQUIREMENTS.
- WIC DIMENSIONS: 6'-8"(W) x 6'-8"(L) x 9'-6"(H) (NO BASE), WIC WEIGHT: 5500lbs (EMPTY), 7500lbs (FULLY INTEGRATED).
- CONTRACTOR SHALL PROVIDE & INSTALL SPECIFIED CONCRETE ANCHORS.

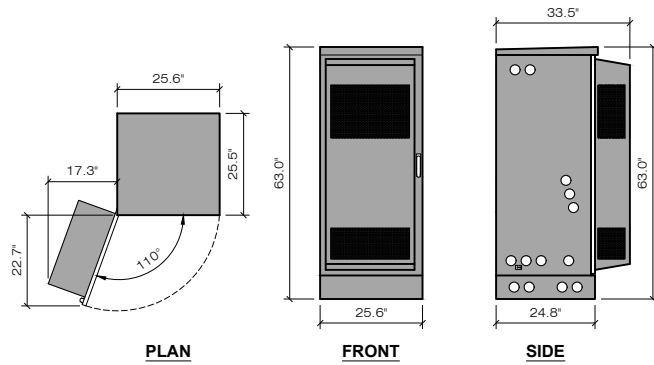


**3**  
**C-6** **AT&T SMARTMOD WALK-IN CABINET (WIC) DETAILS**  
SCALE: 1/2" = 1'-0"



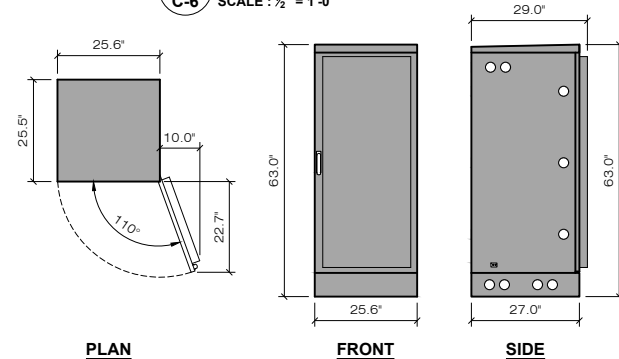
NOTE:  
DIMENSIONS SHOWN ARE APPROXIMATE. VERIFY W/ CM PRIOR TO CONSTRUCTION

**5**  
**C-6** **AT&T FIBER MANAGEMENT BOX**  
SCALE: 3/4" = 1'-0"



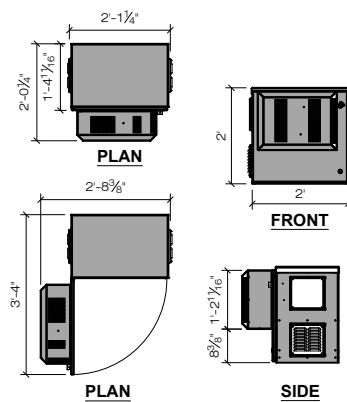
ERICSSON 6160 OUTDOOR EQUIPMENT CABINET  
63.0"Hx25.6"Wx33.5"D - 388 LBS  
FASTEN TO SLAB WITH MANUFACTURER'S STANDARD HARDWARE

**6**  
**C-6** **T-MOBILE ERICSSON 6160 EQUIPMENT CABINET**  
SCALE: 1/2" = 1'-0"



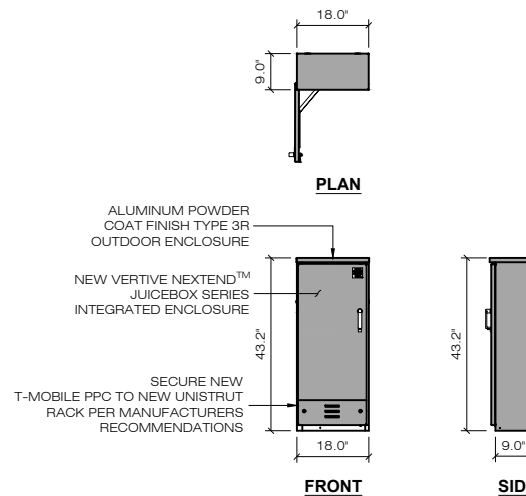
ERICSSON B160 OUTDOOR BATTERY CABINET  
63.0"Hx25.6"Wx29.0"D - 295 LBS  
FASTEN TO SLAB WITH MANUFACTURER'S STANDARD HARDWARE

**7**  
**C-6** **T-MOBILE ERICSSON B160 BATTERY CABINET**  
SCALE: 1/2" = 1'-0"



SECURE TELCO CABINET TO NEW UNISTRUT RACK PER MANUFACTURER RECOMMENDATIONS

**8**  
**C-6** **T-MOBILE VERTIV NEXTEND™ COMPACT2416 FIBER CABINET**  
SCALE: 1/2" = 1'-0"

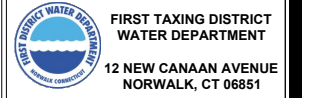


ALUMINUM POWDER COAT FINISH TYPE 3R OUTDOOR ENCLOSURE

NEW VERTIV NEXTEND™ JUICEBOX SERIES INTEGRATED ENCLOSURE

SECURE NEW T-MOBILE PPC TO NEW UNISTRUT RACK PER MANUFACTURER'S RECOMMENDATIONS

**9**  
**C-6** **T-MOBILE VERTIV NEXTEND™ JUICEBOX SERIES INTEGRATED ENCLOSURE**  
SCALE: 1/2" = 1'-0"



567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-963-1697  
WWW.ALLPOINTS.TECH.COM FAX: (860)-963-0935

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EXTENSION - SUITE 311  
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NORWALK, CT 06852



**FIRST TAXING DISTRICT - NORWALK**

SITE: 173.5 WEST ROCKS ROAD  
ADDRESS: NORWALK, CT 06851

APT FILING NUMBER: CT544100

DATE: 09/30/21 DRAWN BY: CSH  
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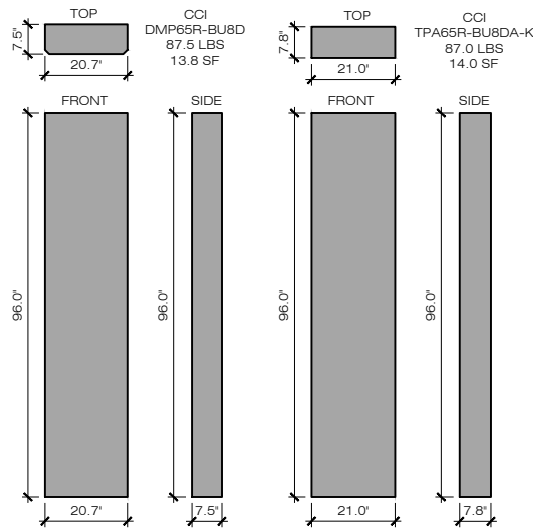
**SHEET TITLE:**

**CARRIER BASE EQUIPMENT DETAILS**

**SHEET NUMBER:**

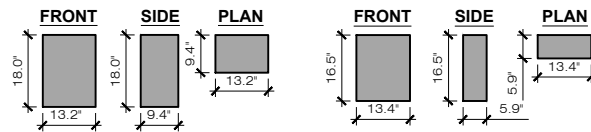
**C-6**



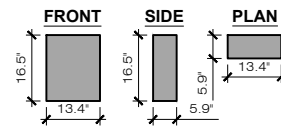


**PANEL ANTENNAS**

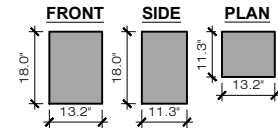
**1 AT&T ANTENNA DETAILS**  
C-7 SCALE: 1/2" = 1'-0"



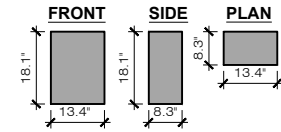
ERICSSON B5/B12 4449 (OR EQUAL)  
REMOTE RADIO UNIT (RRU)  
HxWxD=18.0'x13.2'x9.4' (75.0Lbs)



ERICSSON 4415 4T4R (OR EQUAL)  
REMOTE RADIO UNIT (RRU)  
HxWxD=16.5'x13.4'x5.9' (46.3Lbs)



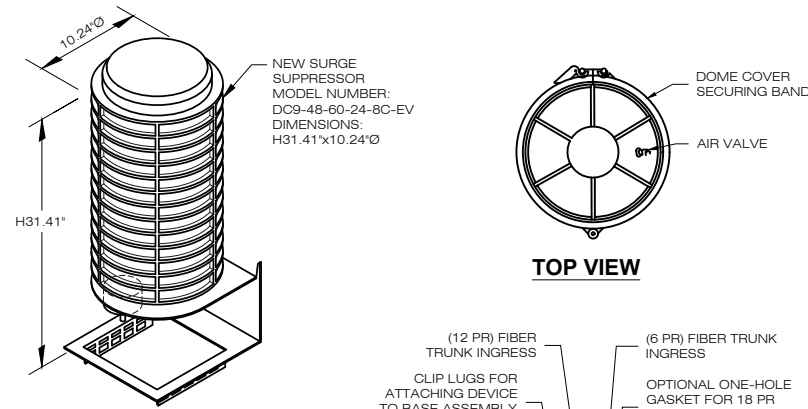
ERICSSON B2/B66A 8843 (OR EQUAL)  
REMOTE RADIO UNIT (RRU)  
HxWxD=18.0'x13.2'x11.3' (70.0Lbs)



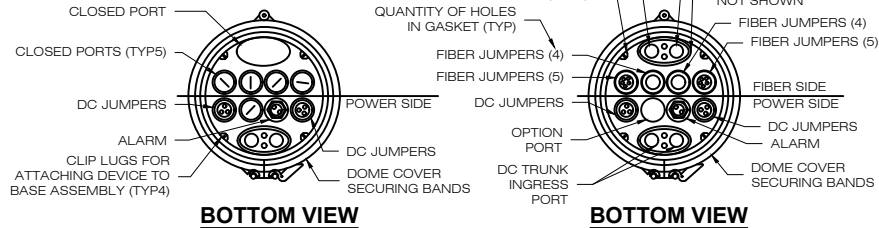
ERICSSON B14 4478 (OR EQUAL)  
REMOTE RADIO UNIT (RRU)  
HxWxD=18.1'x13.4'x8.3' (59.4Lbs)

- NOTES:  
1. DIMENSIONS SUBJECT TO CHANGE BASED UPON AVAILABILITY AT TIME OF CONSTRUCTION.  
2. MANUFACTURER'S RECOMMENDED RRH CLEARANCES: FRONT: 36"; SIDES: 12"; BOTTOM: 24"  
3. SFPs ARE PROTOCOL SPECIFIC. THE CONNECTIONS BETWEEN RRHs AND BBUs ARE CPRI CONNECTIONS, AND REQUIRE CPRI SFP (ON BOTH ENDS). THE CONNECTIONS BETWEEN BBUs AND 7705 ARE ETHERNET AND REQUIRE ETHERNET SFP (ON BOTH ENDS.)

**2 AT&T RRU EQUIPMENT**  
C-7 SCALE: 1/2" = 1'-0"



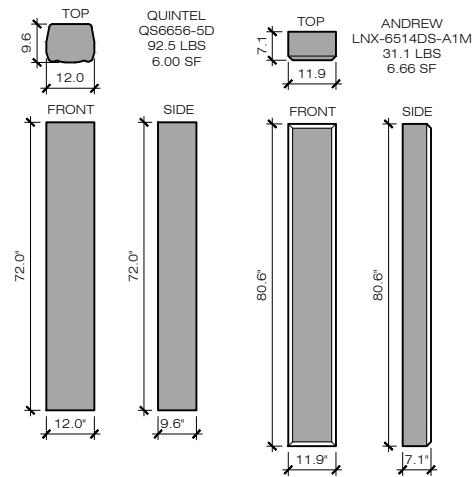
- NOTES:  
1. MOUNT PER MANUFACTURER'S SPECIFICATIONS.  
2. REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC TO 11 NPT ADAPTER (COOPER GROUSE-HINES PN CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP



**3 TYPICAL AT&T SURGE SUPPRESSOR**

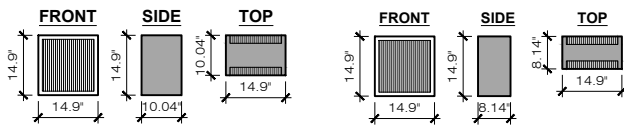
RAYCAP DO9-48-60-24-8C-EV (SURGE SUPPRESSOR)  
HxDia. = 31.41'x10.24' (26.2 Lbs)  
(OR EQUAL)  
COLOR: GRAY

**3 TYPICAL AT&T SURGE SUPPRESSOR**  
C-7 SCALE: N.T.S.

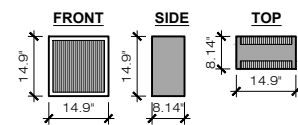


**PANEL ANTENNAS**

**4 CELLCO PARTNERSHIP ANTENNA DETAILS**  
C-7 SCALE: 1/2" = 1'-0"



SAMSUNG DUAL HIGH BAND B2/B66A  
RRH-BR049 (RFV01U-D1A)  
RRH PCS/AWS  
REMOTE RADIO HEAD (RRH)  
HxWxD=14.9'x14.9'x10.04' (97.5 Lbs)

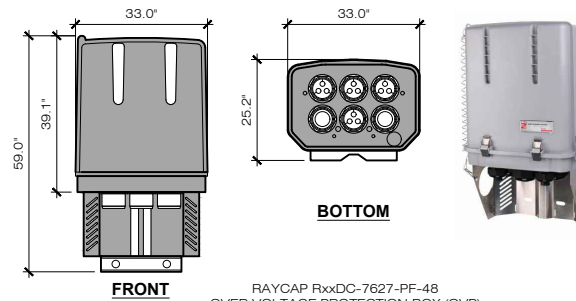


SAMSUNG DUAL LOW BAND B5/B13  
RRH-BR04C (RFV01U-D2A)  
RRH 850/700  
REMOTE RADIO HEAD (RRH)  
HxWxD=14.9'x14.9'x8.14' (82.0 Lbs)

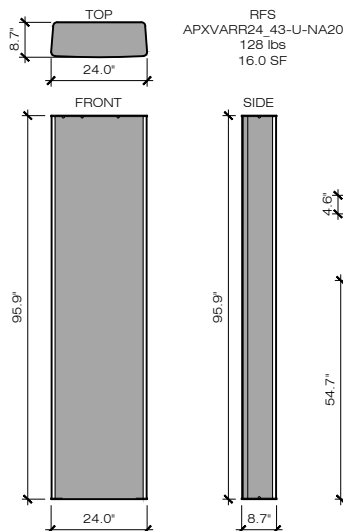
NOTE: WEIGHTS INCLUDE SOLAR SHIELD & MOUNTING BRACKET

- NOTES:  
1. DIMENSIONS SUBJECT TO CHANGE BASED UPON AVAILABILITY AT TIME OF CONSTRUCTION.  
2. MANUFACTURER'S RECOMMENDED RRH CLEARANCES: FRONT: 36"; SIDES: 12"; BOTTOM: 24"  
3. SFPs ARE PROTOCOL SPECIFIC. THE CONNECTIONS BETWEEN RRHs AND BBUs ARE CPRI CONNECTIONS, AND REQUIRE CPRI SFP (ON BOTH ENDS). THE CONNECTIONS BETWEEN BBUs AND 7705 ARE ETHERNET AND REQUIRE ETHERNET SFP (ON BOTH ENDS.)

**5 CELLCO PARTNERSHIP RRH EQUIPMENT**  
C-7 SCALE: 1/2" = 1'-0"

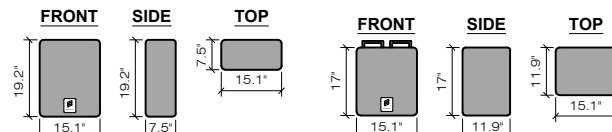


**6 CELLCO PARTNERSHIP OVER VOLTAGE BOX (12 OVP)**  
C-7 SCALE: 1" = 1'-0"

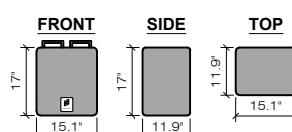


**PANEL ANTENNAS**

**7 T-MOBILE ANTENNA DETAILS**  
C-7 SCALE: 1/2" = 1'-0"



ERICSSON RADIO-4480 B71/B85 (OR EQUAL)  
REMOTE RADIO UNIT (RRU)  
WxDxH=15.1'x7.5'x19.2' (93± Lbs)



ERICSSON RADIO-4460 B25/B66 (OR EQUAL)  
REMOTE RADIO UNIT (RRU)  
WxDxH=15.1'x11.9'x17.0' (108± Lbs)

- NOTES:  
1. DIMENSIONS SUBJECT TO CHANGE BASED UPON AVAILABILITY AT TIME OF CONSTRUCTION.  
2. MANUFACTURER'S RECOMMENDED RRH CLEARANCES: FRONT: 36"; SIDES: 12"; BOTTOM: 24"  
3. SFPs ARE PROTOCOL SPECIFIC. THE CONNECTIONS BETWEEN RRHs AND BBUs ARE CPRI CONNECTIONS, AND REQUIRE CPRI SFP (ON BOTH ENDS). THE CONNECTIONS BETWEEN BBUs AND 7705 ARE ETHERNET AND REQUIRE ETHERNET SFP (ON BOTH ENDS.)

**8 T-MOBILE RRU EQUIPMENT**  
C-7 SCALE: 1" = 1'-0"

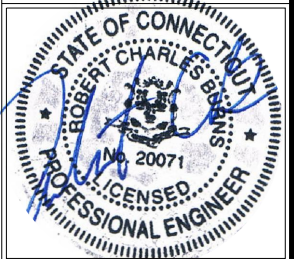
**D&M DOCUMENTS**

NO	DATE	REVISION
0	09/30/21	FOR FILING: RCB
1	10/19/21	FOR FILING: RCB
2		
3		
4		
5		
6		

**DESIGN PROFESSIONALS OF RECORD**

PROF. ROBERT C. BURNS P.E.  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: FIRST TAXING DISTRICT (WATER DEPARTMENT)  
ADDRESS: 12 NEW CANAAN AVENUE NORWALK, CT 06852



**FIRST TAXING DISTRICT - NORWALK**

SITE 173.5 WEST ROCKS ROAD  
ADDRESS: NORWALK, CT 06851

APT FILING NUMBER: CT544100

DRAWN BY: CSH  
DATE: 09/30/21 CHECKED BY: RCB

**SHEET TITLE:**  
**CARRIER ANTENNA & EQUIPMENT DETAILS**

SHEET NUMBER:

**C-7**



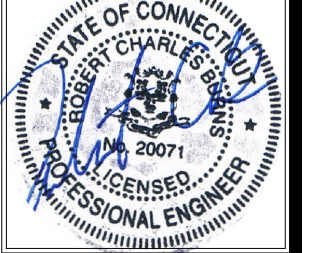
D&M DOCUMENTS

NO	DATE	REVISION
0	09/30/21	FOR FILING: RCB
1	10/19/21	FOR FILING: RCB
2		
3		
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF. ROBERT C. BURNS P.E.  
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FIRST TAXING DISTRICT - NORWALK

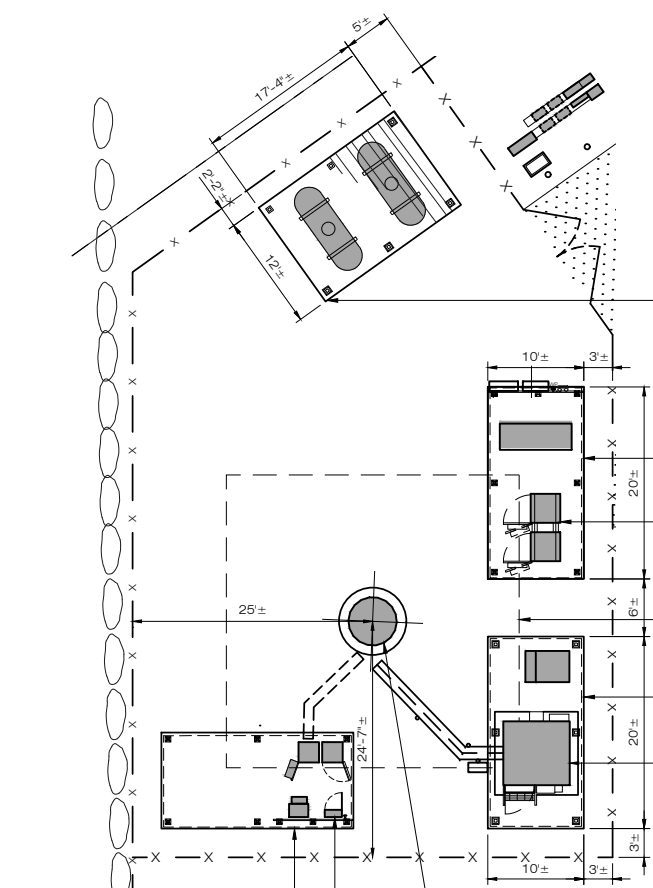
SITE 173.5 WEST ROCKS ROAD  
ADDRESS: NORWALK, CT 06851

APT FILING NUMBER: CT544100

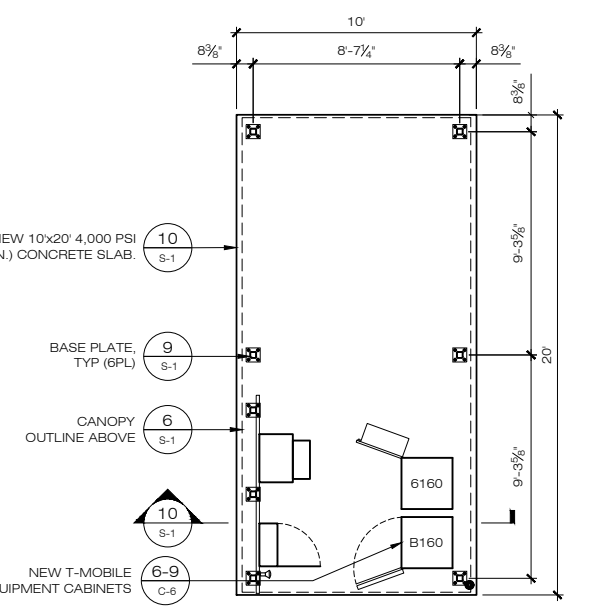
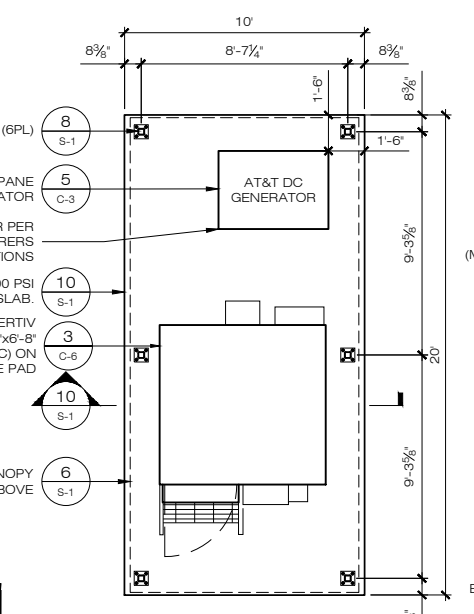
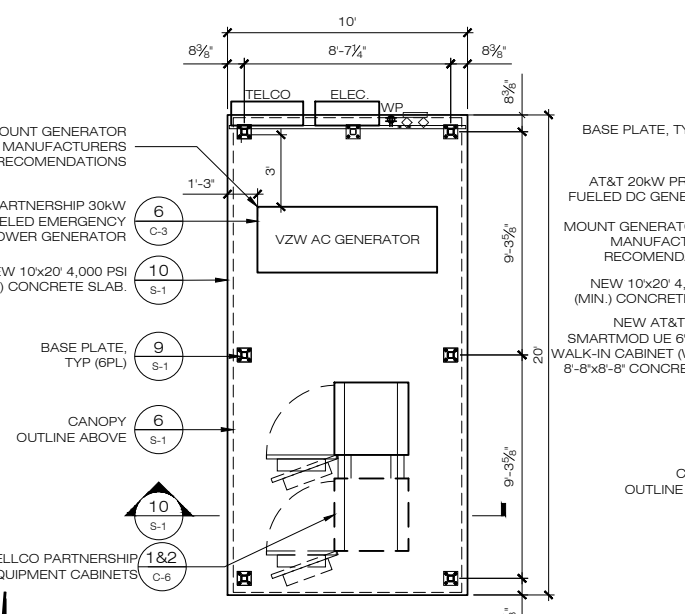
DRAWN BY: CSH  
DATE: 09/30/21 CHECKED BY: RCB

SHEET TITLE:  
**STRUCTURAL PLAN & DETAILS**

SHEET NUMBER:  
**S-1**



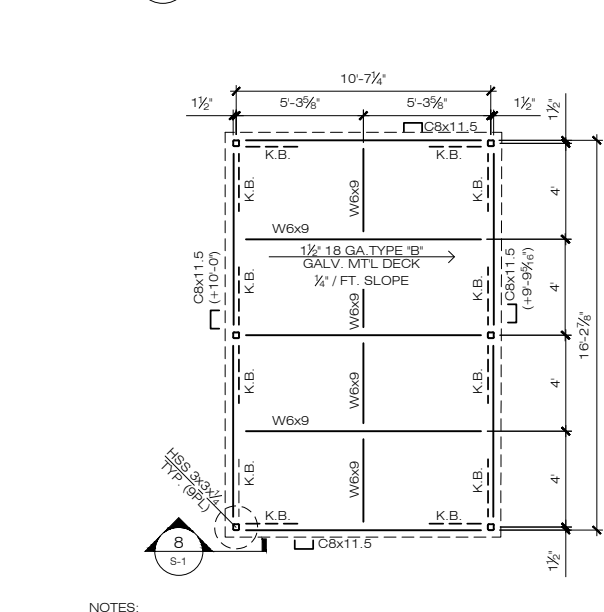
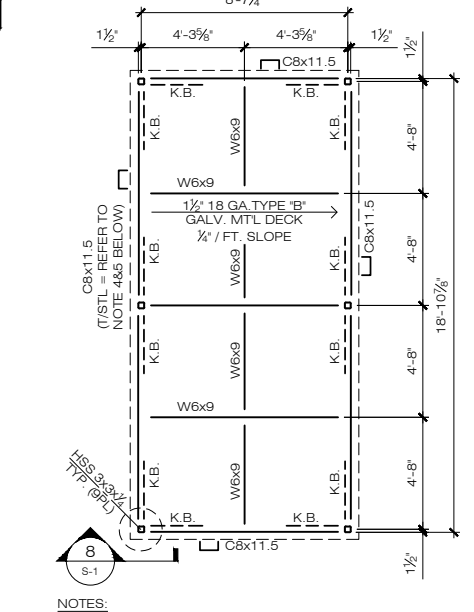
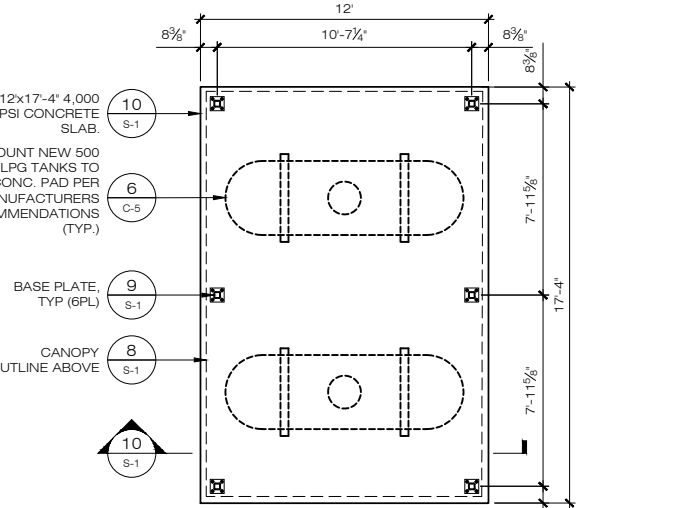
- 5 (2) NEW 500 GAL. LPG TANKS ON 12"x17'-4"± CONC. PAD w/ HOLD-DOWN STRAPS & CANOPY.
- NEW 10'x20' 4,000 PSI (MIN.) CONCRETE SLAB.
- 2 NEW CELCO PARTNERSHIP 10'x20'± CONC. EQUIP. PAD w/ ICE CANOPY.
- 1&2 NEW CELCO PARTNERSHIP EQUIPMENT CABINETS
- 3 NEW AT&T 10'x20'± CONC. EQUIP. PAD w/ ICE CANOPY.
- 3 NEW AT&T VERTIV SMARTMOD UE 6'-8"x6'-8" WALK-IN CABINET (WIC) ON 8'-8"x8'-8" CONCRETE PAD
- NEW T-MOBILE 10'x20'± CONC. EQUIP. PAD w/ ICE CANOPY.
- NEW T-MOBILE EQUIPMENT CABINETS
- NEW 130'± A.G.L. STEEL MONOPOLE TOWER - PER DESIGN FROM 'VALMONT STRUCTURES' JOB #512236, SITE: FIRST TAXING DISTRICT - NORWALK, CT FOR FIRST TAXING DISTRICT OF NORWALK, DATED 08/16/21



**2 CELLCO PARTNERSHIP EQUIPMENT PAD**  
S-1 SCALE: 1/4" = 1'-0"

**3 AT&T EQUIPMENT PAD**  
S-1 SCALE: 1/4" = 1'-0"

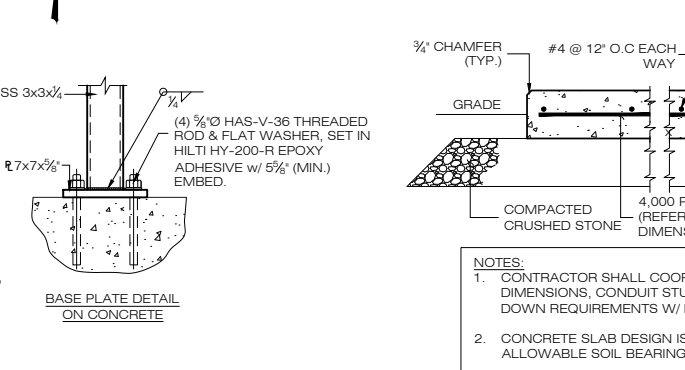
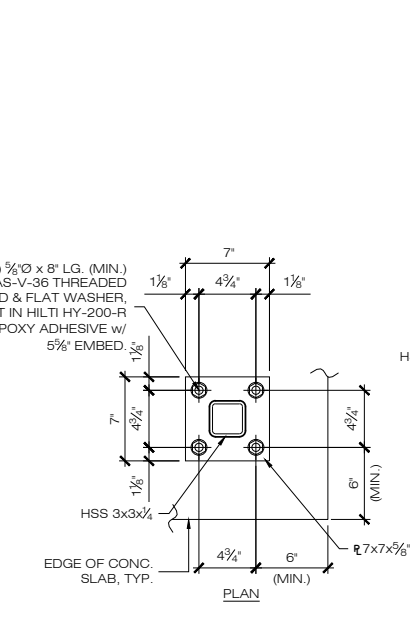
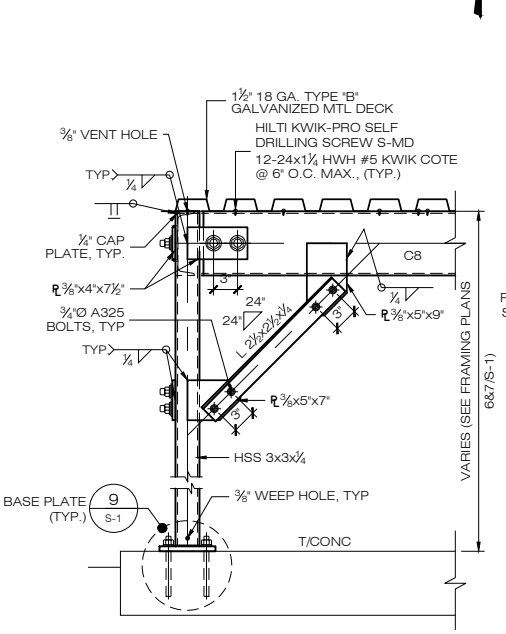
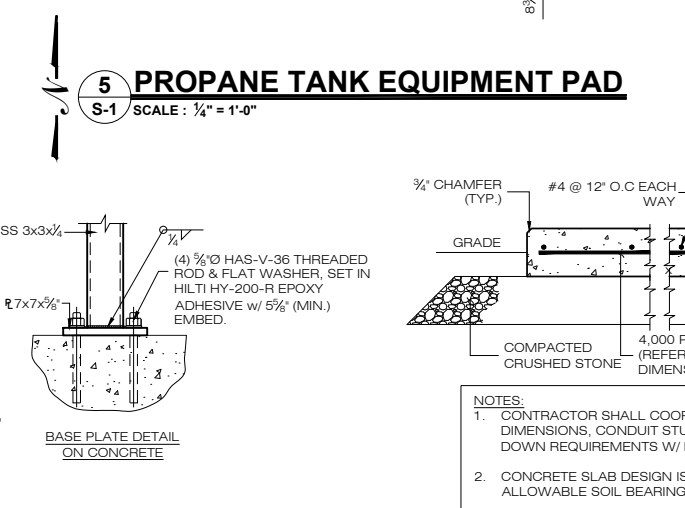
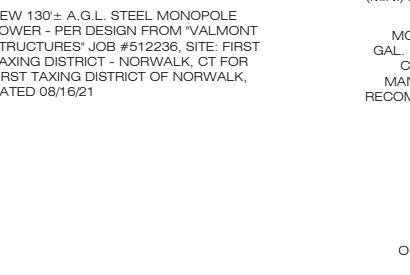
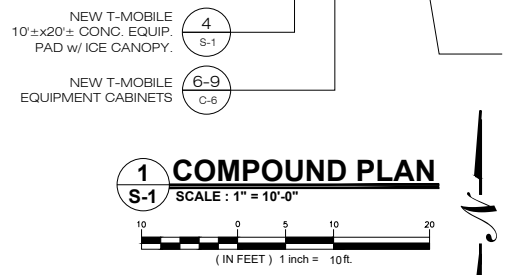
**4 T-MOBILE EQUIPMENT PAD**  
S-1 SCALE: 1/4" = 1'-0"



**5 PROPANE TANK EQUIPMENT PAD**  
S-1 SCALE: 1/4" = 1'-0"

**6 TYP. EQUIP. CANOPY FRAMING**  
S-1 SCALE: 1/4" = 1'-0"

**7 PROPANE TANK CANOPY FRAMING**  
S-1 SCALE: 1/4" = 1'-0"



- NOTES:
- ELEVATIONS REFERENCE T/ CONCRETE
  - K.B. = KNEE BRACE (1) L2 1/2"x2 1/2"x1/2"
  - ALL EXPOSED STEEL SHALL BE HOT DIP GALVANIZED (HDG)
  - CELLCO PARTNERSHIP & T-MOBILE T/STL = 10'-0" (H.P.)
  - AT&T T/STL = 12'-0" (H.P.)

- NOTES:
- CONTRACTOR SHALL COORDINATE ALL SLAB DIMENSIONS, CONDUIT STUB-UP LOCATIONS & HOLD DOWN REQUIREMENTS W/ EQUIPMENT MANUFACTURER.
  - CONCRETE SLAB DESIGN IS BASED ON A MINIMUM ALLOWABLE SOIL BEARING PRESSURE (q<sub>a</sub>) OF 3,000 PSF



**LEGEND**

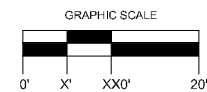
- PROPERTY LINE
- EXISTING CONTOUR
- NEW GRAVEL
- EX. TREE TO BE REMOVED
- NEW DECIDUOUS SHADE TREE
- NEW DECIDUOUS SMALL TREE

**NOTES:**

1. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED BY THEM PRIOR TO START OF ANY EXCAVATION WORK.
2. EXACT LOCATION OF PROPOSED PLANTINGS AND SPECIES TYPES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
3. SEED LAWN AREAS WITH A HIGH QUALITY FESCUE AND BLUEGRASS MIX TURF MIX SUCH AS SEED "SMART SEED NORTHEAST MIX" BY PENNINGTON SEED, INC. OR APPROVED EQUIVALENT. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE MANUFACTURER. SEED AREAS AT THE METHODS AND RATE RECOMMENDED BY THE MANUFACTURER. LIGHTLY MULCH SEEDED AREA WITH WEED-FREE CLEAN HAY. A NURSE CROP SHALL BE ADDED TO THE SEED MIX ON SLOPES OF EXCESS OF 10% AND AS SPECIFIED. LIGHTLY RAKE OR ROLL GROUND SURFACE AFTER SOWING.
4. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE PLANT.
5. PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
6. THIS PLAN FOR PLANTING PURPOSES ONLY. SEE PLANS BY OTHERS FOR ADDITIONAL INFORMATION.
7. SPRAY NEW PLANTINGS IMMEDIATELY AFTER INSTALLATION WITH A WHITE-TAILED DEER REPELLENT AND CONTINUE AS NEEDED TO MAINTAIN PLANTS FREE OF SIGNIFICANT DEER BROWSING.
8. MULCH AREAS AROUND NEW TREES WITH A 2.5" THICK LAYER OF SHREDDED CEDAR BARK MULCH. NEW TREES SHALL EACH HAVE A 5" MIN. DIA. MULCHED BED AND NEW SHRUBS SHALL EACH HAVE A 3" MIN. DIA. MULCHED BED. AREAS WITHIN 4" OF TREE TRUNKS SHALL BE MAINTAINED FREE OF MULCH.

**PLANT LIST**

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
30	PS	PINUS STROBUS	WHITE PINE	6-8' HT.	B&B	FULL
34	PS2	PINUS STROBUS	WHITE PINE	8-10' HT.	B&B	FULL
2	QR	QUERCUS RUBRA	RED OAK	3-3.5" CAL	B&B	LIMBED TO 7'
10	AC	AMELACHIER CANADENSIS	SHADBLOW	5-6' HT.	B&B	CLUMP
4	AB	AMELANCHER C. 'AUTUMN BRILLANCE'	AUTUMN BRILLANCE SHAD	2-2.5" CAL.	B&B	SINGLE STEM
7	CF	CORNUS FLORIDA	DOGWOOD	5-6' HT.	B&B	
7	CF2	CORNUS FLORIDA	DOGWOOD	2-2.5" CAL	B&B	LIMBED TO 7'
3	WK	CRATAEGUS 'WINTER KING'	WINTER KING HAWTHORN	2-2.5" CAL.	B&B	LIMBED TO 7'
57	TO	THUJA OCCIDENTALIS 'NIGRA'	DARK ARBORVITAE	7-8' HT.	B&B	LIMBED TO 7'



REVISIONS:			DRAWING TITLE: <b>LANDSCAPE PLAN</b>	
PROJECT: NORWALK FIRST TAXING DISTRICT 173.5 WEST ROCKS ROAD NORWALK, CONNECTICUT			DATE: DEC. 10, 2018	
1	6-10-19	UPDATED AS REQUESTED	SCALE: 1"=30'	
			<b>ENVIRONMENTAL LAND SOLUTIONS, LLC</b> Landscape Architecture and Environmental Planning 8 KNIGHT STREET, SUITE 203 NORWALK, CONNECTICUT 06851 Tel: (203) 855-7879 Fax: (203) 855-7836 info@elsllc.net www.elsllc.net	
			DRAWING NO.: <b>LP.1</b>	



# EROSION CONTROL NOTES

## EROSION AND SEDIMENT CONTROL PLAN NOTES

- THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE TOWN OF WATERTOWN, PERMITTEE, AND/OR SWPCP MONITOR. ALL PERIMETER SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING AND DEMOLITION OPERATIONS.
- THESE DRAWINGS ARE ONLY INTENDED TO DESCRIBE THE SEDIMENT AND EROSION CONTROL MEASURES FOR THIS SITE. SEE CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN ARE SHOWN AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL EROSION CONTROL MEASURES ARE CONFIGURED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO STORM DRAINAGE SYSTEMS AND/OR WATERCOURSES. ACTUAL SITE CONDITIONS OR SEASONAL AND CLIMATIC CONDITIONS MAY WARRANT ADDITIONAL CONTROLS OR CONFIGURATIONS, AS REQUIRED, AND AS DIRECTED BY THE PERMITTEE AND/OR SWPCP MONITOR. REFER TO SITE PLAN FOR GENERAL INFORMATION AND OTHER CONTRACT PLANS FOR APPROPRIATE INFORMATION.
- A BOND OR LETTER OF CREDIT MAY BE REQUIRED TO BE POSTED WITH THE GOVERNING AUTHORITY FOR THE EROSION CONTROL INSTALLATION AND MAINTENANCE.
- THE CONTRACTOR SHALL APPLY THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN IN CONJUNCTION WITH CONSTRUCTION SEQUENCING, SUCH THAT ALL ACTIVE WORK ZONES ARE PROTECTED. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, SITE ENGINEER, MUNICIPAL OFFICIALS, OR ANY GOVERNING AGENCY. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CONSTRUCTION SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR INSTALLED SEDIMENTATION AND EROSION CONTROL MEASURES. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS WEEKLY AND WITHIN 24 HOURS OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCHES OR GREATER TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS AS NECESSARY IN A TIMELY MANNER.
- THE CONTRACTOR SHALL KEEP A SUPPLY OF EROSION CONTROL MATERIAL (SILT FENCE, COMPOST FILTER SOCK, EROSION CONTROL BLANKET, ETC.) ON-SITE FOR PERIODIC MAINTENANCE AND EMERGENCY REPAIRS.
- ALL FILL MATERIAL PLACED ADJACENT TO ANY WETLAND AREA SHALL BE GOOD QUALITY, WITH LESS THAN 5% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN MAXIMUM ONE FOOT LIFTS, AND SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING, ORANGE SAFETY FENCE, CONSTRUCTION TAPE, OR EQUIVALENT FENCING/TAPE. ANY LIMB TRIMMING SHOULD BE DONE AFTER CONSULTATION WITH AN ARBORIST AND BEFORE CONSTRUCTION BEGINS IN THAT AREA; FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.
- CONSTRUCTION ENTRANCES (ANTI-TRACKING PADS) SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR CONSTRUCTION ACTIVITY AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF ALL CONSTRUCTION IF REQUIRED. THE LOCATION OF THE TRACKING PADS MAY CHANGE AS VARIOUS PHASES OF CONSTRUCTION ARE COMPLETED. CONTRACTOR SHALL ENSURE THAT ALL VEHICLES EXITING THE SITE ARE PASSING OVER THE ANTI-TRACKING PADS PRIOR TO EXISTING.
- ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE LIMIT OF DISTURBANCE, WHICH SHALL BE MARKED WITH SILT FENCE, SAFETY FENCE, HAY BALES, RIBBONS, OR OTHER MEANS PRIOR TO CLEARING. CONSTRUCTION ACTIVITY SHALL REMAIN ON THE UPHILL SIDE OF THE SEDIMENT BARRIER UNLESS WORK IS SPECIFICALLY CALLED FOR ON THE DOWNHILL SIDE OF THE BARRIER.
- NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS. ALL SLOPES SHALL BE SEEDED AND BANKS WILL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.
- DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE CONFORMING TO THE GUIDELINES WITHIN THE APPROVED LIMIT OF DISTURBANCE IF REQUIRED. DISCHARGE TO STORM DRAINS OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR AND APPROVED BY THE PERMITTEE OR MUNICIPALITY.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AND SHALL NOT ALLOW THE ACCUMULATION OF RUBBISH OR CONSTRUCTION DEBRIS ON THE SITE. PROPER SANITARY DEVICES SHALL BE MAINTAINED ON-SITE AT ALL TIMES AND SECURED APPROPRIATELY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID THE SPILLAGE OF FUEL OR OTHER POLLUTANTS ON THE CONSTRUCTION SITE AND SHALL ADHERE TO ALL APPLICABLE POLICIES AND REGULATIONS RELATED TO SPILL PREVENTION AND RESPONSE/CONTAINMENT.
- MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (2 WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS PER ACRE. MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY, REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKETS OR JUTE CLOTH. MODERATELY GRADED AREAS, ISLANDS, AND TEMPORARY CONSTRUCTION STAGING AREAS MAY BE HYDROSEEDED WITH TACKIFIER.
- SWEEP AFFECTED PORTIONS OF OFF SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT A PROBLEM) DURING CONSTRUCTION. FOR DUST CONTROL, PERIODICALLY MOISTEN EXPOSED SOIL SURFACES WITH WATER ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAYS DAMP. CALCIUM CHLORIDE MAY ALSO BE APPLIED TO ACCESS ROADS. DUMP TRUCK LOADS EXITING THE SITE SHALL BE COVERED.
- VEGETATIVE ESTABLISHMENT SHALL OCCUR ON ALL DISTURBED SOIL, UNLESS THE AREA IS UNDER ACTIVE CONSTRUCTION, IT IS COVERED IN STONE OR SCHEDULED FOR PAVING WITHIN 30 DAYS. TEMPORARY SEEDING OR NON-LIVING SOIL PROTECTION OF ALL EXPOSED SOILS AND SLOPES SHALL BE INITIATED WITHIN THE FIRST 7 DAYS OF SUSPENDING WORK IN AREAS TO BE LEFT LONGER THAN 30 DAYS.
- MAINTAIN ALL PERMANENT AND TEMPORARY SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP CONCRETE PADS, CLEAN THE STORMWATER MANAGEMENT SYSTEMS AND REMOVE ALL TEMPORARY SEDIMENT CONTROLS ONCE THE SITE IS FULLY STABILIZED AND APPROVAL HAS BEEN RECEIVED FROM PERMITTEE OR THE MUNICIPALITY.
- SEEDING MIXTURES SHALL BE NEW ENGLAND SEMI-SHADE GRASS AND FORBS MIX (SEE SITE DETAILS SHEET DN-1), OR APPROVED EQUAL BY OWNER.

## SEDIMENT & EROSION CONTROL NARRATIVE

- THE PROJECT INCLUDES THE INSTALLATION OF A 130'± AGL STEEL MONOPOLE WITH ASSOCIATED GROUND MOUNTED EQUIPMENT. ALL DISTURBED AREAS ARE TO BE SEEDED AND STABILIZED PRIOR TO THE INSTALLATION OF THE PROPOSED EQUIPMENT.  
THE PROPOSED PROJECT INVOLVES THE FOLLOWING CONSTRUCTION:  
A. CONSTRUCTION OF 130'± AGL MONOPOLE  
C. CONSTRUCTION OF IRREGULARLY SHAPED (3,518± SF) FENCED EQUIPMENT COMPOUND W/ GRAVEL SURFACE TREATMENT AND ASSOCIATED UTILITIES.  
D. CONSTRUCTION OF 350'± 12' WIDE GRAVEL ACCESS DRIVE.  
E. CONSTRUCTION OF (2) 10x20' (200± SF) CONCRETE EQUIPMENT PAD & 12±x17'-4"± (207± SF) CONCRETE PAD WITH (2) 500 GALLON LPG TANKS.  
F. THE STABILIZATION OF PVIOUSLY DISTURBED AREAS WITH PERMANENT GRASS TREATMENTS.
- FOR THIS PROJECT, THERE ARE APPROXIMATELY 10,500± SF OF THE SITE BEING DISTURBED.
- A GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED FOR THIS PROJECT AND WILL BE AVAILABLE UNDER SEPARATE COVER.
- IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETED IN APPROXIMATELY 12 WEEKS.
- REFER TO THE CONSTRUCTION SEQUENCING AND EROSION AND SEDIMENTATION NOTES FOR INFORMATION REGARDING SEQUENCING OF MAJOR OPERATIONS IN THE ON-SITE CONSTRUCTION PHASES.
- EROSION AND SEDIMENTATION MEASURES ARE BASED UPON ENGINEERING PRACTICE, JUDGEMENT AND THE APPLICABLE SECTIONS OF THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
- DETAILS FOR THE TYPICAL EROSION AND SEDIMENTATION MEASURES ARE SHOWN ON PLAN SHEET C-5 OR PROVIDED AS SEPARATE SUPPORT DOCUMENTATION FOR REVIEW IN THIS PLAN.
- CONSERVATION PRACTICES TO BE USED DURING CONSTRUCTION AREA:  
A. STAGED CONSTRUCTION;  
B. MINIMIZE THE DISTURBED AREAS DURING CONSTRUCTION;  
C. STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE WITH TEMPORARY OR PERMANENT MEASURES;  
D. MINIMIZE IMPERVIOUS AREAS;  
E. UTILIZE APPROPRIATE CONSTRUCTION EROSION AND SEDIMENTATION MEASURES.

## SUGGESTED CONSTRUCTION SEQUENCE

THE FOLLOWING SUGGESTED SEQUENCE OF CONSTRUCTION ACTIVITIES IS PROJECTED BASED UPON ENGINEERING JUDGEMENT AND BEST MANAGEMENT PRACTICES. THE CONTRACTOR MAY ELECT TO ALTER THE SEQUENCING TO BEST MEET THE CONSTRUCTION SCHEDULE, THE EXISTING SITE ACTIVITIES AND WEATHER CONDITIONS. CONTRACTOR TO HIRE SURVEYOR FOR PROJECT STAKEOUT AS NEEDED THROUGHOUT CONSTRUCTION ACTIVITIES.

- CONTACT THE OWNER TO SCHEDULE A PRE-CONSTRUCTION MEETING. PHYSICALLY FLAG THE TREES TO BE REMOVED IN THE FIELD AS NECESSARY TO FACILITATE THE PRE-CONSTRUCTION MEETING.
- CONDUCT A PRE-CONSTRUCTION MEETING TO DISCUSS THE PROPOSED WORK, LIMITS OF DISTURBANCE AND EROSION AND SEDIMENTATION CONTROL MEASURES. THE MEETING SHOULD BE ATTENDED BY THE OWNER, THE OWNER REPRESENTATIVE(S), THE GENERAL CONTRACTOR, DESIGNATED SUB-CONTRACTORS AND THE PERSON, OR PERSONS, RESPONSIBLE FOR THE IMPLEMENTATION, OPERATION, MONITORING AND MAINTENANCE OF THE EROSION AND SEDIMENTATION MEASURES. THE CONSTRUCTION PROCEDURES FOR THE ENTIRE PROJECT SHALL BE REVIEWED AT THIS MEETING.
- NOTIFY THE OWNER AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT. NOTIFY CALL BEFORE YOU DIG CONNECTICUT AT (800) 922-4455.
- CLEAR AND GRUB AS REQUIRED, TO INSTALL THE PERIMETER EROSION AND SEDIMENTATION CONTROL MEASURES AND, IF APPLICABLE, TREE PROTECTION.
- INSTALL CONSTRUCTION ENTRANCE.
- PERFORM THE REMAINING CLEARING AND GRUBBING AS NECESSARY. REMOVE CUT WOOD AND STUMPS. CHIP BRUSH AND STOCKPILE FOR FUTURE USE OR REMOVE OFF-SITE. REMOVE AND DISPOSE OF DEMOLITION DEBRIS OFF-SITE.
- TEMPORARILY SEED DISTURBED AREAS NOT UNDER CONSTRUCTION FOR THIRTY (30) DAYS OR MORE.
- EXCAVATE AND GRADE NEW ACCESS DRIVE.
- EXCAVATE AND ROUGH GRADE EQUIPMENT COMPOUND.
- EXCAVATE FOR TOWER FOUNDATION & EQUIPMENT PADS.
- FINALIZE ACCESS ROAD GRADES.
- PREPARE SUBGRADE AND INSTALL FORMS, STEEL REINFORCING, & CONCRETE FOR TOWER FOUNDATION & EQUIPMENT PADS.
- INSTALL BURIED GROUND RINGS, GROUND RODS, GROUND LEADS, UTILITY CONDUITS & UTILITY EQUIPMENT.
- BACKFILL TOWER FOUNDATION.
- ERECT MONOPOLE.
- INSTALL TELECOMMUNICATIONS EQUIPMENT ON TOWER & IN COMPOUND.
- INSTALL COMPOUND GRAVEL SURFACES.
- FINALIZE GRADES. INSTALL GRAVEL SURFACES.
- INSTALL FENCING.
- CONNECT GROUNDING LEADS & LIGHTNING PROTECTION
- FINAL GRADE AROUND COMPOUND.
- LOAM & SEED DISTURBED AREAS OUTSIDE COMPOUND, AS REQUIRED & INSTALL LANDSCAPING.
- TEST ALL NEW EQUIPMENT.
- AFTER THE SITE IS STABILIZED AND WITH THE APPROVAL OF THE OWNER, REMOVE PERIMETER EROSION AND SEDIMENTATION CONTROLS.
- PERFORM FINAL PROJECT CLEANUP.

THE ESTIMATED TIME FOR THE COMPLETION OF THE WORK IS APPROXIMATELY TWELVE (12) WEEKS. THE EXACT PROCESS MAY VARY DEPENDING ON THE CONTRACTOR'S & SUBCONTRACTORS AVAILABILITY TO COMPLETE WORK, MATERIAL DELIVERIES & WEATHER DELAYS.

## CONSTRUCTION OPERATION AND MAINTENANCE PLAN - BY CONTRACTOR

E&S MEASURE	INSPECTION SCHEDULE
CONSTRUCTION ENTRANCE	DAILY
HAY BALES	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.2"
SILT FENCE	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.2"
SILT SACKS	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.2"
TOPSOIL/BORROW STOCKPILES	DAILY
WATER BARS	DAILY
TEMPORARY DIVERSION DITCHES	DAILY & WITHIN 24 HOURS OF RAINFALL > 0.2"
TEMPORARY SEDIMENT TRAPS/BASINS	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.2"
TEMPORARY SOIL PROTECTION	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.2"

## MAINTENANCE REQUIRED

PLACE ADDITIONAL STONE, EXTEND THE LENGTH OR REMOVE AND REPLACE THE STONE. CLEAN PAVED SURFACES OF TRACKED SEDIMENT.

REPAIR/REPLACE WHEN FAILURE, OR OBSERVED DETERIORATION, IS OBSERVED. REMOVE SILT WHEN IT REACHES 1/2 THE HEIGHT OF THE BALE.

REPAIR/REPLACE WHEN FAILURE, OR OBSERVED DETERIORATION, IS OBSERVED. REMOVE SILT WHEN IT REACHES 1/2 THE HEIGHT OF THE FENCE.

REPAIR/REPLACE WHEN FAILURE, OR OBSERVED DETERIORATION, IS OBSERVED. REMOVE SILT WHEN IT REACHES 1/2 THE HEIGHT OF THE SACK.

REPAIR/REPLACE SEDIMENT BARRIERS AS NECESSARY.

REPAIR/RESHAPE AS NECESSARY. REMOVE SILT WHEN IT REACHES 1/2 THE HEIGHT OF THE WATER BAR.

REPAIR/RESHAPE AS NECESSARY. REVIEW CONDITIONS IF REPETITIVE FAILURES OCCUR.

REMOVE SEDIMENT WHEN IT REACHES 1/2 OF THE MINIMUM REQUIRED WET STORAGE VOLUME.

REPAIR ERODED OR BARE AREAS IMMEDIATELY. RESEED AND MULCH.



**FIRST TAXING DISTRICT  
WATER DEPARTMENT**  
12 NEW CANAAN AVENUE  
NORWALK, CT 06851



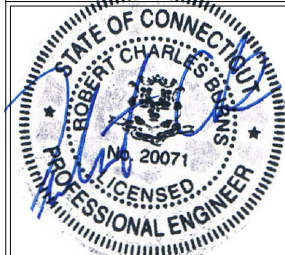
567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-963-1697  
WWW.ALLPOINTS TECH.COM FAX: (860)-963-0935

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## DESIGN PROFESSIONALS OF RECORD

**PROF. ROBERT C. BURNS P.E.**  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET  
EXTENSION - SUITE 311  
WATERFORD, CT 06385

**OWNER: FIRST TAXING DISTRICT (WATER DEPARTMENT)**  
ADDRESS: 12 NEW CANAAN AVENUE  
NORWALK, CT 06852



## FIRST TAXING DISTRICT - NORWALK

**SITE** 173.5 WEST ROCKS ROAD  
**ADDRESS:** NORWALK, CT 06851

**APT FILING NUMBER:** CT544100

**DRAWN BY:** CSH  
**DATE:** 09/30/21 **CHECKED BY:** RCB

**SHEET TITLE:**  
**EROSION CONTROL NOTES**

**SHEET NUMBER:**  
**EC-1**

# ENVIRONMENTAL NOTES

## PUBLIC WATER SUPPLY AQUIFER PROTECTION PROGRAM

THE PROPOSED FACILITY IS LOCATED WITHIN A CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION LEVEL A KELLOGG-DEERING AQUIFER PROTECTION AREA (APA 106) MAINTAINED BY THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK. AS A RESULT, THE FOLLOWING PROTECTIVE MEASURES SHALL BE FOLLOWED TO HELP AVOID DEGRADATION OF WATER QUALITY THAT COULD AFFECT THIS PUBLIC WATER SUPPLY SOURCE. THESE PROTECTIVE MEASURES SATISFY BEST MANAGEMENT PRACTICE GUIDELINES RECOMMENDED BY THE CONNECTICUT DEPARTMENT OF HEALTH FOR CONSTRUCTION ACTIVITIES.

IT IS OF THE UTMOST IMPORTANCE THAT THE CONTRACTOR COMPLIES WITH THE REQUIREMENT FOR THE INSTALLATION OF PROTECTIVE MEASURES AND THE EDUCATION OF ITS EMPLOYEES AND SUBCONTRACTORS PERFORMING WORK ON THE PROJECT SITE. THIS PROTECTION PROGRAM SHALL BE IMPLEMENTED REGARDLESS OF TIME OF YEAR THE CONSTRUCTION ACTIVITIES OCCUR. ALL-POINTS TECHNOLOGY CORPORATION, P.C. ("APT") WILL SERVE AS THE ENVIRONMENTAL MONITOR FOR THIS PROJECT TO ENSURE THAT THESE PROTECTION MEASURES ARE IMPLEMENTED PROPERLY. THE CONTRACTOR SHALL CONTACT DEAN GUSTAFSON, SENIOR ENVIRONMENTAL SCIENTIST AT APT AND THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK PERSONNEL, AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING. MR. GUSTAFSON CAN BE REACHED BY PHONE AT (860) 552-2033 OR VIA EMAIL AT DGUSTAFSON@ALLPOINTSTECH.COM.

THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK PERSONNEL SHALL BE ALLOWED TO PERIODICALLY INSPECT THIS PROJECT DURING CONSTRUCTION TO ENSURE THAT DRINKING WATER QUALITY IS NOT BE ADVERSELY IMPACTED.

THE PUBLIC WATER SUPPLY AQUIFER PROTECTION PROGRAM CONSISTS OF SEVERAL COMPONENTS: USE OF APPROPRIATE EROSION CONTROL MEASURES TO CONTROL AND CONTAIN EROSION; PERIODIC INSPECTION AND MAINTENANCE OF ISOLATION STRUCTURES AND EROSION CONTROL MEASURES; EDUCATION OF ALL CONTRACTORS AND SUB-CONTRACTORS PRIOR TO INITIATION OF WORK ON THE SITE; PROTECTIVE MEASURES; AND, REPORTING.

### 1. CONTRACTOR EDUCATION

- a. PRIOR TO WORK ON SITE, THE CONTRACTOR SHALL ATTEND AN EDUCATIONAL SESSION AT THE PRE-CONSTRUCTION MEETING WITH APT. THIS ORIENTATION AND EDUCATIONAL SESSION WILL CONSIST OF AN INTRODUCTORY MEETING WITH APT TO UNDERSTAND THE ENVIRONMENTALLY SENSITIVE NATURE OF THE DEVELOPMENT SITE AND THE NEED TO FOLLOW THE AQUIFER PROTECTION MEASURES.
- b. THE CONTRACTOR WILL BE PROVIDED WITH CELL PHONE AND EMAIL CONTACTS FOR THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK PERSONNEL TO IMMEDIATELY REPORT ANY RELEASES OF SEDIMENT, FUEL OR HAZARDOUS MATERIALS.

### 2. EROSION AND SEDIMENTATION CONTROLS

- a. PLASTIC NETTING USED IN A VARIETY OF EROSION CONTROL PRODUCTS (I.E., EROSION CONTROL BLANKETS, FIBER ROLLS (WATTLES), REINFORCED SILT FENCE) HAS BEEN FOUND TO ENTANGLE WILDLIFE, INCLUDING REPTILES, AMPHIBIANS, BIRDS AND SMALL MAMMALS. NO PERMANENT EROSION CONTROL PRODUCTS OR REINFORCED SILT FENCE WILL BE USED ON THE PROJECT. TEMPORARY EROSION CONTROL PRODUCTS WILL USE EITHER EROSION CONTROL BLANKETS AND FIBER ROLLS COMPOSED OF PROCESSED FIBERS MECHANICALLY BOUND TOGETHER TO FORM A CONTINUOUS MATRIX (NET LESS) OR NETTING COMPOSED OF PLANAR WOVEN NATURAL BIODEGRADABLE FIBER TO AVOID/MINIMIZE WILDLIFE ENTANGLEMENT.
- b. INSTALLATION OF EROSION CONTROL MEASURES (I.E., CONVENTIONAL SILT FENCING, STRAW BALES, STRAW WATTLES, COMPOST FILTER SOCKS, ETC.) SHALL BE PERFORMED BY THE CONTRACTOR PRIOR TO ANY EARTHWORK. APT WILL INSPECT THE WORK ZONE FOLLOWING EROSION CONTROL INSTALLATION TO ENSURE EROSION CONTROLS ARE PROPERLY INSTALLED PRIOR TO THE START OF EARTHWORK.
- c. ALL EROSION CONTROLS MATERIALS AND INSTALLATION/MAINTENANCE METHODS SHALL FOLLOW THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTIONS OF EROSION CONTROL MEASURES FOR TEARS OR BREECHES IN THE FABRIC/MATERIAL AND ACCUMULATION LEVELS OF SEDIMENT, PARTICULARLY FOLLOWING STORM EVENTS OF 0.10 INCH OR GREATER. APT WILL PROVIDE PERIODIC INSPECTIONS OF THE EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
- d. THE EXTENT OF THE EROSION CONTROL WILL BE AS SHOWN ON THE SITE PLANS. THE CONTRACTOR SHALL HAVE ADDITIONAL EROSION CONTROL MATERIALS STOCKPILED ON SITE SHOULD FIELD CONDITIONS WARRANT EXTENDING/REINFORCING EROSION CONTROL AS DIRECTED BY APT OR OTHER RESPONSIBLE AGENCIES.
- e. ALL SILT FENCING AND OTHER EROSION CONTROL DEVICES SHALL BE REMOVED WITHIN 30 DAYS OF COMPLETION OF WORK AND PERMANENT STABILIZATION OF SITE SOILS. IF FIBER ROLLS/WATTLES, STRAW BALES, OR OTHER NATURAL MATERIAL EROSION CONTROL PRODUCTS ARE USED, SUCH DEVICES WILL NOT BE LEFT IN PLACE TO BIODEGRADE AND SHALL BE PROMPTLY REMOVED AFTER SOILS ARE STABLE. SEED FROM SEEDING OF SOILS SHOULD NOT SPREAD OVER FIBER ROLLS/WATTLES AS IT MAKES THEM HARDER TO REMOVE ONCE SOILS ARE STABILIZED BY VEGETATION.

## 3. PETROLEUM MATERIALS STORAGE AND SPILL PREVENTION

- a. CERTAIN PRECAUTIONS ARE NECESSARY TO STORE PETROLEUM MATERIALS, REFUEL AND CONTAIN AND PROPERLY CLEAN UP ANY INADVERTENT FUEL OR PETROLEUM (I.E., OIL, HYDRAULIC FLUID, ETC.) SPILL DUE TO THE PROJECT'S LOCATION WITHIN THE PUBLIC WATER SUPPLY AQUIFER PROTECTION ZONE.
- b. A SPILL CONTAINMENT KIT CONSISTING OF A SUFFICIENT SUPPLY OF ABSORBENT PADS AND ABSORBENT MATERIAL SHALL BE MAINTAINED BY THE CONTRACTOR AT THE CONSTRUCTION SITE THROUGHOUT THE DURATION OF THE PROJECT. IN ADDITION, A WASTE DRUM WILL BE KEPT ON SITE TO CONTAIN ANY USED ABSORBENT PADS/MATERIAL FOR PROPER AND TIMELY DISPOSAL OFF SITE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS.
- c. SERVICING OF MACHINERY SHOULD BE COMPLETED OUTSIDE OF THE PUBLIC WATER SUPPLY AQUIFER PROTECTION ZONE.
- d. THE FOLLOWING PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING RESTRICTIONS AND SPILL RESPONSE PROCEDURES SHALL BE ADHERED TO BY THE CONTRACTOR.
  - i. PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING
    - 3. REFUELING OF VEHICLES OR MACHINERY SHALL OCCUR A MINIMUM OF 100 FEET FROM WETLANDS OR WATERCOURSES AND SHALL TAKE PLACE ON AN IMPERVIOUS PAD WITH SECONDARY CONTAINMENT DESIGNED TO CONTAIN FUELS.
    - 4. FUEL AND OTHER HAZARDOUS MATERIALS SHOULD NOT BE STORED WITHIN THE PUBLIC WATER SUPPLY AQUIFER PROTECTION ZONE. ANY FUEL OR HAZARDOUS MATERIALS THAT MUST BE KEPT WITHIN THE PUBLIC WATER SUPPLY AQUIFER PROTECTION ZONE DURING WORKING HOURS SHALL BE STORED ON AN IMPERVIOUS SURFACE UTILIZING SECONDARY CONTAINMENT THAT CAN RETAIN 110% OF THE TOTAL VOLUME A MINIMUM OF 100 FEET FROM WETLANDS OR WATERCOURSES.
  - ii. INITIAL SPILL RESPONSE PROCEDURES
    - 1. STOP OPERATIONS AND SHUT OFF EQUIPMENT.
    - 2. REMOVE ANY SOURCES OF SPARK OR FLAME.
    - 3. CONTAIN THE SOURCE OF THE SPILL.
    - 4. DETERMINE THE APPROXIMATE VOLUME OF THE SPILL.
    - 5. IDENTIFY THE LOCATION OF NATURAL FLOW PATHS TO PREVENT THE RELEASE OF THE SPILL TO NEARBY STORM DRAINS.
    - 6. ENSURE THAT FELLOW WORKERS ARE NOTIFIED OF THE SPILL.
  - iii. SPILL CLEAN UP & CONTAINMENT
    - 1. OBTAIN SPILL RESPONSE MATERIALS FROM THE ON-SITE SPILL RESPONSE KIT. PLACE ABSORBENT MATERIALS DIRECTLY ON THE RELEASE AREA.
    - 2. LIMIT THE SPREAD OF THE SPILL BY PLACING ABSORBENT MATERIALS AROUND THE PERIMETER OF THE SPILL.
    - 3. ISOLATE AND ELIMINATE THE SPILL SOURCE.
    - 4. CONTACT THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK PERSONNEL ALONG WITH OTHER APPROPRIATE LOCAL, STATE AND/OR FEDERAL AGENCIES, AS NECESSARY.
    - 5. CONTACT A DISPOSAL COMPANY TO PROPERLY DISPOSE OF CONTAMINATED MATERIALS.
  - iv. REPORTING
    - 1. COMPLETE AN INCIDENT REPORT.
    - 2. SUBMIT A COMPLETED INCIDENT REPORT TO THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK.

### 4. HERBICIDE AND PESTICIDE RESTRICTIONS

- a. THE USE OF HERBICIDES AND PESTICIDES AT THIS SITE IS RESTRICTED.
- b. IF USE OF HERBICIDES AND PESTICIDES ARE REQUIRED AT THIS SITE, USAGE SHOULD FOLLOW INTEGRATED PEST MANAGEMENT ("IPM") TECHNIQUES, INCLUDING FOCUSED SPOT APPLICATIONS AND AVOIDANCE OF BROAD SPECTRUM APPLICATIONS OF CHEMICALS.

### 5. SALT RESTRICTIONS

- a. SALT USAGE FOR SNOW AND ICE MANAGEMENT IS RESTRICTED FROM USE AT THIS SITE; SAND ONLY SHOULD BE FIRST CONSIDERED.

### 6. REPORTING

- a. DAILY INSPECTION REPORTS (BRIEF NARRATIVE AND APPLICABLE PHOTOS ON DAYS APT PERFORMS AN INSPECTION) WILL BE COMPLETED FOR COMPLIANCE VERIFICATION WITH THIS AQUIFER PROTECTION PLAN. REPORTS WILL BE PROVIDED TO THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK AND CONNECTICUT SITING COUNCIL.
- a. ANY SIGNIFICANT RELEASES OF SEDIMENT THAT COULD IMPACT WATER QUALITY WILL BE REPORTED TO THE FIRST TAXING DISTRICT WATER DEPARTMENT OF NORWALK WITHIN 24 HOURS.



**FIRST TAXING DISTRICT  
WATER DEPARTMENT**  
12 NEW CANAAN AVENUE  
NORWALK, CT 06851



**ALL-POINTS  
TECHNOLOGY CORPORATION**

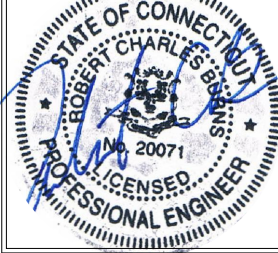
567 VAUXHAUL STREET EXTENSION - SUITE 311  
WATERFORD, CT 06385 PHONE: (860)-963-1697  
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### DESIGN PROFESSIONALS OF RECORD

**PROF: ROBERT C. BURNS P.E.**  
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.  
ADD: 567 VAUXHAUL STREET  
EXTENSION - SUITE 311  
WATERFORD, CT 06385

**OWNER: FIRST TAXING DISTRICT (WATER DEPARTMENT)**  
ADDRESS: 12 NEW CANAAN AVENUE  
NORWALK, CT 06852



### FIRST TAXING DISTRICT - NORWALK

**SITE** 173.5 WEST ROCKS ROAD  
**ADDRESS:** NORWALK, CT 06851

**APT FILING NUMBER:** CT544100

	<b>DRAWN BY:</b> CSH
<b>DATE:</b> 09/30/21	<b>CHECKED BY:</b> RCB

**SHEET TITLE:**  
  
**ENVIRONMENTAL  
NOTES**

**SHEET NUMBER:**  
  
**N-1**



<b>DESIGN BASIS:</b>	APPROVED SAFE MANNER.
<b>GOVERNING CODES/DESIGN STANDARDS:</b>	ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE PROMPTLY WHEN DEMED TO BE SURPLUS.
2015 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE 2018 CONNECTICUT STATE BUILDING CODE ASCE 7-10 TIA-222-H NATIONAL ELECTRIC CODE (NEC)	EVERY CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS WORK AND NEWLY INSTALLED OR EXISTING WORK, INCLUDING PROTECTION OF THE SITE, ALL STRUCTURES, AND ALL OCCUPANTS, FURNISH, INSTALL, MAINTAIN, AND REMOVE AS APPROPRIATE, ALL APPROPRIATE BARRIERS, SAFETY GUARDS, SIGNAGE, AND SECURITY AS REQUIRED.
<b>DESIGN CATEGORY:</b>	EVERY CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR RESPECTIVE FEES, PERMITS, INSPECTIONS, TESTING, CERTIFICATES, AND ALL MANAGEMENT OF SAME REQUIRED FOR COMPLETION OF AND LEGAL OCCUPANCY OF THE FINISHED PROJECT.
RISK CATEGORY (TOWER): II 1804-B RISK CATEGORY (BASE EQUIP.): II	ALL CONTRACTORS SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP BY THEM TO BE FREE OF DEFECTS AND MAINTAINED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE INSTALLATION BY THE OWNER AND ENGINEER.
<b>WIND LOADS:</b>	ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS IN THE TRADE HAVING JURISDICTION.
ULTIMATE BASIC WIND SPEED, V <sub>ULT</sub> : (3-SECOND GUST)	ANY DEVIATION, MODIFICATION, ADDITION, OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE OWNER OR ENGINEER.
EXPOSURE CATEGORY C	ALL CONTRACTORS SHALL SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIALS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION, AND SHALL NOT PROCEED UNTIL ENGINEER APPROVAL IN WRITING IS RETURNED. EACH CONTRACTOR SHALL MAINTAIN ON JOB SITE A COMPLETE SET OF SHOP DRAWINGS WITH ANY DEVIATIONS FROM THE ORIGINAL DESIGN SHALL BE NOTED AND ALL MATERIALS AND EQUIPMENT SHALL BE NEW, WITHOUT BLEMISH OR DEFECT, AND SUITABLE AND LISTED FOR THE INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS OR BIDDING SPECIFICATIONS. ALL ITEMS OF EQUIPMENT OR MATERIAL THAT ARE OF ONE GENERIC TYPE SHALL BE ONE MANUFACTURER THROUGHOUT.
<b>ICE LOAD:</b>	ALL MATERIALS, EQUIPMENT, TOOLS, AND ITEMS UNDER THE CONTRACTOR'S RESPONSIBILITY ON THE JOBSITE SHALL BE ADEQUATELY SECURED, MAINTAINED, AND PROTECTED, SO AS NOT TO BECOME DAMAGED OR CREATE ANY HAZARD TO PERSONNEL OR PROPERTY.
BASIC WIND SPEED (V) = W/ICE 3-SEC GUST	THE CONTRACTOR'S HOURS OF WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES AND BE APPROVED BY THE OWNER. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR ALL OF HIS CREW AND INSURE THAT EVERY CREW MEMBER FOLLOWS SAFE WORK PRACTICES. SAFETY TRAINING SHALL INCLUDE, BUT NOT BE LIMITED TO, FALL PROTECTION, CONFINED SPACE ENTRY, ELECTRICAL SAFETY, AND TRIPPING/AVOIDANCE SAFETY WHERE SUCH WORK IS EXECUTED OR ENCOUNTERED.
DESIGN ICE THICKNESS (I) =	ALL TEMPORARY WORK REQUIRED OR SPECIFIED AS PART OF THIS WORK SHALL MEET ALL OF THE SAME REQUIREMENTS AS PERMANENT INSTALLATIONS, SHALL MEET ALL APPLICABLE CODE REQUIREMENTS, AND SHALL BE COMPLETELY REMOVED AFTER ITS PURPOSES HAVE BEEN SERVED.
<b>LIVE LOAD:</b>	ANY EXISTING UTILITY, SERVICE, STRUCTURE, EQUIPMENT, OR FIXTURE OBSTRUCTING THE WORK SHALL BE REMOVED AND/OR RELOCATED AS DIRECTED BY THE CONSTRUCTION MANAGER.
ROOF LIVE LOAD, (LLR)	IF OBSTACLES IS ENCOUNTERED DURING WORK EXECUTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER AND CEASE ALL ACTIVITIES IN AFFECTED AREAS UNTIL NOTIFIED BY THE CONSTRUCTION TO RESUME OPERATIONS.
<b>SNOW LOAD:</b>	EXIST, ELECTRICAL AND MECHANICAL FIXTURES, PIPING, WIRING AND ALL EQUIPMENT OBSTRUCTING THE WORK SHALL BE REMOVED AND/OR RELOCATED AS DIRECTED BY THE CONSTRUCTION MANAGER. TEMPORARY SERVICE INTERRUPTIONS MUST BE COORDINATED WITH OWNER.
GROUND SNOW LOAD (P <sub>g</sub> ) = ROOF SNOW LOAD (P <sub>s</sub> ) =	<b>04 CONCRETE:</b>
	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
	ALL CONCRETE CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) CODES 301 & 318, LATEST EDITION.
	ALL CONCRETE USED SHALL BE 4000 PSI (28 DAY COMP STRENGTH). THE CONCRETE MIX SHALL BE BASED ON USING THE FOLLOWING MATERIALS AND PARAMETERS:
	PORTLAND CEMENT: ASTM C150, Type I
	AGGREGATE: ASTM C33, 1 INCH MAX WATER.
	AD MIXTURE: 6% NON-CHLORIDE
	SLUMP: 4-5 INCH
	ALL CONCRETE EXPOSED TO FREEZING WEATHER SHALL CONTAIN ENTRAINED AIR PER ACI 211 TABLE 4.2.1 OF ACI 318-05.
	ALL REINFORCING STEEL SHALL BE ASTM A615, GR 60 (DEFORMED). WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC. GRIDES SHALL BE CLASS B IF COMPARTMENT, SCHEDULED, OR HOLLOW. REINFORCING BARS SHALL BE COLD BENT WHEN REQUIRED AND TIED OR WELDED.
	THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL:
	• CONCRETE CAST AGAINST EARTH = 3 IN.
	• CONCRETE EXPOSED TO EARTH OR WEATHER:
	• #6 AND LARGER = 2 IN.
	• #5 AND SMALLER = 1 1/2 IN.
	• CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
	• SLAB AND WALL = 3/4 IN.
	• BEAMS AND COLLARS = 1 1/2 IN.
	A 3/4 IN. CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
	CONCRETE SHALL BE PLACED IN A UNIFORM MANNER AND CONSOLIDATED IN PLACE.
	CONCRETE FOOTINGS SHALL BE CAST AGAINST LEAD, COMPACTED, NON-FROZEN BASE SOIL, FREE OF STANDING WATER.
	<b>05 ANCHORS:</b>
	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN:
	EXPANSION ANCHORS SHALL BE USED WHERE ATTACHING TO CONCRETE. MASONRY MOUNTS SHALL HAVE INJECTION ADHESIVE ANCHORS.
	ANCHORING BOLTS SHALL BE HLTI KXMK BOLT 3 OR EQUAL. MINIMUM EMBEDMENT 4 INCHES.
	INJECTION ADHESIVE ANCHORING IN MASONRY WITH VOIDS SHALL BE HLTI HT HY 70 OR EQUAL, WITH THEADED ROD AND SCREEN TUBES ANCHORING IN BRICKS WITH HOLES SHALL HAVE ANCHORS SPACED 2 COMPLETE BRICKS APART MINIMUM. SHALL MAINTAIN 2 COMPLETE BRICKS OR 18 INCHES FROM FREE EDGES (WHICHEVER IS LESS), AND SHALL BE EMBEDDED 3-1/2 INCHES MINIMUM. ANCHORING IN HOLLOW CONCRETE BLOCK SHALL USE NON-MORE ANCHORS THAN SHOWN IN DETAIL. SHALL LIMIT ONE ANCHOR MAXIMUM PER BLOCK CELL. SHALL MAINTAIN 12 SPACING FROM FREE EDGES, AND SHALL BE EMBEDDED THROUGH FACE.
	INJECTION ADHESIVE ANCHORING IN SOLID MASONRY AND GROUT WELDED BLOCK SHALL BE HLTI HT HY 70 OR EQUAL, WITH THEADED ROD. MAINTAIN 12 INCHES BETWEEN ANCHORS AND ALL FREE EDGES. MINIMUM SPACING BETWEEN ANCHORS IS 8 INCHES.
	ANCHORS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS AND SHALL NOT BE INSTALLED IN MORTAR JOINTS. GRATING SHALL BE ATTACHED USING FOUR GRATING CLAMPS OR 1/4 FILLT WELDS PER SECTION.

<b>06 POST-INSTALLED ANCHORS:</b>	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AND INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE ICES REPORT AND MANUFACTURERS PUBLISHED INSTALLATION INSTRUCTIONS.	
<b>APPLICATION ANCHORING SYSTEM</b>	
CONCRETE	HLTI HY 200 ADHESIVE WITH SAFE SET (HDS) SYSTEM
REBAR DOWELING	HLTI RE 600A ADHESIVE WITH SAFE SET (HDS) SYSTEM
SOLID GROUTED MASONRY	HLTI HY 70 ADHESIVE WITH SCREEN TUBE
HOLLOW / MULTY-WIDTH MASONRY	HLTI HY 70 ADHESIVE WITH SCREEN TUBE
ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE.	
CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT INCLUDING AN ICES REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE. SERIES USE, LOAD RESISTION, INSTALLATION CATEGORY, IN-SERVICE TEMPERATURE, INSTALLATION TEMPERATURE, ETC.	
ADHESIVE ANCHORS INSTALLED IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATION INTO CONCRETE AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. PERFECTION 2.2.2 OF AD-318-14. INSTALLER SHALL BE CERTIFIED THROUGH THE ANCHOR ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.	
ANCHORS SHALL BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS AND SHALL NOT BE INSTALLED IN MORTAR JOINTS.	
AS PER OSHA 29 CFR 1926.1163 SLURD DUST CONTROL REGULATIONS, DRILLED HOLES FOR POST INSTALLED ANCHORS IN CONCRETE AND MASONRY SHALL BE INSTALLED USING HLTI SAFE SET INSTALLATION SYSTEM WHICH COMPRISES OF A COCE APPROVED HELI FOLLOW GDRILL BIT AND VACUUM. ALTERNATE INSTALLATION METHODS ARE ALSO ALLOWED WITH AN APPROVED DUSTLESS SYSTEM THAT MAINTAINS SILICA DUST BELOW THE PERMITTED LIMITS.	
CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURERS REPRESENTATIVE TO PROVIDE ON-SITE ANCHOR INSTALLATION TRAINING FOR THEIR ANCHORS AND EQUIPMENT. CONTRACTOR SHALL SUBMIT DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTORS PERSONNEL INSTALLING ANCHORS HAVE RECEIVED THE REQUIRED TRAINING PRIOR TO THE COMMENCEMENT OF WORK.	
CONTINUOUS OR PERIODIC SPECIAL INSPECTION FOR POST INSTALLED ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4.3.4.4 OF THE ICES REPORT FOR THE INDIVIDUAL ANCHOR. SPECIAL INSPECTION SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK TO COORDINATE INSPECTION EFFORTS.	
<b>05 STEEL:</b>	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
MATERIALS:	
WIDE FLANGE	ASTM A992, GR 50
TUBING	ASTM A500, GR B
PIPE	ASTM A53, GR B
BOLTS	ASTM A325
GRATING	TYPE GW-2 (1-1/4"x3/8" BARS)
EXISTING METALS	ASTM A36
PROVIDE CERTIFICATION THAT WELDERS TO BE USED IN WORK ARE LICENSED AND HAVE SATISFACTORILY PASSED AWS QUALIFICATION TESTS UNDER THE PROVISIONS OF APPENDIX D, PARTS B AND II OF THE AWS CODE FOR WELDING IN BUILDING CONSTRUCTION.	
ALL BUILDING CONNECTION POINTS TO BE CENTERED ON EXISTING STRUCTURAL BEARING POINTS AND THE LOCATIONS ARE TO BE VERIFIED AND APPROVED BY THE ENGINEER OF RECORD.	
DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STEEL STRUCTURES ("AISC DESIGN").	
NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS OTHERWISE NOTED.	
ALL STEEL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A153 "ZINC COATED (HOT-DIP GALVANIZED) COATINGS" ON IRON AND STEEL PRODUCTS WITH A COATING WEIGHT OF 2.0Z/IN <sup>2</sup> .	
ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE".	
DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY TOUCHING UP OR DAMAGED GALVANIZED STEEL WITH SAME PART APPLIED IN SHOP OR FIELD.	
THE ENGINEER SHALL BE NOTIFIED OF ANY INADEQUATELY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CORROSIONING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER'S APPROVAL.	
STRUCTURAL STEEL IS NOT PERMITTED EXCEPT WITH THE PRIOR APPROVAL OF THE ENGINEER.	
CONTRACTOR TO REMOVE AND RE-INSTALL ALL FIRE PROOFING AS REQUIRED DURING CONSTRUCTION.	
THE STEEL STRUCTURE SHALL BE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER COMPLETION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION.	
ALL STEEL ELEMENTS SHALL BE INSTALLED PLUMB AND LEVEL.	
TOWER MANUFACTURERS DESIGNS SHALL PREVAIL FOR TOWER CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND APPROVED BY THE ENGINEER OF RECORD. THE AISC "MANUAL OF STEEL CONSTRUCTION" CONNECTIONS SHALL BE PROVIDED TO CONFORM TO THE REQUIREMENTS OF TYPE 2 CONNECTION.	
STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE MINIMUM 3/4" DIAMETER AND EACH CONNECTION SHALL HAVE MINIMUM TWO BOLTS. LOCK WASHERS ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES. IF TENSION CONTROL BOLTS ARE USED, CONNECTIONS SHALL BE DESIGNED FOR SLIP CRITICAL BOLT ALLOWABLE LOAD VALUES.	
DESIGN CONNECTIONS AT BEAM ENDS FOR 10 KIPS (MIN).	
ALL U-BOLTED CONNECTIONS SHALL BE COMPLETED WITH DOUBLE NUTS OR A LOCK WASHER.	
CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE PERFORMED USING ET0XX ELECTRODES AND SHALL CONFORM TO A55 AND D1.1 WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE LARGEST OF 1/4" FILLET OR MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". AT THE COMPLETION OF WELDING, ALL DAMAGED TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE REGARDING DAMAGED GALVANIZED SURFACES.	
ALL ARC AND GAS WELDING SHALL BE DONE BY A LICENSED AND CERTIFIED WELDER IN ACCORDANCE WITH AWS.	
SEAL ALL PENETRATIONS AND SEAMS BETWEEN MASONRY AND STEEL WITH DOW CORNING 790 SILICONE BRIDGE SEALANT OR EQUAL.	
<b>07 THERMAL &amp; MOISTURE PROTECTION:</b>	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
FIRE-STOP ALL PENETRATIONS THROUGH BUILDING WALLS, FLOORS, AND CEILINGS, WITH LISTED AND ACCEPTED MATERIALS TO MAINTAIN THE FIRE RATING OF THE EXISTING ASSEMBLY. ALL FILL MATERIAL SHALL BE SHAVED, FITTED, AND PERMANENTLY SECURED IN PLACE. FIRESTOPPING SHALL BE INSTALLED IN ACCORD WITH ASTM E14.	
HLTI CR20 FIRE FOAM OR 3M FIRE BARRIER PRODUCTS, OR EQUAL, SHALL BE USED TO FILL ALL VOIDS AND CAVITIES AND SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS AND ASSOCIATED UL SYSTEM NUMBER.	
FIRESTOPPING SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER PENETRATIONS ARE MADE AND SHALL BE LEFT EXPOSED AND MADE AVAILABLE FOR INSPECTION BEFORE APPLYING FINISHES THAT MAY CONCEAL SUCH PENETRATION. FIRESTOPPING CERTIFICATES SHALL BE MADE AVAILABLE AT THE TIME OF INSPECTION.	
ANY BUILDING ROOF PENETRATION OR RESTORATION SHALL BE PERFORMED SO THAT ROOF WEATHERING AND DRAINAGE SYSTEMS ARE COMPROMISED. CONTRACTOR SHALL ARRANGE FOR OWNERS ROOFING CONTRACTOR TO REPAIR AND RESTORE ROOFING IF SO REQUIRED BY EXISTING ROOF WARRANTY. OTHERWISE, ROOF SHALL BE MADE WATER TIGHT WITH LIKE CONSTRUCTION AS SOON AS PRACTICABLE AND AT COMPLETION.	
ALL PENETRATIONS INTO OR THROUGH BUILDING, SHELTER, EQUIPMENT, CABINET, AND SIMILAR ENCLOSURE EXTERIOR WALLS, SHALL BE SEALED WITH SILICONE SEALER.	

<b>26 ELECTRICAL:</b>	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
ALL ELECTRICAL CONDUCTORS:	• INSULATION SHALL BE MINIMUM 600V TYPE THHN, THWN-2, OR XHHW.
• BRANCH CIRCUIT CONDUCTORS SHALL BE SOFT DRAWN 98% MINIMUM CONDUCTIVITY PROPERLY REFINED COPPER.	
• FEEDER CIRCUIT CONDUCTORS SHALL BE EITHER COPPER OR ALUMINUM OF THE APPROPRIATE SIZE FOR THE APPLICATION, OR AS SPECIFICALLY NOTED.	
• PERMANENTLY LABEL OR TAG ALL CONDUCTORS WITH THEIR CIRCUIT DESIGNATION AT ALL TERMINATION ENDS, SPLICES, AND VISIBLY AS PASS-THROUGH IN ALL ENCLOSURES.	
ALL CONDUIT, RACEWAY, WIREWAYS, DUCTS, ETC. SHALL BE LISTED AND SUITABLE FOR THE APPLICATION. ONLY THE FOLLOWING CONDUITS AS APPROVED AND LISTED FOR THE APPLICATION SHALL BE ACCEPTABLE:	
• ELECTRICAL METALLIC TUBING (EMT).	
• COMPRESSION COUPLINGS AND CONNECTORS ONLY MADE UP WRENCH TIGHT.	
• FLEXIBLE METAL CONDUIT (FMC) AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC).	
• FINAL CONNECTIONS TO (VIBRATING OR ADJUSTABLE EQUIPMENT INCLUDING, BUT NOT LIMITED TO, LIGHT FIXTURES, HVAC UNITS, TRANSFORMERS, MOTORS, ETC. OR WHERE EQUIPMENT IS PLACED UPON SLAB OR GRADE.	
• RIGID GALVANIZED STEEL (RGS).	
• ALL FITTINGS, CONNECTORS, AND COUPLINGS SHALL BE CHECKED MADE UP WRENCH TIGHT.	
• RIGID POLY(VINYL CHLORIDE (PVC)) SCHEDULE 40 OR SCHEDULE 80.	
• MAY BE USED FOR SERVICES, EXTERIOR, BELOW GRADE, AND WET LOCATIONS.	
• SHALL NOT BE USED IN CONCRETE SLABS NOR EXPOSED WITHIN A BUILDING OR STRUCTURE.	
• METAL-CLAD CABLES (MCC).	
• CONCEALED INSTALLATIONS ONLY.	
• WITHIN A DUCT WITH SMOOTH OR CORRUGATED METAL JACKET AND NOT OUTER COVERING OVER THE METAL JACKET.	
• MASONRY SHALL BE INSTALLED USING HLTI SAFE SET INSTALLATION SYSTEM WHICH COMPRISES OF A COCE APPROVED HELI FOLLOW GDRILL BIT AND VACUUM. ALTERNATE INSTALLATION METHODS ARE ALSO ALLOWED WITH AN APPROVED DUSTLESS SYSTEM THAT MAINTAINS SILICA DUST BELOW THE PERMITTED LIMITS.	
CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURERS REPRESENTATIVE TO PROVIDE ON-SITE ANCHOR INSTALLATION TRAINING FOR THEIR ANCHORS AND EQUIPMENT. CONTRACTOR SHALL SUBMIT DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTORS PERSONNEL INSTALLING ANCHORS HAVE RECEIVED THE REQUIRED TRAINING PRIOR TO THE COMMENCEMENT OF WORK.	
CONTINUOUS OR PERIODIC SPECIAL INSPECTION FOR POST INSTALLED ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4.3.4.4 OF THE ICES REPORT FOR THE INDIVIDUAL ANCHOR. SPECIAL INSPECTION SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK TO COORDINATE INSPECTION EFFORTS.	
<b>05 STEEL:</b>	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
MATERIALS:	
WIDE FLANGE	ASTM A992, GR 50
TUBING	ASTM A500, GR B
PIPE	ASTM A53, GR B
BOLTS	ASTM A325
GRATING	TYPE GW-2 (1-1/4"x3/8" BARS)
EXISTING METALS	ASTM A36
PROVIDE CERTIFICATION THAT WELDERS TO BE USED IN WORK ARE LICENSED AND HAVE SATISFACTORILY PASSED AWS QUALIFICATION TESTS UNDER THE PROVISIONS OF APPENDIX D, PARTS B AND II OF THE AWS CODE FOR WELDING IN BUILDING CONSTRUCTION.	
ALL BUILDING CONNECTION POINTS TO BE CENTERED ON EXISTING STRUCTURAL BEARING POINTS AND THE LOCATIONS ARE TO BE VERIFIED AND APPROVED BY THE ENGINEER OF RECORD.	
DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STEEL STRUCTURES ("AISC DESIGN").	
NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS OTHERWISE NOTED.	
ALL STEEL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A153 "ZINC COATED (HOT-DIP GALVANIZED) COATINGS" ON IRON AND STEEL PRODUCTS WITH A COATING WEIGHT OF 2.0Z/IN <sup>2</sup> .	
ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE".	
DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY TOUCHING UP OR DAMAGED GALVANIZED STEEL WITH SAME PART APPLIED IN SHOP OR FIELD.	
THE ENGINEER SHALL BE NOTIFIED OF ANY INADEQUATELY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CORROSIONING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER'S APPROVAL.	
STRUCTURAL STEEL IS NOT PERMITTED EXCEPT WITH THE PRIOR APPROVAL OF THE ENGINEER.	
CONTRACTOR TO REMOVE AND RE-INSTALL ALL FIRE PROOFING AS REQUIRED DURING CONSTRUCTION.	
THE STEEL STRUCTURE SHALL BE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER COMPLETION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION.	
ALL STEEL ELEMENTS SHALL BE INSTALLED PLUMB AND LEVEL.	
TOWER MANUFACTURERS DESIGNS SHALL PREVAIL FOR TOWER CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND APPROVED BY THE ENGINEER OF RECORD. THE AISC "MANUAL OF STEEL CONSTRUCTION" CONNECTIONS SHALL BE PROVIDED TO CONFORM TO THE REQUIREMENTS OF TYPE 2 CONNECTION.	
STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE MINIMUM 3/4" DIAMETER AND EACH CONNECTION SHALL HAVE MINIMUM TWO BOLTS. LOCK WASHERS ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES. IF TENSION CONTROL BOLTS ARE USED, CONNECTIONS SHALL BE DESIGNED FOR SLIP CRITICAL BOLT ALLOWABLE LOAD VALUES.	
DESIGN CONNECTIONS AT BEAM ENDS FOR 10 KIPS (MIN).	
ALL U-BOLTED CONNECTIONS SHALL BE COMPLETED WITH DOUBLE NUTS OR A LOCK WASHER.	
CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE PERFORMED USING ET0XX ELECTRODES AND SHALL CONFORM TO A55 AND D1.1 WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE LARGEST OF 1/4" FILLET OR MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". AT THE COMPLETION OF WELDING, ALL DAMAGED TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE REGARDING DAMAGED GALVANIZED SURFACES.	
ALL ARC AND GAS WELDING SHALL BE DONE BY A LICENSED AND CERTIFIED WELDER IN ACCORDANCE WITH AWS.	
SEAL ALL PENETRATIONS AND SEAMS BETWEEN MASONRY AND STEEL WITH DOW CORNING 790 SILICONE BRIDGE SEALANT OR EQUAL.	
<b>07 THERMAL &amp; MOISTURE PROTECTION:</b>	THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
FIRE-STOP ALL PENETRATIONS THROUGH BUILDING WALLS, FLOORS, AND CEILINGS, WITH LISTED AND ACCEPTED MATERIALS TO MAINTAIN THE FIRE RATING OF THE EXISTING ASSEMBLY. ALL FILL MATERIAL SHALL BE SHAVED, FITTED, AND PERMANENTLY SECURED IN PLACE. FIRESTOPPING SHALL BE INSTALLED IN ACCORD WITH ASTM E14.	
HLTI CR20 FIRE FOAM OR 3M FIRE BARRIER PRODUCTS, OR EQUAL, SHALL BE USED TO FILL ALL VOIDS AND CAVITIES AND SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS AND ASSOCIATED UL SYSTEM NUMBER.	
FIRESTOPPING SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER PENETRATIONS ARE MADE AND SHALL BE LEFT EXPOSED AND MADE AVAILABLE FOR INSPECTION BEFORE APPLYING FINISHES THAT MAY CONCEAL SUCH PENETRATION. FIRESTOPPING CERTIFICATES SHALL BE MADE AVAILABLE AT THE TIME OF INSPECTION.	
ANY BUILDING ROOF PENETRATION OR RESTORATION SHALL BE PERFORMED SO THAT ROOF WEATHERING AND DRAINAGE SYSTEMS ARE COMPROMISED. CONTRACTOR SHALL ARRANGE FOR OWNERS ROOFING CONTRACTOR TO REPAIR AND RESTORE ROOFING IF SO REQUIRED BY EXISTING ROOF WARRANTY. OTHERWISE, ROOF SHALL BE MADE WATER TIGHT WITH LIKE CONSTRUCTION AS SOON AS PRACTICABLE AND AT COMPLETION.	
ALL PENETRATIONS INTO OR THROUGH BUILDING, SHELTER, EQUIPMENT, CABINET, AND SIMILAR ENCLOSURE EXTERIOR WALLS, SHALL BE SEALED WITH SILICONE SEALER.	

ALL EQUIPMENT GROUPED IN A COMMON AREA, COMPOUND, STRUCTURE, OR SIMILAR SHALL BE BONDED TO A SINGLE-POINT GROUND, PREFERABLY AN ISOLATED BOND BAR. BOND THE GROUND BAR TO THE SYSTEM WITH MINIMUM SINGLE BONDING CONDUCTOR. IF BONDING TO AN IN-GROUND BOND BAR, INSTALL AT LEAST TWO CONDUCTORS WITH EACH CONDUCTOR INSTALLED DIRECTIONALLY AWAY FROM EACH OTHER AND PARALLEL TO THE IN-GROUND CONDUCTOR, WITH NO TEE CONNECTIONS.	
TOWER GROUNDING:	• EACH TOWER LEG SHALL BE BONDED TO ITS RING. SINGLE-LEGGED TOWERS, OR MONOPOLES, SHALL HAVE 2 BICKES ON OPPOSITE SIDES.
• BOND TO TOWER BASE, NOT TO VERTICAL TOWER STRUCTURE, AWAY FROM TOWER MOUNTING HARDWARE.	
• EACH BOND SHALL HAVE A CORRESPONDING GROUND ROD ON THE RING.	
• EACH BOND SHALL CONSIST OF 2 CONDUCTORS FROM THE TOWER TO ITS RING WITH EACH CONDUCTOR DIRECTED IN OPPOSITE DIRECTIONS WITH A PARALLEL CONNECTION ON THE RING OR OPPOSITE SIDES OF THE GROUND ROD.	
EQUIPMENT AREA GROUNDING:	• COMMUNICATION AREAS ON EARTH SHALL HAVE A GROUND RING BOND ALL EQUIPMENT TO A SINGLE-POINT GROUND (GROUND BOND BAR).
• BOND THE EQUIPMENT SINGLE-POINT GROUND TO THE EQUIPMENT GROUND RING WITH MINIMUM 2 CONDUCTORS DIRECTED IN OPPOSITE DIRECTIONS WITH PARALLEL CONNECTIONS ON THE RING.	
• IF EQUIPMENT IS ENCLOSED IN A SHELTER:	
• IF THE SHELTER IS CONSIDERED TO BE EXPOSED TO A DIRECT LIGHTNING STRIKE, INSTALL A BUILDING LIGHTNING PROTECTION SYSTEM PER APPLICABLE VERSION OF NFPA 780.	
• BOND ALL FIXED CONDUCTIVE BUILDING COMPONENTS TOGETHER AND TO THE BUILDING RING GROUND AT THE CORNERS. THIS IS TYPICALLY CALLED THE HALO GROUND, DO NOT BOND EQUIPMENT TO THE HALO GROUND.	
• BOND ALL EQUIPMENT TOGETHER TO A SINGLE-POINT OR INTERIOR EQUIPMENT RING GROUND (EGR). BOND THE SINGLE-POINT OR EGR TO A METAL-CLAD CABLE (MCC).	
• PLACE GROUND RODS AT THE EQUIPMENT GROUND RING CORNERS.	
GROUND RODS:	• SEPARATION SPACE BETWEEN ANY 2 GROUND RODS SHALL BE NO LESS THAN 6 FEET.
• DRIVE VERTICALLY UNDISTURBED SOIL WITH THE TOP AT SAME DEPTH AS THE BOTTOM OF THE ROD.	
• INSTALL VERTICALLY, PLACE AS CLOSE TO VERTICAL AS POSSIBLE AND IN SAME DIRECTION AWAY FROM THE NEAREST ABOVE-GROUND CONDUCTIVE ELEMENT (TOWER, EQUIPMENT, ETC.).	
RADIALS (CYP, NEW DEDICATED COMMUNICATION SITES):	• WHERE FEASIBLE WITH ENOUGH SPACE AVAILABLE, INSTALL A RING OF 4, MAXIMUM 10 IN DIA, RODS TO ALL RODS IN THE COMPLETE SYSTEM.
• DRIVE VERTICALLY UNDISTURBED SOIL WITH THE TOP AT SAME DEPTH AS THE BOTTOM OF THE ROD.	
• INSTALL VERTICALLY, PLACE AS CLOSE TO VERTICAL AS POSSIBLE AND IN SAME DIRECTION AWAY FROM THE NEAREST ABOVE-GROUND CONDUCTIVE ELEMENT (TOWER, EQUIPMENT, ETC.).	
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