



FISK LAND SURVEYING & CONSULTING ENGINEERS, INC.
 1022 Main Street • PO Box 8154 • Rapid City, SD 57709
 Phone (605) 348-1538 • Fax (605) 341-1112 • E-mail fiskls@midconetwork.com

February 15, 2010

Growth Management Department
 City of Rapid City
 300 Sixth Street
 Rapid City, SD 57701

RE: Drainage Report
 Lot 3, Block 17, Valley Heights Subdivision
 Paul Stroud – 23005 Morninglight Drive

RECEIVED

FEB 1 2010

Rapid City Growth
 Management Department

To Whom It May Concern:

This subdivision provides typical 8' wide Utility and Minor Drainage Easements along all lot lines. It is not required that drainage be contained within these easements – the designation is there to be used as needed.

This lot (similar to others nearby on the west side of Morninglight Drive) utilizes cross-lot swales along the northern portion of the lot to carry street and front-lot drainage to the larger north-south swale in the rear (see attached aerial photo and topography). This is true also for the adjoining lot to the south.

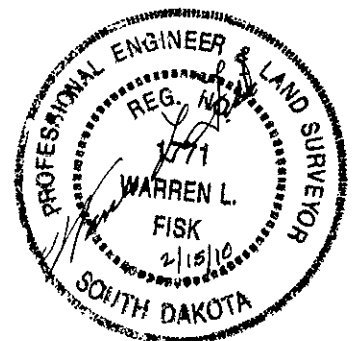
The drainage area for these cross-lot swales is approximately 11,000 sf, or about 0.25 acres. The area is half grass covered and the runoff factor is taken as 0.6. The time of concentration is taken as 5 minutes. Using the 100 year storm intensity of 9.48, the resultant runoff in the swale is 1.42 cfs. The slope of the swale on the adjoining lot is 5/25 or 20%. A grassed surface just 15' wide will carry the Q100 at less than 0.2 feet deep with a velocity of 0.6 fps.

The proposed vacation of 2.5' x 39.5' of the unused easement does not adversely affect the existing drainage patterns.

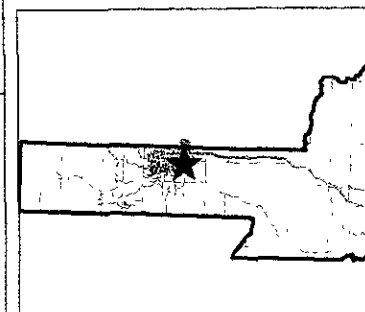
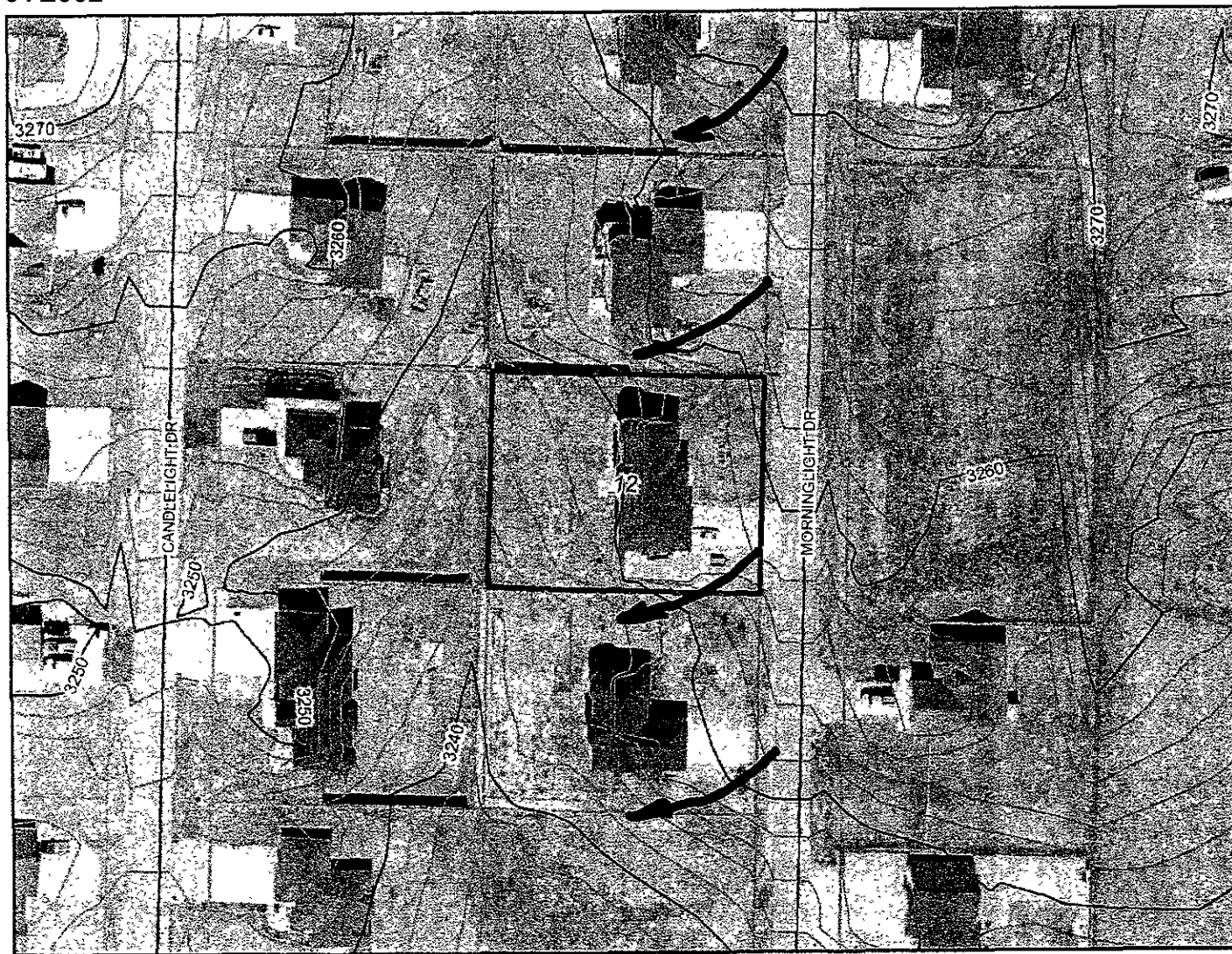
Sincerely,
 FISK LAND SURVEYING & CONSULTING ENGINEERS, INC.

Warren L. Fisk, PE, LS
 Senior Engineer

encl



10VE002



Legend

Roads

- ↘ Not classified
- ↘ Interstate
- ↘ US Highway
- ↘ SD Highway
- ↘ County Highway
- ↘ Main Road
- ↘ Minor Arterial
- ↘ Collector
- ↘ Ramp
- ↘ Paved Road
- ↘ Unpaved Road
- ↘ Unimproved Road
- ↘ Trail
- ↘ other
- ↘ Not yet coded

City Contour Lines

- ↘ INDEX
- ↘ INTERMEDIATE
- Township/Section lines
- SECTION
- TOWNSHIP
- Parcel Boundary
- Lot Lines
- COUNTY
- LOT LINE
- PARCEL LINE
- ROAD ROW
- RR ROW
- SECTION
- TOWNSHIP
- WATER LINE
- PLSS Sections
- County Line

0 110 220 330 ft.

Map center: 44° 3' 59.1" N, 103° 5' 49.0" W



Scale: 1:1,176

DISCLAIMER: This map is provided 'as is' without warranty of any representation of accuracy, timeliness, or completeness. The burden for determining accuracy, completeness, timeliness, merchantability, and fitness for or the appropriateness for use rests solely on the user. Rapid City and Pennington County make no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The user acknowledges and accepts the limitations of the map, including the fact that the data used to create the map is dynamic and is in a constant state of maintenance, correction, and update. This document does not represent a legal survey of the land. There are no restrictions on the distribution of printed Rapid City/Pennington County maps, other than the City of Rapid City copyright/credit notice must be legible on the print. The user agrees to recognize and honor in perpetuity the copyrights and other proprietary claims for the map(s) established or produced by the City of Rapid City or the vendors furnishing said items to the City of Rapid City.

Lot 14

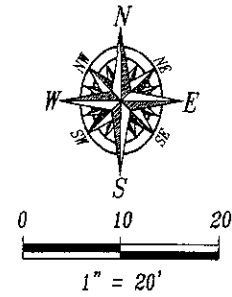
Lot 2

Lot 3 House

50' R/W

Morninglight Drive
(Asphalt)

Lot 3



Dec. 28, 2009
Revised February 2, 2010
Revised February 5, 2010
Revised February 15, 2010

Assumed Datum
Basis of Bearings
South Line of
Subject Lot
as platted



Fisk Land Surveying & Consulting, Inc. Engineers, Inc.
1022 Main Street (P.O. Box 8154)
Rapid City, South Dakota 57709
(605) 348-1538
(605) 341-1112 (fx)

Easement Vacation Exhibit
Lot 3 Block 17, Valley Heights Estates Subdivision
Sections 1 and 12, T1n, R8E, BHM.,
Pennington County, South Dakota

Surveyed by:
ML, BL

Date
12/3/09

Drawn by:
BL, RWF

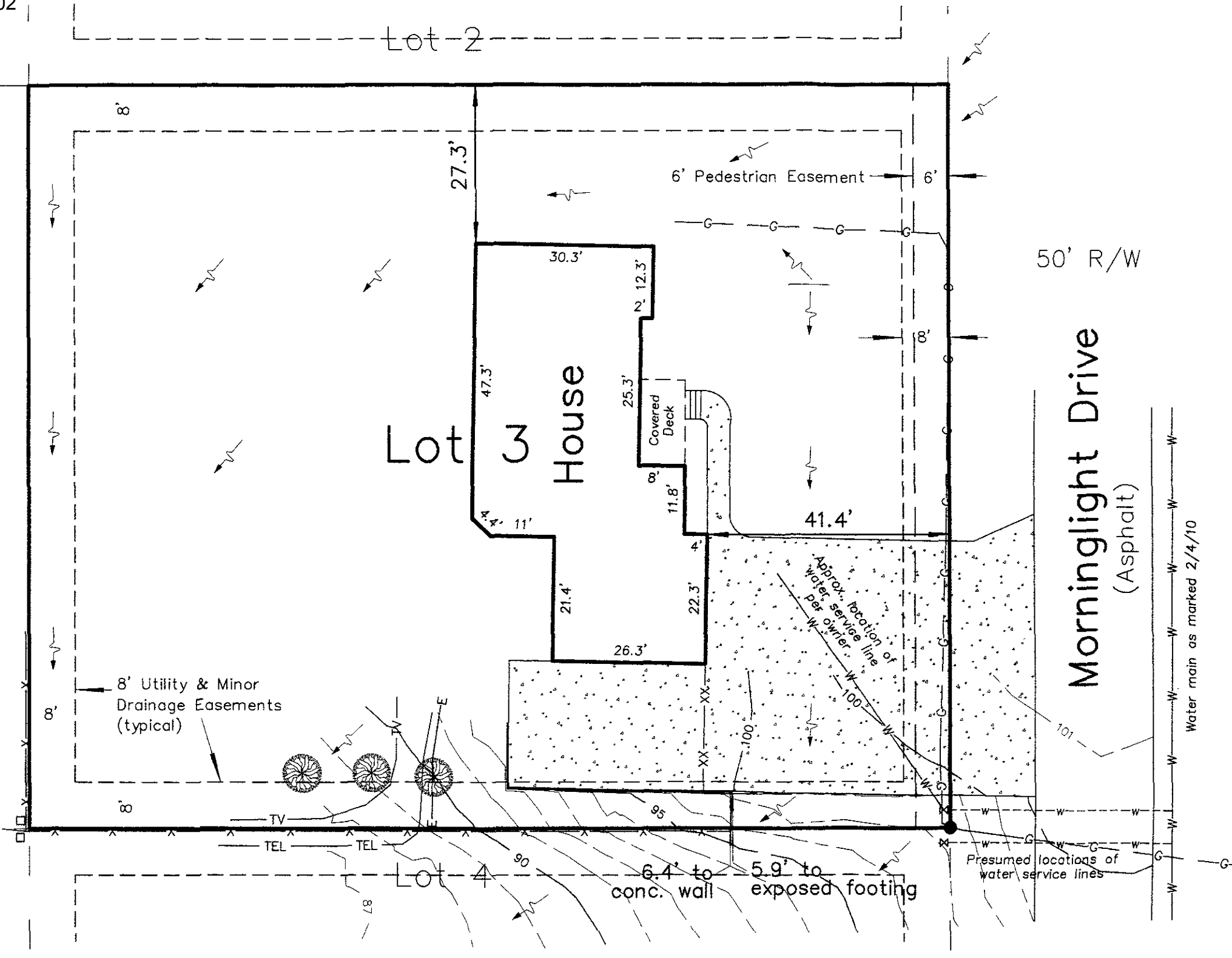
Checked by:
JF

Revisions
2/2/10 - water service by owner
2/5/10 - water main locates
2/15/10 - drainage arrows

Vacation Exhibit

1
of
1

Project No.
09-12-08



LEGEND

- = Telecommunications Pedestal
- xx— = Fence Line (chain link)
- X— = Fence Line (wood privacy fence)
- E— = Underground Electric
- T— = Underground Telephone
- TV— = Underground Television
- G— = Natural Gas Line
- ⊗ = Water Valve
- = Found Survey Monument LS 4224
- △ = Control Point
- ⊙ = Tree (Deciduous)

SURVEYOR'S NOTES

Utilities shown are from visual inspection, sketches provided by individual service providers and Utility Locates performed by South Dakota One Call, Ticket Number 093 430 006. The actual location of utilities and service lines may vary from the information shown hereon. We assume no liability for utilities and services that are not marked or are incorrectly defined by utility locators.