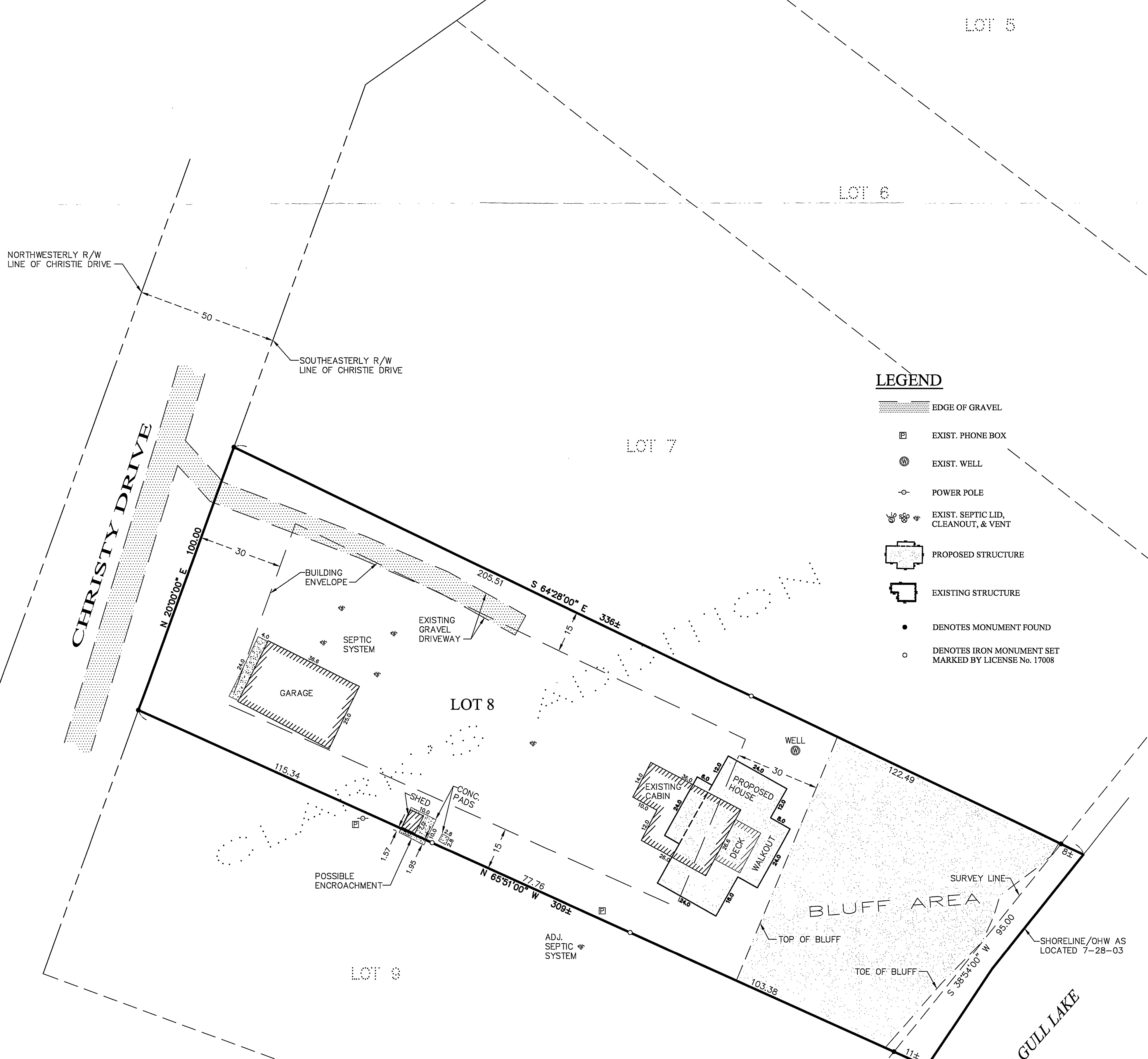


# CERTIFICATE OF SURVEY

LOT 8, BLOCK 1, CLARK'S ADDITION,  
SECTION 4, TOWNSHIP 135 NORTH, RANGE 29 WEST,  
CASS COUNTY, MINNESOTA  
TOTAL AREA = 30,850 SQ.FT./ 0.7 ACRES ±  
NET AREA (MINUS BLUFF) = 24,070 SQ.FT./ 0.5 ACRES ±



- LEGEND**
- EDGE OF GRAVEL
  - EXIST. PHONE BOX
  - EXIST. WELL
  - POWER POLE
  - EXIST. SEPTIC LID, CLEANOUT, & VENT
  - PROPOSED STRUCTURE
  - EXISTING STRUCTURE
  - DENOTES MONUMENT FOUND
  - DENOTES IRON MONUMENT SET MARKED BY LICENSE No. 17008

**IMPERVIOUS CALCULATIONS**

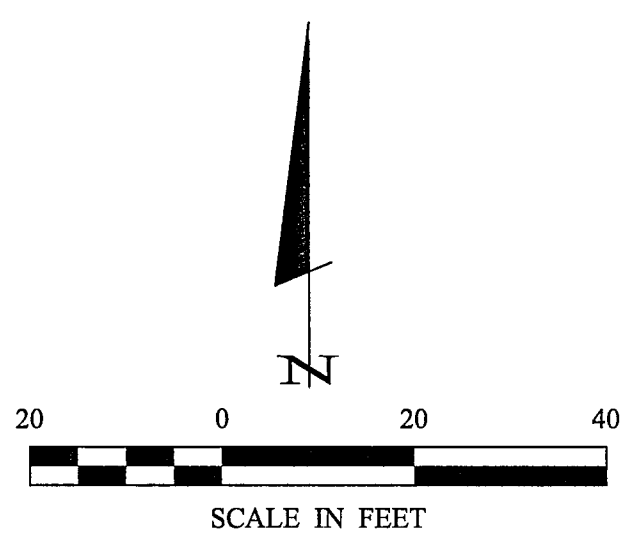
EXISTING			
	Impervious Area (sq.ft.)	Net Area (sq.ft.)	Percent Impervious (sq. ft.)
<b>Structures</b>			
Cabin	836	24,070	3.5%
Garage	910	24,070	3.8%
<b>Gravel</b>			
Deck	164	24,070	0.7%
Driveway	949	24,070	3.9%
<b>Other</b>			
Shed & Conc. Pads	133	24,070	0.6%
<b>Total</b>	<b>2,992</b>	<b>24,070</b>	<b>12.4%</b>

PROPOSED			
	Impervious Area (sq.ft.)	Net Area (sq.ft.)	Percent Impervious (sq. ft.)
<b>Structures</b>			
Proposed House	1584	24,070	6.6%
Garage	910	24,070	3.8%
Deck	164	24,070	0.7%
<b>Gravel</b>			
Driveway	949	24,070	3.9%
<b>Other</b>			
Shed & Conc. Pads	133	24,070	0.6%
<b>Total</b>	<b>3,740</b>	<b>24,070</b>	<b>15.6%</b>

**UPPER GULL LAKE**

GENERAL DEVELOPMENT CLASSIFICATION  
NORMAL RESERVOIR POOL ELEVATION = 1194.00  
HIGHEST KNOWN ELEVATION = 1195.44  
BENCHMARK: CORPS OF ENGINEERS GAUGE AT GULL LAKE DAM 0.00 GAUGE = 1188.14 ELEVATION  
LAKE ELEVATION = 1193.92 (7-28-03)



**RECEIVED**  
 # 2114  
 OCT 28 2003  
 4/35/29  
 CASS COUNTY SURVEYOR

ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE RECORDED PLAT OF CLARK'S ADDITION.

1 of 1	<b>CERTIFICATE OF SURVEY</b>	PROJ. MGR. PAT	COMPUTER: 031355.dwg	DATE: 10/17/03	REVISIONS DESCRIPTION	BY	I HEREBY CERTIFY THAT THIS SURVEY, PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.
	HOWARD BRADY 7448 CHRISTIE DRIVE LAKE SHORE, MN 56401	CHECKED BY: PAT	FIELD BOOK: BOOK 241 PG. 14	SCALE: HORZ. 1"=20'			
		DRAWN BY: TPC	FILE NO: 031355	VERT. NONE			<b>Landecker &amp; Associates, Inc.</b> Engineering - Surveying - Planning Pequot Lakes, MN 56472 Phone: 1-888-866-4940 Fax: 218-568-5404