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
www.ct.gov/csc

January 25, 2005

Thomas F. Flynn III
Zoning Manager
Nextel Communications
100 Corporate Place
Rocky Hill, CT 06067

RE: **EM-NEXTEL-143-041214** - Nextel Communications Inc. notice of intent to modify an existing telecommunications facility located at 350 Burr Mountain Road, Torrington, Connecticut.

Dear Mr. Flynn:

At a public meeting held on January 24, 2005, 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 with the condition that the antennas are centered at the 160 foot level of the tower.

The proposed modifications are to be implemented as specified here and in your notice dated December 14, 2004, including the placement of all necessary equipment and shelters within the tower compound. 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,

Pamela B. Katz, P.E.
Chairman
PBK/laf

c: The Honorable Owen J. Quinn, Jr., Mayor, City of Torrington
Martin Connor, City Planner, City of Torrington
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels LLP
Michele G. Briggs, The New Cingular Wireless PCS, LLC
Kenneth C. Baldwin, Esq., Robinson & Cole LLP

G:\em\cingular\litchfield\dc012405.doc

CSC
CONNECTICUT SITING COUNCIL

Perrone, Michael

From: Levine, Steven [steven.levine@cingular.com]
Sent: Monday, January 24, 2005 12:46 PM
To: Perrone, Michael; Phelps, Derek
Cc: Briggs, Michele G.; 'Russ Van Oudenaren'; Blevins, John D.
Subject: RE: Nextel's Torrington Application on 1/24/05 Agenda

Mike,

As we discussed earlier by telephone, the difference between this situation and other towers where Cingular-Nextel spacing is less than 15 feet is the opportunity to prevent insufficient spacing before it occurs. Through diligent attention to the Council's Agenda, this matter was identified and brought to the attention of all concerned.

Once equipment is installed, it's next-to-impossible to have it moved. In this instance, the tower itself has not yet been built. Nextel does not yet have a lease with Sprint, and Sprint has expressed willingness to lower Nextel by 5 feet to prevent interference in a new draft of their lease. That 5 feet will have negligible effect on Nextel's coverage, but will eliminate a source of interference with Cingular's operations.

Cingular already has a lease with Sprint for the 175 foot level, as well as Siting Council approval for that location. Nextel, on the other hand, is requesting your approval for a location that would interfere with Cingular.

The following is a memo from our RF Engineer John Blevins concerning the Cingular requirements:

January 24, 2005

To: Connecticut Siting Council

From: John Blevins
Senior Engineer
Cingular Wireless

Subject: Cingular's desired antenna spacing between Cingular and Nextel

It is Cingular's corporate guide line to maintain a separation of 15 feet between NEXTEL's IDEN 850 technology and Cingular. If Nextel agrees to install Version 4 Revision 3, or equivalent, transmit, notch filters this distance can be reduced to 10 feet.

These filters provide additional loss of any unwanted signals on Cingular's receive frequency spectrum from Nextel's transmitters. Otherwise, the additional 5 feet of physical separation is needed to maintain the noise floor in Cingular's receive frequency band.

Since what is needed here is the opportunity and incentive for Nextel to act on the spacing issue with Sprint, Cingular asks that the Council table Nextel's application EM-NEXTEL-143-041214 at today's meeting and request from Nextel a revised application denoting their centerline as 160 feet AGL rather than 165 feet. Prior discussions of the Council have indicated its willingness to take interference into account when appropriate.

Thank you for your assistance in this matter.

New Cingular Wireless PCS, LLC
Steve Levine 500 Enterprise Drive, 3rd Fl., Rocky Hill, CT 06067
Real Estate Consultant Office 860-513-7636 Mobile 203-556-1655 Fax 860-513-7190

cc: Tom Flynn, by FAX

Nextel Communications
100 Corporate Place, Rocky Hill, CT 06067
860 513-5400 FAX 860 513-5444

NEXTEL

MEMORANDUM

TO: Mike Perrone

FROM: TOM FLYNN
NEXTEL ZONING COORDINATOR

RE: CT 3654 Torrington Revised Power Density.

DATE: 1/19/05

Mike,

Per your request

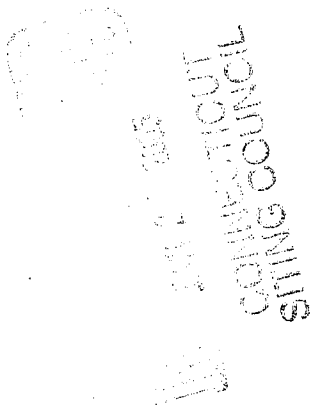
Torrington, CT (350 Burr Mountain Rd.) CT3654 - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 165' AGL

Note: Power densities are in mW/ cm²

Transmitters:	Frequency In MHz	CT Standard mW/ cm²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
Sprint	1962	1.0000	11	306.1	195	0.031878	3.1878%
Verizon	1900	1.0000	3	200	185	0.006300657	0.6301%
Cingular	880	0.5867	2	296	175	0.006947422	1.1842%
	1930	1.0000	2	427	175	0.010022126	1.0022%
Nextel Digital ESMR**	851	0.5673	12	100	159	0.017059452	3.0070%
Total % of CT Standard							9.0113%

** Nextel antenna centerline is 165' adjusted to 159' per OET 65 Bulliten for 6' average head height.



EM-NEXTEL-143-041214

December 14, 2004

RECEIVED
DEC 14 2004
CONNECTICUT
SITING COUNCIL

Ms. Pamela Katz, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Dear Chairman Katz:

Please find enclosed and respectfully submitted, a request from Nextel Communications Inc. ("Nextel") to Modify an Exempt Tower and Associated Equipment at an existing telecommunications facility located on 350 Burr Mountain Road, Torrington, Connecticut. This facility is located on property owned by O&G Industries Inc. The tower is owned by Sprint PCS.

Nextel wishes to share use of this facility in order to improve/expand wireless its system coverage and to avoid the possibility of constructing another telecommunications tower in the general area.

The attached information details how the addition of the proposed antennas and associated equipment at the tower site meet the criteria set forth in Section 16-50j-72(b)(2) of the Regulations of Connecticut State Agencies and therefore is an Exempt Modification pursuant to Section 16-50j-73 of the Regulation.

Thank you for your consideration in this matter.

Respectfully,

Thomas F. Flynn III
Zoning Manager
Nextel Communications

Enclosure

Cc: Owen J Quinn
Mayor City of Torrington

Nextel Communications, Inc.
100 Corporate Place Rocky Hill, CT 06067
Phone 860.513.5400 Fax 860.513.5444

NEXTEL

EXEMPT MODIFICATION
350 BURR MOUNTAIN ROAD
TORRINGTON, CONNECTICUT

Pursuant to Section 16-50i(a)(5) of the Connecticut General Statutes and Section 16-50j-72(b)(2), as amended, of the Regulations of Connecticut State Agencies, Nextel Communications Inc., ("Nextel") hereby notifies the Connecticut Siting Council of its intent to modify an existing telecommunications facility located at 350 Burr Mountain Road, Torrington, Connecticut.

BACKGROUND

This existing facility, located at 350 Burr Mountain Road, Torrington, Connecticut consists of a 198-foot tall monopole that is owned by Sprint PCS and is located on property of the O&G Industries Inc. Sprint PCS, Cingular and Verizon are currently using or proposing to use the site. The site will provide wireless service coverage for Nextel to this section of Torrington, Winsted, New Hartford and Route 8.

Nextel desires to share use of this facility and thus avoid the potential need to construct an additional tower in the general area.

DISCUSSION

Nextel plans to install twelve (12) panel antennas center-lined at the 165-foot level of the tower (see Attachment A) and place a 12-foot by 20-foot equipment shelter inside the northeastern side of the existing fenced compound (see Attachment B). The tower has been structurally built to allow for multiple carriers. A structural analysis is contained in the underlying approval in Docket # 277 The tower is located at latitude 41 53 11 and longitude 73 04 01.

POWER DENSITY INFORMATION

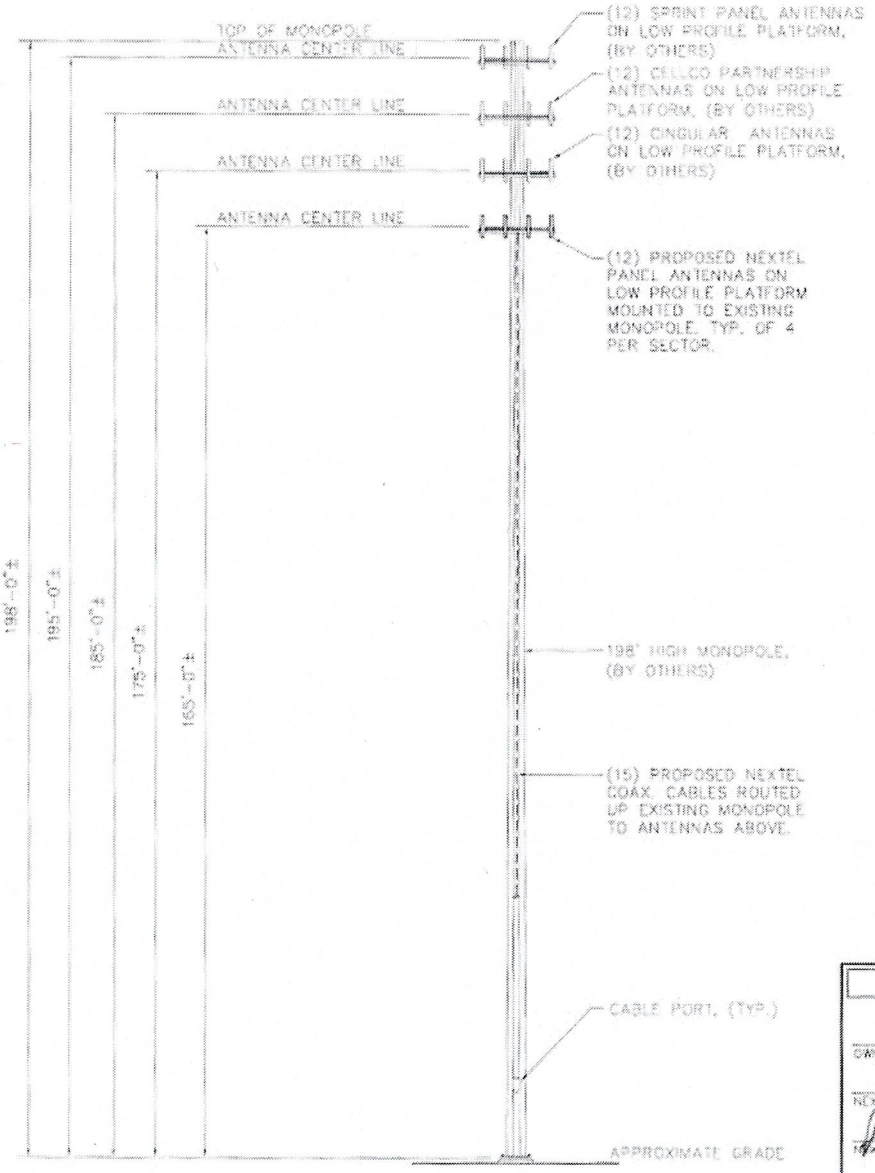
The operation of Nextel's antennas will not increase the total radio frequency electromagnetic power density level to a level at (or even near) existing State and Federal Standards. "Worst case" calculations, measured to a point at the base of the tower, show the power levels for the existing Sprint PCS, Verizon and the proposed Nextel antennas reach just 6.3001 % of the State/Federal standard in an uncontrolled access environment. (See Attachment C).

CONCLUSION

The proposed additions do not constitute a "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and are consistent with the exception criteria found in Section 16-50j-72(b)(2) of the Regulations of Connecticut State Agencies in that the addition of Nextel's antennas and equipment will not increase the existing tower height or extend the boundaries of the site; will not increase noise levels by six (6) decibels or more at the site's boundaries; and will not increase the total radio frequency electromagnetic radiation above the Standard set forth in Section 22(a)–162 of the Connecticut General Statutes. In summary, this proposed addition would not have a substantial adverse environmental effect.

For the reasons discussed above, Nextel respectfully requests that the Council acknowledge that this Notice of Modification meets the Council's exemption criteria, and permit Nextel to share use of this facility.

NOTE:
THIS LEASE EXHIBIT IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION EQUIPMENT WITHIN THE FACILITY.



1 / LE-2 MONOPOLE ELEVATION
SCALE: N.T.S

APPROVALS

OWNER	DATE 10/25/04
NEXTEL R.F. ENGINEER	DATE 10/25/04
NEXTEL CONSTRUCTION	DATE 10/25/04
NEXTEL SITE ACQUISITION	DATE 10/21/04
NEXTEL FIELD OPERATIONS	DATE 10/22/04
GENERAL DYNAMICS	DATE

ISSUED FOR FINAL

URS
URS CORPORATION AES
795 BROOK STREET, BLDG 5
ROCKY HILL, CT. 06067
1-(800)-529-8882

NEXTEL

SITE NAME: CT-3654D WINSTED SOUTH
SITE ADDRESS: 350 BURR MOUNTAIN ROAD TORRINGTON, CT 06790

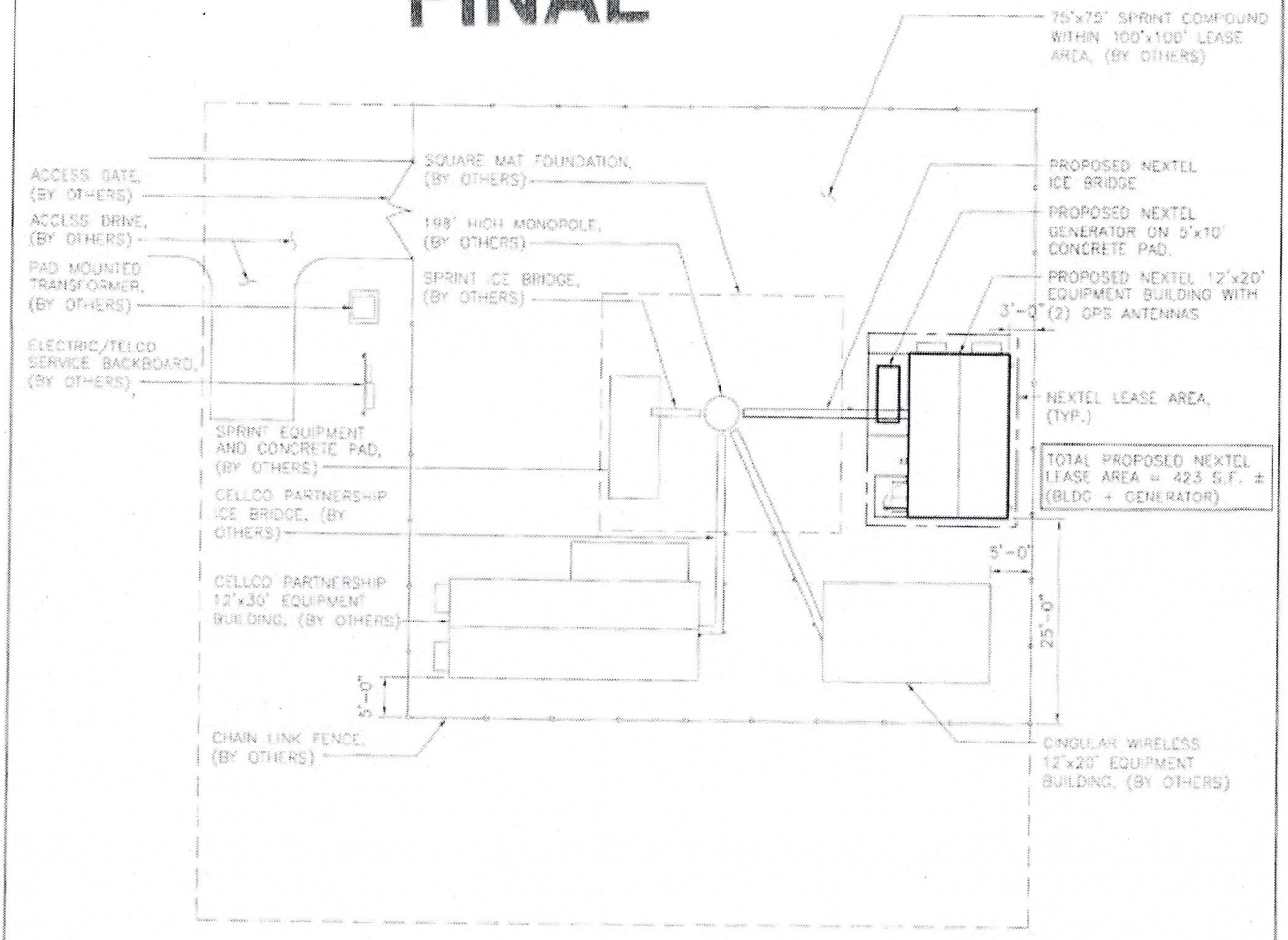
SCALE: AS NOTED	DRAWN BY: RD	DWG. NO.	LE-2
DATE: 10/06/04	CHECKED BY: AA		
REV: 1 10/21/04	APPROVED BY: AA		
FILE NO: LE-2	URS JOB NO: 03A 050	DWG. 2 OF 2	

EXHIBIT A

APPROX. NORTH

NOTE:
THIS LEASE EXHIBIT IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION EQUIPMENT WITHIN THE FACILITY.

FINAL



1 / LE-1 COMPOUND PLAN
SCALE: N.T.S.

APPROVALS	
OWNER	DATE
NEXTEL R.F. ENGINEER	10/21/04 DATE
NEXTEL CONSTRUCTION	10/22 DATE
NEXTEL REAL ESTATE	10/25 DATE
NEXTEL FIELD OPERATIONS	10/21/04 DATE
CINGULAR DYNAMICS	10/21/04 DATE

ISSUED FOR FINAL

URS
URS CORPORATION AES
795 BROOK STREET, BLDG 5
ROCKY HILL, CT. 06067
1-(860)-529-8882

NEXTEL

SITE NAME: CT-3654D WINSTED SOUTH

SITE ADDRESS: 350 BURR MOUNTAIN ROAD TORRINGTON, CT 06790

SCALE: AS NOTED | DRAWN BY: PD | DWG. NO.: LE-1

DATE: 10/08/04 | CHECKED BY: AA

REV: 1 10/21/04 | APPROVED BY: AA

FILE NO.: LE-1 | URS JOB NO.: 12414.052 | SHT. 1 OF 3

EXHIBIT B

Torrington, CT (350 Burr Mountain Rd.) CT3654 - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 175' AGL

Note: Power densities are in mW/ cm²

Transmitters:	Frequency in MHz	CT Standard mW/ cm²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
Sprint	1962	1.0000	11	306.1	195	0.031878	3.1878%
Verizon	1900	1.0000	3	200	185	0.006300657	0.6301%
Nextel Digital ESMR	851	0.5673	12	100	175	0.014082612	2.4822%

** Nextel antenna centerline is 175' adjusted to 169' per OET 65 Bulliten for 6' average head height.

Total % of CT Standard 6.3001%

EXHIBIT C

valmont

STRUCTURES

VALMONT COMMUNICATIONS
1545 PIDCO DRIVE
PLYMOUTH, INDIANA 46563
PHONE: 1-800-547-2151
ENGINEER: Kenneth Durnil (x5301)
Reviewed by: KWD 7/14/2004

COMMUNICATION POLE DESIGN CALCULATIONS

SPRINT
VALMONT ORDER #17566-64
SITE NAME: O & G INDUSTRIES TORRINGTON, CT
POLE HEIGHT: 196

valmont
MICROFLECT

7/14/04

ENGINEERING DATA

for

SPRINT
O & G INDUSTRIES TORRINGTON, CT
VALMONT ORDER 17566-64

1) STRUCTURE DESIGN CONFORMS TO EIA/TIA-222-F INCLUDING:
85 MPH BASIC WIND SPEED WITH NO ICE
73.6 MPH BASIC WIND SPEED WITH 0.5 INCH RADIAL ICE
TWIST AND SWAY EVALUATION NOT REQUIRED

2) FEEDLINES ARE ASSUMED TO BE PLACED INTERIOR TO THE POLE.

3) ALL MICROWAVE ASSUMED TO BE 6 GHz UNLESS OTHERWISE NOTED.

4) LOADING AS FOLLOWS:
196' POLE
1 - Lightning Rod, 8' @ 196.0'
12 - DAPA 48000 @ 195.0'
1 - Platform, PiRod w/o rails, 13' @ 195.0'
12 - DAPA 48000 @ 185.0'
1 - Platform, PiRod w/o rails, 13' @ 185.0'
12 - DAPA 48000 @ 175.0'
1 - Platform, PiRod w/o rails, 13' @ 175.0'
12 - DAPA 48000 @ 165.0'
1 - Platform, PiRod w/o rails, 13' @ 165.0'
12 - DAPA 48000 @ 155.0'
1 - Platform, PiRod w/o rails, 13' @ 155.0'
12 - DAPA 48000 @ 145.0'
1 - Platform, PiRod w/o rails, 13' @ 145.0'

DRILLED PIER ESTIMATE PER EIA 'NORMAL' SOILS

POLE HEIGHT(FT):	196	NUMBER OF A.B.'s:	28
BOLT CIRCLE(IN):	67.67	DIA. OF A.B.'s(IN):	2.25
BASE VERTICAL(K):	65.42	LENGTH OF A.B.'s(IN):	60.00
BASE SHEAR(K):	40.83	PROJECTION LENGTH(IN):	10.00
BASE MOMENT(IN-K):	66145	TEMPLATE OD(IN):	71.17

PIER DIAMETER(FT): 6.81
USE 7.00

PIER DEPTH(Ld) = 2.0 + SHEAR/3*DIA. + 2(SHEAR^2/18*DIA.^2 + SHEAR/2 + MOM/12*3*DIA.)^1/2
= 37.7

SUMMARY:	DIAMETER	7.0 FEET
	DEPTH =	37.7 FEET
	LENGTH =	38.2 FEET
	CONCRETE VOLUME =	54.4 CUBIC YARDS

valmont MICROFLECT

BY_____ DATE _____
CHKD. BY _____ DATE _____

SHEET NO. _____

7/14/04

ENGINEERING DATA

for

SPRINT
O & G INDUSTRIES TORRINGTON, CT
VALMONT ORDER 17566-64

EIA/TIA-222-F
BASIC WIND: 85.0 MPH
WIND & ICE: 73.6 MPH AND 0.5 IN. ICE
TWIST & SWAY: NOT REQUIRED

QTY	DESCRIPTION	HEIGHT	DATA W.O. ICE EPA	DATA W.O. ICE WT	DATA W/ ICE EPA	DATA W/ ICE WT
1	Lightning Rod, 8'	@ 196.0 '	1.12	37	1.77	45
12	DAPA 48000	@ 195.0 '	51.12	216	57.24	480
1	Platform, PiRod w/o rails, 13'	@ 195.0 '	15.70	1300	20.10	1765
12	DAPA 48000	@ 185.0 '	51.12	216	57.24	480
1	Platform, PiRod w/o rails, 13'	@ 185.0 '	15.70	1300	20.10	1765
12	DAPA 48000	@ 175.0 '	51.12	216	57.24	480
1	Platform, PiRod w/o rails, 13'	@ 175.0 '	15.70	1300	20.10	1765
12	DAPA 48000	@ 165.0 '	51.12	216	57.24	480
1	Platform, PiRod w/o rails, 13'	@ 165.0 '	15.70	1300	20.10	1765
12	DAPA 48000	@ 155.0 '	51.12	216	57.24	480
1	Platform, PiRod w/o rails, 13'	@ 155.0 '	15.70	1300	20.10	1765
12	DAPA 48000	@ 145.0 '	51.12	216	57.24	480
1	Platform, PiRod w/o rails, 13'	@ 145.0 '	15.70	1300	20.10	1765

I N P U T D A T A L I S T SEEFILE ACTLQUOT FOR SPOOL OUTPUT

```
/*********/*********/*********/*********/*********/*********/*********/****/****
SHAP  HEXD    196.00                                                          5
STEE    65      0.00      0.00      1.00      0.00      4.00                0
CONS              1.00      1.50    0.5000                5.00      1.00    1    2
WIND       C                1.69      0.00      0.80
POLE  DIA      60.000    0.2100
SEC   HEIG      52.75     90.40    129.00    169.60      0.00         0
THIC  NESS    0.62500   0.50000   0.37500   0.28125   0.18750   0.00000
BCON              2.0
ROUT                                                            33.00    1   10
LOAD  ARM      196.00    200.00      0.00                                 0    1
LOAD  ARM      195.00    197.20      0.00                                 0    2
LOAD  ARM      195.00    196.50      0.00                                 0    3
LOAD  ARM      185.00    187.20      0.00                                 0    4
LOAD  ARM      185.00    186.50      0.00                                 0    5
LOAD  ARM      175.00    177.20      0.00                                 0    6
LOAD  ARM      175.00    176.50      0.00                                 0    7
LOAD  ARM      165.00    167.20      0.00                                 0    8
LOAD  ARM      165.00    166.50      0.00                                 0    9
LOAD  ARM      155.00    157.20      0.00                                 0   10
LOAD  ARM      155.00    156.50      0.00                                 0   11
LOAD  ARM      145.00    147.20      0.00                                 0   12
LOAD  ARM      145.00    146.50      0.00                                 0   13
LCID  LOD1      85.00                1.00     0.000      0.00      0.00         1
FORC  DATA                          37.00      1.12  1-Lightning Rod, 8        1
FORC  DATA                         216.00     51.12  12-DAPA 48000             2
FORC  DATA                        1300.00     15.70  1-Platform, PiRod         3
FORC  DATA                         216.00     51.12  12-DAPA 48000             4
FORC  DATA                        1300.00     15.70  1-Platform, PiRod         5
FORC  DATA                         216.00     51.12  12-DAPA 48000             6
FORC  DATA                        1300.00     15.70  1-Platform, PiRod         7
FORC  DATA                         216.00     51.12  12-DAPA 48000             8
FORC  DATA                        1300.00     15.70  1-Platform, PiRod         9
FORC  DATA                         216.00     51.12  12-DAPA 48000            10
FORC  DATA                        1300.00     15.70  1-Platform, PiRod        11
FORC  DATA                         216.00     51.12  12-DAPA 48000            12
FORC  DATA                        1300.00     15.70  1-Platform, PiRod        13
LCID  LOD2      74.00                1.00     0.000       0.50      0.00         1
FORC  DATA                          45.00      1.77  1-Lightning Rod, 8        1
FORC  DATA                         480.00     57.24  12-DAPA 48000             2
FORC  DATA                        1765.00     20.10  1-Platform, PiRod         3
FORC  DATA                         480.00     57.24  12-DAPA 48000             4
FORC  DATA                        1765.00     20.10  1-Platform, PiRod         5
FORC  DATA                         480.00     57.24  12-DAPA 48000             6
FORC  DATA                        1765.00     20.10  1-Platform, PiRod         7
FORC  DATA                         480.00     57.24  12-DAPA 48000             8
FORC  DATA                        1765.00     20.10  1-Platform, PiRod         9
FORC  DATA                         480.00     57.24  12-DAPA 48000            10
FORC  DATA                        1765.00     20.10  1-Platform, PiRod        11
FORC  DATA                         480.00     57.24  12-DAPA 48000            12
FORC  DATA                        1765.00     20.10  1-Platform, PiRod        13
QUOT  POLE
BASE  HXD6                0.00  45000.00  45000.00     2.250     18.00    1 3360
```

OPTI		0.00		0.00	175.05	1.30		98
QUAN	TITY	1.0				22.00	21	0
HEF								
END	ATA							

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 175DATE 07/14/04

*** SUMMARY *** VALP-04-162

---------- DESIGN SUMMARY ----------

ABOVE GROUND HEIGHT (FT)	196.00	GROUND LINE DIAMETER (IN)	60.000	POLE SHAFT WEIGHT (LB)	43510.
		TOP DIAMETER(IN)	21.527		
		POLE TAPER (IN/FT)	0.2100	SHAPE:	16-SIDED SYMMETRICAL POLYGON

CONNECTIONS BETWEEN SECTIONS	/FIRST/	/SECOND/	/THIRD/	/FOURTH/
HEIGHT ABOVE GROUND (FT)	52.75	90.40	129.00	169.60
TYPE	LAP SPLICE	LAP SPLICE	LAP SPLICE	LAP SPLICE
OVERLAP LENGTH	88"	77"	65"	52"

SECTION CHARACTERISTICS	/FIRST/	/SECOND/	/THIRD/	/FOURTH/	/FIFTH/
BASE DIAMETER (IN)	60.000	51.458	44.107	36.353	27.984
TOP DIAMETER (IN)	48.922	42.016	34.660	26.696	21.527
THICKNESS (IN)	0.62500	0.50000	0.37500	0.28125	0.18750
LENGTH	52' 9"	45' 0"	45' 0"	46' 0"	30' 9"
WEIGHT (LB)	19219.	11256.	7126.	4376.	1534.

----------ANALYSIS SUMMARY----------

	GROUND LINE	GOVERNING LEVEL SEC. 1	GOVERNING LEVEL SEC. 2	GOVERNING LEVEL SEC. 3	GOVERNING LEVEL SEC. 4	GOVERNING LEVEL SEC. 5	POLE TOP
GOVERNING LOADING CASE	LOD1	LOD1	LOD1	LOD1	LOD1	LOD1	LOD1
HEIGHT (FT)	0.00	0.00	52.75	90.40	129.00	169.60	196.00
RESULTANT MOMENT (IN-KIP)	66146.	66146.	41838.	26802.	13399.	2687.	3.
SHEAR FORCE (LB)	40831.	40831.	34239.	29633.	25365.	12127.	59.
VERTICAL FORCE (LB)	52643.	52643.	31436.	21051.	14460.	5877.	37.
COMBINED STRESS (KSI)	38.77	38.77	44.11	51.11	50.16	25.59	0.05
ALLOWABLE STRESS (KSI)	52.00	52.00	52.00	52.00	52.00	52.00	52.00
ALLOWABLE/COMBINED STRESS	1.34	1.34	1.18	1.02	1.04	2.03	99.99
TOTAL DEFLECTION (IN)	0.00	0.00	9.15	28.85	64.22	120.30	163.97

NOTE: DIAMETERS ARE OUTSIDE, MEASURED ACROSS THE FLATS

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 175DATE 07/14/04

*** GROUNDLINE REACTIONS ***

LOADING CASE IDENTIFIER	MOMENTS (IN-KIPS) ABOUT X-AXIS	ABOUT Y-AXIS	RESULTANT (X & Y)	TORSIONAL	AXIAL FORCE (LBS)	SHEAR (LBS) IN X-DIRECTION	IN Y-DIRECTION	RESULTANT (X & Y)	NOTES
LOD1	36748.	54998.	66146.	-124.	52643.	33949.	22684.	40831.	A C
LOD2	31599.	47291.	56877.	-109.	62289.	28067.	18754.	33756.	B

NOTE: POSITIVE AXIAL FORCE IS DOWNWARD. AXIAL FORCE INCLUDES THE WEIGHT OF THE ABOVE-GROUND PORTION OF THE POLE SHAFT TIMES THE APPROPRIATE OVERLOAD FACTOR, IN ADDITION TO THE CONCENTRATED VERTICAL LOADING.

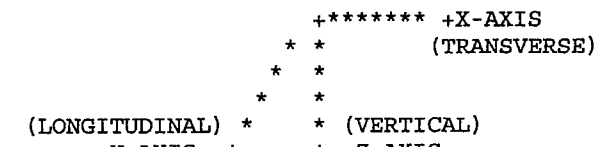
KEY TO THE SPECIAL NOTE ENTRIES
A INDICATES LOAD CASE WITH MAXIMUM OVERTURNING MOMENT
B INDICATES LOAD CASE WITH MAXIMUM AXIAL FORCE
C INDICATES LOAD CASE WITH MAXIMUM RESULTANT SHEAR

*** INPUT LOADS ***

LOADING CASE LOD1

BASIC VELOCITY IS 85.00 M.P.H. ICE THICKNESS 0.00 INCHES
FORCE COEFFICIENT INCREASED TO ACCOUNT FOR PROJECTIONS (EIA NOTE #3)
- MULTIPLIER IS 1.3, BUT RESULT NOT TO EXCEED 1.2-
WIND ORIENTATION IS 33.8 DEGREES CLOCKWISE FROM -X- AXIS
POLE WEIGHT OVERLOAD FACTOR IS 1.000 EXPOSURE C GUST FACTOR 1.69
ARM LOCATION IS MEASURED CLOCKWISE FROM -X- AXIS
POSITIVE -Y- AXIS IS 90 DEGREES CLOCKWISE FROM -X- AXIS

ORIENTATION OF SYSTEM



FOUNDATION ROTATION OF 0.50 DEGREES

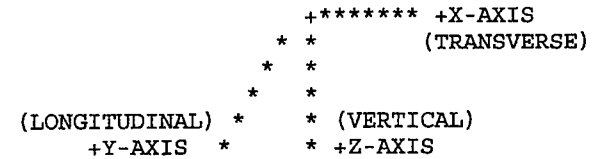
ARM NO.	ARM MOUNTING HEIGHT (FT)	HEIGHT OF LOAD APPLICATION POINT (FT)	ARM LENGTH (FT)	LOCATION OF ARM IN XY PLANE (DEGREES)	FORCE-Y (LBS)	FORCE-X (LBS)	FORCE-Z (LBS)	EPA (SQ. FT.)
1	196.00	200.00	0.00	33.75	48.87	32.65	37.00	1.12
2	195.00	197.20	0.00	33.75	2221.47	1484.34	216.00	51.12
3	195.00	196.50	0.00	33.75	681.57	455.41	1300.00	15.70
4	185.00	187.20	0.00	33.75	2188.68	1462.43	216.00	51.12
5	185.00	186.50	0.00	33.75	671.47	448.66	1300.00	15.70
6	175.00	177.20	0.00	33.75	2154.62	1439.67	216.00	51.12
7	175.00	176.50	0.00	33.75	660.98	441.65	1300.00	15.70
8	165.00	167.20	0.00	33.75	2119.15	1415.97	216.00	51.12
9	165.00	166.50	0.00	33.75	650.06	434.35	1300.00	15.70
10	155.00	157.20	0.00	33.75	2082.14	1391.24	216.00	51.12
11	155.00	156.50	0.00	33.75	638.65	426.73	1300.00	15.70
12	145.00	147.20	0.00	33.75	2043.41	1365.36	216.00	51.12
13	145.00	146.50	0.00	33.75	626.72	418.76	1300.00	15.70

*** INPUT LOADS ***

LOADING CASE LOD2

BASIC VELOCITY IS 74.00 M.P.H. ICE THICKNESS 0.50 INCHES
FORCE COEFFICIENT INCREASED TO ACCOUNT FOR PROJECTIONS (EIA NOTE #3)
- MULTIPLIER IS 1.3, BUT RESULT NOT TO EXCEED 1.2-
WIND ORIENTATION IS 33.8 DEGREES CLOCKWISE FROM -X- AXIS
POLE WEIGHT OVERLOAD FACTOR IS 1.000 EXPOSURE C GUST FACTOR 1.69
ARM LOCATION IS MEASURED CLOCKWISE FROM -X- AXIS
POSITIVE -Y- AXIS IS 90 DEGREES CLOCKWISE FROM -X- AXIS

ORIENTATION OF SYSTEM



FOUNDATION ROTATION OF 0.50 DEGREES

ARM NO.	ARM MOUNTING HEIGHT (FT)	HEIGHT OF LOAD APPLICATION POINT (FT)	ARM LENGTH (FT)	LOCATION OF ARM IN XY PLANE (DEGREES)	FORCE-Y (LBS)	FORCE-X (LBS)	FORCE-Z (LBS)	EPA (SQ. FT.)
1	196.00	200.00	0.00	33.75	58.53	39.11	45.00	1.77
2	195.00	197.20	0.00	33.75	1885.27	1259.70	480.00	57.24
3	195.00	196.50	0.00	33.75	661.35	441.90	1765.00	20.10
4	185.00	187.20	0.00	33.75	1857.45	1241.11	480.00	57.24
5	185.00	186.50	0.00	33.75	651.55	435.35	1765.00	20.10
6	175.00	177.20	0.00	33.75	1828.54	1221.79	480.00	57.24
7	175.00	176.50	0.00	33.75	641.37	428.55	1765.00	20.10
8	165.00	167.20	0.00	33.75	1798.44	1201.68	480.00	57.24
9	165.00	166.50	0.00	33.75	630.77	421.47	1765.00	20.10
10	155.00	157.20	0.00	33.75	1767.03	1180.69	480.00	57.24
11	155.00	156.50	0.00	33.75	619.71	414.08	1765.00	20.10
12	145.00	147.20	0.00	33.75	1734.16	1158.73	480.00	57.24
13	145.00	146.50	0.00	33.75	608.13	406.34	1765.00	20.10

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 175DATE

*** PROPERTIES ***

CONNECTION LOCATIONS	HEIGHT (FEET)	DIAMETER ACROSS FLATS (IN)	WALL THK. (IN)	D/T ACROSS FLATS	W/T ACROSS FLATS	MOMENTS OF INERTIA (IN4)	AREA (IN2)
GRND. LINE	0.00	60.000	0.6250	96.0	17.12	52834.	118.20
	5.00	58.950	0.6250	94.3	16.79	50080.	116.11
	10.00	57.900	0.6250	92.6	16.45	47424.	114.02
	15.00	56.850	0.6250	91.0	16.12	44863.	111.93
	20.00	55.800	0.6250	89.3	15.78	42396.	109.84
	25.00	54.750	0.6250	87.6	15.45	40022.	107.75
	30.00	53.700	0.6250	85.9	15.11	37737.	105.66
	35.00	52.650	0.6250	84.2	14.78	35542.	103.57
	40.00	51.600	0.6250	82.6	14.45	33433.	101.48
	45.00	50.550	0.6250	80.9	14.11	31409.	99.39
SEC BASE	45.44	50.458	0.6250	80.7	14.08	31236.	99.20
	50.00	49.500	0.6250	79.2	13.78	29469.	97.30
SEC TOP	52.75	49.922	0.5000	99.8	17.89	24376.	78.71
	55.00	49.450	0.5000	98.9	17.70	23684.	77.96
	60.00	48.400	0.5000	96.8	17.28	22192.	76.28
	65.00	47.350	0.5000	94.7	16.86	20764.	74.61
	70.00	46.300	0.5000	92.6	16.44	19399.	72.94
	75.00	45.250	0.5000	90.5	16.03	18095.	71.27
	80.00	44.200	0.5000	88.4	15.61	16851.	69.60
SEC BASE	84.01	43.357	0.5000	86.7	15.27	15895.	68.25
	85.00	43.150	0.5000	86.3	15.19	15666.	67.92
	90.00	42.100	0.5000	84.2	14.77	14537.	66.25
SEC TOP	90.40	42.766	0.3750	114.0	20.71	11536.	50.63
	95.00	41.800	0.3750	111.5	20.20	10766.	49.48
	100.00	40.750	0.3750	108.7	19.64	9968.	48.22
	105.00	39.700	0.3750	105.9	19.09	9210.	46.97
	110.00	38.650	0.3750	103.1	18.53	8492.	45.72
	115.00	37.600	0.3750	100.3	17.97	7812.	44.46
	120.00	36.550	0.3750	97.5	17.41	7169.	43.21
SEC BASE	123.61	35.791	0.3750	95.4	17.01	6727.	42.30
	125.00	35.500	0.3750	94.7	16.86	6563.	41.95
SEC TOP	129.00	35.222	0.2813	125.2	22.94	4845.	31.30
	130.00	35.012	0.2813	124.5	22.79	4759.	31.11
	135.00	33.962	0.2813	120.8	22.05	4340.	30.17
	140.00	32.912	0.2813	117.0	21.31	3947.	29.23
ARM	145.00	31.862	0.2813	113.3	20.56	3578.	28.29
ARM	145.00	31.862	0.2813	113.3	20.56	3578.	28.29
	150.00	30.812	0.2813	109.6	19.82	3233.	27.35
ARM	155.00	29.762	0.2813	105.8	19.08	2910.	26.41
ARM	155.00	29.762	0.2813	105.8	19.08	2910.	26.41
	160.00	28.712	0.2813	102.1	18.33	2610.	25.47
ARM	165.00	27.662	0.2813	98.4	17.59	2332.	24.53
ARM	165.00	27.662	0.2813	98.4	17.59	2332.	24.53
SEC BASE	165.25	27.609	0.2813	98.2	17.55	2318.	24.48
SEC TOP	169.60	27.071	0.1875	144.4	26.75	1471.	16.06
	170.00	26.987	0.1875	143.9	26.66	1458.	16.01
ARM	175.00	25.937	0.1875	138.3	25.55	1293.	15.38

ARM	175.00	25.937	0.1875	138.3	25.55	1293.	15.38
	180.00	24.887	0.1875	132.7	24.43	1141.	14.75
ARM	185.00	23.837	0.1875	127.1	23.32	1002.	14.12
ARM	185.00	23.837	0.1875	127.1	23.32	1002.	14.12
	190.00	22.787	0.1875	121.5	22.20	874.	13.50
ARM	195.00	21.737	0.1875	115.9	21.09	758.	12.87
ARM	195.00	21.737	0.1875	115.9	21.09	758.	12.87
ARM	196.00	21.527	0.1875	114.8	20.87	736.	12.74
TOP	196.00	21.527	0.1875	114.8	20.87	736.	12.74

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 175DATE 07/14/04

LOADING CASE LOD1 *** REACTIONS *** SHEAR FORCE AT BASE (LB) = 40831.
TOTAL VERTICAL FORCE AT BASE (LB) = 52643.

	*** MOMENTS ABOUT -X- AXIS (IN-KIPS) ***				*** MOMENTS ABOUT -Y- AXIS (IN-KIPS) ***			
HEIGHT(FT)	LOAD	WIND	DEFL	TOTAL	LOAD	WIND	DEFL	TOTAL
0.00	23301.	11929.	1518.	36748.	34873.	17853.	2272.	54998.
5.00	22628.	11252.	1501.	35382.	33866.	16840.	2246.	52952.
10.00	21955.	10598.	1480.	34033.	32858.	15861.	2215.	50934.
15.00	21282.	9966.	1456.	32704.	31851.	14915.	2178.	48944.
20.00	20609.	9355.	1428.	31392.	30844.	14000.	2137.	46982.
25.00	19936.	8765.	1398.	30099.	29837.	13118.	2092.	45046.
30.00	19263.	8195.	1364.	28823.	28829.	12265.	2042.	43136.
35.00	18590.	7646.	1329.	27565.	27822.	11443.	1989.	41253.
40.00	17917.	7116.	1291.	26324.	26815.	10650.	1932.	39397.
45.00	17244.	6606.	1251.	25101.	25808.	9887.	1873.	37567.
45.44	17185.	6562.	1248.	24996.	25720.	9821.	1868.	37409.
50.00	16571.	6116.	1210.	23897.	24800.	9154.	1811.	35765.
52.75	16201.	5856.	1187.	23244.	24246.	8764.	1777.	34787.
55.00	15898.	5647.	1169.	22714.	23793.	8451.	1750.	33994.
60.00	15225.	5199.	1127.	21551.	22786.	7780.	1686.	32253.
65.00	14552.	4771.	1083.	20406.	21779.	7141.	1621.	30540.
70.00	13879.	4364.	1038.	19281.	20771.	6532.	1553.	28856.
75.00	13206.	3978.	991.	18175.	19764.	5954.	1483.	27201.
80.00	12533.	3612.	944.	17089.	18757.	5406.	1412.	25575.
84.01	11993.	3333.	905.	16231.	17948.	4989.	1354.	24291.
85.00	11860.	3267.	895.	16022.	17749.	4889.	1340.	23978.
90.00	11187.	2940.	846.	14974.	16742.	4401.	1267.	22410.
90.40	11133.	2915.	842.	14891.	16662.	4363.	1261.	22285.
95.00	10514.	2634.	799.	13947.	15735.	3942.	1196.	20873.
100.00	9841.	2347.	750.	12939.	14728.	3513.	1123.	19364.
105.00	9168.	2080.	701.	11949.	13720.	3113.	1049.	17882.
110.00	8495.	1832.	650.	10977.	12713.	2741.	973.	16428.
115.00	7822.	1602.	599.	10023.	11706.	2397.	897.	15000.
120.00	7149.	1390.	548.	9086.	10699.	2080.	820.	13598.
123.61	6662.	1247.	510.	8420.	9970.	1867.	764.	12601.
125.00	6476.	1195.	496.	8167.	9691.	1789.	742.	12222.
129.00	5937.	1052.	455.	7444.	8885.	1574.	681.	11141.
130.00	5802.	1018.	445.	7265.	8684.	1523.	666.	10873.
135.00	5129.	857.	394.	6381.	7677.	1283.	590.	9550.
140.00	4456.	713.	343.	5512.	6670.	1067.	514.	8250.
145.00	3783.	584.	292.	4659.	5662.	874.	436.	6973.
145.00	3783.	584.	292.	4659.	5662.	874.	436.	6973.
150.00	3160.	471.	243.	3875.	4730.	705.	364.	5799.
155.00	2594.	372.	198.	3164.	3883.	557.	296.	4735.
155.00	2594.	372.	198.	3164.	3883.	557.	296.	4735.
160.00	2081.	285.	156.	2522.	3114.	426.	234.	3774.
165.00	1624.	210.	119.	1953.	2430.	314.	179.	2923.
165.00	1624.	210.	119.	1953.	2430.	314.	179.	2923.
165.25	1549.	206.	118.	1873.	2319.	309.	176.	2803.
169.60	1249.	151.	93.	1493.	1869.	226.	139.	2234.
170.00	1221.	146.	91.	1458.	1827.	219.	136.	2182.
175.00	875.	95.	64.	1033.	1310.	142.	95.	1547.
175.00	875.	95.	64.	1033.	1310.	142.	95.	1547.

180.00	585.	55.	41.	681.	876.	82.	61.	1019.
185.00	352.	26.	23.	400.	527.	38.	34.	599.
185.00	352.	26.	23.	400.	527.	38.	34.	599.
190.00	177.	8.	9.	194.	265.	11.	14.	290.
195.00	59.	0.	1.	60.	88.	0.	1.	89.
195.00	59.	0.	1.	60.	88.	0.	1.	89.
196.00	2.	0.	0.	2.	3.	0.	0.	3.
196.00	2.	0.	0.	2.	3.	0.	0.	3.

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 175DATE 07/14/04

LOADING CASE LOD1 *** DEFLECTIONS AND STRESSES**

HEIGHT(FT)	WITHOUT SECONDARY MOMENTS	WITH SECONDARY MOMENTS X-DIR.	Y-DIR.	TOTAL	ROTATION (DEGREES)	APPLIED STRESSES (KSI) BENDING	AXIAL	TORSION	SHEAR	COMBINED	ALLOWABLE STRESS	ALLOWABLE DIVIDED BY COMBINED
		********** DEFLECTIONS **********				**********						
0.00	0.0	0.0	0.0	0.0	0.00	38.32	0.45	-0.04	0.70	38.77	52.00	1.341
5.00	0.1	0.1	0.0	0.1	0.15	38.25	0.44	-0.04	0.70	38.68	52.00	1.344
10.00	0.3	0.3	0.2	0.3	0.30	38.16	0.43	-0.05	0.70	38.58	52.00	1.348
15.00	0.7	0.6	0.4	0.7	0.46	38.06	0.42	-0.05	0.70	38.47	52.00	1.352
20.00	1.2	1.1	0.7	1.3	0.61	37.94	0.41	-0.05	0.70	38.35	52.00	1.356
25.00	1.9	1.7	1.1	2.0	0.77	37.81	0.40	-0.05	0.70	38.21	52.00	1.361
30.00	2.8	2.4	1.6	2.9	0.93	37.66	0.39	-0.05	0.71	38.05	52.00	1.366
35.00	3.8	3.3	2.2	4.0	1.10	37.50	0.38	-0.06	0.71	37.88	52.00	1.373
40.00	5.0	4.3	2.9	5.2	1.26	37.31	0.37	-0.06	0.71	37.68	52.00	1.380
45.00	6.3	5.5	3.7	6.6	1.43	37.10	0.36	-0.06	0.72	37.46	52.00	1.388
45.44	6.4	5.6	3.7	6.7	1.45	37.08	0.36	-0.06	0.72	37.44	52.00	1.389
50.00	7.8	6.8	4.6	8.2	1.61	36.86	0.35	-0.06	0.72	37.21	52.00	1.397
52.75	8.7	7.6	5.1	9.1	1.71	43.71	0.40	-0.08	0.88	44.11	52.00	1.179
55.00	9.5	8.3	5.5	10.0	1.80	43.55	0.40	-0.08	0.88	43.95	52.00	1.183
60.00	11.4	10.0	6.6	12.0	2.01	43.16	0.39	-0.08	0.88	43.55	52.00	1.194
65.00	13.5	11.8	7.9	14.2	2.22	42.73	0.38	-0.08	0.89	43.11	52.00	1.206
70.00	15.8	13.8	9.2	16.6	2.43	42.26	0.37	-0.09	0.89	42.63	52.00	1.220
75.00	18.4	16.0	10.7	19.3	2.64	41.74	0.36	-0.09	0.89	42.10	52.00	1.235
80.00	21.1	18.4	12.3	22.1	2.85	41.16	0.35	-0.10	0.90	41.51	52.00	1.253
84.01	23.5	20.5	13.7	24.6	3.03	40.66	0.35	-0.10	0.90	41.00	52.00	1.268
85.00	24.1	21.0	14.0	25.2	3.07	40.52	0.34	-0.10	0.90	40.87	52.00	1.272
90.00	27.2	23.8	15.9	28.6	3.29	39.82	0.34	-0.11	0.90	40.16	52.00	1.295
90.40	27.5	24.0	16.0	28.8	3.31	50.69	0.42	-0.14	1.18	51.11	52.00	1.017
95.00	30.6	26.7	17.9	32.2	3.56	49.73	0.41	-0.14	1.19	50.14	52.00	1.037
100.00	34.3	30.0	20.0	36.0	3.84	48.57	0.40	-0.15	1.19	48.98	52.00	1.062
105.00	38.3	33.4	22.3	40.2	4.12	47.30	0.40	-0.16	1.20	47.69	52.00	1.090
110.00	42.5	37.1	24.8	44.7	4.39	45.88	0.39	-0.17	1.21	46.27	52.00	1.124
115.00	47.0	41.1	27.5	49.4	4.67	44.30	0.38	-0.18	1.22	44.68	52.00	1.164
120.00	51.7	45.3	30.2	54.4	4.94	42.54	0.38	-0.19	1.23	42.92	52.00	1.212
123.61	55.4	48.4	32.4	58.3	5.14	41.13	0.37	-0.20	1.24	41.51	52.00	1.253
125.00	56.8	49.7	33.2	59.8	5.21	40.57	0.37	-0.20	1.24	40.94	52.00	1.270
129.00	61.0	53.4	35.7	64.2	5.45	49.69	0.46	-0.27	1.64	50.16	52.00	1.037
130.00	62.1	54.4	36.3	65.4	5.51	49.09	0.46	-0.27	1.64	49.55	52.00	1.049
135.00	67.7	59.3	39.6	71.3	5.83	45.86	0.46	-0.29	1.66	46.32	52.00	1.123
140.00	73.6	64.5	43.1	77.6	6.14	42.21	0.46	-0.31	1.68	42.67	52.00	1.219
145.00	79.9	70.0	46.8	84.2	6.43	38.10	0.45	-0.33	1.70	38.56	52.00	1.348
145.00	79.9	70.0	46.8	84.2	6.43	38.10	0.45	-0.33	1.70	38.56	52.00	1.348
150.00	86.3	75.7	50.6	91.0	6.69	33.91	0.40	-0.29	1.49	34.31	52.00	1.515
155.00	93.1	81.6	54.5	98.2	6.94	29.71	0.39	-0.31	1.51	30.11	52.00	1.727
155.00	93.1	81.6	54.5	98.2	6.94	29.71	0.39	-0.31	1.51	30.11	52.00	1.727
160.00	100.1	87.8	58.6	105.5	7.16	25.47	0.33	-0.26	1.28	25.81	52.00	2.015
165.00	107.2	94.1	62.9	113.1	7.35	21.27	0.33	-0.28	1.30	21.61	52.00	2.407
165.00	107.2	94.1	62.9	113.1	7.35	21.27	0.33	-0.28	1.30	21.61	52.00	2.407
165.25	107.6	94.4	63.1	113.5	7.36	20.49	0.26	-0.20	1.03	20.75	52.00	2.505
169.60	114.0	100.0	66.8	120.3	7.53	25.22	0.37	-0.32	1.53	25.59	52.00	2.032
170.00	114.6	100.5	67.2	120.9	7.54	24.79	0.37	-0.32	1.53	25.16	52.00	2.067

175.00	122.1	107.2	71.6	128.9	7.74	19.04	0.36	-0.34	1.54	19.41	52.00	2.679
175.00	122.1	107.2	71.6	128.9	7.74	19.04	0.36	-0.34	1.54	19.41	52.00	2.679
180.00	129.9	114.0	76.2	137.1	7.88	13.63	0.26	-0.24	1.10	13.90	52.00	3.742
185.00	137.7	120.9	80.8	145.4	7.99	8.75	0.25	-0.26	1.10	9.02	52.00	5.768
185.00	137.7	120.9	80.8	145.4	7.99	8.75	0.25	-0.26	1.10	9.02	52.00	5.768
190.00	145.6	127.9	85.5	153.8	8.06	4.64	0.13	-0.14	0.59	4.78	52.00	10.869
195.00	153.6	134.9	90.2	162.3	8.09	1.57	0.12	-0.15	0.57	1.72	52.00	30.262
195.00	153.6	134.9	90.2	162.3	8.09	1.57	0.12	-0.15	0.57	1.72	52.00	30.262
196.00	155.2	136.3	91.1	164.0	8.09	0.05	0.00	0.00	0.01	0.05	52.00	99.990
196.00	155.2	136.3	91.1	164.0	8.09	0.05	0.00	0.00	0.01	0.05	52.00	99.990

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 175DATE 07/14/04

LOADING CASE LOD2 *** REACTIONS *** SHEAR FORCE AT BASE (LB) = 33756.
TOTAL VERTICAL FORCE AT BASE (LB) = 62289.

	*** MOMENTS ABOUT -X- AXIS (IN-KIPS) ***				*** MOMENTS ABOUT -Y- AXIS (IN-KIPS) ***			
HEIGHT(FT)	LOAD	WIND	DEFL	TOTAL	LOAD	WIND	DEFL	TOTAL
0.00	20505.	9299.	1795.	31599.	30687.	13917.	2687.	47291.
5.00	19914.	8774.	1775.	30462.	29803.	13131.	2657.	45590.
10.00	19322.	8266.	1751.	29339.	28918.	12370.	2621.	43910.
15.00	18731.	7774.	1724.	28230.	28034.	11635.	2580.	42249.
20.00	18140.	7300.	1693.	27133.	27149.	10925.	2534.	40608.
25.00	17549.	6841.	1660.	26050.	26265.	10238.	2484.	38987.
30.00	16958.	6398.	1623.	24980.	25380.	9576.	2429.	37385.
35.00	16367.	5971.	1584.	23922.	24495.	8936.	2371.	35802.
40.00	15776.	5558.	1543.	22877.	23611.	8319.	2309.	34238.
45.00	15185.	5162.	1499.	21846.	22726.	7725.	2243.	32695.
45.44	15134.	5128.	1495.	21757.	22649.	7674.	2238.	32561.
50.00	14594.	4781.	1454.	20828.	21842.	7155.	2175.	31172.
52.75	14269.	4578.	1428.	20275.	21355.	6851.	2138.	30344.
55.00	14003.	4415.	1408.	19826.	20957.	6608.	2107.	29672.
60.00	13412.	4066.	1360.	18839.	20073.	6085.	2036.	28194.
65.00	12821.	3733.	1311.	17865.	19188.	5587.	1962.	26737.
70.00	12230.	3416.	1260.	16906.	18304.	5112.	1886.	25302.
75.00	11639.	3115.	1207.	15961.	17419.	4661.	1807.	23887.
80.00	11048.	2829.	1153.	15031.	16535.	4234.	1726.	22495.
84.01	10574.	2611.	1109.	14294.	15825.	3908.	1660.	21393.
85.00	10457.	2559.	1098.	14114.	15650.	3830.	1643.	21124.
90.00	9866.	2305.	1042.	13213.	14766.	3449.	1559.	19774.
90.40	9819.	2285.	1037.	13141.	14695.	3420.	1553.	19667.
95.00	9275.	2065.	986.	12327.	13881.	3091.	1476.	18448.
100.00	8684.	1841.	929.	11455.	12996.	2756.	1391.	17143.
105.00	8093.	1632.	871.	10596.	12112.	2443.	1303.	15858.
110.00	7502.	1438.	811.	9751.	11227.	2152.	1213.	14593.
115.00	6911.	1258.	750.	8919.	10343.	1883.	1122.	13348.
120.00	6320.	1092.	688.	8100.	9458.	1634.	1029.	12122.
123.61	5893.	981.	642.	7516.	8819.	1468.	962.	11248.
125.00	5729.	940.	625.	7294.	8574.	1406.	935.	10916.
129.00	5256.	827.	575.	6658.	7866.	1238.	861.	9965.
130.00	5138.	801.	563.	6501.	7689.	1198.	842.	9729.
135.00	4547.	674.	500.	5721.	6805.	1009.	748.	8562.
140.00	3956.	561.	436.	4953.	5920.	840.	653.	7413.
145.00	3365.	460.	371.	4196.	5036.	689.	556.	6280.
145.00	3365.	460.	371.	4196.	5036.	689.	556.	6280.
150.00	2810.	371.	310.	3492.	4205.	556.	465.	5225.
155.00	2313.	293.	253.	2859.	3461.	439.	379.	4279.
155.00	2313.	293.	253.	2859.	3461.	439.	379.	4279.
160.00	1854.	225.	201.	2280.	2775.	336.	301.	3412.
165.00	1453.	166.	154.	1772.	2174.	248.	231.	2652.
165.00	1453.	166.	154.	1772.	2174.	248.	231.	2652.
165.25	1381.	163.	152.	1695.	2066.	244.	228.	2537.
169.60	1116.	119.	120.	1356.	1671.	179.	180.	2029.
170.00	1092.	116.	118.	1325.	1634.	173.	176.	1983.
175.00	788.	75.	83.	945.	1179.	112.	124.	1415.
175.00	788.	75.	83.	945.	1179.	112.	124.	1415.

180.00	527.	43.	53.	623.	788.	65.	79.	933.
185.00	322.	20.	30.	372.	482.	30.	44.	556.
185.00	322.	20.	30.	372.	482.	30.	44.	556.
190.00	162.	6.	12.	180.	242.	9.	18.	269.
195.00	57.	0.	1.	59.	86.	0.	2.	88.
195.00	57.	0.	1.	59.	86.	0.	2.	88.
196.00	2.	0.	0.	2.	3.	0.	0.	3.
196.00	2.	0.	0.	2.	3.	0.	0.	3.

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 175DATE 07/14/04

LOADING CASE LOD2 *** DEFLECTIONS AND STRESSES**

HEIGHT (FT)	WITHOUT SECONDARY MOMENTS	WITH SECONDARY MOMENTS X-DIR.	WITH SECONDARY MOMENTS Y-DIR.	WITH SECONDARY MOMENTS TOTAL	ROTATION (DEGREES)	APPLIED STRESSES (KSI) BENDING	APPLIED STRESSES (KSI) AXIAL	APPLIED STRESSES (KSI) TORSION	APPLIED STRESSES (KSI) SHEAR	APPLIED STRESSES (KSI) COMBINED	ALLOWABLE STRESS	ALLOWABLE DIVIDED BY COMBINED
	********** DEFLECTIONS **********					**********						
0.00	0.0	0.0	0.0	0.0	0.00	32.95	0.53	-0.04	0.58	33.48	52.00	1.553
5.00	0.1	0.1	0.0	0.1	0.13	32.93	0.52	-0.04	0.58	33.45	52.00	1.555
10.00	0.3	0.2	0.2	0.3	0.26	32.89	0.51	-0.04	0.58	33.40	52.00	1.557
15.00	0.6	0.5	0.3	0.6	0.39	32.85	0.50	-0.04	0.58	33.35	52.00	1.559
20.00	1.0	0.9	0.6	1.1	0.53	32.79	0.49	-0.04	0.58	33.28	52.00	1.562
25.00	1.6	1.4	1.0	1.7	0.67	32.72	0.48	-0.04	0.59	33.21	52.00	1.566
30.00	2.3	2.1	1.4	2.5	0.81	32.64	0.47	-0.05	0.59	33.11	52.00	1.570
35.00	3.2	2.8	1.9	3.4	0.95	32.54	0.46	-0.05	0.59	33.00	52.00	1.576
40.00	4.2	3.7	2.5	4.5	1.09	32.42	0.45	-0.05	0.59	32.88	52.00	1.582
45.00	5.4	4.7	3.2	5.7	1.24	32.29	0.44	-0.05	0.60	32.73	52.00	1.589
45.44	5.5	4.8	3.2	5.8	1.25	32.27	0.44	-0.05	0.60	32.72	52.00	1.589
50.00	6.6	5.9	3.9	7.1	1.39	32.13	0.43	-0.05	0.60	32.56	52.00	1.597
52.75	7.4	6.6	4.4	7.9	1.48	38.13	0.50	-0.07	0.74	38.63	52.00	1.346
55.00	8.1	7.2	4.8	8.6	1.56	38.01	0.49	-0.07	0.74	38.51	52.00	1.350
60.00	9.7	8.6	5.7	10.3	1.74	37.73	0.49	-0.07	0.74	38.22	52.00	1.361
65.00	11.5	10.2	6.8	12.3	1.92	37.41	0.48	-0.07	0.74	37.89	52.00	1.372
70.00	13.5	12.0	8.0	14.4	2.11	37.05	0.47	-0.08	0.75	37.52	52.00	1.386
75.00	15.6	13.9	9.3	16.7	2.29	36.65	0.46	-0.08	0.75	37.11	52.00	1.401
80.00	18.0	16.0	10.7	19.2	2.48	36.20	0.45	-0.09	0.76	36.66	52.00	1.419
84.01	20.0	17.7	11.9	21.3	2.64	35.80	0.45	-0.09	0.76	36.25	52.00	1.434
85.00	20.5	18.2	12.2	21.9	2.67	35.70	0.44	-0.09	0.76	36.15	52.00	1.439
90.00	23.2	20.6	13.8	24.8	2.87	35.14	0.44	-0.09	0.77	35.57	52.00	1.462
90.40	23.4	20.8	13.9	25.0	2.89	44.73	0.55	-0.12	1.00	45.28	52.00	1.148
95.00	26.1	23.2	15.5	27.9	3.11	43.95	0.54	-0.13	1.01	44.49	52.00	1.169
100.00	29.2	26.0	17.4	31.3	3.35	43.00	0.54	-0.13	1.01	43.54	52.00	1.194
105.00	32.6	29.1	19.4	34.9	3.60	41.94	0.53	-0.14	1.02	42.47	52.00	1.224
110.00	36.2	32.3	21.6	38.8	3.85	40.75	0.52	-0.15	1.03	41.28	52.00	1.260
115.00	40.1	35.7	23.9	43.0	4.09	39.42	0.52	-0.16	1.04	39.94	52.00	1.302
120.00	44.2	39.4	26.3	47.4	4.33	37.92	0.51	-0.17	1.05	38.43	52.00	1.353
123.61	47.3	42.2	28.2	50.7	4.51	36.72	0.51	-0.17	1.06	37.23	52.00	1.397
125.00	48.5	43.3	28.9	52.1	4.57	36.23	0.51	-0.18	1.06	36.74	52.00	1.415
129.00	52.1	46.5	31.1	56.0	4.78	44.45	0.64	-0.24	1.41	45.09	52.00	1.153
130.00	53.0	47.4	31.7	57.0	4.84	43.92	0.64	-0.24	1.41	44.57	52.00	1.167
135.00	57.9	51.7	34.6	62.2	5.13	41.11	0.64	-0.26	1.43	41.76	52.00	1.245
140.00	63.0	56.3	37.6	67.7	5.40	37.93	0.64	-0.27	1.45	38.57	52.00	1.348
145.00	68.3	61.1	40.8	73.5	5.66	34.32	0.64	-0.29	1.47	34.96	52.00	1.487
145.00	68.3	61.1	40.8	73.5	5.66	34.32	0.64	-0.29	1.47	34.96	52.00	1.487
150.00	73.9	66.2	44.2	79.6	5.90	30.56	0.56	-0.25	1.29	31.12	52.00	1.671
155.00	79.7	71.4	47.7	85.9	6.12	26.85	0.56	-0.27	1.31	27.41	52.00	1.897
155.00	79.7	71.4	47.7	85.9	6.12	26.85	0.56	-0.27	1.31	27.41	52.00	1.897
160.00	85.7	76.8	51.3	92.4	6.32	23.03	0.47	-0.23	1.11	23.50	52.00	2.213
165.00	91.9	82.4	55.1	99.1	6.49	19.31	0.47	-0.24	1.13	19.78	52.00	2.629
165.00	91.9	82.4	55.1	99.1	6.49	19.31	0.47	-0.24	1.13	19.78	52.00	2.629
165.25	92.2	82.7	55.2	99.4	6.50	18.54	0.37	-0.18	0.89	18.92	52.00	2.748
169.60	97.7	87.7	58.6	105.4	6.66	22.91	0.53	-0.28	1.32	23.45	52.00	2.218
170.00	98.2	88.1	58.9	106.0	6.67	22.53	0.53	-0.28	1.32	23.07	52.00	2.254

175.00	104.8	94.0	62.8	113.1	6.85	17.42	0.53	-0.30	1.34	17.95	52.00	2.896
175.00	104.8	94.0	62.8	113.1	6.85	17.42	0.53	-0.30	1.34	17.95	52.00	2.896
180.00	111.4	100.0	66.8	120.3	6.98	12.48	0.37	-0.21	0.95	12.86	52.00	4.044
185.00	118.2	106.1	70.9	127.7	7.08	8.12	0.37	-0.23	0.96	8.50	52.00	6.119
185.00	118.2	106.1	70.9	127.7	7.08	8.12	0.37	-0.23	0.96	8.50	52.00	6.119
190.00	125.1	112.3	75.1	135.1	7.14	4.31	0.20	-0.12	0.51	4.51	52.00	11.529
195.00	132.0	118.6	79.2	142.6	7.17	1.54	0.18	-0.14	0.50	1.74	52.00	29.847
195.00	132.0	118.6	79.2	142.6	7.17	1.54	0.18	-0.14	0.50	1.74	52.00	29.847
196.00	133.4	119.8	80.1	144.1	7.17	0.06	0.00	0.00	0.01	0.06	52.00	99.990
196.00	133.4	119.8	80.1	144.1	7.17	0.06	0.00	0.00	0.01	0.06	52.00	99.990

MINIMUM DEFLECTION RATIO // DEFLECTION LIMIT / DEFLECTION // IS 6098795.0

BY VALMONT INDUSTRIES FOR: SPRINT 196' POLE, SITE: O & G INDUSTRIES TORRINGTON, CT 1756DATE 07/14/04
*** ANCHORAGE *** ANCH-04-096

*** ANCHOR BOLT CHARACTERISTICS GOVERNED BY LOADING CASE LOD1 ***

NUMBER OF BOLTS	DIAMETER (IN.)	LENGTH (IN.)	WEIGHT (LB.)	SHIPPED AS	PROJECTION LENGTH (IN.)	GALVANIZED LENGTH (IN.)	THREAD SIZE
28	2.250	60.	2731.	BOLTS, TEMPLATES	10.00	18.00	4.5-UNC-2A

STEEL SPECIF.	MAXIMUM BOLT FORCE (LB.)	MAXIMUM STRESS (PSI)	ALLOWABLE STRESS (PSI)	STRESS AREA (SQ. IN.)	SAFETY FACTOR	CONFIGURATION OF BOTTOM END OF ANCHOR BOLT
A615	141513.	43548.	45000.	3.250	1.03	THREADED WITH HEAVY HEX HEAD NUT

*** BOLT COORDINATES AND FORCES ***

BOLT NO.	X-COORD	Y-COORD	MAX TENSION-LB	MAX FORCE-LB	*	BOLT NO.	X-COORD	Y-COORD	MAX TENSION-LB	MAX FORCE-LB
1	33.837	0.00	-1880.	1880.	*	2	32.989	7.530	29190.	32951.
3	30.487	14.682	58703.	62463.	*	4	26.455	21.097	85177.	88937.
5	21.097	26.455	107290.	111050.	*	6	14.682	30.487	123925.	127685.
7	7.530	32.989	134252.	138012.	*	8	0.00	33.837	137752.	141513.

MAX. BOLT CIRCLE = 67.67 IN. TEMPLATE DIAMETER = 73.67 IN.

*** BASE PLATE CHARACTERISTICS GOVERNED BY LOADING CASE LOD1 ***

DRAWING NUMBER	OVERALL LENGTH (IN.)	OVERALL WIDTH (IN.)	THICKNESS (IN.)	ACTUAL WEIGHT (LB.)	RAW MATERIAL WEIGHT (LB.)	SIDE LENGTH (IN.)
HXD6-98	73.67	73.67	3.0000	3133.	4613.	14.65

TOP WIDTH (IN.)	POLE DIAM. (MAJOR DIAM.) (IN.)	CRITICAL FAILURE MODE	TOTAL LENGTH OF FAIL MODE LINE (IN.)	EFFECTIVE LENGTH (IN.)	TOTAL MOMENT ALONG FAIL LINE (IN.-LB.)
14.65	60.00	1	68.06	58.26	3147091.

STEEL SPECIF. VALMONT	OTHER	BENDING STRESS (PSI)	ALLOWABLE STRESS (PSI)	MAX. VERTICAL SHEAR STRESS (PSI)
S34	A633	36014.	45000.	9696.

** LOADS AT POLE BASE ********** LOADING CASES**********

LOADING CASE IDENTIFICATION	LOD1	LOD2
MOMENT ABT. X-AXIS (IN-KIP)	36748.	31599.
MOMENT ABT. Y-AXIS (IN-KIP)	54998.	47291.
SHEAR FORCE (LB.)	40831.	33756.
VERTICAL FORCE (LB.)	52643.	62289.

]MAX CRITERION-	LOAD CASE
]MOMENT ABT. X	LOD1
]MOMENT ABT. Y	LOD1
]RES. MOMENT	LOD1
]SHEAR FORCE	LOD1
]BOLT FORCE	LOD1
]BOLT TENSION	LOD1