

**PLANNING COMMISSION/
BOARD OF ADJUSTMENT MEETING
CITY COMMISSION ROOM
Tuesday, December 12, 2023
7:00am**

CALL TO ORDER

ROLL CALL

APPROVAL OF MINUTES: November 14, 2023, Board of Adjustments

APPROVAL OF MINUTES: November 14, 2023, Planning Commission

APPROVAL OF AGENDA: December 12, 2023

APPEARANCES, ACKNOWLEDGEMENTS, CORRESPONDENCE: None.

OLD BUSINESS (Planning Commission and Board of Adjustment): None.

NEW BUSINESS (Board of Adjustment):

1. Hearing on Appeal No. 706 – Madison Molengraaf, for a conditional use application that, if granted, will permit the applicant to operate in a daycare in their home at 418 SW 1st Street.
2. Decision on Appeal No. 706 – Madison Molengraaf.

NEW BUSINESS (Planning Commission):

1. Final Plat Approval – Plat of Lots 1A and 1B, Block 1, Lakeview Industrial Park Third Addition, City of Madison, Lake County, South Dakota.
2. Final Plat Approval – Plat of Tract C of Windsor Estates Second Addition to the City of Madison, Lake County, South Dakota
3. Approve Final Development Plans and Final Plat – Trojan Village Addition

PUBLIC INPUT:

ADJOURNMENT:

Any person with a disability wishing to attend any board meeting who may require special arrangements may contact the Finance Office at 256-7500 and all attempts shall be made to accommodate those requests.

**BOARD OF ADJUSTMENT PROCEEDINGS
CITY OF MADISON
November 14, 2023**

The Planning Commission motioned to move into Board of adjustment at 7:01 am.

The following members were present for roll call: Board Members Jim Iverson, Donna Fawbush, Jennifer Wolff, Roger Olson, Michael Johnson, Bob Maxwell, and alternate Jacob DeBoer. Also present were Administrative Officials Ryan Hegg and Dan Whitlock. Absent was John Groce. The following people were in attendance in addition to the Board and the aforementioned individuals, Gary Zay, Jennifer Hasleton, Chad Van Den Hemel, Ron Hunt, Dan McColley, Kelli Wollmann. Casey Crabtree via Zoom.

This being the time and place set for the hearing on Conditional Use Appeal Request No. 703 – by Brookings Habitat for Humanity. Mr. Hegg went through the contents of the packet. The applicant is requesting a conditional use permit that would allow the applicant to move in a 1990 modular home on a crawl space foundation. Build a 22'x22' attached garage. Located at Lot 1 Heilman's 1st Addition. Mr. McColley described the condition of the home. Home will receive new roof after it is moved in.

There were no additional opponents or proponents. Acting Chairman Iverson closed the public hearing and proceeded to the decision agenda item for appeal. Motion by Mr. Olson, second by Mr. DeBoer to approve Appeal No. 703. Roll Call Vote 7-0 in favor. Motion passed unanimously.

This being the time and place set for the hearing on Conditional Use Appeal Request No. 704 – by Brookings Habitat for Humanity. Mr. Hegg went through the contents of the packet. The applicant is requesting a conditional use permit that would allow the applicant to move in a new modular home on a crawl space foundation. Build a 22'x22' attached garage. Located at Lot 2 Heilman's 1st Addition. Mr. McColley described the condition of the home.

There were no additional opponents or proponents. Acting Chairman Iverson closed the public hearing and proceeded to the decision agenda item for appeal. Motion by Ms. Wolff, second by Ms. Fawbush to approve Appeal No. 704. Roll Call Vote 7-0 in favor. Motion passed unanimously.

This being the time and place set for the hearing on Conditional Use Appeal Request No. 705 – by Southridge Professional Building, LLC. Mr. Hegg went through the contents of the packet. The applicant is requesting a variance permit that would allow the applicant to build a new office building with a zero setback on the west lot line at 411 SE 10th Street. The proposed building would be in line with buildings to the north. Ms. Wollmann shared concerns over future road development.

There were no additional opponents or proponents. Acting Chairman Iverson closed the public hearing and proceeded to the decision agenda item for appeal. Motion by Mr. DeBoer, second by Mr. Olson to approve Appeal No. 705. Motion passed unanimously.

Motion by Mr. Olson, second by Mr. DeBoer to move out of the Board of Adjustment at 7:41am.

Motion carried unanimously.

Dan Whitlock
Board of Adjustment

**PLANNING COMMISSION PROCEEDINGS
CITY OF MADISON
November 14, 2023
7:00 am**

Jim Iverson serving as Chairman called the meeting to order at 7:00 am.

The following members were present for roll call: Jim Iverson, Bob Maxwell, Roger Olson, Donna Fawbush, Jennifer Wolff, Michael Johnson and alternate Jacob DeBoer. Also present was Administrative Official Ryan Hegg. Dan Whitlock, Jennifer Hasleton, Kelli Wollman, Ron Hunt, Dan McColley, Gary Zay and Chad Van Den Hemel were also in attendance. Casey Crabtree via Zoom.

Motion by Commissioner Wolff to approve the October 10, 2023, Planning Commission minutes, seconded by Commissioner Olson. Motion carried unanimously.

Motion by Commissioner Maxwell to approve the October 10, 2023, Board of Adjustment minutes, seconded by Commissioner Wolff. Motion carried unanimously.

Motion by Commissioner Olson to approve the October 23, 2023, Planning Commission minutes, seconded by Commissioner Fawbush. Motion carried unanimously.

Motion by Commissioner Fawbush to approve the November 14, 2023, agenda. Seconded by Commissioner Olson. Motion carried unanimously.

Motion by Commissioner Olson, second by Commissioner DeBoer to move into Board of Adjustment at 7:01am. Motion carried unanimously.

Motion by Commissioner Olson, second by Commissioner DeBoer to move out of Board of Adjustment and into Planning Commission at 7:41 am. Motion carried unanimously.

Discussion regarding Duck ordinance. Will be similar to chicken ordinance and will be by permit. Motion made by Commissioner Johnson to recommend to the City Commission, second by Commissioner Olson. Roll call vote taken 6-1 in favor. Motion passed.

Public Input: None

Commissioner Maxwell motioned to adjourn the meeting. Seconded by Commissioner Johnson. Meeting adjourned at 7:48 am.

R 00043236

10/29/2009

CITY OF MADISON
CONDITIONAL USE APPLICATION

APPEAL NUMBER 706

APPLICANT (PRINT): Madison Molengraaf PHONE: 605-690-1812

ADDRESS: 418 SW 1st Street Madison, SD 57042

OWNER (PRINT): _____ PHONE: _____
IF DIFFERENT THAN APPLICANT

ADDRESS: _____

I/WE, THE UNDERSIGNED, DO HEREBY PETITION THE BOARD OF ADJUSTMENT OF THE CITY OF MADISON SOUTH DAKOTA, TO ISSUE A CONDITIONAL USE PERMIT FOR THE PROPERTY DESCRIBED AS:

LEGAL DESCRIPTION (Please print or type)

Lot 7 Block 9 Town Proprietors 1st Addition

GENERAL AREA OR STREET ADDRESS: 418 SW 1st Street

EXISTING LAND USE: Residential EXISTING ZONING: R-60

SIZE OF PARCEL: ACRES 7.100 LOT DIMENSIONS: WIDTH 50 LENGTH 142 DEPTH _____

SURROUNDING LAND USE

NORTH: R-60 residential
SOUTH: R-60 residential
EAST: R-60 residential
WEST: R-60 residential

PLEASE DESCRIBE WHAT YOU PROPOSE TO DO AND WHY YOU ARE SEEKING A CONDITIONAL USE PERMIT (attach a separate letter of explanation if necessary)

To operate a daycare out of my home

I (we) further state that if this request is granted, I (we) will proceed with the actual construction in accordance with the plans herewith submitted within one year or additional time as extended from the effective date of the appeal.

SIGNATURE OF APPLICANT [Signature]

SIGNATURE OF OWNER (IF DIFFERENT THAN APPLICANT) _____

NOTE: A SKETCH OF PROPOSED PROPERTY SHALL ACCOMPANY THIS APPLICATION, SHOWING THE FOLLOWING:

- | | |
|--|--|
| 1. NORTH DIRECTION | 5. LOCATION OF PROPOSED STRUCTURE ON LOT |
| 2. DIMENSIONS OF PROPOSED STRUCTURE | 6. DIMENSIONS OF FRONT AND SIDE SET BACKS |
| 3. STREET NAMES | 7. LOCATION OF ADJACENT EXISTING BUILDINGS |
| 4. OTHER INFORMATION AS MAY BE REQUESTED | |

THE BOARD OF ADJUSTMENT MAY REQUIRE THAT SUCH PLANS BE PREPARED BY A REGISTERED ENGINEER OR LAND SURVEYOR.

**PLEASE USE THE ATTACHED SKETCH INSTRUCTION SHEET FOR AN EXAMPLE.

FOR OFFICIAL USE ONLY

DATE FILED WITH ADMINISTRATIVE OFFICIAL: _____
FEE PAID (NON-REFUNDABLE): _____ YES _____ NO
DATE OF HEARING: _____
ACTION BY BOARD OF ADJUSTMENT: _____

Hello Neighbor!

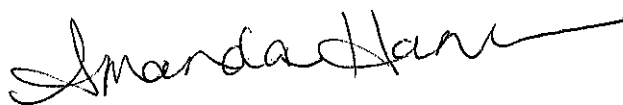
My name is Madison Molengraaf and my fiancé, Zachary Whitlock, and I recently moved into 418 SW 1st Street. I am planning on opening a daycare out of our house at the end of December and would greatly appreciate your signature allowing me to do so. If you have any questions, please send me an email at madimolengraaf@icloud.com. If you have any objections or concerns please reach out to the city office in Madison at (605) 256-7500. The board meeting will be held December 12th, 2023. I appreciate your time and consideration!

Sincerely,

Madison Molengraaf

418 SW 1st Street Madison SD, 57042

Name Printed: Amanda Hanson

Signature: 

Address: 419 west center street

Date: 11/16/23

Hello Neighbor!

My name is Madison Molengraaf and my fiance, Zachary Whitlock, and I recently moved into 418 SW 1st Street. I am planning on opening a daycare out of our house at the end of December and would greatly appreciate your signature allowing me to do so. If you have any questions, please send me an email at madimolengraaf@icloud.com. If you have any objections or concerns please reach out to the city office in Madison at (605) 256-7500. The board meeting will be held December 12th, 2023. I appreciate your time and consideration!

Sincerely,
Madison Molengraaf
418 SW 1st Street Madison SD, 57042

Name Printed: *S&N Rentals*

Signature: *Terry Siffert*

Address: *S & N Properties*
PO Box 69

Date: *Madison, S.D 57042*

11-17-23

Hello Neighbor!

My name is Madison Molengraaf and my fiance, Zachary Whitlock, and I recently moved into 418 SW 1st Street. I am planning on opening a daycare out of our house at the end of December and would greatly appreciate your signature allowing me to do so. If you have any questions, please send me an email at madimolengraaf@icloud.com. If you have any objections or concerns please reach out to the city office in Madison at (605) 256-7500. The board meeting will be held December 12th, 2023. I appreciate your time and consideration!

Sincerely,

Madison Molengraaf

418 SW 1st Street Madison SD, 57042

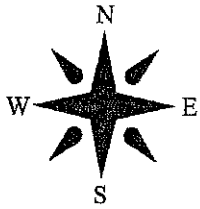
Name Printed: Kelly MacLeod

Signature: Kelly MacLeod

Address: 117 S. Josephine Ave.

Date: 11/5/2023

Mortgage Inspection



NOT TO SCALE

NOTICE: This Mortgage Inspection and drawing is not a boundary survey or plat of survey. This Mortgage Inspection was prepared to assist the mortgage company and title insurance company and is not to be used for any purposes of boundary disputes, location of actual deed, title or platted lines, or construction of new improvements. Graphic representation shall be deemed approximate and no reliance shall be placed on the scale of the drawing. The location of the improvements shown on this drawing are approximate and are based on visual inspection of the premises. The lot dimensions are taken from recorded plat or county records.

Ordered By:

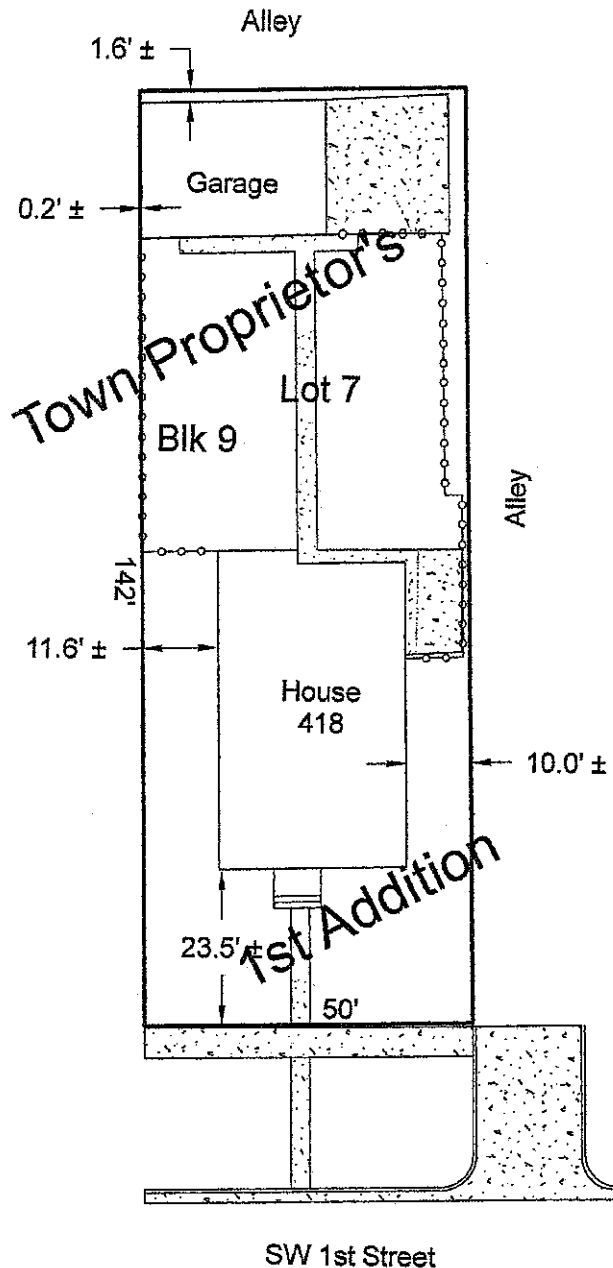
Dakotaland FCU
2297 Kansas Ave., Ste 1
Huron, SD 57350
Attn: Brittany Brimmer

Address:

418 SW 1st Street
Madison, SD 57042

Buyer: Madison Molengraaf/Zachary Whitlock

Owner:



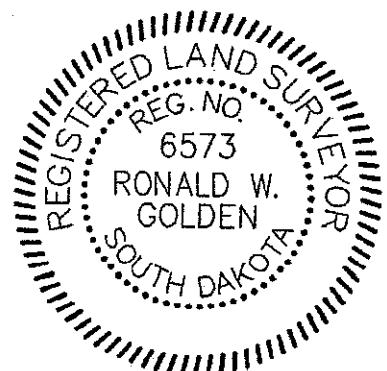
Legal Description: Lot 7 in Block 9 of Town Proprietor's First Addition to Madison, Lake County, South Dakota, according to the recorded plat thereof.

In my opinion, all buildings located upon the above described premises are wholly within the boundary lines of said premises except as shown on the above sketch. Furthermore, none of the buildings located upon adjoining property encroach upon said property.

Prepared by:

Ronald W. Golden
Ronald W. Golden R.L.S. No. 6573

Molengraaf Whitlock_M_m



Dated: 10/4/2023

PLAT OF
LOTS 1A AND 1B, BLOCK 1,
LAKEVIEW INDUSTRIAL PARK THIRD ADDITION,

Being a replat of Lot 1 of Block 1 of Lakeview Industrial Park Third Addition, City of Madison, Lake County, South Dakota

OWNER'S CERTIFICATE

We, Southridge Professional Building, LLC, do hereby certify that we are the owner of all land included in the above plat and that said plat has been made at our request and in accordance with my instructions for the purposes indicated herein and that the development of this land shall conform to all existing applicable zoning, subdivision and erosion and sediment control regulations.

There is hereby granted to the City of Madison, or to the holder of any utility franchise, an easement at the locations shown in the above plat for the purpose of installing and maintaining any utility line. Any land shown in the above plat and designated as a street, road, alley, park or public ground is hereby dedicated to public use as such forever, but such dedication shall not be construed to be a donation of the fee of such land.

This plat shall vacate of Lot 1 of Block 1 of Lakeview Industrial Park Third Addition to Madison, South Dakota, such plat filed July 11, 2002 in book of Plats on Page 5.

We, Southridge Professional Building, LLC, do hereby certify that this replat will not place any existing lot or building in violation of any applicable ordinance, code, regulation, law including but not limited to zoning, building, subdivision, and flood prevention.

IN WITNESS WHEREOF I have hereunto set my hand this ____ day of _____, 20__.

Casey Crabtree, Partner

STATE OF SOUTH DAKOTA }
COUNTY OF LAKE } ss.

On this the ____ day of _____, 20__, before me, _____, the undersigned officer, personally appeared Casey Crabtree, Partner, and acknowledged that he being authorized to do so executed the foregoing Owner's Certificate for the purpose therein contained.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

DATED THIS ____ DAY OF _____, 20__

Notary Public
My commission expires _____

CITY ENGINEER'S CERTIFICATE

I, _____, City Engineer of the City of Madison, do hereby certify that this plat has been reviewed by me or my authorized agent and that this plat is recommended for approval by the City Commission.

Signed on this ____ day of _____, 20__.

City Engineer, City of Madison, South Dakota

PLANNING COMMISSION CERTIFICATE

Approval of the Plat of LOTS 1A AND 1B, BLOCK 1, LAKEVIEW INDUSTRIAL PARK THIRD ADDITION, Being a replat of Lot 1 of Block 1 of Lakeview Industrial Park Third Addition, City of Madison, Lake County, South Dakota, is hereby granted by the City Planning Commission on this _____ day of _____, 20__.

Chair, City Planning Commission

CITY COMMISSION APPROVAL

Resolution No. _____
Be it resolved by the City Commission of the City of Madison, that the Plat of LOTS 1A AND 1B, BLOCK 1, LAKEVIEW INDUSTRIAL PARK THIRD ADDITION, Being a replat of Lot 1 of Block 1 of Lakeview Industrial Park Third Addition, City of Madison, Lake County, South Dakota, is hereby approved and that the City Finance Officer of the City of Madison is hereby directed to endorse on such plan a copy of the resolution and certify the same thereon..

Adopted this _____ day of _____, 20__.

Mayor, City of Madison

Attest: _____
City Finance Officer

CITY FINANCE OFFICER'S CERTIFICATE

I, _____, the duly appointed, qualified and acting City Finance Officer of the City of Madison, South Dakota, do hereby certify that I have compared the copy of the foregoing Resolution No. _____ with the original thereof as contained in the minutes of said Board of City Commissioners for the meeting of said board held on the _____ day of _____, 20__ and that the foregoing is a true and correct copy of said resolution and that the same has not been altered, modified or amended, on this _____ day of _____, 20__.

COUNTY TREASURER'S CERTIFICATE

City Clerk, City of Madison, South Dakota

I, Treasurer of Lake County, South Dakota, do hereby certify that all taxes which are liens upon any land included in the above (and the foregoing) plats, as shown by the records in my office, have been paid in full.

Dated this _____, day of _____, 20__

Treasurer, Lake County, South Dakota

DIRECTOR OF EQUALIZATION

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

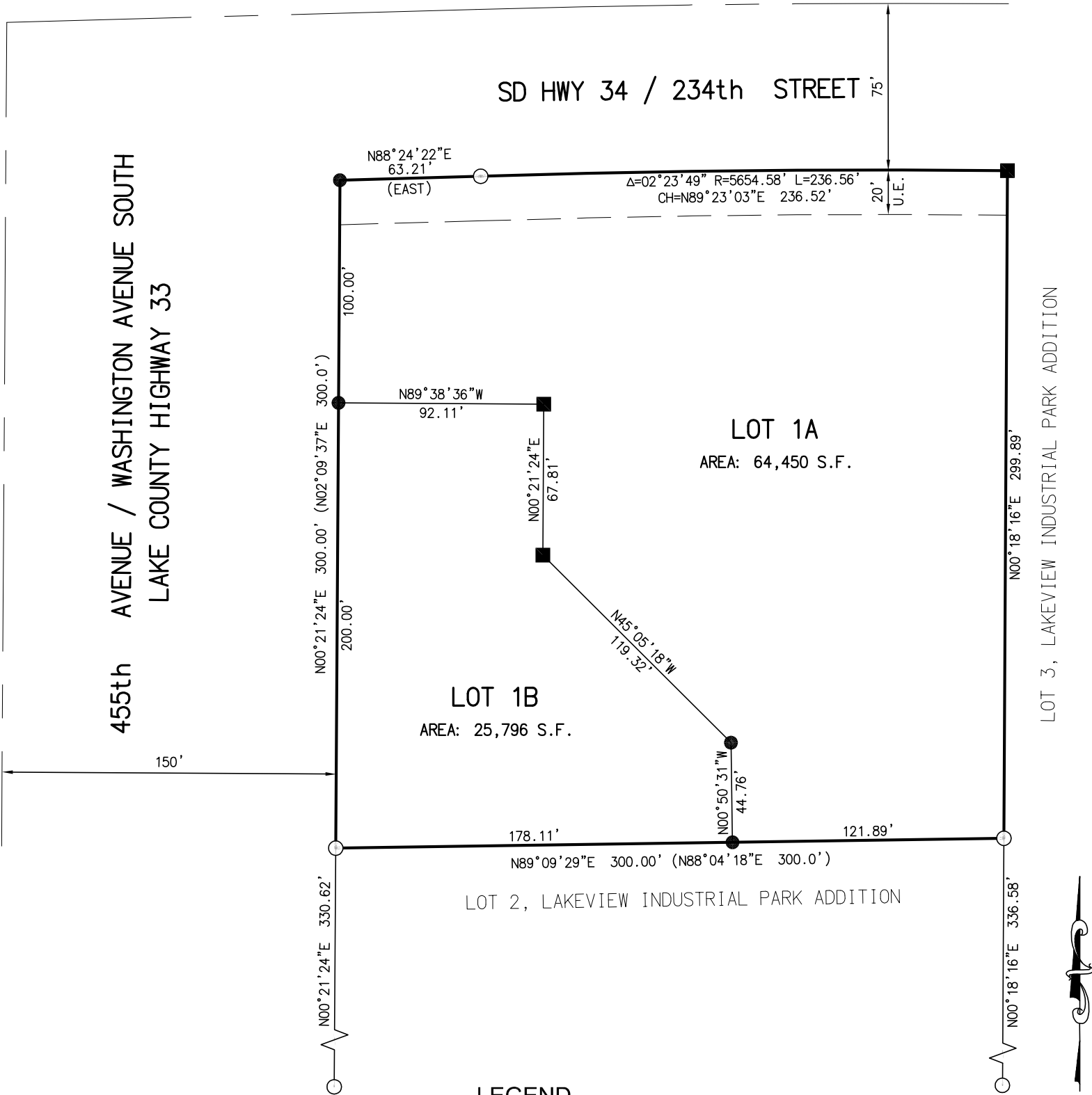
Director of Equalization, Lake County, South Dakota

REGISTER OF DEEDS

Filed for record this ____ day of _____, 20__, at ____ o'clock ____ m., and recorded in Book _____ of Plats on page _____ therein.

PLAT OF
LOTS 1A AND 1B, BLOCK 1,
LAKEVIEW INDUSTRIAL PARK THIRD ADDITION,

Being a replat of Lot 1 of Block 1 of Lakeview Industrial Park Third Addition, City of Madison, Lake County, South Dakota



LEGEND

- FOUND MONUMENTATION
- SET 5/8" REBAR WITH SURVEY CAP "PLS 11114"
- INDICATES CHISELED "X" IN CONCRETE
- () INDICATES RECORD DISTANCE
- U.E. INDICATES UTILITY EASEMENT (WIDTH AS SPECIFIED)

SCALE: 1" = 60'
September 29, 2023

NOTE:
This plat shall vacate Lot 1 of Block 1 of Lakeview Industrial Park Third Addition to Madison, South Dakota, such plat filed July 11, 2002 in book of Plats on Page 5.

SURVEYOR'S CERTIFICATE

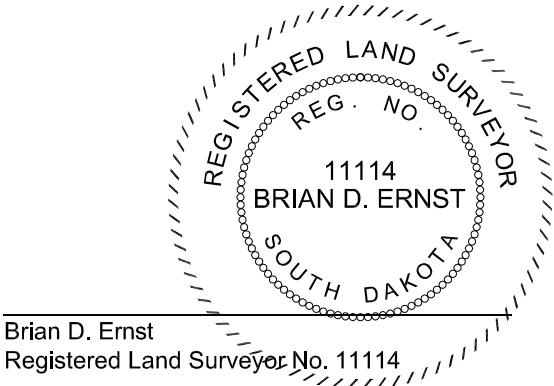
I, Brian D. Ernst, a Registered Land Surveyor of the State of South Dakota, do hereby certify that I have, at the request of the owner of the real property hereinafter described, surveyed and platted a parcel of land in the City of Madison, South Dakota, as shown on the attached plat and marked upon the ground the boundaries thereof in the manner shown on said plat, and that the attached plat is a true and correct representation of said survey, and that the parcel of land so platted contains: LOTS 1A & 1B, BLOCK 1, LAKEVIEW INDUSTRIAL PARK THIRD ADDITION, Being a replat of Lot 1 of Block 1 of Lakeview Industrial Park Third Addition, City of Madison, Lake County, South Dakota, the location and dimensions of which are represented on said plat.

IN WITNESS WHEREOF, I have executed this Surveyor's Certificate

this 29th day of September, 2023.

NOTES:
BASIS OF BEARINGS ARE ASSUMED.

THIS PLAT WAS PREPARED WITHOUT THE
BENEFIT OF A TITLE COMMITMENT.

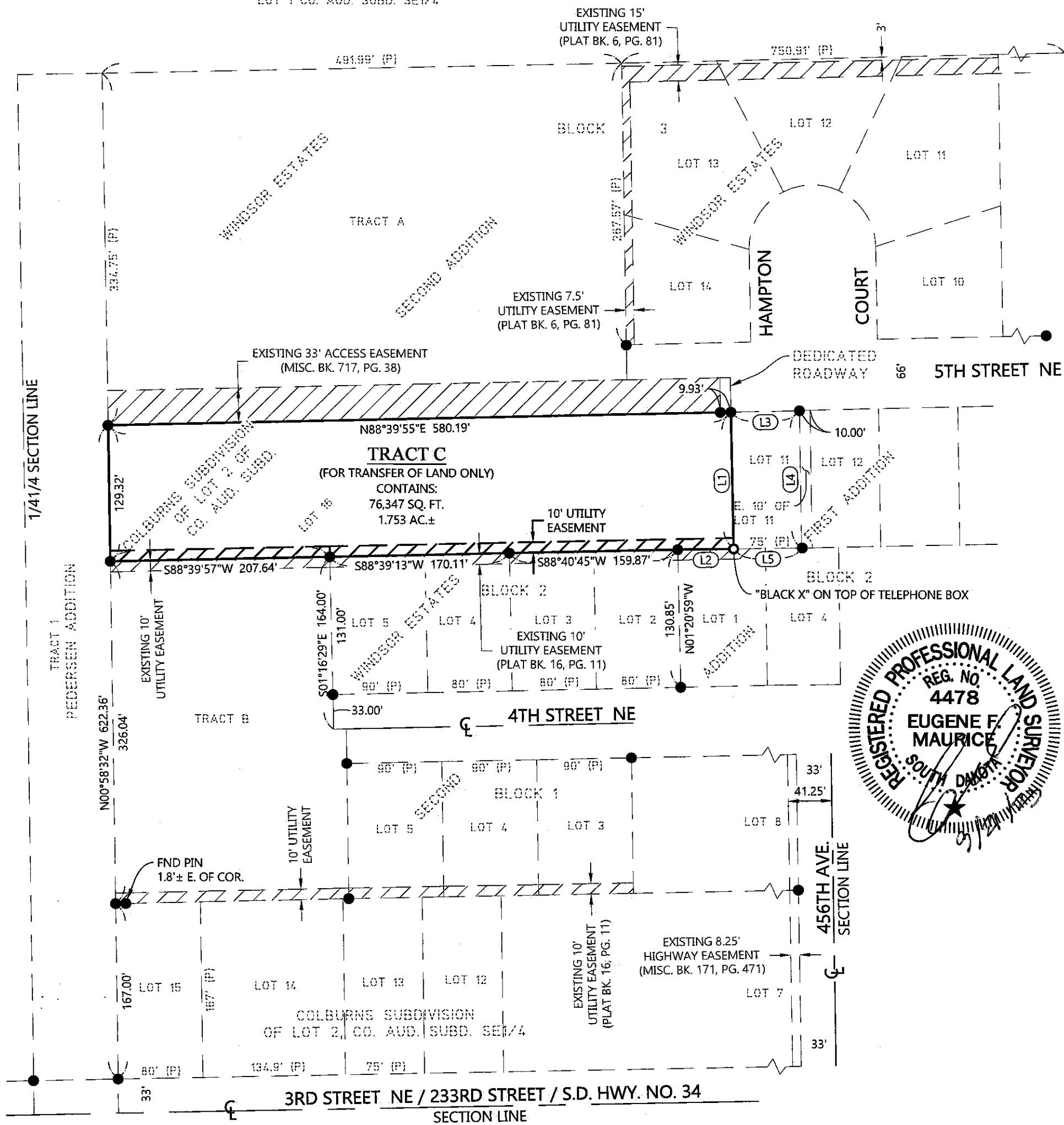


Brian D. Ernst
Registered Land Surveyor No. 11114

FORESIGHT
LAND SURVEYORS
1311 MAIN AVE. S, BROOKINGS, SD 57006
PHONE: 605.695.6442 Foresight@brookings.net

PLAT OF
TRACT C OF WINDSOR ESTATES SECOND ADDITION
TO THE CITY OF MADISON, LAKE COUNTY, SOUTH DAKOTA

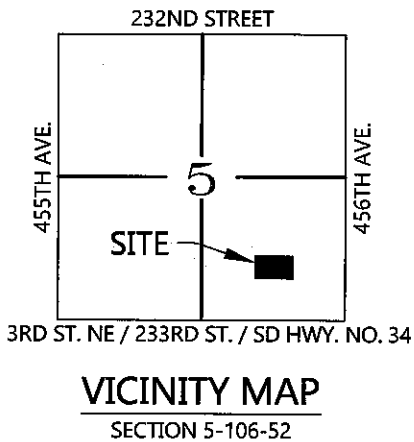
LOT 1 CO. AUD. SUBD. SE1/4



LINE TABLE		
Line #	Bearing	Distance
L1	S01°11'51"E	129.71'
L2	S89°04'49"W	53.00'
L3	S88°39'55"W	65.00'
L4	S01°11'50"E	130.18'
L5	S89°04'49"W	65.00'

Notes:
The bearing system for this plat is based on the UTM Zone 14 North.

This plat was prepared without the benefit of a title commitment.



Total Area Surveyed:
1.753 Acres±



PLAT OF
TRACT C OF WINDSOR ESTATES SECOND ADDITION
TO THE CITY OF MADISON, LAKE COUNTY, SOUTH DAKOTA

SURVEYOR'S CERTIFICATE

I, Eugene F. Maurice, a Registered Land Surveyor of the State of South Dakota, do hereby certify that I did on or before August 07, 2023, survey and replat a part of Lot 16, except Windsor Estates First and Second Addition to the City of Madison thereof, of Colburns Subdivision of Lot 2 of County Auditor's Subdivision of the Southeast Quarter of Section 5, Township 106 North, Range 52 West of the Fifth Principal Meridian, Lake County, South Dakota, into a tract as shown. The same shall hereafter be known and described as **Tract C of Windsor Estates Second Addition to the City of Madison, Lake County, South Dakota**, containing 76,347 SqFt ± 1.753 Acres ±.

I further certify that to the best of my knowledge the plat correctly represents the same, is true and correct and that it was made under my direct supervision.

Dated this 26th day of SEPT, 2023

SD Registered Land Surveyor No. 4478



OWNER'S CERTIFICATE OF COMPLIANCE

We, Kip Spier and DaLayne Spier, Robert Spier and Jackie Spier, do hereby certify that we are the sole, absolute, and unqualified owners of all 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 transfer, and that the development of this land shall conform to all existing applicable zoning, subdivision and erosion and sediment control regulations as well as all water pollution prevention control rules, codes and laws. This parcel of land is free from any encumbrances.

We hereby dedicate to the public for public use forever the streets, roads and alleys, 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, 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.

On our behalf as the owners and also binding on behalf of future successors and assigns, we hereby waive any rights of protest to any special assessment program which may be initiated by the City for the purpose of installation of improvements required by the Subdivision Ordinance of the City of Madison.

We do hereby certify that this replat will not place any existing lot or building in violation of any applicable ordinance, code, regulation, or law including but not limited to zoning, building, subdivision, and flood prevention.

We further certify that this platting of said described Tract C of Windsor Estates Second Addition to the City of Madison, Lake County, South Dakota, does hereby vacate the following platting: that part of Lot 16, except Windsor Estates First and Second Addition to the City of Madison thereof, of Colburns Subdivision of Lot 2 of County Auditor's Subdivision of the Southeast Quarter of Section 5, Township 106 North, Range 52 West of the Fifth Principal Meridian, Lake County, South Dakota, said plat on file at the Register of Deeds office in Book 3 of Plats, page 143; and also vacates that part of Lot 2 of County Auditor's Subdivision of the Southeast Quarter of Section 5, Township 106 North, Range 52 West of the Fifth Principal Meridian, Lake County, South Dakota, said plat on file at the Register of Deeds office in Book 2 of Plats, page 73. Said plats, hereby vacated, are situated within the plat of Tract C of Windsor Estates Second Addition to the City of Madison, Lake County, South Dakota, South Dakota, as surveyed.

We do hereby acknowledge that this platting is being proposed for transfer purposes only and that prior to development of any parcels of this land or the issuance of any permit for the erection of any structure on any of the parcels of this land, the Owner shall accomplish the following as described in the City of Madison Subdivision Regulations - apply for and secure approval of a preliminary plat, particularly including but not limited to, development of a single drainage plan and detention pond(s) for all the land or parcels described in this plat, regardless of individual parcel size(s). These requirements shall be applicable and binding on our heirs, successors, and assigns, even if there are multiple owners of the land or parcels described herein. It is understood that the provision of this paragraph shall not apply or be binding as to any or all portions of the platted property which may be hereafter sold, transferred or otherwise acquired by the State of South Dakota, or any institution or agency under its jurisdiction; however, any of said property shall be subject to any municipal powers specifically granted in South Dakota Codified Laws 11-4, or any other applicable chapters.

Dated this 21 day of November, 2023

Owners:
[Signature]

Kip Spier
[Signature]
DaLayne Spier

Owners:
[Signature]
Robert Spier

[Signature]
Jackie Spier

STATE OF SOUTH DAKOTA)

COUNTY OF LAKE)^s

On this 21ST day of NOVEMBER, 2023, before me, the undersigned officer, appeared Kip Spier and DaLayne Spier, known to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same for the purposes therein contained.

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

My commission expires: 5-17-29

Notary Public, LAKE County, South Dakota

STATE OF SOUTH DAKOTA)

COUNTY OF LAKE)^s

On this 21ST day of NOVEMBER, 2023, before me, the undersigned officer, appeared Robert Spier and Jackie Spier, known to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same for the purposes therein contained.

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

My commission expires: 5-17-29

Notary Public, LAKE County, South Dakota

CITY ENGINEER'S CERTIFICATE

I, _____, City Engineer of the City of Madison, do hereby certify that this plat has been reviewed by me or my authorized agent and that this plat is recommended for approval by the City Commission.

Signed on this ____ day of _____, 20____.

City Engineer, Madison, South Dakota

PLANNING COMMISSION CERTIFICATE

Approval of the plat of Tract C of Windsor Estates Second Addition to the City of Madison, Lake County, South Dakota, is hereby granted by the City Planning Commission on this ____ day of _____, 20____.

Chair, City Planning Commission

CITY COMMISSION APPROVAL

Resolution Number _____

Be it resolved by the City Commission of the City of Madison, that the plat of Tract C of Windsor Estates Second Addition to the City of Madison, Lake County, South Dakota, is hereby approved and that the City Finance Officer of the City of Madison is hereby directed to endorse on such plan a copy of this resolution and certify the same thereon.

Adopted this ____ day of _____, 20____.

Mayor, City of Madison

Attest: _____
City Finance Officer

CITY FINANCE OFFICER'S CERTIFICATE

I, _____, the duly appointed, qualified and acting City Finance Officer of the City of Madison, South Dakota hereby certify that I have compared the copy of the foregoing Resolution No. _____ with the original as contained in the minutes of the said board of City Commissioners for the meeting of said board held on the ____ day of _____, 20____, and that the foregoing is a true and correct copy of said resolution and that the same has not been altered, modified, or amended, on this ____ day of _____, 20____.

City Finance Officer, Madison, South Dakota

COUNTY TREASURER'S CERTIFICATE

I, Treasurer of Lake County, South Dakota, do hereby certify that all taxes which are liens upon any land included in the above (and the foregoing) plats, as shown by the record of my office, have been fully paid.

Dated this ____ day of _____, 20____.

Treasurer, Lake County, South Dakota

DIRECTOR OF EQUALIZATION

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

Director of Equalization, Lake County, South Dakota

REGISTER OF DEEDS

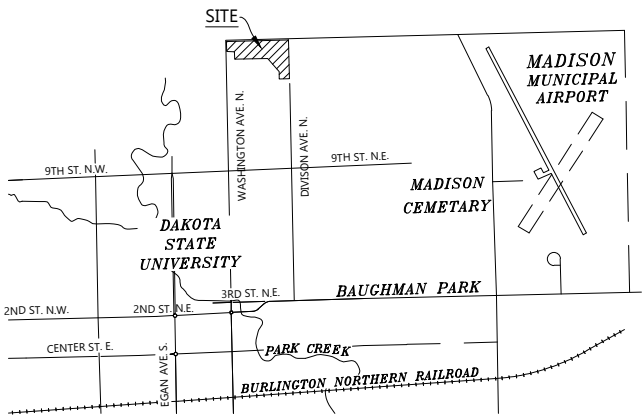
Filed for record this ____ day of _____, 20____, at ____ o'clock, ____m., and

recorded in Book ____ of Plats on Page ____.

Register of Deeds, Lake County, South Dakota

Sayre
Associates

215 S. Duluth Avenue • Sioux Falls, SD 57104
Phone: (605) 332-7211 • Fax: (605) 332-7222
Engineers • Surveyors



VICINITY MAP
SEC. 5-106-52

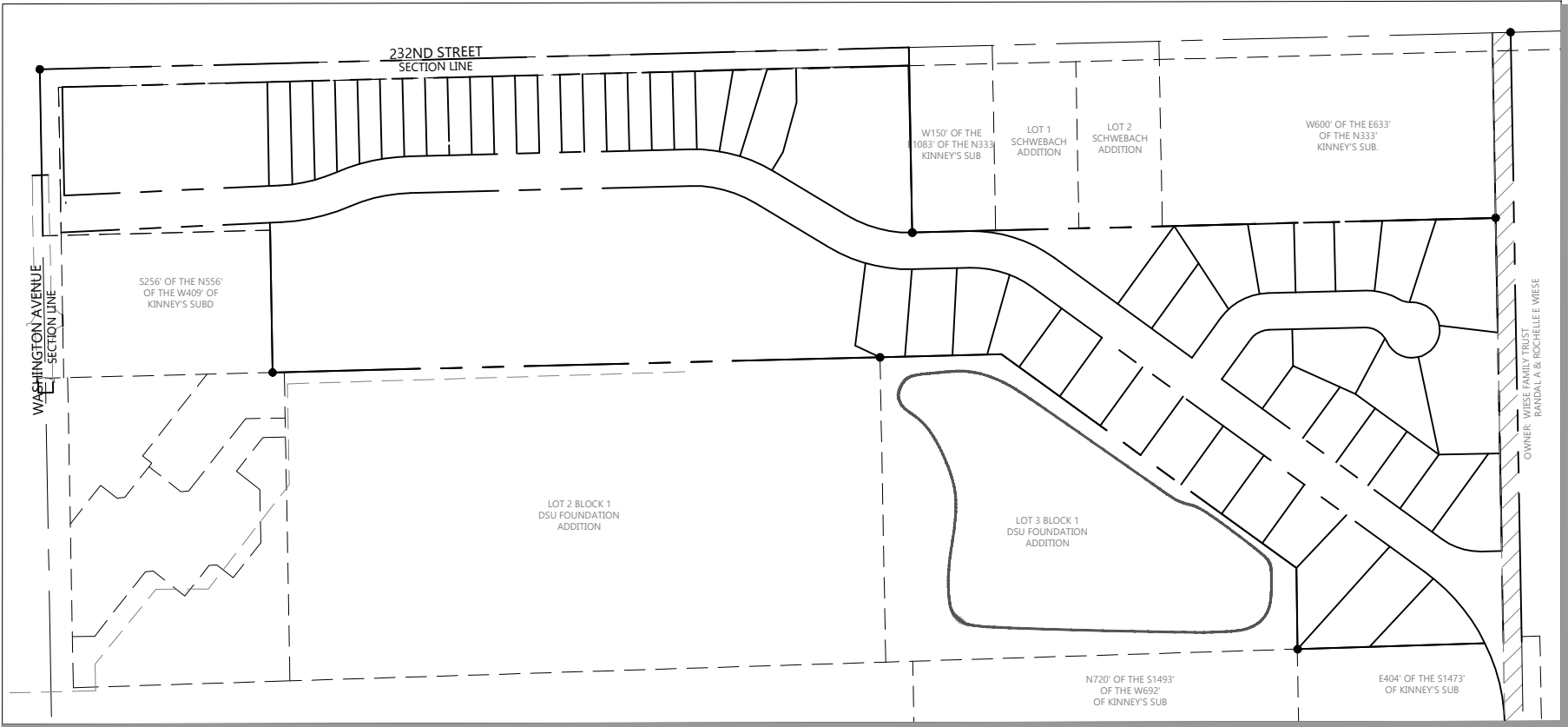
FINAL DEVELOPMENT PLAN

FOR

TROJAN VILLAGE ADDITION

IN THE CITY OF MADISON, LAKE COUNTY, SOUTH DAKOTA.

SHEET NO. 1	TITLE SHEET	SHEET NO. 12	FINISHED FLOOR AND LOT CORNER ELEVATIONS PLAN
SHEET NO. 2	TOPOGRAPHIC SURVEY	SHEET NO. 13	EXISTING OVERALL DRAINAGE PLAN
SHEET NO. 3	EROSION CONTROL NARRATIVE	SHEET NO. 14	PROPOSED OVERALL DRAINAGE PLAN
SHEET NO. 4	EROSION CONTROL PLAN	SHEET NO. 15	DRAINAGE PLAN
SHEET NO. 5 - 6	EROSION CONTROL DETAILS	SHEET NO. 16	DRAINAGE TABLES
SHEET NO. 7	LOT LAYOUT PLAN	SHEET NO. 17	UTILITY PLAN
SHEET NO. 8	ZONING MAP	SHEET NO. 18	OVERALL SANITARY SEWER BASIN PLAN
SHEET NO. 9	OVERALL STREET PLAN	SHEET NO. 19	LIFT STATION DETAILS
SHEET NO. 10	TYPICAL SECTIONS	SHEET NO. 20 -22	LIFT STATION ELECTRICAL PLANS
SHEET NO. 11	GRADING PLAN	SHEET NO. 23 - 24	STREET CROSS SECTIONS



LOCATION MAP

LEGAL DESCRIPTION: ALL THAT PART OF KINNEY'S SUBDIVISION OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 5, TOWNSHIP 106 NORTH, RANGE 52 WEST OF THE 5TH P.M., LAKE COUNTY, SOUTH DAKOTA, EXCEPT DEEDED AND PLATTED PORTIONS THEREOF AND EXCEPT THE EAST 404 FEET OF THE SOUTH 1473 FEET THEREOF, AND EXCEPT THE SOUTH 256 FEET OF THE NORTH 556 FEET OF THE WEST 409 FEET THEREOF, AND EXCEPT THE WEST 150 FEET OF THE EAST 1083 FEET OF THE NORTH 333' THEREOF, AND EXCEPT THE WEST 600 FEET OF THE EAST 633 FEET OF THE NORTH 333 FEET THEREOF, AND EXCEPT LOTS 1 AND 2 OF SCHEWBACH ADDITION, AND EXCEPT ODENBRETT'S FIRST ADDITION, AND EXCEPT LOTS 1, 2 AND 3 IN BLOCK 1 OF DSU FOUNDATION ADDITION, SUBJECT TO ANY RECORDED EASEMENTS AND ENCUMBRANCES CONTAINED THEREIN.

AND

TRACT A OF LOT 3, BLOCK 1 DSU FOUNDATION ADDITION TO THE CITY OF MADISON, LAKE COUNTY, SOUTH DAKOTA.

PLANNING COMMISSION APPROVAL

APPROVAL OF THE PRELIMINARY PLAT OF TROJAN VILLAGE ADDITION TO THE CITY OF MADISON IS HEREBY GRANTED BY THE CITY PLANNING COMMISSION ON THIS ____, DAY OF ____, 2023.

CHAIR, CITY PLANNING COMMISSION
CITY OF MADISON, SOUTH DAKOTA

CITY COMMISSION APPROVAL:

RESOLUTION NUMBER ____.

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF MADISON THAT THE PRELIMINARY PLAT OF TROJAN VILLAGE ADDITION TO THE CITY OF MADISON IS HEREBY APPROVED AND THAT THE CITY FINANCE OFFICER OF THE CITY OF MADISON IS HEREBY DIRECTED TO ENDORSE ON SUCH PLAT A COPY OF THIS RESOLUTION AND CERTIFY THE SAME THEREON. ADOPTED THIS ____, DAY OF ____, 2023.

MAYOR
CITY OF MADISON, SOUTH DAKOTA
STATE OF SOUTH DAKOTA

ATTEST: _____
CITY FINANCE OFFICER

CITY FINANCE OFFICER:

I, _____, THE DULY APPOINTED, QUALIFIED AND ACTING CITY FINANCE OFFICER OF THE CITY OF MADISON, SOUTH DAKOTA, HEREBY CERTIFY THAT THE ABOVE RESOLUTION IS A TRUE AND CORRECT COPY OF THE RESOLUTION ADOPTED BY THE CITY COMMISSION OF THE CITY OF MADISON, AT A MEETING HELD ON THE ____, DAY OF ____, 2023.

WITNESS MY HAND AS CITY FINANCE OFFICER AND THE OFFICIAL, SEAL OF THE CITY OF MADISON, SOUTH DAKOTA.

CITY FINANCE OFFICER
CITY OF MADISON, SOUTH DAKOTA

CITY ENGINEER APPROVAL:

I, _____, CITY ENGINEER OF THE CITY OF MADISON, DO HEREBY CERTIFY THAT I DID DULY REVIEW AND RECOMMEND APPROVAL OF THIS PRELIMINARY PLAT ON THIS ____, DAY OF ____, 2023.

CITY ENGINEER
CITY OF MADISON, SOUTH DAKOTA

REVIEWED AND APPROVED BY:

OWNER _____ DATE _____

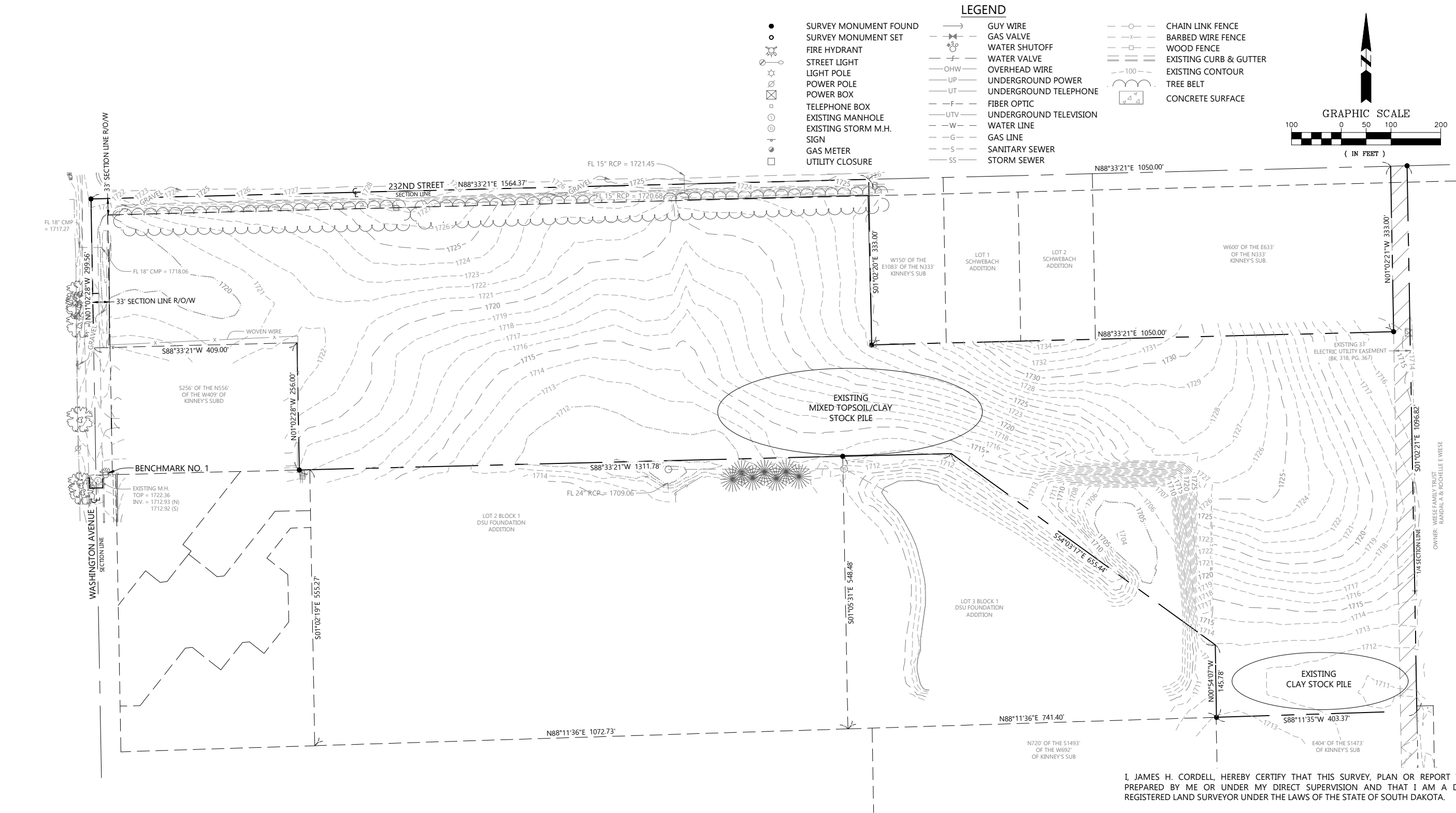
OWNER
TROJAN VILLAGE, LLC
730 S. WASHINGTON AVENUE
(605) 480-5555
AUTHORIZED REPRESENTATIVE: RANDY SCHAEFER
randyschaeferagency@gmail.com

SAYRE ASSOCIATES
216 S. DULUTH AVENUE
SIOUX FALLS, SD 57104
(605) 332-7211
ENGINEER: RAY PIERSON
rayp@sayreassociates.com

DRAWING INDICATES GENERAL UTILITY LOCATIONS ONLY. NEITHER THE CORRECTNESS OR COMPLETENESS OF LOCATIONS ARE GUARANTEED. CONTACT SOUTH DAKOTA ONE CALL PRIOR TO EXCAVATIONS. (1-800-781-7474)

BENCHMARK NO. 1:
TOP NUT OF HYDRANT
S. 556'± OF THE INTERSECTION OF
232ND ST. & WASHINGTON AVE.
ELEV. = 1724.47 (88 DATUM)

BENCHMARK NOTE:
THE ELEVATION BASIS OF THIS SURVEY IS BASED ON GPS OBSERVATION OF THE TRIMBLE VIRTUAL REFERENCE STATION (VRS) SYSTEM AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).



PROJECT NO.:	23107
SURVEYED BY:	JHC
CREATED BY:	BJ8
APPROVED BY:	JHC
REVISION DATE:	
TOPOGRAPHIC SURVEY	

NAME

TROJAN VILLAGE ADDITION
(GRADING ONLY)

OWNER/DEVELOPER

TROJAN VILLAGE, LLC.
730 S. WASHINGTON AVENUE
MADISON, SD 57042
(605) 480-5555
CONTACT: RANDY SCHAEFER
EMAIL:
RANDYSCHAEFERAGENCY@GMAIL.COM

ENGINEER

SAYRE ASSOCIATES, INC.
216 S. DULUTH AVENUE
SIOUX FALLS, SD 57104
605-332-7211
REGISTERED ENGINEER: RAY PIERSON, P.E.
EMAIL: RAYP@SAYREASSOCIATES.COM

PROJECT DESCRIPTION:

THE PROJECT PROVIDES FOR THE GRADING OF TROJAN VILLAGE IN PORTIONS OF KINNEY'S SUBDIVISION OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 5, TOWNSHIP 106 NORTH, RANGE 52 WEST OF THE 5TH P.M., LAKE COUNTY, MADISON, SOUTH DAKOTA.

CONSTRUCTION REQUIREMENTS:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST CURRENT STANDARD SPECIFICATIONS AND ENGINEERING DESIGN STANDARDS OF THE CITY OF MADISON.

EXISTING SITE CONDITIONS:

THE EXISTING SITE IS UNDEVELOPED AGRICULTURAL LAND. THE LAND GENERALLY DRAINS FROM NORTH TO SOUTH.

ARE WETLANDS AN ISSUE? (Y/N) NO

IF WETLANDS ARE AN ISSUE, HAS A DETERMINATION BEEN MADE BY THE CORPS OF ENGINEERS? (Y/N)

DOES THE STATE HISTORICAL PRESERVATION OFFICE (SHPO) NEED TO REVIEW THESE PLANS? (Y/N) NO

DOES SOUTH DAKOTA GAME FISH AND PARKS NEED TO REVIEW PLANS? (Y/N) NO

DOES THE UNITED STATES FISH AND WILDLIFE SERVICE NEED TO BE CONTACTED CONCERNING THREATENED OR ENDANGERED SPECIES? (Y/N) NO

ARE DEWATERING OPERATIONS EXPECTED? NO
IF SO, DESCRIBE METHODS FOR PROVIDING A TEMPORARY BMP OR NOTE THAT A DEWATERING PERMIT HAS BEEN ISSUED BY SD DENR.

ADJACENT AREA DESCRIPTION:

THE SITE IS BORDERED TO THE WEST AND NORTH GRAVEL ROADS AND AGRICULTURAL LAND. A PORTION OF THE NORTH SIDE OF THE DEVELOPMENT IS BORDERED BY RURAL RESIDENTIAL HOMES. TO THE EAST IS AGRICULTURAL LAND AND PASTURE LAND. THE LAND TO THE SOUTH IS MOSTLY DAKOTA STATE UNIVERSITY ATHLETIC FACILITY WITH A DETENTION POND. THE SOUTHEAST PORTION OF THE DEVELOPMENT IS BORDERED BY AGRICULTURAL LAND.

AREAS:

APPROXIMATELY 29.2 ACRES OF LAND WILL BE DISTURBED DURING THE CONSTRUCTION OF THIS PROJECT.

TEMPORARY EROSION CONTROL MEASURES:

SILT FENCE AND VEHICLE TRACKING CONTROL WILL ALL BE UTILIZED IN THE EROSION AND SEDIMENT CONTROL PROCESS AS SHOWN ON THE PLANS.

SCHEDULE:

THE GRADING PROJECT IS EXPECTED TO BEGIN JUNE, 2023 AND BE COMPLETED IN THE FALL OF 2023.

SEQUENCING:

THE FOLLOWING IS A PROPOSED ORDER OF PROJECT SEQUENCING. IF THE CONTRACTOR PROPOSES TO UTILIZE A DIFFERENT SEQUENCE, HE/SHE SHALL SUBMIT THAT TO THE ENGINEER FOR APPROVAL.

• POST STORM WATER DISCHARGE PERMIT AND EROSION CONTROL CONTACT INFORMATION POSTER ON SITE

• INSTALL INITIAL SILT FENCE AS DETAILED ON THE EROSION CONTROL PLAN

• INSTALL VEHICLE TRACKING STATION

• STRIP TOPSOIL.

• PERFORM ROUGH GRADING.

• PLACE TOPSOIL OVER ALL DISTURBED AREAS.

• SEED AND FERTILIZE ALL TOPSOILED AREAS.

• WHEN SITE IS STABILIZED, REMOVE ALL EROSION CONTROL MEASURES.

AT NO TIME SHALL ANY WATERS FROM THIS PROJECT ENTER THE STORM DRAINAGE SYSTEM OR LEAVE THE PROJECT LIMITS WITHOUT EXPOSURE TO A SEDIMENT FILTRATION DEVICE. ALL DROP INLETS, MANHOLES AND JUNCTION BOXES (EXISTING OR NEW) SHALL HAVE SEDIMENT CONTROL DEVICES PLACED AROUND THEIR PERIMETER DURING ALL STAGES OF CONSTRUCTION EXCEPT DURING THE PLACEMENT OF THE FINAL SURFACING. THIS MAY NECESSITATE MULTIPLE INSTALLATIONS OF THE SEDIMENT CONTROL DEVICES AT THE SAME LOCATION.

SOME ITEMS MAY OVERLAP OTHERS WITHIN THE LIST OF SEQUENCING.

TRAINING:

TRAINING SHALL BE PROVIDED AS NECESSARY TO ENSURE COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN. TRAINING IS RECOMMENDED AT LEAST ANNUALLY FOR EMPLOYEES AND RESPONSIBLE PARTIES.

NOTICE OF INTENT:

A NOTICE OF INTENT WAS FILED WITH THE SD DENR. THE PERMIT NUMBER IS SDRXXXX.

NOTIFICATION:

SITE INSPECTION PRIORITY FOR THIS PROJECT IS: HIGH

THE PRIMARY RESPONSIBLE PARTY (PRP) IS REQUIRED TO NOTIFY THE CITY EROSION CONTROL INSPECTOR WHEN THE SITE REACHES FINAL STABILIZATION, AS WELL AS FILE A (NOT) NOTICE OF TERMINATION WITH THE SD DENR.

SOIL STABILIZATION:

AFTER CONSTRUCTION BEGINS, SOIL SURFACE STABILIZATION SHALL BE APPLIED WITHIN 14 DAYS TO ALL DISTURBED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR PERIODS LONGER THAN AN ADDITIONAL 21 CALENDAR DAYS. WITHIN 14 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, PERMANENT OR TEMPORARY SOIL SURFACE STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS AND SOIL STOCKPILES.

MAXIMUM TIME LIMITS OF LAND EXPOSURES FOR SELECTION OF EROSION CONTROLS	
EROSION CONTROL METHOD	MAXIMUM ALLOWABLE PERIOD OF EXPOSURE (MONTHS)
SURFACE ROUGHENING *	1
MULCHING	12
TEMPORARY REVEGETATION	12-24
PERMANENT REVEGETATION	24 OR MORE
SOIL STOCKPILE REVEGETATION	2
EARLY APPLICATION OF ROAD BASE	1

*THE SURFACE ROUGHENING EROSION CONTROL METHOD MAY BE EXTENDED UP TO THE MAXIMUM OF THREE MONTHS ON A CASE BASIS IF THE CITY INSPECTOR HAS DETERMINED THAT THE SITE DEMONSTRATES THE FOLLOWING:
APPROPRIATE SOIL CONDITIONS EXIST FOR THIS METHOD OF CONTROL.
DISTURBED AREAS WILL BE SEEDED AND MULCHED WITHIN THREE MONTHS.
SEASONAL PLANTING LIMITATIONS EXIST.
SOIL STABILIZATION METHOD HAS DEMONSTRATED ITS EFFECTIVENESS.

PERMANENT STABILIZATION MEASURES:

THE DISTURBED AREAS NOT RECEIVING HARD SURFACING WILL BE FERTILIZED, SEEDED AND MULCHED TO MINIMIZE POST CONSTRUCTION EROSION.

STORM WATER MANAGEMENT CONSIDERATIONS:

THE TEMPORARY EROSION CONTROL MEASURES WILL BE MAINTAINED UNTIL VEGETATION IS ESTABLISHED.

MAINTENANCE:

ALL PAVED STREETS ADJACENT TO THE SITE SHALL BE CLEANED AT THE END OF EACH WORKING DAY.

THE PERMITTEE SHALL ASSURE THAT QUALIFIED PERSONNEL INSPECT THE SITE AT THE FOLLOWING FREQUENCIES:

- ONCE EVERY 7 CALENDAR DAYS; OR
- ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF PRECIPITATION THAT EXCEEDS 0.25 INCHES OR SNOWMELT THAT GENERATES RUNOFF.

YOU MUST KEEP A PROPERLY MAINTAINED RAIN GAUGE ON YOUR SITE.

THE PERMITTEE MAY DESIGNATE THE CONTRACTOR TO BE RESPONSIBLE TO INSPECT THE SITE. IN THE EVENT THE CONTRACTOR IS RESPONSIBLE, THE CONTRACTOR AUTHORIZATION FORM MUST BE COMPLETED AND SUBMITTED TO THE SD DENR. NR. A REPORT SUMMARIZING THE AREAS INSPECTED, NAME(S) AND TITLE(S) OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS AND CORRECTIVE ACTIONS TAKEN SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST 3 YEARS. SUCH REPORTS SHALL IDENTIFY AND INCIDENTS OF NON-COMPLIANCE. WHERE AN INSPECTION DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE SITE IS IN COMPLIANCE WITH THE PLAN AND PERMIT. EXAMPLE COPIES OF REPORTING PROCEDURES MAY BE OBTAINED AT CITY ENGINEERING.

SPILL PREVENTION:

PETROLEUM PRODUCTS: ON -SITE CONSTRUCTION EQUIPMENT WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR MAINTENANCE.

FERTILIZERS: THE USE OF FERTILIZERS SHALL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

CERTIFICATION:

THIS EROSION AND SEDIMENT CONTROL REPORT AND ATTACHED SITE CONSTRUCTION PLAN APPEARS TO FULFILL THE TECHNICAL CRITERIA AND THE CRITERIA FOR EROSION CONTROL AND REQUIREMENTS OF THE CITY OF SIOUX FALLS. I UNDERSTAND THAT ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED IF UNFORESEEN EROSION PROBLEMS OCCUR OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE LANDOWNER UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED.

OWNER/DEVELOPER: _____

DATE: _____

GENERAL CONTRACTOR (OPTIONAL): _____

DATE: _____

ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF SOUTH DAKOTA.

ENGINEER: Raymond M. Pierson

DATE: 06/06/2023

BY: BJ8, 23107-FDP.dwg, EC NARRATIVE, PRINT DATE: Nov 29, 2023

Engineering Solutions

Sayre Associates

216 S. Duluth Avenue • Sioux Falls, SD 57104
Phone: (605) 332-7211 • Fax: (605) 332-7222

TROJAN VILLAGE ADDITION

TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.: 23107

SURVEYED BY: JHC

CREATED BY: BJ8

APPROVED BY: JHC

REVISION DATE:

EROSION CONTROL NARRATIVE

3

NOTE:

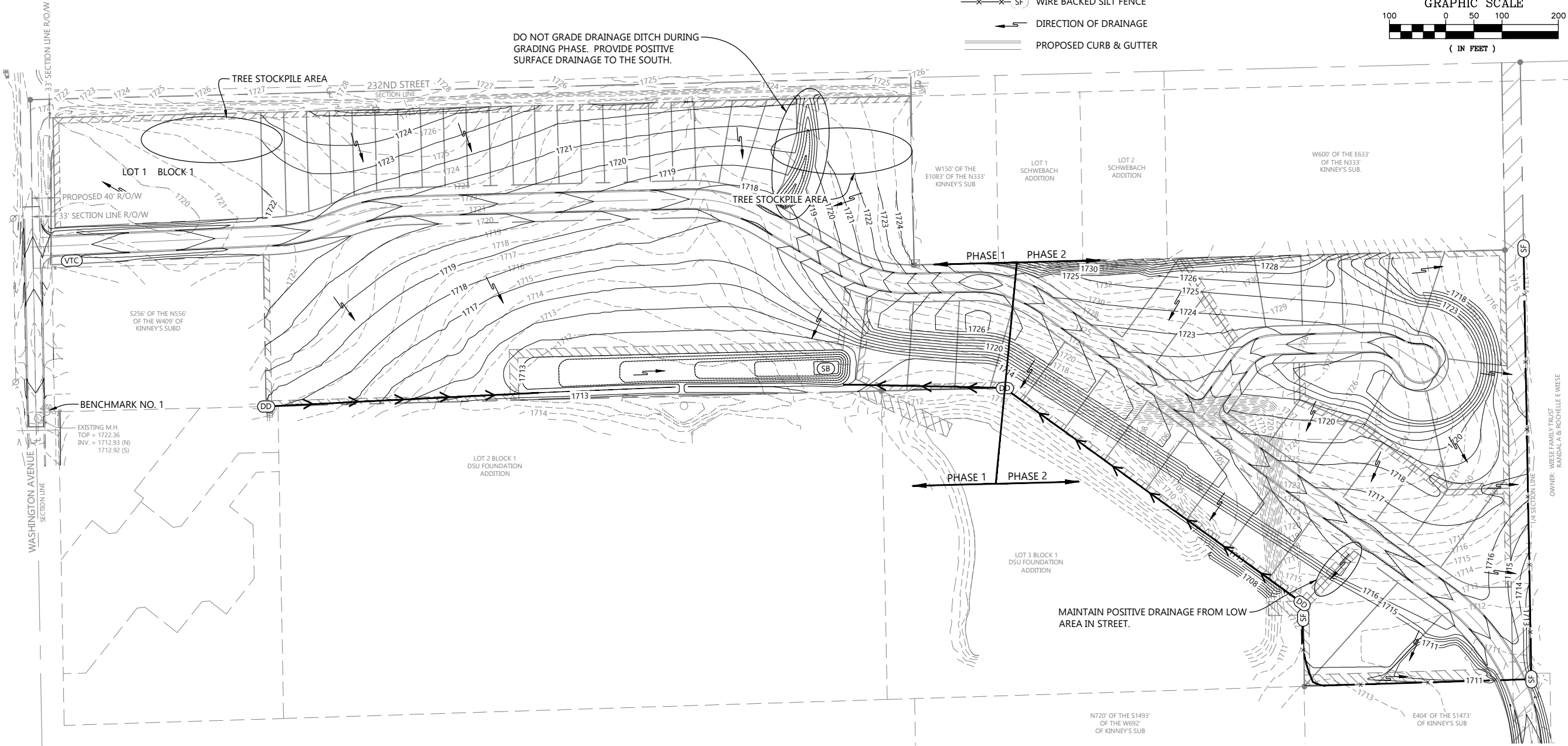
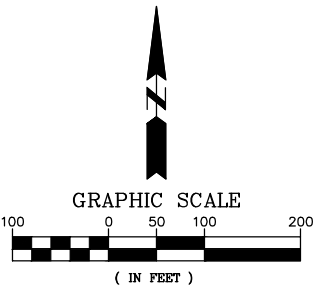
GRADING FOR LOT 1 BLOCK 1 AND R/O/W ADJACENT TO LOT 1 BLOCK 1 WILL BE DONE AT A FUTURE DATE AND IS NOT PART OF THE GRADING OR EROSION CONTROL PLAN.

REMOVAL NOTE:

TREES IN EXISTING SHELTER BELT TO BE CLEARED AND GRUBBED. STOCKPILE TREES IN LOCATIONS SHOWN.

LEGEND

- 1400 --- EXISTING CONTOURS
- 1400 — PROPOSED CONTOURS
- DD — DIVERSION DIKE
- (VTC) VEHICLE TRACKING CONTROL
- x — x — (SF) WIRE BACKED SILT FENCE
- >— DIRECTION OF DRAINAGE
- ===== PROPOSED CURB & GUTTER



GRADING NOTES:

1. THE CONTRACTOR SHALL MAKE THEMSELVES AWARE OF THE EXISTING SITE CONDITIONS PRIOR TO BIDDING.
2. THE LARGE TRIANGULAR SHAPED LOT THAT HAS THE LARGE DEPRESSION SHALL NOT BE FILLED UNTIL NOTIFIED BY THE OWNER TO DO SO. THE SITE HAS BEEN SPLIT INTO PHASE 1 AND 2 AS SHOWN. PHASE 1 GRADING/FILL OPERATIONS CAN HAPPEN FIRST AND EXCAVATION FOR FILL CAN BE USED FROM PHASE 2 AREAS. AFTER APPROVAL TO FILL THE LARGE DEPRESSION THE CONTRACTOR CAN CONTINUE TO WORK ON PHASE 2. WORK IS TO BEGIN ON PHASE 1 IN JUNE 2023 AND THE ESTIMATED TIME FRAME TO START PHASE 2 IS JULY 2023.
3. STOCK PILES OF SOIL HAVE BEEN ADDED TO THE SITE SINCE THE TOPOGRAPHIC SURVEY WAS COMPLETED. THESE STOCK PILES HAVE NOT BEEN SURVEYED SO THE AMOUNT OF SOIL AVAILABLE IS NOT KNOWN. THE CONTRACTOR SHALL ESTIMATE THE AMOUNT AVAILABLE. THE MIXED TOPSOIL/CLAY STOCK PILE CAN ONLY BE USED TO FILL IN AREAS OUTSIDE OF THE RIGHT OF WAY AND OUTSIDE OF BUILDING PADS OR 75' FROM CENTERLINE OF FUTURE STREETS. THE CLAY STOCK PILE CAN BE USED WITHIN THE STREET OR BUILDING PADS.
4. REMOVE AND STOCK PILE TOPSOIL PRIOR TO BEGINNING GRADING OPERATIONS. COMPACT FILL MATERIAL WITHIN 75' FROM CENTERLINE TO MINIMUM 93% STANDARD PROCTOR DENSITY.
5. FOLLOWING COMPLETION OF GRADING OPERATIONS, TOPSOIL SHALL BE SPREAD EVENLY OVER THE DISTURBED AREAS TO A DEPTH OF 6" EXCEPT WITHIN THE FUTURE RIGHT OF WAY AND 20' OUTSIDE OF THE RIGHT OF WAY. A WINDROW OF TOPSOIL SHALL BE PLACED AT THE 20' LOCATION FOR FUTURE PLACEMENT OF TOPSOIL AFTER UTILITIES ARE INSTALLED. SEED ALL TOPSOIL AFTER PLACEMENT.

EROSION CONTROL NOTES:

1. PERMANENT SEED MIXTURE SHALL BE THE FOLLOWING OR EQUAL:

	LBS / ACRE
KENTUCKY BLUEGRASS	20
FINE-LEAF PERENNIAL RYEGRASS	20
CREEPING RED FESCUE	20
SALTY ALKALIGRASS	20
CHEWINGS FESCUE	20
TOTALS	100

2. FERTILIZER TYPE: FERTILIZER SHALL HAVE A MINIMUM GUARANTEED ANALYSIS OF 13-13-13 WITH A MINIMUM OF 25% SCU FOR SLOW RELEASE PROPERTIES. THE APPLICATION RATE SHALL BE 100 LBS / ACRE.
3. DURING GRADING OPERATIONS, PRESERVE AND PLACE TOPSOIL TO MINIMIZE SOIL COMPACTION WHERE FEASIBLE.
4. TO AVOID DUST MIGRATION AND DEPOSITION OFF SITE, APPROPRIATE APPLICATION OF WATER OR OTHER APPROVED DUST SUPPRESSION TECHNIQUES SHALL BE REQUIRED.

BENCHMARK NO. 1:
TOP NUT OF HYDRANT
S. 556' ± OF THE INTERSECTION OF
232ND ST. & WASHINGTON AVE.
ELEV. = 1724.47 (88 DATUM)

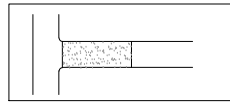
BENCHMARK NOTE:

THE ELEVATION BASIS OF THIS SURVEY IS BASED ON GPS OBSERVATION OF THE TRIMBLE VIRTUAL REFERENCE STATION (VRS) SYSTEM AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

TROJAN VILLAGE ADDITION
TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.: 23107
SURVEYED BY: JHC
CREATED BY: BJB
APPROVED BY: JHC
REVISION DATE:

EROSION CONTROL PLAN



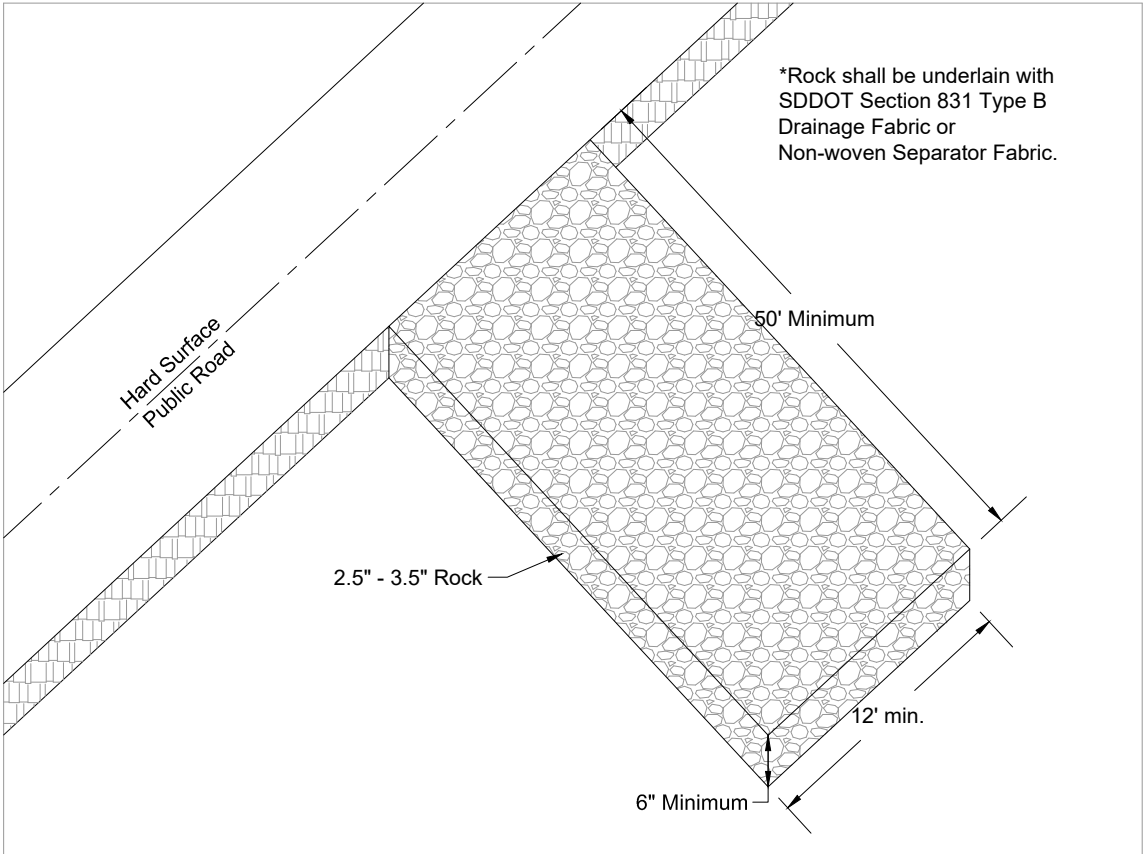
Vehicle Tracking Control

Definition:

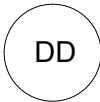
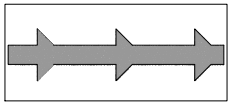
A stone stabilized pad located at points of vehicular ingress and egress on a construction site.

Purposes:

To reduce the amount of mud transported onto public roads by motor vehicles or runoff.



Temporary Vehicle
Tracking Control



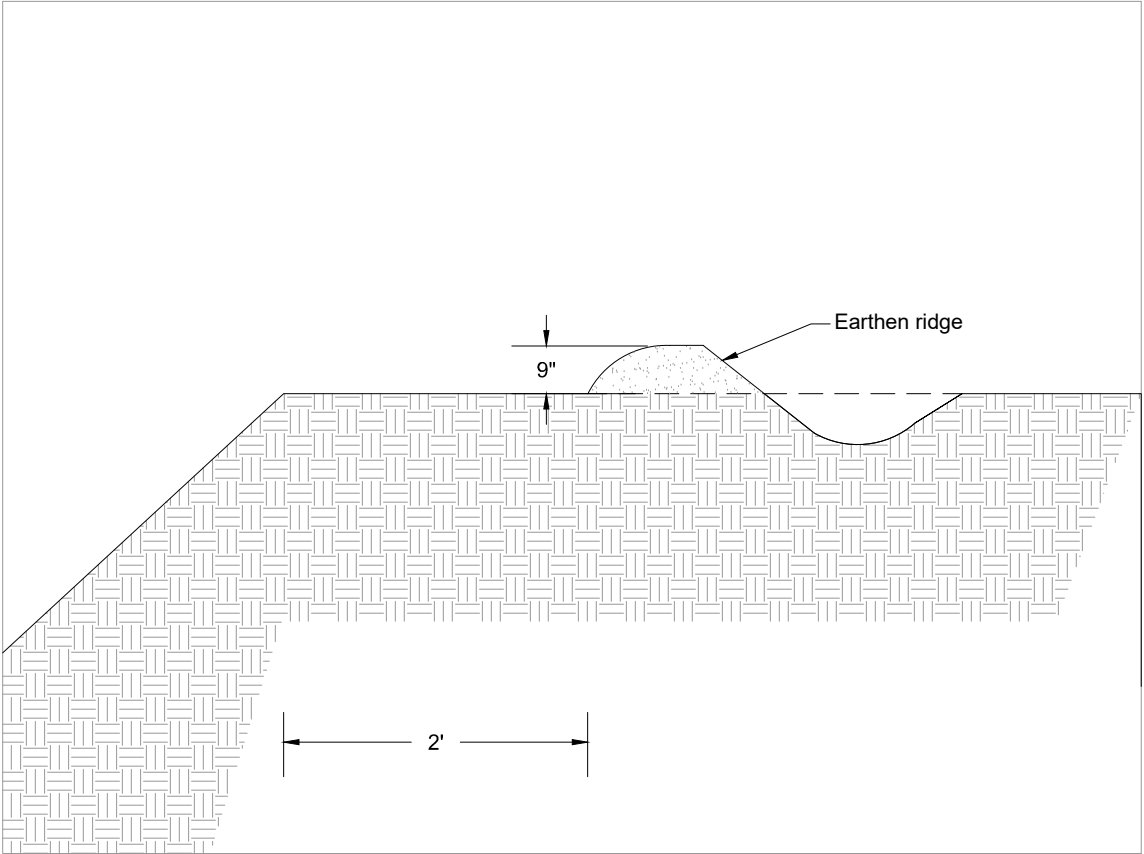
Temporary Diversion Dike

Definition:

A temporary ridge of compacted soil located at the top, mid slope, or base of a disturbed area.

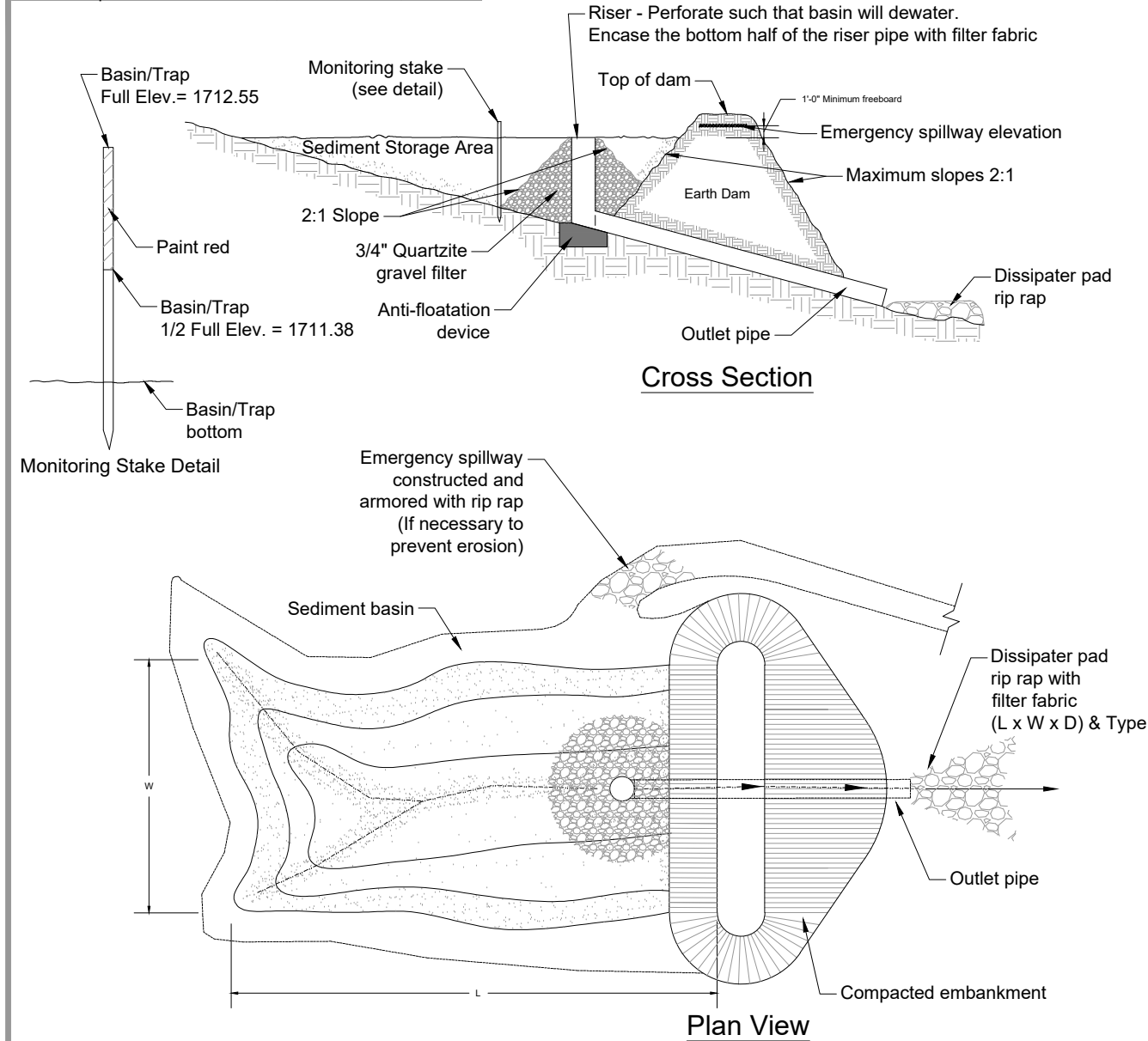
Purposes:

- 1. To divert storm runoff from higher drainage areas away from unprotected slopes to a permanent channel or temporary channel diversion.
- 2. To divert sediment-laden runoff from the mid slope of a disturbed area to a temporary slope drain.
- 3. To divert sediment-laden runoff from the base of a disturbed area to a sediment trapping facility.



Temporary Diversion Dike

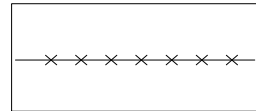
	Dimensions	Elev.
Emergency Spillway	10' Wide	1713.55
Top of Dam Width	12'	1713.75
Rip Rap Dissipater Pad	15' x 15'	1706.20
Anti-Floatation Device	5' x 5' x 2'	1707.50
Top of Riser	18" Dia.	1712.50
Outlet Pipe Invert in	18" Dia.	1709.50
Outlet Pipe Invert Out	18" Dia.	1706.2



Minimum L = 2W

Disturbed Area: 16 AC
Required Storage Volume: 57,600 CF (3600 CF / Disturbed Acre)
Proposed Storage Volume: 79,955 CF

Sediment Basin Riser Filter



Silt Fence

SF

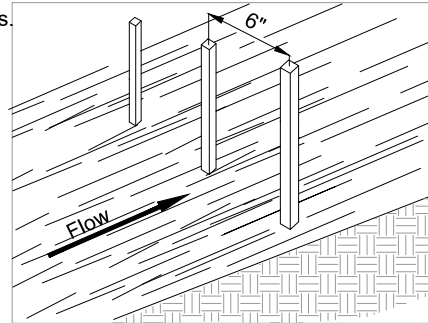
Definition:

A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched.
The silt fence is a temporary linear barrier constructed of synthetic filter fabric and supported by wooden or steel posts.

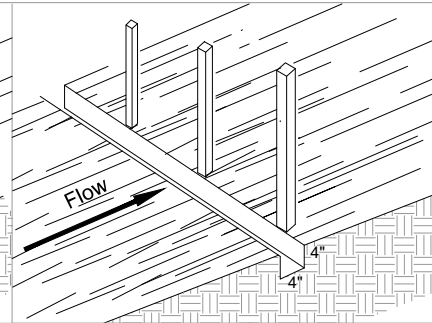
Purposes:

- To intercept and detain small amounts of sediment from disturbed areas during construction operations in order to reduce sediment in runoff from leaving the site.
- To decrease the velocity of sheet flows and low-to-moderate level concentrated flows.

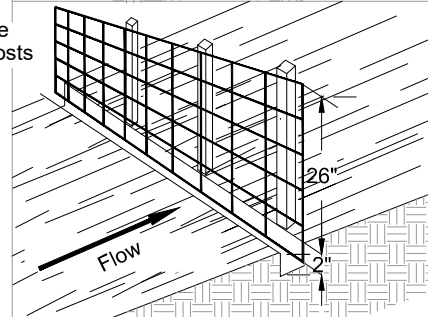
- Set posts.



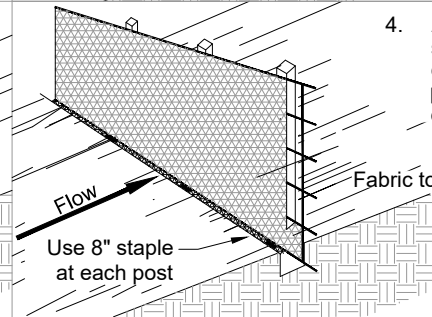
- Excavate a 4" x 4" trench upslope along the posts.



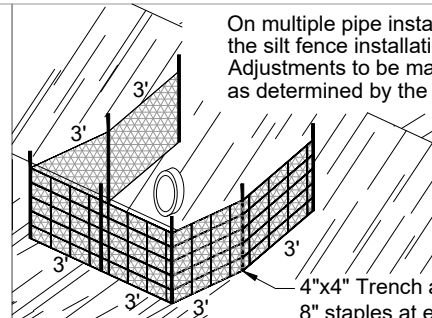
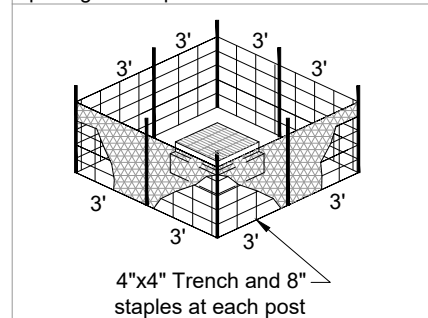
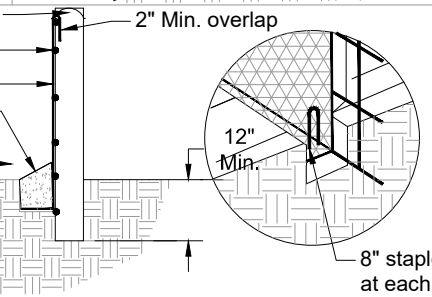
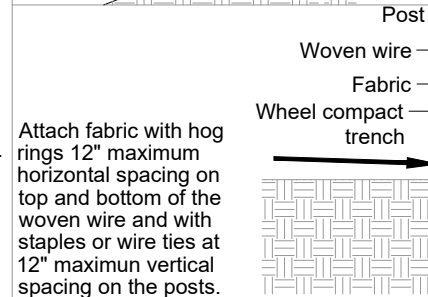
- Attach a supporting wire fence to the posts



- Attach fabric, sandwich fabric overlap between posts and wire and extend into trench.



- Backfill trench. If rock type soils are encountered, utilize 30 to 40 lb sandbags butted end to end to prevent underflow.



On multiple pipe installations, the width of the silt fence installation will increase. Adjustments to be made on the construction as determined by the engineer.

Fence material shall conform to geotextile specifications, Section 831 of SDDOT Standard Specifications for Roads and Bridges, latest edition.

Silt Fence (Woven Wire)

BENCHMARK NO. 1:
TOP NUT OF HYDRANT
S. 556'± OF THE INTERSECTION OF
232ND ST. & WASHINGTON AVE.
ELEV. = 1724.47 (88 DATUM)

BENCHMARK NOTE:

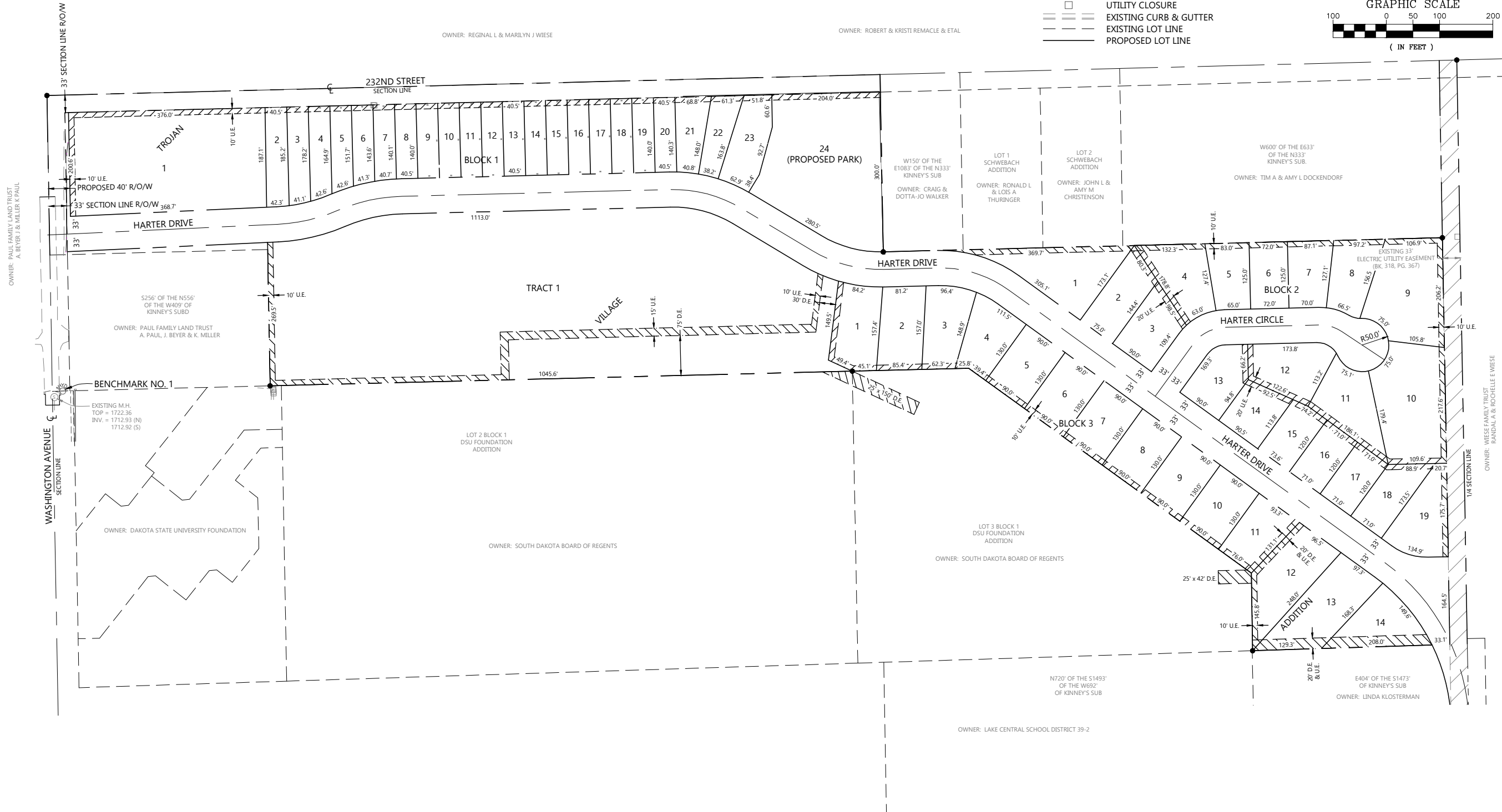
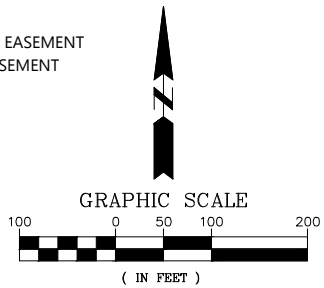
THE ELEVATION BASIS OF THIS SURVEY IS BASED ON GPS OBSERVATION OF THE TRIMBLE VIRTUAL REFERENCE STATION (VRS) SYSTEM AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

BY: BJ8, 23107-FDP.dwg, LOT LAYOUT, PRINT DATE: Nov 29, 2023

NOTE:

1. THE DEVELOPER IS COORDINATING WITH THE CITY OF MADISON TO PROVIDE A SECONDARY ACCESS TO AREAS THAT HAVE GREATER THAN 30 RESIDENTIAL UNITS.
2. LOT 1 OF BLOCK 1 WILL ONLY HAVE ACCESS OFF OF PROPOSED HARTER DRIVE AND WILL NOT BE GRANTED ACCESS TO 232ND STREET OR WASHINGTON AVENUE.

LEGEND	
	PIN FOUND
	FIRE HYDRANT
	LIGHT POLE
	POWER BOX
	TELEPHONE BOX
	SIGN
	STREET SIGN
	UTILITY CLOSURE
	EXISTING CURB & GUTTER
	EXISTING LOT LINE
	PROPOSED LOT LINE
	D.E. - PROPOSED DRAINAGE EASEMENT
	U.E. - PROPOSED UTILITY EASEMENT



TROJAN VILLAGE ADDITION

TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.:	23107
SURVEYED BY:	JHC
CREATED BY:	BJ8
APPROVED BY:	JHC
REVISION DATE:	
LOT LAYOUT PLAN	



Sayre Associates
216 S. Duluth Avenue • Sioux Falls, SD 57105
Phone: (605) 332-7211 • Fax: (605) 332-7212

TROJAN VILLAGE ADDITION
 TROJAN VILLAGE, LLC.
 SEC. 5 - T106N - R52W
 MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.: 2310

SURVEYED BY: JHC

CREATED BY: BJB

APPROVED BY: JHC

REVISION DATE:

OVERALL STREET PLAN

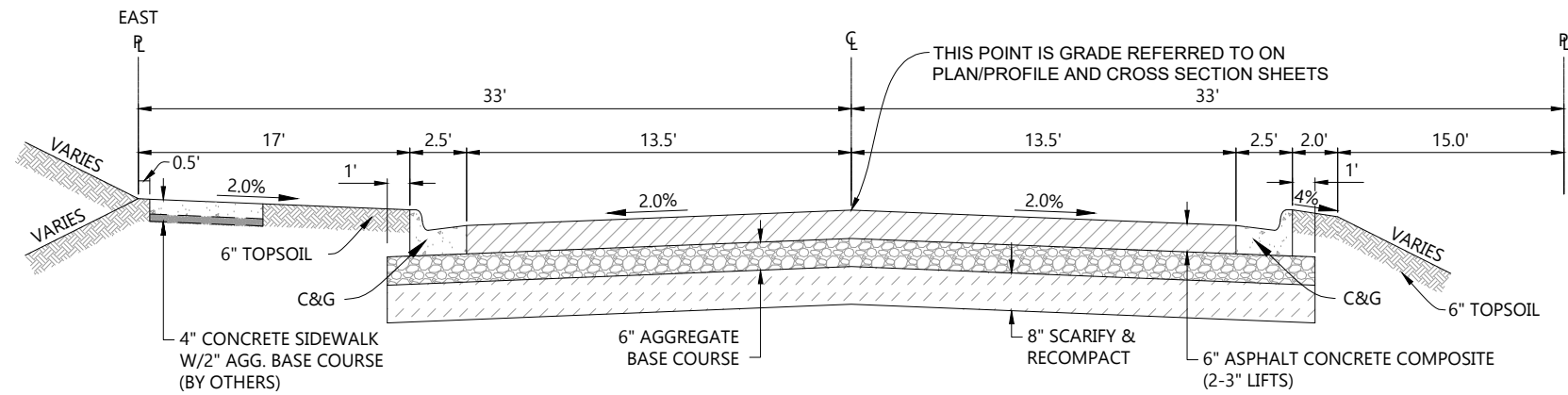
9

BENCHMARK NO. 1:
TOP NUT OF HYDRANT
S. 556'± OF THE INTERSECTION OF
232ND ST. & WASHINGTON AVE.
ELEV. = 1724.47 (88 DATUM)

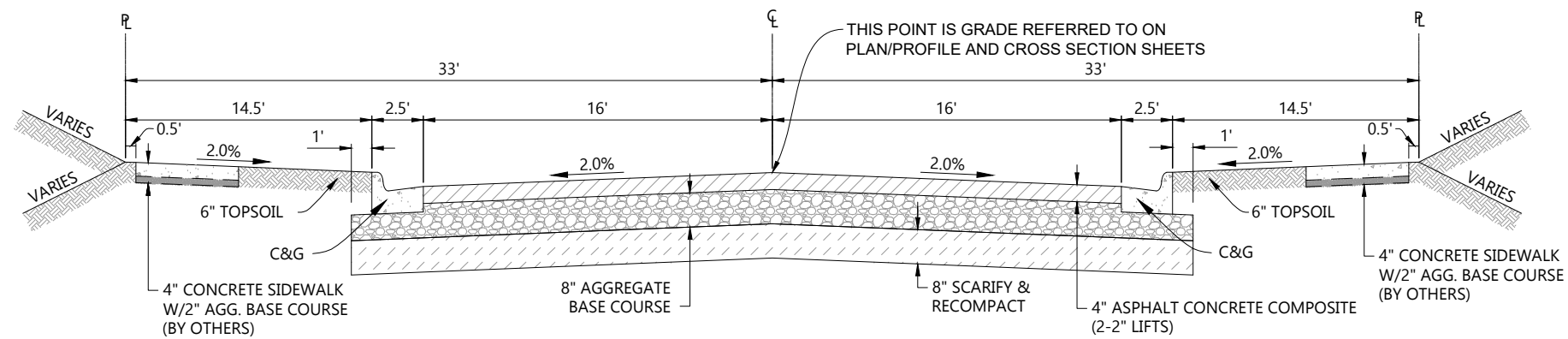
BENCHMARK NOTE:

THE ELEVATION BASIS OF THIS SURVEY IS BASED ON GPS OBSERVATION OF THE TRIMBLE VIRTUAL REFERENCE STATION (VRS) SYSTEM AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

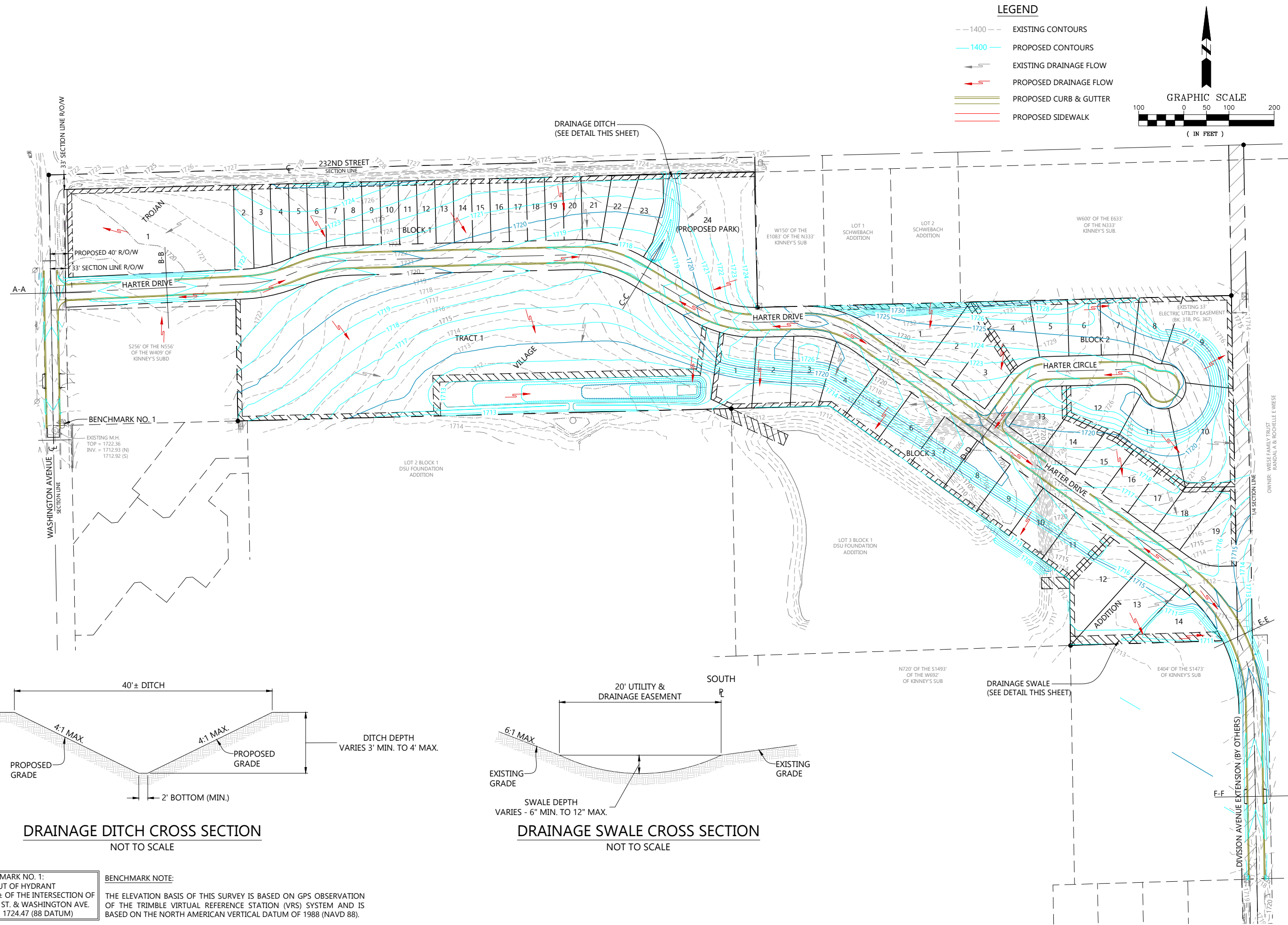
BY: BJB, 23107-FDP.dwg, OVERALL STREET PLAN, PRINT DATE: Nov 29, 2023



WASHINGTON AVENUE
TO MATCH EXISTING PAVEMENT WIDTH



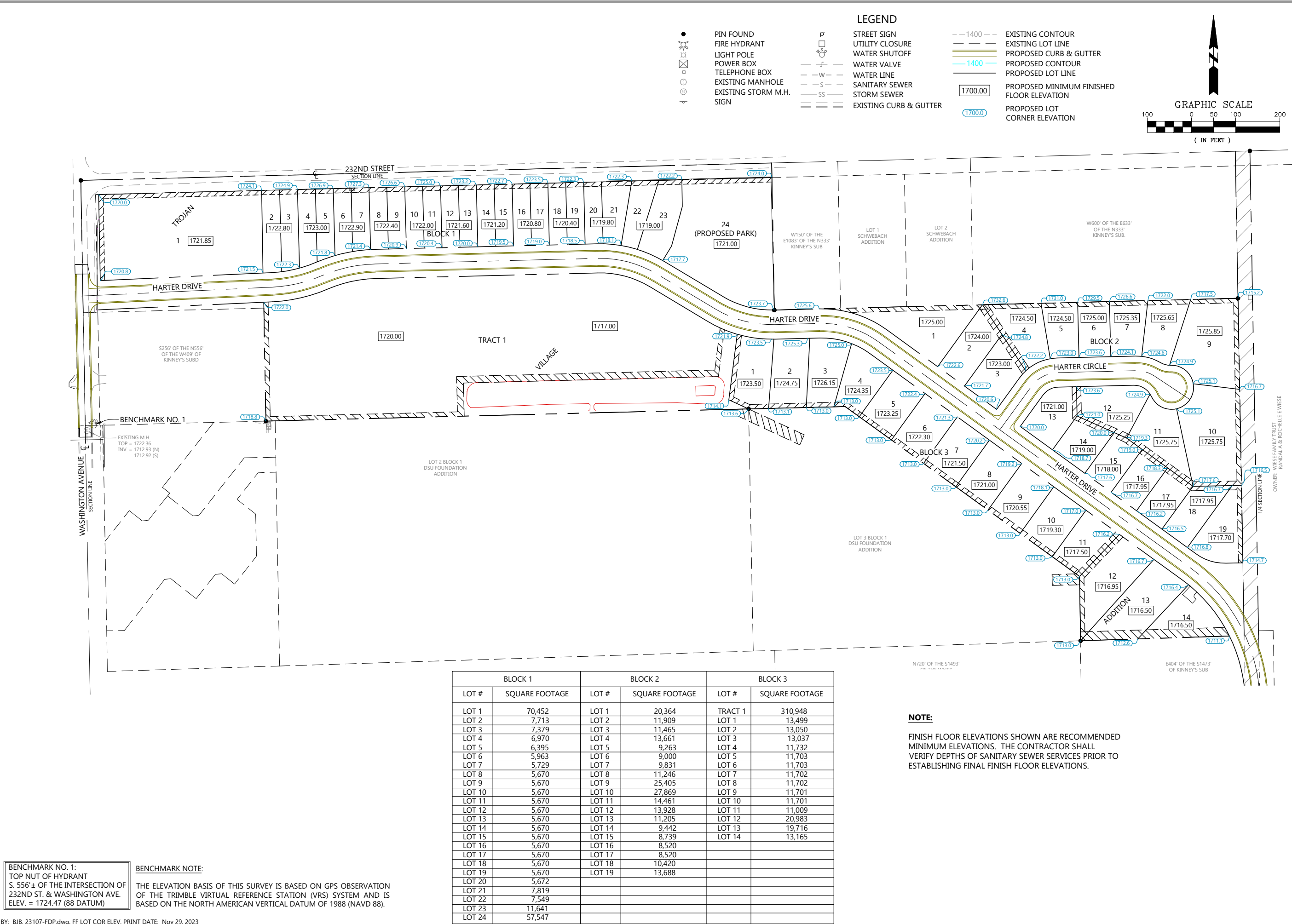
HARTER DRIVE, HARTER CIRCLE
& DIVISION AVENUE



TROJAN VILLAGE ADDITION

TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.:	23107
SURVEYED BY:	JHC
CREATED BY:	BJB
APPROVED BY:	JHC
REVISION DATE:	
GRADING PLAN	



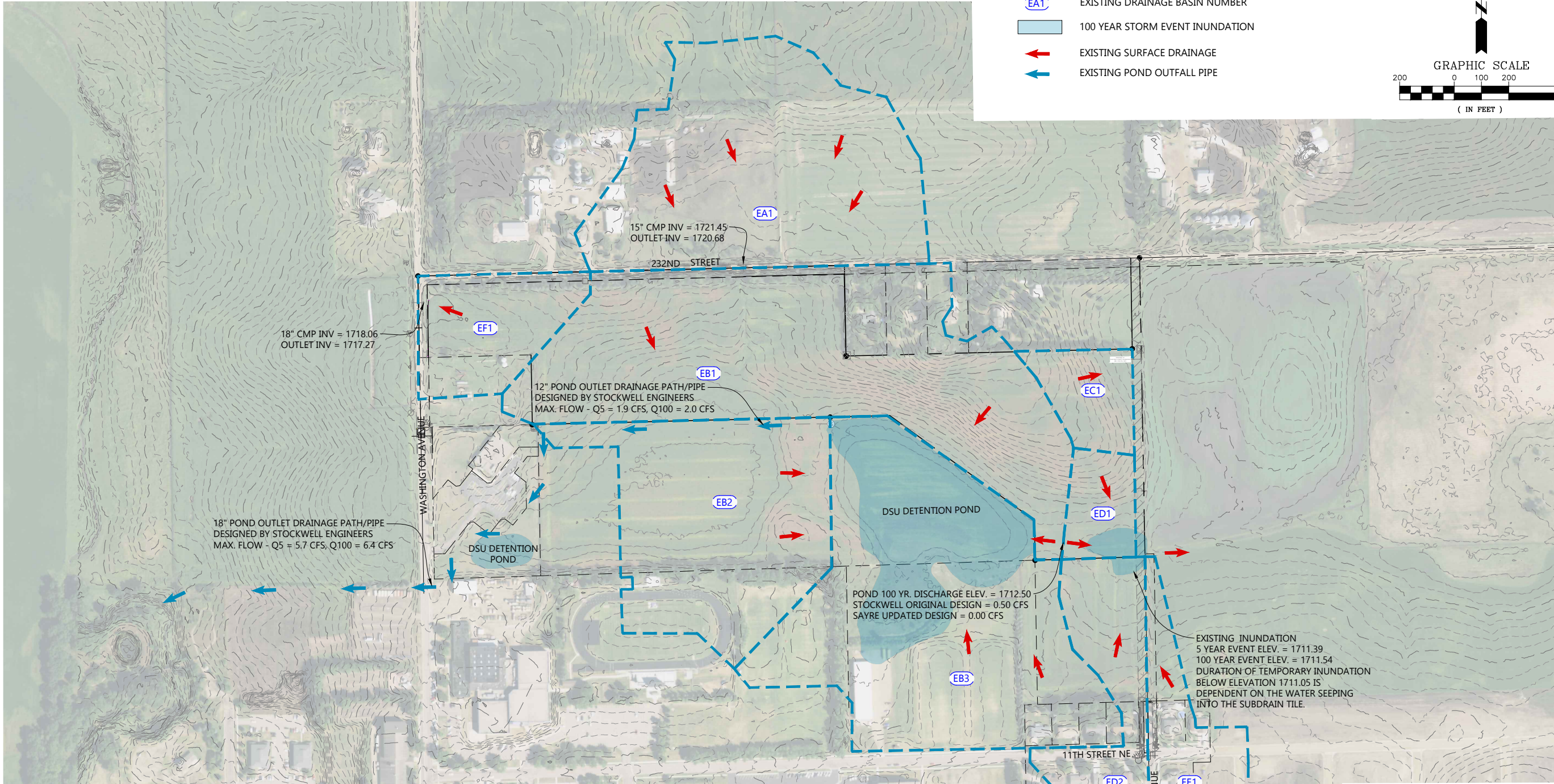


TABLE OF EXISTING DRAINAGE SUB-AREA PEAK RUNOFF									
* = DESIGN DATA FROM STOCKWELL DESIGN REPORT									
LABEL	AREA (Ac.)	CN	Tc (Min)	2 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
EA1*	18.90	79.74	35	13.59	22.86	29.02	38.04	45.85	52.60
EB1	24.78	79.13	30	18.95	32.31	41.11	54.04	65.41	74.92
EB2*	14.22	83.50	15	20.48	32.03	39.52	50.21	59.43	67.22
EB3*	23.25	81.00	61	12.34	20.43	25.85	33.53	40.32	46.11
EC1	2.67	81.00	15	3.32	5.39	6.75	8.72	10.43	11.87
ED1	2.23	81.00	15	2.78	4.51	5.65	7.30	8.73	9.93
ED2	8.72	76.50	40	4.53	8.17	10.63	14.31	17.56	20.31
EE1	7.55	75.60	40	3.65	6.71	8.80	11.93	14.68	17.08
EF1	5.09	76.00	15	4.53	8.05	10.44	13.96	17.08	19.73

LEGEND

- PROPOSED DRAINAGE SUBAREA BOUNDARY
- PROPOSED STORM SEWER
- FUTURE DETENTION FACILITY
- 100 YEAR STORM EVENT INUNDATION
- PROPOSED DRAINAGE BASIN NUMBER

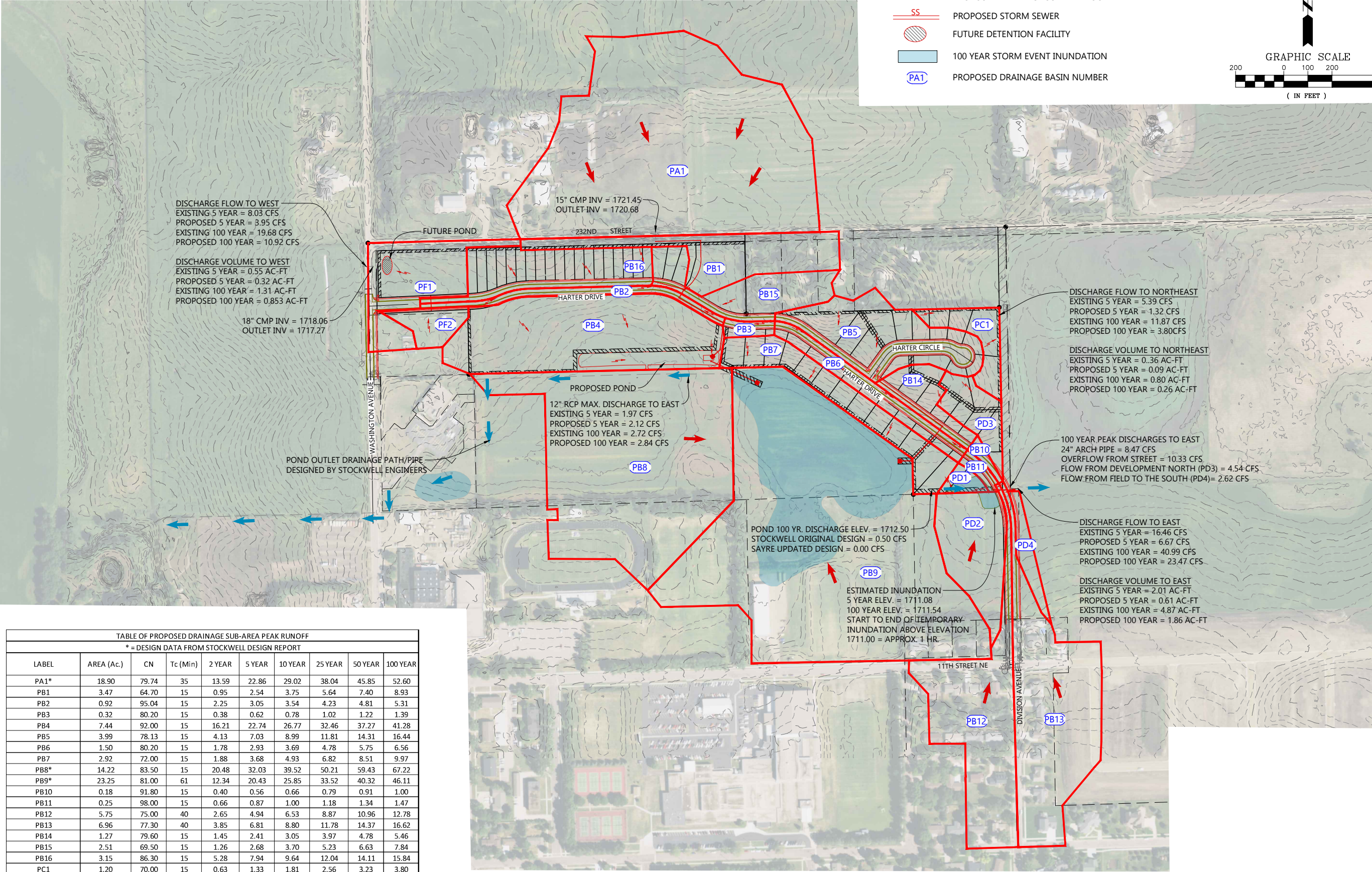
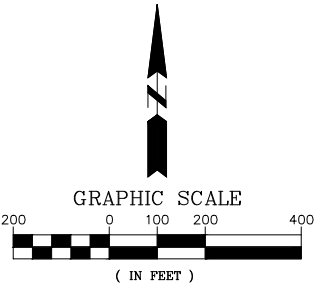


TABLE OF PROPOSED DRAINAGE SUB-AREA PEAK RUNOFF									
* = DESIGN DATA FROM STOCKWELL DESIGN REPORT									
LABEL	AREA (Ac.)	CN	Tc (Min)	2 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
PA1*	18.90	79.74	35	13.59	22.86	29.02	38.04	45.85	52.60
PB1	3.47	64.70	15	0.95	2.54	3.75	5.64	7.40	8.93
PB2	0.92	95.04	15	2.25	3.05	3.54	4.23	4.81	5.31
PB3	0.32	80.20	15	0.38	0.62	0.78	1.02	1.22	1.39
PB4	7.44	92.00	15	16.21	22.74	26.77	32.46	37.27	41.28
PB5	3.99	78.13	15	4.13	7.03	8.99	11.81	14.31	16.44
PB6	1.50	80.20	15	1.78	2.93	3.69	4.78	5.75	6.56
PB7	2.92	72.00	15	1.88	3.68	4.93	6.82	8.51	9.97
PB8*	14.22	83.50	15	20.48	32.03	39.52	50.21	59.43	67.22
PB9*	23.25	81.00	61	12.34	20.43	25.85	33.52	40.32	46.11
PB10	0.18	91.80	15	0.40	0.56	0.66	0.79	0.91	1.00
PB11	0.25	98.00	15	0.66	0.87	1.00	1.18	1.34	1.47
PB12	5.75	75.00	40	2.65	4.94	6.53	8.87	10.96	12.78
PB13	6.96	77.30	40	3.85	6.81	8.80	11.78	14.37	16.62
PB14	1.27	79.60	15	1.45	2.41	3.05	3.97	4.78	5.46
PB15	2.51	69.50	15	1.26	2.68	3.70	5.23	6.63	7.84
PB16	3.15	86.30	15	5.28	7.94	9.64	12.04	14.11	15.84
PC1	1.20	70.00	15	0.63	1.33	1.81	2.56	3.23	3.80
PD1	0.35	70.00	15	0.19	0.39	0.53	0.75	0.95	1.12
PD2	2.87	81.00	15	3.57	5.79	7.25	9.37	11.21	12.75
PD3	1.27	73.30	15	0.92	1.73	2.30	3.14	3.89	4.54
PD4	0.59	81.00	15	0.73	1.19	1.49	1.92	2.30	2.62
PF1	3.25	71.32	15	1.96	3.92	5.29	7.36	9.22	10.83
PF2	0.80	69.00	15	0.38	0.82	1.14	1.63	2.07	2.46

TROJAN VILLAGE ADDITION
TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.:	23107
SURVEYED BY:	JHC
CREATED BY:	BJ8
APPROVED BY:	JHC
REVISION DATE:	

PROPOSED OVERALL DRAINAGE PLAN

TABLE OF EXISTING DRAINAGE SUB-AREA PEAK RUNOFF									
* = DESIGN DATA FROM STOCKWELL DESIGN REPORT									
LABEL	AREA (Ac.)	CN	Tc (Min)	2 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
EA1*	18.90	79.74	35	13.59	22.86	29.02	38.04	45.85	52.60
EB1	24.78	79.13	30	18.95	32.31	41.11	54.04	65.41	74.92
EB2*	14.22	83.50	15	20.48	32.03	39.52	50.21	59.43	67.22
EB3*	23.25	81.00	61	12.34	20.43	25.85	33.53	40.32	46.11
EC1	2.67	81.00	15	3.32	5.39	6.75	8.72	10.43	11.87
ED1	2.23	81.00	15	2.78	4.51	5.65	7.30	8.73	9.93
ED2	8.72	76.50	40	4.53	8.17	10.63	14.31	17.56	20.31
EE1	7.55	75.60	40	3.65	6.71	8.80	11.93	14.68	17.08
EF1	5.09	76.00	15	4.53	8.05	10.44	13.96	17.08	19.73

TABLE OF PROPOSED DRAINAGE SUB-AREA PEAK RUNOFF									
* = DESIGN DATA FROM STOCKWELL DESIGN REPORT									
LABEL	AREA (Ac.)	CN	Tc (Min)	2 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
PA1*	18.90	79.74	35	13.59	22.86	29.02	38.04	45.85	52.60
PB1	3.47	64.70	15	0.95	2.54	3.75	5.64	7.40	8.93
PB2	0.92	95.04	15	2.25	3.05	3.54	4.23	4.81	5.31
PB3	0.32	80.20	15	0.38	0.62	0.78	1.02	1.22	1.39
PB4	7.44	92.00	15	16.21	22.74	26.77	32.46	37.27	41.28
PB5	3.99	78.13	15	4.13	7.03	8.99	11.81	14.31	16.44
PB6	1.50	80.20	15	1.78	2.93	3.69	4.78	5.75	6.56
PB7	2.92	72.00	15	1.88	3.68	4.93	6.82	8.51	9.97
PB8*	14.22	83.50	15	20.48	32.03	39.52	50.21	59.43	67.22
PB9*	23.25	81.00	61	12.34	20.43	25.85	33.52	40.32	46.11
PB10	0.18	91.80	15	0.40	0.56	0.66	0.79	0.91	1.00
PB11	0.25	98.00	15	0.66	0.87	1.00	1.18	1.34	1.47
PB12	5.75	75.00	40	2.65	4.94	6.53	8.87	10.96	12.78
PB13	6.96	77.30	40	3.85	6.81	8.80	11.78	14.37	16.62
PB14	1.27	79.60	15	1.45	2.41	3.05	3.97	4.78	5.46
PB15	2.51	69.50	15	1.26	2.68	3.70	5.23	6.63	7.84
PB16	3.15	86.30	15	5.28	7.94	9.64	12.04	14.11	15.84
PC1	1.20	70.00	15	0.63	1.33	1.81	2.56	3.23	3.80
PD1	0.35	70.00	15	0.19	0.39	0.53	0.75	0.95	1.12
PD2	2.87	81.00	15	3.57	5.79	7.25	9.37	11.21	12.75
PD3	1.27	73.30	15	0.92	1.73	2.30	3.14	3.89	4.54
PD4	0.59	81.00	15	0.73	1.19	1.49	1.92	2.30	2.62
PF1	3.25	71.32	15	1.96	3.92	5.29	7.36	9.22	10.83
PF2	0.80	69.00	15	0.38	0.82	1.14	1.63	2.07	2.46

TABLE OF PROPOSED TROJAN VILLAGE POND DATA							
EVENT	EXISTING PEAK FLOW (CFS)	EXISTING RUNOFF VOLUME (AC-FT)	DEVELOPED PEAK FLOW INTO POND (CFS)	DEVELOPED RUNOFF VOLUME (AC-FT)	DEVELOPED PEAK FLOW OUT OF POND (CFS)	HWL	MAX STORAGE VOLUME (AC-FT)
2 YEAR	21.43	3.100	27.28	3.338	11.57	1711.04	0.517
5 YEAR	36.41	5.170	40.36	5.223	13.54	1711.83	0.882
10 YEAR	46.09	5.708	47.64	6.474	14.51	1712.26	1.138
25 YEAR	60.13	8.634	57.34	8.285	19.97	1712.71	1.444
50 YEAR	72.45	10.475	64.64	10.641	28.68	1712.90	1.574
100 YEAR	82.76	12.049	70.39	11.288	35.13	1713.02	1.658

TABLE OF EXISTING DSU POND DATA - w/0.600 in/hr EXFILTRATION							
EVENT	EXISTING PEAK FLOW (CFS)	EXISTING RUNOFF VOLUME (AC-FT)	DEVELOPED PEAK FLOW INTO POND (CFS)	DEVELOPED RUNOFF VOLUME (AC-FT)	DEVELOPED PEAK FLOW OUT OF POND (CFS)	MAX HWL	MAX STORAGE VOLUME (AC-FT)
2 YEAR	43.70	6.707	44.37	8.105	1.75	1707.05	6.210
5 YEAR	71.93	10.826	70.24	12.912	2.12	1708.28	10.570
10 YEAR	90.23	13.565	86.68	16.092	2.32	1709.04	13.459
25 YEAR	116.46	17.574	114.27	20.526	2.55	1710.06	17.724
50 YEAR	139.3	21.125	134.68	24.283	2.73	1710.87	22.114
100 YEAR	158.75	24.160	149.84	27.040	2.83	1711.39	26.079

TABLE OF STORM SEWER PIPE DATA						
5 YEAR - 24 HOUR PERFORMANCE						
LABEL	SIZE / TYPE	LENGTH (Ft)	SLOPE (Ft/Ft)	"N"	Qp (cfs)	FULL FLOW CAPACITY (cfs)
P1	24" RCP	24	0.0200	0.13	8.19	31.99
P2	24" RCP	39	0.0100	0.13	13.99	22.62
P3	30" RCP	207	0.0050	0.13	16.64	29.00
P4	30" RCP	110	0.0300	0.13	17.17	71.04
P5	30" RCP	40	0.0100	0.13	17.17	41.02
P6	30" RCP	210	0.0053	0.13	13.54	29.86
P7	18" RCP	39	0.0075	0.13	6.88	15.04
P8	24" RCP	332	0.0053	0.13	12.00	12.40
P9	24" RCP	39	0.0100	0.13	6.21	35.55
P10	30" RCP	154	0.0037	0.13	17.75	24.95
P11	30" RCP	35	0.0037	0.13	17.75	24.95
P12	24" ARCH RCP	88	0.0034	0.13	4.23	9.82
P13	12" RCP	350	0.0020	0.13	2.12	1.38
P14	12" RCP	60	0.0040	0.13	0.14	1.95
P15	10" HDPE	261	0.0090	0.12	0.84	1.90
P16	10" HDPE	187	0.0090	0.12	1.68	1.90
P17	18" RCP	318	0.0050	0.13	3.34	6.44
P18	18" RCP	125	0.0100	0.13	6.62	9.10
100 YEAR - 24 HOUR PERFORMANCE						
LABEL	SIZE / TYPE	LENGTH (Ft)	SLOPE (Ft/Ft)	"N"	Qp (cfs)	FULL FLOW CAPACITY (cfs)
P12	24" ARCH RCP	88	0.0034	0.13	8.47	9.82
P13	12" RCP	350	0.0020	0.13	2.83	1.38

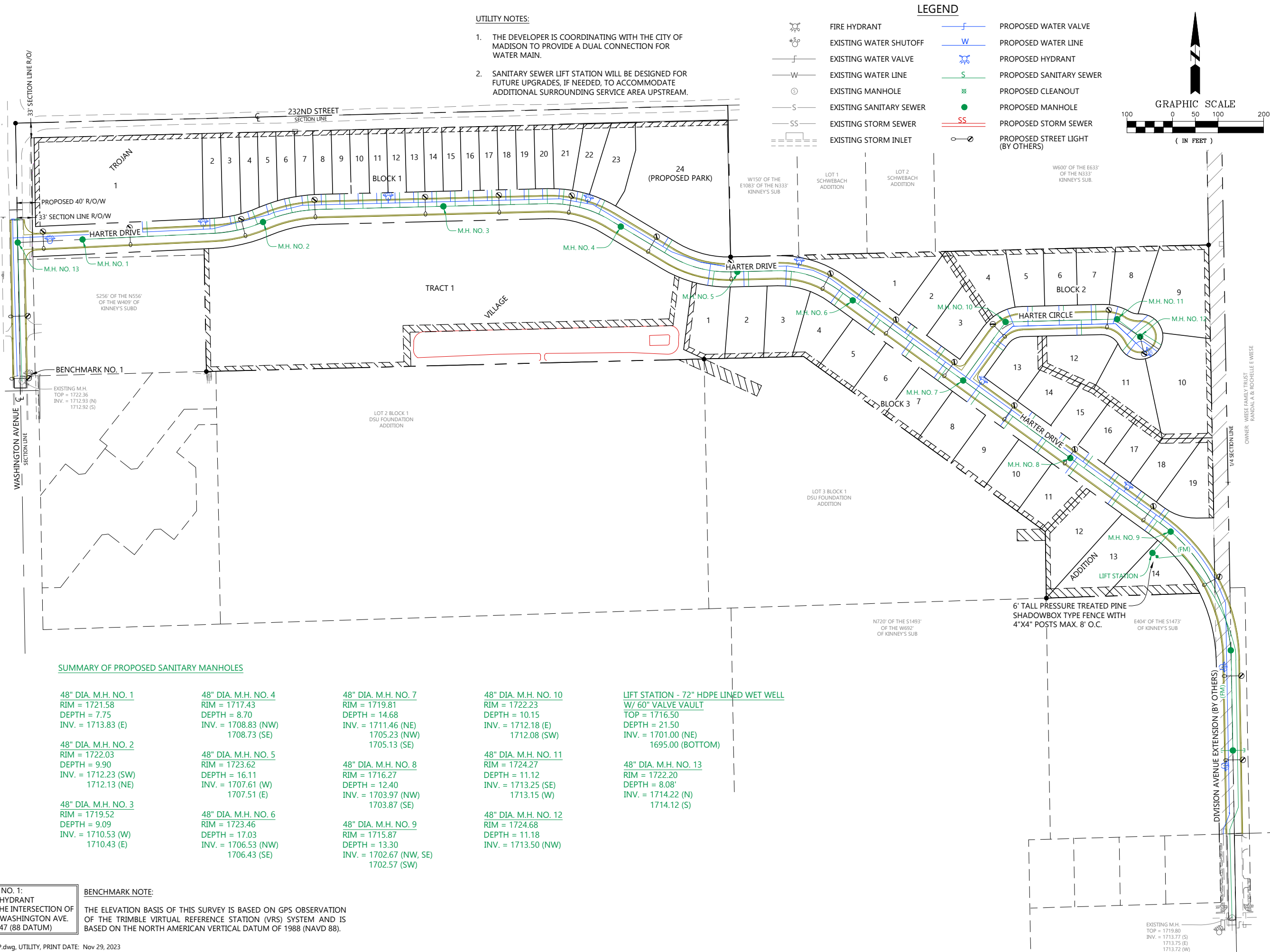
TABLE OF DSU POND STAGED STORAGE		
DESIGN DATA FROM STOCKWELL ENGINEERS DESIGN REPORT		
DEPTH (FT.)	AREA (SQ. FT.)	CUMULATIVE VOLUME (CU. FT.)
0 (1705)	118,400	0
1	131,490	124,945
2	144,770	263,075
3	158,050	414,485
4	171,755	579,387
5	185,885	758,207
6	203,880	953,090
7	290,170	1,200,115
8 (1713)	443,662	1,567,031

TABLE OF STORM SEWER INLETS						
5 YEAR - 24 HOUR PERFORMANCE						
LABEL	TYPE	Qpeak (cfs)	INTERCEPT (cfs)	BYPASS (cfs)	SPREAD (Ft)	DEPTH (Ft)
IN1	SF 10	3.94	NA	NA	12.56	0.39
IN2	SF 6	3.05	NA	NA	13.34	0.40
IN3	SF 6	0.62	0.62	0.00	4.73	0.18
IN4	SF 10	6.07	NA	NA	OVER CROWN	0.49
IN5	SF 6	2.93	NA	NA	12.99	0.40
IN6	DOUBLE B1	5.19	NA	NA	16.51	0.41
IN7	DOUBLE B1	6.96	NA	NA	OVER CROWN	0.50
IN8	B1	7.03	3.36	3.66	14.52	0.37
IN9	DOUBLE B1	7.93	6.67	1.25	12.93	0.34
IN10	18" AREA DRAIN	7.36	0.84	6.52	NA	NA
IN11	18" AREA DRAIN	6.52	0.84	5.68	NA	NA

TABLE OF PEAK DISCHARGES (CFS)							
EXISTING CONDITIONS - INCLUDING FLOW FROM DIVISION AVE.							
DESCRIPTION	AREA (Ac.)	2 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
TO DSU POND	81.15	43.70	71.93	90.23	116.46	139.30	158.75
TO NORTHEAST	2.67	3.31	5.39	6.74	8.69	10.41	11.87
TO WASH. AVE.	5.09	4.53	8.03	10.43	13.94	17.05	19.68
TO EAST	18.5	9.12	16.46	21.44	28.84	35.43	40.99
DEVELOPED CONDITIONS - INCLUDING FLOW FROM DIVISION AVE.							
DESCRIPTION	AREA (Ac.)	2 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
TO DSU POND	96.99***	43.94	68.42	86.28	111.48	132.04	147.51
TO NORTHEAST	1.2	0.63	1.32	1.81	2.55	3.23	3.80
TO WASH. AVE.	4.05	2.04	3.95	5.78	7.41	9.30	10.92
TO EAST**	5.08	3.81*	6.67*	8.59*	14.29*	20.20*	23.47*

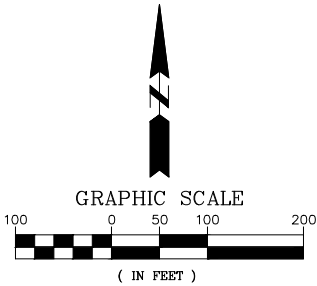
*FLOW FOR 0.59 ACRE AG LAND RUNOFF EAST OF DIVISION AVE. ADDED TO TOTAL
**OVERFLOW FROM STREET INLETS WILL DRAIN TO EAST AND IS SHOWN IN FLOWS
***TOTAL ACRES INCLUDES LAND THAT DRAINS TO DIVISION AVENUE FROM 11TH STREET

TABLE OF DISCHARGES VOLUMES (AC-FT) TO THE EAST OF DIVISION							
EXISTING BASINS = ED1, ED2, EE1 PROPOSED BASINS = PD1, PD2, PD3, PB10, PB11, PB12, PB13							
	AREA (Ac.)	2 YEAR	5 YEAR	10 YEAR	25 YEAR	50 YEAR	100 YEAR
EXISTING	18.50	1.20	2.04	2.61	4.15	4.22	4.87
BASIN EE1 ONLY	7.55	0.46	0.80	1.03	1.37	1.68	1.94
PROPOSED	17.63	0.37	0.61	0.77	1.12	1.51	1.86



- UTILITY NOTES:
1. THE DEVELOPER IS COORDINATING WITH THE CITY OF MADISON TO PROVIDE A DUAL CONNECTION FOR WATER MAIN.
 2. SANITARY SEWER LIFT STATION WILL BE DESIGNED FOR FUTURE UPGRADES, IF NEEDED, TO ACCOMMODATE ADDITIONAL SURROUNDING SERVICE AREA UPSTREAM.

- LEGEND
- | | | | |
|--|-------------------------|--|-----------------------------------|
| | FIRE HYDRANT | | PROPOSED WATER VALVE |
| | EXISTING WATER SHUTOFF | | PROPOSED WATER LINE |
| | EXISTING WATER VALVE | | PROPOSED HYDRANT |
| | EXISTING WATER LINE | | PROPOSED SANITARY SEWER |
| | EXISTING MANHOLE | | PROPOSED CLEANOUT |
| | EXISTING SANITARY SEWER | | PROPOSED MANHOLE |
| | EXISTING STORM SEWER | | PROPOSED STORM SEWER |
| | EXISTING STORM INLET | | PROPOSED STREET LIGHT (BY OTHERS) |



SUMMARY OF PROPOSED SANITARY MANHOLES

48" DIA. M.H. NO. 1
RIM = 1721.58
DEPTH = 7.75
INV. = 1713.83 (E)

48" DIA. M.H. NO. 2
RIM = 1722.03
DEPTH = 9.90
INV. = 1712.23 (SW)
1712.13 (NE)

48" DIA. M.H. NO. 3
RIM = 1719.52
DEPTH = 9.09
INV. = 1710.53 (W)
1710.43 (E)

48" DIA. M.H. NO. 4
RIM = 1717.43
DEPTH = 8.70
INV. = 1708.83 (NW)
1708.73 (SE)

48" DIA. M.H. NO. 5
RIM = 1723.62
DEPTH = 16.11
INV. = 1707.61 (W)
1707.51 (E)

48" DIA. M.H. NO. 6
RIM = 1723.46
DEPTH = 17.03
INV. = 1706.53 (NW)
1706.43 (SE)

48" DIA. M.H. NO. 7
RIM = 1719.81
DEPTH = 14.68
INV. = 1711.46 (NE)
1705.23 (NW)
1705.13 (SE)

48" DIA. M.H. NO. 8
RIM = 1716.27
DEPTH = 12.40
INV. = 1703.97 (NW)
1703.87 (SE)

48" DIA. M.H. NO. 9
RIM = 1715.87
DEPTH = 13.30
INV. = 1702.67 (NW, SE)
1702.57 (SW)

48" DIA. M.H. NO. 10
RIM = 1722.23
DEPTH = 10.15
INV. = 1712.18 (E)
1712.08 (SW)

48" DIA. M.H. NO. 11
RIM = 1724.27
DEPTH = 11.12
INV. = 1713.25 (SE)
1713.15 (W)

48" DIA. M.H. NO. 12
RIM = 1724.68
DEPTH = 11.18
INV. = 1713.50 (NW)

LIFT STATION - 72" HDPE LINED WET WELL
W/ 60" VALVE VAULT
TOP = 1716.50
DEPTH = 21.50
INV. = 1701.00 (NE)
1695.00 (BOTTOM)

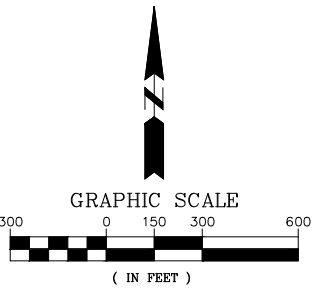
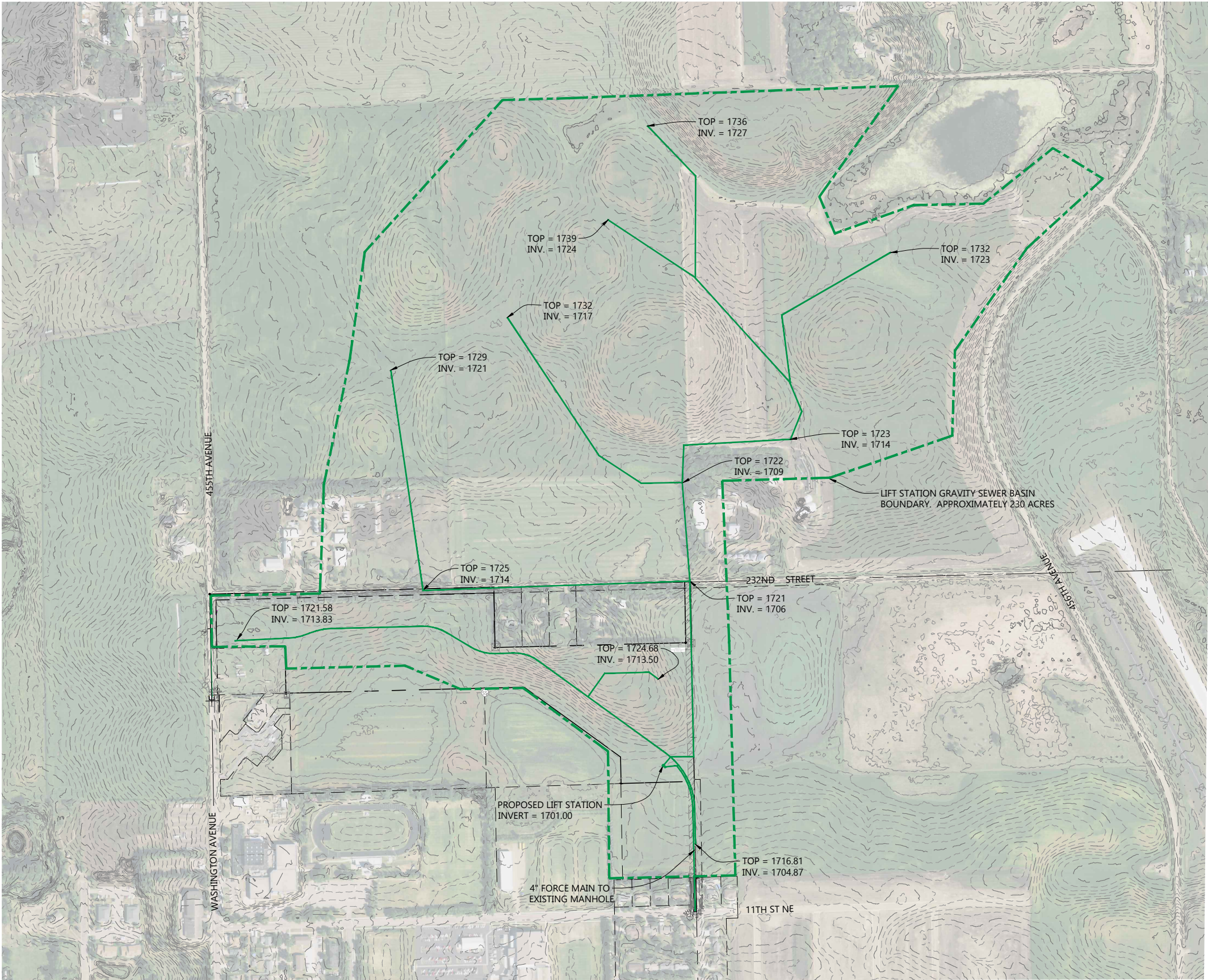
48" DIA. M.H. NO. 13
RIM = 1722.20
DEPTH = 8.08'
INV. = 1714.22 (N)
1714.12 (S)

BENCHMARK NO. 1:
TOP NUT OF HYDRANT
S. 556' ± OF THE INTERSECTION OF
232ND ST. & WASHINGTON AVE.
ELEV. = 1724.47 (88 DATUM)

BENCHMARK NOTE:
THE ELEVATION BASIS OF THIS SURVEY IS BASED ON GPS OBSERVATION
OF THE TRIMBLE VIRTUAL REFERENCE STATION (VRS) SYSTEM AND IS
BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

TROJAN VILLAGE ADDITION
TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.:	23107
SURVEYED BY:	JHC
CREATED BY:	BJ8
APPROVED BY:	JHC
REVISION DATE:	
UTILITY PLAN	



LIFT STATION DESIGN DATA:

- OVERALL SEWER BASIN DATA**
- GRAVITY SEWER BASIN = 230 ACRES
 - ZONING BREAKDOWN -
 - LOW TO MEDIUM DENSITY SINGLE FAMILY = 207 ACRES (90%)
 - MULTI-FAMILY = 16 ACRES (7%)
 - COMMERCIAL = 7 ACRES (3%)
 - ESTIMATED MAX. DAILY FLOW (FULLY DEVELOPED BASIN) = 240,000 GPD
 - ESTIMATED PEAK FLOW (FULLY DEVELOPED BASIN) = 600,000 GPD
 - MAXIMUM FLOW WITH INFLOW & INFILTRATION = 215 GPM
 - PEAK FLOW WITH INFLOW AND INFILTRATION = 540 GPM

CURRENT TROJAN VILLAGE DEVELOPMENT DATA

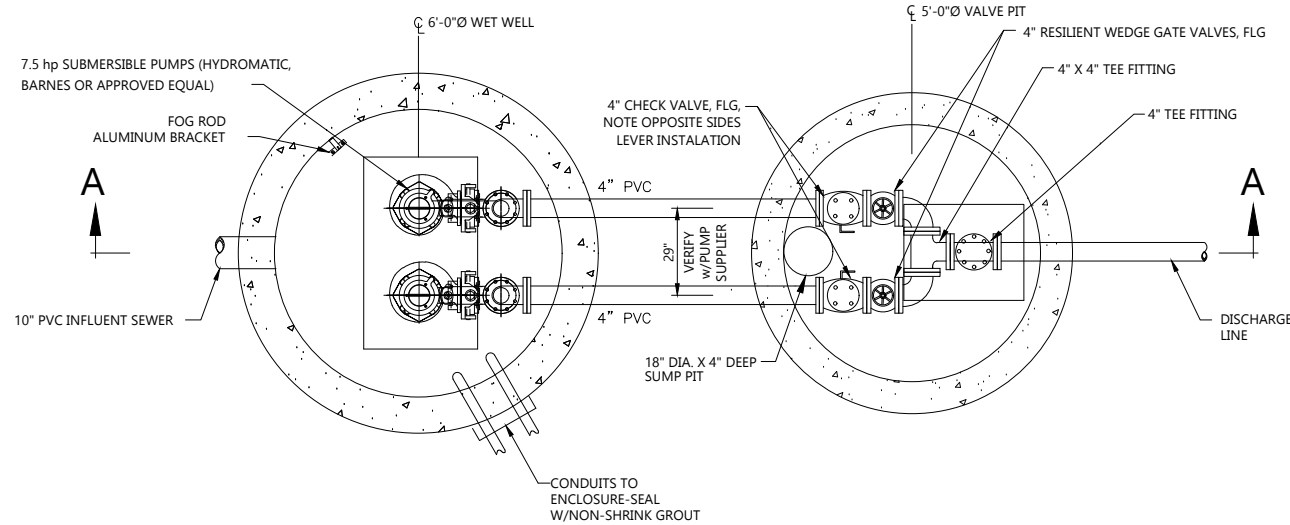
- 54 SINGLE FAMILY RESIDENTIAL UNITS
- 72 APARTMENT UNITS
- 3 ACRES COMMERCIAL
- ESTIMATED MAX. FLOW = 30,000 GPD (20 GPM)
- ESTIMATED PEAK FLOW = 73,000 GPD (50 GPM)
- MAXIMUM FLOW WITH INFLOW AND INFILTRATION = 26 GPM
- PEAK FLOW WITH INFLOW AND INFILTRATION = 65 GPM

LIFT STATION SPECIFICATIONS

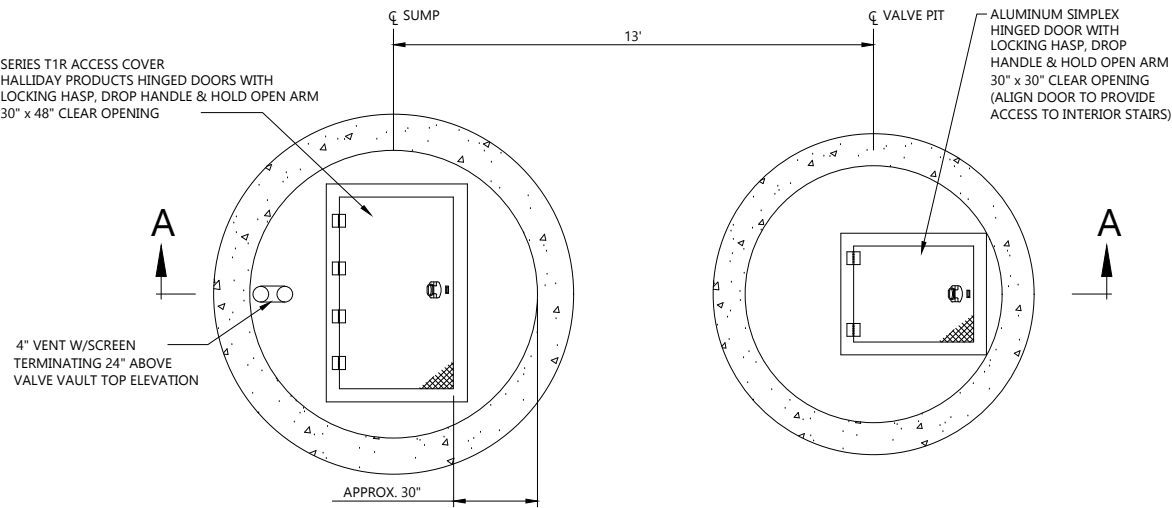
- DUPLEX 7.5 HP PUMPS AT 150 GPM AND 43 FEET TOTAL DYNAMIC HEAD
- 4" FORCE MAIN (3.8 FPS AT 150 GPM, 6.0 FPS AT 250 GPM)
- 72" DIA. WET WELL (PRECAST WITH HDPE LINER)
- 60" DIA. VALVE VAULT
- ELECTRICAL STANCHION WITH CONTROLS, ALARM SYSTEM AND PLUG FOR PORTABLE GENERATOR
- ESTIMATED PUMP CYCLES PER HOUR = 6 AT PEAK FLOW

TROJAN VILLAGE ADDITION
TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

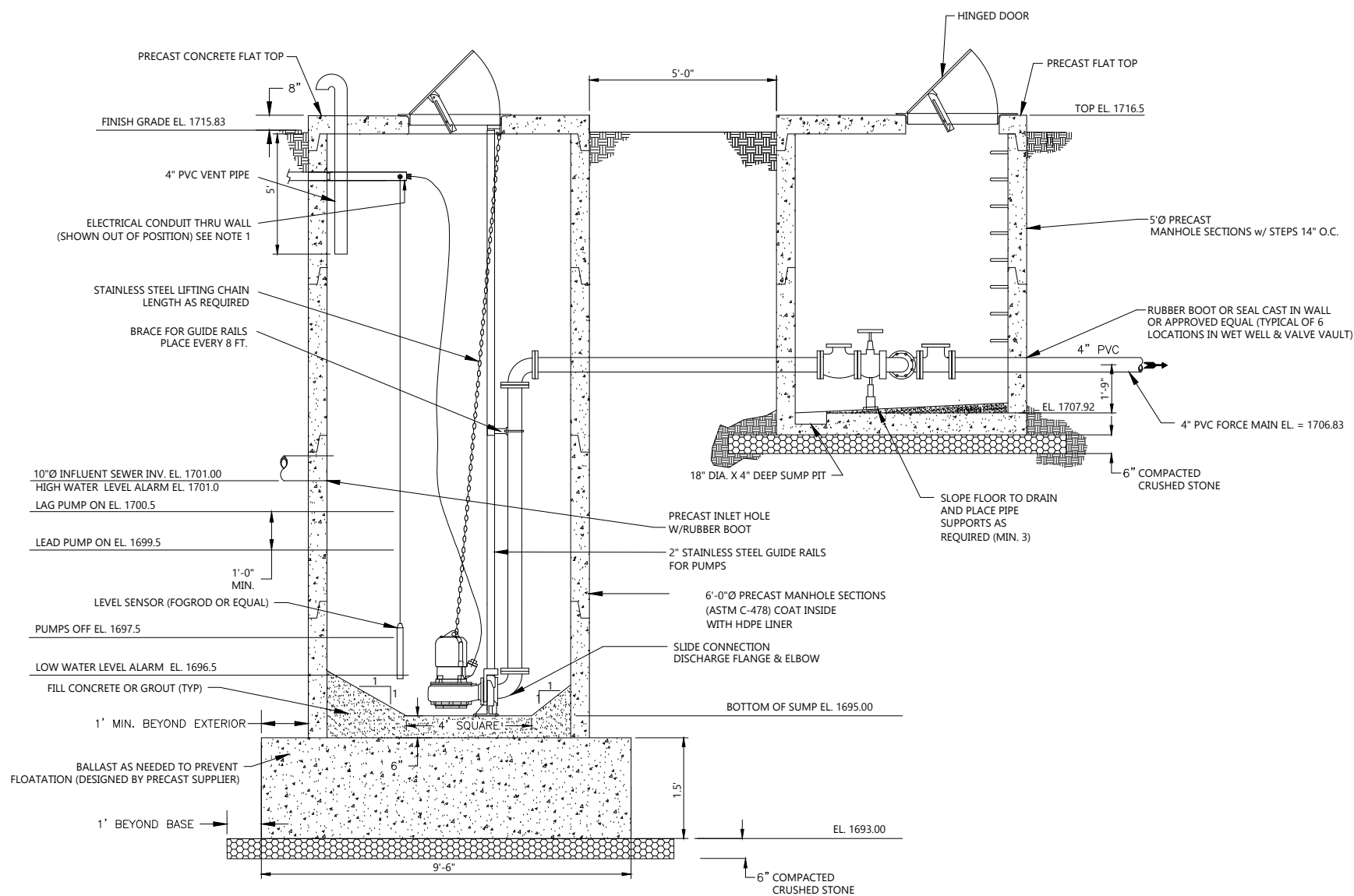
PROJECT NO.:	23107
SURVEYED BY:	JHC
CREATED BY:	BJB
APPROVED BY:	JHC
REVISION DATE:	
OVERALL SANITARY SEWER BASIN PLAN	



PLAN - BELOW GRADE
NOT TO SCALE



PLAN - ABOVE GRADE
NOT TO SCALE



SECTION A-A
NOT TO SCALE

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL COORDINATE ALL DIMENSIONS, SIZES AND LOCATIONS OF OPENINGS IN THE CONCRETE STRUCTURE WITH THE PUMP SUPPLIER PRIOR TO FABRICATION.
2. REINFORCEMENT OF THE CONCRETE STRUCTURE SHALL BE DETERMINED BY THE SUPPLIER
3. INTERIOR SURFACES OF THE WET WELL SHALL BE PROVIDED WITH HDPE LINER (GSE STUD LINER OR APPROVED EQUAL)
4. SEE SPECIFICATIONS FOR BACKFILL MATERIAL AND COMPACTION REQUIREMENTS.
5. ALL BRACKETS, SUPPORTS, BOLTS, NUTS, ETC. IN WET WELL, EXCLUDING PUMP AND PIPE, SHALL BE 316 STAINLESS STEEL. THE BOLTS AND NUTS USED IN THE VALVE VAULT SHALL BE 316 STAINLESS STEEL ALSO.
6. VERIFY PUMP OPERATING AND ALARM LEVELS WITH PUMP MANUFACTURER PRIOR TO PLACEMENT.
7. ELECTRICAL AND CONTROL CONDUIT SHALL BE SEALED IN THE CONTROL PANEL AND WET WELL WITH TWIST LOCK WATER AND GAS TIGHT CONNECTIONS TO PREVENT THE PASSAGE OF MOISTURE AND CORROSIVE GASES.
8. ALL PENETRATIONS IN PRECAST WALL SHALL BE PROTECTED FROM GROUNDWATER INFILTRATION WITH A RUBBER BOOT OR OTHER APPROVED SEAL.

LIGHTING



CEILING SURFACE MOUNT FIXTURE
(Capital letter indicates fixture type,
Small letter indicates switching.
Typical for all fixture types)



WALL MOUNTED FIXTURE



RECESSED CAN FIXTURE



SURFACE MOUNT FLUORESCENT FIXTURE



RECESSED MOUNT FLUORESCENT FIXTURE



RECESSED MOUNT FLUORESCENT FIXTURE
WITH EMERGENCY BALLAST



WALL MOUNT FLUORESCENT FIXTURE



EXIT SIGN
(ARROW DENOTES ARROW DIRECTION)



EMERGENCY LIGHT WITH BATTERY PACK



EMERGENCY LIGHT (SINGLE REMOTE HEAD)



EMERGENCY LIGHT (TWIN REMOTE HEADS)



PHOTOELECTRIC CELL



LIGHTING CONTACTOR

MOTORS



MOTOR CONNECTION



DISCONNECT SWITCH
SEE SCHEDULE FOR TYPE/CHARACTERISTICS



COMBINATION STARTER/DISCONNECT
SEE SCHEDULE FOR TYPE/CHARACTERISTICS

OTHER



JUNCTION BOX



BLANK OUTLET



WALL MOUNTED PUSH BUTTON



RELAY



THERMOSTAT



TRANSFORMER (GROUND PER NEC 250)

CONDUIT



UNDERGROUND CONDUIT



CONDUIT CONCEALED IN FLOOR



EMERGENCY SYSTEM CONDUIT

PANELS AND TERMINATIONS BOARDS



ELECTRICAL SERVICE
ENTRANCE SWITCHGEAR



POWER DISTRIBUTION PANEL

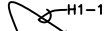


PANELBOARD

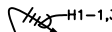


SPECIAL EQUIPMENT CABINET – AS NOTED

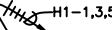
HOMERUNS



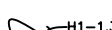
1 – SINGLE POLE CIRCUIT
(Circuit No's)



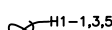
2 – SINGLE POLE CIRCUITS
(Circuit No's)



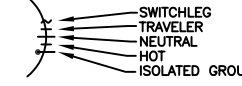
3 – SINGLE POLE CIRCUITS
(Circuit No's)



1 – TWO POLE CIRCUIT
(Circuit No's)



1 – THREE POLE CIRCUIT
(Circuit No's)



SWITCHLEG
TRAVELER
NEUTRAL
HOT
ISOLATED GROUND
WIRES)

(CROSS MARK INDICATE
NUMBER OF WIRES, NO
MARKS INDICATE TWO
WIRES)

RECEPTACLES



SINGLE RECEPTACLE



DUPLEX RECEPTACLE



ISOLATED GROUND DUPLEX RECEPTACLE



DOUBLE DUPLEX RECEPTACLE



POWER RECEPTACLE
(Number denotes amperage of receptacle)



TWIST LOCK RECEPTACLE



SPECIAL PURPOSE OUTLET OR CONNECTION

*GFI" ASSOCIATED WITH ANY OF THE ABOVE RECEPTACLES
DENOTES A GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE

*WP" ASSOCIATED WITH ANY OF THE ABOVE RECEPTACLES
DENOTES A WEATHER PROOF RECEPTACLE

*oc" ASSOCIATED WITH ANY OF THE ABOVE RECEPTACLES
DENOTES RECEPTACLE MOUNTED ABOVE COUNTER

ABBREVIATIONS			
THESE ABBREVIATIONS COMPRISE A STANDARD LIST; NOT ALL ABBREVIATIONS MAY APPEAR ON THIS PROJECT.			
A or AMP	AMPERE	MCB	MAIN CIRCUIT BREAKER
a.c.	ABOVE COUNTER	M.C.	MECHANICAL CONTRACTOR
A.C.	ALTERNATING CURRENT	MCC	MOTOR CONTROL CENTER
A.D.A.	AMERICANS WITH DISABILITIES ACT	MDP	MAIN DISTRIBUTION PANEL
A/C	AIR CONDITIONING	MFS	MAIN FUSIBLE SWITCH
A/E	ARCHITECT & ENGINEER	M.H.	METAL HALIDE
A.F.F.	ABOVE FINISHED FLOOR	MLO	MAIN LUG ONLY
A.F.G.	ABOVE FINISHED GRADE	MTD	MOUNTED
A.H.J.	AUTHORITY HAVING JURISDICTION	M.V.	MERCURY VAPOR
A.H.U.	AIR HANDLING UNIT	N.C.	NORMALLY CLOSED
A.I.C.	AMPERE INTERRUPTING CURRENT	N.E.C.	NATIONAL ELECTRIC CODE
AL	ALUMINUM	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
B.U.H.	BLAST UNIT HEATER	NEU	NEUTRAL
b.c.	BELOW COUNTER	N.L.	NIGHT LIGHT
C or COND	CONDUIT	N.O.	NORMALLY OPEN
CB OR C/B	CIRCUIT BREAKER	O.H.	OVERHEAD
OCT	CIRCUIT	P	POLE
CU	COPPER	P.A.	PUBLIC ADDRESS
C.U.H.	CABINET UNIT HEATER	PB	PUSH BUTTON
D.C.	DIRECT CURRENT	PH	PHASE
DC	DISTRIBUTION CABINET	PLBG	PLUMBING
DISC	DISCONNECT	PR	PAIR
DN	DOWN	P.R.V.	POWER ROOF VENTILATION
DW	DISHWASHER	PS	PULL SWITCH
E.C.	ELECTRICAL CONTRACTOR	PVC	PLASTIC CONDUIT
EC	ELECTRICAL CABINET	PWR	POWER
EF	EXHAUST FAN	QTZ	QUARTZ
EM	EMERGENCY	REC OR RECEPT	RECEPTACLE
EMT	EMERGENCY METALLIC TUBING	REFRIG	REFRIGERATOR
EUH	ELECTRICAL UNIT HEATER	R.H.	RADIANT HEAT
E.W.C.	ELECTRICAL WATER COOLER	R.M.S.	ROOT MEAN SQUARE
EXP	EXPLOSION PROOF	SFR	SAFETY RECEPTACLE
FA	FIRE ALARM	SPR	SPLIT WIRE RECEPTACLE
FACP	FIRE ALARM CONTROL PANEL	SCC	SHORT CIRCUIT CURRENT
FBO	FURNISHED BY OTHERS	SHLD	SHIELD OR SHIELDED
FLA	FULL LOAD AMPERES	S.N.	SOLID NEUTRAL
FLU	FLUORESCENT	SW	SWITCH
FUS	FUSE OR FUSIBLE	T.C.	TEMPERATURE CONTROL
GFI	GROUND FAULT CIRCUIT INTERRUPTER	TC	TELEPHONE CABINET
G.C.	GENERAL CONTRACTOR	TEL	TELEPHONE
GEN	GENERATOR	TR or TRANS	TRANSFORMER
GND or GRD	GROUND	U.G.	UNDERGROUND
H & AC	HEATING & AIR CONDITIONING	U.H.	UNIT HEATER
HD	HAND DRYER	U.V.	UNIT VENTILATOR
HPS	HIGH PRESSURE SODIUM	V	VOLT
HTG	HEATING	W	WATT OR WIRE
HTR	HEATER	W/	WITH
HVAC	HEATING, VENTILATION & AIR CONDITIONING	WP	WEATHERPROOF
HZ	HERTZ (CYCLES)	WTR OR H2O	WATER
ISO	ISOLATED / ISOLATION	XFMR	TRANSFORMER
IG	ISOLATED GROUND RECEPTACLE	Y	WYE CONNECTED
I.C.	INTERRUPTING CURRENT	Δ	DELTA CONNECTED
I.M.C.	INTERMEDIATE METAL CONDUIT	ø	PHASE
INC	INCANDESCENT		
JB	JUNCTION BOX		
KCMIL	THOUSAND CIRCULAR MIL		
KV	KILOVOLT		
KVA	KILOVOLT-AMPERE		
KW	KILOWATT		
LED	LIGHT EMITTING DIODE		
LT.	LIGHT		
LTG	LIGHTING		

REFERENCE INDICATION



SEE NOTE INDICATED BY NUMBER



SEE EQUIPMENT INDICATED BY NUMBER



REVISION



REVISION CLOUD

NOTE:
THIS LIST COMPRISE OF A STANDARD SET OF SYMBOLS AND ABBREVIATIONS.
NOT ALL SYMBOLS AND ABBREVIATIONS MAY APPEAR ON THIS PROJECT.

MISCELLANEOUS ELECTRICAL NOTES:

* THESE NOTES ARE APPLICABLE TO ALL ELECTRICAL WORK ASSOCIATED WITH THIS PROJECT.

A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), ADA, OSHA REGULATIONS, NFPA CODES AND ALL OTHER APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND SHALL BE COMPLETED IN A NEAT, WORKMAN LIKE MANNER.

B. ALL WIRING SHALL BE INSTALLED IN CONDUIT.

C. PROVIDE ELECTRICAL DISCONNECTS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE NEC. ALL DISCONNECTS SHALL BE HEAVY DUTY.

D. FINAL LOCATIONS OF EQUIPMENT MAY DIFFER SLIGHTLY FROM THOSE SHOWN ON THESE PLANS. COORDINATE EXACT LOCATION OF EQUIPMENT WITH EQUIPMENT SUPPLIER, STRUCTURAL MEMBERS, AND OTHER TRADES BEFORE ROUGH-IN AND ADJUST ACCORDINGLY. PRICING SHALL ALLOW FOR A MINIMUM OF 10 FT. OF DIFFERENCE IN THE ACTUAL LOCATION OF ITEMS AS COMPARED TO THE LOCATION SHOWN ON THE DRAWINGS.

E. SEE WIRING METHODS SCHEDULE FOR ALLOWABLE CONDUIT TYPES.

F. NOT USED.

G. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL MOTORS HAVE THE PROPER THERMAL OVERLOAD PROTECTION IN EACH PHASE CONDUCTOR (AS REQUIRED BY NEC). THE OVERLOAD PROTECTION FOR EACH MOTOR SHALL BE SIZED PER THE MOTOR'S ACTUAL NAMEPLATE FULL LOAD AMPS.

H. ALL PENETRATIONS FOR RACEWAY, WIRE, ETC. WHICH PENETRATE FLOORS, FIRE AND/OR SMOKE WALLS, ROOFS, FULL HEIGHT PARTITIONS AND SIMILAR STRUCTURES HALL BE SEALED BY THE ELECTRICAL CONTRACTOR WITH A UL SYSTEM SPECIFICALLY APPROVED FOR THE APPLICATION. THIS SYSTEM MUST MAINTAIN THE REQUIRED FIRE RATING.

I. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.

J. ALL ELECTRICAL WORK SHALL BE PERFORMED BY QUALIFIED INDIVIDUALS THAT ARE PROPERLY LICENSED TO PERFORM THE WORK INVOLVED.

K. THE ELECTRICAL CONTRACTOR SHALL HAVE THE FULL RESPONSIBILITY OF ENSURING THAT HIS/HER WORK IS PERFORMED IN A SAFE MANNER AND SHALL BEAR ALL LIABILITY ASSOCIATED WITH HIS/HER JOB SITE SAFETY.

L. THE ELECTRICAL CONTRACTOR SHALL ARRANGE AND PAY FOR ALL NECESSARY INSPECTIONS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION.

M. PROVIDE PROPERLY SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL RACEWAYS CONTAINING FEEDER AND BRANCH CIRCUIT AC POWER CONDUCTORS. RACEWAY SHALL NOT BE RELIED UPON GROUNDING.

N. OUTAGES OF ANY UTILITY SERVICES NECESSARY TO ACCOMMODATE THIS WORK SHALL BE FULLY COORDINATED WITH AND AUTHORIZED BY THE OWNER BEFORE THEY OCCUR.

O. COORDINATE FINAL HEIGHTS AND LOCATIONS OF ELECTRICAL ROUGH-INS WITH EQUIPMENT LAYOUT, AND OWNER BEFORE ROUGH-IN. ANY PROBLEM OR ISSUES THAT ARISE DUE TO CONTRACTOR'S FAILURE TO COMPLETE THIS COORDINATION WILL BE THE CONTRACTOR'S RESPONSIBILITY TO RESOLVE TO THE OWNER'S SATISFACTION. IN ALL CASES, MOUNTING HEIGHTS SHALL CONFORM WITH ADA REQUIREMENTS.

P. WHEN WORK TO BE COMPLETED BY THIS CONTRACTOR REQUIRES TRENCHING, DIGGING, ETC., THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY PROTECTING OPEN TRENCHES IN ACCORDANCE WITH REQUIRED SAFETY PROCEDURES. BACKFILLING OF TRENCH/HOLE SHALL BE DONE IN SIX INCH LIFTS AND SHALL BE COMPACTED TO PREVENT EXCESSIVE SETTLEMENT. THIS CONTRACTOR SHALL RESTORE THE SURFACE (WHETHER GRASS, ASPHALT, CONCRETE, ETC.) TO ITS ORIGINAL CONDITION. GRASS SHALL BE SEEDED TO MATCH SURROUNDING TURF.)

WIRING METHOD SCHEDULE	GALVANIZED RIGID STEEL		RIGID ALUMINUM		SCHEDULE 40 PVC		FLEXIBLE METALLIC		SEAL-TIGHT FLEXIBLE		CLASS 1 DIV. 2 FLEXIBLE		PVC COATED GRS		STAMPED STEEL		CAST ALUMINUM (NONHAZARD)		CAST ALUMINUM (CLASS 1, DIV.2)		NEMA TYPE 1		NEMA TYPE 12		NEMA TYPE 4X		NON-METALLIC		STEEL STRAPS		ALUMINUM STRAPS		STAINLESS STEEL STRAPS		NON-METALLIC STRAPS		STEEL UN-STRUT		STAINLESS STEEL UN-STRUT		PVC COATED UN-STRUT		FIBER GLASS UN-STRUT		STINLESS STEEL SCREW		THREADED ROD		STAINLESS THREADED ROD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	WIRING METHOD																								RACEWAY				BOXES / ENCLOSURE								STRAPS AND SUPPORTS								HARDWARE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	UNDERGROUND																										X					X							X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													



TROJAN VILLAGE ADDITION

TROJAN VILLAGE, LLC.

SEC. 5 - T106N - R52W

MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.: 23107

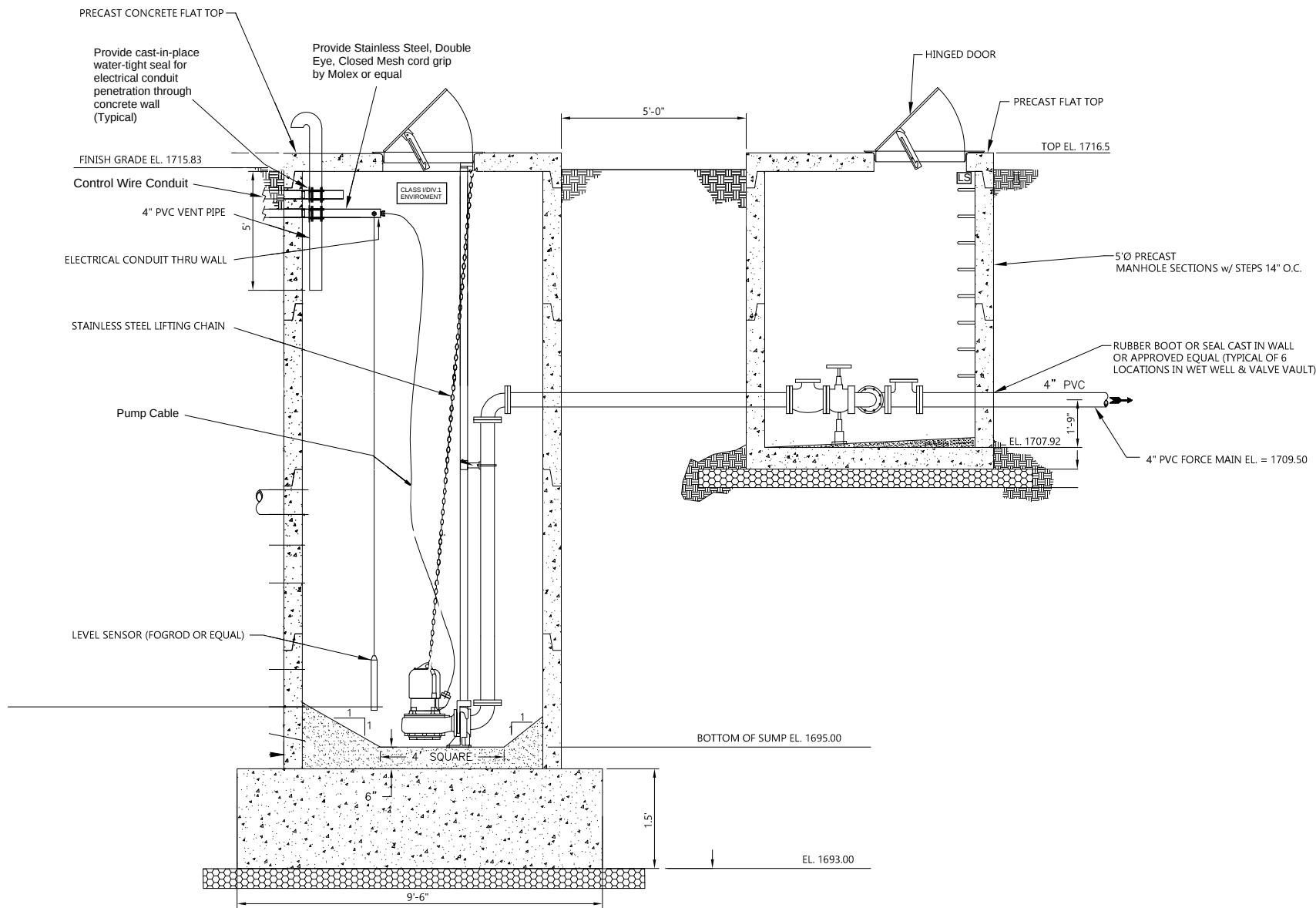
SURVEYED BY: -----

CREATED BY: MWJ

APPROVED BY: MWJ

REVISION DATE:

LIFT STATION ELECTRICAL PLAN



LIFT STATION
ELECTRICAL DETAIL

NOT TO SCALE



TROJAN VILLAGE ADDITION
TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.: 23107

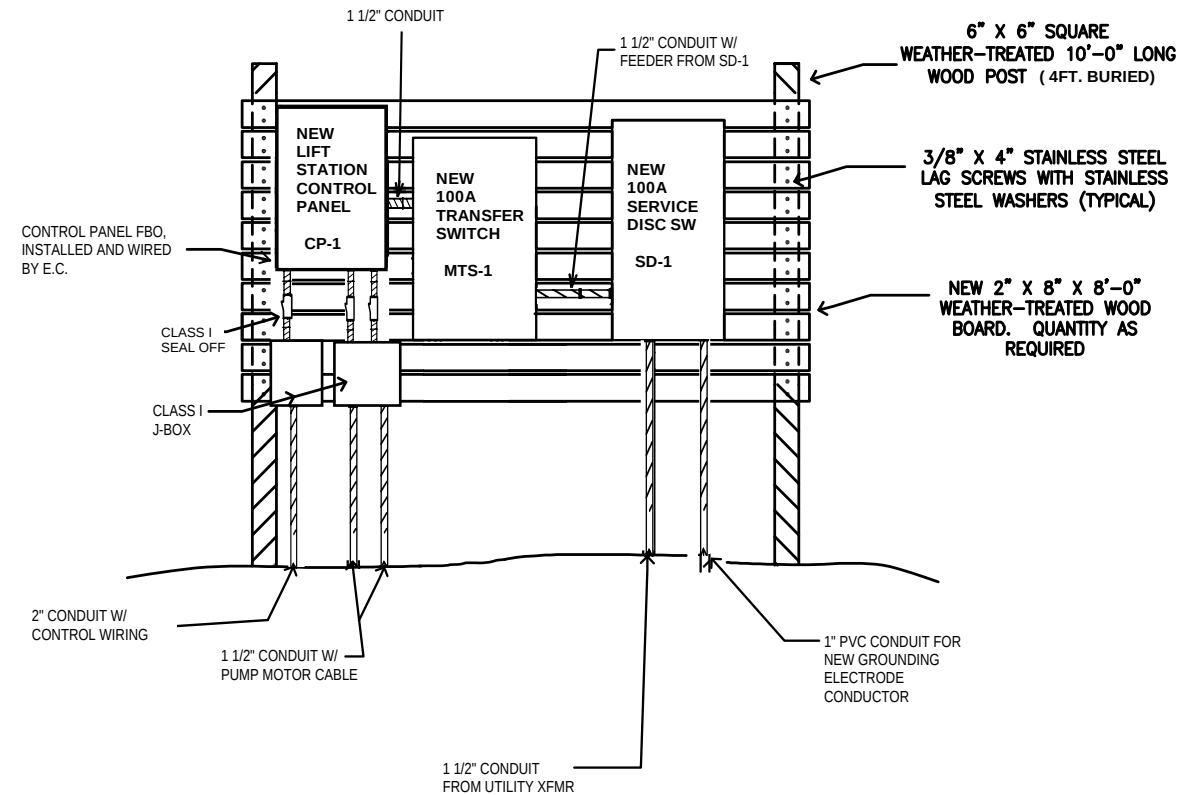
SURVEYED BY: -----

CREATED BY: MWJ

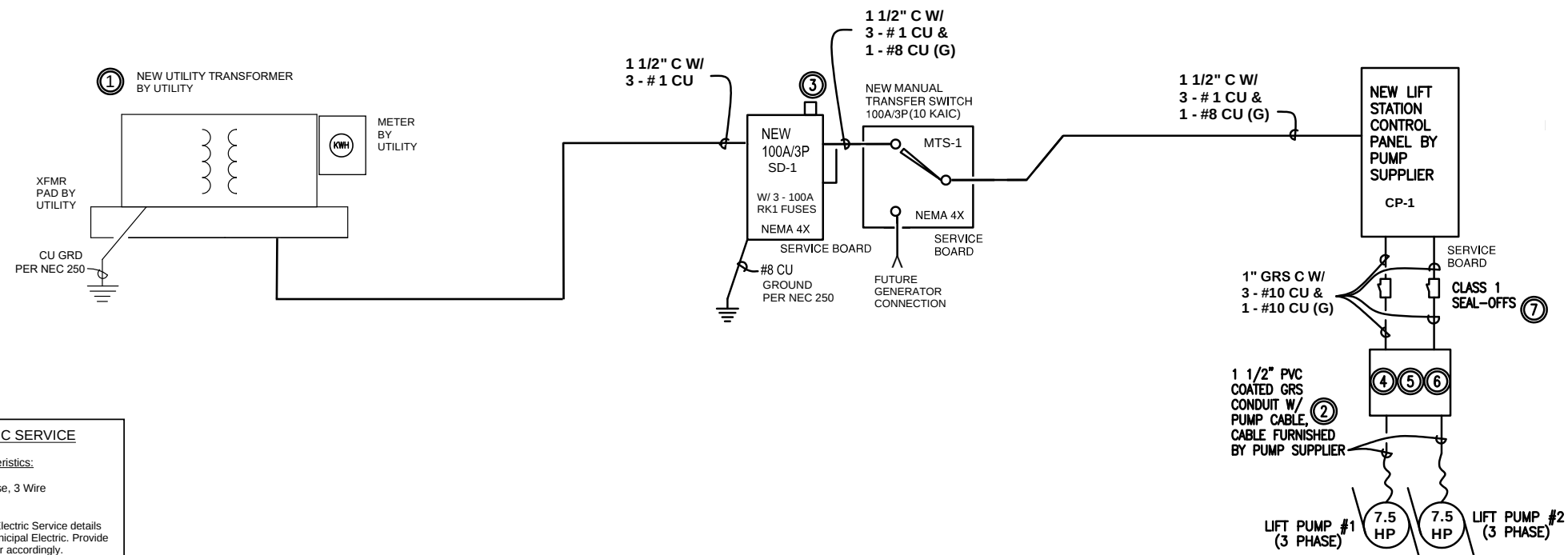
APPROVED BY: MWJ

REVISION DATE:

LIFT STATION
ELECTRICAL PLAN



ELECTRIC
SERVICE BOARD DETAIL
NOT TO SCALE



NEW ELECTRIC SERVICE

* Service Characteristics:

- 208V, 3 Phase, 3 Wire
- 100 Amp

* Coordinate new Electric Service details with Madison Municipal Electric. Provide material and labor accordingly.

LIFT STATION
POWER ONE LINE DIAGRAM
NOT TO SCALE

NOTES: (X)

1. FIELD COORDINATE LOCATION OF TRANSFORMER WITH UTILITY.
2. DIRECT BURIED PORTION OF THIS CONDUIT RUN SHALL BE PVC COATED GRS.
3. PROVIDE DELTA #LA603 SURGE ARRESTOR WIRED TO LINE SIDE LUGS IN SERVICE DISCONNECT SWITCH .
4. PROVIDE A 12" X 12" X 6" CLASS I JUNCTION BOX. BOX SHALL BE CAST ALUMINUM AND SHALL BE KILLARK #EXB-12126 N34 OR EQUAL.
5. SPLICE CONDUCTORS FROM LOAD SIDE OF PUMP MOTOR STARTERS TO THEIR RESPECTIVE MOTOR PUMP CABLE WITHIN THIS J-BOX .
6. UTILIZE THE FOLLOWING METHOD FOR SPLICING THE PUMP CABLE TO THE WIRE FROM THE LOAD SIDE OF ITS ASSOCIATED STARTER:
 - * UTILIZE INSULATED IN-LINE OR BUTT SPLICE CONNECTOR WITH THREADED COMPRESSION TERMINATION (POLARIS BLACK OR GRAY SERIES).
 - * WRAP THE POLARIS CONNECTOR WITH A HIGH QUALITY RUBBER SPLICING TAPE (3M SCOTCH #88). TWO WRAPS MINIMUM [HALF - LAP WRAPS].
 - * WRAP THE #88 WITH 3M SCOTCH #33+ VINYL TAPE UNTIL IT FUSES TO PROTECT THE #88 FROM UNRAVELING., 2 WRAPS MINIMUM [HALF-LAP WRAPS].
7. PROVIDE CLASS I SEAL OFF FITTING IN CONDUITS RUNNING BETWEEN J-BOX AND LIFT STATION COMNTROL PANEL. FILL FITTINGS WITH SEALING COMPOUND FURNISHED WITH THE SEAL OFF.



TROJAN VILLAGE ADDITION
TROJAN VILLAGE, LLC.
SEC. 5 - T106N - R52W
MADISON, LAKE COUNTY, SOUTH DAKOTA

PROJECT NO.: 23107
SURVEYED BY: -----
CREATED BY: MWJ
APPROVED BY: MWJ
REVISION DATE:

LIFT STATION
ELECTRICAL PLAN

