

**PLANNING & ZONING DEPARTMENT**

Bethel Municipal Center, 1 School Street  
Bethel, Connecticut 06801 (203) 794-8519

**RECEIVED**

SEP - 5 2002

September 5, 2002

Mr. S. Derek Phelps  
Connecticut Siting Commission  
Ten Franklin Square  
New Britain, CT 06051

**CONNECTICUT  
SITING COUNCIL**

Re: **EM-SBA-009-020809 – SBA, Inc.**  
**Co-location on tower to be constructed at 11 Francis J. Clarke Circle**  
**Bethel, Connecticut**

Dear Mr. Phelps:

The Planning and Zoning Commission, at its meeting held on August 27, 2002, reviewed the proposal of SBA, Inc. to "modify an existing telecommunications facility located at 11 Francis J. Clarke Circle" in the Town of Bethel, to allow co-location of additional carriers AT&T and Sprint.

Please be advised that the Planning and Zoning Commission has no objection to the proposal for co-location of additional antenna, provided that all equipment and facilities are constructed within the previously approved "lease area" as shown on drawings presented to the Planning and Zoning Commission, which approval was renewed on April 9, 2002.

Please also note that, to our knowledge, the tower is not an "existing facility" because it has not yet been constructed.

Thank you for this opportunity to comment on the proposal.

Very truly yours,

Betty Brosius  
Planning & Zoning Official

cc: Michael J. Mannion, Chairman, Planning and Zoning Commission  
Judith Novachek, First Selectwoman

Betty Brosius, Planning and Zoning Official  
Town of Bethel Municipal Center  
1 School Street  
Bethel, CT 06801

Phone 203-794-8519  
FAX 203-794-8595

**Town of Bethel, CT  
Planning and Zoning**

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SEP - 5 2002

CONNECTICUT  
SITING COUNCIL

**Fax**

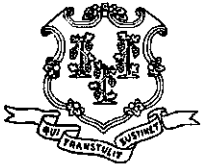
<b>To:</b> S. Darek Phelps	<b>From:</b> Betty Brosius, P&Z Official
<b>Fax:</b> 860-827-2950	<b>Pages:</b> 2
<b>Phone:</b> 860-827-2935	<b>Date:</b> 9/5/2002
<b>Re:</b> 11 Francis J. Clarke Circle - SBA	<b>CC:</b> none

**Urgent**   
 **For Review**   
 **Please Comment**   
 **Please Reply**   
 **Please Recycle**

**• Comments:**

If possible, we would like these brief comments included in the review of SBA proposal for today's meeting.

Thank you.



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@po.state.ct.us](mailto:siting.council@po.state.ct.us)

Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

September 11, 2002

Julie M. Donaldson, Esq.  
Hurwitz & Sagarin, LLC  
147 North Broad Street  
P.O. Box 112  
Milford, CT 06460-0112

RE: **EM-SBA-009-020809** - SBA, Inc. notice of intent to modify an existing telecommunications facility located at 11 Francis J. Clarke Circle, Bethel, Connecticut.

Dear Attorney Donaldson:


At a public meeting held on September 5, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notices dated August 9, 2002, and August 23, 2002. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

  
Mortimer A. Gelston  
Chairman

MAG/laf

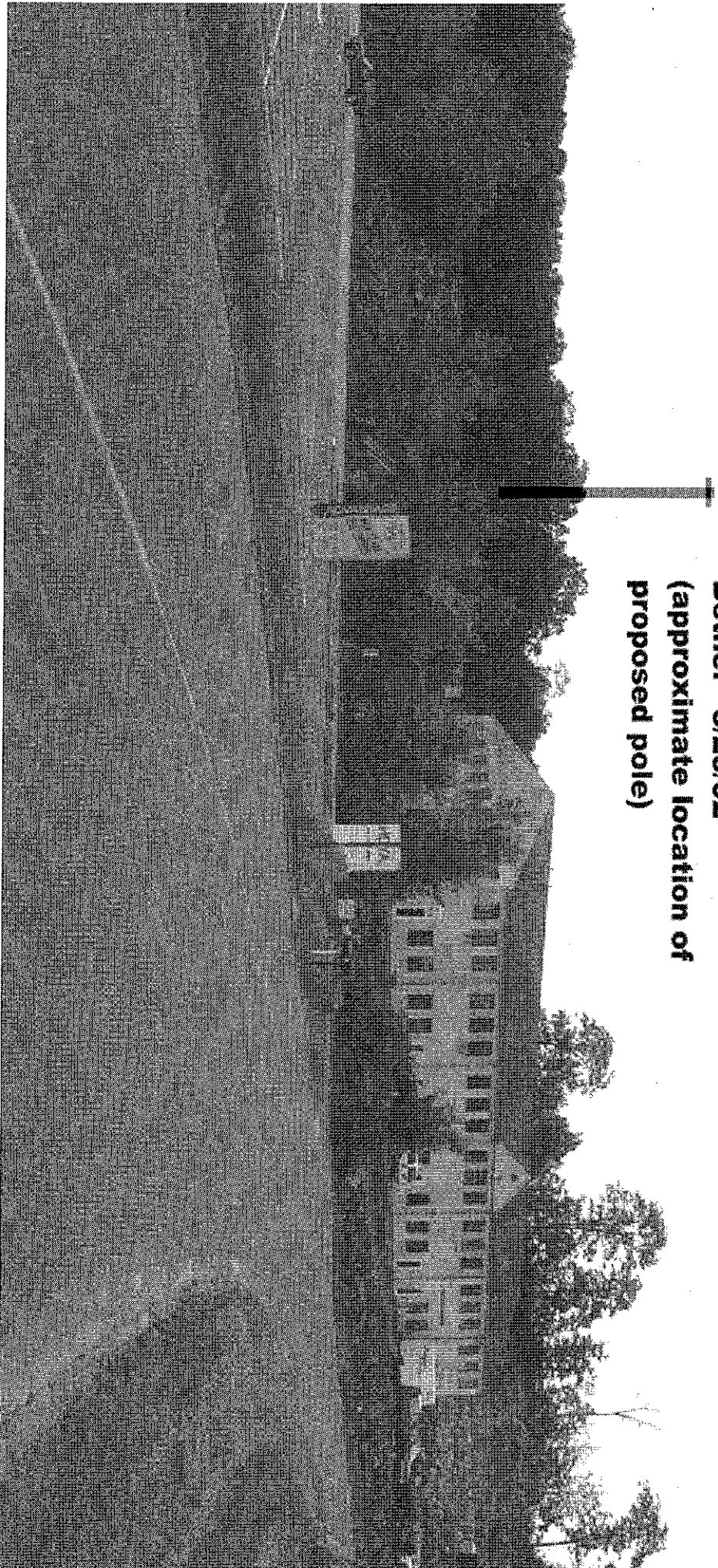
c: Honorable Judy Novachek, First Selectman, Town of Bethel  
Betty Brosius, Planning & Zoning Official, Town of Bethel  
Thomas F. Flynn III, Nextel Communications  
Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP

**EM-SBA-009-020809**

**11 Francis J. Clarke Circle**

**Bethel 8/28/02**

**(approximate location of  
proposed pole)**



---

# HURWITZ & SAGARIN, LLC

## Facsimile Cover Sheet

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AUG 23 2002

CONNECTICUT  
SITING COUNCIL

**To: Mr. David Martin**  
**Staff Analyst**  
**Telephone: Connecticut Siting Council**  
**860-827-2935**  
**Fax: 860-827-2950**

**From: Julie M. Donaldson, Esq.**  
**Company: Hurwitz & Sagarin, LLC**  
**Phone: 203-877-8000**  
**Fax: 203-878-9800**

**Date: 8/9/02**

### SUPPLEMENTAL MESSAGE:

*This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copy of this communication is strictly prohibited. If you have received this communication in error, please notice us immediately by telephone and return the original message to us at the above address via the U.S. Postal Service. Thank you.*

# HURWITZ & SAGARIN LLC

August 23, 2002

*Via Facsimile and First Class Mail*

Mr. David Martin  
Staff Analyst  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

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AUG 23 2002

CONNECTICUT  
SITING COUNCIL

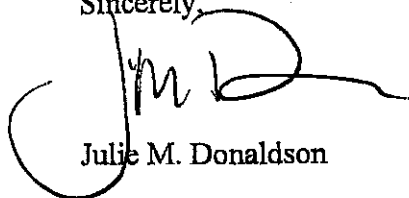
Re: Notice of Exempt Modification  
11 Francis J. Clarke Circle  
Bethel, Connecticut

Dear Mr. Martin

As you requested, enclosed please find a "2C" letter dated September 5, 2000 that includes the latitude and longitude of the above referenced site.

Please let me know if you have any other questions.

Sincerely,



Julie M. Donaldson

JMD/tr

cc: Mark Roberts, SBA

Network Services, Inc.;

860 659 9140;



# Gesick & Associates, P.C.

PROFESSIONAL SURVEYORS

19 CEDAR ISLAND AVENUE • CLINTON, CT 06413 • (860) 669-7799 • Fax (860) 669-5833 • www.gesicksurveyors.com

September 5, 2000

Mr. Eric Pearson  
SBA, Inc.  
80 Eastern Blvd.  
Glastonbury, CT 06033

RE: 11 Francis J. Clarke Circle - Bethel, Connecticut

Dear Mr. Pearson,

This letter is in reference to a proposed cellular site located at 11 Francis J. Clarke Circle in Bethel, Connecticut.

I hereby certify to "2-C" tolerances the following information:

NAD 83 State Plane	N 692648 E 814697
Latitude	N 41°-21'-36.27"
Longitude	W 73°-25'-30.03"
NGVD 1929	411'

Latitude/Longitude/Elevations were obtained utilizing Total Stations referenced to Conn DOT Baseline Station. Latitude/Longitude are referenced to NAD83 Connecticut zone. Coordinates shown, if any, are expressed in US feet. Elevations are referenced to NGVD 1929.



"Certified Small Business Equal Opportunity Employer"

# HURWITZ & SAGARIN LLC

August 23, 2002

*Via Facsimile and First Class Mail*

Mr. David Martin  
Staff Analyst  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

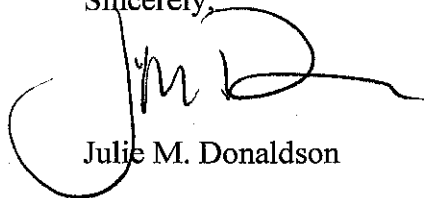
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Sincerely,



Julie M. Donaldson

JMD/rr

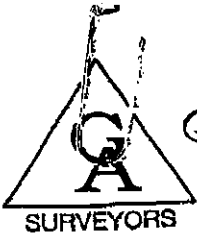
cc: Mark Roberts, SBA

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AUG 26 2002

CONNECTICUT  
SITING COUNCIL





# Gesick & Associates, P.C.

PROFESSIONAL SURVEYORS

19 CEDAR ISLAND AVENUE • CLINTON, CT 06413 • (860) 669-7799 • Fax (860) 669-5833 • www.gesicksurveyors.com

September 5, 2000

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SBA, Inc.  
80 Eastern Blvd.  
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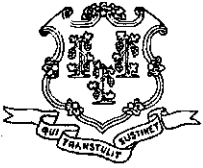
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# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@po.state.ct.us](mailto:siting.council@po.state.ct.us)

Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

August 20, 2002

Honorable Judy Novachek  
First Selectman  
Town of Bethel  
1 School Street  
Bethel Municipal Center  
Bethel, CT 06801-2105

RE: **EM-SBA-009-020809** – SBA, Inc. notice of intent to modify an existing telecommunications facility located at 11 Francis J. Clarke Circle, Bethel, Connecticut.

Dear Ms. Novachek:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting tentatively scheduled for September 5, 2002, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps  
Executive Director

SDP/slm

Enclosure: Notice of Intent

c: Betty Brosius, Planning & Zoning Official, Town of Bethel

August 9, 2002

Mr. S. Derek Phelps  
Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

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AUG - 9 2002

CONNECTICUT  
SITING COUNCIL

Re: Notice of Exempt Modification  
11 Francis J. Clarke Circle  
Bethel, Connecticut

Dear Mr. Phelps:

SBA, Inc. ("SBA") hereby requests acknowledgement that the proposed co-location of AT&T Wireless PCS, LLC ("AT&T") and Sprint Spectrum, LP ("Sprint") facilities on an approved telecommunications tower located at 11 Francis J. Clarke Circle, Bethel, Connecticut ("Bethel Facility") constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). Under this acknowledgement, SBA intends to allow AT&T to install six (6) panel antenna and related equipment and allow Sprint to install twelve antenna and related equipment at the Bethel Facility. See Plans attached hereto as Exhibit A. These antennas will be used to fulfill AT&T's and Sprint's Federal Communications Commission ("FCC") licensing requirements to provide service throughout Connecticut.

Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of modification to a telecommunications tower, which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Judith Novacheck, Bethel's First Selectman.

**I. Background**

As approved, the Bethel Facility will consist of a 160-foot monopole tower and related equipment located at 11 Francis J. Clarke Circle Bethel, Connecticut. SBA received approval from the Bethel Inland Wetland Commission on October 26, 1998, a variance from the Bethel Zoning Board of Appeals on January 19, 1999 and a Special Permit and Site Plan approval from the Bethel Planning & Zoning Commission on April 13, 1999. See Exhibit B for a copy of approvals. Due to litigation that was ultimately settled, SBA was unable to construct the Facility pursuant to the timeframes set forth in the Town's initial approval. SBA has since received renewals of the approvals from the Town of Bethel and intends to begin the construction of the Facility in accordance with these approvals.

In a letter dated January 25, 2002, the Siting Council advised that all "privately owned speculation towers developed to provide space for personal communication service (PCS) . . . will now be considered by the Council to be facilities under the jurisdiction of the Council . . . ." The letter also requested that the owners of towers that were approved between July 10, 2001 and December 17, 2001 petition the Council for a determination as to whether such towers have a significant adverse environmental effect. The Bethel Facility falls within the first category set forth in the Council's letter and, in accordance with the letter's provisions, is within the Council's exclusive jurisdiction.

As a result, in order to allow Sprint and AT&T to co-locate on the Bethel Facility, SBA hereby requests acknowledgement of modifications that are exempt pursuant to R.C.S.A. § 16-50j-72(b)(2). The Bethel Facility does not however, fall within the category of facilities for which the Council advised seeking a declaratory ruling because the Bethel Facility received its municipal approvals well before the July to December 2001 time period outlined in the Council's letter.

## **II. Modifications Proposed**

The 160 foot tower is designed to support five (5) antenna arrays at elevations of 157 feet, 145 feet, 135 feet, 125 feet and 115 feet above ground level ("AGL). Sprint will be located at an antenna centerline of 157 feet and AT&T will be located at an antenna centerline of 125 feet. See Exhibit A for the Tower Elevation plan. AT&T and Sprint will also install equipment cabinets, on concrete pads within the approved compound. See Site Layout attached hereto as Exhibit A.

For the following reasons, the proposed modifications to the Bethel Facility fall squarely within and satisfy the requirements set forth in R.C.S.A. § 16-50j-72(b)(2):


1. The proposed modifications will not increase the height of the tower. The plan attached as Exhibit A confirms that the proposed AT&T and Sprint installations will not increase the overall height of the tower.
2. The installation of the AT&T and Sprint equipment cabinets on concrete pads within the approved compound, as reflected on the attached plan, will not require an extension of the site boundaries. The proposed equipment location, access, and utility routing for the proposed AT&T and Sprint installations will be located entirely within the planned site.
3. The proposed modifications will not increase the noise levels by six decibels or more because no HVAC equipment is required.
4. As set forth in the report prepared by Bechtel Communications dated July 24, 2002, the operation of the AT&T and Sprint antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the applicable standard adopted by the Connecticut Department of Environmental Protection, as set forth in Connecticut General Statutes § 22a-162, nor to a level at or above the MPE limits established by the FCC.

The "worst-case" RF power density calculation for a point at the tower base would be 0.08% of the public MPE limit for PCS frequencies, as depicted in the power density chart attached hereto as Exhibit C.

A Tower Design prepared by Summit Manufacturing, LLC dated November 17, 1998 is attached hereto as Exhibit D. This Tower Design was submitted by SBA with its application to the Town of Bethel and, therefore, was before the Town when considering and ultimately approving SBA's application.

For the foregoing reasons, SBA respectfully submits that the proposed addition of AT&T and Sprint antennas and equipment at the Bethel Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,



Julie M. Donaldson

JMD/rr

cc: Judith Novacheck, First Selectman, Town of Bethel  
Mark Roberts, SBA  
Christopher Fisher, Cuddy, Feder & Worby  
Robert Chagnon, Sprint Spectrum LP



## PLANNING & ZONING COMMISSION

Bethel Municipal Center  
1 School Street, Bethel, Connecticut 06801 \*(203) 794-8519

April 16, 1999

Esther McNany  
SBA, Inc/Nextel Communications/Sprint PCS  
125 Shaw Street  
New London, CT 06320

RE: SBA, Inc./Nextel Communications/Sprint PCS

Dear Ms. McNany:

At the April 13, 1999 meeting of the Planning & Zoning Commission it was voted to **APPROVE** your application for a special permit and site plan, 11 Francis J. Clarke Industrial Park, on maps dated C-1 dated 2/17/98 last revised 1/22/99, C-2 dated 2/17/98 last revised 1/22/99, C-3 dated 6/20/98 last revised 4/16/99, and C-4 dated 6/20/98 with the following stipulations:

1. Applicant will submit the approved site plan to the Economic Development Commission for their review prior to applying for a building permit.
2. Any changes to the plan or in the field will require a resubmission the Commission before making any changes.
3. Reason for approval is that it meets the Planning & Zoning regulations.

Work is to commence within (1) one year and completed in (5) five years.

If you have any questions please call. I have also attached a copy of the legal notice for you review.

Sincerely,

  
Denis J. Riordan  
Chairman

DJR: cpc



## PLANNING & ZONING COMMISSION

Bethel Municipal Center  
1 School Street, Bethel, Connecticut 06801 \*(203) 794-8519

November 15, 2000

Esther McNany  
SBA, Inc./ Nextel Communications/Sprint PCS  
125 Shaw Street  
New London, CT 06320

RE: SBA, Inc. - 11 Francis J. Clarke Circle

Dear Ms. McNany,

At the November 14, 2000 meeting of the Planning & Zoning Commission it was voted to approve your revised site plan application for 11 Francis Clarke Circle on maps dated 2/17/98 last revised 11/5/00 with the following stipulations:

- 1) The resolution granting the original approval, dated 4/16/99, including all stipulations must be adhered to.
- 2) Any further changes in the site plan must be submitted to this Commission.

I have attached a copy of the legal notice for your review. Please be advised that work is not to commence until bonds are submitted and maps are signed and filed

Sincerely,

*Denis J. Riordan*  
Denis J. Riordan  
Chairman

SITE # 4276  
FILE TYPE Construction  
SECTION Permits



# PLANNING & ZONING COMMISSION

Bethel Municipal Center  
1 School Street, Bethel, Connecticut 06801 •(203) 794-8519

APPEAR IN THE BETHEL BEACON AS SOON AS POSSIBLE

## LEGAL NOTICE

At the November 14, 2000 Planning & Zoning Commission meeting the following were voted:

**APPROVED WITH STIPULATIONS:**

STEINER INC  
REVISED SITE PLAN  
2 RESEARCH DRIVE

**APPROVED WITH STIPULATIONS:**

SBA INC  
REVISED SITE PLAN  
11 FRANCIS CLARKE CIRCLE

Dated this 16<sup>th</sup> day of November, at Bethel, Connecticut.

*Denis J. Riordan*  
Denis Riordan  
Chairman

RECEIVED

NOV 17 2000  
TOWN OF BETHEL  
PLANNING & ZONING COMMISSION





## PLANNING & ZONING COMMISSION

Bethel Municipal Center  
1 School Street, Bethel, Connecticut 06801 \*(203) 794-8519

April 15, 2002

Attorney Susan A. Hays  
One State St  
P.O. Box 231277  
Hartford Ct 06123-1277

RE: SBA Telecommunications Tower  
11 Francis J. Clarke Circle

Dear Ms. Hays,

At the April 9, 2002 meeting of the Planning & Zoning Commission it was voted to **APPROVE** your request for reinstatement of the terms and conditions of the original the Site Plan for the proposed SBA, Inc. telecommunications facility and antennas for Sprint and Nextel at 11 Francis J. Clarke Circle with the following stipulations:

1. Except as modified by this approval, improvements shall be constructed as shown on drawings prepared by Gesick & Associates, P.C., Robert J. Grabarek, P.E. (CT Lic # 13441), as follows:
  - a) "SBA, Inc., #4276 Bethel (Costa Property II), 11 Francis J. Clarke Circle, Bethel, Connecticut," Sheet T-1, last revised 1/22/99;
  - b) "Comprehensive Site Plan," Sheet C-1, last revised 1/22/99 (Note: the northerly setback is shown correctly at 212.5 feet, but the arrow is shown only to the 25-foot rear setback line and should be extended to the property line.);
  - c) "Site Plan and Elevations," Sheet C-2, last revised 1/22/99 (added Sprint);
  - d) "Site Details," Sheet C-3, last revised 4/6/99;
  - e) "General Notes and Erosion Control Narrative," Sheet C-4, dated 6/20/98.
2. Applicant shall furnish the Economic Development Commission of the Town of Bethel with a copy of the plans, and shall furnish proof of transmittal to the Planning and Zoning Commission prior to the issuance of any zoning and building permits for the project.
3. Any changes in the approved plan shall require the approval of the Planning and Zoning Commission.
4. It is the applicant's responsibility to secure any and all permits and approvals required by the Connecticut Siting Council.

5. Pursuant to Sec. 118-22 of the Zoning Regulations, "The approval of any site plan shall be void and shall be of no effect unless construction of the proposed buildings or structures is commenced within one (1) year of the effective date of said approval and is substantially completed within (5) years of the effective date of said approval."

Reasons: The reinstated plan is in substantial compliance with Sec. 118-47.3, "Telecommunications towers and antennas," of the Zoning Regulations of the Town of Bethel and was previously approved by the Commission on 11/14/00, and further by Settlement Agreement dated 8/24/00-9/22/00. In granting the reinstatement of the Site Plan for this application, the Commission makes no decision regarding the property owner's right to apply for additional buildings or structures on the site, in accordance with Bethel zoning regulations in effect at the time of the application.

Sincerely,



Michael J. Mannion  
Chairman

MJM: cpc



---

Cellular Division  
RF Engineering Department

Bechtel Telecommunications  
Address: 210 Pomeroy Ave  
Suite 201, Meriden, CT 06450  
TEL: 203-639-0640  
FAX: 203-238-2068

July 24, 2002

Re: 913-010-513  
11 Francis J. Clarke Cir. Bethel, CT-06801

As per your request, attached is the RF Exposure Analysis for the proposed AT&T Wireless antenna facility located at 11 Francis J. Clarke Cir. Bethel, CT-06801

Thank you for giving me an opportunity to respond to your inquiry about the safety of this wireless antenna facility. **The maximum level of RF energy associated with simultaneous and continuous operations of all transmitters at this facility will be less than safety criteria adopted by the Federal Communications Commission as mandated by the Telecommunications Act of 1996. Therefore, this wireless antenna facility fully complies with FCC.**

This antenna facility is an integral part of the wireless infrastructure that provides mobile communication services to individuals, businesses, and safety agencies throughout our community and the nation. People rely on wireless phones for personal safety and security. At the same time, many public service agencies depend on wireless technology to provide disaster relief and emergency services. AT&T Wireless Services is committed to providing safe and efficient wireless communication services to everyone who depends on wireless phones for personal safety, convenience and emergency communications.

Cellular systems use low power radio signals that operate in the same frequency band as UHF television and PCS frequencies have been used by utilities and public safety agencies throughout our communities for years. Wireless antenna facilities transmit low power radio signals to carry telephone conversations. These personal wireless base station antennas typically operate at one hundred watts or less per channel and are placed in inaccessible locations on towers and rooftops. The power density decreases rapidly as one moves away from the antenna, creating very low-level signals at ground level and points of public access. In addition, wireless phones operate at the lowest power needed to maintain contact with the base station – between 0.1-0.6 watts.

Therefore, when new antenna sites are added in a system, the operating power of both the antenna facilities and the phones decreases as the distance between the antenna sites and the phones is reduced.

Wireless antenna facilities comply with FCC rules governing the safety of radio emissions. Under the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over the safety of RF emissions from personal wireless antenna facilities. Public Law 104-104, Section 704(a)(7)(B)(iv). The FCC rules constitute a national RF exposure standard that reflects the consensus of the federal agencies charged with protecting public health and the environment, including the FDA, EPA, NIOSH, and OSHA. AT&T Wireless Service antenna sites comply with all FCC rules regulating RF emissions and safety.

The Telecommunications Act of 1996 recognizes the importance of ensuring the integrity of wireless communication networks that provide nationwide communication services. Nevertheless, we understand people's concerns about health and safety and we recognize our responsibility to address those concerns. Consequently, I have prepared the attached power density report to demonstrate that the 11 Francis J Clarke Cir. antenna facility site will comply with FCC regulations governing the safety of RF emissions. The report indicates that under maximum operating conditions, the highest power density in a publicly accessible area is 0.000753 milliwatts per square centimeter; 1327 times lower than the maximum permissible limit allowed for the public at our operating frequency.

Wireless communication services make people and communities safer by providing mobile communications support for law enforcement, disaster relief, and personal emergencies. Wireless antenna facilities carry the calls that support the needs of our customers and communities. I hope that the enclosed report answers your questions regarding the safety of this site. If you have any additional questions about this site, I may be reached at (203)-639-0682.

Very truly yours,



Vishal Kataria

RF Engineer

Bechtel Telecommunications.

AT&T Wireless Services, Inc.



---

**RF Exposure Analysis for Proposed  
AT&T Wireless Antenna Facility**

SITE ID: 913-010-513

July 24, 2002

**Prepared by AT&T Wireless Services, Inc.  
Vishal Kataria RF Engineer**

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## 1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at 11 Francis J Clarke Cir. Bethel, CT-06801. This analysis uses site-specific engineering data to determine the predicted levels of radio frequency (RF) electromagnetic energy in the vicinity of the proposed facility and compares those levels with the Maximum Permissible Exposure (MPE) limits established by the Federal Communications Commission.

## 2. Site Data

Site Name: <i>Bethel</i>	
Number of simultaneously operating channels	12
Type of antenna	Allgon 7250.03
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	125 feet
Antenna Aperture Length	5 feet

## 3. RF Exposure Prediction

The following equations established by the FCC, in conjunction with the site data, were used to determine the levels of RF electromagnetic energy present in the vicinity of the proposed facility<sup>1</sup>:

$$PowerDensity = \frac{0.64 * N * EIRP(\theta)}{\pi * R^2} (mW/cm^2) \quad Eq. 1-Far-field$$

Where,  $N$ = Number of channels,  $R$ = distance in cm from the RC (Radiation Center) of antenna, and  $EIRP(\theta)$  = The isotropic power expressed in milliwatts in the direction of prediction point. This is the correct equation for antennas which have their gain expressed in dBi, which is the usual case for the PCS bands.

$$PowerDensity = \frac{P_{in} / ch * N * 10^3}{2 * \pi * R * h * \alpha / 360} (mW/cm^2) \quad Eq. 2-Near-field$$

Where  $P_{in}/ch$  = Input power to antenna terminals in watts/ch,  $R$  = distance to center of radiation,  $h$  = aperture height in meters,  $\alpha$  = 3 dB beam-width of horizontal pattern.

<sup>1</sup> RF exposure is measured and predicted in terms of power density in units of milliwatts (mW), a thousandth of a watt, or microwatts ( $\mu$ W), a millionth of a watt, per square centimeter ( $cm^2$ ). Data comparing predictive analysis with on site measurements has demonstrated that power density can be effectively predicted at given locations in the vicinity of a wireless antenna facility.

#### 4. FCC Guidelines for Evaluating the Environmental Effects of RF Radiation

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by a Second Memorandum Opinion and Order. These new rules represent a consensus of the federal agencies responsible for the protection of public health and the environment, including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Health and Safety (NIOSH), and the Occupational Safety and Health Administration (OSHA).

Under the laws that govern the delivery of wireless communications services in the United States, as amended by the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over RF emissions from personal wireless antenna facilities, which include cellular, PCS, messaging and aviation sites.<sup>2</sup> Pursuant to its authority under federal law, the FCC has established rules to regulate the safety of emissions from these facilities.

#### 5. Comparison with Standards

Exhibit A shows the levels of RF electromagnetic energy as one moves away from the antenna facility. As shown in Exhibit A, the maximum power density is 0.000753 mW/cm<sup>2</sup> which occurs at 1100 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000289 mW/cm<sup>2</sup> at a distance of 4 feet. Table 1 below shows the Maximum Permissible Exposure (MPE) limits established by the FCC. There are different MPE limits for public/uncontrolled and occupational/controlled environments.

*Table 1: Maximum Permissible Exposure limits for RF radiation*

<i>Frequency</i>	<i>Public/Uncontrolled</i>	<i>Occupational/controlled</i>	<i>Maximum power density at Accessible location</i>
Cellular	.580 mW/cm <sup>2</sup>	2.9 mW/cm <sup>2</sup>	0.000753 mW/cm <sup>2</sup>
PCS	1 mW/cm <sup>2</sup>	5 mW/cm <sup>2</sup>	

The maximum power density at the proposed facility represents only 0.08% of the public MPE limit for PCS frequencies.

#### 6. Conclusion

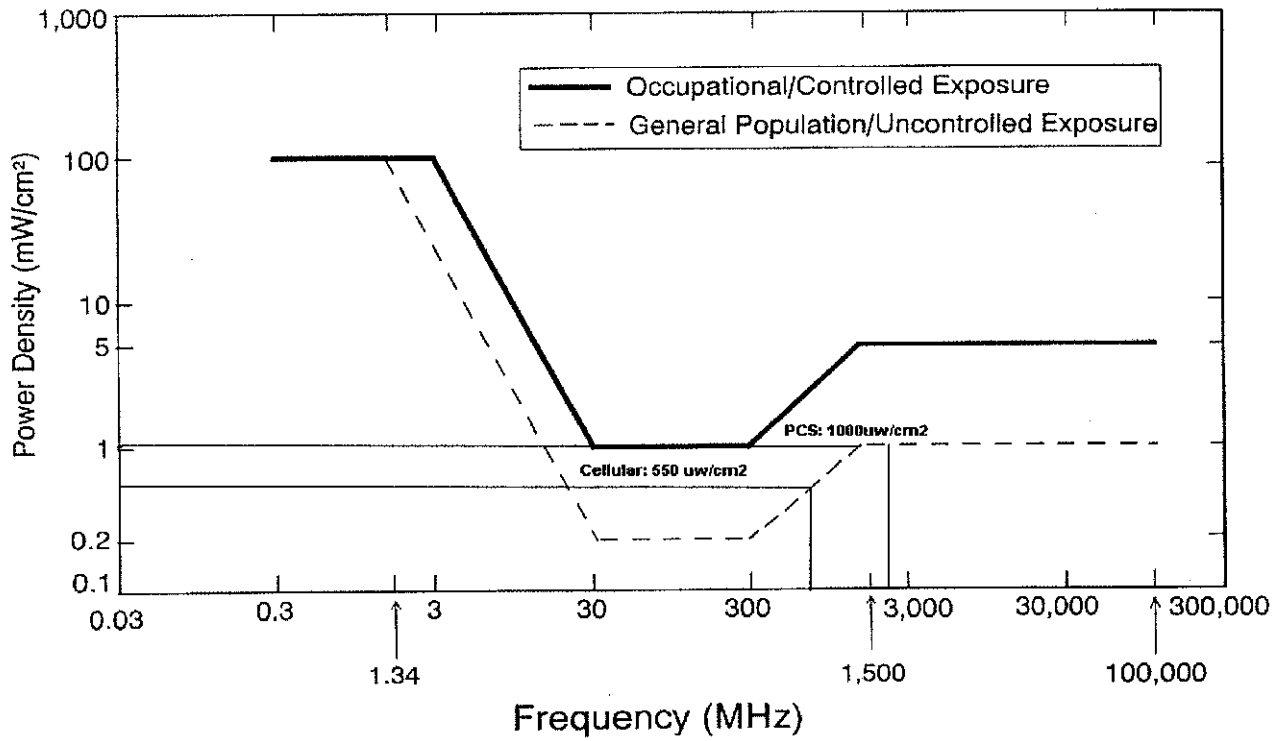
This analysis show that the maximum power density in accessible areas at this location is 0.000753 mW/cm<sup>2</sup>, a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

<sup>2</sup> 47 U.S. C. Section 332 ( c ) (7)(B)(iv) states that “[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.”



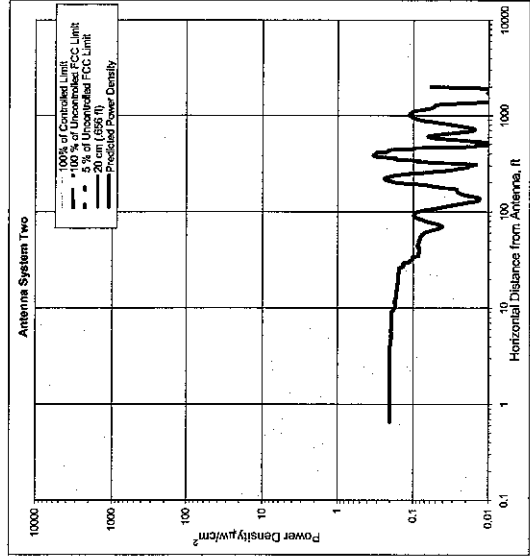
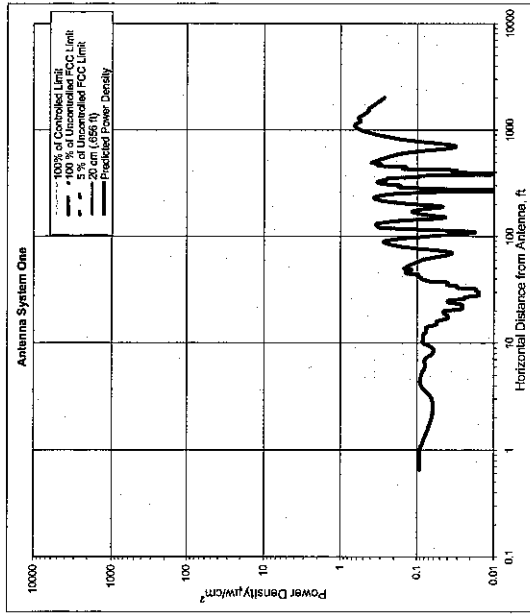
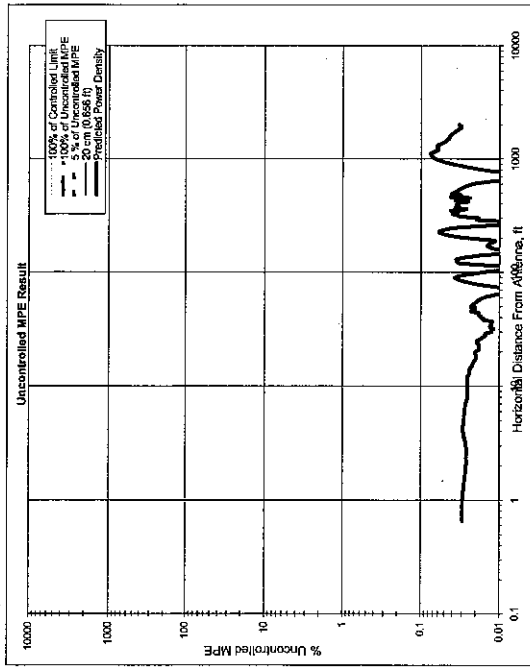
### 7. FCC Limits for Maximum Permissible Exposure

FCC Limits for Maximum Permissible Exposure (MPE)  
*Plane-wave Equivalent Power Density*



**8. Exhibit A**

**Heading**



Number of Antenna Systems: 2

Meets FCC Controlled Limits for The Antennas Systems.

Meets FCC Uncontrolled Limits for The Antenna Systems.

Meets 5% of FCC Uncontrolled Limits for The Antenna Systems.

No Further Maximum Permissible Exposure (MPE) Analysis Required.

Power Density	@Horiz. Dist.
mW/cm <sup>2</sup>	feet
Maximum Power Density = 0.000753	1100.00
1,327.83 times lower than the MPE limit for uncontrolled environment	
Composite Power (ERP) = 9,000.00	Watts

Site ID: 907-010-513  
 Site Name: Bethel  
 Site Location: 11 Francis J. Clarke Cir.  
 Bethel, CT-06801

Performed By: Vishal Kataria  
 Date: 7/24/02

**Antenna System One**

Frequency	units	Value
1965.00	MHz	1965.00
# of Channels	#	12
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	5.86
(Center of Radiator)	feet	125.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		Aligon 7250.03
Max Ant. Gain	dbd	16.30
Down tilt	degrees	2.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.11
Ant. HBW	degrees	65.00
Distance to Ant. horizon	feet	122.45
WOST	Y/N?	n

**Antenna System Two**

Frequency	units	Value
1955.00	MHz	1955.00
# of Channels	#	12
Max ERP/Ch	Watts	500.00
Max Pwr/Ch Into Ant.	Watts	15.45
(Center of Radiator)	feet	157.00
Calculation Point	feet	0.00
(above ground or roof surface)	feet	0.00
Antenna Model No.		DB980G90
Max Ant. Gain	dbd	15.10
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.00
Ant. HBW	degrees	90.00
Distance to Ant. horizon	feet	154.50
WOST	Y/N?	n

Ant System ONE Owner: AT&T  
 Sector: 3  
 Azimuth: 0/120/240

Ant System TWO Owner: Sprint  
 Sector: 3  
 Azimuth: 0/120/240

## 9. For Further Information

Additional information about the environmental impact of RF energy from personal wireless antenna facilities can be obtained from the Federal Communications Commission:

Dr. Robert Cleveland  
Federal Communications Commission  
Office of Engineering and Technology  
Washington, DC 20554

RF Safety Program: 202-418-2464  
Internet address: [rfsafety@fcc.gov](mailto:rfsafety@fcc.gov)  
RF Safety Web Site: [www.fcc.gov/oet/rfsafety](http://www.fcc.gov/oet/rfsafety)

## 10. References

[1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).

[2] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Rcd 2849 (1993).

[3] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).

[4] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Second Memorandum Opinion and Order, ET Docket 93-62, adopted August 25, 1997.

[5] *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*, OET Bulletin 65, August, 1997.

S B A

SITE: BETHEL  
DESC: 4276  
ADDRESS: FAIRFIELD COUNTY

COUNTY: FAIRFIELD, CT  
Tue 17-Nov-98 14:26

JOB: 4071  
RFQ: 98-4114-r3

Revisions

POLE

A)20-Oct98	FIT TOWER TO 160' MAX
B)17-Nov98	INCREASE TOP DIAMETER

SUMMIT MANUFACTURING, LLC.  
225 KIWANIS BLVD.  
WEST HAZLETON, PA 18201  
(717) 454-8730 Phone  
(717) 454-4851 Fax  
[www.SummitMfgInc.com](http://www.SummitMfgInc.com)

[English Units]

POLE SPECIFICATIONS	
POLE HEIGHT	155.00 FEET
TAPER	.2100 IN/FT
POLE SHAPE	18 SIDED POLYGON
ORIENTATION	FLAT-FLAT

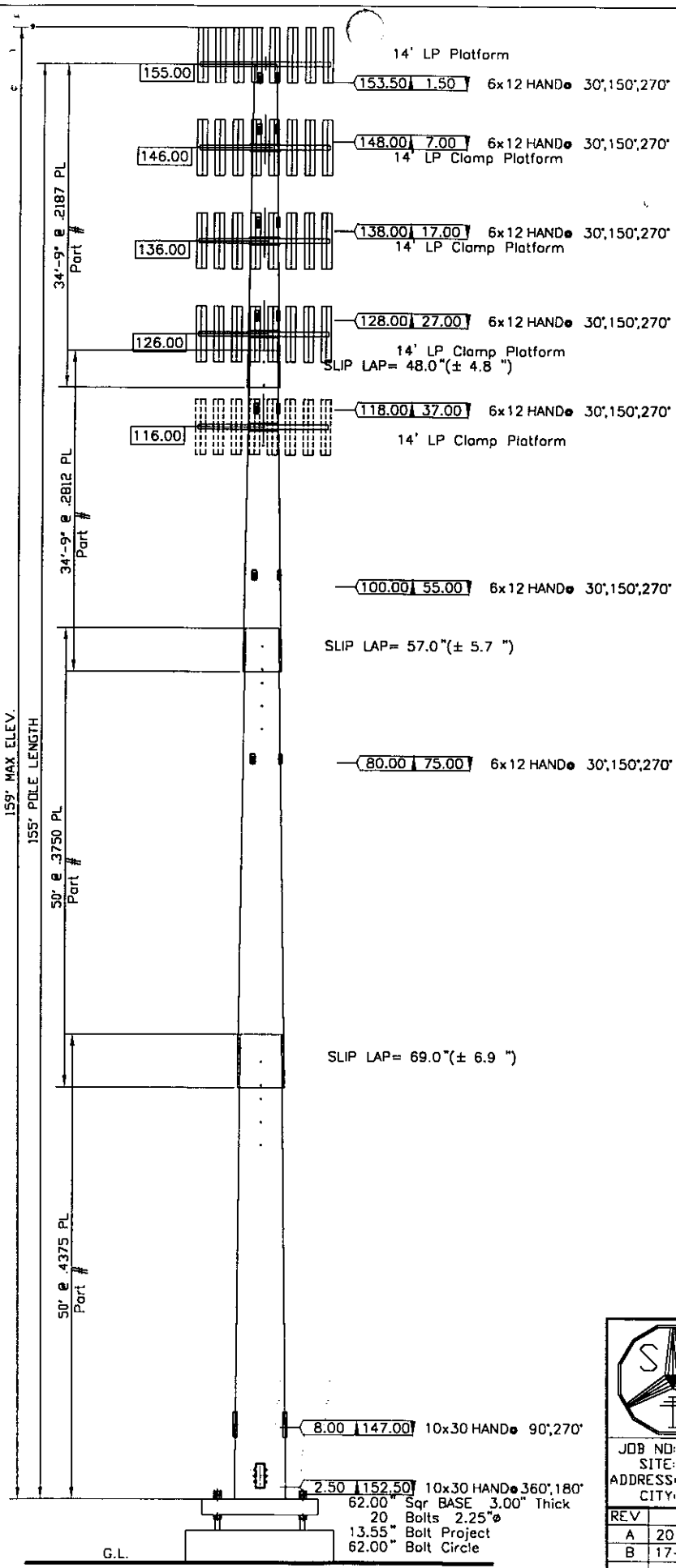
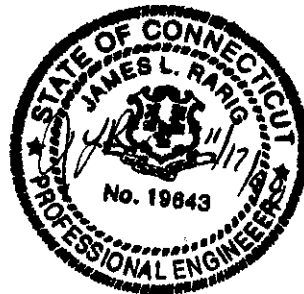
No	QTY	ELEV ft	Fu	SUPPORT/LIGHT DESCRIPTION
1	1	155.00		14' LP Platform
	12	156.00		DB896H
2	1	146.00		14' LP Clamp Platform
	12	146.00		DB896H
3	1	136.00		14' LP Clamp Platform
	12	136.00		DB896H
4	1	126.00		14' LP Clamp Platform
	12	126.00		DB896H
5	1	116.00	F	14' LP Clamp Platform
	12	116.00	F	DB896H


Sec	LENGTH (ft)	Flat-Flat TOPØ BOTØ	THICK	WEIGHT	STEEL SPEC	FINISH
1	34.75	24.00 31.30	.2188	2235	A607-65	Galv
2	34.75	30.02 37.32	.2813	3498	A607-65	Galv
3	50.00	35.76 46.26	.3750	8167	A607-65	Galv
4	50.00	44.30 54.80	.4375	11516	A607-65	Galv
	(in)	#Bolts HoleØ				
BP	62.00	20	48.00	3.000	1397	A572-50 Galv
		BoltØ HoleØ	TOTAL	26813		
AB	96.00	2.25 2.625		2765	A615-75	Galv-18"

LOAD CASE DESCRIPTION	WIND (mph)	O.L.F. VERT.	RAD. ICE	FACTORS GUST Cf	WIND (psf)
1) Max Wind Load	85.00	1.00		1.69 .65	31.26
2) Max Wind Load x.75	73.61	1.30	.50	1.69 .65	23.44
3) MicroWave Oper.	50.00	1.00		1.69 .65	10.82

LOAD CASE DESCRIPTION	BASE REACTIONS			DISP @TOP	
	Axial (kips)	Shear (kips)	Mom (ft-k)	DEFL. (ft)	SWAY (deg)
1) Max Wind Load	42.5	33.2	3938	9.44	6.38
2) Max Wind Load x.75	63.5	27.0	3326	8.11	5.51
3) MicroWave Oper.	41.9	11.5	1367	3.28	2.22

- 1) FULL HEIGHT STEP BOLTS
- 2) ANTENNA FEED LINES RUN INSIDE POLE
- 3) OVERALL TOWER HEIGHT WITH FOUNDATION NOT TO EXCEED 160 FEET.





**Summit  
Manufacturing, LLC**  
225 KIWANIS BLVD.  
WEST HAZLETON, PA 18201

PAGE  
1 of 3

DATE  
17-Nov-98  
Tue 14:26

JOB NO: 4071 CUSTOMER: SBA  
SITE: 155.00ft BETHEL  
ADDRESS: FAIRFIELD COUNTY  
CITY: STATE: CT COUNTY: FAIRFIELD

REV	DATE	DESCRIPTION	SCALE:	N.T.S.
A	20-Oct-98	FIT TOWER TO 160' MAX	DRAFT:	
B	17-Nov-98	INCREASE TOP DIAMETER	ENG:	
			DRAWING NO. 4071-PE1	

SUMMIT MANUFACTURING, LLC  
 225 KIWANIS BLVD  
 WEST HAZLETON, PA 18201 USA

Tue 17-Nov-98 14:26  
 TEL: (717) 454-8730  
 FAX: (717) 454-4851  
 NET: summitlg@epix.net

1

CUSTOMER: SBA  
 SITE NAME: BETHEL

REF: 98-4114-r3 JOB: 4071  
 SITE: 4276

TOP DIAMETER 24.00 in. [ 24.37 in. Point-Point]  
 BOTTOM DIAMETER 54.80 in. [ 55.65 in. Point-Point]  
 POLE HEIGHT 155.00 ft.  
 E-MODULUS 29000 ksi [ 12000 ksi SHEAR MODULUS]  
 SHAPE 18 sides FLAT ORIENTATION

APPURTENANCE ATTACHMENT POINTS:

NO.	X,ft	QTY	FUTURE	DESCRIPTION
1	155.00	1		14' LP Platform
2	146.00	1		14' LP Clamp Platform
3	136.00	1		14' LP Clamp Platform
4	126.00	1		14' LP Clamp Platform
5	116.00	1	<Future>	14' LP Clamp Platform

MICROWAVE  
 DIAMETER FREQUENCY

SECTIONS

NO	BOTTOM X,ft.	THICK in.	CONNECT type	LAP in.	TAPER in/ft	LENGTH ft.	WT. lbs	STEEL SPEC	POLE finish
1	34.75	.21875	SLIP	48.	.2100	34.75	2235	A607-65	GALV
2	65.50	.28125	SLIP	57.	.2100	34.75	3498	A607-65	GALV
3	110.75	.37500	SLIP	69.	.2100	50.00	8167	A607-65	GALV
4	155.00	.43750	C-Weld		.2100	50.00	11516	A607-65	GALV

SECTION PROPERTIES

X,ft	D,in	T,in	Area in^2	IZ in^4	IX&IY in^4	w/t	d/t	Fy ksi		
155.00	24.00	.2188	16.51	2358	1179	17.58	109.7	65.00	TOP	-P1
150.00	25.05	.2188	17.24	2684	1342	18.43	114.5	65.00		
146.00	25.89	.2188	17.82	2968	1484	19.11	118.4	65.00		-P2
141.00	26.94	.2188	18.55	3346	1673	19.95	123.2	65.00		
136.00	27.99	.2188	19.28	3756	1878	20.80	128.0	65.00		-P3
131.00	29.04	.2188	20.01	4198	2099	21.64	132.8	65.00		
126.00	30.09	.2188	20.74	4674	2337	22.49	137.6	65.00		-P4
124.25	30.46	.2188	20.99	4848	2424	22.79	139.2	65.00	Slip-B1	
120.25	30.86	.2813	27.30	6448	3224	17.58	109.7	65.00	Slip-T2	
116.00	31.75	.2813	28.09	7030	3515	18.14	112.9	65.00		-P5
111.00	32.80	.2813	29.03	7756	3878	18.80	116.6	65.00		
106.00	33.85	.2813	29.97	8530	4265	19.46	120.4	65.00		
101.00	34.90	.2813	30.90	9356	4678	20.12	124.1	65.00		
96.00	35.95	.2813	31.84	10236	5118	20.78	127.8	65.00		
94.25	36.32	.2813	32.17	10556	5278	21.01	129.1	65.00	Slip-B2	
89.50	36.75	.3750	43.30	14476	7238	15.52	98.0	65.00	Slip-T3	
84.50	37.80	.3750	44.55	15766	7883	16.01	100.8	65.00		
79.50	38.85	.3750	45.80	17130	8565	16.51	103.6	65.00		
74.50	39.90	.3750	47.05	18572	9286	17.00	106.4	65.00		
69.50	40.95	.3750	48.30	20092	10046	17.49	109.2	65.00		
64.50	42.00	.3750	49.55	21692	10846	17.99	112.0	65.00		
59.50	43.05	.3750	50.80	23376	11688	18.48	114.8	65.00		
54.50	44.10	.3750	52.05	25142	12571	18.98	117.6	65.00		
50.00	45.05	.3750	53.17	26808	13404	19.42	120.1	65.00	Slip-B3	
45.00	45.35	.4375	62.36	31778	15889	16.51	103.7	65.00		
44.25	45.51	.4375	62.58	32114	16057	16.58	104.0	65.00	Slip-T4	
39.25	46.56	.4375	64.04	34410	17205	17.00	106.4	65.00		

---

SECTION PROPERTIES			Area	IZ	IX&IY			Fy
X, ft	D, in	T, in	in <sup>2</sup>	in <sup>4</sup>	in <sup>4</sup>	w/t	d/t	ksi
34.25	47.61	.4375	65.50	36814	18407	17.42	108.8	65.00
29.25	48.66	.4375	66.96	39328	19664	17.85	111.2	65.00
24.25	49.71	.4375	68.42	41954	20977	18.27	113.6	65.00
19.25	50.76	.4375	69.87	44692	22346	18.69	116.0	65.00
14.25	51.81	.4375	71.33	47550	23775	19.12	118.4	65.00
9.25	52.86	.4375	72.79	50526	25263	19.54	120.8	65.00
4.25	53.91	.4375	74.25	53622	26811	19.96	123.2	65.00
.00	54.80	.4375	75.49	56352	28176	20.32	125.3	65.00 BASE



SUMMIT MANUFACTURING, LC  
 CUSTOMER: SBA  
 SITE NAME: BETHEL

Tu 17-Nov-98 14:26  
 REF: 98-4114-r3 JOB:4071  
 SITE: 4276

3
---

LOAD CASE- 1  
 Max Wind Load

W  
I  
N  
D

WIND SPEED 85.0 mph 136.8 kph  
 GUST FACTOR 1.69  
 EXPOSURE COEFF. .2857  
 Cf .650  
 REFERENCE HEIGHT 33.0 ft  
 PRESSURE @Ref.Ht 31.3 psf 1496 Pa  
 BASE ABOVE GROUND .0 ft

TIA/EIA-222F

APPURTENANCE LOADS:

ELEV	QTY	DESCRIPTION	Center Line Elev-ft	each			WIND psf	FORCES kips		MOMENT ft-k	Da
				WEIGHT lbs	AREA ft^2	CABLE #/ft		Y	Z		
1	1	14' LP Platform	155.00	2000	35.0		48.65	4.35	-2.00	-1.1	Da
	12	DB896H	156.00	22	9.1	.920	48.72	.00	-1.98	.0	
2	1	14' LP Clamp Platform	146.00	2000	35.0		47.83	4.22	-2.00	-1.1	Da
	12	DB896H	146.00	22	9.1	.920	47.81	.00	-1.88	.0	
3	1	14' LP Clamp Platform	136.00	2000	35.0		46.87	4.13	-2.00	-1.0	Da
	12	DB896H	136.00	22	9.1	.920	46.85	.00	-1.77	.0	
4	1	14' LP Clamp Platform	126.00	2000	35.0		45.86	4.04	-2.00	-1.0	Da
	12	DB896H	126.00	22	9.1	.920	45.84	.00	-1.66	.0	
5	1	14' LP Clamp Platform	116.00	2000	35.0		44.79	3.95	-2.00	-1.0	Da
	12	DB896H	116.00	22	9.1	.920	44.77	.00	-1.54	.0	

RESULTS

X, ft	WIND psf	FORCES, kips			MOMENTS, ft-kips			STRESS ksi	ALLOW ksi	COMB RATIO
		ShearX	ShearY	AxialZ	BendX	BendY	TorqZ			
155.00	31.6	.0	4.9	-3.6	-.1	.0	.0	.57	51.87	.011
150.00	31.3	.0	5.3	-3.9	-24.8	.0	.0	3.09	51.87	.060
146.00	31.1	.0	10.2	-7.5	-45.9	.0	.0	5.40	51.87	.104
141.00	30.8	.0	10.6	-7.9	-97.0	.0	.0	9.99	51.87	.193
136.00	30.5	.0	15.5	-11.5	-149.9	.0	.0	14.28	51.87	.275
131.00	30.1	.0	15.8	-11.9	-227.3	.0	.0	19.80	51.87	.382
126.00	29.8	.0	20.5	-15.4	-306.6	.0	.0	24.85	51.87	.479
124.25	29.7	.0	20.7	-15.7	-342.4	.0	.0	27.01	51.87	.521
120.25	29.4	.0	21.0	-16.1	-425.2	.0	.0	25.42	51.87	.490
116.00	29.1	.0	25.6	-19.8	-514.5	.0	.0	29.06	51.87	.560
111.00	28.7	.0	26.0	-20.4	-642.5	.0	.0	33.85	51.87	.653
106.00	28.4	.0	26.3	-21.0	-772.3	.0	.0	38.08	51.87	.734
101.00	28.0	.0	26.7	-21.6	-904.2	.0	.0	41.83	51.87	.806
96.00	27.6	.0	26.9	-22.1	-1037.5	.0	.0	45.12	51.87	.870
94.25	27.4	.0	27.1	-22.6	-1084.2	.0	.0	46.18	51.87	.890
89.50	27.0	.0	27.5	-23.4	-1213.3	.0	.0	38.09	51.87	.734
84.50	26.6	.0	27.9	-24.2	-1350.8	.0	.0	40.03	51.87	.772
79.50	26.1	.0	28.3	-25.1	-1490.0	.0	.0	41.74	51.87	.805
74.50	25.6	.0	28.6	-26.1	-1631.7	.0	.0	43.29	51.87	.835
69.50	25.1	.0	29.0	-27.0	-1774.2	.0	.0	44.64	51.87	.861
64.50	24.6	.0	29.3	-28.0	-1919.2	.0	.0	45.86	51.87	.884
59.50	24.0	.0	29.7	-29.0	-2065.8	.0	.0	46.94	51.87	.905
54.50	23.4	.0	30.0	-29.9	-2214.2	.0	.0	47.91	51.87	.924
50.00	22.9	.0	30.3	-30.9	-2349.2	-.1	.0	48.70	51.87	.939
45.00	22.2	.0	30.5	-31.6	-2501.7	-.1	.0	44.02	51.87	.849
44.25	22.1	.0	30.7	-32.3	-2524.2	-.1	.0	44.11	51.87	.850
39.25	21.4	.0	31.1	-33.5	-2677.5	-.1	.0	44.67	51.87	.861
34.25	20.5	.0	31.4	-34.7	-2833.3	-.1	.0	45.18	51.87	.871
29.25	19.6	.0	31.7	-36.0	-2990.0	-.1	.0	45.62	51.87	.880
24.25	18.6	.0	32.0	-37.3	-3148.3	-.1	.0	46.00	51.87	.887

RESULTS

X, ft	WIND psf	FORCES, kips				MOMENTS, ft-kips			STRESS ksi	Fb ALLOW ksi	COMB RATIO
		ShearX	ShearY	AxialZ	BendX	BendY	TorqZ				
19.25	17.4	.0	32.3	-38.6	-3308.3	-.1	.0	46.34	51.87	.893	
14.25	16.0	.0	32.6	-39.9	-3469.2	-.1	.0	46.62	51.87	.899	
9.25	14.1	.0	32.9	-41.2	-3632.5	-.1	.0	46.88	51.87	.904	
4.25	11.3	.0	33.2	-42.5	-3797.5	-.1	.0	47.10	51.87	.908	
.00	.0	.0	33.2	-42.5	3938.3	.1	.0	47.24	51.87	.911	

DISPLACEMENTS

X, ft.	DEFLECTION ft.				ROTATION, deg				MicroW Allow
	X	Y	Z	XY-Result	X	Y	Z	XY-Res	
155.00	.00	9.44	-.39	9.44< 6.09%>	-6.38	.00	.00	6.38	
146.00	.00	8.44	-.33	8.44< 5.78%>	-6.34	.00	.00	6.34	
136.00	.00	7.35	-.27	7.35< 5.40%>	-6.18	.00	.00	6.18	
126.00	.00	6.30	-.22	6.30< 5.00%>	-5.87	.00	.00	5.87	
116.00	.00	5.31	-.17	5.31< 4.57%>	-5.48	.00	.00	5.48	

SUMMIT MANUFACTURING, LC  
 CUSTOMER: SBA  
 SITE NAME: BETHEL

Tu 17-Nov-98 14:26  
 REF: 98-4114-r3 JOB:4071  
 SITE: 4276

5

LOAD CASE- 2  
 Max Wind Load x.75

W  
I  
N  
D

WIND SPEED 73.6 mph 118.5 kph  
 GUST FACTOR 1.69  
 EXPOSURE COEFF. .2857  
 Cf .650  
 REFERENCE HEIGHT 33.0 ft  
 PRESSURE @Ref.Ht 23.4 psf 1122.Pa  
 BASE ABOVE GROUND .0 ft

TIA/EIA-222F

APPURTENANCE LOADS:		Center	each		FORCES		MOMENT		
ELEV	QTY DESCRIPTION	Line Elev-ft	WEIGHT lbs	AREA ft^2	CABLE #/ft	WIND psf	kips		ft-k
							Y	Z	X
1	1 14' LP Platform	155.00	2200	39.0		36.49	3.64	-2.86	-.9 Da
	12 DB896H	156.00	63	9.9	.920	36.54	.00	-3.21	.0
2	1 14' LP Clamp Platform	146.00	2200	39.0		35.87	3.53	-2.86	-.9 Da
	12 DB896H	146.00	63	9.9	.920	35.86	.00	-3.08	.0
3	1 14' LP Clamp Platform	136.00	2200	39.0		35.15	3.46	-2.86	-.9 Da
	12 DB896H	136.00	63	9.9	.920	35.14	.00	-2.93	.0
4	1 14' LP Clamp Platform	126.00	2200	39.0		34.40	3.38	-2.86	-.8 Da
	12 DB896H	126.00	63	9.9	.920	34.38	.00	-2.79	.0
5	1 14' LP Clamp Platform	116.00	2200	39.0		33.60	3.31	-2.86	-.8 Da
	12 DB896H	116.00	63	9.9	.920	33.57	.00	-2.65	.0

RESULTS

X,ft	WIND psf	FORCES, kips				MOMENTS, ft-kips			STRESS ksi	ALLOW ksi	COMB RATIO
		ShearX	ShearY	AxialZ	BendX	BendY	TorqZ				
155.00	23.7	.0	4.4	-5.9	-.1	.0	.0	.59	51.87	.011	
150.00	23.5	.0	4.6	-6.3	-21.8	.0	.0	2.89	51.87	.056	
146.00	23.3	.0	9.0	-12.4	-40.4	.0	.0	5.06	51.87	.098	
141.00	23.1	.0	9.3	-12.9	-85.3	.0	.0	9.10	51.87	.175	
136.00	22.8	.0	13.6	-18.9	-131.7	.0	.0	12.99	51.87	.250	
131.00	22.6	.0	13.8	-19.4	-199.4	.0	.0	17.82	51.87	.344	
126.00	22.3	.0	17.9	-25.2	-268.8	.0	.0	22.35	51.87	.431	
124.25	22.3	.0	18.1	-25.6	-300.1	.0	.0	24.24	51.87	.467	
120.25	22.0	.0	18.3	-26.2	-372.3	.0	.0	22.70	51.87	.438	
116.00	21.8	.0	22.3	-32.1	-450.1	.0	.0	25.95	51.87	.500	
111.00	21.6	.0	22.5	-32.9	-561.4	.0	.0	30.10	51.87	.580	
106.00	21.3	.0	22.8	-33.8	-674.1	.0	.0	33.75	51.87	.651	
101.00	21.0	.0	23.0	-34.7	-787.9	.0	.0	36.96	51.87	.713	
96.00	20.7	.0	23.2	-35.3	-903.3	.0	.0	39.79	51.87	.767	
94.25	20.6	.0	23.3	-36.0	-943.3	.0	.0	40.69	51.87	.784	
89.50	20.3	.0	23.6	-37.1	-1054.2	.0	.0	33.48	51.87	.646	
84.50	19.9	.0	23.8	-38.3	-1171.7	.0	.0	35.11	51.87	.677	
79.50	19.6	.0	24.0	-39.5	-1290.8	.0	.0	36.55	51.87	.705	
74.50	19.2	.0	24.3	-40.8	-1410.8	.0	.0	37.82	51.87	.729	
69.50	18.9	.0	24.5	-42.1	-1532.5	.0	.0	38.95	51.87	.751	
64.50	18.5	.0	24.7	-43.4	-1655.0	.0	.0	39.94	51.87	.770	
59.50	18.0	.0	25.0	-44.8	-1779.2	.0	.0	40.82	51.87	.787	
54.50	17.6	.0	25.2	-46.1	-1903.3	.0	.0	41.58	51.87	.802	
50.00	17.2	.0	25.4	-47.5	-2016.7	.0	.0	42.20	51.87	.814	
45.00	16.7	.0	25.5	-48.4	-2143.3	.0	.0	38.05	51.87	.734	
44.25	16.6	.0	25.6	-49.3	-2162.5	.0	.0	38.13	51.87	.735	
39.25	16.0	.0	25.8	-51.0	-2290.8	.0	.0	38.57	51.87	.744	
34.25	15.4	.0	26.0	-52.7	-2419.2	-.1	.0	38.93	51.87	.751	
29.25	14.7	.0	26.2	-54.4	-2549.2	-.1	.0	39.25	51.87	.757	
24.25	14.0	.0	26.3	-56.2	-2680.0	-.1	.0	39.52	51.87	.762	

RESULTS

X, ft	WIND psf	FORCES, kips				MOMENTS, ft-kips			STRESS ksi	Fb ALLOW ksi	COMB RATIO
		ShearX	ShearY	AxialZ	BendX	BendY	TorqZ				
19.25	13.1	.0	26.5	-58.0	-2811.7	-.1	.0	39.75	51.87	.766	
14.25	12.0	.0	26.7	-59.8	-2944.2	-.1	.0	39.93	51.87	.770	
9.25	10.6	.0	26.9	-61.7	-3077.5	-.1	.0	40.08	51.87	.773	
4.25	8.5	.0	27.0	-63.5	-3211.7	-.1	.0	40.20	51.87	.775	
.00	.0	.0	27.0	-63.5	3326.7	.1	.0	40.27	51.87	.776	

DISPLACEMENTS

X, ft.	DEFLECTION ft.				XY-Result	ROTATION, deg			XY-Res	Microw Allow
	X	Y	Z			X	Y	Z		
155.00	.00	8.11	-.29	8.11	< 5.23% >	-5.51	.00	.00	5.51	
146.00	.00	7.25	-.25	7.25	< 4.96% >	-5.47	.00	.00	5.47	
136.00	.00	6.30	-.20	6.30	< 4.63% >	-5.33	.00	.00	5.33	
126.00	.00	5.39	-.16	5.39	< 4.28% >	-5.06	.00	.00	5.06	
116.00	.00	4.54	-.13	4.54	< 3.91% >	-4.72	.00	.00	4.72	

LOAD CASE- 3  
 MicroWave Oper.

W  
I  
N  
D

WIND SPEED 50.0 mph 80.5 kph  
 GUST FACTOR 1.69  
 EXPOSURE COEFF. .2857  
 Cf .650  
 REFERENCE HEIGHT 33.0 ft  
 PRESSURE @Ref.Ht 10.8 psf 518.Pa  
 BASE ABOVE GROUND .0 ft

VERTICAL OLF 1.00  
 ICE COVER [in.] .00  
 STRESS REDUCTION .60  
 STRESS AMPLIFY 1.33

TIA/EIA-222F

APPURTENANCE LOADS:		Center	each		FORCES		MOMENT		
ELEV	QTY DESCRIPTION	Line Elev-ft	WEIGHT lbs	AREA ft^2	CABLE #/ft	WIND psf	kips		ft-k
							Y	Z	X
1	1 14' LP Platform	155.00	2000	35.0		16.84	1.50	-2.00	-.4 Da
	12 DB896H	156.00	22	9.1	.920	16.86	.00	-1.98	.0
2	1 14' LP Clamp Platform	146.00	2000	35.0		16.55	1.46	-2.00	-.4 Da
	12 DB896H	146.00	22	9.1	.920	16.54	.00	-1.88	.0
3	1 14' LP Clamp Platform	136.00	2000	35.0		16.22	1.43	-2.00	-.4 Da
	12 DB896H	136.00	22	9.1	.920	16.21	.00	-1.77	.0
4	1 14' LP Clamp Platform	126.00	2000	35.0		15.87	1.40	-2.00	-.3 Da
	12 DB896H	126.00	22	9.1	.920	15.86	.00	-1.66	.0
5	1 14' LP Clamp Platform	116.00	2000	35.0		15.50	1.37	-2.00	-.3 Da
	12 DB896H	116.00	22	9.1	.920	15.49	.00	-1.54	.0

RESULTS

X, ft	WIND psf	FORCES, kips				MOMENTS, ft-kips			STRESS ksi	ALLOW ksi	COMB RATIO
		ShearX	ShearY	AxialZ	BendX	BendY	TorqZ				
155.00	10.9	.0	1.7	-4.1	.0	.0	.0	.31	51.87	.006	
150.00	10.8	.0	1.8	-4.3	-8.6	.0	.0	1.25	51.87	.024	
146.00	10.8	.0	3.6	-8.4	-16.0	.0	.0	2.20	51.87	.042	
141.00	10.6	.0	3.7	-8.7	-33.7	.0	.0	3.80	51.87	.073	
136.00	10.5	.0	5.4	-12.8	-52.2	.0	.0	5.42	51.87	.105	
131.00	10.4	.0	5.5	-13.1	-79.1	.0	.0	7.34	51.87	.141	
126.00	10.3	.0	7.1	-17.0	-106.7	.0	.0	9.20	51.87	.177	
124.25	10.3	.0	7.2	-17.2	-119.2	.0	.0	9.96	51.87	.192	
120.25	10.2	.0	7.3	-17.6	-147.9	.0	.0	9.28	51.87	.179	
116.00	10.1	.0	8.9	-21.5	-179.0	.0	.0	10.63	51.87	.205	
111.00	9.9	.0	9.0	-22.0	-223.5	.0	.0	12.29	51.87	.237	
106.00	9.8	.0	9.1	-22.5	-268.7	.0	.0	13.75	51.87	.265	
101.00	9.7	.0	9.3	-23.1	-314.3	.0	.0	15.04	51.87	.290	
96.00	9.5	.0	9.3	-23.5	-360.7	.0	.0	16.18	51.87	.312	
94.25	9.5	.0	9.4	-23.9	-377.1	.0	.0	16.56	51.87	.319	
89.50	9.3	.0	9.6	-24.6	-421.8	.0	.0	13.62	51.87	.263	
84.50	9.2	.0	9.7	-25.3	-469.6	.0	.0	14.29	51.87	.276	
79.50	9.0	.0	9.8	-26.1	-518.0	.0	.0	14.89	51.87	.287	
74.50	8.9	.0	9.9	-26.9	-567.0	.0	.0	15.42	51.87	.297	
69.50	8.7	.0	10.1	-27.8	-616.7	.0	.0	15.90	51.87	.306	
64.50	8.5	.0	10.2	-28.6	-666.9	.0	.0	16.32	51.87	.315	
59.50	8.3	.0	10.3	-29.5	-717.8	.0	.0	16.70	51.87	.322	
54.50	8.1	.0	10.4	-30.4	-769.3	.0	.0	17.03	51.87	.328	
50.00	7.9	.0	10.5	-31.3	-816.2	.0	.0	17.30	51.87	.334	
45.00	7.7	.0	10.6	-31.9	-869.2	.0	.0	15.63	51.87	.301	
44.25	7.6	.0	10.7	-32.5	-876.7	.0	.0	15.66	51.87	.302	
39.25	7.4	.0	10.8	-33.6	-930.0	.0	.0	15.86	51.87	.306	
34.25	7.1	.0	10.9	-34.7	-984.2	.0	.0	16.04	51.87	.309	
29.25	6.8	.0	11.0	-35.9	-1038.3	.0	.0	16.19	51.87	.312	
24.25	6.4	.0	11.1	-37.1	-1093.3	.0	.0	16.33	51.87	.315	

RESULTS

X, ft	WIND psf	FORCES, kips				MOMENTS, ft-kips			STRESS		Fb	COMB RATIO
		ShearX	ShearY	AxialZ		BendX	BendY	TorqZ	ksi	ksi		
19.25	6.0	.0	11.2	-38.3	-1148.3	.0	.0	.0	16.44	51.87	.317	
14.25	5.5	.0	11.3	-39.5	-1204.2	.0	.0	.0	16.54	51.87	.319	
9.25	4.9	.0	11.4	-40.7	-1260.8	.0	.0	.0	16.63	51.87	.321	
4.25	3.9	.0	11.5	-41.9	-1318.3	.0	.0	.0	16.72	51.87	.322	
.00	.0	.0	11.5	-41.9	1367.5	.0	.0	.0	16.76	51.87	.323	

DISPLACEMENTS

X, ft.	DEFLECTION ft.				ROTATION, deg				MicroW Allow
	X	Y	Z	XY-Result	X	Y	Z	XY-Res	
155.00	.00	3.28	-.05	3.28< 2.12%>	-2.22	.00	.00	2.22	
146.00	.00	2.94	-.04	2.94< 2.01%>	-2.20	.00	.00	2.20	
136.00	.00	2.56	-.04	2.56< 1.88%>	-2.15	.00	.00	2.15	
126.00	.00	2.19	-.03	2.19< 1.74%>	-2.04	.00	.00	2.04	
116.00	.00	1.84	-.02	1.84< 1.59%>	-1.90	.00	.00	1.90	

LOAD CASE SUMMARIES

BASE REACTIONS: LOAD CASE	FORCES, kips			MOMENTS, ft-kips		
	X	Y	Z	X	Y	Z
1 Max Wind Load	.00	33.22	-42.52	3938.3	.1	.0
2 Max Wind Load x.75	.00	27.01	-63.48	3326.7	.1	.0
3 MicroWave Oper.	.00	11.52	-41.91	1367.5	.0	.0

STRESS ENVELOPE		COMBINED					
BOT-UP X, ft.	TOP DOWN	STRESS ksi	STRESS RATIO	LOAD CASE Qty	APPURTENANCE		
155.00	.00-1	-P1	.59	.011	2	(1)	14' LP Platform
150.00	5.00		3.09	.060	1		
146.00	9.00-2	-P2	5.40	.104	1	(1)	14' LP Clamp Platform
141.00	14.00		9.99	.193	1		
136.00	19.00-3	-P3	14.28	.275	1	(1)	14' LP Clamp Platform
131.00	24.00		19.80	.382	1		
126.00	29.00-4	-P4	24.85	.479	1	(1)	14' LP Clamp Platform
124.25	30.75	Slip-B1	27.01	.521	1		
120.25	34.75	Slip-T2	25.42	.490	1		
116.00	39.00-5	-P5	29.06	.560	1	(1)	14' LP Clamp Platform
111.00	44.00		33.85	.653	1		
106.00	49.00		38.08	.734	1		
101.00	54.00		41.83	.806	1		
96.00	59.00		45.12	.870	1		
94.25	60.75	Slip-B2	46.18	.890	1		
89.50	65.50	Slip-T3	38.09	.734	1		
84.50	70.50		40.03	.772	1		
79.50	75.50		41.74	.805	1		
74.50	80.50		43.29	.835	1		
69.50	85.50		44.64	.861	1		
64.50	90.50		45.86	.884	1		
59.50	95.50		46.94	.905	1		
54.50	100.50		47.91	.924	1		
50.00	105.00	Slip-B3	48.70	.939	1		
45.00	110.00		44.02	.849	1		
44.25	110.75	Slip-T4	44.11	.850	1		
39.25	115.75		44.67	.861	1		
34.25	120.75		45.18	.871	1		
29.25	125.75		45.62	.880	1		
24.25	130.75		46.00	.887	1		
19.25	135.75		46.34	.893	1		
14.25	140.75		46.62	.899	1		
9.25	145.75		46.88	.904	1		
4.25	150.75		47.10	.908	1		
.00	155.00	BASE	47.24	.911	1		

SUMMIT MANUFACTURING, LLC  
 225 KIWANIS BLVD  
 WEST HAZLETON, PA 18201 USA

Tu 17-Nov-98 14:26  
 TEL: (717)454-8730  
 FAX: (717)454-4851  
 NET:summitlg@epix.net

10

CUSTOMER: SBA  
 SITE NAME: BETHEL

REF: 98-4114-r3 JOB:4071  
 SITE: 4276

SHAPE: 18 SIDED POLYGON with FLAT-FLAT ORIENTATION  
 BOLTS QUADRANT SPACED 6.00 in. ON CENTER

POLE DATA	DIAMETER = 54.80 in.	BASE ACTIONS	AXIAL FORCE = -42.5 kips
	PLATE = .4375 in.		SHEAR X = .0 kips
	TAPER = .2100 in/ft		SHEAR Y = 33.2 kips
	POLE Fy = 65.00 ksi		X-AXIS MOM = 2784.4 ft-k
DESIGN CASE = 1			Y-AXIS MOM = 2784.4 ft-k
Max Wind Load			Z-AXIS TOR = .0 ft-k
Design: ANY Orientation Reactions at 45.00 deg to X-AXIS.			

BOLT LOAD	AXIAL - COMPRESSION	= 154.55 kips	
	AXIAL - TENSION	= 150.30 kips	
	SHEAR	= 2.35 kips	
AXIAL STRESS		= 47.56 ksi	
SHEAR STRESS		= .77 ksi	STRESS
YIELD STRENGTH Fy		= 75.00 ksi	RATIO
ALLOW STRENGTH Fa [ .60 x 1.33]		= 59.85 ksi	.795 EIA
	TENSION AREA REQUIRED	= 2.58 in^2	
	TENSION AREA FURNISHED	= 3.25 in^2	
	ROOT AREA FURNISHED	= 3.07 in^2	

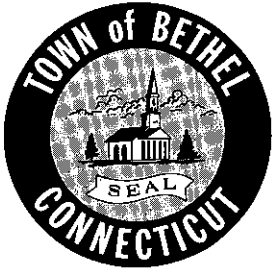
USE:	20 BOLTS on	62.00 in. BOLT CIRCLE	
	2.250 in. DIA.	77.46 in. EMBEDDED	SHIP
	13.55 in. EXPOSED	96.00 in. TOTAL LENGTH	2765 Lbs

BOND STRESS	TENSION: NUT UPLIFT: 25.54 kips	COMPRESSION: ACTING: 274.53 psi
	ACTING: 235.65 psi	ALLOW: 794.34 psi
	ALLOW: 262.63 psi	LENGTH REQD: 27.53 in.
Fc	LENGTH REQD: 67.21 in.	
3000 psi		

BASE PLATE [Bend Model: Flat-17]	USE PLATE
YIELD STRENGTH = 50.0 ksi	3.00 in. THICK
BEND LINE WIDTH = 33.0 in.	62.00 in. SQUARE
PLATE MOMENT = 1760.0 in-kips	48.0 in. CENTER HOLE SHIP
THICKNESS REQD = 2.83 in.	14.0 in. CORNER CLIP 1397
BENDING STRESS = 35.5 ksi	
ALLOWABLE = 39.9ksi [Fy x .60 x 1.33]	

LOAD CASE	FORCES		MOMENTS			ABolt-Str		Plate-Str		BOND		Design Code
	AXIAL	SHEAR	-X-	-Y-	TorQ	Act	Allow	Act	Allow	Act	Allow	
	kips	kips	ft-k	ft-k	ft-k	ksi	ksi	ksi	ksi	psi	psi	
50.% of Cap.			1939.4	1939.4		32.7	75.0	24.4	50.0	147	294	
1	-42.5	33.2	3938.3	.1	.0	47.6	59.9	35.5	39.9	235	262	EIA
2	-63.5	27.0	3326.7	.1	.0	40.6	59.9	30.3	39.9	194	262	EIA
3	-41.9	11.5	1367.5	.0	.0	16.9	59.9	12.6	39.9	53	262	EIA





## PLANNING & ZONING DEPARTMENT

Bethel Municipal Center, 1 School Street  
Bethel, Connecticut 06801 (203) 794-8519

RECEIVED September 5, 2002

SEP - 6 2002

CONNECTICUT  
SITING COUNCIL

Mr. S. Derek Phelps  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

**Re: EM-SBA-009-020809 – SBA, Inc.  
Co-location on tower to be constructed at 11 Francis J. Clarke Circle  
Bethel, Connecticut**

Dear Mr. Phelps:

The Planning and Zoning Commission, at its meeting held on August 27, 2002, reviewed the proposal of SBA, Inc. to “modify an existing telecommunications facility located at 11 Francis J. Clarke Circle” in the Town of Bethel, to allow co-location of additional carriers AT&T and Sprint.

Please be advised that the Planning and Zoning Commission has no objection to the proposal for co-location of additional antenna, provided that all equipment and facilities are constructed within the previously approved “lease area” as shown on drawings presented to the Planning and Zoning Commission, which approval was renewed on April 9, 2002.

Please also note that, to our knowledge, the tower is not an “existing facility” because it has not yet been constructed.

Thank you for this opportunity to comment on the proposal.

Very truly yours,

Betty Brosius  
Planning & Zoning Official

cc: Michael J. Mannion, Chairman, Planning and Zoning Commission  
Judith Novachek, First Selectwoman

# Connecticut Siting Council



Approved by Council \_\_\_\_\_  
Date Complete: \_\_\_\_\_  
Site visit required? \_\_\_\_\_

File I.D. EM-SBA-009-020809  
Address 11 Francis J. Clarke Circle  
Bethel

## Checklist for Exempt Modifications and Tower Sharing

1. Tower Owner SBA Tower Height 160 Type m Total Height \_\_\_\_\_
2. Proposed Carrier AT&T/Sprint  
Number of antennas AT&T-6 Sprint-12 Type panel Allgon 7250.03 Height A-125 S-157 Extension \_\_\_\_\_  
Other proposed equipment on tower: \_\_\_\_\_  
Proposed size/location of equipment building/cabinets: equipm cabs on conc pads w/ compound  
Proposed site clearing/grading: \_\_\_\_\_  
Fence line modification: W/A  
Other proposed items: \_\_\_\_\_
3. Current carriers: AT&T Height: 125 Power density %: 2.30  
Sprint 157 ~~2.92~~  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Power density calculation: Proposed carrier percentage: \_\_\_\_\_ Cumulative percentage: 5.22
5. Town approval date (if necessary): 4/13/99 Town application date (if necessary): \_\_\_\_\_
6. Structural analysis: no mods neccs
7. Coordinates Latitude: 41-21-36.07 Longitude: 73-25-30.03 Elevation: ~~412~~ 411
8. Town(s) CEO notified of application to Siting Council? cc to 1st 5 in an

### Site Visit Information

Date of visit: 8/28/02

9. Description of site features, surrounding land uses, and sight lines:

Site behind the condos in Indus park; no residences in sight

### Issues:

tower approved by town / approvals litigated / no construction /  
litigation resolved / construction to begin soon / reapproved 4/9/02

### Filing Documentation for Meeting

- 1.
- 2.
- 3.
- 4.

Betty Brosius, Planning and Zoning Official  
Town of Bethel Municipal Center  
1 School Street  
Bethel, CT 06801

Phone 203-794-8519  
FAX 203-794-8595

**Town of Bethel, CT  
Planning and Zoning**

**RECEIVED**

SEP - 5 2002

**Fax**

CONNECTICUT  
SITING COUNCIL

<b>To:</b> S. Derek Phelps	<b>From:</b> Betty Brosius, P&Z Official
<b>Fax:</b> 860-827-2950	<b>Pages:</b> 2
<b>Phone:</b> 860-827-2935	<b>Date:</b> 9/5/2002
<b>Re:</b> 11 Francis J. Clarke Circle - SBA	<b>CC:</b> none

- Urgent**   
  **For Review**   
  **Please Comment**   
  **Please Reply**   
  **Please Recycle**

• **Comments:**

If possible, we would like these brief comments included in the review of SBA proposal for today's meeting.

Thank you.

**PLANNING & ZONING DEPARTMENT**

Bethel Municipal Center, 1 School Street  
Bethel, Connecticut 06801 (203) 794-8519

**RECEIVED**

SEP - 5 2002

September 5, 2002

Mr. S. Derek Phelps     **CONNECTICUT**  
Connecticut Siting Commission     **PLANNING COUNCIL**  
Ten Franklin Square  
New Britain, CT 06051

Re:     **EM-SBA-009-020809 - SBA, Inc.**  
         **Co-location on tower to be constructed at 11 Francis J. Clarke Circle**  
         **Bethel, Connecticut**

Dear Mr. Phelps:

The Planning and Zoning Commission, at its meeting held on August 27, 2002, reviewed the proposal of SBA, Inc. to "modify an existing telecommunications facility located at 11 Francis J. Clarke Circle" in the Town of Bethel, to allow co-location of additional carriers AT&T and Sprint.

Please be advised that the Planning and Zoning Commission has no objection to the proposal for co-location of additional antenna, provided that all equipment and facilities are constructed within the previously approved "lease area" as shown on drawings presented to the Planning and Zoning Commission, which approval was renewed on April 9, 2002.

Please also note that, to our knowledge, the tower is not an "existing facility" because it has not yet been constructed.

Thank you for this opportunity to comment on the proposal.

Very truly yours,

Betty Brosius  
Planning & Zoning Official

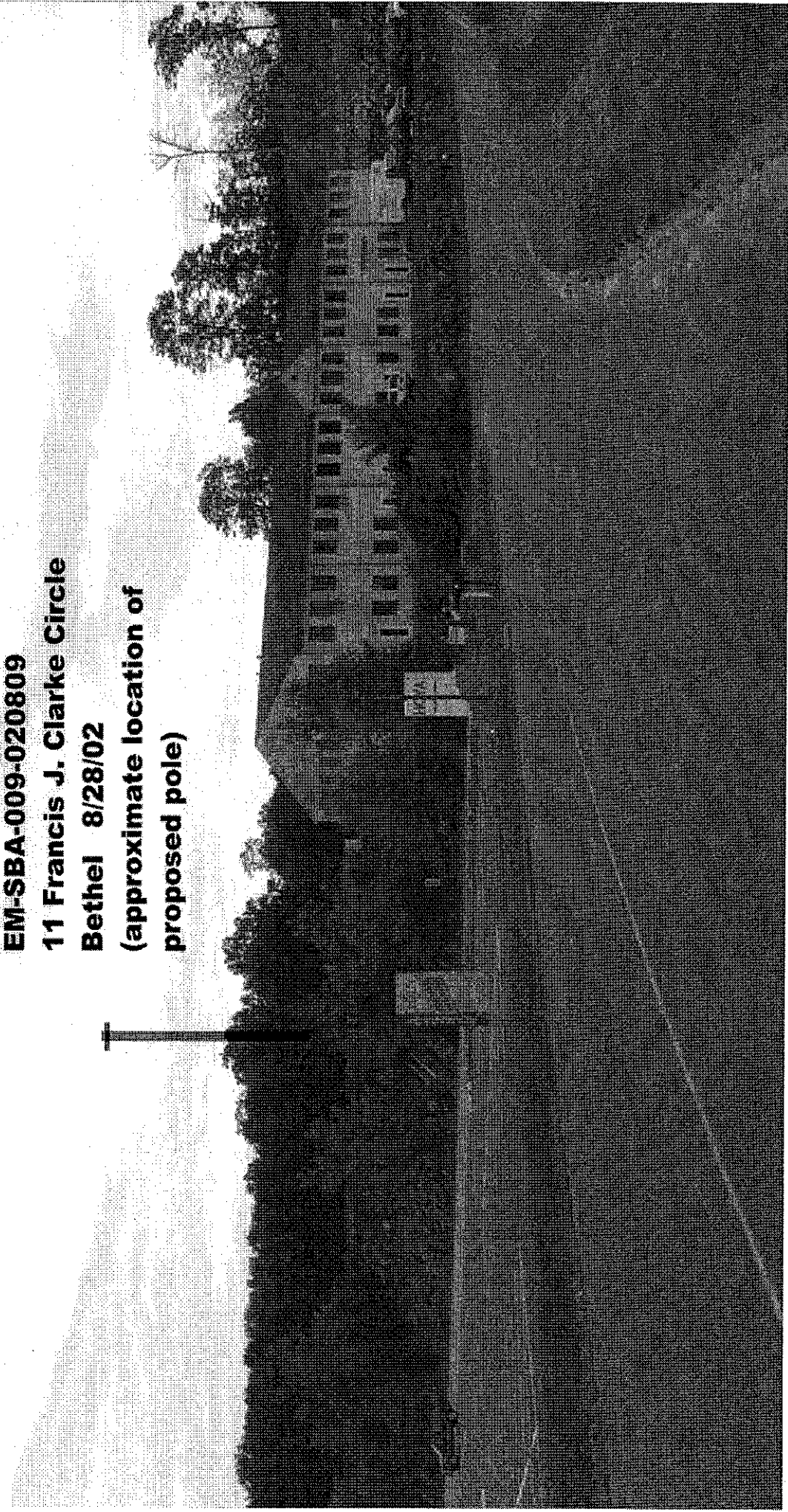
cc:     Michael J. Mannion, Chairman, Planning and Zoning Commission  
         Judith Novachek, First Selectwoman

**EM-SBA-009-020809**

**11 Francis J. Clarke Circle**

**Bethel 8/28/02**

**(approximate location of  
proposed pole)**



**RECEIVED**

AUG 22 2002

**CONNECTICUT  
SITING COUNCIL**

66 Ridgedale Road  
Bethel, CT 06801  
August 19, 2002

Mr. Derek Phelps, Executive Director  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

Dear Mr. Phelps:

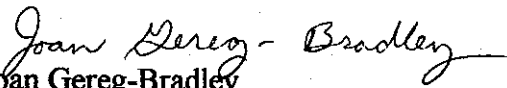
Realizing what I do about the authority of the Siting Council to review and approve sites for telecommunications towers, I have just two brief points to make regarding two recently installed towers in the Town of Bethel: one at Sky Edge Lane and the other at Chimney Drive.

First, work on both of these installations occurred on weekends. As an adjacent property owner, I wonder why noisy construction work had to be done on weekends, particularly on Sundays. The Siting Council, with its authority, should insist on the observance of local practices avoiding construction on Sundays for any reason.

Second, there are now three towers located on three consecutive 345kv power lines. Although I comprehend the desirability of utilizing existing "towers", I question the advisability of three consecutive installations in a residential area. When I look north at the parade of 345kv "towers", I don't see any installations through the industrial park and on into less residential areas. Given the concerns about the health and esthetic factors regarding these towers, the Siting Council should be more careful about the placement of so many power lines and telecommunications towers in residential areas.

Local Planning and Zoning Commissions, of course, would be more protective of their local residents. The Siting Council must now assume much of that responsibility. I am anxious about this being the case given my most recent observations.

Sincerely,

  
Joan Gereg-Bradley

CC: State Senator David Capiello  
State Representative David Scribner  
Bethel Planning and Zoning Official Betty Brosius

# HURWITZ & SAGARIN, LLC

## Facsimile Cover Sheet

**RECEIVED**

AUG 23 2002

CONNECTICUT  
SITING COUNCIL

**To: Mr. David Martin  
Staff Analyst**

**Telephone: Connecticut Siting Council  
860-827-2935**

**Fax: 860-827-2950**

**From: Julie M. Donaldson, Esq.**

**Company: Hurwitz & Sagarin, LLC**

**Phone: 203-877-8000**

**Fax: 203-878-9800**

**Date: 8/9/02**

**SUPPLEMENTAL MESSAGE:**

*This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copy of this communication is strictly prohibited. If you have received this communication in error, please notice us immediately by telephone and return the original message to us at the above address via the U.S. Postal Service. Thank you.*

# HURWITZ & SAGARIN LLC

August 23, 2002

*Via Facsimile and First Class Mail*

Mr. David Martin  
Staff Analyst  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**RECEIVED**

AUG 23 2002

CONNECTICUT  
SITING COUNCIL

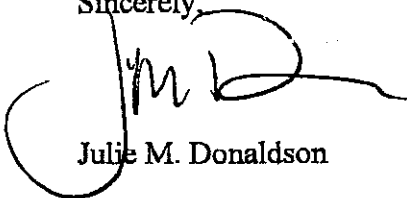
Re: Notice of Exempt Modification  
11 Francis J. Clarke Circle  
Bethel, Connecticut

Dear Mr. Martin

As you requested, enclosed please find a "2C" letter dated September 5, 2000 that includes the latitude and longitude of the above referenced site.

Please let me know if you have any other questions.

Sincerely,



Julie M. Donaldson

JMD/rr

cc: Mark Roberts, SBA

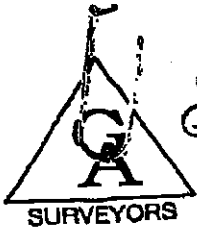


Network Services, Inc.;

860 659 8140;

Aug-23-02 10:45AM;

Page 2/2



*Gesick & Associates, P.C.*

PROFESSIONAL SURVEYORS

18 CEDAR ISLAND AVENUE • CLINTON, CT 06413 • (860) 869-7799 • Fax (860) 869-5833 • www.gesicksurveyors.com

September 5, 2000

Mr. Eric Pearson  
SBA, Inc.  
80 Eastern Blvd.  
Glastonbury, CT 06033

RE: 11 Francis J. Clarke Circle - Bethel, Connecticut

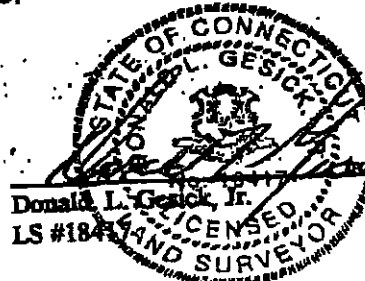
Dear Mr. Pearson,

This letter is in reference to a proposed cellular site located at 11 Francis J. Clarke Circle in Bethel, Connecticut.

I hereby certify to "2-C" tolerances the following information:

NAD 83 State Plane	N 692649 E 814697
Latitude	N 41°-21'-36.27"
Longitude	W 73°-25'-30.03"
NGVD 1929	411'

Latitude/Longitude/Elevations were obtained utilizing Total Stations referenced to Conn DOT Baseline Station. Latitude/Longitude are referenced to NAD83 Connecticut zone. Coordinates shown, if any, are expressed in US feet. Elevations are referenced to NGVD 1929.



"Certified Small Business Equal Opportunity Employer"



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square  
New Britain, Connecticut 06051  
Phone: (860) 827-2935  
Fax: (860) 827-2950

August 15, 2002

*Via Facsimile*

Ms. Julie Donaldson, Esq.  
Hurwitz & Sagarin  
147 North Broad Street  
P.O. Box 112  
Milford, CT 06460-0112

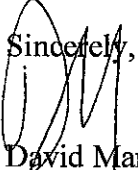
**RE: EM-SBA-009-020809 - Notice of Exempt Modification for  
Telecommunications Tower at 11 Francis J. Clarke Circle, Bethel,  
Connecticut**

Dear Atty. Donaldson:

For the above referenced filing, please provide the latitude and longitude coordinates for the proposed tower.

Should you have any questions on this request, feel free to call me at the above number. Thank you for your assistance in this matter.

Sincerely,

  
David Martin  
Siting Analyst I

REVISIONS

NO.	DATE	DESCRIPTION

Applicant: **SBA, INC.**  
 ONE TOWN CENTER RD., 3RD FL.  
 ROCA RATON, FL 32405  
 (850) 995-7070

80 EASTERN BLVD.  
 GASTONBURGH, CONNECTICUT  
 (860) 659-0101

SBA Site Agent: Mark Roberts (860) 659-0101

Site Location:  
**11 Francis J. Clarke Circle**  
**Bethel, Connecticut**  
 SBA Site:  
**#4276 BETHEL (COSTA PROPERTY II)**  
 CBA PROJ # 98-008A

Sheet title:  
**Title Sheet & Index**  
 DRAWING NUMBER: **T-1**

# SBA, INC.

## #4276 BETHEL (COSTA PROPERTY II)

### 11 FRANCIS J. CLARKE CIRCLE BETHEL, CONNECTICUT

#### LEGEND

EXISTING		PROPOSED
(TYPE) STORM SEWER	FENCE	STORM SEWER
(TYPE) SANITARY SEWER	STORM SEWER	SANITARY SEWER
(TYPE) WATER LINE	SANITARY SEWER	WATER LINE
(TYPE) GAS LINE	WATER LINE	GAS LINE
UNDERGROUND ELECTRIC	GAS LINE	UNDERGROUND ELECTRIC
UNDERGROUND TELEPHONE	UNDERGROUND ELECTRIC	UNDERGROUND TELEPHONE
OVERHEAD WIRES	UNDERGROUND TELEPHONE	OVERHEAD TELEPHONE
500	OVERHEAD ELECTRIC	OVERHEAD ELECTRIC
200	5' OR 10' CONTOUR LINE	5' OR 10' CONTOUR LINE
120.5	1' OR 2' CONTOUR LINE	1' OR 2' CONTOUR LINE
120.5 OR 121.5	SPOT ELEVATION	SPOT ELEVATION
	DITCH OR SWALE	DITCH OR SWALE
	STREAM OR RIVER	STREAM OR RIVER
	LAKE OR POND	LAKE OR POND
	PRIMARY PROPERTY OR R.O.W.	PROPERTY LINE
	PROPERTY LINE	EASEMENT
	EASEMENT	CATCH BASIN
	CATCH BASIN	MANHOLE
	MANHOLE	HYDRANT
	HYDRANT	WATER VALVE
	WATER VALVE	UTILITY POLE
	UTILITY POLE	LIGHT POLE, LAMP POST
	LIGHT POLE, LAMP POST	SIGN
	SIGN	TELEPHONE PEDESTAL
	TELEPHONE PEDESTAL	IRON ROD, PIN, OR PIPE
	IRON ROD, PIN, OR PIPE	CONCRETE MONUMENT
	CONCRETE MONUMENT	CURB
	CURB	ASPHALT PAVEMENT
	ASPHALT PAVEMENT	TEST PIT
	TEST PIT	SOIL BORING
	SOIL BORING	BUILDING
	BUILDING	TREES, SHRUBS, BUSHES
	TREES, SHRUBS, BUSHES	MATCH LINE
	MATCH LINE	SILT FENCE
	SILT FENCE	

001 ———— DETAIL IDENTIFICATION SHEET NO. WHERE DETAIL IS LOCATED OR THE DWG. IT IS CALLED OUT.

#### SURVEY LEGEND

SYM. ·	DESCRIPTION PROPERTY CORNER	SYM. ————	DESCRIPTION CONTOUR
●	IP/DH TO SET	—	INDEX CONTOUR
◆	MONUMENT TO SET	—	PROPERTY LINE
◆	BENCH MARK	---	NOT TO SCALE
* 100	SPOT ELEV		
~	TREELINE		
~	WETLANDS		

**PROJECT SUMMARY**

**PROPERTY OWNER:**  
 COSTA STERQUE  
 8 CORDOBY ROAD  
 REDDING, CONNECTICUT

**APPLICANT/LESSEE:**  
 SBA, INC.  
 128 SHAW STREET SUITE 118  
 NEW LONDON, CT  
 CONTACT: MARK ROBERTS  
 (860) 659-0101

**AT&T WIRELESS:**  
 18 EAST MIDLAND AVE.  
 PARAMUS, NJ 07652

**SPRINT PCS:**  
 8 BARBER INDUSTRIAL ROAD  
 WALLINGFORD, CT 06492

**PROJECT DESCRIPTION:**  
 THE PROJECT CONSISTS OF THE CONSTRUCTION OF A 180' MONOPOLE AND THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT.

**AT&T WIRELESS EQUIPMENT:** CONSISTS OF SIX (6) PANEL ANTENNAS AND FOUR (4) EQUIPMENT CABINETS, WHICH WILL BE MOUNTED ON A CONCRETE PAD AT THE BASE OF THE TOWER.

**SPRINT'S EQUIPMENT:** CONSISTS OF NINE (9) PANEL ANTENNAS AND THREE (3) EQUIPMENT CABINETS, WHICH WILL BE MOUNTED ON A CONCRETE PAD AT THE BASE OF THE TOWER.

THESE SYSTEMS WILL BOTH TRANSMIT AND RECEIVE RADIO SIGNALS FOR EACH RESPECTIVE NETWORK.

POWER AND TELCO UTILITIES NECESSARY FOR THIS FACILITY WILL BE INSTALLED UNDERGROUND. NO WATER OR SEWER SERVICES ARE NEEDED.

THE SITE SHALL BE ENCLOSED WITH AN EIGHT (8) FOOT CHAIN LINK FENCE WITH LANDSCAPING AROUND THE FENCE PERIMETER. THE LANDSCAPING SHALL CONSIST OF A ROW OF EVERGREEN TREES NOT LESS THAN TEN (10) FEET ON CENTER WITH A MINIMUM HEIGHT OF SIX(6) FEET AT PLANTING AND TEN(10) FEET UPON MATURITY.

**ELECTRIC UTILITY:** NORTHEAST UTILITIES  
**TELEPHONE UTILITY:** SOUTHERN NEW ENGLAND TELEPHONE (SNET)  
 "CALL BEFORE YOU DIG" 800-822-4455

**LEASE PARCEL INFORMATION**

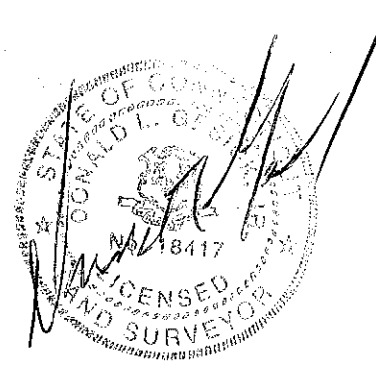
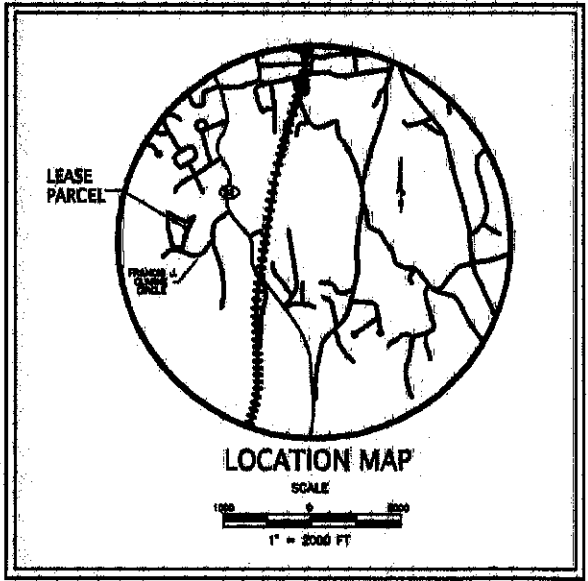
ADDRESS	11 FRANCIS J. CLARKE CIRCLE, BETHEL, CT.
CURRENT OWNER	COSTA STERQUE
DEED	VOL 385/409
ASSESSORS ID	MAP 9, BLOCK 23, LOT 150-3
FLOOD ZONE	ZONE E
ZONE	IP (INDUSTRIAL PARK)
AREA OF LEASE PARCEL	3600.00 SQ FT, 0.0824 ACRES
AREA OF TOTAL PARCEL	252781 SQ FT, 5.8031 ACRES

**IP ZONING REQUIREMENTS:**

SETBACK OF TOWER FROM ALL PROPERTY LINES TO BE EQUAL TO 25' PLUS HEIGHT OF TOWER.

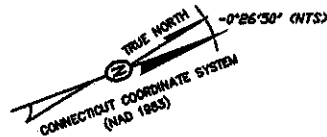
FRONT SETBACK: 25'  
 SIDE SETBACK: 20'  
 REAR SETBACK: 25'

MIN. LOT AREA: 50,000 SF



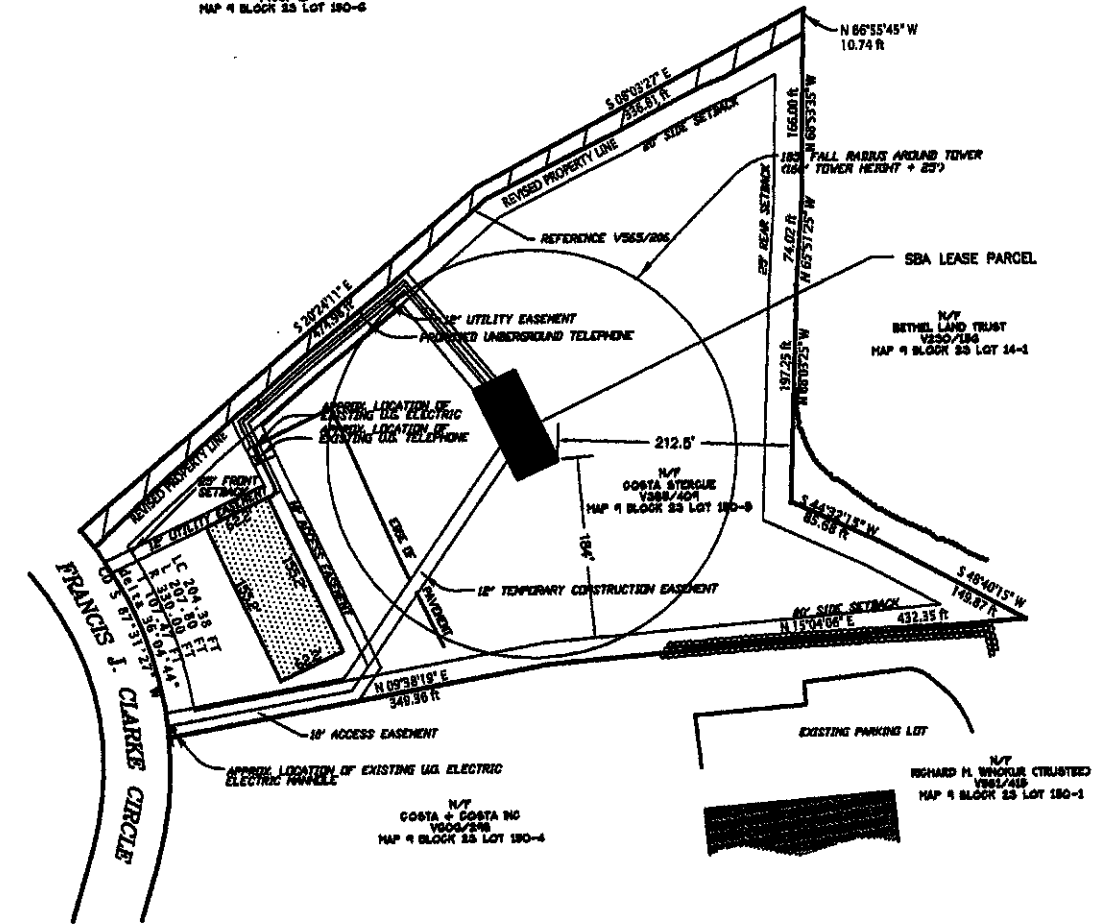
**Drawing Index**

DRAWING	TITLE
T1	TITLE SHEET & INDEX
C1	COMPREHENSIVE SITE PLAN
C2	SITE PLAN
C4	GENERAL NOTES & EROSION CONTROL NARRATIVE



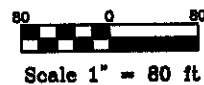
- NO AREAS ON SITE ARE ANTICIPATED TO HAVE SERIOUS EROSION PROBLEMS.
- SITE DOES NOT HAVE STATE WATERS REQUIRING AN UNDISTURBED BUFFER.
- SITE DOES NOT CONTAIN WETLANDS.

N/T  
O-P REAL ESTATE  
V85/78  
MAP # BLOCK 23 LOT 180-6

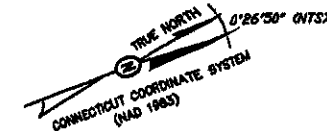


**COMPREHENSIVE SITE PLAN - 80 SCALE**

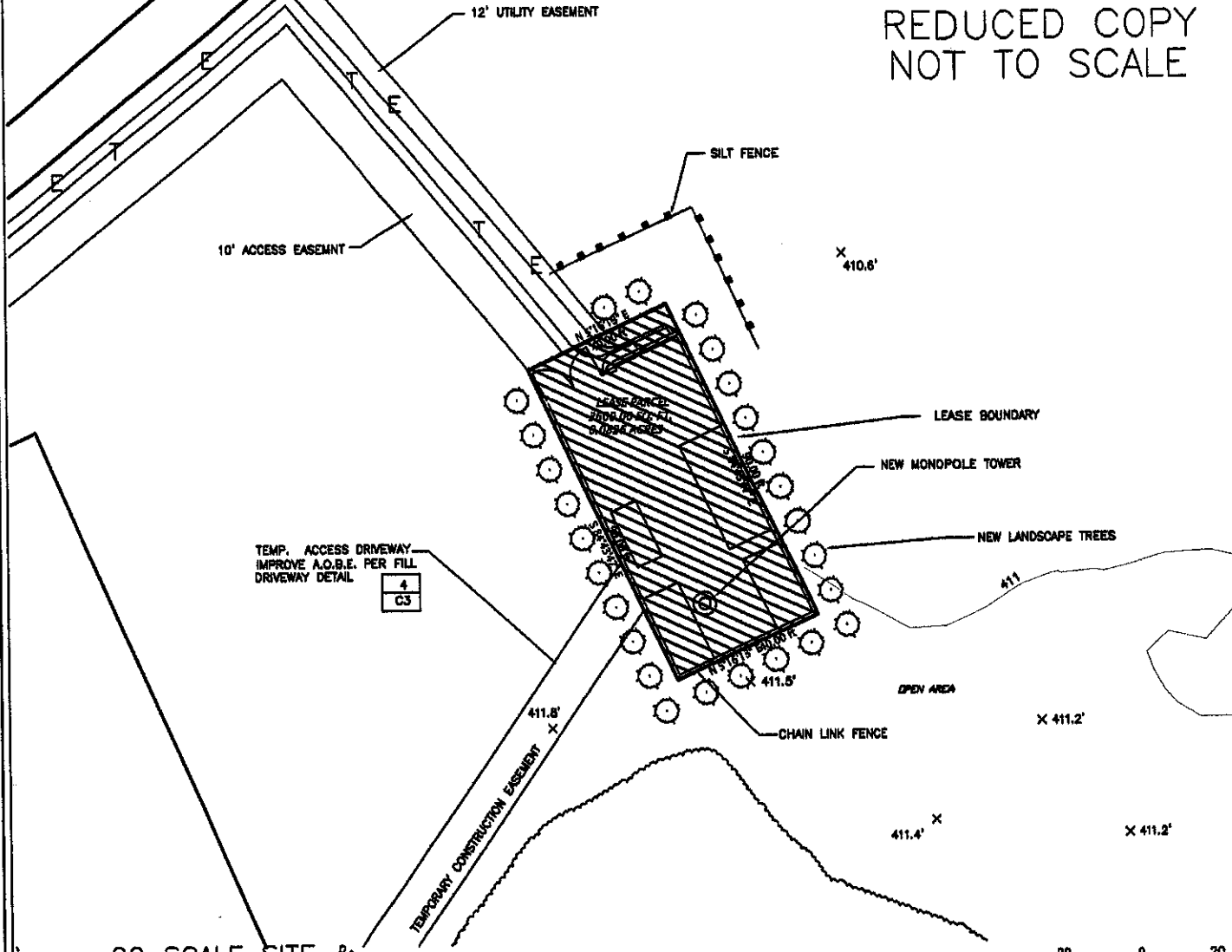
1	C1
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Scale 1" = 80 ft

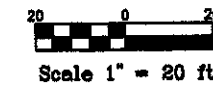


REDUCED COPY  
NOT TO SCALE



**20 SCALE SITE & EROSION CONTROL PLAN**

2	C1
---	----



Scale 1" = 20 ft

Gesick & Associates P.C.



DATE: 2.17.98 DRAWN BY: SK

SCALE: AS SHOWN

REVISIONS

NO.	DATE	DESCRIPTION

Site Location:

# SBA, INC.

ONE TOWN CENTER RD., 3RD FL.  
ROCKA HATTON, FL. 32466  
(850) 995-7670

80 EASTERN BLVD.  
GLASTONBURY, CONNECTICUT  
(860) 659-0101

SBA Site Agent: Mark Roberts (860) 659-0101

Site Location:

## 11 Francis J. Clarke Circle Bethel, Connecticut

SBA Site:  
**#4276 (COSTA PROPERTY II)**

CASA PROJ # 98-008A

Sheet title:  
**Comprehensive Site Plan**

DRAWING NUMBER: **C-1**

- ACCESS EASEMENT GENERAL NOTES:**
1. ACCESS DRIVE TO BE IMPROVED TO A MINIMUM OF 10' IN WIDTH. THE ACCESS SHALL BE MAINTAINED AND OR IMPROVED TO ALLOW CONSTRUCTION AND MAINTENANCE EQUIPMENT TO THE SITE. GRADES OF THE ACCESS SHALL MATCH EXISTING GRADES WITH MINOR GRADE MODIFICATIONS.
  2. WHERE ACCESS DRIVE REQUIRES IMPROVEMENTS DETERMINED BY THE OWNERS CONSTRUCTION REPRESENTATIVE IN THE FIELD THE ACCESS SHALL BE IMPROVED TO BE 10' IN WIDTH. CONSTRUCTION SHALL CONSIST OF A MINIMUM OF 8" OF COMPACTED GRAVEL MATERIAL OVER A GEOTEXTILE FABRIC WITH A MINIMUM 180 MIL THICKNESS. THE DRIVE SHALL BE INSTALLED TO MATCH EXISTING GRADE WITH MINOR GRADE MODIFICATIONS.
  3. GRAVEL MATERIAL SHALL BE AN EVENLY GRADED MIXTURE OF PROCESSED CRUSHED STONE WITH 100% PASSING THE A 1-1/2" SIEVE AND NOT MORE THAN 5 PERCENT PASSING A NO. 4 SIEVE OR AS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS.
  4. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE STATE OF CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
  5. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
  6. AUTHORIZATION FOR ACCESS TO AND WORK WITHIN PUBLIC ROAD R.O.W. SHALL BE OBTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL ADHERE TO ALL SPECIAL REQUIREMENTS SPECIFIED IN THE AUTHORIZATION.

- REFERENCE MAPS**
1. TOWN OF BETHEL, CONNECTICUT FRANCIS J. CLARKE INDUSTRIAL PARK SUBDIVISION PLAN PREPARED BY LIND-WOOD LARSON ASSOC. INC. & HASPER ASSOC. DATED 1/29/94 SCALE 1"=100'
  2. TEMP. EROSION CONTROL CHANGE & LANDSCAPING PREPARED BY GESICK & ASSOCIATES P.C. DATED 1/27/98 SCALE 1"=20'

- NOTES**
1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-302b-1 THRU 20-302b-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. IT IS A PROPERTY SURVEY.
  2. THIS SURVEY IS SUBJECT TO SUCH FACTS AS AN INDEPENDENT RESURVEY BASED ON A DEPENDENT RESURVEY (BASED ON REF MAP #1) CONFORMING TO A-3 HORIZONTAL ACCURACY AND 1-2 TOPOGRAPHIC ACCURACY AND INTENDED TO DEPICT AND NOTE THE POSITION OF A PROPOSED LEASE PARCEL WITH RESPECT TO EXISTING STRUCTURES ON PARCEL.
  3. THIS SURVEY IS SUBJECT TO SUCH FACTS AS AN INDEPENDENT RESURVEY.
  4. NORTH IS BASED ON THE CONNECTICUT COORDINATE SYSTEM (NAD 83)
  5. ELEVATIONS BASED ON MVD 1988.
  6. BASE MAPPING PREPARED BY GESICK & ASSOCIATES PC FROM A FEB 2, 1998 FIELD SURVEY.
  7. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.
  8. LEASE PARCEL LOCATED IN FLOOD ZONE C PER FIRM COMMUNITY DEVELOPMENT DIVISION PANEL 10 OF 10 DATED FEB. 15, 1984
  9. LEASE PARCEL LOCATED IN ZONE P INDUSTRIAL PARK

- SITE WORK GENERAL NOTES:**
1. RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
  2. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE PCS EQUIPMENT AND TOWER AREAS.
  3. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
  4. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, 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 ENGINEERS. 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 ENGINEER.
  5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF AN ENGINEER.
  6. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, AND SEED.
  7. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH STATE AND LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL, AND COORDINATED WITH THE LOCAL CODE ENFORCEMENT OFFICE.
  8. UTILITY EASEMENT SHALL BE CLEARED AS REQUIRED BY LOCAL UTILITY. MAXIMUM WIDTH SHALL BE 40' CLEAR.
  9. ACTUAL LOCATIONS OF EXISTING UTILITIES ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INITIATION OF THE SITE WORK.

**DRAINAGE DESIGN:**  
(REF: TOWN OF BETHEL WETLANDS SECT. 115-B H-13)

**PRE-CONSTRUCTION CONDITION:**

THE EXISTING SITE CONDITIONS PRIOR TO THE PROPOSED CONSTRUCTION OF THE PROJECT CONSTRUCTION CONSISTS OF SPARSE VEGETATION OVER A SANDY LOAM FILL WITH LESS THAN A 2% SLOPE.

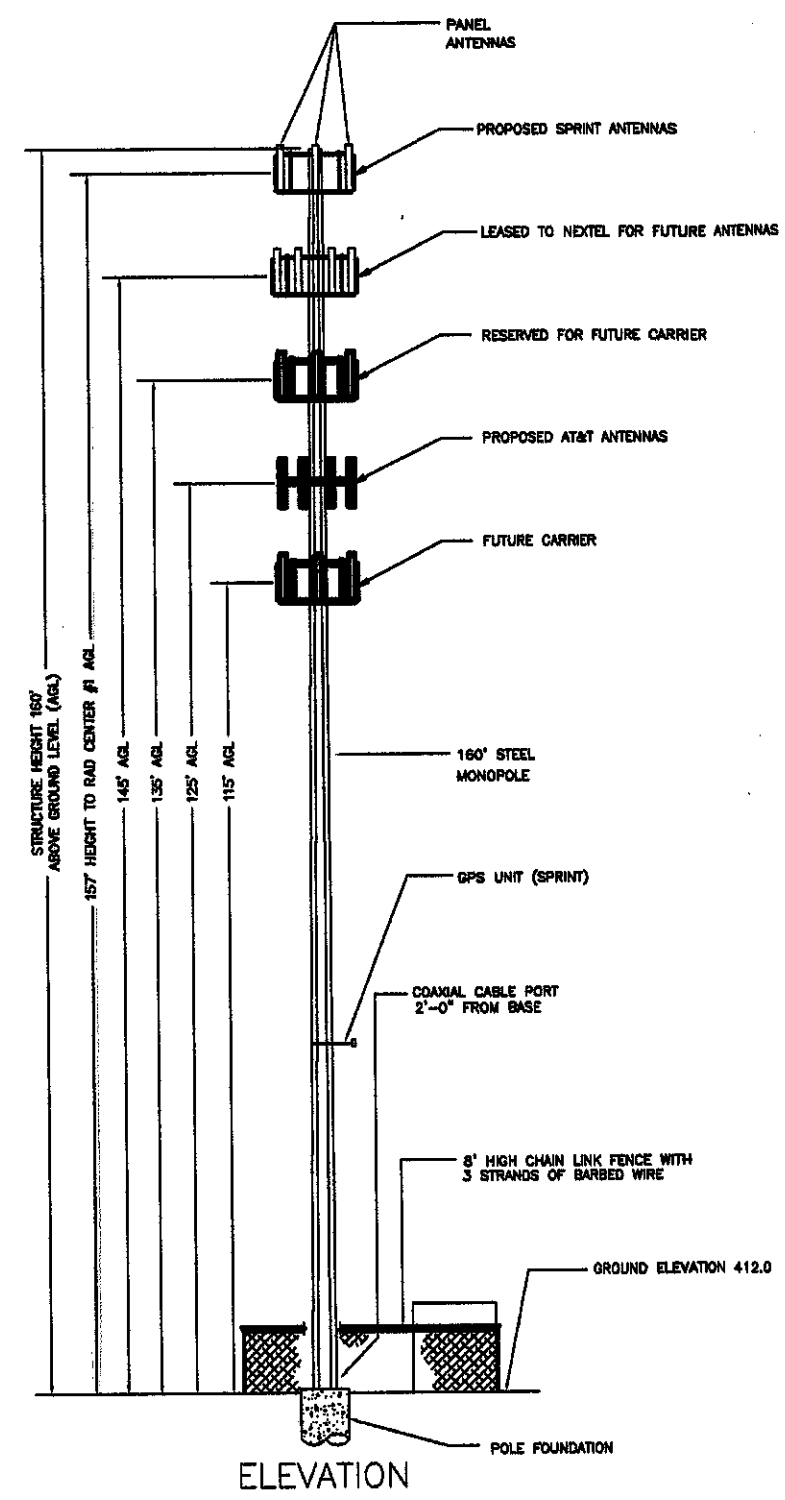
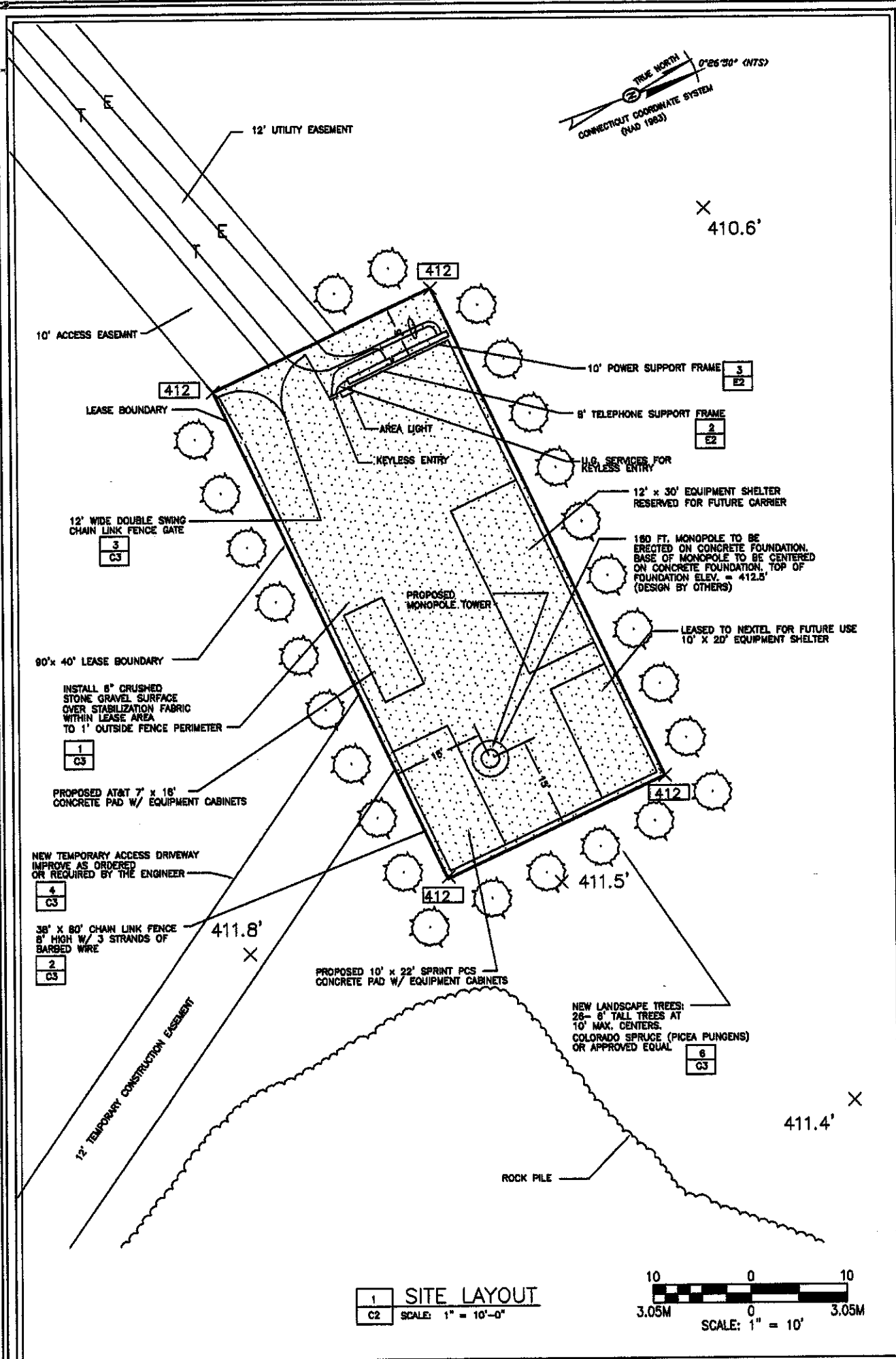
**POST CONSTRUCTION CONDITION:**

THE PROPOSED PROJECT WILL INVOLVE MINIMAL GRADING. THE LEASE PARCEL WILL BE SURFACED WITH A PERMEABLE GRAVEL AT A LEVEL GRADE. THE ONLY IMPERVIOUS SURFACE WILL BE A 10'x20' (200SF) EQUIPMENT SHELTER.

**CONCLUSIONS:**

AS THE SURFACE CONDITIONS IN THE POST CONSTRUCTION CONDITION ARE AS OR MORE PERVIOUS THAN THE PRECONSTRUCTION CONDITION AND AS THE NET IMPERVIOUS AREA IS DIMINUS IT IS THE ENGINEERS OPINION THAT THERE WILL BE NO NET INCREASE IN STORM WATER RUNOFF DUE TO THE PROJECT CONSTRUCTION.

**EROSION & SEDIMENT CONTROL:**  
SEE EROSION AND SEDIMENT CONTROL NARRATIVE ON SHEET C-4.



REDUCED COPY  
NOT TO SCALE

DATE: 2.17.98 DRAWN BY: SK  
SCALE: AS SHOWN

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMITS	2/17/98
2	ISSUED FOR PERMITS	2/17/98
3	ISSUED FOR PERMITS	2/17/98
4	ISSUED FOR PERMITS	2/17/98
5	ISSUED FOR PERMITS	2/17/98
6	ISSUED FOR PERMITS	2/17/98
7	ISSUED FOR PERMITS	2/17/98
8	ISSUED FOR PERMITS	2/17/98
9	ISSUED FOR PERMITS	2/17/98
10	ISSUED FOR PERMITS	2/17/98

Site Location:  
**SBA, INC.**  
90 EASTERN BLVD.  
GLASTONBURY, CONNECTICUT  
(860) 659-9101  
SBA Site Agent : Mark Roberts (860) 659-9101

ONE TOWN CENTER RD, 3RD FL.  
BOCA RATON, FL 33486  
(561) 985-7670

Site Location:  
11 Francis J. Clarke Circle  
Bethel, Connecticut  
SBA Site :  
#4276 (COSTA PROPERTY II)  
C&A PROJ # 98-009A

Sheet title:  
Site Plan & Elevations

DATE: 6.20.98 DRAWN BY: SK  
 SCALE: AS SHOWN

REVISIONS	
NO.	DESCRIPTION

**SBA, INC.**

ONE TOWN CENTER RD., 3RD FL.  
 BOCA RATON, FL. 33486  
 (561) 995-7670

125 SHAW STREET SUITE 116  
 NEW LONDON, CONNECTICUT  
 (860) 439-0152

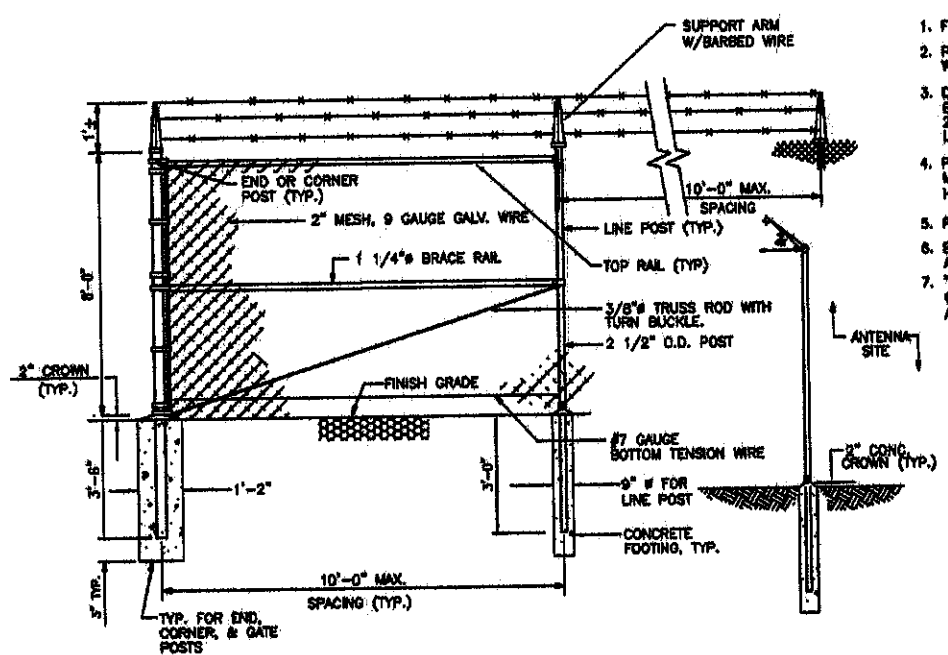
Site Location:  
 11 Francis J. Clarke Circle  
 Bethel, Connecticut  
 SBA Site :  
 #4276 (COSTA PROPERTY II)

C&A PROJ # 98-0091A

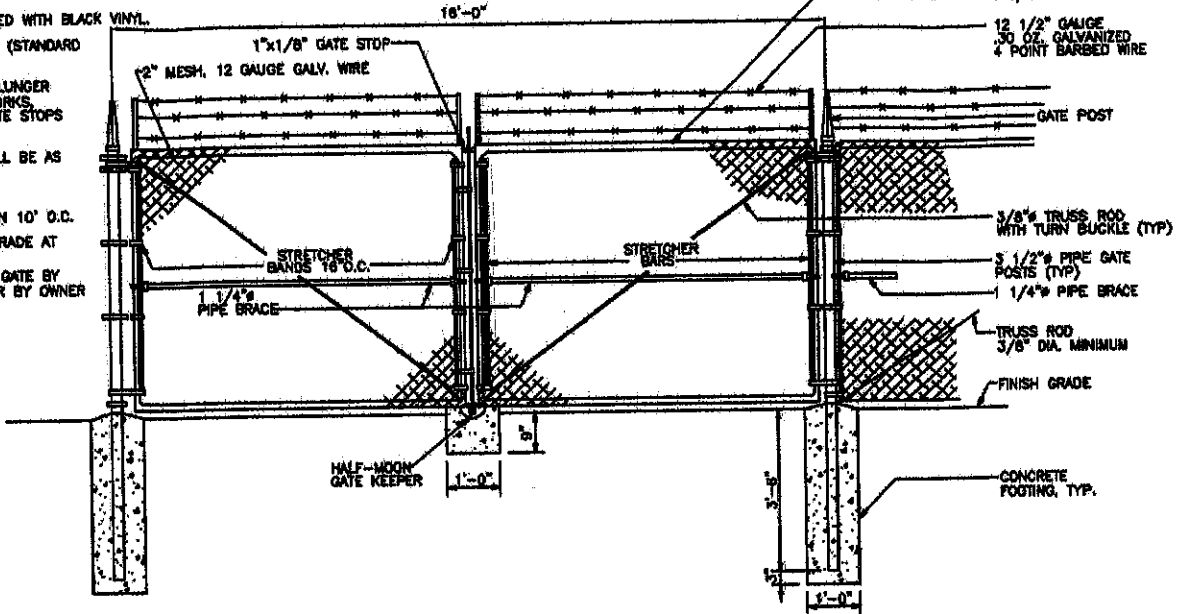
Sheet title:  
**SITE DETAILS**

DRAWING NUMBER: **C-3**

- FENCE NOTES:**
- FENCING MATERIALS SHALL BE OF GALVANIZED STEEL COATED WITH BLACK VINYL.
  - POST, BRACES AND GATE FRAMES SHALL BE SCHEDULE 40 (STANDARD WEIGHT) PIPE. SIZES SPECIFIED ARE NOMINAL DIAMETER.
  - DOUBLE SWING GATE SHALL BE PROVIDED WITH TUBULAR PLUNGER BAR, 1 LOCK KEEPER, 1 LOCK KEEPER GUIDE, 2 LATCH FORKS, 2 FORK CATCHES, 1 LATCH FOR PLUNGER BAR, AND 3 GATE STOPS LOCATED AS DIRECTED BY THE ENGINEER.
  - POSTS, CAPS AND OTHER NECESSARY FENCE FITTINGS SHALL BE AS MANUFACTURED BY THE FENCE MANUFACTURER OR EQUAL. HINGES SHALL BE OF GALVANIZED STEEL.
  - POSTS SHALL BE SPACED EQUIDISTANT BUT NOT MORE THAN 10' O.C.
  - BOTTOM OF FENCE SHALL BE NO MORE THAN 3" ABOVE GRADE AT ANY SECTION.
  - "HARK" MONITORING SYSTEM TO BE INSTALLED AT ACCESS GATE BY CONTRACTOR. SYSTEM SHALL BE SUPPLIED TO CONTRACTOR BY OWNER AND ENERGIZED BY A "HARK" FIELD REPRESENTATIVE.

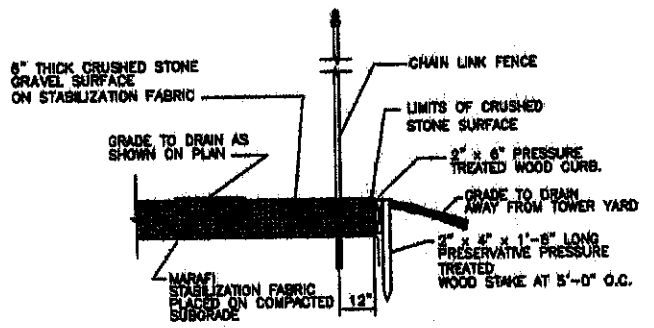


**2 FENCE DETAIL**  
 CS NOT TO SCALE

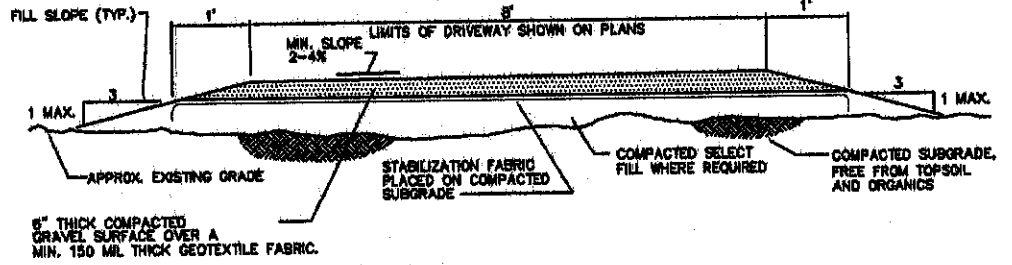


**3 GATE DETAIL**  
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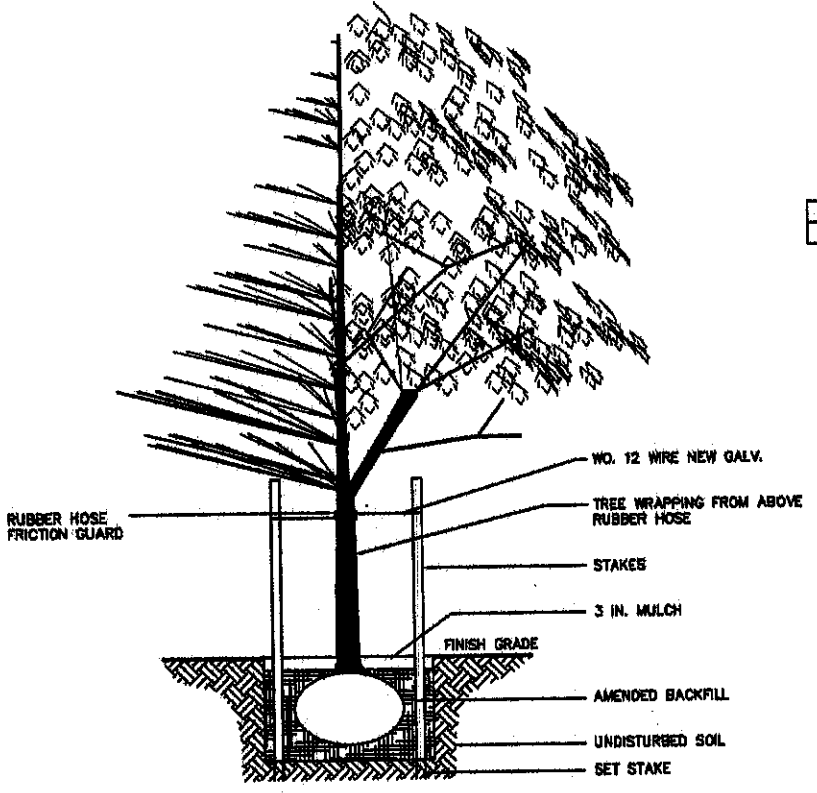
**5 DELETED**  
 CS



**1 SECTION THROUGH TOWER YARD**  
 CS NOT TO SCALE



**4 DRIVEWAY SECTION - CROSS SLOPED**  
 CS NOT TO SCALE

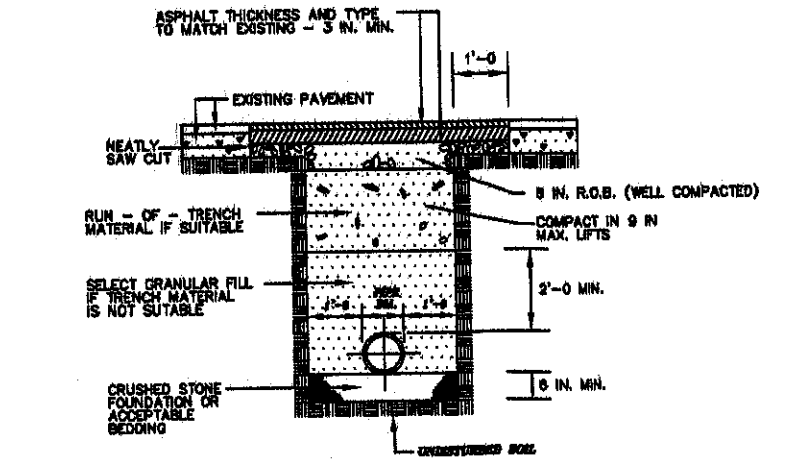


**6 TYPICAL TREE PLANTING DETAIL**  
 CS NOT TO SCALE

NOTES:  
 GUY WIRES (NO.12 NEW GALV.) SHALL BE REQUIRED FOR ALL TREES 3 GAL. AND LARGER.

**TREE & SHRUB PLANTING SPECIFICATIONS:**  
 SOIL MIX SHALL CONSIST OF: 3 PARTS TOPSOIL, 3 PARTS PEAT MOSS, TO 1 PART COMPOSTED COW MANURE, AND 1 OZ. SOIL MOST PER EVERY 12 IN. OF LINEAR DIM. OF ROOT BALL. COVER WITH LANDSCAPE FABRIC, AND A MIN. 3 IN. CEDAR MULCH.  
 TREES 6" AND OVER SHALL BE STAKED WITH 2 OAK STAKES 2 IN. x 2 IN. x 6' AND GUY WIRE & STAKES.

ALL TREES AND SHRUBS MUST MEET OR EXCEED STANDARDS SET BY THE NATIONAL ASSOCIATION OF NURSERYMEN, YEAR OF LATEST REVISION.



**7 BITUMINOUS PAVEMENT REPLACEMENT DETAIL**  
 CS NOTE: COLD PATCH IS NOT AN ACCEPTABLE METHOD FOR PAVEMENT REPLACEMENT