



Timber Valley Estates – Preliminary Plat

Applicant: Lundstrom, LLC (Property Owner) and Strahan Construction (Developer) represented by Bob Gibson with Civil Design Advantage

Request: Preliminary Plat Approval of a Major Subdivision Plat

Legal Description: Part of the NW¼ NE ¼ of Section 32 in Crocker Township, Polk County, Iowa, containing 32 Acres

General Location: Located approximately 350-feet northeast of the NW 37th Street and NW 75th Place intersection. (*Attachment 'A'*)

Existing Zoning: "RR" Rural Residential District

Surrounding Zoning:

North: "RR" Rural Residential District

East: "RR" Rural Residential District

South: "RR" Rural Residential District

West: "RR" Rural Residential District and "OS" Open Space District

Waiver Request:

1. *Maximum cul-de-sac length greater than 600-feet.*
2. *Flag lot size exceeding 1-acre in areas with public sanitary sewer.*

PREVIOUS ACTION:

The Zoning Commission reviewed the preliminary plat of Timber Valley Estates Plat 1 on January 25, 2021 and made an approved motion (6-0) that the Zoning Commission deny the request until a State of Iowa Native American burial ground review has been completed.

UPDATE:

The Applicant's have taken steps to coordinate with the Office of the State Archaeologist (OSA) to investigate the suspected mounds as referenced by neighbors at the previous Zoning Commission meeting. A report has been provided by the OSA outlining their conclusions from

the investigation. They have concluded that the mounds are likely push piles from modern construction/land modification, maintenance of the drainage to the south, or a combination of these events as well as natural tree falls and they reference that they are confident that they are not ancient burial mounds. They state that, "Although there is a low likelihood that ancient burials are associated with site 13PK465, and therefore a low likelihood that any would be disturbed by the Timber Valley Estates development, given that we do have evidence of a substantial prehistoric occupation there (in addition to the historic component referenced above, 13PK465 is recorded as a high-density scatter of pottery sherds and flakes indicative of stone tool manufacture) we would like to recommend as much avoidance as possible of 13PK465." The report also made reference to the Iowa Code (per section 523I.316.6) requiring that if any human remains, or bone suspected to be human are unearthed, all ground disturbance within 100 feet must cease, the area must be protected, and the Office of the State Archaeologist, local law enforcement and the State Medical Examiner, must be contacted immediately. The area of interest is identified as 13PK465 and as noted in the documentation provided to County staff, this area is a confidential site location therefore specific details regarding the exact site are not for public distribution. See *Attachment 'C'* for a copy of the OSA report without the confidential maps as referenced.

The Applicant's Representative has confirmed that they have reached out to adjacent neighbors who presented their concerns regarding the mounds on the subject property. Information including the report and outlined conclusions has been provided to them with contact information to personally discuss details and questions with Bob Gibson from Civil Design Advantage.

GENERAL COMMENTS:

This preliminary plat (*Attachment 'B'*) proposes to create 19 single-family residential lots and three (3) outlots on a 32-acre parcel zoned "RR" Rural Residential District utilizing the Cluster Development option. The subject property is located approximately 350-feet northeast of the NW 37th Street and NW 75th Place intersection. The City of Ankeny corporate limits are approximately ½ mile to the east and the City of Johnston corporate limits are approximately ⅓ mile to the west. The property is currently vacant with a majority of the property covered in woodlands and a large area of floodplain surrounding Rock Creek within northern and western portions of the parcel. The subject property has approximately 800 feet of frontage along NW 37th Street, a paved collector roadway maintained by Polk County. The proposed plat includes one (1) access with two (2) proposed cul-de-sac street extensions. Lot A is an east west cul-de-sac street extension and extends 1,188-feet from NW 37th Street. The majority of the lots (14) have frontage along Street Lot A. Street Lot B is the second cul-de-sac extension, located at a north central point along Lot A, and extends south to north with a length of 1,150-feet from NW 37th Street and provides frontage to five (5) lots. The maximum cul-de-sac length is 600-feet as required by the Subdivision Ordinance. The developer has confirmed through response to review comments that the profile grade for the streets will meet the maximum street grade of 6%.

The proposed 19 single-family residential lots generally have widths between 110 and 271 feet and areas ranging from 21,274 square feet to 107,781 square feet (2.47 acres). The minimum

lot size is 20,000 square feet and the minimum lot width requirement is 100-feet for standard lots within the Cluster Development option. The average size of the proposed lots is approximately 30,000 square feet with most of the lots being much larger than the minimum allowable lot size minimizing impact and providing greater protection of natural resources. The Cluster Development option requires 25% permanent open space to be maintained on the subject property. The proposal provides 42% open space within Outlots 'X', 'Y' and 'Z'. Flag lots shall not exceed one (1) acre in size in areas with public sanitary sewer as required by the Subdivision Ordinance. Both Lots 10 and 11 exceed the one (1) acre standard with Lot 10 proposed as 1.71-acres in size and Lot 11 proposed as 2.47-acres in size.

The site has a significant variation in topography with a high point of 906 feet within the southeast corner of the site and a low point of 810 feet along the stream of Rock Creek in the north and northwest portions of the site. The topography of the site introduces unique challenges in providing streets and utility services. An existing WRA Polk County trunk sanitary sewer line and associated 30-foot wide sanitary sewer easement diagonally bisects the subject property. The proposal requires approval from the WRA for fill depths and locations of crossing the trunk sanitary sewer for the proposed streets.

Staff is working with the Engineer on review comments and will address compliance with the Polk County Stormwater Control Ordinance. Outlots 'Y' and 'Z' include Rock Creek and the existing FEMA floodway and 100-year floodplain on the property. A mapped wetland as determined by the National Wetland inventory is also located within the northeast corner of Outlot 'Z'. Woodland Protection easements are identified throughout the development to provide protection for existing young and mature woodlands. Woodland mitigation is also proposed due to the significant grading of the property. The proposal identifies 13.9-acres of mature woodlands on site with a 33% impact (4.6-acres) and 1.1-acres of mitigation provided. There are 7.6-acres of young woodlands on site with a 62.6% (4.76-acres) impact and .96-acres of mitigation provided. Staff is continuing to work with the Engineer on review comments to ensure compliance with mitigation requirements for the removal of woodlands on this site. The subject property has steep slopes and significant grading is proposed due to topographical challenges. A safe slope setback line is identified for Lots 1-16 for significant slopes on the property. Any 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. A geotechnical report has been submitted and is currently under review by the Polk County Engineering Division.

Water service will be provided by Des Moines Water Works. The developer is required to construct a northerly extension from the 8" DMWW water main located along the south side of NW 75th Place. A 12" water main extension is proposed along the east side of NW 37th Street to serve this development. The developer is required to coordinate the design and installation with Des Moines Water Works. An existing WRA Polk County sanitary trunk sanitary sewer will provide sanitary sewer services to the proposed lots via 8" mains constructed from the existing 42" trunk sewer. All lots except lots 10 and 11 have an available outlet to an adjacent public storm sewer within the right-of-way. Lots 10 and 11 will have sump lines that outlet to the rear yards with maintenance of the private sump lines to be provided by the Homeowner's

Association. Storm water detention is provided through Private Overland Flowage and Detention Easements located within existing natural low points on the property and designated on Outlot 'Y' and Outlot 'Z'. The development will be provided with standard hydrant spacing for fire protection.

STAFF REVIEW:

Staff has reviewed this plat for compliance with the Polk County Zoning and Subdivision Ordinances as a major subdivision plat submittal. Lot density, dimensions, frontage, access, and potential waivers have been reviewed. Pending approval, re-submittals will be needed to address staff comments. At this stage, the Commission's action would affirm, deny, or amend the overall plat layout and the requested waivers. The current layout would require waivers from the maximum cul-de-sac length of 600-feet and from the flag lot size exceeding one (1) acre in areas with public sanitary sewer.

The Developer is requesting two (2) waivers. The waivers are for the cul-de-sac length increase from 600 feet to 1,150 feet (Lot B) and 1,188 feet (Lot A) and for the flag lot size exceeding one (1) acre in areas with public sanitary sewer. The developer has responded to staff comments and is working toward compliance with all of the review comments. The number of lots was reduced from 20 to 19 lots between the first and second submittal of the preliminary plat. Adjustments continue to be made to limit impact on the floodplain and provide appropriate buffers and protection easements. The proposal includes two (2) flag lots being greater than one (1) acre in size including Lot 10 at 1.71-acres and Lot 11 at 2.47-acres. Both of these lots are shown with Woodland Protection Easements and appear to offer additional undisturbed woodland protection with the larger lot size. The number of lots proposed for the subdivision is within the allowed 24 dwellings in a residential district to be served by a single cul-de-sac. In review of the adjacent developments to the south and the east, it appears that there are multiple cul-de-sac extensions that exceed 600-feet and are closer to 1,000-feet in length. The subject property has topographic limitations as well as limited access along the frontage of the property and in relationship to existing floodplain locations on the property.

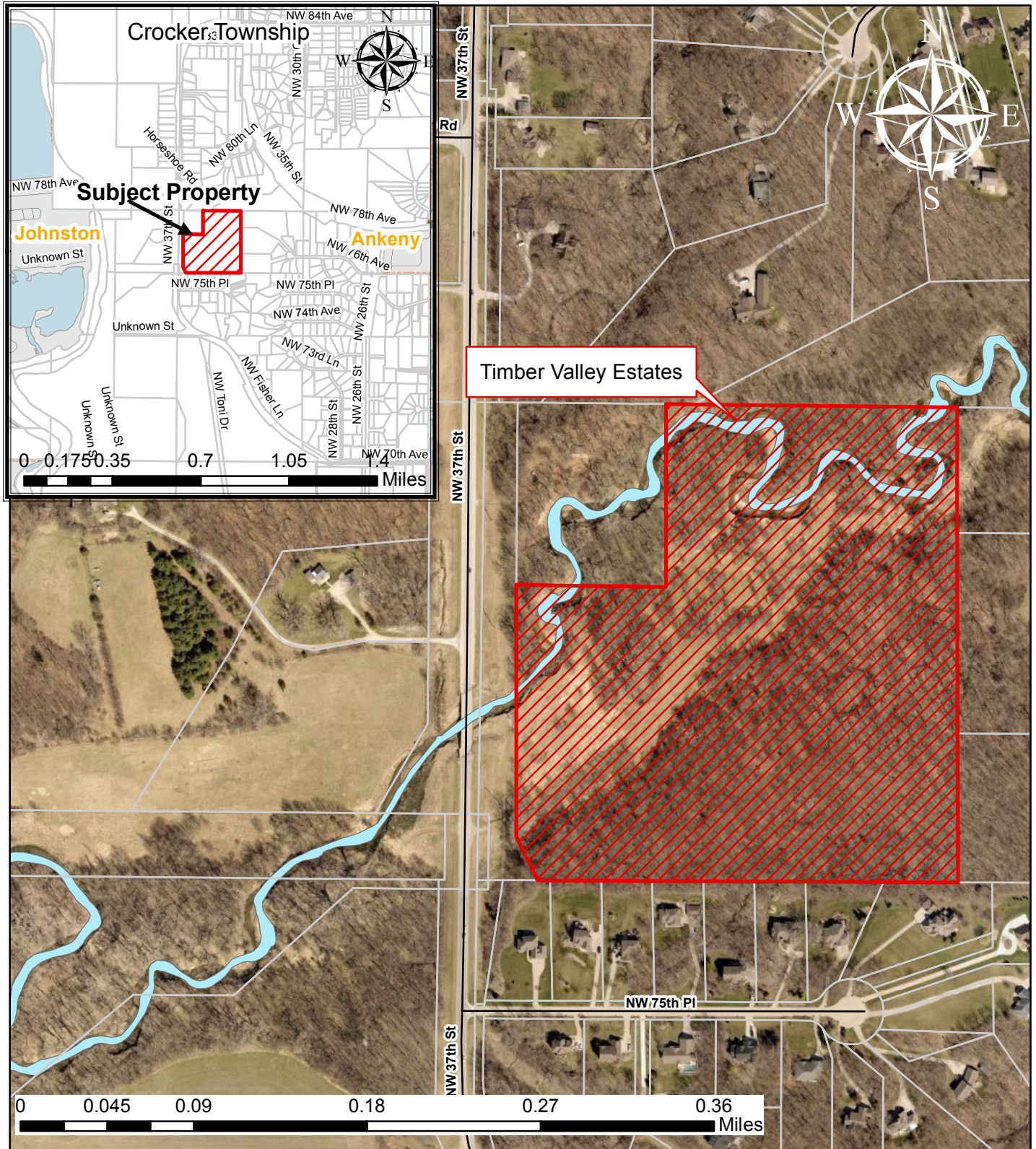
If the developer can continue to work towards meeting the review comments and Ordinance requirements applicable to the proposal then the waivers can be supported by Staff. The staff review took into careful consideration the constraints for future development in this area, including existing topography, woodlands, and FEMA Flood Zone along Rock Creek. These constraints limit the ability to make significant future street connections. The unique nature of the subject property, which includes steep terrain and significant topographical and environmental challenges along with the limited access to the existing public street, supports the requested waivers from these requirements.

The property lies within the two-mile review authority of the City of Ankeny and the City of Johnston. The City of Johnston has an exemption for reviewing plats east of the Des Moines River/Saylorville Lake and therefore will not review this plat. The City of Ankeny has indicated that this property is located outside of their planning boundary identified in the Ankeny Plan 2040 Comprehensive Plan therefore, the City of Ankeny waives its extraterritorial review for this area.

RECOMMENDATION:

Staff recommends approval of the Preliminary Plat of Timber Valley Estates subject to the approval of the required subdivision waivers for the cul-de-sac length increase from 600 feet to 1,150 feet (Lot B) and 1,188 feet (Lot A) and the waiver for the flag lot size being greater than one (1) acre in areas with sanitary sewer for lots 10 and 11. Prior to official approval of the preliminary plat by the Board of Supervisors, all remaining staff comments must be addressed. Furthermore, prior to any construction activity, staff will need to review and approve construction plans for all plat improvements. The Developer shall take precautions in areas proximate to the archaeological sensitive area as noted by the OSA. The Final Plat shall note lots proximate to this area as having special care taken during both the development and lot development.

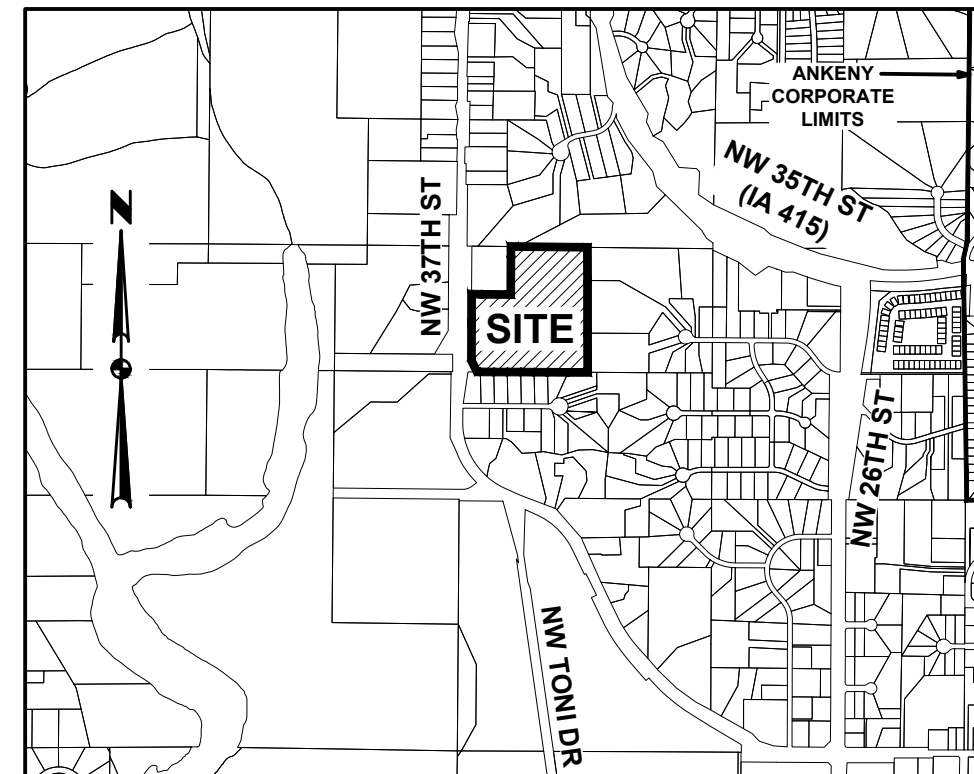
Attachment 'A'



MAJOR PRELIMINARY PLAT FOR: TIMBER VALLEY ESTATES POLK COUNTY, IOWA

Attachment 'B'

VICINITY MAP (1"=2000')



POLK COUNTY IOWA

OWNER

LUNDSTROM LLC
STEVEN D LUNDSTROM
1924 NW 70TH AVE
ANKENY, IA 50023

DEVELOPER

STRAHAN CONSTRUCTION
LUKE STRAHAN
477 SW CAMDEN DRIVE
ANKENY, IA 50023
515-238-7414

ENGINEER / SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH: 515-369-4400
CONTACT: BOB GIBSON

ZONING

EXISTING: POLK COUNTY RR - RURAL RESIDENTIAL DISTRICT

BULK REGULATIONS

CLUSTER OPTION

MINIMUM LOT WIDTH:	100'
MINIMUM LOT SIZE:	20,000 SF
FRONT YARD SETBACK:	30'
SIDE YARD SETBACK:	10'
REAR YARD SETBACK:	30'

TOTAL SITE AREA:	1,393,920 SF (32.0 AC)
MINIMUM REQUIRED COMMON OPEN SPACE:	348,480 SF (25%)
COMMON OPEN SPACE PROVIDED:	598,367 SF (42%)

(OUTLOTS 'X', 'Y' AND 'Z')

UTILITY PROVIDERS

WATER:	DES MOINES WATER WORKS
WASTE WATER:	POLK COUNTY
ELECTRICITY:	MIDAMERICAN ENERGY
GAS:	MIDAMERICAN ENERGY

SHEET INDEX

SHEET 1:	COVER SHEET
SHEET 2-3:	DIMENSION PLAN
SHEET 4-5:	GRADING/UTILITY PLAN
SHEET 6:	WOODLANDS IMPACT
SHEET 7:	WOODLANDS MITIGATION PLAN

SUBMITTAL DATES

1ST SUBMITTAL:	12/01/2020
2ND SUBMITTAL:	01/14/2021
3RD SUBMITTAL:	03/23/2021

PRELIMINARY PLAT DESCRIPTION

(TRUSTEE WARRANTY DEED: BOOK 9876, PAGE 229)

THE NORTHWEST QUARTER (NW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 32, TOWNSHIP 80 NORTH, RANGE 24 WEST OF THE 5TH P.M., POLK COUNTY, IOWA, EXCEPT THE WEST 503 FEET OF THE NORTH 500 FEET THEREOF, AND EXCEPT THE WEST 30 FEET OF THE SOUTH 175 FEET THEREOF, AND EXCEPT ROADS.

PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

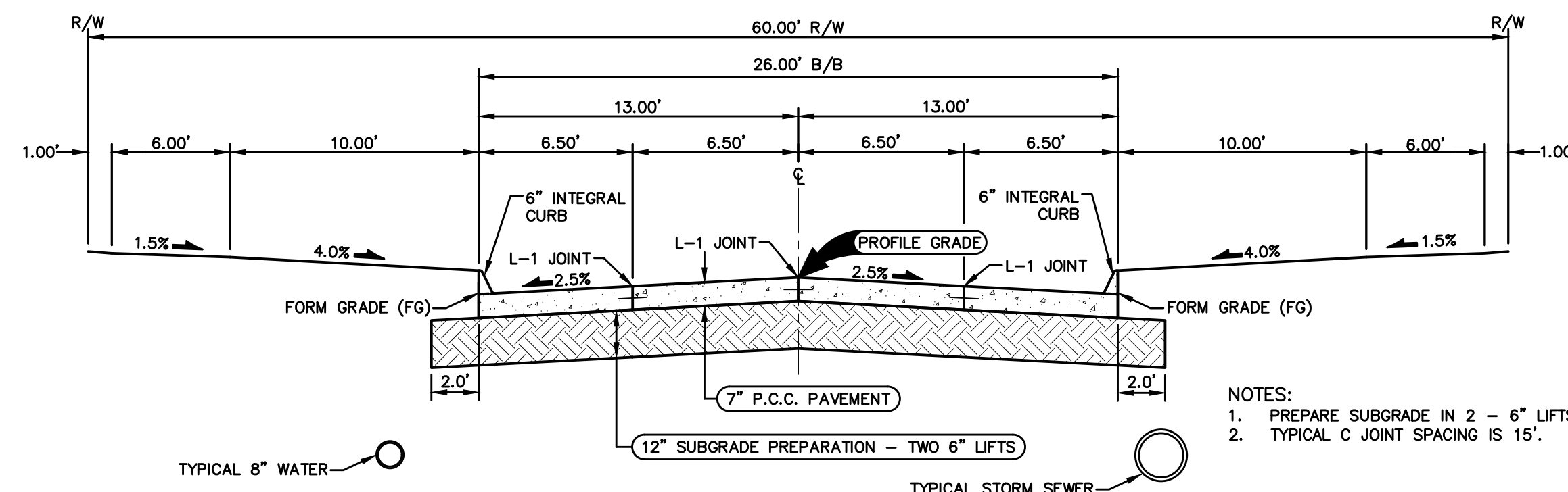
PROPERTY CONTAINS 32.0 ACRES MORE OR LESS.

NOTES

1. MAILBOXES WITHIN THE R.O.W. SHALL BE OF BREAKAWAY DESIGN.
2. ANY SUBSURFACE DRAINAGE FACILITIES THAT ARE DISTURBED MUST BE RESTORED OR REROUTED BY THE PROPERTY OWNER.
3. POST DEVELOPMENT RUNOFF SHALL NOT ADVERSELY AFFECT DOWNSTREAM DRAINAGE FACILITIES OR PROPERTY OWNERS.
4. THE HOMEOWNER'S ASSOCIATION WILL BE RESPONSIBLE FOR THE MAINTENANCE OF DRAINAGE SWALES LOCATED WITHIN ALL PRIVATE OVERLAND FLOWAGE EASEMENTS.
5. OUTLOTS 'X', 'Y' AND 'Z' WILL BE OWNED BY A HOMEOWNER'S ASSOCIATION AND WILL BE USED FOR COMMON OPEN SPACE, OVERLAND FLOWAGE, AND STORM WATER DETENTION.
6. THE HOMEOWNER'S ASSOCIATION SHALL MAINTAIN THE PRIVATE STORM WATER DETENTION BASINS AND OUTLET PIPES WITHIN THE PRIVATE OVERLAND FLOWAGE AND DETENTION EASEMENTS ON LOTS 17, 18, OUTLOT 'Y' AND OUTLOT 'Z'. AN ACCESS EASEMENT TO THE PRIVATE STORM WATER DETENTION BASIN ON LOT 17, 18 AND OUTLOT 'Y' IS PROVIDED ON LOTS 11, 16 AND 17.
7. IT SHALL BE THE DEVELOPER'S RESPONSIBILITY TO APPLY FOR AND OBTAIN ANY STORM WATER DISCHARGE PERMITS FROM THE IOWA DNR.
8. THE GRADING CONTRACTOR WILL BE REQUIRED TO PROVIDE A 4-YEAR MAINTENANCE BOND FOR EROSION CONTROL. AN IDNR NPDES PERMIT WILL BE REQUIRED PRIOR TO GRADING OPERATIONS.
9. ALL SERVICES TO UTILITIES LOCATED ON THE OPPOSITE SIDE OF THE ROADWAY MUST BE BORED UNDER THE ROAD AT THE LOT OWNER'S EXPENSE.
10. THE ENTRANCE FROM NW 37TH STREET WILL REQUIRE A POLK COUNTY ENTRANCE PERMIT.
11. ACCESS TO EACH LOT IS RESTRICTED TO THE SUBDIVISION ROADS.
12. SANITARY SEWER SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE IOWA SUDAS SPECIFICATIONS.
13. A POLK COUNTY SEWER CONNECTION PERMIT IS REQUIRED FOR ANY NEW CONNECTION TO COUNTY SEWER.
14. WATER SERVICE SOURCE WILL BE DES MOINES WATER WORKS.
15. STREET LOTS A & B SHALL BE DEDED TO POLK COUNTY FOR ROADWAY PURPOSES AT SUCH TIME THE ROADWAY HAS BEEN APPROVED AND ACCEPTED INTO THE POLK COUNTY SECONDARY ROAD SYSTEM BY THE POLK COUNTY BOARD OF SUPERVISORS.
16. SUMP LINES FOR LOTS 10 AND 11 WILL OUTLET TO THE REAR YARDS. FOR ALL OTHER LOTS, PRIVATE COLLECTION LINES MAINTAINED BY THE HOMEOWNERS ASSOCIATION WILL BE INSTALLED FOR SUMP LINES. INDIVIDUAL SUMP LINES FROM THE HOMES TO THE PRIVATE COLLECTION LINE WILL BE MAINTAINED BY THE INDIVIDUAL HOMEOWNER.
17. EFFECTIVE DATE OF FLOOD PLAIN IS FEBRUARY 1, 2019 AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP FOR POLK COUNTY, IOWA, MAP NUMBER 19153C0185F.
18. POLK COUNTY DOES NOT REQUIRE OR ISSUE PERMITS FOR SIDEWALKS AND DOES NOT ACCEPT LIABILITY AND/OR RESPONSIBILITY FOR CONSTRUCTION, PLACEMENT, REPAIR, OR MAINTENANCE OF ANY STREET SIDEWALK INSTALLED IN THE PLAT BY ANY HOMEOWNER.
19. STREETLIGHTS AND SIDEWALKS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNERS IF ANNEXED INTO THE CITY OF ANKENY.
20. THIS PLAT IS BEING PREPARED UTILIZING THE CLUSTER DEVELOPMENT OPTION UNDER THE RURAL RESIDENTIAL DISTRICT REQUIRING A MINIMUM OF 7.95 ACRES (25%) OF OPEN SPACE. THIS REQUIRED OPEN SPACE IS LOCATE WITHIN OUTLOTS X, Y & Z AND SHALL BE MAINTAINED AS PERMANENT UNBUILDABLE OPEN SPACE BY THE HOMEOWNERS ASSOCIATION.
21. MAINTENANCE OF ALL DRAINAGE EASEMENTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
22. CULVERTS TO BE USED FOR CROSSING DRAINAGE EASEMENTS SHALL BE DESIGNED BY A LICENSED ENGINEER.
23. FUTURE DEVELOPMENT OF THE PROPERTY IS SUBJECT TO ARTICLE 7, SECTION 4, "NATURAL RESOURCE PROTECTION, WOODLANDS" OF THE POLK COUNTY ZONING ORDINANCE, WHICH PRESERVES WOODED AREAS OF THE PROPERTY.
24. THE WOODLAND PROTECTION EASEMENTS FOR THIS PLAT ARE AREAS DESIGNATED TO BE 100% PROTECTED AND UNDISTURBED, PER POLK COUNTY ZONING ORDINANCE, ARTICLE 7, NATURAL RESOURCE PROTECTION, SECTION 4, WOODLANDS, WHEREAS WOODLAND REMOVAL AND MITIGATION IS PROPOSED, WITH THE REMAINING WOODLAND AREAS TO BE PROTECTED BY WOODLAND PROTECTION EASEMENTS. THE RESOURCE CALCULATIONS FOR THIS SUBDIVISION PLAT INCLUDES 9.3 ACRES OF MATURE WOODLANDS AND 2.9 ACRES OF YOUNG WOODLANDS TO REMAIN UNDISTURBED.
25. YOUNG WOODLANDS AREAS SHALL BE PROTECTED OR MITIGATED AT A MINIMUM OF 50% AND MATURE WOODLANDS AREAS AT A MINIMUM OF 75%.
26. 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 HOMEOWNER/HOMEBUILDERS SHALL BE ALLOWED WITHIN THE TREE LINE OR ON SLOPES STEEPER THAN 5:1 WITHOUT ADDITIONAL GEOTECHNICAL INVESTIGATION.
27. THE SAFE SLOPE BUILDING SETBACK WAS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. TOP OF SLOPE IS ESTABLISHED AS GENERALLY THAT POINT WHERE THE GRADED SLOPE IS 3:1. THE SETBACK IS ESTABLISHED AT 15 FEET FROM THAT POINT. WHERE THE EXISTING SLOPE ARE MAINTAINED, THE SETBACK IS ESTABLISHED AT GENERALLY THAT POINT WHERE THE SLOPE IS 5:1. 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.
28. THE ENTRANCE FROM NW 37TH STREET WILL REQUIRE A POLK COUNTY ENTRANCE PERMIT.
29. LOT 15 ACCESS SHALL BE FROM THE SOUTH. ACCESS FROM THE WEST IS PROHIBITED.
30. BUILDING ENVELOPES ARE SHOWN RANGING FROM 60'-80' WIDE X 60'-70' DEEP AND ARE SCHEMATIC ONLY. ACTUAL PLACEMENT AND SIZE MAY VARY. MINIMUM CONTIGOUS AREA OF BUILDING ENVELOPES SHOWN IS 3,600 S.F.

TYPICAL SECTION - 26' P.C.C. ROADWAY WITH 60' ROW

NOT TO SCALE



- NOTES:
1. PREPARE SUBGRADE IN 2 - 6" LIFTS.
 2. TYPICAL C JOINT SPACING IS 15'.

LEGEND

FEATURES

PROPOSED

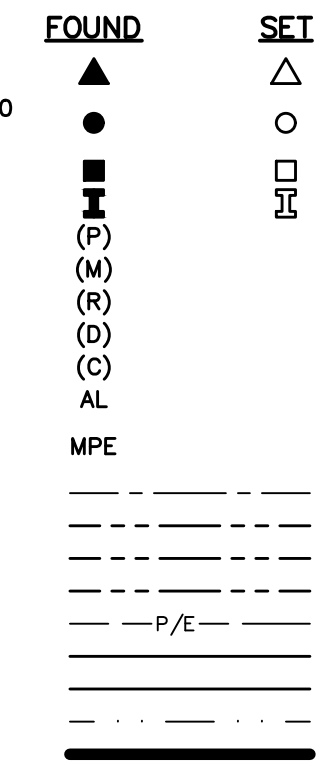
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- TYPE SW-501 STORM INTAKE
- TYPE SW-503 STORM INTAKE
- TYPE SW-505 STORM INTAKE
- TYPE SW-506 STORM INTAKE
- TYPE SW-513 STORM INTAKE
- TYPE SW-401 STORM MANHOLE
- TYPE SW-402 STORM MANHOLE
- TYPE SW-301 SANITARY MANHOLE
- STORM/SANITARY CLEANOUT
- WATER VALVE
- FIRE HYDRANT ASSEMBLY
- SIGN
- DETECTABLE WARNING PANEL
- SANITARY SEWER WITH SIZE
- STORM SEWER WITH SIZE
- WATERMAIN WITH SIZE

SURVEY

- SECTION CORNER
- 1/2" REBAR, YELLOW CAP #15980 (UNLESS OTHERWISE NOTED)
- ROW MARKER
- ROW RAIL
- PLATTED DISTANCE
- MEASURED BEARING & DISTANCE
- RECORDED AS
- DEED DISTANCE
- CALCULATED DISTANCE
- CURVE ARC LENGTH
- MINIMUM 100 YEAR FLOOD PROTECTION ELEVATION
- CENTERLINE
- SECTION LINE
- 1/4 SECTION LINE
- 1/4 SECTION LINE
- EASEMENT LINE
- LOT LINE
- RIGHT OF WAY
- BUILDING SETBACK
- PLAT BOUNDARY

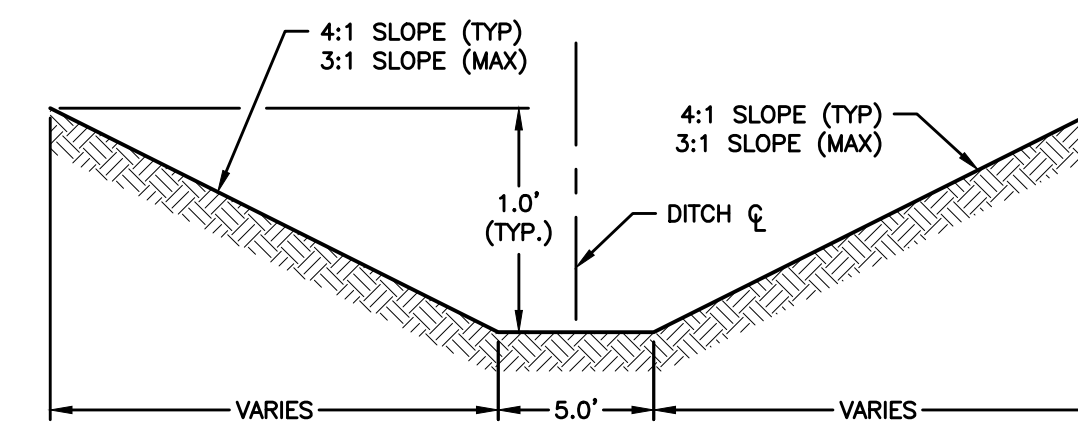
EXISTING

- GROUND SURFACE CONTOUR
- SANITARY MANHOLE
- WATER VALVE BOX
- FIRE HYDRANT
- WATER CURB STOP
- WELL
- STORM SEWER MANHOLE
- STORM SEWER SINGLE INTAKE
- STORM SEWER DOUBLE INTAKE
- FLARED END SECTION
- DECIDUOUS TREE
- CONIFEROUS TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- ELECTRIC POWER POLE
- GUY ANCHOR
- STREET LIGHT
- POWER POLE W/ TRANSFORMER
- UTILITY POLE W/ LIGHT
- ELECTRIC BOX
- ELECTRIC TRANSFORMER
- ELECTRIC MANHOLE OR VAULT
- TRAFFIC SIGN
- TELEPHONE JUNCTION BOX
- TELEPHONE MANHOLE/VAULT
- TELEPHONE POLE
- GAS VALVE BOX
- CABLE TV JUNCTION BOX
- CABLE TV MANHOLE/VAULT
- MAIL BOX
- BENCHMARK
- SOIL BORING
- UNDERGROUND TV CABLE
- GAS MAIN
- FIBER OPTIC
- UNDERGROUND TELEPHONE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- FIELD TILE
- SANITARY SEWER W/ SIZE
- STORM SEWER W/ SIZE
- WATER MAIN W/ SIZE



TYPICAL SWALE SECTION

NOT TO SCALE



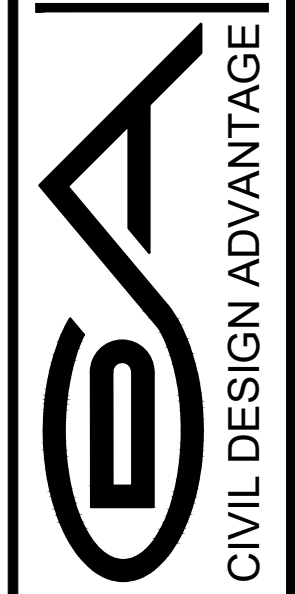
PRELIMINARY
NOT FOR CONSTRUCTION

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

LOUIS M. [Signature] 18660 [Stamp] DATE _____

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2021 PAGES OR SHEETS COVERED BY THIS SEAL: SHEETS 1 - 7

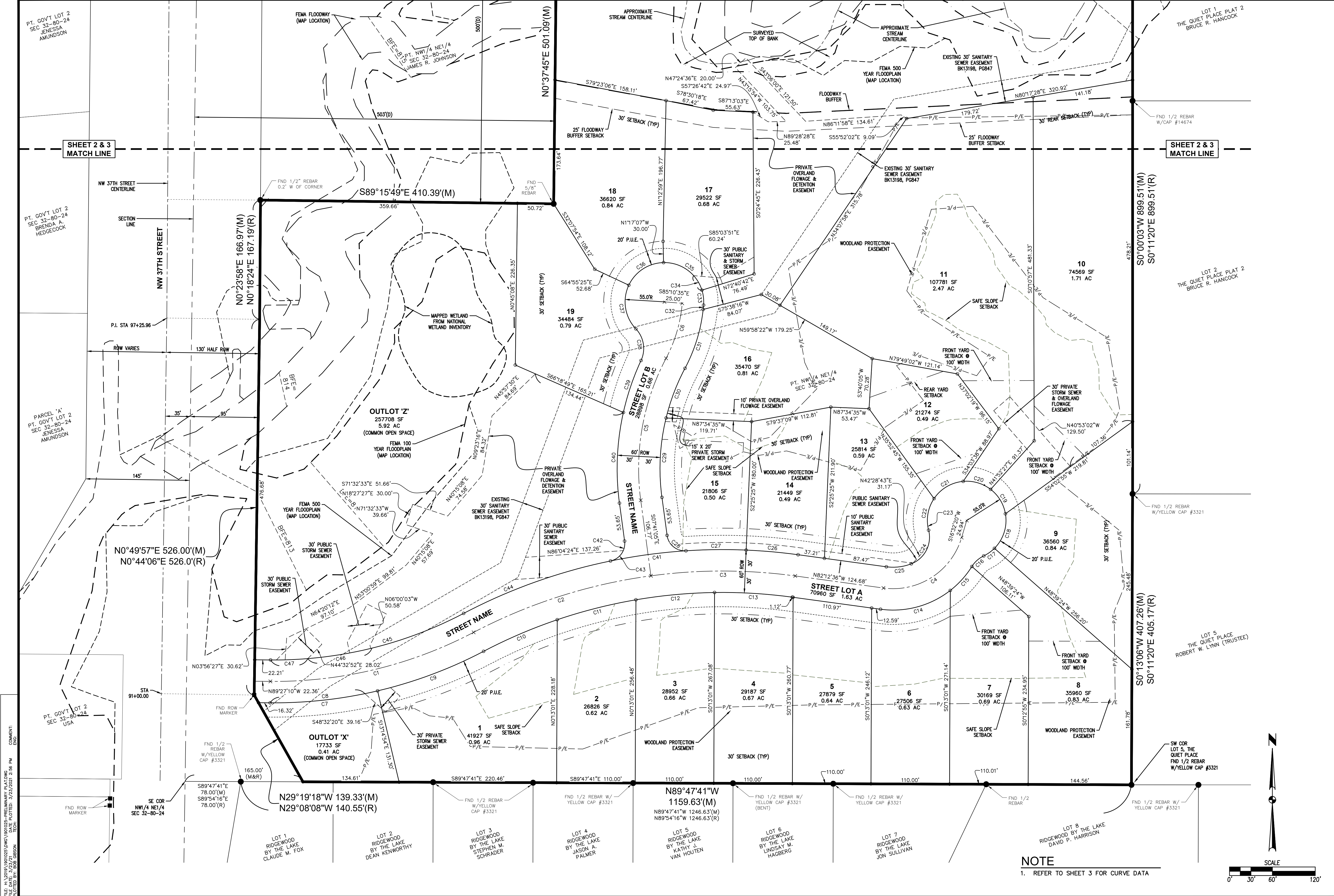
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
TECH: _____
ENGINEER: _____



POLK COUNTY, IOWA

TIMBER VALLEY ESTATES
MAJOR PRELIMINARY PLAT
COVER SHEET

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PLOTED BY: BOB GIBSON

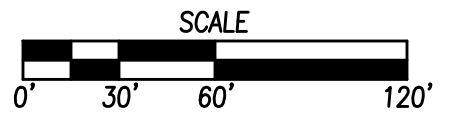


SHEET 2 & 3
MATCH LINE

SHEET 2 & 3
MATCH LINE

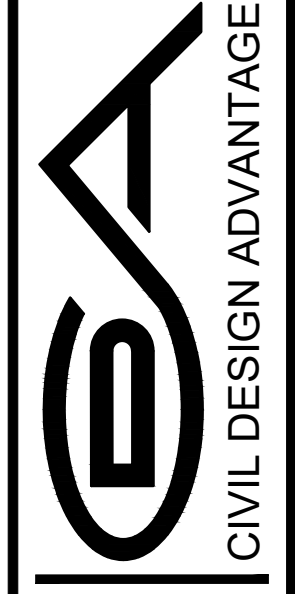
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 PLOTTED BY: GREG GIBSON
 TECH: GIBSON

NOTE
 1. REFER TO SHEET 3 FOR CURVE DATA



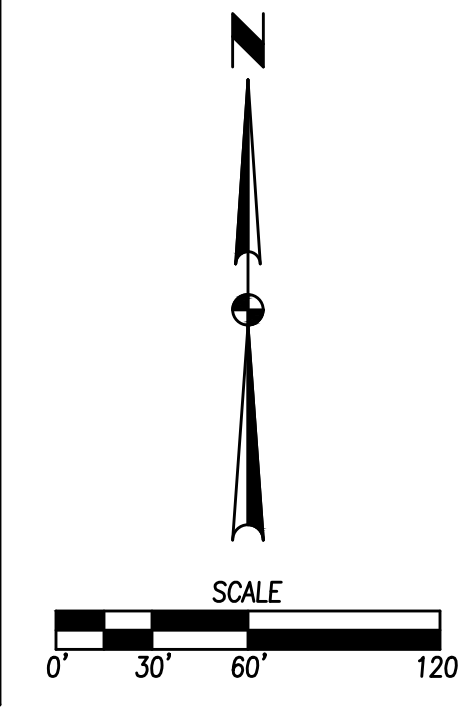
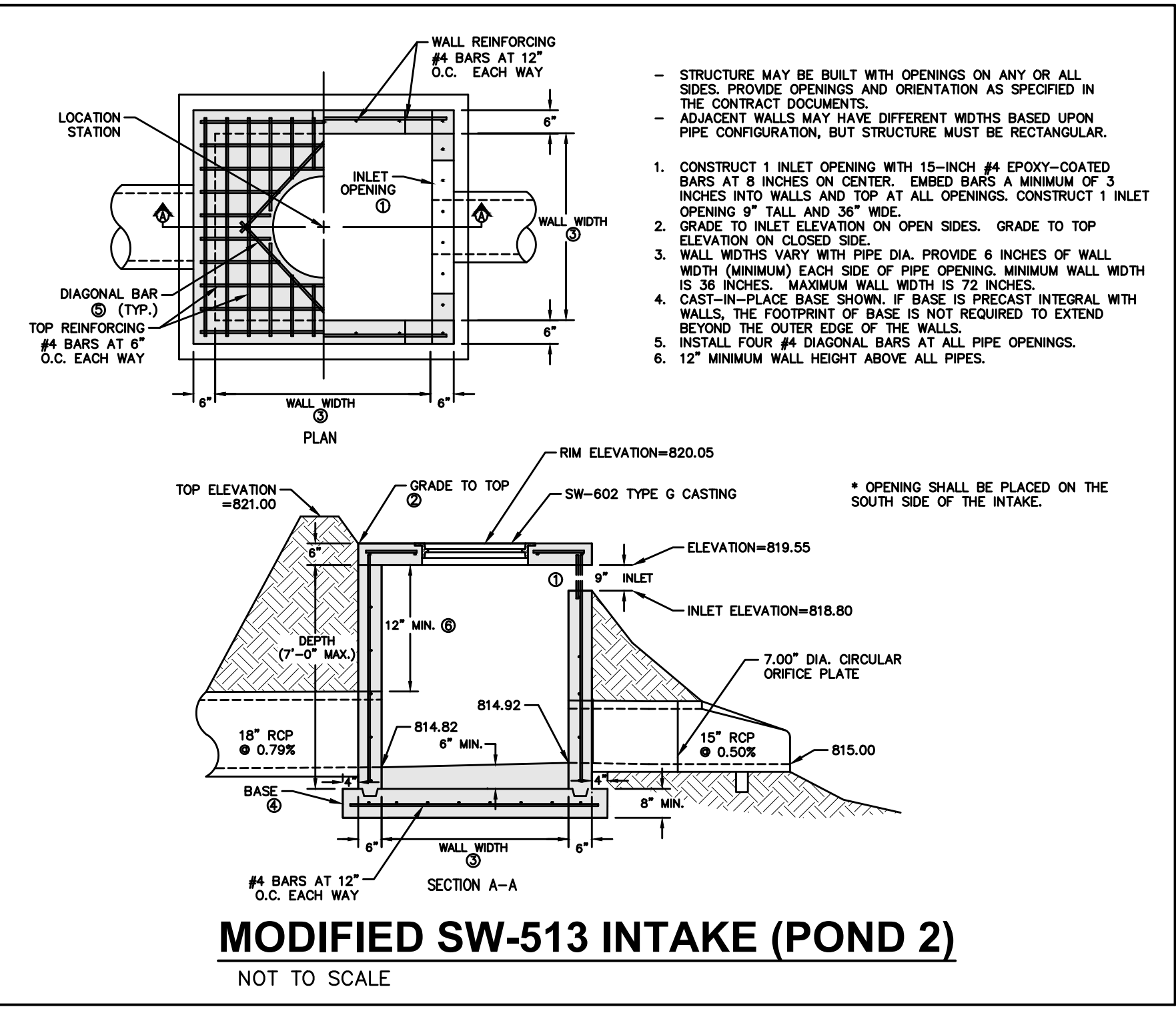
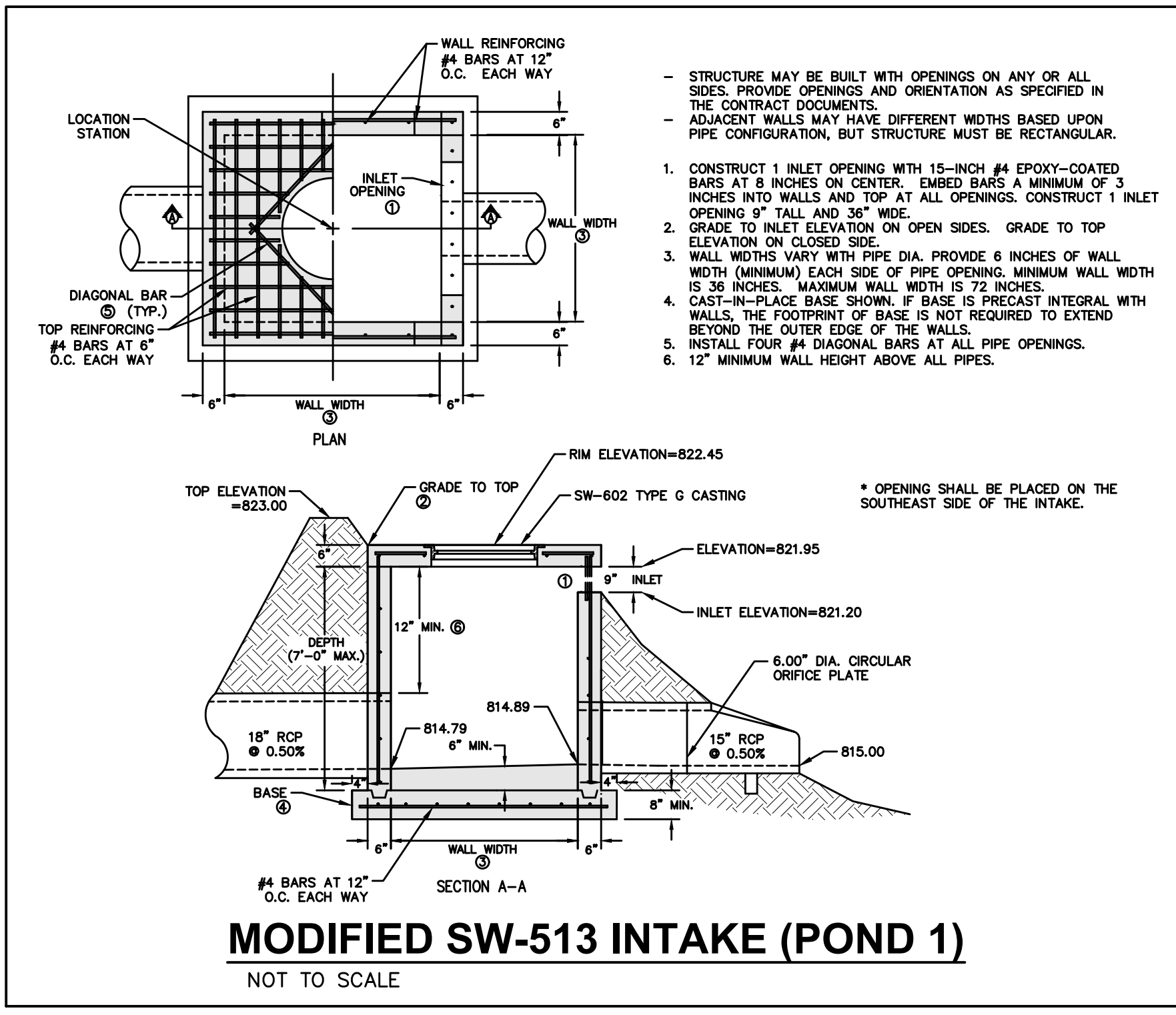
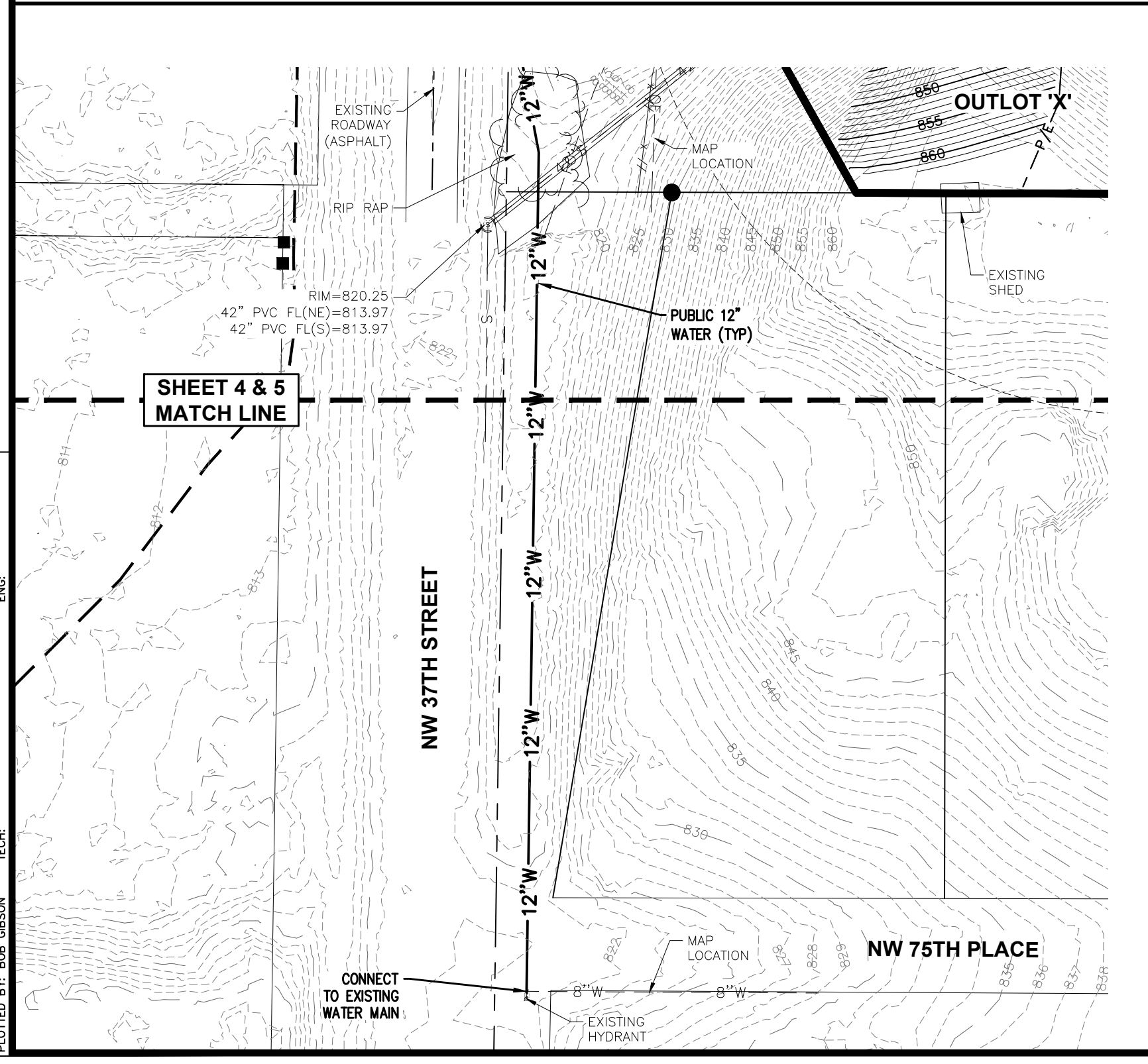
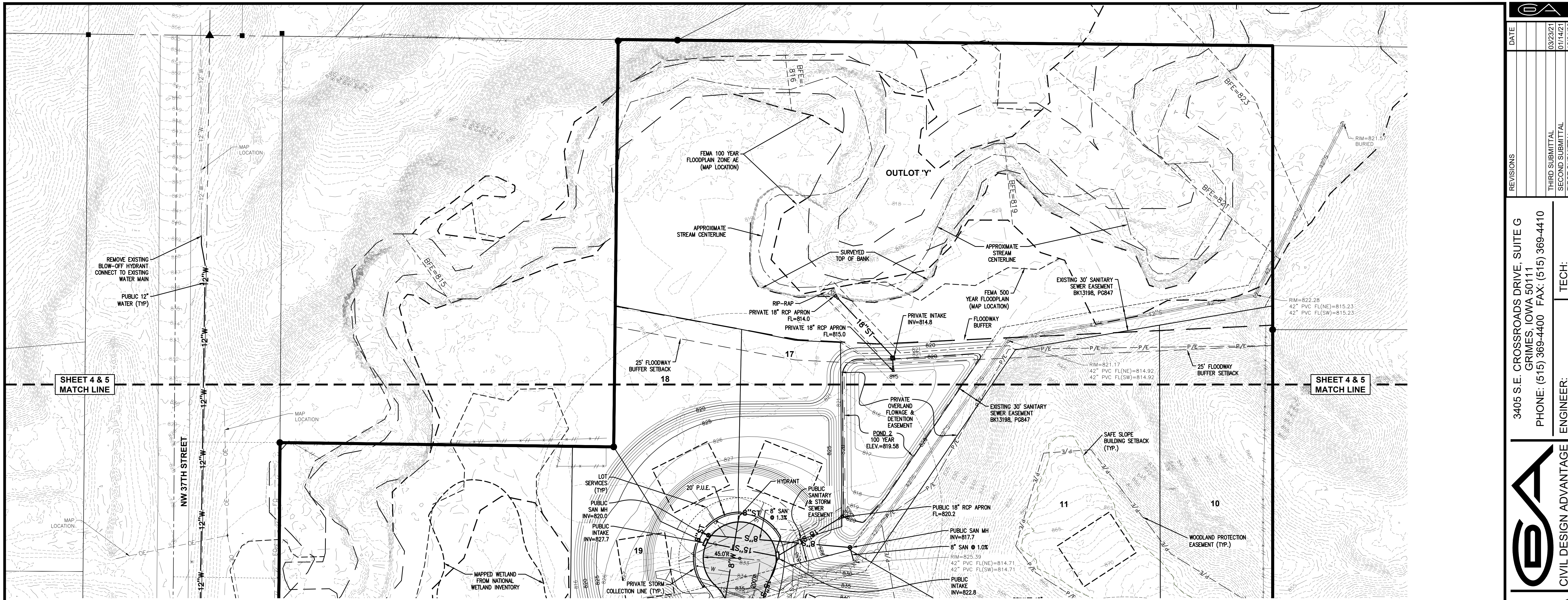
DATE	REVISIONS
03/23/21	THIRD SUBMITTAL
07/14/21	SECOND SUBMITTAL
12/01/20	FIRST SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: _____
 TECH: _____



POLK COUNTY, IOWA

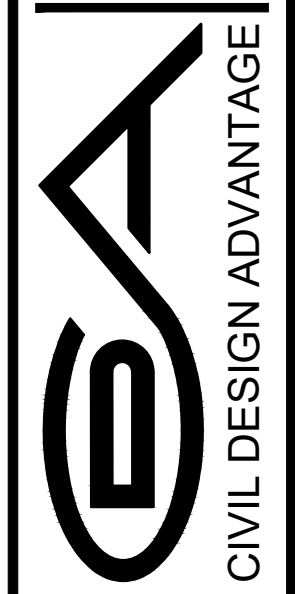
TIMBER VALLEY ESTATES
MAJOR PRELIMINARY PLAT
DIMENSION PLAN



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 COMMENT: EXISTING
 PLOTTED BY: GIBSON
 DATE: 3/25/2021 2:56 PM

REVISIONS	DATE
THIRD SUBMITTAL	03/23/21
SECOND SUBMITTAL	01/14/21
FIRST SUBMITTAL	12/01/20

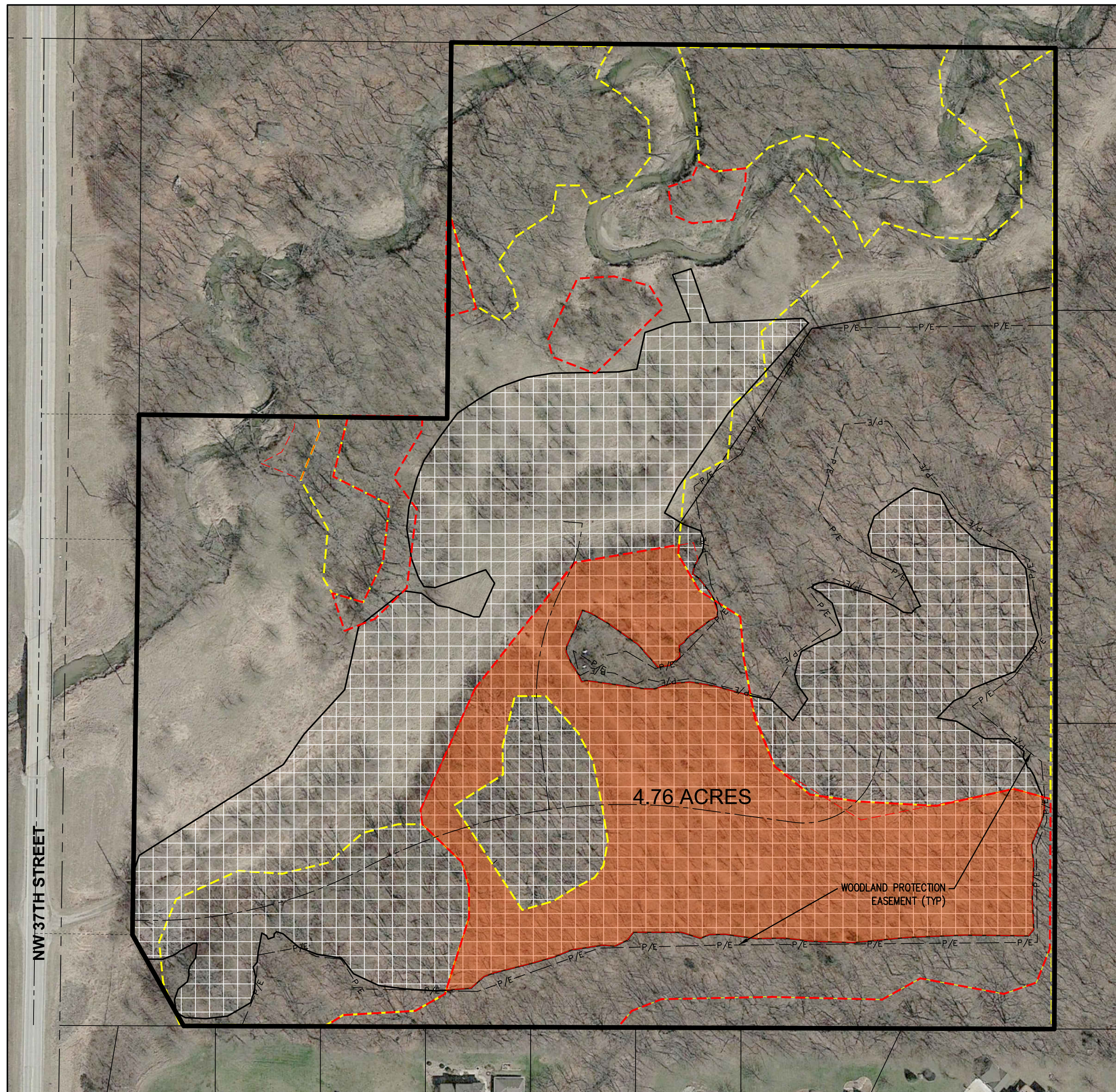
3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: _____ TECH: _____



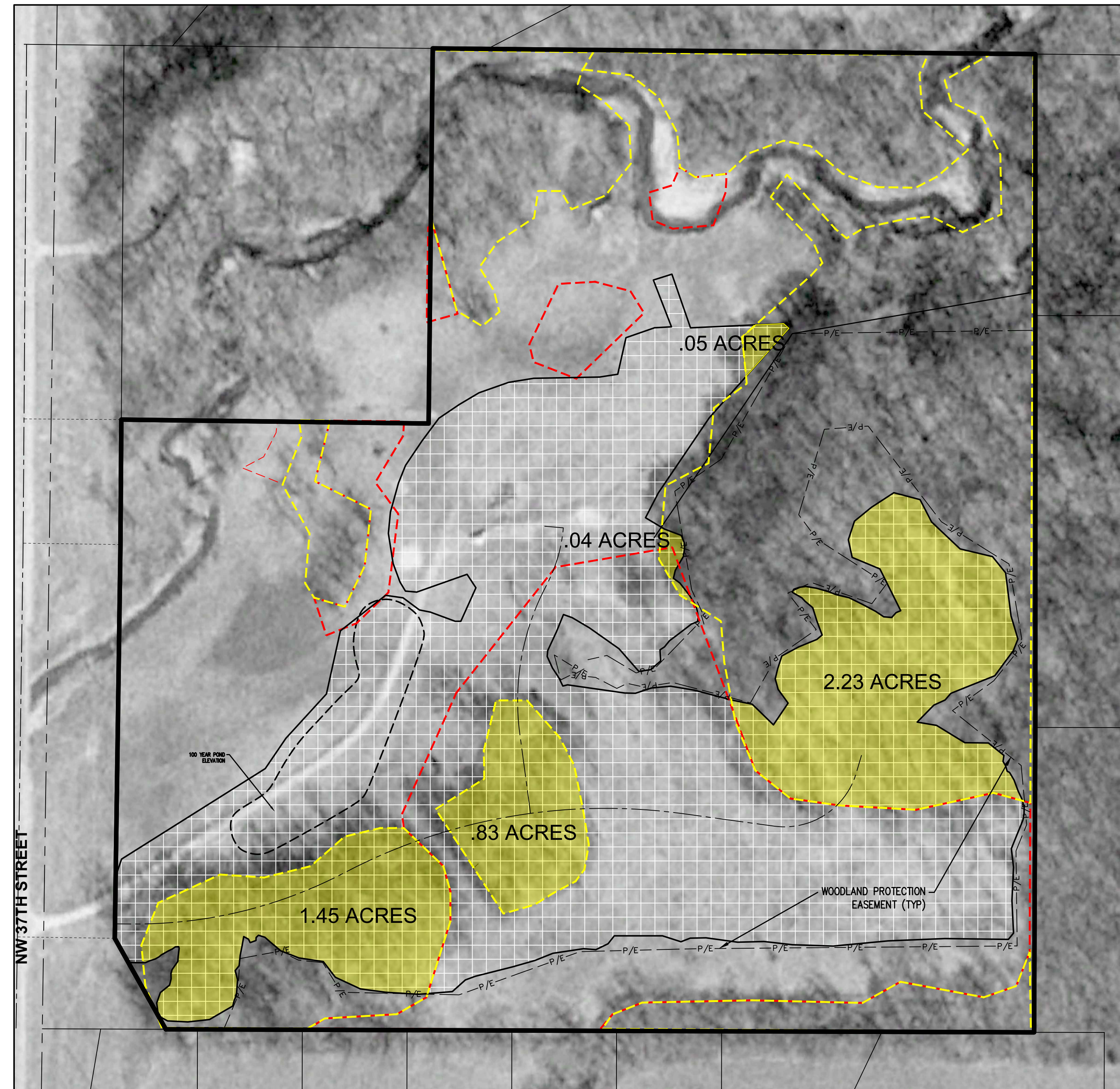
POLK COUNTY, IOWA
TIMBER VALLEY ESTATES
MAJOR PRELIMINARY PLAT
GRADING/UTILITY PLAN

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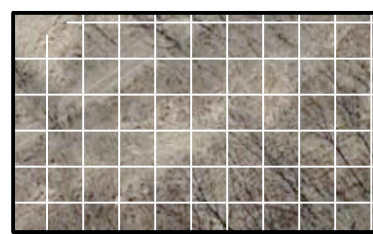
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 COMMENT: 3/23/2021 2:56 PM
 PLOTTED BY: GREG GIBSON
 TECH: GREG GIBSON



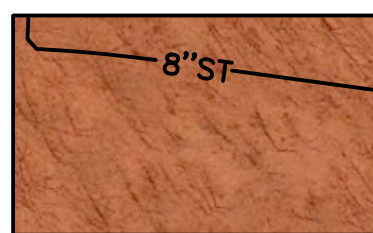
YOUNG WOODLANDS IMPACT
 4.76 ACRES (62.6%)
 2018 AERIAL PHOTOGRAPHY



MATURE WOODLANDS IMPACT
 4.60 ACRES (33%)
 1990 AERIAL PHOTOGRAPHY



OVERALL IMPACTED AREA



IMPACTED YOUNG WOODLANDS

----- 1990 TREES (MATURE WOODLANDS)

----- 2018 TREES (YOUNG WOODLANDS)

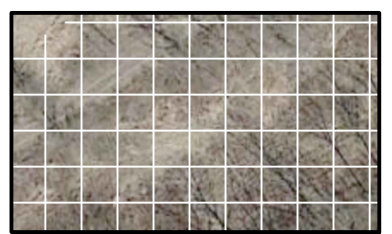
MATURE WOODLANDS, BASED ON 1990 AERIAL PHOTOGRAPHY:
 MAX. ALLOWABLE IMPACT WITHOUT MITIGATION: 3.5 ACRES (25%)
 MAX. ALLOWABLE IMPACT WITH MITIGATION: 6.9 ACRES (50%)

YOUNG WOODLANDS, BASED ON 2018 AERIAL PHOTOGRAPHY:
 MAX. ALLOWABLE IMPACT WITHOUT MITIGATION: 3.8 ACRES (50%)
 MAX. ALLOWABLE IMPACT WITH MITIGATION: 5.7 ACRES (75%)

MATURE WOODLANDS IMPACTED:
 EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY 1.1 ACRES.
 MITIGATION REQUIRED: 1.1 ACRES

YOUNG WOODLANDS IMPACTED:
 EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY .9 ACRES.
 MITIGATION REQUIRED: .96 ACRES

TOTAL MITIGATION AREA REQUIRED: 2.0 ACRES



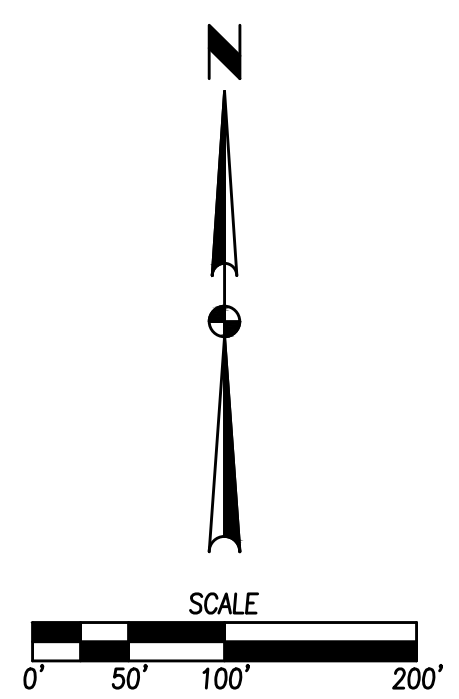
OVERALL IMPACTED AREA



IMPACTED MATURE WOODLANDS

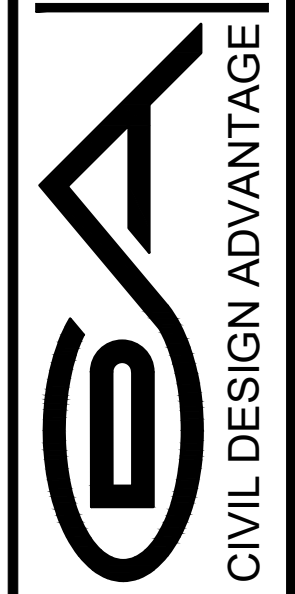
----- 1990 TREES (MATURE WOODLANDS)

----- 2018 TREES (YOUNG WOODLANDS)



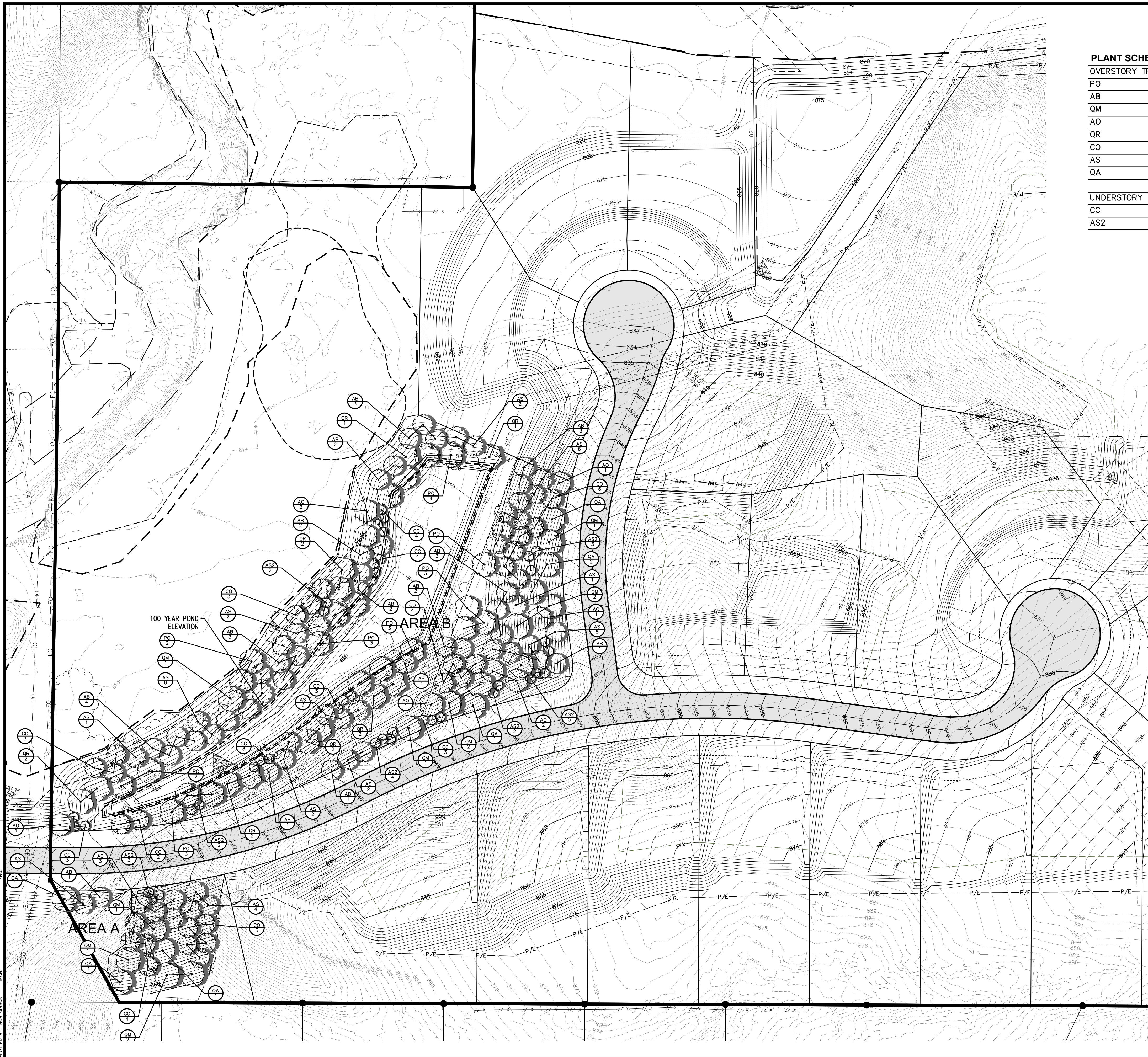
REVISIONS	DATE
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 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: _____ TECH: _____



POLK COUNTY, IOWA

TIMBER VALLEY ESTATES
 MAJOR PRELIMINARY PLAT
 WOODLANDS IMPACT



PLANT SCHEDULE

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
PO	21	AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	CONT. 5' HEIGHT
AB	31	BLACK MAPLE	ACER NIGRUM	CONT. 5' HEIGHT
QM	12	BURR OAK	QUERCUS MACROCARPA	B&B, 1.5" CALIPER
AO	8	OHIO BUCKEYE	AESCLUSUS GLABRA	B&B, 1.5" CALIPER
QR	12	RED OAK	QUERCUS RUBRA	B&B, 1.5" CALIPER
CO	27	SHAGBARK HICKORY	CARYA OVATA	CONT. 5' HEIGHT
AS	37	SUGAR MAPLE	ACER SACCHARUM	CONT. 5' HEIGHT
QA	7	WHITE OAK	QUERCUS ALBA	B&B, 1.5" CALIPER

UNDERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CC	20	EASTERN REDBUD	CERCIS CANADENSIS	CONT. 5' HEIGHT
AS2	21	SERVICEBERRY	AMELANCHIER ALNIFOLIA	CONT. 5' HEIGHT

MITIGATION AREA

AREA A: .24 AC
 AREA B: 1.79 AC
 TOTAL: 2.03 AC

REFERENCE SOURCES FROM 1990 AND 2018 AERIAL PHOTOGRAPHY

MATURE WOODLANDS, BASED ON 1990 AERIAL PHOTOGRAPHY: 13.6 ACRES
 MAX. ALLOWABLE IMPACT WITHOUT MITIGATION: 3.4 ACRES (25%)
 MAX. ALLOWABLE IMPACT WITH MITIGATION: 6.8 ACRES (50%)

YOUNG WOODLANDS, BASED ON 2018 AERIAL PHOTOGRAPHY: 7.6 ACRES
 MAX. ALLOWABLE IMPACT WITHOUT MITIGATION: 3.8 ACRES (50%)
 MAX. ALLOWABLE IMPACT WITH MITIGATION: 5.7 ACRES (75%)

MATURE WOODLANDS IMPACTED: 4.6 ACRES (33%)
 EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY 1.1 ACRES.
 MITIGATION REQUIRED:
 TREES REQUIRED:
 17 CANOPY TREES @ 1.5" CAL*
 66 CANOPY TREES @ 5' HIGH WHIP
 22 UNDERSTORY TREES @ 5' HIGH WHIP

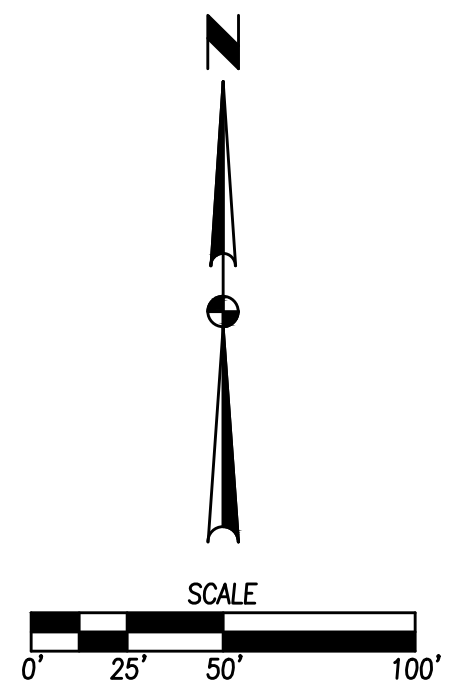
YOUNG WOODLANDS IMPACTED: 4.76 ACRES (62.6%)
 EXCEEDS ALLOWABLE IMPACT WITHOUT MITIGATION BY 1.29 ACRES.
 MITIGATION REQUIRED:
 TREES REQUIRED:
 14 CANOPY TREES @ 1.5" CAL*
 58 CANOPY TREES @ 5' HIGH WHIP
 19 UNDERSTORY TREES @ 5' HIGH WHIP

TOTAL MITIGATION REQUIRED:
 TOTAL TREES REQUIRED:
 2.0 ACRES
 31 CANOPY TREES @ 1.5" CAL*
 124 CANOPY TREES @ 5' HIGH WHIP
 41 UNDERSTORY TREES @ 5' HIGH WHIP

NOTES

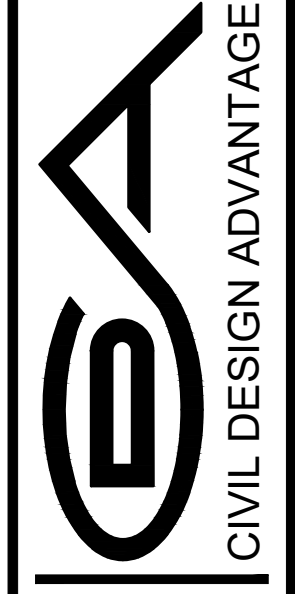
- ALL DISTURBED AREAS SHALL BE SEEDED WITH SUPERTURF II LS, AVAILABLE FROM UNITED SEEDS.
- SLOPES 4:1 AND GREATER SHALL BE MULCHED WITH A TEMPORARY ROLLED EROSION CONTROL PRODUCT RECP TYPE 2.C PER SUDAS.

FILE: H:\2019\1901025\1901025- PRELIMINARY PLATTING
 COMMENT: EXCISE
 PLOTTED BY: GIBSON
 PLOTTED DATE: 3/25/2021 3:03 PM
 TECH:



REVISIONS	DATE
THIRD SUBMITTAL	03/23/21
SECOND SUBMITTAL	01/14/21
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POLK COUNTY, IOWA

TIMBER VALLEY ESTATES
MAJOR PRELIMINARY PLAN
WOODLANDS MITIGATION PLAN

Attachment 'C'



**OFFICE OF THE
STATE ARCHAEOLOGIST**

700 Clinton Street Building
Iowa City, Iowa 52242
319-384-0732 Fax 319-384-0768
osa@uiowa.edu
archaeology.uiowa.edu

March 10, 2021

Reid Strahan
Strahan Construction
reidstrahan@strahanconstruction.com

Dear Reid,

Thanks for your time and for meeting with us at the suspected mounds on the southern edge of the Timber Valley Estates property that were reported by adjacent landowner, Anders Hagberg. Thanks also for your consideration of our request to proceed with the housing development with caution given these possible mounds. The following is a report of my March 8, 2021 investigation. I have concluded that the possible mounds are most likely push piles from modern construction/land modification, maintenance of the drainage to the south, or a combination of these events as well as natural tree falls.

Given what is visible of the mounds on lidar, their shapes, their placement on the landscape, and that there was a historic structure documented in the immediate vicinity, I am confident that they are not ancient burial mounds. During my visit I noted that the anomalies that Anders had noted were irregular in shape, not uniformly conical or linear like burial mounds, and relatively small in relation to documented burial mounds. They were also made of loose, sandy fill that was consistent with the surrounding forest floor and therefore revealed no prehistoric construction techniques. I conducted two 1" diameter soil probe tests on the forest floor off of the mounds, which revealed dark brown loam with a high sand content to a depth of 80cm. While one soil probe test on the mound revealed mottled yellowish brown and dark brown sandy loam indicative of soil mixing, that mound was within the site boundaries of 13PK465, which is a site that included a roughly 10x10 ft brick and stone foundation that seems to have been removed sometime between 1985 and 2009. The source of the soil mixing is most likely recent disturbance. All other soil probe tests I conducted on the possible mounds revealed the same consistently dark brown sandy loam, areas of non-compacted soil also consistent with recent disturbance, and large remnant tree roots. The 1985 report that documented site 13PK465 also noted evidence of tree grubbing in the area, so yet another possible source of the push piles.

I also took three GPS points (the yellow dots on the attached maps) along the line of the possible mounds to examine their locations on our aerial maps and in relation to our lidar (3D ground surface) image of the area. Inspection of aerial maps did not show any evidence of the historic disturbance that caused the piles, however, the area has been pretty consistently in forest since the 1930s. Lidar anomalies also confirmed their irregular shapes and that they basically parallel the drainage there, which is not typical of prehistoric mound configurations and is more consistent with excavation to maintain the drainage.

Although there is a low likelihood that ancient burials are associated with site 13PK465, and therefore a low likelihood that any would be disturbed by the Timber Valley Estates development, given that we do have evidence of a substantial prehistoric occupation there (in addition to the historic component referenced above, 13PK465 is recorded as a high-density scatter of pottery sherds and flakes indicative of stone tool manufacture) we would like to recommend as much avoidance as possible of 13PK465. I don't have a georeferenced version of the development plans, but have estimated the path of the road (with the

orange outline) in the additional lidar map, and it seems that it could be oriented (if not already) to just hug the border of the northern edge of the site boundary. This, in addition to limited ground disturbance within the site boundary would be ideal.

If you would like to discuss this further in relation to your development plans, I'd be happy to arrange a meeting with you and including Dr. John Doershuk, the State Archaeologist, and any others necessary.

Again, although the likelihood of your project encountering ancient human remains is low, the Iowa Code requires that if any human remains, or bone suspected to be human are unearthed, all ground disturbance within 100ft must cease, the area must be protected, and the Office of the State Archaeologist, local law enforcement and the State Medical Examiner, must be contacted immediately (per section 523I.316.6).

Many thanks again for your time and your cooperation in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Lara Noldner".

Lara K. Noldner, PhD
Bioarchaeology Director
Office of the State Archaeologist
University of Iowa, 700 S Clinton St., Iowa City, IA
lara-noldner@uiowa.edu
319-384-0740

Cc: John Doershuk, PhD – State Archaeologist