

August 24, 2016

Via Federal Express and Electronic Mail

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Docket No. 462 – Responses to Development and Management (“D&M”) Plan Interrogatories**

Dear Ms. Bachman:

Enclosed please find the original and fifteen (15) copies of the applicant’s responses to the Siting Council’s Development and Management Plan Interrogatories in the above-referenced docket. Attached to these responses is a revised set of D&M Plans. The revisions to the D&M Plans include:

1. An alternative utility conduit route shown on Sheet C-1A, referenced in response to Interrogatory No. 3;
2. A new fence detail on Sheet C-4 showing a 6” to 8” gap at the bottom of the fence as discussed in response to Interrogatory No. 7; and
3. The installation of a new temporary dewatering basin for use during micropile installation per a recent recommendation of Dean Gustafson. In addition, the limits of a siltation fence have been extended to provide space for the dewatering basin. (*See* Sheet C-1).

Robinson+Cole

Melanie A. Bachman
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Please feel free to contact me if you have any questions or need any additional information.

Sincerely,



Kenneth C. Baldwin

KCB/kmd
Enclosures

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
 :
APPLICATION OF CELCO PARTNERSHIP : DOCKET NO. 462
D/B/A VERIZON WIRELESS FOR A :
CERTIFICATE OF ENVIRONMENTAL :
COMPATIBILITY AND PUBLIC NEED FOR :
THE CONSTRUCTION OF A WIRELESS :
TELECOMMUNICATIONS FACILITY AT 15 :
GREAT PASTURE ROAD, DANBURY, :
CONNECTICUT : AUGUST 24, 2016

**RESPONSES OF CELCO PARTNERSHIP D/B/A VERIZON WIRELESS
TO CONNECTICUT SITING COUNCIL
DEVELOPMENT AND MANAGEMENT PLAN INTERROGATORIES**

On August 16, 2016, the Connecticut Siting Council (“Council”) issued Development and Management Plan Interrogatories to Cellco Partnership d/b/a Verizon Wireless (“Cellco”), relating to the above-captioned docket. Below are Cellco’s responses.

Question No. 1

Provide the following information for the backup generator:

- a) Size in kilowatts;
- b) Run time in hours based on the proposed 1,000-gallon propane tank; and
- c) Indicate that the generator is for Cellco's own use.

Response

Cellco intends to install a 15 kilowatt (kW) DC propane-fueled generator at the approved tower site. This generator can run for approximately 388 hours, before refueling of the 1000 gallon propane tank would be required. The 15 kW generator is for Cellco’s use alone and designed only to recharge the back-up batteries located on the equipment platform.

Question No. 2

Is Cellco also proposing its battery backup system to be installed on the equipment pad?
Would it have a run time of approximately four to eight hours?

Response

Under Cellco's new equipment configuration, the batteries are the only source of emergency back-up power supply for the cell site equipment. As mentioned above, the 15 kW generator would be used only to recharge the back-up battery system. As such, the back-up battery system can maintain a charge as long as the back-up generator can operate.

Question No. 3

While the proposed underground utilities are not located within the Department of Energy and Environmental Protection's (DEEP) Dig Restricted Area (DRA), provide the maximum depth of the proposed utility trench, and estimate the DRA depth per condition 2a of the Connecticut Siting Council's Decision and Order dated December 10, 2015. Did Cellco Partnership d/b/a Verizon Wireless (Cellco) seek to maximize the horizontal distance from the DRA to the utility trench as well?

Response

The proposed utility trench is located outside the DRA and is shown on D&M Plan Sheet C-5 at a minimum depth of 30 inches below finished grade. Cellco would estimate the DRA depth to be approximately four (4) feet below existing grade.

Cellco's principle concern for locating the utility trench was simply to stay outside the DRA. The utility trench could be moved further to the south, within the existing easement area and, therefore, further from the DRA, if that would be preferred. (*See* revised D&M Plan – Sheet C-1A showing an alternative utility trench location further from the DRA).

Question No. 4

Given the proposed “open canopy” equipment pad design in the Development and Management Plan (D&M Plan), is it correct to say that no air conditioning units are required? Does Cellco expect that the new “open canopy” design with outdoor radio equipment would still meet applicable noise standards at the property boundaries? The original noise analysis was performed based on an enclosed equipment shelter with two air conditioning units on the outside. (The backup generator can be neglected as a device related to an “emergency” under the Regulations of Connecticut State Agencies §22a-69-1.8.)

Response

Correct. The new “open canopy” equipment configuration does not require the use of any type of air conditioning units. The only noise generating equipment on Cellco’s platform is the back-up generator. Manufacturer’s specifications describe noise levels as being 59 dBA at a distance of 25 feet from the unit, well within State and local noise standards (70 dBA). The closest property line is more than 200 feet from the facility compound.

Question No. 5

Would the Erosion and Sedimentation Control plan comply with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*?

Response

Yes.

Question No. 6

Provide the proposed construction hours and days of the week, e.g. Monday through Friday 7 am to 5 pm. If the D&M Plan is approved, approximately when would construction commence and when would construction be completed?

Response

Cellco anticipates that construction hours at the site would be 7 a.m. to 5 p.m., Monday through Friday. Cellco would like to commence construction on or about September 16, 2016, and anticipates construction to be completed within three to five months, weather permitting.

Question No. 7

Referencing Sheet C-4 of the D&M Plan, would the proposed 1.5-inch maximum gap under the fence prevent turtle entry and/or reduce risk of entrapment after construction is complete?

Response


Yes, however, Cellco is willing to modify the fence detail and increase the gap at the bottom of the fence to a minimum of 6 to 8 inches to avoid these risks. *See* revised fence detail, D&M Plan Sheet C-4 attached.

CERTIFICATION

I hereby certify that on this 24th day of August, 2016, a copy of the foregoing was sent,
postage prepaid, to the following:

Mark D. Boughton, Mayor
City of Danbury
155 Deer Hill Avenue
Danbury, CT 06810

Matt Knickerbocker, First Selectman
Town of Bethel
1 School Street
Bethel, CT 06801



Kenneth C. Baldwin



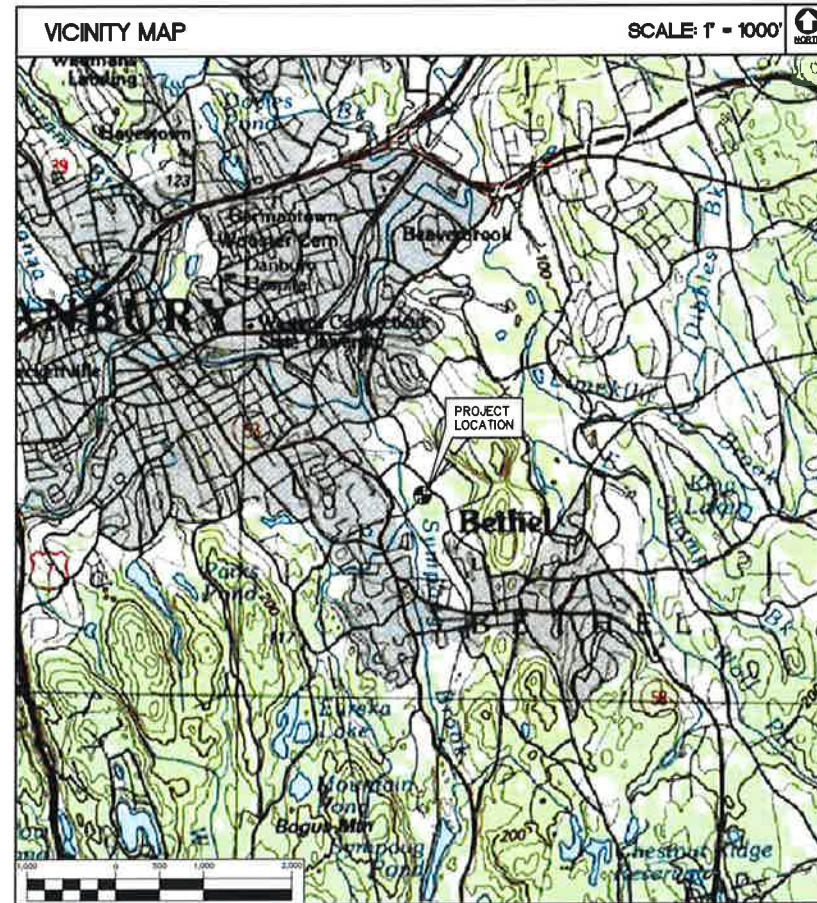
DEVELOPMENT AND MANAGEMENT PLAN

BETHEL W2 15 GREAT PASTURE ROAD DANBURY, CT 06810

SITE DIRECTIONS	
FROM:	TO:
99 EAST RIVER DRIVE EAST HARTFORD, CONNECTICUT	15 GREAT PASTURE ROAD DANBURY, CONNECTICUT
1. Head NORTHEAST on E RIVER DR toward DARLIN ST	0.3 mi.
2. Turn LEFT to stay on E RIVER DR	0.08 mi.
3. Take the 1st LEFT onto CONNECTICUT BLVD	0.1 mi.
4. Turn LEFT to merge onto I-84	54.2 mi.
5. Merge onto NEWTOWN RD	1.7 mi.
6. Turn LEFT onto OLD SHELTER ROCK RD	0.6 mi.
7. OLD SHELTER RD becomes CROSS ST	0.2 mi.
8. Turn LEFT onto SHELTER ROCK RD	0.04 mi.
9. Turn SLIGHT RIGHT onto SHELTER ROCK LN	0.4 mi.
10. Turn LEFT onto GREAT PASTURE RD	0.2 mi.

GENERAL NOTES
1. PROPOSED ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELCO PARTNERSHIP.

SITE INFORMATION
THE SCOPE OF WORK SHALL INCLUDE:
1. THE CONSTRUCTION OF A 50'x50' FENCED WIRELESS COMMUNICATIONS COMPOUND.
2. A TOTAL OF UP TO TWELVE (12) DIRECTIONAL PANEL ANTENNAS ARE PROPOSED TO BE MOUNTED AT A CENTERLINE ELEVATION OF 120'-0"± AGL ON A 120'-0"± PROPOSED STEEL MONOPOLE TOWER.
3. POWER AND TELCO UTILITIES SHALL BE ROUTED UNDERGROUND FROM EXISTING UTILITY DEMARCS LOCATED ON OR ADJACENT TO THE SUBJECT PROPERTY, TO THE PROPOSED UTILITY BACKBOARD LOCATED ADJACENT TO THE PROPOSED FENCED COMPOUND. FINAL DEMARC LOCATION AND UTILITY ROUTING TO PROPOSED BACKBOARD WILL BE VERIFIED/DETERMINED BY LOCAL UTILITY COMPANIES. UTILITIES WILL BE ROUTED UNDERGROUND FROM UTILITY BACKBOARD TO THE PROPOSED 12'x26' CONC. EQUIPMENT PAD AT GRADE WITHIN THE PROPOSED 50'x50' FENCED COMPOUND AREA.
4. THE PROPOSED WIRELESS FACILITY INSTALLATION WILL BE DESIGNED IN ACCORDANCE WITH THE 2003 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2009 CONNECTICUT SUPPLEMENT.
5. THERE WILL NOT BE ANY LIGHTING UNLESS REQUIRED BY THE FCC OR THE FAA.
6. THERE WILL NOT BE ANY SIGNS OR ADVERTISING ON THE ANTENNAS OR EQUIPMENT.



PROJECT SUMMARY	
SITE NAME:	BETHEL W2
SITE ADDRESS:	15 GREAT PASTURE ROAD DANBURY, CT 06810
PROPERTY OWNER:	EPPOLITI INDUSTRIAL REALTY INC. 37 DANBURY ROAD #203 RIDGEFIELD, CT 06877
LESSEE/TENANT:	CELCO PARTNERSHIP d.b.a. VERIZON WIRELESS 99 EAST RIVER DRIVE EAST HARTFORD, CT 06108
VERIZON SITE ACQUISITION CONTACT:	ALEXSEY TYURIN CELCO PARTNERSHIP (860) 803-8213
LEGAL/REGULATORY COUNSEL:	KENNETH C. BALDWIN, ESQ. ROBINSON & COLE (860) 275-8345
TOWER COORDINATES:	LATITUDE: 41°-22'-58.813" LONGITUDE: 73°-25'-19.811" PROPOSED GROUND ELEVATION: 387.1'± A.M.S.L. SITE COORDINATES AND GROUND ELEVATION AND REFERENCED FROM FAA-1A SURVEY CERTIFICATION AS PREPARED BY MARTINEZ COUCH AND ASSOCIATES LLC, DATED FEBRUARY 17, 2015.

SHEET INDEX		
SHT. NO.	DESCRIPTION	REV. NO.
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C-6	EQUIPMENT PAD AND ICE CANOPY DETAILS	2

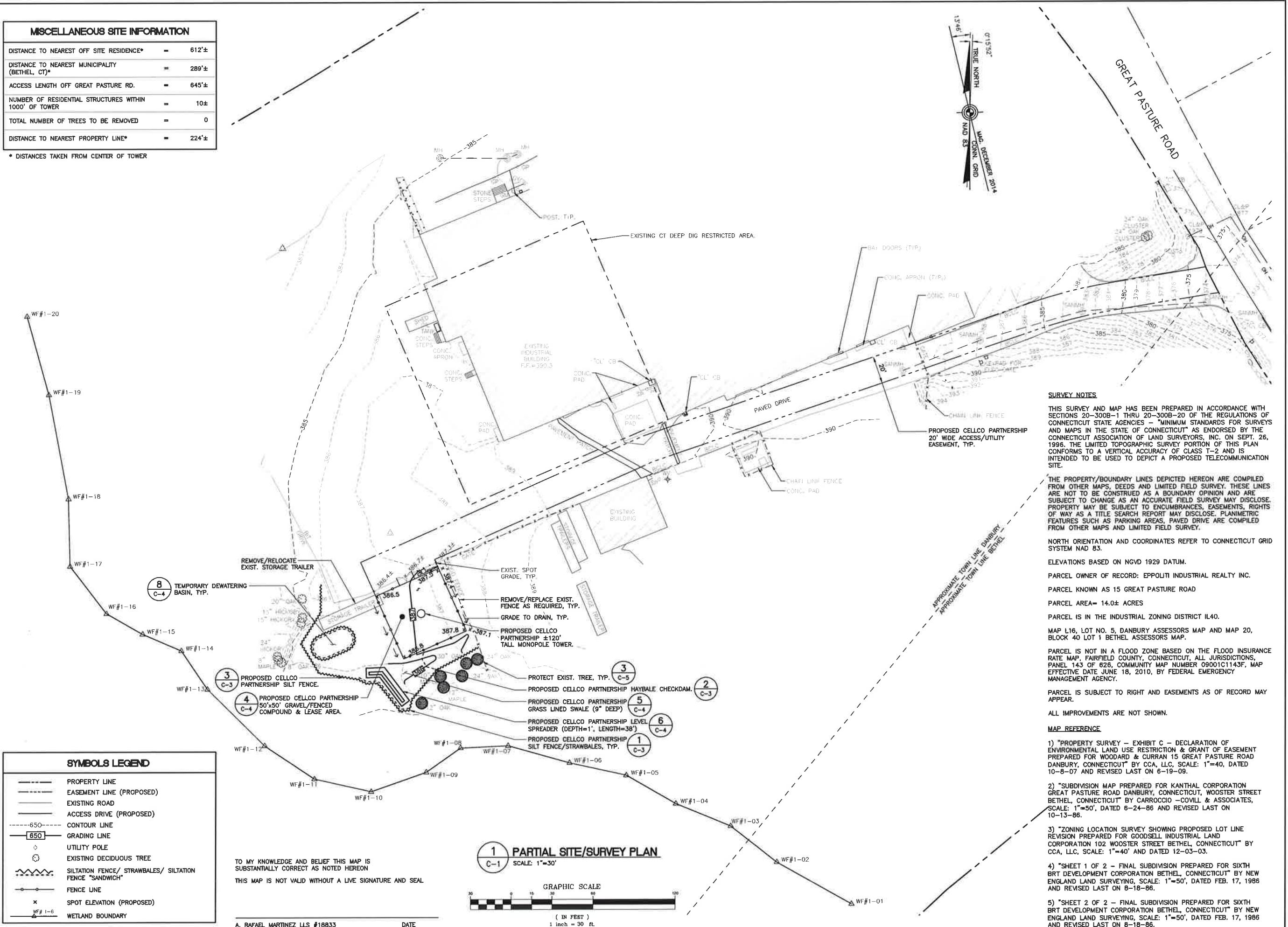
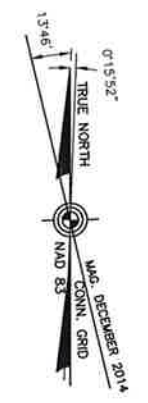
PROFESSIONAL ENGINEER SEAL	DATE	04/12/16
SCALE	AS NOTED	
JOB NO.	14216.000	
TITLE SHEET		
T-1		
Sheet No. 1 of 8		

Cellco Partnership d/b/a Verizon Wireless WIRELESS COMMUNICATIONS FACILITY BETHEL W2 15 GREAT PASTURE ROAD DANBURY, CT 06810	(203) 486-0380 (203) 486-4587 Fax 652 North Brantford Road Southford, CT 06488 www.CentekEng.com

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
2	08/23/16	HMR	CFC	DAM PLANS - REVISED PER CLIENT COMMENTS
1	08/09/16	HMR	DMD	DAM PLANS
0	05/10/16	KAWR	DMD	DAM PLANS - ISSUED FOR CLIENT REVIEW

MISCELLANEOUS SITE INFORMATION	
DISTANCE TO NEAREST OFF SITE RESIDENCE*	= 612'±
DISTANCE TO NEAREST MUNICIPALITY (BETHEL, CT)*	= 289'±
ACCESS LENGTH OFF GREAT PASTURE RD.	= 645'±
NUMBER OF RESIDENTIAL STRUCTURES WITHIN 1000' OF TOWER	= 10±
TOTAL NUMBER OF TREES TO BE REMOVED	= 0
DISTANCE TO NEAREST PROPERTY LINE*	= 224'±

* DISTANCES TAKEN FROM CENTER OF TOWER



SURVEY NOTES

THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THRU 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPT. 26, 1996. THE LIMITED TOPOGRAPHIC SURVEY PORTION OF THIS PLAN CONFORMS TO A VERTICAL ACCURACY OF CLASS T-2 AND IS INTENDED TO BE USED TO DEPICT A PROPOSED TELECOMMUNICATION SITE.

THE PROPERTY/BOUNDARY LINES DEPICTED HEREON ARE COMPILED FROM OTHER MAPS, DEEDS AND LIMITED FIELD SURVEY. THESE LINES ARE NOT TO BE CONSTRUED AS A BOUNDARY OPINION AND ARE SUBJECT TO CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. PROPERTY MAY BE SUBJECT TO ENCUMBRANCES, EASEMENTS, RIGHTS OF WAY AS A TITLE SEARCH REPORT MAY DISCLOSE. PLANIMETRIC FEATURES SUCH AS PARKING AREAS, PAVED DRIVE ARE COMPILED FROM OTHER MAPS AND LIMITED FIELD SURVEY.

NORTH ORIENTATION AND COORDINATES REFER TO CONNECTICUT GRID SYSTEM NAD 83.

ELEVATIONS BASED ON NGVD 1929 DATUM.

PARCEL OWNER OF RECORD: EPPOLTI INDUSTRIAL REALTY INC.

PARCEL KNOWN AS 15 GREAT PASTURE ROAD

PARCEL AREA= 14.0± ACRES

PARCEL IS IN THE INDUSTRIAL ZONING DISTRICT IL40.

MAP L16, LOT NO. 5, DANBURY ASSESSORS MAP AND MAP 20, BLOCK 40 LOT 1 BETHEL ASSESSORS MAP.

PARCEL IS NOT IN A FLOOD ZONE BASED ON THE FLOOD INSURANCE RATE MAP, FAIRFIELD COUNTY, CONNECTICUT, ALL JURISDICTIONS, PANEL 143 OF 625, COMMUNITY MAP NUMBER 09001C1143F, MAP EFFECTIVE DATE JUNE 18, 2010, BY FEDERAL EMERGENCY MANAGEMENT AGENCY.

PARCEL IS SUBJECT TO RIGHT AND EASEMENTS AS OF RECORD MAY APPEAR.

ALL IMPROVEMENTS ARE NOT SHOWN.

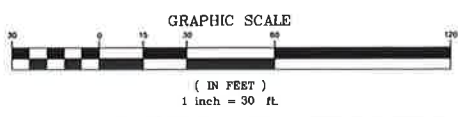
MAP REFERENCE

- 1) "PROPERTY SURVEY - EXHIBIT C - DECLARATION OF ENVIRONMENTAL LAND USE RESTRICTION & GRANT OF EASEMENT PREPARED FOR WOODARD & CURRAN 15 GREAT PASTURE ROAD DANBURY, CONNECTICUT" BY CCA, LLC, SCALE: 1"=40', DATED 10-8-07 AND REVISED LAST ON 6-19-09.
- 2) "SUBDIVISION MAP PREPARED FOR KANTHAL CORPORATION GREAT PASTURE ROAD DANBURY, CONNECTICUT, WOOSTER STREET BETHEL, CONNECTICUT" BY CARROCCIO - COVILL & ASSOCIATES, SCALE: 1"=50', DATED 6-24-86 AND REVISED LAST ON 10-13-86.
- 3) "ZONING LOCATION SURVEY SHOWING PROPOSED LOT LINE REVISION PREPARED FOR GOODSSELL INDUSTRIAL LAND CORPORATION 102 WOOSTER STREET BETHEL, CONNECTICUT" BY CCA, LLC, SCALE: 1"=40' AND DATED 12-03-03.
- 4) "SHEET 1 OF 2 - FINAL SUBDIVISION PREPARED FOR SIXTH BRT DEVELOPMENT CORPORATION BETHEL, CONNECTICUT" BY NEW ENGLAND LAND SURVEYING, SCALE: 1"=50', DATED FEB. 17, 1986 AND REVISED LAST ON 8-18-86.
- 5) "SHEET 2 OF 2 - FINAL SUBDIVISION PREPARED FOR SIXTH BRT DEVELOPMENT CORPORATION BETHEL, CONNECTICUT" BY NEW ENGLAND LAND SURVEYING, SCALE: 1"=50', DATED FEB. 17, 1986 AND REVISED LAST ON 8-18-86.

SYMBOLS LEGEND	
	PROPERTY LINE
	EASEMENT LINE (PROPOSED)
	EXISTING ROAD
	ACCESS DRIVE (PROPOSED)
	CONTOUR LINE
	GRADING LINE
	UTILITY POLE
	EXISTING DECIDUOUS TREE
	SILTATION FENCE/ STRAWBALES/ SILTATION FENCE "SANDWICH"
	FENCE LINE
	SPOT ELEVATION (PROPOSED)
	WETLAND BOUNDARY

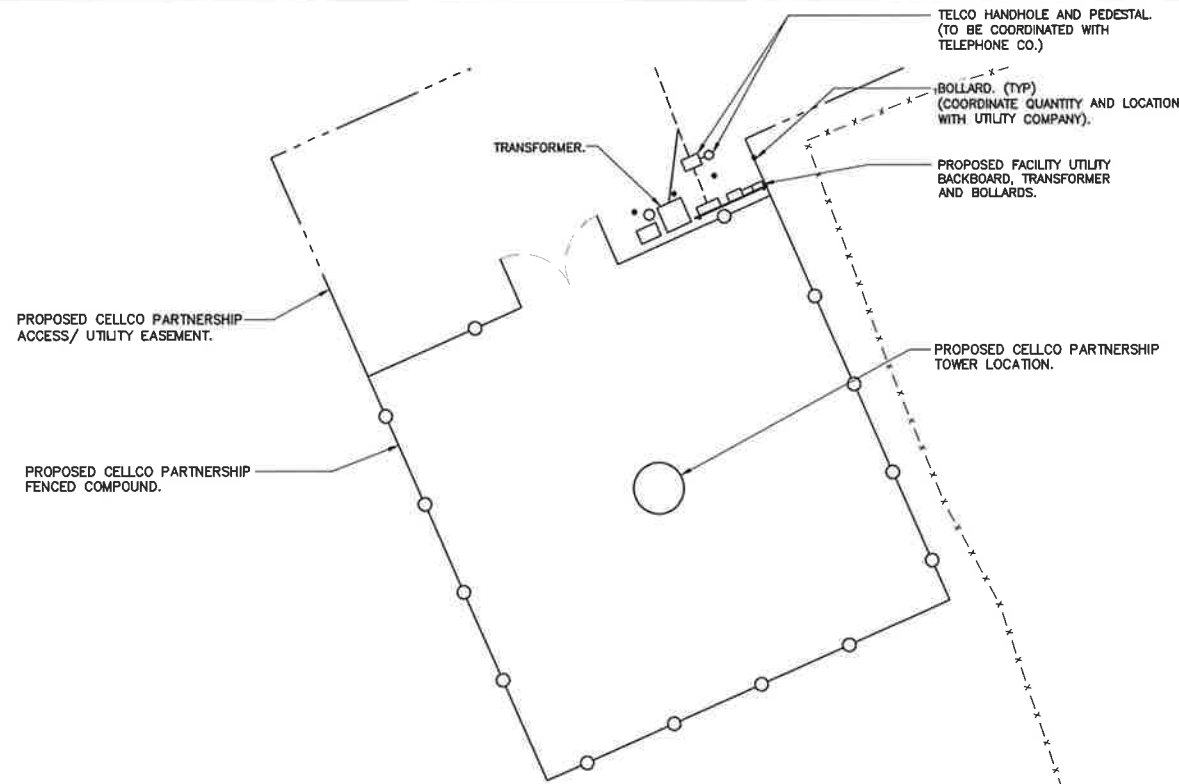
TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON
THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE AND SEAL

1 PARTIAL SITE/SURVEY PLAN
C-1 SCALE: 1"=30'



A. RAFAEL MARTINEZ LLS #18833 DATE

PROFESSIONAL ENGINEER SEAL	
CENTEK engineering <small>Centered on Solutions</small>	
(203) 488-0380 (203) 488-4387 Fax 652 North Ironstone Road Branford, CT 06406 www.CentekEng.com	
Cellco Partnership d/b/a Verizon Wireless WIRELESS COMMUNICATIONS FACILITY	
BETHEL W2 15 GREAT PASTURE ROAD DANBURY, CT 06810	
DATE:	04/12/16
SCALE:	AS NOTED
JOB NO.	14216.000
PARTIAL SITE/ SURVEY PLAN	
C-1	
Sheet No. 2 of 8	

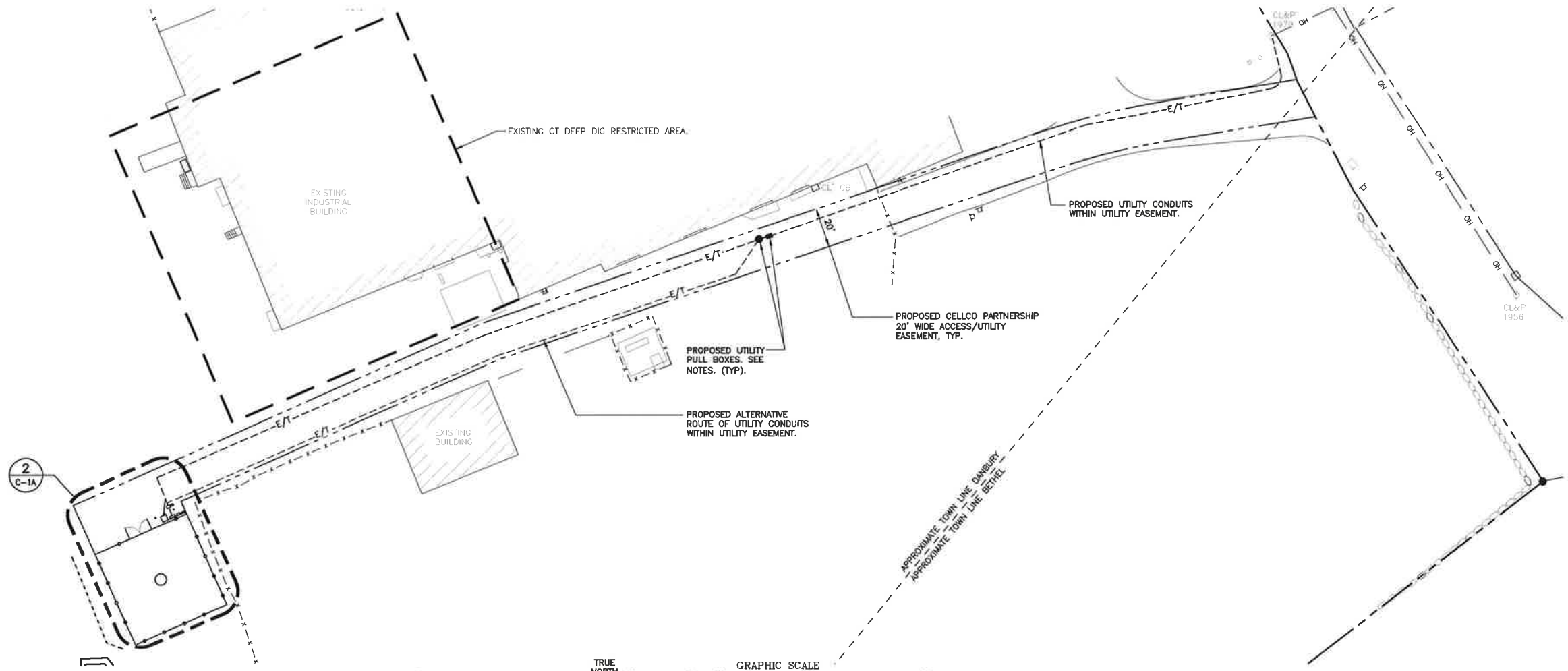


- UTILITY NOTES:**
- COORDINATE WITH OWNER FOR ALL EASEMENT DOCUMENTS.
 - UTILITY ROUTING SHOWN ON THIS PLAN IS SCHEMATIC. CONTRACTOR SHALL COORDINATE FINAL ROUTING AND CONNECTION POINT WITH RESPECTIVE UTILITY COMPANIES PRIOR TO PERFORMING ANY UTILITY TRENCH WORK. ALL UTILITY CONDUITS AND PULL BOXES SHALL BE LOCATED WITHIN THE PROPOSED ACCESS/UTILITY EASEMENT.
 - UTILITY PULL BOXES/SILOS TO BE TRAFFIC RATED AND INSTALLED IN APPROXIMATE LOCATIONS SHOWN ON THIS PLAN, BUT NOT TO EXCEED 450' INTERVALS. CONTRACTOR TO COORDINATE FINAL PULL BOX LOCATIONS WITH RESPECTIVE LOCAL UTILITY COMPANIES.
 - CONTRACTOR SHALL COORDINATE ALL PERMITS AND PROCEDURES FOR CONDUIT INSTALLATION ALONG STREET.
 - PLAN IS FOR UTILITY ROUTING INFORMATION ONLY. SOME OTHER ELEMENTS NOT SHOWN FOR CLARITY. REFER TO CIVIL DRAWINGS FOR ALL OTHER EXISTING AND PROPOSED SITE INFORMATION.

SYMBOLS LEGEND

---	PROPERTY LINE
- - - -	ACCESS/ UTILITY EASEMENT LINE (PROPOSED)
-E/T-	ELECTRICAL/TELCO CONDUIT RUN (UNDERGROUND)
■	UTILITY PULL BOX/SILO
◇	UTILITY POLE

2 PARTIAL SITE UTILITY PLAN
 C-1A SCALE: 1"=10'-0"
 TRUE NORTH ↑
 GRAPHIC SCALE
 (IN FEET)
 1 inch = 10 ft.



1 SITE UTILITY PLAN
 C-1A SCALE: 1"=30'
 TRUE NORTH ↑
 GRAPHIC SCALE
 (IN FEET)
 1 inch = 30 ft.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
2	05/23/16	HMR	CFC	DAM PLANS - REVISED FOR CLIENT COMMENTS
1	05/05/16	HMR	DMD	DAM PLANS
0	05/10/16	KAWAR	DMD	DAM PLANS - ISSUED FOR CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL



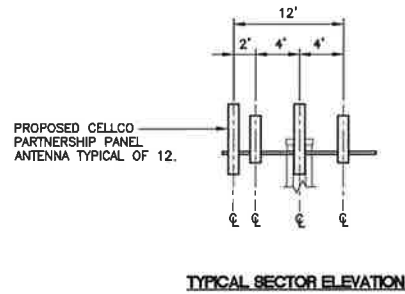
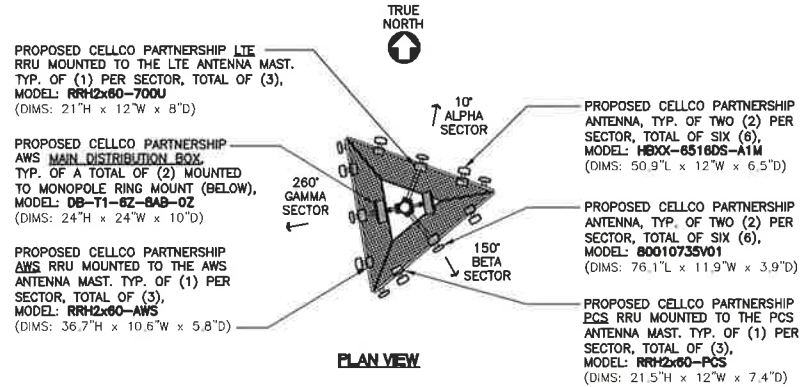
CENTEK engineering
Centek on Solutions
 (203) 468-5390
 452 North Branford Road
 Branford, CT 06405
 www.CentekEng.com

Celco Partnership d/b/a Verizon Wireless
 WIRELESS COMMUNICATIONS FACILITY
BETHEL W2
 15 GREAT PASTURE ROAD
 DANBURY, CT 06810

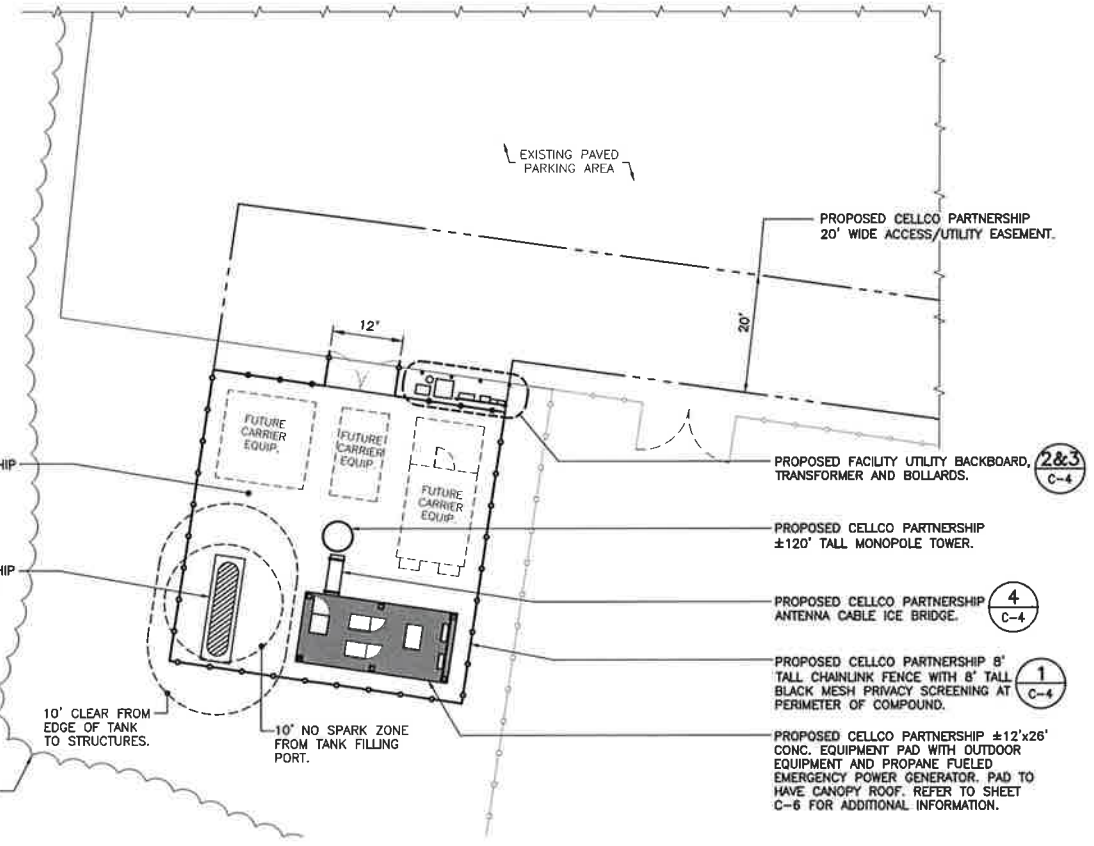
DATE: 04/12/16
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 JOB NO. 14216.000

SITE UTILITY PLAN

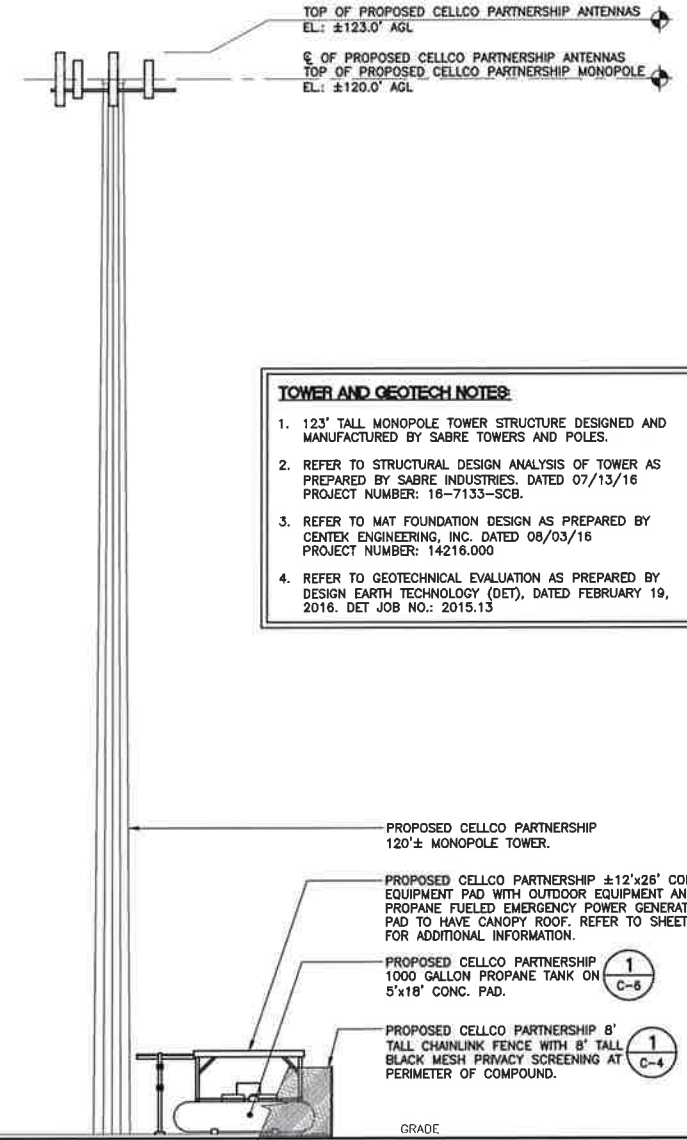
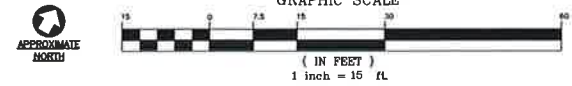
C-1A
 Sheet No. 3 of 8



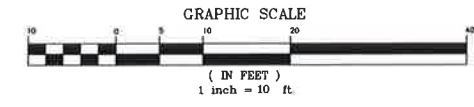
3 ANTENNA MOUNTING CONFIGURATION
SCALE: 1/8" = 1'



1 COMPOUND PLAN
SCALE: 1" = 15'



2 WEST ELEVATION
SCALE: 1" = 10'



- TOWER AND GEOTECH NOTES:**
- 123' TALL MONOPOLE TOWER STRUCTURE DESIGNED AND MANUFACTURED BY SABRE TOWERS AND POLES.
 - REFER TO STRUCTURAL DESIGN ANALYSIS OF TOWER AS PREPARED BY SABRE INDUSTRIES, DATED 07/13/16 PROJECT NUMBER: 16-7133-SCB.
 - REFER TO MAT FOUNDATION DESIGN AS PREPARED BY CENTEK ENGINEERING, INC. DATED 08/03/16 PROJECT NUMBER: 14216.000
 - REFER TO GEOTECHNICAL EVALUATION AS PREPARED BY DESIGN EARTH TECHNOLOGY (DET), DATED FEBRUARY 19, 2016. DET JOB NO.: 2015.13

REV.	DATE	DRAWN BY	CHKD BY	DESCRIPTION
2	08/23/16	HAR	CFC	DBM PLANS - REVERSED PER CLIENT COMMENTS
1	08/09/16	HAR	DND	DBM PLANS - ISSUED FOR CLIENT REVIEW
0	05/10/16	KAWAR	DND	DBM PLANS - ISSUED FOR CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL

verizon

CENTEK engineering
Centek Solutions

203 488-5380
203 488-4587 Fax
652 North Brenneke Road
Bristol, CT 06033
www.CentekEng.com

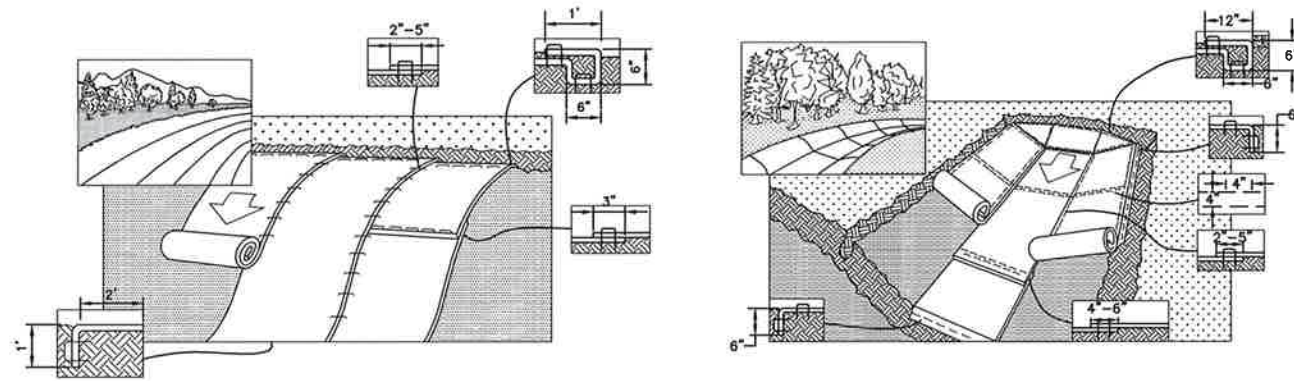
Cellco Partnership d/b/a Verizon Wireless
WIRELESS COMMUNICATIONS FACILITY

BETHEL W2
15 GREAT PASTURE ROAD
DANBURY, CT 06810

DATE: 04/12/16
SCALE: AS NOTED
JOB NO. 14216.000

COMPOUND PLAN, ELEVATION AND ANTENNA MOUNTING CONFIG.

EROSION CONTROL BLANKET STABILIZATION



4 TYPICAL EROSION MAT INSTALLATION ON SLOPE
C-3 NOT TO SCALE

5 TYPICAL EROSION MAT INSTALLATION IN CHANNEL
C-3 NOT TO SCALE

STABILIZATION CRITERIA

- CONTRACTOR SHALL IMPLEMENT EROSION CONTROL BLANKET SLOPE STABILIZATION & SWALE CONSTRUCTION WHEN STABLE EARTH CUTS ARE PREVALENT (IN LOCATIONS WITHOUT LEDGE OR LARGE AMOUNTS OF SUBGRADE ROCK)

STABILIZATION PRODUCT SPECIFICATION

NORTH AMERICAN GREEN, PRODUCT NUMBER S150BN, 12 MONTH BIODEGRADABLE.

EROSION MAT ON SLOPES

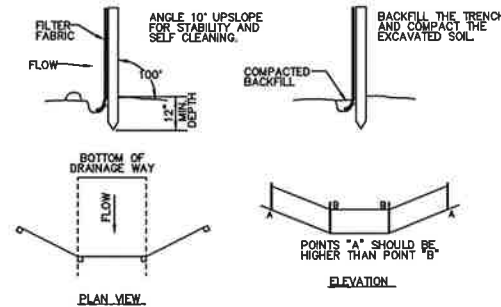
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLE/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKET DOWN OR HORIZONTALLY ACROSS THE SLOPE. BLANKET WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL ROLLED EROSION CONTROL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM[™], STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY A 2'-5" OVERLAP DEPENDING ON BLANKET TYPE.
- CONSECUTIVE ROLLED EROSION CONTROL BLANKET SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKET.
- THE EDGE OF THE BLANKET IS TO EXTEND A MINIMUM 24 INCHES BEYOND THE TOE OF THE SLOPE AND ANCHORED BY PLACING THE STAPLES/STAKES IN A 12 INCH DEEP x 6 INCH WIDE ANCHOR TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12 INCH APART IN THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING (STONE OR SOIL MAY BE USED AS BACKFILL).
- REFER TO MANUFACTURERS STAPLE GUIDE FOR CORRECT STAPLE PATTERN. MINIMUM 4 SPIKES PER ONE SQ. FT.

EROSION MAT IN CHANNEL

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLE/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM[™], STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
- FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2'-5" AND STAPLED TO ENSURE PROPER SEAM ALIGNMENT. PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH[™] ON THE BLANKET BEING OVERLAPPED.
- THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- REFER TO MANUFACTURERS STAPLE GUIDE FOR CORRECT STAPLE PATTERN. MINIMUM 4 SPIKES PER ONE SQ. FT. THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE REFERTILIZED, RESEED, AND REMULCHED AS DIRECTED.

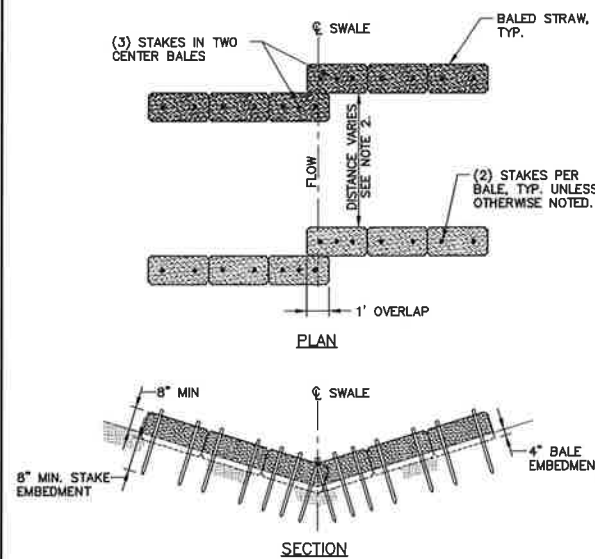
MAINTENANCE

THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO RE-ESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE REFERTILIZED, RESEED, AND REMULCHED AS DIRECTED.



SOURCE: U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CONNECTICUT

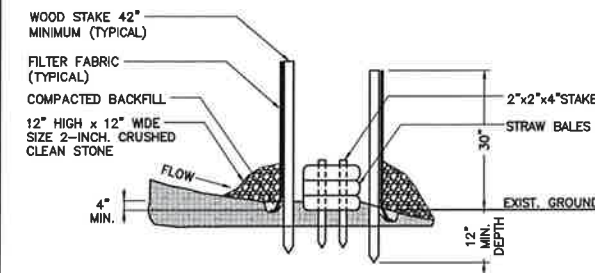
3 SILTATION FENCE DETAIL
C-3 NOT TO SCALE



NOTES:

- CHECKDAM SHALL BE INSTALLED IN LOCATIONS INDICATED ON SITE PLAN (SHEET C-1A) IN DRAINAGE SWALE WITH BED WIDTHS OF 2 FEET OR LESS.
- THE DISTANCE BETWEEN STRAW BALE CHECKDAMS SHALL BE DETERMINED BY THE SLOPE OF THE SWALE. CHECKDAMS SHALL BE SET AT EVERY 2 FEET DROP IN SWALE ELEVATION.
- BALES SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
- INSTALL 3 STAKES PER BALE WITHIN SWALE BED AREAS.

2 TYP. STRAW BALE CHECKDAM (NARROW SWALE)
C-3 NOT TO SCALE



1 SILTATION FENCE/STRAW BALE SILTATION FENCE 'SANDWICH' EROSION CONTROL
C-3 NOT TO SCALE

GENERAL CONSTRUCTION / PRE-CONSTRUCTION NOTES

- PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, A MANDATORY ON-SITE PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED WITH THE VERIZON WIRELESS CONSTRUCTION MANAGER, CONTRACTOR'S CONSTRUCTION MANAGER, THE PROJECT EROSION AND SEDIMENTATION CONTROL/ENVIRONMENTAL MONITOR AND THE ENGINEER OF RECORD.

GENERAL CONSTRUCTION SEQUENCE

THIS IS A GENERAL CONSTRUCTION SEQUENCE OUTLINE SOME ITEMS OF WHICH MAY NOT APPLY TO PARTICULAR SITES.

- CUT AND STUMP AREAS OF PROPOSED CONSTRUCTION.
- INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED.
- REMOVE AND STOCKPILE TOPSOIL. STOCKPILE SHALL BE SEED TO PREVENT EROSION.
- CONSTRUCT CLOSED DRAINAGE SYSTEM. PRECEPT CULVERT INLETS AND CATCH BASINS WITH SEDIMENTATION BARRIERS.
- CONSTRUCT ROADWAYS AND PERFORM SITE GRADING, PLACING HAY BALES AND SILTATION FENCES AS REQUIRED TO CONTROL SOIL EROSION.
- INSTALL UNDERGROUND UTILITIES.
- BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEED OR MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION. NO AREA SHALL BE LEFT UNSTABILIZED FOR A TIME PERIOD OF MORE THAN 30 DAYS.
- DAILY, OR AS REQUIRED, CONSTRUCT, INSPECT, AND IF NECESSARY, RECONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND SEDIMENT TRAPS INCLUDING MULCHING AND SEEDING.
- BEGIN EXCAVATION FOR AND CONSTRUCTION OF TOWERS AND PLATFORMS.
- FINISH PAVING ALL ROADWAYS, DRIVES, AND PARKING AREAS.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- NO FLOW SHALL BE DIVERTED TO ANY WETLANDS UNTIL A HEALTHY STAND OF GRASS HAS BEEN ESTABLISHED IN REGARDED AREAS.
- AFTER GRASS HAS BEEN FULLY GERMINATED IN ALL SEEDING AREAS, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

SOIL EROSION AND SEDIMENT CONTROL SEQUENCE

- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS CONSTRUCTION ENTRANCE / ANTI TRACKING PAD, SILTATION FENCE, AND SILTATION FENCE / HAY BALE SHALL BE IN PLACE PRIOR TO ANY GRADING ACTIVITY. INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. MEASURES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND/OR AREA IS STABILIZED.
- THE ENTRANCE TO THE PROJECT SITE IS TO BE PROTECTED BY STONE ANTI TRACKING PAD OF ASTM C-33, SIZE NO. 2 OR 3, OR D.O.T. 2" CRUSHED GRAVEL. THE STONE ANTI TRACKING PAD IS TO BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
- LAND DISTURBANCE WILL BE KEPT TO A MINIMUM AND RESTABILIZATIONS WILL BE SCHEDULED AS SOON AS PRACTICAL.
- ALL SOIL EROSION AND SEDIMENT CONTROL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL INCLUDING THE LATEST DATE FROM THE COUNCIL ON SOIL AND WATER CONSERVATION.
- ANY ADDITIONAL EROSION/SEDIMENTATION CONTROL DEEMED NECESSARY BY TOWN STAFF DURING CONSTRUCTION, SHALL BE INSTALLED BY THE DEVELOPER. IN ADDITION, THE DEVELOPER SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE TOWN STAFF.
- IN ALL AREAS, REMOVAL OF TREES, BUSHES AND OTHER VEGETATION AS WELL AS DISTURBANCE OF THE SOIL IS TO BE KEPT TO AN ABSOLUTE MINIMUM WHILE ALLOWING PROPER DEVELOPMENT OF THE SITE. DURING CONSTRUCTION, EXPOSE AS SMALL AN AREA OF SOIL AS POSSIBLE FOR AS SHORT A TIME AS POSSIBLE.
- SILTATION FENCE SHALL BE PLACED AS INDICATED BEFORE A CUT SLOPE HAS BEEN CREATED. SEDIMENT DEPOSITS SHOULD BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDES OF SILTATION FENCE. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR TO BE USED IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. SILTATION FENCE IS TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE FENCE IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE EROSION CHECKS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.
- SWALE DISCHARGE AREA WILL BE PROTECTED WITH RIP RAP SPLASH PAD/ ENERGY DISSIPATER.
- ALL FILL AREAS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
- THE SOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
- AFTER CONSTRUCTION IS COMPLETE AND GROUND IS STABLE, REMOVE SILTS IN THE RIP RAP ENERGY DISSIPATERS. REMOVE OTHER EROSION AND SEDIMENT DEVICES.

CONSTRUCTION SPECIFICATIONS - SILT FENCE

- THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
- THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
- WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MID-SECTION AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED.
- FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BUILD UP IN THE SILT FENCE DUE TO DEPOSITION OF SEDIMENT.

MAINTENANCE - SILT FENCE

- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACHED APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

PROFESSIONAL ENGINEER SEAL

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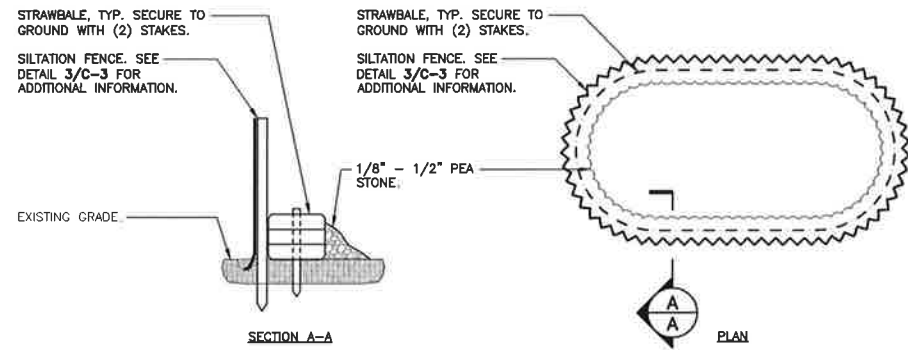
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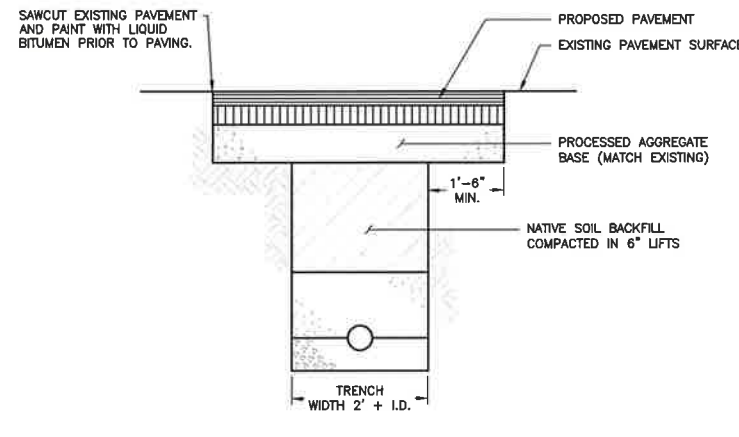
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SITE CONSTRUCTION,
S&E CONTROL
NOTES & DETAILS

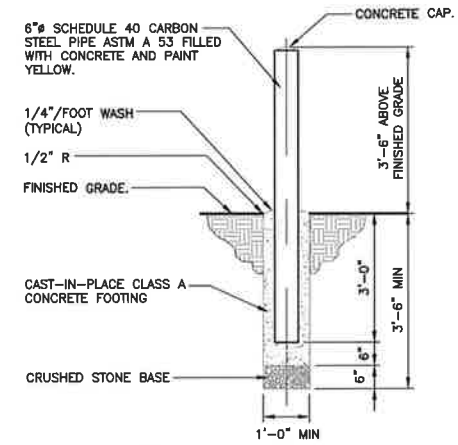
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Sheet No. 5 of 8



8 TEMPORARY DEWATERING BASIN DETAIL
C-4 NOT TO SCALE



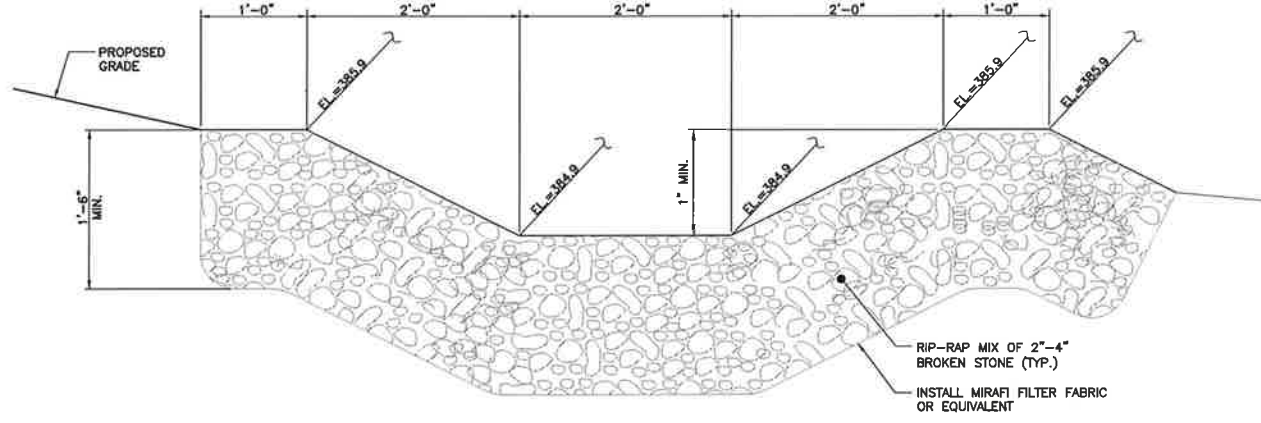
7 TYPICAL TRENCH AND PAVEMENT REPAIR DETAIL
C-4 NOT TO SCALE



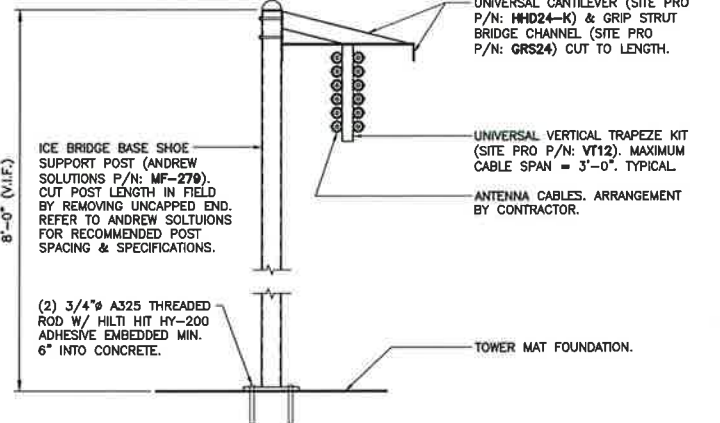
2 BOLLARD DETAIL
C-4 NOT TO SCALE

WEWEN WIRE FENCE NOTES

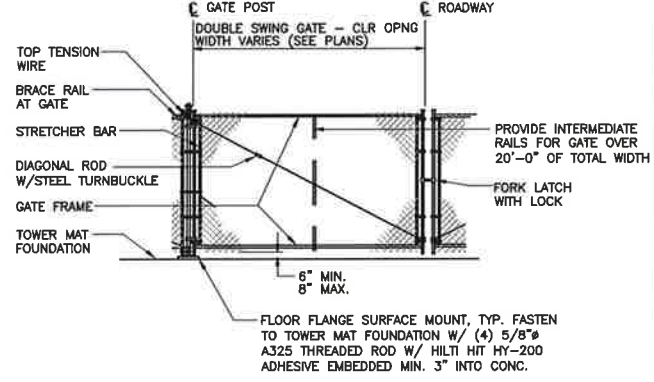
- GATE POST, CORNER, TERMINAL OR PULL POST 2 1/2" # SCHEDULE 40 FOR GATE WIDTHS UP THRU 6 FEET OR 12 FEET FOR DOUBLE SWING GATE PER ASTM-F1083.
- LINE POST: 2" # SCHEDULE 40 PIPE PER ASTM-F1083.
- GATE FRAME: 1 1/2" # SCHEDULE 40 PIPE PER ASTM-F1083.
- TOP RAIL & BRACE RAIL: 1 1/2" # SCHEDULE 40 PIPE PER ASTM-F1083.
- FABRIC: 12 GA. CORE WIRE SIZE 1-1/4" MESH, CONFORMING TO ASTM-A392.
- TIE WIRE: MINIMUM 11 GA. GALVANIZED STEEL AT POSTS AND RAILS A SINGLE WRAP OF FABRIC TIE AND AT TENSION WIRE BY HOG RINGS SPACED MAX 24" INTERVALS.
- TENSION WIRE: 7 GA. GALVANIZED STEEL.
- GATE LATCH: DROP DOWN LOCKABLE FORK LATCH AND LOCK, KEYED ALIKE FOR ALL SITES IN A GIVEN MTA.
- LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED WITH IF REQUIRED.
- HEIGHT = 8' VERTICAL.
- PRIVACY SCREENING: 8' TALL BLACK MESH PRIVACY SCREENING (95% SIGHT BLOCK).



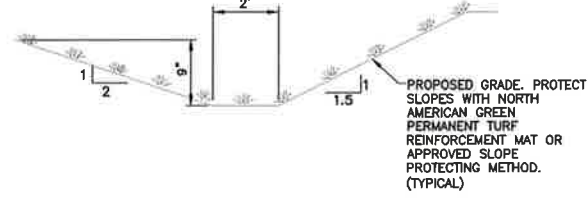
6 LEVEL SPREADER SECTION
C-4 NOT TO SCALE



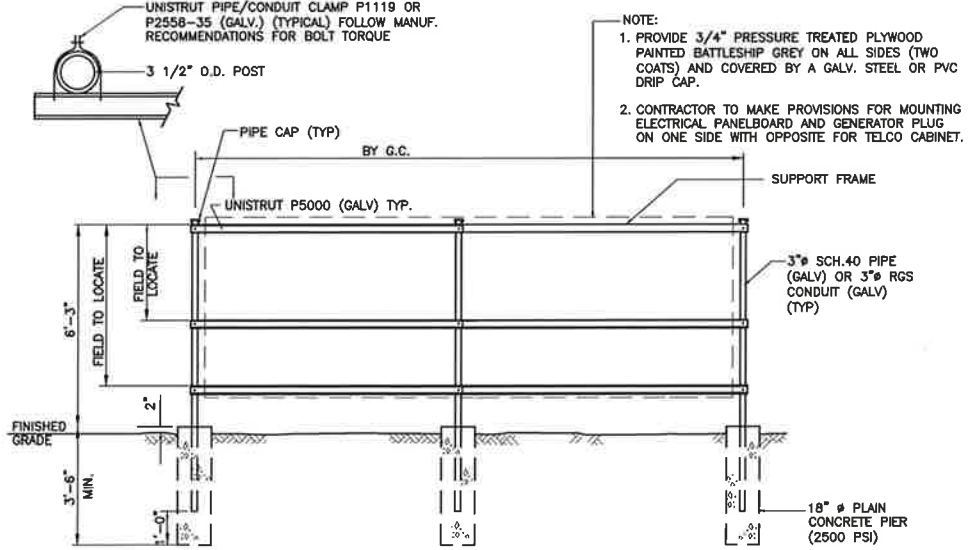
4 ICE BRIDGE DETAIL
C-4 NOT TO SCALE



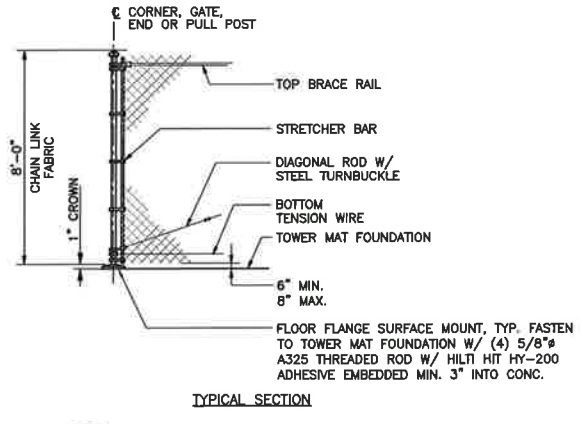
1A WOVEN WIRE SWING GATE-DOUBLE
C-4 NOT TO SCALE



5 TYPICAL SWALE SECTION
C-4 NOT TO SCALE



3 UTILITY SUPPORT FRAME (TYP)
C-4 NOT TO SCALE



1 WOVEN WIRE FENCE DETAIL
C-4 NOT TO SCALE

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DRAINAGE CONTROL AND SITE DETAILS	
C-4	
Sheet No. 8 of 8	

PROFESSIONAL ENGINEER SEAL	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
	08/23/16	MMR	CFC	D&M PLANS - REVISED PER CLIENT COMMENTS
	08/09/16	MMR	DMB	D&M PLANS
	05/10/16	MMR	DMB	D&M PLANS - ISSUED FOR CLIENT REVIEW

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ENVIRONMENTAL NOTES

EASTERN BOX TURTLE, WOOD TURTLE AND WETLAND PROTECTION PROGRAM

EASTERN BOX TURTLE AND WOOD TURTLE, BOTH STATE SPECIAL CONCERN SPECIES AFFORDED PROTECTION UNDER THE CONNECTICUT ENDANGERED SPECIES ACT, ARE KNOWN TO OCCUR WITHIN THE VICINITY OF THE SITE. THE FOLLOWING RARE SPECIES PROTECTIVE MEASURES SATISFY REQUIREMENTS FROM THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION (CTDEEP) WILDLIFE DIVISION IN ACCORDANCE WITH THEIR LETTER DATED FEBRUARY 8, 2016. THE RARE SPECIES PORTION OF THIS PROTECTION PLAN IS VALID UNTIL MAY 24, 2017, AT WHICH POINT IF CONSTRUCTION HAS NOT BEEN INITIATED A NEW NATURAL DIVERSITY DATA BASE REVIEW REQUEST FROM CTDEEP IS REQUIRED.

IN ADDITION, THE PROPOSED PROJECT IS LOCATED IN CLOSE PROXIMITY TO WETLAND RESOURCE AREAS. AS A RESULT, THE FOLLOWING PROTECTIVE MEASURES INCLUDE PROTOCOLS TO BE FOLLOWED TO HELP AVOID POTENTIAL DEGRADATION OF NEARBY WETLAND/WATERCOURSE RESOURCES DURING CONSTRUCTION ACTIVITIES.

BOG TURTLE, A FEDERALLY THREATENED AND STATE ENDANGERED SPECIES, IS KNOWN TO OCCUR IN THE VICINITY OF THE PROJECT AREA. ALTHOUGH IT IS UNLIKELY THAT BOG TURTLE WOULD BE ENCOUNTERED DURING CONSTRUCTION, THE TURTLE AND WETLAND PROTECTION MEASURES CONTAINED HEREIN WILL AFFORD PROTECTION TO BOG TURTLE AND ITS NEARBY HABITAT.

IT IS OF THE UTMOST IMPORTANCE THAT THE CONTRACTOR COMPLIES WITH THE REQUIREMENT FOR IMPLEMENTATION OF THESE PROTECTIVE MEASURES AND THE EDUCATION OF ITS EMPLOYEES AND SUBCONTRACTORS PERFORMING WORK ON THE PROJECT SITE. THE RARE SPECIES PORTION OF THIS PROTECTION PLAN SHALL BE IMPLEMENTED IF WORK WILL OCCUR DURING THE TURTLE'S ACTIVE PERIODS (APRIL 1 TO NOVEMBER 15). THE WETLAND PROTECTION PORTION OF THIS PLAN SHALL BE IMPLEMENTED REGARDLESS OF THE TIME OF YEAR. 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 AND WILL PROVIDE AN EDUCATION SESSION ON RARE SPECIES THAT MAY BE ENCOUNTERED AND THE PROJECT'S PROXIMITY TO SENSITIVE WETLAND RESOURCES PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CONTACT DEAN GUSTAFSON, SENIOR ENVIRONMENTAL SCIENTIST AT APT, AT LEAST 5 BUSINESS DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING. MR. GUSTAFSON CAN BE REACHED BY PHONE AT (860) 663-1697 EXT. 201 OR VIA EMAIL AT DGUSTAFSON@ALLPOINTSTECH.COM.

THE PROPOSED PROTECTION PROGRAM CONSISTS OF SEVERAL COMPONENTS: EDUCATION OF ALL CONTRACTORS AND SUB-CONTRACTORS PRIOR TO INITIATION OF WORK ON THE SITE; PROTECTIVE MEASURES; PERIODIC INSPECTION OF THE CONSTRUCTION PROJECT; AND, REPORTING.

1. ISOLATION MEASURES & SEDIMENTATION AND EROSION 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, BUT PARTICULARLY SNAKES. NO PERMANENT EROSION CONTROL PRODUCTS OR REINFORCED SILT FENCE WILL BE USED ON THE VERIZON WIRELESS 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 (NETLESS) OR NETTING COMPOSED OF PLANAR WOVEN NATURAL BIODEGRADABLE FIBER TO AVOID/MINIMIZE WILDLIFE ENTANGLEMENT.

b. INSTALLATION OF SEDIMENTATION AND EROSION CONTROLS, REQUIRED FOR EROSION CONTROL COMPLIANCE AND CREATION OF A BARRIER TO POSSIBLE MIGRATING/DISPERSING TURTLES, SHALL BE PERFORMED BY THE CONTRACTOR FOLLOWING CLEARING ACTIVITIES AND PRIOR TO ANY EARTHWORK. THE ENVIRONMENTAL MONITOR WILL INSPECT THE WORK ZONE AREA PRIOR TO AND FOLLOWING EROSION CONTROL BARRIER INSTALLATION TO ENSURE THE AREA IS FREE OF EASTERN BOX TURTLE AND WOOD TURTLE AND DOCUMENT BARRIERS HAVE BEEN SATISFACTORILY INSTALLED. THE INTENT OF THE BARRIER IS TO SEGREGATE THE MAJORITY OF THE WORK ZONE AND ISOLATE IT FROM FORAGING/MIGRATING/DISPERSING TURTLES, SNAKES AND OTHER HERPETOFAUNA. OFTEN TIMES COMPLETE ISOLATION OF A WORK ZONE IS NOT FEASIBLE DUE TO ACCESSIBILITY NEEDS AND LOCATIONS OF STAGING/MATERIAL STORAGE AREAS, ETC. IN ADDITION, THE PROJECT'S LOCATION ON A CLOSED AND CAPPED LANDFILL LIMITS THE DEPTH OF SOIL DISTURBANCE SO AS NOT TO BREACH THE CAP. ALTHOUGH THE BARRIERS MAY NOT COMPLETELY ISOLATE THE WORK ZONE, THEY WILL BE POSITIONED TO DEFLECT MIGRATING/DISPERSAL ROUTES AWAY FROM THE WORK ZONE TO MINIMIZE POTENTIAL ENCOUNTERS WITH TURTLES, SNAKES AND OTHER HERPETOFAUNA.

c. THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTIONS OF THE SEDIMENTATION AND EROSION CONTROLS FOR TEARS OR BREECHEES AND ACCUMULATION LEVELS OF SEDIMENT, PARTICULARLY FOLLOWING STORM EVENTS THAT GENERATE A DISCHARGE. APT WILL PROVIDE PERIODIC INSPECTIONS OF THE SEDIMENTATION AND EROSION CONTROLS THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES ONLY AS IT PERTAINS TO PROTECTION OF RARE SPECIES AND NEARBY WETLANDS. THIRD PARTY MONITORING OF SEDIMENTATION AND EROSION CONTROLS WILL BE PERFORMED BY OTHER PARTIES, AS NECESSARY, UNDER APPLICABLE LOCAL, STATE AND/OR FEDERAL REGULATIONS.

d. THE EXTENT OF THE SEDIMENTATION AND EROSION CONTROLS WILL BE AS SHOWN ON THE SITE PLANS. THE CONTRACTOR SHALL HAVE ADDITIONAL SEDIMENTATION AND EROSION CONTROLS STOCKPILED ON SITE SHOULD FIELD OR CONSTRUCTION CONDITIONS WARRANT EXTENDING THE CONTROLS AS DIRECTED BY APT.

e. NO EQUIPMENT, VEHICLES OR CONSTRUCTION MATERIALS SHALL BE STORED OUTSIDE OF THE SEDIMENTATION AND EROSION CONTROLS WITHIN 100 FEET OF WETLANDS OR WATERCOURSES.

f. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE REMOVED WITHIN 30 DAYS OF COMPLETION OF WORK AND PERMANENT STABILIZATION OF SITE SOILS SO THAT REPTILE AND AMPHIBIAN MOVEMENT BETWEEN UPLANDS AND WETLANDS IS NOT RESTRICTED.

2. 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 PROVIDING PHOTOS OF EASTERN BOX TURTLE, WOOD TURTLE AND BOG TURTLE EMPHASIZING THE NON-AGGRESSIVE NATURE OF THESE SPECIES, THE ABSENCE OF NEED TO DESTROY ANIMALS THAT MIGHT BE ENCOUNTERED AND THE NEED TO FOLLOW PROTECTIVE MEASURES AS DESCRIBED IN SECTION 4 BELOW. WORKERS WILL ALSO BE PROVIDED INFORMATION REGARDING THE IDENTIFICATION OF OTHER TURTLES, SNAKES AND COMMON HERPETOFAUNA SPECIES THAT COULD BE ENCOUNTERED.

b. THE EDUCATION SESSION WILL ALSO FOCUS ON MEANS TO DISCRIMINATE BETWEEN THE SPECIES OF CONCERN AND OTHER NATIVE SPECIES TO AVOID UNNECESSARY "FALSE ALARMS". ENCOUNTERS WITH ANY SPECIES OF TURTLES OR SNAKES WILL BE DOCUMENTED.

c. THE CONTRACTOR WILL BE PROVIDED WITH CELL PHONE AND EMAIL CONTACTS FOR APT PERSONNEL TO IMMEDIATELY REPORT ANY ENCOUNTERS WITH EASTERN BOX TURTLE, WOOD TURTLE, BOG TURTLE OR OTHER SPECIES. EDUCATIONAL POSTER MATERIALS WILL BE PROVIDED BY APT AND DISPLAYED ON THE JOB SITE TO MAINTAIN WORKER AWARENESS AS THE PROJECT PROGRESSES.

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 TO AVOID POSSIBLE IMPACT TO NEARBY HABITATS.

b. A SPILL CONTAINMENT KIT CONSISTING OF A SUFFICIENT SUPPLY OF ABSORBENT PADS AND ABSORBENT MATERIAL WILL 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. THE FOLLOWING PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING RESTRICTIONS AND SPILL RESPONSE PROCEDURES WILL BE ADHERED TO BY THE CONTRACTOR.

c.a. PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING

c.a.a. 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.
 c.a.b. ANY FUEL OR HAZARDOUS MATERIALS THAT MUST BE KEPT ON SITE SHALL BE STORED ON AN IMPERVIOUS SURFACE UTILIZING SECONDARY CONTAINMENT A MINIMUM OF 100 FEET FROM WETLANDS OR WATERCOURSES.

c.b. INITIAL SPILL RESPONSE PROCEDURES

c.b.a. STOP OPERATIONS AND SHUT OFF EQUIPMENT.
 c.b.b. REMOVE ANY SOURCES OF SPARK OR FLAME.
 c.b.c. CONTAIN THE SOURCE OF THE SPILL.
 c.b.d. DETERMINE THE APPROXIMATE VOLUME OF THE SPILL.
 c.b.e. IDENTIFY THE LOCATION OF NATURAL FLOW PATHS TO PREVENT THE RELEASE OF THE SPILL TO SENSITIVE NEARBY WATERWAYS OR WETLANDS.
 c.b.f. ENSURE THAT FELLOW WORKERS ARE NOTIFIED OF THE SPILL.

c.c. SPILL CLEAN UP & CONTAINMENT

c.c.a. OBTAIN SPILL RESPONSE MATERIALS FROM THE ON-SITE SPILL RESPONSE KIT. PLACE ABSORBENT MATERIALS DIRECTLY ON THE RELEASE AREA.
 c.c.b. LIMIT THE SPREAD OF THE SPILL BY PLACING ABSORBENT MATERIALS AROUND THE PERIMETER OF THE SPILL.
 c.c.c. ISOLATE AND ELIMINATE THE SPILL SOURCE.
 c.c.d. CONTACT THE APPROPRIATE LOCAL, STATE AND/OR FEDERAL AGENCIES, AS NECESSARY.
 c.c.e. CONTACT A DISPOSAL COMPANY TO PROPERLY DISPOSE OF CONTAMINATED MATERIALS.

c.d. REPORTING

c.d.a. COMPLETE AN INCIDENT REPORT.
 c.d.b. SUBMIT A COMPLETED INCIDENT REPORT TO THE TOWN OF CHESHIRE.

4. SPECIES PROTECTIVE MEASURES

a. PRIOR TO THE START OF CONSTRUCTION EACH DAY, THE CONTRACTOR SHALL SEARCH THE ENTIRE WORK AREA FOR TURTLES.

b. IF A TURTLE IS FOUND, IT SHALL BE IMMEDIATELY MOVED, UNHARMED, BY CAREFULLY GRASPED IN BOTH HANDS, ONE ON EACH SIDE OF THE SHELL, BETWEEN THE TURTLE'S FORELIMBS AND THE HIND LIMBS, AND PLACED JUST OUTSIDE OF THE ISOLATION BARRIER IN THE SAME APPROXIMATE DIRECTION IT WAS WALKING.

c. SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR DURING EARLY MORNING AND EVENING HOURS SO THAT POSSIBLE BASKING OR FORAGING TURTLES ARE NOT HARMED BY CONSTRUCTION ACTIVITIES.

5. HERBICIDE AND PESTICIDE RESTRICTIONS

a. THE USE OF HERBICIDES AND PESTICIDES AT THE PROPOSED SOLAR FACILITY SHALL BE AVOIDED WHEN POSSIBLE. IN THE EVENT HERBICIDES AND/OR PESTICIDES ARE REQUIRED AT THE PROPOSED FACILITY, THEIR USE WILL BE USED IN ACCORDANCE WITH INTEGRATED PEST MANAGEMENT ("IPM") PRINCIPLES WITH PARTICULAR ATTENTION TO MINIMIZE APPLICATIONS WITHIN 100 FEET OF WETLAND OR WATERCOURSE RESOURCES. NO APPLICATIONS OF HERBICIDES OR PESTICIDES ARE ALLOWED WITHIN ACTUAL WETLAND OR WATERCOURSE RESOURCES.

6. REPORTING

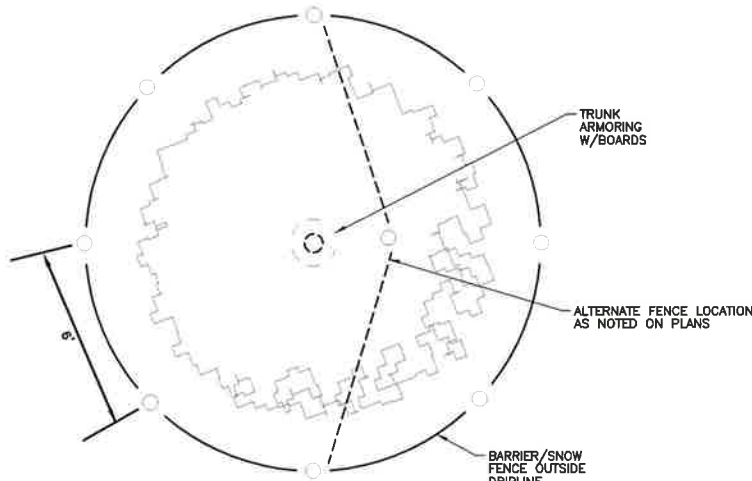
a. DAILY COMPLIANCE MONITORING REPORTS (BRIEF NARRATIVE AND APPLICABLE PHOTOS) DOCUMENTING EACH APT INSPECTION WILL BE SUBMITTED BY APT TO VERIZON WIRELESS FOR COMPLIANCE VERIFICATION. ANY OBSERVATIONS OF TURTLES WILL BE INCLUDED IN THE REPORTS.

b. FOLLOWING COMPLETION OF THE CONSTRUCTION PROJECT, APT WILL PROVIDE A COMPLIANCE MONITORING SUMMARY REPORT TO VERIZON WIRELESS DOCUMENTING IMPLEMENTATION OF THE RARE SPECIES AND WETLAND PROTECTION PROGRAM, MONITORING AND ANY SPECIES OBSERVATIONS. VERIZON WIRELESS WILL PROVIDE A COPY OF THE COMPLIANCE MONITORING SUMMARY REPORT TO THE CONNECTICUT SITING COUNCIL FOR COMPLIANCE VERIFICATION.

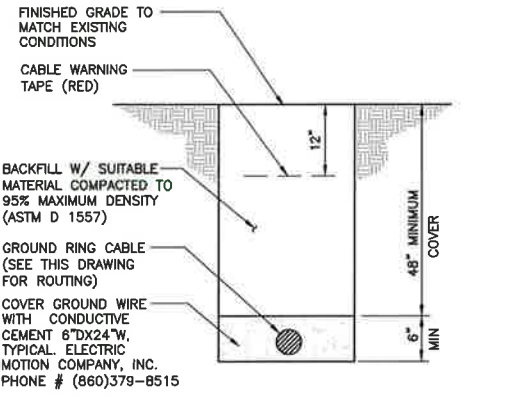
c. ANY OBSERVATIONS OF EASTERN BOX TURTLE, WOOD TURTLE OR BOG TURTLE WILL BE REPORTED TO CTDEEP BY APT, WITH PHOTO-DOCUMENTATION (IF POSSIBLE) AND WITH SPECIFIC INFORMATION ON THE LOCATION AND DISPOSITION OF THE ANIMAL.

TREE PROTECTION NOTES

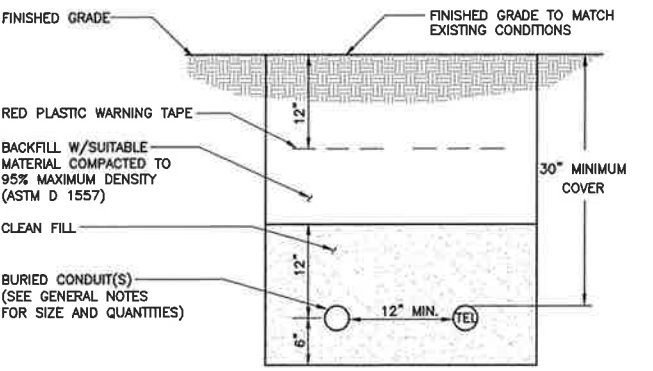
- ALL TREES SHOWN TO BE RETAINED WITHIN THE LIMITS OF CONSTRUCTION ON THE PLANS, SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING.
- TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES, LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRITICAL ROOT ZONE, WHICHEVER IS GREATER; AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
 3A. SOIL COMPACTION IN CRITICAL ROOT ZONE AREA RESULTING FROM STORAGE OF EQUIPMENT OR MATERIAL.
 3B. CRITICAL ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES OR TRENCHING.
 3C. WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT.
 3D. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CONCRETE TRUCK CLEANING, AND FIRES.
- WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE THAT IS CLOSER THAN 5 FEET TO A TREE TRUNK, THE TRUNK SHALL BE PROTECTED BY STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
- WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES UNDER THE DRIPLINE OR CRITICAL ROOT ZONE WHICHEVER IS GREATER, THOSE AREAS SHOULD BE COVERED WITH 4 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
- ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO 2 FEET BEHIND THE GRADE CHANGE AREA.
- ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH GOOD QUALITY TOP SOIL WITHIN TWO DAYS. IF EXPOSED ROOT AREAS CANNOT BE BACKFILLED WITHIN 2 DAYS, AN ORGANIC MATERIAL WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION SHALL BE PLACED TO COVER THE ROOTS UNTIL BACKFILL CAN OCCUR.
- PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, A CLEAN CUT SHALL BE MADE WITH A ROCK SAW OR SIMILAR EQUIPMENT, IN A LOCATION AND TO A DEPTH APPROVED BY THE FORESTRY MANAGER, TO MINIMIZE DAMAGE TO REMAINING ROOTS.
- TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES WILL BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS ARE TO BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON LEAVES.
- NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRITICAL ROOT ZONE OF TREES, WHICHEVER IS GREATER. NO TOPSOIL IS PERMITTED ON ROOT FLARES OF ANY TREE.



3 TREE PROTECTION DETAIL
 C-5 NOT TO SCALE



2 TYPICAL BURIAL GROUND CABLE DETAIL
 C-5 NOT TO SCALE



1 TYPICAL ELECTRICAL/TEL TRENCH DETAIL
 C-5 NOT TO SCALE

PROFESSIONAL ENGINEER SEAL	DATE	04/12/16
verizon	SCALE:	AS NOTED
	JOB NO.	14216.000
CENTEK engineering <small>Continued Solutions</small>	SITE DETAILS	
	BETHEL W2 15 GREAT PASTURE ROAD DANBURY, CT 06810	
Cellco Partnership d/b/a Verizon Wireless <small>WIRELESS COMMUNICATIONS FACILITY</small>	C-5 Sheet No. 7 of 8	

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
2	08/23/16	HMR	CFC	DAM PLANS - REVISED PER CLIENT COMMENTS
1	06/08/16	HMR	DMD	DAM PLANS - ISSUED FOR CLIENT REVIEW
0	05/10/16	RAW/R	DMD	DAM PLANS - ISSUED FOR CLIENT REVIEW

PROFESSIONAL ENGINEER SEAL



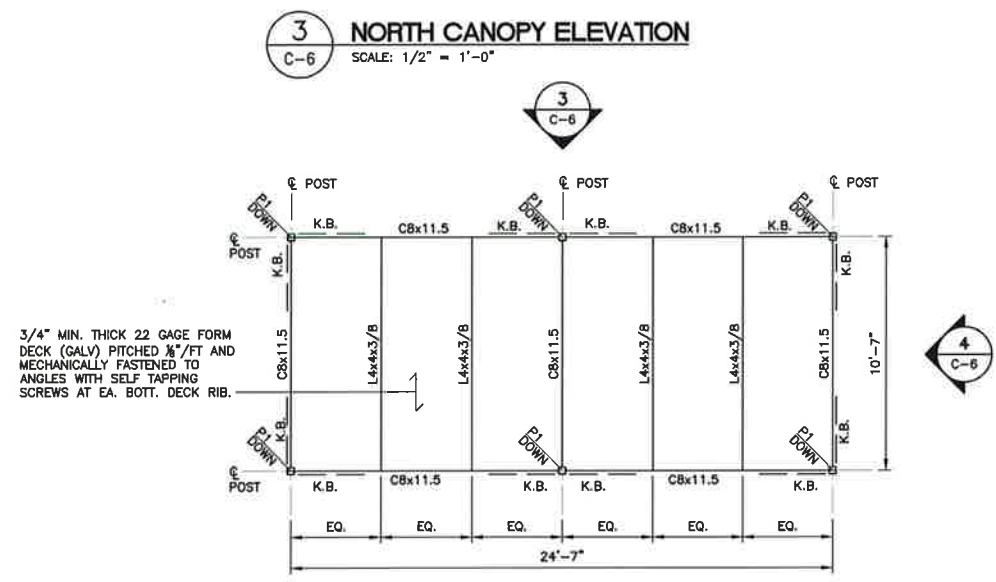
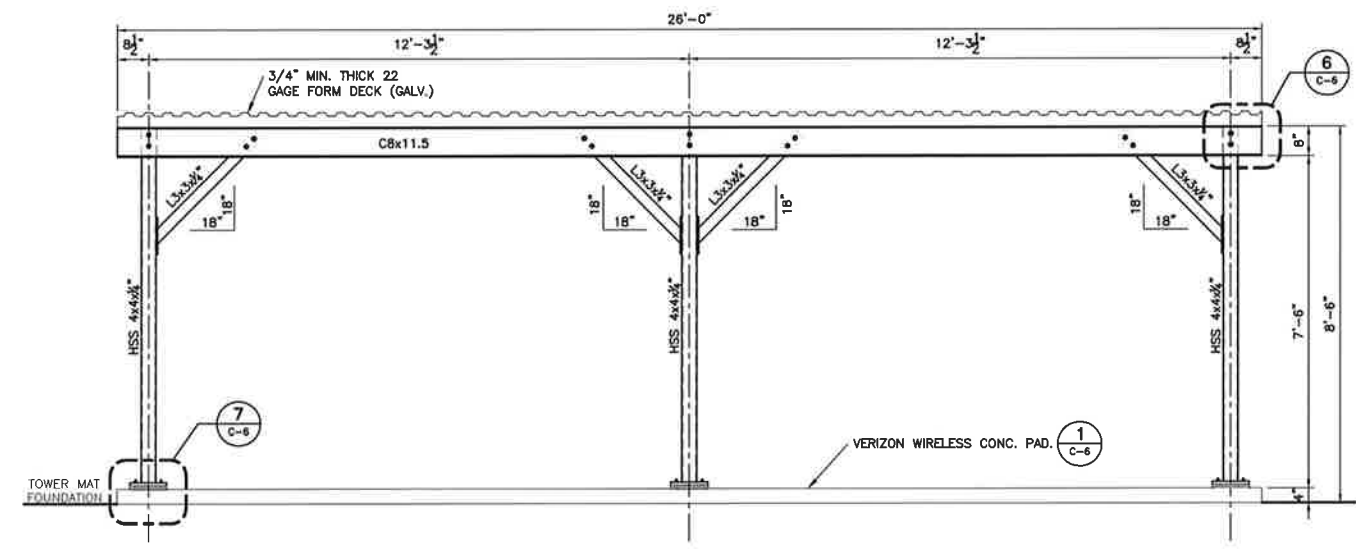
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 WIRELESS COMMUNICATIONS FACILITY
BETHEL W2
 15 GREAT PASTURE ROAD
 DANBURY, CT 06810

DATE: 04/12/16
 SCALE: AS NOTED
 JOB NO. 14216.000

EQUIPMENT
 PAD AND ICE
 CANOPY DETAILS

C-6
 Sheet No. 8 of 8



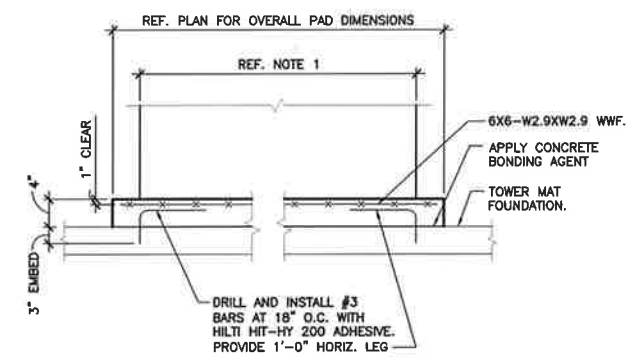
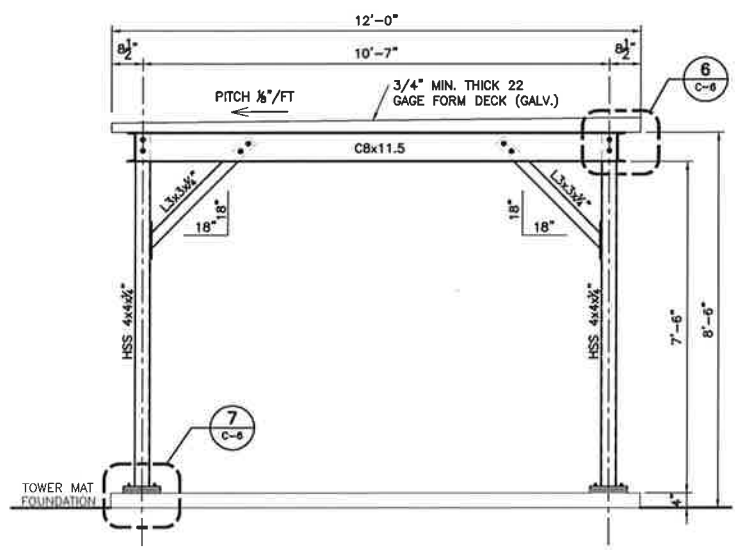
PLAN NOTES AND LEGEND

1. VERIFY ALL DIMENSIONS, ELEVATIONS, EXISTING FRAMING MEMBER SIZES AND GENERAL CONDITIONS PRIOR TO COMMENCEMENT OF WORK. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS.

□ INDICATES HSS4x4x1/4 ASTM A500 GR. B (F_y = 48ksi) STEEL POST.

↔ INDICATES SPAN DIRECTION.

K.B. INDICATES L3x3x1/4 ASTM A36 (F_y=36 KSI) STEEL ANGLE



NOTES:

- ATTACHMENT OF EQUIPMENT TO PAD SHALL BE PER MANUFACTURER'S REQUIREMENTS.
- COORDINATE WITH CIVIL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR QUANTITY, SIZE AND LOCATION OF EQUIPMENT.

