

MH/CB		AREA [SF]		AREA [AC]		IMP %	RUNOFF		A*C		TIME OF CONC. [MIN]		INTENSITY		Q [CFS]		P. DIA. D [IN]	P. SLOPE S [FT/FT]	P. TYPE	MANNING'S n	P. CAP. Q [CFS]	P. VELOCITY MAX [FT/S]	PIPE LENGTH [FT]	CAP. OVER Q [CFS]	FROM INVERT	TO INVERT	RIM ELEV	COVER [FT]	STR. TYPE	CAS. TYPE
FROM	TO	TOTAL	IMPERVIOUS	INCR.	CUM.		C	INCR.	CUM.	PIPE	CUM.	i	INCR.	CUM.																
FES 111	FES 110	80924	8223	1.858	1.858	10%	0.27	0.504	0.504	15.00	15.00	4.56	2.297	2.297	15	0.0100	RCP	0.013	6.46	5.26	67.30	4.1629	1048.67	1048.00			FES			
FES 131	FES 130	85312	18299	1.958	3.816	21%	0.35	0.686	1.189	0.21	15.21	4.56	3.127	5.424	15	0.0076	RCP	0.013	5.63	4.59	66.00	0.2076	1049.90	1049.40			FES			
FES 121	FES 120	74861	13605	1.719	1.719	18%	0.33	0.562	0.562	0.24	15.45	4.56	2.564	2.564	18	0.0145	RCP	0.013	12.65	7.16	75.95	10.0846	1049.10	1048.00			FES			
CB 141	FES 140	149600	19667	3.434	3.434	13%	0.29	1.003	1.003	15.00	15.00	4.56	4.573	4.573	15	0.0051	RCP	0.013	4.61	3.76	86.35	0.0399	1040.50	1040.06	1044.50		27	R:434		
CB 151	FES 150	21439	960	0.492	0.492	4%	0.23	0.114	0.114	15.00	15.00	4.56	0.519	0.519	12	0.0082	CMP	0.013	3.23	4.11	119.20	2.7070	1040.00	1039.02	1044.00		27	R:434		
FES 161	FES160	461120	37372	10.586	10.586	8%	0.26	2.718	2.718	15.00	15.00	4.56	12.393	12.393	18	0.0183	RCP	0.013	14.21	8.04	54.70	1.8171	1022.00	1021.00			FES			
FES 171	FES170	143503	21529	3.294	3.294	15%	0.31	1.005	1.005	15.00	15.00	4.56	4.582	4.582	15	0.0184	RCP	0.013	8.76	7.14	54.30	4.1804	1022.00	1021.00			FES			

THE GATEWAY

KNOW ALL BY THESE PRESENTS: TEGLF Gateway, LLC, a Minnesota limited liability company, owner of the following described property situated in the County of Washington, State of Minnesota to wit:

That part of the West half of the Southeast Quarter of Section 28, Township 30, Range 21, Washington County, Minnesota, according to the government survey thereof, described as follows: Beginning at the intersection of the West line of said West half of the Southeast Quarter and the South line of Washington County Right of Way Plat No. 19; thence North 88 degrees 31 minutes 17 seconds East, on a bearing based on the Washington County coordinate system, South zone, along said South plat line a distance of 169.11 feet; thence South 1 degree 28 minutes 43 seconds East along said plat line a distance of 35.00 feet; thence North 88 degrees 31 minutes 17 seconds East along said plat line a distance of 100.00 feet; thence North 1 degree 28 minutes 43 seconds West along said plat line a distance of 35.00 feet; thence North 88 degrees 31 minutes 17 seconds East along said plat line a distance of 276.71 feet to a point on a line parallel with and 545.80 feet West of the West line of said West half of the Southeast Quarter, as measured along the North line of said West half of the Southeast Quarter, thence South 0 degrees 00 minutes 37 seconds West along said parallel line a distance of 189.32 feet; thence North 88 degrees 36 minutes 30 seconds East and parallel with the North line of said West half of the Southeast Quarter a distance of 175.00 feet; thence South 00 degrees 00 minutes 37 seconds West a distance of 60.00 feet; thence South 51 degrees 41 minutes 18 seconds East a distance of 489.02 feet to the Westerly right-of-way line of the Sco Line Railroad, as the same is now located, thence Southwesterly along said Westerly right-of-way line to the South line of said West half of the Southeast Quarter; thence South 88 degrees 36 minutes 02 seconds West along said South line a distance of 99.53 feet to the Southwest corner of said West half of the Southeast Quarter; thence North 0 degrees 00 minutes 37 seconds East along the West line of said West half of the Southeast Quarter a distance of 2573.45 feet to the point of beginning.

AND

All that part of the Northeast Quarter of the Northwest Quarter (NE 1/4 of NW 1/4) and all that part of the Northwest Quarter of the Northeast Quarter (NW 1/4 of NE 1/4) of Section Thirty-three (33), in Township Thirty (30) North, of Range Twenty-one (21) West, Grant Township, Washington County, Minnesota, lying Westerly of the Northwesterly R/W of the Minneapolis, St. Paul and Sault St. Marie Railroad.

AND

That part of the Southwest Quarter of Section 28, Township 30, Range 21, Washington County, Minnesota described as follows: Beginning at the intersection of the West line of the East 1/2 of the West 1/2 of said Southwest 1/4 and the North line of the South 1705.07 feet of said Southwest 1/4; thence South 0° 18'28" East along said West line a distance of 296.20 feet; thence North 88° 38'54" East a distance of 1175.23 feet; thence North 19° 35'52" West to the center line of County State Aid Highway No. 12; thence Westerly along said center line to the center line of a Minnesota Pipe Line Company easement as now laid out across said Southwest 1/4; thence Southerly along the center line of said easement to the North line of the South 1705.07 feet of said Southwest 1/4; thence West to the point of beginning.

AND

East 1/2 of the Southwest 1/4 of Section 28, Township 30 Range 21 in Washington County, Minnesota. Also that part of the East 1/2 of the West 1/2 of the Southwest 1/4 of Section 28 lying South of the center line of County State Aid Highway No. 12 as now laid out and traveled except the South 980.38 feet of said East 1/2 of the West 1/2 of the Southwest 1/4 and except that part lying Westerly of the center line of a Minnesota Pipe Line Company Easement as now laid out across the Southwest 1/4 of said Section 28 and lying Northerly of the South 1705.07 feet of said East 1/2 of the West 1/2 of the Southwest 1/4 as measured along the West line thereof. Subject to the right of way of County State Aid Highway No. 12 as now laid out and traveled along the North line of said Southwest 1/4 and subject to a 66 foot wide easement to Minnesota Pipe Line Company as now laid out across said Southwest 1/4.

EXCEPT

That part of the Southwest Quarter of Section 28, Township 30, Range 21, Washington County, Minnesota described as follows: Beginning at the intersection of the West line of the East 1/2 of the West 1/2 of said Southwest 1/4 and the North line of the South 1705.07 feet of said Southwest 1/4; thence South 0° 18'28" East along said West line a distance of 296.20 feet; thence North 88° 38'54" East a distance of 1175.23 feet; thence North 19° 35'52" West to the center line of County State Aid Highway No. 12; thence Westerly along said center line to the center line of a Minnesota Pipe Line Company easement as now laid out across said Southwest 1/4; thence Southerly along the center line of said easement to the North line of the South 1705.07 feet of said Southwest 1/4; thence West to the point of beginning.

AND EXCEPT

The East 600 feet and the South 980.38 feet of said East 1/2 of the Southwest 1/4.

AND

The East 600.00 feet of the Southwest 1/4; the South 980.38 feet of the East 1/2 of the Southwest 1/4 lying West of the East 600.00 feet thereof and the South 980.38 feet of the East 1/2 of the West 1/2 of the Southwest 1/4 all in Section 28, Township 30, Range 21, Washington County, Minnesota.

Has caused the same to be surveyed and platted as THE GATEWAY and does hereby donate and dedicate to the public for public use the public ways and the drainage and utility easements as created by this plat.

In witness whereof said TEGLF Gateway, LLC, a Minnesota limited liability company, has caused these presents to be signed by its proper officer this ___ day of _____, 20__.

Signed: TEGLF Gateway, LLC

By _____
Chief Manager

STATE OF _____
COUNTY OF _____

This instrument was acknowledged before me on this ___ day of _____, 20__, by _____, Chief Manager of TEGLF Gateway, LLC, a Minnesota limited liability company, on behalf of the corporation.

Signature

Printed

Notary Public, _____ County, _____
My Commission Expires _____

I Dennis B. Olmstead, Licensed Land Surveyor, do hereby certify that I have surveyed or directly supervised the survey of the property described on the plat; and prepared this plat or directly supervised the preparation of this plat; that I am a duly Licensed Land Surveyor in the State of Minnesota; that this plat is a correct representation of the boundary survey; that all mathematical data and labels are correctly designated on this plat; that all monuments depicted on this plat have been, or will be correctly set as shown; that all water boundaries and wet lands, as defined in Minnesota Statutes, Section 505.01, Subd. 3, as of the date of this surveyor's certification are shown and labeled on this plat; and all public ways are shown and labeled on this plat.

Dated this ___ day of _____, 20__.

Dennis B. Olmstead, Licensed Land Surveyor
Minnesota License No. 18425

STATE OF MINNESOTA
COUNTY OF HENNEPIN

This instrument was acknowledged before me on this ___ day of _____, 20__, by Dennis B. Olmstead, Licensed Land Surveyor, Minnesota License No. 18425.

Signature

Printed

Notary Public, _____ County, Minnesota
My Commission Expires _____

CITY OF GRANT, MINNESOTA

This plat was approved by the City Council of Grant, Minnesota this ___ day of _____, 20__, and hereby certifies compliance with all requirements as set forth in Minnesota Statutes, Section 505.03, Subdivision 2.

Signed: _____ Attest: _____
Mayor City Administrator

COUNTY SURVEYOR

Pursuant to Chapter 820, Laws of Minnesota, 1971, and in accordance with Minnesota Statutes, Section 505.021, Subd. 11, this plat has been reviewed and approved this ___ day of _____, 20__.

By: _____ By: _____
Washington County Surveyor

COUNTY AUDITOR/TREASURER APPROVAL

Pursuant to Minnesota Statutes, Section 505.021, Subd. 9 and Section 272.12, taxes payable in the year 20__, on real estate hereinbefore described, have been paid; there are no delinquent taxes, the current taxes and transfer has been entered, on this ___ day of _____, 20__.

By: _____ By: _____
Washington County Auditor/Treasurer Deputy

COUNTY RECORDER

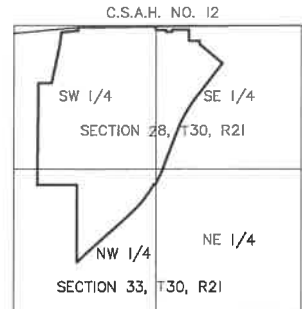
Document Number _____

I hereby certify that this instrument was recorded in the Office of the County Recorder for record on this ___ day of _____, 20__ at _____ o'clock ___ M. and was duly recorded in Washington County Records.

By: _____ By: _____
Washington County Recorder Deputy

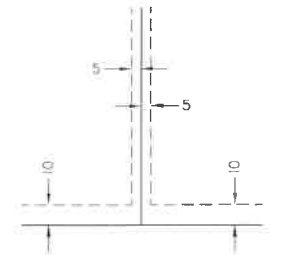


THE GATEWAY



VICINITY MAP
NOT TO SCALE

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



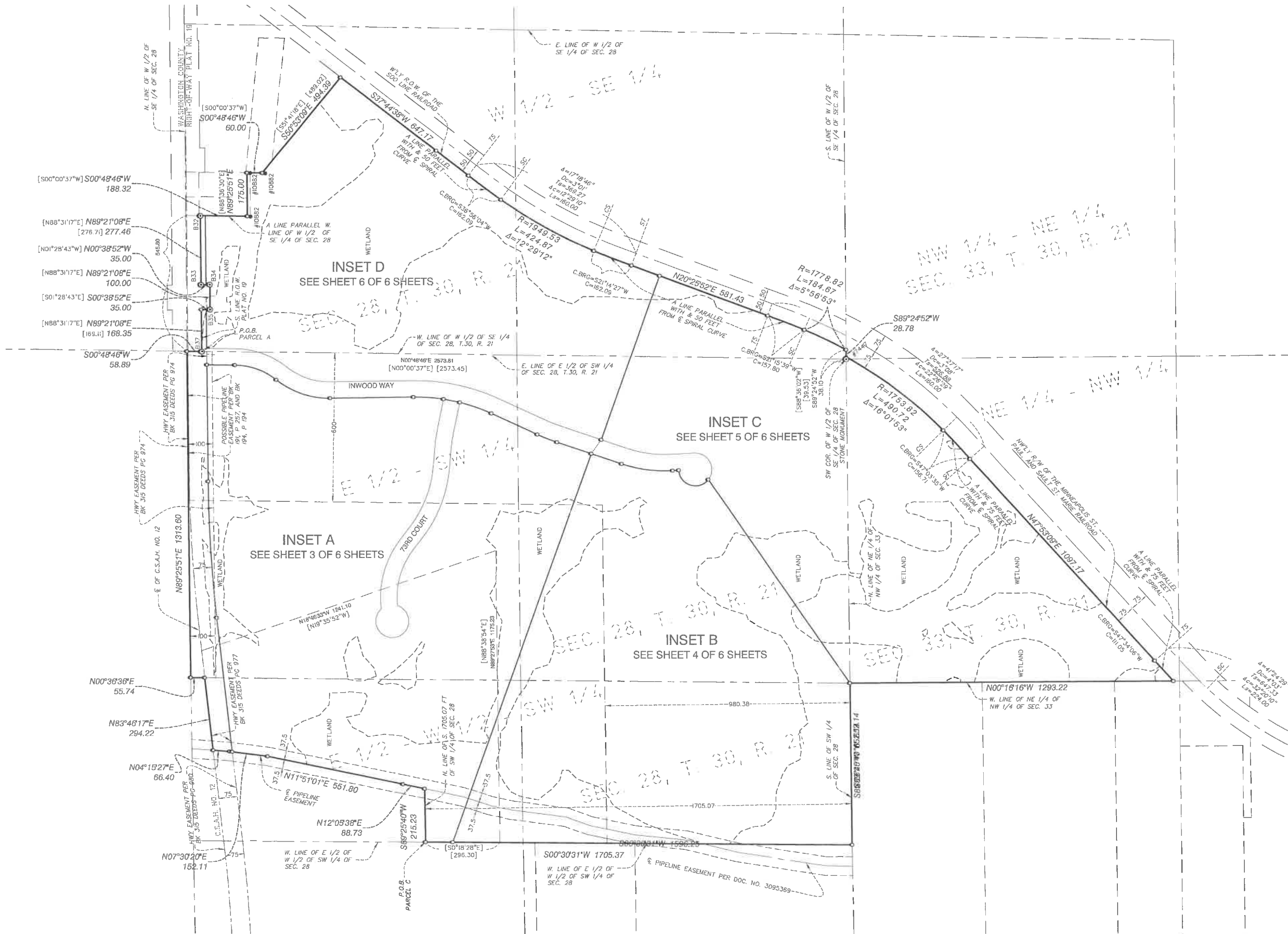
Being 5 feet in width and adjoining interior lot lines and 10 feet in width and adjoining exterior lot lines, unless otherwise indicated on the plat.

- DENOTES SET, 1/2 INCH BY 14 INCH IRON PIPE W/ PLASTIC CAP INSCRIBED ALLIANT LS 18425. THESE MONUMENTS WILL BE PLACED IN THE GROUND AS SHOWN WITHIN ONE YEAR AFTER THE RECORDING DATE OF THIS PLAT.
- DENOTES FOUND, 1/2 INCH BY 14 INCH, IRON PIPE WITH PLASTIC CAP INSCRIBED LS _____
- ⊙ DENOTES FOUND CAST IRON MONUMENT.
- DENOTES DELINEATED WETLAND

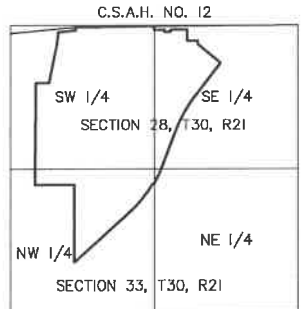
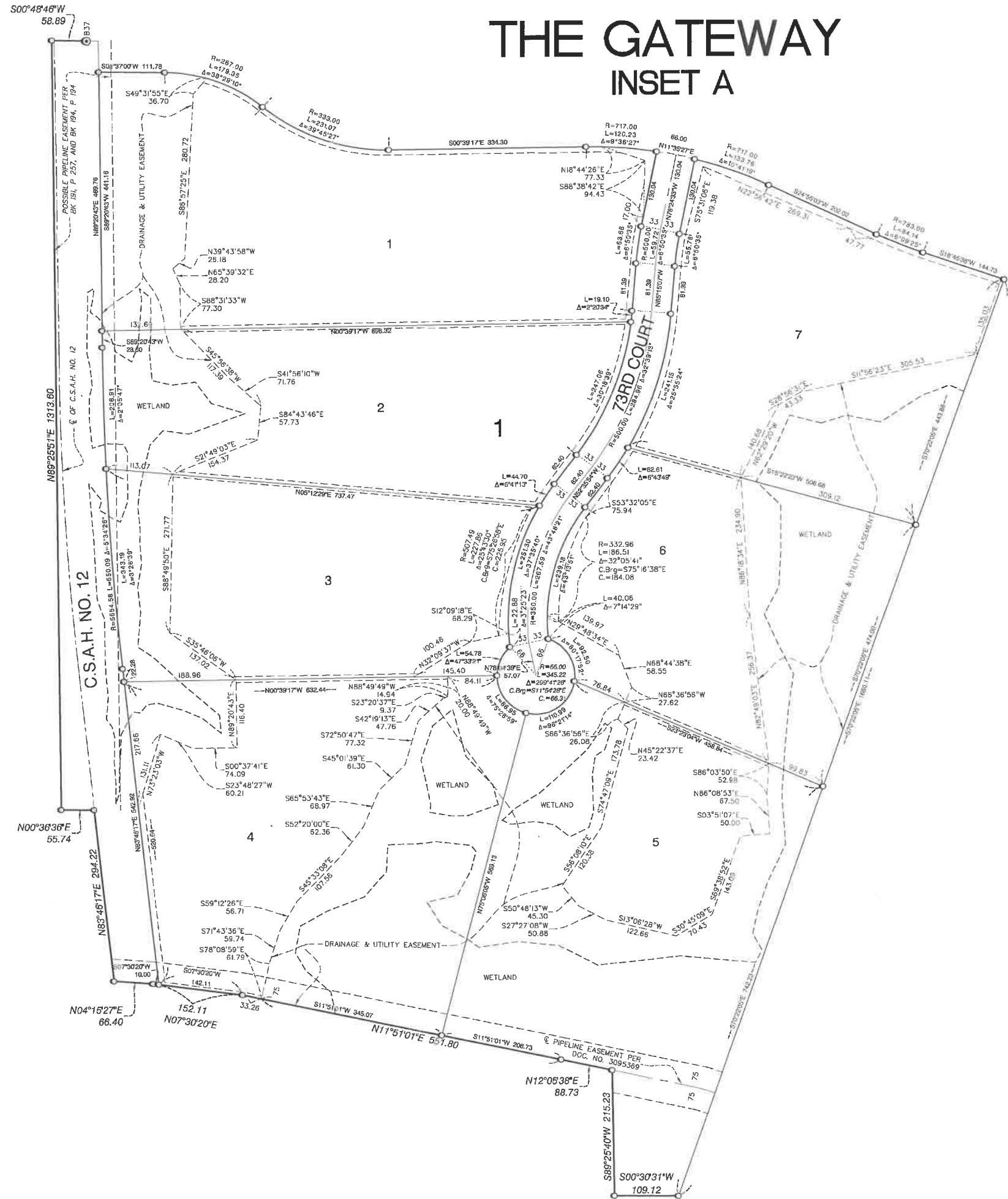
THE ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE WASHINGTON COUNTY COORDINATE SYSTEM.



SCALE IN FEET
0 100 200 400
SCALE IN INCHES
1 inch = 200 feet

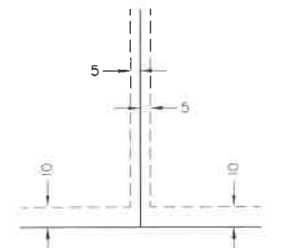


THE GATEWAY INSET A



VICINITY MAP
NOT TO SCALE

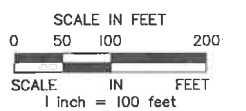
DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



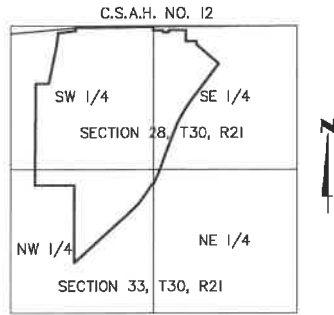
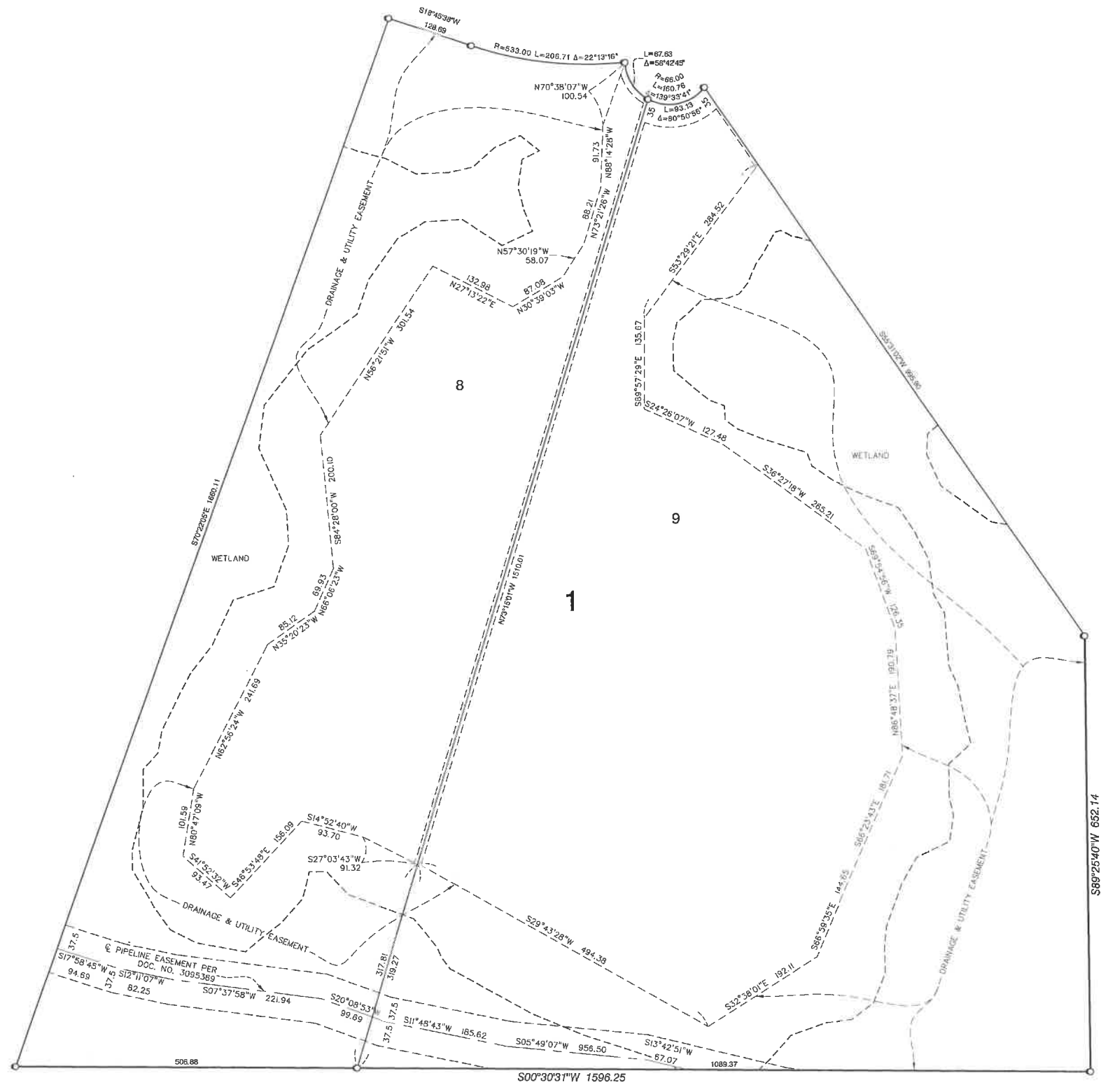
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- ⊙ DENOTES FOUND CAST IRON MONUMENT.
- DENOTES DELINEATED WETLAND

THE ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE WASHINGTON COUNTY COORDINATE SYSTEM.

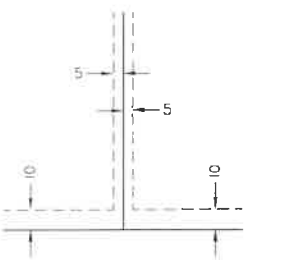


THE GATEWAY INSET B



VICINITY MAP
NOT TO SCALE

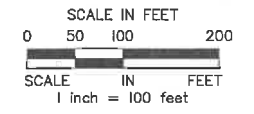
DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



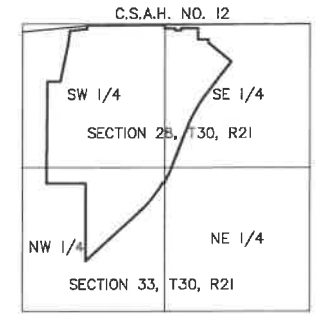
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- ⊙ DENOTES FOUND CAST IRON MONUMENT.
- DENOTES DELINEATED WETLAND

THE ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE WASHINGTON COUNTY COORDINATE SYSTEM.

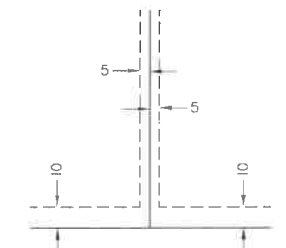


THE GATEWAY INSET C



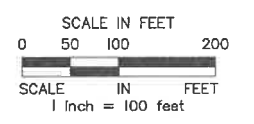
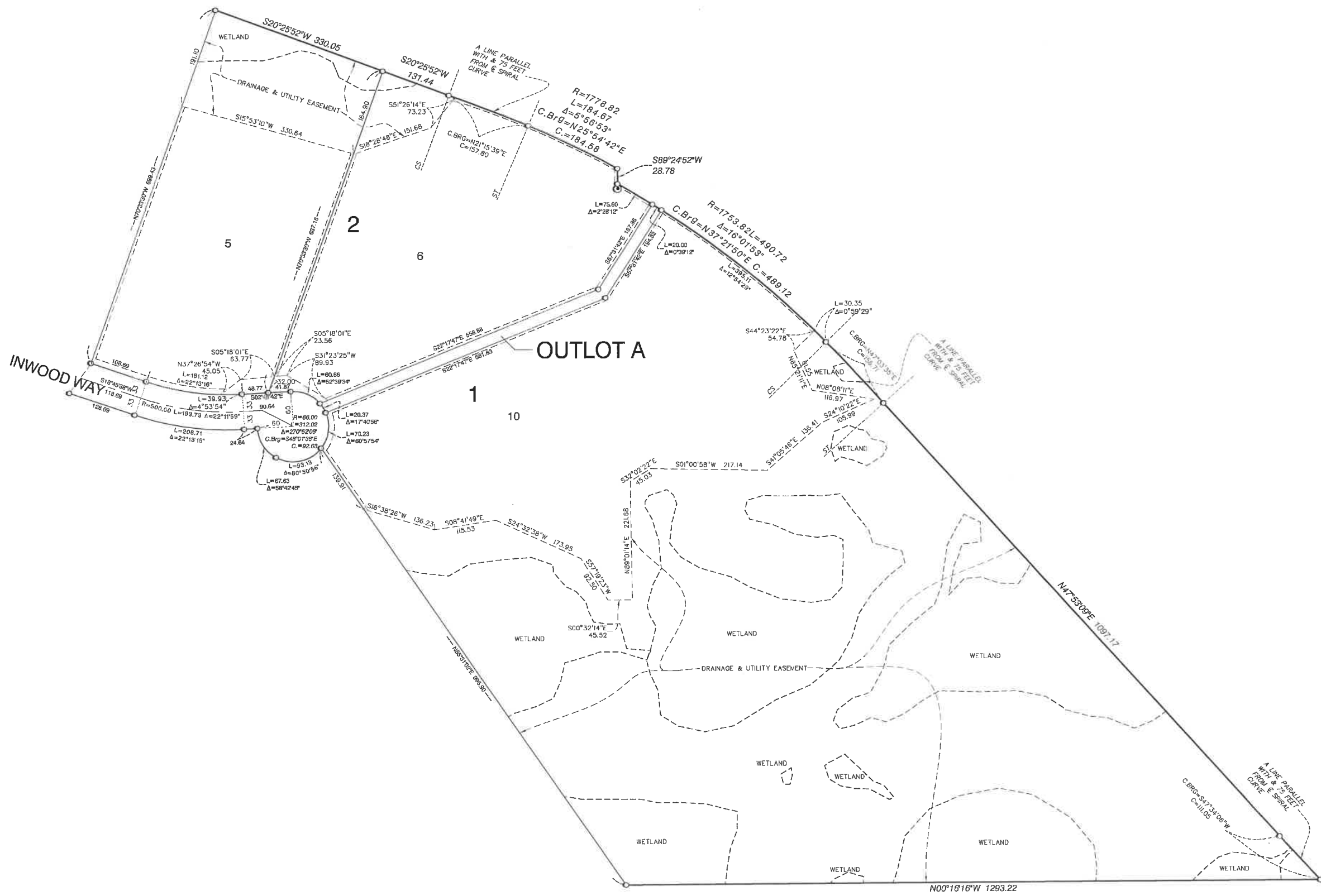
VICINITY MAP
NOT TO SCALE

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



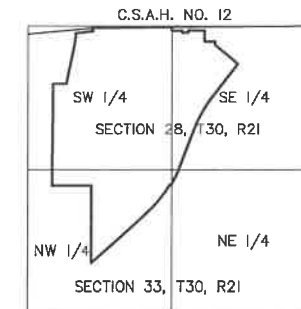
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 - DENOTES DELINEATED WETLAND
- THE ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE WASHINGTON COUNTY COORDINATE SYSTEM.



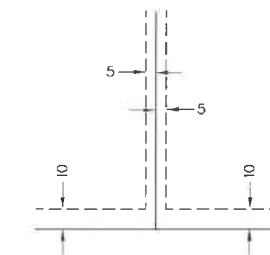
THE GATEWAY

INSET D



VICINITY MAP
NOT TO SCALE

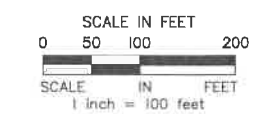
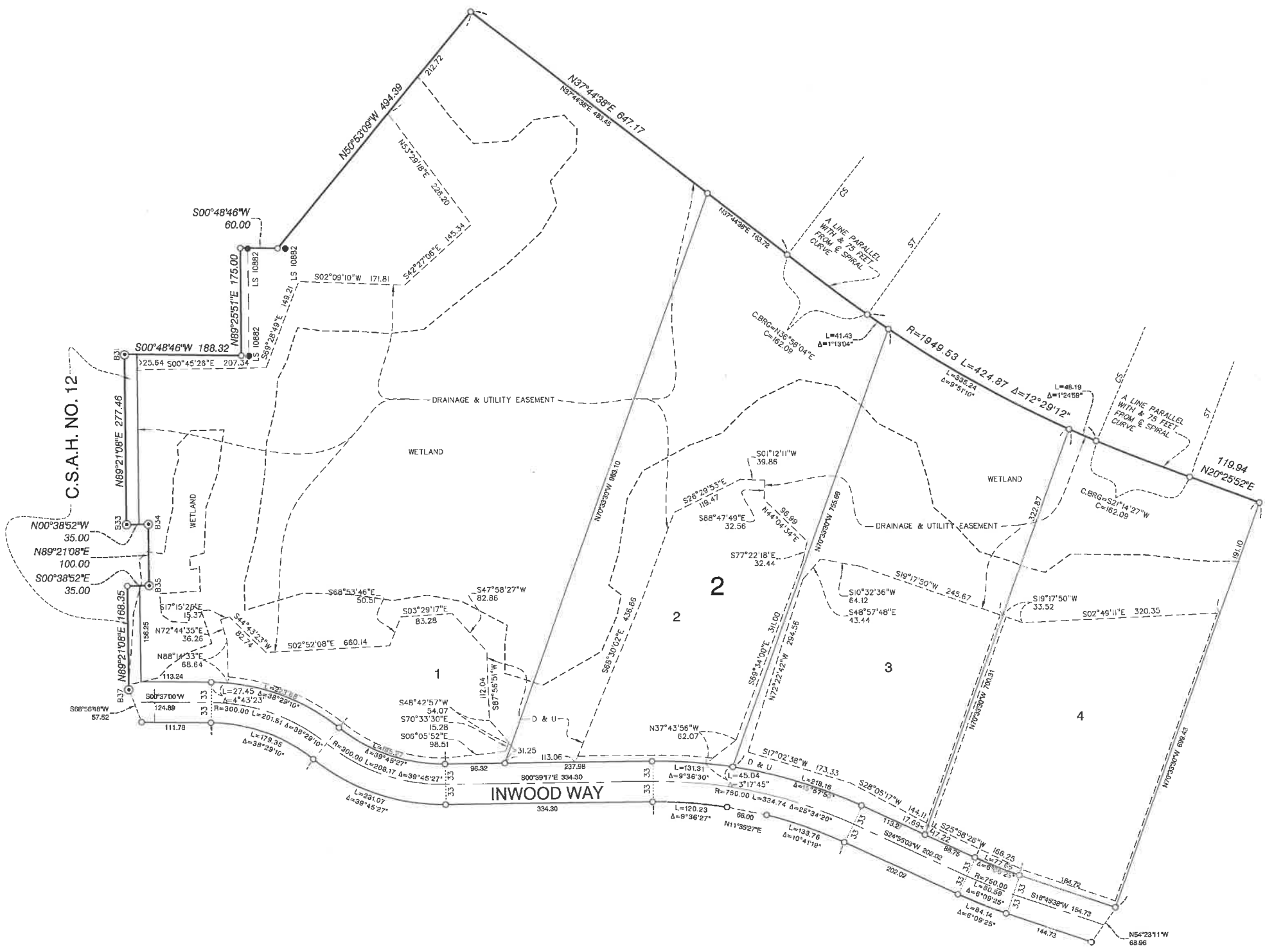
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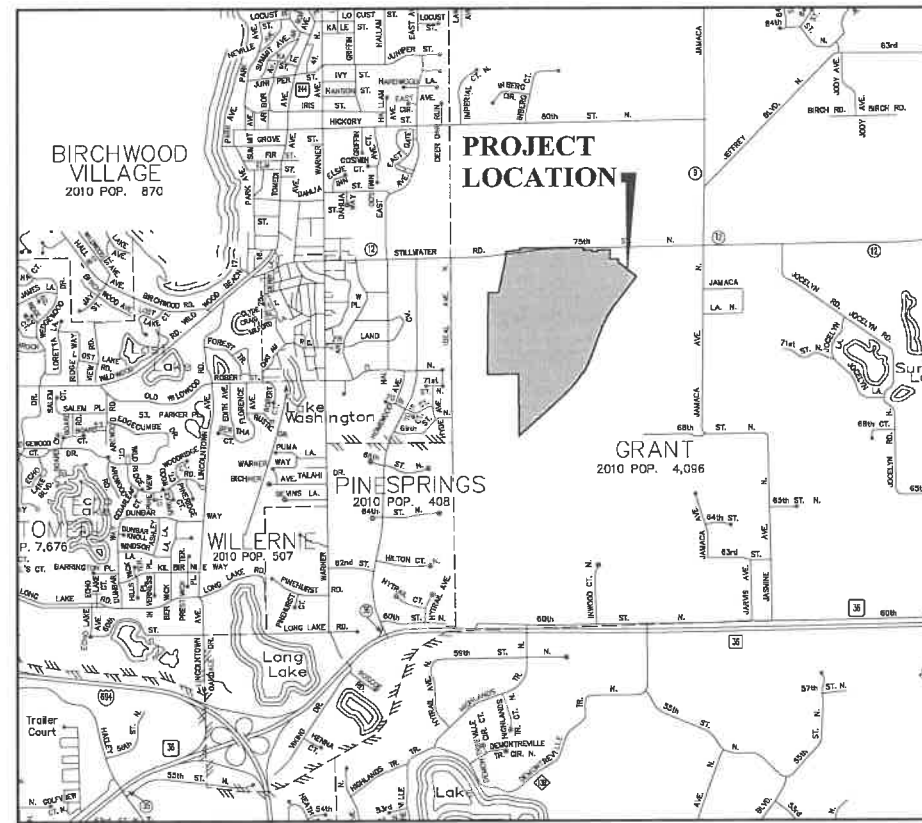
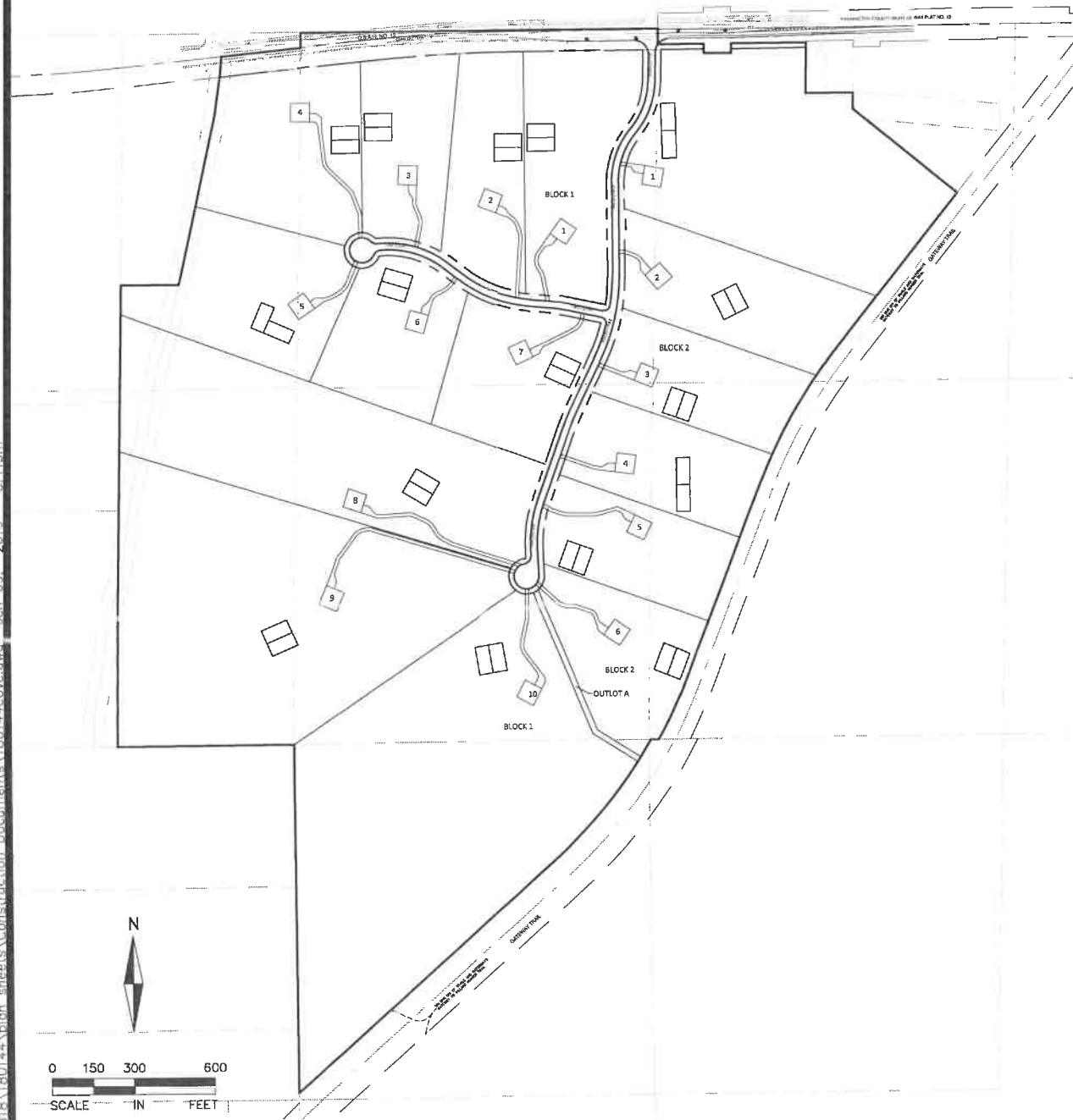
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- DENOTES DELINEATED WETLAND

THE ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE WASHINGTON COUNTY COORDINATE SYSTEM.



THE GATEWAY

GRANT, MINNESOTA



VICINITY MAP
SCALE: 1"=2000'

SHEET INDEX	NO.
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DEVELOPER
TEGLF GATEWAY, LLC
1660 HIGHWAY 100 S.
SUITE 400
ST. LOUIS PARK, MN 55416
PH: 952-525-3208
CONTACT: PAUL THOMAS
EM: paul.thomas@excelsiorllc.com

CONSULTANT
ALLIANT ENGINEERING, INC.
733 MARQUETTE AVENUE
SUITE 700
MINNEAPOLIS, MN 55402
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ENGINEER
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SURVEYOR
DENNIS B. OLMSTEAD
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ENGINEERING
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Suite 700
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612.758.3080
www.alliant-inc.com

THE GATEWAY
8255 75TH STREET N
GRANT, MINNESOTA
CONSTRUCTION DOCUMENTS
COVER SHEET

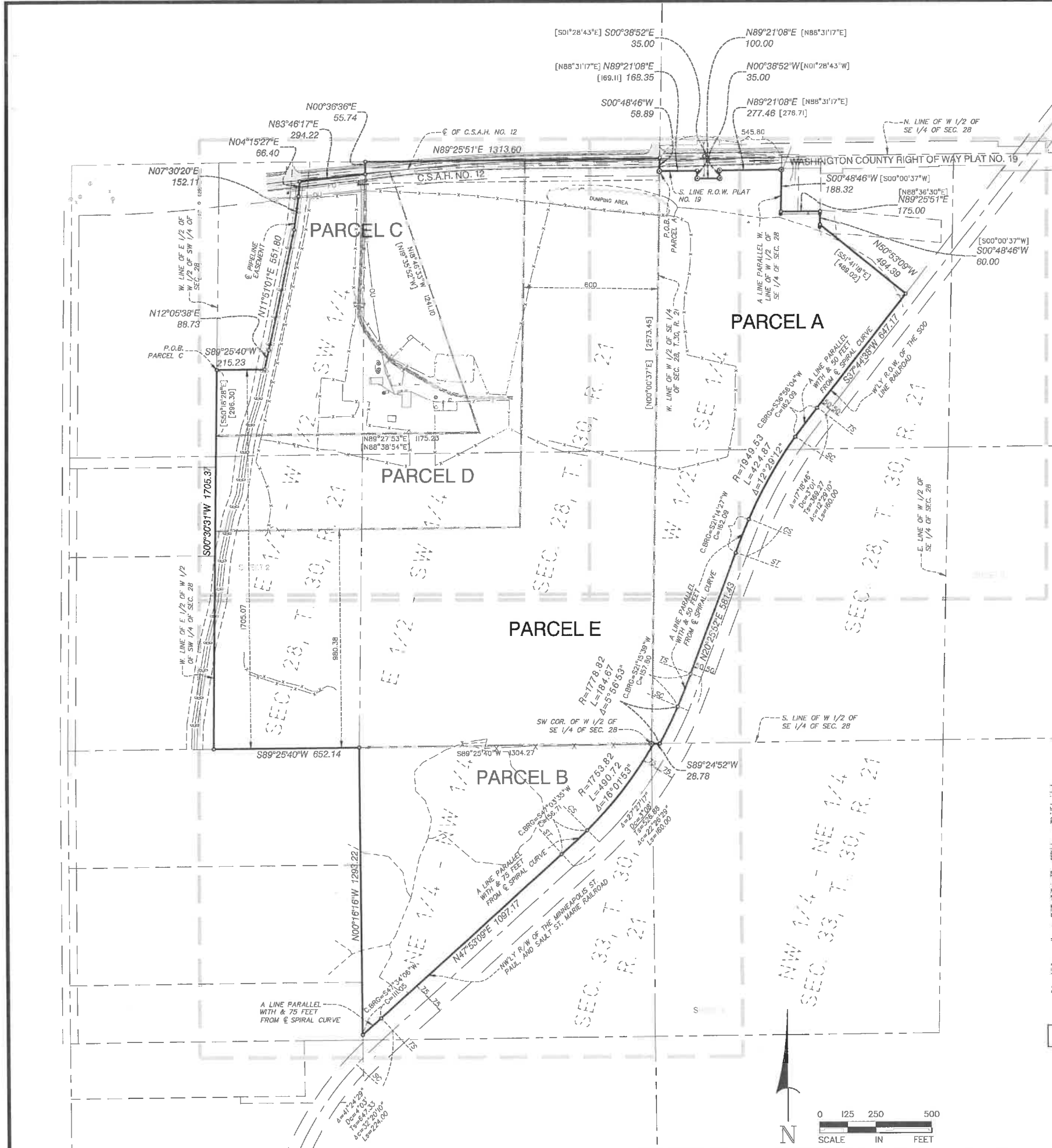
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

Mark Rausch
MARK RAUSCH, PE
1-10-19
Date License No. 43480

QUALITY ASSURANCE/CONTROL	
BY	DATE
DATE	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: AKA
PROJECT NO: 218-0144

Drawing name: X:\2018\180144\plan_streets\Construction Documents\180144\cover.dwg Jan 09, 2019 3:11pm



PROPERTY DESCRIPTION

Parcel A: That part of the West half of the Southeast Quarter of Section 28, Township 30, Range 21, Washington County, Minnesota, according to the government survey thereof, described as follows: Beginning at the intersection of the West line of said West half of the Southeast Quarter and the South line of Washington County Right of Way Plat No. 19; thence North 88 degrees 31 minutes 17 seconds East, on a bearing based on the Washington County coordinate system, South zone, along said South plat line a distance of 169.11 feet; thence South 1 degree 28 minutes 43 seconds East along said plat line a distance of 35.00 feet; thence North 88 degrees 31 minutes 17 seconds East along said plat line a distance of 100.00 feet; thence North 1 degree 28 minutes 43 seconds West along said plat line a distance of 35.00 feet; thence North 88 degrees 31 minutes 17 seconds East along said plat line a distance of 278.71 feet to a point on a line parallel with and 545.80 feet West of the West line of said West half of the Southeast Quarter, as measured along the North line of said West half of the Southeast Quarter, thence South 0 degrees 00 minutes 37 seconds West along said parallel line a distance of 169.35 feet; thence North 88 degrees 36 minutes 30 seconds East and parallel with the North line of said West half of the Southeast Quarter a distance of 175.00 feet; thence South 0 degrees 00 minutes 37 seconds West a distance of 60.00 feet; thence South 51 degrees 41 minutes 18 seconds East a distance of 489.02 feet to the Westerly right-of-way line of the Soo Line Railroad, as the same is now located, thence Southwesterly along said Westerly right-of-way line to the South line of said West half of the Southeast Quarter; thence South 88 degrees 36 minutes 02 seconds West along said South line a distance of 59.83 feet to the Southwest corner of said West half of the Southeast Quarter; thence North 0 degrees 00 minutes 37 seconds East along the West line of said West half of the Southeast Quarter a distance of 253.45 feet to the point of beginning.

Parcel B: All that part of the Northeast Quarter of the Northwest Quarter (NE 1/4 of NW 1/4) and all that part of the Northwest Quarter of the Northeast Quarter (NW 1/4 of NE 1/4) of Section Thirty-three (33), in Township Thirty (30) North, of Range Twenty-one (21) West, Grant Township, Washington County, Minnesota, lying Westerly of the Northwesterly Right of Way of the Minneapolis, St. Paul and Sault Ste. Marie Railroad.

Parcel C: That part of the Southwest Quarter of Section 28, Township 30, Range 21, Washington County, Minnesota described as follows: Beginning at the intersection of the West line of the East 1/2 of the West 1/2 of said Southwest 1/4 and the North line of the South 1705.07 feet of said Southwest 1/4; thence South 07° 18' 28" East along said West line a distance of 298.30 feet; thence North 88° 38' 54" East a distance of 1175.23 feet; thence North 19° 35' 52" West to the center line of County State Aid Highway No. 12; thence Westerly along said center line to the center line of a Minnesota Pipe Line Company easement as now laid out across said Southwest 1/4; thence Southerly along the center line of said easement to the North line of the South 1705.07 feet of said Southwest 1/4; thence West to the point of beginning.

Parcel D: The East 600 feet and the South 980.38 feet of said East 1/2 of the Southwest 1/4.

Parcel E: The East 600.00 feet of the Southwest 1/4; the South 980.38 feet of the East 1/2 of the Southwest 1/4 lying West of the East 600.00 feet thereof and the South 980.38 feet of the East 1/2 of the West 1/2 of the Southwest 1/4 all in Section 28, Township 30, Range 21, Washington County, Minnesota.

CERTIFICATION

To TEG Land Holdings, LLC; Premier Bank; Land Title, Inc.; and Stewart Title Guaranty Company:
 This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1-5, 7(a), 8, 9, 11, 13 and 16 of Table A thereof. The fieldwork was completed on November 15, 2018.

Date of Plat or Map: December 7, 2018

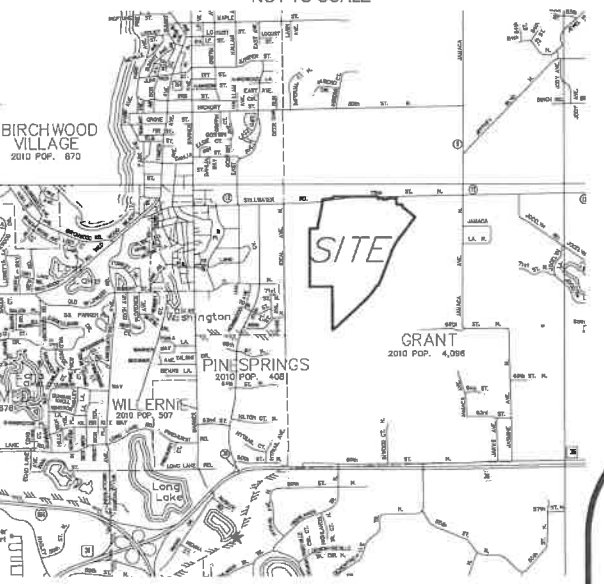
 Dennis B. Olmstead, Professional Land Surveyor
 Minnesota License No. 18425

NOTES

- This survey and the property description shown here on are based upon information found in the commitment for title insurance prepared by Land Title, Inc. as agent for Stewart Title Guaranty Company, Commitment No. 587375, Revision No. 4, dated November 14, 2018.
- The locations of underground utilities are depicted based on Gopher State One Call, available city maps, records and field locations and may not be exact. Verify critical utilities prior to construction or design.
- The basis of bearings is assumed.
- All distances are in feet.
- The area of the above described property is 7,192,667 square feet or 165.121 acres.
- There are 0 regular striped parking stalls and 0 handicapped parking stalls.
- The property lies within Zone X (unshaded - areas determined to be outside the 0.2% annual chance floodplain) of Federal Emergency Management Agency (FEMA) Flood Insurance Community Panel No. 27163C0245E, effective February 2, 2010 and Panel No. 27163C0240E, effective February 2, 2010.
- There was no observed evidence of earth moving work or building construction at the time of our field work.
- Names of adjoining owners are depicted based on Washington County GIS tax information.
- Wetland areas were delineated by Alliant Engineering, Inc. on September 7, 2018.
- The easterly/southeasterly boundary adjoins the GATEWAY TRAIL established on the right of way of the former Minneapolis, St. Paul and Sault Ste. Marie Railroad, Soo Line Railroad. The right of way was surveyed by the Minnesota Department of Natural Resources (MnDNR) in 1988 prior to track removal to document and preserve the location of the right of way. The right of way shown hereon is dimensioned and monumented based on the survey map prepared by the MnDNR dated April 11, 1988 and filed in Washington County. The right of way is established with spiral transitions to circular curves and tangents. The circular curves are defined by degree of curve based on the railroad definition. There is not a mathematical way to dimension the offset of a spiral curve, so we have dimensioned the chord of the spiral offset and noted it to be parallel to the centerline of the right of way.
- Survey related exceptions set forth in Schedule B, Section Two of the Title Commitment:

- Item no. 12 - Subject to existing roads as shown on available maps. Depicted on the survey.
- Item no. 13 - Easement in favor of Minnesota Pipe Line Company dated August 17, 1954, filed in Book 190 of Deeds, page 622 (Affects Parcels C, D & E). Easement appears to be blanket over those parts of Parcels C, D, and E within the W 1/2 of the SW 1/4 of Section 28, except the north 100 feet thereof.
- Item no. 14 - Easement in favor of Minnesota Pipe Line Company dated September 14, 1954, filed September 28, 1954 in Book 191 of Deeds, page 257 (Affects Parcels C, D & E). Description has ambiguity, however possible location of 100 foot wide easement is depicted on the survey.
- Item no. 15 - Easement in favor of Minnesota Pipe Line Company dated April 21, 1955, filed April 22, 1955 in Book 194 of deeds, page 194 (Affects Parcels C, D & E). Description has ambiguity, however possible location of 100 wide easement is depicted on the survey.
- Item no. 16 - Easement in favor of the County of Washington dated March 20, 1972, filed April 6, 1972, in Book 315 of Deeds, page 974 (Affects Parcels C, D & E). Highway easement is depicted on the survey.
- Item no. 17 - Easement in favor of the County of Washington dated March 20, 1972, filed April 6, 1972 in Book 315 of Deeds, page 975 (Affects Parcels C, D & E). Highway easement is depicted on the survey.
- Item no. 18 - Easement in favor of the County of Washington dated March 20, 1972, filed April 6, 1972 in Book 315 of Deeds, page 977 (Affects Parcel C). Highway easement is depicted on the survey.
- Item no. 19 - Easement in favor of the County of Washington dated March 20, 1972, filed April 8, 1972 in Book 315 of Deeds, page 980 (Affects Parcel C). Highway easement is depicted on the survey.
- Item no. 20 - Washington County Highway Right of Way Plat No. 19 filed November 17, 1977 as Document Number 367210 (Affects Parcels A, C, D & E). Right of way is depicted on the survey.
- Item no. 21 - Agreement regarding Easement dated December 16, 1999, filed March 8, 2000, as Document Number 3096368 (Affects Parcels C, D & E). Easement is depicted on the survey.
- Item no. 22 - Subject to wetland as shown by available maps. Wetlands were delineated by Alliant Engineering, Inc. on September 7, 2018.
- Item no. 25 - Excepting and reserving to the State of Minnesota, in trust of the taxing districts concerned, all mineral rights, as provided by law, as contained in the Conveyance of Forfeited Lands filed in Book 152, Page 462. Location of 100 foot wide strip could not be determined from record document.

VICINITY MAP
 NOT TO SCALE



LEGEND

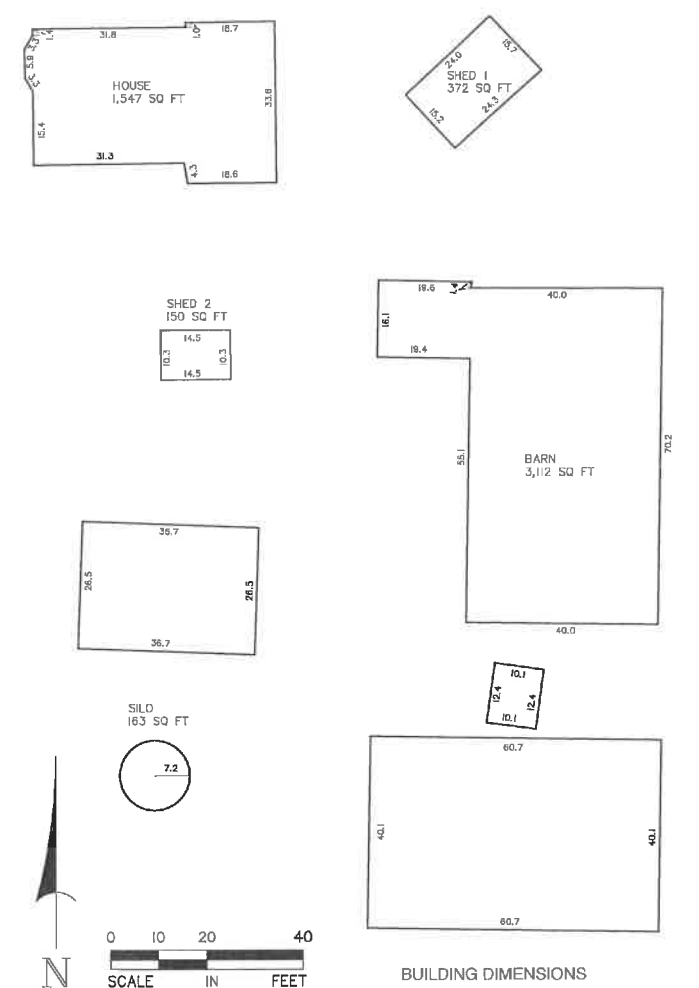
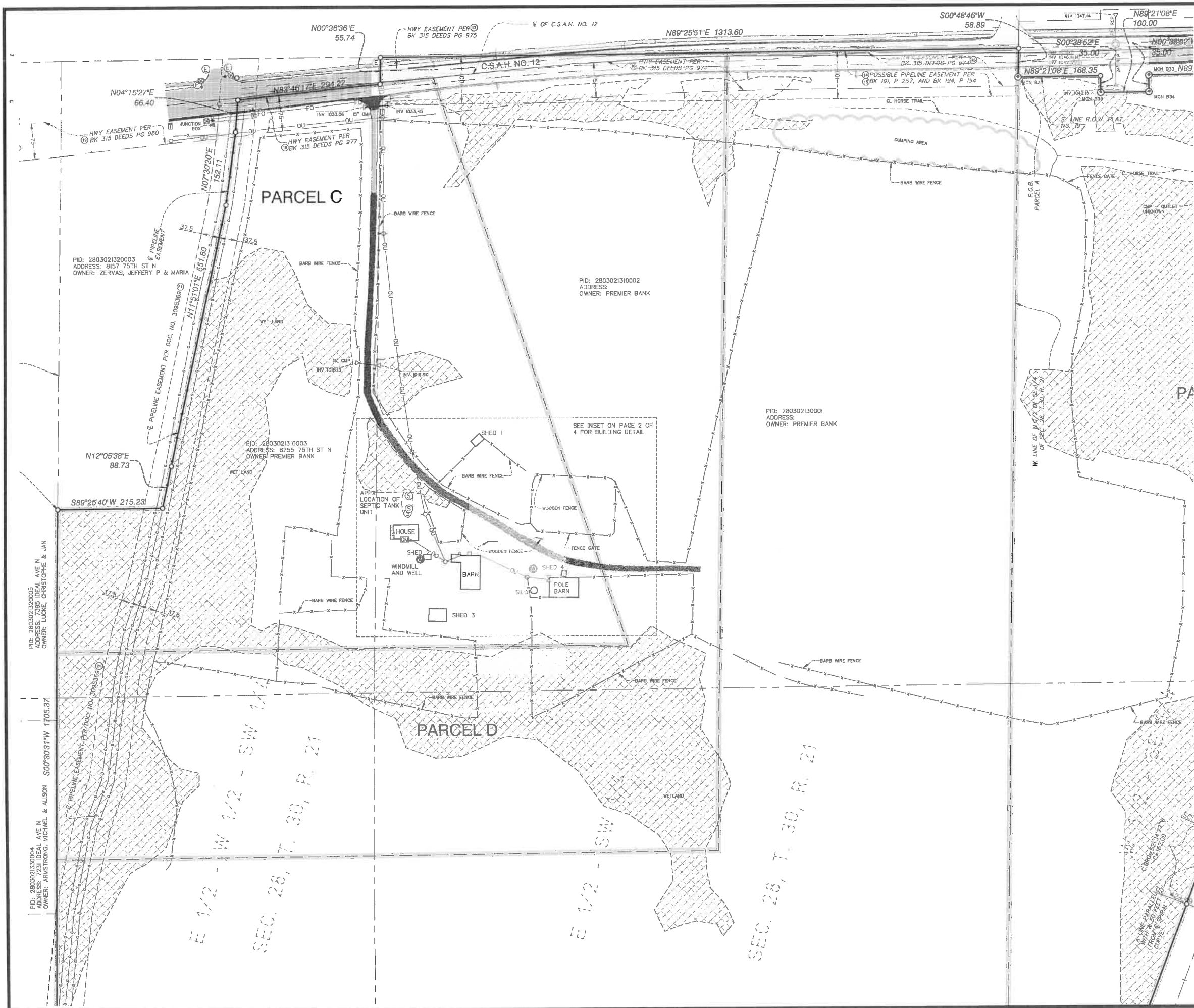
- SET CAP IRON MONUMENT 18425
- FOUND IRON MONUMENT
- CAST IRON MONUMENT
- GRAVEL SURFACE
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- G — GAS
- E — EDGE OF WETLAND
- O — OVERHEAD ELECTRIC
- X — FENCE
- — — GRAVEL

ALLIANT ENGINEERING
 733 Marquette Ave, Ste 700
 Minneapolis, MN 55402
 612.758.3080 MAIN
 612.758.3099 FAX
 www.alliant-inc.com

THE GATEWAY
 GRANT, MINNESOTA

ALTA/NSPS LAND TITLE SURVEY

DRAWN BY PG, JDT, DPE
 CHECKED BY DBO
 DATE ISSUED 12/7/18
 SCALE 1"=250'
 JOB NO. 18-0144
 FIELD CREW PG, DA



LEGEND

○ SET CAP IRON MONUMENT 18425	— G — GAS
● FOUND IRON MONUMENT	- - - EDGE OF WETLAND
⊙ CAST IRON MONUMENT	- - - OU — OVERHEAD ELECTRIC
⊗ WATER VALVE	- - - X — FENCE
☒ TELEPHONE BOX	- - - GR — GRAVEL
⊕ SANITARY MANHOLE	- - - CS — CONCRETE SURFACE
⊖ ELECTRIC MANHOLE	- - - GS — GRAVEL SURFACE
⊙ POWER POLE	- - - BS — BITUMINOUS SURFACE
⊙ WELL	- - - DW — DELINEATED WETLAND
⊙ GAS METER	
⊙ TRAFFIC SIGNAL	
⊙ SIGN	
⊙ BOLLARD	
⊙ HAND HOLE	
⊙ FES	
⊙ TITLE EXCEPTION NO.	

0 10 20 40
SCALE IN FEET

0 50 100 200
SCALE IN FEET

ALLIANT ENGINEERING

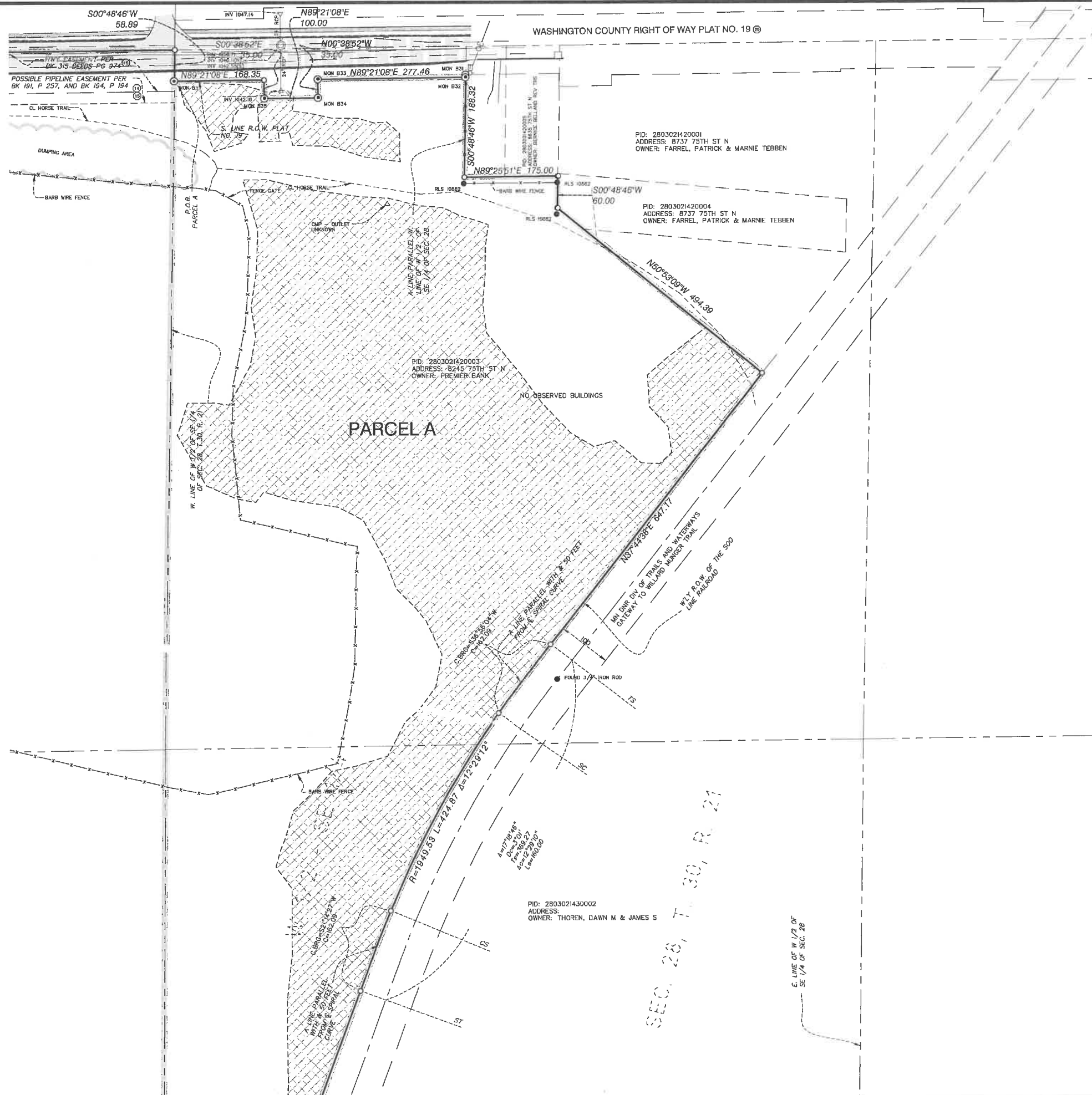
733 Marquette Ave, Ste 700
Minneapolis, MN 55402
612.758.3080 MAIN
612.758.3099 FAX
www.alliant-inc.com

ALTA/NSPS LAND TITLE SURVEY

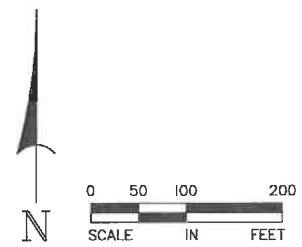
THE GATEWAY

GRANT, MINNESOTA

DRAWN BY	PG, JDT, DPE
CHECKED BY	DBO
DATE ISSUED	12/7/18
SCALE	1"=100'
JOB NO.	18-0144
FIELD CREW	PG, DA



LEGEND			
○	SET CAP IRON MONUMENT 18425	— G —	GAS
●	FOUND IRON MONUMENT	- - -	EDGE OF WETLAND
⊙	CAST IRON MONUMENT	- - - CU - - -	OVERHEAD ELECTRIC
⊗	SANITARY MANHOLE	- - - X - - -	FENCE
▽	SIGN	- - -	GRAVEL
△	FES	- - -	CONCRETE SURFACE
⊕	TITLE EXCEPTION NO.	- - -	GRAVEL SURFACE
		- - -	BITUMINOUS SURFACE
		- - -	DELINEATED WETLAND



ALLIANT
ENGINEERING

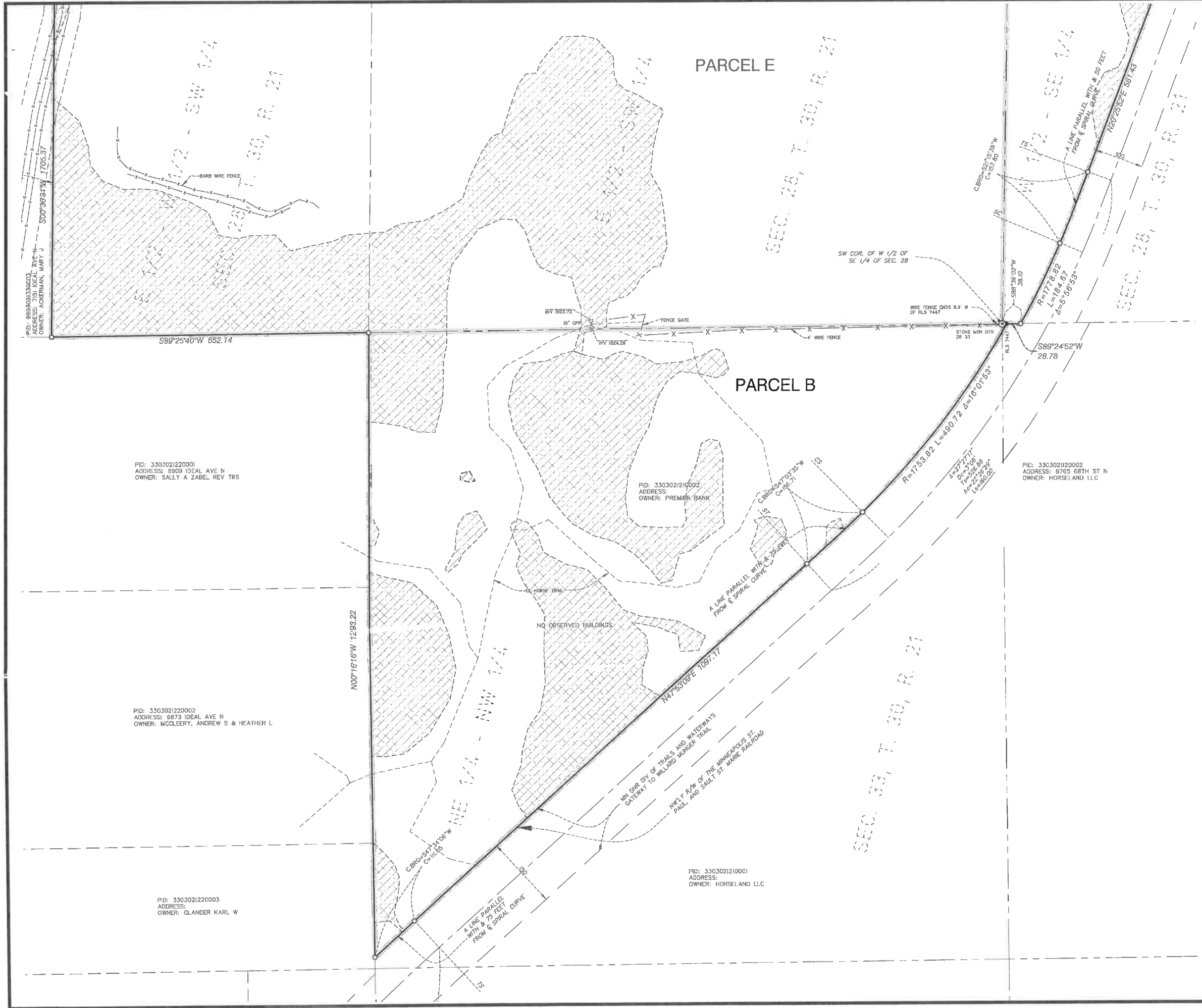
733 Marquette Ave, Ste 700
Minneapolis, MN 55402
612.758.3080 MAIN
612.758.3099 FAX
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ALTA/NSPS LAND TITLE SURVEY

THE GATEWAY

GRANT, MINNESOTA

DRAWN BY	PG, JDT, DPE
CHECKED BY	DBO
DATE ISSUED	12/7/18
SCALE	1"=100'
JOB NO.	18 0144
FIELD CREW	PG, DA



PARCEL E

PARCEL B

PID: 33030210001
ADDRESS:
OWNER: HORSELAND LLC

MIN DRW DIV OF TRAILS AND WATERWAYS
GATEWAY TO MILLARD JUNGER TRAIL

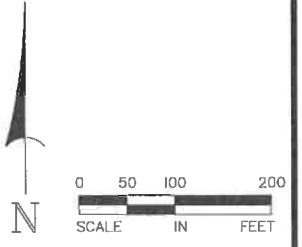
NO OBSERVED BUILDINGS

PID: 330302120001
ADDRESS: 6909 IDEAL AVE N
OWNER: SALLY A ZABEL REV TRS

PID: 330302120002
ADDRESS: 6873 IDEAL AVE N
OWNER: MCCLEERY, ANDREW S & HEATHER L

PID: 330302120003
ADDRESS:
OWNER: GLANDER KARL W

LEGEND			
○	SET CAP IRON MONUMENT 18425	— G —	GAS
●	FOUND IRON MONUMENT	- - -	EDGE OF WETLAND
⊙	CAST IRON MONUMENT	- - -	OVERHEAD ELECTRIC
⊕	SANITARY MANHOLE	- X -	FENCE
⊙	SIGN	- - -	GRAVEL
▽	FES	[Pattern]	CONCRETE SURFACE
▽	TITLE EXCEPTION NO.	[Pattern]	GRAVEL SURFACE
		[Pattern]	BITUMINOUS SURFACE
		[Pattern]	DELINEATED WETLAND



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**ALTA/NSPS
LAND TITLE
SURVEY**

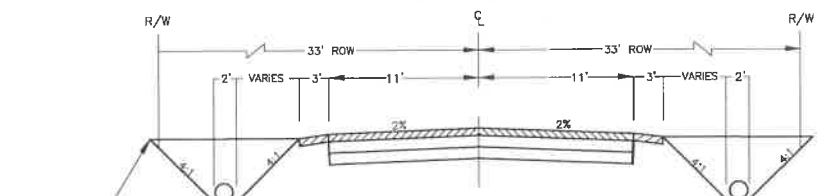
THE GATEWAY

GRANT, MINNESOTA

DRAWN BY	PG, JDT, DPE
CHECKED BY	DBO
DATE ISSUED	12/7/18
SCALE	1"=100'
JOB NO.	18-0144
FIELD CREW	PG, DA

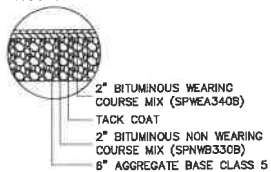
TYPICAL ROAD SECTION

NOT TO SCALE

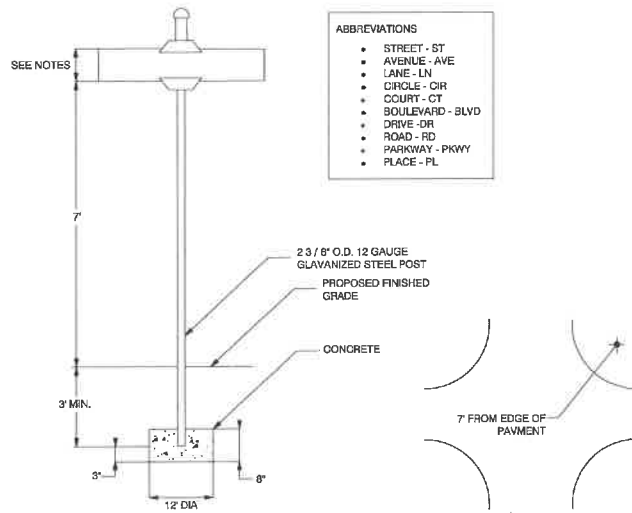


TYPICAL PAVEMENT SECTION

NOT TO SCALE

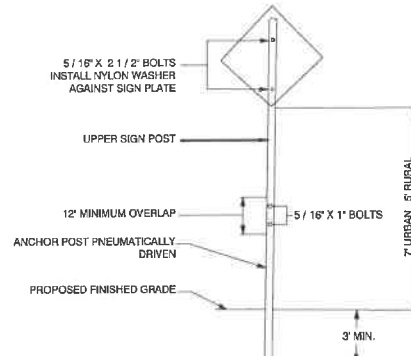


STREET SIGN DETAIL



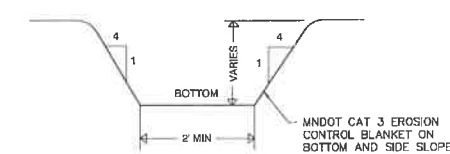
- NOTES:
1. SIGN SIZE-DESIGN A: 6" (40 MPH AND LESS).
 2. BLADE LENGTH SHALL BE NECESSARY.
 3. LETTER SIZE DESIGN A: 6" UPPER CASE; 4" LOWER CASE.
 4. DIAMOND GRADE, WHITE ON MNDOT GREY BACKGROUND FOR PUBLIC STREETS AND WHITE ON MNDOT BROWN BACKGROUND FOR PRIVATE STREETS. SEE CITY SPECIFICATIONS FOR MATERIALS.
 5. STREET NAMES SHALL BE SPELLED COMPLETELY EXCEPT FOR SUFFIXES WHICH MAY BE ABBREVIATED ON LONGER STREET NAMES.
 6. SIGNS SHALL NOT HAVE BORDERS.
 7. SIGN BRACKETS SHALL BE "LYLE SIGNS" NO E-450 OR APPROVED EQUAL.
 8. A SIGN PLAN SHOWING SIGN COLORS, SIZES AND LETTERING MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO SIGN INSTALLATION.
 9. FIRST LETTER OF EACH WORD TO BE "CAPITAL" LETTERS; REMAINING LETTERS OF EACH WORD TO BE LOWER CASE.
 10. VERIFY SIGN REQUIREMENTS WITH CITY SPECIFICATIONS.

SIGN DETAIL

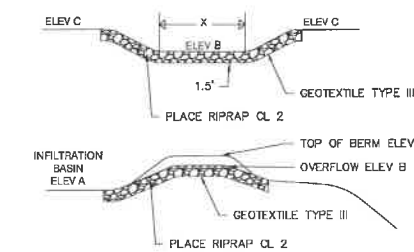


- NOTES:
1. MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH CITY SPECIFICATIONS.
 2. SIGN PANELS - REFLECTIVE SHEETING, VIP DIAMOND GRADE.
 3. BOLTS SHALL BE TAMPER PROOF.
 4. FLANGED CHANNEL SIGN POSTS SHALL BE PAINTED GREEN, 3 LB/LF AND 7' LONG.
 5. SIGNS INSTALLED IN CONCRETE SHALL HAVE AN APPROVED BREAKAWAY DEVICE.
 6. EDGE OF SIGN SHALL BE MINIMUM OF 15" FROM BACK OF CURB.

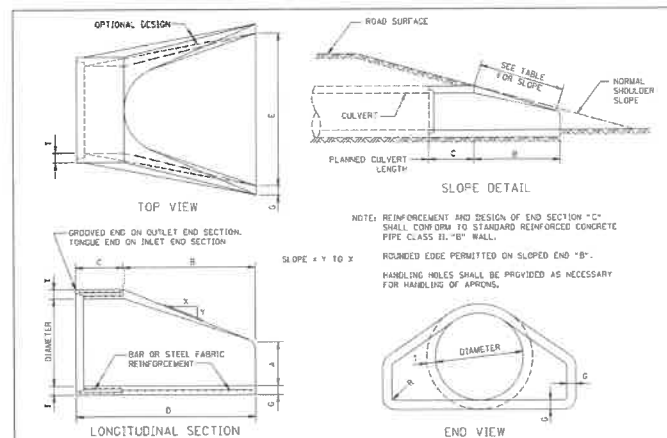
DRAINAGE DITCH



RIP RAP OVERFLOW



BASIN	ELEVATION A	ELEVATION B	ELEVATION C	DISTANCE X	DISTANCE Y
IB 1	1048	1048	1050	6	22
IB 2	1021	1021.60	1024	15	31
IB 3	1038	1038	1040	7	23
IB 4	1037	1037	1040	6	29
IB 5	1043	1043	1044	10	18
IB 6	1037	1037	1038	10	18



SEE STD. PLATE 3000 FOR ADDITIONAL REQUIREMENTS

DIAM.	WEIGHT FOR SECTION (LBS.)	APPROX. SLOPE Y TO X	T	A	B	C	D	E	S	R	⑤	
12"	530	1 TO 2.4	2"	4"	24"	49-7/8"	72-7/8"	24"	2"	1-1/2"	0.07	
15"	740	1 TO 2.4	2-1/2"	5"	27"	46"	73"	30"	2-1/4"	1-1/2"	0.07	
18"	950	1 TO 2.4	2-1/2"	6"	27"	46"	73"	30"	2-1/4"	1-1/2"	0.07	
21"	1260	1 TO 2.4	2-3/4"	6"	36"	37-1/2"	73-7/8"	42"	2-3/4"	1-1/2"	0.07	
24"	1570	1 TO 2.5	3"	8-1/2"	43-1/2"	43-1/2"	80"	73-1/2"	48"	3"	1-1/2"	0.07
27"	1930	1 TO 2.5	3-1/2"	10"	50"	48-1/2"	84"	78-1/2"	54"	3-1/2"	1-1/2"	0.13
30"	2190	1 TO 2.5	4"	12"	54"	49-3/4"	85-3/4"	80"	3-1/2"	1-1/2"	0.14	
36"	3100	1 TO 2.5	4"	15"	63"	54-3/4"	97-3/4"	92"	4"	1-1/2"	0.12	
42"	3360	1 TO 2.5	4-1/2"	15"	63"	55"	98"	92"	4-1/2"	1-1/2"	0.15	
48"	5550	1 TO 2.5	5"	24"	72"	66"	108"	104"	5"	1-1/2"	0.18	
54"	8240	1 TO 2.5	5-1/2"	27"	65"	102-1/4"	108-1/4"	80"	5-1/2"	1-1/2"	0.22	
60"	9150	1 TO 1.9	6"	30"	60"	96"	96"	80"	6"	1-1/2"	0.25	
66"	10710	1 TO 1.7	6-1/2"	30"	72"	99"	102"	80"	6-1/2"	1-1/2"	0.31	
72"	12570	1 TO 1.6	7"	36"	78"	101"	108"	80"	7"	1-1/2"	0.38	
78"	14430	1 TO 1.8	7-1/2"	36"	90"	101"	108"	80"	7-1/2"	1-1/2"	0.40	
84"	18160	1 TO 1.6	8"	36"	90-1/2"	111-1/2"	120"	80"	8"	1-1/2"	0.46	
90"	20980	1 TO 1.5	8-1/2"	42"	97-1/2"	124"	132"	80"	8-1/2"	1-1/2"	0.51	

CONTINUOUS BASIC REINFORCEMENT IN SO. IN. FOR SLOPED END "B" 1 LARGER OF INNER OR OUTER CASE ON STD. PLATE 3000 L. FOR WALL THICKNESSES LESS THAN 4", LOCATE REINFORCEMENT AT THE CENTER OF WALL FOR WALL THICKNESSES 4" AND GREATER, LOCATE REINFORCEMENT WITH A MIN. OF 2" OF COVER MEASURED FROM THE OUTSIDE OF THE WALL.

NOTE: UNLESS SPECIFIED OTHERWISE IN THE PLANS, WHEN AN APRON IS REQUIRED FOR A RUN OF CASSET PIPE STD. PLATE 3000, THE PRODUCER MAY FURNISH EITHER:

1. AN APRON WITH A STD. PLATE 3000 JOINT, OR
2. AN APRON WITH A STD. PLATE 3000 JOINT AND THE END OF THE STD. PLATE 3000 PIPE CONNECTING TO THE APRON PROVIDED WITH A STD. PLATE 3000 JOINT. THIS JOINT IS TO BE SEALED WITH A PREFORMED MASTIC SEALER.

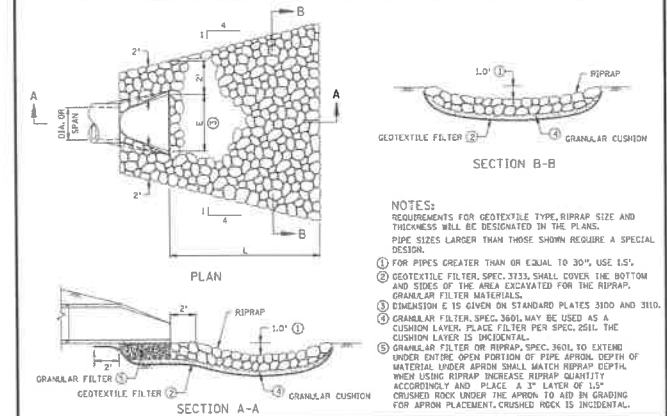
APPROVED **May 8, 1985**
 STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
 CONCRETE APRON FOR REINFORCED CONCRETE PIPE
 SPECIFICATION REFERENCE NO. 2501.2503
 STANDARD PLATE NO. 3100G
 REVISION 10-18-2000 A.A.J.

TABLE OF QUANTITIES
RIPRAP AT RCP OUTLETS

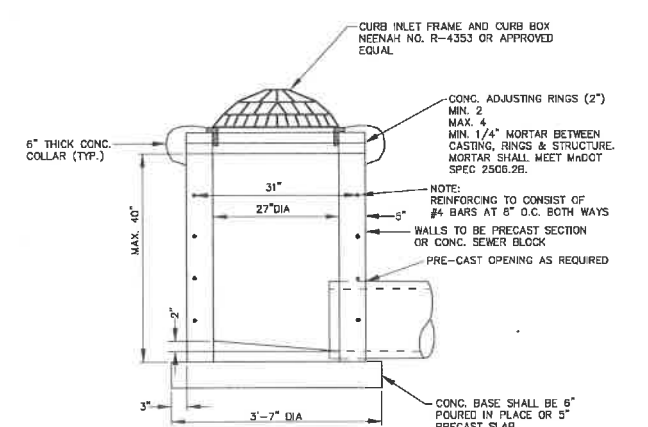
DIA. OF ROUND PIPE (IN.)	L (FT.)	CLASS II d ₅₀ = 6"				CLASS IV d ₅₀ = 12"				
		GRANULAR FILTER UNDER APRON	12" DEPTH TEXTILE FILTER UNDER APRON	18" DEPTH TEXTILE FILTER UNDER APRON	24" DEPTH TEXTILE FILTER UNDER APRON	GRANULAR FILTER UNDER APRON	12" DEPTH TEXTILE FILTER UNDER APRON	18" DEPTH TEXTILE FILTER UNDER APRON	24" DEPTH TEXTILE FILTER UNDER APRON	
12	8	16.9	5.2	3.0	19.6	0.3	4.4	22.6	0.3	5.9
15	8	18.0	0.6	3.2	20.8	0.3	6.4	29.0	0.7	9.4
18	10	22.4	0.3	4.3	25.6	0.4	6.4	30.9	0.7	9.4
21	10	24.1	0.4	4.7	27.4	0.6	7.1	30.9	0.7	9.4
24	12	29.7	0.5	6.2	33.4	0.8	8.2	37.3	1.0	12.3
27	12	31.4	0.6	6.6	35.2	0.9	9.9	39.2	1.2	13.2
30	14	37.4	0.8	8.2	41.2	1.1	11.2	45.8	1.5	16.4
36	16	45.9	1.1	10.6	50.5	1.6	15.8	55.4	2.1	21.1
42	18	52.6	1.2	12.5	57.8	1.7	16.3	63.3	2.3	24.9
48	20	61.4	1.6	14.8	65.5	2.2	22.2	72.0	2.8	28.6

TABLE OF QUANTITIES
RIPRAP AT RCP-A OUTLETS

SPAN OF PIPE (IN.)	L (FT.)	CLASS II d ₅₀ = 6"				CLASS IV d ₅₀ = 12"				
		GRANULAR FILTER UNDER APRON	12" DEPTH TEXTILE FILTER UNDER APRON	18" DEPTH TEXTILE FILTER UNDER APRON	24" DEPTH TEXTILE FILTER UNDER APRON	GRANULAR FILTER UNDER APRON	12" DEPTH TEXTILE FILTER UNDER APRON	18" DEPTH TEXTILE FILTER UNDER APRON	24" DEPTH TEXTILE FILTER UNDER APRON	
24	10	22.4	0.3	4.7	27.4	0.6	7.1	30.9	0.7	9.4
30	14	37.3	0.8	7.5	41.2	1.1	11.2	45.8	1.5	14.9
42	18	45.9	1.1	9.5	50.5	1.6	15.8	55.4	2.1	19.0
51	18	52.5	1.2	11.3	57.5	1.7	16.9	62.7	2.3	22.5
58	20	59.9	1.3	13.2	65.2	1.9	19.8	70.7	2.6	26.4



APPROVED **DECEMBER 9, 2013**
 STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
 RIPRAP AT RCP OUTLETS
 SPECIFICATION REFERENCE NO. 3102, 3103, 3104, 3123
 STANDARD PLATE NO. 3130G



27" DIA CATCHBASIN

ALLIANT ENGINEERING
 733 Marquette Avenue
 Suite 700
 Minneapolis, MN 55402
 612.758.3080
 www.alliant-inc.com

THE GATEWAY
 8255 75TH STREET N
 GRANT, MINNESOTA
CONSTRUCTION DOCUMENTS
DETAILS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

Mark Rausch
 MARK RAUSCH, PE
 1-10-19 43480
 Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE ISSUE

10-11-18 CITY SUBMITTAL
 10-18-18 WATERSHED SUBMITTAL
 12-7-18 BID PACKAGE
 1-10-19 CONSTRUCTION DOCUMENT

PROJECT TEAM DATA

DESIGNED: MPR
 DRAWN: AKA
 PROJECT NO: 218-0144

Drawing name: X:\2018\180144\plan sheets\Construction Documents\180144site.dwg Jan 09 2019 3:12pm



SITE PLAN DATA:

INCLUDED PIN'S: 2803021420003 = PARCEL A
 3303021210002 = PARCEL B
 2803021310003 = PARCEL C
 2803021310002 = PARCEL D
 2803021340001 = PARCEL E

LAND USE AND ZONING:
 EXISTING LAND USE AND ZONING: A-2 AGRICULTURAL SMALL SCALE
 PROPOSED LAND USE AND ZONING: A-2 AGRICULTURAL SMALL SCALE

PROPOSED MINIMUM SINGLE LOT WIDTH PROPOSED AT FRONT SETBACK: 300 FT

PROPOSED SETBACKS:
 C.S.A.H. NO. 12 BUILDING SETBACK: 50 FT
 FRONT/CORNER SETBACK TO PROPOSED RIGHT OF WAY: 65 FT
 SIDE YARD SETBACK: 20 FT
 REAR SETBACK: 50 FT

AREA DATA:
 GROSS AREA 165.12 ACRES
 WETLAND 45.98 ACRES *
 C.S.A.H. 12 ROW DEDICATION 3.45 ACRES
 STREET ROW DEDICATION 4.97 ACRES
 TOTAL LOTS PROPOSED 16
 PROPOSED NEW DWELLING UNITS 16

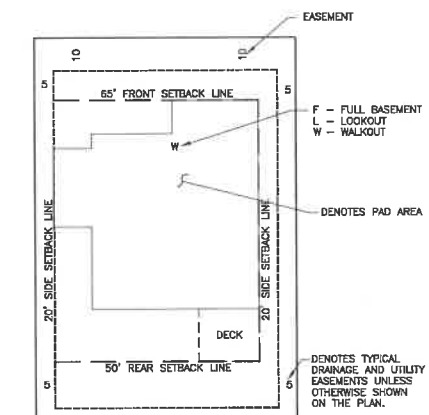
* SEE WETLAND MANAGEMENT PLAN FOR ADDITIONAL WETLAND DATA AND BUFFER CALCULATIONS AND SETBACKS. WETLAND AREA INCLUDES ALL WETLAND AREA, INCLUDING AREA IN DEDICATED C.S.A.H. 12 ROW.

LEGEND:

- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- WETLAND
- RETAINING WALL (BOULDER)
- WETLAND BUFFER
- WETLAND SETBACK * * DECKS ALLOWED TO ENCROACH 6' IN WETLAND BUFFER SETBACK
- WETLAND BUFFER AREA (NON BUILDABLE)
- POTENTIAL WETLAND BUFFER MONUMENT
- ▨ WETLAND AREA (WETLAND AREA)
- ST-1 SEPTIC TANK BORING LOCATION
- BRAUN BORING LOCATION
- BUILDABLE LOT AREA/PUBLIC RIGHT OF WAY
- NON-BUILDABLE AREA LOT AREA
- 25% GREATER SLOPE
- WELL LOCATION

LOT AREA TABLE				
LOT	TOTAL	BUILDABLE*	SHOWN**	DESIGN***
B1-L1	7.23	3.92	8,775	20,000
B1-L2	5.42	3.16	9,959	20,000
B1-L3	5.00	3.20	8,384	20,000
B1-L4	7.59	3.17	11,906	20,000
B1-L5	7.43	1.82	8,456	20,000
B1-L6	5.32	2.23	7,750	20,000
B1-L7	5.64	2.58	8,554	20,000
B1-L8	16.18	5.75	13,288	20,000
B1-L9	23.79	10.99	15,580	20,000
B1-L10	28.34	8.71	10,549	20,000
B2-L1	16.01	2.27	6,714	20,000
B2-L2	6.94	1.88	7,363	20,000
B2-L3	5.41	2.00	7,261	20,000
B2-L4	5.32	2.54	8,059	20,000
B2-L5	5.17	2.94	9,753	20,000
B2-L6	5.54	4.03	9,418	20,000

NOTES
 * MINIMUM BUILDABLE AREA IS 1 AC.
 ** REFLECTS CURRENT PAD AND DRIVEWAY SHOWN IN PROPOSED SITE PLAN.
 *** MAXIMUM IMPERVIOUS LOT COVERAGE USED FOR STORMWATER MANAGEMENT DESIGN. IF DESIGN IMPERVIOUS IS EXCEEDED, ADDITIONAL STORMWATER MANAGEMENT MAY BE REQUIRED.



TYPICAL LOT DETAIL
 NOT TO SCALE

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THE GATEWAY
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CONSTRUCTION DOCUMENTS
SITE PLAN

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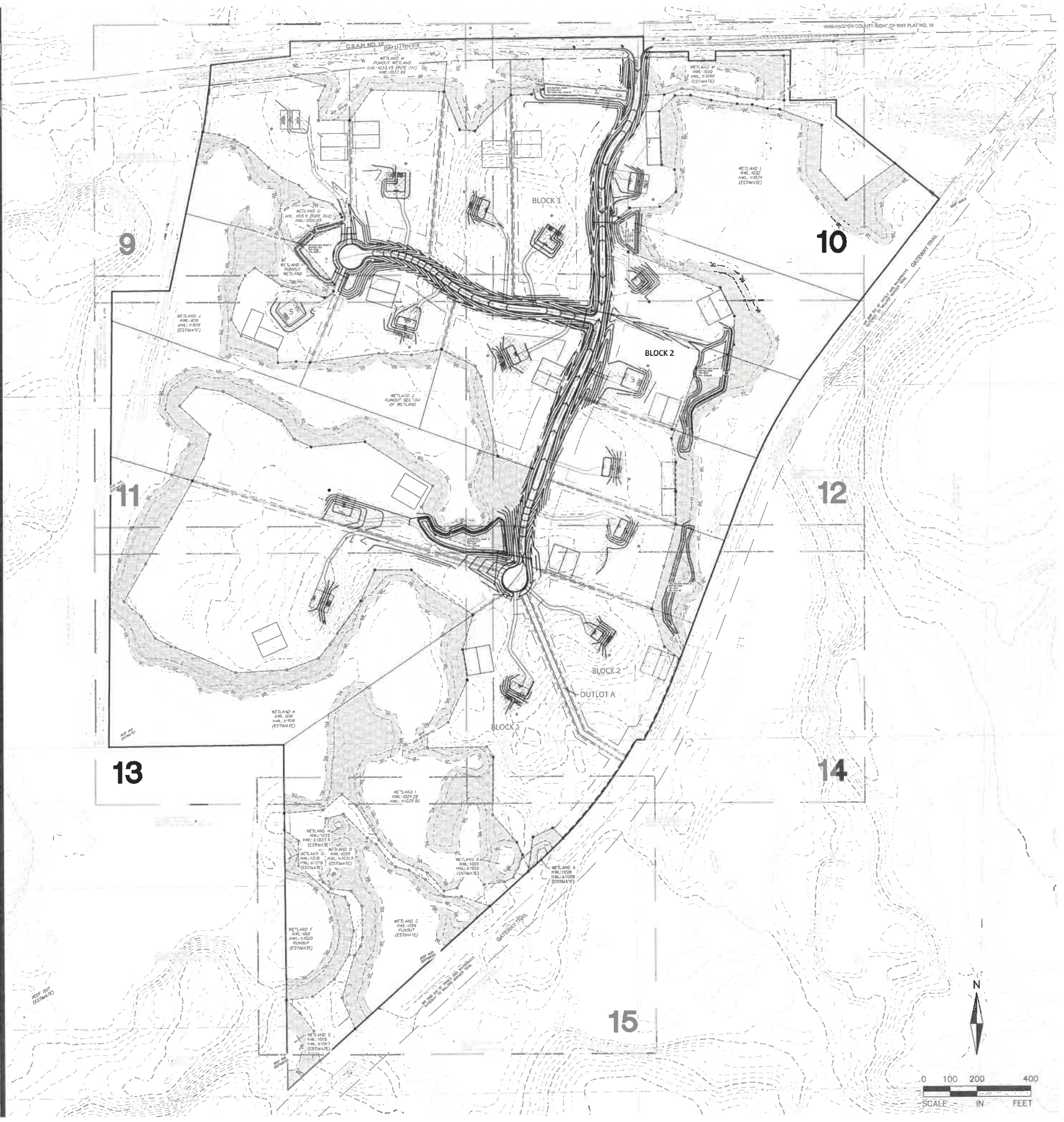
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 MARK RAUSCH, PE
 1-10-19 43480
 Date License No.

QUALITY ASSURANCE/CONTROL

BY	DATE
DATE	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA
 DESIGNED: MPR
 DRAWN: AKA
 PROJECT NO: 218-0144

Drawing name: X:\2018\180144\plan sheets\Construction Documents\180144.dwg Jan 09 2019 3:25am



GRADING AND DRAINAGE NOTES:

1. ALL FINISHED GRADES SHALL SLOPE AWAY FROM PROPOSED BUILDINGS AT MINIMUM GRADE OF 2.0%. ALL SWALES SHALL HAVE A MINIMUM SLOPE OF 2.0%.
2. 72 HOUR NOTICE SHALL BE PROVIDED TO THE VBWD PRIOR TO WORK COMMENCING. 48 HOUR NOTICE SHALL BE PROVIDED TO THE CITY ENGINEER PRIOR TO WORK COMMENCING.
3. THE CONTRACTOR SHALL KEEP THE ADJACENT ROADWAYS FREE OF DEBRIS AND PREVENT THE OFF-SITE TRACKING OF SOIL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND WATERSHED.
4. NOTIFY GOPHER STATE ONE CALL, AT (800) 252-1166, 48 HOURS PRIOR TO START OF CONSTRUCTION.
5. ALL IMPROVEMENTS TO CONFORM WITH CITY OF GRANT CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
6. ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
7. REFER TO GEOTECHNICAL REPORT AND PROJECT MANUAL, FOR SOIL CORRECTION REQUIREMENTS AND TESTING REQUIREMENTS.
8. STRIP TOPSOIL PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE. STOCKPILE PERIMETERS MUST BE PROTECTED WITH SILT FENCE.
9. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
10. IMMEDIATELY FOLLOWING GRADING OF (3:1 OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 6" TOPSOIL.
11. THE GENERAL CONTRACTOR MUST DISCUSS DEWATERING PLANS WITH ALL SUBCONTRACTORS TO VERIFY NPDES REQUIREMENTS. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, CONTRACTOR SHOULD CONSULT WITH EROSION CONTROL INSPECTOR AND ENGINEER TO DETERMINE APPROPRIATE METHOD.
12. REFER TO STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ALL EROSION AND SEDIMENT CONTROL DEVICE LOCATION, DESCRIPTIONS, NOTES AND DETAILS INCLUDING CONCRETE WASHOUT STATION INSTRUCTIONS.
13. WETLAND BUFFER MONUMENT SIGNS SHALL BE INSTALLED AT EACH POINT WHERE A LOT LINE INTERSECTS WITH THE WETLAND BUFFER, SEE DETAILS FOR SIGN TYPE.
14. BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
15. HOME BUILDERS FOR INDIVIDUAL LOTS ARE RESPONSIBLE FOR MAINTAINING DITCH FLOW. CULVERT PIPES TO BE PLACED UNDER DRIVEWAYS TO MAINTAIN PROPER DRAINAGE.

BUILDING PADS GRADING NOTES:

1. PAD ELEVATIONS ARE FLEXIBLE - OPTIONAL GRADING IS SHOWN. PRIOR TO CONSTRUCTION OF ANY HOME, ALL PLANNED HOME LOCATIONS MUST BE SUBMITTED TO THE VBWD ENGINEER. LOW FLOOR ELEVATIONS MUST REMAIN A MINIMUM OF 2' ABOVE DOWNSTREAM EOF'S.

ESTIMATED EOF'S
-WEST (ESTIMATE) - 917 EOF ALLOWS FOR A 920 LFE
-EAST (ESTIMATE) - 1034 EOF ALLOWS FOR A 937 LFE
2. LOTS B1-L5 AND B1-L8 NEED TO BE POSITIONED SO THE EAST INFILTRATION BASINS ARE NOT SETTING THE MINIMUM FLOOR.

SEE SHEETS 16-20 FOR INFILTRATION BASIN NOTES

SEE SHEET 26 FOR CONSTRUCTION SEQUENCING

DEVELOPER:

THE EXCELSIOR GROUP
1660 HIGHWAY 100 S. SUITE 400
ST. LOUIS PARK, MN 55416

GRADING LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- RETAINING WALL
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- PROPOSED EASEMENT
- PROPERTY LINE
- SETBACK LINE
- LOT LINE
- RIGHT-OF-WAY
- TREE PROTECTION LIMITS
- WETLAND
- EMERGENCY OVERFLOW ROUTING
- EMERGENCY OVERFLOW ELEVATION
- DRAINAGE DIRECTION ARROW
- PROPOSED SILT FENCE (PRE GRADING)
- ROCK CONSTRUCTION ENTRANCE
- BRAUN BORING LOCATION
- SEPTIC TANK BORING LOCATION

FRONT OF PAD: GARAGE FLOOR ELEVATION (854)
ADDITIONAL REQUIRED STEPS BEYOND (1) TYP STEP ASSUMED = 0.67'
HOUSE TYPE (LO)
REAR OF PAD: LOWEST FLOOR ELEVATION (LOW OPENING FOR W/O) (945)
REAR ELEVATION (LOW OPENING FOR LO AND FB) (945.1)

FLEXIBLE PAD GRADING



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 GRADING AND DRAINAGE PLAN

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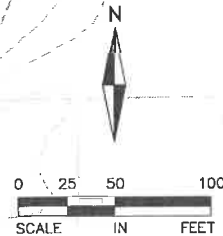
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PROJECT NO: 218-0144

8

SHEET 8 of 35



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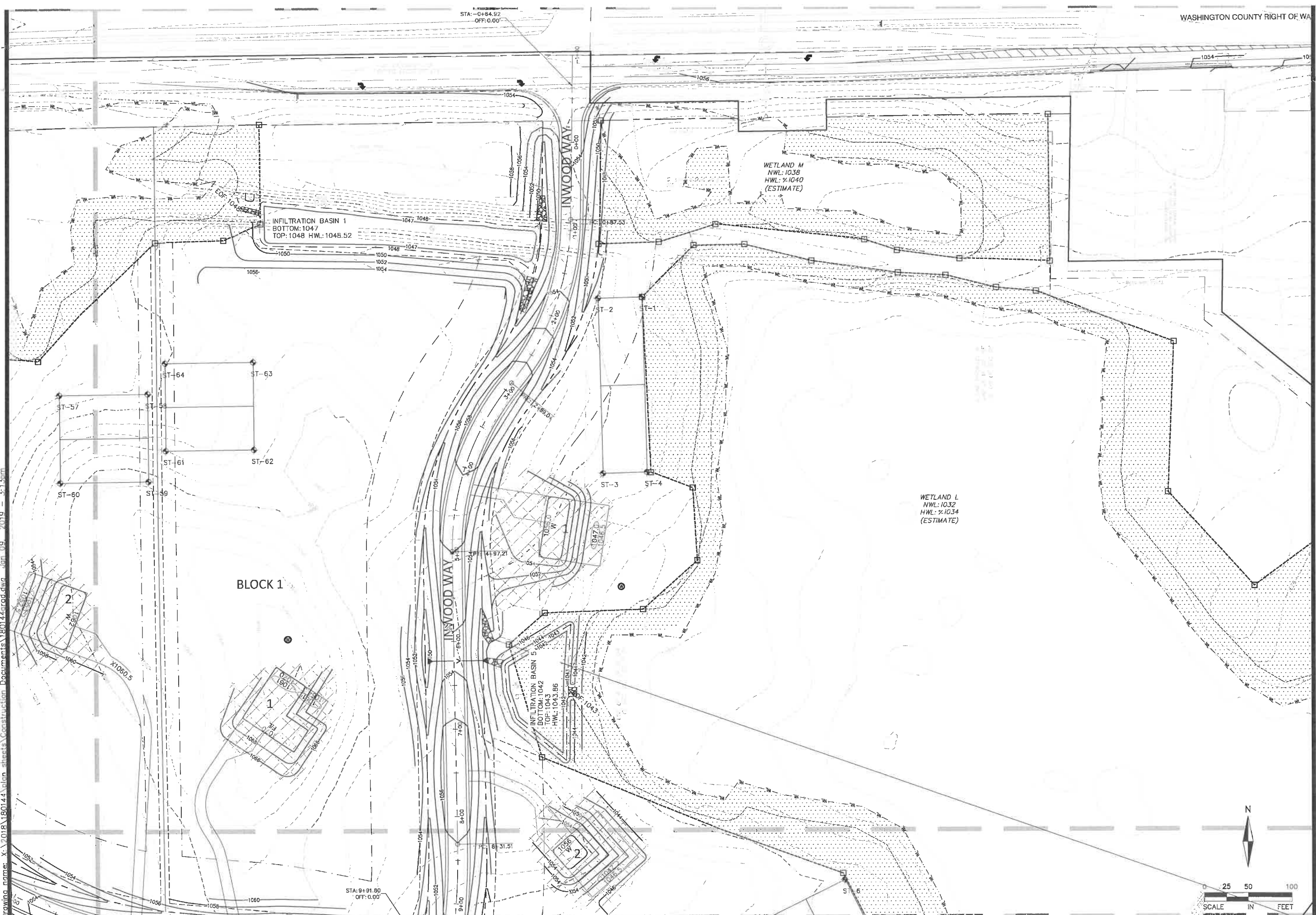
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WASHINGTON COUNTY RIGHT OF WA



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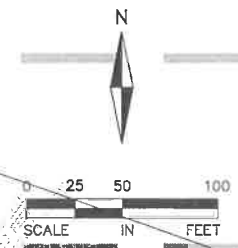
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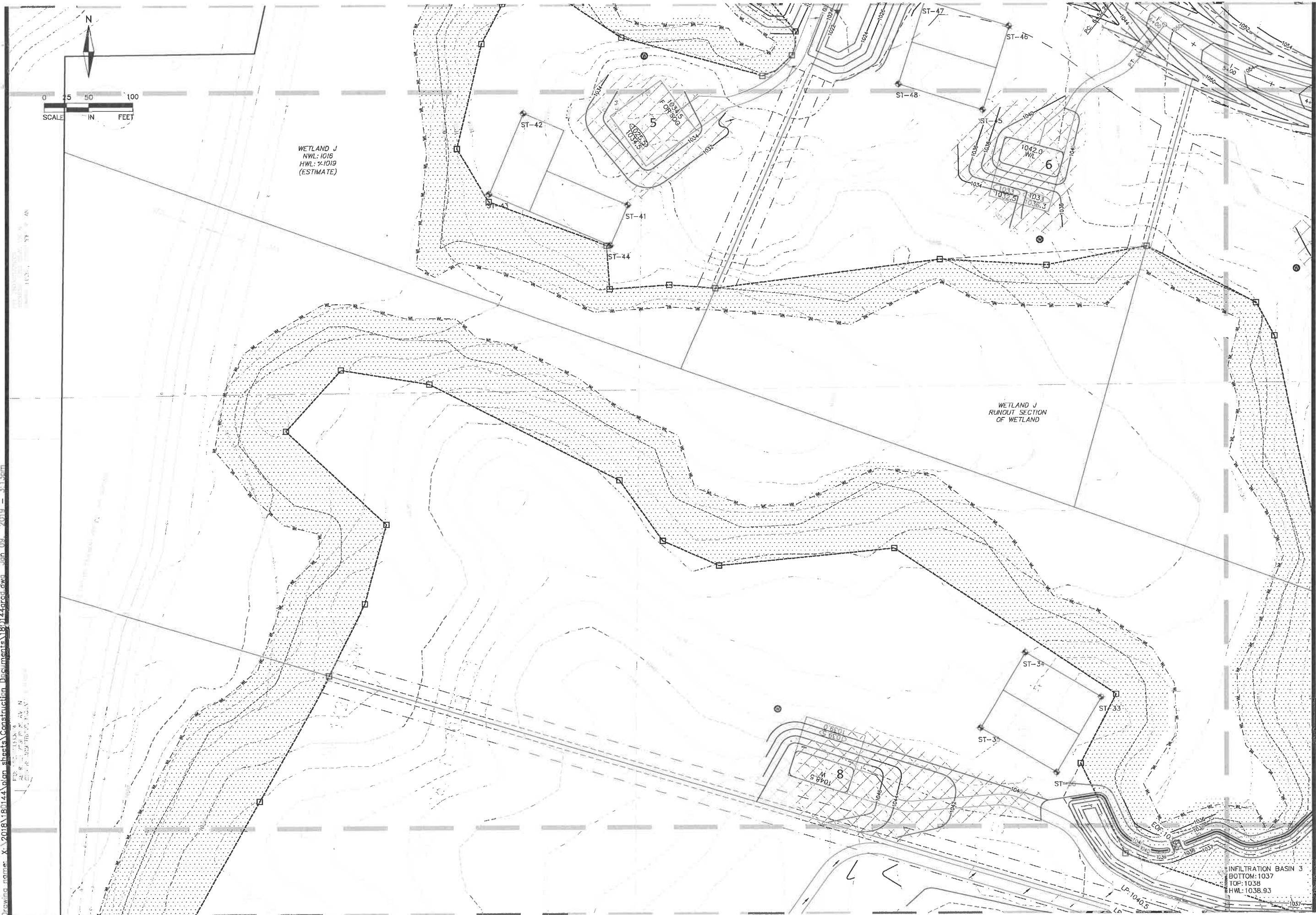
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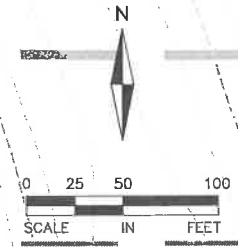
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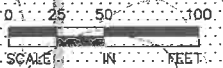
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INFILTRATION BASIN 3
 BOTTOM: 1037
 TOP: 1038
 HWL: 1038.93

WETLAND K
 NWL: 1016
 HWL: 2:1019
 (ESTIMATE)

WETLAND I
 NWL: 1024.26
 HWL: 2:1025.86



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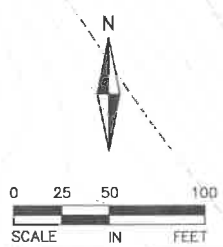
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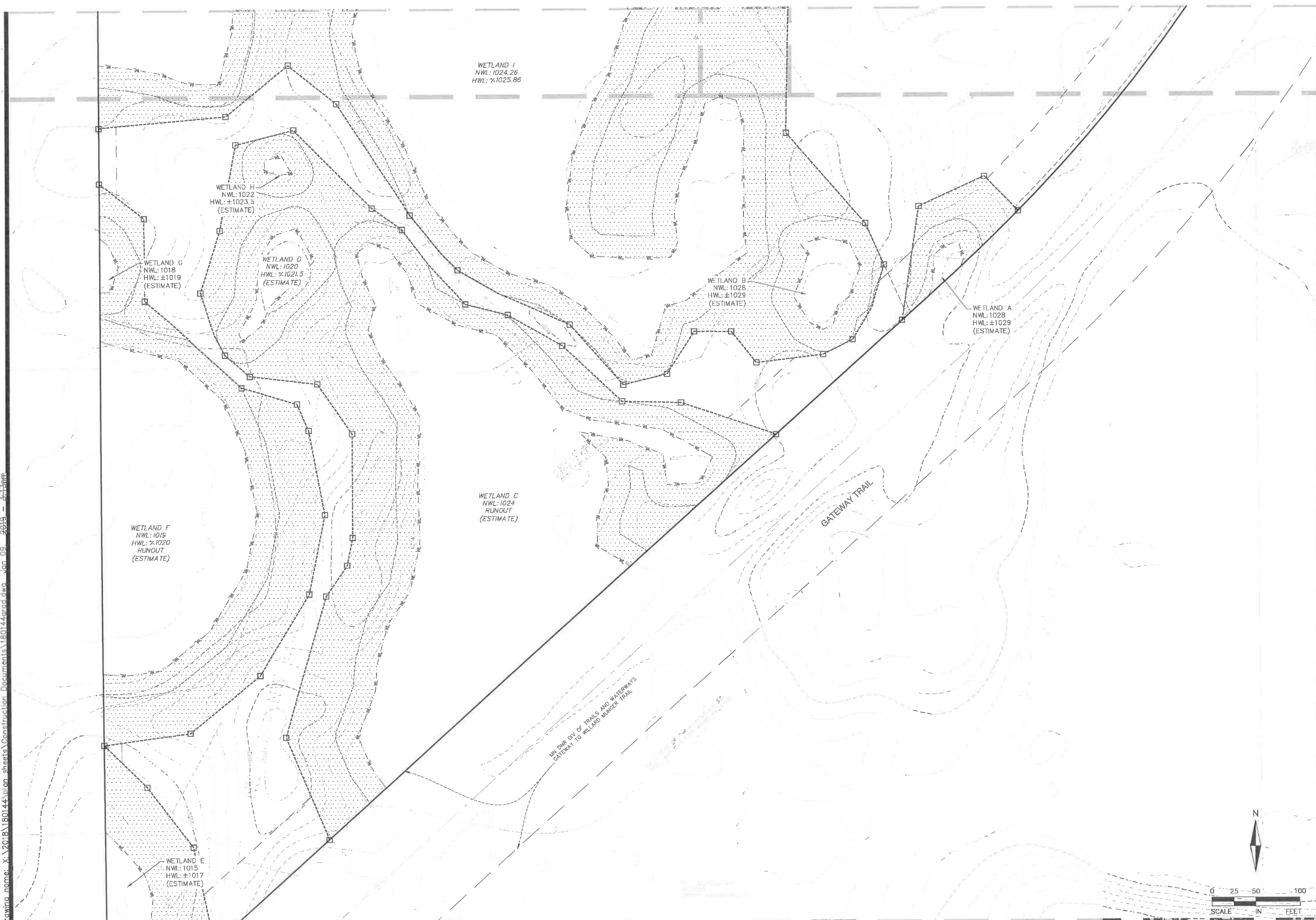
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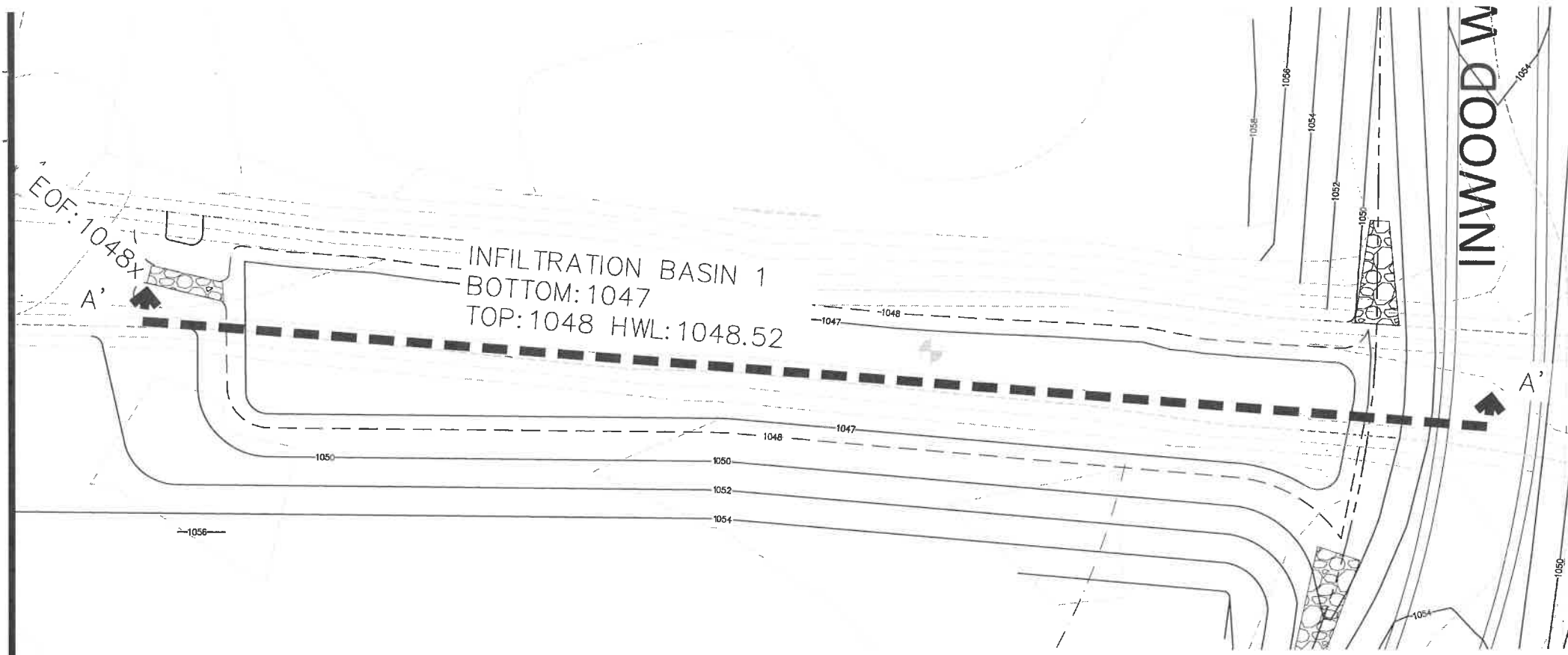
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SHEET 15 of 35



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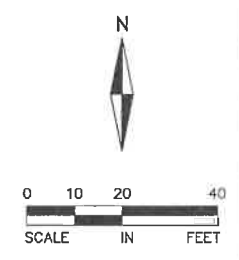


INFILTRATION BASIN NOTES:

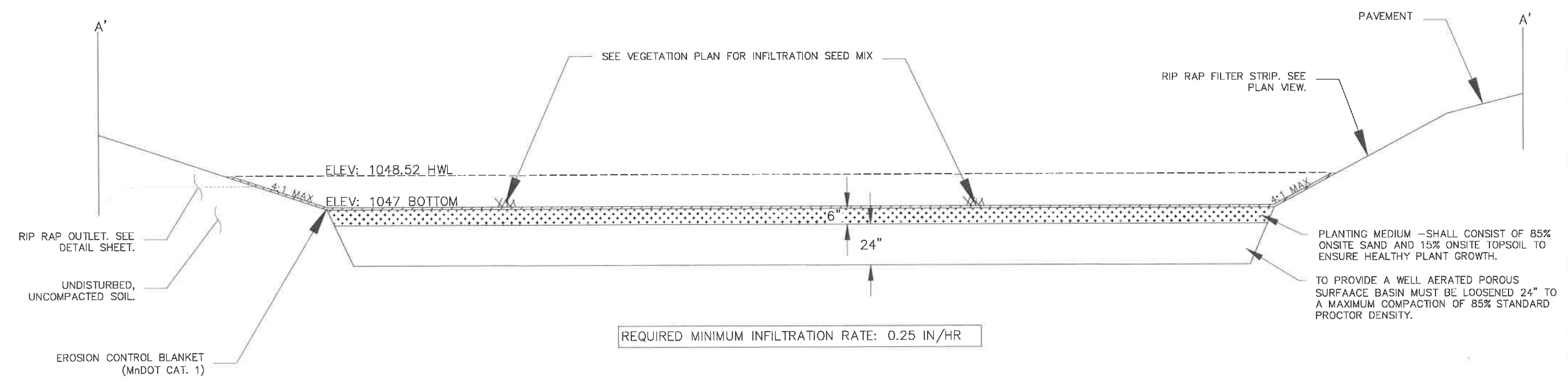
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2. ALL STORMWATER RUNOFF SHALL BE DIVERTED AWAY FROM INFILTRATION AREA TO TEMPORARY SEDIMENT TRAP UNTIL BASIN IS COMPLETELY GRADED AND PLANTED.
3. CONSTRUCTION OF BASIN SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR COMPACTION.
4. COMPACTION AND SMEARING OF THE SOILS BENEATH THE FLOOR AND SIDE SLOPES OF THE INFILTRATION BASIN AREA, SHALL BE MINIMIZED. DURING SITE DEVELOPMENT, THE AREA DEDICATED TO THE INFILTRATION BASIN SHALL BE CORDED OFF TO PREVENT ACCESS BY HEAVY EQUIPMENT. ACCEPTABLE EQUIPMENT FOR CONSTRUCTING THE BASIN INCLUDES EXCAVATION HOES, LIGHT EQUIPMENT WITH TURF TYPE TIRES, MARSH EQUIPMENT OR WIDE TRACK LOADERS.
5. THE INFILTRATION FACILITY SHALL NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED. THE FINAL PHASE OF EXCAVATION SHALL REMOVE ALL ACCUMULATED SEDIMENT AND BE DONE BY LIGHT, TRACKED EQUIPMENT TO AVOID COMPACTION OF THE BASIN FLOOR.
5. IF COMPACTION OCCURS AT THE BASE OF THE BASIN, THE SOIL SHALL BE REFRACTURED TO A DEPTH AT LEAST 36". IF SMEARING OCCURS, THE SMEARED AREAS OF THE INTERFACE SHALL BE CORRECTED BY RAKING OR ROTO-TILLING.
6. CONTRACTOR TO DIG TEST PITS DURING TIME OF CONSTRUCTION TO ENSURE PROPER INFILTRATION RATE IS BEING MET.

NOTES:

1. SEE DETAIL SHEET 6 FOR RIP RAP OVERFLOW DETAIL



INFILTRATION BASIN 1 SECTION A-A' (N.T.S)



REQUIRED MINIMUM INFILTRATION RATE: 0.25 IN/HR

BASIN	FINISHED GRADE	SUBCUT
1	1047	N/A

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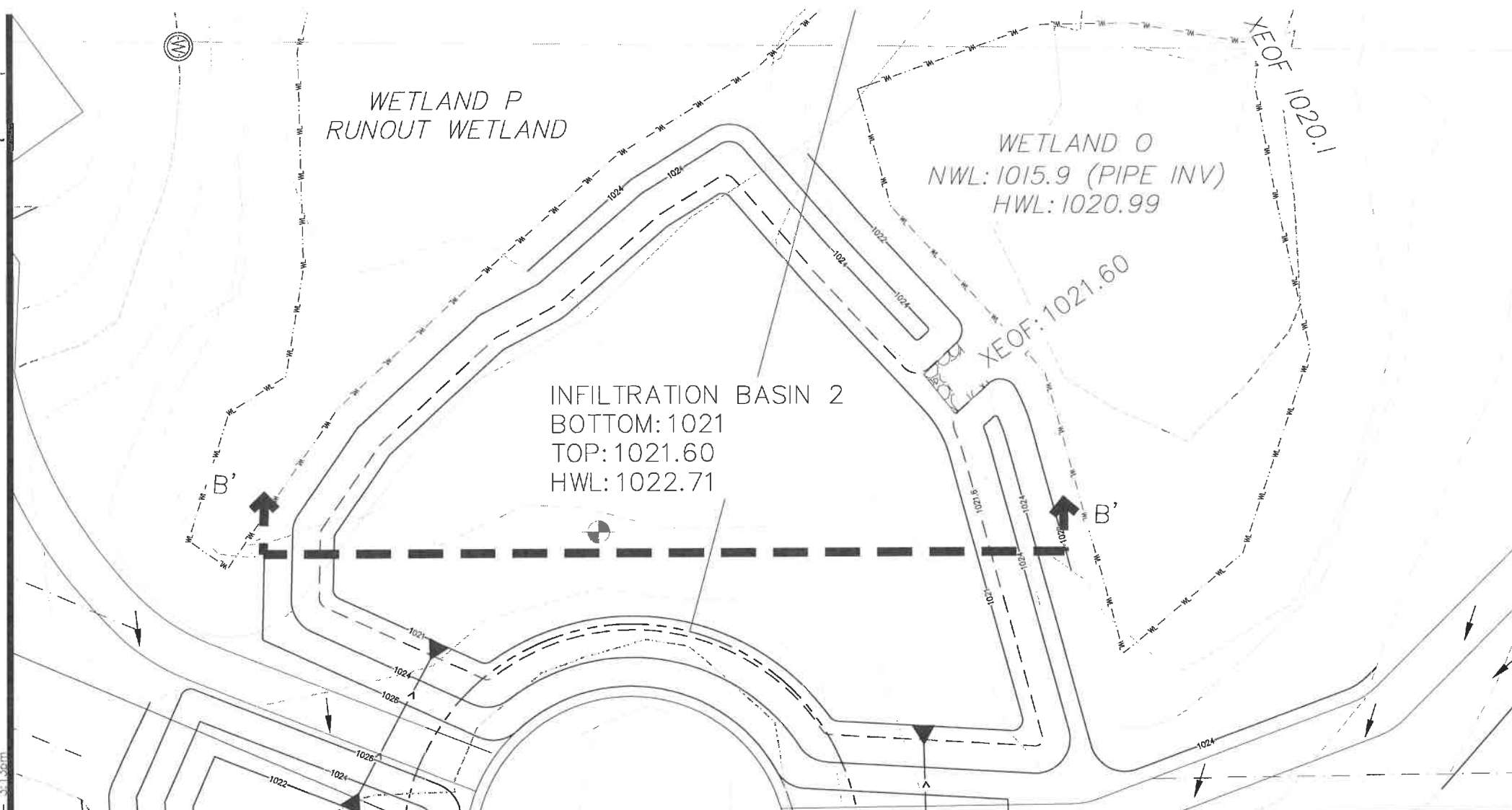
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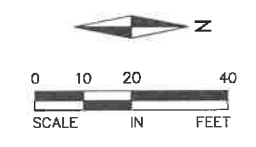


INFILTRATION BASIN NOTES:

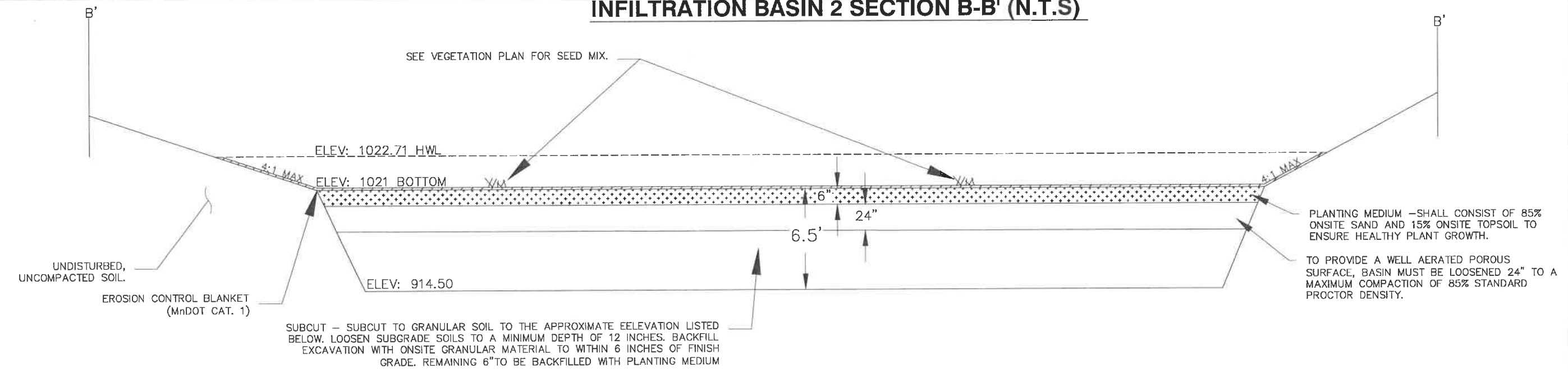
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NOTES:

1. SEE DETAIL SHEET 6 FOR RIP RAP OVERFLOW DETAIL



INFILTRATION BASIN 2 SECTION B-B' (N.T.S)



PLANTING MEDIUM -SHALL CONSIST OF 85% ONSITE SAND AND 15% ONSITE TOPSOIL TO ENSURE HEALTHY PLANT GROWTH.

TO PROVIDE A WELL AERATED POROUS SURFACE, BASIN MUST BE LOOSENEED 24" TO A MAXIMUM COMPACTION OF 85% STANDARD PROCTOR DENSITY.

SUBCUT - SUBCUT TO GRANULAR SOIL TO THE APPROXIMATE ELEVATION LISTED BELOW. LOOSEN SUBGRADE SOILS TO A MINIMUM DEPTH OF 12 INCHES. BACKFILL EXCAVATION WITH ONSITE GRANULAR MATERIAL TO WITHIN 6 INCHES OF FINISH GRADE. REMAINING 6" TO BE BACKFILLED WITH PLANTING MEDIUM

REQUIRED MINIMUM INFILTRATION RATE: 0.25 IN/HR

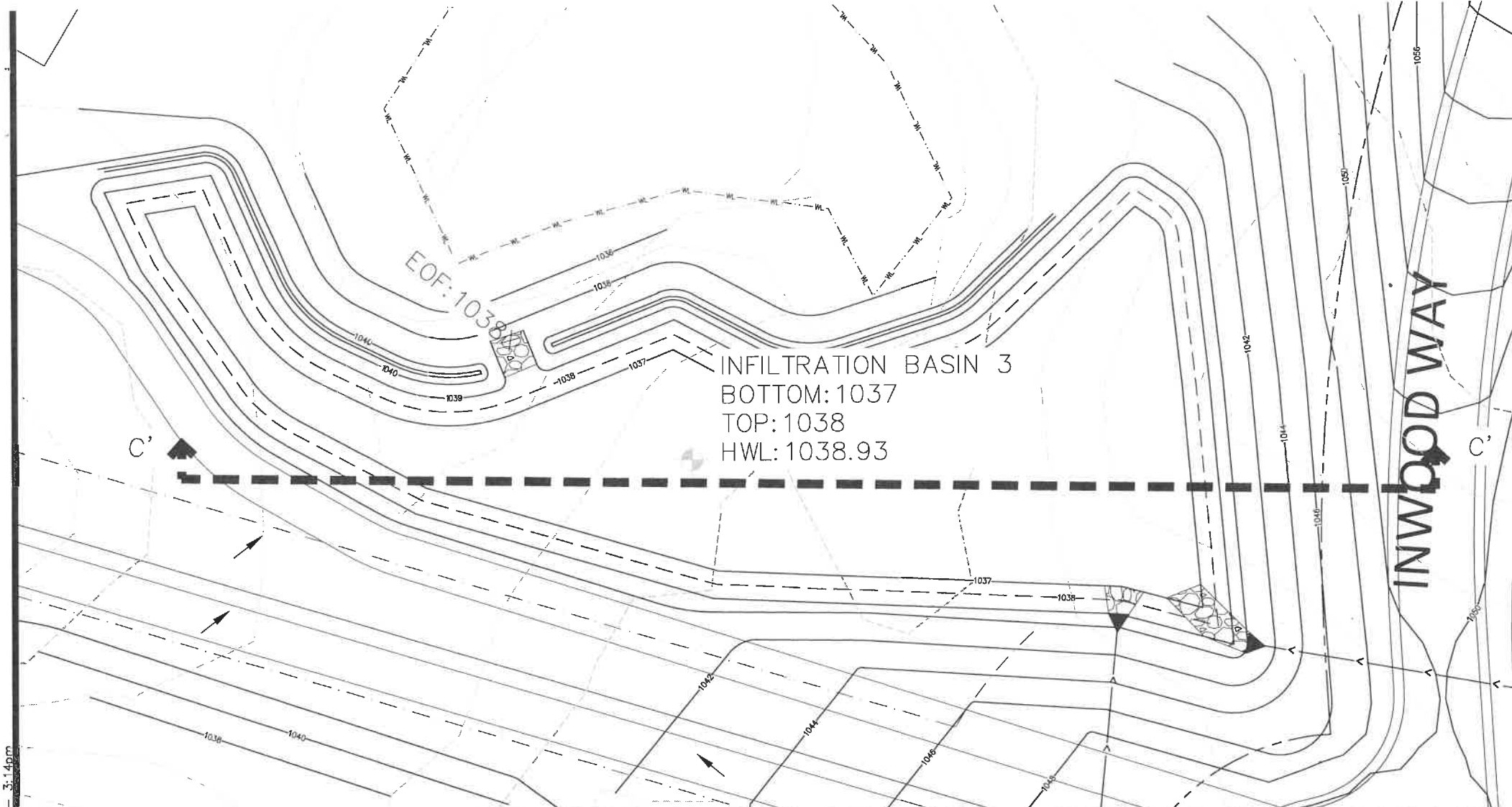
BASIN	FINISHED GRADE	SUBCUT ELEVATION
2	1021	914.5 + 12 INCHES OF LOOSENING

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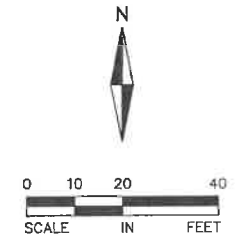


INFILTRATION BASIN NOTES:

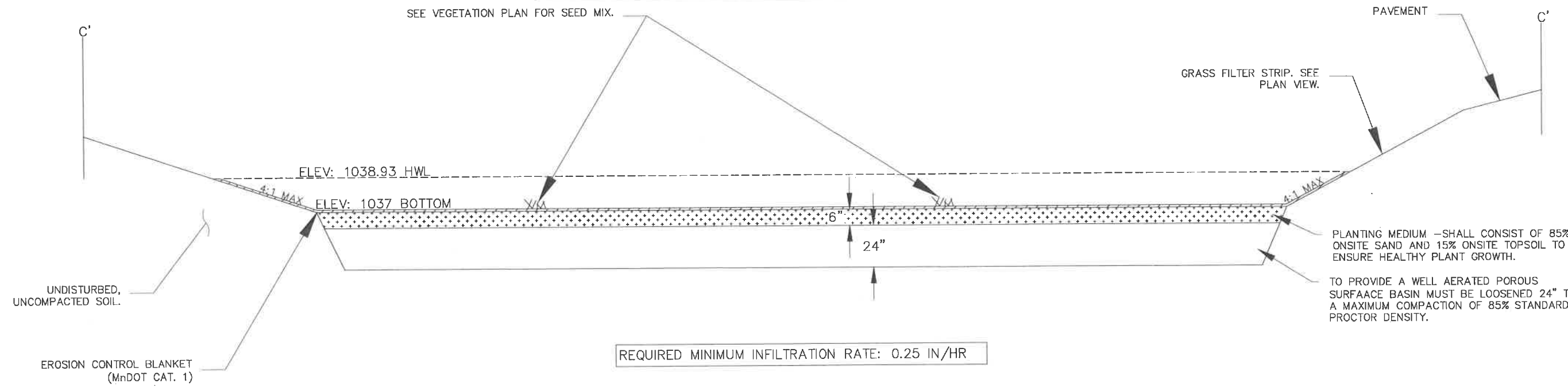
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2. ALL STORMWATER RUNOFF SHALL BE DIVERTED AWAY FROM INFILTRATION AREA TO TEMPORARY SEDIMENT TRAP UNTIL BASIN IS COMPLETELY GRADED AND PLANTED.
3. CONSTRUCTION OF BASIN SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR COMPACTION.
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6. CONTRACTOR TO DIG TEST PITS DURING TIME OF CONSTRUCTION TO ENSURE PROPER INFILTRATION RATE IS BEING MET.

NOTES:

1. SEE DETAIL SHEET 6 FOR RIP RAP OVERFLOW DETAIL



INFILTRATION BASIN 3 SECTION C-C' (N.T.S)



BASIN	FINISHED GRADE	SUBCUT ELEVATION
3	1037	N/A

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1-10-19 4348D
Date License No

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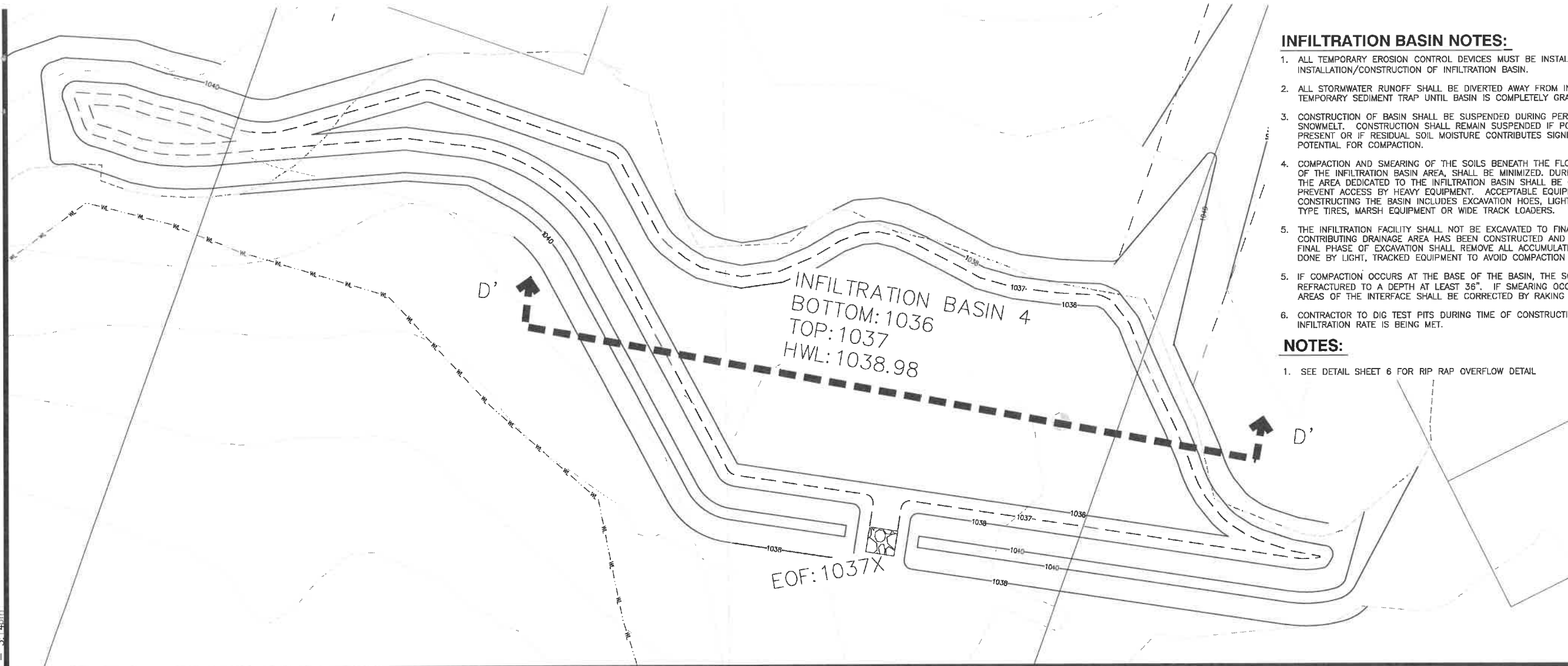
BY	DATE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	AKA
PROJECT NO:	218-0144

Drawing name: X:\2018\180144\plan_streets\Construction_Documents\180144\ib.dwg Jan 09 2019 3:14pm

Drawing name: x:\2018\180144\plan_sheets\Construction Documents\180144h.dwg Jan 09 2019 3:14pm



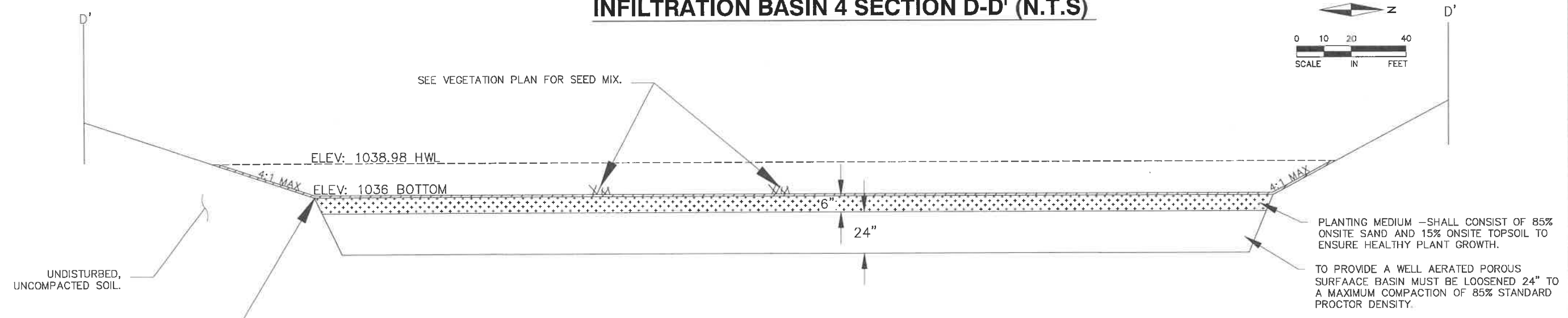
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6. CONTRACTOR TO DIG TEST PITS DURING TIME OF CONSTRUCTION TO ENSURE PROPER INFILTRATION RATE IS BEING MET.

NOTES:

1. SEE DETAIL SHEET 6 FOR RIP RAP OVERFLOW DETAIL

INFILTRATION BASIN 4 SECTION D-D' (N.T.S)



BASIN	FINISHED GRADE	SUBCUT ELEVATION
4	1036	N/A

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CONSTRUCTION DOCUMENTS
INFILTRATION BASIN 4 SECTION

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 1-10-19 43480
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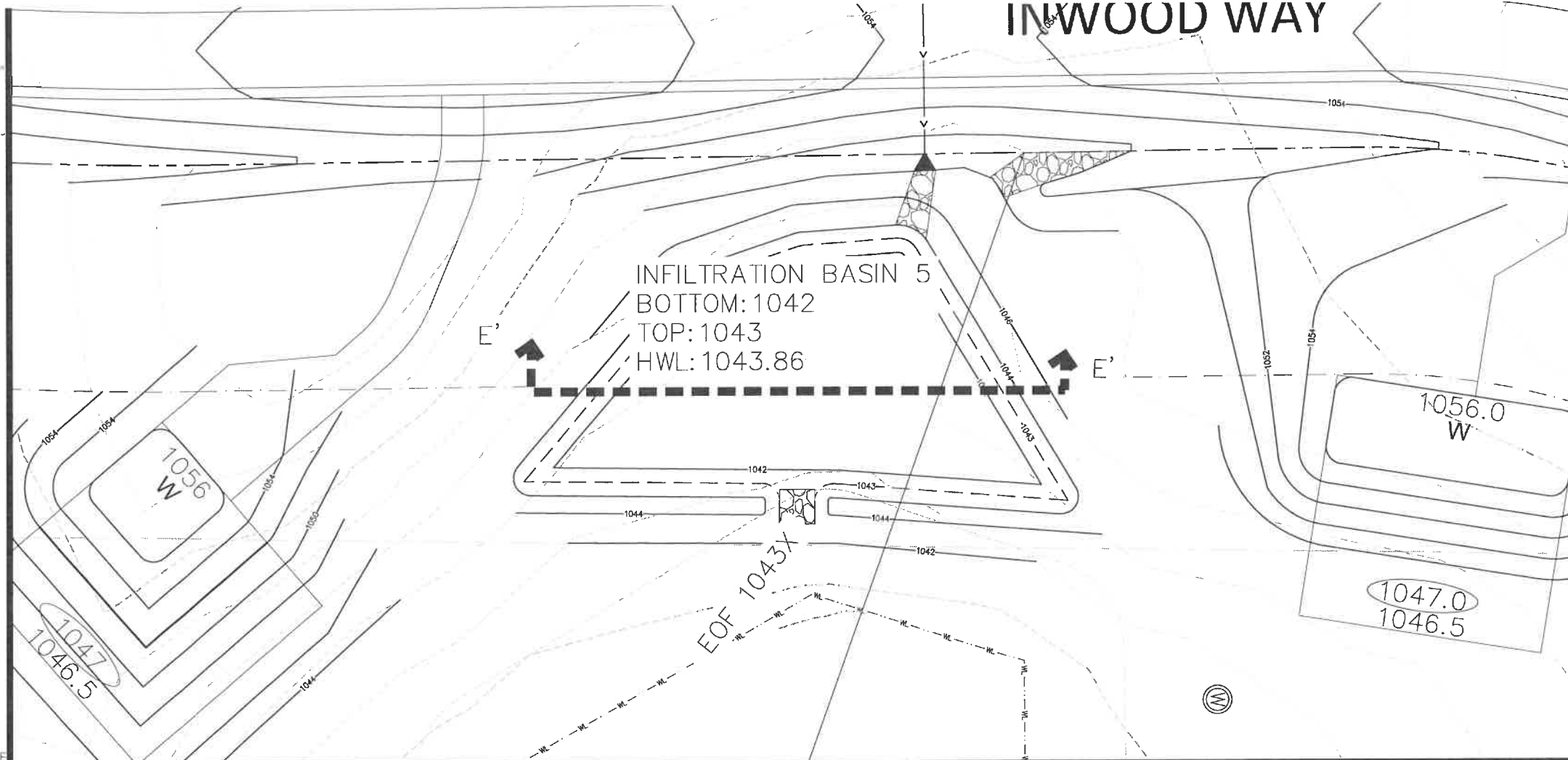
QUALITY ASSURANCE/CONTROL

BY	DATE
DATE	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	AKA
PROJECT NO:	218-0144

INWOOD WAY

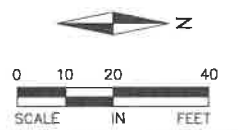


INFILTRATION BASIN NOTES:

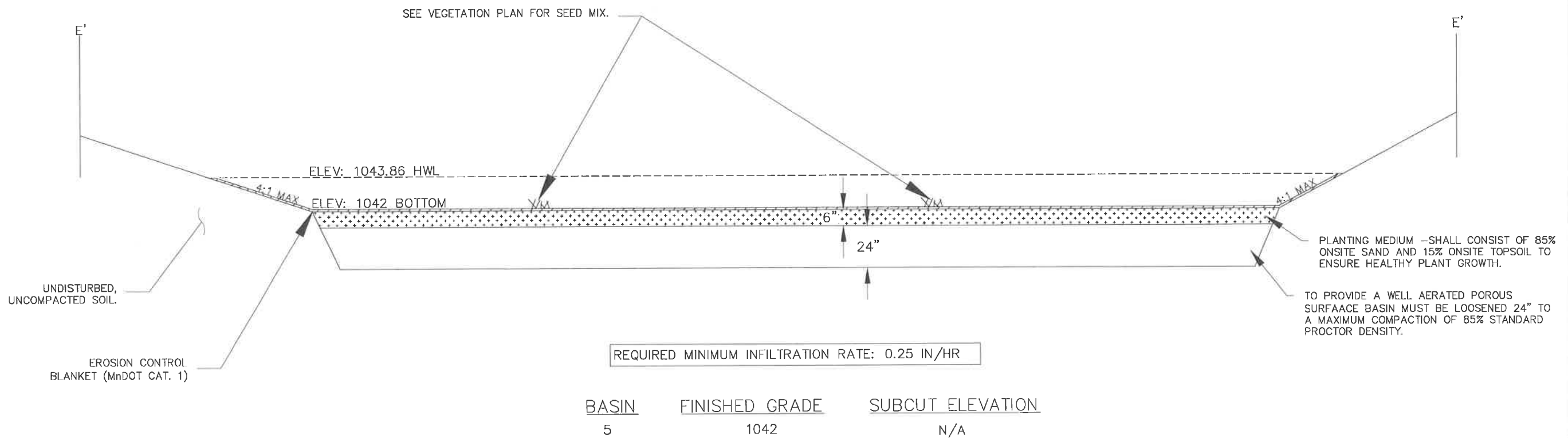
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NOTES:

1. SEE DETAIL SHEET 6 FOR RIP RAP OVERFLOW DETAIL



INFILTRATION BASIN 5 SECTION E-E' (N.T.S)



REQUIRED MINIMUM INFILTRATION RATE: 0.25 IN/HR

BASIN	FINISHED GRADE	SUBCUT ELEVATION
5	1042	N/A

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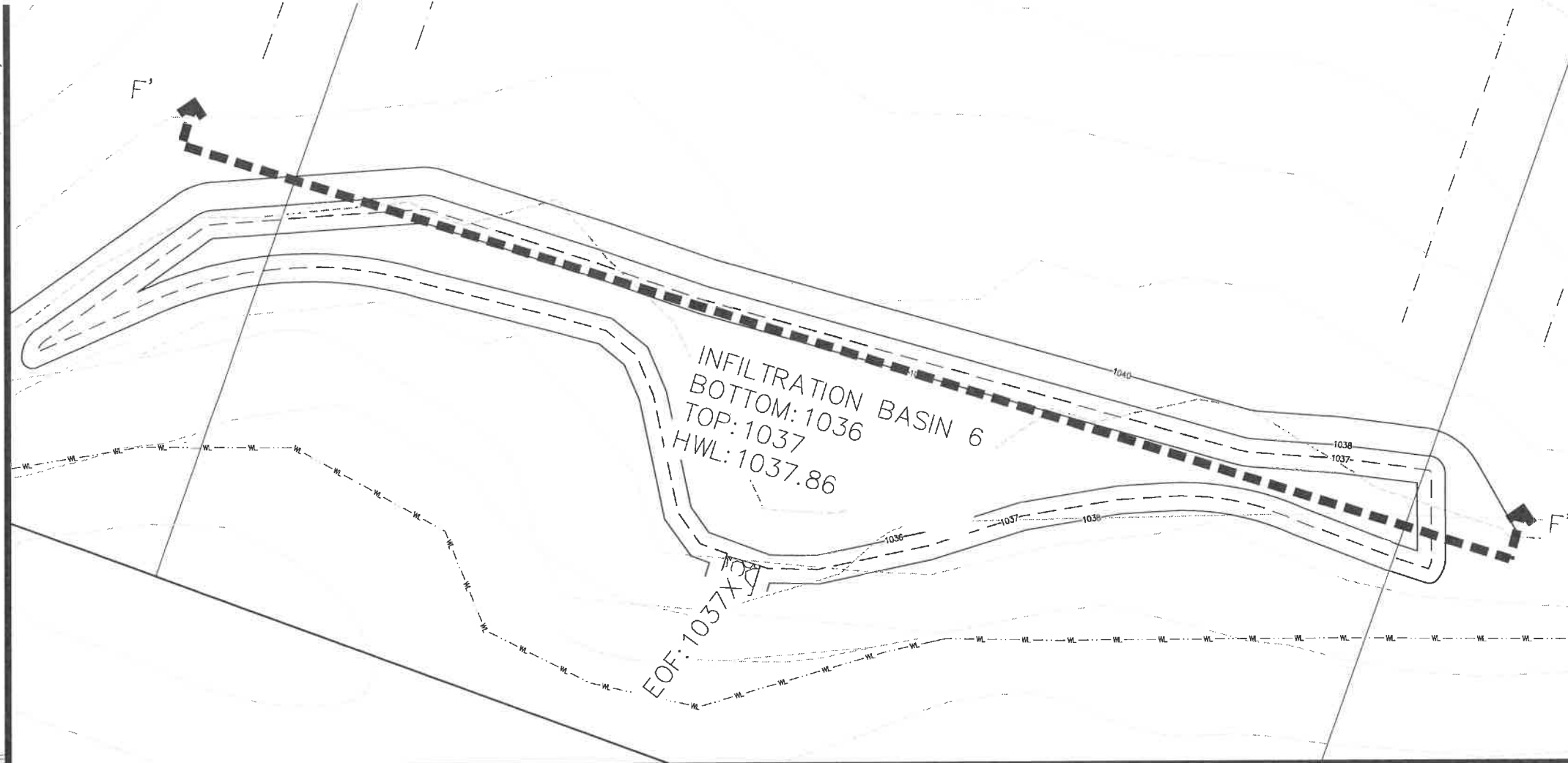
Mark Rausch
MARK RAUSCH, PE
1-10-19 43480
Date License No

QUALITY ASSURANCE/CONTROL

BY	DATE
DATE <td>ISSUE</td>	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA
DESIGNED: NPR
DRAWN: AKA
PROJECT NO: 218-0144

Drawing name: x:\2018\180144\plan sheets\Construction Documents\180144ib.dwg Jan 09, 2019 - 3:14pm

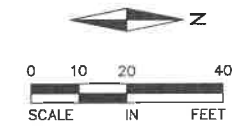


INFILTRATION BASIN NOTES:

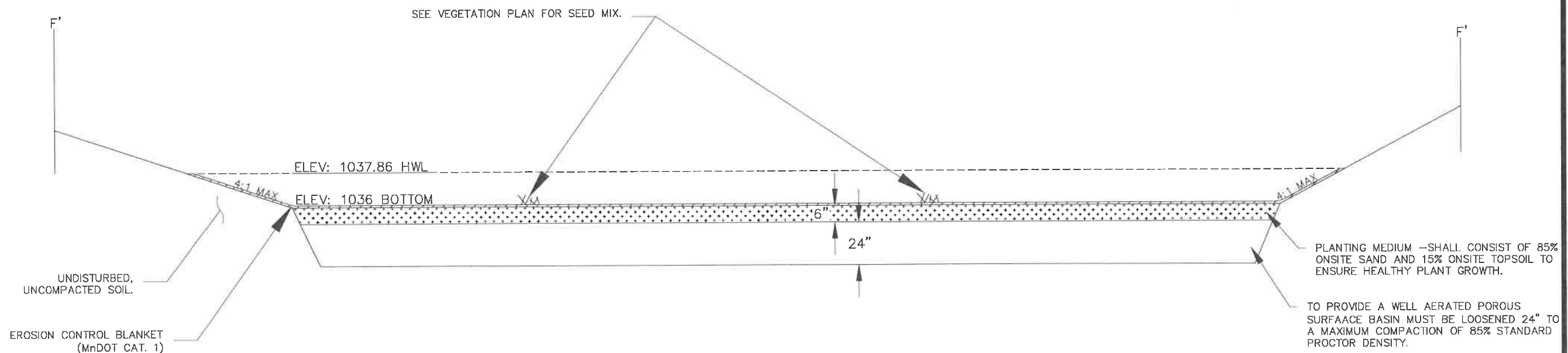
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7. CONTRACTOR TO DIG TEST PITS DURING TIME OF CONSTRUCTION TO ENSURE PROPER INFILTRATION RATE IS BEING MET.

NOTES:

1. SEE DETAIL SHEET 6 FOR RIP RAP OVERFLOW DETAIL.



INFILTRATION BASIN 6 SECTION F-F' (N.T.S)



REQUIRED MINIMUM INFILTRATION RATE: 0.25 IN/HR

BASIN	FINISHED GRADE	SUBCUT ELEVATION
6	1036	N/A

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CONSTRUCTION DOCUMENTS
INFILTRATION BASIN 6 SECTION

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MARK RAUSCH, PE
1-10-19 43480
Date License No

QUALITY ASSURANCE/CONTROL

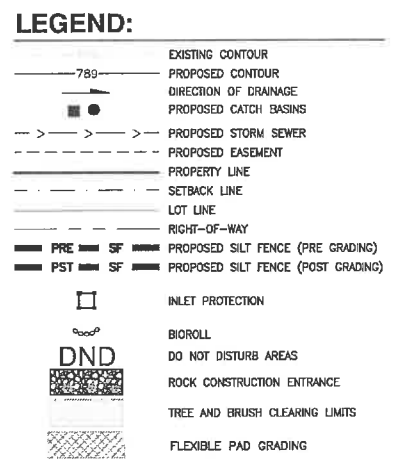
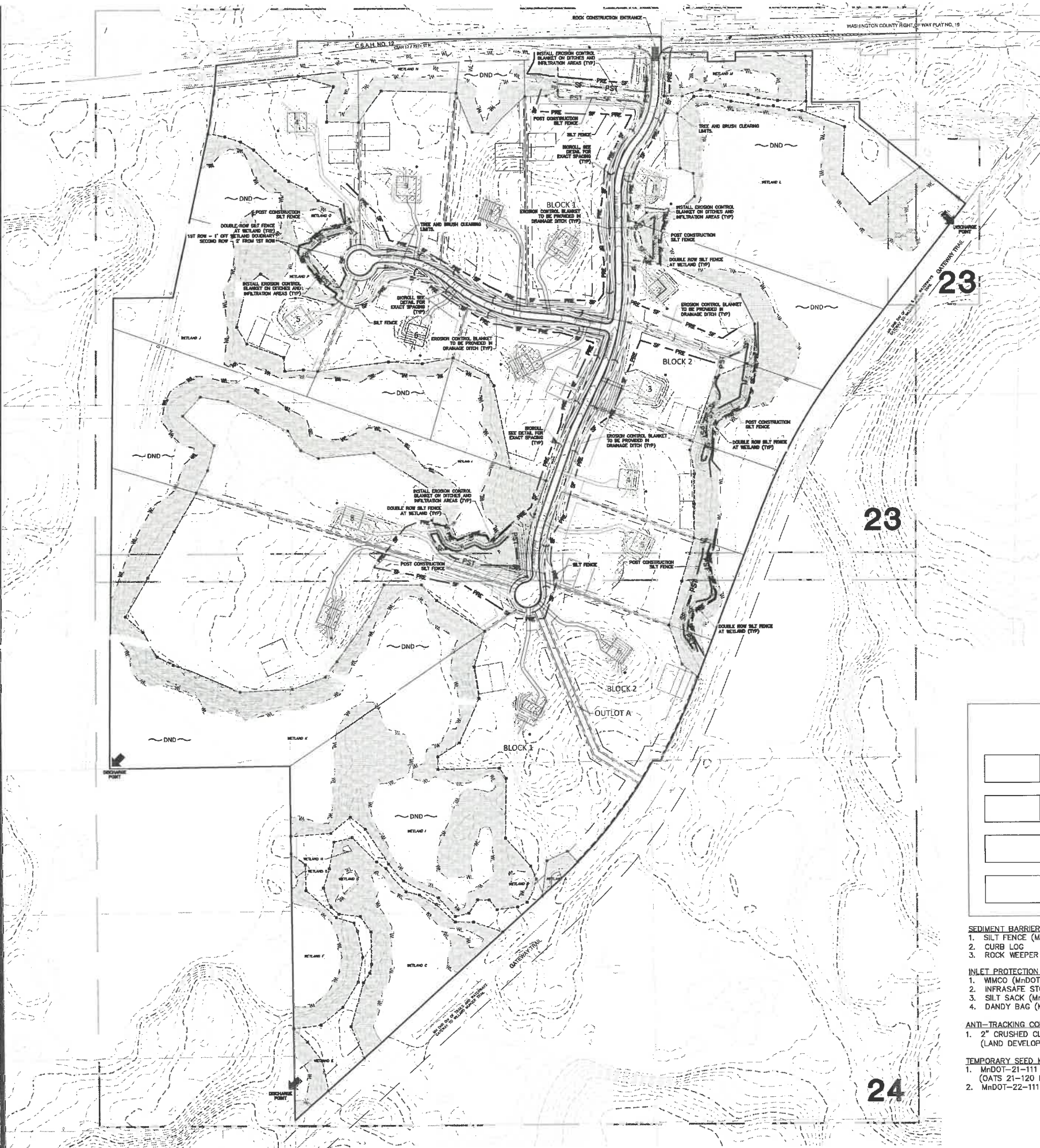
BY	DATE
DATE	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	AKA
PROJECT NO:	218-0144

Drawing name: X:\2018\180144\plan_sheets\Construction_Documents\180144.dwg Jan 09 2019 3:14pm

Drawing name: X:\2018\180144\plan_sheets\Construction_Documents\180144.dwg, Jan 09, 2019, 3:14pm



DEVELOPER:
 THE EXCELSIOR GROUP
 1660 HIGHWAY 100 S., SUITE 400
 ST. LOUIS PARK, MN 55416

NOTE TO CONTRACTOR:
 THE MASS GRADING CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) AS SHOWN IN THE GATEWAY SWPPP (EXCEPT FOR POST GRADE BMPs NEEDED AFTER UTILITY CONSTRUCTION ACTIVITY). THE BMPs ARE TO BE INSTALLED AT A MINIMUM AS SHOWN IN THE PLAN, IF CONDITIONS ARISE. ADDITIONAL BMP SUPPLEMENTATION TO PREVENT SITE EROSION OR SEDIMENT TRANSPORT MAY BE NECESSARY. THE MASS GRADING CONTRACTOR IS RESPONSIBLE FOR ALL BMPs REQUIRED TO COMPLETE THE MASS GRADING ACTIVITIES AND SUBSEQUENT TEMPORARY SOIL STABILIZATION NECESSARY TO PREPARE SITE FOR STREET AND UTILITY CONSTRUCTION AND HOME BUILDING. AT THE COMPLETION OF MASS GRADING WORK AND SATISFACTORY SITE SOIL STABILIZATION, THE DEVELOPER AND MASS GRADING CONTRACTOR SHALL COORDINATE THE TRANSFER OF NPDES PERMIT RESPONSIBILITIES TO THE STREET AND UTILITY CONTRACTOR AND THE CITY.
 THE STREET AND UTILITY CONTRACTOR AND CITY WILL THEN ASSUME THE RESPONSIBILITY TO PROVIDE INSPECTION AND MAINTENANCE OF ANY IN-PLACE BMPs AS WELL AS INSTALL THE ADDITIONAL BMPs REQUIRED IN THE STREET AND UTILITY CONSTRUCTION DOCUMENT SWPPP. UPON COMPLETION OF STREET AND UTILITY CONSTRUCTION, THE STREET AND UTILITY CONTRACTOR SHALL REMOVE ANY BMPs INSTALLED DURING THE STREET AND UTILITY PHASE THAT ARE NO LONGER REQUIRED AND COORDINATE THE TRANSFER OF NPDES PERMIT RESPONSIBILITIES BACK TO THE DEVELOPER OR TERMINATE THE PORTION OF THE NPDES PERMIT TRANSFERRED TO THE CITY AND THEIR CONTRACTOR.



NOTE:
 1. SEE SHEET 25 FOR ALL EROSION, SEDIMENT CONTROL AND VEGETATION NOTES AND DETAILS.

CONSTRUCTION SEQUENCE:
PRIOR TO LAND DISTURBANCE:
 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
 2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
 3. INSTALL ALL PRE-GRADING SILT FENCE. ALL WETLANDS NEAR PROPOSED INFILTRATION BASINS TO BE PROTECTED WITH DOUBLE ROW SILT FENCE. PROVIDE TREE PROTECTION SILT FENCE AS NECESSARY.
DURING CONSTRUCTION:
 1. TO THE EXTENT POSSIBLE GRADING SHALL BE PHASED TO MINIMIZE THE AMOUNT OF DISTURBED AREAS DURING CONSTRUCTION.
 2. STOCKPILE TOPSOIL AND OTHER EXCAVATED MATERIALS AT LEAST 50 FEET FROM ALL WETLAND BUFFERS. STOCKPILE MUST BE SURROUNDED BY SILT FENCE.
 3. COMPLETE MASS GRADING AND INSTALL TEMPORARY AND PERMANENT SEEDING AND PLANTINGS PER VEGETATION PLAN (THIS SHEET).
 4. REFER TO INFILTRATION NOTES ON SPECIFIC CONSTRUCTION SEQUENCING.
 5. STORM SEWER/CULVERTS SHALL BE INSTALLED DURING GRADING CONSTRUCTION TO FACILITATE DRAINAGE ROUTES. INSTALL RIP RAP OUTFALLS AS SHOWN ON THE PLAN IMMEDIATELY AFTER BASIN CONSTRUCTION.
 6. INSTALL POST GRADING SILT FENCE AROUND INFILTRATION AREAS AND PROVIDE DITCH CHECKS PER THE DETAIL.
 7. PREPARE THE SITE FOR PAVING.
 8. PAVE SITE.
POST CONSTRUCTION:
 1. REMOVE ALL TEMPORARY EROSION-CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION AS DETERMINED BY THE INSPECTOR AND/OR VBWD ENGINEER.

ACTIVE SWPPP MAP LEGEND
 * FIELD MANAGER TO COLOR CODE DURING CONSTRUCTION AS NECESSARY

SEDIMENT BARRIERS
 1. SILT FENCE (MnDOT 3886)
 2. CURB LOG
 3. ROCK WEEPER

INLET PROTECTION DEVICES
 1. WMCO (MnDOT TYPE A & C)
 2. INFRASAFE STORM DRAIN/CULVERT
 3. SILT SACK (MnDOT TYPE A)
 4. DANDY BAG (MnDOT TYPE B)

ANTI-TRACKING CONTROL
 1. 2" CRUSHED CLEAR ROCK (LAND DEVELOPMENT)

TEMPORARY SEED MIX
 1. MnDOT-21-111 (OATS 21-120 DAY STABILIZATION)
 2. MnDOT-22-111 (1-2 YR. STABILIZATION)

STABILIZATION BMP'S
 1. STRAW/HAY
 MnDOT TYPE 1 MULCH
 2. EROSION CONTROL BLANKET
 MnDOT CAT. 3
 3. HYDROMULCH
 MnDOT TYPE 5
 4. TURF REINFORCEMENT MAT
 SC250 NORTH AMERICAN GREEN OR EQUAL-MnDOT CAT 6

GRADING ACTIVITY
 1. CONCRETE WASHOUT IS DONE BY TRUCK WITH A MOBILE WASHOUT SYSTEM PROVIDED AND COMPLETED BY THE CONCRETE CONTRACTOR.

PERMANENT SEED MIX/STABILIZATION
 GENERAL AREAS - MnDOT 35-241 OR APPROVED EQUAL
 INFILTRATION AREAS - MnDOT 33-282 OR APPROVED EQUAL
 WETLAND BUFFERS - MnDOT 35-241 OR APPROVED EQUAL
 SEEDING SHALL BE APPLIED FROM APRIL 15 - JULY 20 OR SEPTEMBER 20 - FREEZE UP. IF HYDROSEEDING UTILIZE APPROXIMATELY 500 GALLONS OF WATER PER ACRE. REFER TO MnDOT SPEC 3884 FOR PROPER INSTALLATION OF HYDRO-SEED. ALL NATIVE SEEDS USED ON THIS PROJECT SHALL BE CERTIFIED TO BE OF MINNESOTA ORIGIN BY THE MINNESOTA CROP IMPROVEMENT ASSOCIATION (MCA). SITE TO BE PREPARED BY LOOSENING TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES. THE SITE TO BE HARROWED OR RAKED FOLLOWING SEEDING, AND THEN PACKED USING A CULTI-PACKER OR EQUIVALENT. SEE MnDOT SEEDING MANUAL FOR REFERENCE.
 MAINTAIN SEEDING AREAS BY WATERING, REMULCHING AND REPLANTING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF THE SPECIFIED GRASSES UNTIL ACCEPTED. ANY AREAS FAILING TO ESTABLISH A STAND SHALL BE RESEEDED. REFERTILIZED AND REMULCHED WHENEVER 70% VEGETATIVE COVER IS NOT ACHIEVED. RESEEDING SHALL CONFORM IN ALL RESPECTS TO THESE SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE WORK AREAS RESULTING FROM EROSION AND/OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR DAMAGE, INCLUDING REGRADING, RESEEDING, ETC. AS NECESSARY, BEFORE SIGNIFICANT DAMAGE OCCURS.
 REFER TO MN STATE SEED MIX MANUAL.

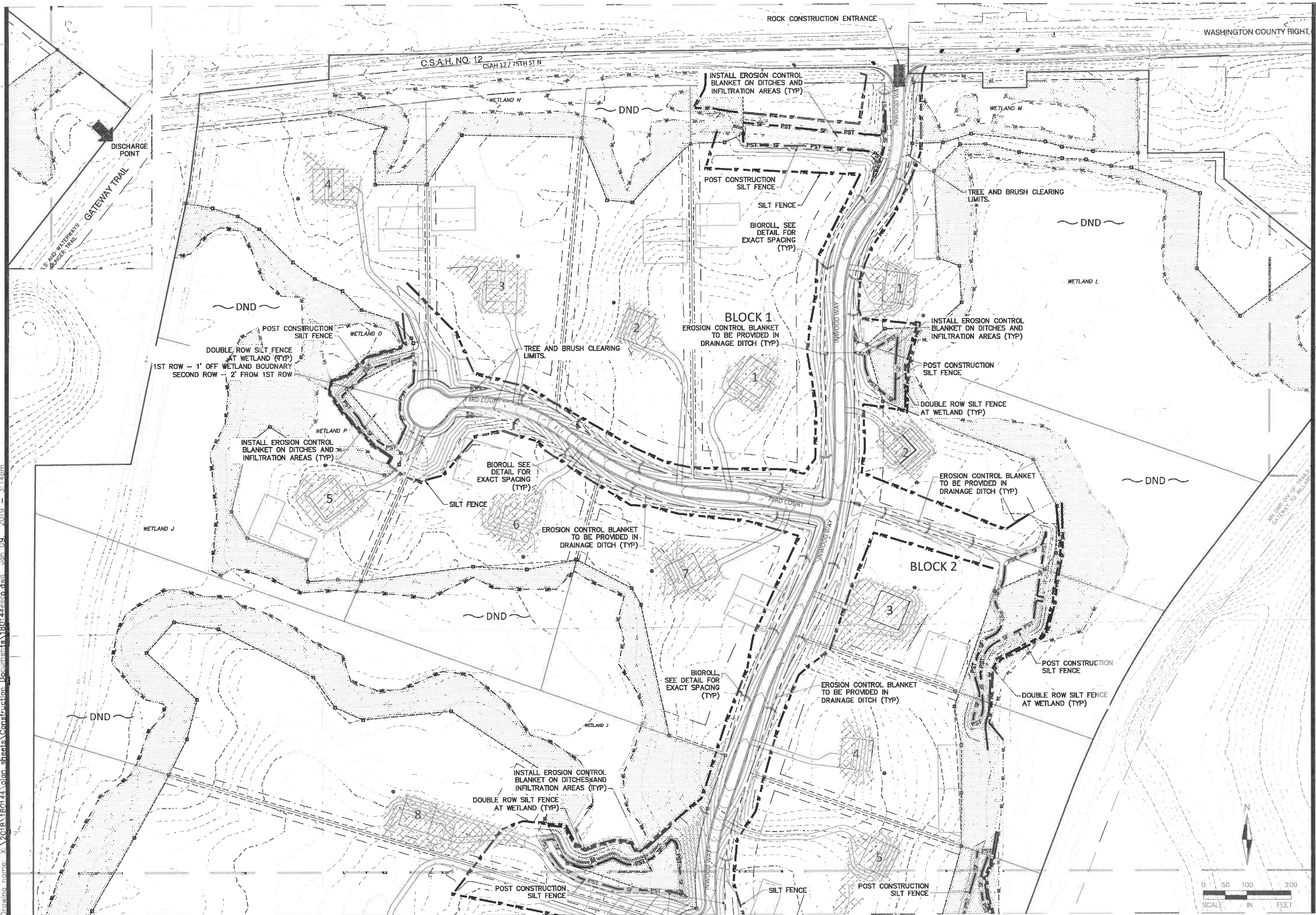
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THE GATEWAY
 8255 75TH STREET N
 GRANT, MINNESOTA
CONSTRUCTION DOCUMENTS
EROSION, SEDIMENT CONTROL AND VEGETATION PLAN

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Mark Rausch
 MARK RAUSCH, PE
 1-10-19 45480
 Date License No.
QUALITY ASSURANCE/CONTROL
 BY DATE
DATE ISSUE
 10-11-18 CITY SUBMITTAL
 10-18-18 WATERSHED SUBMITTAL
 12-7-18 BID PACKAGE
 1-10-19 CONSTRUCTION DOCUMENT
PROJECT TEAM DATA
 DESIGNED: MPR
 DRAWN: AKA
 PROJECT NO: 218-0144
22
 SHEET 22 of 35



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1-10-19 43480
Date License No

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1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: AKA
PROJECT NO: 218-0144

23

SHEET 23 of 35

Drawing name: X:\2018\180144\plan_sheets\Construction_Documents\180144\escp.dwg, Date: 09/20/2019, 3:14pm

Drawing name: X:\2018\180144\plan_sheets\Construction Documents\180144\escr.dwg Jan 09, 2019 3:14pm



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PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: AKA
PROJECT NO: 218-0144

EROSION CONTROL GENERAL NOTES:

- NO LAND DISTURBING ACTIVITY SHALL OCCUR UNTIL A GRADING PERMIT HAS BEEN ISSUED FROM THE CITY OF GRANT AND REVIEW FROM THE WATERSHED.
- BEST MANAGEMENT PRACTICES (BMP'S) REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.
- ALL BMP'S SELECTED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
- ALL WORK AND MATERIALS SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLANS. ANY DEVIATION FROM THE APPROVED PLANS SHALL REQUIRE WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.
- A COPY OF THESE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- THE BOUNDARIES OF THE LAND DISTURBANCE LIMITS SHOWN ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. NO DISTURBANCE BEYOND THE DISTURBED LIMITS.
- WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.
- ESTABLISH A PERMANENT VEGETATIVE COVER ON ALL EXPOSED SOILS WHERE LAND IS COMING OUT OF AGRICULTURAL PRODUCTION. PLANT AS SOON AS POSSIBLE TO ESTABLISH DENSE GRASS FILTER PRIOR TO CONSTRUCTION AND TO MINIMIZE WEED GROWTH.
- ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRIFLINE, ROOT ZONES OR WITHIN TREE PROTECTION FENCE AREAS.
- ALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) SHALL BE INSTALLED AND IN OPERATION PRIOR TO LAND DISTURBANCE ACTIVITIES AND THEY SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR EROSION HAS PASSED.
- SILT FENCE IS REQUIRED AT DOWN GRADIENT PERIMETER OF DISTURBED AREAS AND STOCKPILES. PROTECT WETLANDS, WATERCOURSES AND ADJACENT PROPERTIES FROM SEDIMENTATION AND STORMWATER RUNOFF.
- BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE PERMITTEE/CONTRACTOR SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS AND TO PROVIDE ADDITIONAL BMP'S OVER AND ABOVE THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS, AS MAY BE NEEDED TO PROVIDE EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.
- THE BMP'S SHALL BE INSPECTED DAILY BY THE PERMITTEE/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. SILT FENCES CLEANED OR REPLACED AT SEDIMENT BUILDUP OF 1/2 OF THE FENCE HEIGHT.
- LAND DISTURBING ACTIVITIES SHALL OCCUR IN INCREMENTS OF WORKABLE SIZE SUCH THAT ADEQUATE BMP CONTROL CAN BE PROVIDED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE SMALLEST PRACTICAL AREA SHALL BE EXPOSED OR OTHERWISE DISTURBED AT ANY ONE TIME.
- OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK-BLADE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED FROM EROSION WITHIN 14 DAYS OF SUBSTANTIAL COMPLETION OF GRADING IN THAT AREA. TEMPORARY SEED AND MULCH SHALL COVER ALL EXPOSED SOILS IF GRADING COMPLETION IS DELAYED LONGER THAN 7 DAYS. PERMANENT SEED AND MULCH OR SOD IS REQUIRED WITHIN 3 DAYS OF COMPLETION OF FINAL GRADING.
- TEMPORARY SEED SHALL BE MNDOT MIX 190 @ 100 LBS. PER ACRE OR APPROVED EQUAL. MULCH SHALL BE MNDOT TYPE 1 (CLEAN OAT STRAW) @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL. FERTILIZER SHALL BE 80-80-80 NPK PER ACRE (UNLESS P RESTRICTIONS APPLY) AND INCORPORATED INTO THE SEED BED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- AN ALTERNATE EROSION & SEDIMENT CONTROL PLAN SHALL BE REQUIRED FOR LAND DISTURBANCES ON EACH LOT AS PART OF ANY FUTURE BUILDING PERMIT FOR THE CONSTRUCTION OF STRUCTURES AND DRIVEWAYS.
- ALL SLOPES THAT ARE 3H:1V SHOULD BE COVERED WITH AN EROSION CONTROL BLANKET.
- ALL EROSION AND SEDIMENT CONTROL ITEMS MUST BE IN COMPLIANCE WITH MPCA CSW PERMIT (MN R100001)

HOME BUILDING NOTES:

- SEDIMENT BARRIERS SHOWN WILL BE INSTALLED AS NEEDED ON A LOT BY LOT BASIS DEPENDING UPON SITE ACTIVITY.
- ANTI-TRACKING CONTROL WILL BE INSTALLED AS NEEDED ON A LOT BY LOT BASIS DEPENDING UPON SITE ACTIVITY.
- CONCRETE WASHOUT IS DONE TRUCK BY TRUCK WITH A MOBILE WASHOUT SYSTEM PROVIDED AND CONTROLLED BY THE CONCRETE CONTRACTOR.

EROSION CONTROL SCHEDULE:

- PRIOR TO ANY CONSTRUCTION OR DEMOLITION, SILT FENCE AND FILTERS SHALL BE INSTALLED AS SHOWN TO INTERCEPT RUNOFF.
- ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR UNTIL THE SITE HAS BEEN RE-VEGETATED. CONTRACTOR MAY REMOVE NECESSARY SILT FENCING/FILTERS TO CONSTRUCT ROADWAYS, WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREA.
- SUFFICIENT TOPSOIL SHALL BE STOCKPILED TO ALLOW FOR THE REPLACEMENT OF 6" OF TOPSOIL FOR DISTURBED AREAS TO BE RE-VEGETATED.
- THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND PAVEMENT CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RE-SEEDED SOON AFTER DISTURBANCE. AREAS THAT WILL NOT BE SUBJECT TO CONSTRUCTION TRAFFIC SHALL BE SEED WITHIN SEVEN (7) DAYS OF BEING DISTURBED.
- CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES AS INDICATED ON THIS EROSION CONTROL PLAN AND ANY ADDITIONAL REQUIRED BASED ON MEANS, METHODS AND SEQUENCES OF CONSTRUCTION.

SEDIMENT CONTROL PRACTICES:

- SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS.
- SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMITERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.
- THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.
- ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
- TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCES OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES.
- SITE CONSTRUCTION ENTRANCES WILL BE AS SHOWN ON THE PLAN. ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT EACH ENTRANCE.

FINAL STABILIZATION:

THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE. THE CONTRACTOR MUST SUBMIT A NOTICE OF TERMINATION (NOT WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE, OR ANOTHER OWNER/OPERATOR (PERMITTEE) HAS ASSUMED CONTROL OF ALL AREAS OF THE SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION. FINAL STABILIZATION CAN BE ACHIEVED IN THE FOLLOWING WAY:

- ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS MUST BE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EXPOSURE CONDITIONS AND:
- ALL DRAINAGE DITCHES, CONSTRUCTED TO DRAIN WATER FROM THE SITE AFTER CONSTRUCTION IS COMPLETE, MUST BE STABILIZED TO PRECLUDE EROSION;
 - ALL TEMPORARY SYNTHETIC, AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S (SUCH AS SILT FENCE) MUST BE REMOVED AS PART OF THE SITE FINAL STABILIZATION; AND
 - THE CONTRACTORS MUST CLEAN OUT ALL SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES OR DRAINAGE WAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEAN OUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.

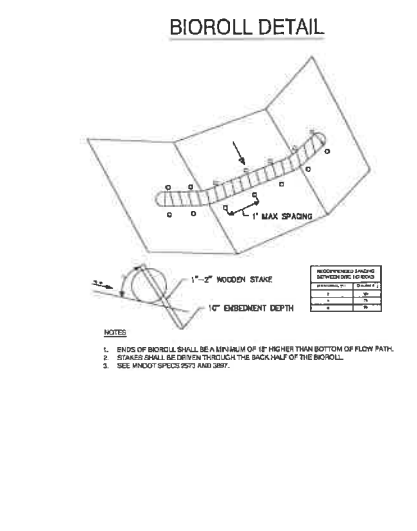
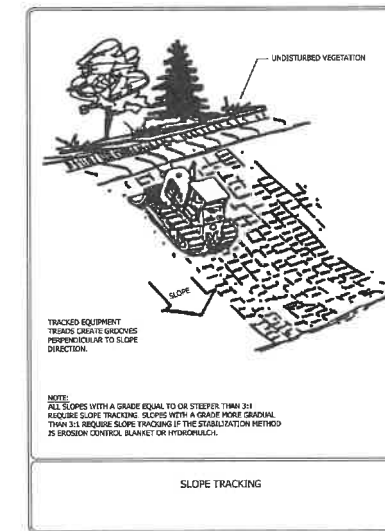
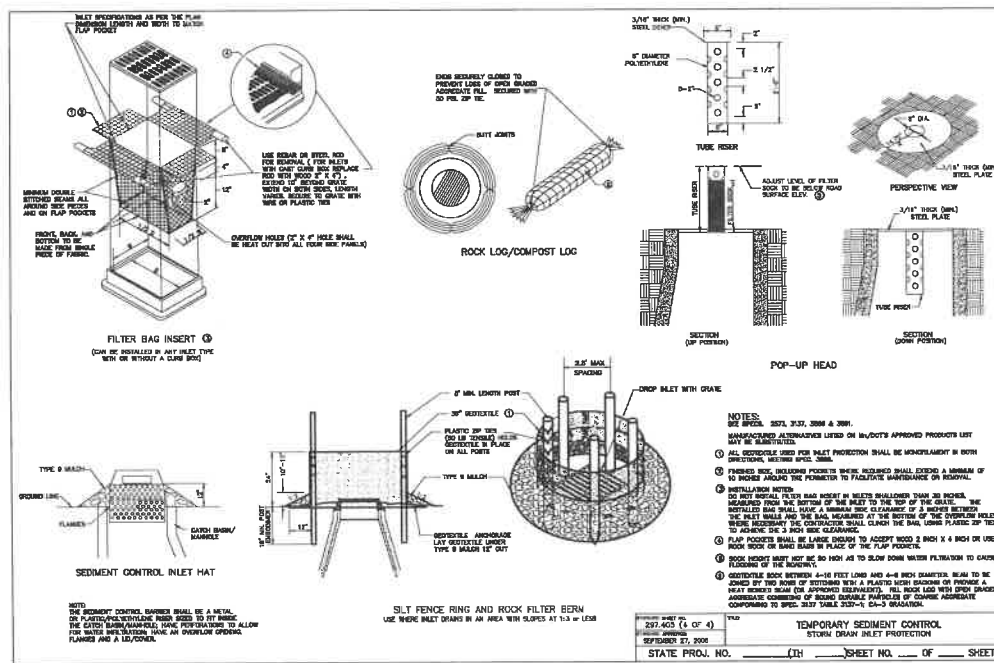
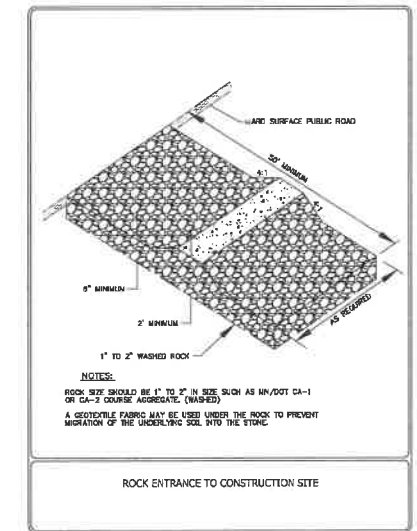
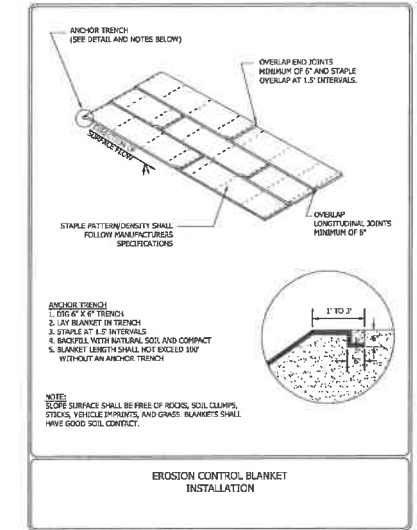
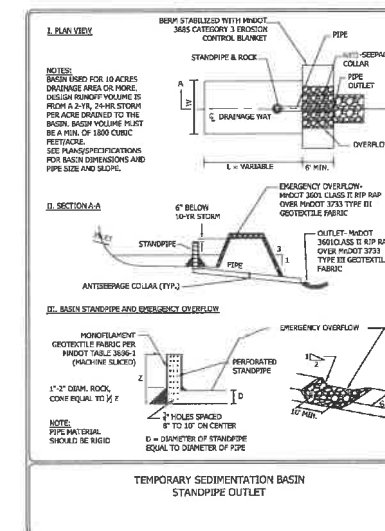
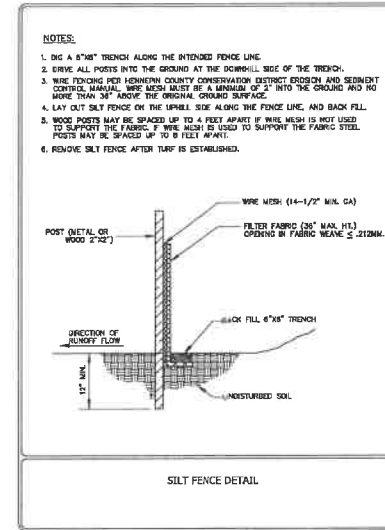
EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM:

- INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING SILT FENCE.
- REPLACEMENT - FABRIC SHALL BE REPLACED PROMPTLY WHEN IT DECOMPOSES OR BECOMES INEFFECTIVE BEFORE THE BARRIER IS NO LONGER NECESSARY.
- SEDIMENT REMOVAL - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER. ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER FABRIC IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH EXISTING GRADE, PREPARED, AND SEED WITH THE APPROPRIATE SEED MIX, OR SODDED AS DIRECTED BY THE ENGINEER.
- REMOVAL OF SILT FENCE - SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPWARD SLOPING AREA HAS BEEN PERMANENTLY STABILIZED. IF THE UPWARD SLOPING AREA IS TO BE EXPOSED LONGER THAN SIX (6) MONTHS, THAT AREA SHALL BE COVERED WITH TEMPORARY VEGETATION WHEN FIRST EXPOSED.
- THE CONTRACTOR MUST ROUTINELY INSPECT THE CONSTRUCTION SITE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
- ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
 - DATE AND TIME OF INSPECTIONS;
 - NAME OF PERSON(S) CONDUCTING INSPECTIONS;
 - FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
 - CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES);
 - DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 1/8 INCH (0.5 INCHES) IN 24 HOURS;
 - DOCUMENTS OF CHANGES MADE TO THE SWPPP AS REQUIRED IN PART III.A.4.
- WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF SITE, INSPECTIONS OF THE STABILIZED AREAS MAY BE REDUCED TO ONCE PER MONTH. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE MUST TAKE PLACE AS SOON AS RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.

POLLUTION PREVENTION MANAGEMENT MEASURES:

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES ON THE SITE:

- SOLID WASTE: COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.
- HAZARDOUS MATERIAL: OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.
- CONCRETE WASHOUT IS DONE TRUCK BY TRUCK WITH A MOBILE WASHOUT SYSTEM PROVIDED AND COMPLETED BY THE CONCRETE CONTRACTOR. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF.
- NO ENGINE DEGREASING IS ALLOWED ON SITE.
- STREET SWEEPING IS REQUIRED A MINIMUM OF 1 X PER WEEK OR AS DIRECTED BY CITY ENGINEER. ALL SEDIMENT TRACKING SHOULD BE SWEEP WITHIN 24 HOURS AFTER DISCOVERY. MPCA PERMIT REQUIREMENT.



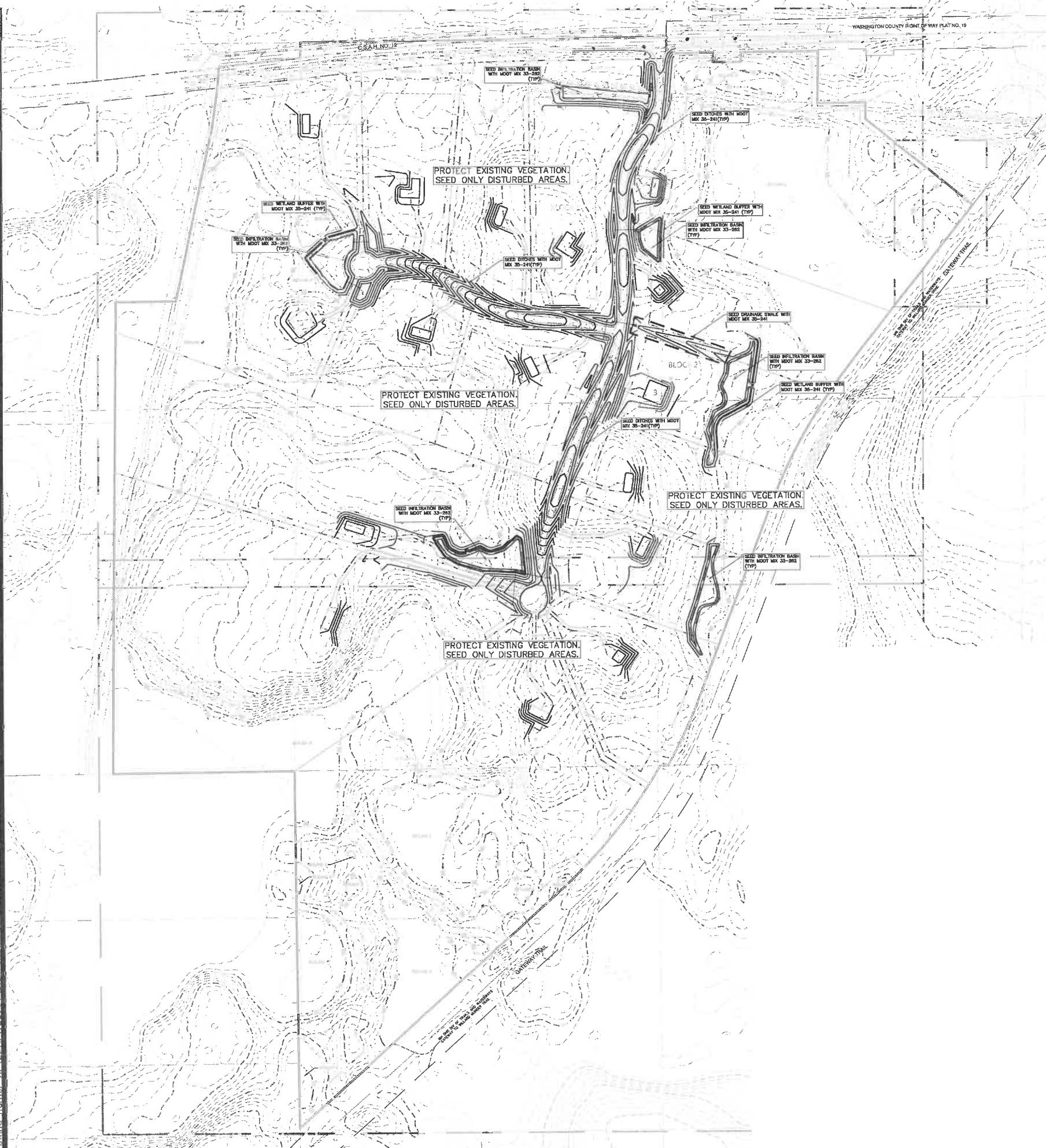
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MARK RAUSCH, PE
1-10-19 43480
Date License No.

DATE	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: AKA
PROJECT NO: 218-0144

Drawing name: X:\2016\180144\plan_sheets\Construction Documents\180144.vce.dwg, Jan_09_2019 - 3:15pm



LEGEND:

- 789 — EXISTING CONTOUR
- — — PROPOSED CONTOUR
- > - > - > PROPOSED STORM SEWER
- - - - - PROPOSED EASEMENT
- — — — — PROPERTY LINE
- - - - - SETBACK LINE
- - - - - LOT LINE
- - - - - RIGHT-OF-WAY

CONSTRUCTION SEQUENCING NOTES:

- PRIOR TO LAND DISTURBANCE:**
1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
 2. PREPARE TEMPORARY PARKING AND STORAGE AREA
 3. INSTALL ALL PRE-GRADING SILT FENCE. ALL WETLANDS NEAR PROPOSED INFILTRATION BASINS TO BE PROTECTED WITH DOUBLE ROW SILT FENCE. PROVIDE TREE PROTECTION SILT FENCE AS NECESSARY.

- DURING CONSTRUCTION:**
1. TO THE EXTENT POSSIBLE GRADING SHALL BE PHASED TO MINIMIZE THE AMOUNT OF DISTURBED AREAS DURING CONSTRUCTION.
 2. STOCKPILE TOPSOIL AND OTHER EXCAVATED MATERIALS AT LEAST 50 FEET FROM ALL WETLAND BUFFERS. STOCKPILE MUST BE SURROUNDED BY SILT FENCE.
 3. COMPLETE MASS GRADING AND INSTALL TEMPORARY AND PERMANENT SEEDING AND PLANTINGS PER VEGETATION PLAN (THIS SHEET).
 4. REFER TO INFILTRATION NOTES ON SPECIFIC CONSTRUCTION SEQUENCING.
 5. STORM SEWER/CULVERTS SHALL BE INSTALLED DURING GRADING CONSTRUCTION TO FACILITATE DRAINAGE ROUTES. INSTALL RIP RAP OUTFALLS AS SHOW ON THE PLAN IMMEDIATELY AFTER BASIN CONSTRUCTION.
 6. INSTALL POST GRADING SILT FENCE AROUND INFILTRATION AREAS AND PROVIDE DITCH CHECKS PER THE DETAIL.
 7. PREPARE THE SITE FOR PAVING.
 8. PAVE SITE.

- POST CONSTRUCTION:**
1. REMOVE ALL TEMPORARY EROSION-CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION AS DETERMINED BY THE INSPECTOR AND/OR VBWD ENGINEER.

- SOIL PREPARATION:**
1. PREPARE THE AREAS TO BE ESTABLISHED WITH TURF PER MNDOT 2575. TOPSOIL SHALL BE RE-Spread TO A MINIMUM DEPTH OF 6 INCHES ON AREAS TO BE ESTABLISHED WITH TURF.
 2. ALL AREAS SHALL BE FERTILIZED WITH TYPE 2 FERTILIZER 10-10-10 AT A RATE OF 200 LB PER ACRE.

- TURF ESTABLISHMENT:**
1. TURF ESTABLISHMENT SHALL BE PER MNDOT 2575 EXCEPT AS MODIFIED BELOW AND SHALL BE COMPLETED AS SOON AS POSSIBLE AFTER GRADING CONSTRUCTION. RAPID STABILIZATION METHODS TYPE 1 AND TYPE 4 SHALL APPLY TO ALL DISTURBED AREAS.
 2. ALL AREAS THAT DO NOT REQUIRE EROSION CONTROL BLANKET SHALL BE SEEDED AND MULCHED (DISK ANCHORED) WITH TYPE 2 TONS PER ACRES.
 3. EROSION CONTROL BLANKET SHALL BE PLACED WITHIN 24 HOURS AFTER SEEDING. INSTALL EROSION CONTROL BLANKET PER MNDOT 2575 AT LOCATIONS SHOWN ON THE PLAN.

SEED MIXES:

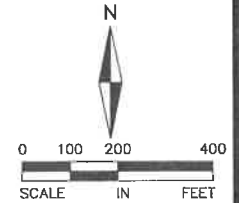
GENERAL AREAS - MNDOT 35-241 OR APPROVED EQUAL
 INFILTRATION AREAS - MNDOT 33-262 OR APPROVED EQUAL
 WETLAND BUFFERS - MNDOT 35-241 OR APPROVED EQUAL

MAINTENANCE:

MAINTAIN SEEDED AREAS BY WATERING, REMULCHING AND REPLANTING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF THE SPECIFIED GRASSES UNTIL ACCEPTED. ANY AREAS FAILING TO ESTABLISH A STAND SHALL BE RESEDED, REFERTILIZED AND REMULCHED WHENEVER 70% VEGETATIVE COVER IS NOT ACHIEVED. RESEEDING SHALL CONFORM IN ALL RESPECTS TO THESE SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE WORK AREAS RESULTING FROM EROSION AND/OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR DAMAGE, INCLUDING REGRADING, RESEEDING, ETC. AS NECESSARY, BEFORE SIGNIFICANT DAMAGE OCCURS.

REFER TO MN STATE SEED MIX MANUAL.

SEE EROSION CONTROL PLAN FOR
 EROSION CONTROL BMP PLAN



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Mark Rausch
 MARK RAUSCH, PE
 1-10-19 43480
 Date License No.

QUALITY ASSURANCE/CONTR

BY	DATE
DATE	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENTS

PROJECT TEAM DATA
 DESIGNED: MPR
 DRAWN: AKA
 PROJECT NO: 218-0144

Drawing name: X:\2018\180144\plan_sheets\Construction Documents\180144.stm.dwg Jan 09, 2019 3:15pm



LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- RETAINING WALL
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- PROPOSED EASEMENT
- PROPERTY LINE
- SETBACK LINE
- LOT LINE
- RIGHT-OF-WAY
- WETLAND
- STORM SEWER LOCATION



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THE GATEWAY

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CONSTRUCTION DOCUMENTS

OVERALL STREET AND STORM SEWER PLAN

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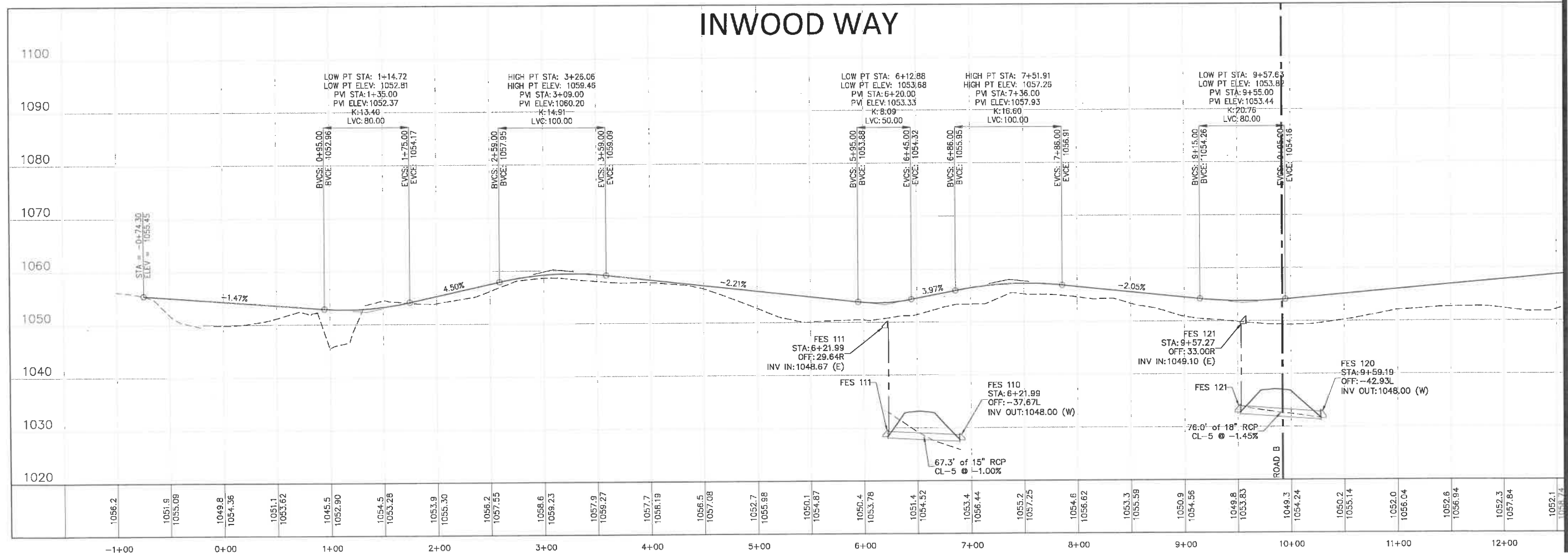
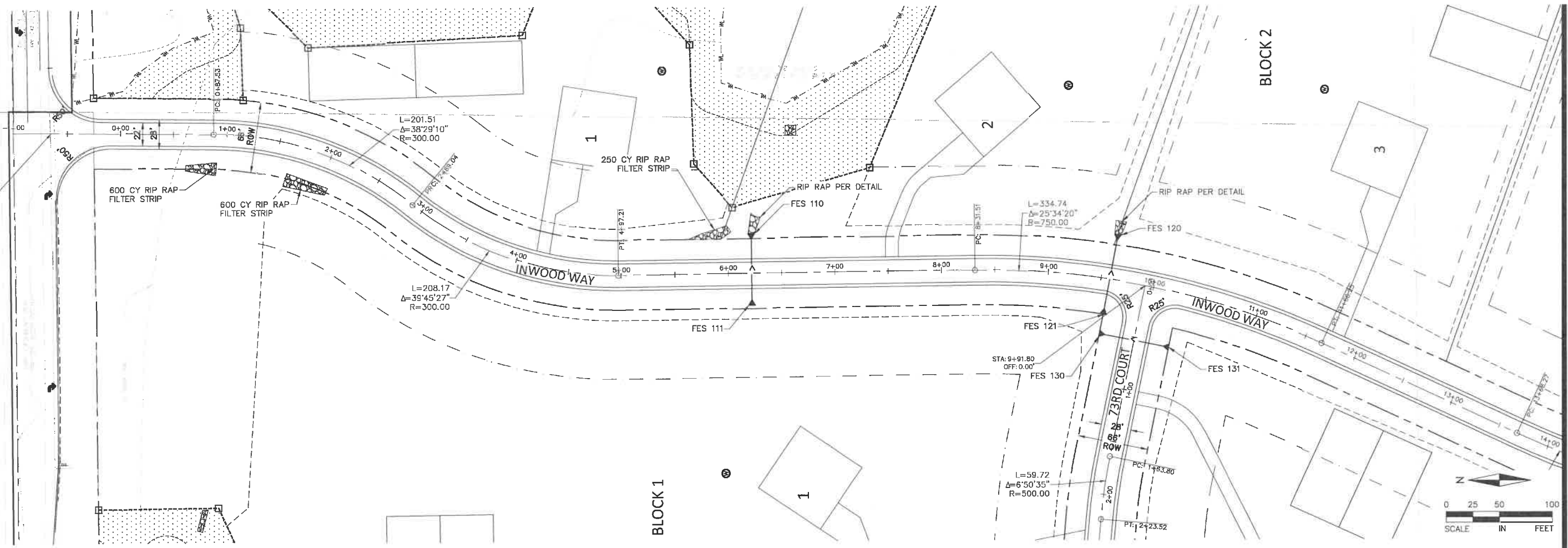
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PROJECT NO: 218-0144

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SHEET 27 of 35

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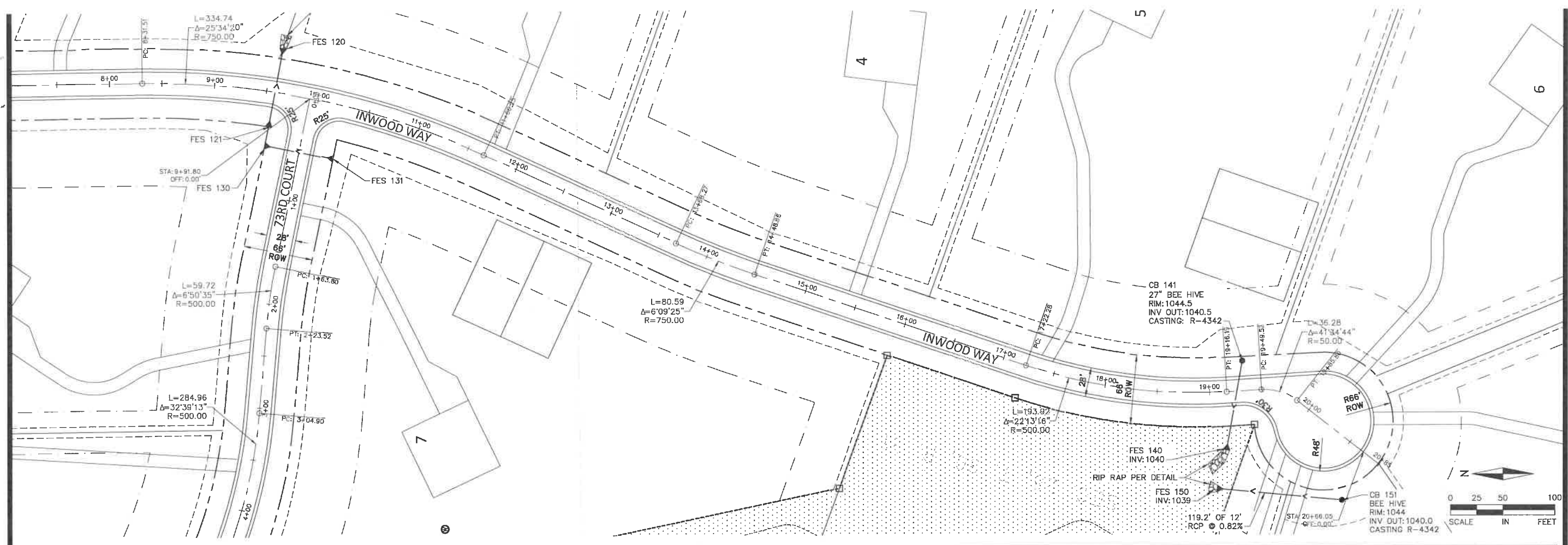
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12-7-18 BID PACKAGE

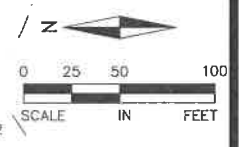
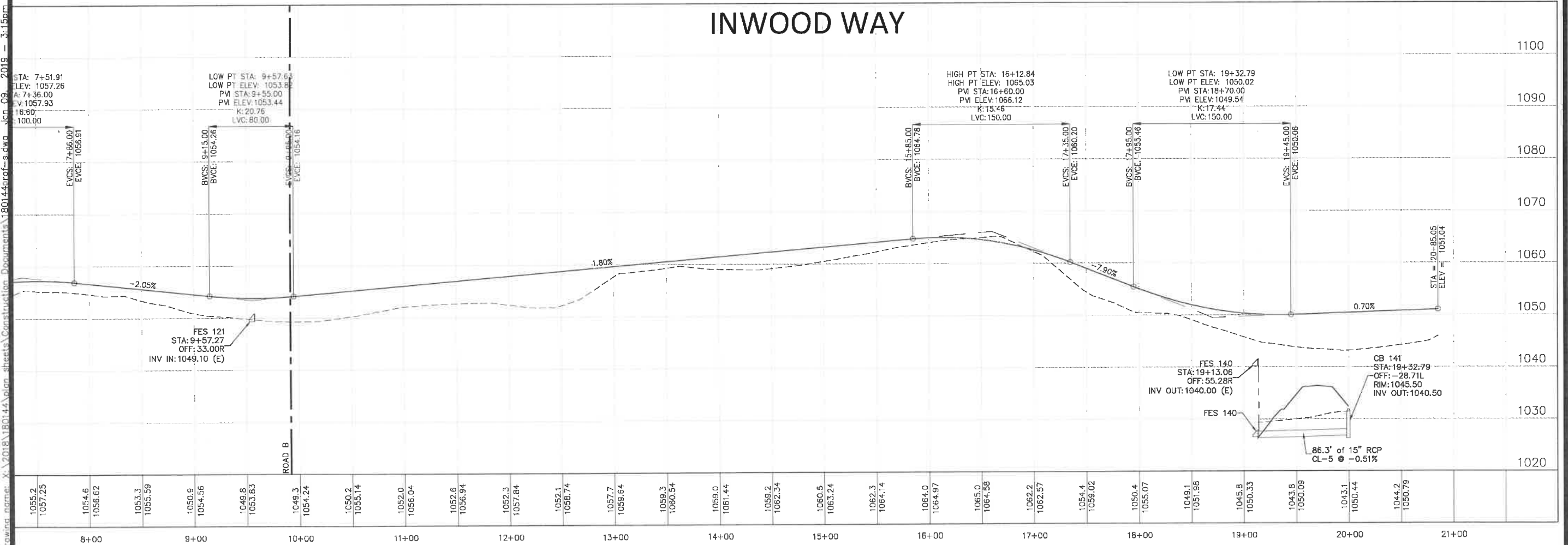
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CONSTRUCTION DOCUMENTS
STREET AND STORM SEWER PLAN AND PROFILES

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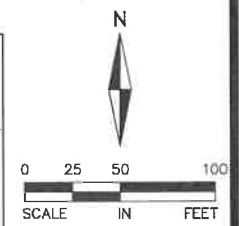
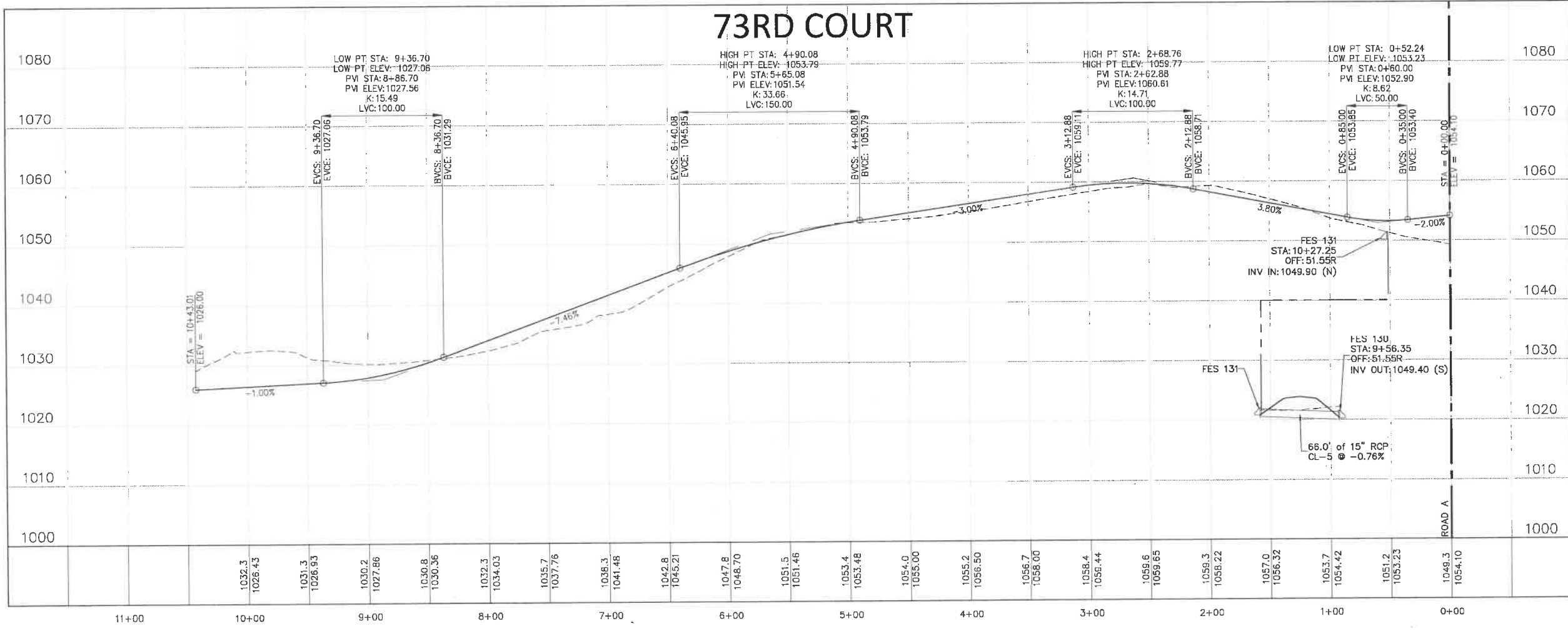
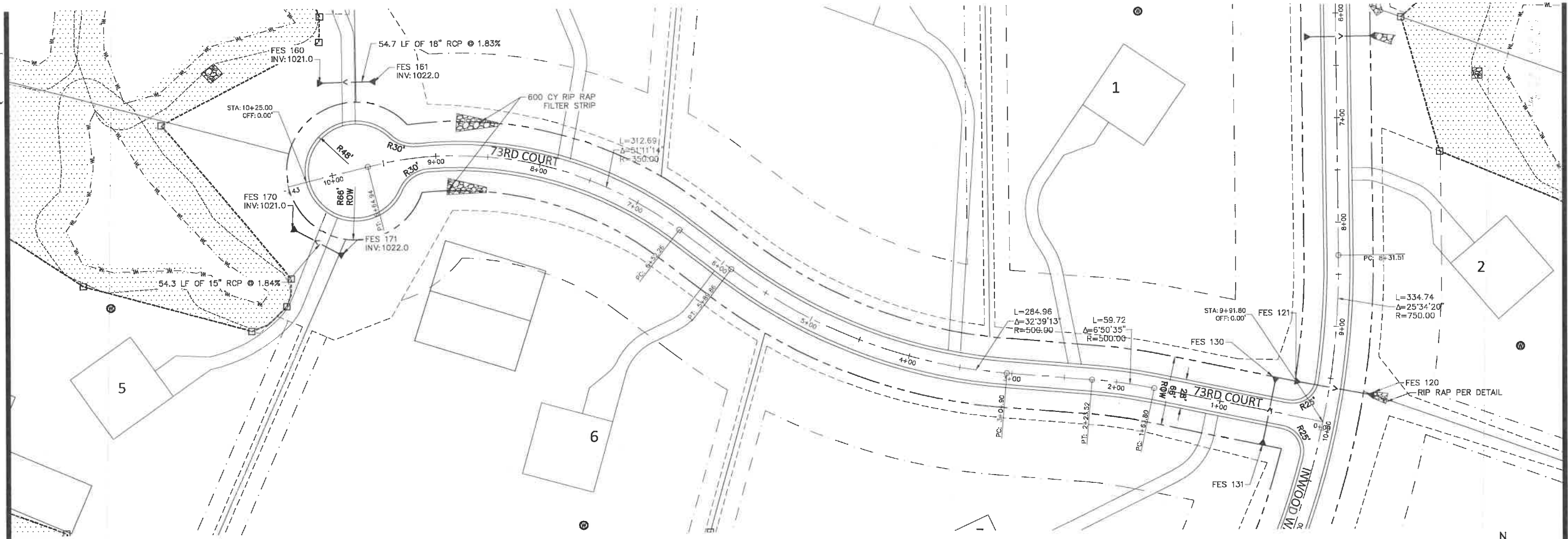
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PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: AKA
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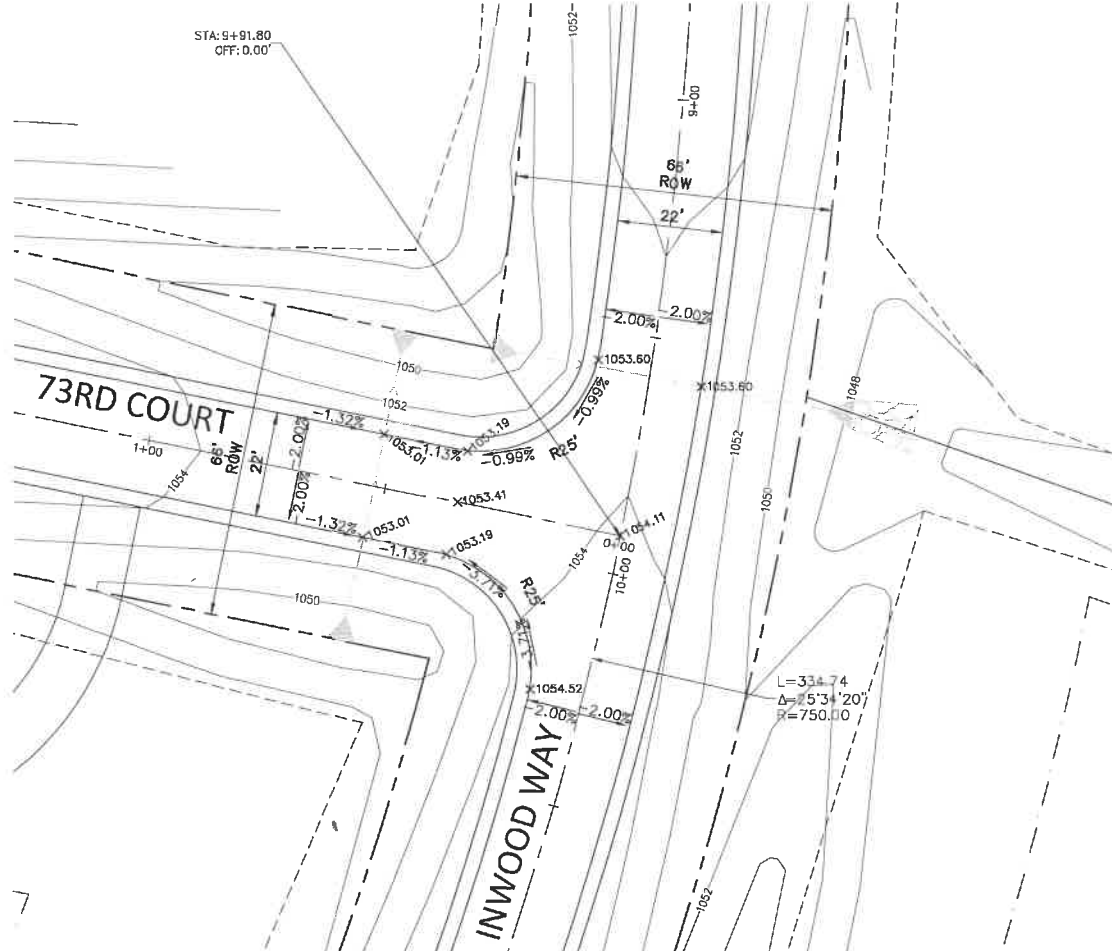


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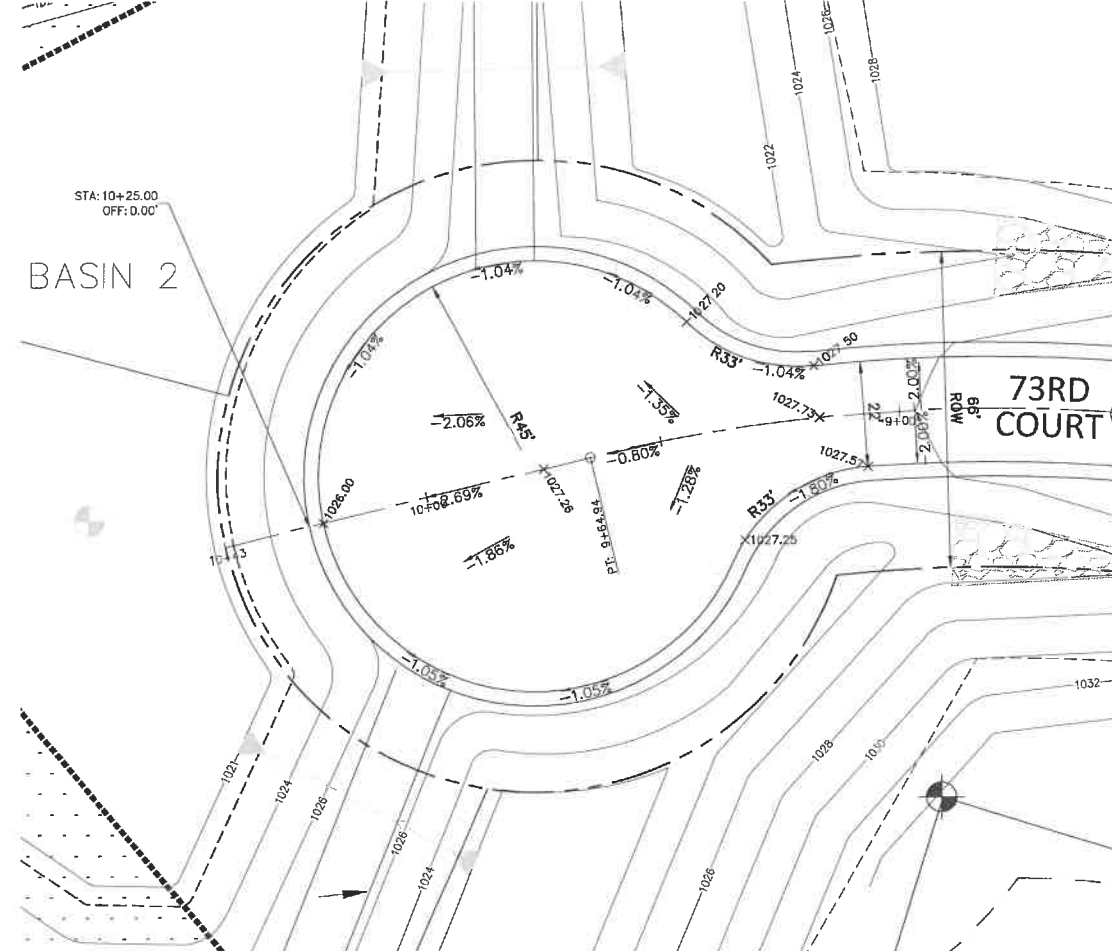
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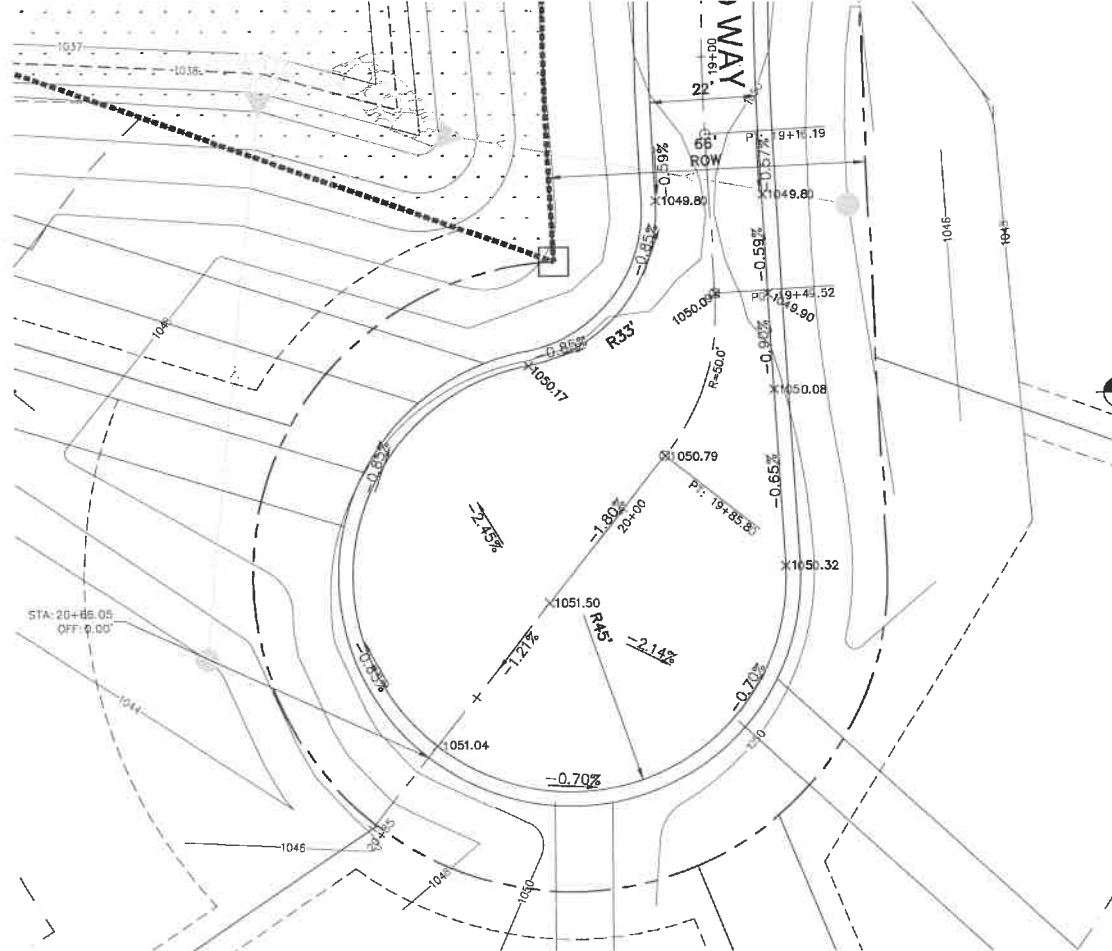
INWOOD WAY - 73RD COURT INTERSECTION



73RD COURT CUL-DE-SAC



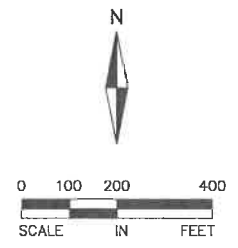
INWOOD WAY CUL-DE-SAC



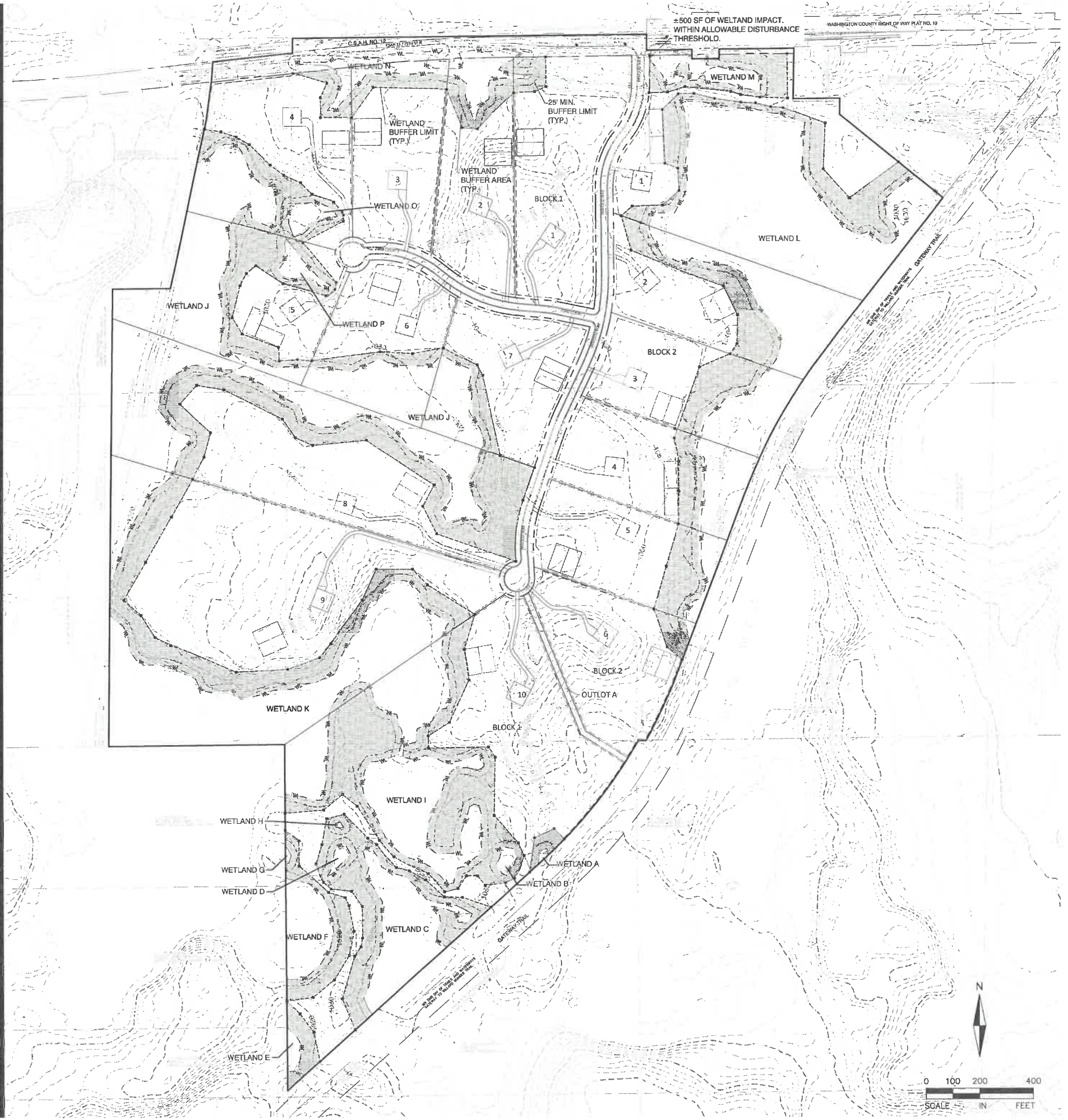
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA.
Mark Rausch
MARK RAUSCH, PE
1-10-18 43480
Date License No.

QUALITY ASSURANCE/CONTROL	
BY	DATE
DATE ISSUE	
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
12-7-18	BID PACKAGE
1-10-19	CONSTRUCTION DOCUMENT

PROJECT TEAM DATA	
DESIGNED:	MPR
DRAWN:	AKA
PROJECT NO:	218-0144



Drawing name: X:\2018\180144\plan_sheets\Construction_Documents\180144\wet.dwg Jan 09 2019 3:16pm



WETLAND SUMMARY

WETLAND	TYPE	VBWD CLASS.	AREA*
A	TYPE 1	B-MANAGE 1	1,191 SF (0.273 AC)
B	TYPE 1	B-MANAGE 1	5,144 SF (0.118 AC)
C	TYPE 3	B-MANAGE 1	95,810 SF (2.199 AC)
D	TYPE 1	B-MANAGE 1	4,178 SF (0.959 AC)
E	TYPE 2	B-MANAGE 1	6,779 SF (0.156 AC)
F	TYPE 3	B-MANAGE 1	51,899 SF (1.191 AC)
G	TYPE 1	B-MANAGE 1	884 SF (0.020 AC)
H	TYPE 1	B-MANAGE 1	445 SF (0.010 AC)
I	TYPE 2/3	B-MANAGE 1	112,806 SF (2.590 AC)
J	TYPE 6/2/3	B-MANAGE 1	578,533 SF (13.281 AC)
K	TYPE 6/7/2	B-MANAGE 1	395,851 SF (9.087 AC)
L	TYPE 6	B-MANAGE 1	629,414 SF (14.449 AC)
M	TYPE 2/6	C-MANAGE 2	27,111 SF (0.622 AC)
N	TYPE 2/6/7	C-MANAGE 2	46,932 SF (1.077 AC)
O	TYPE 2	C-MANAGE 2	12,901 SF (0.296 AC)
P	TYPE 2/3	C-MANAGE 2	11,681 SF (0.268 AC)
TOTAL AREA			1,981,559 SF (45.490 AC)

* AREA OF WETLAND LIMITS WITHIN DEVELOPMENT SITE BOUNDARIES AND EXCLUDING EXISTING AND PROPOSED RIGHT OF WAY AREAS.

WETLAND BUFFER CALCULATION

WETLAND BUFFERS AND SETBACK REQUIREMENTS:

THE VALLEY BRANCH WATERSHED DISTRICT BUFFER REQUIREMENTS PER WETLAND CLASSIFICATION. THE BUFFER REQUIREMENTS ARE AS FOLLOWS:

REQUIREMENT	A-PRESERVE* CLASS.	B-MANAGE 1* CLASS.	C-MANAGE 2 CLASS.
MIN. BUFFER	= 25'	= 25'	= 25'
MAX. BUFFER	= 200'	= 150'	= 100'
BUFFER AVG	= 100'	= 75'	= 50'

*NOTE: BUFFER MONUMENTS ARE REQUIRED TO MARK THE BUFFER EDGES AT A MINIMUM AROUND PRESERVE AND MANAGE 1 WETLAND BUFFERS. VBWD TO APPROVE ALL LOCATIONS PRIOR TO INSTALLATION.

REFER TO SHEET 33 FOR DETAILED DEPICTION OF WETLAND BUFFERS PER INDIVIDUAL WETLAND.

WETLAND IMPACTS:

WETLAND	TYPE	VBWD CLASS.	IMPACT AREA
M	TYPE 2/6	C-MANAGE 2	±500 SF

* UNDER THE DE MINIMIS THRESHOLD AND DOES NOT TRIGGER REPLACEMENT OR BANKING

LEGEND:

- EASEMENT LINE
- SETBACK LINE
- PROPERTY LINE
- LOT LINE
- RIGHT-OF-WAY
- W---W--- WETLAND DELINEATION
- WETLAND BUFFER LIMIT
- POTENTIAL WETLAND BUFFER MONUMENT (VBWD APPROVAL REQUIRED)
- ▭ WETLAND BUFFER STRIP

ALLIANT
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733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

THE GATEWAY
 8255 75TH STREET N
 GRANT, MINNESOTA
CONSTRUCTION DOCUMENTS
WETLAND MANAGEMENT PLAN

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PROJECT TEAM DATA

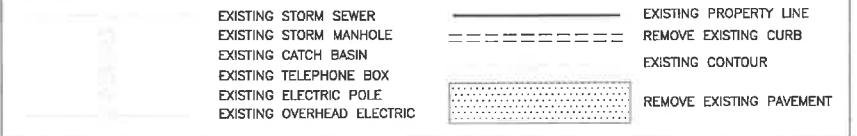
DESIGNED:	MPR
DRAWN:	AKA
PROJECT NO:	218-0144

DATE	ISSUE
10-11-18	CITY SUBMITTAL
10-18-18	WATERSHED SUBMITTAL
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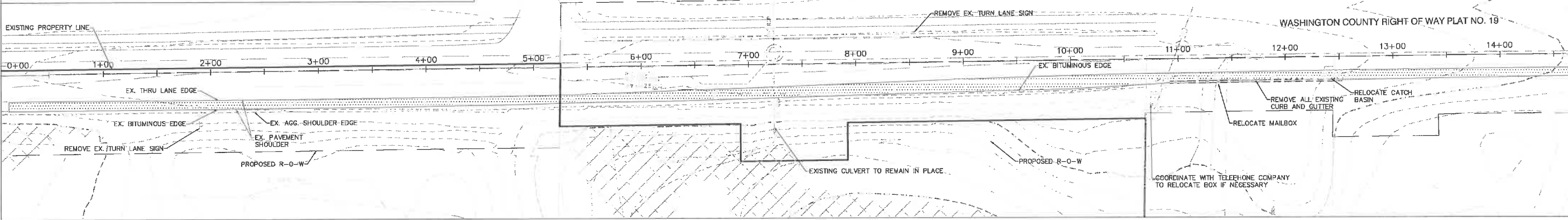


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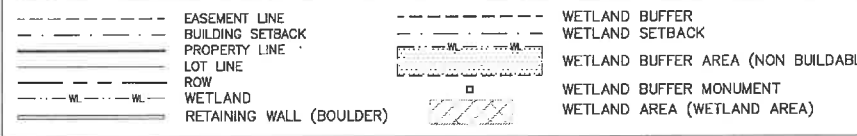
REMOVALS LEGEND



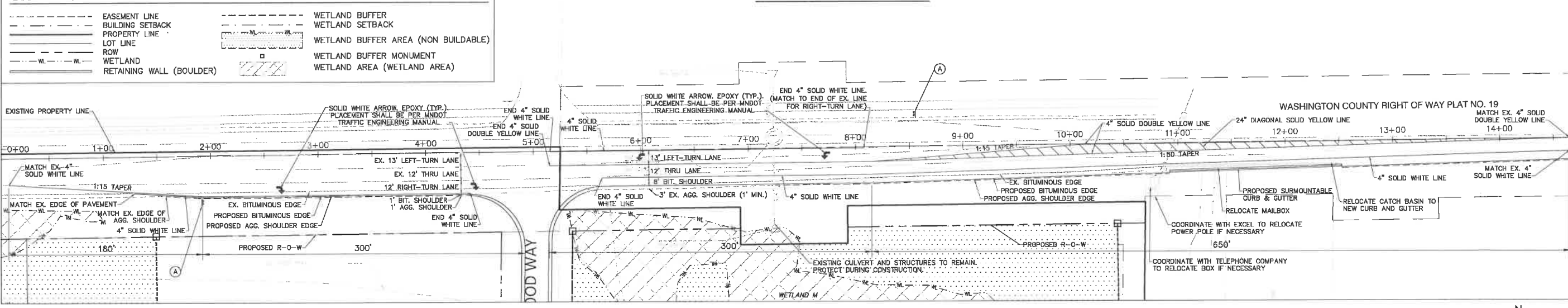
REMOVALS PLAN



SITE LEGEND

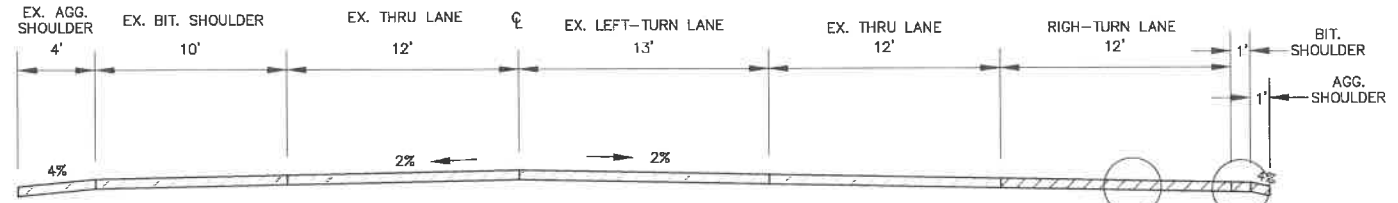
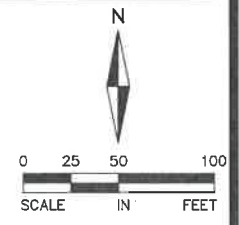


SITE AND UTILITY PLAN

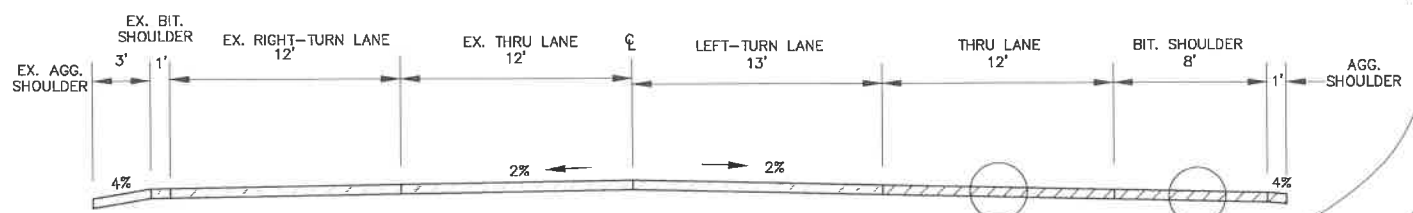


TURN LANE NOTES

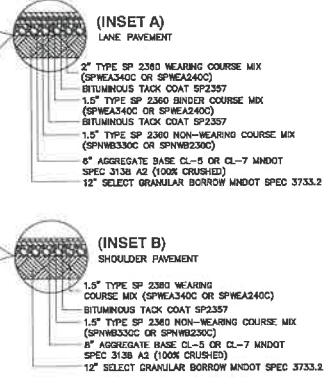
1. ALL GRADES ARE TO FINISHED PAVEMENT UNLESS OTHERWISE NOTED.
2. GOVERNING SPECIFICATIONS SHALL BE THE LATEST EDITION OF MNDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION."
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES AND ALL PERMANENT SIGNING & MARKINGS SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, 2014."
4. CONTRACTOR SHALL NOTIFY WASHINGTON COUNTY HIGHWAY DEPARTMENT AND SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO PERFORMING ANY WORK WITHIN THE COUNTY RIGHT-OF-WAY.
5. CONTRACTOR SHALL REMOVE ALL CONFLICTING PAVEMENT MARKINGS.
6. ALL TURN LANE STRIPING SHALL BE COMPLETED USING EPOXY PAINT.
7. CONTRACTOR SHALL COORDINATE WORK AROUND AND RELOCATION OF SMALL UTILITIES.



TYPICAL RIGHT TURN LANE SECTION
NOT TO SCALE



TYPICAL LEFT TURN LANE SECTION
NOT TO SCALE



PAVEMENT SECTIONS
NOT TO SCALE

SIGN SCHEDULE

SIGN	SIGN NO.	SIZE	QUANTITY
(A)	R3-BACA	54" X 30" (BLACK ON WHITE)	2

THE GATEWAY
 8255 75TH STREET N
 GRANT, MINNESOTA
CONSTRUCTION DOCUMENTS
TURN LANE REMOVALS & SITE PLAN

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MARK RAUSCH, PE

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QUALITY ASSURANCE/CONTROL

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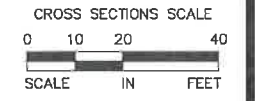
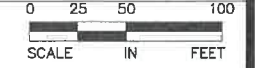
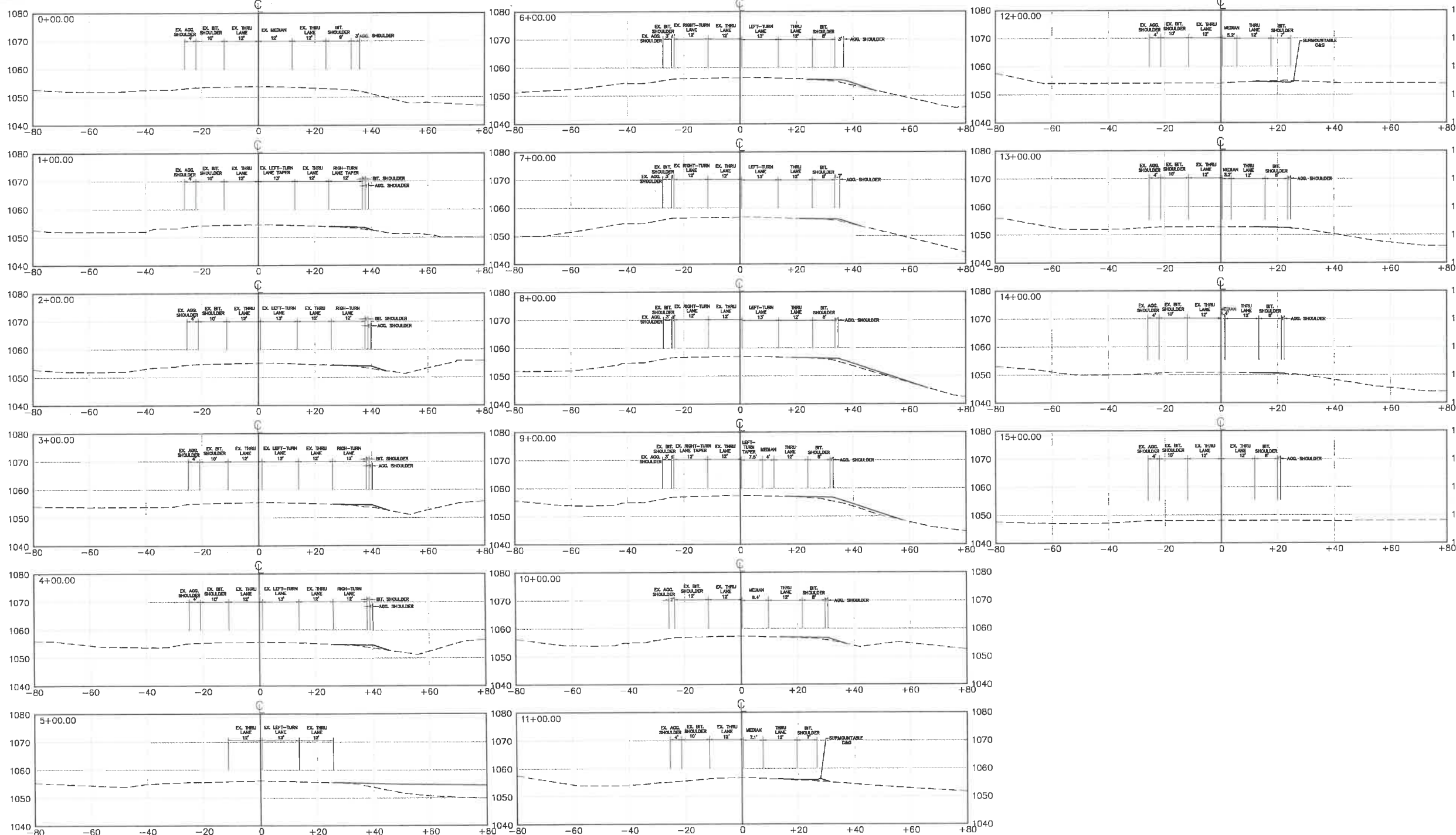
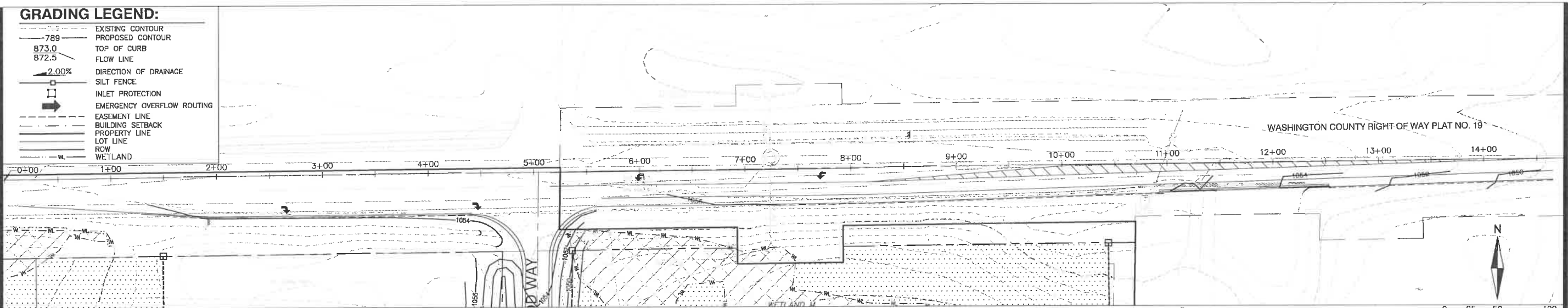
PROJECT TEAM DATA
 DESIGNED: MPR
 DRAWN: NS
 PROJECT NO: 218-0144



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GRADING LEGEND:

- EXISTING CONTOUR
- 789 PROPOSED CONTOUR
- 873.0 TOP OF CURB
- 872.5 FLOW LINE
- 2.00% DIRECTION OF DRAINAGE
- SILT FENCE
- INLET PROTECTION
- EMERGENCY OVERFLOW ROUTING
- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- WETLAND



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DESIGNED:	MPR
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PROJECT NO:	218-0144



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