



Ironwood Heights – Major Preliminary Plat

Applicants:

Carl & Jenessa Amundson / Ironwood Heights, LLC (Property Owners / Developers)
Abaci Consulting, Inc. (Plat Engineer)

Request:

Preliminary Plat approval of a Major Subdivision Plat creating 16 new single-family residential lots

Legal Description:

Approximately 26.41 acres, being Part of Lots 1, 2, 3 and 4 of the Official Plat of the East ½ of the NW ¼ of Section 32, Township 80 North, Range 24 West of the 5th P.M., Polk County, Iowa the same being that part of Government Lot 2 in Section 32, Township 80 North, Range 24 West of the 5th P.M, Polk County, Iowa AND Parcel 'A' of the Plat of Survey filed in the Office of the Recorder of Polk County, Iowa on August 20, 2013, and recorded in Book 14926 Page 730, being a part of Government Lot 2, in the NW ¼ of Section 32, Township 80 North, Range 24 West of the 5th P.M., Polk County, Iowa

General Location:

7702 NW 37th Street, Ankeny, being located approximately one (1) mile southwest of the intersection of NW 84th Avenue and NW 35th Street (Hwy 415). See *Attachment 'A'*

Existing Zoning:

"RR" Rural Residential District

Surrounding Zoning:

North: "RR" Rural Residential District / "OS" Open Space District

South: "OS" Open Space District

East: "RR" Rural Residential District

West: "OS" Open Space District

Waiver Request (See *Attachment C*):

Cul-de-sac streets shall be no longer than 600 feet from adjacent right-of-way to the end of the proposed right-of-way in residential developments

GENERAL COMMENTS:

This preliminary plat (*Attachment 'B'*) proposes 16 new single-family residential lots and one (1) street lot on approximately 26.41 acres zoned "RR" Rural Residential District. The subject property is comprised of two (2) existing tax parcels and contains an existing single-family residence and outbuildings addressed as 7702 NW 37th Street. The property has frontage and access onto the existing public roadway of NW 37th Street located directly adjacent to the east of the property. The proposed subdivision includes a cul-de-sac street extension to provide access to 14 of the proposed 16 lots. Lots 14 and 15 are proposed to have frontage and access directly onto NW 37th Street. The development would be served by Polk County sanitary sewer and public water through Des Moines Water Works. The preliminary plat identifies all required improvements, including utility and roadway extensions, grading and storm water detention.

The existing residence on the subject property is located in the northwest corner of the site and served by a long private driveway, including an existing access easement for a portion of the drive crossing the adjacent property at 7700 NW 37th Street. The proposed roadway extension would connect to NW 37th Street in the southern portion of the site in roughly the same location as the existing driveway. The property contains rolling, steep topography as well as a sizable area of mature woodlands. The majority of the property is currently vacant open space except for the existing home area. Surrounding properties to the north, south and west are zoned "OS" Open Space District and held in public ownership as they lie adjacent to the Saylorville Reservoir, dam and Des Moines River outlet located just north and west of the subject property, as well as along Rock Creek adjacent to the south. There is an existing single-family residence located adjacent to the north at 7846 NW 37th Street which is zoned "RR" Rural Residential District. There is also an existing parcel and residence at 7700 NW 37th Street zoned "RR" Rural Residential District, which the subject property borders on the south, west and north. The existing driveway serving the residence on the subject property has an access easement across this adjacent property at 7700 NW 37th Street. The larger surrounding area contains a number of existing single-family developments and established residences located along the north and east side of NW 37th Street and NW Fisher Lane south of Highway 415 and north of NW 70th Avenue within unincorporated Polk County. Polk County recently approved the preliminary plat and construction plans for Timber Valley Estates, a 19-lot single-family subdivision with new cul-de-sac street extension, located directly east of the subject property on the east side of NW 37th Street.

Lot Layout/Configuration

The preliminary plat of Ironwood Heights (*Attachment 'B'*) proposes 16 total lots, with the majority ranging in size from one (1) to two (2) acres. Lot 6 and Lot 13 are the largest lots proposed, being 2.46 acres and 3.32 acres respectively. The existing residence at 7702 NW 37th Street would be located on proposed Lot 9. Given the new public roadway extension and orientation of the existing residence and development layout, the rear yard for Lot 9 would be to the north. This creates a nonconforming setback for the existing home, as it does not meet the required rear yard setback of 50 feet for Lot 9. It would observe a rear yard setback of approximately 39 feet from the new rear lot line for Lot 9, and therefore require a variance prior to final plat approval.

The development is proposed under the standard development option for the “RR” Rural Residential District, which requires a minimum lot size of 40,000 square feet. All lots are required to meet the standard minimum lot width of 140 feet. Lots 8, 9, 12 and 13 are located at the end of the cul-de-sac and are pie-shaped lots widening as they extend from their frontage to rear lot lines. The Ordinance allows pie-shaped lots to be clustered around a cul-de-sac bulb given the limited street frontage. The preliminary plat identifies a greater front yard setback line for these lots at the point at which the minimum lot width of 140 feet is met, in accordance with the Ordinance. Staff is still coordinating with the plat engineer on Lots 4, 5, 6, 7 and 11 as they are required to meet the minimum lot width of 140 feet or greater at the 50-foot front setback line. If this cannot be substantiated for these lots under the current layout then the lot lines will need to be adjusted to meet this requirement. Lot 16 is proposed as a flag lot, and meets the requirements for flag lots served by public sewer, by being less than one (1) acre in size and having a flagpole stem less than 400 feet in length. Storm water detention facilities and associated easements are proposed on Lots 1 thru 6 as well as Lot 10 and Lot 16.

Roadway/Utilities/Natural Resources

The proposed cul-de-sac roadway connects to NW 37th Street in the southern portion of the property, and provides access into the subject property westerly and eventually turning north and terminating in the northwestern corner of the site. Lots 1 thru 13 and Lot 16 will access the new cul-de-sac, while Lots 14 and 15 will have frontage and access from the existing public roadway of NW 37th Street. A profile has been provided for the proposed cul-de-sac street showing a maximum grade of 6%, which is the maximum grade allowed under the Polk County Subdivision Ordinance. A waiver has been requested to allow the cul-de-sac street with a proposed length of 1,258 feet, in lieu of the maximum of 600 feet allowed under the Subdivision Ordinance. NW 37th Street is a paved, two-lane collector roadway maintained by Polk County. It provides connectivity north to Highway 415 and south to NW Toni Drive and NW Fisher Lane, with connectivity east to NW 26th Street and south to NW 66th Avenue. The roadway is adequate to handle the additional traffic generated by the proposed development.

There is a small area of Zone ‘A’ Floodplain (1% Annual Chance Floodplain) in the far southeastern corner of the subject property extending along Rock Creek adjacent to the south. The floodplain area is minimal and will not impact the proposed development. The site contains significant topographical features and steep slopes. The site generally increases in elevation moving south to north across the property. There is a high elevation of approximately 900 feet in the northwest corner of the site and a low elevation of approximately 810 feet in the southeast corner of the site approaching Rock Creek and its adjacent floodplain area to the south. The site also contains significant areas of existing woodlands, primarily located in the northern half of the property, but also extending throughout the center of the development and along the western property boundary. The applicants are still working through staff comments related to these onsite woodlands. The type of woodlands and their coverage area will need to be identified on the plat, including protection easements showing how the minimum protection requirements can be met. If the minimum protection cannot be achieved, then onsite or offsite mitigation options are available and would have to be approved by Polk County through the preliminary plat process.

Public Water is available through Des Moines Water Works. There is an existing 12-inch water main located along NW 37th Street. The plat developer will be responsible for connection to this main, including a new main extension along the proposed public cul-de-sac roadway to serve the development. In addition to the standard tap and system development fees, Des Moines Water Works has indicated this area has a special connection fee of \$3,807.57 per lot. This special connection fee is in place to assist in offsetting previous investments in the system to provide public water service to this area. The development will be served by Polk County sanitary sewer. There is a trunk sewer line located adjacent to the south along Rock Creek. The developer will be responsible for construction of a new main to serve the development, including connection fees. In addition, due to the grade of the property the developer will also be responsible for constructing a private lift station in order to provide the required sanitary sewer service to the development. MidAmerican Energy has commented there is existing electric service in the area capable of serving the development, but there is no natural gas service available.

Waivers

A waiver from the following standard is requested (*Attachment C*):

Cul-de-sac streets shall be no longer than 600 feet from adjacent right-of-way to the end of the proposed right-of-way in residential developments

STAFF REVIEW:

Staff has reviewed this plat for compliance with the Polk County Zoning and Subdivision Ordinances as a major subdivision plat submittal. The plat is considered a major subdivision due to the number of divisions requested, as well as the requested waiver and required public improvements. Lot density, dimensions, frontage, access and potential waivers have been reviewed. Pending the Zoning Commission's recommendation, staff will continue to work with the applicant and their representative on remaining comments. Once all comments have been addressed, the preliminary plat may be forwarded to the Board of Supervisors for their approval. Following preliminary plat approval, construction plans are required to detail the public improvements, including roadway construction, sanitary sewer and water main extensions. These improvements shall be completed or surety provided prior to final plat approval and recording. At this stage, the Commission's action would affirm, deny, or amend the overall plat layout.

The property lies within the two-mile review jurisdiction of Ankeny and Johnston. Johnston has responded they are able to administratively waive their right to review under their Code given the area does not fall within any defined future growth within their Comprehensive Plan. The City of Ankeny will also waive their review, but will have to take formal action at time of final plat.

RECOMMENDATION:

Staff recommends approval of the Preliminary Plat of Ironwood Heights, as well as the requested waiver to the cul-de-sac length. Staff is supportive of the waiver due to the site topography and lack of development potential of adjacent properties, as surrounding ground is primarily held in public ownership and contains floodplain and natural features including steep topography, Rock

Creek and the Des Moines River outlet at the Saylorville Reservoir Dam. Approval is subject to the applicants addressing all remaining staff comments and Ordinance requirements. Any significant change to the current layout would require re-approval by the Polk County Zoning Commission.

Attachment A

Ironwood Heights
Major Preliminary Plat

PLAT INFORMATION: This subdivision plat proposes 16 single-family residential lots and one (1) street lot on approximately 26.41 acres zoned “RR” Rural Residential District.

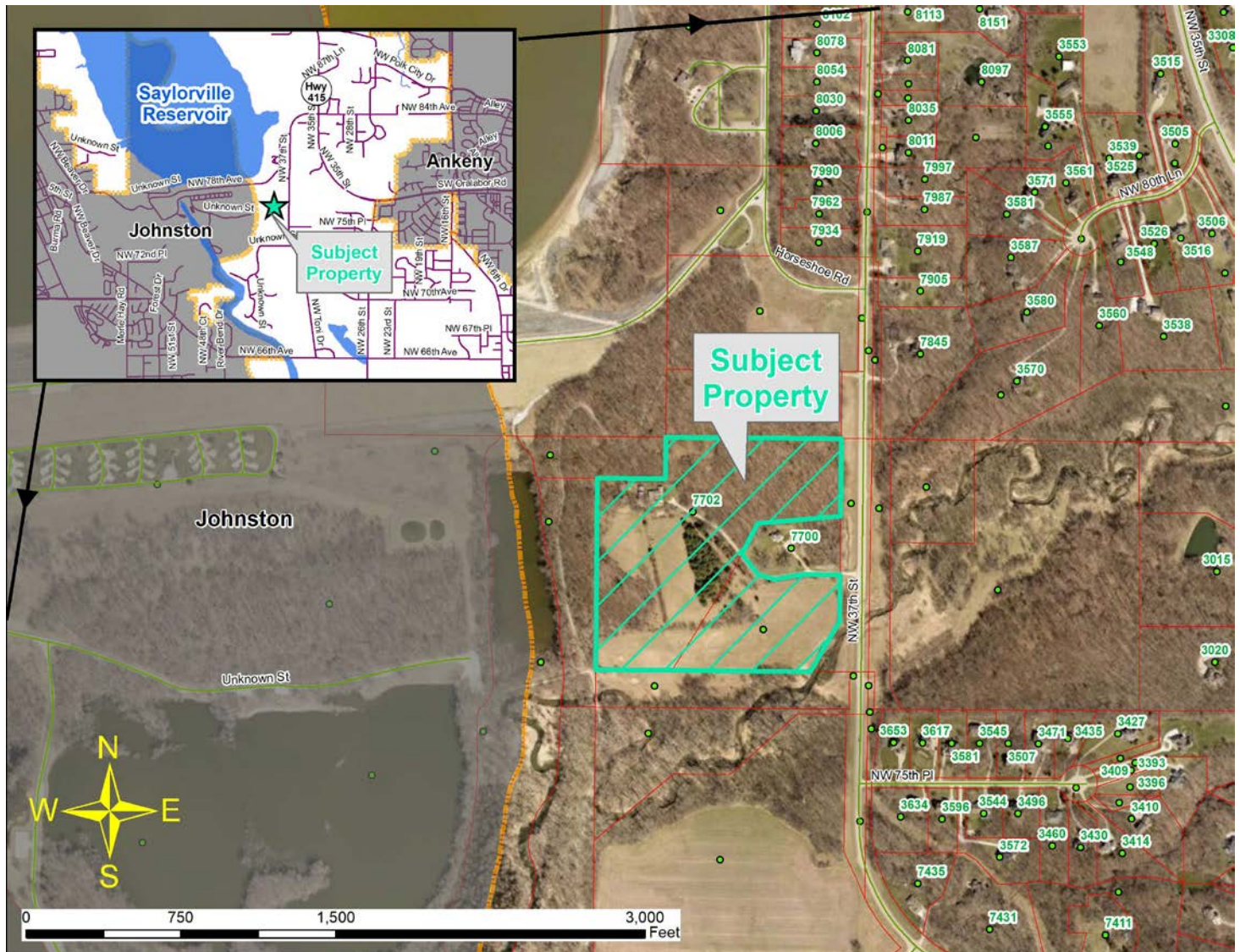
SEWER: Polk County Sanitary Sewer

WATER: Des Moines Water Works

TOWNSHIP: Crocker

OWNER & DEVELOPER: Carl Amundson, Ironwood Heights, LLC (owner/developer)

Vicinity Map:



Utility Service Providers

(MS2G) MIDAMER-GAS
Contact Name: Craig Ranfeld
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Contact Email: MECDSMDesignLocates@midamerican.com

(CTUA0) CENTURYLINK
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Contact Email: sadie.hull@lumen.com

(DWR) DES MOINES METRO WASTEWATER
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Contact Email: nfcarter@dmgov.org

(DWW) DES MOINES WATER WORKS
Contact Name: Ed Clark
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Contact Email: gencalmaps@dmww.com

(INS) AUREON NETWORK SERVICES
Contact Name: Jeff Klocko
Contact Phone: 5158300445
Contact Email: jeff.klocko@aureon.com

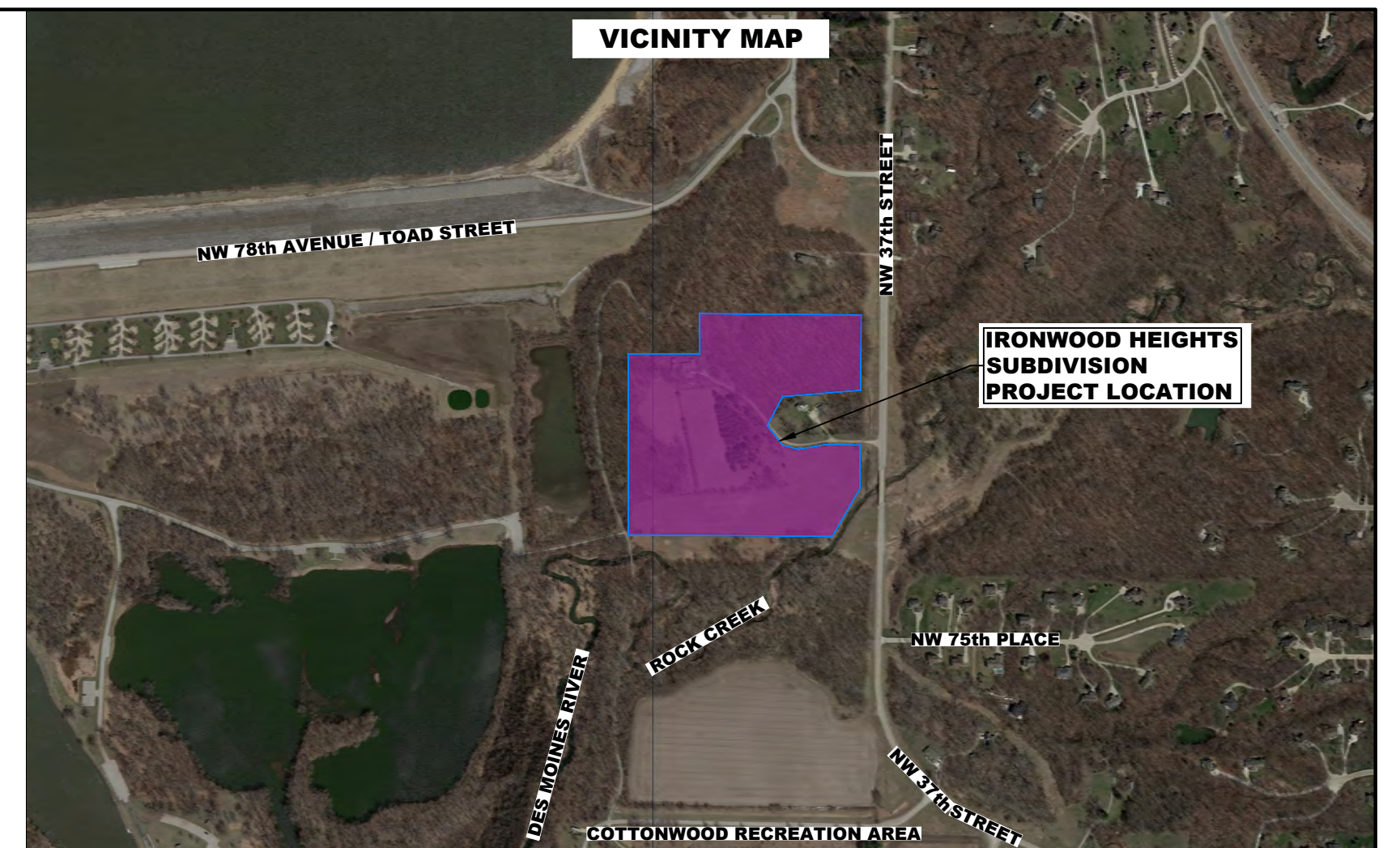
(MS2E) MIDAMER-ELEC
Contact Name: Craig Ranfeld
Contact Phone: 5152526632
Contact Email: MECDSMDesignLocates@midamerican.com

(T15) MEDIACOM COMMUNICATIONS CORP
Contact Name: Kevin Collins
Contact Phone: 5158673727
Contact Email: kcollins1@mediacomcc.com

Attachment B

MAJOR PRELIMINARY PLAT IRONWOOD HEIGHTS

VICINITY MAP



STATE OF IOWA
PROPERTY

GOV'T LT 5 & -EX E 30A- GOV'T LT 6 SEC 29-80-24

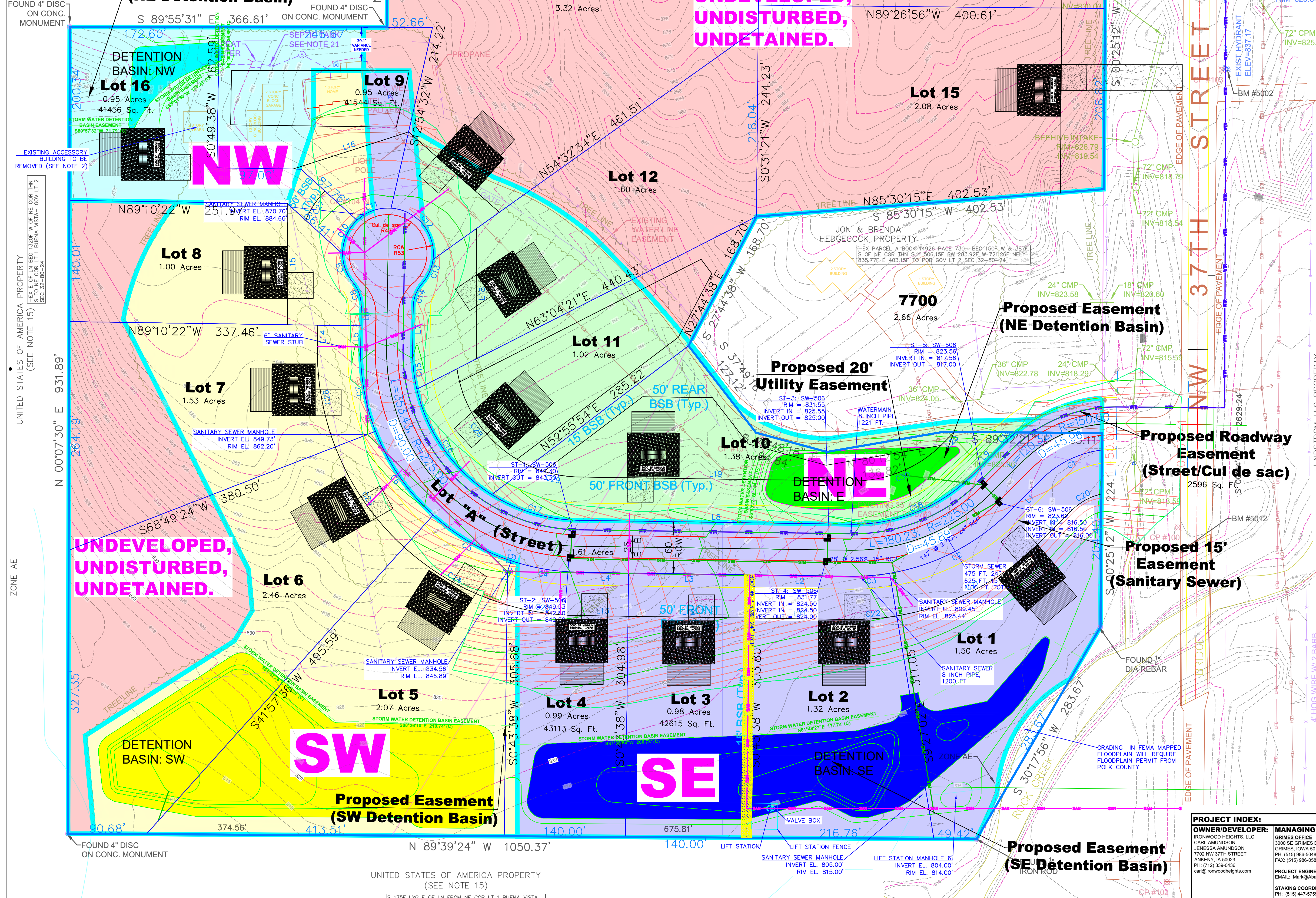
89°26'56" W 2649.32'

UNITED STATES OF AMERICA PROPERTY

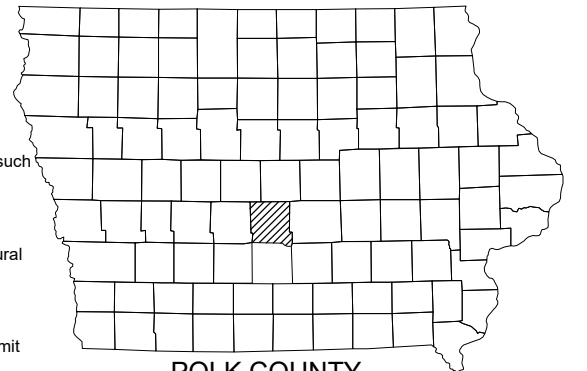
BEG 1320' W OF NE COR THIN E 330' S
205' W 660' NW ALONG RIVER TO N LN E
175' TO POB LT 2 USS SEC 32-80-24

Proposed Easement (NE Detention Basin)

**UNDEVELOPED,
UNDISTURBED,
UNDETAINED.**



- NOTES:**
- Multibox within the road right-of-way shall be of a breakaway design.
 - The existing buildings noted to be removed shall be done so prior to final plat approval.
 - Future development of the property is subject to Article 7, Section 4, "Natural Resource Protection, Woodlands" of the Polk County Zoning Code, which preserves wooded areas of the property.
 - Any subsurface drainage facilities that are disturbed must be restored or recurbed by the property owner.
 - Services to all utilities located on the opposite side of the roadway must be bored under the roadway at the lot owner's expense.
 - Maintenance of all drainage easements to be the responsibility of the property owner.
 - Culverts to be used for crossing drainage easements must be designed by a licensed professional engineer.
 - Lot "A" shall be dedicated to Polk County for roadway purposes. Lot "A" shall be dedicated to Polk County for roadway purposes at such time the roadway has been improved and accepted into the Polk County Secondary Road System by the Polk County Board of Supervisors.
 - Post development runoff will not adversely affect downstream drainage facilities or property owners.
 - It shall be the Developer's responsibility to apply for and obtain any storm water discharge permits from the Iowa Department of Natural Resources.
 - Polk County does not require or issue permits for sidewalks and does not accept the liability and/or responsibility for construction placement, repair, or maintenance thereof of any street sidewalks installed in the plat by any home owner.
 - Grading contractor will be required to provide a 4-year maintenance bond for erosion control. The IDNR Storm Water Discharge Permit will be required prior to grading operations.
 - The Homeowner's Association will be responsible for the maintenance and repair of the detention basins and detention outlet facilities.
 - Access to each lot is restricted to the subdivision road (plats with proposed internal streets), except Lots 14 and 15, which will have direct access from NW 37th Street.
 - Privately owned adjacent property is zoned Rural Residential. Government Owned adjacent property is zoned Open Space District.
 - Any new entrance will require a Polk County Entrance Permit.
 - Any work in the R.O.W. other than for an entrance will require a Polk County R.O.W. Grant Permit.
 - Placement of buildings and structures on adjacent slopes steeper than one unit vertical in three units horizontal (33.3%) must be set back from slopes in accordance with Sections 403.1.7.1 through 403.1.7.4 of the 2015 International Residential Code.
 - Any tree removals and native slope modification on slopes greater than 5:1 or within the safe slope building setback line shall require additional geotechnical investigation by a licensed geotechnical engineer. No fill from home owners/homesteaders shall be allowed within slopes steeper than 5:1 without additional geotechnical investigation.
 - Construction within the safe slope setback shall require foundation design by a professional structural engineer and slope stabilization review and design by a professional geotechnical engineer.
 - Existing septic system shall be abandoned and connected to sanitary sewer prior to final plat approval, including required abandonment permits from Polk County Environmental Health.



STANDARD LEGEND

EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	CENTERLINE OF ROADWAY	(Symbol)	(Symbol)	GAS VALVE
(Symbol)	(Symbol)	SECTION LINE	(Symbol)	(Symbol)	LIGHT BUILDING MOUNTED
(Symbol)	(Symbol)	PLAT BOUNDARY LINE	(Symbol)	(Symbol)	LIGHT GROUND MOUNTED
(Symbol)	(Symbol)	PROPERTY CORNER FOUND	(Symbol)	(Symbol)	MAJOR CONTROL IN ELEVATION
(Symbol)	(Symbol)	RIGHT-OF-WAY (ROW)	(Symbol)	(Symbol)	MINOR CONTROL IN ELEVATION
(Symbol)	(Symbol)	BUILDING SETBACK LINE (BSL)	(Symbol)	(Symbol)	OVERHEAD ELECTRIC
(Symbol)	(Symbol)	DETENTION RETENTION EASEMENT	(Symbol)	(Symbol)	POWER POLE W/ LIGHT OR POLE MOUNTED SITE LIGHTING
(Symbol)	(Symbol)	ELECTRICAL LIGHTING EASEMENT	(Symbol)	(Symbol)	POWER POLE
(Symbol)	(Symbol)	GAS LINE EASEMENT	(Symbol)	(Symbol)	SANITARY SEWER MANHOLE
(Symbol)	(Symbol)	GENERIC/SCHEMATIC/OTHER EASEMENT	(Symbol)	(Symbol)	SANITARY SEWER PIPE (OR SERVICE)
(Symbol)	(Symbol)	INGRESS/EGRESS (ACCESS) EASEMENT	(Symbol)	(Symbol)	SIGN
(Symbol)	(Symbol)	LANDSCAPING/EVERGREEN EASEMENT	(Symbol)	(Symbol)	STORM INTAKE ROUND
(Symbol)	(Symbol)	PUBLIC UTILITY EASEMENT (PUE)	(Symbol)	(Symbol)	STORM INTAKE RECTANGULAR
(Symbol)	(Symbol)	RAILROAD EASEMENT	(Symbol)	(Symbol)	STORM INTAKE SINGLE IN CURBLINE
(Symbol)	(Symbol)	ROADWAY/HIGHWAY EASEMENT	(Symbol)	(Symbol)	STORM INTAKE DOUBLE IN CURBLINE
(Symbol)	(Symbol)	STORM SEWER EASEMENT	(Symbol)	(Symbol)	STORM SEWER MANHOLE
(Symbol)	(Symbol)	TEMPORARY CONSTRUCTION EASEMENT	(Symbol)	(Symbol)	STORM SEWER PIPE (OR SERVICE)
(Symbol)	(Symbol)	LANDSCAPING/EVERGREEN EASEMENT	(Symbol)	(Symbol)	STORM SEWER MANHOLE
(Symbol)	(Symbol)	WATERMANS EASEMENT	(Symbol)	(Symbol)	STORM SEWER PIPE (OR SERVICE)
(Symbol)	(Symbol)	TEMPORARY CONSTRUCTION EASEMENT	(Symbol)	(Symbol)	TELEPHONE FEEDERIAL
(Symbol)	(Symbol)	CLEANOUT, SANITARY OR STORM DOWNSPOUT	(Symbol)	(Symbol)	UNDERGROUND ELECTRIC
(Symbol)	(Symbol)	FENCE LINE	(Symbol)	(Symbol)	UNDERGROUND FIBER OPTICS
(Symbol)	(Symbol)	FIRE HYDRANT (ASSEMBLY)	(Symbol)	(Symbol)	UNDERGROUND TELEVISION
(Symbol)	(Symbol)	FLARED END SECTION (FES)	(Symbol)	(Symbol)	WATERMANS (OR SERVICE)
(Symbol)	(Symbol)	GAS MAIN (OR SERVICE)	(Symbol)	(Symbol)	WATERMANS GATE VALVE
(Symbol)	(Symbol)	WATERMANS EASEMENT	(Symbol)	(Symbol)	WATER SERVICE SHUTOFF

BENCHMARK & CONTROL POINTS

POINT ID	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM 5002	7529115.49	18513222.48	839.33	ARROW ON TOP OF FIRE HYDRANT
BM 5012	7528560.29	18513170.98	826.58	CHEELED "X" ON TOP NW CORNER CONC. BRIDGE BARRIER
BM 5935	7529445.93	18513223.73	860.97	ARROW ON TOP OF FIRE HYDRANT
CP 100	7528986.34	18513165.77	823.44	5/8" IR W/ ORANGE PLASTIC CAP
CP 102	7528176.61	18513152.92	821.42	110-CP 1/2" IRON ROD
CP 103	7529115.10	18513216.16	838.42	110-CP 1/2" IRON ROD
CP 104	7528963.27	18512227.24	884.84	110-CP 1/2" IRON ROD
CP 101	7528694.60	18512685.73	841.79	5/8" IR W/ ORANGE PLASTIC CAP

LEGAL DESCRIPTION:

Part of Lots 1, 2, 3 and 4 of the Official Plat of the East 1/2 of the NW 1/4 of Section 32, Township 80, Range 24 West of the 5th P.M., Polk County, Iowa, being that part of the Official Plat of the East 1/2 of Section 32, Township 80 North, Range 24, West of the 5th P.M., Polk County, Iowa, excepting a tract of 3.11 acres bounded by a line commencing 80 rods West of the Northeast corner of said Lot 2, running thence East 330 feet, thence South 200 feet thence West 660 feet to the Des Moines River, thence North along the East line of the Des Moines River to the north line of Section 32, thence East 375 feet to the place of beginning, and except that part conveyed to the United States of America by Warranty Deed recorded in Book 3697 Page 230, and except that part taken by virtue of judgment recorded in Book 4784 Page 84, and except that part conveyed by Warranty Deed recorded in Book 5083 Page 639 said Warranty Deed being corrected and Corrected Warranty Deed being recorded in Book 5112 Page 176, and except those parts conveyed to John R. & Brenda A. Ellis by Warranty Deed recorded in Book 5755 Page 993, Book 5760 Page 476, and Book 5768 Page 101.

-AND-

Parcel A of the Plat of Survey filed in the Office of the Recorder of Polk County, Iowa on August 20, 2013, and recorded in Book 14926 Page 730, being a part of Government Lot 2, in the Northwest 1/4 of Section 32, Township 80 North, Range 24 West of the 5th P.M., Polk County, Iowa.

HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED AND THE RELATED WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

PRELIMINARY

SIGNATURE: VINCENT E. PIAGENTINI DATE: _____

PRINTED OR TYPED NAME: VINCENT E. PIAGENTINI
IOWA LIC. NO. 15982
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022.

HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED AND THE RELATED WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

PRELIMINARY

SIGNATURE: MARK A. McMURPHY DATE: _____

PRINTED OR TYPED NAME: MARK A. McMURPHY
IOWA LIC. NO. 14674
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022.

ABACI CONSULTING, INC.
CIVIL ENGINEERING - LAND SURVEYING

3000 SE GRIMES BLVD, STE 800
GRIMES, IA 50111
PH: (515) 986-5048

PROJECT NO: 20349
DRAWING FILE NO: 20349PP
DRAWN BY: MM
DESIGNED BY: MM
REVIEWED BY: MM
ISSUE DATE: 09/30/2021

PRELIMINARY PLAT
IRONWOOD HEIGHTS
CROCKER TOWNSHIP, POLK COUNTY, IOWA
SHEET NO: 1 of 3

PROJECT INDEX:

OWNER/DEVELOPER: IRONWOOD HEIGHTS, LLC
CARL AMUNDSON
JENESHA AMUNDSON
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ANKENY, IA 50003
PH: (515) 986-5048
carl@ironwoodheights.com

MANAGING OFFICE: GRIMES OFFICE
3000 SE GRIMES BLVD - SUITE 800
GRIMES, IOWA 50111
PH: (515) 986-5048
FAX: (515) 986-5058

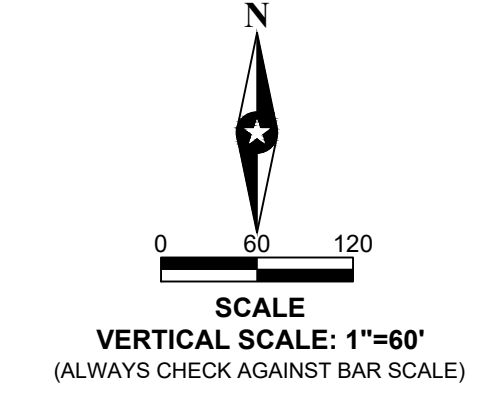
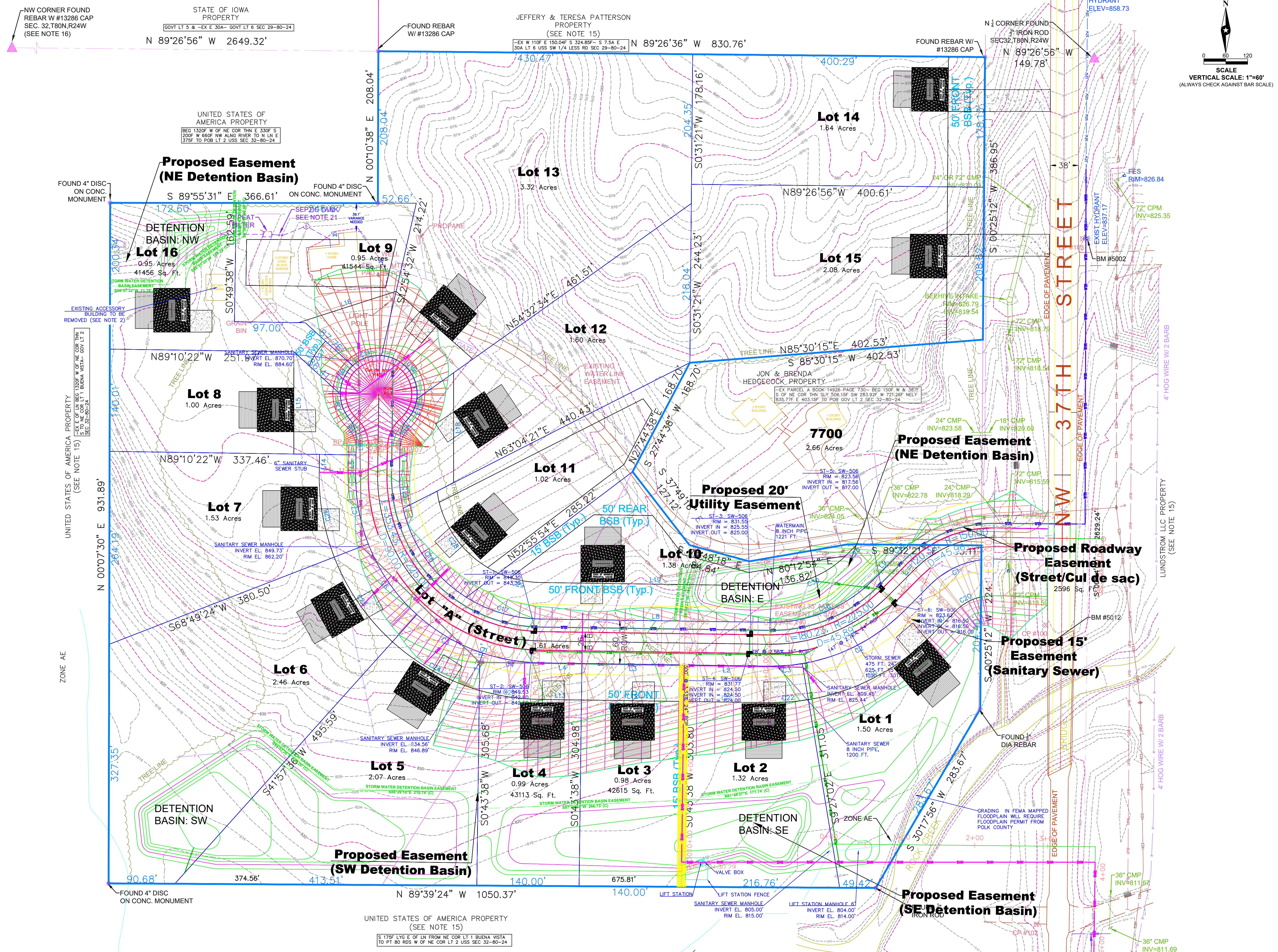
PROJECT ENGINEER: MARK A. McMURPHY, P.E.
E-MAIL: Mark@AbaciConsulting.com
PH: (515) 447-2755
MARK@AbaciConsulting.com

STEERING COORDINATOR: MERLIN DAVIS
PH: (515) 447-2755
E-MAIL: MerlinD@AbaciConsulting.com

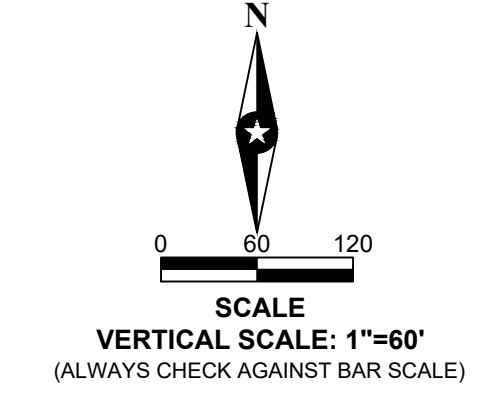
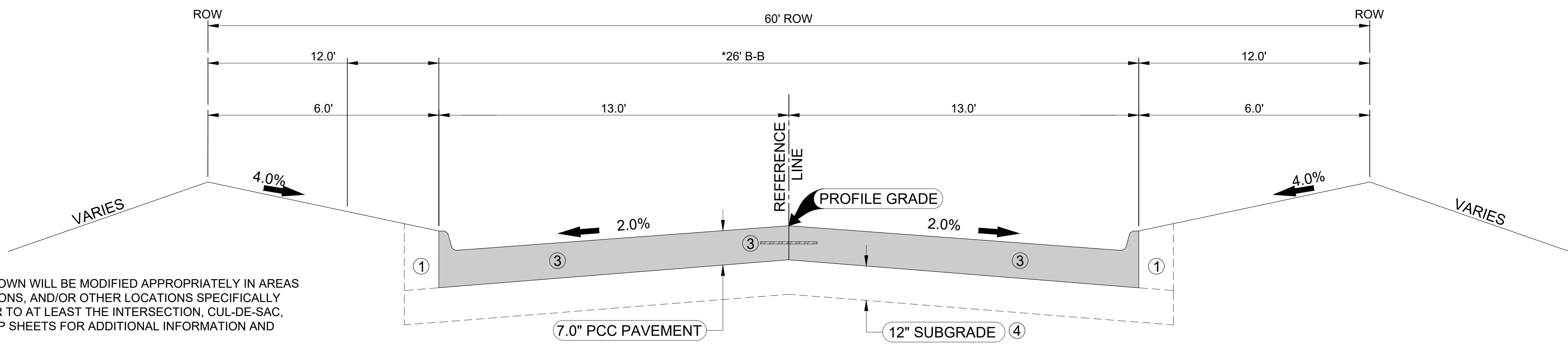
PROJECT BULK REGULATIONS:

BULK REGULATIONS	RR
FRONT YARD BSB	50 FT
REAR YARD BSB	50 FT
SIDE YARD BSB	50 FT
LOT SIZE	40,000 SF
BUILDING HEIGHT	35 FT
BUILDING COVERAGE	15%
ZONING DISTRICT	RURAL RESIDENTIAL

REFERENCE STATEMENT: THIS SURVEYING/ENGINEERING DOCUMENT WAS PREPARED FOR USE IN THE PROJECT IN ACCORDANCE WITH THE CLIENT'S SCOPE OF WORK REQUIREMENTS. ABACI CONSULTING, INC. ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE ACCURACY OR OTHER INFORMATION OR USE OF THIS DRAWING OR ANY PART THEREOF UNLESS SHOWN OR REFERENCED WITHIN THE SAID SCOPE OF WORK REQUIREMENTS. IOWA LAW REQUIRES AT LEAST 48 HOURS ADVANCE NOTICE BEFORE DISCUSSING RESINS. NOTICE TO THE OWNER AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION AND HAVE ANY AND ALL PRIVATE UTILITIES LOCATED.



PROJECT NO:	20349
DRAWING FILE NO:	20349CD
DESIGNED/REVIEWED BY:	M.M.
DRAWN BY:	H.B.
DATE:	10/28/2021
REVISION DESCRIPTION:	
NO:	1
	2
	3
	4
ABACI CONSULTING, INC. CIVIL ENGINEERING - LAND SURVEYING 3000 SE GRIMES BLVD, STE. 100 OFFICE: (315) 984-5048	
IRONWOOD HEIGHTS POLK COUNTY, IOWA COVER LAYOUT	
SHEET:	2 OF 3



NOTES:

THE TYPICAL (NORMAL) SECTION SHOWN WILL BE MODIFIED APPROPRIATELY IN AREAS OF INTERSECTIONS, INTAKE LOCATIONS, AND/OR OTHER LOCATIONS SPECIFICALLY DESIGNED BY THE ENGINEER. REFER TO AT LEAST THE INTERSECTION, CUL-DE-SAC, OVERFLOW, AND/OR SIDEWALK RAMP SHEETS FOR ADDITIONAL INFORMATION AND DETAILS.

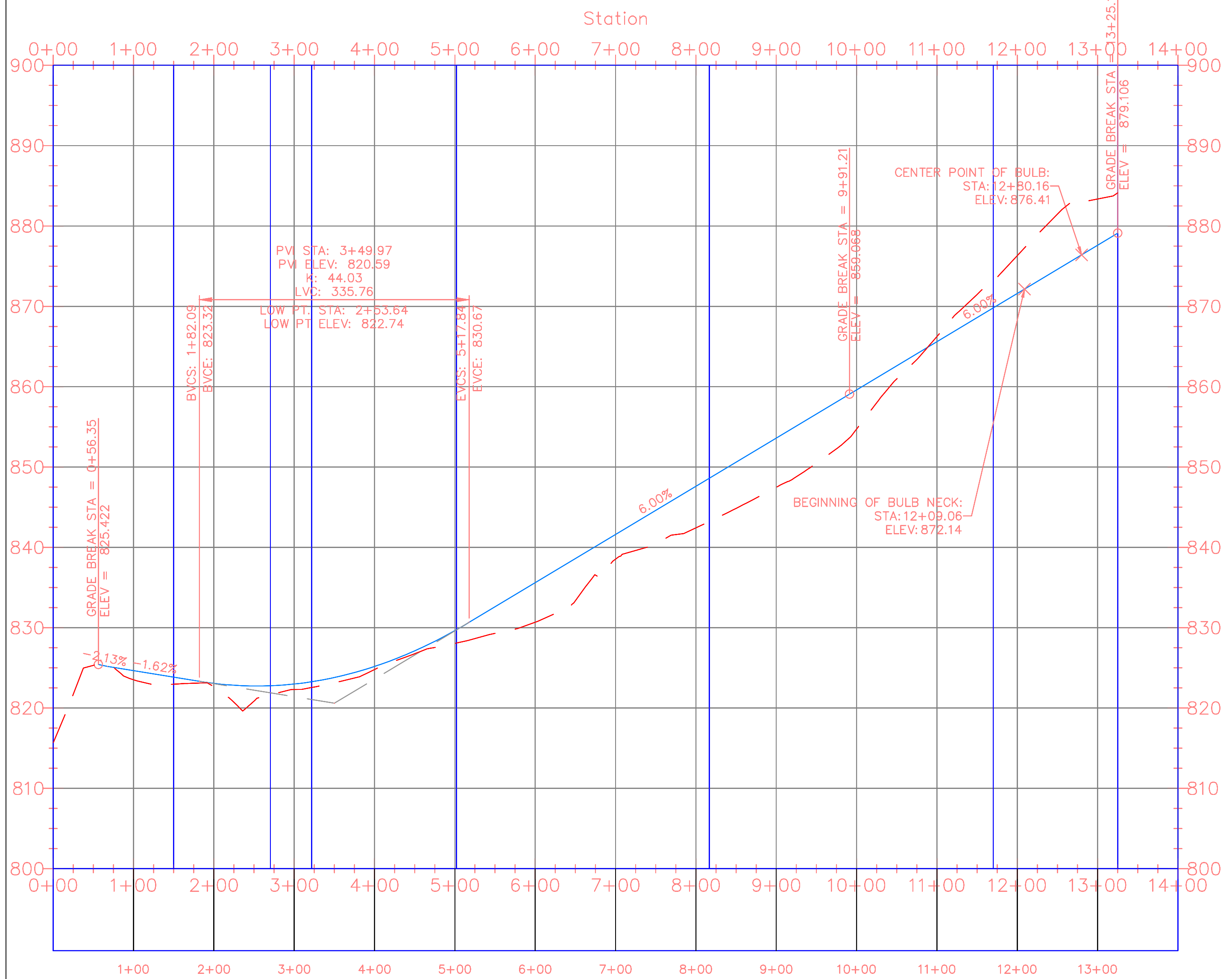
- ① EXCAVATE AND BACKFILL - TWO (2.0) FOOT WIDTH TYPICAL.
- ② REFER TO INTERSECTION AND/OR CUL-DE-SAC SHEETS FOR JOINTING AND GRADING DETAILS.
- ③ SEE SUDAS SECTION 2010.3.06 FOR PREPARING SUBGRADE.
- ④ REFER TO OVERFLOW AND/OR SIDEWALK RAMP SHEETS FOR SIDEWALK TO BE CONSTRUCTED AS PART OF THIS PROJECT.
- ⑤ TYPICAL & MAX. TRANSVERSE JOINT SPACING ('C' JOINTS) = 15 FT.

<STREET NAME> STA. 0+75.79 TO STA. 12+09.06

TYPICAL CROSS SECTION - LOOKING UP STATION - 2-LANE PCC ROADWAY WITH CURB AND GUTTER
N.T.S.

*FROM 0+75.79 TO 12+09.06

20349_ALGN_CuIDeSac - (7) PROFILE



Parcel Line and Curve Table						
Line #/Curve #	Length	Bearing/Delta	Radius	Tangent	Chord Length	Chord Bearing
C1	79.50	37.96	120.00	41.27	78.06	S63° 54' 44"W
C2	158.52	35.62	255.00	81.91	155.98	S62° 44' 28"W
C3	45.74	10.28	255.00	22.93	45.68	S85° 41' 18"W
C4	78.79	17.70	255.00	39.71	78.47	N80° 19' 18"W
C5	105.30	23.66	255.00	53.41	104.56	N59° 38' 24"W
C6	118.53	26.63	255.00	60.36	117.47	N34° 29' 35"W
C7	97.93	22.00	255.00	49.58	97.33	S10° 10' 29"E
C8	29.86	40.26	42.50	15.58	29.25	N19° 18' 04"W
C9	35.69	38.96	52.50	18.57	35.01	N19° 57' 07"W
C10	43.56	47.53	52.50	23.12	42.32	N23° 17' 33"E
C11	42.89	46.80	52.50	22.72	41.70	N70° 27' 42"E
C12	85.89	93.74	52.50	56.04	76.63	S39° 15' 57"E
C13	30.68	33.48	52.50	15.79	30.24	S24° 20' 38"W
C14	29.86	40.26	42.50	15.58	29.25	S20° 57' 20"W
C15	43.84	12.88	195.00	22.01	43.75	S6° 26' 29"E
C16	153.33	45.05	195.00	80.87	149.41	S35° 24' 28"E
C17	106.32	31.24	195.00	54.52	105.01	S73° 33' 11"E
C18	156.20	45.89	195.00	82.56	152.06	N67° 52' 47"E
C19	18.56	5.91	180.00	9.29	18.55	N47° 53' 11"E
C20	39.72	32.51	70.00	20.41	39.19	N61° 11' 13"E
C21	189.60	35.62	305.00	97.98	186.56	N62° 44' 28"E
C22	54.71	10.28	305.00	27.43	54.64	N85° 41' 18"E
C23	82.48	15.50	305.00	41.50	82.23	S81° 25' 31"E
C24	137.50	25.83	305.00	69.94	136.34	S60° 45' 45"E
C25	141.98	26.67	305.00	72.30	140.70	S34° 30' 43"E
C26	117.13	22.00	305.00	59.30	116.41	S10° 10' 29"E
C27	40.76	22.79	102.50	20.66	40.50	S33° 21' 41"W
C28	146.30	57.81	145.00	80.06	140.17	N36° 46' 59"W
C29	59.44	23.49	145.00	30.14	59.02	N77° 25' 48"W
C30	116.15	45.89	145.00	61.39	113.07	S67° 52' 47"W

Parcel Line and Curve Table						
Line #/Curve #	Length	Bearing/Delta	Radius	Tangent	Chord Length	Chord Bearing
L1	51.45	S44° 55' 56.76"W				
L2	116.29	N89° 10' 22.36"W				
L3	140.00	N89° 10' 22.36"W				
L4	58.45	N89° 10' 22.36"W				
L5	26.07	N0° 51' 08.22"E				
L6	22.54	N0° 47' 52.83"E				
L7	51.42	S0° 48' 16.15"W				
L8	314.74	S89° 10' 22.36"E				
L9	51.45	N44° 55' 56.76"E				
L10	51.45	N44° 55' 56.76"E				
L11	116.20	S89° 10' 22.36"E				
L12	140.00	S89° 10' 22.36"E				
L13	58.54	S89° 10' 22.36"E				
L14	26.07	S0° 49' 37.64"W				
L15	140.01	S0° 00' 00.00"E				
L16	140.00	N72° 10' 37.08"E				
L17	140.16	S48° 31' 11.82"E				
L18	150.55	S0° 00' 00.00"E				
L19	314.74	N89° 10' 22.36"W				
L20	19.95	S44° 55' 56.76"W				

PROJECT NO: 20349
DRAWING FILE NO: 20349CD
DESIGNED/REVIEWED BY: M.M.
DRAWN BY: H.B.
DATE: 10/28/2021

REVISION DESCRIPTION:

NO:	1	
	2	
	3	
	4	

IRONWOOD HEIGHTS
POLK COUNTY, IOWA

ABACI CONSULTING, INC.
CIVIL ENGINEERING - LAND SURVEYING
3000 SE GRIMES BLVD, STE 100
OFFICE: (515) 984-5048

CUL-DE-SAC: TYPICAL & PROFILE LINE & CURVE DATA

SHEET: 3 OF 3

ABACI CONSULTING, INC

CIVIL ENGINEERING • LAND SURVEYING

3000 SE Grimes Blvd, Ste 800, Grimes, Iowa 50111
Ph: (515) 986-5048 • E-mail: Abaci@AbaciConsulting.com

Memo

To: Polk County Engineer

From: Mark McMurphy, Abaci Consulting, Inc. on behalf of Ironwood Heights, LLC

Date: Tuesday, November 16, 2021

Subject: Ironwood Heights Preliminary Plat – Request for Cul-de-sac Length Waiver

In response to the received comments, and as an attachment to the Preliminary Plat Planset of Ironwood Heights, this is a request for a waiver to the cul-de-sac length.

The Polk County Subdivision Ordinance (Article 5: Subdivision Plat Design Standards, Section 7(B)(1) page 28) states that a cul-de-sac can be “no longer than 600 feet from adjacent right of way to the end of the proposed right of way in Residential Developments.”

The proposed cul-de-sac length is 1,258 feet, which includes the intersection length off NW 37th Street as well as the entire length of the bulb at the end of the cul-de-sac. From that point, there is 18 feet to the right of way, bringing the total to 1,278 feet.

The length waiver is required in order to fully develop the parcel per the Land Use Plan and Zoning designation. This parcel is enveloped on the south, west and northwest by United States of America owned land that is part of Saylorville Reservoir. Additionally, the land directly to the north has been developed and then has USA land adjacent on its north side. As such, it is not feasible to extend a street across this property to the south, west, or north. Without the length waiver, the codified limitations on flagpole length would prevent the full development of this property.

The cul-de-sac design length was also increased to overcome the large elevation difference from the lowest point on the cul-de-sac to the highest while maintaining a maximum longitudinal slope of 6%. Had the cul-de-sac been designed any shorter, the slope would need to exceed the specified non-negotiable maximum of 6%.

Considering this, a waiver is required to proceed with design. We are hoping Polk County will kindly oblige.

Sincerely,