

W. 5.G.1,

ABBREVIATED CONSENT CALENDAR FORMAT

Memorandum Date: June 17, 2010

Order Date: July 07, 2010

TO: Board of County Commissioners

DEPARTMENT: Sheriff's Office

PRESENTED BY: Captain Bill Thompson

AGENDA ITEM TITLE: ORDER _____ /IN THE MATTER OF APPROVAL AND RATIFICATION OF THE EXECUTION OF AMENDMENT NO. 1 TO A BUREAU OF LAND MANAGEMENT COMMUNICATIONS SITE LEASE ON PRAIRIE PEAK AND APPROVAL OF A COMMUNICATIONS SITE SUBLEASE WITH OWIN ON PRAIRIE PEAK

- I. **MOTION** Move to approve and ratify the execution of Amendment No. 1 to a Bureau of Land Management Communications Site Lease on Prairie Peak and approval of a site sublease with OWIN.

II. **DISCUSSION**

A. **Background / Analysis**

The Bureau of Land Management (BLM) owns land on Prairie Peak, and the county executed an original communications site lease with the BLM in May of 2005. This site has been used primarily by the Sheriff's Office for telecommunications equipment as part of its law enforcement communications network, and is now an important component to the larger 7-County regional interoperability project, and is also expected to be important to the Oregon Wireless Interoperability Network (OWIN). A large number of state and local public agencies depend on this site for communications including the Lane County Sheriff's Office and Lane County Public Works. An amendment (Amendment No. 1) to the original communications site lease was developed and executed in 2009, and, in part, extended the lease period an additional 4 years through 2029. Due to the length of the lease, the Board should now approve and ratify the execution

of the Amendment No. 1 effective the date of signature appearing on the Amendment.

There is regional support from the 7-county interoperability group to permit OWIN to use the Prairie Peak site and equipment for its statewide interoperability needs. Under the BLM lease, Lane County is permitted to allow others to use the Prairie Peak site for telecommunications purposes. Amendment No. 1 to the BLM Communications Use Lease will be an exhibit to a sublease between Lane County and OWIN, and the Board should approve the sublease with OWIN as it is expected to extend beyond 3 years.

B. Recommendation

It is recommended that the Board approve and ratify the execution of Amendment No. 1 to the Communications Site Lease at Prairie Peak with the BLM. It is also recommended that the Board approve the execution of a sublease to the Communications Site Lease at Prairie Peak with OWIN.

III. ATTACHMENTS

- 1) Communications Use Lease, Amendment #1.
- 2) Board Order

THE BOARD OF COUNTY COMMISSIONERS, LANE COUNTY, OREGON

ORDER:

) ORDER/ In The Matter Of Approval and
) Ratification of the Execution of Amendment No. 1 to a Bureau of
) Land Management Communications Site Lease on Prairie Peak
) and Approval of a Communications Site Sublease with OWIN for
) Prairie Peak

WHEREAS, the Board of Commissioners approved entering into a Communications Site Lease with the Bureau of Land Management related to the use of the Prairie Peak Communications Site in May 2005,

WHEREAS, the BLM Site Lease is part of the 7-County Regional Interoperable Radio System that Representative Peter DeFazio identified as a high priority and for which he helped secure transportation funding; and

WHEREAS, it is in the interests of the County and the 7-County regional group to support the state of Oregon's use and sublease of the BLM site at Prairie Peak for statewide interoperability through OWIN;

WHEREAS, Amendment No. 1 to the BLM Communications Site Lease was executed by county staff in 2009, and should be approved and ratified by the Board in the interests of the County, including through the ongoing regional and statewide communications efforts; and

WHEREAS, the execution of Amendment No. 1 to the BLM Communications Site Lease is to be an exhibit to a sublease between the County and OWIN;

NOW THEREFORE, IT IS HEREBY ORDERED, that the Board of County Commissioners approves and ratifies the execution of Amendment No. 1 to the BLM Communications Site Lease effective the date of signature appearing on that Amendment; and approves the execution of a communications site sublease with OWIN; and delegates authority to the County Administrator to execute the OWIN sublease, including Amendment No. 1 to the BLM Communications Site Lease as one exhibit. .

Effective date: 7th day of July, 2010

Bill Fleenor, Chair
Lane County Board of County Commissioners

THE UNITED STATES
Department of the Interior
Bureau of Land Management

COMMUNICATIONS USE LEASE
AMENDMENT NO. 1

LANE COUNTY

(Lessee Name)

of 125 East 8th Avenue

(Billing Address - 1)

(Billing Address -2)

Eugene

(City)

OR

(ST)

97401

(Zip Code)

THIS LEASE, dated this 5th day of November, 2009, by and between the UNITED STATES OF AMERICA, acting through the Bureau of Land Management, Department of the Interior (hereinafter called the "United States" or "Bureau of Land Management"), as authorized by the Act of October 21, 1976, and implementing regulations (90 Stat. 2743; 43 U.S.C. 1701, et seq.; 43 CFR 2800), and LANE COUNTY, its agents, successors, and assigns (hereinafter called the "Lessee").

The United States and the Lessee are jointly referred to herein as the "Parties." As used herein, the "Authorized Officer" refers to the Bureau of Land Management official having the delegated authority to execute and administer this lease. Generally, unless otherwise indicated, such authority may be exercised by the Field Manager or District Manager for the public lands wherein the following described lands are located.

The United States, for and in consideration of the terms and conditions contained herein and the payment to the United States of a rental in advance by the Lessee, does hereby grant to the Lessee a lease for the following described lands in the County

of Lane, State of Oregon: W.M., T. 15 S., R. 7 W., Section 7, Lot 12, as shown on Exhibit A
(Legal Description)

(hereinafter called the "property"). The Lessee accepts this lease and possession of the property, subject to any valid existing rights, and agrees not to use the property, or any part thereof, except as a site for only the construction, operation, maintenance, and termination of a Private Mobile Radio Service communications facility.

(Type of Communication Use)

The location of the property is shown generally on the site plan dated October 22, 2009 for the Prairie Mountain Communications Site which is attached and made part hereof as Exhibit A. The facilities specifically authorized under this lease are shown on the plat contained in Exhibit A.

The dated and initialed exhibit(s), attached hereto, are incorporated into and made a part of this instrument as fully and effectively as if they were set forth herein in their entirety.

The parties agree that this lease is made subject to the following terms and conditions.

I. TENURE, RENEWAL AND TRANSFERABILITY

A. This lease will terminate at one minute after midnight on December 31, 2029. Termination at the end of the lease term occurs by operation of law and does not require any additional notice or documentation by the Authorized Officer. This lease is not renewable; but the Lessee has the right to request a new lease pursuant to paragraph "C" below.

B. The Lessee will undertake and pursue with due diligence construction and operation that is authorized by this lease. To the extent specified in Exhibits A and B, construction will commence on November 25, 2009.
(Date)

C. If the Lessee desires a new lease upon termination of this lease, the Lessee must notify the Authorized Officer accordingly, in writing. The notice must be received by the Authorized Officer at least one year prior to the end of the lease term. The Authorized Officer will determine if the use should continue and, if it is to continue, if a new lease should be issued to the Lessee and under what conditions. The Authorized Officer will require payment of any amounts owed the United States under any Bureau of Land Management authorization before issuance of another authorization.

D. This lease is assignable with prior written approval of the Authorized Officer. Renting of space does not constitute an assignment under this clause.

II. RENTAL-EXEMPT

A. The Lessee must pay in advance an annual rental determined by the Authorized Officer in accordance with law, regulation, and policy. The annual rental will be adjusted by the Authorized Officer to reflect changes in fair market value, annual adjustments using the Consumer Price Index-Urban (CPI-U), changes in tenant occupancy, or phase-in of rental, if applicable.

B. After the initial rental period rental payments are due at the close of the first business day after January 1 of each calendar year for which a payment is due. Payments due the United States for this use must be deposited at Bureau of Land Management, 1717 Fabry Road, Salem, OR 97306 in the form of a check or money order payable to Bureau
(Address)

of Land Management, DOI. Credit card payments (VISA and MasterCard) can be made in person, through the mail, or by telephone. This lease will terminate automatically if accrued rent is not received by the Bureau of Land Management within 90 calendar days after the initial due date for the payment of such rent.

C. Pursuant to the Federal Claims Collection Act of 1966, as amended, 31 U.S.C. 3717, *et seq.*, regulations at 7 CFR Part 3, Subpart B and 4 CFR Part 102, an interest charge will be assessed on any amount due but not received by the due date. Interest will accrue from the date the payment was due. Administrative costs will also be assessed in the event that two or more billing notices are required for unpaid accounts. In addition, an administrative penalty at a percentage rate prescribed by law or regulation will be assessed for failure to pay any portion of the debt that is more than 90 days past due. This paragraph survives the termination of this lease, regardless of cause.

Other late fee charges may be assessed in accordance with standard BLM accounting procedures and policy.

D. Disputed rentals are due and payable on or before the due date.

III. RESPONSIBILITIES OF THE LESSEE

A. The Lessee is authorized to rent space and provide other services to customers and/or tenants and must charge each customer/tenant a reasonable rental without discrimination for the use and occupancy of the facilities and services provided. The Lessee must impose no unreasonable restrictions nor any restriction restraining competition or trade practices. By October 15th of each year, the Lessee must provide the Authorized Officer a certified statement, listing all tenants and customers, by category of use, located within the facility on September 30th of that year.

B. All development, operation and maintenance of the authorized facility, improvements, and equipment located on the property must be in accordance with stipulations in the communications site plan approved by the Authorized Officer. If required by the Authorized Officer, all plans for development, layout, construction, or alteration of improvements on the property as well as revisions of such plans must be prepared by a licensed engineer, architect, and or landscape architect. Such plans must be approved in writing by the Authorized Officer before commencement of any work. After completion, as-built plans, maps, surveys, or other similar information will be provided to the Authorized Officer and appended to the communications site plan.

C. The Lessee must comply with applicable Federal, State, county, and municipal laws, regulations and standards for public health and safety, environmental protection, siting, construction, operation, and maintenance in exercising the rights granted by this lease. The obligations of the Lessee under this lease are not contingent upon any duty of the Authorized Officer, or other agent of the United States, to inspect the premises. A failure by the United States, or other governmental officials, to inspect is not a defense to noncompliance with any of the terms or conditions of this lease. Lessee waives all defenses of laches or estoppel against the United States. The Lessee must at all times keep the title of the United States to the property free and clear of all liens and encumbrances.

D. Use of communications equipment is contingent upon the possession of a valid Federal Communications Commission (FCC) or Director of Telecommunications Management/Interdepartmental Radio Advisory Committee (DTM/IRAC) authorization (if required), and the operation of the equipment is in strict compliance with applicable requirements of FCC or IRAC. A copy of each applicable license or authorization must at all times be maintained by the Lessee for each transmitter being operated. The Lessee must provide the Authorized Officer, when requested, with current copies of all licenses for equipment in or on facilities covered by this lease.

E. The Lessee must ensure that equipment within his or her facility (including tenant and customer equipment) operates in a manner which will not cause harmful interference with the operation of existing equipment on or adjacent to the communications site. If the Authorized Officer or authorized official of the Federal Communications Commission (FCC) determines that the Lessee's use interferes with existing equipment, the Lessee must promptly take the necessary steps to eliminate or reduce the harmful interference to the satisfaction of the Authorized Officer or FCC official.

F. When requested by the Authorized Officer, the Lessee must furnish technical information concerning the equipment located on the property.

Risk assessment

IV. LIABILITIES

A. The Lessee assumes all risk of loss to the authorized improvements.

B. The Lessee must comply with all applicable Federal, State, and local laws, regulations, and standards, including but not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 *et seq.*, the Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.*, the Comprehensive Environmental Response, Control, and Liability Act, 42 U.S.C. 9601 *et seq.*, and other relevant environmental laws, as well as public health and safety laws and other laws relating to the siting, construction, operation, and maintenance of any facility, improvement, or equipment on the property.

C. The Lessee must indemnify, defend, and hold the United States harmless for any violations incurred under any such laws and regulations or for judgments, claims, or demands assessed against the United States in connection with the Lessee's use or occupancy of the property. The Lessee's indemnification of the United States must include any loss by personal injury, loss of life or damage to property in connection with the occupancy or use of the property during the term of this lease. Indemnification must include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. This paragraph survives the termination or revocation of this lease, regardless of cause.

D. The United States has no duty, either before or during the lease term, to inspect the property or to warn of hazards and, if the United States inspects the property, it will incur no additional duty nor any liability for hazards not identified or discovered through such inspections. This paragraph survives the termination or revocation of this lease, regardless of cause.

E. The Lessee has an affirmative duty to protect from damage the land, property, and interests of the United States.

E. (1). The Lessee must maintain \$ 0.00 worth of insurance coverage, naming the United States additionally insured on the policies(s), to partially fund the indemnification obligations of the Lessee for any and all losses due to personal injury, loss of life, or property damage, including fire suppression and hazardous waste costs. The Lessee must furnish proof of insurance (such as a surety bond, or certificate of insurance) to the Authorized Officer prior to execution of this lease and verify annually, and in writing, the insurance obligation to the Authorized Officer. The Authorized Officer may allow the Lessee to replace, repair, restore, or otherwise undertake necessary curative actions, to the satisfaction of the Authorized Officer, in order to mitigate damages in addition to or as an alternative to monetary indemnification.

F. In the event of any breach of the lease by the Lessee, the Authorized Officer may, on reasonable notice, cure the breach at the expense of the Lessee. If the Bureau of Land Management at any time pays any sum of money or does any act which requires payment of money, or incurs any expense, including reasonable attorney's fees, in instituting, prosecuting, and/or defending any action or proceeding to enforce the United States rights hereunder, the sum or sums so paid by the United States, with all

interests, costs and damages will, at the election of the Bureau of Land Management, be deemed to be additional rental hereunder and will be due from the Lessee to the Bureau of Land Management on the first day of the month following such election.

V. OTHER PROVISIONS

A. Nondiscrimination. The Lessee must at all times operate the described property and its appurtenant areas and its buildings and facilities, whether or not on the property, in full compliance with Title VI of the Civil Rights Act of 1964 and all requirements imposed by or pursuant to the regulations issued thereunder by the Department of the Interior and in effect on the date this lease is granted to the end that no person in the United States will, on the grounds of race, sex, color, religion, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any of the programs or activities provided thereon.

B. Termination and Suspension.

1. General. For purposes of this lease, termination and suspension refer to the cessation of uses and privileges under the lease.

"Termination" refers to an action by the Authorized Officer to end the lease because of noncompliance with any of the prescribed terms, abandonment, or for reasons in the public interest. Termination also occurs when, by the terms of the lease, a fixed or agreed upon condition, event, or time occurs. For example, the lease terminates at expiration. Termination ends the Lessee's right to use the public land for communication purposes.

"Suspension" is a temporary action and the privileges may be restored upon the occurrence of prescribed actions or conditions.

2. This lease may be suspended or terminated upon breach of any of the terms or conditions herein or upon nonuse, or when in the public interest. Nonuse refers to a failure to operate consistently the facilities on the property for any period during the term in excess of 180 days. When suspended or terminated in the public interest, the Lessee will be compensated subject to the availability of appropriated funds. Compensation will be based upon the initial cost of improvements located on the lease, less depreciation as allocated over the life of the improvements as evidenced by the Lessee's Federal tax amortization schedules.

3. Except in emergencies, or in case of nonuse, the Authorized Officer will give the Lessee written notice of the grounds for termination or suspension and a reasonable time, not to exceed 90 days, to complete the corrective action. After the prescribed period, the Bureau of Land Management is entitled to such remedies as are provided herein.

4. Any discretionary decisions or determinations by the Authorized Officer on termination or suspension are subject to appeal in accordance with the regulations in Title 43, Code of Federal Regulations.

C. Restoration.

1. In the event the Authorized Officer decides not to issue a new lease, or the Lessee does not desire a new lease, the Lessee must, prior to the termination of this lease, restore and stabilize the site to the satisfaction of the Authorized Officer.

2. In the event this lease is revoked for noncompliance, the Lessee must remove all structures and improvements within a reasonable period as determined by the Authorized Officer, except those owned by the United States, and must restore the site as nearly as reasonably possible to its original condition unless this requirement is otherwise waived in writing by the Authorized Officer.

3. If the Lessee fails to remove all structures or improvements within the prescribed period, they will become the property of the United States and may be sold, destroyed, or otherwise disposed of without any liability to the United States.

D. Members of Congress. No member of or Delegate to Congress or Resident Commissioner may benefit from this lease either directly or indirectly, except when the lease provides a general benefit to a corporation.

E. Reservations. This lease is granted subject to the following reservations by the United States:

1. The right to all natural resource products now or hereafter located on the property unless stated otherwise herein, and the right to obtain, utilize, or dispose of such resources insofar as the rights and possession of the Lessee are not unreasonably affected.

2. The right to modify the communications site plan as deemed necessary.
3. The right to enter upon the lease and inspect all facilities to assure compliance with the conditions of this lease.
4. The right of the United States to use or to authorize the use of the property for compatible uses, including the subsurface and air space.

In the event of any conflict between any of the proceeding printed clauses or any provisions thereof and any of the following clauses or any provision thereof, the preceding printed clauses control.

ACCEPTED this 3rd day of November, 2009, I, the undersigned have read, understand and accept the terms and conditions of this lease.

Jeff Spartz (Lessee)
County Administrator

[Signature]
Lessee

IN WITNESS WHEREOF, the Bureau of Land Management, by its Authorized Officer, has executed this lease on the day and year first written above.

UNITED STATES OF AMERICA

(Signature of Authorized Officer)

[Signature]

(Title of Authorized Officer)

(Printed Name of Authorized Officer)

11/27/09

(Date)



PROJECT TITLE
LANE COUNTY
PRAIRIE MOUNTAIN TOWER

**PACKAGE 2
SITE PLAN**

DATE _____

8/17/08

DESIGNER

HA

PROJECT

6805-001-00

FILENAME

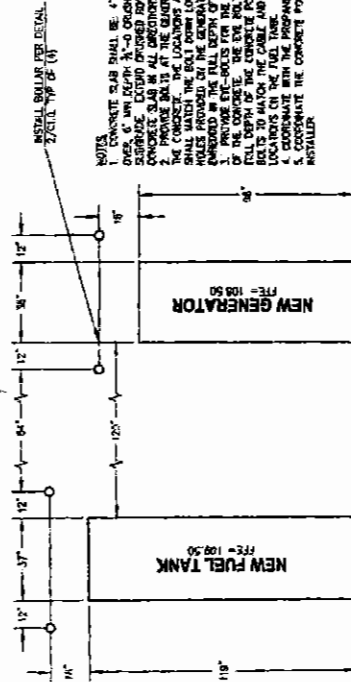
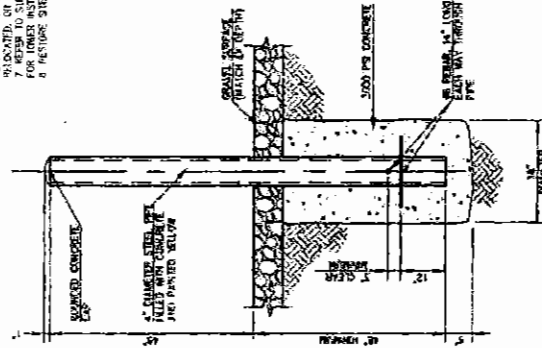
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SHEET NO

C1.0

GENERAL NOTES:

1. CONTRACT PERFORMANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROGRESS OF THE PROJECT AND FOR THE COMPLETION OF THE PROJECT BY THE DATE SPECIFIED IN THE CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROGRESS OF THE PROJECT AND FOR THE COMPLETION OF THE PROJECT BY THE DATE SPECIFIED IN THE CONTRACT.

[illegible]

2 BOLLARD NO SCALE

1 FUEL TANK AND GENERATOR SLAB DETAIL

Exhibit A

Approved _____

DESIGN CRITERIA :

WIND: 125 mph

ICE: 0.50" radial

SOIL: PER GALLI GROUP REPORT

LOADING CASES :

ANTENNAS

1. (4) 8' STD PARABOLICS @ 150' CL
2. (1) 8' HP ANTENNA @ 150' CL
3. (12) 5'x7' PANELS ON WIRELESS FRAMES @ 130'
4. (12) 5'x7' PANELS ON WIRELESS FRAMES @ 110'
5. (12) 5'x7' PANELS ON WIRELESS FRAMES @ 90'
6. 20' LIGHTNING ROD AT 160'

MATERIALS & CODES

STRUCTURAL STEEL: ASTM A36, A572

& A53 GRB (46 ksi minimum)

ERECTION BOLTS: ASTM A325X & SAE GR5

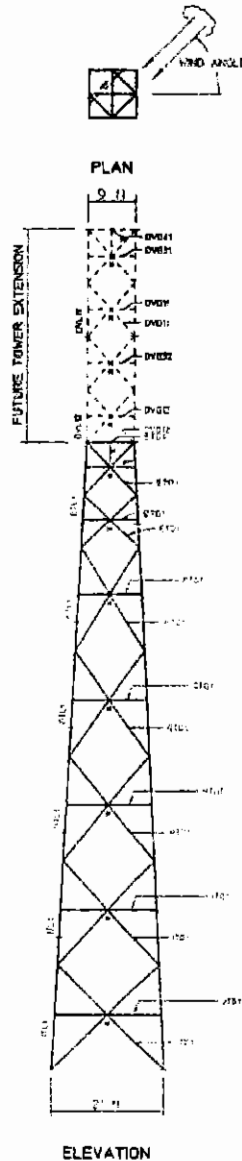
ANCHOR BOLTS: ASTM F1554 GR55

STEEL: AISC 9TH EDITION

CONCRETE: ACI 318-05

INDUSTRY: TIA/EIA RS 222-F

BAY	TOWER	BAY DEAD LOAD (KIPS)	BAY WIND LOAD (KIPS)
	160	106	152
DV20	155	2.61	3.56
	150	0.78	2.72
	145	1.12	2.67
	140	0.83	2.64
DV20	135	1.21	2.61
	130	1.15	3.31
	125	1.72	3.71
	120	1.84	3.75
ET	115	1.86	3.90
	110	1.50	3.61
	105	1.92	3.82
	100	2.59	5.58
ET	91	4.60	7.80
	80	4.22	7.88
	71	5.38	7.85
	60	4.55	7.72
HT	51	5.75	7.45
	40	4.80	7.26
	30	6.62	7.17
	20	5.19	7.27
JT	10	7.52	7.44
	0	2.80	4.06



ANT. DEAD LOAD (KIPS)	ANT. WIND LOAD (KIPS)	MAXIMUM TWIST OR SWAY (DEGREES)
2.39	25.67	0.84
0.06	1.02	0.83
0.92	3.68	0.83
0.13	0.35	0.77
1.96	5.50	0.78
0.11	0.29	0.63
1.98	5.30	0.62
1.97	4.87	0.43
0.12	0.29	0.41

NOTES:

- 1) Bay wind loads and dead loads include effects of tower members, access ladder, W/G ladder, transmission lines and platform
- 2) Worst case antenna wind shear has been applied in the two wind directions to obtain maximum tower member stresses.
- 3) An 'w' indicates that girts are internally braced at this level.
- 4) Maximum twist/sway at 50 MPH wind loading is 0.13" < 0.6" allowable for an 8' diameter antenna operating at an assumed frequency of 11 GHz.

TOWER MODEL: 108-MB40-160

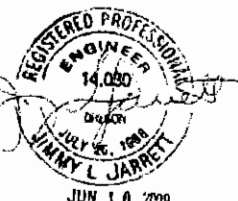
STRESS ANALYSIS

OWIN

SITE: PRAIRIE PEAK, OR



BY JLI
CK MF
DATE 8/JUN/09
S.O. 12603-09



EXPRES ON

(JUN 8 2011)

REVISIONS
DATE BY

DWG NO. B-127446
SHEET 1 OF 4

Exhibit A

Approved 10/22/2009 Page 3 of 6

The method used to analyze this tower structure is based upon a computerized direct element stiffness matrix technique (Ref. 1).

This technique assumes elastic material properties and is based upon the following formulations:

$$(P) = [K] (X)$$

where (P) = applied nodal loads
(K) = structural stiffness matrix
(X) = nodal displacements

This equation is solved for (X) by means of a modified Gauss-Jordan elimination technique. The nodal displacements are then utilized to calculate member end forces and moments.

Microflex's implementation of this technique allows for three-dimensional frames with nodal loads. Truss members may be input by specifying beam member end moment releases. Supports and/or support settlements may be input by specifying nodal displacements.

The resulting computer output consists of nodal displacements, member end forces and moments, and support reactions.

Ref. 1: MATRIX METHODS OF STRUCTURAL ANALYSIS, 2nd Edition, Chu-Kia Wang, International Textbook Co., Scranton, Pennsylvania, 1970

LOAD CALCULATIONS FOR CRITICAL MEMBERS

MEM	SECTION TYPE	L (ft)	r (in)	KL/r	AREA (in ²)	F _{CA} ALLOW. LOAD (Kips)	BOLTS				MEMBER AXIAL LOAD (Kips)	F.S. TO AISC ALLOW
							QTY	SIZE	BEARING ALLOW	SHEAR ALLOW		
	LEG MEMBERS											
DVL11	PIPE 4.500 od x 0.237w	60.0	151	39.7	3.12	101	---	---	---	---	36.6	2.76
DVL12	PIPE 4.500 od x 0.337w	60.0	148	40.6	4.41	140	---	---	---	---	108	1.29
ETL1	PIPE 6.625 od x 0.280w	57.1	225	25.4	5.58	190	---	---	---	---	188	1.01
FTL1	PIPE 6.625 od x 0.322w	130	294	44.3	8.40	262	---	---	---	---	225	1.16
GTL1	PIPE 10.750 od x 0.365w	129	367	35.0	11.9	389	---	---	---	---	311	1.25
HTL1	PIPE 10.750 od x 0.365w	128	367	34.8	11.9	389	---	---	---	---	369	1.05
ITL1	PIPE 12.750 od x 0.375w	127	438	29.0	14.6	489	---	---	---	---	443	1.10
JTL1	PIPE 12.750 od x 0.50w	126	433	25.9	19.2	642	---	---	---	---	500	1.23
	DIAGONAL MEMBERS											
DVD11	PIPE 2.375 od x 0.154w	69.3	787	88.0	1.07	23.8	1 - 5/8"	3/8	16.2	24.4	16.0	1.01
DVD12	PIPE 2.375 od x 0.154w	69.3	787	88.0	1.07	23.8	2 - 5/8"	3/8	32.4	48.9	22.2	1.07
ETD3	PIPE 2.375 od x 0.154w	78.5	787	99.7	1.07	20.6	2 - 5/8"	3/8	32.4	48.9	16.4	1.25
ETD1	PIPE 2.375 od x 0.154w	81.6	787	104	1.07	19.5	2 - 5/8"	3/8	32.4	48.9	18.0	1.06
ETD4	PIPE 4.000 od x 0.226w	145	134	108	2.68	45.3	2 - 5/8"	1/2	43.3	48.9	30.3	1.42
ETD1	PIPE 4.000 od x 0.226w	150	134	112	2.68	42.4	2 - 5/8"	1/2	43.3	48.9	28.8	1.47
HTD1	PIPE 4.000 od x 0.226w	148	134	111	2.68	43.4	2 - 5/8"	1/2	43.3	48.9	28.6	1.51
ITD1	PIPE 4.000 od x 0.226w	157	134	115	2.68	38.6	2 - 5/8"	1/2	43.3	48.9	28.1	1.37
JTD1	PIPE 4.500 od x 0.237w	170	151	115	3.12	49.7	2 - 5/8"	1/2	43.3	48.9	28.6	1.51
	GIRT MEMBERS											
DVG31	2L's 2.500x2.500x0.188	49.5	118	80.0	1.81	36.9	2 - 5/8"	3/8	32.4	48.9	80.8	40.1
DVG11	2L's 1.750x1.750x0.125	49.5	865	101	8.44	14.5	2 - 5/8"	1/4	21.7	48.9	620	23.4
DVG32	2L's 1.750x1.750x0.125	49.5	865	101	8.44	14.5	2 - 5/8"	1/4	21.7	48.9	693	20.9
DVG12	2L's 1.750x1.750x0.125	49.5	865	101	8.44	14.5	2 - 5/8"	1/4	21.7	48.9	806	18.0
ETG4	2L's 2.000x2.000x0.188	51.6	977	88.6	1.43	27.3	2 - 5/8"	3/8	32.4	48.9	751	36.4
ETG3	2L's 1.750x1.750x0.125	51.6	865	103	8.44	14.1	2 - 5/8"	1/4	21.7	48.9	936	15.1
ETG1	2L's 1.750x1.750x0.125	55.9	865	110	8.44	13.0	2 - 5/8"	1/4	21.7	48.9	845	15.4
FTG1	2L's 2.000x2.000x0.125	68.3	626	109	9.69	14.6	2 - 5/8"	1/4	21.7	48.9	297	4.93
GTG1	2L's 2.000x2.000x0.188	79.8	617	129	14.3	17.0	2 - 5/8"	3/8	32.4	48.9	174	9.76
HTG1	2L's 2.000x2.000x0.188	88.0	617	143	14.3	14.0	2 - 5/8"	3/8	32.4	48.9	165	8.46
ITG1	2L's 2.500x2.500x0.188	99.0	778	127	18.1	22.2	2 - 5/8"	3/8	32.4	48.9	160	13.9
JTG1	2L's 2.500x2.500x0.188	114	778	147	18.1	16.6	2 - 5/8"	3/8	32.4	48.9	165	10.1

NOTE: ALLOWABLE STRESS INCREASE FACTOR (PER AIA/IA 222-F, SECT. 3.1.1.1) = 1.33

STRESS ANALYSIS
OWIN
SITE: PRAIRIE PEAK, OR



BY JLJ
CK MF
DATE 8JUN09
S.D. 12603-09

REVISIONS
REV. DESCRIPTION
DATE BY/CHK

Exhibit A

Approved

BASE REACTIONS :

TOWER OVERTURNING MOMENT = 15245 kip-ft

TOWER BASE WIDTH = 21 feet

TOTAL TOWER SHEAR = 160 kips

TOWER HEIGHT = 160 feet

TOWER WEIGHT = 813 kips

LEAST LEG FACTOR OF SAFETY = 1

MAX SHEAR PER LEG = 62.1 kips

NUMBER OF LEGS = 4

$$\text{Uplift} = \frac{\text{Base moment} \times \text{Leg F.S.}}{\text{Base width} \times 1.414} - \frac{\text{Tower Wt.}}{4}$$

$$\text{Download} = \frac{\text{Base moment} \times \text{Leg F.S.}}{\text{Base width} \times 1.414} + \frac{\text{Tower Wt.}}{4}$$

$$\text{Shear} = \text{Leg Shear} + \frac{\text{Base moment} \times (\text{Leg F.S.} - 1)}{4 \times \text{Tower Ht.}}$$

FACTORED OVERTURNING MOMENT = 15245 kip-ft

FACTORED TOWER SHEAR = 160 kips

MAXIMUM UPLIFT PER LEG = 493.1 kips

MAXIMUM DOWNLOAD PER LEG = 533.7 kips

MAXIMUM SHEAR PER LEG = 62.1 kips

ANCHOR BOLTS :

Ref.: ENGINEERING JOURNAL/AISC, 2nd Qtr, 1983, p58

MATERIAL : ASTM F1554 Gr 55 (Fy = 55 ksi min.)

ALLOWABLE STRESS INCREASE FACTOR = 1.33

USE 8 - 175 in dia bolts/leg on a 18.75 in. bolt circle

$$\frac{493.1 + 1.65 \times 62.1}{8 \times 1.9} = 40 \text{ ksi}$$

ALLOWABLE ANCHOR BOLT TENSILE STRESS = 40.2 ksi > 40 ksi--OK

BASE PLATE :Ref: 'Formulas for Stress and Strain', 5th Edition, ROARK & YOUNG
AISC 9th Edition, minimum edge distance per table J3.5

MATERIAL ASTM A36

(Fy = 36 ksi)

ALLOWABLE STRESS INCREASE FACTOR =


DIAMETER OF BASE LEG = 12.75 in.

CONCRETE BEARING PRESSURE = 2100 psi

FOR DOWNLOAD CONDITION, MINIMUM THICKNESS (by Formula 2f) 2.23 in.

FOR UPLIFT CONDITION, MINIMUM THICKNESS (by Formula 1f) 1.69 in.

USE PLATE : 23.25 in. dia. x 2.5 in. thick, Fy = 36 ksi

SHEET 3 OF 4 DWG NO B-127448	STRESS ANALYSIS		REVISION DATE BY
	OWIN		
	SITE PRAIRIE PEAK		
			
	BY	JLJ	
	CK	MF	
	DATE	6/8/09	
	S.O.	12603-09	

ROCK ANCHOR FOUNDATION (4 REQ'D)

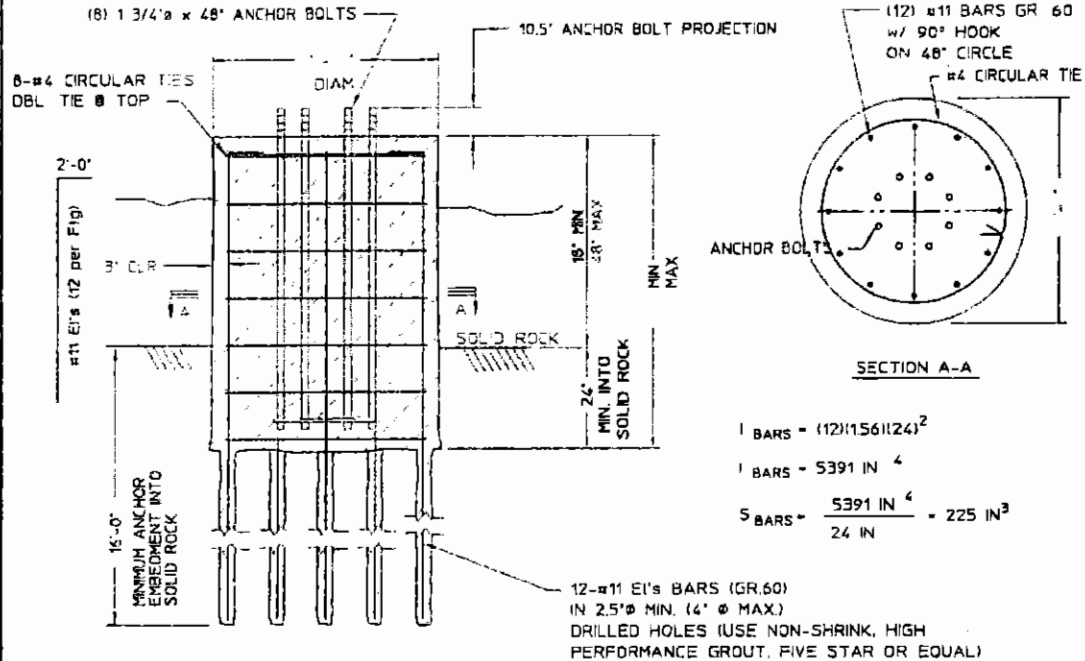
REACTIONS: UPLIFT = 493 K
 DOWNLOAD = 534 K
 LEG SHEAR = 52.1 K

DESIGN: USE 6-#11 BARS (GR 60) EXTENDING 15'-0" BELOW TOP OF SOLID ROCK
 USE 45 DEG UPLIFT CONE FOR SOLID ROCK
 SOLID ROCK IS CONSIDERED TO WEIGH 155 PCF

$$\text{ALLOWABLE UPLIFT} = \frac{(7720)(10155)}{2.00} \cdot \frac{78 \text{ FT}^3 \times 0.150 \text{ K/FT}^3}{1.25} = 608 \text{ KIPS} \quad \text{OK}$$

ROCK CONCRETE

$$\text{OVERTURNING MOMENT} = 62.1 \text{ K} \times 48' = 2981 \text{ IN-K}$$



$$\text{(USING STRENGTH DESIGN) MAX. STRESS PER BAR} = \frac{1.7 \times 2981 \text{ IN-K}}{225 \text{ IN}^3} = \frac{1.7 \times 493 \text{ K}}{12 \times 1.56 \text{ IN}^2} = 67.3 \text{ KSI} < 0.9(60)(4/3) = 72 \text{ KSI} \quad \text{OK}$$


CHECK BOND BETWEEN GROUT AND REBAR
 (USE WORKING BOND STRESS OF 100 PSI)

$$\text{ALLOWABLE BOND} = (2.5 \times \pi \times 168)(100 \text{ PSI})(1/1000) = 132 \text{ K/BAR}$$

$$\text{MAX. TENSION PER BAR} = \frac{67.3 \text{ KSI} \times 1.56 \text{ IN}^2}{1.7} = 61.8 \text{ K} < 132 \text{ K} \quad \text{OK}$$

$$\text{SHEAR FRICTION} = f_{TVJ} = \frac{V_N}{4A_{VF}} = \frac{62.1 \text{ K} \times 1.7}{(10)(12)(1.56)} = 5.6 \text{ KSI}$$

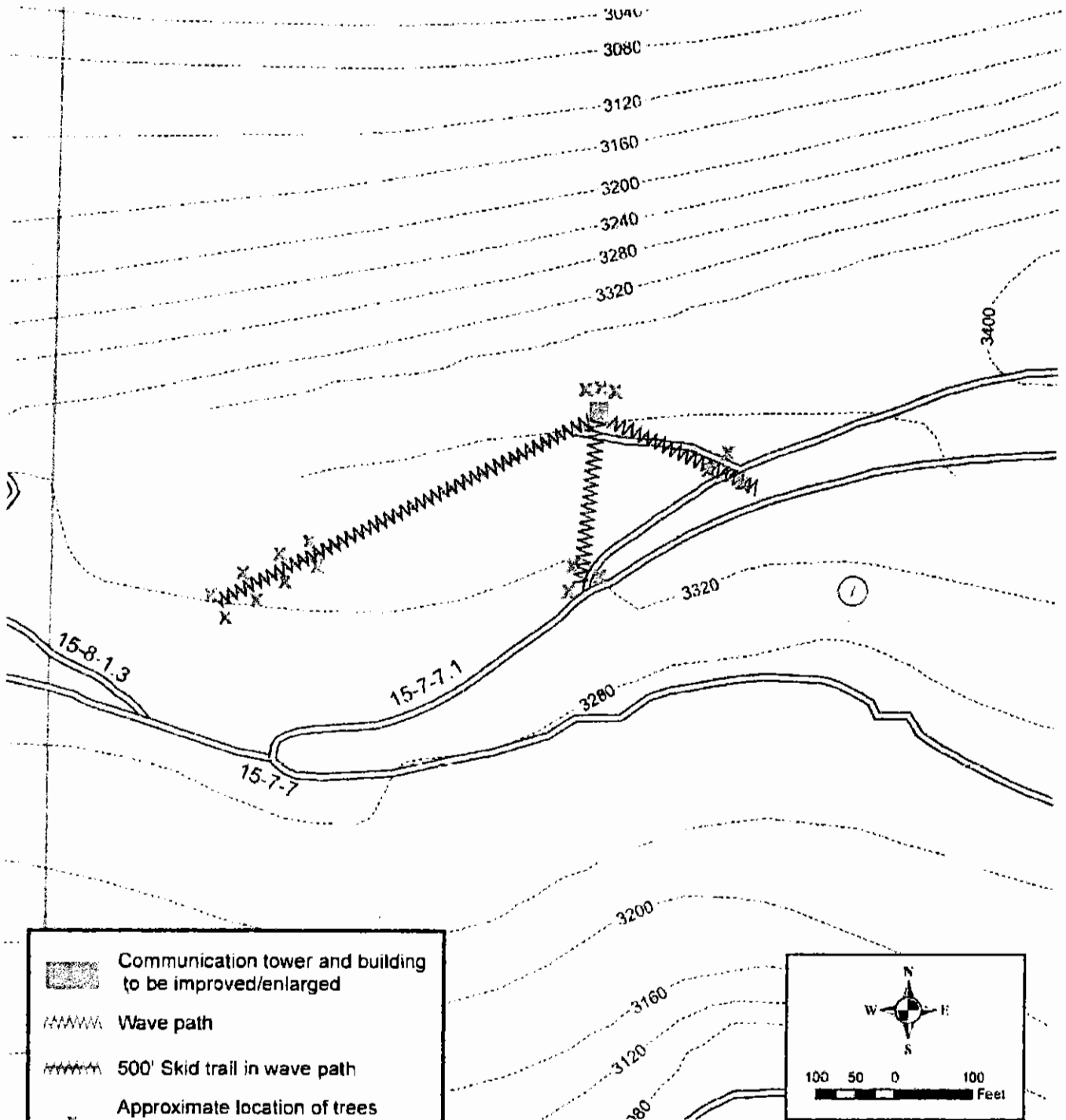
$$\text{COMBINED LOADING} = \frac{67.3 \text{ KSI}}{0.9(60 \text{ KSI})(4/3)} + \frac{5.6 \text{ KSI}}{0.85(60 \text{ KSI})(4/3)} = 1.0 \quad \text{OK}$$

DWG NO. B-12748	SHEET 4 OF 4	STRESS ANALYSIS		REV	DESCRIPTION	DATE	BY/CK	
		OWIN						
		SITE: PRAIRIE PEAK, OR						
			BY					JLJ
			CK					MF
			DATE					9/JUN/09
			S.O.					12603-09

PRAIRIE MOUNTAIN REPEATER SITE
T. 15 S., R. 7 W., Section 7, W.M.

Exhibit A

Approved 10/12/2009 Page 3 of 5



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data. Original data was compiled from multiple source data and may not meet U.S. National Mapping Accuracy Standard of the Office of Management and Budget.

EXHIBIT B**ADDITONAL STIPULATIONS****October 22, 2009****1. GENERAL**

- 1.1. The Lessee and Lessee's tenants and customers shall operate within the parameters of all regulations governing this Communication Use Lease, and all terms and conditions attached hereto.
- 1.2. Should the holder discover or become aware of any objects or sites of cultural value, such as historic or prehistoric ruins, graves, fossils, or artifacts, the holder shall immediately suspend all operations in the vicinity of the cultural resources and notify the Authorized Officer. Operations may resume upon receipt of written instructions by the Authorized Officer.
- 1.3. The holder shall immediately discontinue construction operations upon written notice from the Authorized Officer that sensitive, threatened, or endangered plants or animals protected under the Endangered Species Act of 1973 have been discovered to be present on the right-of-way area. Construction may be resumed upon receipt of written instructions by the Authorized Officer.
- 1.4. In the use of pesticides, the Lessee shall comply with applicable Federal and State laws and regulations. Pesticides shall be used only in accordance with their registered uses, and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the Lessee shall obtain from the authorized officer written approval of a plan prior showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and other information deemed necessary by the authorized officer. Emergency use of pesticides shall be approved in writing by the authorized officer prior to such use. Pesticides shall not be permanently stored on public lands authorized for use under this grant.
- 1.5. The holder agrees to share the facility and electricity with other users whose communications equipment is compatible with the holder's equipment. The holder shall only charge users reasonable compensation for utilities and site maintenance.
- 1.6. The holder will at all times operate its radio-electronic type equipment in such a manner as not to cause interference with radio-electronic type operations of the Bureau of Land Management or other communications facilities of the United States. If such interference results from the holder's operations, the holder will promptly, at its own expense and without cost to the United States, modify its equipment and operations, or shut it down, if necessary, to eliminate or reduce the interference to the satisfaction of the Bureau of Land Management and any other operating Federal agency.

- 1.7. It will be the responsibility of the holder to ascertain whether existing facilities on the same or adjoining sites will adversely affect the proposed operations. The holder will accept operations; i.e., frequencies, emissions, power output, radiation fields, antenna arrays, etc., of existing facilities on the same or adjoining sites, provided such operations are consistent with the regulations of the Federal Communications Commission, if a non-Federal government use, and Standards of the Interdepartmental Radio Advisory Committee, if a Federal government use.
- 1.8. The United States will not be held liable for any damage to the structures authorized by this grant as a result of fire, wind, or other natural causes or as a result of silvicultural practices, timber harvesting operations, or other management actions carried out by or for the Bureau of Land Management.
- 1.9. The United States reserves the right to grant additional rights-of-way or permits for compatible uses on, over, or adjacent to the land involved in this grant.
- 1.10. Upon termination of a user's right to operate at this site, the Lessee shall promptly terminate the user's occupancy of the facility.

2. CONSTRUCTION

- 2.1. The holder shall construct the tower using non-reflective steel. The holder is authorized to install a new 120 feet tall 4 legged steel lattice tower. The holder is authorized to extend the height of the tower an additional 40 feet without prior authorization. Any tower that exceeds the 160 feet that is authorized in the lease will require prior approval from the Authorized Officer.
- 2.2. The holder shall ground the tower/antennae as prescribed by the National Electrical Code.
- 2.3. Any fencing material and barbed wire shall be non-reflective and colored to match the surrounding environment.
- 2.4. Should the holder need to re-paint the building the paint should be a flat (non-glossy) paint or stain. The color should be picked from the Standard Environmental Color Chart or the Munsell Soil Color Chart and should blend in with the surrounding landscape.
- 2.5. The holder is authorized to maintain a vegetation free area within the fenced compound plus three feet beyond the fence boundary. The holder is authorized to maintain existing vegetative cover beyond the three foot compound buffer only in the wave-path footprints and would be free to keep those areas clear of any vegetation 3 feet or greater in height. No timber larger than 8 inches in diameter shall be cut without the approval of the Authorized Officer.

3. LOGGING ACTIVITIES

- 3.1. All timber is reserved except for approximately fifty-seven (57) trees marked for cutting heretofore by the Government with blue paint above and below stump height in the approximate location of trees to be cut and removed shown on the attached Exhibit A, Page 6, Prairie Mountain Repeater Site map.
- 3.2. Prior to the commencement of operations, the Operator shall obtain from the Authorized Officer approval of a written operations and logging plan commensurate with the terms and conditions of this document which shall include measures needed to assure protection of the environment and watershed. A prework conference between the Operator and the Authorized Officer's representative must be held at a location designated by the Authorized Officer before the logging plan will be approved. The Operator shall provide a minimum of seven (7) days' notice when requesting the scheduling of a prework conference.
- 3.3. Before beginning operations on the operating area for the first time or after a shutdown of fourteen (14) or more days, the Operator shall notify the Authorized Officer in writing of the date he plans to begin operations. This written notification must be received by the Authorized Officer no less than fourteen (14) days prior to the date the Operator plans to begin or resume operations. The Operator shall also notify the Authorized Officer in writing if he intends to cease operations for any period of seven (7) or more days.
- 3.4. One skid road shall be used to yard trees in the southwest corner of the project area. The location of trail shall be flagged on the ground with fluorescent ribbon by the Operator and approved by the Authorized Officer prior to falling/harvesting operations. The trail shall be limited to the minimum width necessary for harvesting and yarding of logs with minimum damage to reserve trees but, in any case, the width of the trail shall not exceed twelve (12) feet unless otherwise approved by the Authorized Officer. The Operator shall directionally fall trees into the lead with the skidding direction and winch or carry to the trail. No yarding equipment shall be permitted to operate off these trails.
- 3.5. No ground-based yarding shall be conducted on the operating area between October 15 of one calendar year and July 15 of the following calendar year, both days inclusive, or during other periods of wet soil conditions as determined by the Authorized Officer.
- 3.6. The Operator shall pile at least 90% of logging slash less than 6 inches in diameter as directed by the Authorized Officer. No landing debris shall be dozed off the landings and covered with dirt. Piles shall not be closer than ten (10) feet from reserve trees and snags.

Upon completion of piling the Operator shall prepare the piles for burning by securely covering each pile with polyethylene plastic film a minimum of 0.004 inch

thick and at least ten (10) feet wide. Piles shall be eighty (80%) covered with the covering extended three quarters ($\frac{3}{4}$) of the way down all sides and shall be anchored to the satisfaction of the Authorized Officer. The Operator shall be required to furnish the covering materials.

- 3.7. In order to reduce or prevent the spread of noxious weeds to BLM lands, all ground-based logging equipment including loaders shall be cleaned of all plant parts and soil prior to entry onto BLM lands. Equipment shall be inspected by the Authorized Officer at a site approved by the Authorized Officer to verify that the equipment had been reasonably cleaned prior to entry onto BLM lands.
- 3.8. The bearing tree located in the southwest corner of the operating area shall be cut on a bevel, the lowest part not less than eighteen inches above the scribe marks and in such a manner that will not mutilate the markings identifying the bearing tree.
 - 3.8.1. The Operator shall treat the bearing tree stump in the following manner during the dry season of the year:
 - 3.8.1.1. Remove all bark providing there are no identifying marks on the bark.
 - 3.8.1.2. Flood the tops and sides of the stump with a wood preservative solution approved by the Authorized Officer.
 - 3.8.1.3. Let the stumps dry for one month.
 - 3.8.1.4. Repeat the flooding operation.
 - 3.8.1.5. Place a sheet of galvanized metal over the top of the stumps, bend down the edges, and nail to the side of the stumps.
 - 3.8.1.6. A 6-foot long steel fence post shall be driven alongside the corner monument if existent.
- 3.9. Primarily for purposes of fire prevention and control, the Operator shall comply with the following provisions:
 - 3.9.1. Prior to the operation of power-driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the Authorized Officer.
 - 3.9.2. Provide and maintain in good repair, on the Contract Area, the following equipment for use during periods of fire danger:
 - 3.9.2.1. Fire fighting tools shall be kept at each landing or at such other place as the Authorized Officer shall designate whenever people are working on

the Contract Area. All fire fighting tools shall be kept in a sturdily constructed box which shall be painted red and lettered on the front or top in large letters "For Fire Only." The box shall have a hinged lid and a hasp by which the lid can be sealed. One (1) box may serve two landings, not over six hundred (600) feet apart. When filled, the box shall not weigh over two hundred (200) pounds. The fire tools shall be in good condition, be tight on strong handles, and have sharp cutting edges. There shall be not less than four (4) tools in each box or less than one (1) tool for each man working on the Contract Area. Three-fourths (3/4) of all fire tools shall be shovels, hazel hoes, or other scraping tools. The fire tools shall be used only for fighting fire.

- 3.9.2.2. At each landing or such other place as the Authorized Officer shall designate during periods of operation, one (1) tank truck of five hundred (500) gallons or more capacity with five hundred (500) feet of hose and a nozzle acceptable to the Authorized Officer and a mounted or portable pump conforming to the standards set forth in Oregon Revised Statutes 477.645 through 477.670 and any rule promulgated pursuant to these statutes. Two (2) two hundred fifty (250) gallon tank trucks or portable tanks may be substituted for each required five hundred (500) gallon tank truck, provided that the total capability to pump and deliver water remains unchanged. All hose couplings shall have the standard thread adopted by the State Fire Marshall pursuant to Oregon Revised Statute 477.610 or be provided with suitable adapters. At the close of each working day, all bulldozers and tank trucks shall be filled with fuel and made ready for immediate use. All the tank trucks and portable tanks shall be filled with water and made available for immediate use.
- 3.9.2.3. Two (2) backpack pumps at each landing and one (1) at each tail block, or any other block, all to be kept full of water and in good operating condition.
- 3.9.2.4. A chemical fire extinguisher of at least eight (8) ounces minimum capacity of a type approved by the Oregon State Forester and a size 0 or larger shovel shall be carried during the closed fire season or periods of fire danger by each falling crew and each buckner using a power saw on the Contract Area. Such fire extinguisher shall be filled and in effective operating condition and shall at all times be immediately available to the operator when the saw is being fueled or the motor of the saw is running. Any fueling of a power saw shall be done in an area which has first been cleared of all flammable material. Power saws shall be moved at least twenty (20) feet from the place of fueling before the engine is started. Each power saw shall be equipped with an exhaust system and a spark arresting device which are of types approved by the Oregon State Forester.

- 3.9.3. During ODF regulated use closure, no smoking shall be permitted outside of closed vehicles.