



WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

LT MURRAY - WHISKEY DICK UNIT
WILDLIFE AREA REPAIR AND REPLACE FENCING
KS:R35:13-1

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ABBREVIATIONS

ALUM	-	ALUMINUM
L	-	ANGLE
APPROX.	-	APPROXIMATELY
BM	-	BENCH MARK
CL	-	CENTERLINE
CLR.	-	CLEARANCE
CONC	-	CONCRETE
Ø	-	DIAMETER
ELEV	-	ELEVATION
F.B.	-	FLAT BAR
F.C.	-	FISH CONDUIT
FTG	-	FOOTING
F.W.	-	FISHWAY
GALV	-	GALVANIZED
GA.	-	GAUGE
HSS	-	STRUCTURAL TUBING
ID	-	INSIDE DIAMETER
IE	-	INVERT ELEVATION
LFW	-	LOWER FISHWAY
LG	-	LONG
M.B.	-	MACHINE BOLT
MFG.	-	MANUFACTURER'S
MISC.	-	MISCELLANEOUS
MOD.	-	MODEL
OC	-	ON CENTER
OSB	-	ORIENTED STRAND BOARD
OD	-	OUTSIDE DIAMETER
PAV'T	-	ASPHALT CONCRETE PAVEMENT
PL	-	PLATE
PT	-	PRESSURE TREATED
REQ'D	-	REQUIRED
SEC.	-	SECTION
S.F.	-	SQUARE FEET
SHT.	-	SHEET
SPEC'S.	-	PROJECT SPECIFICATIONS
S.S.	-	STAINLESS STEEL
TYP	-	TYPICAL
UPW	-	UPPER FISHWAY
W.S.	-	WATER SURFACE

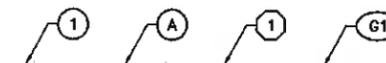
SHEET SYMBOLS



DETAIL

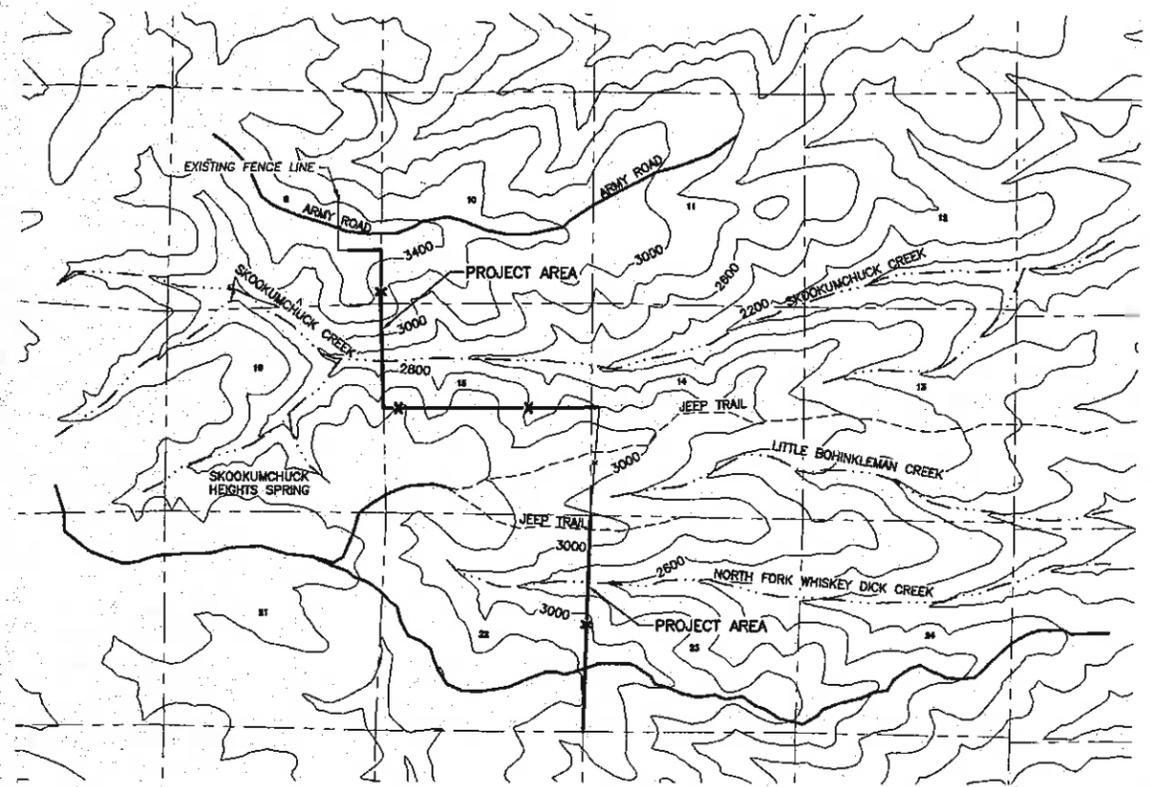


SECTION

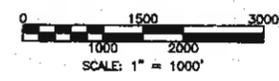


NOTE REFERENCE
REFERENCE DESIGNATION TO NOTE
APPEARING ON SAME SHEET OR A
PART OR MATERIAL IN A SCHEDULE

PROJECT NO.	
KS:R35:13-1	
SHEET	OF
1	8



EXISTING SITE PLAN
SCALE: 1" = 2000'

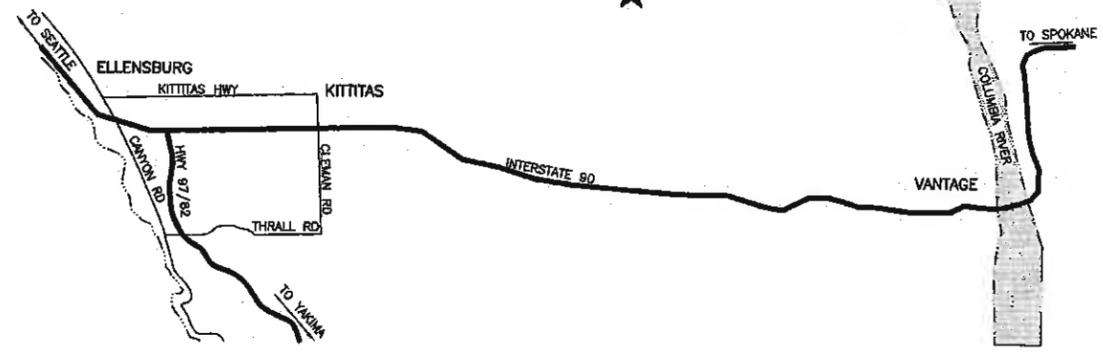


NOTE:
LOCATION OF FENCE AND REQUIREMENTS IN FENCE LINE SHALL BE FLAGGED OR STAKED BY PROJECT MANAGER/ENGINEER OR REPRESENTATIVE APPOINTED BY WDFW



STATE MAP
NOT TO SCALE

PROJECT LOCATION
LAT. 47° 03' 44"N
LONG. 120° 12' 00"W



VICINITY MAP
NOT TO SCALE

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



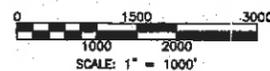
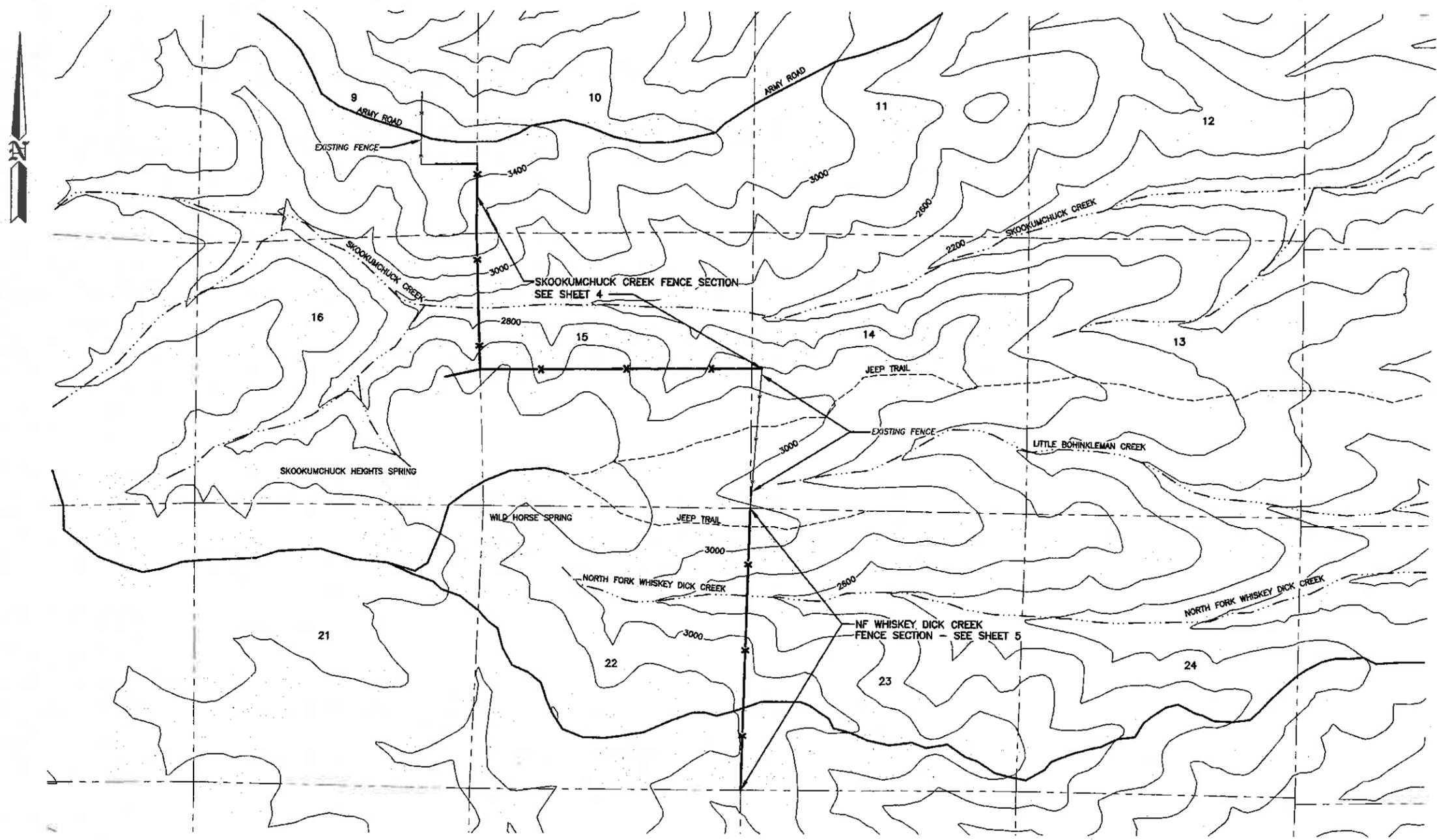
SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	

DESIGNED BY: J. GIGSTEAD
CHECKED BY: R. ENGELHARDT
DRAWN BY: R. ENGELHARDT
DATE: 03/08/2013

0 ——— 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

LT MURRAY WLA — WHISKEY DICK UNIT
WILDLIFE AREA FENCING
REPAIR AND REPLACE FENCING
EXISTING SITE PLAN AND VICINITY MAP

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NOTE:
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 WDFW

SITE PLAN
 SCALE: 1" = 1000'

WASHINGTON STATE
 DEPARTMENT OF FISH AND WILDLIFE



SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
		DATE: 8/16/13	
CHIEF ENGINEER		DATE: 03/08/2013	
PROGRAM		DATE: 03/08/2013	

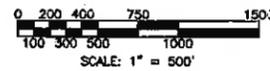
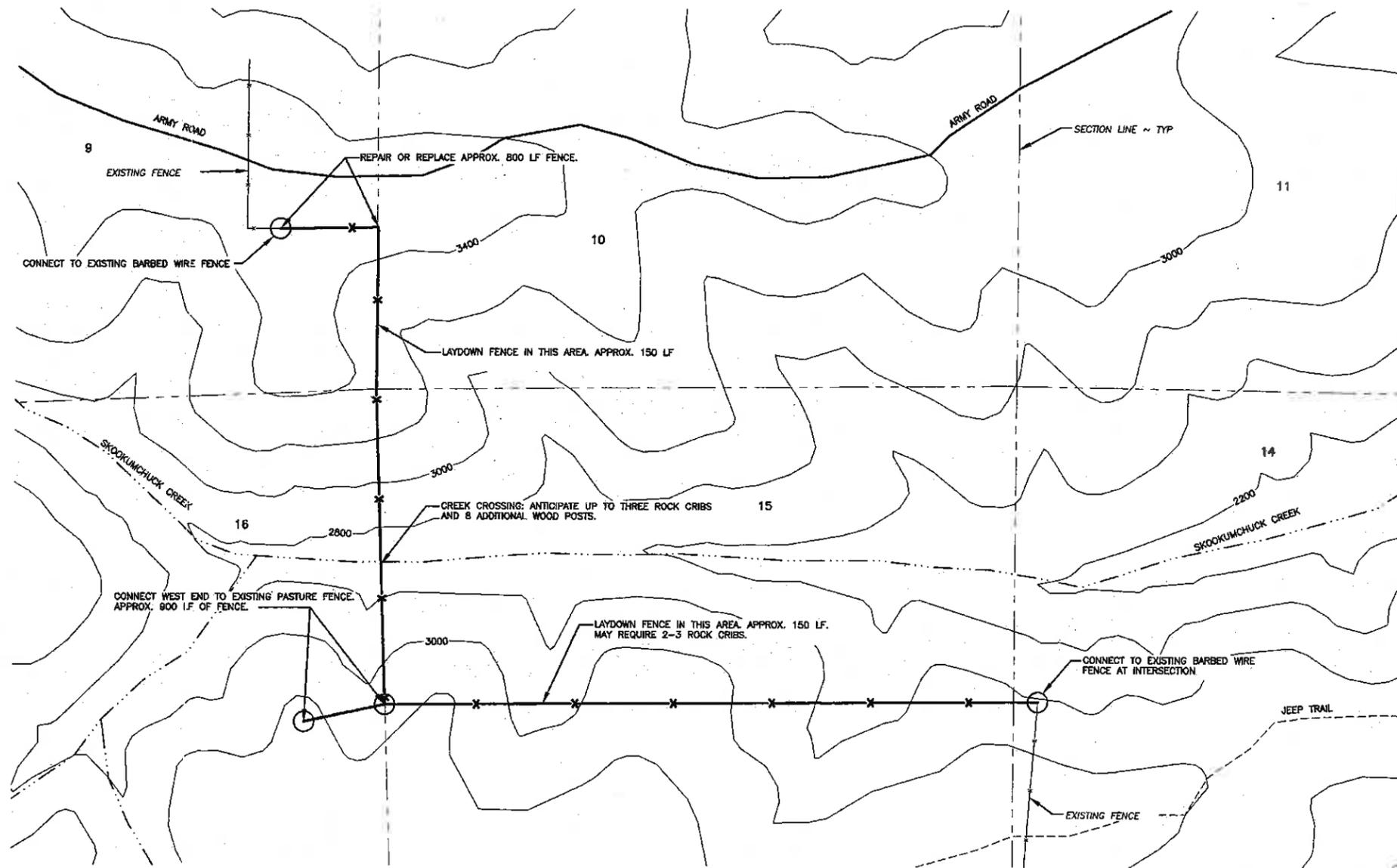
0 1" BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS
 DESIGNED BY J. GOSTEAD
 CHECKED BY
 DRAWN BY R. ENGELHART
 DATE 03/08/2013

LT MURRAY WLA - WHISKEY DICK UNIT
 WILDLIFE AREA FENCING
 REPAIR AND REPLACE FENCING
 SITE PLAN

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SKOOKUMCHUCK CREEK SECTION

APPROX. 11,100 LF (HORZ)
 APPROX. 11,600 LF (SLOPE)
 APPROX. 12 IN COMBINATION OF ROCK JACKS,
 ROCK CRIBS, OR ADDITIONAL WOOD POSTS.



NOTE:
 LOCATION OF FENCE AND REQUIREMENTS IN FENCE LINE
 SHALL BE FLAGGED OR STAKED BY PROJECT
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SKOOKUMCHUCK CREEK SITE
 SCALE: 1" = 500'

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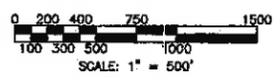
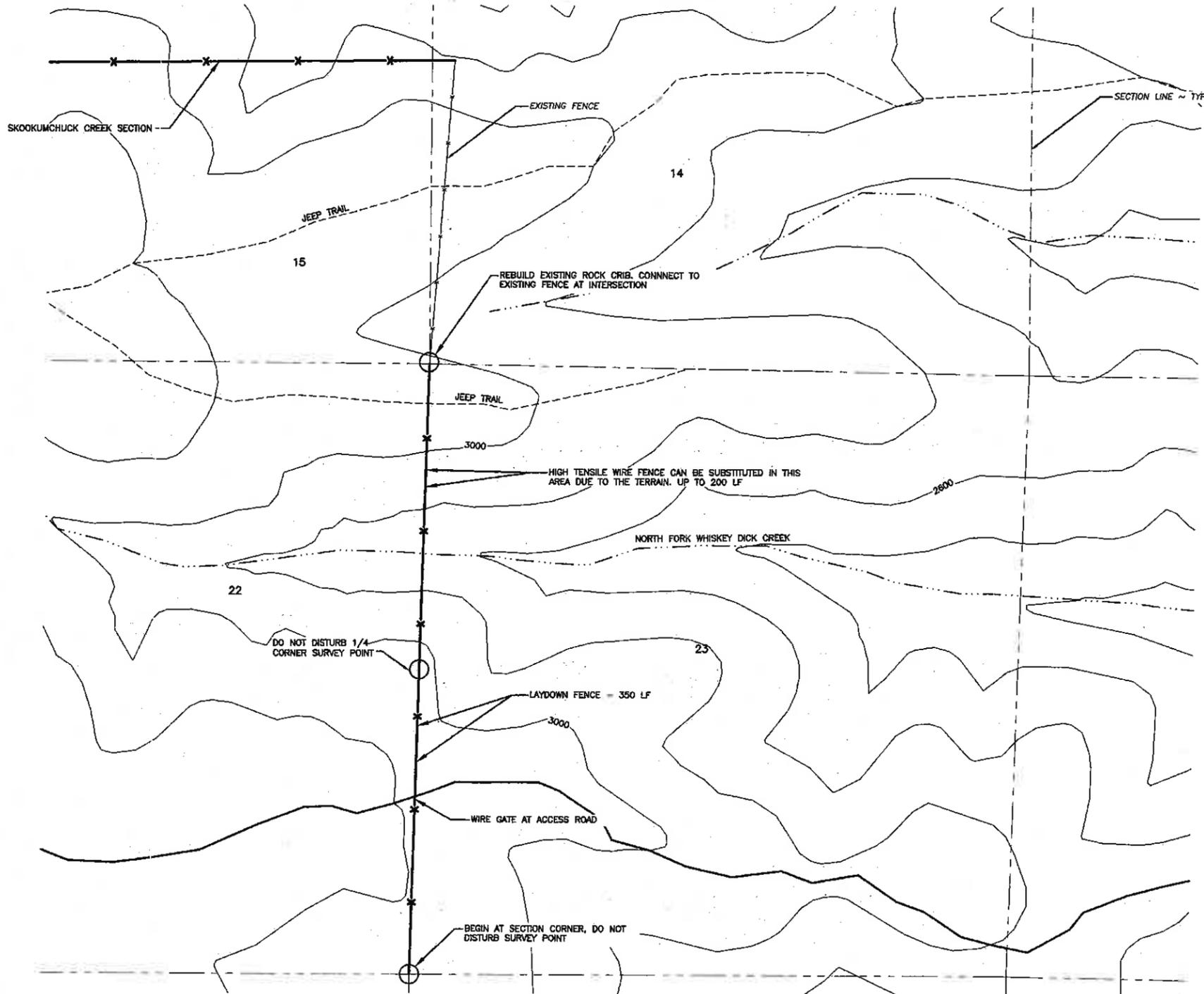
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		APPROVED AND RELEASED FOR CONSTRUCTION	
		CHIEF ENGINEER <i>[Signature]</i>	DATE: 8/16/13
		PROGRAM	DATE

0 1"
 BAR MEASURES
 ONE INCH ON
 ORIGINAL DRAWINGS
 DESIGNED BY J. GISTEAD
 CHECKED BY
 DRAWN BY R. ENGELHARDT
 DATE 03/08/2013

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SKOOKUMCHUCK CREEK SECTION

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SHEET 4	OF 8

NF WHISKEY DICK CREEK SECTION
 APPROX. 5,360 LF (HORZ)
 APPROX. 5,735 LF (SLOPE)
 APPROX. 16 ROCK JACKS.



NOTE:
 LOCATION OF FENCE AND REQUIREMENTS IN FENCE LINE
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NORTH FORK WHISKEY DICK CREEK SITE
 SCALE: 1" = 500'

WASHINGTON STATE
 DEPARTMENT OF FISH AND WILDLIFE

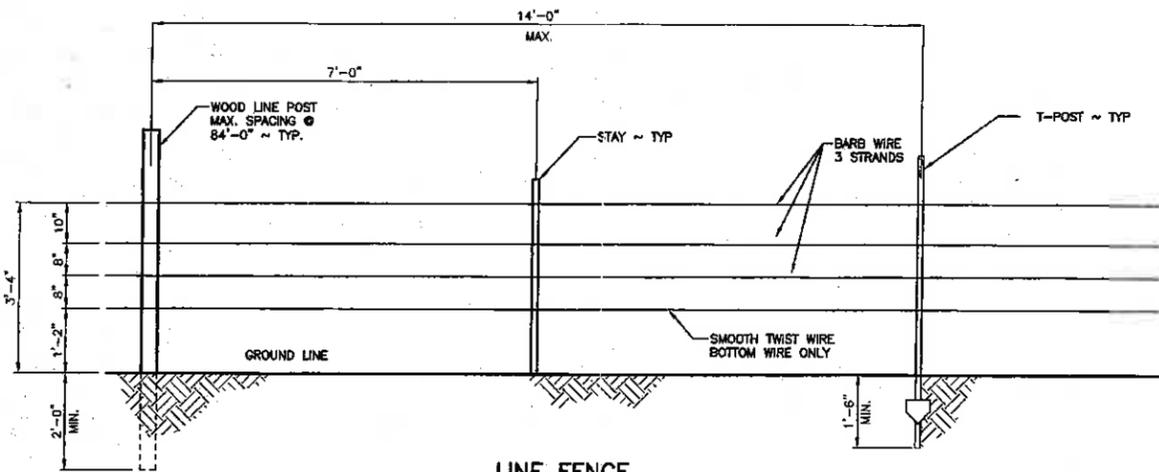


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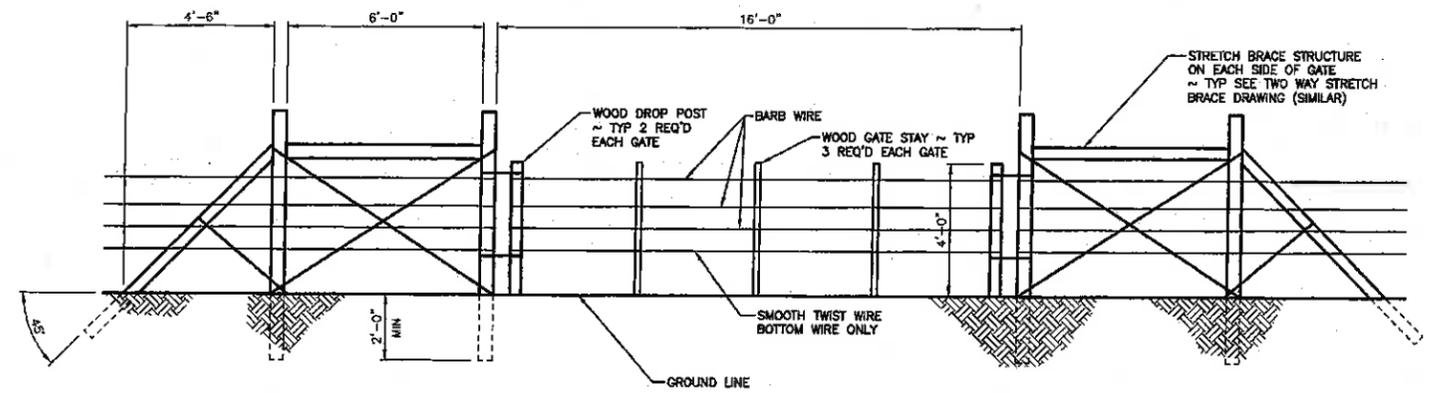
DESIGNED BY J. GIGSTEAD
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 DRAWN BY R. ENGELHARDT
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LT MURRAY WLA - WHISKEY DICK UNIT
 WILDLIFE AREA FENCING
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 NF WHISKEY DICK CREEK SECTION

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 SHEET 5 OF 8



LINE FENCE
NOT TO SCALE



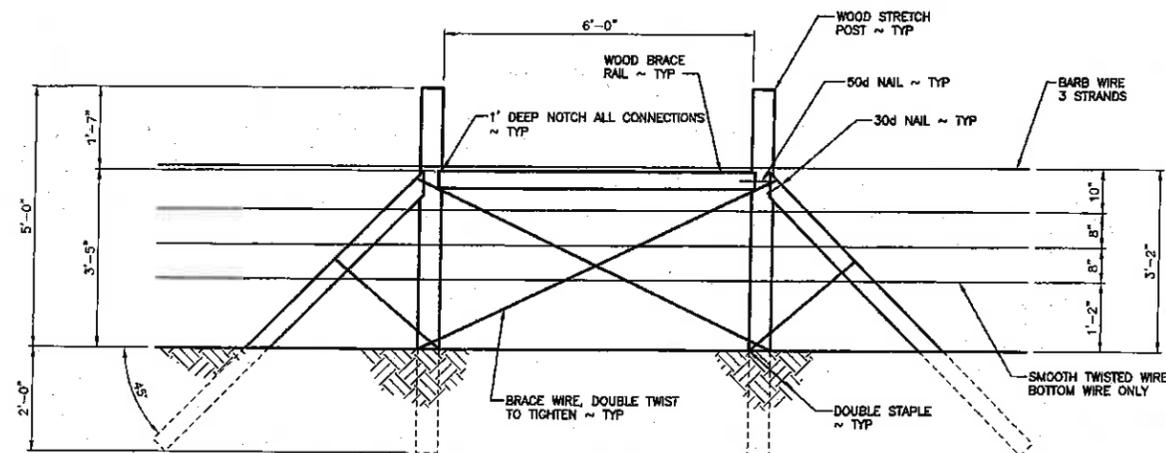
DROP GATE
NOT TO SCALE

NOTE:

GATE SHALL HAVE THREE VERTICAL STAYS AT 1/4 POINTS ALONG GATE. THE DROP POSTS LOCATED AT EACH END SHALL BE 5'-6" WOOD POSTS CUT TO A LENGTH OF 4'-0". CONSTRUCTED OF BRACE WIRE AND LOOPED AROUND END BRACE POSTS TO FACILITATE CLOSURE OF THE GATE. SPACING OF THE LONGITUDINAL WIRES SHALL BE THE SAME AS THE LINE FENCE.

NOTES:

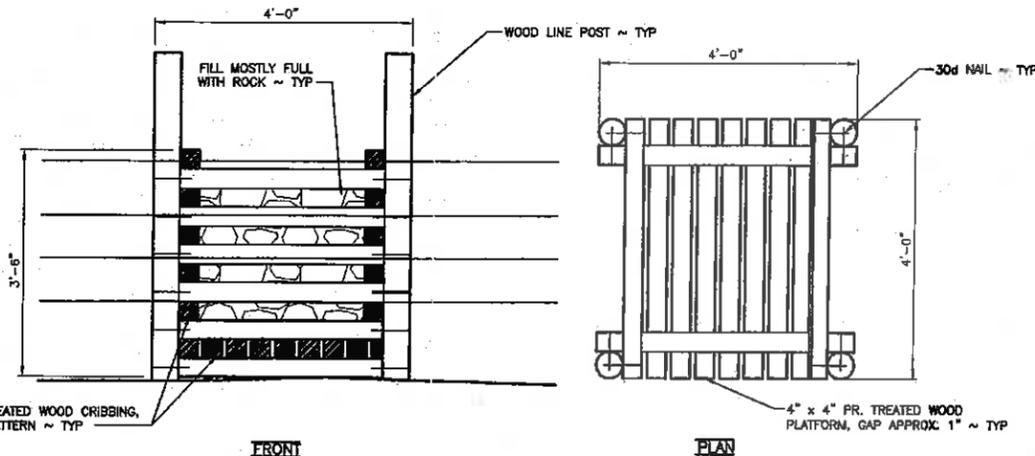
1. ALL POST SPACING SHALL NOT EXCEED 14'-0".
2. RATIO OF WOOD POSTS TO STEEL POSTS SHALL BE 1 WOOD TO 5 STEEL POSTS.
3. WOOD LINE POST SHALL BE AT LEAST 7'-0" LONG x 5" TO 6" IN DIAMETER. POSTS SHALL BE BURIED A MINIMUM DEPTH OF 24". POSTS SHALL BE DUG IN AND TAMPED, NOT DRIVEN. POSTS SHALL BE PRESSURE TREATED AS DESCRIBED IN SPECIFICATIONS.
4. STEEL T POST SHALL BE HEAVY DUTY WEIGHT, 1.33 LBS PER FOOT, GREEN WITH WHITE TOP, MINIMUM OF 5'-0" LENGTH, ALL STEEL POSTS SHALL BE DRIVEN TO A DEPTH OF 18". IF DEPTH CANNOT BE REACHED DUE TO GROUND CONDITIONS, USE METHODS APPROVED BY ENGINEER.
5. AT THE DIRECTION OF THE ENGINEER WOOD POSTS MAY BE SUBSTITUTED WITH ROCK JACKS WHERE POST DEPTH CANNOT BE REACHED DUE TO GROUND CONDITIONS, ROCK JACKS SHALL BE CONSTRUCTED FROM PRESSURE TREATED 2 x 6 MATERIALS AND FT WOOD POSTS. SEE DETAIL SHEET 7
6. STAYS SHALL BE EITHER 9 1/2 GA. 42" WIRE TWIST STAYS OR 48" 2" x 2" PT. WOOD STAYS. STAYS SHALL BE INSTALLED BETWEEN EVERY POST IN LINE. WOOD STAYS ARE PREFERRED.
7. SMOOTH TWIST WIRE SHALL BE 12 1/2 GA., BARBLESS, SMOOTH TWISTED WIRE, CLASS 3 GALV.
8. BARB WIRE SHALL BE CLASS 3 GALV. 12 1/2 GA., 4 POINT 14 GA. BARBED, WITH BARBS SPACED AT 5".
9. STAPLES TO ATTACH WIRE TO WOOD POST SHALL BE BARBED GALV. 9 GA. 1 3/4" LONG.
10. WIRE CLAMPS TO ATTACH BARB WIRE TO STEEL POSTS SHALL BE GALV. 11 GA. WIRE.
11. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



TWO WAY STRETCH BRACE
NOT TO SCALE

NOTES:

1. CORNER AND STRETCH BRACE POSTS SHALL BE AT LEAST 7'-0" LONG x 6" IN DIAMETER. POSTS SHALL BE BURIED TO THE MINIMUM DEPTH SHOWN. POSTS SHALL BE DUG IN AND TAMPED, NOT DRIVEN. POSTS SHALL BE PRESSURE TREATED AS DESCRIBED IN SPECIFICATIONS.
2. POSTS MAY BE SUBSTITUTED WITH ROCK JACKS WHERE DIRECTED BY THE ENGINEER.
3. BRACE WIRE SHALL BE SMOOTH 9 GA. GALV. WIRE, MEETING THE REQUIREMENTS OF THE SPECIFICATIONS.
4. SMOOTH TWIST WIRE SHALL BE 12 1/2 GA., BARBLESS, SMOOTH TWISTED WIRE, CLASS 3 GALV.
5. BARB WIRE SHALL BE 12 1/2 GA., 4 POINT 14 GA. BARBED, WITH BARBS SPACED AT 5", CLASS 3 GALV.
6. STAPLES TO ATTACH WIRE TO WOOD POSTS SHALL BE GALV. 9 GA., 1 3/4" LONG.
7. STRETCH BRACE SPACING SHALL BE A MAXIMUM DISTANCE OF 1320'. (1/4 MILE).
8. STRETCH BRACES SHALL BE CONSTRUCTED WITH 30d AND 50d GALVANIZED COMMON NAILS.
9. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



ROCK CRIB
NOT TO SCALE

NOTE:

ROCK CRIBS CAN BE USED IN LIEU OF ANY OF THE OTHER STRUCTURAL ELEMENTS IF AGREED TO BY OWNER.

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DEPARTMENT OF FISH AND WILDLIFE



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WILDLIFE AREA FENCING		
REPAIR AND REPLACE FENCING		
TYPICAL FENCE DETAILS		
SHEET 6	OF 8	

