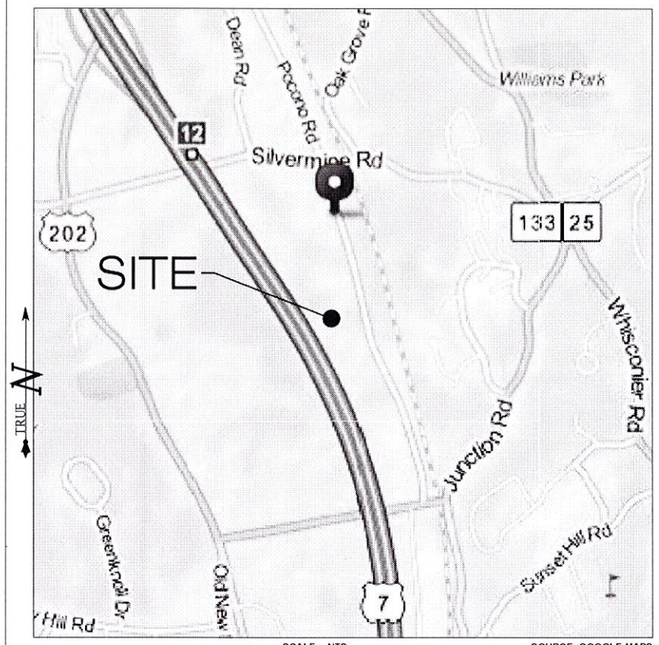
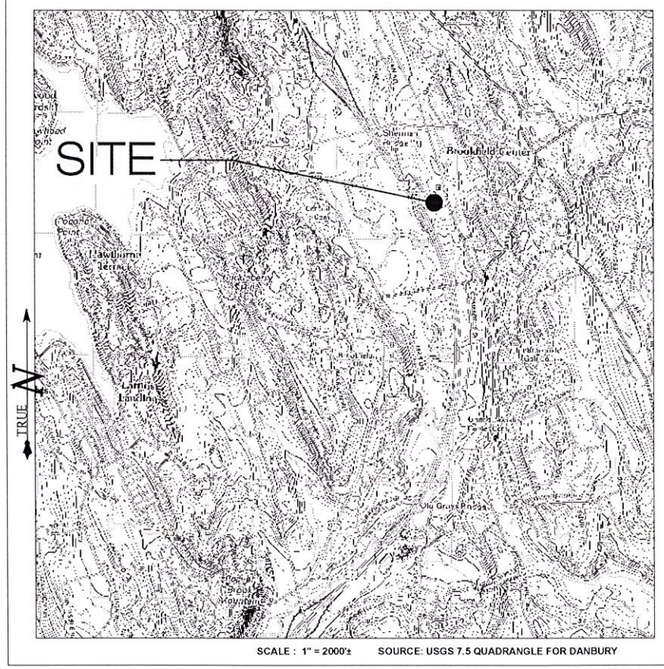
LOCATION MAP



SCALE : NTS SOURCE: GOOGLE MAPS

USGS TOPOGRAPHIC MAP



SCALE : 1" = 2000'± SOURCE: USGS 7.5 QUADRANGLE FOR DANBURY

Cellco Partnership d/b/a
verizon wireless
99 EAST RIVER DRIVE
9TH FLOOR
EAST HARTFORD, CT 06108

HOMELAND TOWERS

22 SHELTER ROCK LANE
BUILDING C
DANBURY, CT 06810
(203) 297-6345

DEVELOPMENT & MANAGEMENT PLAN
DRAWING INDEX

*SITE INFORMATION:

-SITE NAME:..... BROOKFIELD
-SITE ID NUMBER:..... CT-777
-SITE ADDRESS:..... 100 POCONO ROAD
BROOKFIELD, CT 06804
-MAP:..... E10
-LOTS:..... 014

-ZONE:..... IRC 80/40 & R-40
-LATITUDE - ..... 41° 27' 46.62" N
-LONGITUDE - ..... 73° 23' 53.78" W
-ELEVATION - ..... 337'± AMSL
-FEMA/FIRM
DESIGNATION:..... PANEL#09001C0134F - ZONE X
-ACREAGE:..... 43.28± Ac (VOL. 137, PAGE 1144)

ALL-POINTS
TECHNOLOGY CORPORATION
3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419
WWW.ALLPOINTSTECH.COM
PHONE: (860)-663-1697
FAX: (860)-663-0935

CONTACT PERSONNEL

APPLICANTS:
HOMELAND TOWERS
22 SHELTER ROCK LANE
BUILDING C
DANBURY, CONNECTICUT 06810

CO-APPLICANTS
CELLCO PARTNERSHIP D/B/A
VERIZON WIRELESS
99 EAST RIVER DRIVE - 9TH FLOOR
EAST HARTFORD, CT 06108

LANDLORD
TOWN OF BROOKFIELD
TOWN HALL COMPLEX
PO BOX 5106
BROOKFIELD, CT 06804

HOMELAND PROJECT MANAGER:
RAYMOND VERGATI
(203) 297-6345

HOMELAND PROJECT ATTORNEY:
ROBINSON & COLE, LLP
280 TRUMBULL STREET
HARTFORD, CT 06103

POWER PROVIDER:
EVERSOURCE (203) 270-5808
ROBERT RONCARTI - CASE #2511619

TELCO PROVIDER:
FRONTIER: (800) 921-8102

CALL BEFORE YOU DIG:
(800) 922-4455

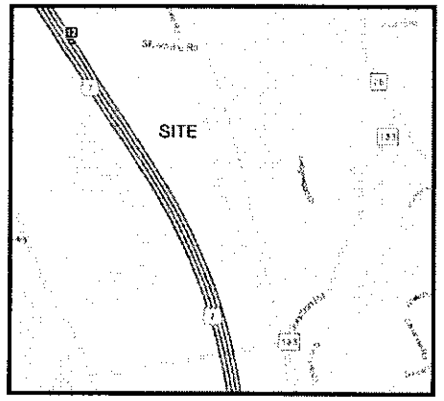
GOVERNING CODES:
STATE OF CONNECTICUT BUILDING CODE, LATEST EDITION
NATIONAL ELECTRIC CODE, LATEST EDITION
EIA/TIA 222G

SITE INFORMATION

BROOKFIELD
100 POCONO ROAD
BROOKFIELD, CT 06804

DEVELOPMENT & MANAGEMENT DOCUMENTS	TITLE SHEET & INDEX
BROOKFIELD 100 POCONO ROAD BROOKFIELD, CT 06804	
DESIGN TYPE: RAW LAND	APT FILING NUMBER: CT777
REVISIONS:	APT DRAWING NUMBER: CT-777
REV.0: 01/13/17: FOR REVIEW: RCB	DRAWN BY: RCB SCALE: AS NOTED
REV.1:	CHECKED BY: SMC DATE: 01/06/17
REV.2:	SHEET NUMBER:
REV.3:	T-1
REV.4:	
REV.5:	
REV.6:	
REV.7:	

STATE OF CONNECTICUT
SCOTT M. CHOATE
28
REGISTERED
PROFESSIONAL ENGINEER



LOCATION MAP

NOT TO SCALE

GENERAL NOTES

1. A) THIS MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

   B) THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2 AND A TOPOGRAPHIC ACCURACY OF T-2.

   C) THE TYPE OF SURVEY PERFORMED IS A TOPOGRAPHIC SURVEY AND IS INTENDED TO DEPICT THE EXISTING CONDITIONS WITH RESPECT TO MONUMENTATION FOUND, STRUCTURES, VISIBLE UTILITIES, ROADWAYS AND CONTOURS.

2. NORTH ARROW REFERS TO NAD 83 USING GPS METHODS.
3. ELEVATIONS REFER TO NAVD 88 USING GPS METHODS.
4. PARCEL IS LOCATED IN A FLOOD ZONE X, (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DEPICTED ON F.I.R.M. MAP NO. 09001C0134F PANEL 134 OF 626 EFFECTIVE DATE: JUNE 18, 2010.
5. THE UNDERGROUND UTILITIES DEPICTED HAVE BEEN PLOTTED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES DEPICTED ARE IN THE EXACT LOCATION INDICATED THOUGH THEY ARE PLOTTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY EXPOSED THE UNDERGROUND UTILITIES. PER CONNECTICUT STATE LAW THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION. CALL BEFORE YOU DIG 1-800-922-4455.
6. WETLAND LOCATIONS PROVIDED BY ALL-POINTS TECHNOLOGY CORPORATION ON MAY 11, 2015.

LEGEND

Property Line	
Treeline	
Major Contour	
Minor Contour	
Stone Wall	
Guide Rail	
Fence	
Overhead Wires	
Underground Electric Line	
Sanitary Sewer	
Storm Sewer	
Handhole	
Electric Meter	
Utility Pole	
Utility Pole w/ Light	
Light Pole	
Gas Valve	
Cleanout	
Catch Basin	
Manhole	
Fire Hydrant	
Water Valve	
Sign	
Bollard	
Deciduous Tree	
Coniferous Tree	

GRAPHIC SCALE

30 15 0 30

SCALE IN FEET

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

ROBERT H. ROPER L.S. #18469

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR.

BL Companies

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

HOMELAND TOWERS: CT777 - BROOKFIELD

100 POCONO ROAD

TOWN OF BROOKFIELD, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS

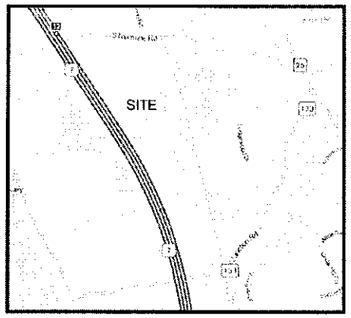
No.	Date	Desc.
1.	05/12/15	Additional Topography
2.	05/28/15	Revise Boundary Line

Surveyed	TDH
Drawn	EEB
Checked	TDH
Approved	RHR
Scale	1" = 30'
Project No.	1552629
Date	05/01/15
Field Book	TDH

CAD File: EX15S262901

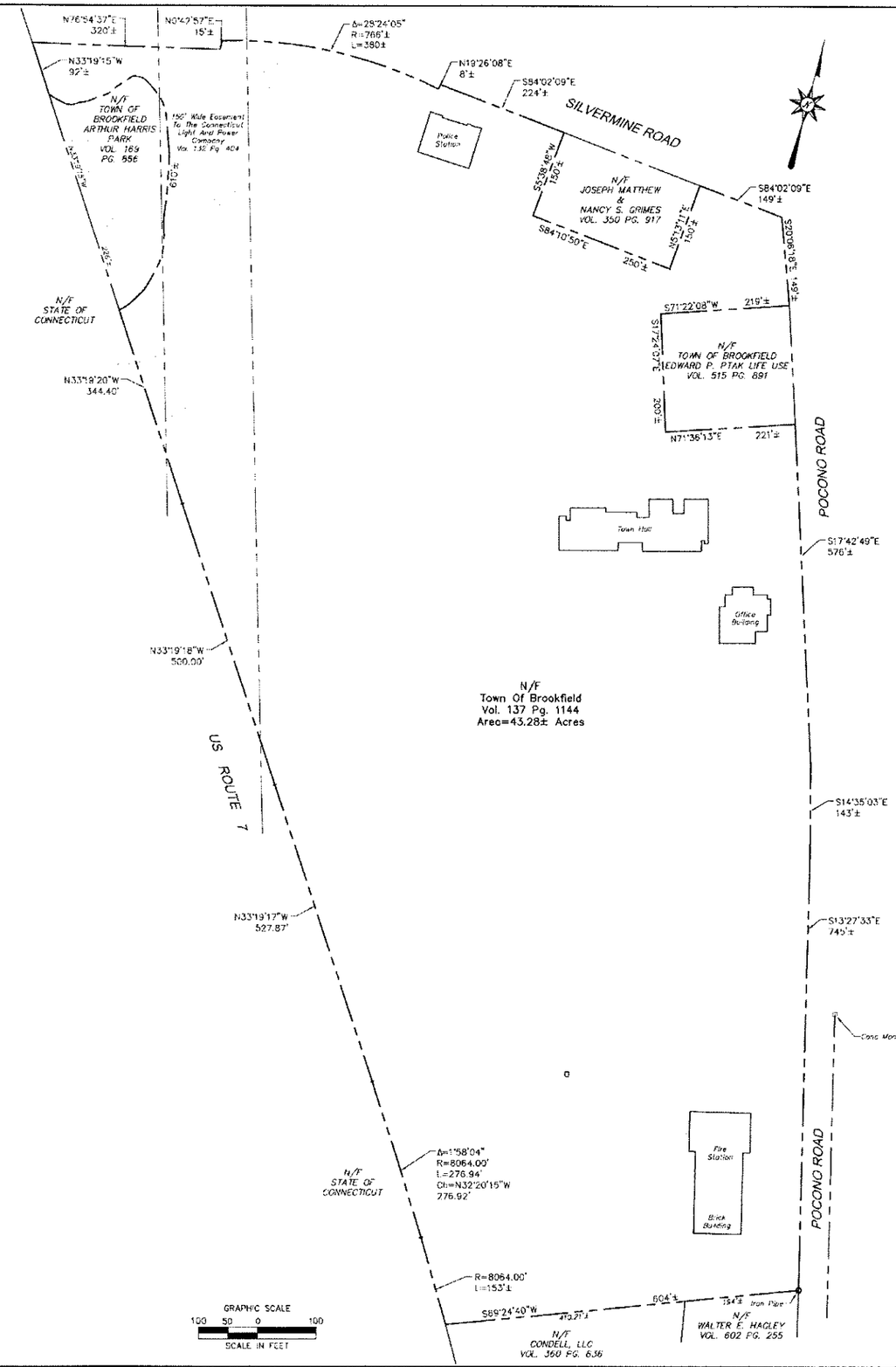
Title: Partial Topographic Survey

Sheet No. EX-1



LOCATION MAP

NOT TO SCALE



GRAPHIC SCALE

100 50 0 100

SCALE IN FEET

GENERAL NOTES

1. A) THIS MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

   B) THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS D.

   C) THIS MAP WAS COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

2. NORTH ARROW REFERS TO NAD 83 USING GPS METHODS.

3. REFERENCE IS MADE TO THE THE FOLLOWING MAPS:
   A. "TOWN OF BROOKFIELD MAP SHOWING LAND TO BE CONVEYED TO UPS TRIPLET PLAN CORPORATION POCONO ROAD, BROOKFIELD, CONNECTICUT" SCALE: 1"=40' DATE: 8/14/81 PREPARED BY CARROCCIO-COVELL & ASSOCIATES, INC., BROOKFIELD, CONN. AND FILED IN THE TOWN CLERK'S OFFICE AS MAP BOOK 19 AT PAGE 10.

   B. "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP TOWN OF BROOKFIELD FROM THE DANBURY TOWN LINE NORTHERLY TO THE DANBURY – NEW MILFORD ROAD", STAMPED PRELIMINARY, SCALE 1"=80', NUMBER 16-08, SHEET NO. 6 OF 8 & 7 OF 8.

4. PARCEL IS ALSO SUBJECT TO THE FOLLOWING:

   VOL. 137 AT PAGE 1144, RESTRICTIVE COVENANTS.
   VOL. 101 AT PAGE 941, SLOPE EASEMENT TO THE STATE OF CONNECTICUT AND A 125' WIDE EASEMENT TO THE CONNECTICUT LIGHT AND POWER COMPANY.
   VOL. 132 AT PAGE 404, RIGHTS AND A 150' WIDE EASEMENT TO THE CONNECTICUT LIGHT AND POWER COMPANY.
   VOL. 314 AT PAGE 982, OPEN SPACE GRANT AND IMPROVEMENTS TO THE TOWN HALL RECREATION AREA.
   VOL. 591 AT PAGE 614, USE RESTRICTIONS INCLUDING THOSE SET FORTH IN VOL. 137 AT PAGE 1144.

5. PORTIONS OF THE PARCEL ARE LOCATED IN THE FOLLOWING FLOOD HAZARD AREAS: ZONE X, ZONE 'X SHADED & ZONE AE AS DEPICTED ON F.I.R.M. COMMUNITY PANEL NO. 09001C0134F PANEL 134 OF 626 EFFECTIVE DATE: JUNE 18, 2010.

LEGEND

- Property Line
- Easement Line
- Stone Wall
- Fence
- Utility Pole
- Light Pole
- Catch Basin
- Manhole
- Fire Hydrant
- Water Valve
- Deciduous Tree
- Coniferous Tree

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

ROBERT H. ROPER L.S. #8469

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR.

BL Companies

ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2618 Fax

HOMELAND TOWERS: CT777 - BROOKFIELD

TOWN OF BROOKFIELD

100 POCONO ROAD

BROOKFIELD, FAIRFIELD COUNTY, CONNECTICUT

REVISIONS		
No.	Date	Desc.

Surveyed	RDH
Drawn	TRHR
Checked	RDH
Approved	R+R
Scale	1" = 100'
Project No.	1552629
Date	06/24/2015
Field Book	
CAD File:	EX1552629.02

Title

COMPILATION PLAN

Sheet No.

EX-2

SITE AREAS & VOLUMES OF EARTHWORK

SITEWORK SHALL PRODUCE A BALANCED SITE IN TERMS OF CUT AN FILL. THE COMPOUND AND ROADWAY WILL IMPORT APPROXIMATELY 170 CUBIC YARDS OF CLEAN BROKEN STONE. THE UTILITY TRENCH FROM THE DEMARC TO THE COMPOUND WILL EXCAVATE APPROXIMATELY 200 CUBIC YARDS OF MATERIAL THAT WILL BE USED TO BACKFILL THE TRENCH.

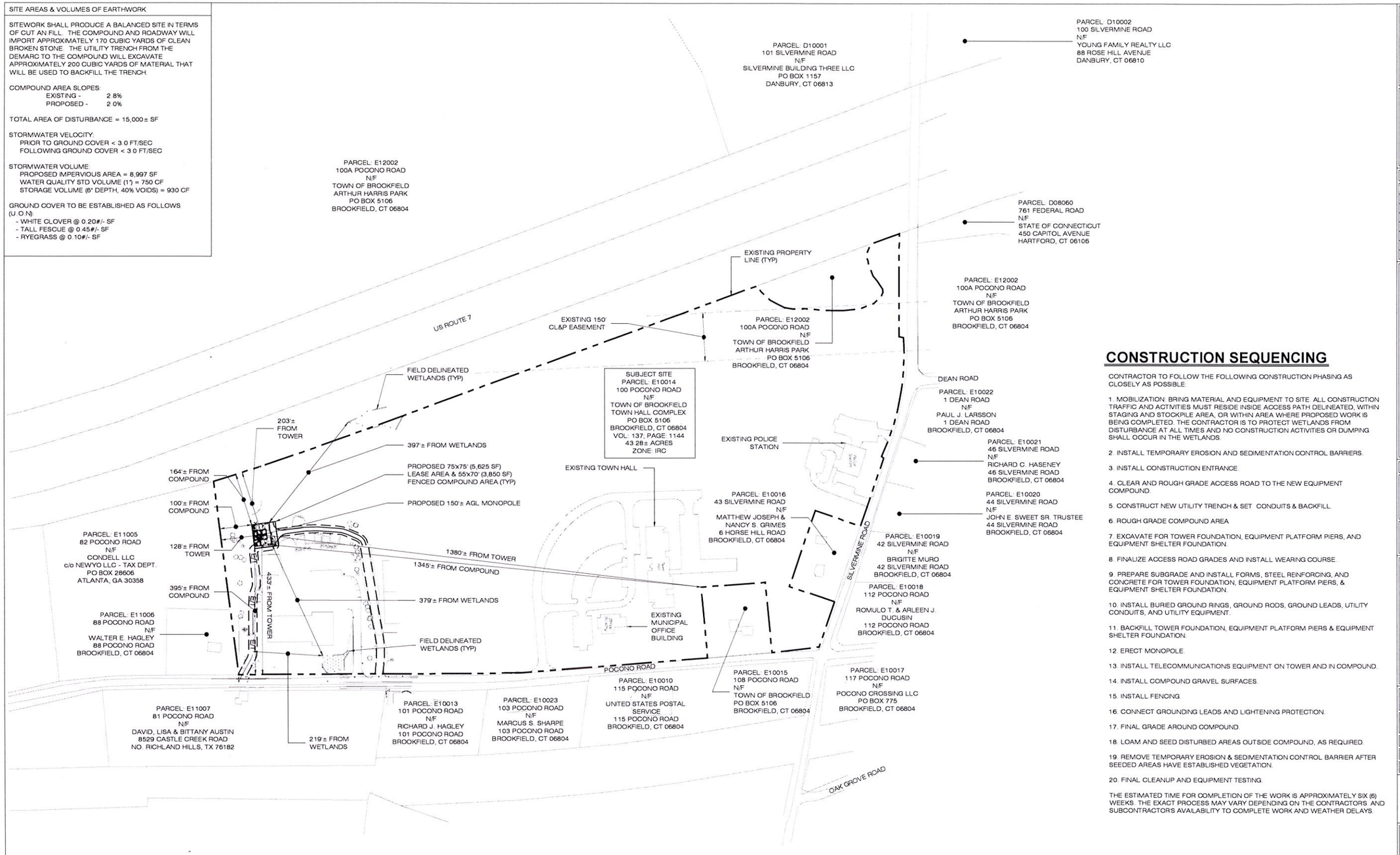
COMPOUND AREA SLOPES:
EXISTING - 2.8%
PROPOSED - 2.0%

TOTAL AREA OF DISTURBANCE = 15,000± SF

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

STORMWATER VOLUME:
PROPOSED IMPERVIOUS AREA = 8,997 SF
WATER QUALITY STD VOLUME (1") = 750 CF
STORAGE VOLUME (6" DEPTH, 40% VOIDS) = 930 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



ABUTTERS MAP

SCALE : 1" = 150'-0"

TRUE N

FULL SCALE (24"x36")
GRAPHIC SCALE
150 0 75 150 300
(IN FEET) 1 inch = 150 ft.

HALF SCALE (11"x17")
GRAPHIC SCALE
300 0 150 300 600
(IN FEET) 1 inch = 300 ft.

CONSTRUCTION SEQUENCING

CONTRACTOR TO FOLLOW THE FOLLOWING CONSTRUCTION PHASING AS CLOSELY AS POSSIBLE:

1. MOBILIZATION: BRING MATERIAL AND EQUIPMENT TO SITE. ALL CONSTRUCTION TRAFFIC AND ACTIVITIES MUST RESIDE INSIDE ACCESS PATH DELINEATED, WITHIN STAGING AND STOCKPILE AREA, OR WITHIN AREA WHERE PROPOSED WORK IS BEING COMPLETED. THE CONTRACTOR IS TO PROTECT WETLANDS FROM DISTURBANCE AT ALL TIMES AND NO CONSTRUCTION ACTIVITIES OR DUMPING SHALL OCCUR IN THE WETLANDS.

2. INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROL BARRIERS.

3. INSTALL CONSTRUCTION ENTRANCE.

4. CLEAR AND ROUGH GRADE ACCESS ROAD TO THE NEW EQUIPMENT COMPOUND.

5. CONSTRUCT NEW UTILITY TRENCH & SET CONDUITS & BACKFILL.

6. ROUGH GRADE COMPOUND AREA.

7. EXCAVATE FOR TOWER FOUNDATION, EQUIPMENT PLATFORM PIERS, AND EQUIPMENT SHELTER FOUNDATION.

8. FINALIZE ACCESS ROAD GRADES AND INSTALL WEARING COURSE.

9. PREPARE SUBGRADE AND INSTALL FORMS, STEEL REINFORCING, AND CONCRETE FOR TOWER FOUNDATION, EQUIPMENT PLATFORM PIERS, & EQUIPMENT SHELTER FOUNDATION.

10. INSTALL BURIED GROUND RINGS, GROUND RODS, GROUND LEADS, UTILITY CONDUITS, AND UTILITY EQUIPMENT.

11. BACKFILL TOWER FOUNDATION, EQUIPMENT PLATFORM PIERS & EQUIPMENT SHELTER FOUNDATION.

12. ERECT MONOPOLE.

13. INSTALL TELECOMMUNICATIONS EQUIPMENT ON TOWER AND IN COMPOUND.

14. INSTALL COMPOUND GRAVEL SURFACES.

15. INSTALL FENCING.

16. CONNECT GROUNDING LEADS AND LIGHTENING PROTECTION.

17. FINAL GRADE AROUND COMPOUND.

18. LOAM AND SEED DISTURBED AREAS OUTSIDE COMPOUND, AS REQUIRED.

19. REMOVE TEMPORARY EROSION & SEDIMENTATION CONTROL BARRIER AFTER SEEDED AREAS HAVE ESTABLISHED VEGETATION.

20. FINAL CLEANUP AND EQUIPMENT TESTING.

THE ESTIMATED TIME FOR COMPLETION OF THE WORK IS APPROXIMATELY SIX (6) WEEKS. THE EXACT PROCESS MAY VARY DEPENDING ON THE CONTRACTORS AND SUBCONTRACTORS AVAILABILITY TO COMPLETE WORK AND WEATHER DELAYS.

BASE MAPPING FOR SHEETS SP-1 AND A-1 FROM:

1. PLANS ENTITLED "PARTIAL TOPOGRAPHIC SURVEY" & "COMPILATION PLAN" - HOMELAND TOWERS: CT777 - BROOKFIELD, 100 POCONO ROAD, BROOKFIELD, CONNECTICUT "PREPARED BY BL COMPANIES, 355 RESEARCH PARKWAY MERIDEN, CT DATED MAY 1, 2015 WITH LATEST REVISION JUNE 24, 2015.

2. TOWN OF BROOKFIELD ASSESSOR'S MAPS D08, D10, E10, E11 & E12.

3. TOWN OF BROOKFIELD "ZONING MAP"

4. DIGITAL GLOBAL 2012 DIGITAL ORTHOPHOGRAPHS.

HOMELAND TOWERS
22 SHELTER ROCK LANE
BUILDING C
DANBURY, CT 06810

ALL-POINTS TECHNOLOGY CORPORATION
3 SADDLEBROOK DRIVE PHONE: (860)-563-1697
KILLINGWORTH, CT 06419 FAX: (860)-663-0935
WWW.ALLPOINTSTECH.COM

PERMITTING DOCUMENTS

NO	DATE	REVISION
0	01/13/17	FOR REVIEW: RCB
1		
2		
3		
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419

OWNER: TOWN OF BROOKFIELD
ADDRESS: TOWN HALL COMPLEX PO BOX 5106 BROOKFIELD, CT 06804

HOMELAND TOWERS "BROOKFIELD CT777 "

SITE ADDRESS: 100 POCONO ROAD BROOKFIELD, CT 06804

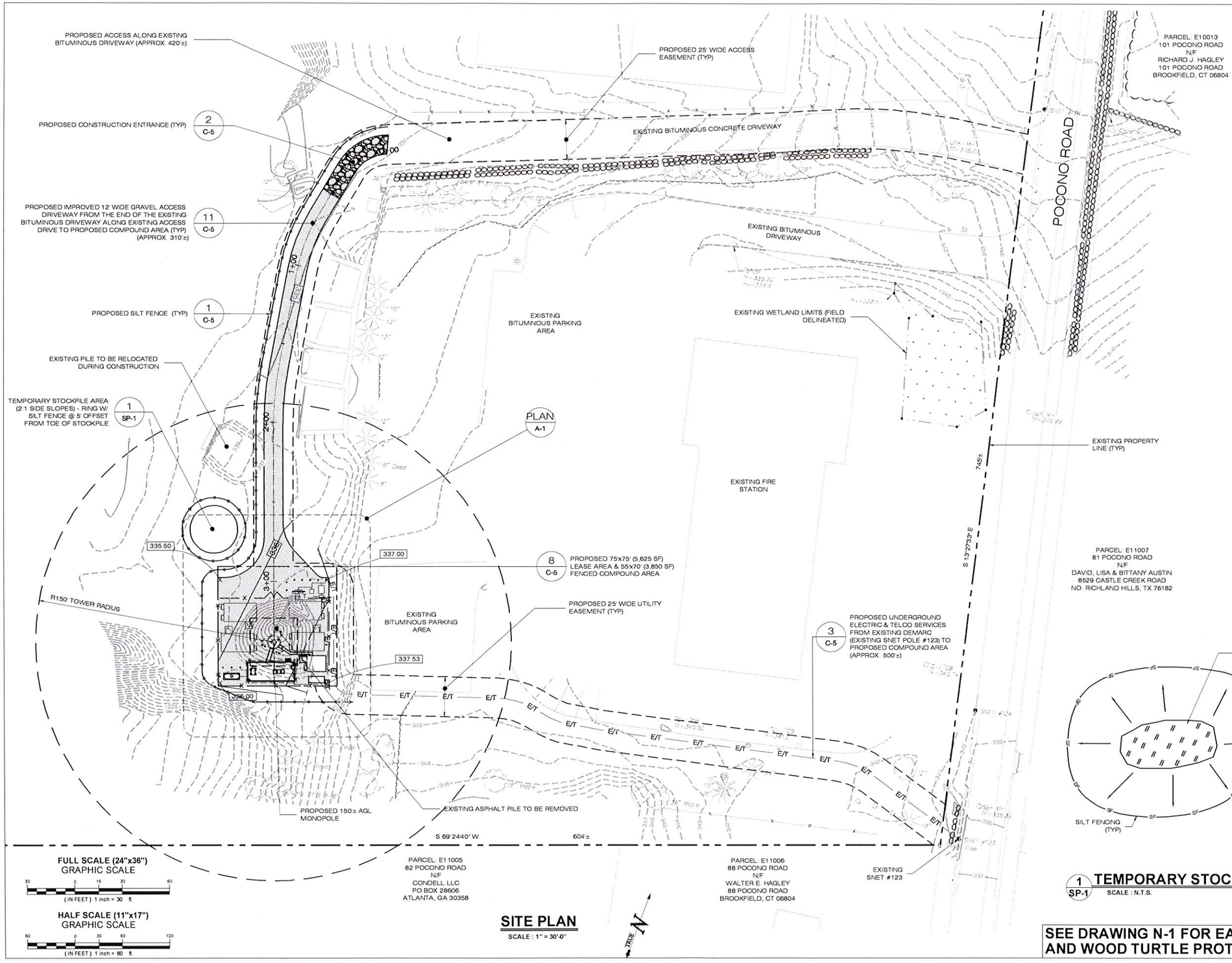
APT FILING NUMBER: CT283150

DRAWN BY: RCB
DATE: 01/04/17
CHECKED BY: SMC

SHEET TITLE:
ABUTTERS MAP & CONSTR. SEQUENCE

SHEET NUMBER:
R-1

STATE OF CONNECTICUT
SCOTT M. CHASSE
No. 19718
LICENSED PROFESSIONAL ENGINEER



SITE PLAN
SCALE : 1" = 30'-0"

1 SP-1 TEMPORARY STOCKPILE DETAIL
SCALE : N.T.S.

NOTE: NO TREES WILL BE REMOVED IN CONSTRUCTING THE FACILITY

SEE DRAWING N-1 FOR EASTERN BOX TURTLE AND WOOD TURTLE PROTECTION PLAN

HOMELAND TOWERS
22 SHELTER ROCK LANE
BUILDING C
DANBURY, CT 06810

ALL-POINTS TECHNOLOGY CORPORATION
3 SADDLEBROOK DRIVE PHONE: (860)-663-1697
KILLINGWORTH, CT 06419 FAX: (860)-663-0935
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PERMITTING DOCUMENTS

NO	DATE	REVISION
0	01/13/17	FOR REVIEW: RCB
1		
2		
3		
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5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419

OWNER: TOWN OF BROOKFIELD
ADDRESS: TOWN HALL COMPLEX PO BOX 5106 BROOKFIELD, CT 06804

HOMELAND TOWERS "BROOKFIELD CT777 "

SITE ADDRESS: 100 POCONO ROAD BROOKFIELD, CT 06804

APT FILING NUMBER: CT283150

DRAWN BY: RCB
DATE: 01/04/17
CHECKED BY: SMC

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
SP-1

STATE OF CONNECTICUT SCOTT M. CHASSE LICENSED PROFESSIONAL ENGINEER No. 19728

PROPOSED IMPROVED 12' WIDE GRAVEL ACCESS DRIVEWAY FROM THE END OF THE EXISTING BITUMINOUS DRIVEWAY ALONG EXISTING ACCESS DRIVE TO PROPOSED COMPOUND AREA (TYP) (APPROX. 300'±)

11 C-5

PROPOSED 25' ACCESS EASEMENT (TYP)

PROPOSED TOWER FOUNDATION W/ 6' AGL REVEAL (30'-0"x 30'-0" PAD W/ 8'-0"Ø PIER - PER DESIGN FROM 'AMBOR STRUCTURES' JOB #C15019008, SITE: BROOKFIELD, CT, CT777, PREPARED FOR INSITE WIRELESS GROUP, LLC, DATED JANUARY 12, 2017)

PROPOSED 75'x75' (5,625± SF) LEASE AREA (TYP)

PROPOSED SILT FENCE (TYP) — 1 C-5

4 C-5 PROPOSED MULTIMETER CENTER

PROPOSED STEPDOWN TRANSFORMER

9 C-5 PROPOSED 12' WIDE CHAIN LINK GATE

6 C-5 PROPOSED BOLLARD (5' O.C.) (TYP 7PL)

PROPOSED CSC CABINET

PROPOSED 8' HIGH CHAIN LINK FENCE (TYP) — 1 C-5

PROPOSED VERIZON WIRELESS UNDERGROUND ELECTRIC & TELCO SERVICE FROM PROPOSED MULTIMETER BOARD TO PROPOSED VERIZON WIRELESS EQUIPMENT PLATFORM

13 C-5

PROPOSED GRAVEL SURFACE COMPOUND TREATMENT (TYP) — 7 C-5

EXISTING ASPHALT PLE TO BE REMOVED

PROPOSED 150± MONOPOLE (EXTENDIBLE TO 170± AGL) - PER DESIGN FROM 'AMBOR STRUCTURES' JOB #C15019008, SITE: BROOKFIELD, CT, CT777, PREPARED FOR INSITE WIRELESS GROUP, LLC, DATED JANUARY 12, 2017)

PROPOSED VERIZON WIRELESS CABLE BRIDGE FROM EQUIPMENT PAD TO TOWER ENTRY PORT — 6 C-1

8 C-3 PROPOSED TOWN OF BROOKFIELD CABLE BRIDGE FROM EQUIPMENT SHELTER TO TOWER ENTRY PORT

8 C-5 PROPOSED 55'x70' (3,850± SF) FENCED COMPOUND AREA (TYP)

PROPOSED BOLLARD (TYP 4PL) — 6 C-5

PROPOSED VERIZON WIRELESS 500 GAL A/G LPN TANK ON 4'x10' CONCRETE PAD W/ 10' SAFETY ZONE & BOLLARDS — 6 S-1, 11 C-2

PROPOSED UNDERGROUND PROPANE SERVICE TO VERIZON GENERATOR — 10 C-5

PROPOSED 4'x10' CONCRETE PAD FOR TOWN OF BROOKFIELD GENERATOR — 7 C-3

1 C-1 PROPOSED VERIZON WIRELESS EQUIPMENT CABINETS, 10KW PROPANE-FIRED GENERATOR & (4) GPS UNITS ON 12'x30' STEEL PLATFORM ON CONCRETE PIERS W/ STEEL CANOPY

PROPOSED UNDERGROUND ELECTRICAL & TELCO SERVICE FROM EXISTING DEMARC (EXISTING SNET POLE #123) TO PROPOSED COMPOUND AREA (APPROX. 500'±) — 3 C-5

PROPOSED 25' WIDE UTILITY EASEMENT (TYP)

FUTURE EQUIPMENT SHELTER (12' x 20')

PROP. 10'x12' TOWN OF BROOKFIELD EQUIPMENT SHELTER (SEE 1/C-3)

10' SPARK ZONE

70'-0" COMPOUND AREA

75'-0" LEASE AREA

335.50 · 335.60 · 336.00 · 336.95 · 337.00 · 337.53

FULL SCALE (24"x36") GRAPHIC SCALE
10 0 5 10 20
(IN FEET) 1 inch = 10 ft.

HALF SCALE (11"x17") GRAPHIC SCALE
20 0 200 20 40
(IN FEET) 1 inch = 20 ft.

TRUE N

COMPOUND PLAN
SCALE : 1" = 10'-0"

T/ PROPOSED MUNICIPAL WHIP ANTENNAS = 177'-11"± AGL

T/ FUTURE MONOPOLE EXTENSION @ 170± AGL
FUTURE ANTENNAS CENTERLINE @ 166'± AGL
FUTURE ANTENNAS CENTERLINE @ 156'± AGL
T/ PROPOSED MONOPOLE @ 150± AGL
PROPOSED VERIZON WIRELESS ANTENNAS CENTERLINE @ 148'± AGL
FUTURE ANTENNAS CENTERLINE @ 136'± AGL
FUTURE ANTENNAS CENTERLINE @ 126'± AGL
PROPOSED MUNICIPAL ANTENNA @ 75'± AGL
CL PROPOSED MUNICIPAL MW DISH @ 60'± AGL
12'-0"± AGL

4' 10' 6' 4' 10' 10' 10'

FUTURE CARRIER ANTENNAS (TYP)

1&4 C-4 2&3 C-4 (3) PROPOSED MUNICIPAL WHIP ANTENNAS (dbSpectra DS1G06F36U-D) & MW DISH ANTENNA (RADIOWAVES HPD2-4.7) ON 4' TOWER TOPPER W/ 3' STANDOFF ARMS

FUTURE CARRIER ANTENNAS (TYP)

1 C-2 PROPOSED VERIZON WIRELESS (12) (70°, 180°, 310°) PANEL ANTENNAS W/ (9) RRHs & (2) MDBs MOUNTED ON PLATFORM W/ TRI-BRACKET MOUNTED KNEE BRACE KIT MOUNTED TO PROPOSED 150'± AGL MONOPOLE W/ ANTENNA C @ 146'± AGL

FUTURE CARRIER ANTENNAS (TYP)

FUTURE CARRIER ANTENNAS (TYP)

PROPOSED 150'± MONOPOLE (EXTENDIBLE TO 170'± AGL) - PER DESIGN FROM 'AMBOR STRUCTURES' JOB #C15019008, SITE: BROOKFIELD, CT, CT777, PREPARED FOR INSITE WIRELESS GROUP, LLC, DATED JANUARY 12, 2017)

1&4 C-4 PROPOSED MUNICIPAL WHIP ANTENNA (dbSpectra DS1G06F36U-D) ON 3' STANDOFF

2&3 C-4 PROPOSED MUNICIPAL MW DISH ANTENNA (RADIOWAVES HPD2-4.7)ON CLUSTERED MOUNT

11 C-2 · 6 S-1 PROPOSED VERIZON WIRELESS 500 GAL A/G LPN TANK ON 4'x10' CONCRETE PAD W/ 10' SAFETY ZONE & BOLLARDS (BEYOND)

1 C-1 PROPOSED VERIZON WIRELESS EQUIPMENT CABINETS, 10KW PROPANE-FIRED GENERATOR & (4) GPS UNITS ON 12'x30' STEEL PLATFORM ON CONCRETE PIERS W/ STEEL CANOPY

6 C-1 PROPOSED VERIZON WIRELESS CABLE ICE BRIDGE

FUTURE EQUIPMENT SHELTER (12'x20)

FUTURE EQUIPMENT SHELTER (12'x20)

8 C-5 PROPOSED 75'x75' (5,625 SF) LEASE AREA & 55'x70' (3,850 SF) CHAIN LINK FENCED (W/ ANTI-CLIMBING MESH) COMPOUND AREA

4 C-5 PROPOSED MULTIMETER CENTER

6 C-5 PROPOSED CSC CABINET & STEPDOWN TRANSFORMER (BEHIND) PROPOSED BOLLARD (5' O.C.) (TYP. 7PL)

UG UG UG UG UG UG

8Ø

6'

4'-0"

2'-0"

30'-0" SQUARE

PROPOSED TOWER FOUNDATION W/ 6' AGL REVEAL (30'-0"x 30'-0" PAD W/ 8'-0"Ø PIER - PER DESIGN FROM 'AMBOR STRUCTURES' JOB #C15019008, SITE: BROOKFIELD, CT, CT777, PREPARED FOR INSITE WIRELESS GROUP, LLC, DATED JANUARY 12, 2017)

3 C-5 PROPOSED UNDERGROUND ELECTRICAL & TELCO SERVICE FROM EXISTING DEMARC (EXISTING SNET POLE #123) TO PROPOSED COMPOUND AREA (APPROX. 500'±)

13 C-5 PROPOSED VERIZON WIRELESS UNDERGROUND ELECTRIC & TELCO SERVICE FROM PROPOSED MULTIMETER BOARD TO PROPOSED VERIZON WIRELESS EQUIPMENT PLATFORM

EASTERN ELEVATION
SCALE : 1" = 10'-0"

FULL SCALE (24"x36") GRAPHIC SCALE
10 0 5 10 20
(IN FEET) 1 inch = 10 ft.

HALF SCALE (11"x17") GRAPHIC SCALE
20 0 200 20 40
(IN FEET) 1 inch = 20 ft.

ENGINEERING ANALYSIS AND CERTIFICATION

IN ACCORDANCE WITH THE 2009 CONNECTICUT STATE BUILDING CODE AND THE ELECTRONIC INDUSTRIES ASSOCIATION STANDARD EIA/TIA-222-G "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 110 MPH FASTEST MILE WIND SPEED. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.

SEE DRAWING N-1 FOR EASTERN BOX TURTLE AND WOOD TURTLE PROTECTION PLAN

HOMELAND TOWERS
22 SHELTER ROCK LANE
BUILDING C
DANBURY, CT 06810

ALL-POINTS TECHNOLOGY CORPORATION
3 SADDLEBROOK DRIVE PHONE: (860)-663-1697
KILLINGWORTH, CT 06419 FAX: (860)-663-0935
WWW.ALLPOINTSTECH.COM

PERMITTING DOCUMENTS

NO	DATE	REVISION
0	01/13/17	FOR REVIEW: RCB
1		
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6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419

OWNER: TOWN OF BROOKFIELD
ADDRESS: TOWN HALL COMPLEX PO BOX 5106 BROOKFIELD, CT 06804

HOMELAND TOWERS "BROOKFIELD CT777 "

SITE ADDRESS: 100 POCONO ROAD BROOKFIELD, CT 06804

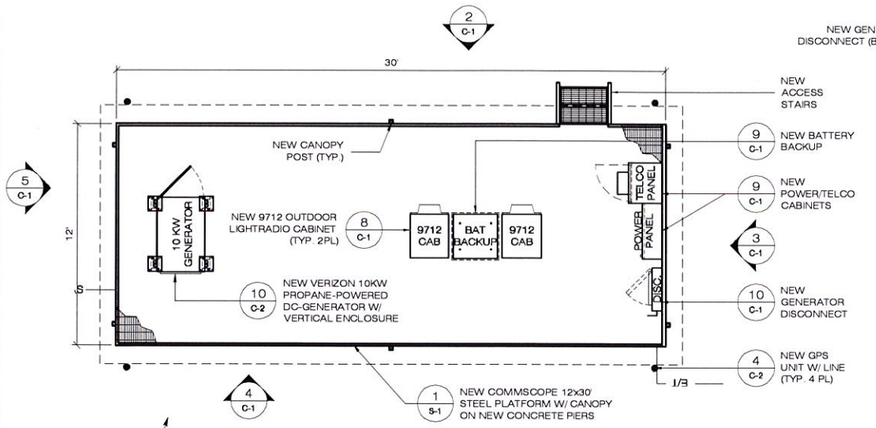
APT FILING NUMBER: CT283150

DRAWN BY: RCB
DATE: 01/04/17 CHECKED BY: SMC

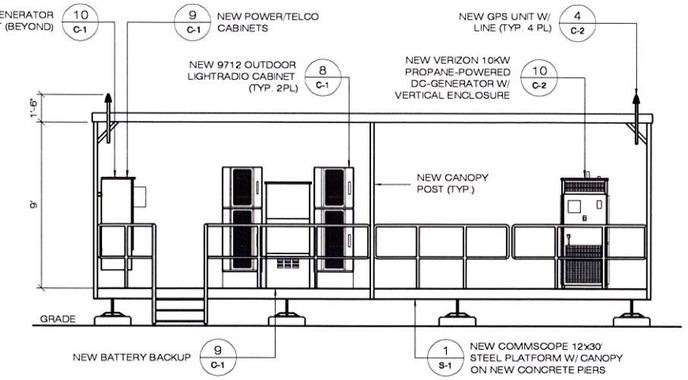
SHEET TITLE:
COMPOUND PLAN & TOWER ELEVATION

SHEET NUMBER:
A-1

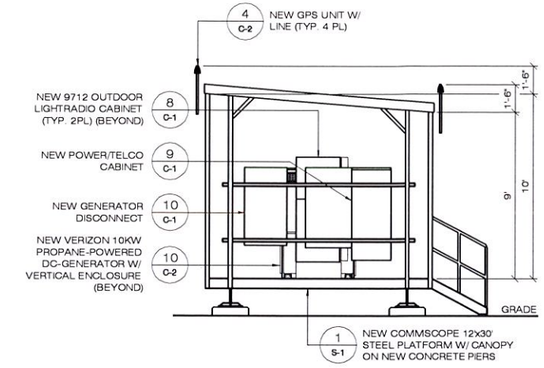
STATE OF CONNECTICUT · SCOTT M. CHASSE · No. 19728 · LICENSED PROFESSIONAL ENGINEER



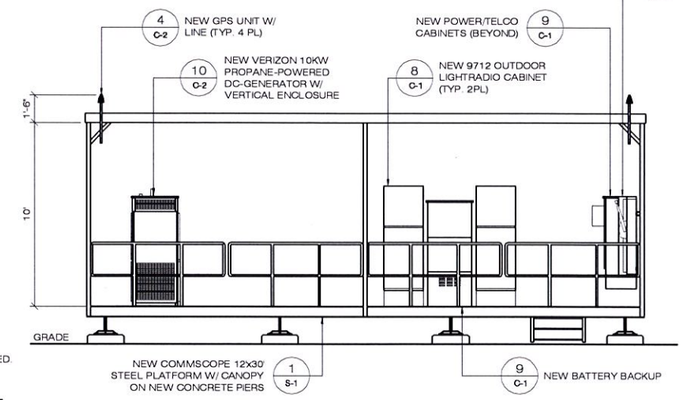
1 C-1 EQUIPMENT PLATFORM
SCALE : 1/4" = 1'-0"



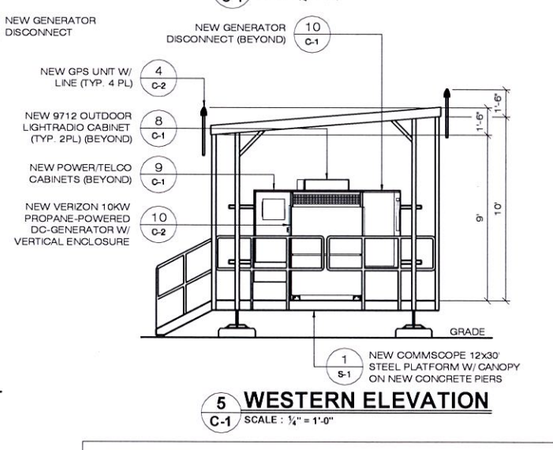
2 C-1 NORTHERN ELEVATION
SCALE : 1/4" = 1'-0"



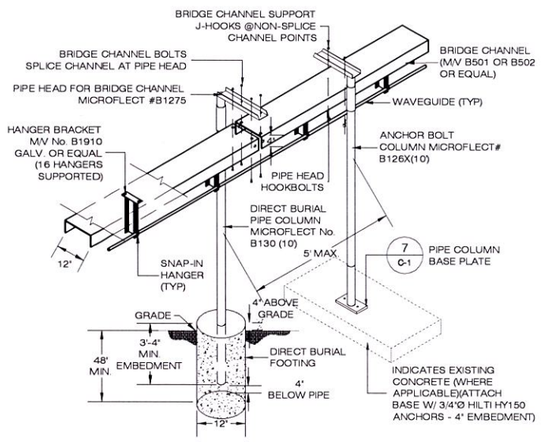
3 C-1 EASTERN ELEVATION
SCALE : 1/4" = 1'-0"



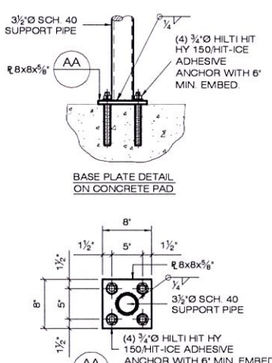
4 C-1 SOUTHERN ELEVATION
SCALE : 1/4" = 1'-0"



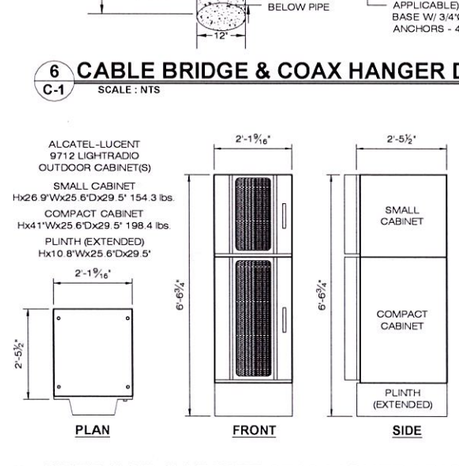
5 C-1 WESTERN ELEVATION
SCALE : 1/4" = 1'-0"



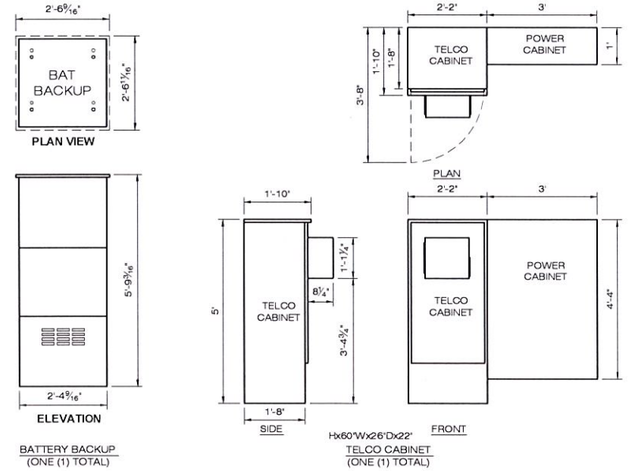
6 C-1 CABLE BRIDGE & COAX HANGER DETAIL
SCALE : NTS



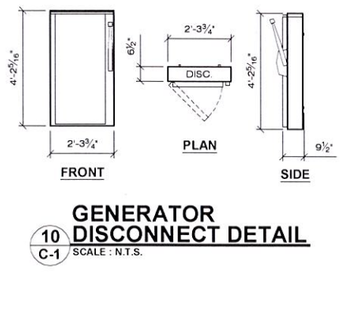
7 C-1 PIPE BASE PLATE
SCALE : N.T.S.



8 C-1 OUTDOOR CABINET 9712 LIGHTRADIO
SCALE : ½" = 1'-0"



9 C-1 EQUIPMENT AREAs
SCALE : N.T.S.



GENERATOR DISCONNECT DETAIL
10 C-1 SCALE : N.T.S.

DESIGN BASIS:

GOVERNING CODE

2012 IBC AS AMENDED BY THE 2016 CONNECTICUT STATE BUILDING CODE

DESIGN CRITERIA :

• STRUCTURAL OCCUPANCY/ RISK CATEGORY =	II	(2015 IBC Table 1604.5)
WIND LOAD		
• ULTIMATE BASIC WIND SPEED (V_{ult}) = (3-SECOND GUST)	125 MPH	(2016 CSBC APPENDIX N)
NOMINAL BASIC WIND SPEED (V_{asd}) = (3-SECOND GUST)	97 MPH	(2016 CSBC APPENDIX N)
• EXPOSURE CATEGORY =	C	(2012 IBC, SEC 1609.4.3)
• IMPORTANCE FACTOR, (Iw) =	1.0	(ASCE 7-10 TABLE 1.5-2)
SNOW LOAD		
• GROUND SNOW LOAD (P_g)=	35 PSF	(2016 CSBC APPENDIX N)
• ROOF SNOW LOAD (P_s) - SHELTER =	30 PSF	(MIN. PER 2016 CSBC Add 1608.1.1)
• ROOF SNOW LOAD (P_s) - PLATFORM =	30 PSF	(MIN. PER 2016 CSBC ADD 1608.1.1) (ASCE 7-10 EQ. 7.3-1, SEC 7.3.4)
• EXPOSURE FACTOR, (C_e) - =	0.9	(ASCE 7-10 TABLE 7-2)
• THERMAL FACTOR, (C_t) - SHELTER =	1.0	(ASCE 7-10 TABLE 7-3)
• THERMAL FACTOR, (C_t) - PLATFORM =	1.2	(ASCE 7-10 TABLE 7-3)
• IMPORTANCE FACTOR, (I_s) =	1.0	(ASCE 7-10 TABLE 1.5-2)
DESIGN LIVE LOADS		
• PLATFORM GRATING LIVE LOAD =	40 PSF	
• MIN. ROOF LIVE LOAD =	20 PSF	(2016 IBC, TABLE 1607.1)
• SHELTER FLOOR LIVE LOAD =	250 PSF	
SEISMIC DESIGN PARAMETERS		
• SEISMIC DESIGN CATEGORY =	B	(ASCE 7-10 TABLE 11.6-1 & 11.6-2)
• MCE SPECTRAL ACC, (S_s) =	0.208	(2016 CSBC APPENDIX N)
• MCE SPECTRAL ACC, (S_1) =	0.066	(2016 CSBC APPENDIX N)
• SITE CLASS =	D	(ASCE 7-10 TABLE 20.3-1)
• IMPORTANCE FACTOR, (Ip) =	1.5	(ASCE 7-10 TABLE 1.5-2)

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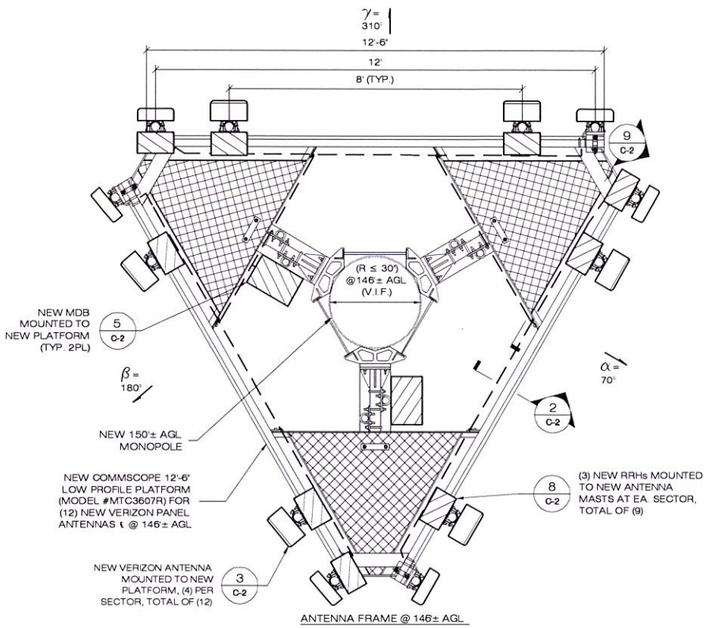
DATE: 01/04/17 CHECKED BY: SMC

SHEET TITLE:
VERIZON EQUIPMENT PLAN & DETAILS

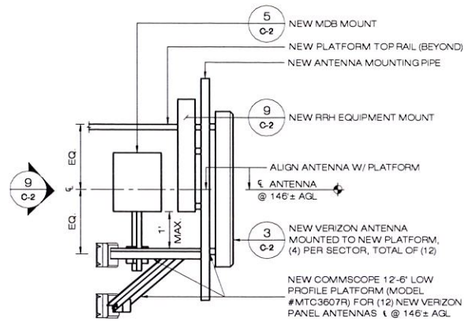
SHEET NUMBER: C-1

STATE OF CONNECTICUT SCOTT M. CHASSE NO.19728 LICENSED PROFESSIONAL ENGINEER

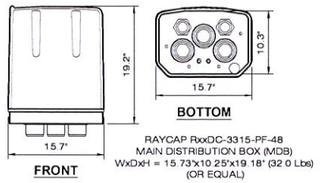


ANTENNA FRAME @ 146± AGL

1 C-2 ANTENNA PLAN
SCALE : ½" = 1'-0



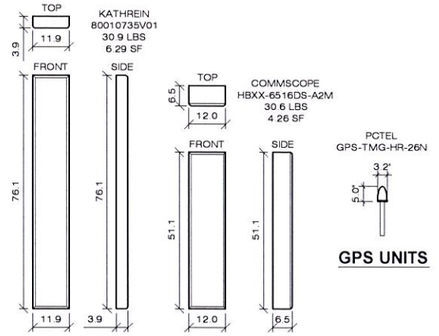
2 C-2 ANTENNA MOUNTING DETAIL
SCALE : ½" = 1'-0"



RAYCAP RxxDC-3315-PF-48
MAIN DISTRIBUTION BOX (MDB)
WxDxH = 15.73"x10.25"x19.18" (32.0 Lbs)
(OR EQUAL)

6 C-2 MAIN DISTRIBUTION BOX
SCALE: 1" = 1'-0"

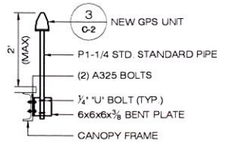
NEW PANEL ANTENNA
TYPE & DIMENSIONS OF NEW ANTENNA ARE APPROXIMATE AND SUBJECT TO CHANGE BASED UPON AVAILABILITY OF ANTENNAS AT THE TIME OF CONSTRUCTION. THOSE DIMENSION SHOWN ARE FOR A 'TYPICAL' PANEL ANTENNA



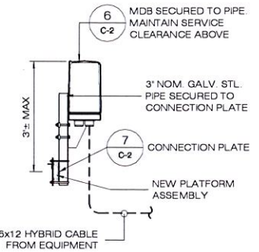
PANEL ANTENNAS

GPS UNITS

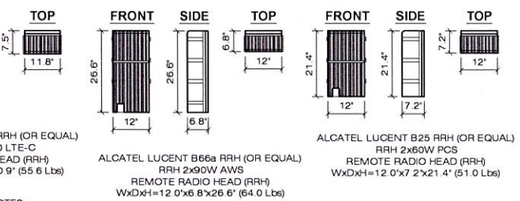
3 C-2 ANTENNA DETAIL
SCALE : ½" = 1'-0



4 C-2 GPS MOUNT
SCALE : N.T.S.



5 C-2 MDB TOWER MOUNT
SCALE : ½" = 1'-0"



ALCATEL LUCENT B13 RRH (OR EQUAL)
RRH 2x60W 700 LTE-C
REMOTE RADIO HEAD (RRH)
WxDxH=11.8"x7.5"x20.9" (55.6 Lbs)

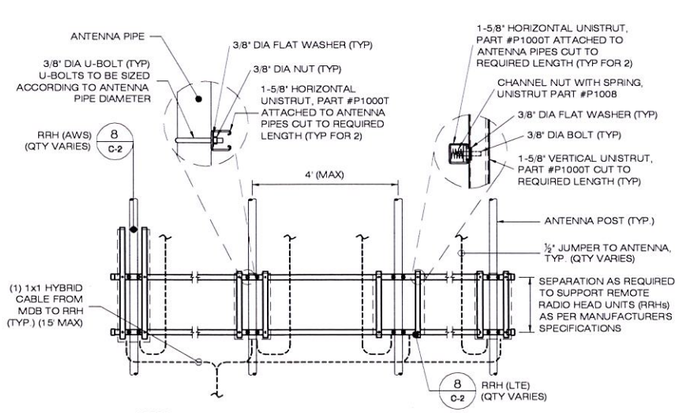
ALCATEL LUCENT B66a RRH (OR EQUAL)
RRH 2x90W AWS
REMOTE RADIO HEAD (RRH)
WxDxH=12.0"x6.8"x26.6" (64.0 Lbs)

ALCATEL LUCENT B25 RRH (OR EQUAL)
RRH 2x60W PCS
REMOTE RADIO HEAD (RRH)
WxDxH=12.0"x7.2"x21.4" (51.0 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.)

NOTE:
1) RRH=REMOTE RADIO HEAD
2) MDB=MAIN DISTRIBUTION BOX

8 C-2 RRH EQUIPMENT
SCALE : ½" = 1'-0"



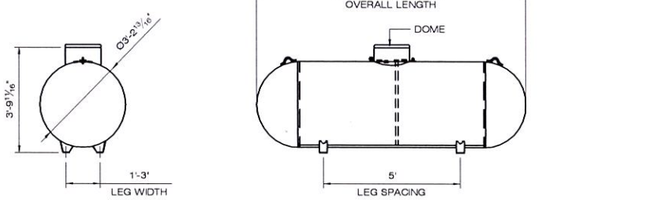
NOTES:
1. ALL EXPOSED UNISTRUT ENDS TO BE CAPPED WITH UNISTRUT CAP (MODEL #P2860-10)
2. ONLY 1-5/8" UNISTRUT TO BE USED FOR RACK CONSTRUCTION.
3. EXTEND UNISTRUT AS NEEDED BASED ON LENGTH OF ANTENNA SECTOR. DO NOT CANTILEVER UNISTRUT FOR MORE THAN 24" BEYOND ANTENNA MAST.
4. FOR SPANS GREATER THAN 5'-0" USE UNISTRUT PART #P1001

9 C-2 RRH EQUIPMENT ANTENNA MOUNT
SCALE : ½" = 1'-0"

NOTE:
MINIMUM DISTANCES AWAY FROM ANY OBSTRUCTION:
- FRONT: 2'-4"
- SERVICE SIDE: 1'-6"
- BACK & SIDE: 6"

POLAR POWER INC.
10kW PROPANE-POWERED GENERATOR
MODEL # 8220K-DG972, -48VDC
w/ VIBRATION ISOLATORS (VMC MSS-2E-1000)

10 C-2 NATURAL GAS GENERATOR SCHEMATICS
SCALE : ¼" = 1'-0"



1. 500 USWG AMSE VIII, DIV. 1 ABOVE GROUND LPG TANK AS MANUFACTURED BY TRINITY CONTAINERS, LLC:-
   - WWW.TRINITYCONTAINERS.COM
   - PH. 1-888-558-8265
   - WEIGHT (EMPTY) = 871 lbs

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

11 C-2 ABOVE GROUND PROPANE TANK DETAIL
SCALE : N.T.S.

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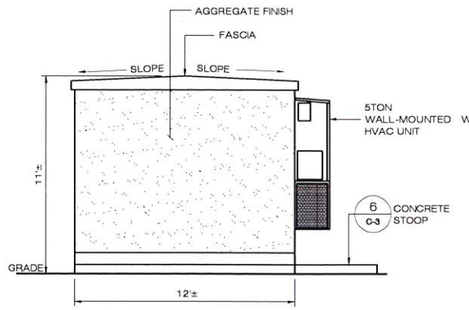
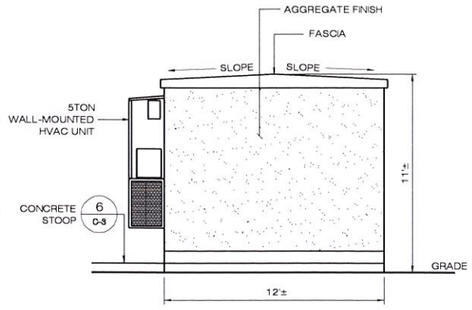
C-2

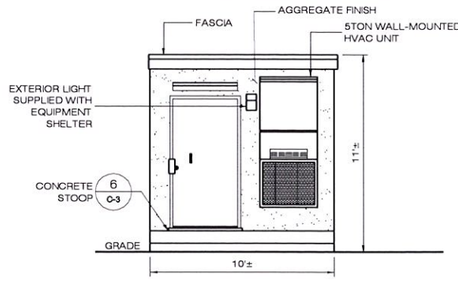
STATE OF CONNECTICUT
SCOTT M. CHASSE
No.19728
LICENSED PROFESSIONAL ENGINEER



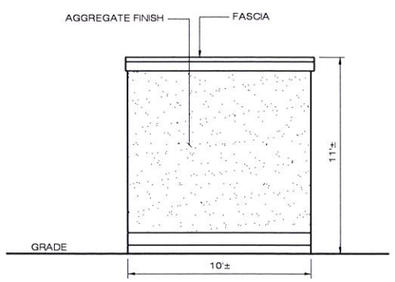
NORTHERN ELEVATION



SOUTHERN ELEVATION



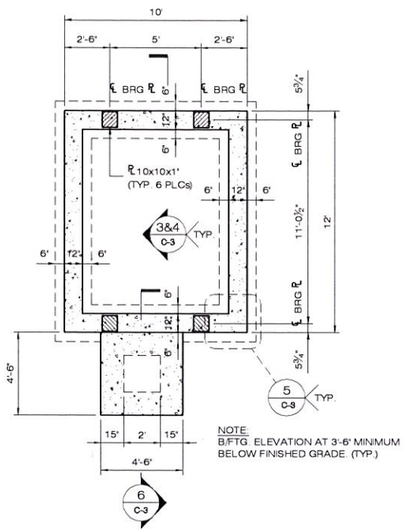
WESTERN ELEVATION



EASTERN ELEVATION

1 C-3 TYPICAL 10'x12' EQUIPMENT SHELTER

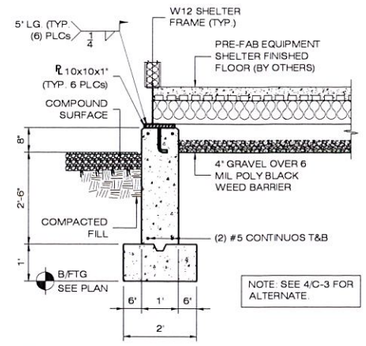
SCALE : 1/4" = 1'-0"



NOTE:
B/FTG. ELEVATION AT 3'-6" MINIMUM BELOW FINISHED GRADE. (TYP.)

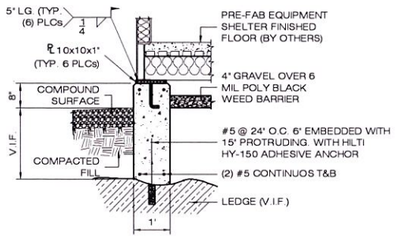
2 C-3 TYPICAL FOUNDATION PLAN

SCALE : 1/4" = 1'-0"



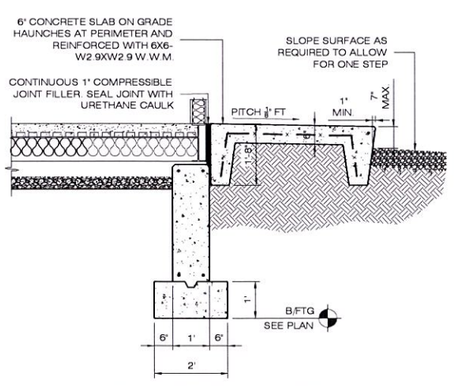
3 C-3 FOUNDATION SECTION

SCALE : 1/2" = 1'-0"



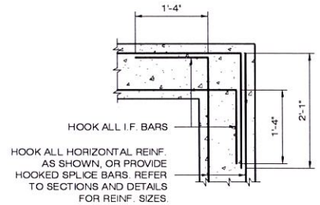
4 C-3 FOUNDATION OVER LEDGE OR TOWER FOUNDATION

SCALE : 1/2" = 1'-0"



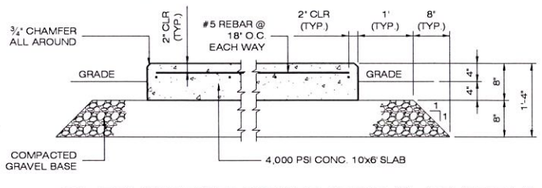
6 C-3 SECTION @ STOOP

SCALE : 1/2" = 1'-0"



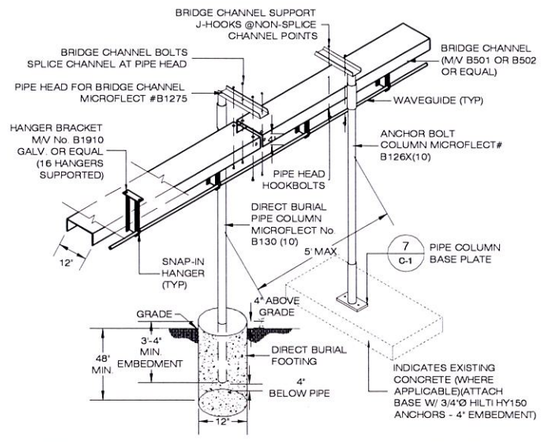
5 C-3 DETAIL CORNER RIEFORCEMENT

SCALE : 3/4" = 1'-0"



7 C-3 EQUIPMENT/ GENERATOR SLAB DETAIL

SCALE : NTS



8 C-3 CABLE BRIDGE & COAX HANGER DETAIL

SCALE : NTS

DESIGN BASIS:

GOVERNING CODE:

2012 IBC AS AMENDED BY THE 2016 CONNECTICUT STATE BUILDING CODE

DESIGN CRITERIA :

• STRUCTURAL OCCUPANCY/ RISK CATEGORY =	II	(2015 IBC Table 1604.5)
WIND LOAD:		
• ULTIMATE BASIC WIND SPEED (V_{ult}) = (3-SECOND GUST)	125 MPH	(2016 CSBC APPENDIX N)
NOMINAL BASIC WIND SPEED (V_{asd}) = (3-SECOND GUST)	97 MPH	(2016 CSBC APPENDIX N)
• EXPOSURE CATEGORY =	C	(2012 IBC, SEC 1609.4.3)
• IMPORTANCE FACTOR, (Iw) =	1.0	(ASCE 7-10 TABLE 1.5-2)
SNOW LOAD:		
• GROUND SNOW LOAD (P_g)=	35 PSF	(2016 CSBC APPENDIX N)
• ROOF SNOW LOAD (P_f) - SHELTER =	30 PSF	(MIN. PER 2016 CSBC Add 1608.1.1)
• ROOF SNOW LOAD (P_f) - PLATFORM =	30 PSF	(MIN. PER 2016 CSBC ADD 1608.1.1) (ASCE 7-10 EQ. 7.3-1, SEC 7.3.4)
• EXPOSURE FACTOR, (C_e) - =	0.9	(ASCE 7-10 TABLE 7-2)
• THERMAL FACTOR, (C_t) - SHELTER =	1.0	(ASCE 7-10 TABLE 7-3)
• THERMAL FACTOR, (C_T) - PLATFORM =	1.2	(ASCE 7-10 TABLE 7-3)
• IMPORTANCE FACTOR, (I_s) =	1.0	(ASCE 7-10 TABLE 1.5-2)
DESIGN LIVE LOADS:		
• PLATFORM GRATING LIVE LOAD =	40 PSF	
• MIN. ROOF LIVE LOAD =	20 PSF	(2016 IBC, TABLE 1607.1)
• SHELTER FLOOR LIVE LOAD =	250 PSF	
SEISMIC DESIGN PARAMETERS:		
• SEISMIC DESIGN CATEGORY =	B	(ASCE 7-10 TABLE 11.6-1 & 11.6-2)
• MCE SPECTRAL ACC, (S_s) =	0.208	(2016 CSBC APPENDIX N)
• MCE SPECTRAL ACC, (S_1) =	0.066	(2016 CSBC APPENDIX N)
• SITE CLASS =	D	(ASCE 7-10 TABLE 20.3-1)
• IMPORTANCE FACTOR, (Ip) =	1.5	(ASCE 7-10 TABLE 1.5-2)

HOMELAND TOWERS
22 SHELTER ROCK LANE
BUILDING C
DANBURY, CT 06810

ALL-POINTS TECHNOLOGY CORPORATION
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DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419

OWNER: TOWN OF BROOKFIELD
ADDRESS: TOWN HALL COMPLEX PO BOX 5106 BROOKFIELD, CT 06804

HOMELAND TOWERS "BROOKFIELD CT777 "

SITE ADDRESS: 100 POCONO ROAD BROOKFIELD, CT 06804

APT FILING NUMBER: CT283150

DRAWN BY: RCB

DATE: 01/04/17 CHECKED BY: SMC

SHEET TITLE:
TOWN OF BROOKFIELD EQUIP. PLAN & DETAILS

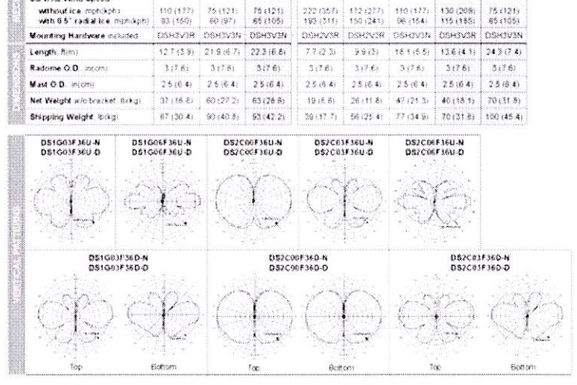
SHEET NUMBER:
C-3

STATE OF CONNECTICUT SCOTT M. CHASSE No.19128 LICENSED PROFESSIONAL ENGINEER

dbSpectra

VHF Omni Antennas (160-222 MHz)

Model Number	160-174 MHz					217-222 MHz									
	DS1G03F36U-N	DS1G03F36U-D	DS1G06F36U-N	DS1G06F36U-D	DS1G03F36D-N	DS1G03F36D-D	DS2C06F36U-N	DS2C06F36U-D	DS2C03F36U-N	DS2C03F36U-D	DS2C06F36U-N	DS2C06F36U-D	DS2C06F36D-N	DS2C06F36D-D	DS2C03F36D-N	DS2C03F36D-D
Input Connector	N(F)	7/16 DIN	N(F)	7/16 DIN	N(F)	7/16 DIN	N(F)	7/16 DIN	N(F)	7/16 DIN	N(F)	7/16 DIN	N(F)	7/16 DIN	N(F)	7/16 DIN
Type	Single		Single		Dual		Single		Single		Single		Dual		Dual	
Bandwidth MHz	14		14		14		5		5		5		5		5	
Power Watts	500		500		350		500		500		500		350		350	
Gain dBd	3		6		3		0		3		6		0		3	
Horizontal Beamwidth degrees	360		360		360		360		360		360		360		360	
Vertical Beamwidth degrees	30		16		30		60		30		16		60		30	
Beam Tilt degrees	0		0		0		0		0		0		0		0	
Isolation (minimum) dB	N/A		N/A		30		N/A		N/A		N/A		30		30	
Number of Connectors	1		1		2		1		1		1		2		2	
Flat Plate Area ft (m)	2.53 (0.24)		4.38 (0.41)		4.5 (0.42)		1.9 (0.18)		1.9 (0.18)		2.58 (0.24)		2.4 (0.22)		4.1 (0.38)	
Lateral Windload Thrust lb(kN)	95 (423)		164 (730)		169 (752)		53 (236)		69 (307)		108 (480)		90 (400)		169 (752)	
Survival Wind Speed without ice mph(kph)	110 (177)		75 (121)		75 (121)		222 (357)		172 (277)		110 (177)		130 (209)		75 (121)	
with 0.5" radial ice mph(kph)	93 (150)		60 (97)		65 (105)		193 (311)		150 (241)		96 (154)		115 (185)		65 (105)	
Mounting Hardware included	DSH3V3R		DSH3V3N		DSH3V3N		DSH2V3R		DSH2V3R		DSH3V3N		DSH3V3R		DSH3V3N	
Length ft(m)	12.7 (3.9)		21.9 (6.7)		22.3 (6.8)		7.7 (2.3)		9.9 (3)		18.1 (5.5)		13.6 (4.1)		24.3 (7.4)	
Radome O.D. in(cm)	3 (7.6)		3 (7.6)		3 (7.6)		3 (7.6)		3 (7.6)		3 (7.6)		3 (7.6)		3 (7.6)	
Mast O.D. in(cm)	2.5 (6.4)		2.5 (6.4)		2.5 (6.4)		2.5 (6.4)		2.5 (6.4)		2.5 (6.4)		2.5 (6.4)		2.5 (6.4)	
Net Weight w/o bracket lb(kg)	37 (16.8)		60 (27.2)		63 (28.8)		19 (8.6)		26 (11.8)		47 (21.3)		40 (18.1)		70 (31.8)	
Shipping Weight lb(kg)	67 (30.4)		90 (40.8)		93 (42.2)		39 (17.7)		56 (25.4)		77 (34.9)		70 (31.8)		100 (45.4)	



2

www.dbspectra.com

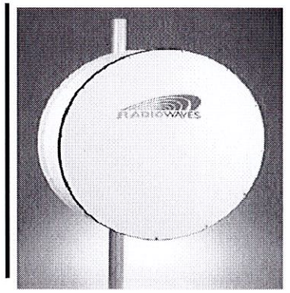
1 C-4 **dbSpectra DS1G06F36U-D ANTENNA**
SCALE : NTS

RADIOWAVES
THE LEADER IN MICROWAVE ANTENNA INNOVATION

High Performance Series for 4.4-5.0 GHz Frequencies

Key Features

- High Performance antennas minimize interference as they have more stringent radiation side lobe and front-to-back suppression characteristic
- Lightweight and rugged design
- Easily installed with our superior mounting system included with the antenna
- RF connector: "N" female connector. Some models are available with 7/16 DIN Connector. Please call the factory for availability
- Our industry leading 5-year warranty
- Radome is included
- Single (HP) and Dual (HPD) polarization are available



Antenna Specifications, Electrical (typical)

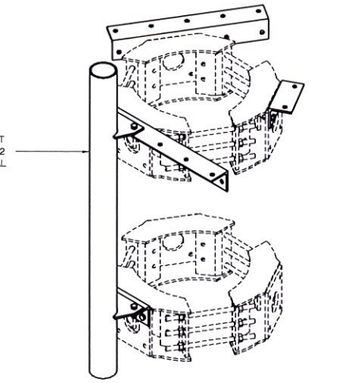
Model Number	Diameter ft (m)	Frequency GHz	Gain (dBi) Low	Mid	High	3dB BW degs	X-Pol Rejection dB	F/B Ratio dB	VSWR, Max (RL, dB)	Antenna Weight
HP2-4.7	2 (0.6)	4.4-5.0	25.9	26.4	26.6	7.1 deg	28 dB	48 dB	1.5:1 (14.0)	27 lbs. (12.3 kg)
HP3-4.7	3 (0.9)	4.4-5.0	29.2	29.8	30.3	4.7 deg	30 dB	52 dB	1.5:1 (14.0)	50 lbs. (22.7 kg)
HP4-4.7	4 (1.2)	4.4-5.0	31.8	32.4	32.9	3.6 deg	30 dB	54 dB	1.5:1 (14.0)	85 lbs. (38.3 kg)
HP6-4.7	6 (1.8)	4.4-5.0	34.8	35.4	35.9	2.6 deg	30 dB	57 dB	1.5:1 (14.0)	251 lbs. (113.0 kg)
HP8-4.7	8 (2.4)	4.4-5.0	38.2	38.8	39.3	1.8 deg	30 dB	61 dB	1.5:1 (14.0)	424 lbs. (194.5 kg)
HPD2-4.7	2 (0.6)	4.4-5.0	25.8	26.4	26.8	7.1 deg	28 dB	48 dB	1.5:1 (14.0)	27 lbs. (12.3 kg)
HPD3-4.7	3 (0.9)	4.4-5.0	29.2	29.8	30.3	4.7 deg	30 dB	52 dB	1.5:1 (14.0)	50 lbs. (22.7 kg)
HPD4-4.7	4 (1.2)	4.4-5.0	31.8	32.4	32.9	3.6 deg	30 dB	54 dB	1.5:1 (14.0)	85 lbs. (38.3 kg)
HPD6-4.7	6 (1.8)	4.4-5.0	34.8	35.4	35.9	2.6 deg	30 dB	57 dB	1.5:1 (14.0)	251 lbs. (113.0 kg)
HPD8-4.7	8 (2.4)	4.4-5.0	38.2	38.8	39.3	1.8 deg	30 dB	61 dB	1.5:1 (14.0)	424 lbs. (194.5 kg)

Note: LMR jumpers and Side Struts available from Radio Waves

Radio Waves, Inc. • 495 R Billerica Avenue • N. Billerica, MA 01862 USA • Tel: (978) 459-8800 • Fax: (978) 459-3310 / 8810
www.radiowavesinc.com

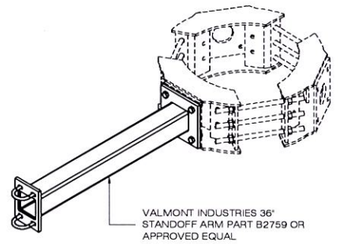
HPX4.7 Rev A

2 C-4 **RADIOWAVES HPD2-4.7 ANTENNA**
SCALE : NTS



VALMONT INDUSTRIES PIPE MOUNT
FOR DISH ANTENNAS PART B1832
OR APPROVED EQUAL

3 C-4 **MICROWAVE DISH MOUNT**
SCALE : NTS



VALMONT INDUSTRIES 36"
STANDOFF ARM PART B2759 OR
APPROVED EQUAL

4 C-4 **3' SIDEARM ANTENNA MOUNT**
SCALE : NTS

HOMELAND TOWERS
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COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

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HOMELAND TOWERS
"BROOKFIELD CT777 "

SITE ADDRESS: 100 POCONO ROAD
BROOKFIELD, CT 06804

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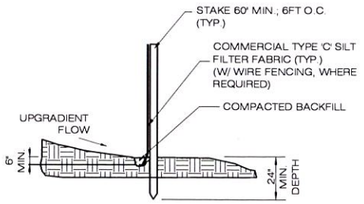
SHEET TITLE:
TOWN OF BROOKFIELD
ANTENNA DETAILS

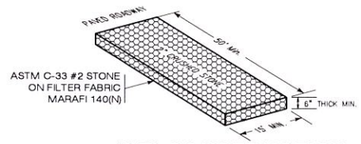
SHEET NUMBER:
C-4

STATE OF CONNECTICUT
SCOTT M. CHASSE
No.19728
LICENSED PROFESSIONAL ENGINEER



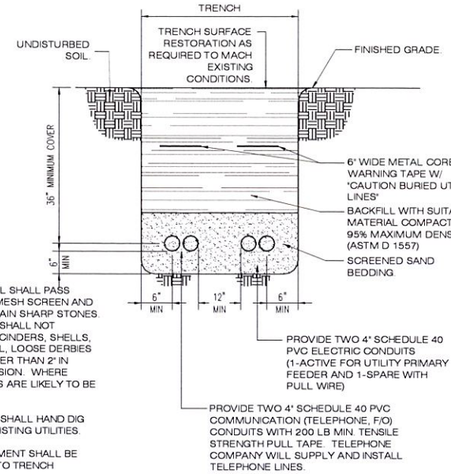
1 C-5 GEOTEXTILE SILT FENCE DETAIL

SCALE : NTS



2 C-5 (CE) CONSTRUCTION ENTRANCE DETAIL

SCALE : NTS

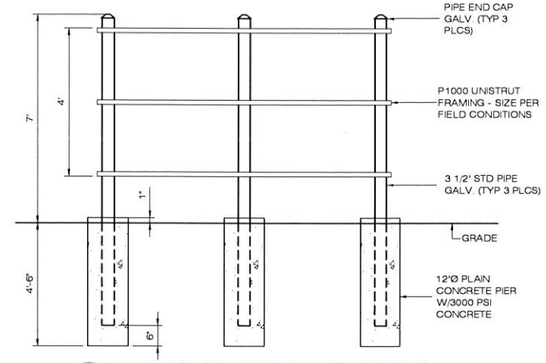


NOTES:

1. 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.
2. CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
3. EXISTING PAVEMENT SHALL BE SAW-CUT PRIOR TO TRENCH EXCAVATION

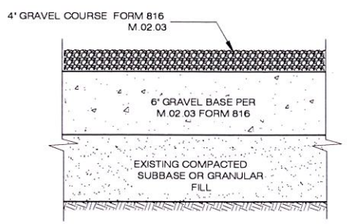
3 C-5 PRIMARY UTILITY TRENCH

SCALE : NTS



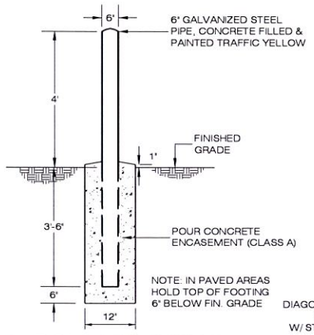
4 C-5 UTILITY BACKBOARD DETAIL

SCALE : NTS



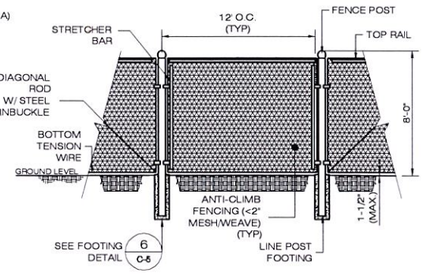
5 C-5 GRAVEL ROAD SECTION

SCALE : NTS



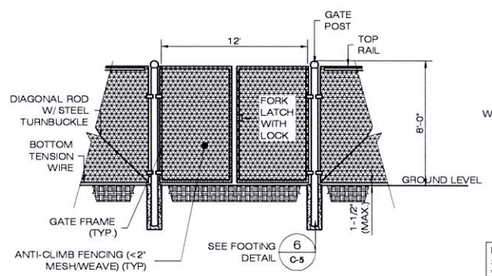
6 C-5 BOLLARD DETAIL

SCALE : NTS



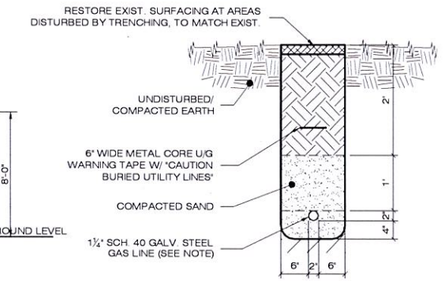
8 C-5 CHAIN-LINK FENCING DETAIL

SCALE : NTS



9 C-5 FENCE & GATE DETAIL

SCALE : N.T.S.

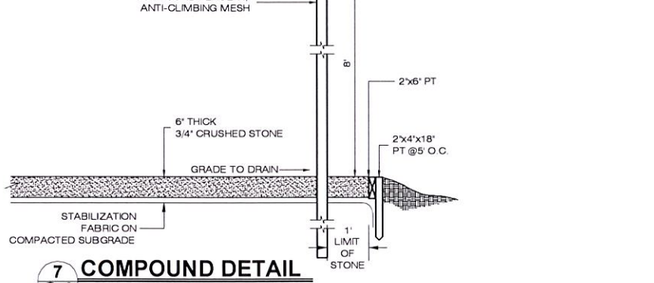


NOTE:
STEEL PIPE INSTALLED UNDERGROUND SHALL BE INSTALLED IN ACCORDANCE WITH NFPA54. UNDERGROUND PIPING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING.

1. THE PIPING SHALL BE MADE OF CORROSION RESISTANT MATERIAL THAT IS SUITABLE FOR BURIAL.
2. PIPE SHALL HAVE A FACTORY APPLIED ELECTRICALLY INSULATING COATING. FITTINGS AND JOINTS BETWEEN SECTIONS OF COATED PIPE SHALL BE COATED IN ACCORDANCE WITH COATING MANUFACTURERS INSTRUCTIONS
3. THE PIPING SHALL HAVE A CATHODIC PROTECTION SYSTEM INSTALLED AND THE SYSTEM BE MAINTAINED.

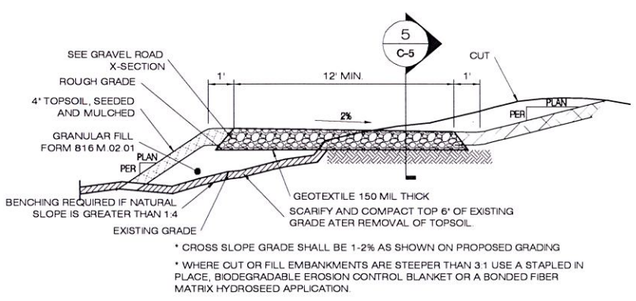
10 C-5 PROPANE GAS TRENCH

SCALE : NTS



7 C-4 COMPOUND DETAIL

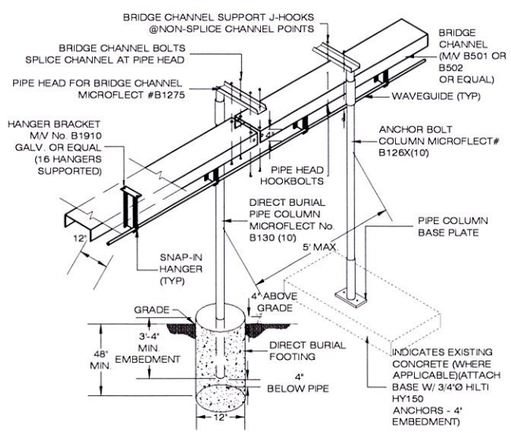
SCALE : NTS



* CROSS SLOPE GRADE SHALL BE 1-2% AS SHOWN ON PROPOSED GRADING
* WHERE CUT OR FILL EMBANKMENTS ARE STEEPER THAN 3:1 USE A STAPLED IN PLACE, BIODEGRADABLE EROSION CONTROL BLANKET OR A BONDED FIBER MATRIX HYDROSEED APPLICATION.

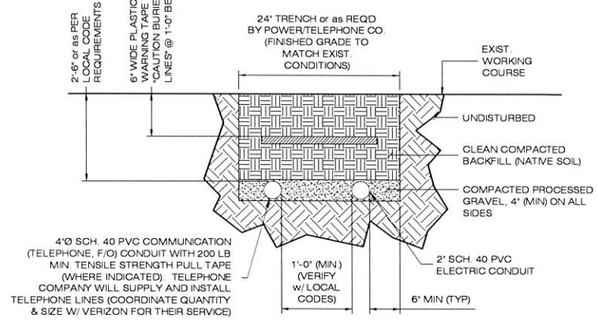
11 C-5 TYPICAL ROAD CROSS SECTION

SCALE : NTS



12 C-5 CABLE BRIDGE & COAX HANGER DETAIL

SCALE : NTS



13 C-5 SECONDARY TRENCH DETAIL

SCALE : N.T.S.

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22 SHELTER ROCK LANE
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SITE DETAILS

SHEET NUMBER:
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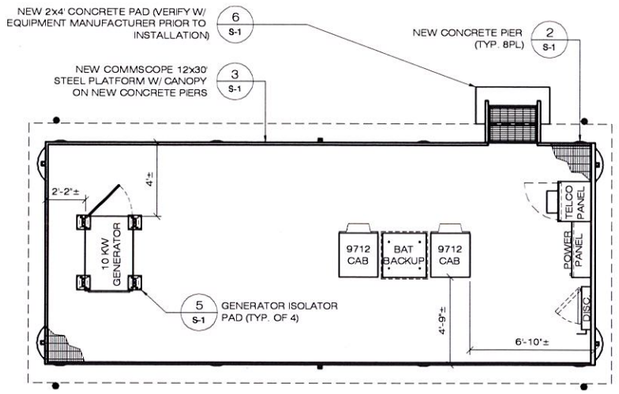
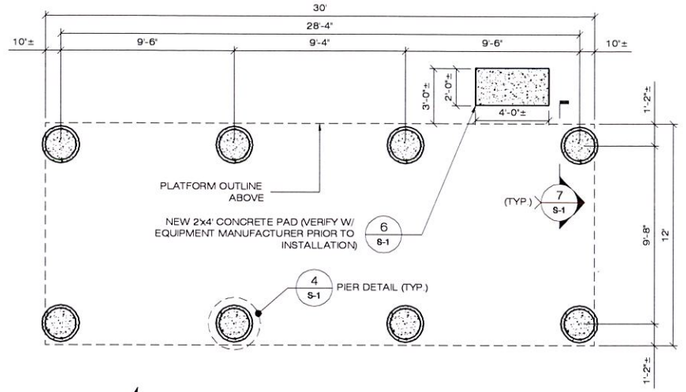
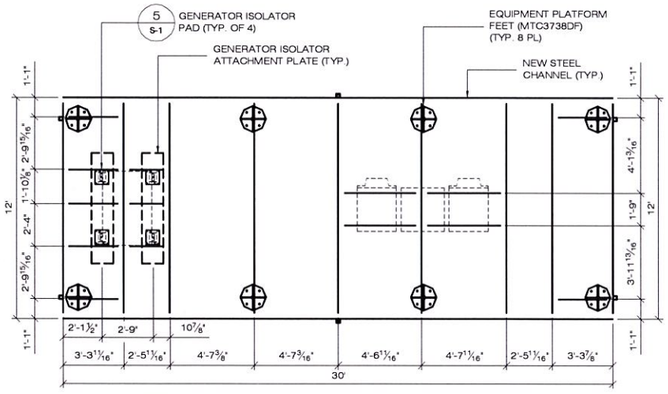
STATE OF CONNECTICUT SCOTT M. CHASSE No. 19728 LICENSED PROFESSIONAL ENGINEER



1 EQUIPMENT PLATFORM
S-1 SCALE : ¼" = 1'-0"

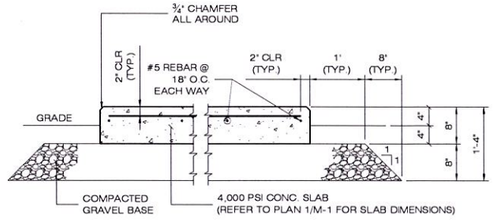


2 PIER LAYOUT
S-1 SCALE : ¼" = 1'-0"

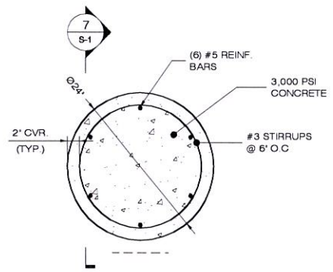


NOTE:
VERIFY ALL DIMENSIONS AND STEEL SIZES WITH PLATFORM MANUFACTURER

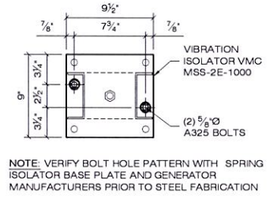
3 EQUIPMENT PLATFORM FRAMING
S-1 SCALE : ¼" = 1'-0"



6 PROPANE TANK PAD DETAIL
S-1 SCALE : N.T.S.

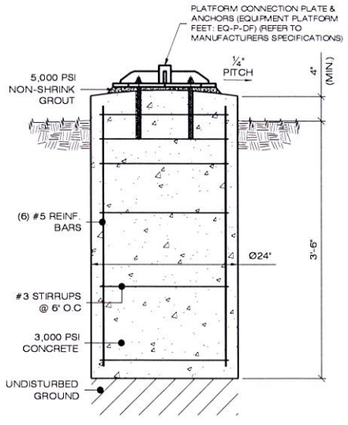


4 PIER DETAIL
S-1 SCALE : 1" = 1'-0"



NOTE: VERIFY BOLT HOLE PATTERN WITH SPRING ISOLATOR BASE PLATE AND GENERATOR MANUFACTURERS PRIOR TO STEEL FABRICATION

5 ISOLATOR PLATE
S-1 SCALE : 1 ½" = 1'-0"



7 PIER DETAIL
S-1 SCALE : 1" = 1'-0"

STRUCTURAL NOTES & SPECIFICATIONS:

STEEL

1. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. THE CONTRACTOR SHALL COORDINATE THE WORK SHOWN ON THE STRUCTURAL DRAWINGS WITH THE REQUIREMENTS OF THE M/E/P DRAWINGS (INCLUDING ALL CONTRACT SHOP DRAWINGS). THE ENGINEER SHALL BE NOTIFIED OF ANY CONDITIONS WHICH PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL MAKE NO DEVIATION FROM THE DESIGN DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL FROM THE E.O.R.
2. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN,FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
3. STRUCTURAL AND WIDE FLANGE STEEL SHALL CONFORM TO ASTM A992 (FY-50 KSI), UNLESS OTHERWISE NOTED.
4. STEEL PIPE SHALL CONFORM TO ASTM A53, GRADE B, STEEL PIPE DIAMETERS NOTED ON THE DRAWINGS ARE NOMINAL.
5. STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE ¾ DIAMETER MINIMUM AND SHALL HAVE MIN. OF TWO BOLTS, UNLESS NOTED OTHERWISE ON THE DRAWINGS. LOCK WASHERS ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.
6. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ⅝ Ø GALVANIZED ASTM A307 BOLTS UNLESS OTHERWISE NOTED.
7. ALL STEEL MATERIAL EXPOSED TO WEATHER SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIPPED GALVANIZED) COATINGS" ON IRON AND STEEL PRODUCTS.
8. 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."
9. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY TOUCHING UP ALL DAMAGED GALVANIZED STEEL WITH COLD ZINC, "GALVANOX", "DRY GALV", "ZINC IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH UP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.
10. 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 DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION" 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE 9.
11. THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW. IF FAULTY CONSTRUCTION PROCEDURES OR MATERIALS RESULT IN DEFECTIVE WORK THAT REQUIRES ADDITIONAL ENGINEERING TIME TO DEVISE CORRECTIVE MEASURES, PROFESSIONAL FEES MAY BE CHARGED TO THE CONTRACTOR AT THE STANDARD HOURLY RATE OF ADDITIONAL SERVICES.
12. CONTRACTOR TO REMOVE AND RE-INSTALL ALL FIRE PROOFING AS REQUIRED DURING CONSTRUCTION.
13. MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 (OR EQUAL).
14. STEEL HSS STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GR. B.
15. APPLY A QUALITY CONCRETE SEALER SUCH AS THEROSEAL ® TO EXPOSED CONCRETE IN ACCORDANCE WITH MANUFACTURERS APPLICATIONS DIRECTIONS.
16. IN CASE OF CONFLICT BETWEEN NOTES, DETAILS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
17. ALL HOLES TO BE MADE IN THE FIELD SHALL BE DRILLED. GAS CUTTING IS NOT PERMITTED.
18. ALL SPECIALTY ANCHORS SHALL BE INSTALLED PER MANUFACTURES WRITTEN SPECIFICATIONS.
19. SEAL ALL PENETRATIONS & SEAM BETWEEN MASONRY & STEEL W/ DOW CORNINGS 790 SILICON BUILDING SEALANT (or equal)

CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL BE DONE IN ACCORD WITH AMERICAN CONCRETE INSTITUTE (ACI) CODES 301 & 318, LATEST REVISION.
2. ALL CONCRETE USED SHALL BE 4000 PSI (28 DAY COMP STRENGTH). THE CONCRETE MIX SHALL BE BASED ON USING THE FOLLOWING MATERIALS AND PARAMETERS:
   - 2.1. PORTLAND CEMENT: ASTM C150, T1
   - 2.2. AGGREGATE: ASTM C33, 1 INCH MAX
   - 2.3. WATER: POTABLE
   - 2.4. ADMIXTURE: NON-CHLORIDE
   - 2.5. AIR: 6%*
   - 2.6. SLUMP: 4 INCH

   UNLESS NOTED OTHERWISE
3. ALL CONCRETE EXPOSED TO FREEZING WEATHER SHALL CONTAIN ENTRAINED AIR PER ACI 211 TABLE 4.2.1 OF ACI 318-95.
4. ALL REINFORCING STEEL SHALL BE ASTM A615, GR 60 (DEFORMED) UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS 'B' AND ALL HOOKS SHALL BE ACI STANDARD UNO. REINFORCING BARS SHALL BE COLD BENT WHERE REQUIRED AND TIED (NOT WELDED).
5. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   - 5.1. CONCRETE CAST AGAINST EARTH = 3 IN.
   - 5.2. CONCRETE EXPOSED TO EARTH OR WEATHER:
     - 5.2.1. #6 AND LARGER = 2 IN.
     - 5.2.2. #5 AND SMALLER = 1 ½ IN.
   - 5.3. CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT
     - 5.3.1. CAST AGAINST THE GROUND.
     - 5.3.2. SLAB AND WALL = ¾ IN.
     - 5.3.3. BEAMS AND COLUMNS = 1 ½ IN.
6. A ¾ IN. CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OR CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
7. CONCRETE SHALL BE PLACED IN A UNIFORM MANNER AND CONSOLIDATED IN PLACE.
8. CONCRETE FOOTINGS SHALL BE CAST AGAINST LEVEL, COMPACTED, NON-FROZEN BASE SOIL FREE OF STANDING WATER.

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PERMITTING DOCUMENTS

NO	DATE	REVISION
0	01/13/17	FOR REVIEW: RCB
1		
2		
3		
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5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419

OWNER: TOWN OF BROOKFIELD
ADDRESS: TOWN HALL COMPLEX PO BOX 5106 BROOKFIELD, CT 06804

HOMELAND TOWERS "BROOKFIELD CT777"

SITE ADDRESS: 100 POCONO ROAD BROOKFIELD, CT 06804

APT FILING NUMBER: CT283150

DRAWN BY: RCB
DATE: 01/04/17
CHECKED BY: SMC

SHEET TITLE:
STRUCTURAL LAYOUT & DETAILS

SHEET NUMBER:
S-1

STATE OF CONNECTICUT SCOTT M. CHASSE No. 19728 LICENSED PROFESSIONAL ENGINEER

ENVIRONMENTAL NOTES:

Eastern Box Turtle and Wood Turtle 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 on or within the vicinity of the site. The following protective measures satisfy requirements from the Connecticut Department of Energy & Environmental Protection ("CTDEEP") Wildlife Division and follow protocols developed from previous rare species consultations and state-approved protection plans. This protection program satisfies requirements noted in an August 17, 2015 letter from CTDEEP's Natural Diversity Data Base ("NDDB"). Homeland Towers shall submit an updated NDDB review request to CTDEEP at least 60 days prior to the start of construction since the August 17, 2015 NDDB letter is only valid for one year.

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 if work will occur during the Eastern Box Turtle's and Wood Turtle's active period (April 1 to November 15). All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that Eastern Box Turtle and Wood Turtle protection measures are implemented properly and will provide an education session on these three rare turtle species 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) 984-9515 or via email at dgustafson@allpointstech.com.

The proposed turtle protection program consists of several components: isolation of the project perimeter; periodic inspection and maintenance of isolation structures; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; and, reporting.

1. Isolation Measures & 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 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 erosion and sedimentation controls (i.e., silt fencing), required for erosion control compliance and creation of a barrier to possible migrating/dispersing herpetofauna, 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 to ensure the area is free of eastern box turtles and wood turtles and satisfactorily installed. The intent of the barrier is to segregate the majority of the work zone and isolate it from foraging/migrating/dispersing turtles. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. In those circumstances, the barriers will be positioned to deflect migrating/dispersal routes away from the work zone to minimize potential encounters with turtles.

   c. The fencing will consist of non-reinforced conventional erosion control woven fabric, installed approximately six inches below surface grade and staked at seven to ten-foot intervals using four-foot oak stakes or approved equivalent. The Contractor is responsible for daily inspections of the fencing for tears or breeches in the fabric and accumulation levels of sediment, particularly following storm events of 0.25 inch or greater. APT will provide periodic inspections of the fencing throughout the duration of construction activities, generally on a biweekly frequency or more frequently if site conditions warrant.

   d. The extent of the barrier fencing will be as shown on the site plans. The Contractor shall have additional barrier fencing should field or construction conditions warrant extending the fencing as directed by APT.

   e. No equipment, vehicles or construction materials shall be stored outside of the isolation barrier fencing.

   f. All silt fencing 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 turtles and wood turtles and emphasizing the non-aggressive nature of these turtles, 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 turtle 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 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 and wood turtle or other turtle 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 due to the projects location in proximity to sensitive wetlands.

   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.

   i. Petroleum and Hazardous Materials Storage and Refueling

      1. 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.

      2. 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.

   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 sensitive nearby waterways or wetlands.

      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 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 Connecticut Siting Council.

4. Turtle 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 wireless telecommunications facility and along the proposed access drive are strictly prohibited.

6. Reporting

   a. Daily inspection reports (brief narrative and applicable photos on days APT performs an inspection) will be submitted to Homeland Towers for compliance verification. Any observations of turtles will be included in the reports.

   b. Following completion of the construction project, APT will provide a summary report to the Connecticut Siting Council documenting the monitoring and maintenance of the barrier fence and erosion control measures.

   c. Any observations of eastern box turtle or wood 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.

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SHEET TITLE:
ENVIRONMENTAL NOTES

SHEET NUMBER:
N-1

STATE OF CONNECTICUT SCOTT M. CHASSE No.19720 LICENSED PROFESSIONAL ENGINEER

GENERAL NOTES:

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF BROOKFIELD, AND OTHER GOVERNMENTAL AGENCIES, AS APPLICABLE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL FOLLOW CONDITIONS OF ALL APPLICABLE PERMITS AND WORK IN ACCORD WITH OSHA REGULATIONS.

3. UTILITY INFORMATION SHOWN ON THE PLAN IS BASED ON VISIBLE FIELD EVIDENCE AND AVAILABLE RECORDS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR IS ADVISED THAT THESE DRAWINGS MAY NOT ACCURATELY DEPICT AS-BUILT LOCATIONS AND OTHER UNKNOWN STRUCTURES. THE CONTRACTOR SHALL THEREFORE DETERMINE THE EXACT LOCATION OF EXISTING UNDERGROUND ELEMENTS AND EXCAVATE WITH CARE AFTER CALLING MARKOUT SERVICE AT 1-800-922-4455 (72) HOURS BEFORE DIGGING, DRILLING OR BLASTING. CARE SHALL BE TAKEN NOT TO DISTURB EXISTING UTILITIES AND SERVICE CONNECTIONS (OR PORTIONS THERE OF) TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING STRUCTURES OR UTILITIES DAMAGED BY HIS OPERATIONS.

4. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF NEW SERVICE CONNECTIONS AND SHALL COORDINATE WORK WITH THE APPROPRIATE UTILITY COMPANY.

5. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, FIBER OPTIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER.

6. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE, BUT NOT BE LIMITED TO:
   A) FALL PROTECTION,
   B) CONFINED SPACE ENTRY,
   C) ELECTRICAL SAFETY, AND
   D) TRENCHING & EXCAVATION.

7. ELECTRIC SERVICE SHALL BE COORDINATED WITH EVERSOURCE.

8. ALL ELEVATIONS SHOWN ARE IN NAVD 88.

9. ALL RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

10. CONTRACTOR SHALL PROTECT EXISTING PAVED AND GRAVEL SURFACES, CURBS, LANDSCAPE AND STRUCTURES AND RESTORE SITE TO PRECONSTRUCTION CONDITION WITH AS GOOD, OR BETTER, MATERIALS. NEW MATERIALS SHALL MATCH EXISTING THICKNESS AND TYPE.

11. THE CONTRACTOR SHALL SHORE ALL TRENCH EXCAVATION GREATER THAN 5 FEET IN DEPTH OR LESS WHERE SOIL CONDITIONS ARE DEEMED UNSTABLE. ALL SHEETING AND/OR SHORING METHODS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.

12. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING GROUNDWATER LEVELS IN THE VICINITY OF EXCAVATIONS TO PROTECT ADJACENT PROPERTIES AND NEW WORK. GROUNDWATER SHALL BE DRAINED IN ACCORDANCE WITH LOCAL SEDIMENTATION & EROSION CONTROL GUIDELINES.

13. THE CONTRACTOR IS REQUIRED TO REVIEW THE STATEMENT OF SPECIAL INSPECTION PRIOR TO THE START OF WORK. THE CONTRACTOR TO PROVIDE E-MAIL REQUEST TO THE PROJECT ENGINEER FOR INSPECTION 72 HOURS IN ADVANCE OF INSPECTION.

14. EXCAVATION
CONTRACTOR SHALL GRADE ONLY AREAS SHOWN TO BE MODIFIED HEREIN AND ONLY TO THE EXTENT REQUIRED TO SHED OVERLAND WATER FLOW AWAY FROM SITE. ALL SLOPES SHALL NOT BE STEEPER THAN 3:1 (HORIZ:VERT).

BEDROCK SUBGRADE SHOULD NOT BE STEEPER THAN 4H:1V. HIGH SPOTS IN BEDROCK SUBGRADES MAY NEED TO BE REMOVED AND LOW SPOTS MAY BE FILLED WITH LEAN CONCRETE OR MINUS ¾" CRUSHED STONE TO PROVIDE A LEVEL SURFACE. BEDROCK SUBGRADES DO NOT REQUIRE PROOFROLLING.

SEDIMENTATION AND EROSION CONTROLS SHOWN AND SPECIFIED SHALL BE ESTABLISHED BEFORE STRIPPING EXISTING VEGETATION.

ORGANIC MATERIAL AND DEBRIS SHALL BE STRIPPED AND STOCKPILED BEFORE ADDING FILL MATERIAL.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

ALL FILL SHALL BE PLACED IN EIGHT INCH LIFTS AND COMPACTED IN PLACE. STRUCTURAL FILL SHALL BE COMPACTED TO 95% MAXIMUM MODIFIED PROCTOR DRY DENSITY TESTED IN ACCORDANCE WITH ASTM D1557, METHOD C.

EXCAVATIONS FOR FOOTINGS SHALL BE CUT LEVEL TO THE REQUIRED DEPTH AND TO UNDISTURBED SOIL. REPORT UNSUITABLE SOIL CONDITIONS TO THE ENGINEER.

STRUCTURAL FILL SHALL BE TESTED FOR MOISTURE CONTENT AND COMPACTION DURING PLACEMENT. SHOULD THE RESULTS OF THE IN-PLACE DENSITY TESTS INDICATE THE SPECIFIED MOISTURE OR COMPACTION LIMITS HAVE NOT BEEN MET, THE AREA REPRESENTED BY THE TEST SHOULD BE REWORKED AND RETESTED, AS REQUIRED, UNTIL THE SPECIFIED MOISTURE AND COMPACTION REQUIREMENTS ARE ACHIEVED.

EQUIPMENT CABINETS MAY BE SUPPORTED ON SLABS-ON-GRADE UNDERLAIN BY AT LEAST A 12-INCH THICKNESS OF COMPACTED STRUCTURAL FILL OR MINUS ¾"-INCH CRUSHED STONE PLACED ON THE EXISTING FILL, THE SURFACE OF WHICH SHOULD BE THOROUGHLY COMPACTED AND CLEAR OF ORGANIC MATTER.

THE AREA UNDERLYING THE SLABS SHOULD BE ROUGH GRADED AND THEN THOROUGHLY PROOFROLLED WITH A VIBRATORY ROLLER OR HEAVY PLATE COMPACTOR PRIOR TO FINAL GRADING AND PLACEMENT OF STRUCTURAL FILL OR MINUS ¾"-INCH CRUSHED STONE.

A SOIL UNIT WEIGHT OF 100 LBS PER CUBIC FOOT (PCF) SHOULD BE USED FOR ENGINEERED FILL OVERLYING THE FOOTINGS.

TRENCH EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH DAY.

SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE.

TOWER FOUNDATION EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN ACCORD WITH TOWER MANUFACTURERS DESIGNS AND SPECIFICATIONS.

CONTRACTOR TO VERIFY THAT FOOTING ELEVATIONS AND PIER ELEVATION PROVIDED HEREIN ARE CONSISTENT WITH THE TOWER DESIGN REQUIREMENTS.

14. MATERIALS
NATIVE GRAVEL MATERIAL MAY BE USED FOR TRENCH BACKFILL WHERE SELECT MATERIAL IS NOT SPECIFIED. GRAVEL MATERIAL FOR CONDUIT TRENCH BACKFILL SHALL NOT CONTAIN ROCK GREATER THAN 2 INCHES IN DIAMETER.

BANK OR CRUSHED GRAVEL SHALL CONSIST OF TOUGH, DURABLE PARTICLES OF CRUSHED OR UNCRUSHED GRAVEL FREE OF SOFT, THIN, ELONGATED OR LAMINATED PIECES AND MEET THE GRADATION.

FILL SHOULD MEET THE FOLLOWING MATERIAL PROPERTY REQUIREMENTS:

FILL TYPE	ACCEPTABLE LOCATION FOR PLACEMENT
STRUCTURAL FILL	TO BE USED BENEATH FOOTINGS AND SLABS-ON-GRADE, AND OTHER AREAS AS APPROPRIATE OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR HIS/HER REPRESENTATIVE. THE MATERIAL SHALL CONSIST OF HARD, INERT, DURABLE PARTICLES OF STONE AND COARSE SAND. IT SHALL BE FREE FROM ICE AND SNOW, ROOTS, SURFACE COATINGS, SOD, LOAM, CLAY, RUBBISH, AND OTHER DELETERIOUS OR ORGANIC MATTER, AND SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

PERCENT PASSING BY WEIGHT

SIEVE SIZE	STRUCTURAL FILL
3"	100
½"	50-85
NO. 4	40-75
NO. 50	8-28
NO. 200	0-10

FILL TYPE	ACCEPTABLE LOCATION FOR PLACEMENT
CRUSHED STONE	THE MATERIAL SHALL CONSIST OF ANGULAR FRAGMENTS OF CRUSHED ROCK OR DURABLE CRUSHED GRAVEL STONE. IT SHALL BE FREE FROM LOAM, CLAY, OR OTHER DELETERIOUS OR ORGANIC MATTER, AND SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

PERCENT PASSING BY WEIGHT

SIEVE SIZE	STRUCTURAL FILL
¾"	100
½"	10-50
⅜"	0-20
NO. 4	0-5

STRUCTURAL FILL AND CRUSHED STONE SHOUL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8" IN DEPTH, AND COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY, AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT, AS DETERMINED BY ASTM D1557, METHOD C (MODIFIED PROCTOR).

SEDIMENTATION/EROSION

1. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE 2002 CONNECTICUT GUIDLINES FOR SOIL EROSION AND SEDIMENT CONTROL.

2. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
THE FOLLOWING GENERAL CONDITIONS SHALL BE OBSERVED.

A. LIMITS OF CLEARING AND GRUBBING SHALL BE CLEARLY MARKED BEFORE COMMENCING WITH SUCH WORK.

B. EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED AND REMAIN UNDISTURBED.

C. CLEARING AND GRADING SHALL BE SCHEDULED SO AS TO MINIMIZE THE SIZE OF EXPOSED AREAS AND THE LENGTH OF TIME THAT AREAS ARE EXPOSED.

D. TOPSOIL SHALL BE SPREAD TO FINISH GRADES AND SEEDED AS SOON AS FINISHED GRADES ARE ESTABLISHED. STRAW MULCH, JUTE NETTING OR MATS SHALL BE USED WHERE THE NEW SEED IS PLACED.

E. THE LENGTH AND STEEPNESS OF CLEARED SLOPES SHALL BE MINIMIZED TO REDUCE RUNOFF VELOCITIES.

F. RUNOFF SHALL BE DIVERTED AWAY FROM CLEARED SLOPES.

G. ALL SEDIMENT SHALL BE TRAPPED ON THE SITE.

3. SEDIMENTATION AND EROSION CONTROL (SEC) MEASURES SHOWN SHALL BE INSTALLED PRIOR TO LAND CLEARING, EXCAVATION OR GRADING OPERATIONS. REQUIREMENTS SPECIFIED SHALL BE MET PRIOR TO COMMENCING EARTHWORK OPERATIONS.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN SEC MEASURES THROUGHOUT DURATION OF PROJECT UNTIL DISTURBED LAND IS THOROUGHLY VEGETATED.

5. FAILURE OF THE SEC SYSTEMS SHALL BE CORRECTED IMMEDIATELY AND SUPPLEMENTED WITH ADDITIONAL MEASURES AS NEEDED.

6. VEGETATIVE SEEDING: UON, AREA TO BE SEEDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF 3". TOPSOIL SHALL BE LOOSENED BY RAKING OR DISKING BEFORE SEEDING. APPLY 50 Lbs. OF DOLOMITIC LIMESTONE AND 25 Lbs. OF 10-10-10 FERTILIZER PER 1000 SF. HARROW LIME AND FERTILIZER INTO LOOSE SOIL. APPLY COMMON BERMUDA AND RYE GRASS AT 50 Lbs/ACRE. USE CYCLONE SEED DRILL CULTIPACKER SEEDER OR HYDROSEEDER (SEED & FERTILIZER SLURRY) FOR STEEP SLOPES. IRRIGATE UNTIL VEGETATION IS COMPLETELY ESTABLISHED.

7. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.

8. INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.

9. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.

10. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE SYSTEMS LOCATED ON SITE.

11. APPROPRIATE MEANS SHALL BE USED TO CONTROL DUST DURING CONSTRUCTION.

12. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO PREVENT SOIL AND LOOSE DEBRIS FORM BEING TRACKED ONTO LOCAL ROADS. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.

13. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMACE WITH THE STATE OF CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL , AS AMENDED.

14. TEMPORARY SILT FENCE EROSION CONTROL BARRIER SHALL BE MAINTAINED THROUGHOUT SITE CONSTRUCTION. STOCKPILE ON SITE 100 FT. OF SILT FENCE FOR EMERGENCY USE. TEMPORARY EROSION BARRIERS SHALL REMAIN IN PLACE UNTIL PERMANENT VEGETATIVE GROUND COVER IS ESTABLISHED.

15. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF THE EQUIPMENT LEASE AREA SHALL BE PERMANENTLY ESTABLISHED WITH A VEGETATIVE GROUND COVER.

16. STILLING BASIN SHALL BE UTILIZED FOR ANY DE-WATERING DISCHARGE WHICH MAY OCCUR DURING CONSTRUCTION OPERATIONS.

17. PROPOSED CONSTRUCTION IMPACTS AND PERMANENT IMPROVEMENTS SHALL NOT SIGNIFICANTLY IMPACT STORM WATER RUNOFF PATTERNS, VOLUME OR PEAK FLOW RATES. THE FLAT GRADE OF THE EQUIPMENT COMPOUND AND STONE SURFACE WILL PROMOTE STORM WATER INFILTRATION.

18. CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY GRADING ACTIVITIES IN LOCATIONS SHOWN ON THESE DRAWINGS.

19. 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.

20. 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.

21. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

22. 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 VEGETATION.

23. NO GREATER THAN 80,000 SQUARE FEET OF LAND SHALL BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AND SHALL NOT EXCEED 10 DAYS. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.

24. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL FRESHLY SEEDED AREAS AT A RATE OF 2 TONS PER ACRES. BALES SHALL BE UNSPOILED, AIR-DRIED, AND FREE FROM WEED, SEEDS, AND ANY COARSE MATERIAL.

STRUCTURAL NOTES & SPECS

STEEL

1. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. THE ENGINEER SHALL BE NOTIFIED OF ANY CONDITIONS WHICH PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

2. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

3. STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A992 (FY-50 KSI), UNLESS OTHERWISE NOTED.

4. STEEL PIPE SHALL CONFORM TO ASTM A500, GRADE B, STEEL PIPE DIAMETERS NOTED ON THE DRAWINGS ARE NOMINAL.

5. STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM AND SHALL HAVE MINIMUM OF TWO BOLTS, UNLESS NOTED OTHERWISE ON THE DRAWINGS. LOCK WASHER ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.

6. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS OTHERWISE NOTED.

7. ALL STEEL MATERIAL EXPOSED TO WEATHER SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIPPED GALVANIZED) COATINGS" ON IRON AND STEEL PRODUCTS.

8. 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."

9. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY UP ALL DAMAGED GALVANIZED STEEL WITH COLD ZINC, "GALVANOX", "DRY GALV", "ZINC IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH UP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.

10. 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 DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION" 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE 9.

11. THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON CONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW.

CONCRETE NOTES

1. ALL CONCRETE CONSTRUCTION SHALL BE DONE IN ACCORD WITH AMERICAN CONCRETE INSTITUTE (ACI) CODES 301 & 318, LATEST REVISION.

2. TOWER FOUNDATION WORK SHALL BE IN ACCORDANCE WITH TOWER MANUFACTURERS DESIGNS AND SPECIFICATIONS.

3. 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, T1
AGGREGATE:	ASTM C33, 1 INCH MAX
WATER:	POTABLE
ADMIXTURE:	NON-CHLORIDE
AIR:	6%*
SLUMP:	4 INCH

UNLESS NOTED OTHERWISE
*ALL CONCRETE EXPOSED TO FREEZING WEATHER SHALL CONTAIN ENTRAINED AIR PER ACI 211 TABLE 4.2.1 OF ACI 318-95.

4. ALL REINFORCING STEEL SHALL BE ASTM A615, GR 60 (DEFORMED) UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS 'B' AND ALL HOOKS SHALL BE ACI STANDARD UNO. REINFORCING BARS SHALL BE COLD BENT WHERE REQUIRED AND TIED (NOT WELDED).

5. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS.
   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 COLUMNS = 1 1/2 IN.

6. A 3/4 IN. CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OR CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

7. CONCRETE SHALL BE PLACED IN A UNIFORM MANNER AND CONSOLIDATED IN PLACE.

8. CONCRETE FOOTINGS SHALL BE CAST AGAINST LEVEL, COMPACTED, NON-FROZEN BASE SOIL FREE OF STANDING WATER.

9. APPLY A QUALITY CONCRETE SEALER SUCH AS THEROSEAL TO EXPOSED CONCRETE IN ACCORDANCE WITH MANUFACTURERS APPLICATIONS DIRECTIONS.

SITE NOTES

1. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR AND THE TESTING AGENCY PRIOR TO BEGINNING ANY MATERIAL ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNERS ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.

2. DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT. FOR GRASSED AREAS, SEED AND MULCH SHALL BE ACCEPTABLE.

3. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. IF THE MATERIAL, AFTER REWORKING, REMAINS UNSUITABLE, THEN THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACED WITH APPROVED MATERIAL AT HIS EXPENSE. ALL SUBGRADES SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED AND REPLACED.

4. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTABLE BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.

5. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

6. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES (NOT SUPPLIED BY OWNER).

7. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTORS RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS (NOT SUPPLIED BY OWNER).

8. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE LATEST APPLICABLE CODES AND STANDARDS.

9. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY, OR CITY) ENGINEER 24 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.

10. CONTRACTOR RESPONSIBLE FOR CLOSING AND FILING ALL PERMITS ASSOCIATED WITH THE SITE.

11. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT AND TOWER AREAS.

12. ALL EXISTING AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO MATCH PRECONSTRUCTION CONDITIONS.

13. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.

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PERMITTING DOCUMENTS

NO	DATE	REVISION
0	01/13/17	FOR REVIEW: RCB
1		
2		
3		
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419

OWNER: TOWN OF BROOKFIELD
ADDRESS: TOWN HALL COMPLEX PO BOX 5106 BROOKFIELD, CT 06804

HOMELAND TOWERS "BROOKFIELD CT777"

SITE ADDRESS: 100 POCONO ROAD BROOKFIELD, CT 06804

APT FILING NUMBER: CT283150

DRAWN BY: RCB
DATE: 01/04/17 CHECKED BY: SMC

SHEET TITLE:
NOTES & SPECIFICATIONS

SHEET NUMBER:
N-2

STATE OF CONNECTICUT SCOTT M. CHASSE No.19728 LICENSED PROFESSIONAL ENGINEER