

March 14, 2023

AGENDA

YANKTON COUNTY PLANNING COMMISSION

☐ Cherie Hoffman
☐ Cathy Weiss
☐ Don Kettering

☐ Dennis Michael
☐ Chris Barkl
☐ Matt Evans

☐ Lauren Nelson

7:00 P.M.

Call Meeting to Order

Roll Call

Approve Minutes from previous meetings

Items to be added to Agenda

Approval of Agenda

Conflict of Interest Declarations

7:05 P.M.

East River Electric – Conditional Use Permit

Applicant is requesting a Conditional Use Permit to construct a wireless tower for internal communications with their substation per Article 25 Section 2503. Said property is legally described as Lot 1 of Lewis and Clark Substation addition in the Southwest Quarter of the Southwest Quarter of Section 15, Township 93 North, Range 56 West of the 5th Principal Meridian, Yankton County, South Dakota. E911 address is 206 S. Deer Boulevard, Yankton, South Dakota

7:10 P.M.

Frick – Variance

Applicant is requesting a variance to minimum lot size in an Agriculture District. Applicant wishes to replot one previously platted non-conforming lot into two lots each smaller than 20 acres per Article 18 Section 1807. Said property is legally described as Plat of Lots 1 and 2 of J & P Frick Addition, in the SW1/4 of the SE1/4 of Section 8, and in the NW1/w of the NE1/4 of Section 17, T94N, R55W of the 5th P.M., Yankton County, South Dakota. E911 Address is 30499 SW Jim River Rd, Yankton, South Dakota.

This plat vacates previously platted Lot A of Lot 4 of Schlaefli's 3rd. Addition in the W1/2 of the SE1/4 of Section 8, T94N, R55W of the 5th P.M., Yankton County, SD. Recorded on May 23, 2000, and Recorded in Book S18, Page 183

7:15 P.M.

Article 4 and Maps

7:20 P.M.

PLATS

Frick - Plat of Lots 1 and 2 of J & P Frick Addition, in the SW1/4 of the SE1/4 of Section 8, and in the NW1/w of the NE1/4 of Section 17, T94N, R55W of the 5th P.M., Yankton County, South Dakota.

This plat vacates previously platted Lot A of Lot 4 of Schlaefli's 3rd. Addition in the W1/2 of the SE1/4 of Section 8, T94N, R55W of the 5th P.M., Yankton County, SD. Recorded on May 23, 2000, and Recorded in Book S18, Page 183

Smit - Plat of Tract A of Katie's Addition, in the SE1/4 of the NE1/4 of Section 17, T96N, R55W of the 5th P.M., Yankton County, South Dakota

7:25 P.M.

Discussion on ideas to promote economic development in the county

7:30 P.M.

Public Comment

MEETING (ENTITY): PLANNING COMMISSION REGULAR OR SPECIAL MEETING: Regular
DATE: 12/13/2022 TIME: 7PM LOCATION: COMMISSION CHAMBERS

STAFF ATTENDANCE: Conkling

ROLL ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

CALL:

APPROVAL OF MINUTES: MOTION BY: Kettering SECOND BY: Hoffman

PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☐ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

APPROVAL OF AGENDA: MOTION BY: Michael SECOND BY: Kettering

PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Eickoff – Amend Planned Unit Development**

ADDRESS/LEGAL: Applicant is requesting to amend his Planned Unit Development per Article 18 Section 1809. Applicant is replotting part of the PUD. Said property is legally described as Plat of Lots 7 through 14 Drake Subdivision in the NW1/4 of the NE1/4, Section 17, Township 93 North, Range 56 West of the 5th P.M., Yankton County, South Dakota Formerly known as: Lot 1, Drake Subdivision in the NW1/4 of the NE1/4, Section 17, Township 93 North, Range 56 West of the 5th P.M., Yankton County, South Dakota

COMMENTS: Keith Eickoff – applicant
Lee Rettig - contractor

MOTION: **Approve as presented**
Passed 5-0

APPROVAL: MOTION BY: Michael SECOND BY: Kettering

PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Eickoff Plat**

ADDRESS/LEGAL: Plat of Lots 7 through 14 Drake Subdivision in the NW1/4 of the NE1/4, Section 17, Township 93 North, Range 56 West of the 5th P.M., Yankton County, South Dakota Formerly known as: Lot 1, Drake Subdivision in the NW1/4 of the NE1/4, Section 17, Township 93 North, Range 56 West of the 5th P.M., Yankton County, South Dakota

COMMENTS: None

MOTION: **Approve as presented**
Passed 5-0

APPROVAL: MOTION BY: Kettering SECOND BY: Hoffman

PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Brewer Plat**
ADDRESS/LEGAL: Plat of Lot 12, Block 1, Beaver Beach Park, in Lot 11 of the SW1/4 of the SE1/4, and Being a replat of Lots 11 and 11A, in Block 1 of Beaver Beach Park, Section 27, T95N, R56W of the 5 P.M., Yankton County, South Dakota
COMMENTS: None

MOTION: **Approve as presented**
 Passed 5-0

APPROVAL: MOTION BY: Michael SECOND BY: Nelson
PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Jensen Plat**
ADDRESS/LEGAL: Plat of Tract 9 of DJ's Addition, in Lot A of Section 16, T93N, R55W of the 5th P.M., Yankton County, South Dakota
COMMENTS: None

MOTION: **Approve as presented**
 Passed 5-0

APPROVAL: MOTION BY: Kettering SECOND BY: Michael
PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Little Plat**
ADDRESS/LEGAL: Plat of Tract 1, Little Addition, in the SW1/4 of the SE1/4 of Section 2, T93N, R56W of the 5th P.M., Yankton County, South Dakota
COMMENTS: None

MOTION: **Approve as presented**
 Passed 5-0

APPROVAL: MOTION BY: Michael SECOND BY: Nelson
PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Hofer Plat**

ADDRESS/LEGAL: Plat of Kuchta 3rd Addition in the NE1/4 of the NE1/4 of Section 6, Township 93 North, Range 55 West of the 5th P.M., City and County of Yankton, South Dakota Containing 731,081 SQ Feet (16.78 Acres) more or less

COMMENTS:

None

MOTION: **Approve as presented**
Passed 5-0

APPROVAL: MOTION BY: Hoffman SECOND BY: Kettering

PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Springwater Plat**

ADDRESS/LEGAL: Plat of Tract 1 and Tract 2 of Springwater Addition, in Lot K-1 of the NW1/4 of the NE1/4 of Section 15, T93N, R56W of the 5th P.M., Yankton County, South Dakota

COMMENTS:

None

MOTION: **Approve as presented**
Pased 5-0

APPROVAL: MOTION BY: Michael SECOND BY: Hoffman

PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: **Public Comment**

ADDRESS/LEGAL:

COMMENTS: No public comments
Commissioner Kettering asked that the next meeting agenda include a discussion amongst the Planning Commissioners with ideas to promote economic development in the county.

MOTION: **Adjourn**
Passed 5-0

APPROVAL: MOTION BY: Michael SECOND BY: Kettering

PLANNING: ☒ BARKL ☐ EVANS ☒ KETTERING ☒ MICHAEL ☒ NELSON ☐ WEISS ☒ HOFFMAN

AGENDA ITEM: _____
ADDRESS/LEGAL: _____
COMMENTS:

MOTION:

APPROVAL: MOTION BY: _____ SECOND BY: _____
PLANNING: ☐ BARKL ☐ EVANS ☐ KETTERING ☐ MICHAEL ☐ NELSON ☐ WEISS ☐ HOFFMAN

AGENDA ITEM: _____
ADDRESS/LEGAL: _____
COMMENTS:

MOTION:

APPROVAL: MOTION BY: _____ SECOND BY: _____
PLANNING: ☐ BARKL ☐ EVANS ☐ KETTERING ☐ MICHAEL ☐ NELSON ☐ WEISS ☐ HOFFMAN

AGENDA ITEM: _____
ADDRESS/LEGAL: _____
COMMENTS:

MOTION:

APPROVAL: MOTION BY: _____ SECOND BY: _____
PLANNING: ☐ BARKL ☐ EVANS ☐ KETTERING ☐ MICHAEL ☐ NELSON ☐ WEISS ☐ HOFFMAN

AGENDA ITEM: _____
ADDRESS/LEGAL: _____

COMMENTS: _____

MOTION: _____

APPROVAL: MOTION BY: _____ SECOND BY: _____
PLANNING: ☐ BARKL ☐ EVANS ☐ KETTERING ☐ MICHAEL ☐ NELSON ☐ WEISS ☐ HOFFMAN

Yankton County Planning Commission
Yankton County Board of Adjustment

Applicant

East River Electric

1/27/2023

District type: ☐ AG ☐ R1-Low ☒ R2-Moderate ☐ R3-High ☐ C-Comm.

☐ LC – Lakeside Commercial ☐ RT-Rural Transitional

CUP needed:

☐ Section 507 ☐ Section 607 ☒ Section 707 ☐ Section 807

☐ Section 1805 ☐ Section 1905 ☒ Section 2503

NOTE:

Conditional Use Permit

Applicant is requesting a Conditional Use Permit to construct a wireless tower for internal communications with their substation per Article 25 Section 2503. Said property is legally described as Lot 1 of Lewis and Clark Substation addition in the Southwest Quarter of the Southwest Quarter of Section 15, Township 93 North, Range 56 West of the 5th Principal Meridian, Yankton County, South Dakota. E911 address is 206 S. Deer Boulevard, Yankton, South Dakota

PC: Article 18 Section 1805

BOA: Article 19 Section 1905

Planning Commission date:
3/14/2023

Board of Adjustment date:
4/4/2023

Time:
7:05
PM
Time:

Permit Number: CUP-2023-88

Yankton County

 Variance X Conditional Use Rezoning

Owner: East River Electric Power Cooperative, Inc.

Owners Address: 211 S. Harth Ave., Madison, SD 57042

Owners Phone: 6052568269

Applicants Name,
if different from

Owner: Jerae Wire

Applicants

Address: 211 S. Harth Ave., Madison, SD 57042

Job Address: 206 S DEER BLVD, Yankton, 57078

Legal: S60 ACRES SW4

Section,
Township, Range: 15-93-56

Zoning

Classification: R2

Affected Zoning

Ordinance: Section 7072503Section 7072503

Reason for Request: To install a 60' communication tower on the property owned by East River Electric for internal only system communications for our substation

List Specific Hardships:	This SCADA communication tower is an essential accessory to our substation for both monitoring and controlling functions.
--------------------------	---

SCHEDULED FOR PLANNING COMMISSION ACTION (DATE): 03/14/2023 8:05 PM CST

SCHEDULED FOR BOARD OF ADJUSTMENT ACTION (DATE):

Application Fee: \$300.00 Check #: 213758068 Receipt #:

Date:

01/27/2023

Signature: _____

East River Electric Power

Site Map



Parcel Number: 09.015.300.200

Site Description: The tower location will be 36'-7" from our south site fence and 16' from our west site fence. Our site fence will be set back 50' from the right of way line on the south side of the property and 80' from the west ROW line.
146' from South Deer Blvd center line
337'-7" from our south property line

UTICA TOWNSHIP**SECTION 1N**

1. Siebrandt, Jacob etux 5

SECTION 2N

1. Kralicek, Melissa 11

SECTION 2S

1. Holdahl, Robert etux 5

SECTION 3N

1. Grate, Leo etux 11

SECTION 3S

1. Holtzmann Family Trust

SECTION 4N

1. Nedved, Mark 7

SECTION 4S

1. Larson, Robert 8
2. Brandt Trust, Merle etal 11

SECTION 5S

3. Zimmerman, Steve 20
4. List Trust, Robert 18

SECTION 5S

1. Batcheller, Jay 8

SECTION 6N

1. Town of Utica 6

SECTION 6S

1. Maska, Leann 5
2. Olivier, Curtis etux 6
3. Loecker, Mark etux 5
4. Blaha, Jon etux 5

SECTION 7N

1. Anthony, Craig etux 10

SECTION 7S

1. Philips, Timothy etux 5

SECTION 8N

1. Christianson, David etux 6
2. Hughes, Scott etux 13

SECTION 8S

1. Fanta, Timothy etux 9

SECTION 9S

1. Rokahr, Steven 9

SECTION 11S

1. Hecky Trust, Terrance etux 11
2. Affordable Self Storage LLC 8

SECTION 12N

1. Marquardt Family LP 6

SECTION 13N

1. Cotton, Jeffrey etux 8

SECTION 14S

1. Yankton Medical Clinic PC 12

SECTION 16N

1. Anstine, Rodney etux 7

SECTION 17N

1. Schenkel, Darrell etux 8
2. Tacke, WM etux 13

SECTION 18N

1. Cap LE, Stanley etal 5
2. Cap, Robert etux 7

SECTION 19

1. Schenkel, Daniel etux 7

SECTION 20N

1. Yankton Co Sharpshooters Assn 12
2. Johnson, Michael etux 9

SECTION 21N

1. Kralicek, Frank etux 5

SECTION 21S

1. White Crane Estates LLC 18

SECTION 22N

1. Taggart, William etux 9

SECTION 24

1. Marquardt, Doug 13
2. Keller, Dallas etux 10

SECTION 26

1. Barnes, David etux 7

SECTION 32

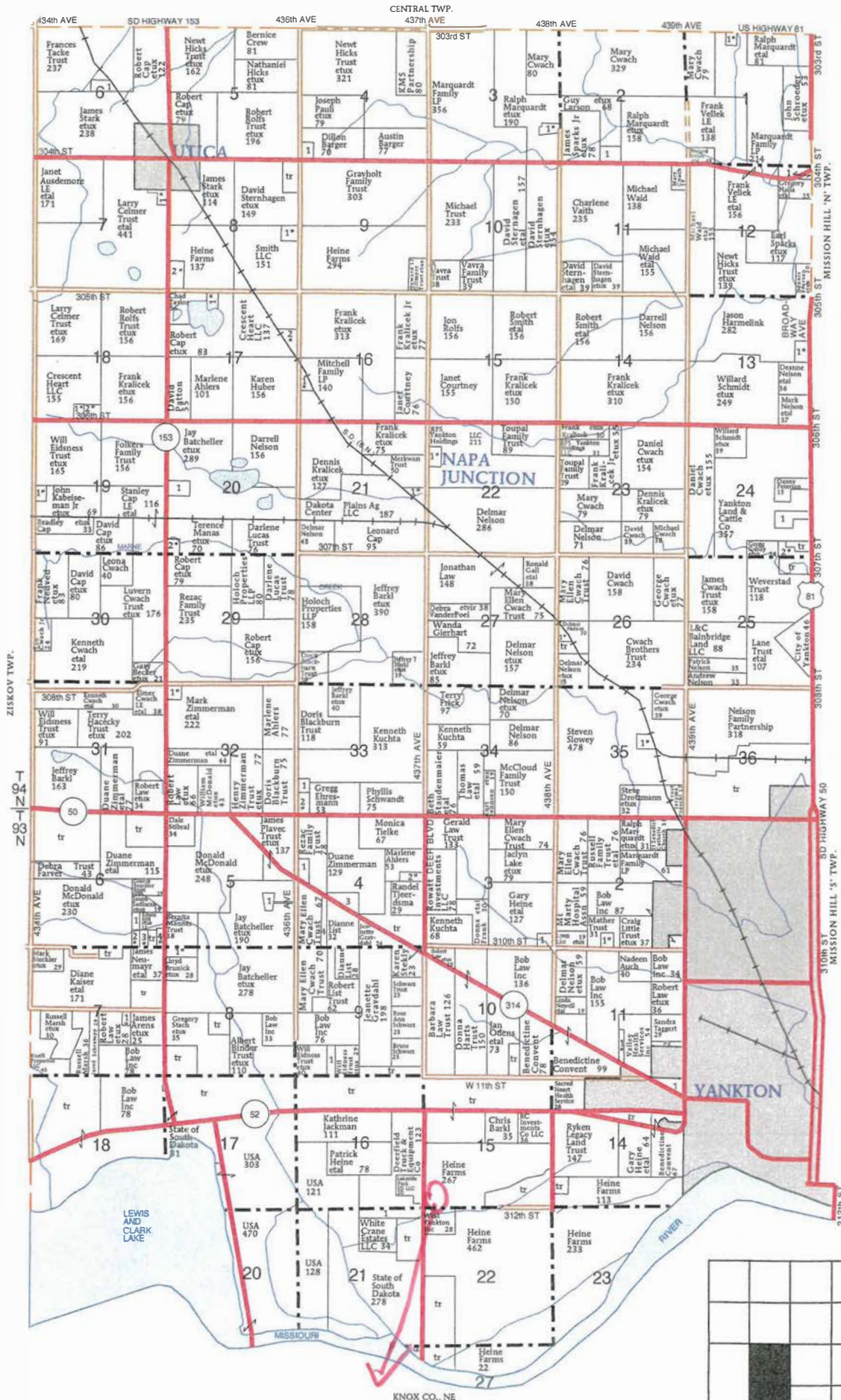
1. Zimmerman Trust, Henry etal 12

SECTION 33

1. Delozier, Darrik 6
2. Waddell, Edward etux 8

SECTION 35

1. Slowey, Steven etux 14



FINDINGS OF FACT – CONDITIONAL USE PERMIT

East River Electric – CUP-2023-88

Are the requirements of Section 1723 met? (signed by owner unless there is a binding purchase agreement then signed by applicant, Variance accompanied by building permit (if applicable), site plan included with building permit,	Yes
Are the requirements of Section 1729 met? (all fees paid at time of application)	Yes
Section 1805:	
1. Did you specifically cite, in the application, the section of the Ordinance under which the conditional use is sought and state the grounds on which it is requested	Applicant is requesting a Conditional Use Permit to construct a wireless tower for internal communications with their substation per Article 25 Section 2503.
2. Was notice of public hearing given per Section 1803 (3-5)?	Mailed – Published –
3. Attend the public hearing	
4. Planning Commission: Make a recommendation to include: a. Granting of conditional use; b. Granting with conditions; or c. Denial of conditional use	
5. Planning Commission must make written findings certifying compliance with specific rules including: a. Ingress and Egress to proposed structures thereon with particular reference to automotive and pedestrian safety and convenience, traffic flow and control, and access in case of fire or catastrophe:	
b. Off right-of-way parking and loading areas where required; with particular attention to the items in (A) above and the economic, noise, glare or odor effects of the conditional use on adjoining properties and properties generally in the district;	
c. Refuse and service areas, with particular reference to the items in (A) and (B) above;	
d. Utilities, with reference to locations, availability, and compatibility;	
e. Screening and buffering with reference to type, dimensions, and character;	
f. Signs, if any, and proposed exterior lighting with reference to glare, traffic safety, economic effect;	
g. Required yards and other open spaces; and	
h. General compatibility with adjacent properties and other property in the district and that the granting of the conditional	

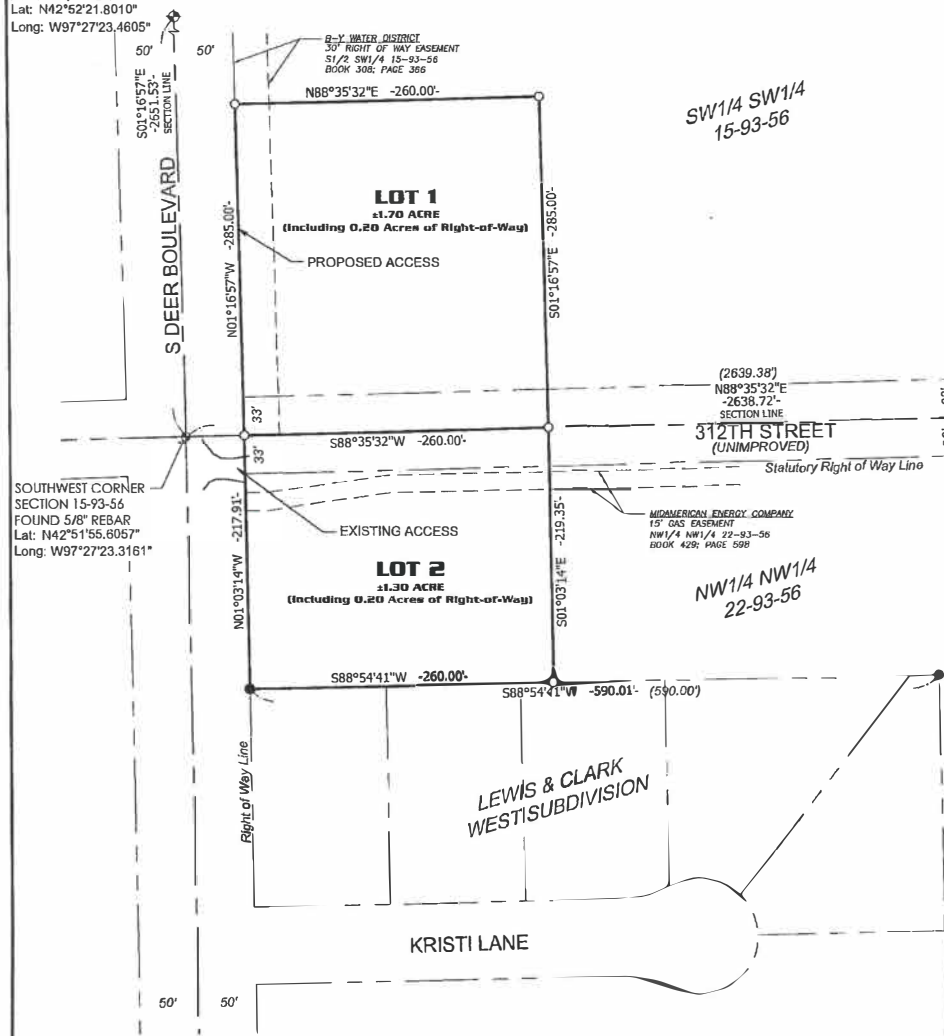
use will not adversely affect the public interest.	
--	--

222AS - Plat.dwg

PLAT OF LOTS 1 AND 2 OF LEWIS AND CLARK SUBSTATION ADDITION

IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 15 AND IN THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 93 NORTH, RANGE 56 WEST OF THE 5TH PRINCIPAL MERIDIAN, YANKTON COUNTY, SOUTH DAKOTA.
CONTAINING 3.00 ACRES MORE OR LESS

WEST QUARTER CORNER
SECTION 15-93-56
FOUND 5/8" REBAR
Lat: N42°52'21.8010"
Long: W97°27'23.4605"



SOUTHWEST CORNER
SECTION 15-93-56
FOUND 5/8" REBAR
Lat: N42°51'55.6057"
Long: W97°27'23.3161"

SW1/4 SW1/4
15-93-56

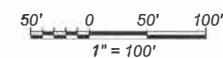
NW1/4 NW1/4
22-93-56

LEWIS & CLARK
WEST SUBDIVISION

KRISTI LANE



BASIS OF BEARING
UTM 14 North



Legend

- Set 5/8" x 18" Rebar Stamped "KENNEDY 5350"
- Found Corner with CAP Stamped "2919"
- ◆ Section Corner As Noted
- Platted Property Line
- (1323.33') Record Dimension from deed or plat



This survey was performed
without the benefit of a Title
Report and does not purport
to show easements of record,
if any.

KEY MAP



- SUBJECT TO
BON HOMME-YANKTON ELECTRIC ASSOCIATION, INC.,
RIGHT OF WAY EASEMENT
5.60 ACRES OF THE SW1/4 15-93-56
BOOK 347; PAGE 558
- SUBJECT TO
NORTHWESTERN BELL TELEPHONE COMPANY
BURIED EXCHANGE FACILITY EASEMENT
5.60 ACRES OF THE SW1/4 15-93-56
BOOK 239; PAGE 193
- SUBJECT TO
BON HOMME-YANKTON ELECTRIC ASSOCIATION, INC.,
RIGHT OF WAY EASEMENT
NW1/4 NW1/4 22-93-56
BOOK 347; PAGE 560
- SUBJECT TO
NORTHWESTERN BELL TELEPHONE COMPANY
BURIED EXCHANGE FACILITY EASEMENT
NW1/4 NW1/4 22-93-56
BOOK 239; PAGE 243
- SUBJECT TO
NORTHWESTERN BELL TELEPHONE COMPANY
BURIED EXCHANGE FACILITY EASEMENT
NW1/4 NW1/4 22-93-56
BOOK 239; PAGE 244



East River
Electric

LOTS 1 AND 2
LEWIS AND CLARK SUBSTATION ADDITION
YANKTON COUNTY, SOUTH DAKOTA

REVISION SCHEDULE	DATE

18 PROJECT #: 222AS

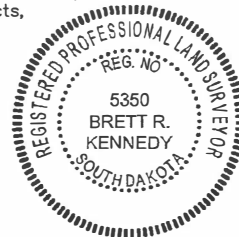
SURVEYOR'S CERTIFICATE

I, Brett R. Kennedy, a Registered Land Surveyor of the State of South Dakota, do hereby certify that I did on or before June 20, 2022, survey that parcel of land described as: LOTS 1 AND 2 OF LEWIS AND CLARK SUBSTATION ADDITION IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 15 AND IN THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 93 NORTH, RANGE 56 WEST OF THE 5TH PRINCIPAL MERIDIAN, YANKTON COUNTY, SOUTH DAKOTA.

I also hereby certify that this plat is to the best of my knowledge and belief, in all respects, a true description of said property.

Dated this 30th day of June, 2022.


Brett R. Kennedy, L.S. 6550



OWNER'S CERTIFICATE

We do hereby certify that we are the owners of all the land included in the above plat and that said plat has been made at our request and in accordance with our instructions for the purpose of locating, marking and platting, and that the development of this land shall conform to all existing applicable zoning, subdivision and erosion and sediment control regulations:

We hereby dedicate to the public for public use forever, the streets, roads, alleys and parks and public grounds, if any, as shown on said plat, including all sewers, culverts, bridges, water distribution lines, sidewalks and other improvements on or under the streets, roads, alleys, parks and public grounds, whether such improvements are shown or not. We also hereby grant easements to run with the land for water, drainage, sewer, gas, electric, telephone or other public utility lines or services under, on or over those strips of land designated hereon as easements.

Dated this ___ day of _____, _____.

By: _____ By: _____ By: _____ By: _____ By: _____
Gary J. Heine, Member Ronald B. Heine, Member Gene G. Heine, Member Thomas Heine, Member Steven M. Heine Revocable Trust
Janet Heine, Trustee
Member

COUNTY _____
STATE OF _____

On this, the ___ day of _____, before me, the undersigned, a Notary Public, personally appeared Gary J. Heine, Ronald B. Heine, Gene G. Heine, Thomas Heine and Janet M. Heine as Members of Heine Farms S.D., L.L.C., known to me to be the person whose name is subscribed to the foregoing Dedication, and I hereby acknowledge that he/she executed the foregoing instrument.

In witness whereof, I hereunto set my hand and official seal.

My commission expires _____.

Notary Public

Dated this ___ day of _____, _____.

West Yankton, Inc.

COUNTY _____
STATE OF _____

On this, the ___ day of _____, before me, the undersigned officer, appeared _____, for West Yankton, Inc., known to be the person whose name is subscribed to the within instrument and acknowledged to me that h/she, executed the same for the purposes therein contained.

In witness thereof, I have hereunto set my hand and official seal this ___ day of _____.

My commission expires _____.

Notary Public

CERTIFICATE OF STREET AUTHORITY

The location of existing access roads abutting or approaches entering the State/County/Township Road, is hereby approved. Any changes in the existing access shall require additional approval.

Approved this ____ day of _____, ____.

State/County/Township Road Authority

COUNTY PLANNING COMMISSION APPROVAL

Approval of the final plan of LOTS 1 AND 2 OF LEWIS AND CLARK SUBSTATION ADDITION IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 15 AND IN THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 93 NORTH, RANGE 56 WEST OF THE 5TH PRINCIPAL MERIDIAN, YANKTON COUNTY, SOUTH DAKOTA, is hereby granted by the Yankton County Planning Commission on this ____ day of _____.

Chair, County Planning Commission
Yankton County, South Dakota

COUNTY COMMISSION APPROVAL

I hereby certify that the final plan of LOTS 1 AND 2 OF LEWIS AND CLARK SUBSTATION ADDITION IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 15 AND IN THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 93 NORTH, RANGE 56 WEST OF THE 5TH PRINCIPAL MERIDIAN, YANKTON COUNTY, SOUTH DAKOTA was duly submitted to the Yankton County Board of County Commissioners, and that after due consideration the Board approved said final plan at its meeting held on the ____ day of _____.

Chairman, County Commission
Yankton County, South Dakota

COUNTY AUDITOR CERTIFICATE

I do hereby certify that the above certificate of approval is true and correct including the signature thereon.

Dated this ____ day of _____.

County Auditor
Yankton County, South Dakota

DIRECTOR OF EQUALIZATION

I, the Director of Equalization of Yankton County, South Dakota, do hereby certify that a copy of the above final plan has been filed at my office.

Dated this ____ day of _____.

Director of Equalization Yankton
County, South Dakota

COUNTY TREASURER CERTIFICATE

I, Treasurer of Yankton County, South Dakota, hereby certify that all taxes which are liens upon any land shown in the above plat as shown by the records of my office, have been paid in full.

Dated this ____ day of _____.

Treasurer
Yankton County, South Dakota

REGISTER OF DEEDS

Filed for record this ____ day of _____, ____ at ____ O'clock, ____ M., and recorded in book ____ of plats on page ____.

Register of Deeds
Yankton County, South Dakota

1 OF 3

YANKTON COUNTY
REGISTER OF DEEDS
101 PROJECT # 22265

LOTS 1 AND 2
LEWIS AND CLARK SUBSTATION ADDITION
YANKTON COUNTY, SOUTH DAKOTA

East River
Electric

STOCKWELL
SUCCESSIONAL REGISTER OF DEEDS
YANKTON COUNTY, SOUTH DAKOTA
YANKTON 50 SOUTH
MAIN STREET
YANKTON, SD 57401
TEL 605.466.5513
FAX 605.466.5513

Variance, Conditional
Use and Rezoning

Fees Paid
\$300.00

Application
CUP-2023-88

Applicant
Jerae Wire

Created
January 27, 2023

Number
CUP-2023-
88

09.015.300.200 | East River
Electric Power Cooperative, Inc.
| 206 S DEER BLVD, Yankton,
57078, , SD,
Submitted by Jerae M. Wire on
1/27/2023



Applicant

Jerae Wire

605-256-8269

jwire@eastriver.coop

Parcel search Completed On 1/27/2023 12:57 PM EST by Jerae M. Wire



Earthstar Geographics

Powered by Esri

ParcelID	Address	City	OwnerName	Acres
09.015.300.200			HEINE FARMS (D)	60.000

Draft Building Permit Completed On 1/27/2023 1:38 PM EST by Jerae M. Wire

Upload Draft Building Permit 

[Lewis Clark Sub - Stamped.pdf](#)

[Lewis Clark Sub Stamped Tower Foundation Designs.pdf](#)

Submit Completed On 1/27/2023 1:39 PM EST by Jerae M. Wire

A notification sign shall be posted on the property upon which action is pending at least seven (7) days prior to the hearing date. Such signs shall be placed along all the property's road frontage so as to be visible from the road. If a property does not have a road frontage, then such signs shall be placed upon the closest available right-of-way and upon the property. Said signs shall not be less than one hundred and eighty seven (187) square inches in size. It shall be unlawful for any person to remove, mutilate, destroy or change such posted notice prior to such hearings.

Please pick the sign up from the zoning office on or before eight (8) days prior to the meeting.

Applicant Agreement

Please check the box to confirm you have read and agree to the notices above.

Signature



Date

1/27/2023

Application Submitted Successfully Completed On 1/27/2023 1:39 PM EST by Jerae M. Wire

Your application has been submitted for review. Thank you.

Please click next at the bottom to continue. Thank you

Request Information Completed On 1/27/2023 1:42 PM EST by bconkling

Type of Request

Conditional Use

Fee

\$300.00

Reason for Request

To install a 60' communication tower on the property owned by East River Electric for internal only system communications for our subs

List Specific Hardships

This SCADA communication tower is an essential accessory to our substation for both monitoring and controlling functions.

Applicant Information

Are you the owner of the property?

Yes

Applicant Name

Jerae Wire

Applicant Address

211 S. Harth Ave., Madison, SD 57042

Applicant Phone

6052568269

Owner Information

Owner Name

East River Electric Power Cooperative, Inc.

Owner Address

211 S. Harth Ave., Madison, SD 57042

Owner Phone Number

6052568269

Property Information

Parcel ID Number

09.015.300.200

Legal Description

S60 ACRES SW4

Site Address

206 S DEER BLVD, Yankton, 57078

City

Zip

Section-Township-Range

15-93-56

Zoning District

MD

Zoning Description

MD

Existing Use of Property

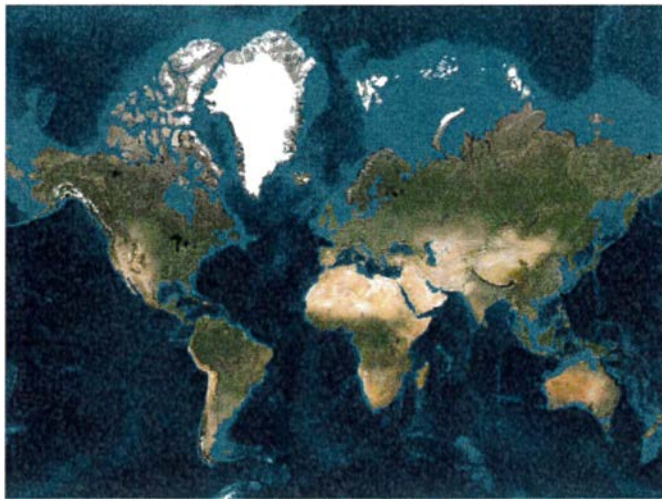
Site Plan Completed On 1/27/2023 1:45 PM EST by bconkling

Map - Mark the location of structures and other necessary information.

+

—





Earthstar Geographics

Powered by Esri

Describe the location and use of adjacent structures

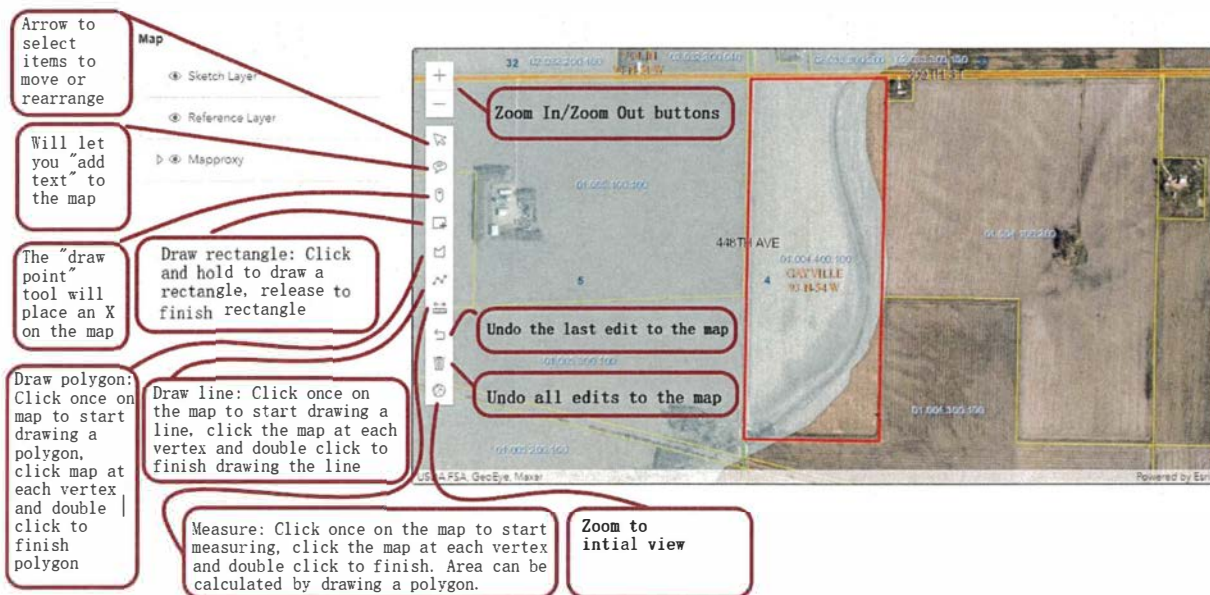
The tower location will be 36'-7" from our south site fence and 16' from our west site fence. Our site fence will be set back 50' from the right of way line on the south side of the property and 80' from the west ROW line.

146' from South Deer Blvd center line

337'-7" from our south property line

Upload Site Plan and/or additional plans and documents

[East River Plat.pdf](#)



Planning Review Completed On 1/27/2023 1:49 PM EST by bconkling

Continue with application

Continue

Describe what the applicant is requesting

Applicant wishes to erect a 60' tower for internal communications with their substation, which is a permitted use.

Planning Commission Code Reference

Section 707

Other Planning Commission Code Reference ⓘ

2503

Board of Adjustment Code Reference

Section 707

Other Board of Adjustment Code Reference ⓘ

2503

Please confirm the zoning provided by the applicant. If zoning is incorrect, please enter the correct zoning. It is this field that is printed on the final form to avoid applicant/system error. The correct zoning must be entered.

Zoning Classification ⓘ

R2

Wave Fee

Notes ⓘ

Director Review Completed On 1/27/2023 2:04 PM EST by gvetter

Zoning Director Review

Approve

Payment Completed On 2/1/2023 10:45 AM EST by bconkling

Fees Paid

[VIEW RECEIPT](#)

Fee Name	Recipient	Amount
Fee	Planning and Zoning	\$300.00

Confirmation Data

Payment Method	Online
Confirmation Number	213758068
Amount Paid	\$300.00

Planning Commission Meeting

Planning Commission Meeting Date and Time

March 14th 2023, 7:05 pm CST

Letters to be mailed 10 days prior to the public meeting:

03/04/2023 8:05 PM

Additional instructions for PC email

Return the affidavit 8 days prior to the public meeting:

03/06/2023 8:05 PM

Place your zoning action sign 7 days prior to the public meeting:

03/07/2023 8:05 PM

Date to send email to applicant

02/27/2023

Upload PC Mailing Labels

[er labels modified.pdf](#)

Upload PC Affidavit of Mailing

[3 Mailing affidavit 1320.pdf](#)

Upload PC Notification Letter

[ER Electric NOT Letter.pdf](#)

Upload PC Newspaper Publication

[Legals 3-14-2023.pdf](#)

Permit Number

CUP-2023-88

Receipt Number

Documents

Internal Notes

Documents



**EHRESMANN
ENGINEERING**

4400 West 31st St – Yankton, SD 57078

Phone: (605) 665-7532 Fax: (605) 665-9780

<http://www.ehresmannengineering.com>

E-Mail: e.heine@ehresmannengineering.com

December 5, 2022

Paul Lambert
East River Electric Power Coop
P.O. Box 227
Madison, SD 57042

Subject: 60' Ehresmann Engineering W2400 Stub Tower
Site: Lewis & Clark Sub
Location: Yankton County, SD
EEI JO#: 112740

As requested, we have designed and can furnish a 60' Ehresmann Engineering W2400 stub tower to be located in Yankton County, SD. The site will be called Lewis & Clark Sub.

Approximate Coordinates: 42-51-57 N
97-27-20 W

The stub tower will be designed as follows:

- In accordance with the Telecommunications Industry Association TIA-222-G Standard
- 90 mph wind with no ice (Vasd)
- Vult = 116 mph wind
- 50 mph wind with 3/4" ice (Vasd)
- 60 mph wind with no ice (service)
- Structure Class II
- Exposure Category C
- Topographic Category 1

Design loading will be included as outlined on stamped drawing #112740C1.

This tower design standard takes into account several safety factors including load factors and steel strength capacities. Therefore, it is highly unlikely that the tower will fail structurally in a wind event where the design wind speed is exceeded within the range of built-in safety factors.

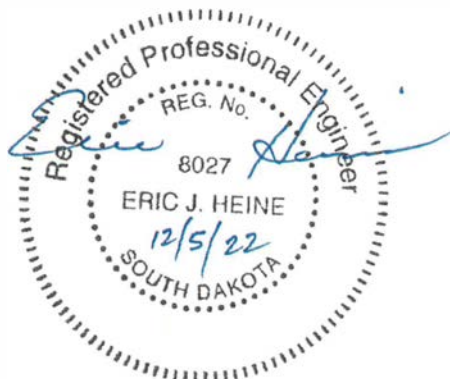
Should the wind speed increase beyond the capacity of the built-in safety factors to the point of failure of one or more structural elements, the most likely location of failure would be within one of the tower sections. For the Lewis & Clark Sub tower this would most likely be in the section from 30' to 40' which is the highest stressed area of the tower. This would result in a buckling mode, where the steel bends beyond its elastic limit (the point where the section does not return to its normal shape when the wind load is removed).

During this local buckling, the tower will buckle at the location of the highest combined stress ratio and "fold over" onto the portion below. Therefore, this would most likely cause the proposed Lewis & Clark Sub tower to collapse upon itself (i.e. within a radius of 0' from the base of the tower).

Please note, all opinions outlined in this letter are valid only if an Ehresmann Engineering tower is furnished and installed.

If you have any questions, please feel free to contact us.

Regards,



Eric Heine, P.E.

- DESIGN PER TIA-222-G
- 90 MPH WIND & NO ICE (Vasd)
- (Vult = 116 MPH WIND)
- 50 MPH WIND & 3/4' ICE (Vasd)
- 60 MPH WIND & NO ICE (SERVICE)
- STRUCTURE CLASS II
- EXPOSURE CATEGORY C
- TOPOGRAPHIC CATEGORY 1

1. TOWER LEGS SHALL BE 50 KSI. ALL OTHER STEEL SHALL BE ASTM A36 MINIMUM.

APPROX. COORDINATES: LATITUDE: 42° 51' 57" N
LONGITUDE: 97° 27' 20" W

ADDRESS: S. DEER BLVD
YANKTON, SD 57078

COUNTY: YANKTON COUNTY, SOUTH DAKOTA

40'

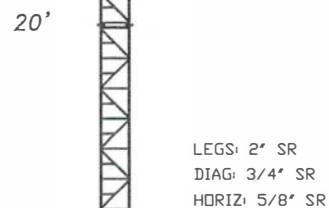


LEGS: 1-1/4" SR
DIAG: 5/8" SR
HORIZ: 5/8" SR

MOMENT (FT-KIPS)	SHEAR (KIPS)	AXIAL (KIPS)
39	1.189	2.539

LEGS: 2' SR
DIAG: 3/4' SR
HORIZ: 5/8' SR

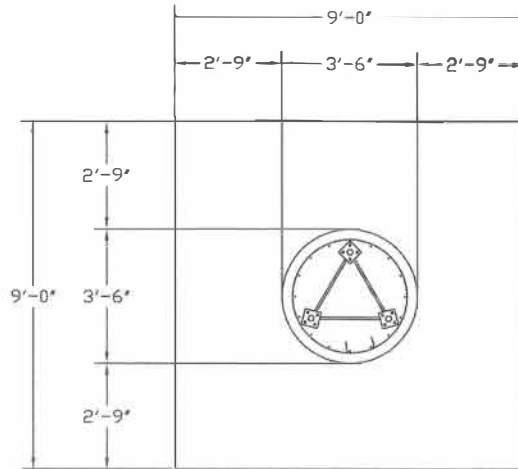
ELEV.	ITEM	RAD.	LINE
62'	RY-900A ON TOP MAST MOUNT	—	(1) 1/2"
20'	RY-900A	—	(1) 1/2"



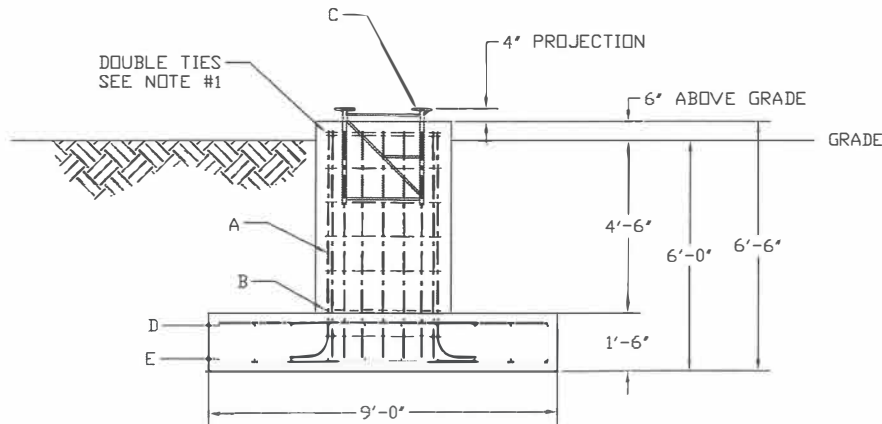
			DRAWN BY:	EJH	 4400 West 31st Street Yankton, SD 57078 605-665-7532 605-665-9780	TITLE		Ehresmann Engineering	
			CHECKED BY:			SITE		60' W2400 STUB TOWER	
			ENG APPR.			DWC NO		112740C1	
			MFG APPR.			Sheet NO		C1	
			Q.C.			Rev.		1A	
			SITE:						
			LEWIS & CLARK SUBSTATION, SD						
REV	DESCRIPTION	DATE	Job # 112740						
		9/22/22							

DESIGN REACTIONS

TOTAL SHEAR = 1.189 KIP
AXIAL LOAD = 2.539 KIP
DTM = 39 FT KIPS



PLAN VIEW



ELEVATION VIEW

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF EHRESMANN ENGINEERING AND SHALL NOT BE REPRODUCED OR USED IN WHOLE OR IN PART AS THE BASIS OF THE MANUFACTURE OR SALE OF ITEM(S) WITHOUT WRITTEN PERMISSION.



MATERIAL LIST				
ITEM	QTY	GRADE	DESCRIPTION	
A	12	60	#7 BARS	5'-9" 16' HOOK
B	8	60	#4 BARS	4' HOOKS 10' LAP (STAGGERED) 3'-0"
* C	1	36 MIN.	W2400 HD EMBED	2'-6"
D	20	60	#7 BARS (10) EACH WAY-TOP	8'-6"
E	20	60	#7 BARS (10) EACH WAY-BOTTOM	8'-6"

* SUPPLIED BY EE, ALL OTHER MATERIAL TO BE SUPPLIED BY THE CONTRACTOR.

NOTES:

1. LATERAL REINFORCEMENT, CONSISTING OF TWO (2) HORIZONTAL TIES SHALL BE DISTRIBUTED WITHIN 5' OF TOP OF CONCRETE PER ACI 318. THE ENDS OF ALL CIRCULAR TIES SHALL TERMINATE WITH STANDARD HOOKS THAT ENGAGE A LONGITUDINAL COLUMN BAR.
2. FOUNDATION DESIGN IS BASED ON SOILS REPORT BY GEOTEK ENGINEERING & TESTING SERVICES, INC. DATED AUGUST 10, 2022; PROJECT NO. 22-D03. CONTRACTOR TO REVIEW SOILS REPORT FOR POSSIBLE SPECIAL INSTRUCTIONS BY GEOTECHNICAL ENGINEER.
3. MINIMUM COMPACTED UNIT WEIGHT OF ALL BACKFILL TO BE 100 PCF.
4. 6.28 CUBIC YARDS CONCRETE REQUIRED THIS FOUNDATION.

CONCRETE MIX REQUIREMENTS:

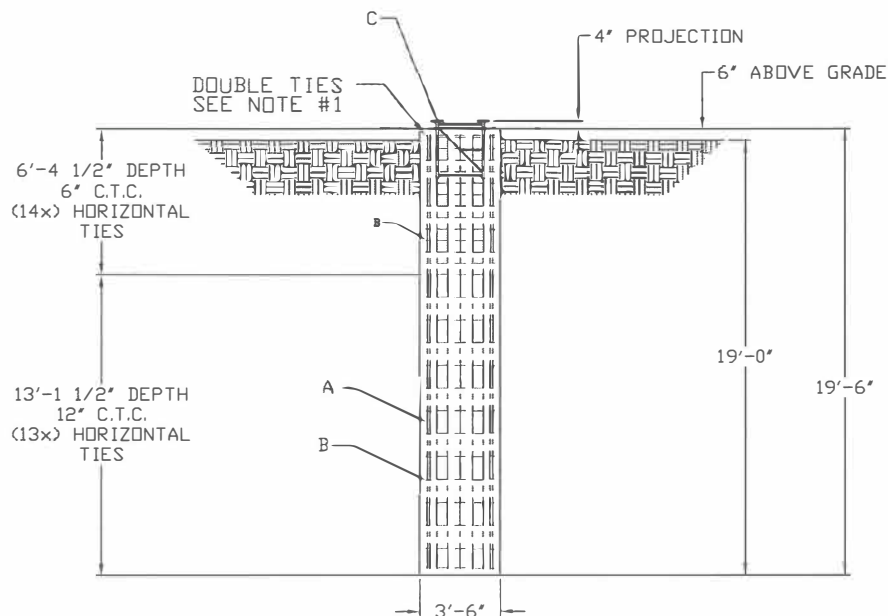
CEMENT: TYPE I/II PORTLAND CEMENT
28 DAY COMPRESSIVE STRENGTH = 4500 PSI
MAXIMUM WATER/CEMENT RATIO = 0.45
SLUMP = 4'-6"
ENTRAINED AIR CONTENT = 5%-7%

DRAWN BY: EJJ		NAME: Ehresmann Engineering	
CHECKED BY:		TITLE: 60' STUB TOWER PIER/PAD FOUNDATION DESIGN	
ENG APPR:		DWC NO: 112740E02	
MFG APPR:		Sheet NO: E02	
Q.C.:		Rev: 1A	
Site: LEWIS & CLARK SUBSTATION, SD		4400 West 31st Street Yankton, SD 57078	
DRAWING CREATED: 9/22/22		605-665-7532	
REV: DESCRIPTION DATE		605-665-9780	
		Job# 112740	

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF EHRESMANN ENGINEERING AND SHALL NOT BE REPRODUCED OR USED IN WHOLE OR IN PART AS THE BASIS OF THE MANUFACTURE OR SALE OF ITEM(S) WITHOUT WRITTEN PERMISSION.



PLAN VIEW



ELEVATION VIEW



MATERIAL LIST

ITEM	QTY	GRADE	DESCRIPTION	
A	12	60	#7 BARS	19'-0"
B	27	60	#4 BARS	4' HOOKS 10' LAP (STAGGERED) 3'-0"
* C	1	36 KSI MIN.	W2400 HD EMBED	2'-6"











* SUPPLIED BY EE, ALL OTHER MATERIAL TO BE SUPPLIED BY THE CONTRACTOR.

NOTES:

1. LATERAL REINFORCEMENT, CONSISTING OF TWO (2) HORIZONTAL TIES SHALL BE DISTRIBUTED WITHIN 5' OF TOP OF CONCRETE PER ACI 318. THE ENDS OF ALL CIRCULAR TIES SHALL TERMINATE WITH STANDARD HOOKS THAT ENGAGE A LONGITUDINAL COLUMN BAR.
2. FOUNDATION DESIGN IS BASED ON SOILS REPORT BY GEOTEK ENGINEERING & TESTING SERVICES, INC. DATED AUGUST 10, 2022; PROJECT NO. 22-D03. CONTRACTOR TO REVIEW SOILS REPORT FOR POSSIBLE SPECIAL INSTRUCTIONS BY GEOTECHNICAL ENGINEER.
3. 6.95 CUBIC YARDS CONCRETE REQUIRED THIS FOUNDATION.
4. STUB TOWER BASE REACTIONS;
MOMENT = 39 FT-KIPS
SHEAR = 1.189 KIPS
AXIAL = 2.539 KIPS

CONCRETE MIX REQUIREMENTS:

CEMENT: TYPE I/II PORTLAND CEMENT
28 DAY COMPRESSIVE STRENGTH = 4500 PSI
MAXIMUM WATER/CEMENT RATIO = 0.45
SLUMP = 6"-8"
ENTRAINED AIR CONTENT = 5%-7%

				NAME		<div>4400 West 31st Street Yankton, SD 57078 605-665-7532 605-665-9780</div>	
				DRAWN BY:			EJH
				CHECKED BY:			
				ENG APPR.			
				MFG APPR.			
				Q.C.			
				Site:			
				LEWIS & CLARK SUBSTATION, SD			
				Job#	112740		
REV	DESCRIPTION	DATE					
	DRAWING CREATED	9/22/22					

GENERAL:

Ehresmann Engineering (EE) designs and manufactures steel towers/poles and tower components to the most stringent industry standards, and uses the highest quality materials. However, certain hazards are inherent in tower work. For this reason, it is imperative that erection of towers and installation of tower components be accomplished in a safe and workmanlike manner, and only by experienced and professional contractors. Unless the customer specifies otherwise in writing, or unless otherwise noted in our design documents or on our installation drawings, design of and/or fabrication of items by Ehresmann Engineering shall meet the conditions outlined in these notes.

1. All tower designs and/or work shall be in accordance with TIA-222-G, Structural Standards for Steel Antenna Tower and Antenna Supporting Structures or as otherwise specified in writing by the customer.
2. Purchasers shall verify the installation is in conformance with all local, state, and federal requirements. This also includes requirements for obstruction marking and lighting.
3. If towers, tower components, mounts, foundations or modification materials are not installed in accordance with Ehresmann Engineering installation drawings and specifications, then all designs are considered invalid, and EE disclaims any responsibility for sold design and/or certification.
4. The purchaser shall be responsible to inspect condition of underground anchors prior to work on towers, and to furnish any and all soils reports, where required.
5. All items must be inventoried at the time of delivery to the job site/storage facility. Any shortages reported after this delivery will be the responsibility of the Contractor/Owner.
6. Any problems that occur with scheduling, transportation, delivery, foundation installation, erection or any items furnished by EE must be reported immediately to allow EE time to take corrective measures. EE will make every effort to repair/replace necessary items in an expedient manner and/or will pursue corrective measures in the most economical way possible at our discretion. However, under no circumstances will EE pay for or be responsible for any down time or expenses incurred due to down time.
7. EE will make every effort to deliver materials at the requested time. However, we cannot and will not be responsible for delays caused by breakdowns, weather and/or other factors out of our control once the materials have left our facility. We strongly suggest that cranes, tower crews, etc., not be scheduled until delivery is verified to be on time. EE will not be responsible for any costs incurred due to these possible delays.
8. Any and all permits, licenses, or payment of taxes required for construction are the sole responsibility of the purchaser.
9. Manufacturer Assistance: Contractors / Erectors may contact Ehresmann Engineering at (605) 665-7532 for questions on design, materials, or installation regarding items furnished by Ehresmann Engineering.
10. Ehresmann Engineering is available, upon request, to supervise installation and/or completion of modifications, or to provide on-site inspection after project completion.

■ Please also reference site specific design documents and drawings for additional notes.

Anchor Rod Tightening:

Prior to placing anchor rods in the concrete, it is recommended that an anchor rod rotation capacity test be run with at least one anchor rod. This test may be run in a Skidmore-Whitney device or in a mockup of the base plate using a small piece of plate with one hole of equivalent grade, thickness, and finish. The test consists of steps 2 through 12 as outlined below and adapted as necessary for the mock set-up. It is recommended that the nut be rotated at least to the required rotation as given in step 11. After the test, the nuts should be removed and all threads (rod and nut) inspected for damage. Once the anchor rod is removed from the test plate, the nuts shall again be turned onto the rod well past the location of the leveling nut and backed off by one worker using an ordinary wrench with no cheater bar. The threads are considered damaged if more than minimal effort is required to turn the nut. Please note that nuts should be turned onto ALL anchor rods and backed off with minimal effort as outlined above to verify threads of ALL anchor rods and nuts prior to placement in concrete.

Recommended Steps for Anchor Rod Tightening:

1. Verify proper position of anchor rods.
2. Verify that all nuts can be turned onto the rods well past the elevation of the bottom of the leveling nut and backed off by one worker using an ordinary wrench without a cheater bar.
3. If threads of anchor rods were lubricated more than 24 hours before placing the leveling nut or have been wet since they were lubricated, the exposed threads of the anchor rods should be relubricated (Beeswax and toilet-ring wax have been shown to provide good lubrication).
4. Place leveling nuts on anchor rods and level.
5. Place leveling nut washers.
6. Set pole or tower legs.
7. Plumb pole or legs and/or level base plates.
8. Place top nut washers.
9. Threads and bearing surfaces of the top nuts should be lubricated, placed and tightened to the snug-tight condition in a star pattern. Reference TABLE 1 for snug-tight torque values.
10. Tighten leveling nuts to the snug-condition (as outlined for top nuts) in a star pattern.
11. Mark the reference position of the top nut in the snug-tight condition with a suitable marking on one flat with a corresponding reference mark on the base plate at each bolt. Top nuts should be turned in increments in a star pattern (at least two full tightening cycles) to the appropriate nut rotation specified below.

Anchor Rod Diameter, In.	Nut Rotation from Snug-Tight Condition
less than 1 1/2"	1/3 turn
greater than or equal to 1 1/2"	1/6 turn

12. A torque wrench should be used to verify that a torque at least equal to the computed verification torque T_v is required to additionally tighten the leveling nuts and the top nuts. Reference TABLE 1 for verification torque values. An inability to achieve this torque should be interpreted to indicate that the threads have stripped and should be reported to the Engineer of Record.
13. Locking nuts are to be installed over all top nuts when tightening is completed.

TABLE 1

ANCHOR ROD DIAMETER (INCHES)	SNUG-TIGHT TORQUE (FT-LBS)	VERIFICATION TORQUE (FT-LBS)
3/4	38-56	188
1	91-136	454
1 1/4	182-272	908
1 1/2	316-474	1581
1 3/4	499-748	2494
2	759-1125	3750
2 1/4	921-1382	4607

VALUES AS SHOWN IN TABLE 1 ARE BASED ON ASTM F1554 GRADE 105 ANCHOR RODS WITH MINIMUM ULTIMATE TENSILE STRENGTH OF 125 KSI FOR ROD DIAMETERS UP TO 2" AND ASTM A615 GR. 75 ANCHOR RODS WITH MINIMUM ULTIMATE TENSILE STRENGTH OF 105 KSI FOR 2 1/4" ANCHOR RODS.

Erection / Installation:

When installing items provided by Ehresmann Engineering, the contractor (person performing the erection or modification) shall comply with the following:

1. All structural work shall be performed in relatively calm weather, with wind velocities not exceeding 15 MPH at any height of the tower. Additionally it is recommended that work be completed in accordance with ANSI/TIA-322 and ANSI/ASSE A10.48.
2. All structural work shall be performed by a competent and reputable contractor with experience in similar tower work.
3. Our drawings indicate the major operations to be performed, but do not show every field condition that may be encountered. Prior to beginning work, the contractor should survey the job thoroughly to eliminate future field problems.
4. It is the contractor's sole responsibility to determine the erection procedure and sequence to insure the stability and safety of the tower and adequacy of temporary or incomplete connections during construction.
5. All nuts for bearing type connections shall be tightened to a "snug tight" condition as defined by AISC. All nuts for direct tension/fully pre-tensioned or slip critical connections shall be tightened per the "turn-of-the-nut" method in accordance with AISC.
6. It shall be the contractor's responsibility to ensure that all practices and procedures used during assembly, installation and erection work required on the tower or foundations do not endanger the safety of any personnel nor the structural integrity of the tower.
7. The contractor shall use only safe and workmanlike procedures when modifying a tower.
8. The contractor shall not correct any errors in manufacturing or design without special permission and written instructions from Ehresmann Engineering. This means straightening, relocation or reaming of bolt holes, drifting or any other application of force to make the members fit. (This restriction does not apply to diagonal members designed for initial tension or specific draw.) The contractor shall immediately notify Ehresmann Engineering through the appropriate channels to effect correction.
9. The contractor shall immediately notify Ehresmann Engineering of any material which is damaged during erection or installation. The contractor shall not correct or substitute any member damaged during installation without written consent and instructions from Ehresmann Engineering.
10. The contractor shall refrain from exerting excessive forces on the tower or on modification material during installation. Tower member design does not include stresses due to erection since erection equipment and conditions are unknown. Our design assumes that the services of competent and qualified personnel will be utilized to develop proper procedures and rigging plans. Our design also assumes that competent and qualified personnel will be hired to perform the work.
11. All field-punched holes shall be touched up with cold galvanizing. Under no circumstances shall the torching of holes be allowed.
12. All factory installed bracing placed within monopole tube sections is to remain in place until erection is complete. Do not remove bracing without prior consultation with EE.

Concrete & Foundation Installation:

1. All rebar shall have 3' minimum cover, unless specified otherwise, and shall conform to ASTM A615. Rebar grade to be as specified on site drawings.
2. Tie and secure all rebar and anchor bolts/shafts before placing concrete.
3. Hook length as specified for vertical bars is from back side of bend. Minimum straight length of hook after bend shall be 12x bar diameter.
4. Bending of rebar to be in accordance with ACI-318 latest edition.
5. Sides of excavation may need to be braced or sloped back as required for stability and in accordance with all applicable safety regulations.
6. Base of excavation shall be clean and free of all debris.
7. All excavation, backfill and soil compaction to be completed in accordance with Geotechnical Engineer's recommendations. However, compacted density of all backfill must meet minimum unit weight as specified on site drawings.
8. Attention shall be given to final site drainage and compaction of the fill placed around the foundation to minimize surface water infiltration around the foundation.
9. Concrete strength and mix values to be listed on site specific foundation drawings. Alternate values may be acceptable and could be dependent on placement methods. However, use of alternate values must be approved by EDR prior to installation. EE will not be responsible for any delays due to request for approval of alternate values. It is the Contractor's responsibility to allow adequate time for approval.
10. Use of water reducers may be required for some placement methods to achieve necessary slump and/or flow without exceeding maximum water/cement ratios. It is Contractor's responsibility to utilize proper mix to ensure proper placement of concrete for the method of placement chosen.
11. Exposed edges of all foundations to be chamfered 1" x 45°.
12. Use steel top and bottom anchor bolt templates provided by EE for proper anchor bolt spacing and placement.
13. All concrete work shall be in accordance with ACI 318 (Latest Edition). ACI specifications for 'Cold Weather' or 'Hot Weather' concreting shall be followed as applicable.

Structural Steel & Hardware:

1. All fabricated steel shall have a minimum yield strength of 36 ksi. Use of higher strength steel for some members/items will be noted in design documents or drawings as applicable.
2. All fabricated steel shall be hot dip galvanized per ASTM A123.
3. All structural fasteners shall be ASTM F3125 Gr. A325 unless specified otherwise.
4. U-Bolts to be ASTM A36, A572 Gr. 50, or A193 Gr. B7 depending on size and application. Reference site specific drawings for additional details.
5. Step Bolts to be ASTM A449.
6. All hardware shall be hot dip galvanized per ASTM A153.
7. Welded connections shall conform to the latest revision of the American Welding Society, A.W.S. D1.1.
8. All structural components shall be verified for proper assembly by the field crew prior to installation.



△			NAME	EJH
△			DRAWN BY:	
△			CHECKED BY:	
△			ENG APPR.	
△			MFG APPR.	
△	COMPANY NAME	6/27/22	G.C.	
△	TUBE BRACING NOTE	10/29/19		
△	U-BOLT/STEP-BOLT GR.10/16/19			
△	DRAWING CREATED	03/19/17		
REV	DESCRIPTION	DATE	JOB#	112740

Ehresmann Engineering

4400 West 31st Street
Yankton, SD 57078
605-665-7532
605-665-9780

STD TOWER & TOWER FOUNDATION NOTES
TITLE:
DWG. NO. 112740N1
Sheet NO. N1
Rev. 1A

SPECIAL INSPECTION STATEMENT IN ACCORDANCE WITH IBC SECTION 1704.3

VERIFICATION AND TESTING SHALL BE COMPLETED AS FOLLOWS:

REINFORCED CONCRETE CONSTRUCTION (TOWER FOUNDATION):

- VERIFY PROPER DIMENSIONS AND DEPTH OF FOUNDATION (INCLUDING DEPTH OF DRILLED HOLE PRIOR TO CONCRETE PLACEMENT IF APPLICABLE)
- INSPECTION OF REINFORCING STEEL TO INCLUDE VERIFICATION OF PROPER MATERIAL GRADE, QTY, SIZE AND PLACEMENT
- VERIFY PROJECTION LENGTH OF ANCHOR BOLTS ABOVE TOP OF CONCRETE PRIOR TO CONCRETE SETTING
- VERIFY USE OF APPROVED CONCRETE MIX DESIGN
- VERIFY PROPER CONCRETE SLUMP AND AIR CONTENT BY TESTING AT THE TIME FRESH CONCRETE IS SAMPLED FOR STRENGTH TESTS
- VERIFY PROPER PLACEMENT OF CONCRETE IN ACCORDANCE WITH APPROVED TECHNIQUES.
- VERIFY CONCRETE COMPRESSIVE STRENGTH BY MEANS OF STANDARD TEST CYLINDERS TO BE BROKE AT 7 DAYS AND 28 DAYS MINIMUM.

STRUCTURAL STEEL CONSTRUCTION (TOWER STRUCTURE):

INSPECTION OF HIGH-STRENGTH BOLTED CONNECTIONS:

- VERIFY IDENTIFICATION MARKINGS/GRADE, QTY AND SIZE OF BOLTS, NUTS & WASHERS
- VISUALLY INSPECT SNUG-TIGHT BOLTED JOINTS TO VERIFY ALL PLIES IN CONTACT AND LOCK-WASHERS COMPRESSED
- VERIFY PROPER TIGHTENING OF PRETENSIONED CONNECTIONS USING TURN-OF-NUT METHOD WITH MATCHMARKING

STRUCTURAL OBSERVATION:

- VERIFY PROPER INSTALLATION/ERECTION OF TOWER PER DESIGN SPECIFICATIONS UPON COMPLETION OF INSTALLATION. VERIFICATION TO INCLUDE THE FOLLOWING:
 - ALL SECTIONS PROPERLY ASSEMBLED AND INSTALLED PER MANUFACTURER'S INSTALLATION DETAILS
 - STRUCTURE PLUMB IN ACCORDANCE WITH TIA-222

VERIFICATION OF ALL ITEMS AS OUTLINED ABOVE SHALL BE BASED ON DESIGN SPECIFICATIONS AND INSTALLATION DETAILS AS COMPLETED BY EHRESMANN ENGINEERING.

SPECIAL INSPECTOR SHALL IDENTIFY AND DOCUMENT RESULTS OF ALL INSPECTIONS AND MATERIAL TESTING AS OUTLINED. INSPECTION REPORTS SHALL BE SUBMITTED AS SOON AS POSSIBLE UPON COMPLETION OF INSPECTION BUT NO MORE THAN 5 WORKING DAYS UNLESS OTHERWISE AGREED BY PROJECT OWNER.

DEVIATION OR NON-COMPLIANCE SHALL BE CORRECTED BY CONTRACTOR. ANY DEVIATIONS NOT CORRECTED ARE TO BE CLEARLY IDENTIFIED IN FINAL REPORTS AND EHRESMANN ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY FOR CONSULTATION.

THE PROJECT OWNER OR AN AGENT OF THE OWNER IS RESPONSIBLE FOR SCHEDULING AND FUNDING ALL SPECIAL INSPECTION SERVICES.



SPECIAL INSPECTIONS REQUIRED:		
REINFORCED CONCRETE:	CONTINUOUS	PERIODIC
PIER OR PIER/PAD FOUNDATION		X
DEEP PIER DRILLING (IF APPLICABLE)	X	
REINFORCING STEEL		X
CONCRETE PLACEMENT	X	
SAMPLING & TESTING		X
ANCHORS/BOLTS CAST IN CONCRETE		X
SOILS		X
STRUCTURAL STEEL:		
HIGH-STRENGTH BOLTS		X
STRUCTURAL OBSERVATION:		
YES		X

			Ehresmann Engineering	
DRAWN BY: EJH CHECKED BY: ENG APPR: MFG APPR: D.C.:			TITLE: 60' STUB TOWER SPECIAL INSPECTION STATEMENT	
Site: LEWIS & CLARK SUBSTATION, SD			DWG. NO. 112740SI	
DRAWING CREATED 9/22/22			4400 West 31st Street Yankton, SD 57078 605-665-7532 605-665-9780	
REV	DESCRIPTION	DATE	Job# 112740	Sheet NO SI Rev 1A

Section	T ₄	T ₃	T ₂	T ₁
Legs	SR 2			SR 1 1/4
Leg Grade				
Diagonals	SR 3/4			SR 5/8
Diagonal Grade				
Top Girts				
Bottom Girts				
Horizontals				
Face Width (ft)				
# Panels @ (ft)				
Weight (lb) 2005 7	9 @ 2.19007	8 @ 2.42969	4 @ 3.7	4 @ 5.1
	20.0 ft	30.0 ft	40.0 ft	60.0 ft

ALL REACTIONS
ARE FACTORED

MAX. CORNER REACTIONS AT BASE:

DOWN: 23582 lb
SHEAR: 575 lb

UPLIFT: -22065 lb
SHEAR: 576 lb

AXIAL
5699 lb
SHEAR
844 lb
MOMENT
29 kip-ft

TORQUE 0 kip-ft
50 mph WIND - 0.750 in ICE

AXIAL
2539 lb
SHEAR
1189 lb
MOMENT
39 kip-ft

TORQUE 0 kip-ft
REACTIONS - 90 mph WIND

DESIGNED APPURTENANCE LOADING

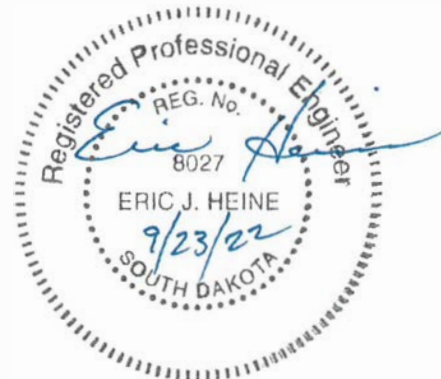
TYPE	ELEVATION	TYPE	ELEVATION
RY-900A	62	RY-900A	20
Top Mast Mount	62		

MATERIAL STRENGTH

GRADE	F _y	F _u	GRADE	F _y	F _u
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in Yankton County, South Dakota.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 90 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. Weld together tower sections have flange connections.
9. Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications.
10. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
11. Welds are fabricated with ER-70S-6 electrodes.
12. TOWER RATING: 24.3%



Ehresmann Engineering			Job: LEWIS & CLARK SUB, SD - 112740		
4400 W 31st St			Project: 60' W2400 STUB TOWER		
Yankton, SD 57078			Client: EREP	Drawn by: EH	App'd:
Phone: (605) 665-7532			Code: TIA-222-G	Date: 09/22/22	Scale: NTS
FAX: (605) 665-9780			Path:		Dwg No. E-1

<i>tnxTower</i> <i>Ehresmann Engineering</i> 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job LEWIS & CLARK SUB, SD - 112740	Page 1 of 25
	Project 60' W2400 STUB TOWER	Date 11:27:44 09/22/22
	Client EREP	Designed by EH

Tower Input Data

The main tower is a 3x free standing tower with an overall height of 60.000 ft above the ground line.

The base of the tower is set at an elevation of 0.000 ft above the ground line.

The face width of the tower is 2.000 ft at the top and 2.000 ft at the base.

This tower is designed using the TIA-222-G standard.

The following design criteria apply:

Tower is located in Yankton County, South Dakota.

Basic wind speed of 90 mph.

Structure Class II.

Exposure Category C.

Topographic Category 1.

Crest Height 0.000 ft.

Nominal ice thickness of 0.750 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 30 °F.

Deflections calculated using a wind speed of 60 mph.

Weld together tower sections have flange connections..

Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications..

Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards..

Welds are fabricated with ER-70S-6 electrodes..

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

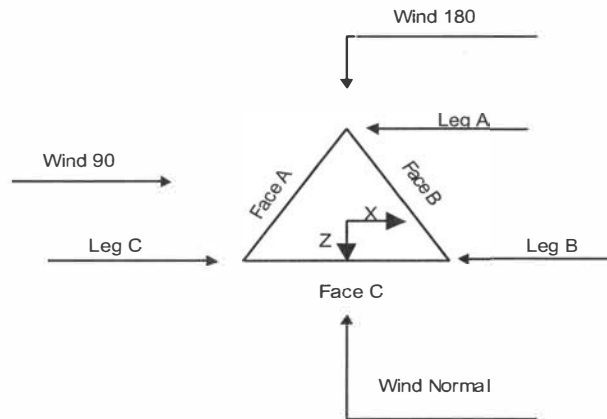
Stress ratio used in tower member design is 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification √ Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity √ Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) √ SR Members Have Cut Ends √ SR Members Are Concentric	Distribute Leg Loads As Uniform Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area √ Use Clear Spans For KL/r Retension Guys To Initial Tension Bypass Mast Stability Checks Use Azimuth Dish Coefficients Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs	Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA √ SR Leg Bolts Resist Compression √ All Leg Panels Have Same Allowable Offset Girt At Foundation Consider Feed Line Torque √ Include Angle Block Shear Check Use TIA-222-G Bracing Resist. Exemption Use TIA-222-G Tension Splice Exemption Poles Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
--	---	--

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job LEWIS & CLARK SUB, SD - 112740	Page 2 of 25
	Project 60' W2400 STUB TOWER	Date 11:27:44 09/22/22
	Client EREP	Designed by EH



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	60.000-40.000			2.000	1	20.000
T2	40.000-30.000			2.000	1	10.000
T3	30.000-20.000			2.000	1	10.000
T4	20.000-0.000			2.000	1	20.000

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	60.000-40.000	2.191	K Brace Right	No	Yes	1.688	1.688
T2	40.000-30.000	2.430	K Brace Right	No	Yes	1.688	1.688
T3	30.000-20.000	2.430	K Brace Right	No	Yes	1.688	1.688
T4	20.000-0.000	2.191	K Brace Right	No	Yes	1.688	1.688

Tower Section Geometry (cont'd)

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	3 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 60.000-40.000	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)
T2 40.000-30.000	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)
T3 30.000-20.000	Solid Round	2	A572-50 (50 ksi)	Solid Round	3/4	A36 (36 ksi)
T4 20.000-0.000	Solid Round	2	A572-50 (50 ksi)	Solid Round	3/4	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 60.000-40.000	Solid Round	5/8	A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)
T2 40.000-30.000	Solid Round	5/8	A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)
T3 30.000-20.000	Solid Round	5/8	A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)
T4 20.000-0.000	Solid Round	5/8	A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 60.000-40.000	None	Flat Bar		A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)
T2 40.000-30.000	None	Flat Bar		A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)
T3 30.000-20.000	None	Flat Bar		A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)
T4 20.000-0.000	None	Flat Bar		A36 (36 ksi)	Solid Round	5/8	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1	0.000	0.000	A36	1	1	1.1	36.000	36.000	36.000

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	5 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 60.000-40.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 40.000-30.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 30.000-20.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 20.000-0.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 60.000-40.000	Flange	0.625	4	0.000	0	0.000	0	0.000	0	0.625	0	0.000	0	0.625	0
T2 40.000-30.000	Flange	0.625	4	0.000	0	0.000	0	0.000	0	0.625	0	0.000	0	0.625	0
T3 30.000-20.000	Flange	0.625	4	0.000	0	0.000	0	0.000	0	0.625	0	0.000	0	0.625	0
T4 20.000-0.000	Flange	0.625	4	0.000	0	0.000	0	0.000	0	0.625	0	0.000	0	0.625	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
LDF4-50A (1/2 FOAM)	A	No	Yes	Ar (CaAa)	60.000 - 0.000	1	1	2.370 0.630	0.630		0.000
Safety Line 3/8	A	No	Yes	Ar (CaAa)	60.000 - 0.000	1	1	0.375	0.375		0.000
LDF4-50A (1/2 FOAM)	A	No	Yes	Ar (CaAa)	20.000 - 0.000	1	1	2.370 0.630	0.630		0.000

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
			ft ²	ft ²	ft ²	ft ²	lb
T1	60.000-40.000	A	0.000	0.000	2.010	0.000	7.400
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	6 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight lb
T2	40.000-30.000	A	0.000	0.000	1.005	0.000	3.700
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000
T3	30.000-20.000	A	0.000	0.000	1.005	0.000	3.700
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000
T4	20.000-0.000	A	0.000	0.000	3.270	0.000	10.400
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight lb
T1	60.000-40.000	A	1.564	0.000	0.000	14.519	0.000	165.282
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000
T2	40.000-30.000	A	1.509	0.000	0.000	7.040	0.000	77.855
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000
T3	30.000-20.000	A	1.459	0.000	0.000	6.841	0.000	73.622
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000
T4	20.000-0.000	A	1.331	0.000	0.000	19.244	0.000	193.481
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	LDF4-50A (1/2 FOAM)	40.00 - 60.00	1.0000	1.0000
T1	2	Safety Line 3/8	40.00 - 60.00	1.0000	1.0000
T2	1	LDF4-50A (1/2 FOAM)	30.00 - 40.00	1.0000	1.0000
T2	2	Safety Line 3/8	30.00 - 40.00	1.0000	1.0000
T3	1	LDF4-50A (1/2 FOAM)	20.00 - 30.00	1.0000	1.0000
T3	2	Safety Line 3/8	20.00 - 30.00	1.0000	1.0000
T4	1	LDF4-50A (1/2 FOAM)	0.00 - 20.00	1.0000	1.0000
T4	2	Safety Line 3/8	0.00 - 20.00	1.0000	1.0000
T4	3	LDF4-50A (1/2 FOAM)	0.00 - 20.00	1.0000	1.0000

Discrete Tower Loads

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	7 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb
RY-900A	A	From	0.000	0.0000	62.000	No Ice	2.780	2.780	16.000
		Centroid-Fa	0.000			1/2" Ice	5.004	5.004	20.800
		ce	0.000			1" Ice	7.228	7.228	25.600
Top Mast Mount	A	From	0.000	0.0000	62.000	No Ice	2.590	2.590	50.000
		Centroid-Fa	0.000			1/2" Ice	3.880	3.880	77.000
		ce	0.000			1" Ice	5.170	5.170	104.000
RY-900A	A	From Leg	0.000	0.0000	20.000	No Ice	2.780	2.780	16.000
			0.000			1/2" Ice	5.004	5.004	20.800
			0.000			1" Ice	7.228	7.228	25.600

Tower Pressures - No Ice

$$G_H = 0.850$$

Section Elevation	z	K _Z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _{AA} In Face ft ²	C _{AA} Out Face ft ²
ft	ft		ksf	ft ²		ft ²	ft ²	ft ²			
T1	50.000	1.094	0.019	42.083	A	0.000	6.472	4.167	64.38	2.010	0.000
60.000-40.000					B	0.000	6.472		64.38	0.000	0.000
					C	0.000	6.472		64.38	0.000	0.000
T2	35.000	1.015	0.018	21.042	A	0.000	3.199	2.083	65.13	1.005	0.000
40.000-30.000					B	0.000	3.199		65.13	0.000	0.000
					C	0.000	3.199		65.13	0.000	0.000
T3	25.000	0.945	0.017	21.667	A	0.000	4.532	3.333	73.55	1.005	0.000
30.000-20.000					B	0.000	4.532		73.55	0.000	0.000
					C	0.000	4.532		73.55	0.000	0.000
T4	10.000	0.85	0.015	43.333	A	0.000	9.151	6.667	72.85	3.270	0.000
20.000-0.000					B	0.000	9.151		72.85	0.000	0.000
					C	0.000	9.151		72.85	0.000	0.000

Tower Pressure - With Ice

$$G_H = 0.850$$

Section Elevation	z	K _Z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _{AA} In Face ft ²	C _{AA} Out Face ft ²
ft	ft		ksf	in	ft ²		ft ²	ft ²	ft ²			
T1	50.000	1.094	0.006	1.564	47.295	A	0.000	28.433	14.591	51.32	14.519	0.000
60.000-40.000						B	0.000	28.433		51.32	0.000	0.000
						C	0.000	28.433		51.32	0.000	0.000
T2	35.000	1.015	0.006	1.509	23.556	A	0.000	13.612	7.113	52.25	7.040	0.000
40.000-30.000						B	0.000	13.612		52.25	0.000	0.000
						C	0.000	13.612		52.25	0.000	0.000
T3	25.000	0.945	0.005	1.459	24.098	A	0.000	14.430	8.196	56.80	6.841	0.000
30.000-20.000						B	0.000	14.430		56.80	0.000	0.000

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	8 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Section Elevation	z	K _Z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		ksf	in	ft ²		ft ²	ft ²	ft ²			
T4 20.000-0.000	10.000	0.85	0.005	1.331	47.771	C	0.000	14.430	15.541	56.80	0.000	0.000
						A	0.000	27.523		56.47	19.244	0.000
						B	0.000	27.523		56.47	0.000	0.000
						C	0.000	27.523		56.47	0.000	0.000

Tower Pressure - Service

$$G_H = 0.850$$

Section Elevation	z	K _Z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		ksf	ft ²		ft ²	ft ²	ft ²			
T1 60.000-40.000	50.000	1.094	0.009	42.083	A	0.000	6.472	4.167	64.38	2.010	0.000
					B	0.000	6.472		64.38	0.000	0.000
					C	0.000	6.472		64.38	0.000	0.000
T2 40.000-30.000	35.000	1.015	0.008	21.042	A	0.000	3.199	2.083	65.13	1.005	0.000
					B	0.000	3.199		65.13	0.000	0.000
					C	0.000	3.199		65.13	0.000	0.000
T3 30.000-20.000	25.000	0.945	0.007	21.667	A	0.000	4.532	3.333	73.55	1.005	0.000
					B	0.000	4.532		73.55	0.000	0.000
					C	0.000	4.532		73.55	0.000	0.000
T4 20.000-0.000	10.000	0.85	0.007	43.333	A	0.000	9.151	6.667	72.85	3.270	0.000
					B	0.000	9.151		72.85	0.000	0.000
					C	0.000	9.151		72.85	0.000	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				ksf			ft ²	lb	klf	
T1 60.000-40.000	7.400	436.487	A	0.154	2.758	0.019	1	1	3.676	199.039	0.010	C
			B	0.154	2.758		1	1	3.676			
			C	0.154	2.758		1	1	3.676			
T2 40.000-30.000	3.700	215.620	A	0.152	2.764	0.018	1	1	1.816	91.580	0.009	C
			B	0.152	2.764		1	1	1.816			
			C	0.152	2.764		1	1	1.816			
T3 30.000-20.000	3.700	449.674	A	0.209	2.566	0.017	1	1	2.611	109.104	0.011	C
			B	0.209	2.566		1	1	2.611			
			C	0.209	2.566		1	1	2.611			
T4 20.000-0.000	10.400	906.904	A	0.211	2.559	0.015	1	1	5.276	213.576	0.011	C
			B	0.211	2.559		1	1	5.276			
			C	0.211	2.559		1	1	5.276			
Sum Weight:	25.200	2008.684						OTM	18.021 kip-ft	613.298		

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	9 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Tower Forces - No Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				ksf			ft ²	lb	klf	
T1 60.000-40.000	7.400	436.487	A	0.154	2.758	0.019	0.8	1	3.676	199.039	0.010	C
			B	0.154	2.758		0.8	1	3.676			
			C	0.154	2.758		0.8	1	3.676			
T2 40.000-30.000	3.700	215.620	A	0.152	2.764	0.018	0.8	1	1.816	91.580	0.009	C
			B	0.152	2.764		0.8	1	1.816			
			C	0.152	2.764		0.8	1	1.816			
T3 30.000-20.000	3.700	449.674	A	0.209	2.566	0.017	0.8	1	2.611	109.104	0.011	C
			B	0.209	2.566		0.8	1	2.611			
			C	0.209	2.566		0.8	1	2.611			
T4 20.000-0.000	10.400	906.904	A	0.211	2.559	0.015	0.8	1	5.276	213.576	0.011	C
			B	0.211	2.559		0.8	1	5.276			
			C	0.211	2.559		0.8	1	5.276			
Sum Weight:	25.200	2008.684						OTM	18.021 kip-ft	613.298		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				ksf			ft ²	lb	klf	
T1 60.000-40.000	7.400	436.487	A	0.154	2.758	0.019	0.85	1	3.676	199.039	0.010	C
			B	0.154	2.758		0.85	1	3.676			
			C	0.154	2.758		0.85	1	3.676			
T2 40.000-30.000	3.700	215.620	A	0.152	2.764	0.018	0.85	1	1.816	91.580	0.009	C
			B	0.152	2.764		0.85	1	1.816			
			C	0.152	2.764		0.85	1	1.816			
T3 30.000-20.000	3.700	449.674	A	0.209	2.566	0.017	0.85	1	2.611	109.104	0.011	C
			B	0.209	2.566		0.85	1	2.611			
			C	0.209	2.566		0.85	1	2.611			
T4 20.000-0.000	10.400	906.904	A	0.211	2.559	0.015	0.85	1	5.276	213.576	0.011	C
			B	0.211	2.559		0.85	1	5.276			
			C	0.211	2.559		0.85	1	5.276			
Sum Weight:	25.200	2008.684						OTM	18.021 kip-ft	613.298		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				ksf			ft ²	lb	klf	
T1 60.000-40.000	165.282	1344.741	A	0.601	1.803	0.006	1	1	21.168	266.492	0.013	C
			B	0.601	1.803		1	1	21.168			
			C	0.601	1.803		1	1	21.168			
T2	77.855	634.743	A	0.578	1.819	0.006	1	1	9.937	117.852	0.012	C

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	10 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z ksf	D _F	D _R	A _E ft ²	F lb	w klf	Ctrl. Face
ft	lb	lb										
40.000-30.000			B	0.578	1.819		1	1	9.937			
			C	0.578	1.819		1	1	9.937			
T3	73.622	894.748	A	0.599	1.805	0.005	1	1	10.721	114.473	0.011	C
30.000-20.000			B	0.599	1.805		1	1	10.721			
			C	0.599	1.805		1	1	10.721			
T4	193.481	1693.960	A	0.576	1.821	0.005	1	1	20.062	219.205	0.011	C
20.000-0.000			B	0.576	1.821		1	1	20.062			
			C	0.576	1.821		1	1	20.062			
Sum Weight:	510.239	4568.193						OTM	22.503 kip-ft	718.022		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z ksf	D _F	D _R	A _E ft ²	F lb	w klf	Ctrl. Face
ft	lb	lb										
T1	165.282	1344.741	A	0.601	1.803	0.006	0.8	1	21.168	266.492	0.013	C
60.000-40.000			B	0.601	1.803		0.8	1	21.168			
			C	0.601	1.803		0.8	1	21.168			
T2	77.855	634.743	A	0.578	1.819	0.006	0.8	1	9.937	117.852	0.012	C
40.000-30.000			B	0.578	1.819		0.8	1	9.937			
			C	0.578	1.819		0.8	1	9.937			
T3	73.622	894.748	A	0.599	1.805	0.005	0.8	1	10.721	114.473	0.011	C
30.000-20.000			B	0.599	1.805		0.8	1	10.721			
			C	0.599	1.805		0.8	1	10.721			
T4	193.481	1693.960	A	0.576	1.821	0.005	0.8	1	20.062	219.205	0.011	C
20.000-0.000			B	0.576	1.821		0.8	1	20.062			
			C	0.576	1.821		0.8	1	20.062			
Sum Weight:	510.239	4568.193						OTM	22.503 kip-ft	718.022		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z ksf	D _F	D _R	A _E ft ²	F lb	w klf	Ctrl. Face
ft	lb	lb										
T1	165.282	1344.741	A	0.601	1.803	0.006	0.85	1	21.168	266.492	0.013	C
60.000-40.000			B	0.601	1.803		0.85	1	21.168			
			C	0.601	1.803		0.85	1	21.168			
T2	77.855	634.743	A	0.578	1.819	0.006	0.85	1	9.937	117.852	0.012	C
40.000-30.000			B	0.578	1.819		0.85	1	9.937			
			C	0.578	1.819		0.85	1	9.937			
T3	73.622	894.748	A	0.599	1.805	0.005	0.85	1	10.721	114.473	0.011	C
30.000-20.000			B	0.599	1.805		0.85	1	10.721			
			C	0.599	1.805		0.85	1	10.721			
T4	193.481	1693.960	A	0.576	1.821	0.005	0.85	1	20.062	219.205	0.011	C
20.000-0.000			B	0.576	1.821		0.85	1	20.062			

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	11 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z ksf	D _F	D _R	A _E ft ²	F lb	w klf	Ctrl. Face
ft	lb	lb										
Sum Weight:	510.239	4568.193	C	0.576	1.821		0.85	1 OTM	20.062 22.503 kip-ft	718.022		

Tower Forces - Service - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z ksf	D _F	D _R	A _E ft ²	F lb	w klf	Ctrl. Face
ft	lb	lb										
T1 60.000-40.000	7.400	436.487	A B C	0.154 0.154 0.154	2.758 2.758 2.758	0.009	1 1 1	1 1 1	3.676 3.676 3.676	88.462	0.004	C
T2 40.000-30.000	3.700	215.620	A B C	0.152 0.152 0.152	2.764 2.764 2.764	0.008	1 1 1	1 1 1	1.816 1.816 1.816	40.702	0.004	C
T3 30.000-20.000	3.700	449.674	A B C	0.209 0.209 0.209	2.566 2.566 2.566	0.007	1 1 1	1 1 1	2.611 2.611 2.611	48.491	0.005	C
T4 20.000-0.000	10.400	906.904	A B C	0.211 0.211 0.211	2.559 2.559 2.559	0.007	1 1 1	1 1 1	5.276 5.276 5.276	94.923	0.005	C
Sum Weight:	25.200	2008.684						OTM	8.009 kip-ft	272.577		

Tower Forces - Service - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z ksf	D _F	D _R	A _E ft ²	F lb	w klf	Ctrl. Face
ft	lb	lb										
T1 60.000-40.000	7.400	436.487	A B C	0.154 0.154 0.154	2.758 2.758 2.758	0.009	0.8 0.8 0.8	1 1 1	3.676 3.676 3.676	88.462	0.004	C
T2 40.000-30.000	3.700	215.620	A B C	0.152 0.152 0.152	2.764 2.764 2.764	0.008	0.8 0.8 0.8	1 1 1	1.816 1.816 1.816	40.702	0.004	C
T3 30.000-20.000	3.700	449.674	A B C	0.209 0.209 0.209	2.566 2.566 2.566	0.007	0.8 0.8 0.8	1 1 1	2.611 2.611 2.611	48.491	0.005	C
T4 20.000-0.000	10.400	906.904	A B C	0.211 0.211 0.211	2.559 2.559 2.559	0.007	0.8 0.8 0.8	1 1 1	5.276 5.276 5.276	94.923	0.005	C
Sum Weight:	25.200	2008.684						OTM	8.009 kip-ft	272.577		

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	12 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Tower Forces - Service - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				ksf			ft ²	lb	klf	
T1 60.000-40.000	7.400	436.487	A	0.154	2.758	0.009	0.85	1	3.676	88.462	0.004	C
			B	0.154	2.758		0.85	1	3.676			
			C	0.154	2.758		0.85	1	3.676			
T2 40.000-30.000	3.700	215.620	A	0.152	2.764	0.008	0.85	1	1.816	40.702	0.004	C
			B	0.152	2.764		0.85	1	1.816			
			C	0.152	2.764		0.85	1	1.816			
T3 30.000-20.000	3.700	449.674	A	0.209	2.566	0.007	0.85	1	2.611	48.491	0.005	C
			B	0.209	2.566		0.85	1	2.611			
			C	0.209	2.566		0.85	1	2.611			
T4 20.000-0.000	10.400	906.904	A	0.211	2.559	0.007	0.85	1	5.276	94.923	0.005	C
			B	0.211	2.559		0.85	1	5.276			
			C	0.211	2.559		0.85	1	5.276			
Sum Weight:	25.200	2008.684						OTM	8.009 kip-ft	272.577		

Force Totals

Load Case	Vertical Forces	Sum of Forces X	Sum of Forces Z	Sum of Overturning Moments, M _x	Sum of Overturning Moments, M _z	Sum of Torques
	lb	lb	lb	kip-ft	kip-ft	kip-ft
Leg Weight	1471.738					
Bracing Weight	536.947					
Total Member Self-Weight	2008.684			-0.018	0.000	
Total Weight	2115.884			-0.018	0.000	
Wind 0 deg - No Ice		0.000	-742.934	-24.499	0.000	0.000
Wind 30 deg - No Ice		371.467	-643.400	-21.219	-12.240	-0.022
Wind 60 deg - No Ice		643.400	-371.467	-12.259	-21.201	-0.038
Wind 90 deg - No Ice		742.934	0.000	-0.018	-24.480	-0.043
Wind 120 deg - No Ice		643.400	371.467	12.222	-21.201	-0.038
Wind 150 deg - No Ice		371.467	643.400	21.182	-12.240	-0.022
Wind 180 deg - No Ice		0.000	742.934	24.462	0.000	0.000
Wind 210 deg - No Ice		-371.467	643.400	21.182	12.240	0.022
Wind 240 deg - No Ice		-643.400	371.467	12.222	21.201	0.038
Wind 270 deg - No Ice		-742.934	0.000	-0.018	24.480	0.043
Wind 300 deg - No Ice		-643.400	-371.467	-12.259	21.201	0.038
Wind 330 deg - No Ice		-371.467	-643.400	-21.219	12.240	0.022
Member Ice	2559.508					
Total Weight Ice	5275.739			-0.034	0.000	
Wind 0 deg - Ice		0.000	-843.918	-28.745	0.000	0.000
Wind 30 deg - Ice		421.959	-730.854	-24.898	-14.355	-0.022
Wind 60 deg - Ice		730.854	-421.959	-14.389	-24.864	-0.038
Wind 90 deg - Ice		843.918	0.000	-0.034	-28.710	-0.044
Wind 120 deg - Ice		730.854	421.959	14.321	-24.864	-0.038
Wind 150 deg - Ice		421.959	730.854	24.830	-14.355	-0.022
Wind 180 deg - Ice		0.000	843.918	28.676	0.000	0.000
Wind 210 deg - Ice		-421.959	730.854	24.830	14.355	0.022
Wind 240 deg - Ice		-730.854	421.959	14.321	24.864	0.038
Wind 270 deg - Ice		-843.918	0.000	-0.034	28.710	0.044
Wind 300 deg - Ice		-730.854	-421.959	-14.389	24.864	0.038

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page 13 of 25
	Project	60' W2400 STUB TOWER	Date 11:27:44 09/22/22
	Client	EREP	Designed by EH

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M _x kip-ft	Sum of Overturning Moments, M _z kip-ft	Sum of Torques kip-ft
Wind 330 deg - Ice		-421.959	-730.854	-24.898	14.355	0.022
Total Weight	2115.884			-0.018	0.000	
Wind 0 deg - Service		0.000	-330.193	-10.899	0.000	0.000
Wind 30 deg - Service		165.096	-285.956	-9.441	-5.440	-0.010
Wind 60 deg - Service		285.956	-165.096	-5.459	-9.422	-0.017
Wind 90 deg - Service		330.193	0.000	-0.018	-10.880	-0.019
Wind 120 deg - Service		285.956	165.096	5.422	-9.422	-0.017
Wind 150 deg - Service		165.096	285.956	9.404	-5.440	-0.010
Wind 180 deg - Service		0.000	330.193	10.862	0.000	0.000
Wind 210 deg - Service		-165.096	285.956	9.404	5.440	0.010
Wind 240 deg - Service		-285.956	165.096	5.422	9.422	0.017
Wind 270 deg - Service		-330.193	0.000	-0.018	10.880	0.019
Wind 300 deg - Service		-285.956	-165.096	-5.459	9.422	0.017
Wind 330 deg - Service		-165.096	-285.956	-9.441	5.440	0.010

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	14 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Comb. No.	Description
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	60 - 40	Leg	Max Tension	23	3571.964	-0.023	-0.005
			Max. Compression	2	-3932.149	-0.004	0.002
			Max. Mx	8	-3065.045	0.026	-0.004
			Max. My	16	-3429.266	-0.010	0.024
			Max. Vy	8	192.733	-0.002	-0.004
			Max. Vx	2	-175.039	-0.004	0.002
		Diagonal	Max Tension	20	483.764	0.000	0.000
			Max. Compression	24	-486.847	0.000	0.000
			Max. Mx	28	114.760	0.004	0.000
			Max. My	37	5.268	0.000	-0.000
			Max. Vy	28	5.586	0.000	0.000
			Max. Vx	37	-0.021	0.000	0.000
		Horizontal	Max Tension	8	35.679	0.000	0.000
			Max. Compression	5	-34.458	0.000	0.000
			Max. Mx	26	3.311	0.003	0.000
			Max. Vy	26	-5.559	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
		Top Girt	Max Tension	14	68.596	0.000	0.000
			Max. Compression	2	-67.171	0.000	0.000
			Max. Mx	26	0.181	0.003	0.000
			Max. Vy	26	-5.559	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
		Bottom Girt	Max Tension	10	145.548	0.000	0.000
			Max. Compression	22	-142.275	0.000	0.000
			Max. Mx	26	1.692	0.003	0.000
			Max. Vy	26	-5.559	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
		Horizontal	Max Tension	10	145.548	0.000	0.000
			Max. Compression	22	-142.275	0.000	0.000
			Max. Mx	26	1.692	0.003	0.000
			Max. Vy	26	-5.559	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
		Horizontal	Max Tension	24	23.474	0.000	0.000
T2	40 - 30	Leg	Max Tension	23	6591.906	-0.009	0.005
			Max. Compression	2	-7110.682	0.001	0.031
			Max. Mx	20	5611.305	0.036	0.005
			Max. My	24	-6192.065	0.012	0.034
			Max. Vy	8	307.939	-0.036	-0.007
			Max. Vx	16	267.170	0.024	-0.027
		Diagonal	Max Tension	20	637.729	0.000	0.000
			Max. Compression	24	-640.888	0.000	0.000
			Max. Mx	38	422.174	0.004	0.000
			Max. My	35	8.006	0.000	-0.000
			Max. Vy	38	-5.337	0.000	0.000
			Max. Vx	35	0.020	0.000	0.000
		Horizontal	Max Tension	24	23.474	0.000	0.000

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	15 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T3	30 - 20	Top Girt	Max. Compression	21	-25.165	0.000	0.000
			Max. Mx	26	4.620	0.003	0.000
			Max. Vy	26	5.312	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
			Max Tension	22	155.206	0.000	0.000
			Max. Compression	10	-157.056	0.000	0.000
			Max. Mx	26	1.723	0.003	0.000
			Max. Vy	26	5.312	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
			Max Tension	10	115.006	0.000	0.000
			Max. Compression	23	-113.507	0.000	0.000
			Max. Mx	26	2.498	0.003	0.000
		Bottom Girt	Max. Vy	26	5.312	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
			Max Tension	10	115.006	0.000	0.000
			Max. Compression	23	-113.507	0.000	0.000
			Max. Mx	26	2.498	0.003	0.000
			Max. Vy	26	5.312	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
			Max Tension	7	10529.283	0.024	-0.019
			Max. Compression	2	-11370.656	-0.004	0.018
			Max. Mx	20	6174.283	0.079	0.005
			Max. My	24	-6194.073	0.034	0.072
		Diagonal	Max. Vy	20	-316.100	0.022	0.004
			Max. Vx	2	-354.521	-0.004	0.018
			Max Tension	12	863.897	0.000	0.000
			Max. Compression	16	-867.012	0.000	0.000
			Max. Mx	38	567.111	0.005	0.000
			Max. My	35	15.741	0.000	-0.000
			Max. Vy	38	-5.943	0.000	0.000
			Max. Vx	35	-0.018	0.000	0.000
		Horizontal	Max Tension	16	48.730	0.000	0.000
			Max. Compression	13	-47.537	0.000	0.000
			Max. Mx	26	8.106	0.003	0.000
			Max. Vy	26	-5.092	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
		Top Girt	Max Tension	22	138.314	0.000	0.000
			Max. Compression	11	-138.214	0.000	0.000
			Max. Mx	26	3.597	0.003	0.000
			Max. Vy	26	-5.092	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
		Bottom Girt	Max Tension	24	288.966	0.000	0.000
			Max. Compression	12	-288.326	0.000	0.000
			Max. Mx	26	2.795	0.003	0.000
			Max. Vy	26	-5.092	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
T4	20 - 0	Leg	Max Tension	7	22067.113	0.050	-0.068
			Max. Compression	2	-23581.261	0.000	0.000
			Max. Mx	36	12021.610	-0.221	-0.093
			Max. My	32	12620.689	0.033	0.240
			Max. Vy	36	-1571.335	0.000	0.000
			Max. Vx	32	1707.283	0.000	0.000
		Diagonal	Max Tension	5	1332.747	0.000	0.000
			Max. Compression	24	-1337.978	0.000	0.000
			Max. Mx	28	700.064	0.004	0.000
			Max. My	37	-55.041	0.000	-0.000
			Max. Vy	28	-5.383	0.000	0.000
			Max. Vx	37	0.011	0.000	0.000
		Horizontal	Max Tension	24	122.164	0.000	0.000
			Max. Compression	28	-156.895	0.000	0.000
			Max. Mx	26	-65.068	0.002	0.000
			Max. Vy	26	-4.559	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
		Top Girt	Max Tension	24	300.957	0.000	0.000
			Max. Compression	12	-302.643	0.000	0.000
			Max. Mx	26	3.256	0.002	0.000

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	16 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Bottom Girt	Max. Vy	26	-4.559	0.000	0.000
			Max. Vx	36	0.000	0.000	0.000
			Max Tension	35	938.531	0.000	0.000
			Max. Compression	7	-181.932	0.000	0.000
			Max. Mx	26	810.602	0.002	0.000
			Max. Vy	26	-4.559	0.000	0.000

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Leg C	Max. Vert	18	23562.345	347.971	-482.969
	Max. H _x	18	23562.345	347.971	-482.969
	Max. H _z	28	-12648.781	-1376.704	1065.978
	Min. Vert	7	-22065.214	-370.674	492.669
	Min. H _x	29	-14897.655	-1389.030	998.027
	Min. H _z	16	20518.173	337.191	-572.431
Leg B	Max. Vert	10	23562.344	-549.156	-74.326
	Max. H _x	36	-12648.790	1587.527	667.730
	Max. H _z	27	-6504.468	1136.434	742.392
	Min. Vert	23	-22065.217	568.500	90.439
	Min. H _x	8	20518.174	-627.263	-18.493
	Min. H _z	14	12201.040	-12.267	-124.489
Leg A	Max. Vert	2	23581.633	227.253	527.790
	Max. H _x	22	12220.519	342.572	475.175
	Max. H _z	24	20537.464	327.134	578.226
	Min. Vert	15	-22050.761	-223.631	-552.432
	Min. H _x	10	-10502.078	-354.979	-485.343
	Min. H _z	32	-12615.470	-234.818	-1725.201

Tower Mast Reaction Summary

Load Combination	Vertical lb	Shear _x lb	Shear _z lb	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	2115.884	0.000	0.000	-0.018	0.000	0.000
1.2 Dead+1.6 Wind 0 deg - No Ice	2539.061	0.000	-1188.695	-39.379	-0.000	0.000
0.9 Dead+1.6 Wind 0 deg - No Ice	1904.296	0.000	-1188.695	-39.326	-0.000	0.000
1.2 Dead+1.6 Wind 30 deg - No Ice	2539.061	594.347	-1029.440	-34.106	-19.678	-0.035
0.9 Dead+1.6 Wind 30 deg - No Ice	1904.296	594.347	-1029.440	-34.059	-19.655	-0.035
1.2 Dead+1.6 Wind 60 deg - No Ice	2539.061	1029.440	-594.347	-19.700	-34.084	-0.060
0.9 Dead+1.6 Wind 60 deg - No Ice	1904.296	1029.440	-594.347	-19.671	-34.043	-0.060
1.2 Dead+1.6 Wind 90 deg - No Ice	2539.061	1188.695	0.000	-0.022	-39.356	-0.069
0.9 Dead+1.6 Wind 90 deg - No Ice	1904.296	1188.695	0.000	-0.017	-39.309	-0.069

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	17 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Load Combination	Vertical lb	Shear _y lb	Shear _z lb	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
1.2 Dead+1.6 Wind 120 deg - No Ice	2539.061	1029.440	594.347	19.656	-34.084	-0.060
0.9 Dead+1.6 Wind 120 deg - No Ice	1904.296	1029.440	594.347	19.638	-34.043	-0.060
1.2 Dead+1.6 Wind 150 deg - No Ice	2539.061	594.347	1029.440	34.061	-19.678	-0.035
0.9 Dead+1.6 Wind 150 deg - No Ice	1904.296	594.347	1029.440	34.026	-19.654	-0.035
1.2 Dead+1.6 Wind 180 deg - No Ice	2539.061	-0.000	1188.695	39.334	0.000	-0.000
0.9 Dead+1.6 Wind 180 deg - No Ice	1904.296	-0.000	1188.695	39.292	0.000	-0.000
1.2 Dead+1.6 Wind 210 deg - No Ice	2539.061	-594.347	1029.440	34.061	19.678	0.035
0.9 Dead+1.6 Wind 210 deg - No Ice	1904.296	-594.347	1029.440	34.026	19.655	0.035
1.2 Dead+1.6 Wind 240 deg - No Ice	2539.061	-1029.440	594.347	19.656	34.084	0.060
0.9 Dead+1.6 Wind 240 deg - No Ice	1904.296	-1029.440	594.347	19.638	34.043	0.060
1.2 Dead+1.6 Wind 270 deg - No Ice	2539.061	-1188.695	-0.000	-0.022	39.356	0.069
0.9 Dead+1.6 Wind 270 deg - No Ice	1904.296	-1188.695	-0.000	-0.017	39.309	0.069
1.2 Dead+1.6 Wind 300 deg - No Ice	2539.061	-1029.440	-594.347	-19.701	34.084	0.060
0.9 Dead+1.6 Wind 300 deg - No Ice	1904.296	-1029.440	-594.347	-19.671	34.043	0.060
1.2 Dead+1.6 Wind 330 deg - No Ice	2539.061	-594.347	-1029.440	-34.106	19.678	0.035
0.9 Dead+1.6 Wind 330 deg - No Ice	1904.296	-594.347	-1029.440	-34.060	19.654	0.035
1.2 Dead+1.0 Ice+1.0 Temp	5698.915	0.000	0.000	-0.038	-0.000	-0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	5698.915	0.000	-843.918	-29.113	-0.000	0.000
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	5698.915	421.959	-730.854	-25.218	-14.537	-0.022
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	5698.915	730.854	-421.959	-14.576	-25.179	-0.038
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	5698.915	843.918	0.000	-0.038	-29.075	-0.044
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	5698.915	730.854	421.959	14.499	-25.179	-0.038
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	5698.915	421.959	730.854	25.141	-14.537	-0.022
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	5698.915	-0.000	843.918	29.036	0.000	0.000
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	5698.915	-421.959	730.854	25.141	14.537	0.022
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	5698.915	-730.854	421.959	14.499	25.179	0.038
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	5698.915	-843.918	-0.000	-0.039	29.075	0.044
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	5698.915	-730.854	-421.959	-14.576	25.179	0.038
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	5698.915	-421.959	-730.854	-25.218	14.537	0.022
Dead+Wind 0 deg - Service	2115.884	-0.000	-330.193	-10.942	-0.000	-0.000
Dead+Wind 30 deg - Service	2115.884	165.096	-285.956	-9.479	-5.462	-0.010
Dead+Wind 60 deg - Service	2115.884	285.956	-165.096	-5.480	-9.460	-0.017
Dead+Wind 90 deg - Service	2115.884	330.193	-0.000	-0.019	-10.924	-0.019

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page 18 of 25
	Project	60' W2400 STUB TOWER	Date 11:27:44 09/22/22
	Client	EREP	Designed by EH

Load Combination	Vertical lb	Shear _y lb	Shear _z lb	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead+Wind 120 deg - Service	2115.884	285.956	165.096	5.443	-9.460	-0.017
Dead+Wind 150 deg - Service	2115.884	165.096	285.956	9.442	-5.462	-0.010
Dead+Wind 180 deg - Service	2115.884	0.000	330.193	10.905	0.000	-0.000
Dead+Wind 210 deg - Service	2115.884	-165.096	285.956	9.441	5.462	0.010
Dead+Wind 240 deg - Service	2115.884	-285.956	165.096	5.443	9.460	0.017
Dead+Wind 270 deg - Service	2115.884	-330.193	0.000	-0.019	10.924	0.019
Dead+Wind 300 deg - Service	2115.884	-285.956	-165.096	-5.480	9.460	0.017
Dead+Wind 330 deg - Service	2115.884	-165.096	-285.956	-9.479	5.462	0.010

Solution Summary

Load Comb.	Sum of Applied Forces				Sum of Reactions		% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
1	0.000	-2115.884	0.000	-0.000	2115.884	-0.000	0.000%
2	0.000	-2539.061	-1188.695	-0.000	2539.061	1188.695	0.000%
3	0.000	-1904.296	-1188.695	-0.000	1904.296	1188.695	0.000%
4	594.347	-2539.061	-1029.440	-594.347	2539.061	1029.440	0.000%
5	594.347	-1904.296	-1029.440	-594.347	1904.296	1029.440	0.000%
6	1029.440	-2539.061	-594.347	-1029.440	2539.061	594.347	0.000%
7	1029.440	-1904.296	-594.347	-1029.440	1904.296	594.347	0.000%
8	1188.695	-2539.061	0.000	-1188.695	2539.061	-0.000	0.000%
9	1188.695	-1904.296	0.000	-1188.695	1904.296	-0.000	0.000%
10	1029.440	-2539.061	594.347	-1029.440	2539.061	-594.347	0.000%
11	1029.440	-1904.296	594.347	-1029.440	1904.296	-594.347	0.000%
12	594.347	-2539.061	1029.440	-594.347	2539.061	-1029.440	0.000%
13	594.347	-1904.296	1029.440	-594.347	1904.296	-1029.440	0.000%
14	0.000	-2539.061	1188.695	0.000	2539.061	-1188.695	0.000%
15	0.000	-1904.296	1188.695	0.000	1904.296	-1188.695	0.000%
16	-594.347	-2539.061	1029.440	594.347	2539.061	-1029.440	0.000%
17	-594.347	-1904.296	1029.440	594.347	1904.296	-1029.440	0.000%
18	-1029.440	-2539.061	594.347	1029.440	2539.061	-594.347	0.000%
19	-1029.440	-1904.296	594.347	1029.440	1904.296	-594.347	0.000%
20	-1188.695	-2539.061	0.000	1188.695	2539.061	0.000	0.000%
21	-1188.695	-1904.296	0.000	1188.695	1904.296	0.000	0.000%
22	-1029.440	-2539.061	-594.347	1029.440	2539.061	594.347	0.000%
23	-1029.440	-1904.296	-594.347	1029.440	1904.296	594.347	0.000%
24	-594.347	-2539.061	-1029.440	594.347	2539.061	1029.440	0.000%
25	-594.347	-1904.296	-1029.440	594.347	1904.296	1029.440	0.000%
26	0.000	-5698.915	0.000	-0.000	5698.915	0.000	0.000%
27	0.000	-5698.915	-843.918	-0.000	5698.915	843.918	0.000%
28	421.959	-5698.915	-730.854	-421.959	5698.915	730.854	0.000%
29	730.854	-5698.915	-421.959	-730.854	5698.915	421.959	0.000%
30	843.918	-5698.915	0.000	-843.918	5698.915	-0.000	0.000%
31	730.854	-5698.915	421.959	-730.854	5698.915	-421.959	0.000%
32	421.959	-5698.915	730.854	-421.959	5698.915	-730.854	0.000%
33	0.000	-5698.915	843.918	0.000	5698.915	-843.918	0.000%
34	-421.959	-5698.915	730.854	421.959	5698.915	-730.854	0.000%
35	-730.854	-5698.915	421.959	730.854	5698.915	-421.959	0.000%
36	-843.918	-5698.915	0.000	843.918	5698.915	0.000	0.000%
37	-730.854	-5698.915	-421.959	730.854	5698.915	421.959	0.000%
38	-421.959	-5698.915	-730.854	421.959	5698.915	730.854	0.000%
39	0.000	-2115.884	-330.193	0.000	2115.884	330.193	0.000%
40	165.096	-2115.884	-285.956	-165.096	2115.884	285.956	0.000%
41	285.956	-2115.884	-165.096	-285.956	2115.884	165.096	0.000%
42	330.193	-2115.884	0.000	-330.193	2115.884	0.000	0.000%
43	285.956	-2115.884	165.096	-285.956	2115.884	-165.096	0.000%
44	165.096	-2115.884	285.956	-165.096	2115.884	-285.956	0.000%

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	19 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
45	0.000	-2115.884	330.193	-0.000	2115.884	-330.193	0.000%
46	-165.096	-2115.884	285.956	165.096	2115.884	-285.956	0.000%
47	-285.956	-2115.884	165.096	285.956	2115.884	-165.096	0.000%
48	-330.193	-2115.884	0.000	330.193	2115.884	-0.000	0.000%
49	-285.956	-2115.884	-165.096	285.956	2115.884	165.096	0.000%
50	-165.096	-2115.884	-285.956	165.096	2115.884	285.956	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00000001
3	Yes	4	0.00000001	0.00000001
4	Yes	4	0.00000001	0.00000001
5	Yes	4	0.00000001	0.00000001
6	Yes	4	0.00000001	0.00000001
7	Yes	4	0.00000001	0.00000001
8	Yes	4	0.00000001	0.00000001
9	Yes	4	0.00000001	0.00000001
10	Yes	4	0.00000001	0.00000001
11	Yes	4	0.00000001	0.00000001
12	Yes	4	0.00000001	0.00000001
13	Yes	4	0.00000001	0.00000001
14	Yes	4	0.00000001	0.00000001
15	Yes	4	0.00000001	0.00000001
16	Yes	4	0.00000001	0.00000001
17	Yes	4	0.00000001	0.00000001
18	Yes	4	0.00000001	0.00000001
19	Yes	4	0.00000001	0.00000001
20	Yes	4	0.00000001	0.00000001
21	Yes	4	0.00000001	0.00000001
22	Yes	4	0.00000001	0.00000001
23	Yes	4	0.00000001	0.00000001
24	Yes	4	0.00000001	0.00000001
25	Yes	4	0.00000001	0.00000001
26	Yes	4	0.00000001	0.00000001
27	Yes	4	0.00000001	0.00000001
28	Yes	4	0.00000001	0.00000001
29	Yes	4	0.00000001	0.00000001
30	Yes	4	0.00000001	0.00000001
31	Yes	4	0.00000001	0.00000001
32	Yes	4	0.00000001	0.00000001
33	Yes	4	0.00000001	0.00000001
34	Yes	4	0.00000001	0.00000001
35	Yes	4	0.00000001	0.00000001
36	Yes	4	0.00000001	0.00000001
37	Yes	4	0.00000001	0.00000001
38	Yes	4	0.00000001	0.00000001
39	Yes	4	0.00000001	0.00000001
40	Yes	4	0.00000001	0.00000001
41	Yes	4	0.00000001	0.00000001
42	Yes	4	0.00000001	0.00000001
43	Yes	4	0.00000001	0.00000001
44	Yes	4	0.00000001	0.00000001
45	Yes	4	0.00000001	0.00000001

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	20 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

46	Yes	4	0.00000001	0.00000001
47	Yes	4	0.00000001	0.00000001
48	Yes	4	0.00000001	0.00000001
49	Yes	4	0.00000001	0.00000001
50	Yes	4	0.00000001	0.00000001

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	60 - 40	0.802	39	0.0959	0.0085
T2	40 - 30	0.412	39	0.0833	0.0079
T3	30 - 20	0.252	39	0.0631	0.0077
T4	20 - 0	0.128	39	0.0498	0.0073

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
62.000	RY-900A	39	0.802	0.0959	0.0085	165195
20.000	RY-900A	39	0.128	0.0498	0.0073	23948

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	60 - 40	2.887	2	0.3454	0.0240
T2	40 - 30	1.483	2	0.2997	0.0233
T3	30 - 20	0.906	2	0.2270	0.0231
T4	20 - 0	0.461	2	0.1792	0.0223

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
62.000	RY-900A	2	2.887	0.3454	0.0240	45852
20.000	RY-900A	2	0.461	0.1792	0.0223	6655

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	21 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load Allowable	Allowable Ratio	Criteria
T1	60	Leg	A325N	0.625	4	37.508	20708.699	0.002 ✓	1	Bolt Tension
T2	40	Leg	A325N	0.625	4	892.845	20708.699	0.043 ✓	1	Bolt Tension
T3	30	Leg	A325N	0.625	4	1647.830	20708.699	0.080 ✓	1	Bolt Tension
T4	20	Leg	A325N	0.625	4	2631.950	20708.699	0.127 ✓	1	Bolt Tension

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio P _u / φP _n ¹
T1	60 - 40	1 1/4	20.000	2.191	84.1 K=1.00	1.227	-3932.150	32911.801	0.119 ¹ ✓
T2	40 - 30	1 1/4	10.000	2.430	93.3 K=1.00	1.227	-7110.680	29221.600	0.243 ¹ ✓
T3	30 - 20	2	10.000	2.430	58.3 K=1.00	3.142	-11370.700	110252.000	0.103 ¹ ✓
T4	20 - 0	2	20.000	2.191	52.6 K=1.00	3.142	-23581.301	115494.000	0.204 ¹ ✓

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio P _u / φP _n ¹
T1	60 - 40	5/8	2.967	2.812	151.2 K=0.70	0.307	-486.847	3032.710	0.161 ¹ ✓
T2	40 - 30	5/8	3.147	2.983	160.4 K=0.70	0.307	-640.888	2694.930	0.238 ¹ ✓
T3	30 - 20	3/4	3.147	2.885	129.2 K=0.70	0.442	-867.012	5941.580	0.146 ¹ ✓
T4	20 - 0	3/4	2.967	2.719	121.8 K=0.70	0.442	-1337.980	6552.880	0.204 ¹ ✓

¹ P_u / φP_n controls

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	22 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	5/8	2.000	1.896	101.9 K=0.70	0.307	-34.458	5753.070	0.006 ¹ ✓
T2	40 - 30	5/8	2.000	1.896	101.9 K=0.70	0.307	-25.165	5753.070	0.004 ¹ ✓
T3	30 - 20	5/8	2.000	1.833	98.6 K=0.70	0.307	-47.537	5960.740	0.008 ¹ ✓
T4	20 - 0	5/8	2.000	1.833	98.6 K=0.70	0.307	-156.895	5960.740	0.026 ¹ ✓

¹ P_u / φP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	5/8	2.000	1.896	101.9 K=0.70	0.307	-67.171	5753.070	0.012 ¹ ✓
T2	40 - 30	5/8	2.000	1.896	101.9 K=0.70	0.307	-157.056	5753.070	0.027 ¹ ✓
T3	30 - 20	5/8	2.000	1.833	98.6 K=0.70	0.307	-138.214	5960.740	0.023 ¹ ✓
T4	20 - 0	5/8	2.000	1.833	98.6 K=0.70	0.307	-302.643	5960.740	0.051 ¹ ✓

¹ P_u / φP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	5/8	2.000	1.896	101.9 K=0.70	0.307	-142.275	5753.070	0.025 ¹ ✓
T2	40 - 30	5/8	2.000	1.896	101.9 K=0.70	0.307	-113.507	5753.070	0.020 ¹ ✓
T3	30 - 20	5/8	2.000	1.833	98.6 K=0.70	0.307	-288.326	5960.740	0.048 ¹ ✓
T4	20 - 0	5/8	2.000	1.833	98.6 K=0.70	0.307	-181.932	5960.740	0.031 ¹ ✓

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	23 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

¹ $P_u / \phi P_n$ controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	1 1/4	20.000	2.191	84.1	1.227	3571.960	55223.301	0.065 ¹ ✓
T2	40 - 30	1 1/4	10.000	2.430	93.3	1.227	6591.910	55223.301	0.119 ¹ ✓
T3	30 - 20	2	10.000	2.430	58.3	3.142	10529.300	141372.000	0.074 ¹ ✓
T4	20 - 0	2	20.000	2.191	52.6	3.142	22067.100	141372.000	0.156 ¹ ✓

¹ $P_u / \phi P_n$ controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	5/8	2.967	2.812	216.0	0.307	483.764	9940.200	0.049 ¹ ✓
T2	40 - 30	5/8	3.147	2.983	229.1	0.307	637.729	9940.200	0.064 ¹ ✓
T3	30 - 20	3/4	3.147	2.885	184.6	0.442	863.897	14313.900	0.060 ¹ ✓
T4	20 - 0	3/4	2.967	2.719	174.0	0.442	1332.750	14313.900	0.093 ¹ ✓

¹ $P_u / \phi P_n$ controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	5/8	2.000	1.896	145.6	0.307	35.679	9940.200	0.004 ¹ ✓
T2	40 - 30	5/8	2.000	1.896	145.6	0.307	23.474	9940.200	0.002 ¹ ✓
T3	30 - 20	5/8	2.000	1.833	140.8	0.307	48.730	9940.200	0.005 ¹

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	24 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T4	20 - 0	5/8	2.000	1.833	140.8	0.307	122.164	9940.200	0.012 ¹ ✓✓

¹ P_u / φP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	5/8	2.000	1.896	145.6	0.307	68.596	9940.200	0.007 ¹ ✓
T2	40 - 30	5/8	2.000	1.896	145.6	0.307	155.206	9940.200	0.016 ¹ ✓
T3	30 - 20	5/8	2.000	1.833	140.8	0.307	138.314	9940.200	0.014 ¹ ✓
T4	20 - 0	5/8	2.000	1.833	140.8	0.307	300.957	9940.200	0.030 ¹ ✓✓

¹ P_u / φP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	60 - 40	5/8	2.000	1.896	145.6	0.307	145.548	9940.200	0.015 ¹ ✓
T2	40 - 30	5/8	2.000	1.896	145.6	0.307	115.006	9940.200	0.012 ¹ ✓
T3	30 - 20	5/8	2.000	1.833	140.8	0.307	288.966	9940.200	0.029 ¹ ✓
T4	20 - 0	5/8	2.000	1.833	140.8	0.307	938.531	9940.200	0.094 ¹ ✓

¹ P_u / φP_n controls

tnxTower Ehresmann Engineering 4400 W 31st St Yankton, SD 57078 Phone: (605) 665-7532 FAX: (605) 665-9780	Job	LEWIS & CLARK SUB, SD - 112740	Page	25 of 25
	Project	60' W2400 STUB TOWER	Date	11:27:44 09/22/22
	Client	EREP	Designed by	EH

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	60 - 40	Leg	1 1/4	1	-3932.140	32911.801	11.9	Pass
		Diagonal	5/8	11	-486.847	3032.710	16.1	Pass
		Horizontal	5/8	15	-34.458	5753.070	0.6	Pass
		Top Girt	5/8	6	-67.171	5753.070	1.2	Pass
		Bottom Girt	5/8	7	-142.275	5753.070	2.5	Pass
T2	40 - 30	Leg	1 1/4	63	-7110.680	29221.600	24.3	Pass
		Diagonal	5/8	71	-640.888	2694.930	23.8	Pass
		Horizontal	5/8	73	-25.165	5753.070	0.4	Pass
		Top Girt	5/8	64	-157.056	5753.070	2.7	Pass
		Bottom Girt	5/8	67	-113.507	5753.070	2.0	Pass
T3	30 - 20	Leg	2	91	-11370.600	110252.000	10.3	Pass
		Diagonal	3/4	102	-867.012	5941.580	14.6	Pass
		Horizontal	5/8	104	-47.537	5960.740	0.8	Pass
		Top Girt	5/8	94	-138.214	5960.740	2.3	Pass
		Bottom Girt	5/8	98	-288.326	5960.740	4.8	Pass
T4	20 - 0	Leg	2	123	-23581.301	115494.000	20.4	Pass
		Diagonal	3/4	131	-1337.980	6552.880	20.4	Pass
		Horizontal	5/8	135	-156.895	5960.740	2.6	Pass
		Top Girt	5/8	125	-302.643	5960.740	5.1	Pass
		Bottom Girt	5/8	129	938.531	9940.200	9.4	Pass
		Summary						
		Leg (T2)	24.3	Pass				
		Diagonal (T2)	23.8	Pass				
		Horizontal (T4)	2.6	Pass				
		Top Girt (T4)	5.1	Pass				
		Bottom Girt (T4)	9.4	Pass				
		Bolt Checks	12.7	Pass				
		RATING =	24.3	Pass				

TS Foundation - v 2.0.1.5 Foundation Analysis Program
(c) 2007 - 2020 TowerSoft www.TSTower.com

Licensed to: Ehresmann Engineering
4400 W 31st St, Yankton, SD 57078

File: C:\Users\Trump\Documents\TSFoundation Jobs\112740-LEWIS & CLARK SUB, SD - MAT.out
Contract: 112740
Project: MAT FOUNDATION
Date and Time: 9/22/2022 2:40:42 PM

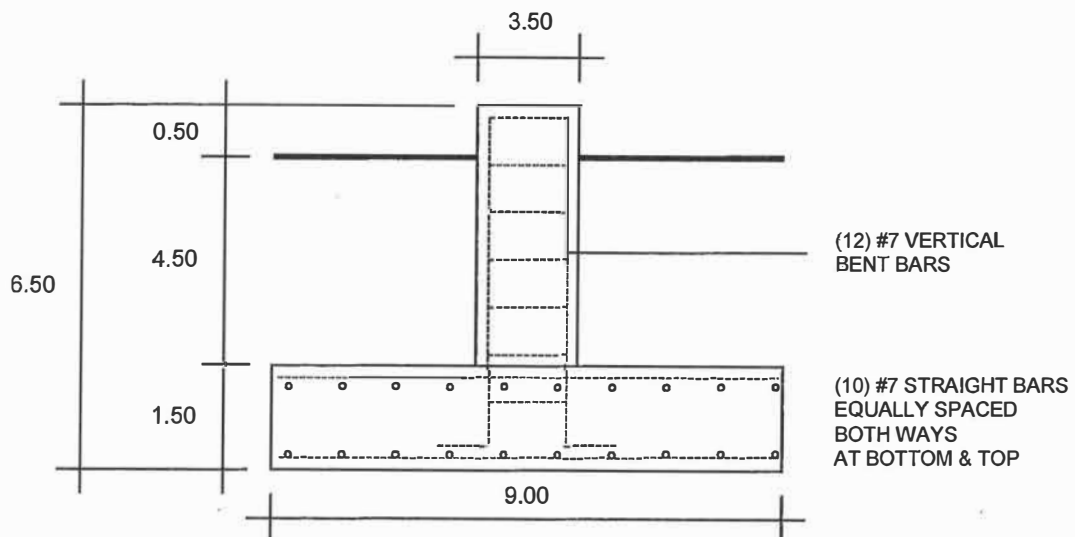
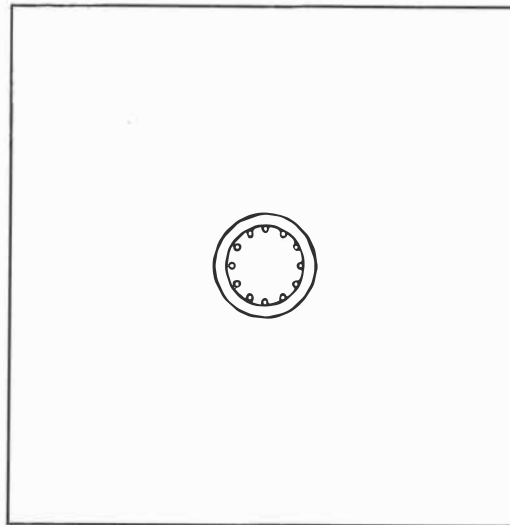
Revision:0
Site: LEWIS & CLARK SUB, SD
Engineer: EH

MAT FOUNDATION

Design Standard: ANSI/TIA-222-G
Concrete Design per: ACI 318
Concrete (F'c): 4.50 (ksi)
Cement Type: GU
Steel (Fy): 60.00 (ksi)
Rebars: American
Concrete Volume: 6.28 (yd³)
Water table: 8.00 (ft)
Frost Depth: 5.83 (ft)

Tower Reactions:

Download: 2.54 (Kips)
Moment: 39.00 (Kipsft)
Shear: 1.19 (Kips)



TS Foundation - v 2.0.1.5 Foundation Analysis Program

Licensed to: Ehresmann Engineering

(c) 2007 - 2020 TowerSoft www.TSTower.com

4400 W 31st St, Yankton, SD 57078

File: C:\Users\Trump\Documents\TSFoundation Jobs\112740-LEWIS & CLARK SUB, SD - MAT.out

Contract: 112740

Revision: 0

Project: MAT FOUNDATION

Site: LEWIS & CLARK SUB, SD

Date and Time: 9/22/2022 2:39:43 PM

Engineer: EH

MAT FOUNDATION ANALYSIS

ANALYSIS VALUES FOR CONCRETE AND STEEL:

Concrete Strength (F'c) : 4.50 (ksi)
Steel Reinforcement Yield : 60.00 (ksi)
Concrete Weight per Unit Volume : 140.06 (pcf)

SOIL PROPERTIES:

Layer #	Depth (ft)	Density (pcf)	Submerged Density (pcf)	Angle of Shearing Resistance	Allowable Net Bearing Pressure (psf)	Cohesion (psf)	Type of Soil
1	5.00	100.00	38.00	0.0	0.00	1000.00	CLAY
2	9.50	100.00	38.00	0.0	2500.00	0.00	SAND

Depth of water below grade : 8.00 (ft)

Footing Assumed to be Completely Un-Submerged

Frost Depth : 5.83 (ft)

Dead Weight Factor for Soil & Concrete : 0.90

Extension of Pier Above Grade : 0.50 (ft)

Footing Designed According to : ANSI/TIA-222-G
Rebars : American

LOADING FACTORED AS PER ANSI/TIA-222-G

DOWNLOAD SHEAR (Kips)	MOMENT (Kipsft)	TOTAL LOADING
2.54	1.19	39.00
5.70	0.84	29.00

Load Case 1 - Maximum Moment and matching Axial and Shear
Load Case 2 - Maximum Axial and matching Moment and Shear

ALLOWABLE SOIL BEARING PRESSURE (NET) : 2500.00 (psf)

ULTIMATE SOIL BEARING PRESSURE (SAFETY FACTOR = 2.00) : 5000.00 (psf)

FACTORED SOIL BEARING PRESSURE : 3750.00 (psf)

SUPERSTRUCTURE : MONOPOLE

PIER SIZE: 3.50 (ft) ROUND
MAT WIDTH: 9.00 (ft)
MAT THICKNESS: 1.50 (ft)
MAT DEPTH BELOW GRADE: 6.00 (ft)
Soil resists overturning from top of non-battered pad

MAX. NET BEARING PRESSURE: 656.06 (psf) Load Case: 1
% BEARING = $100 * 656.06 / 3750.00 = 17.49\%$
OVERTURNING MOMENT: 46.73 (Kipsft) Load Case: 1
RESISTING MOMENT: 234.85 (Kipsft) Load Case: 1
% OVERTURNING = $100 * 46.73 / 234.85 = 19.90\%$

PAD CAPACITY (ONE-WAY SHEAR): $V_c = 153.45$ (Kips) $V_f = 6.08$ (Kips) Load Case: 1
% ONE-WAY SHEAR = 3.96
PAD CAPACITY (TWO-WAY SHEAR): $V_c = 501.05$ (Kips) $V_f = 16.21$ (Kips) Load Case: 2
% TWO-WAY SHEAR = 3.24

COLUMN CAPACITY

COLUMN REINFORCEMENT: 12-#7 PERCENTAGE: 0.52 %
MINIMUM REINFORCEMENT IN COMPRESSION REQUIRED BY CODE: 0.50 %
MAXIMUM DOWNLOAD: 34.28 (Kips) MAXIMUM MOMENT: 607.41 (Kipsft)
APPLIED MOMENT AT TOP OF PAD = $M_t + \text{Shear} * H = 39.00 + 1.19 * 5.00 = 44.95$ (Kipsft)
% COLUMN REINF. = $100 * 44.95 / 607.41 = 7.40\%$

PAD RESISTANCE IN BENDING

BENDING MOMENT: 1.69 (Kipsft) PER 1 FOOT Load Case: 1

TS Foundation - v 2.0.1.5 Foundation Analysis Program

(c) 2007 - 2020 TowerSoft www.TSTower.com

Licensed to: Ehresmann Engineering

4400 W 31st St, Yankton, SD 57078

File: C:\Users\Trump\Documents\TSFoundation Jobs\112740-LEWIS & CLARK SUB, SD - MAT.out

Contract: 112740

Revision: 0

Project: MAT FOUNDATION

Site: LEWIS & CLARK SUB, SD

Date and Time: 9/22/2022 2:39:43 PM

Engineer: EH

PAD REINFORCEMENT: 10-#7 Area of Steel: 6.00 (in^2)
 REQUIRED REINFORCEMENT: 0.26 (in^2)
 MINIMUM REINFORCEMENT: 3.50 (in^2)
 % MAT REINFORCING = $100 * 0.26 / 6.00 = 4.31\%$

MAXIMUM PERCENTAGE UTILIZED = 19.90%

DETAILS OF CALCULATION:

WEIGHT OF CONCRETE (Wc):	23.75 (Kips)	x 0.90	= 21.38 (Kips)
WEIGHT OF SOIL ON PAD (Ws):	32.12 (Kips)	x 0.90	= 28.91 (Kips)
WEIGHT OF WEDGE OF SOIL (Ws1):	0.00 (Kips)	x 0.75	= 0.00 (Kips)
WEIGHT OF 2 CORNER CONES OF SOIL (Ws2):	0.00 (Kips)	x 0.75	= 0.00 (Kips)
WEIGHT OF 2 SIDE WEDGES OF SOIL (Ws3):	0.00 (Kips)	x 0.75	= 0.00 (Kips)
DOWNLOAD FROM STRUCTURE			= 2.54 (Kips)

Note: For calculation of Overturning Moment the Download was divided by applied dead weight factor and then multiplied by factor of: 0.90

TOTAL VERTICAL FORCE (Pv): = 52.82 (Kips)

OVERTURNING MOMENT (Mov)

Mov = Moment from Tower + Shear x Height
 Mov = 39.00 + 7.73 = 46.73 (Kipsft)

RESISTING MOMENT (Mres)

Mres = (Wc + Ws) x PadWidth / 2 + Ws1 x D1 + Ws2 x D2 + Ws3 x D3 + Download x (0.5 x PadWidth - Offset)
 Distance from edge of pad to centre of gravity of wedge, D1 = 0.00 (ft)
 Distance from edge of pad to centre of gravity of corner cones, D2 = 0.00 (ft)
 Distance from edge of pad to centre of gravity of side wedges, D3 = 0.00 (ft)
 Mres = (21.38 + 28.91) x 4.50 + 0.00 x 0.00 + 0.00 x 0.00 + 0.00 x 0.00 + 1.73 x (4.50 - 0.00)
 Mres = 234.05 (Kipsft)

COUNTERACTING MOMENT (Ms)

Ms = Ws1 x L1 + Ws2 x L2 + Ws3 x L3
 Distance from centre of pad to centre of gravity of wedge, L1 = 0.00 (ft)
 Distance from centre of pad to centre of gravity of corner cones, L2 = 0.00 (ft)
 Distance from centre of pad to centre of gravity of side wedges, L3 = 0.00 (ft)
 Ms = 0.00 x 0.00 + 0.00 x 0.00 + 0.00 x 0.00 = 0.00 (Kipsft)

Total Moment (Mt) = Moment from Tower + Shear x Height + Download x Offset - Ms
 Total Moment (Mt) = 39.00 + 7.73 + 0.00 - 0.00 = 46.73 (Kipsft)

Eccentricity E = Mt / Pv = 46.73 / 52.82 = 0.885 (ft)

Maximum pressure along diagonal axis

Ecc <= PadWidth / (6 * SQRT(2))
 Maximum Pressure = Pv / PadWidth^2 + (1 + SQRT(2) x 6 x Ecc / PadWidth)
 Maximum Pressure = 52.82 / 9.00^2 + (1 + SQRT(2) x 6 x 0.885 / 9.00)
 Maximum Gross Pressure = 1196.04 (psf)
 Overburden Pressure = 539.98 (psf)
 Maximum Net Pressure = 656.06 (psf)

Maximum pressure along parallel axis

Ecc <= PadWidth / 6
 Maximum Pressure = (Pv / PadWidth^2) x (1 + 6 x Ecc / PadWidth)
 Maximum Pressure = (52.82 / 81.00) x (1 + 6 x 0.885 / 9.00)
 Maximum Gross Pressure = 1036.81 (psf)
 Overburden Pressure = 539.98 (psf)
 Maximum Net Pressure = 496.82 (psf)

ONE-WAY SHEAR

d1 = Depth of Pad - Clear Cover - Bar Size
 d1 = 18.000 - 3.000 - 0.874 = 14.126 (in)

TS Foundation - v 2.0.1.5 Foundation Analysis Program

Licensed to: Ehresmann Engineering

(c) 2007 - 2020 TowerSoft www.TSTower.com

4400 W 31st St, Yankton, SD 57078

File: C:\Users\Trump\Documents\TSFoundation Jobs\112740-LEWIS & CLARK SUB, SD - MAT.out

Contract: 112740

Revision: 0

Project: MAT FOUNDATION

Site: LEWIS & CLARK SUB, SD

Date and Time: 9/22/2022 2:39:43 PM

Engineer: EH

$V_c = 2 \times \Phi \times \sqrt{F'_c} \times \text{PadWidth} \times d_1$
 $V_c = 2 \times 0.75 \times \sqrt{4500.01} \times 108.00 \times 14.126 / 1000 = 153.45 \text{ (Kips)}$
 $V_f = (0.5 \times P_1 + P_2 - P_3) \times \text{Pad Width} \times B_w$
 $B_w = \text{Distance from edge of pad to face of column} - d_1$
 $B_w = 4.500 - 1.750 - 1.177 = 1.573 \text{ (ft)}$
 $P_1 = \text{Triangular pressure at length of } B_w = 902.38 \text{ (psf)}$
 $P_2 = \text{Rectangular pressure at length of } B_w = 134.43 \text{ (psf)}$
 $P_3 = \text{Overburden pressure at length of } B_w = 134.43 \text{ (psf)}$
 $P_1 + P_2 = \text{Maximum Gross Pressure}$
 $V_f = (451.19 + 134.43 - 539.98) \times 9.00 \times 1.57 / 1000 = 0.65 \text{ (Kips)}$

TWO-WAY SHEAR

Vc shall be lesser of:

a) $V_c = (2 + 4 / \beta) \times \Phi \times \sqrt{F'_c} \times B_o \times d_1$
b) $V_c = (2 + 40 \times d_1 / B_o) \times \Phi \times \sqrt{F'_c} \times B_o \times d_1$
c) $V_c = 4 \times \Phi \times \sqrt{F'_c} \times B_o \times d_1$
 $B_o = \pi \times (\text{PierSize} + d_1) = 176.33 \text{ (in)}$
a) $V_c = (2 + 4 / 1.0) \times 0.75 \times \sqrt{4500.01} \times 176.33 \times 14.13 / 1000 = 751.57 \text{ (Kips)}$
b) $V_c = (2 + 40 \times 14.1 / 176.33) \times 0.75 \times \sqrt{4500.01} \times 176.33 \times 14.13 / 1000 = 651.93 \text{ (Kips)}$
c) $V_c = 4.0 \times 0.75 \times \sqrt{4500.01} \times 176.33 \times 14.13 / 1000 = 501.05 \text{ (Kips)}$
Note: Instead of calculating V_f as the pressure from Pad acting on area of pad minus area below pier we will use maximum vertical force plus the pier weight (from top of pier to the bottom of the pad) in dry condition with corresponding load factor.
 $V_f = 2.54 + 1.20 \times 8.76 = 16.21 \text{ (Kips)}$

REINFORCEMENT OF PAD

Bending Moment $M_{pad} = (L_{bend} - C_3 / 3) \times C_3 \times (Q_{max} / 2)$
 $L_{bend} = (\text{PadWidth} - \text{PierSize}) / 2 = (9.00 - 3.50) / 2 = 2.75 \text{ (ft)}$
 $Q_{max} = \text{LoadFactor} \times \text{Gross Pressure} - \text{Pressure of Soil on Pad} =$
 $= 1.00 \times 1036.81 - 0.90 \times 599.98 = 496.82 \text{ (psf)}$
 $Q_{min} = \text{LoadFactor} \times \text{Minimum Pressure} - \text{Pressure of Soil on Pad} =$
 $= 1.00 \times 267.56 - 0.90 \times 599.98 = 0.00 \text{ (psf)}$
Rectangular Pressure, $Q_{med} = Q_{max} - (Q_{max} - Q_{min}) \times L_{bend} / L_1$
 $L_1 = \text{Length of positive pressure} = 9.00 \text{ (ft)}$
 $Q_{med} = 496.82 - (496.82 - 0.00) \times 2.75 / 9.00 = 345.02 \text{ (psf)}$
Triangular Pressure, $Q_{max} - Q_{med} = 496.82 - 345.02 = 151.81 \text{ (psf)}$
 $M_{pad} = (2.75 - 0.00) \times 0.00 \times (496.82 / 2) = 0.00 \text{ (Kipsft) PER 1 FOOT}$
Formula for Rho (square equation), where $K_u = M_{pad} / (d^2) :$
 $F_y \times Rho - K_u / \Phi_{is} - \Phi_{is} \times F_y^2 \times Rho^2 / (1.7 \times \Phi_{ic} \times F'_c) = 0$
Solving the equation using Newton-Ralphson Method, Rho = 0.00003
Required area of steel: $Rho \times d_1 \times \text{PadWidth} = 0.00003 \times 14.13 \times 108.00 = 0.04 \text{ (in}^2\text{)}$
Minimum Area of Steel: $0.0018 \times 108.00 \times 18.00 = 3.50 \text{ (in}^2\text{)}$
Area of Steel in pad 10-#7 10 x 4165.67 = 6.00 (in²)

File: C:\Users\Trump\Documents\TSFoundation Jobs\112740-LEWIS & CLARK SUB, SD - PIER.out

Contract: 112740

Project: PIER FOUNDATION

Date and Time: 9/22/2022 11:56:16 AM

Revision:0

Site: LEWIS & CLARK SUB, SD

Engineer: EH

CAISSON FOUNDATION

Design Standard: ANSI/TIA-222-G

Concrete Design per: ACI 318

Concrete (F'c): 4.50 (ksi)

Cement Type: GU

Steel (Fy): 60.00 (ksi)

Rebars: American

Concrete Volume: 6.95 (yd^3)

Water table: 8.00 (ft)

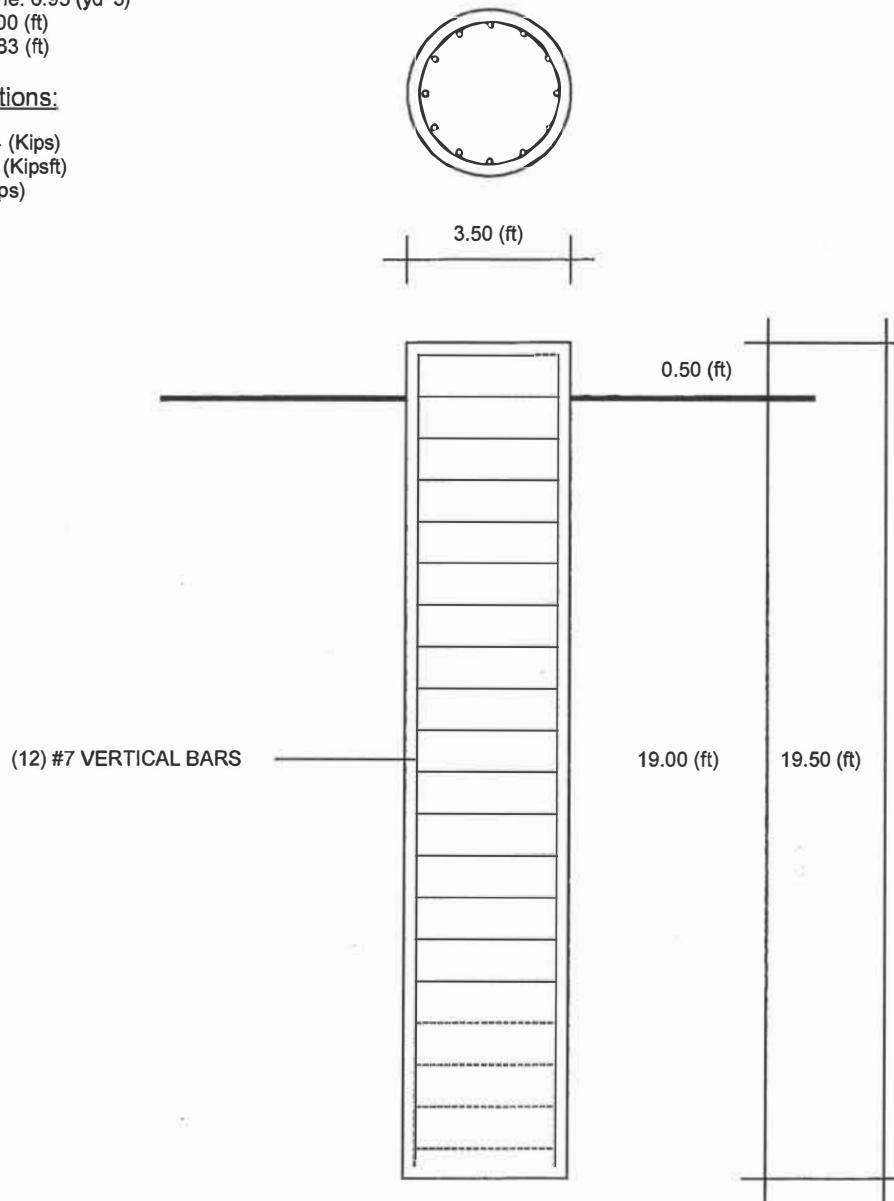
Frost Depth: 5.83 (ft)

Tower Reactions:

Download: 2.54 (Kips)

Moment: 39.00 (Kipsft)

Shear: 1.19 (Kips)



TS Foundation - v 2.0.1.5 Foundation Analysis Program

(c) 2007 - 2020 TowerSoft www.TSTower.com

Licensed to: Ehresmann Engineering

4400 W 31st St, Yankton, SD 57078

File: C:\Users\Trump\Documents\TSFoundation Jobs\112740-LEWIS & CLARK SUB, SD - PIER.out

Contract: 112740

Revision: 0

Project: PIER FOUNDATION

Site: LEWIS & CLARK SUB, SD

Date and Time: 9/22/2022 11:55:05 AM

Engineer: EH

CAISSON FOUNDATION ANALYSIS

DESIGN VALUES FOR CONCRETE, STEEL AND SOIL PROPERTIES:

Concrete Strength (F'c) : 4.50 (ksi)
Steel Reinforcement Yield : 60.00 (ksi)
Concrete Weight per Unit Volume : 140.06 (pcf)

Soil Properties

Layer #	Depth (ft)	Density (pcf)	Submerged Density (pcf)	Rankine Passive Pressure	Allowable Net Bearing Pressure (psf)	Cohesion of Soil (psf)	Skin Friction Download (psf)	Skin Friction Uplift (psf)	Uplift Bearing Pressure (psf)	Type of Soil
1	5.00	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	SAND
2	4.50	115.00	53.00	2.882	0.00	0.00	500.00	500.00	0.00	SAND
3	5.00	115.00	53.00	2.882	2400.00	0.00	460.00	460.00	0.00	SAND
4	16.50	115.00	53.00	3.254	2400.00	0.00	960.00	960.00	0.00	SAND

Depth of water below grade : 8.00 (ft)
Frost Depth : 5.83 (ft)
Depth of top soil ignored for cohesion : 0.98 (ft)
Extension of Caisson Above Grade : 0.50 (ft)

Foundation Designed According to : ANSI/TIA-222-G
Rebars : American

LOADING FACTORED AS PER ANSI/TIA-222-G

DOWNLOAD (Kips)	SHEAR (Kips)	MOMENT (Kipsft)	TOTAL LOADING
2.54	1.19	39.00	Load Case 1 - Maximum Moment and matching Axial and Shear

ALLOWABLE SOIL BEARING PRESSURE (NET) : 2400.00 (psf)
ULTIMATE SOIL BEARING PRESSURE (SAFETY FACTOR = 3.00) : 7200.00 (psf)
FACTORED SOIL BEARING PRESSURE : 5400.00 (psf)

SUPERSTRUCTURE : MONOPOLE

CAISSON DEPTH (ft)	DIAMETER (ft)	BELL DIAMETER (ft)	BELL HEIGHT (ft)	BELL SLOPED HEIGHT (ft)	ANGLE	VOLUME (yd^3)
19.00	3.50	N/A	N/A	N/A	0.00	6.95

Min. Depth required for lateral pressure : 9.51 (ft)
% LATERAL PRESSURE = 50.08%
Download Capacity : 125.09 (Kips)
% DOWNLOAD = 2.03%
Center of Rotation (COR) below grade : 6.97 (ft)
Maximum bending moment : 45.60 (Kipsft)
Depth below grade to maximum moment : 5.21 (ft)

SHEAR FORCES AND MOMENTS ALONG CAISSON

Depth below Grade (ft)	Shear Force (Kips)	Moment (Kipsft)
0.00	3.17	39.64
1.27	3.17	40.81
2.26	3.17	41.98
3.24	3.17	43.15
4.22	3.17	44.32
5.21	0.99	45.60
5.54	-3.57	45.60
6.52	-18.95	24.96
7.50	-18.32	38.90
8.49	-5.11	4.19

TS Foundation - v 2.0.1.5 Foundation Analysis Program

(c) 2007 - 2020 TowerSoft www.TSTower.com

Licensed to: Ehresmann Engineering

4400 W 31st St, Yankton, SD 57078

File: C:\Users\Trump\Documents\TSFoundation Jobs\112740-LEWIS & CLARK SUB, SD - PIER.out

Contract: 112740

Revision: 0

Project: PIER FOUNDATION

Site: LEWIS & CLARK SUB, SD

Date and Time: 9/22/2022 11:55:05 AM

Engineer: EH

9.51 0.00 0.00

COLUMN CAPACITY

CAISSON REINFORCEMENT: 12-#7 PERCENTAGE: 0.52 %
MINIMUM REINFORCEMENT IN COMPRESSION REQUIRED BY CODE: 0.50 %
MAXIMUM DOWNLOAD: 84.37 (Kips) MAXIMUM MOMENT: 669.26 (Kipsft)
APPLIED MOMENT = 45.60 (Kipsft)
% COLUMN REINF. = $100 * 45.60 / 669.26 = 6.81\%$

MAXIMUM PERCENTAGE UTILIZED = 50.08%

DETAILS OF CALCULATION:

CALCULATION OF DOWNLOAD CAPACITY

Soil Bearing Capacity = $\Phi \times \text{BottomArea} \times \text{SafetyFactor} \times \text{AllowableBearingCapacity}$
Soil Bearing Capacity = $0.75 \times 9.621 \times 3.00 \times 2400.00 = 51.95$ (Kips)
Download resistance due to Skin Friction/Adhesion, Drf
Layer # 2 $\Phi \times 4.50 \times 3.50 \times 500.00 = 24.74$ (Kips)
Layer # 3 $\Phi \times 5.00 \times 3.50 \times 460.00 = 25.29$ (Kips)
Layer # 4 $\Phi \times 4.50 \times 3.50 \times 960.00 = 47.50$ (Kips)
Sum of Skin Friction/Adhesion for entire shaft = 97.52 (Kips)
Drf = $\Phi \times \text{SkinResistance} = 0.75 \times 97.52 = 73.14$ (Kips)
Total Download Capacity = 125.09 (Kips)

AFFIDAVIT OF MAILING

I, Jesse Wire, hereby certify that on the 1st day of March, 2023, I mailed by first class mail, postage prepaid, a true and correct copy of the Notice of Public Hearing to all owners of real property lying within a 1,320 feet radius of the proposed project to the most recent address of the recipient known to your Affiant.

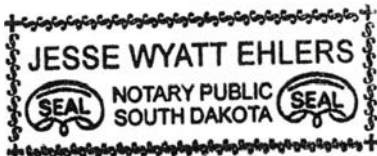
A true and correct copy of the Notice of Public Hearing notification letters are attached as Exhibit #1 or #2.

A true and correct copy of the mailing list for owners of real property is attached as Exhibit #1A or #2A.

Dated the 1st day of March, 2023.

Jesse Wire
(Name)
Affiant

Subscribed and sworn to before me this 1st day of March, 2023.



(SEAL)

Jesse Wyatt Ehlers
Notary Public - South Dakota
My commission expires: October, 21, 2028

NOTIFICATION

February 27, 2023

East River Electric
211 S. Harth Ave.,
Madison, SD 57042

Dear Yankton County Property Owner:

The Yankton County Zoning Ordinance requires written notification describing a specific action be sent to the owners of real property lying within 1,320 feet of the property on which the below described action is proposed. The notice shall be given to each owner of record by depositing such notice in the United States Post Office not less than 10 days prior to the hearing date. Therefore, you are hereby notified. Please take a moment to review the notice of public hearing described below.

NOTICE OF PUBLIC HEARING

Notice is hereby given that a public hearing will be held before the Yankton County Planning Commission, Yankton County, South Dakota, at 7:05 P.M. on the 14th day of March, 2023 at the Yankton County Government Center, Commissioners Chambers, 321 West Third St., Yankton, South Dakota.

Said hearing is to consider the following:

Applicant is requesting a Conditional Use Permit to construct a wireless tower for internal communications with their substation per Article 25 Section 2503. Said property is legally described as Lot 1 of Lewis and Clark Substation addition in the Southwest Quarter of the Southwest Quarter of Section 15, Township 93 North, Range 56 West of the 5th Principal Meridian, Yankton County, South Dakota. E911 address is 206 S. Deer Boulevard, Yankton, South Dakota

The application may be reviewed at the Zoning Administrators office, Yankton County Government Center, 321 West Third St., Yankton, S.D. or online at the Yankton County Website.

Sincerely,
Jerae Wire
East River Electric

Petitioner

ADAM, ROGER P (D)
109 VIOLET DR
YANKTON SD 57078

ADAM, ROLAND A (D)
317 S DEER BLVD
YANKTON SD 57078

BAKLEY, DEVIN W (D)
3710 STACI LN
YANKTON SD 57078

BGB LLC (D)
309 WEST SUMMIT ST
PAGE NE 68766

BGB LLC (D)
309 WEST SUMMIT
PAGE NE 68766

BRIGHTWAY ELECTRIC LLC (D)
PO BOX 216
YANKTON SD 57078

BRYAN, ANDREW D (D)
3711 KRISTI LN
YANKTON SD 57078

CORBIT, LANCE W (D)
3704 STACI LN
YANKTON SD 57078

~~DEIBERT, THOMAS E (D)
500 LARCH LN
YANKTON SD 57078~~

DIEFENDERFER, TERRY (D)
102 VIOLET DR
YANKTON SD 57078

DOLEJSI, WANDA L (D)
1109 CEDAR ST
YANKTON SD 57078

FOXHOVEN, TIMOTHY G (D)
101 VIOLET DR
YANKTON SD 57078

GUTHMILLER, KEVIN D (D)
105 VIOLET DR
YANKTON SD 57078

HAAS, TIMOTHY A (D)
104 VIOLET DR
YANKTON SD 57078

HEILMAN, THOMAS L (D)
3708 STACI LN
YANKTON SD 57078

HEINE FARMS (D)
PO BOX 477
YANKTON SD 57078

HEIRIGS, JOHN F (D)
760 LA VUESTA DR
DAVENPORT FL 33837

HENDERSON, GREGORY W (D)
3708 KRISTI LN
YANKTON SD 57078

HENDRIX, BRADIE A TRUST (D)
3702 STACI LN
YANKTON SD 57078

HINKER, DUSTIN ROBERT (D)
110 VIOLET DR
YANKTON SD 57078

K CONSTRUCTION LLC (D)
1603 LOCUST ST
YANKTON SD 57078

~~KALLHOFF, CHRISTOPHER L (D)
200 FORESTVIEW DR
YANKTON SD 57078~~

KATHOL, KEVIN (D)
3709 KRISTI LN
YANKTON SD 57078

KELLEN, TIM (D)
3710 KRISTI LN
YANKTON SD 57078

KOKESH, DAVID L (D)
3705 KRISTI LN
YANKTON SD 57078

KUEHLER, MARK E (D)
100 VIOLET DR
YANKTON SD 57078

LAKESIDE PARK SD LLC (D)
% RANDY SKILLIN
639 E MCKINLEY
FRESNO CA 93728

LIPPERT, WADE ALLEN (D)
3702 KRISTI LN
YANKTON SD 57078

MALLOY, MATTHEW JOHN (D)
108 VIOLET DR
YANKTON SD 57078

~~MUTSCHELKNAUS, JOSEPH A (D)
602 KIRBY ST
YANKTON SD 57078~~

NEU, JOHN J (D)
3706 KRISTI LN
YANKTON SD 57078

NEU, JUDITH L TRUST (D)
3706 STACI LN
YANKTON SD 57078

PAVELKA, GREGORY A (D)
3707 STACI LN
YANKTON SD 57078

PEPPER, SARA L (D)
107 VIOLET DR
YANKTON SD 57078

PETERSEN, AARON (D)
313 DEER BLVD
YANKTON SD 57078

PETERSEN, AARON (D)
PO BOX 1097
YANKTON SD 57078

RYKENS RV PARK INC (D)
31120 435 AVE
YANKTON SD 57078

SCHULTE, LEON K (D)
3711 STACI LN
YANKTON SD 57078

SEDLACEK, MELVIN R (D)
3703 STACI LN
YANKTON SD 57078

SHELDON, TODD M (D)
3705 STACI LN
YANKTON SD 57078

SKELHOUSE 1 LLC (D)
11707 ASTER WAY
WOODBURY MN 55125

SOMER, HAL L (D)
3709 STACI LN
YANKTON SD 57078

SOPHECK, SENG (D)
2405 WEST CITY LIMITS RD #314
YANKTON SD 57078

WALTERS, NICK (D)
612 KENNEDY ST
VERMILLION SD 57069

~~WEBER, MICHAEL (D)
500 KIRBY ST
YANKTON SD 57078~~

WECHSLER, TIMOTHY J (D)
3703 KRISTI LN
YANKTON SD 57078

WENTZ, CHELSEA J (D)
3704 KRISTI LN
YANKTON SD 57078

WEST YANKTON INC (D)
PO BOX 477
YANKTON SD 57078

WEYDERT, NICHOLAS J (D)
3707 KRISTI LN
YANKTON SD 57078

WHITE CRANE ESTATES LLC (D)
PO BOX 805
LAUREL NE 68745

WISE, LAURIE A (D)
106 VIOLET DR
YANKTON SD 57078

~~ZIEGLER, MARY L (D)
5821 HALFMOON WAY
LAS VEGAS NV 89108~~

~~ZIEGLER, WM (D)
201 EAST 23 ST
YANKTON SD 57078~~

Yankton County, South Dakota

Paid by
Jerae Wire
jwire@eastriver.coop

Payment number
Date paid
Payment method

Receipt

213758068
February 1, 2023 10:39 AM
Online

\$300.00 paid on February 1, 2023

Variance, Conditional Use and Rezoning Application

Application ID: 90593

Description	Amount
Fee	\$300.00

Yankton County Planning Commission
Yankton County Board of Adjustment

Date filed:

Applicant

Kim Mueller

District type: ☒ AG ☐ R1-Low ☐ R2-Moderate ☐ R3-High ☐ C-Comm.

☐ LC – Lakeside Commercial ☐ RT-Rural Transitional

Variance needed:

☒ Section 513 ☐ Section 515 ☐ Section 705 ☐ Section 715 ☐ Section 805

☐ Section 1907

North Side/ Yard lot line: _____ feet or no closer than _____ feet to the _____ lot line.

East Side / Yard lot line: _____ feet or no closer than _____ feet to the _____ lot line.

South Side / Yard lot line: _____ feet or no closer than _____ feet to the _____ lot line.

West Side / Yard lot line _____ feet or no closer than _____ feet to the _____ lot line.

Accessory Building Size allowed:

Proposed building size:

Proposed sidewall height:

Affects Section:

Variance -

Applicant is requesting a variance to minimum lot size in an Agriculture District.

Applicant wishes to replot one platted non-conforming lot into two lots each under 20 acres per Article 18 Section 1807. Said property is legally described as Plat of Lots 1 and 2 of J & P Frick Addition, in the SW1/4 of the SE1/4 of Section 8, and in the NW1/4 of the NE1/4 of Section 17, T94N, R55W of the 5th P.M., Yankton County, South Dakota. E911 address is 30499 SW Jim River Rd, Yankton, South Dakota.

This plat vacates previously platted Lot A of Lot 4 of Schlaefli's 3rd. Addition in the W1/2 of the SE1/4 of Section 8, T94N, R55W of the 5th P.M., Yankton County, SD. Recorded on May 23, 2000, and Recorded in Book S18, Page 183

PC: Article 18 Section 1807

BOA: Article 19 Section 1907

Planning Commission date:
3/14/2023

Board of Adjustment date:
4/4/2023

Time:
7:10
P.M.
Time:

Permit Number: VAR-2023-89

Yankton County

 X Variance Conditional Use Rezoning

Owner: Frick Trust

Owners Address: 30499 Sw JIm River Rd

Owners Phone: 605-661-1249

Applicants Name,
if different from

Owner: Kim Mueller

Applicants

Address: 30499 Sw Jim River Rd

Job Address: 30499 SW JIM RIVER RD

Legal: LT A LT 4 SCHAEFLI'S 3RD ADDN

Section,

Township, Range: 8-94-55

Zoning

Classification: AG

Affected Zoning

Ordinance: Section 507,Section 1807513Section 18071907

Reason for Wish to replot one lot into two smaller lots

Request: _____

List Specific Hardships: Non-conforming existing plat and non-conforming remaining acreage

SCHEDULED FOR PLANNING COMMISSION ACTION (DATE): 03/14/2023 8:10 PM CST

SCHEDULED FOR BOARD OF ADJUSTMENT ACTION (DATE): _____

Application Fee: \$450.00 Check #: 11019 Receipt #:

Check #: 11019 Receipt #:

Receipt #:

Kim M. Davis

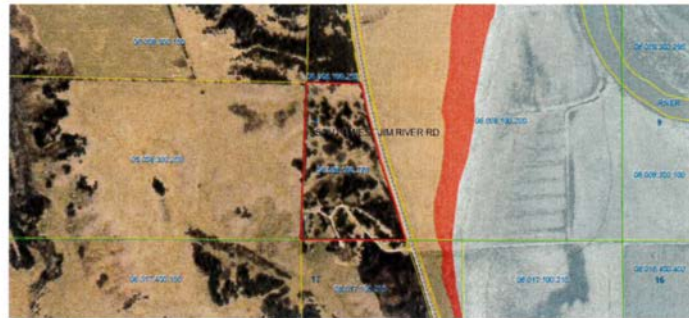
Date:

02/14/2023

Signature: _____ 02/14/2025

Frick Trust

Site Map



Parcel Number: 06.008.100.276

Site Description:



FINDINGS OF FACT – VARIANCE

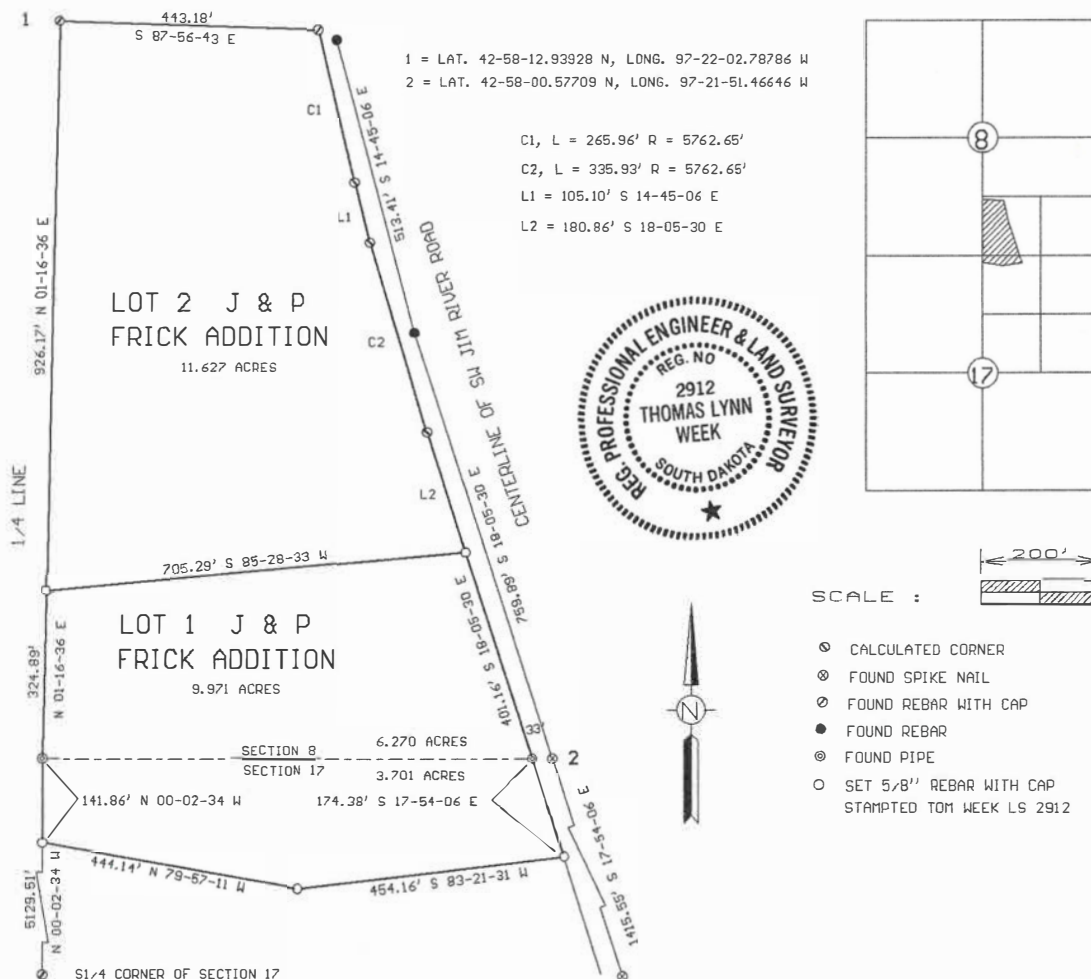
Frick-Var-2023-89

Are the requirements of Section 1723 met? (signed by owner unless there is a binding purchase agreement then signed by applicant, Variance accompanied by building permit (if applicable), site plan included with building permit,	Yes
Are the requirements of Section 1729 met? (all fees paid at time of application)	Yes
Section 1807:	
1. A. The strict application of the ordinance would produce undue hardship;	Applicant is requesting a Variance to minimum lot size in an Ag District, Applicant wishes to replot one platted non-conforming lot into two smaller lots each smaller than 20 acres.
B. Such hardship is not shared generally by other properties in the same zoning district and the same vicinity;	
C. The authorization of such variance will not be of substantial detriment to adjacent property and the character of the district will not be changed by the grant of the variance; and	
D. The granting of such variance is based upon reasons of demonstrable and exceptional hardship as distinguished from variations for purposes of convenience, profit, and caprice.	
2. No variance shall be recommended for approval unless the Planning Commission finds the condition or situation of the property concerning or the intended use of the property concerned, or the intended use of the property is not of so general or recurring a nature as to make reasonably practicable the formulation of a general regulation to be adopted as an amendment of this ordinance.	
3. A. A written application for a variance is submitted demonstrating that special conditions and circumstances exist which are peculiar to the land, structure, or building involved and which are not applicable to other lands, structures, or buildings, in the same district;	
B. The literal interpretation of the provisions of this ordinance would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this ordinance;	
C. The special conditions and circumstances do not result from the actions of the applicant; and	

	the applicant any special privilege that is denied by this ordinance to other lands, structure, or buildings in the same district.	
E.	No nonconforming use of neighboring lands, structures, or buildings in the same district, and no permitted or nonconforming use of lands, structures or buildings in other districts shall be considered grounds for the issuance of a variance.	
F.	Notice of public hearing shall be given, as in Section 1803 (3-5).	Mailed – Published –
G.	The public hearing shall be held. Any party may appear in person for by agent or by attorney.	Public hearing –
H.	The Planning Commission shall make findings that the requirements of this Section have been met by the applicant for a variance; the Commission shall further make a finding that the reasons set forth in the application justify the recommendation of granting the variance, and the variance is the minimum variance that will make possible the reasonable use of the land, building, or structure; the Planning Commission shall further make a finding that the granting of the variance will be in harmony with the general purpose and intent of this ordinance, and will not be injurious to the neighborhood, or otherwise detrimental to the public welfare.	
I.	In recommending approval of any variance, the Planning Commission may prescribe appropriate conditions and safeguards in conformity with this ordinance.	
J.	Under no circumstances shall the Planning Commission recommend granting a variance to allow a use not permissible under the terms of this ordinance in the district involved, or any use expressly or by implication prohibited by the terms of this ordinance in said district.	

PLAT OF LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA.

THIS PLAT VACATES PREVIOUSLY PLATTED LOT A OF LOT 4 OF SCHAEFLI'S 3RD. ADDITION IN THE W1/2 OF THE SE1/4 OF SECTION 8, T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SD. RECORDED ON MAY 23, 2000, AND RECORDED IN BOOK S18, PAGE 183.



SURVEYORS CERTIFICATE

I, THOMAS LYNN WEEK, REGISTERED LAND SURVEYOR IN YANKTON, SOUTH DAKOTA, HAVE AT THE DIRECTION OF THE OWNERS, MADE A SURVEY OF LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA. I HAVE SET IRON PINS AS SHOWN, AND SAID SURVEY AND PLAT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATED THIS 10TH. DAY OF FEBRUARY, 2023.

THOMAS LYNN WEEK
REG. LAND SURVEYOR
REG. NO. 2912

RESOLUTION OF COUNTY PLANNING COMMISSION

BE IT RESOLVED BY THE YANKTON COUNTY PLANNING COMMISSION, THAT THE ABOVE PLAT REPRESENTING LOTS 1 AND 2 OF J & P ADDITION ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA, BE AND THE SAME IS HEREBY APPROVED.

CHAIRMAN, PLANNING COMMISSION

CERTIFICATE OF STREET AUTHORITY

THERE IS ACCESS TO LOT 1 OF J & P FRICK ADDITION FROM THE SW JIM RIVER ROAD. ANY FURTHER ACCESS POINTS WILL REQUIRE ADDITIONAL APPROVAL.

DATED THIS _____ DAY OF _____, _____.

COUNTY APPROVAL

PLAT OF LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA.

OWNERS CERTIFICATE

I, KIMBERLY MUELLER, AS POWER OF ATTORNEY FOR PAMELA J. FRICK AND JOHN G. FRICK, OF WHICH ARE TRUSTEES OF THE PAMELA J. FRICK REVOCABLE TRUST AND JOHN G. FRICK REVOCABLE TRUST, DO HEREBY CERTIFY THAT PAMELA J. FRICK REVOCABLE TRUST AND THE JOHN G. FRICK REVOCABLE TRUST, ARE THE ABSOLUTE AND UNQUALIFIED OWNERS OF THE ABOVE DESCRIBED PROPERTY: LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA. THAT THE ABOVE SURVEY AND PLAT WAS MADE AT MY REQUEST AND UNDER MY DIRECTION FOR THE PURPOSE OF LOCATING, MARKING AND PLATTING THE SAME, AND THAT SAID PROPERTY IS FREE FROM ALL ENCUMBRANCES. THE DEVELOPMENT OF THIS LAND SHALL CONFORM TO ALL EXISTING APPLICABLE ZONING SUBDIVISION AND EROSION AND SEDIMENT CONTROL REGULATIONS.

DATED THIS ____ DAY OF _____, ____.

KIMBERLY MUELLER, AS
POWER OF ATTORNEY

STATE OF _____
COUNTY OF _____
ON THIS ____ DAY OF _____, _____, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED KIMBERLY MUELLER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND WHO ACKNOWLEDGED TO ME THAT SHE AS HAVING POWER OF ATTORNEY, EXECUTED THE SAME FOR THE PURPOSES THEREIN CONTAINED.
MY COMMISSION EXPIRES _____

NOTARY PUBLIC

RESOLUTION OF APPROVAL

WHEREAS, IT APPEARS THAT THE OWNERS THEREOF HAVE CAUSED A PLAT TO BE MADE OF THE FOLLOWING REAL PROPERTY: LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA, AND HAVE SUBMITTED SUCH PLAT TO THE COUNTY COMMISSION OF YANKTON COUNTY, SOUTH DAKOTA FOR APPROVAL. NOW THEREFORE BE IT RESOLVED, THAT SUCH PLAT HAS BEEN EXECUTED ACCORDING TO THE LAW AND SAME IS HEREBY APPROVED. THE COUNTY AUDITOR IS HEREBY AUTHORIZED AND DIRECTED TO ENDORSE ON SUCH PLAT A COPY OF THIS RESOLUTION AND CERTIFY THE SAME.

I, _____, COUNTY AUDITOR OF YANKTON COUNTY, SOUTH DAKOTA, DO HEREBY CERTIFY THAT THE WITHIN AND FOREGOING IS A TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF COUNTY COMMISSIONERS OF YANKTON COUNTY, SOUTH DAKOTA, ON THIS ____ DAY OF _____,
_____.

COUNTY AUDITOR

CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS

DIRECTOR OF EQUALIZATION CERTIFICATE

I, _____, DIRECTOR OF EQUALIZATION, YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT I HAVE RECEIVED A COPY OF THE FOREGOING PLAT. DATED THIS ____ DAY OF _____, ____.

DIRECTOR OF EQUALIZATION, YANKTON COUNTY

TREASURER CERTIFICATE

I, _____, TREASURER OF YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT ALL TAXES WHICH ARE LIEN UPON ANY LAND INCLUDED IN THE ABOVE PLAT, AS SHOWN BY THE RECORDS OF THIS OFFICE, HAVE BEEN PAID. DATED THIS ____ DAY OF _____, ____.

TREASURER, YANKTON COUNTY

REGISTER OF DEEDS CERTIFICATE

I, _____, REGISTER OF DEEDS, YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT I HAVE RECEIVED THE ORIGINAL PLAT, FILED FOR RECORD THIS ____ DAY OF _____, _____, _____ O'CLOCK ____ M., AND DULY RECORDED IN BOOK NO. ____, PAGE ____.

PREPARED BY: TOM WEEK
407 REGAL DRIVE
YANKTON, SOUTH DAKOTA 57078
605-665-8333

REGISTER OF DEEDS, YANKTON COUNTY, SD

Variance, Conditional
Use and Rezoning
Application
VAR-2023-89
Applicant
Kim Mueller
Fees Paid
\$450.00
Created
February 14, 2023

Number
VAR-2023-
89

06.008.100.276 | Frick Trust |
30499 SW JIM RIVER RD,
YANKTON, SD, 57078
Submitted by kimmueller8559
on 2/14/2023

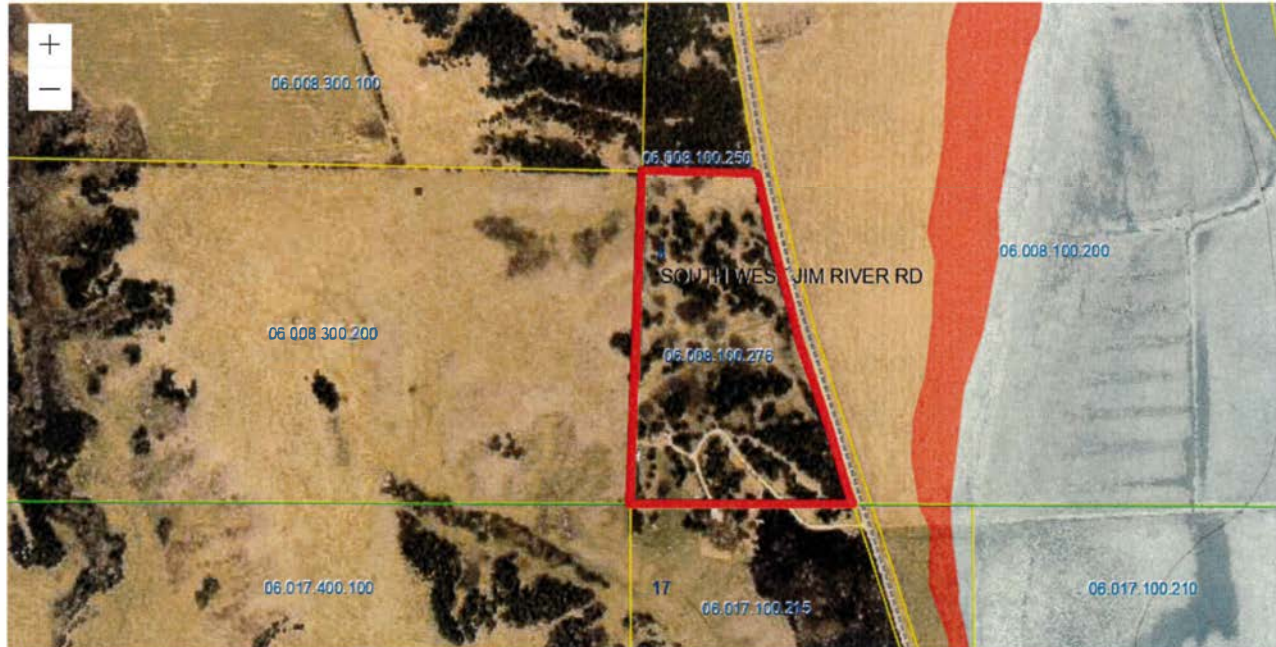


Applicant

Kim Mueller

kimmueller4321@gmail.com

Parcel search Completed On 2/14/2023 11:40 AM EST by Anonymous



Maxar

Powered by Esri

ParcelID	Address	City	OwnerName	Acres
06.008.100.276	30499 SW JIM RIVER RD	YANKTON	FRICK, PAMELA J REV TRUST (D)	17.860

Draft Building Permit Completed On 2/14/2023 11:46 AM EST by kimmueller8559

Upload Draft Building Permit

Draft Building Permit Form Completed On 2/14/2023 11:47 AM EST by kimmueller8559

Job Address

30499 SW JIM RIVER RD

Legal Description of Construction Site

LT A LT 4 SCHAEFLI'S 3RD ADDN

Owner Name

FRICK, PAMELA J REV TRUST (D)

Owner Address

Owner Phone

Contractor

Contractor Mailing Address

Contractor Phone

Architect or Designer

Architect or Designer Mailing Address

Architect or Designer Phone

Type and Use of Building

Class of Work

Describe Work

Valuation of Work

\$

Generate Draft Building Permit Completed On 2/14/2023 11:47 AM EST by kimmueller8559

[Generate Draft Building Permit](#)

Submit Completed On 2/14/2023 11:47 AM EST by kimmueller8559

A notification sign shall be posted on the property upon which action is pending at least seven (7) days prior to the hearing date. Such signs shall be placed along all the property's road frontage so as to be visible from the road. If a property does not have a road frontage, then such signs shall be placed upon the closest available right-of-way and upon the property. Said signs shall not be less than one hundred and eighty seven (187) square inches in size. It shall be unlawful for any person to remove, mutilate, destroy or change such posted notice prior to such hearings.

Please pick the sign up from the zoning office on or before eight (8) days prior to the meeting.

Applicant Agreement

Please check the box to confirm you have read and agree to the notices above.

Signature

Kim Mueller

Date

2/14/2023

Application Submitted Successfully Completed On 2/14/2023 11:48 AM EST by kimmueller8559

Your application has been submitted for review. Thank you.

Please click next at the bottom to continue. Thank you

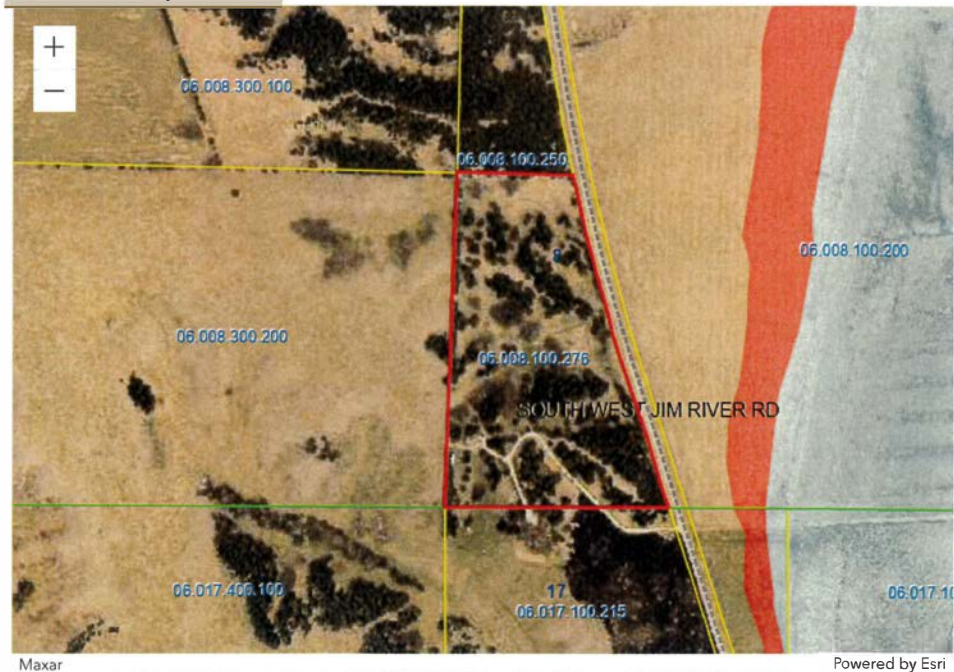
Site Plan Completed On 2/14/2023 12:58 PM EST by bconkling

Map - Mark the location of structures and other necessary information.

☐ Sketch Layer

☐ Reference Layer

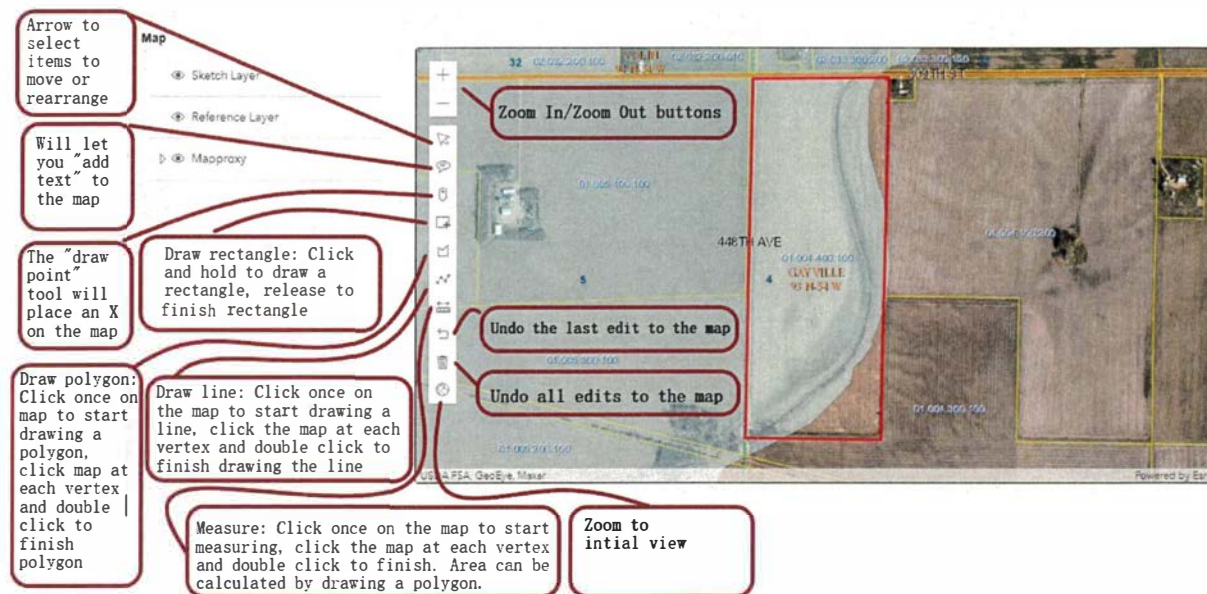
☒ Mapproxy



Describe the location and use of adjacent structures

Upload Site Plan and/or additional plans and documents

[Frick plat.pdf](#)



Request Information Completed On 2/14/2023 2:58 PM EST by bconkling

Type of Request

Variance

Fee

\$450.00

Reason for Request

Wish to replot one lot into two smaller lots

List Specific Hardships

Non-conforming existing plat and non-conforming remaining acreage

Applicant Information

Are you the owner of the property?

Yes

Applicant Name

Kim Mueller

Applicant Address

30499 Sw Jim River Rd

Applicant Phone

605-661-8559

Owner Information

Owner Name

Frick Trust

Owner Address

30499 Sw Jim River Rd

Owner Phone Number

605-661-1249

Property Information

Parcel ID Number

06.008.100.276

Legal Description

LT A LT 4 SCHAEFLI'S 3RD ADDN

Site Address

30499 SW JIM RIVER RD

City

YANKTON

Zip

57078

Section-Township-Range

8-94-55

Zoning District

AG

Zoning Description

AG

Existing Use of Property

Planning Review Completed On 2/14/2023 3:01 PM EST by bconkling

Continue with application

Continue

Describe what the applicant is requesting

Applicant wishes to replot one platted non-conforming lot into two smaller lots each less than the minimum 20 acre lot size in an AG district to separate a farmstead.

Planning Commission Code Reference

Section 507

Section 1807

Other Planning Commission Code Reference ⓘ

513

Board of Adjustment Code Reference

Section 1807

Other Board of Adjustment Code Reference ⓘ

1907

Please confirm the zoning provided by the applicant. If zoning is incorrect, please enter the correct zoning. It is this field that is printed on the final form to avoid applicant/system error. The correct zoning must be entered.

Zoning Classification ⓘ

AG

Wave Fee

Notes ⓘ

Director Review Completed On 2/14/2023 3:03 PM EST by gvetter

Zoning Director Review

Approve

Payment Completed On 2/14/2023 3:04 PM EST by bconkling

Fees Paid

[VIEW RECEIPT](#)

Fee Name	Recipient	Amount
Fee	Planning and Zoning	\$450.00

Confirmation Data

Payment Method

Check

Confirmation Number

11019

Amount Paid

\$450.00

PC Prep Completed On 2/14/2023 3:06 PM EST by bconkling

Planning Commission Meeting

Planning Commission Meeting Date and Time

March 14th 2023, 7:10 pm CST

Letters to be mailed 10 days prior to the public meeting:

03/04/2023 8:10 PM

Additional instructions for PC email

Return the affidavit 8 days prior to the public meeting:

03/06/2023 8:10 PM

Place your zoning action sign 7 days prior to the public meeting:

03/07/2023 8:10 PM

Date to send email to applicant

02/27/2023

Upload PC Mailing Labels

[2 Mailing Affidavit 2640.pdf](#)

Upload PC Affidavit of Mailing

[2 Mailing Affidavit 2640.pdf](#)

Upload PC Notification Letter

[Frick Notification Letter.pdf](#)

Upload PC Newspaper Publication

[Legals 3-14-2023.pdf](#)

Permit Number

VAR-2023-89

Receipt Number

PC App Form Completed On 2/14/2023 3:06 PM EST by bconkling

[PC App Form](#)

External Notes

Documents

5

Internal Notes

17

Documents

AFFIDAVIT OF MAILING

I, Kim Mueller, hereby certify that on the 28
day of Feb, 2023, I mailed by first class mail, postage
prepaid, a true and correct copy of the Notice of Public Hearing
to all owners of real property lying within a 2640 feet radius of
the proposed project to the most recent address of the recipient
known to your Affiant.

A true and correct copy of the Notice of Public Hearing
notification letters are attached as Exhibit #1 or #2.

A true and correct copy of the mailing list for owners of real
property is attached as Exhibit #1A or #2A.

Dated the 28 day of February, 2023.

Kim Mueller
(Name)
Affiant

Subscribed and sworn to before me this 28 day of
February, 2023.

Jolynn Verhey
Notary Public - South Dakota
My commission expires: 8-22-2025

(SEAL)

NOTIFICATION

February 27, 2023

Kim Mueller
Pamela and John Frick Revocable Trust
30499 SW Jim River Rd
Yankton, SD 57078

Dear Yankton County Property Owner:

The Yankton County Zoning Ordinance requires written notification describing a specific action be sent to the owners of real property lying within 2640 feet of the property on which the below described action is proposed. The notice shall be given to each owner of record by depositing such notice in the United States Post Office not less than 10 days prior to the hearing date. Therefore, you are hereby notified. Please take a moment to review the notice of public hearing described below.

NOTICE OF PUBLIC HEARING

Notice is hereby given that a public hearing will be held before the Yankton County Planning Commission, Yankton County, South Dakota, at 7:10 P.M. on the 14th day of March, 2023 at the Yankton County Government Center, Commissioners Chambers, 321 West Third St., Yankton, South Dakota.

Said hearing is to consider the following:

*Applicant is requesting a variance to minimum lot size in an Agriculture District.
Applicant wishes to replot one platted non-conforming lot into two lots, each under 20 acres per Article 18 Section 1807. Said property is legally described as Plat of Lots 1 and 2 of J & P Frick Addition, in the SW1/4 of the SE1/4 of Section 8, and in the NW1/4 of the NE1/4 of Section 17, T94N, R55W of the 5th P.M., Yankton County, South Dakota. E911 address is 30499 SW Jim River Rd, Yankton, South Dakota.*

This plat vacates previously platted Lot A of Lot 4 of Schlaefli's 3rd. Addition in the W1/2 of the SE1/4 of Section 8, T94N, R55W of the 5th P.M., Yankton County, SD. Recorded on May 23, 2000, and Recorded in Book S18, Page 183

The application may be reviewed at the Zoning Administrators office, Yankton County Government Center, 321 West Third St., Yankton, S.D. or online at the Yankton County Website.

Sincerely,
Kimberly Mueller
Pamela and John Frick Revocable Trust
Petitioner

BARNES, DAVID J (D)
44115 304 ST
YANKTON SD 57078

ELSEN, JAMES E (D)
30575 SW JIM RIVER RD
YANKTON SD 57078

FRICK, JOHN G REV TRUST (D)
PO BOX 661
YANKTON SD 57078

FRICK, PAMELA J REV TRUST (D)
30499 SW JIM RIVER RD
YANKTON SD 57078

FRICK, TERRY LEE (D)
30697 SW JIM RIVER RD
YANKTON SD 57078

HACECKY, DANIEL REV TRUST (D)
30463 NE JIM RIVER RD
MISSION HILL SD 57046

KOKES FARMS LLC (D)
42273 SD HWY 50
TABOR SD 57063

NELSON FAMILY PARTNERSHIP (D)
44023 306 ST
YANKTON SD 57078

SCHLAEFLI, MARK B (D)
30456 SW JIM RIVER RD
YANKTON SD 57078

SCHULTZ, ROCKY ALLEN (D)
44121 304 ST
YANKTON SD 57078

Yankton County, South Dakota

Paid by
Kim Mueller
kimmueller4321@gmail.com

Payment number
Date paid
Payment method

Receipt

11019
February 14, 2023 03:04 PM
Check

\$450.00 paid on February 14, 2023

Variance, Conditional Use and Rezoning Application
Application ID: VAR-2023-89

Description	Amount
Fee	\$450.00

ARTICLE 4

OFFICIAL ZONING MAP AND BOUNDARY INTERPRETATION

Section 401 General

The County is hereby divided into zones, or districts, as shown on the Official Zoning Map, which, together with all explanatory matter thereon, is hereby adopted by reference and declared to be a part of this Ordinance. The Official Zoning Map shall be identified by the signature of the Chairman of the County Commissioners, attested by the Auditor, and bearing the seal of the County, under the following words: "This is to certify that this is the Official Zoning Map referred to in Section 401 of Ordinance ~~No. 16~~ 2020 of "Yankton County, South Dakota," together with the date of the adoption of this Ordinance.

Section 403 Zoning Map Changes

If, in accordance with the provisions of this Ordinance, changes are made in the district boundaries or other matter portrayed on the Official Zoning Map, such changes shall be entered on the Official Zoning Map promptly after the amendment has been approved by the County Commissioners, with an entry on the Official Zoning Map as follows: "on [date], by official action of the Yankton County Commission, the following [change] changes were made in the Official Zoning Map: [brief description of nature of change]," which entry shall be signed by the Chairman of the Commission and attested by the Auditor. No amendment to this Ordinance which involves matters portrayed on the Official Zoning Map shall become effective until after such change and entry has been made on said map.

No changes of any nature shall be made in the Official Zoning Map or matters shown thereon except in conformity with the procedures set forth in this Ordinance.

Any unauthorized change of whatever kind by any person or persons shall be considered a violation of this Ordinance and punishable as provided under Section 2303.

Regardless of the existence of purported copies of the Official Zoning Map which may, from time to time, be made or published, the Official Zoning Map which shall be located in the office of the Zoning Administrator shall be the final authority as to the current zoning status of land and water areas, buildings, and other structures in the County.

Section 405 Zoning Map Replacement

In the event that the Official Zoning Map becomes damaged, destroyed, lost or difficult to interpret because of the nature or number of changes and additions, the Yankton County Commission may, by resolution, adopt a new Official Zoning Map,

which shall supersede the prior Official Zoning Map.

The new Official Zoning Map may correct drafting or other errors or omissions in the prior Official Zoning Map, but no such correction shall have the effect of amending the original Official Zoning Map or any subsequent amendment thereof.

The new Official Zoning Map shall be identified by the signature of the Chairman of the County Commission, attested by the Auditor, and bearing the seal of the County, under the following words:

“This is to certify that this Official Zoning Map supersedes and replaces the Official Zoning Map adopted [date of adoption of map being replaced] as part of Ordinance ~~No. 16~~ 2020 of “Yankton County, South Dakota.”

Unless the prior Official Zoning Map has been lost, or has been totally destroyed, the prior map or any significant parts thereof remaining shall be preserved, together with all available records pertaining to its adoption or amendment.

Section 407 Rules for Interpretation of District Boundaries

Where uncertainty exists as to the boundaries of districts as shown on the Official Zoning Map, the following rules shall apply:

1. Boundaries indicated, as approximately following the centerlines of right-of-ways, roads, highways, or alleys shall be construed to follow such centerlines;
2. Boundaries indicated as approximately following platted lot lines shall be construed as following such lot lines;
3. Boundaries indicated, as approximately following city limits shall be construed as following such city limits;
4. Boundaries indicated, as following railroad lines shall be construed to be midway between the main tracks;
5. Boundaries indicated as following shore lines shall be construed to follow such shore lines, and in the event of change in the shore line shall be construed as moving with the actual shore line; boundaries indicated as approximately following the center line of streams, rivers, canals, lakes, or other bodies of water shall be construed to follow such center lines;
6. Boundaries indicated as parallel to or extensions of features indicated in subsections 1 through 5 above shall be so construed. The scale of the map shall determine distances not specifically indicated on the Official Zoning Map; and

Where physical or cultural features existing on the ground are at variance with those shown on the Official Zoning Map, or in other circumstances not covered by subsections 1 through 6 above, the Planning Commission shall interpret the district

boundaries.

YANKTON COUNTY



Official Zoning Map

Legend

- RAILROAD
- STREAM
- US & STATE HIGHWAY
- ROAD
- CITY LIMIT
- TOWNSHIP
- PARCEL
- LAKE
- ZONING CLASSIFICATIONS
 - AGRICULTURE
 - COMMERCIAL
 - ETJ
 - LAKE SIDE COMMERCIAL
 - HIGH DENSITY RESIDENTIAL
 - LOW DENSITY RESIDENTIAL
 - MODERATE DENSITY RESIDENTIAL
 - PUBLIC
 - PLANNED UNIT DEVELOPMENT
 - RURAL TRANSITIONAL

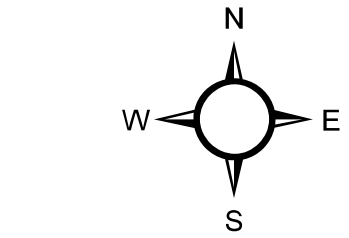
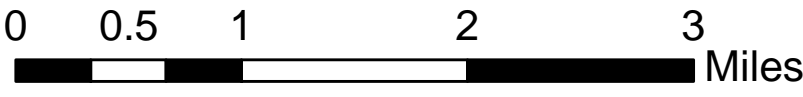
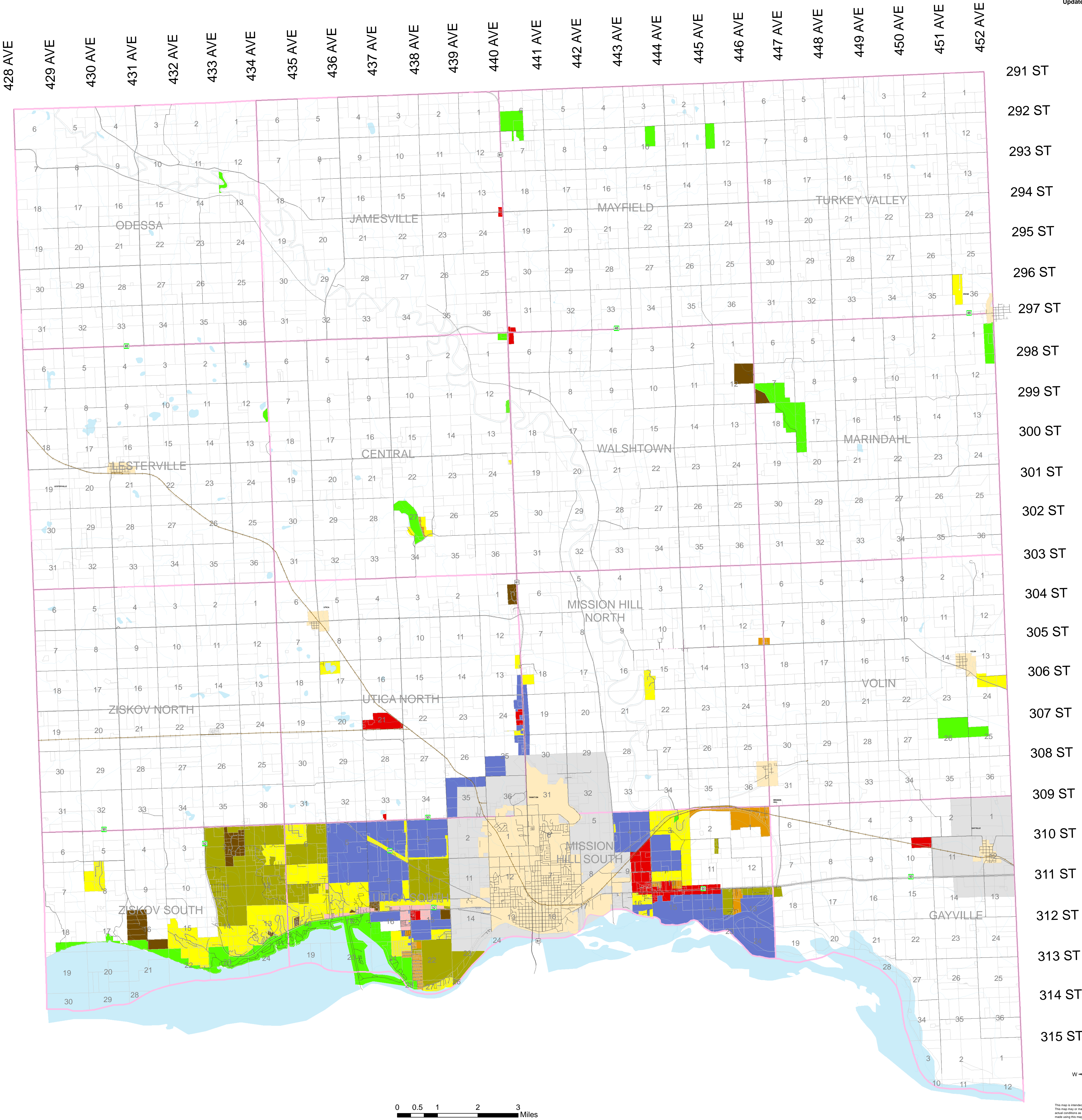
This is to certify that this Official Zoning Map 2020 referred to in Section 401, adopted __-__-2023, supersedes and replaces the Official Zoning Map 2020 adopted February 18, 2020 as part of Ordinance 2020 of Yankton County, South Dakota.

Don Kettering
Chair

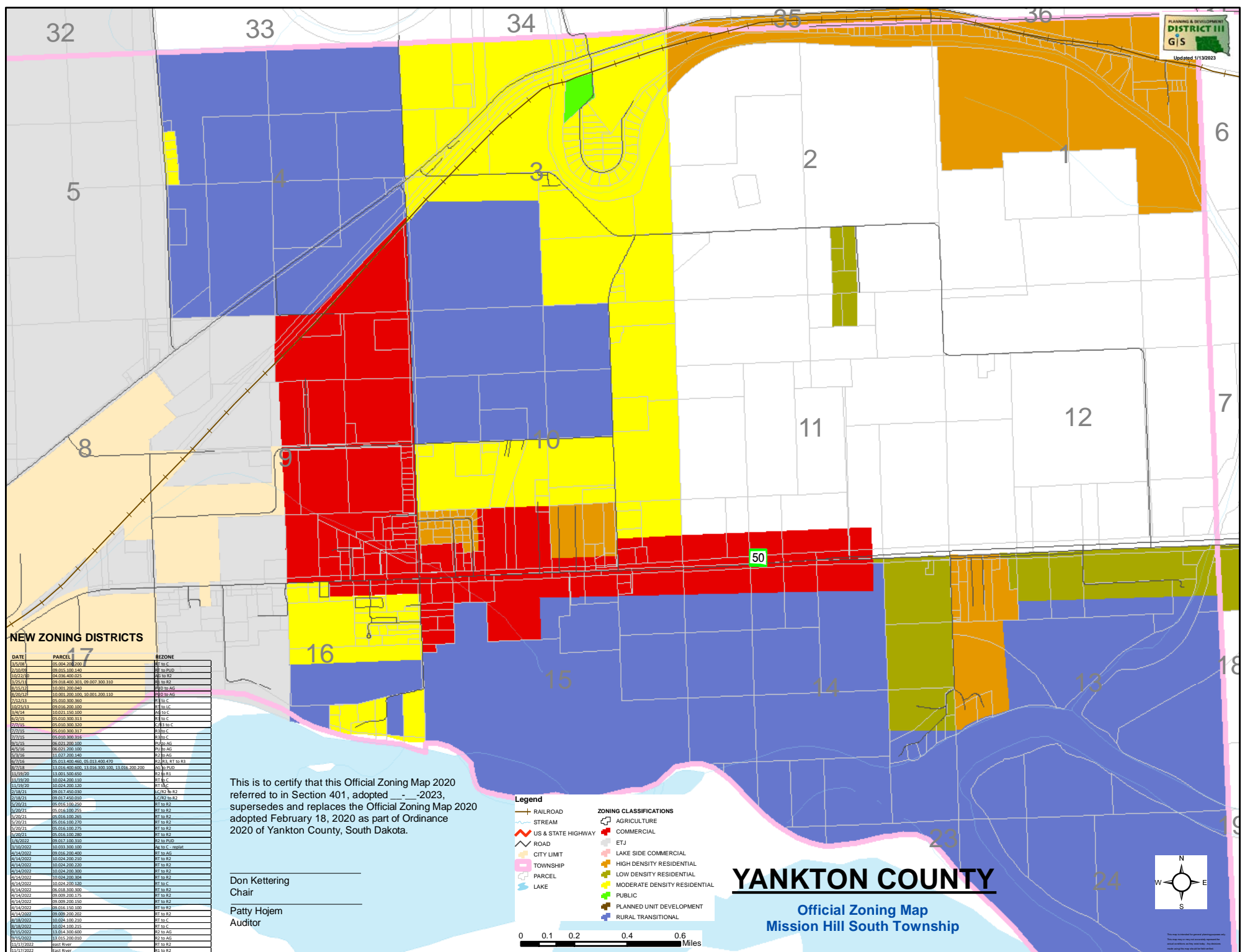
Patty Hojem
Auditor

NEW ZONING DISTRICTS

DATE	PARCEL	REZONE
3/5/08	05.004.200.200	RT to C
2/10/09	09.015.100.140	RT to PUD
10/22/10	04.036.400.025	AG to R2
3/25/11	09.018.400.303, 09.007.300.310	R1 to R2
8/15/12	10.001.200.040	PUD to AG
8/20/12	10.001.200.100, 10.001.200.110	PUD to AG
7/12/13	05.010.300.360	R3 to C
10/25/13	09.016.200.100	RT to LC
3/4/14	10.021.150.100	AG to C
6/2/15	05.010.300.313	R3 to C
7/7/15	05.010.300.320	C/R3 to C
7/7/15	05.010.300.317	R3 to C
7/7/15	05.010.300.316	R3 to C
9/1/15	06.021.200.100	PU to AG
4/5/16	06.021.200.100	PU to AG
5/3/16	11.027.200.140	R2 to AG
6/7/16	05.013.400.460, 05.013.400.470	R2, R3, RT to R3
8/7/18	13.016.400.600, 13.016.300.100, 13.016.200.200	AG to PUD
11/19/20	13.001.500.650	R2 to R1
11/19/20	10.024.200.110	RT to C
11/19/20	10.024.200.120	RT to C
2/18/21	09.017.450.030	LC/R2 to R2
2/18/21	09.017.450.010	LC/R2 to R2
5/20/21	05.016.100.250	RT to R2
5/20/21	05.016.100.255	RT to R2
5/20/21	05.016.100.265	RT to R2
5/20/21	05.016.100.270	RT to R2
5/20/21	05.016.100.275	RT to R2
5/20/21	05.016.100.280	RT to R2
1/6/2022	09.017.100.310	R2 to PUD
3/10/2022	10.033.300.100	Ag to C - replat
4/14/2022	09.016.200.400	RT to AG
4/14/2022	10.024.200.210	RT to R2
4/14/2022	10.024.200.220	RT to R2
4/14/2022	10.024.200.300	RT to R2
4/14/2022	10.024.200.304	RT to R2
4/14/2022	10.024.200.120	RT to C
4/14/2022	06.018.300.300	RT to R2
4/14/2022	09.009.300.175	RT to R2
4/14/2022	09.009.200.150	RT to R2
4/14/2022	09.016.150.100	RT to R2
4/14/2022	09.009.200.202	RT to R2
8/18/2022	10.024.100.210	RT to C
8/18/2022	10.024.100.215	RT to C
9/15/2022	13.014.300.600	R2 to AG
9/15/2022	13.015.200.010	R2 to AG
11/17/2022	east River	RT to R2
11/17/2022	East River	R1 to R2



This map is intended for general planning purposes only. The map may or may not accurately represent the actual conditions on the site. No warranty is made using this map should be used.



NEW ZONING DISTRICTS

DATE	PARCEL	REZONE
1/1/2018	05.004.200.200	RT to C
1/1/2018	05.015.100.140	RT to RT
10/23/18	04.036.400.025	RT to R2
1/25/19	05.018.400.303, 05.007.300.010	R2 to R2
5/15/19	10.001.200.000	R2 to AG
5/28/19	10.001.200.100, 10.001.200.110	R2 to AG
7/22/19	05.010.300.300	RT to C
10/25/19	05.016.200.100	RT to C
3/16/14	10.021.100.100	AG to C
5/1/15	05.010.300.111	RT to C
7/29/15	05.010.300.320	C to RT
7/29/15	05.010.300.317	RT to C
7/29/15	05.010.300.315	RT to C
8/1/15	06.021.200.100	RT to AG
8/1/15	06.021.200.100	RT to AG
5/29/16	11.027.200.140	R2 to AG
5/29/16	05.019.400.400, 05.013.400.470	R2 to R2, RT to R2
5/29/16	11.016.400.400, 11.016.100.100, 11.016.200.100	R2 to R2
11/26/20	11.001.600.600	R2 to R1
11/26/20	10.024.200.110	RT to C
11/16/20	10.024.200.110	RT to C
5/28/21	05.017.400.030	C to R2
5/28/21	05.017.400.030	C to R2
5/28/21	05.016.100.250	RT to R2
5/28/21	05.016.100.255	RT to R2
5/28/21	05.016.100.265	RT to R2
5/28/21	05.016.100.270	RT to R2
5/28/21	05.016.100.275	RT to R2
5/28/21	05.016.100.280	RT to R2
5/28/21	05.017.100.110	R2 to R2
5/28/2022	10.033.200.100	RT to C - High
4/14/2022	05.016.100.400	RT to AG
4/14/2022	10.024.200.104	RT to R2
4/14/2022	10.024.200.120	RT to R2
4/14/2022	05.018.100.100	RT to R2
4/14/2022	05.009.100.175	RT to R2
4/14/2022	05.009.100.150	RT to R2
4/14/2022	05.006.100.100	RT to R2
4/14/2022	05.009.100.202	RT to R2
8/18/2022	10.024.100.210	RT to C
8/18/2022	10.024.100.215	RT to C
8/18/2022	11.014.100.600	R2 to AG
8/18/2022	11.017.100.010	R2 to AG
11/17/2022	East River	RT to R2
11/17/2022	East River	RT to R2

This is to certify that this Official Zoning Map 2020 referred to in Section 401, adopted --, 2023, supersedes and replaces the Official Zoning Map 2020 adopted February 18, 2020 as part of Ordinance 2020 of Yankton County, South Dakota.

Don Kettering
Chair

Patty Hojem
Auditor

Legend

- RAILROAD
- STREAM
- US & STATE HIGHWAY
- ROAD
- CITY LIMIT
- TOWNSHIP
- PARCEL
- LAKE

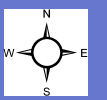
ZONING CLASSIFICATIONS

- AGRICULTURE
- COMMERCIAL
| ETJ | LAKE SIDE COMMERCIAL |
| HIGH DENSITY RESIDENTIAL | MODERATE DENSITY RESIDENTIAL |
| LOW DENSITY RESIDENTIAL | PUBLIC |
| PLANNED UNIT DEVELOPMENT | RURAL TRANSITIONAL |

0 0.1 0.2 0.4 0.6 Miles

YANKTON COUNTY

Official Zoning Map
Mission Hill South Township



This map is provided for general informational purposes only. It is not intended to be used for legal or financial purposes. The user assumes all responsibility for any use of this map. No warranty is made by the Yankton County Planning & Development Department.

Don Kettering
Chair

Patty Hojem
Auditor

**Official Zoning Map
Ziskov South Township**

This map is intended for general planning purposes only.
This map may or may not accurately represent the
set of conditions on these variables. For decisions

**NOTICE OF HEARING OF THE
THE YANKTON COUNTY PLANNING COMMISSION
RECOMMENDATION OF PROPOSED AMENDMENTS OF ARTICLE 4 AND RE-
ADOPTION OF AMENDED ZONING MAP TO BE SUPERSEDED AND REPLACED
FOR YANKTON COUNTY ORDINANCE 2020**

A public hearing will be held before the Yankton County Planning Commission on the 14th day of March 2023 beginning at 7:15 p.m. in the Commission Chambers, Yankton County, South Dakota, to consider recommendation to amend Article 4 and Re-Adopt Amended Zoning Map for Yankton County Ordinance 2020 to be superseded and replaced.

The complete text and map of this proposed amendment referred to above is on file with the Yankton County Auditor Office and Yankton County Planning Office. The document may be inspected, reviewed, or examined by any interested party by contacting (605) 260-4447.

The public is invited to attend the hearing and to present comments and testimony regarding proposed amendments re-adoption of amended Zoning Map for Yankton County Ordinance 2020. At the conclusion of the hearing, the Yankton County Planning Commission may recommend adoption Yankton County Ordinance No.23-ZN-01.

Dated this 1st day of March, 2023

ATTEST: Gary Vetter – Development Services Director

Published twice at a total approximate cost of _____.
March 3, 2023
March 10, 2023

Yankton County Planning Commission
Yankton County Board of Adjustment

Date filed: 2/9//2023

Applicant

Frick Addition- PLAT

District type: ☒ AG ☐ R1-Low ☐ R2-Moderate ☐ R3-High ☐ C-Comm.

☐ LC – Lakeside Commercial ☐ RT-Rural Transitional

Variance needed:

☐ Section 513 (4) – Existing Farmstead/Home ☒ Section 515 ☐ Section 705

☐ Section 715 ☐ Section 805

☐ Other 605

North Side/ Yard lot line: ____ feet or no closer than ____ feet to the ____ lot line.

East Side / Yard lot line: ____ feet or no closer than ____ feet to the ____ lot line.

South Side / Yard lot line: ____ feet or no closer than ____ feet to the ____ lot line.

West Side / Yard lot line ____ feet or no closer than ____ feet to the ____ lot line.

Accessory Building Size allowed:

Proposed building size:

Proposed sidewall height:

Affects Section:

NOTE:

Plat of Lots 1 and 2 of J & P Frick Addition, in the SW1/4 of the SE1/4 of Section 8, and in the NW1/4 of the NE1/4 of Section 17, T94N, R55W of the 5th P.M., Yankton County, South Dakota.

This plat vacates previously platted Lot A of Lot 4 of Schlaefli's 3rd. Addition in the W1/2 of the SE1/4 of Section 8, T94N, R55W of the 5th P.M., Yankton County, SD. Recorded on May 23, 2000, and Recorded in Book S18, Page 183

Please Check Plat Type:

☒ Final ☐ Amended ☐ Preliminary ☐ Revision

-----Development Information-----

Plat Name: Plat of Lots 1 and 2 of J & P Frick

Section No: 8 Township No: 94

Range: 55 Number of Lots/Tracts: 2

Number of Acres: 17.86

How is the property currently being used? AG

What is the proposed use of the property? AG

-----Surveyor/Engineer Information-----

Firm Name: Tom Week

Address: _____

City: Yankton State: SD Zip: 57078

Contact Person: Tom Week

Phone: 605-665-8333

-----Property Owner Information-----

Name: Pamela and John Frick Revocable

Address: 30499 SW JIM RIVER RD

City: Yankton State: SD Zip: 57078

Contact person: Tom Week

If the property owner is represented by an authorized agent, please provide the following:

Agent's name: Kim Mueller

Agents Title: Power of Attorney

You must provide the following:

The Yankton County Zoning Ordinance requires minimum lot sizes.

1. Does this lot/tract conform? ☐ Yes ☒ No

2. What is/are the lot size(s) 11.627, 9.971 acres

3. Is this (plat) an existing farmstead? ☒ Yes ☐ No

4. If a farmstead, how many acres are surrounding it? 9.971

5. The Yankton County Zoning Ordinance requires a variance from minimum lot sizes. Are you willing to apply for the variance, if necessary? ☒ Yes ☐ No

6. Is this property to have construction on it? ☐ Yes ☒ No

If yes:

Name, address and phone number of contractor(s)

-----Owner certification-----

This is to certify that John and Pam Frick Trust
the undersigned is/are the sole owner(s) of the property described above on the date of this application, and that I/we have read and understand Section 207 of the Yankton county Zoning Ordinance.

Kim Mueller
Owner Signature

Owner Signature

This is to certify that _____
acting by and through the undersigned, its duly authorized agent is/are the sole owner(s) of the property described above on the date of this application, and that I have read and understand Section 207 of the Yankton County Zoning Ordinance.

Agent Signature

Planning Office Use Only: Planning Commission Date: _____
County Commission Date: _____

Some plats of subdivisions and additions may require a Perpetual Road Maintenance Agreement prior to consideration.

YANKTON COUNTY PLANNING PLAT APPROVAL CHECKLIST

In order to insure prompt approval of your plat, please follow these steps:

☒ Plat has been approved by the City of Yankton, if within the ETJ or 3 mile buffer zone?

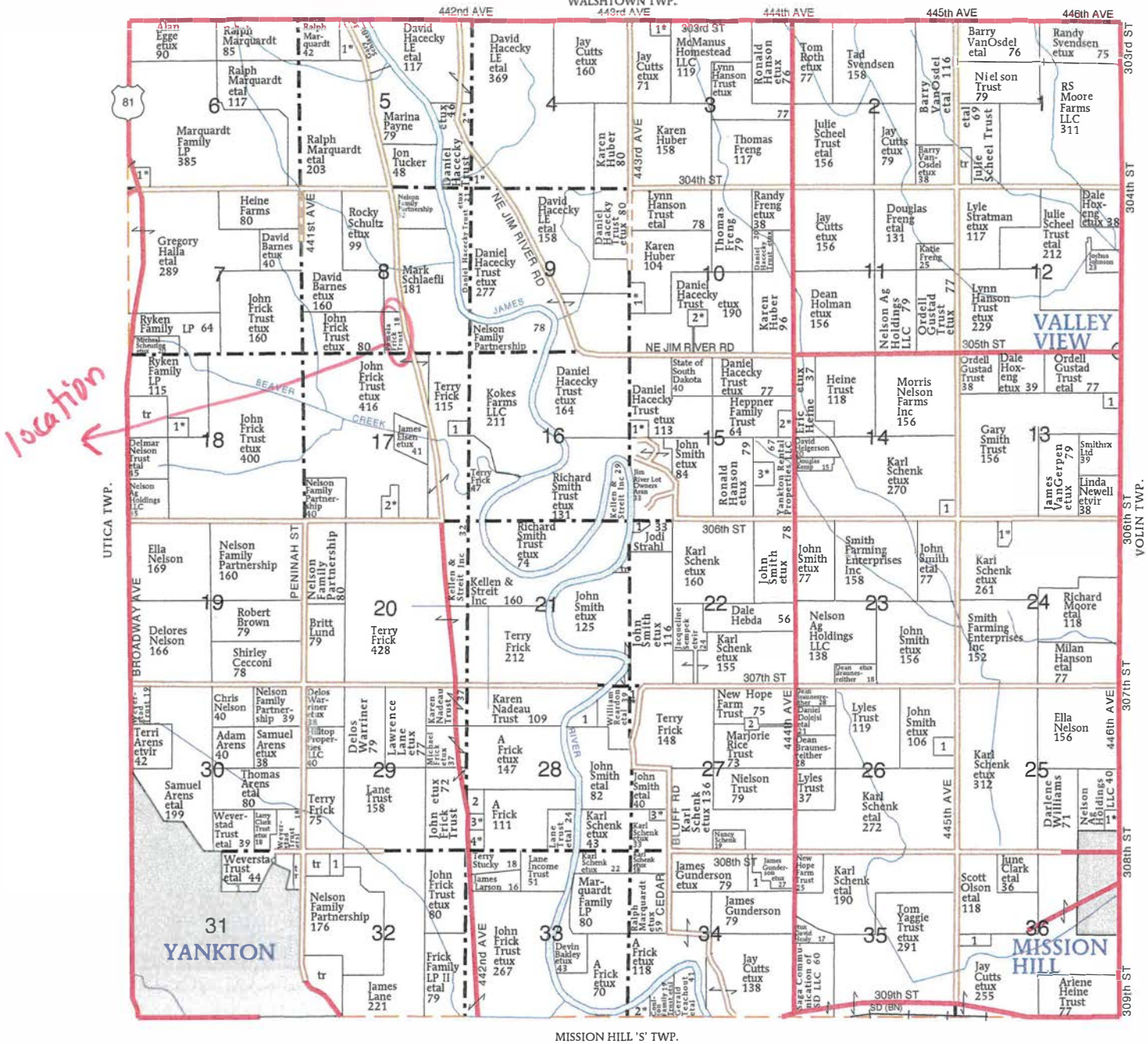
- ☒ 1. All required signatures notarized (owner(s), surveyor)?
- ☐ 2. Taxes paid at County Treasures?
- ☐ 3. County Treasurer's signature?
- ☒ 4. Ownership verified by Director of Equalization and signed?
- ☒ 5. Street authority signature (DOT, Highway, Township)?
- ☒ 6. \$100.00 Fee Paid at Zoning Office?
- ☒ 7. Plat has been scheduled/approved by the Yankton County Planning Commission?
- ☐ 8. County Planning Commission Chair signature?
- ☐ 9. Plat has been scheduled/approved by the Yankton County Board of County Commissioners?
- ☐ 10. County Commission Chairs signature?
- ☐ 11. County Auditor's signature?
- ☐ 12. Plat has been filed with the Register of Deeds?

Planning Commission date: 03/14/2023

Board of Adjustment date: _____

(Landowners)

WALSH TOWNSHIP.



MISSION HILL 'S' TWP.

MISSION HILL 'N'**TOWNSHIP****SECTION 3**

1. Knode, Dale etux 8

SECTION 4

1. Hacecky Trust, Daniel etux 25

SECTION 5

1. Marquardt, Ralph etal 10

2. Hacecky LE, David etal 7

SECTION 6

1. Jones, Boyd etux 5

SECTION 10

1. Hacecky LE, David etal 15

2. Wathier, George etux 8

SECTION 13

1. Quatier, Todd 6

SECTION 14

1. Helgerson, David 6

SECTION 15

1. Larson, Jeffery etux 6

2. Aase, Elwyn etux 10

3. Williams, James etux 11

SECTION 17

1. Kokes Farms LLC 9

2. Frick, Christopher 9

SECTION 18

1. Likness, Micah etux 10

SECTION 22

1. Jim River Lot Owners Assn 6

SECTION 24

1. Adams, Richard etux 9

SECTION 25

1. Palmer, Evan etux 12

SECTION 26

1. Sarringar, Margaret 10

SECTION 27

1. Reardon, William etal 5

2. Nelsen, Christopher 9

3. Olson, Gordon etux 6

SECTION 28

1. Smith Farming Enterprises Inc 10

2. Luben LLC 9

3. Montagne, Pierre etux 5

4. Stucky, Terry etux 5

SECTION 31

1. City of Yankton 12

SECTION 32

1. Lotz, Eric 7

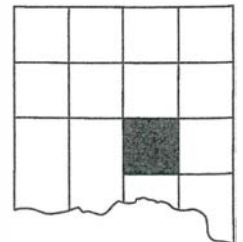
SECTION 34

1. Aune, David 11

2. Hacecky Trust, Daniel etux 15

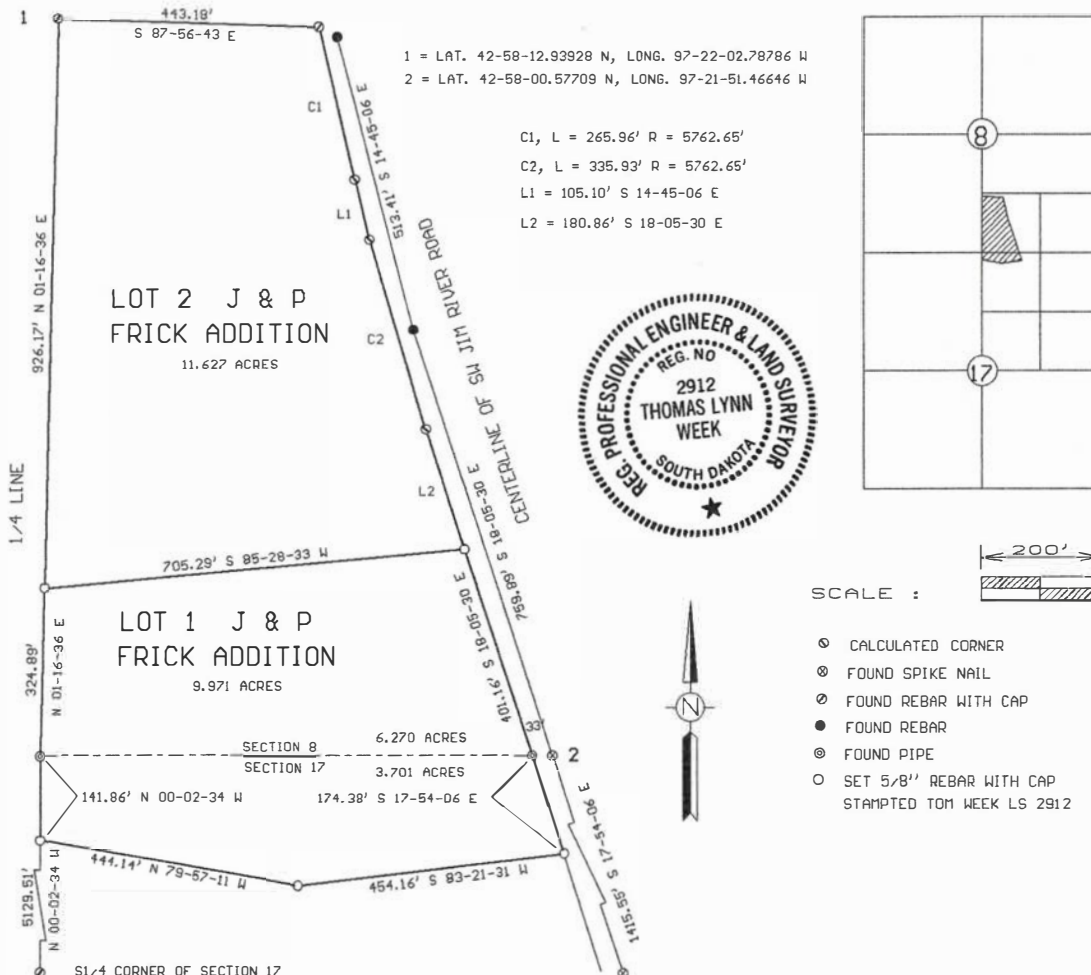
SECTION 36

1. Town of Mission Hill 12



PLAT OF LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA.

THIS PLAT VACATES PREVIOUSLY PLATTED LOT A OF LOT 4 OF SCHAEFLI'S 3RD. ADDITION IN THE W1/2 OF THE SE1/4 OF SECTION 8, T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SD. RECORDED ON MAY 23, 2000, AND RECORDED IN BOOK S18, PAGE 183.



SURVEYORS CERTIFICATE

I, THOMAS LYNN WEEK, REGISTERED LAND SURVEYOR IN YANKTON, SOUTH DAKOTA, HAVE AT THE DIRECTION OF THE OWNERS, MADE A SURVEY OF LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA. I HAVE SET IRON PINS AS SHOWN, AND SAID SURVEY AND PLAT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATED THIS 10TH. DAY OF FEBRUARY, 2023.

THOMAS LYNN WEEK
REG. LAND SURVEYOR
REG. NO. 2912

RESOLUTION OF COUNTY PLANNING COMMISSION

BE IT RESOLVED BY THE YANKTON COUNTY PLANNING COMMISSION, THAT THE ABOVE PLAT REPRESENTING LOTS 1 AND 2 OF J & P ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA, BE AND THE SAME IS HEREBY APPROVED.

CHAIRMAN, PLANNING COMMISSION

CERTIFICATE OF STREET AUTHORITY

THERE IS ACCESS TO LOT 1 OF J & P FRICK ADDITION FROM THE SW JIM RIVER ROAD. ANY FURTHER ACCESS POINTS WILL REQUIRE ADDITIONAL APPROVAL.

DATED THIS _____ DAY OF _____,

COUNTY APPROVAL

PLAT OF LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA.

OWNERS CERTIFICATE

I, KIMBERLY MUELLER, AS POWER OF ATTORNEY FOR PAMELA J. FRICK AND JOHN G. FRICK, OF WHICH ARE TRUSTEES OF THE PAMELA J. FRICK REVOCABLE TRUST AND JOHN G. FRICK REVOCABLE TRUST, DO HEREBY CERTIFY THAT PAMELA J. FRICK REVOCABLE TRUST AND THE JOHN G. FRICK REVOCABLE TRUST, ARE THE ABSOLUTE AND UNQUALIFIED OWNERS OF THE ABOVE DESCRIBED PROPERTY: LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA. THAT THE ABOVE SURVEY AND PLAT WAS MADE AT MY REQUEST AND UNDER MY DIRECTION FOR THE PURPOSE OF LOCATING, MARKING AND PLATTING THE SAME, AND THAT SAID PROPERTY IS FREE FROM ALL ENCUMBRANCES. THE DEVELOPMENT OF THIS LAND SHALL CONFORM TO ALL EXISTING APPLICABLE ZONING SUBDIVISION AND EROSION AND SEDIMENT CONTROL REGULATIONS.

DATED THIS ____ DAY OF _____, ____.

KIMBERLY MUELLER, AS
POWER OF ATTORNEY

STATE OF _____
COUNTY OF _____

ON THIS ____ DAY OF _____, _____, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED KIMBERLY MUELLER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND WHO ACKNOWLEDGED TO ME THAT SHE AS HAVING POWER OF ATTORNEY, EXECUTED THE SAME FOR THE PURPOSES THEREIN CONTAINED.
MY COMMISSION EXPIRES _____

NOTARY PUBLIC

RESOLUTION OF APPROVAL

WHEREAS, IT APPEARS THAT THE OWNERS THEREOF HAVE CAUSED A PLAT TO BE MADE OF THE FOLLOWING REAL PROPERTY: LOTS 1 AND 2 OF J & P FRICK ADDITION, IN THE SW1/4 OF THE SE1/4 OF SECTION 8, AND IN THE NW1/4 OF THE NE1/4 OF SECTION 17, ALL IN T94N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA, AND HAVE SUBMITTED SUCH PLAT TO THE COUNTY COMMISSION OF YANKTON COUNTY, SOUTH DAKOTA FOR APPROVAL. NOW THEREFORE BE IT RESOLVED, THAT SUCH PLAT HAS BEEN EXECUTED ACCORDING TO THE LAW AND SAME IS HEREBY APPROVED. THE COUNTY AUDITOR IS HEREBY AUTHORIZED AND DIRECTED TO ENDORSE ON SUCH PLAT A COPY OF THIS RESOLUTION AND CERTIFY THE SAME.

I, _____, COUNTY AUDITOR OF YANKTON COUNTY, SOUTH DAKOTA, DO HEREBY CERTIFY THAT THE WITHIN AND FOREGOING IS A TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF COUNTY COMMISSIONERS OF YANKTON COUNTY, SOUTH DAKOTA, ON THIS ____ DAY OF _____,
_____.

COUNTY AUDITOR

CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS

DIRECTOR OF EQUALIZATION CERTIFICATE

I, _____, DIRECTOR OF EQUALIZATION, YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT I HAVE RECEIVED A COPY OF THE FOREGOING PLAT. DATED THIS ____ DAY OF _____, ____.

DIRECTOR OF EQUALIZATION, YANKTON COUNTY

TREASURER CERTIFICATE

I, _____, TREASURER OF YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT ALL TAXES WHICH ARE LIEN UPON ANY LAND INCLUDED IN THE ABOVE PLAT, AS SHOWN BY THE RECORDS OF THIS OFFICE, HAVE BEEN PAID. DATED THIS ____ DAY OF _____, ____.

TREASURER, YANKTON COUNTY

REGISTER OF DEEDS CERTIFICATE

I, _____, REGISTER OF DEEDS, YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT I HAVE RECEIVED THE ORIGINAL PLAT, FILED FOR RECORD THIS ____ DAY OF _____, _____, _____ O'CLOCK ____ M., AND DULY RECORDED IN BOOK NO. ____, PAGE ____.

PREPARED BY: TOM WEEK
407 REGAL DRIVE
YANKTON, SOUTH DAKOTA 57078
605-665-8333

REGISTER OF DEEDS, YANKTON COUNTY, SD

Plat Approval
Application
94239

Fees Paid
\$100.00

Applicant
Bill Testing

Created
February 10, 2023

Number
94239

Final | Plat of Lots 1 and 2 of J & P Frick Addition, in the SW1/4 of the SE1/4 of Section 8, and in the NW1/4 of the NE1/4 of Section 17, T94N, R55W of the 5th P.M., Yankton County, South Dakota. This plat vacates previously platted Lot A of Lot 4 of Schlaefli's 3rd. Addition in the W1/2 of the SE1/4 of Section 8, T94N, R55W of the 5th P.M., Yankton County, SD. Recorded on May 23, 2000, and Recorded in Book S18, Page 183 | Pamela and John Frick Revocable Trust | 30499 SW JIM RIVER RD | 06.008.100.276 Submitted by BillTesting on 2/10/2023



Applicant

Bill Testing

test@test.com

Parcel search Completed On 2/10/2023 10:42 AM EST by bconkling



Maxar

Powered by Esri

ParcelID	Address	City	OwnerName	Acres
06.008.100.276	30499 SW JIM RIVER RD	YANKTON	FRICK, PAMELA J REV TRUST (D)	17.860

Requested Information Completed On 2/10/2023 10:45 AM EST by bconkling

Fee

\$100.00

Plat Type

Final

Development Information

Plat Name

Plat of Lots 1 and 2 of J & P Frick Addition, in the SW1/4 of the SE1/4 of Section 8, and in the NW1/4 of the NE1/4 of Section 17, T94N, R55W of the 5th P.M., Yankton County, South Dakota.

This plat vacates previously platted Lot A of Lot 4 of Schlaefli's 3rd. Addition in the W1/2 of the SE1/4 of Section 8, T94N, R55W of the 5th P.M., Yankton County, SD. Recorded on May 23, 2000, and Recorded in Book S18, Page 183

Section No:

8

Township No:

94

Range

55

Number of Lots/Tracts

2

Number of Acres

17.86

How is this property currently being used?

AG

What is the proposed use of the property?

AG

Surveyor/Engineer Information

Firm Name

Tom Week

Address

407 Regal dr

City

Yankton

State

SD

Zip

57078

Contact Person

Tom Week

Phone

605-665-8333

Property Owner Information

Owner Name

Pamela and John Frick Revocable Trust

Address

30499 SW JIM RIVER RD

City

Yankton

State

SD

Zip

57078

Owner Phone

605-665-8333

Contact Person

Tom Week

If the property owner is represented by an authorized agent, please provide the following:

Agent's name

Kim Mueller

Agent's Title

Power of Attorney

Plat Information

Does this lot/tract conform with Yankton County Zoning Ordinance required minimum lot sizes?

No

What is/are the lot size(s)

11.627, 9.971 acres

Is this plat an existing farmstead

Yes

If a farmstead, how many acres are surrounding it

9.971

The Yankton County Zoning Ordinance requires a variance from minimum lot sizes. Are you willing to apply for the variance, if necessary?

Yes

Is this property to have construction on it

No

If Yes:

Construction contractors Name, Address, and phone number (If applicable)

Plat Approval Items Completed On 2/14/2023 1:03 PM EST by bconkling

In order to insure prompt approval of your plat, please complete the following steps before submitting your application

Upload Copy of Plat

[Scanned Document_20230210_090903.pdf](#)

Plat Approval Applicant Checklist ⓘ

Plat has been approved by the City of Yankton, if within the ETJ or 3 mile buffer zone?

All required signatures notarized (owner(s), surveyor)?

Taxes paid at County Treasures?

County Treasurer's signature?

Submit Application Completed On 2/14/2023 1:04 PM EST by bconkling

Owner Certification

Owner(s)

John and Pam Frick Trust

This is to certify that the aforementioned owner(s) undersigned is/are the sole owner(s) of the property described above on the date of this application, and that I/we have read and understand Section 207 of the Yankton County Zoning Ordinance.

Owner Signature



Owner Signature

If represented by an Agent, please provide name and signature below

Agent Name

This is to certify that (Agent) acting by and through the undersigned, its duly authorized agent is/are the sole owner(s) of the property described above on the date of this application, and that I have read and understood Section 207 of the Yankton County Zoning Ordinance.

Agent Signature

Payment Completed On 2/14/2023 1:04 PM EST by bconkling

Fees Paid

[VIEW RECEIPT](#)

Fee Name	Recipient	Amount
Fee	Planning and Zoning	\$100.00

Confirmation Data

Payment Method	Check
Confirmation Number	11019
Amount Paid	\$100.00

Planning Commission Review Completed On 2/14/2023 1:04 PM EST by bconkling

Plat Approval Planning Commission Checklist

Please follow these steps:

Plat has been approved by the City of Yankton, if within the ETJ or 3 mile buffer zone?

All required signatures notarized (owner(s), surveyor)?

Taxes paid at County Treasures and County Treasurer's signature?

Ownership verified by Director of Equalization and signed?

Plat name has been approved by Register of Deeds?

Street authority signature (DOT, Highway, Township)?

\$100.00 Fee Paid at Zoning Office?

Plat has been scheduled/approved by the Yankton County Planning Commission?

Planning Commission date:

03/14/2023

Plat Approval Application (Planning Commission) Completed On 2/14/2023 1:04 PM EST by bconkling

[Plat Approval Application \(Planning Commission\)](#)

External Notes

Documents

Internal Notes

Documents

Yankton County, South Dakota

Paid by
Bill Testing
test@test.com

Payment number
Date paid
Payment method

Receipt

11019
February 14, 2023 01:04 PM
Check

\$100.00 paid on February 14, 2023

Plat Approval Application
Application ID: 94239

Description	Amount
Fee	\$100.00

Yankton County Planning Commission
Yankton County Board of Adjustment

Date filed: 2/27//2023

Applicant

Smit - PLAT

District type: ☒ AG ☐ R1-Low ☐ R2-Moderate ☐ R3-High ☐ C-Comm.

☐ LC – Lakeside Commercial ☐ RT-Rural Transitional

Variance needed:

☒ Section 513 (4) – Existing Farmstead/Home ☐ Section 515 ☐ Section 705

☐ Section 715 ☐ Section 805

☐ Other 605

North Side/ Yard lot line: ____ feet or no closer than ____ feet to the ____ lot line.

East Side / Yard lot line: ____ feet or no closer than ____ feet to the ____ lot line.

South Side / Yard lot line: ____ feet or no closer than ____ feet to the ____ lot line.

West Side / Yard lot line ____ feet or no closer than ____ feet to the ____ lot line.

Accessory Building Size allowed:

Proposed building size:

Proposed sidewall height:

Affects Section:

NOTE:

Plat of Tract A of Katie's Addition, in the SE1/4 of the NE1/4 of Section 17, T96N, R55W of the 5th P.M., Yankton County, South Dakota

Please Check Plat Type:

☒ Final ☐ Amended ☐ Preliminary ☐ Revision

Development Information

Plat Name: Plat of Tract A of Katie's Addition,

Section No: 17 Township No: 96

Range: 55 Number of Lots/Tracts: 1

Number of Acres: 79.0

How is the property currently being used? AG

What is the proposed use of the property? AG

Surveyor/Engineer Information

Firm Name: Tom Week

Address: _____

City: Yankton State: SD Zip: 57078

Contact Person: Tom Week

Phone: 6056658333

Property Owner Information

Name: Katie Smit

Address: 45459 276 St

City: Parker State: SD Zip: 57053

Contact person: Tom Week

If the property owner is represented by an authorized agent, please provide the following:

Agent's name: _____

Agents Title: _____

You must provide the following:

The Yankton County Zoning Ordinance requires minimum lot sizes.

1. Does this lot/tract conform? ☐ Yes ☒ No

2. What is/are the lot size(s) 9.955

3. Is this (plat) an existing farmstead? ☒ Yes ☐ No

4. If a farmstead, how many acres are surrounding it? 9.955

5. The Yankton County Zoning Ordinance requires a variance from minimum lot sizes. Are you willing to apply for the variance, if necessary? ☒ Yes ☐ No

6. Is this property to have construction on it? ☐ Yes ☒ No
If yes:

Name, address and phone number of contractor(s)

Owner certification

This is to certify that Katie Smit
the undersigned is/are the sole owner(s) of the property described above on the date of this application, and that I/we have read and understand Section 207 of the Yankton county Zoning Ordinance.

Katie Smit
Owner Signature

Owner Signature

This is to certify that _____
acting by and through the undersigned, its duly authorized agent is/are the sole owner(s) of the property described above on the date of this application, and that I have read and understand Section 207 of the Yankton County Zoning Ordinance.

Agent Signature

Planning Office Use Only: Planning Commission Date: _____
County Commission Date: _____

Some plats of subdivisions and additions may require a Perpetual Road Maintenance Agreement prior to consideration.

YANKTON COUNTY PLANNING PLAT APPROVAL CHECKLIST

In order to insure prompt approval of your plat, please follow these steps:

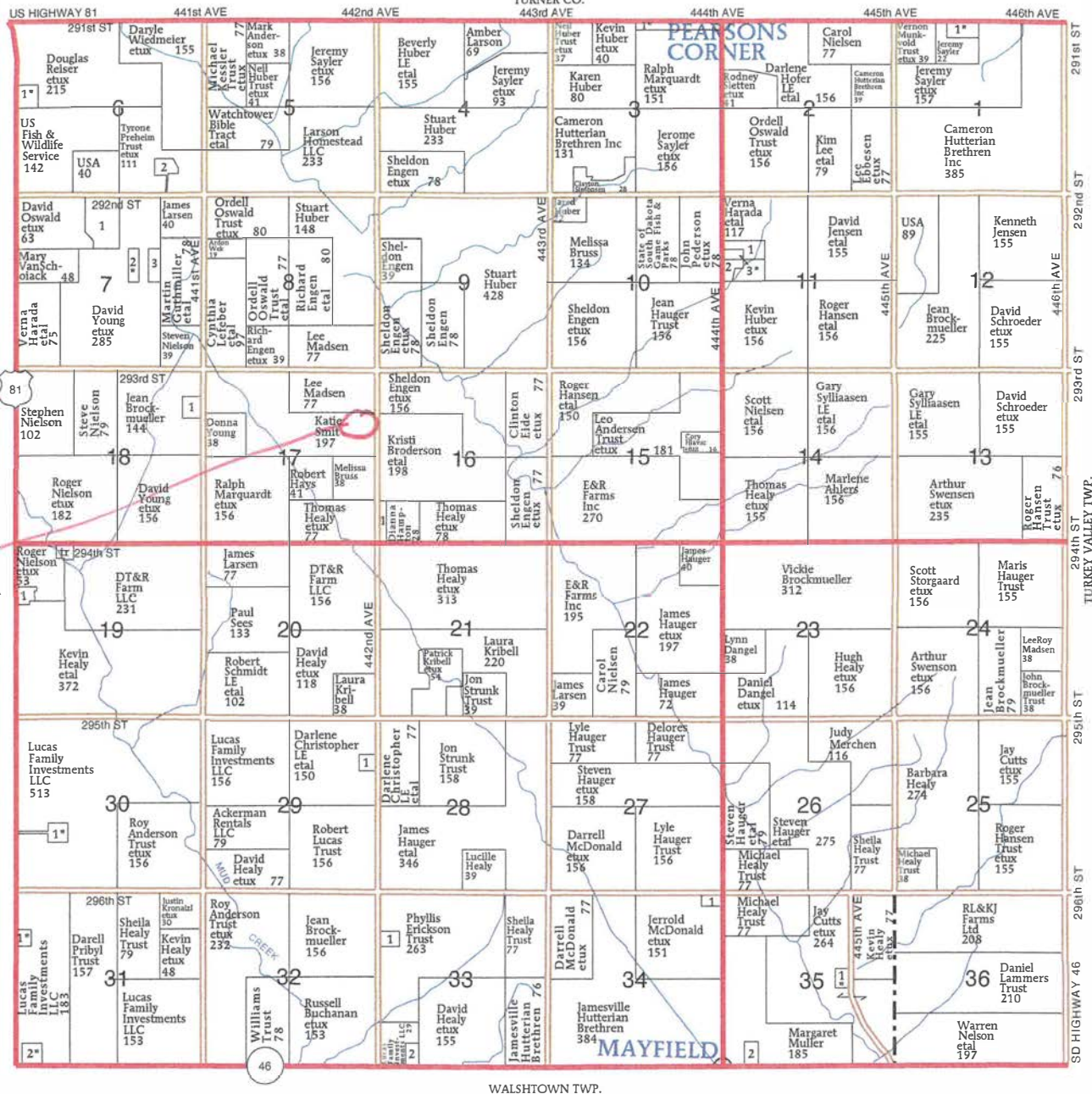
☒ Plat has been approved by the City of Yankton, if within the ETJ or 3 mile buffer zone?

- ☒ 1. All required signatures notarized (owner(s), surveyor)?
- ☒ 2. Taxes paid at County Treasures?
- ☒ 3. County Treasurer's signature?
- ☒ 4. Ownership verified by Director of Equalization and signed?
- ☒ 5. Street authority signature (DOT, Highway, Township)?
- ☒ 6. \$100.00 Fee Paid at Zoning Office?
- ☒ 7. Plat has been scheduled/approved by the Yankton County Planning Commission?
- ☐ 8. County Planning Commission Chair signature?
- ☐ 9. Plat has been scheduled/approved by the Yankton County Board of County Commissioners?
- ☐ 10. County Commission Chairs signature?
- ☐ 11. County Auditor's signature?
- ☐ 12. Plat has been filed with the Register of Deeds?

Planning Commission date: 03/14/2023

Board of Adjustment date: _____

(Landowners)

**MAYFIELD TOWNSHIP****SECTION 1**

1. Jensen, Corey etal 16

SECTION 3

1. Skjonsberg Sr, Ronald etux 6

SECTION 6

1. Kopejtka, Tracy etal 7

2. Massey, Larry 7

SECTION 7

1. State of South Dakota Game Fish & Parks 17

2. Young, David etal 9

3. Larsen, James 8

SECTION 11

1. Kerns, Connie 14

2. Sorensen, Ethel 8

3. Kerns-Grans, Connie etal 17

SECTION 16

1. Highland, Corey 11

SECTION 18

1. Rye Trust 12

SECTION 19

1. Our Redeemer Lutheran Church 9

SECTION 29

1. Jones, Judy 7

SECTION 30

1. VanBuren Sr, Lloyd etux 8

SECTION 31

1. Lucas, Benjamin etux 6

2. Kramer, Chris etux 9

SECTION 33

1. Brockmueller, Jean 11

2. Jensen, Donald 7

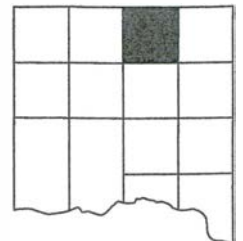
SECTION 34

1. St Columbia Church Mayfield 5

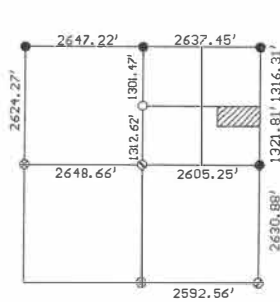
SECTION 35

1. Nelson, Rory etal 6

2. Nelson, Timothy 6



PLAT OF TRACT A OF KATIE'S ADDITION, IN THE SE1/4 OF THE NE1/4 OF SECTION 17, T96N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA.



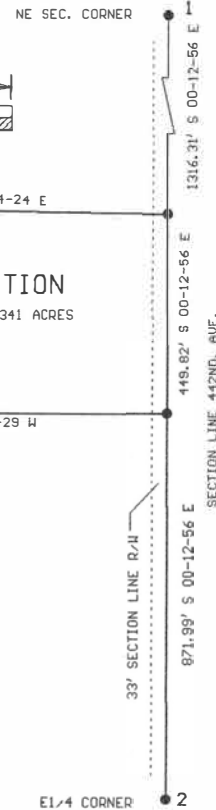
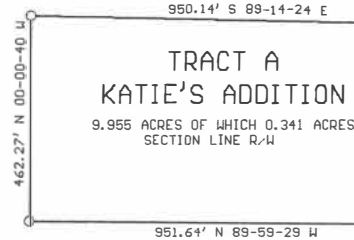
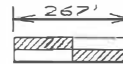
SECTION 17, T96N, R55W

- CORNER POST
 - ⊗ FOUND NAIL
 - ⊗ FOUND REBAR
 - SET LARGE SPIKE
 - ⊗ FOUND REBAR WITH CAP
 - SET 5/8" REBAR WITH CAP
- STAMPED TOM WEEK LS 2912

1 = LAT. 43-08-24.98891 N, LONG. 97-21-27.90928 W
2 = LAT. 43-07-58.93432 N, LONG. 97-21-27.77550 W



SCALE :



SURVEYORS CERTIFICATE

I, THOMAS LYNN WEEK, REGISTERED LAND SURVEYOR IN YANKTON, SOUTH DAKOTA, HAVE AT THE DIRECTION OF THE OWNER, MADE A SURVEY OF TRACT A OF KATIE'S ADDITION, IN THE SE1/4 OF THE NE1/4 OF SECTION 17, T96N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA. I HAVE SET IRON PINS AS SHOWN, AND SAID SURVEY AND PLAT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATED THIS 20TH. DAY OF FEBRUARY, 2023.

THOMAS LYNN WEEK
REG. LAND SURVEYOR
REG. NO. 2912

ZONING ADMINISTRATOR

THE UNDERSIGNED, COUNTY ZONING ADMINISTRATOR OF YANKTON COUNTY, SOUTH DAKOTA, HEREBY CERTIFIES THAT THIS PLAT HAS BEEN REVIEWED BY ME OR MY AUTHORIZED AGENT IN ACCORDANCE WITH SECTION 513 (FARMSTEAD, MINIMUM LOT REQUIREMENTS) OF THE YANKTON COUNTY SUBDIVISION REGULATIONS, AND TRACT A OF KATIE'S ADDITION, DOES QUALIFY AS A FARMSTEAD.

ZONING ADMINISTRATOR

RESOLUTION OF COUNTY PLANNING COMMISSION

BE IT RESOLVED BY THE YANKTON COUNTY PLANNING COMMISSION, THAT THE ABOVE PLAT REPRESENTING TRACT A OF KATIE'S ADDITION, IN THE SE1/4 OF THE NE1/4 OF SECTION 17, T96N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA, BE AND THE SAME IS HEREBY APPROVED.

CHAIRMAN, PLANNING COMMISSION

CERTIFICATE OF STREET AUTHORITY

THERE IS ACCESS TO TRACT A FROM 442ND. AVE., ANY FURTHER ACCESS POINTS WILL REQUIRE ADDITIONAL APPROVAL.

DATED THIS _____ DAY OF _____, _____.

TOWNSHIP/COUNTY APPROVAL

PLAT OF TRACT A OF KATIE'S ADDITION, IN THE SE1/4 OF THE NE1/4 OF SECTION 17, T96N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA.

OWNERS CERTIFICATE

I, KATIE L. SMIT, DO HEREBY CERTIFY THAT I AM THE ABSOLUTE AND UNQUALIFIED OWNER OF THE ABOVE DESCRIBED PROPERTY: TRACT A OF KATIE'S ADDITION, IN THE SE1/4 OF THE NE1/4 OF SECTION 17, T96N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA. THAT THE ABOVE SURVEY AND PLAT WAS MADE AT MY REQUEST AND UNDER MY DIRECTION FOR THE PURPOSE OF LOCATING, MARKING AND PLATTING THE SAME, AND THAT SAID PROPERTY IS FREE FROM ALL ENCUMBRANCES. THE DEVELOPMENT OF THIS LAND SHALL CONFORM TO ALL EXISTING APPLICABLE ZONING SUBDIVISION AND EROSION AND SEDIMENT CONTROL REGULATIONS.

DATED THIS ____ DAY OF _____, ____.

KATIE L. SMIT

STATE OF _____
COUNTY OF _____

ON THIS ____ DAY OF _____, _____, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED KATIE L. SMIT, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND WHO ACKNOWLEDGED TO ME THAT SHE EXECUTED THE SAME FOR THE PURPOSES THEREIN CONTAINED.

MY COMMISSION EXPIRES _____

NOTARY PUBLIC

RESOLUTION OF APPROVAL

WHEREAS, IT APPEARS THAT THE OWNER THEREOF HAS CAUSED A PLAT TO BE MADE OF THE FOLLOWING REAL PROPERTY: TRACT A OF KATIE'S ADDITION, IN THE SE1/4 OF THE NE1/4 OF SECTION 17, T96N, R55W OF THE 5TH. P.M., YANKTON COUNTY, SOUTH DAKOTA, AND HAS SUBMITTED SUCH PLAT TO THE COUNTY COMMISSION OF YANKTON COUNTY, SOUTH DAKOTA FOR APPROVAL. NOW THEREFORE BE IT RESOLVED, THAT SUCH PLAT HAS BEEN EXECUTED ACCORDING TO THE LAW AND SAME IS HEREBY APPROVED. THE COUNTY AUDITOR IS HEREBY AUTHORIZED AND DIRECTED TO ENDORSE ON SUCH PLAT A COPY OF THIS RESOLUTION AND CERTIFY THE SAME.

I, _____, COUNTY AUDITOR OF YANKTON COUNTY, SOUTH DAKOTA, DO HEREBY CERTIFY THAT THE WITHIN AND FOREGOING IS A TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF COUNTY COMMISSIONERS OF YANKTON COUNTY, SOUTH DAKOTA, ON THIS ____ DAY OF _____,

COUNTY AUDITOR

CHAIRMAN OF THE BOARD OF COUNTY COMMISSIONERS

DIRECTOR OF EQUALIZATION CERTIFICATE

I, _____, DIRECTOR OF EQUALIZATION, YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT I HAVE RECEIVED A COPY OF THE FOREGOING PLAT. DATED THIS ____ DAY OF _____, ____.

DIRECTOR OF EQUALIZATION, YANKTON COUNTY

TREASURER CERTIFICATE

I, _____, TREASURER OF YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT ALL TAXES WHICH ARE LIEN UPON ANY LAND INCLUDED IN THE ABOVE PLAT, AS SHOWN BY THE RECORDS OF THIS OFFICE, HAVE BEEN PAID. DATED THIS ____ DAY OF _____, ____.

TREASURER, YANKTON COUNTY

REGISTER OF DEEDS CERTIFICATE

I, _____, REGISTER OF DEEDS, YANKTON COUNTY, SOUTH DAKOTA, CERTIFY THAT I HAVE RECEIVED THE ORIGINAL PLAT, FILED FOR RECORD THIS ____ DAY OF _____, _____, _____ O'CLOCK ____ M., AND DULY RECORDED IN BOOK NO. ____, PAGE ____.

PREPARED BY: TOM WEEK
407 REGAL DRIVE
YANKTON, SOUTH DAKOTA 57078
605-665-8333

REGISTER OF DEEDS, YANKTON COUNTY, SD

Plat Approval
Application
96952

Fees Paid
\$100.00

Applicant
Bill Conkling

Created
February 21, 2023

Number
96952

Final | Plat of Tract A of Katie's
Addition, in the SE1/4 of the
NE1/4 of Section 17, T96N,
R55W of the 5th P.M., Yankton
County, South Dakota | Katie
Smit | 45459 276 St |
08.017.100.020
Submitted by bconkling on
2/21/2023



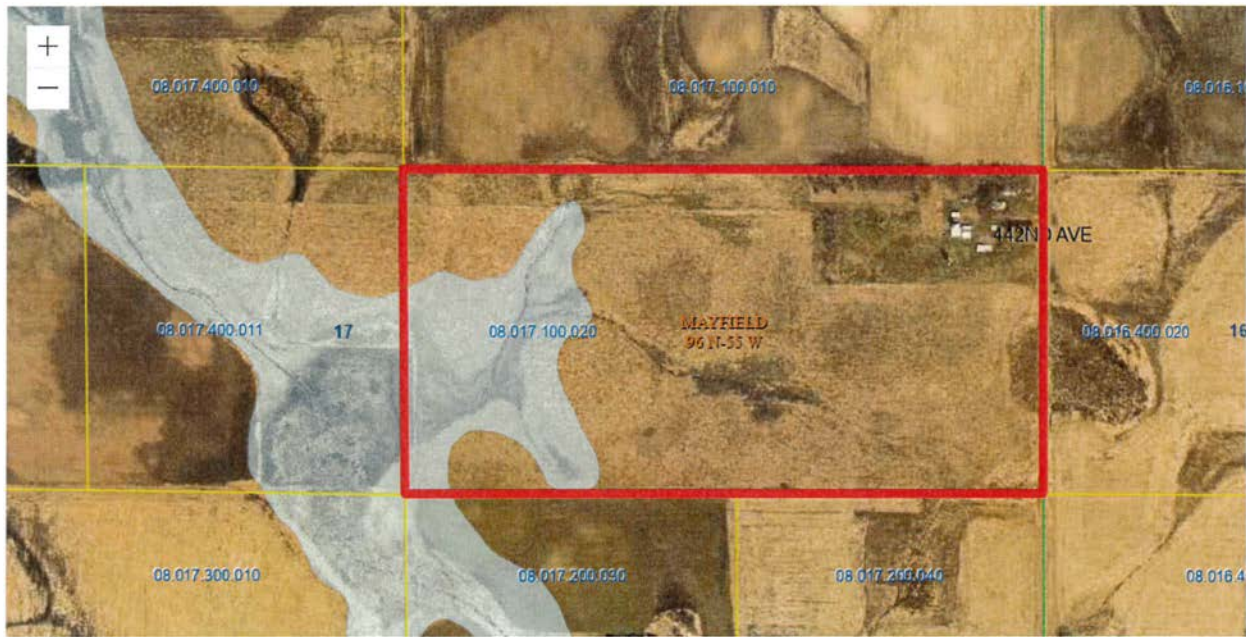
Applicant

Bill Conkling

6052604447

Bill@co.yankton.sd.us

Parcel search Completed On 2/21/2023 4:35 PM EST by bconkling



Maxar

Powered by Esri

ParcelID	Address	City	OwnerName	Acres
08.017.100.020	29323 442 AVE	IRENE	SMIT, KATIE L (D)	79.000

Requested Information Completed On 2/21/2023 4:41 PM EST by bconkling

Fee
\$100.00

Plat Type
Final

Development Information

Plat Name

Section No:

17

Township No:

96

Range

55

Number of Lots/Tracts

1

Number of Acres

79.0

How is this property currently being used?

AG

What is the proposed use of the property?

AG

Surveyor/Engineer Information

Firm Name

Tom Week

Address

407 Regal dr

City

Yankton

State

SD

Zip

57078

Contact Person

Tom Week

Phone

6056658333

Property Owner Information

Owner Name

Katie Smit

Address

45459 276 St

City

Parker

State

SD

Zip

57053

Owner Phone

6056658333

Contact Person

Tom Week

If the property owner is represented by an authorized agent, please provide the following:

Agent's name

Agent's Title

Plat Information

Does this lot/tract conform with Yankton County Zoning Ordinance required minimum lot sizes?

No

What is/are the lot size(s)

9.955

Is this plat an existing farmstead

Yes

If a farmstead, how many acres are surrounding it

9.955

The Yankton County Zoning Ordinance requires a variance from minimum lot sizes. Are you willing to apply for the variance, if necessary?

Yes

Is this property to have construction on it

No

If Yes:

Construction contractors Name, Address, and phone number (If applicable)

Plat Approval Items Completed On 2/27/2023 9:21 AM EST by bconkling

In order to insure prompt approval of your plat, please complete the following steps before submitting your application

Upload Copy of Plat

[Smit plat.pdf](#)

Plat Approval Applicant Checklist ⓘ

Plat has been approved by the City of Yankton, if within the ETJ or 3 mile buffer zone?

All required signatures notarized (owner(s), surveyor)?

Taxes paid at County Treasures?

County Treasurer's signature?

Submit Application Completed On 2/27/2023 9:21 AM EST by bconkling

Owner Certification

Owner(s)

Katie Smit

This is to certify that the aforementioned owner(s) undersigned is/are the sole owner(s) of the property described above on the date of this application, and that I/we have read and understand Section 207 of the Yankton County Zoning Ordinance.

Owner Signature



Owner Signature

If represented by an Agent, please provide name and signature below

Agent Name

This is to certify that (Agent) acting by and through the undersigned, its duly authorized agent is/are the sole owner(s) of the property described above on the date of this application, and that I have read and understood Section 207 of the Yankton County Zoning Ordinance.

Agent Signature

Payment Completed On 2/27/2023 9:21 AM EST by bconkling

Fees Paid

[VIEW RECEIPT](#)

Fee Name	Recipient	Amount
Fee	Planning and Zoning	\$100.00

Confirmation Data

Payment Method	Check
Confirmation Number	394
Amount Paid	\$100.00

Planning Commission Review Completed On 2/27/2023 9:22 AM EST by bconkling

Plat Approval Planning Commission Checklist

Please follow these steps:

Plat has been approved by the City of Yankton, if within the ETJ or 3 mile buffer zone?

All required signatures notarized (owner(s), surveyor)?

Taxes paid at County Treasures and County Treasurer's signature?

Ownership verified by Director of Equalization and signed?

Plat name has been approved by Register of Deeds?

Street authority signature (DOT, Highway, Township)?

\$100.00 Fee Paid at Zoning Office?

Plat has been scheduled/approved by the Yankton County Planning Commission?

Planning Commission date:

03/14/2023

External Notes

Documents

Internal Notes

Documents

Yankton County, South Dakota

Paid by
Bill Conkling
Bill@co.yankton.sd.us

Payment number
Date paid
Payment method

Receipt

394
February 27, 2023 09:21 AM
Check

\$100.00 paid on February 27, 2023

Plat Approval Application

Application ID: 96952

Description	Amount
Fee	\$100.00