

Office Use Only	9-30-21	\$ 150-	P2C-21-28125
	Date Filed	Fee	Application Number



JOHNSON COUNTY, IOWA
APPLICATION FOR: SUBDIVISION PLAT APPROVAL

Application is hereby made for approval of a **PRELIMINARY / FINAL / COMBINED** subdivision plat on property located at (street address if available or layman's description): approximately 1/3rd of a mile north of 120th Street NW/F12, on the north side of HWY 965 NW/W60

Parcel Number(s): 0304326003

Proposed Subdivision Name: JOCO 50 Subdivision

The subdivision contains 48.87 total acres divided into 10 total lots as follows:

Buildable Lots: 9 Non-buildable outlots: 2

Total buildable acres: 39.91 Total non-buildable acres: 8.96

Current Zoning: ML Proposed Use of the Subdivision: Light Industrial/Warehouse

Kelly Beckler, MMS Consultants
Name of Engineer/Surveyor

k.beckler@mmsconsultants.net 319-351-8282
Contact Email and Phone

Matthew Hektoen
Name of Attorney

mhektoen@spmbllaw.com 319-896-4030
Contact Email and Phone

PLEASE PRINT OR TYPE

The undersigned affirms that the information provided herein is true and correct. If applicant is not the owner, applicant affirms that the owner(s) of the property described on this application consent to this application being submitted, and said owners hereby give their consent for the office of Johnson County Planning, Development, and Sustainability to conduct a site visit and photograph the subject property.

Swisher 50, LLC
Name of Owner

Hightower Development, Inc
Name of Applicant (if different)

PO Box 5198 Coralville, IA 52241
Applicant Street Address (including City, State, Zip)

3193602600
Applicant Phone

sandersen@cedardevelopment.com
Applicant Email

[Signature]
Applicant Signature

See back page for Application Submittal Requirements and Checklist



MMS Consultants, Inc.
Experts in Planning and Development Since 1975

1917 S. Gilbert Street
Iowa City, Iowa 52240

319.351.8282

mmsconsultants.net
mms@mmsconsultants.net

September 29, 2021

Mr. Josh Busard
Jo. Co. Planning, Development, & Sustainability Dept.
913 S. Dubuque St, Suite 204
Iowa City, IA 52240

RE: Letter of Intent for JOCO 50 – Final Plat

Dear Josh:

On behalf of Swisher 50, LLC, we are filing the Final Plat for JOCO 50 Subdivision, located along 6th Street SW (HWY 965), approximately 1/3 mile north of 120th Street. The site is 48.87 acres in total and contains 9 lots and 2 outlots.

The City of Cedar Rapids has agreed to allow for the extension of their sanitary sewer and water utilities to serve this site, they have reviewed and approved the preliminary plat and construction plans. As-builts for the infrastructure have been included, please let us know if you have any questions.

Respectfully submitted,

Kelly Beckler, P.E.

6385-034L2.docx



Environmental Specialists

Landscape Architects

Land Planners

Land Surveyors

Civil Engineers

DESCRIPTION - JOCO 50 SUBDIVISION

I CERTIFY THAT DURING THE MONTH OF AUGUST, 2021, AT THE DIRECTION OF HIGHTOWER DEVELOPMENT, INC. A SURVEY WAS MADE UNDER MY SUPERVISION OF AUDITOR'S PARCEL 2015055, IN ACCORDANCE WITH THE PLAT THEREOF RECORDED IN PLAT BOOK 59 AT PAGE 282 OF THE RECORDS OF THE JOHNSON COUNTY RECORDER'S OFFICE, BEING A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, A PORTION OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, A PORTION OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER, AND A PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 81 NORTH, RANGE 7 WEST, OF THE FIFTH PRINCIPAL MERIDIAN, JOHNSON COUNTY, IOWA. SAID AUDITOR'S PARCEL 2015055 CONTAINS 48.87 ACRES, AND IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

Adjacent Property Owners List
JoCo 50
Within 500'
MMS Project #6385-034

BELVEDERE INC
511 SQUAW CREEK CIR
MARION, IA 52302

BONNIE M GUSLAND
7105 REITE AVE
WINDSOR HEIGHTS, IA 50324

DONNA R SCHEER
3386 73RD ST
FAIRFAX, IA 52228-0153

IRENE D ZISKOVSKY
1237 APACHE TRL NW
CEDAR RAPIDS, IA 52405

KAREN K BODDICKER
2726 120TH ST NE
CEDAR RAPIDS, IA 52404

RYKOR ENTERPRISES LLC
PO BOX 17
NORTH LIBERTY, IA 52317

STEPHEN J & BRENDA M HAMILTON
1153 HWY 965 NW
CEDAR RAPIDS, IA 52404

SWISHER 50 LLC
PO BOX 5198
CORALVILLE, IA 52241

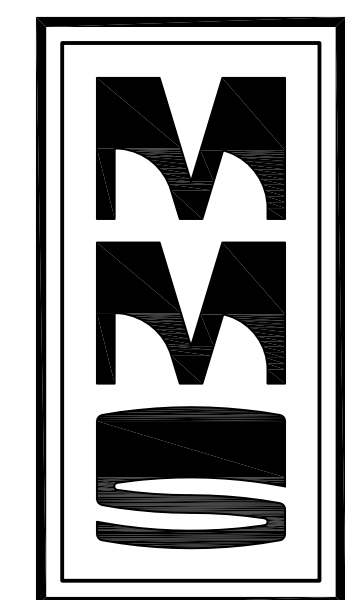
The following items must be submitted for the application to be complete. Incomplete applications will be returned and will not be considered until the next submission deadline. Electronic submissions should be submitted prior to hard copy delivery. In all cases electronic submission is due by 12-noon the day after the posted submission deadline. **Initial each item below** to confirm that you are aware of the submittal requirements for an application to be considered complete.

- LSS A signed certificate of the Auditor approving the subdivision name.
- LSS Resolution Affirming the Stability of the Road System (signed and notarized)
- ✓ LSS Ten (10) copies of the plat (and any other sheets larger than 11x17).
- ✓ LSS The names and addresses of owners of all property within five hundred (500) feet of the parent property or parcel.
- ✓ LSS A brief letter of intent explaining the application and describing road, well, septic, etc.
- ✓ \$150 Application Fee (varies based on nature of application) is due at the time of submittal.
- _____ **FARMSTEAD SPLITS ONLY:** include a list of parcel numbers of the parent farm, and the book and page(s) recorded prior to December 1, 2000.
- LSS One (1) copy of the completed Sensitive Areas Analysis in compliance with the Sensitive Areas Ordinance, or an approved waiver.
- LSS One (1) copy of the Stormwater Management Plan (including soil erosion and sediment control) in compliance with the Stormwater Management regulations, or an approved waiver.
- ? LSS Proof of application to Johnson County Public Health for a Public Health Zoning Application.
- ✓ LSS **FINAL PLATS ONLY:** As-Built drawings for installed infrastructure, including statement/certification from the engineer affirming that the as-built infrastructure conforms to the intent and design parameters of the preliminary plat.
- LSS **FINAL & COMBINED PLATS:** The following DRAFT (i.e. unsigned) legal documents in digital or hard copy.
 - ✓ • Owner's Certificate
 - ✓ • Title Opinion
 - ✓ • Treasurer's Certificate
 - ✓ • Subdivider's Agreement
 - ✓ • Fence Agreement
 - Other as applicable (easements, ROW dedication, Consent of Mortgagee, etc.)

missed *owners assoc. consent of mortgage*

Electronic Submission Requirements – an electronic submission of all hard-copy materials required above should be submitted prior to hard copy delivery. In all cases, electronic submission is due by 12 noon the day after the submittal deadline for the application to be considered complete. Electronic submissions should include:

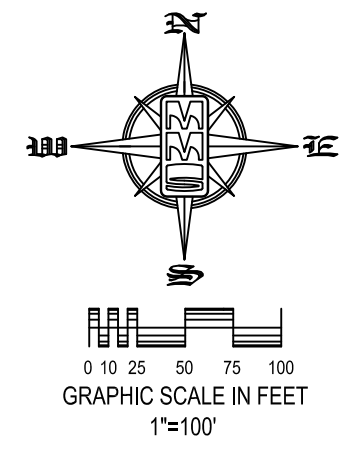
- ✓ LSS Electronic or digitized copy (CAD line work or GIS geodatabase) of proposed plat in .dwg format (.dxf is also acceptable if .dwg is not an option. No .zip files will be accepted).
 - Submission must be saved in AutoCAD 2007 or older format
 - Submissions must use Coordinate System: NAD_1983_StatePlane_Iowa_South_FIPS_1402_Feet
 - Submission **MUST** include information for Sensitive Areas Analysis/Mapping and Stormwater/Soil Erosion Control infrastructure on the site. This includes any limits of disturbance or other impact areas.
 - Submission should NOT include legends, legal descriptions, location maps, signature blocks, etc.
- LSS A PDF of the entire application packet. (a single PDF preferred; but a separate PDF for plat, application materials, sensitive areas, stormwater plan, and legal documents are acceptable)
- _____ If only submitted electronically, DRAFT legal documents must be provided by 12 noon the day after the submission deadline or the application will be returned as incomplete.



CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date: Revision
09-01-2021 PER RRRN REVIEW - RLW

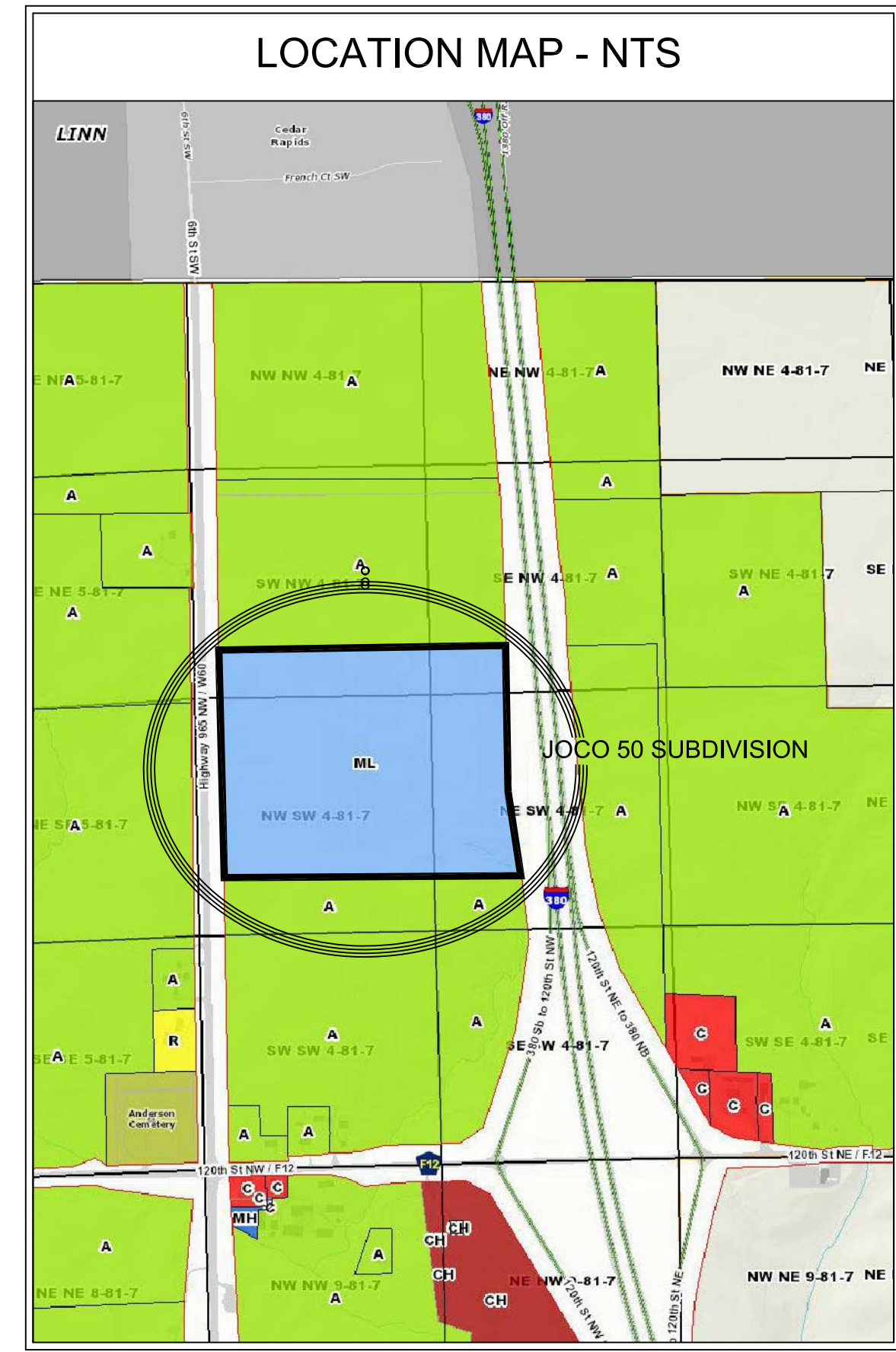
FINAL PLAT JOCO 50 SUBDIVISION JOHNSON COUNTY, IOWA



LOCATION: AUDITOR'S PARCEL 2015055, IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, AND THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 81 NORTH, RANGE 7 WEST, OF THE FIFTH PRINCIPAL MERIDIAN, JOHNSON COUNTY, IOWA.	SUBDIVIDER: HIGHTOWER DEVELOPMENT, INC. P.O. BOX 5198 CORALVILLE, IOWA 52241
LAND SURVEYOR: RICHARD R. NOWOTNY P.L.S. MMS CONSULTANTS INC. 1917 SOUTH GILBERT STREET IOWA CITY, IOWA, 52240 PHONE: 319-351-8282	SUBDIVIDER'S ATTORNEY: MATTHEW J. HEKTOEN 115 3RD STREET SE, SUITE 1200 CEDAR RAPIDS, IOWA 52401
DATE OF SURVEY: 08-07-2021	PROPRIETOR OR OWNER: SHISHER 50 LLC PO BOX 5198 CORALVILLE, IOWA 52241
	DOCUMENT RETURN INFORMATION: LAND SURVEYOR

AREA SUMMARY TABLE		
1/4 - 1/4	AREA	AREA IN ROW
SW - NW	8.39 ACRES	0.00 ACRE
SE - NW	3.16 ACRES	0.00 ACRE
NE - SW	10.19 ACRES	0.00 ACRE
NW - SW	27.13 ACRES	0.00 ACRE
TOTAL	48.87 ACRES	0.00 ACRE

EASEMENT IDENTIFICATION TABLE	
LABEL	DESCRIPTION
①	15.0 FOOT WIDE UTILITY EASEMENT
②	30.0 FOOT WIDE STORM SEWER AND DRAINAGE EASEMENT
③	DRAINAGE EASEMENT
④	ACCESS EASEMENT



OUTLOT "B" CONTAINS 4.44 ACRES, AND IS TO BE PRIVATELY OWNED, MAINTAINED, AND DEDICATED TO THE PROPERTY OWNER'S ASSOCIATION FOR PRIVATE RIGHT-OF-WAY FOR DERS DRIVE NW, ANDERSEN AVE NW, AND CANYON DRIVE NW.

DESCRIPTION - JOCO 50 SUBDIVISION

I CERTIFY THAT DURING THE MONTH OF AUGUST, 2021, AT THE DIRECTION OF HIGHTOWER DEVELOPMENT, INC. A SURVEY WAS MADE UNDER MY SUPERVISION OF AUDITOR'S PARCEL 2015055, IN ACCORDANCE WITH THE PLAT THEREOF RECORDED IN PLAT BOOK 59 AT PAGE 282 OF THE RECORDS OF THE JOHNSON COUNTY RECORDER'S OFFICE, BEING A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, AND A PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 81 NORTH, RANGE 7 WEST, OF THE FIFTH PRINCIPAL MERIDIAN, JOHNSON COUNTY, IOWA, SAID AUDITOR'S PARCEL 2015055 CONTAINS 48.87 ACRES, AND IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

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.

RICHARD R. NOWOTNY
P.L.S. No. 17916
My license expires on December 31, 20__.

Assets covered by this seal:

Signed before me this ____ day of _____, 20__.

Notary Public, in and for the State of Iowa.

PLAT APPROVED BY:
JOHNSON COUNTY BOARD OF SUPERVISORS:
CHAIRPERSON DATE

FINAL PLAT

JOCO 50 SUBDIVISION

AUDITOR'S PARCEL 2015055, IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER, AND THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 81 NORTH, RANGE 7 WEST, OF THE FIFTH PRINCIPAL MERIDIAN, JOHNSON COUNTY, IOWA.

JOHNSON COUNTY IOWA
MMS CONSULTANTS, INC.
Date: 08-10-2021
Designed by: KJB Field Book No: 1307
Drawn by: RLW Scale: 1"=100'
Checked by: RRRN Sheet No:
Project No: IOWA CITY 6385-034
1 of 1

JOCO 50 SUBDIVISION

SWISHER, JOHNSON COUNTY, IOWA

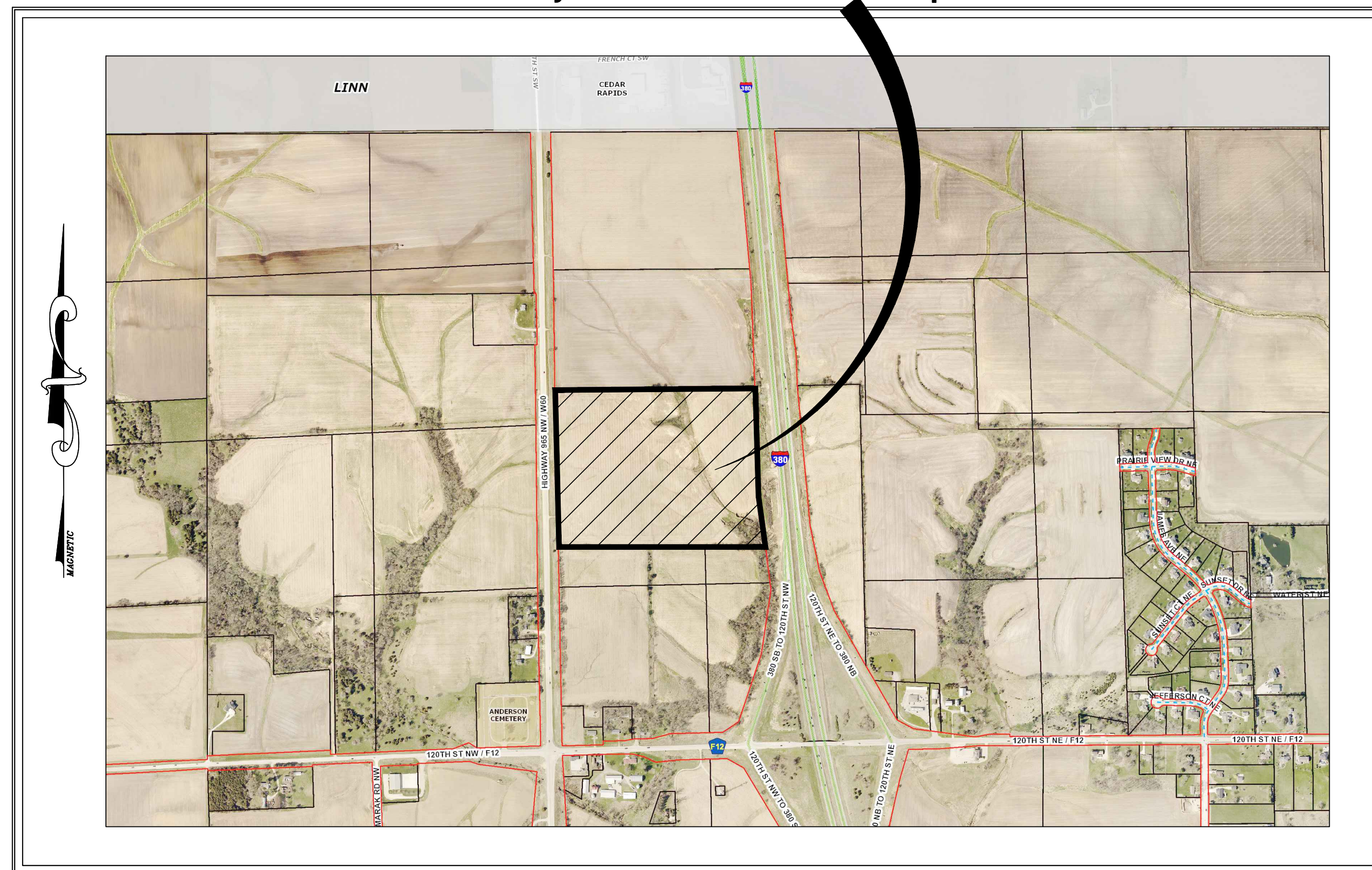


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Date	Revision
06/11/21	PER CITY COMMENTS - KJC
07/14/21	PER CITY COMMENTS - KJC
07/16/21	PER CITY COMMENTS - KJC
07/19/21	PER CITY COMMENTS - KJC
09/28/21	AS-BUILT - JEB

Project Location Map



Location Map Not To Scale

STANDARD LEGEND AND NOTES	
---	PROPERTY &/or BOUNDARY LINES
---	CONGRESSIONAL SECTION LINES
---	RIGHT-OF-WAY LINES
---	EXISTING RIGHT-OF-WAY LINES
---	CENTER LINES
---	EXISTING CENTER LINES
---	LOT LINES, INTERNAL
---	LOT LINES, PLATTED OR BY DEED
---	PROPOSED EASEMENT LINES
---	EXISTING EASEMENT LINES
---	BENCHMARK
---	RECORDED DIMENSIONS
---	CURVE SEGMENT NUMBER
(R)	22-1
---	EXISTING POWER POLE W/DROP
---	PROPOSED POWER POLE W/DROP
---	EXISTING POWER POLE W/TRANS
---	PROPOSED POWER POLE W/TRANS
---	EXISTING POWER POLE W/LIGHT
---	PROPOSED POWER POLE W/LIGHT
---	EXISTING GUY POLE
---	PROPOSED GUY POLE
---	EXISTING LIGHT POLE
---	PROPOSED LIGHT POLE
---	EXISTING SANITARY MANHOLE
---	PROPOSED SANITARY MANHOLE
---	EXISTING FIRE HYDRANT
---	PROPOSED FIRE HYDRANT
---	EXISTING WATER VALVE
---	PROPOSED WATER VALVE
---	EXISTING DRAINAGE MANHOLE
---	PROPOSED DRAINAGE MANHOLE
---	EXISTING CURB INLET
---	PROPOSED CURB INLET
---	EXISTING FENCE LINE
---	PROPOSED FENCE LINE
---	EXISTING EXISTING SANITARY SEWER
---	PROPOSED EXISTING SANITARY SEWER
---	EXISTING EXISTING STORM SEWER
---	PROPOSED EXISTING STORM SEWER
---	EXISTING EXISTING WATER LINES
---	PROPOSED EXISTING WATER LINES
---	EXISTING EXISTING ELECTRICAL LINES
---	PROPOSED EXISTING ELECTRICAL LINES
---	EXISTING EXISTING TELEPHONE LINES
---	PROPOSED EXISTING TELEPHONE LINES
---	EXISTING EXISTING GAS LINES
---	PROPOSED EXISTING GAS LINES
---	EXISTING CONTOUR LINES (1' INTERVAL)
---	PROPOSED CONTOUR LINES (1' INTERVAL)
---	EXISTING PROPOSED GROUND
---	EXISTING EXISTING TREE LINE
---	PROPOSED EXISTING TREE LINE
---	EXISTING EXISTING DECIDUOUS TREE & SHRUB
---	PROPOSED EXISTING DECIDUOUS TREE & SHRUB
---	EXISTING EXISTING EVERGREEN TREES & SHRUBS
---	PROPOSED EXISTING EVERGREEN TREES & SHRUBS

THE ACTUAL SIZE AND LOCATION OF ALL PROPOSED FACILITIES SHALL BE VERIFIED WITH CONSTRUCTION DOCUMENTS, WHICH ARE TO BE PREPARED AND SUBMITTED SUBSEQUENT TO THE APPROVAL OF THIS DOCUMENT.

THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PER IDOT STANDARD ROAD PLANS AND JOHNSON COUNTY REQUIREMENTS AT ALL TIMES DURING WORK WITHIN PUBLIC R.O.W.

THE CONTRACTOR SHALL COORDINATE WITH UTILITY PROVIDERS FOR ANY REQUIRED RELOCATION OF EXISTING UTILITIES.

GENERAL NOTE
ALL WATERMAIN, STORM SEWER, AND SANITARY SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH SUDAS (2021 ADDITION) AS WELL AS THE CEDAR RAPIDS GENERAL SUPPLEMENTAL TO SUDAS STANDARD SPECIFICATIONS (2021 ADDITION).

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CP101	PAVING PLAN AND PROFILE: DERS DRIVE NW
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CU502	GENERAL NOTES AND DETAILS: WATER MAIN AND CEDAR RAPIDS CONSTRUCTION NOTES

UTILITY COMPANY CONTACTS		
SERVICE	SUPPLIER	PHONE NO.
TELEPHONE & CABLE TV	SOUTH SLOPE COOPERATIVE ATTN: BRIAN FRESE	319-227-7111
TELEPHONE & CABLE TV	MEDIACOM COMMUNICATIONS ATTN: RANDY CHASE	845-867-0933
NATURAL GAS	MIDAMERICAN ENERGY ATTN: STACY HANK	319-298-5157
ELECTRICITY	LINN COUNTY REC ATTN: JOHNA NUNEMAKER	319-377-1587
COMMUNICATION	VERIZON ATTN: JOHN BACHELDER	972-729-7000
COMMUNICATION	CENTURY LINK ATTN: TECHNICIAN ON CALL	877-366-8344
COMMUNICATION	UNITE PRIVATE NETWORKS ATTN: JOE KILZER	816-425-3556
WATER	CITY OF CEDAR RAPIDS ATTN: KEN RUSSELL	319-286-5910
SEWER	CITY OF CEDAR RAPIDS ATTN: KEN RUSSELL	319-286-5910

TITLE SHEET

SURVEY CONTROL				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
H1	3416338.3010'	5418273.639'	N/A	SET 8" REBAR CP W/YELLOW CAP ON WEST SHOULDER OF HIGHWAY 965, APPROX. 59' SOUTH OF A GRAVEL DRIVE TO A RESIDENCE WITH AN ADDRESS OF 1065 HIGHWAY 965 NW. MMS CONTROL POINT NO. 403.
H2	3412931.7490'	5418396.365'	N/A	CUT "X" ON TOP OF SOUTH CURB EDGE, IN APPROXIMATE MIDDLE, OF ISLAND IN THE SOUTHEAST QUADRANT OF THE HIGHWAY 965 AND 120TH ST NW INTERSECTION. MMS CONTROL POINT NO. 402.
H3	3413107.5450'	5423705.060'	N/A	CUT "X" IN BACK OF INTAKE LOCATED IN THE NORTHEAST QUADRANT OF THE 120TH STREET NE AND JAMES AVENUE INTERSECTION. MMS CONTROL POINT 401.
H4	3415554.4570'	5423307.820'	N/A	CUT "X" IN TOP BACK OF CURB OF THE EAST SIDE OF JAMES AVENUE AT ITS NORTH TERMINUS. MMS CONTROL POINT 400.
V1	3415409.7160'	5418290.556'	830.19	FOUND A 3" REBAR CP AMENT CAP ON WEST SHOULDER OF HIGHWAY 965, APPROX. 929' SOUTH OF H1. MMS CONTROL POINT NO. 202.
V2	3414606.799'	5418306.215'	816.63'	FOUND A 3" REBAR CP AMENT CAP ON WEST SHOULDER OF HIGHWAY 965, APPROX. 803' SOUTH OF V1. MMS CONTROL POINT NO. 201.

UTILITIES
THE CONTRACTOR SHALL NOTIFY IOWA ONE CALL AT 811 OR 800/292-9989 NO LESS THAN 48 HRS. IN ADVANCE OF ANY DIGGING OR EXCAVATION.

IOWA ONE CALL

WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IF IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

RECORD OF CONSTRUCTION

THIS DRAWING HAS BEEN REVISED TO REPRESENT THE RECORDS OF CONSTRUCTION AS PRESENTED BY THE CONTRACTORS AND / OR THE INSPECTORS AT THE TIME OF COMPLETION OF THE WORK SET FORTH ON THIS DRAWING.

Date Revised: 09-28-21 tav

I hereby certify that this engineering document 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 Iowa.

KELLY J. BECKLER, P.E. Iowa Lic. No. 14624

My license renewal date is December 31, 20__.

Pages or sheets covered by this seal:

SEAL

JOCO 50 SUBDIVISION

SWISHER JOHNSON COUNTY IOWA

MMS CONSULTANTS, INC.
6385-034COV-AB

Date: 04/19/21

Designed by: KJB Field Book No: 1307, PG 39

Drawn by: TAV Scale: NONE

Checked by: KJB Sheet No: GI100

Project No: 6385-034 of.

GRADING NOTES

THE EARTHWORK CONTRACTOR SHALL OBTAIN THE PROJECT NPDES PERMIT AND BE RESPONSIBLE FOR THE INSTALLATION & MAINTENANCE OF ALL EROSION CONTROL MEASURES FOR THE DURATION OF THE PROJECT.

THE CONTRACTOR SHALL COORDINATE PHASING WITH OWNER/ENGINEER AND CONSTRUCT APPROPRIATE SILTATION BASINS & EROSION CONTROL MEASURES ACCORDING TO THE NPDES PERMIT.

THE EARTHWORK CONTRACTOR SHALL REMOVE ALL SILT FENCES & TEMPORARY EROSION CONTROL MEASURES AS DIRECTED BY THE OWNER/ENGINEER.

THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES AS REQUIRED FOR ROAD CLOSURES AND CONSTRUCTION WITHIN PUBLIC ROW. ALL ROAD CLOSURES SHALL BE COORDINATED WITH THE OWNER/ENGINEER AND JOHNSON COUNTY.

THE CONTRACTOR SHALL STRIP & STOCKPILE ALL TOPSOIL ACCORDING TO THE DEPTHS INDICATED IN THE SOIL BORINGS & COORDINATED WITH THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR SHALL COORDINATE ALL TOPSOIL STOCKPILE LOCATIONS WITH THE OWNER/ENGINEER. REFER TO SEEDING PLANS FOR TOPSOIL RESPREAD LOCATIONS.

THE SOILS REPORT IS PROVIDED FOR THE CONTRACTOR'S USE. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE SOILS REPORT AND BID THEIR WORK ACCORDINGLY.

ALL FILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY UNLESS DIRECTED OTHERWISE BY THE OWNER.

THE OWNER WILL PROVIDE THIRD PARTY COMPACTION TESTING. THE CONTRACTOR SHALL COORDINATE ALL TESTING REQUIREMENTS & DOCUMENTATION WITH THE OWNER.

THE CONTRACTOR SHALL HIRE MMS CONSULTANTS, INC. TO PERFORM AN "AS-BUILT" TOPO SURVEY TO CONFIRM FINAL GRADE & EARTHWORK QUANTITIES UPON PROJECT COMPLETION.

Seeding Maintenance and Warranty:

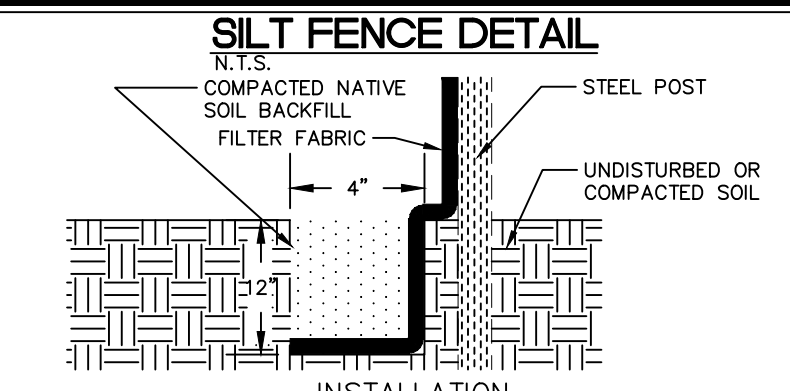
- Maintain seeded areas immediately and continue maintenance to ensure grass is well established and exhibits a vigorous growing condition and has stabilized the soil.
- Water, weed, mow, fertilize, spray, cultivate and otherwise maintain and protect all seeding.
- Roll surface to remove minor depressions or irregularities. Regrade and reseed any areas impacted by other construction processes prior to Owner acceptance of the work.
- Immediately reseed areas which show bare spots or eroded areas with original mixtures, watering, or as necessary to establish a close stand of grasses specified, free of weeds and undesirable grasses.
- Water to prevent grass and soil from drying out after seeding.
 - Supply and/or coordinate water supply availability with Owner.
 - Provide and maintain temporary piping, hoses, and low watering equipment to convey water from sources to keep soil moist to a uniform depth of four (4) inches.
 - Schedule watering to prevent wilting, puddling, erosion, or displacement of seed
- Control growth of weeds. Apply herbicides in accordance with manufacturer's instructions. Remedy damage resulting from improper use of herbicides
- Contractor shall be responsible for maintenance of all seeded areas for six (6) weeks from germination. The Owner shall convey the maintenance to the one year maintenance contract pursuant to completion of the requirements above.
- Contractor shall provide maintenance contract proposal to the owner for all seeded areas for a period of one year for turf grasses and two years for native grasses.
- Contractor shall warranty (repair or replace) all seeding which, in the judgement of the engineer, have not survived and grown in a satisfactory manner for a period of one year from Owner's acceptance of the work.

Turf Seed Maintenance:

- Maintenance contractor shall continue maintenance of turf seeded areas for a period of one year.
- Water, weed, mow, fertilize, spray, cultivate and otherwise maintain all seeding.
- Maintain turf grass in a vigorous growing condition to ensure it is well established and provides soil stabilization.
- Mow grass at regular intervals to maintain at a maximum height of 3 inches. Do not cut more than 1/3 of grass blade at any one mowing. Neatly trim edges.
- Immediately remove excess clippings after mowing and trimming which would create dead-spots up to and thru the next planting season.
- Immediately reseed areas which show bare spots, damaged or eroded areas.

Native Seed Maintenance:

- Maintenance contractor shall continue maintenance of native seeded areas for a period of two years.
- Water, weed, mow, fertilize, spray, cultivate and otherwise maintain all seeding.
- Mow biannually and only as necessary to control weeds and woody species.
- Reseed areas which show bare spots, damaged or eroded areas.
- Reseed areas which have failed to germinate or are poorly established. Maintenance contractor shall be responsible to recover any losses from seeding contractor or seed supplier resulting from bad seed.



- INSTALLATION**
- POSTS SHALL BE 1.33 POUNDS PER LINEAL FOOT STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.
 - SILT FENCE FABRIC SHALL CONFORM TO I.D.O.T. STANDARD SPECIFICATION SECTION 4196.D.I.A. SILT FENCING SHALL BE A MINIMUM OF 24" AND A MAXIMUM OF 36" HIGH WHEN COMPLETE.
 - THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE FENCE TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, THE FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP, AND SECURELY SEALED.
 - POSTS SHALL BE SPACED A MAXIMUM OF 8 FEET APART AND DRIVEN SECURELY INTO THE GROUND ALONG THE FENCE ALIGNMENT. POSTS SHALL BE DRIVEN INTO THE GROUND A MINIMUM OF 28".
 - A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE BY 12" DEEP ALONG THE BACKSIDE OF THE POSTS.
 - FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE POSTS SUCH THAT THE FABRIC EXTENDS INTO THE TRENCH AS SHOWN ABOVE. THE FABRIC SHALL BE FASTENED A MINIMUM OF THREE PLACES ON EACH POST.
 - THE TRENCH SHALL BE BACK FILLED WITH EXCAVATED MATERIAL AND THOROUGHLY COMPACTED.
- MAINTENANCE**
- SILT FENCES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAIN-FALL EVENT OF 0.5 INCHES OR MORE. DURING PERIODS OF PROLONGED RAIN INSPECTIONS SHALL BE AT LEAST DAILY. ANY REPAIRS NEEDED TO MAINTAIN THE SILT FENCE'S EFFECTIVENESS SHALL BE MADE IMMEDIATELY.
 - SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO STABILIZING THE UPSLOPE AREAS, THE FABRIC SHALL BE REPLACED PROMPTLY.
 - SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN THE DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE FENCE. SILTS REMOVED SHALL BE PLACED IN A PROTECTED PLACE THAT WILL PREVENT THEIR ESCAPE FROM THE CONSTRUCTION SITE.
 - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER NEEDED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.
 - SILT FENCE SHALL REMAIN IN PLACE UNTIL IT IS NO LONGER NEEDED AS DIRECTED BY THE POLLUTION PREVENTION PLAN. GENERALLY SILT FENCES SHALL REMAIN UNTIL THE UPSLOPE AREAS ARE STABILIZED WITH AN ESTABLISHED GRASS COVER AS A MINIMUM.

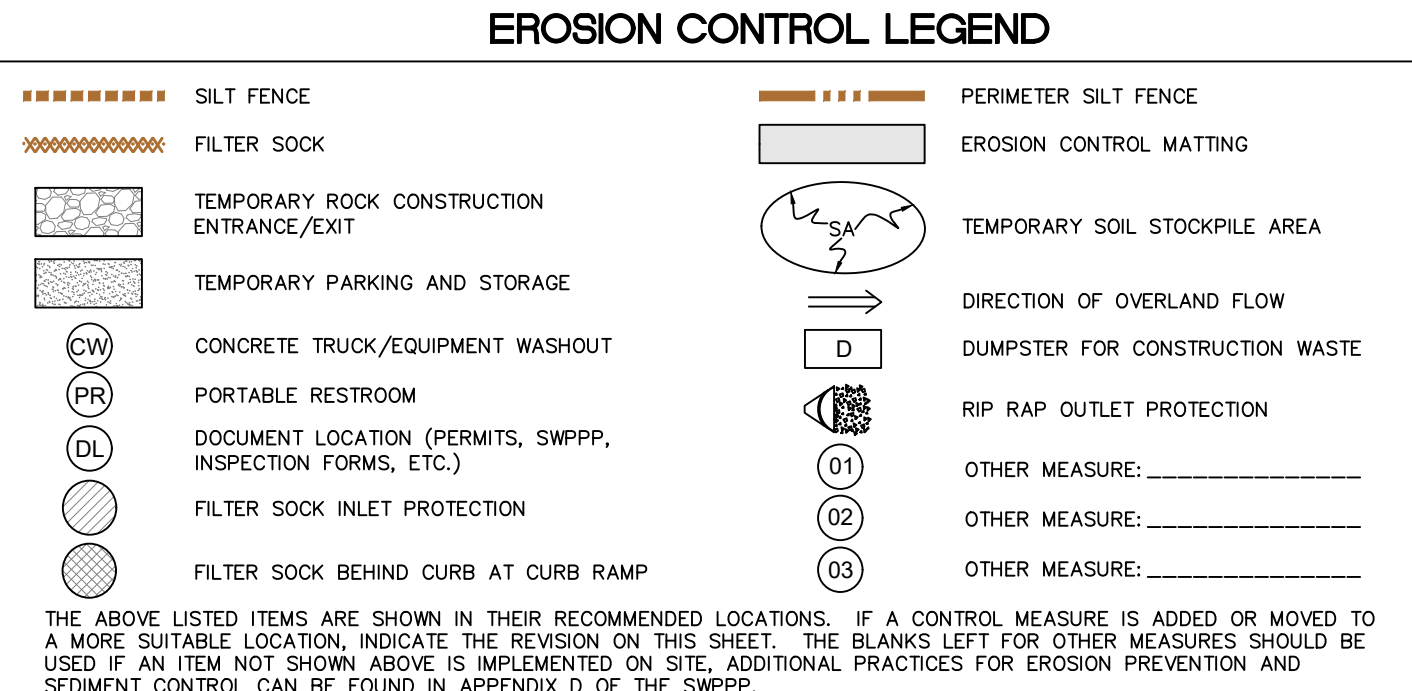
REMOVE TREES AND CLEAR AND GRUB STUMPS, 26,985 SY.

NOTE:
EROSION CONTROL MEASURES SHOWN ON PLANS ARE THE ENGINEER'S MINIMUM RECOMMENDATION. CONTRACTORS SHALL INSTALL ADDITIONAL MEASURES AS NEEDED TO COMPLY WITH THE NPDES PERMIT AND SWPPP DOCUMENT.

EROSION CONTROL MEASURES SHOWN ON PLANS ARE ONLY RELATIVE TO THE FINAL GRADING. CONTRACTOR MUST INSTALL MEASURES IN APPROPRIATE LOCATIONS DURING ALL PHASES OF SITE GRADING WORK AND ANY OTHER SOIL DISTURBANCE ACTIVITY.

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THE ABOVE LISTED ITEMS ARE SHOWN IN THEIR RECOMMENDED LOCATIONS. IF A CONTROL MEASURE IS ADDED OR MOVED TO A MORE SUITABLE LOCATION, INDICATE THE REVISION ON THIS SHEET. THE BLANKS LEFT FOR OTHER MEASURES SHOULD BE USED IF AN ITEM NOT SHOWN ABOVE IS IMPLEMENTED ON SITE. ADDITIONAL PRACTICES FOR EROSION PREVENTION AND SEDIMENT CONTROL CAN BE FOUND IN APPENDIX D OF THE SWPPP.

RECORD OF CONSTRUCTION

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Date Revised: 09/28/2021 -JEB



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09/28/21	AS-BUILT - JEB

GRADING AND EROSION CONTROL PLAN AND SWPPP

JOCO 50 SUBDIVISION

SWISHER
JOHNSON COUNTY
IOWA

MMS CONSULTANTS, INC.
6385-034GRD-AB

Date: 04/19/21

Designed by: KJB Field Book No: 1307, PG 39

Drawn by: TAV Scale: 1"=100'

Checked by: KJB Sheet No:

Project No: CG100

6385-034 of:



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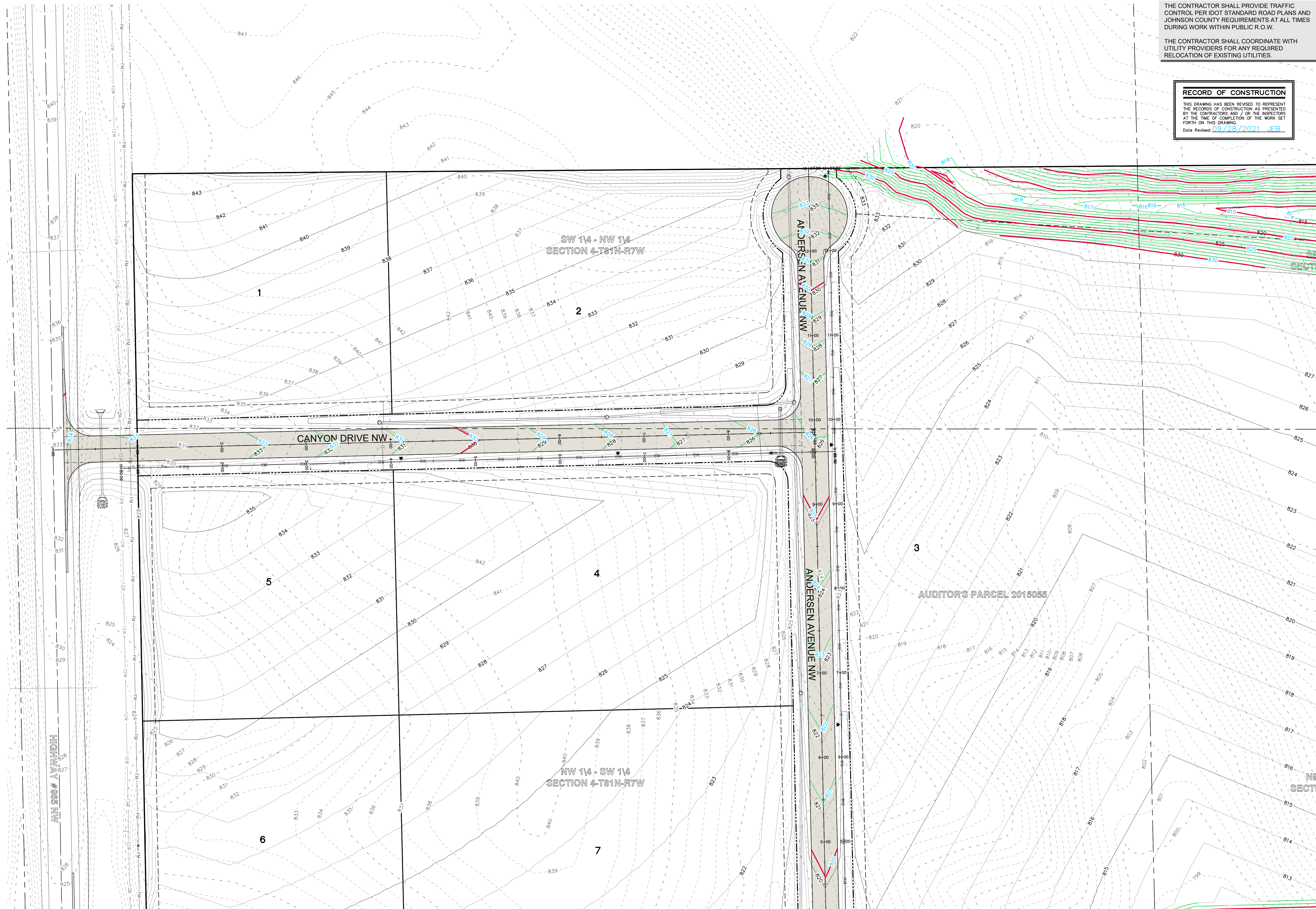
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DETAILED GRADING PLAN

JOCO 50
SUBDIVISION

SWISHER
JOHNSON COUNTY
IOWA

MMS CONSULTANTS, INC.

6385-034GRD-AB

Date: 04/19/21

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Project No: CG101

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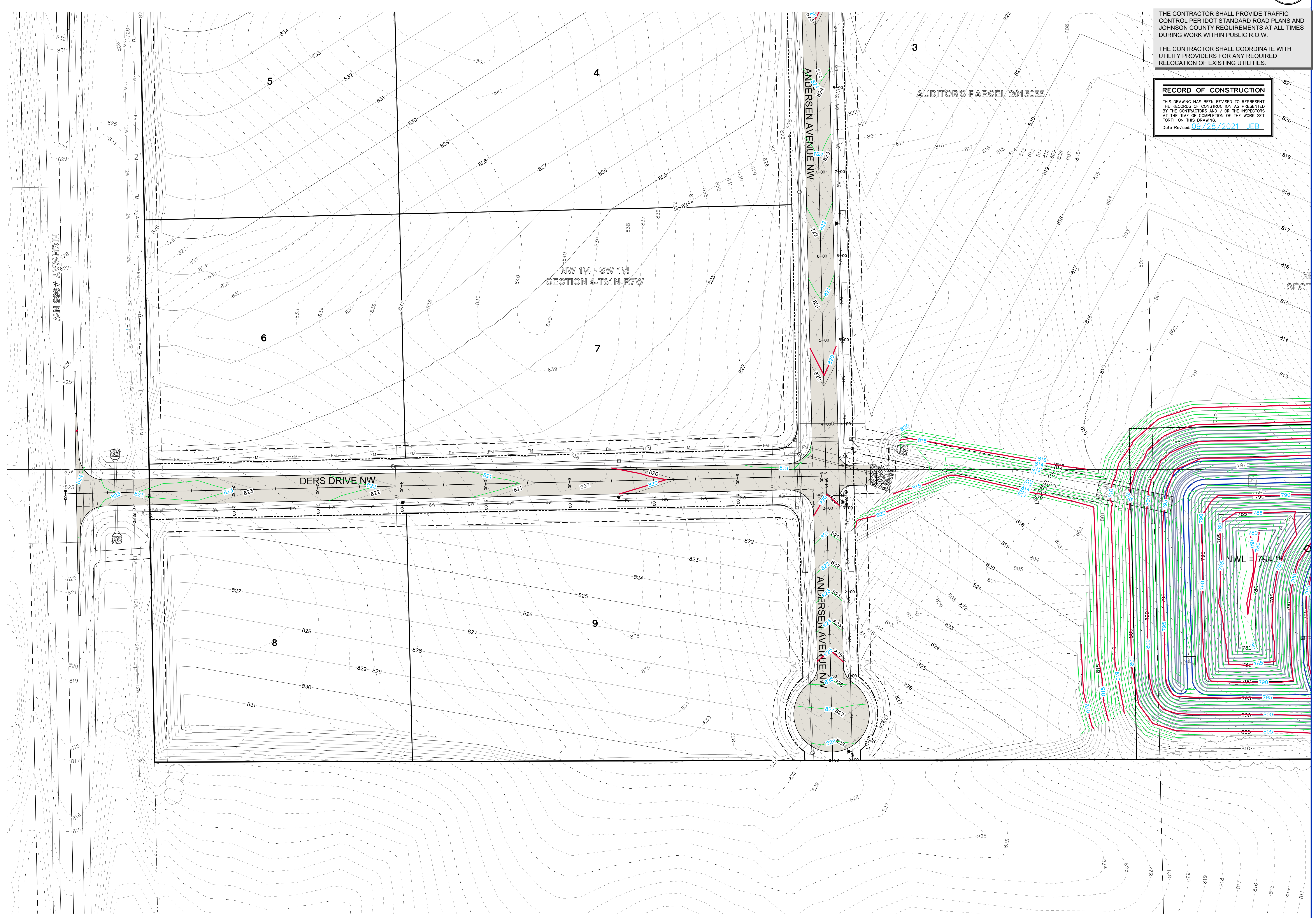
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DETAILED GRADING PLAN

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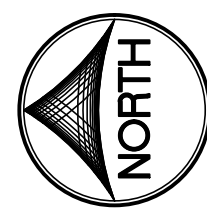
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Project No: CG102

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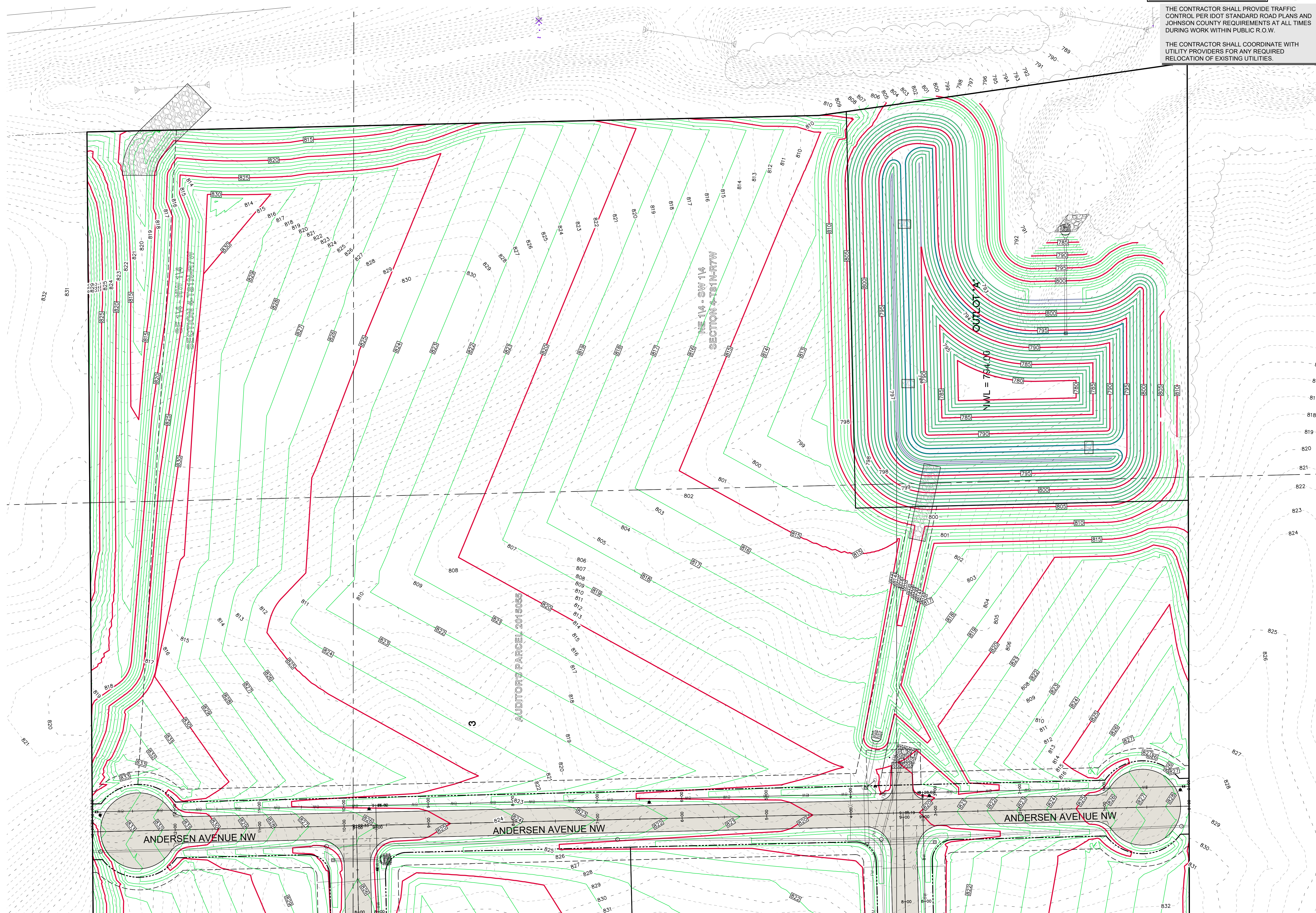


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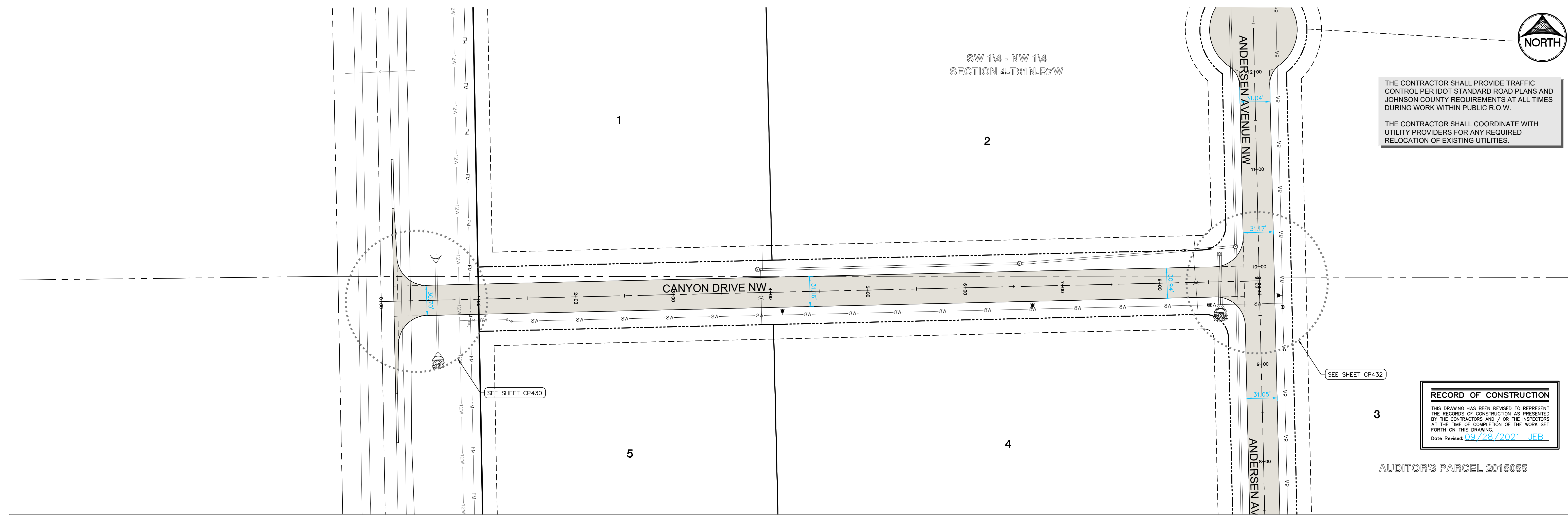


DETAILED GRADING PLAN

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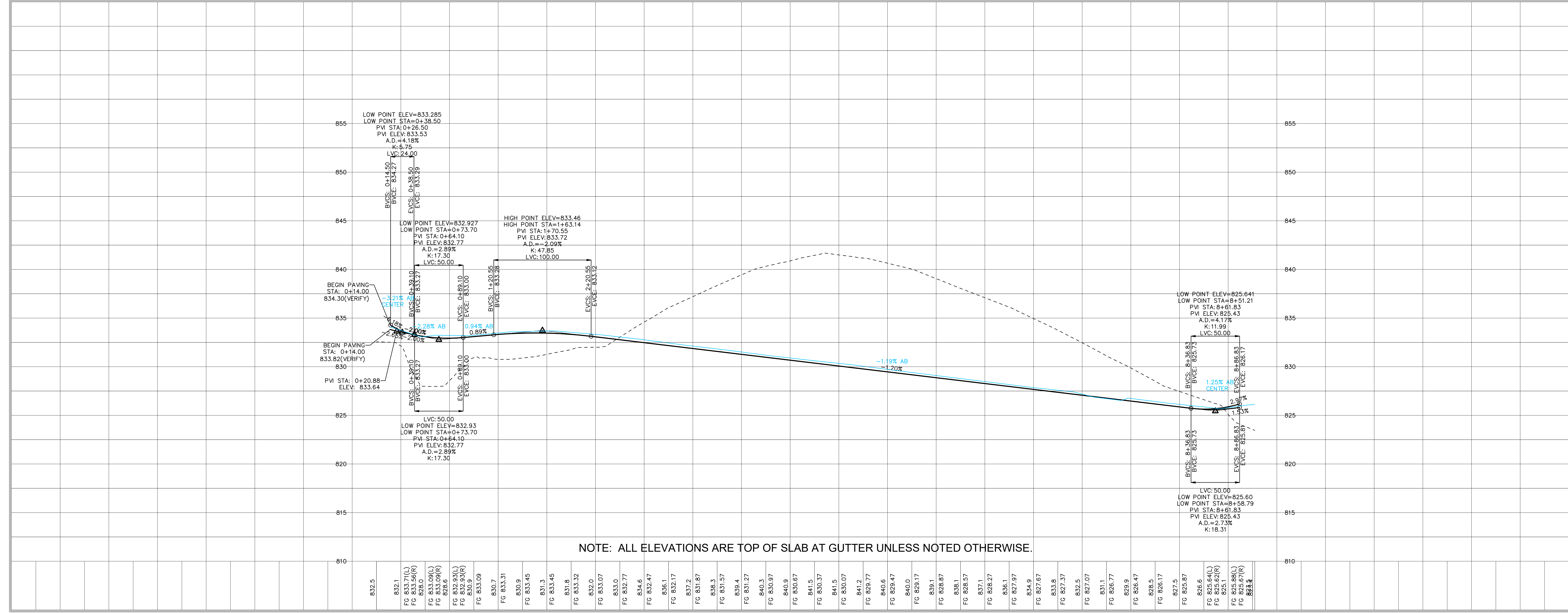
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PAVING PLAN
AND PROFILE:
CANYON DRIVE
NW

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Project No: CP100

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NW 1/4 - SW 1/4
SECTION 4-T81N-R7W

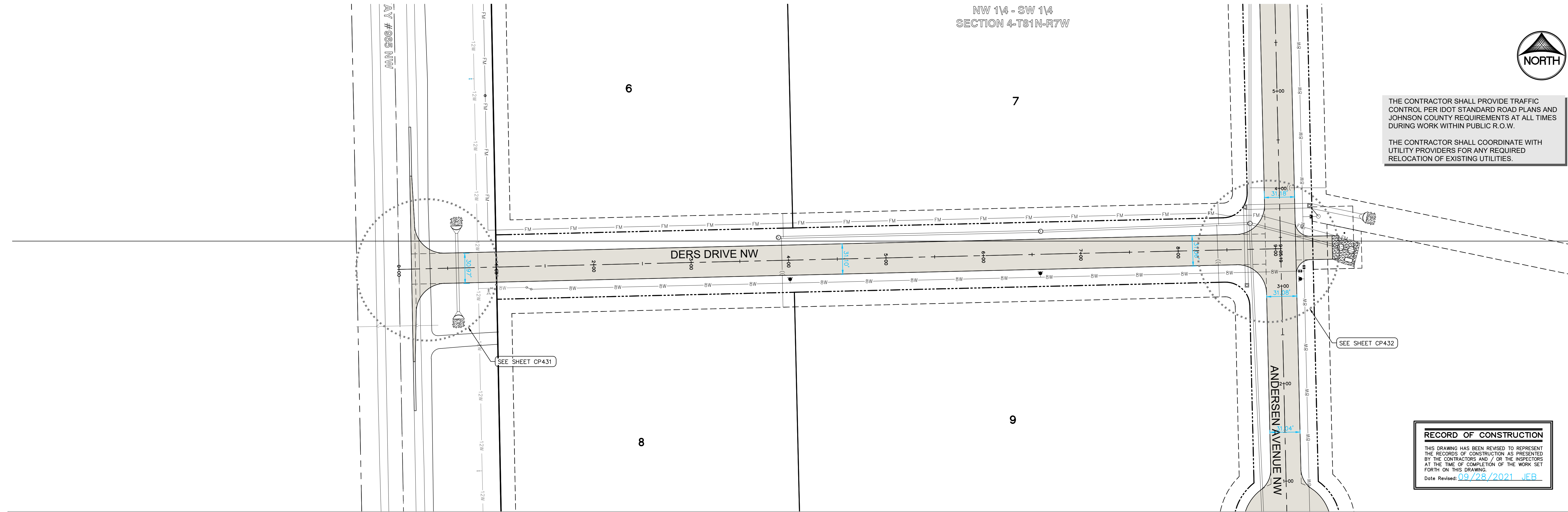


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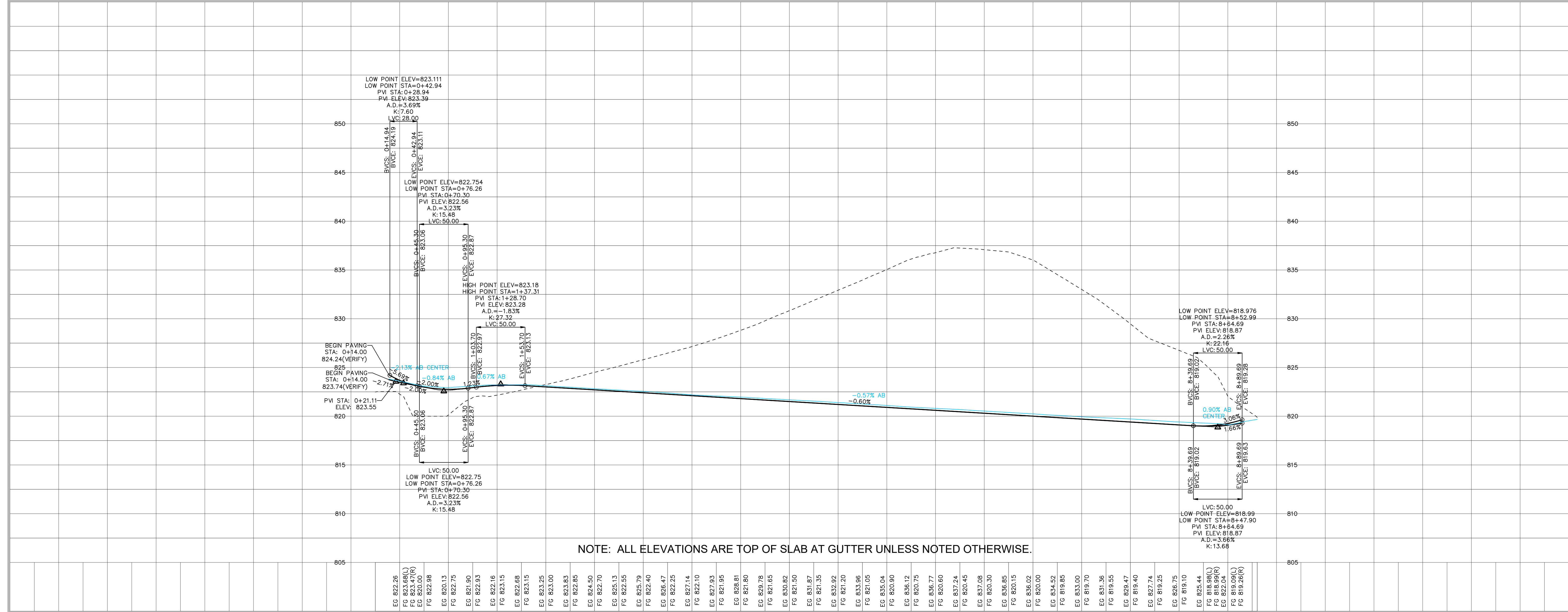


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PAVING PLAN
AND PROFILE:
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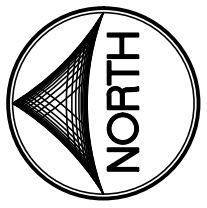
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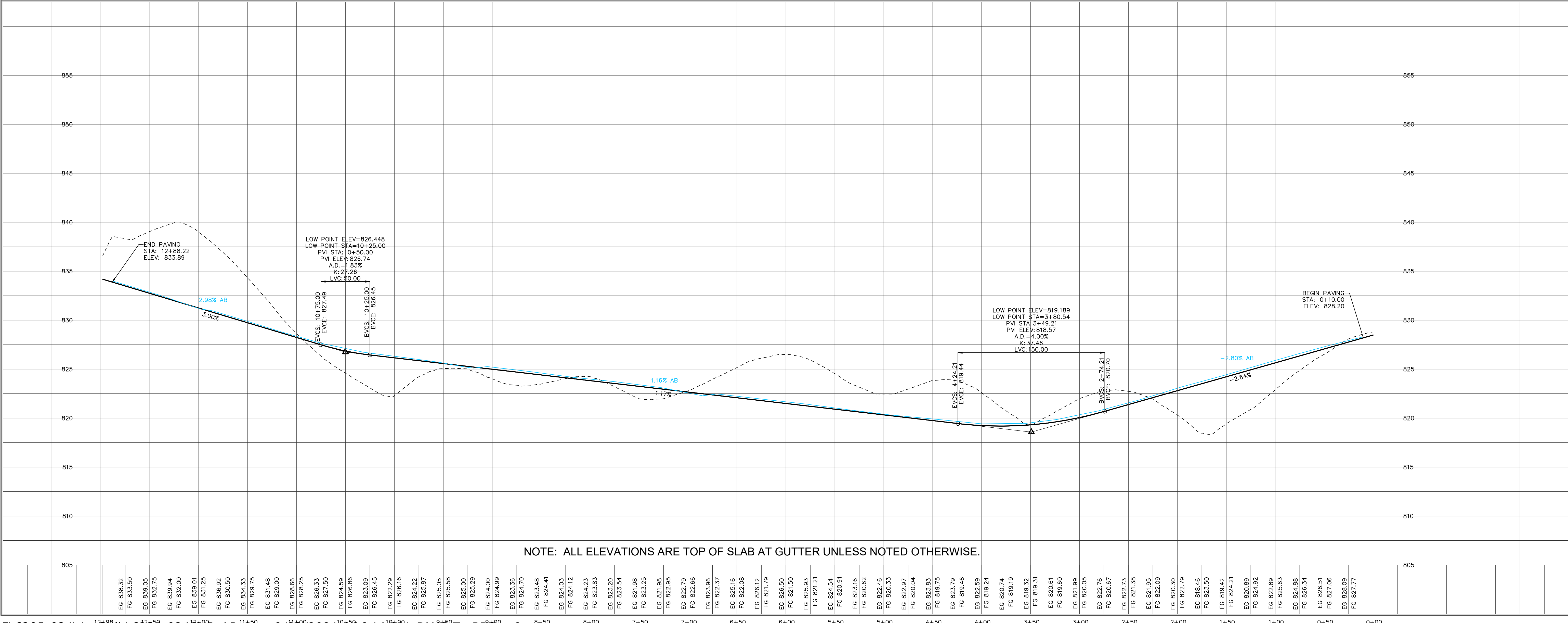
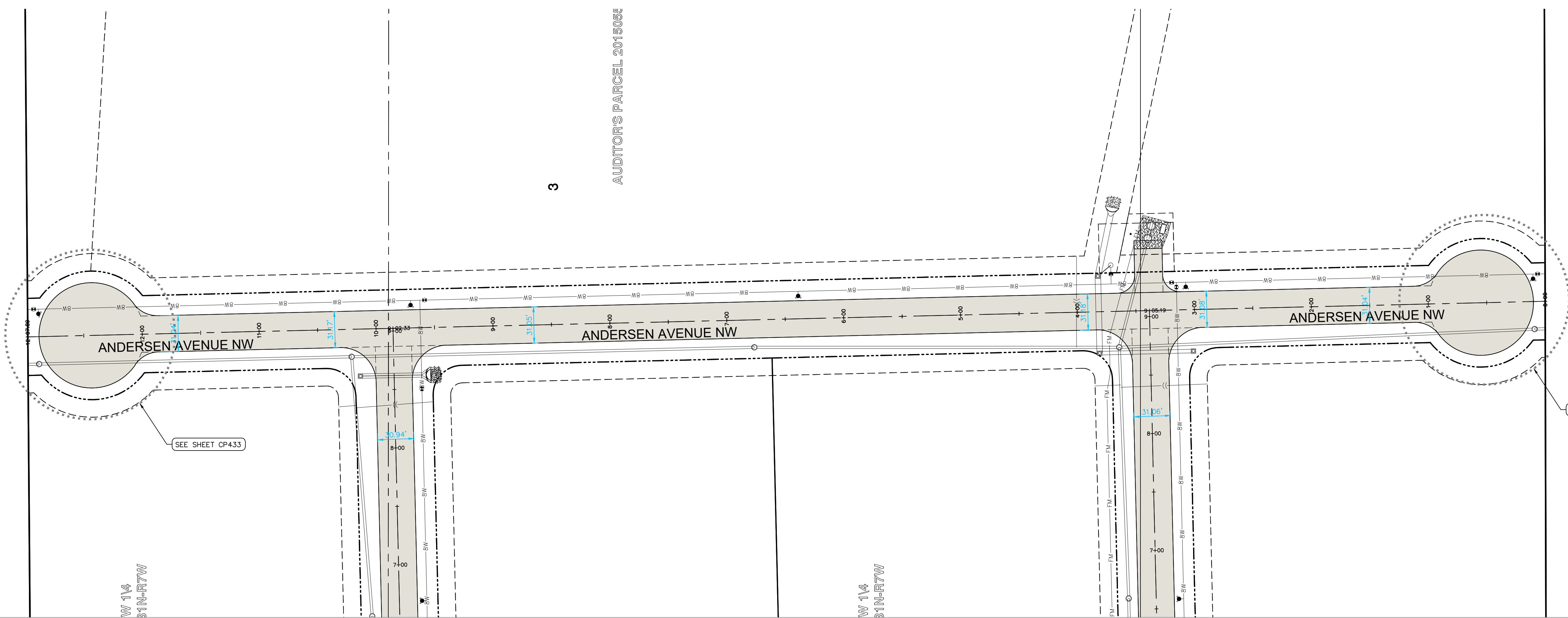
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NOTE: ALL ELEVATIONS ARE TOP OF SLAB AT GUTTER UNLESS NOTED OTHERWISE.

**PAVING PLAN AND PROFILE:
ANDERSON AVENUE NW**

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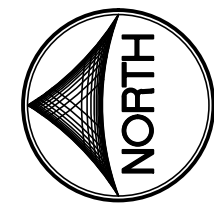
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Project No: **CP102**

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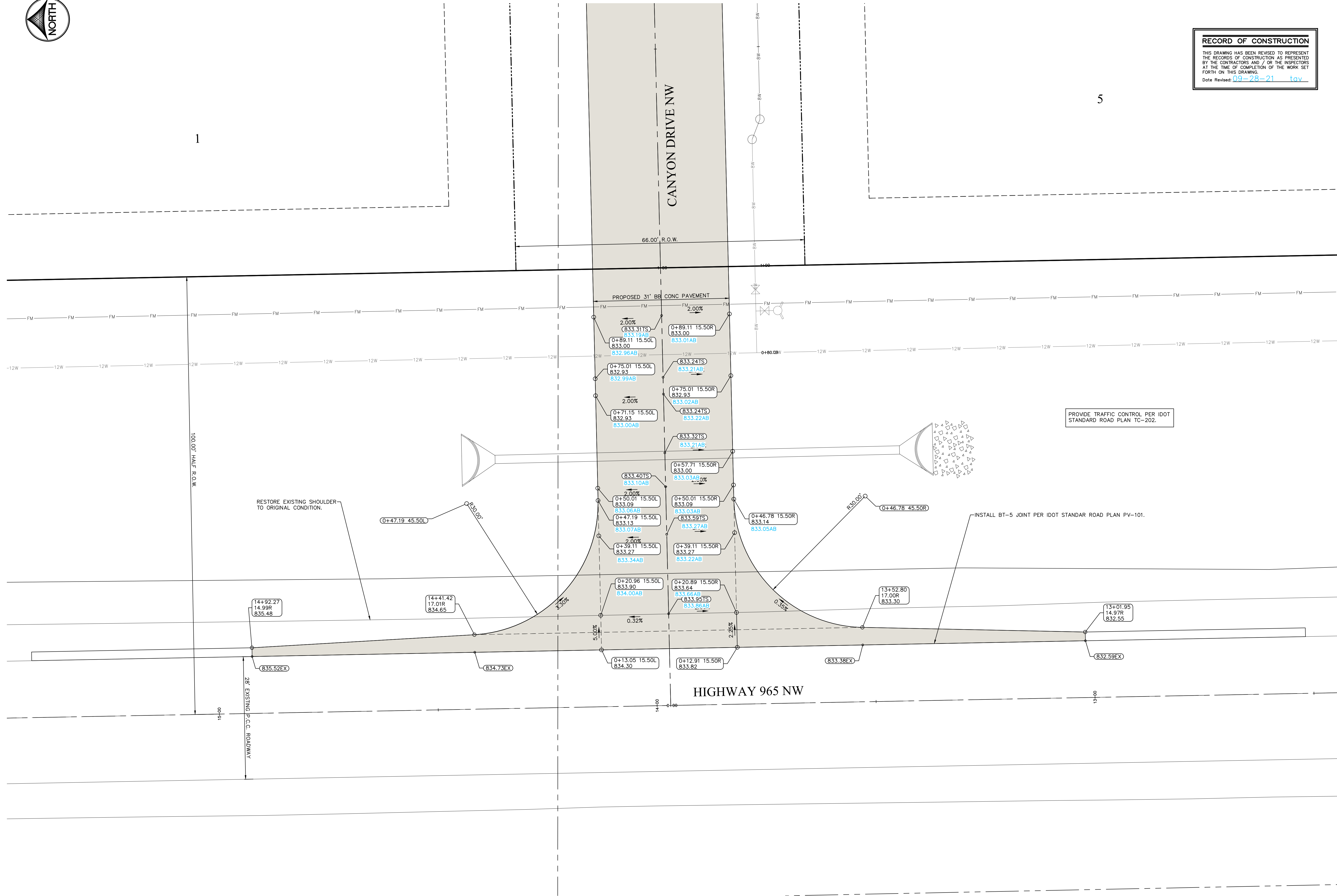
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**INTERSECTION
 DETAILS**

**JOCO 50
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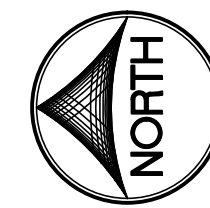
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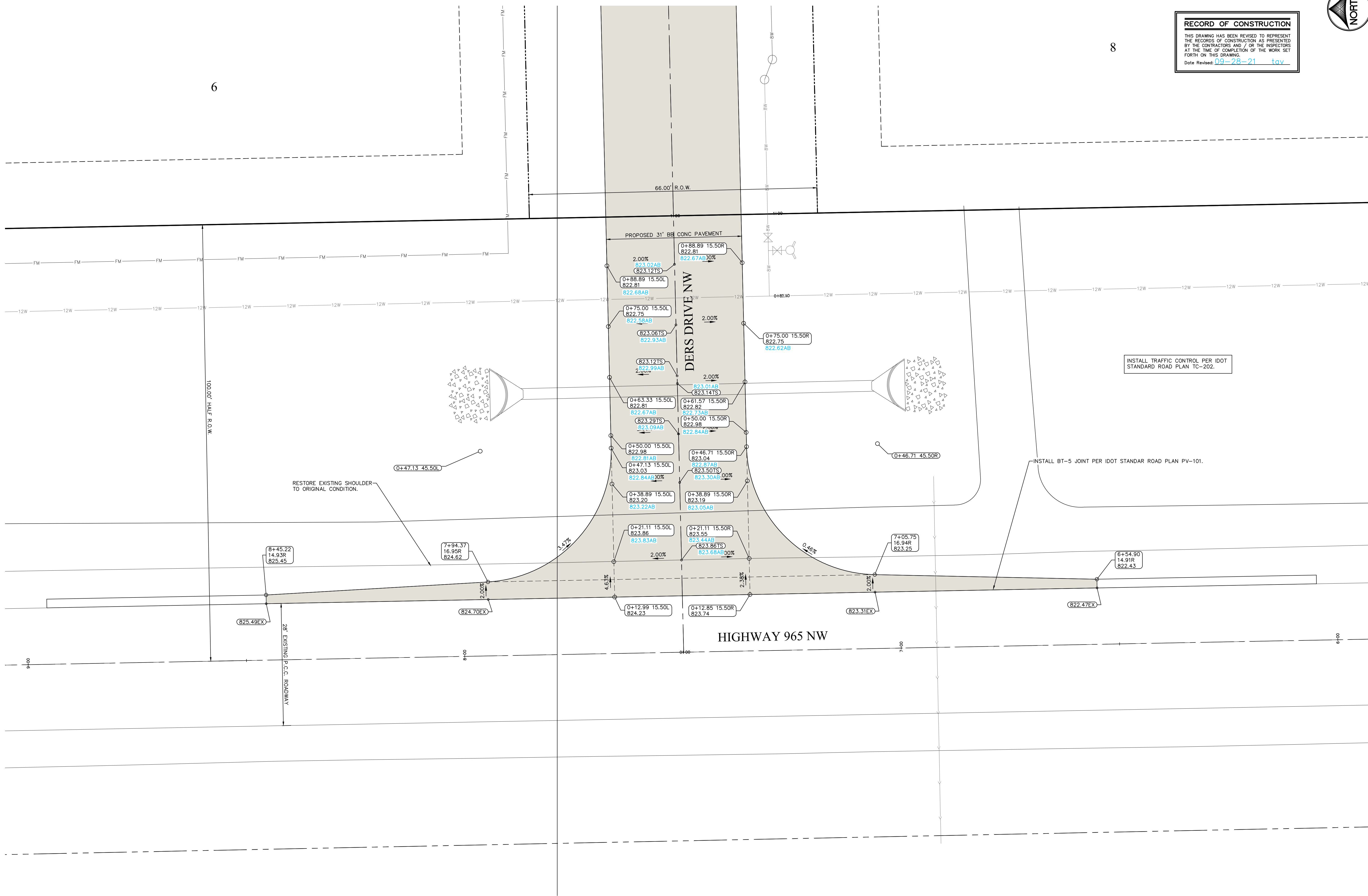
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Project No: CP430

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INTERSECTION DETAILS

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 6385-034 of:

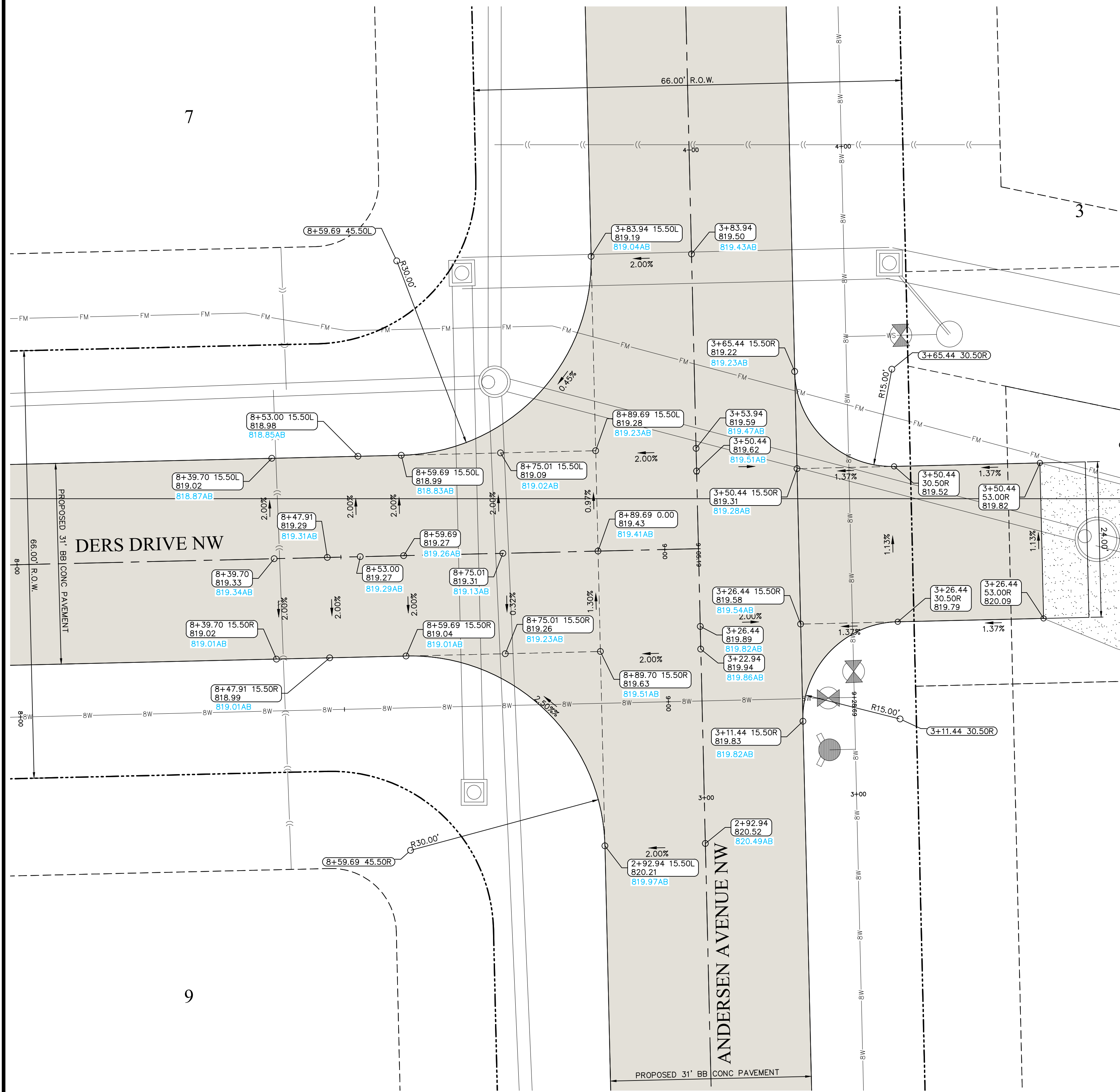
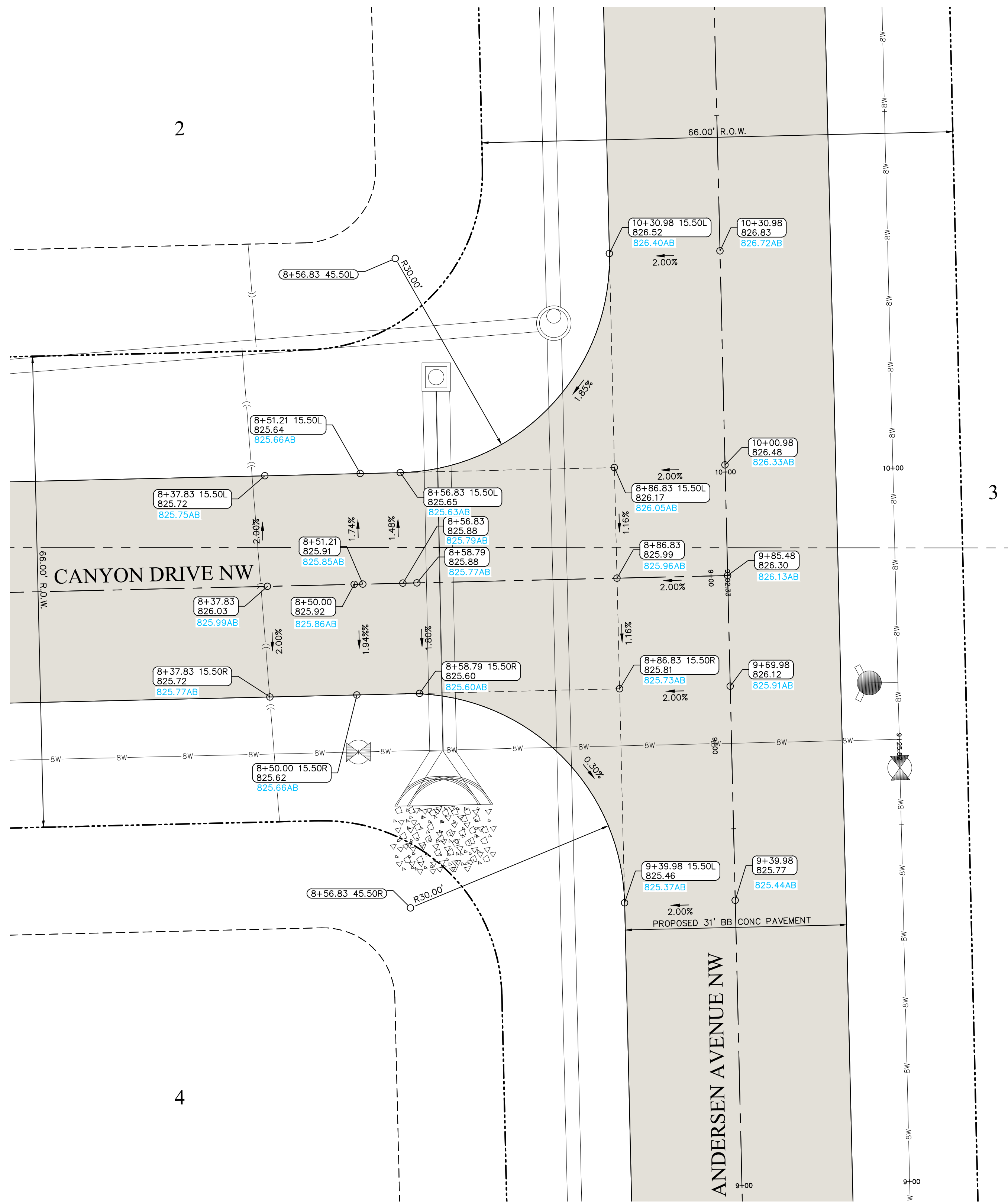


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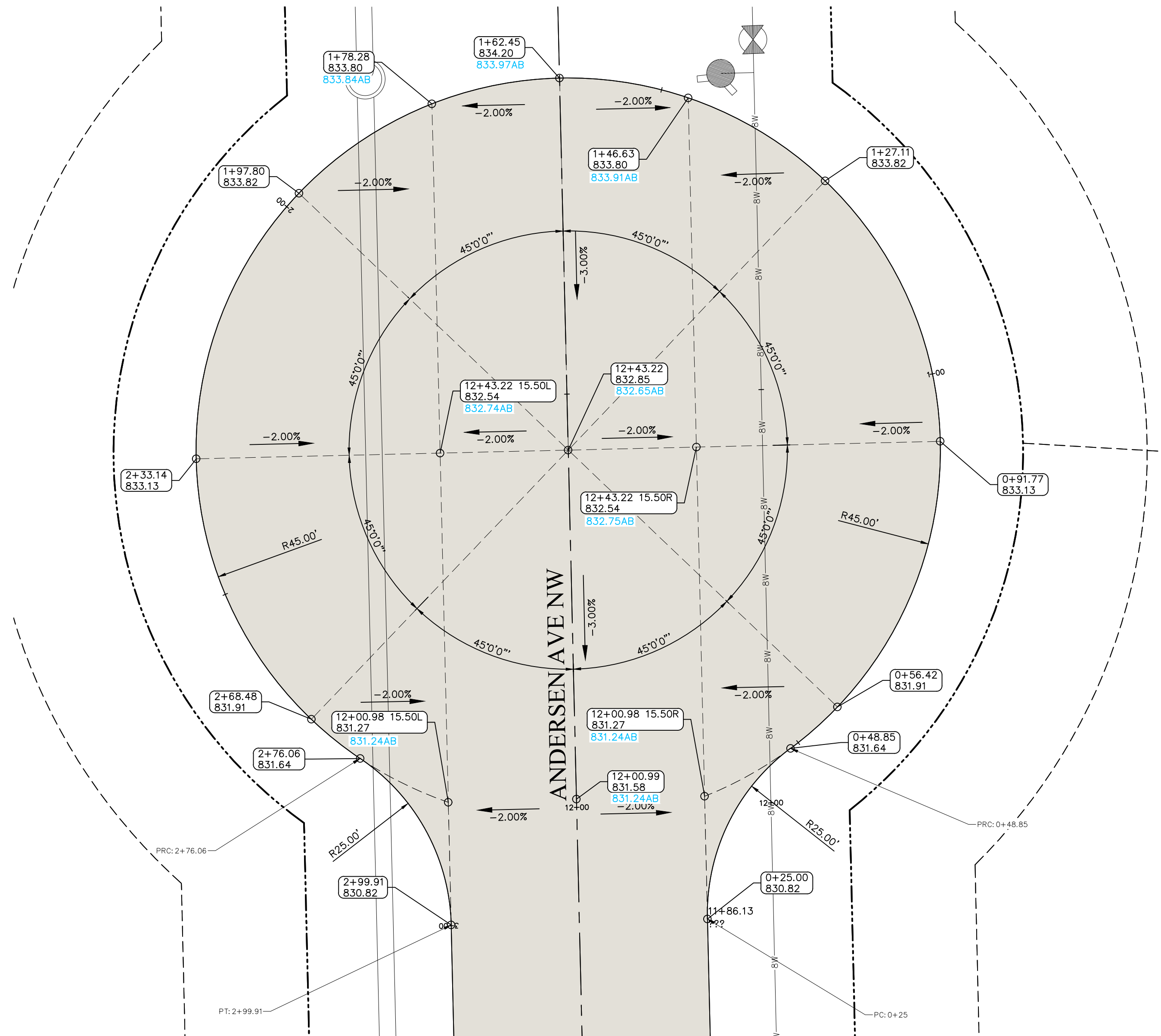


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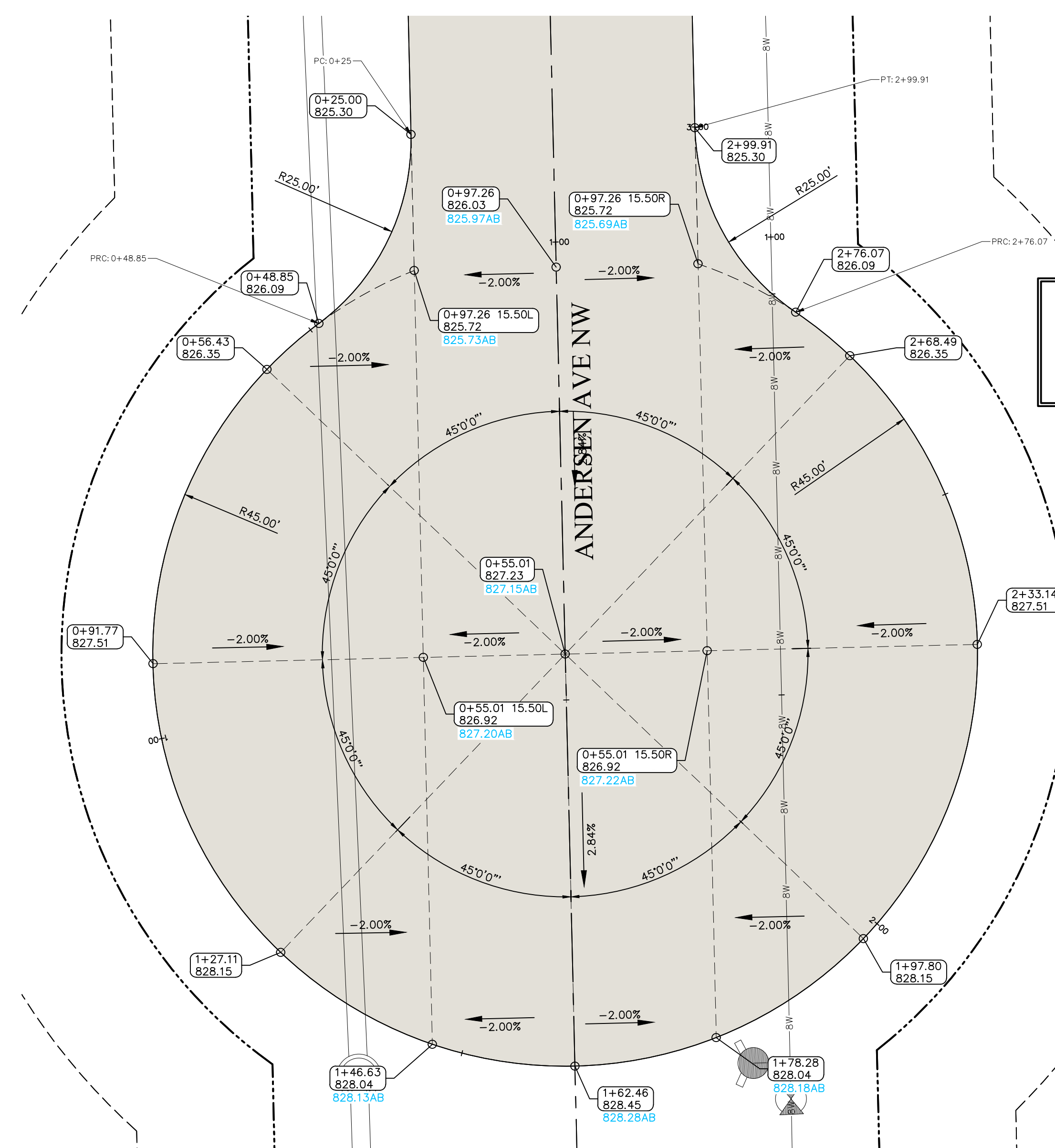
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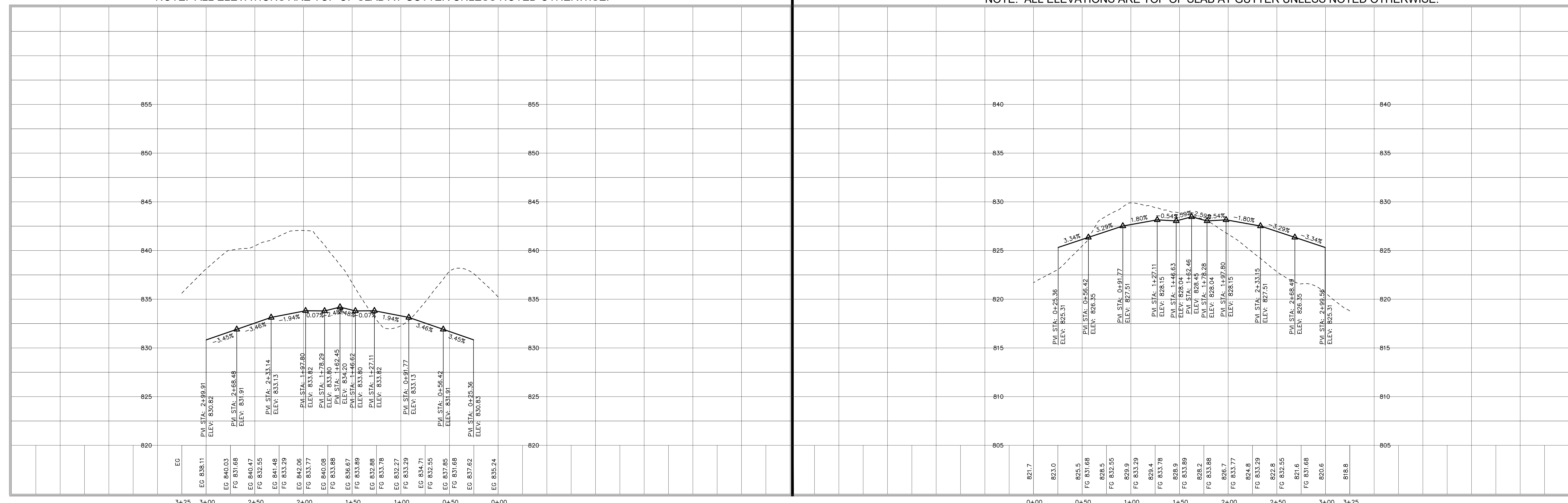


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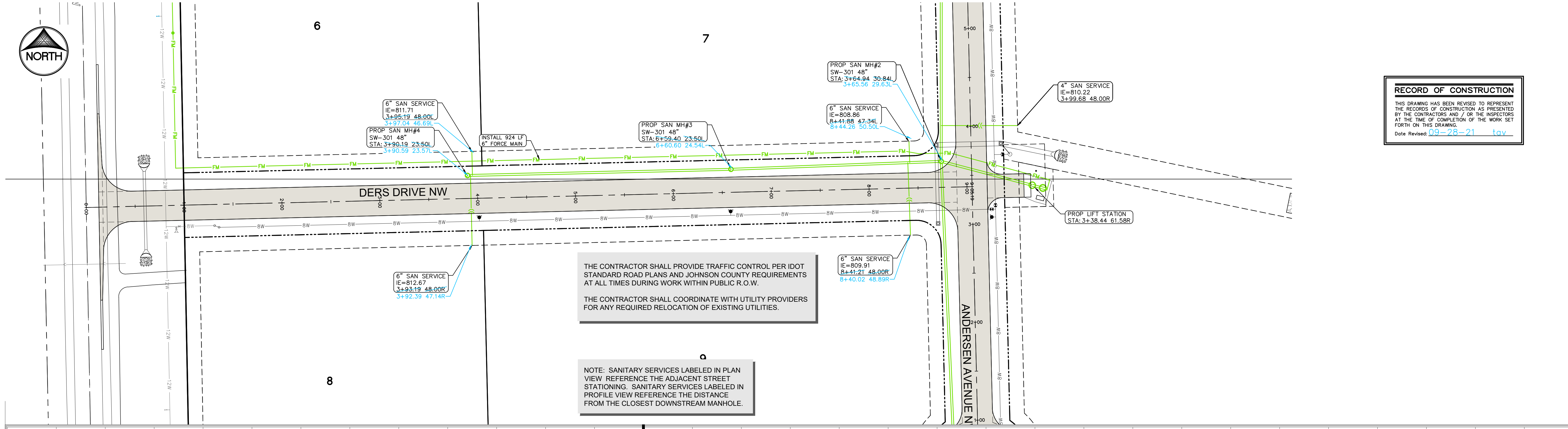
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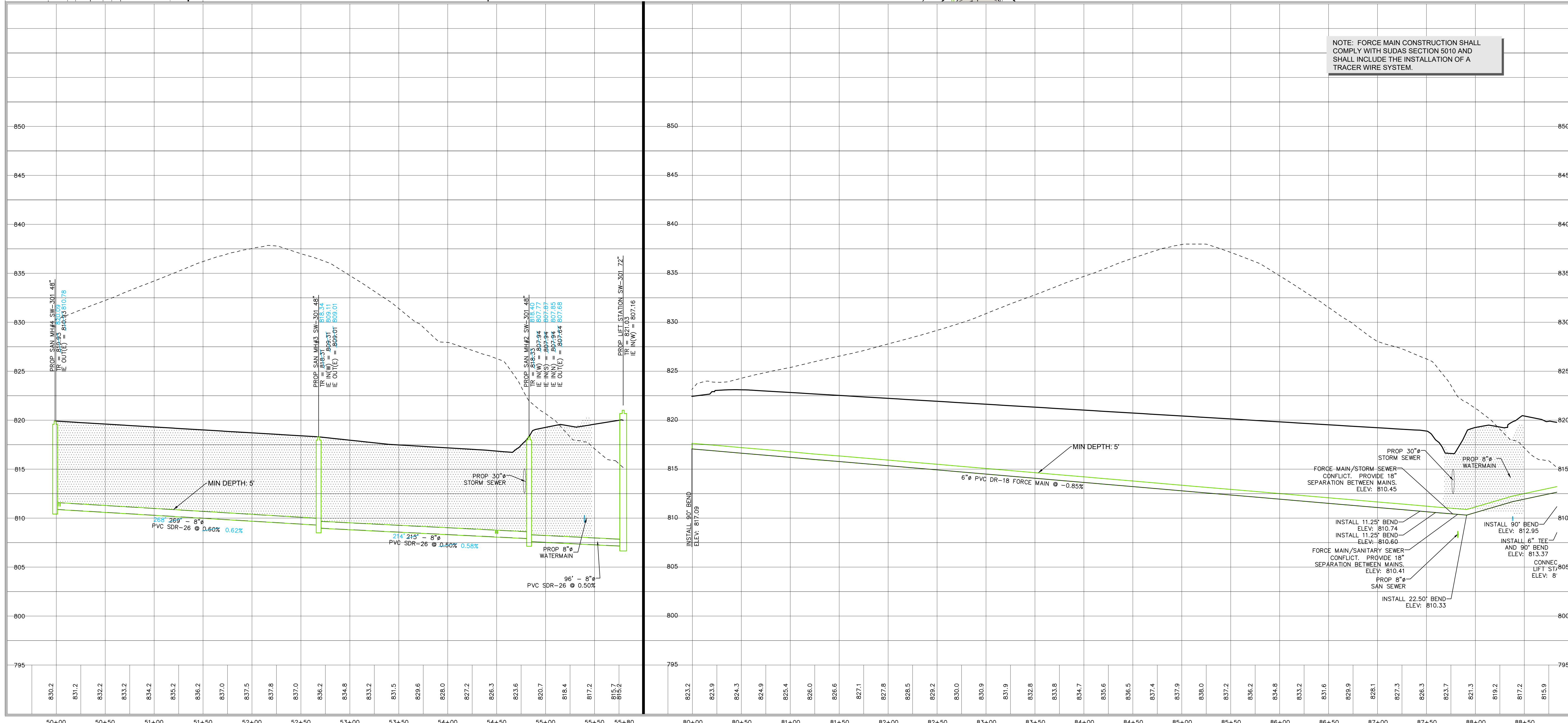
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 THE CONTRACTOR SHALL COORDINATE WITH UTILITY PROVIDERS FOR ANY REQUIRED RELOCATION OF EXISTING UTILITIES.

NOTE: SANITARY SERVICES LABELED IN PLAN VIEW REFERENCE THE ADJACENT STREET STATIONING. SANITARY SERVICES LABELED IN PROFILE VIEW REFERENCE THE DISTANCE FROM THE CLOSEST DOWNSTREAM MANHOLE.



NOTE: FORCE MAIN CONSTRUCTION SHALL COMPLY WITH SUDAS SECTION 5010 AND SHALL INCLUDE THE INSTALLATION OF A TRACER WIRE SYSTEM.



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06/11/21	PER CITY COMMENTS - KJC
07/14/21	PER CITY COMMENTS - KJC
07/16/21	PER CITY COMMENTS - KJC
07/19/21	PER CITY COMMENTS - KJC
09/28/21	AS-BUILT - JEB

SANITARY SEWER AND FORCE MAIN PLAN AND PROFILE

JOCO 50 SUBDIVISION

SWISHER
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 6385-034SAN-AB

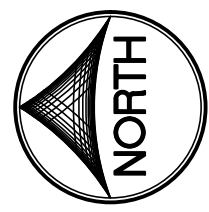
Date: 04/19/21
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Field Book No: 1307, PG 39
 Scale: 1"=50' H 1"=5' V
 Sheet No:
CU100
 6385-034 of:

RECORD OF CONSTRUCTION
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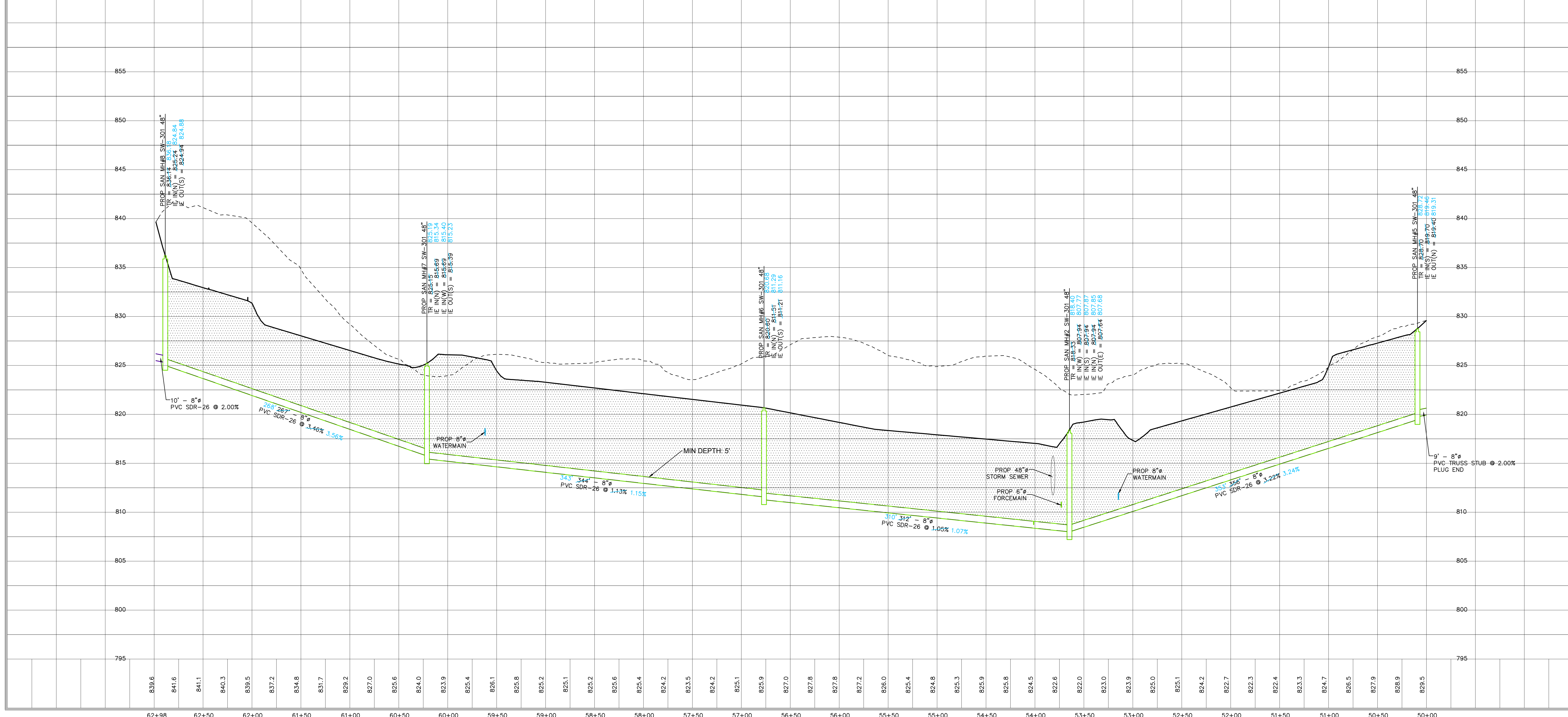
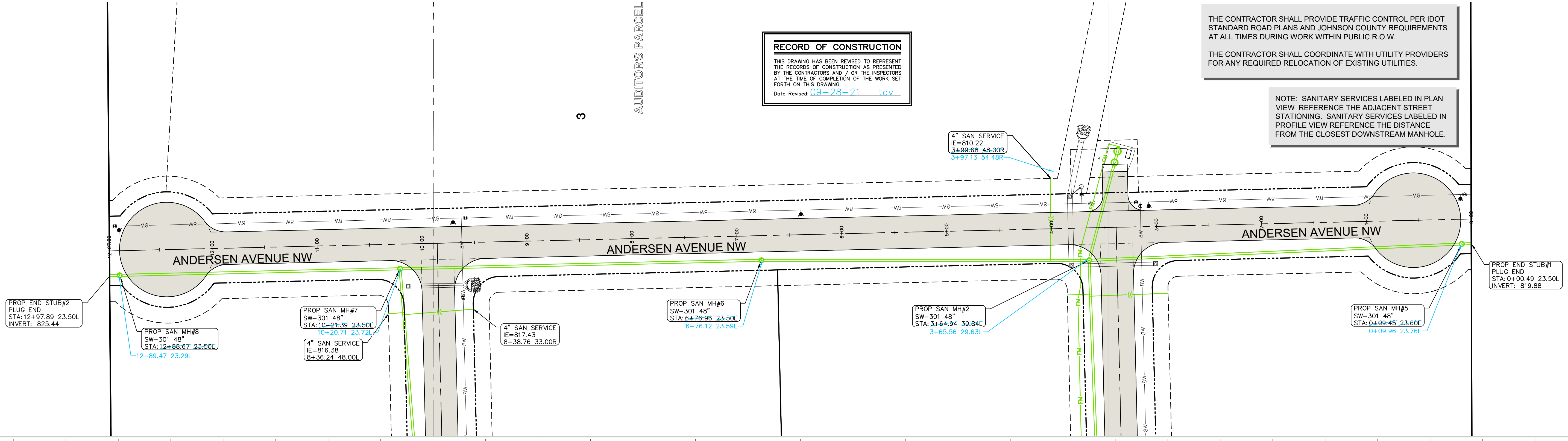
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SANITARY SEWER PLAN AND PROFILE

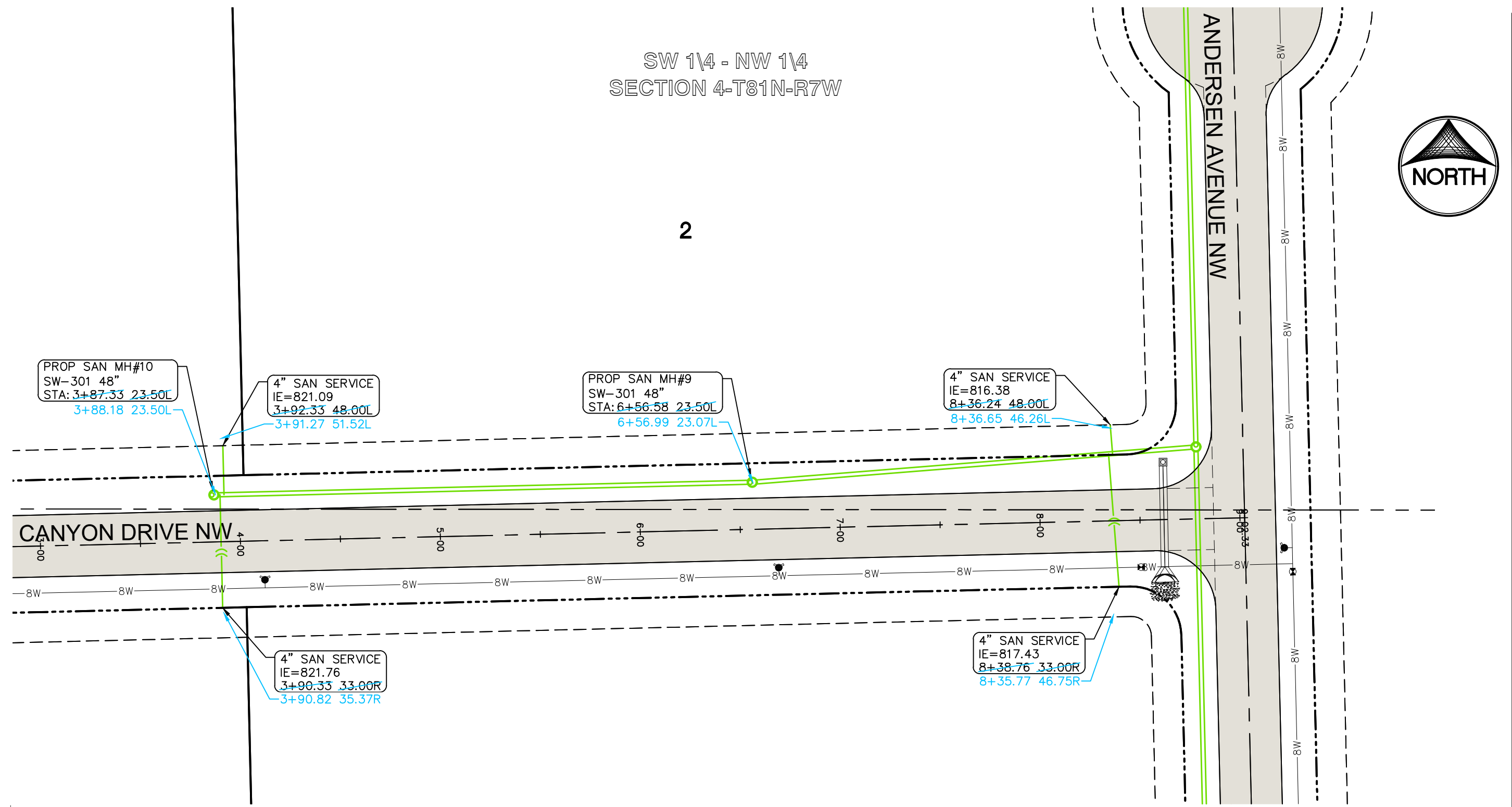
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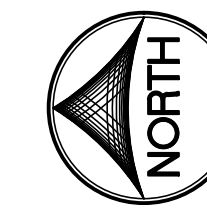
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 6385-034 of:

SW 1/4 - NW 1/4
SECTION 4-T81N-R7W

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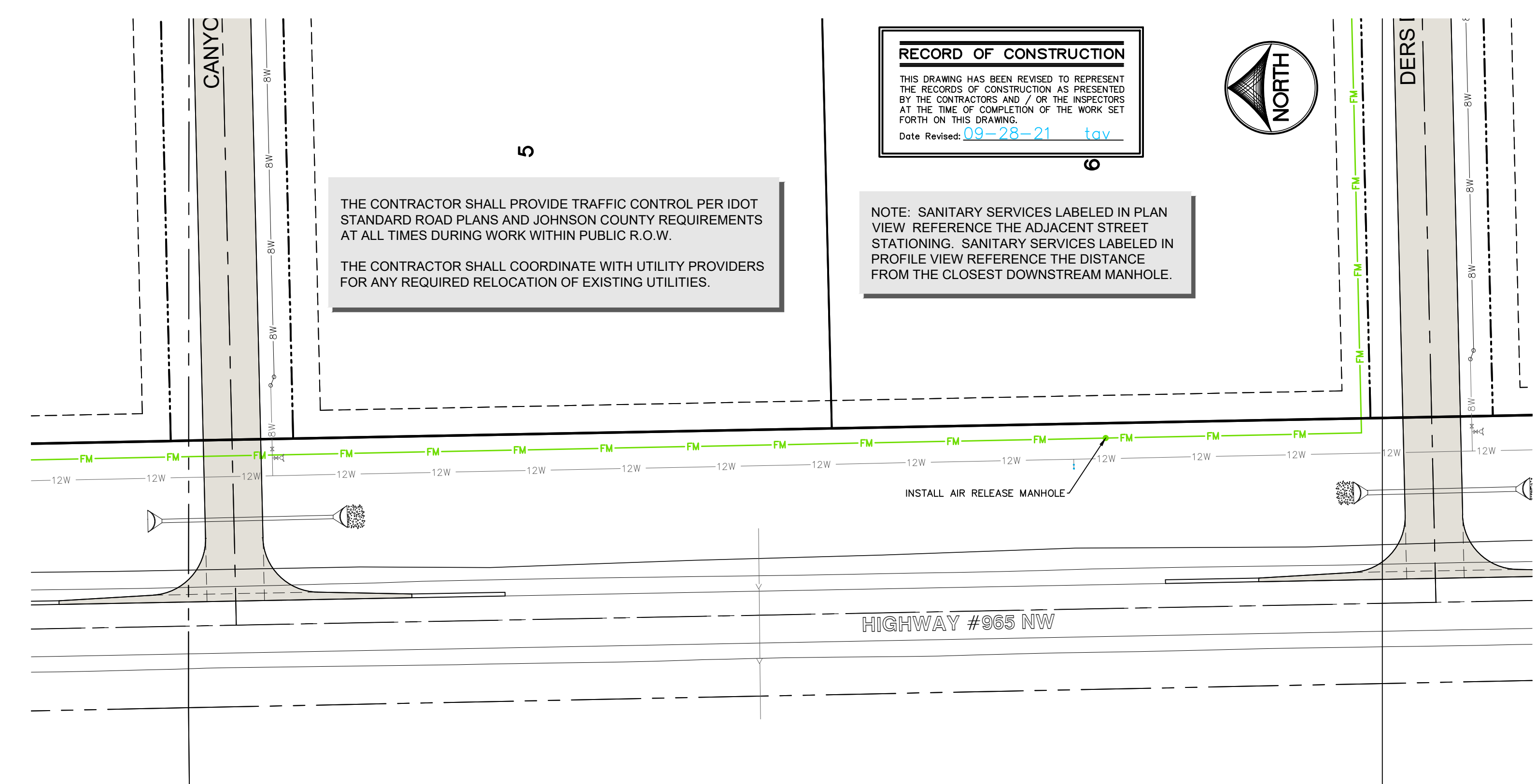


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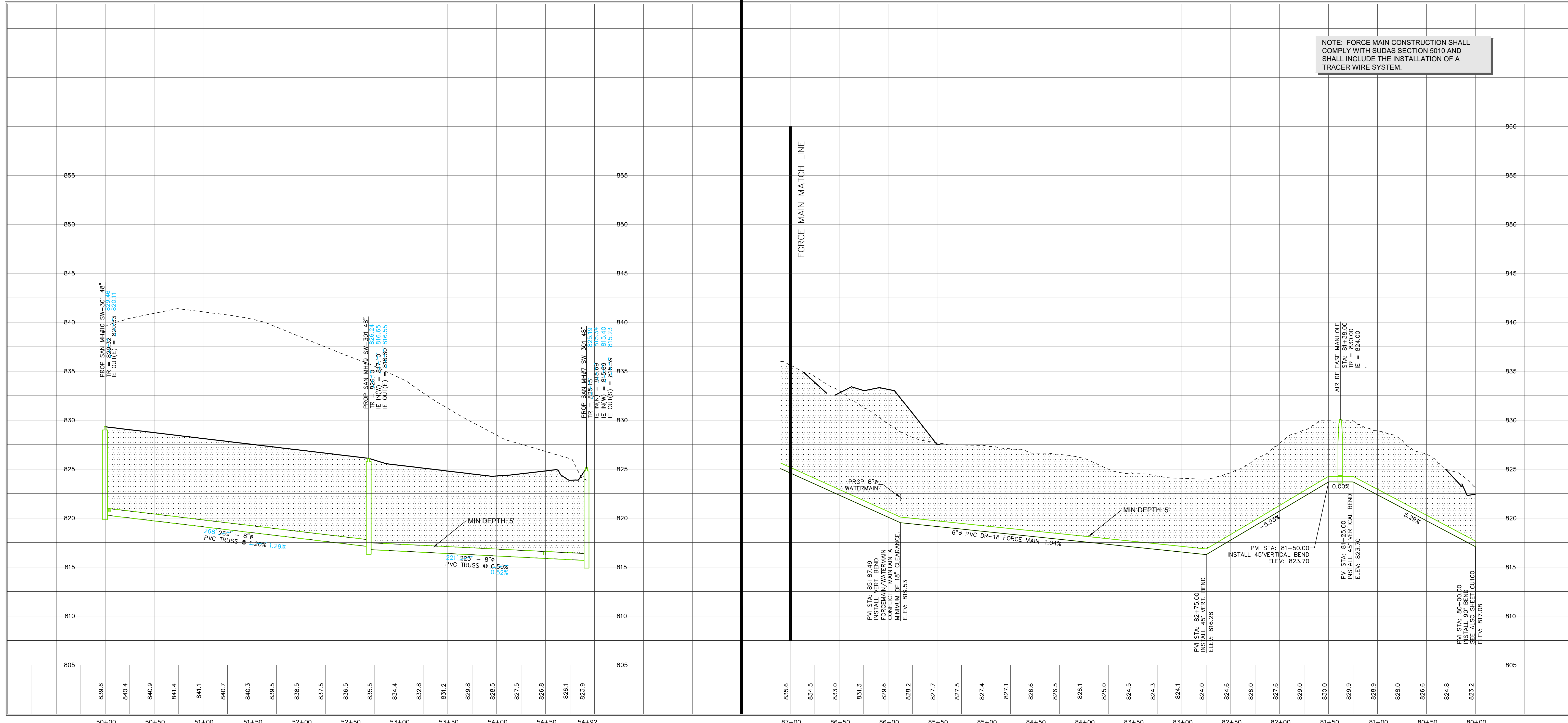
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SANITARY SEWER AND FORCE MAIN PLAN AND PROFILE



NOTE: FORCE MAIN CONSTRUCTION SHALL COMPLY WITH SUDAS SECTION 5010 AND SHALL INCLUDE THE INSTALLATION OF A TRACER WIRE SYSTEM.

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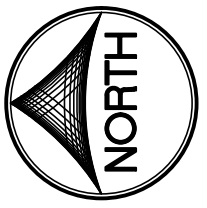
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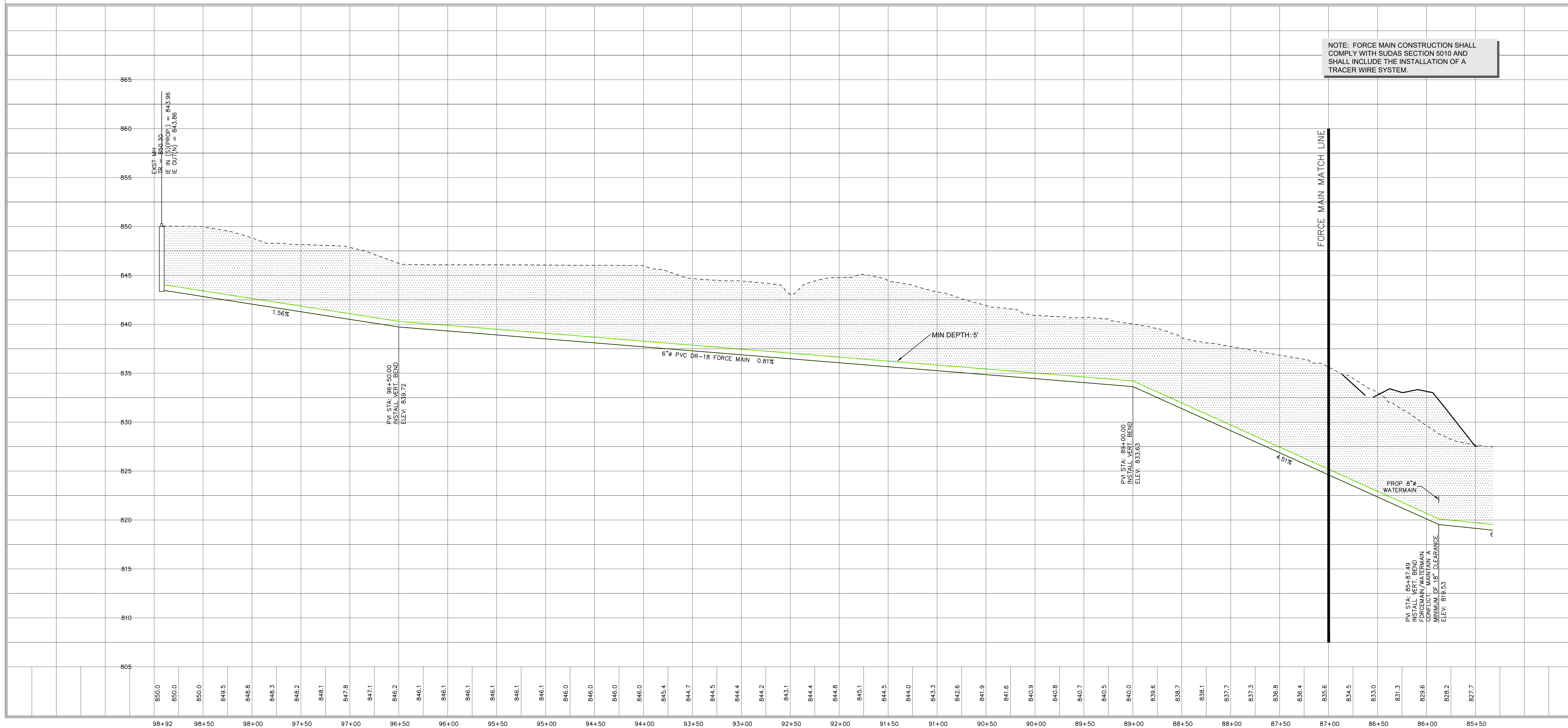
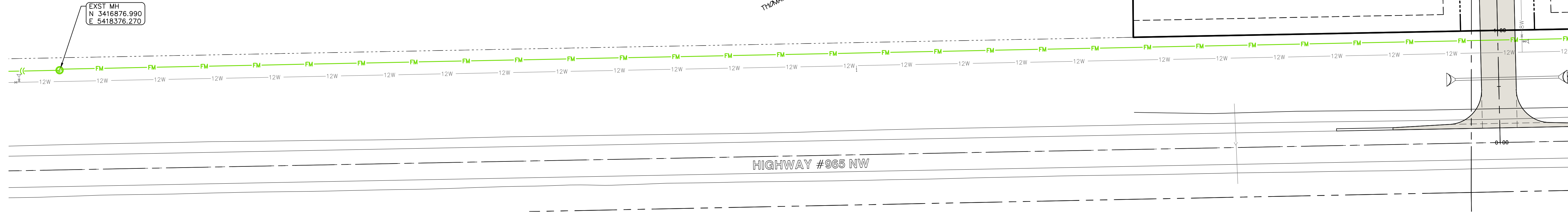
DANN R. SHEER TRUST
 JAY L. MANFORD
 THOMAS C. MANFORD



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**FORCE MAIN
 PLAN AND
 PROFILE**

**JOCO 50
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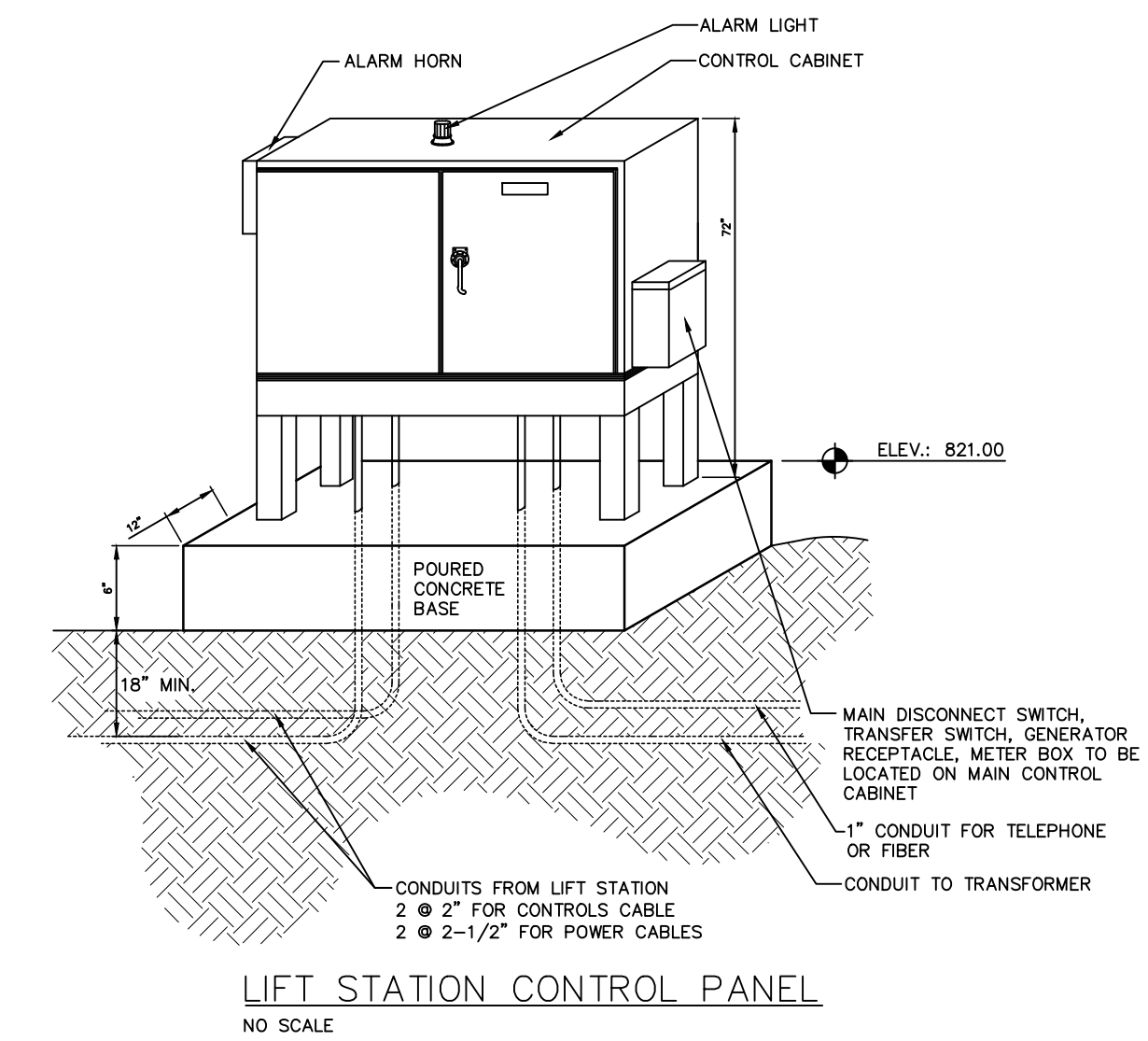
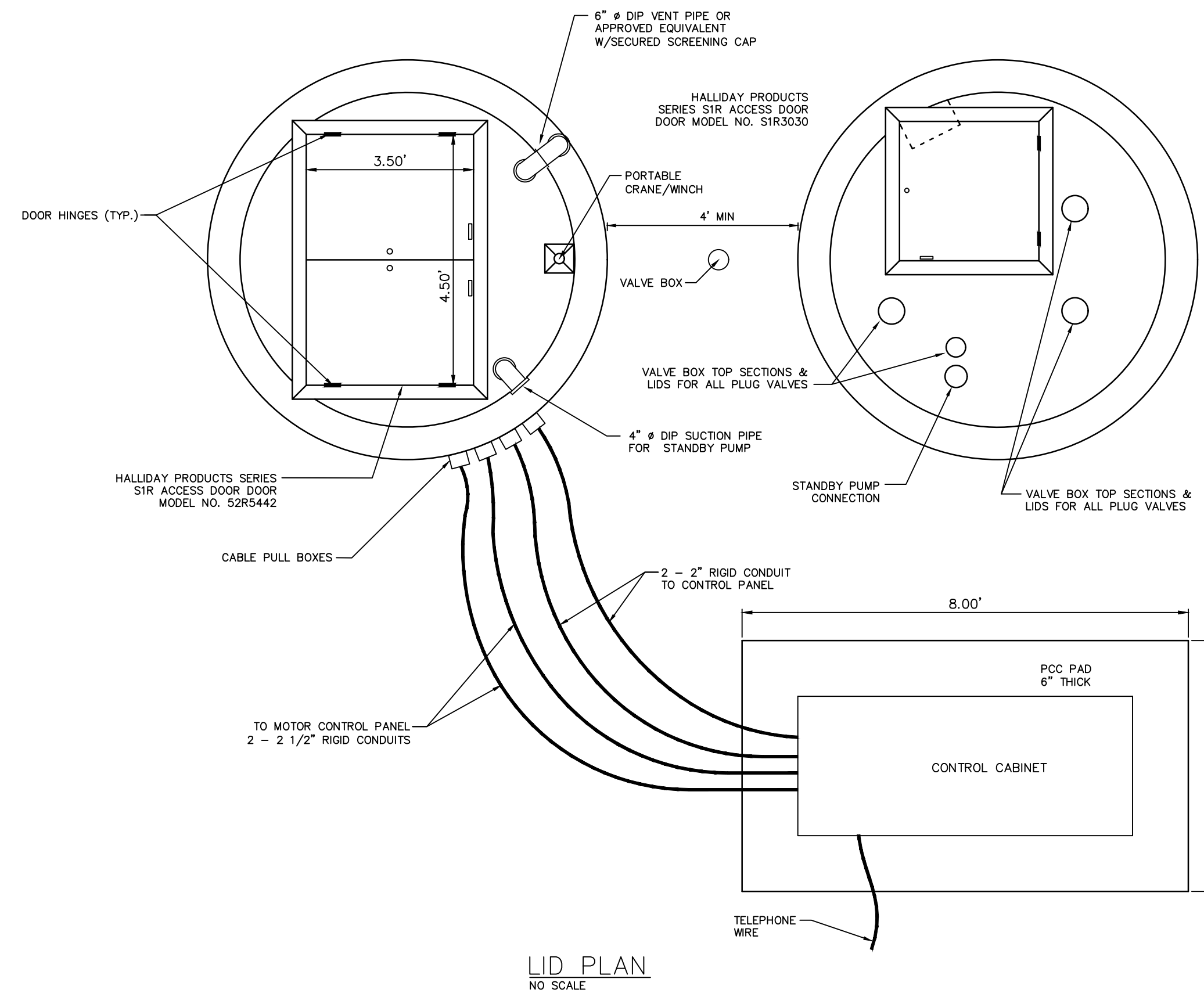
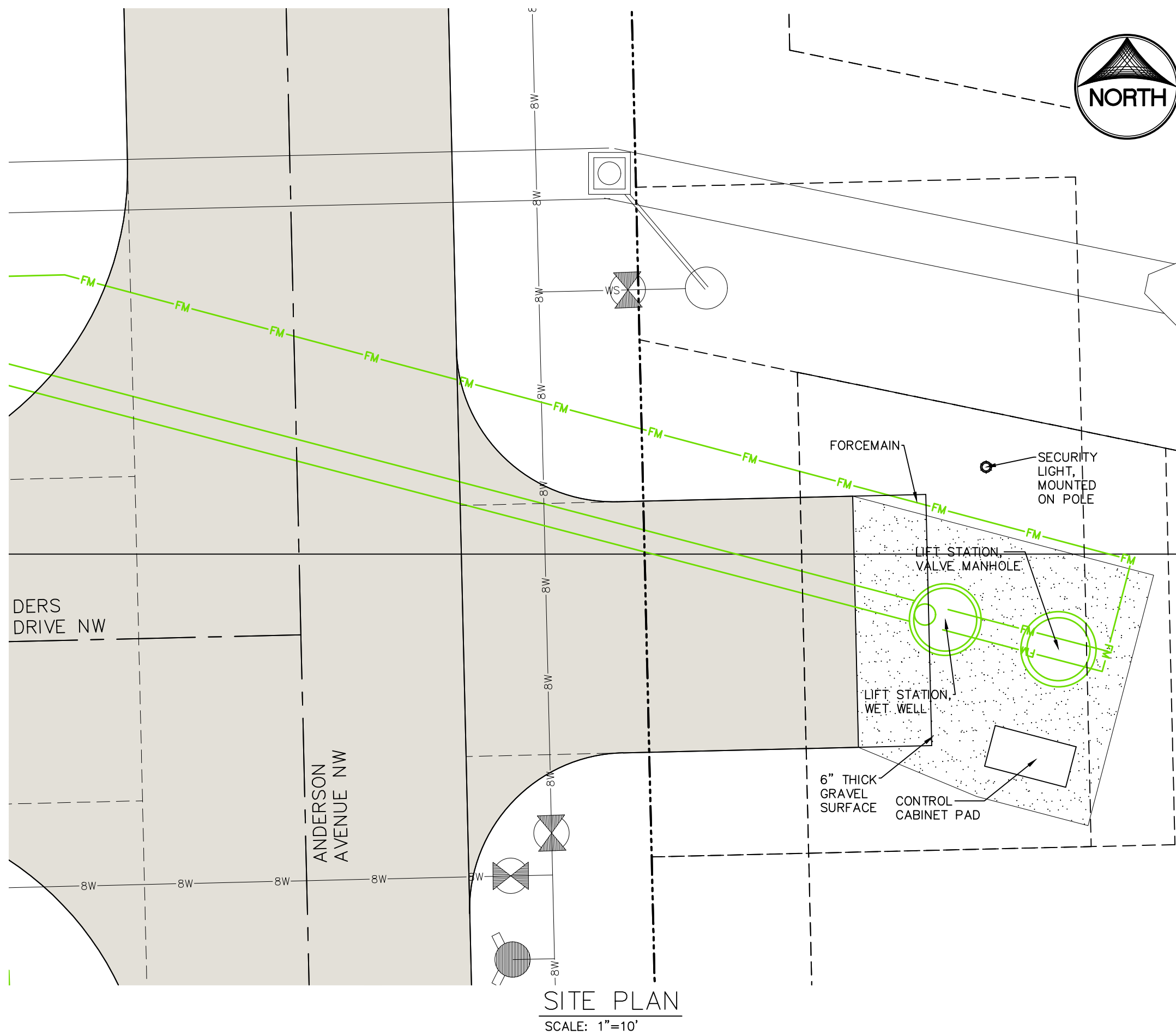
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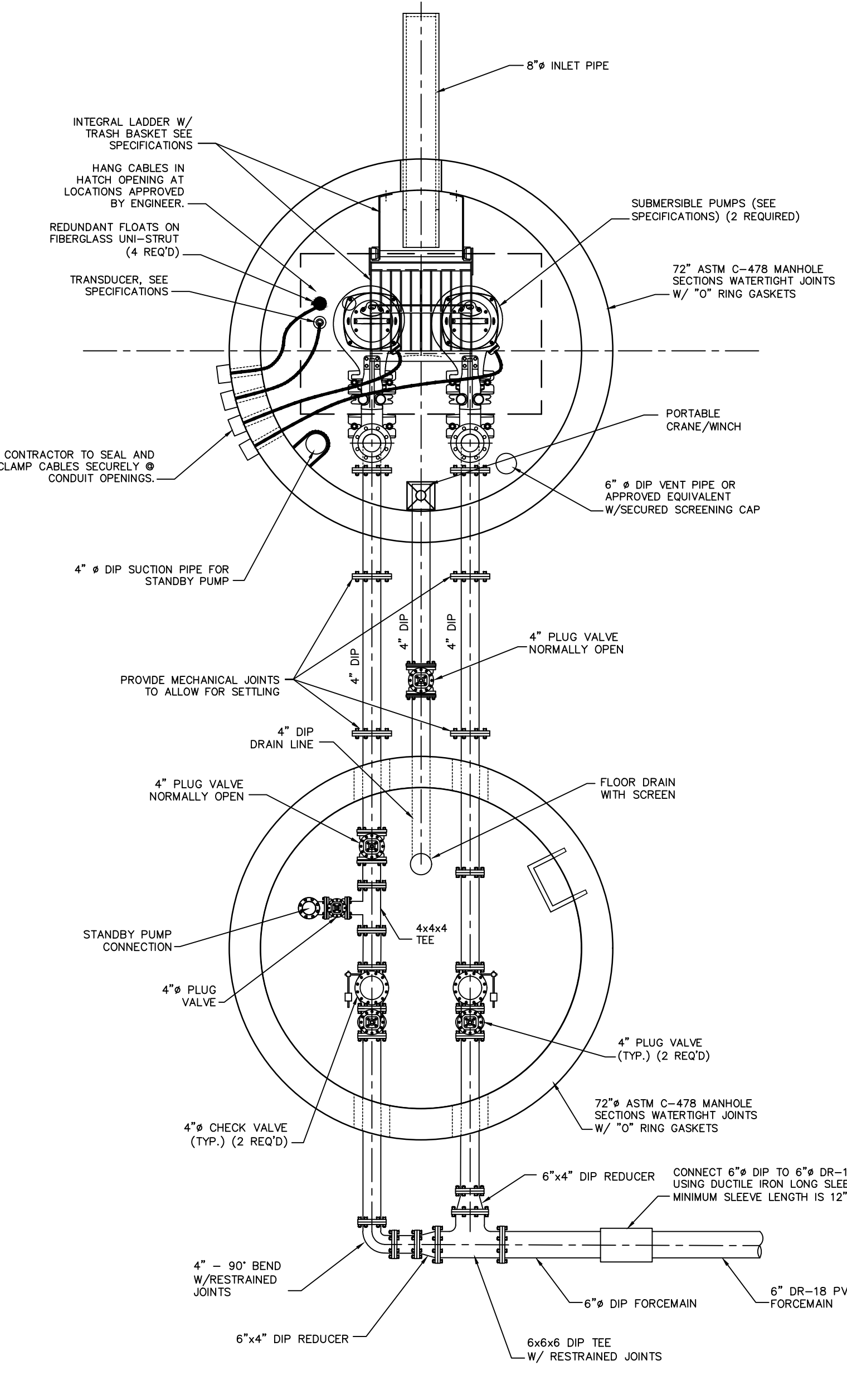
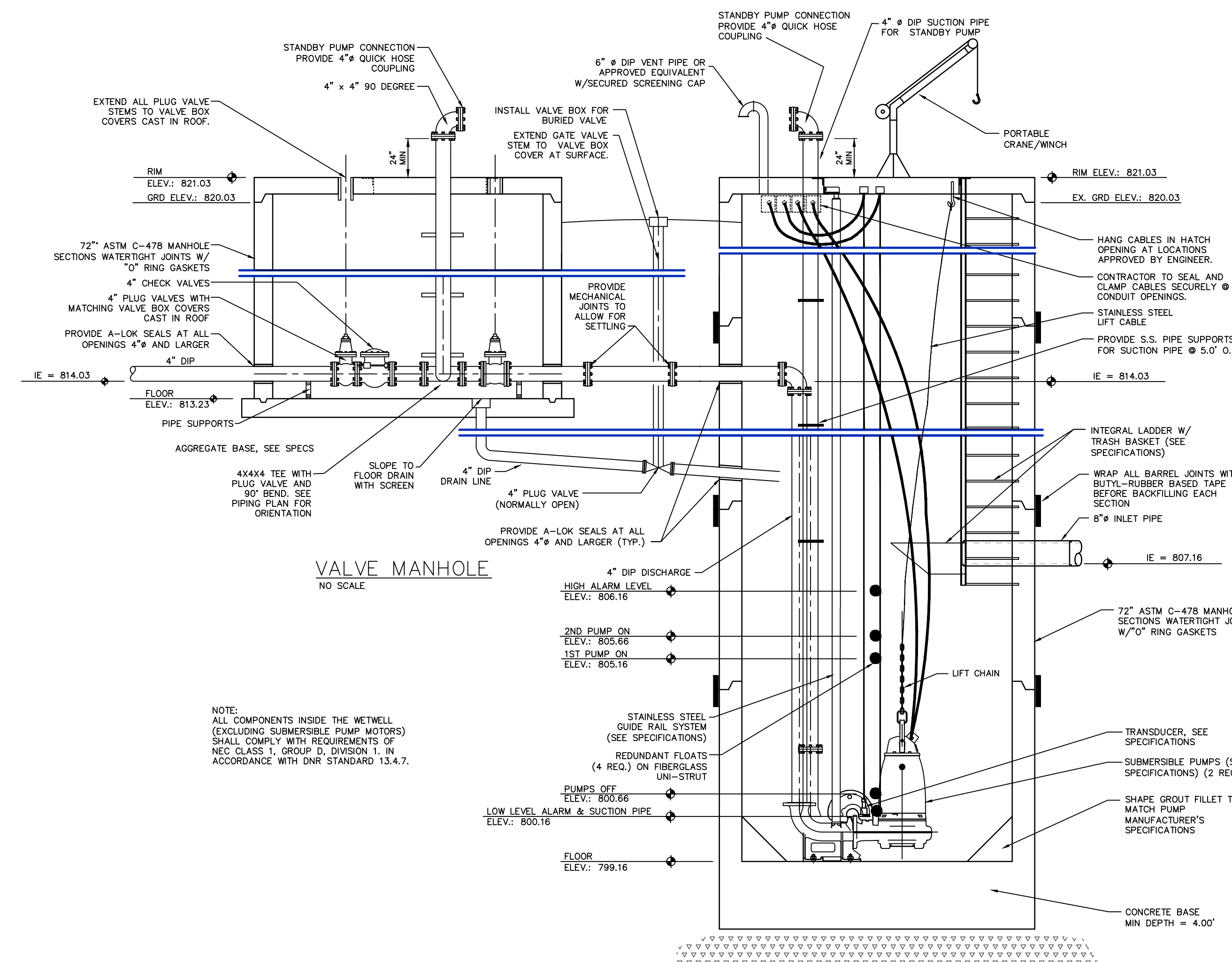
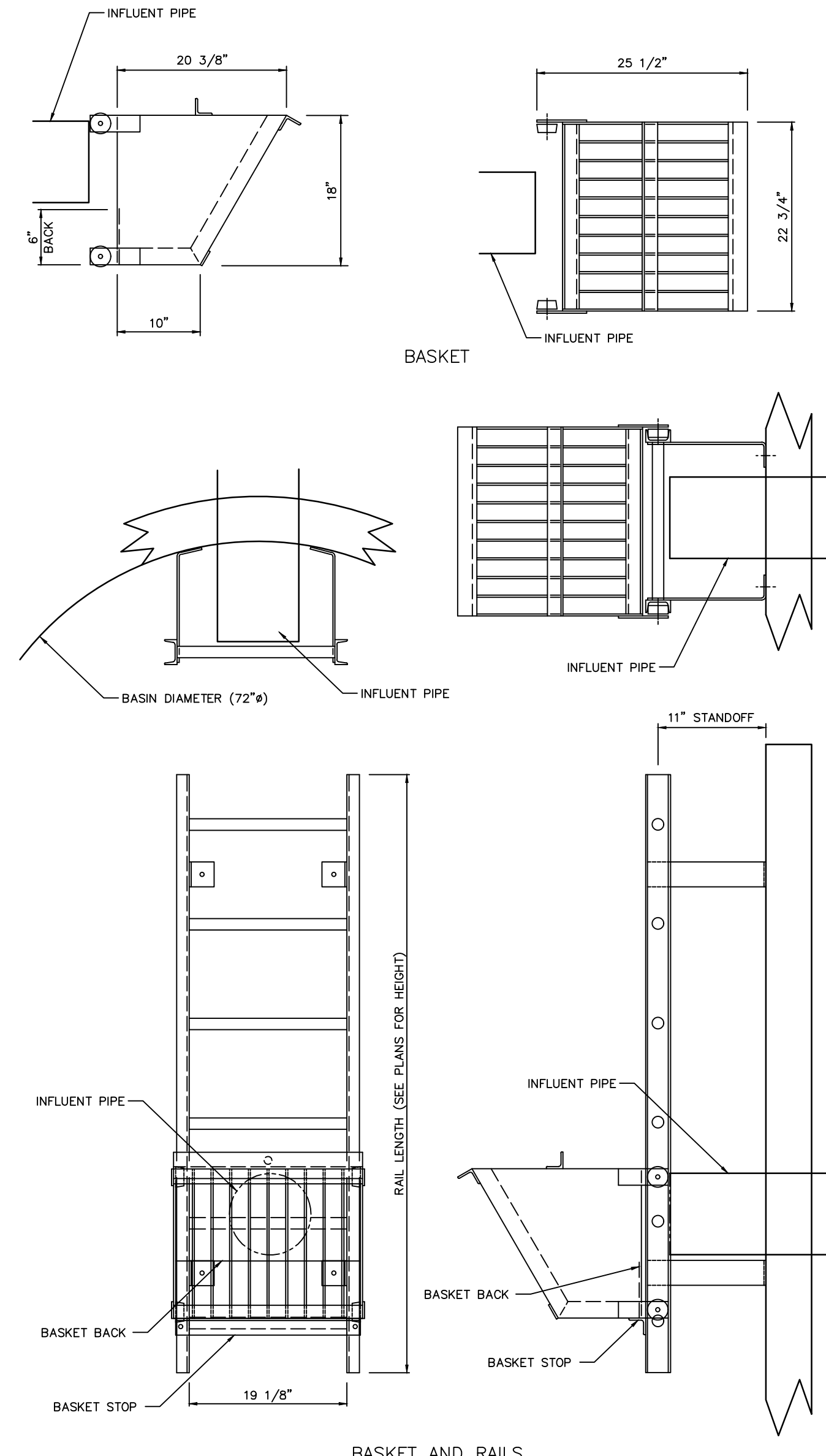
Project No: CU103

6385-034 of:



Date	Revision
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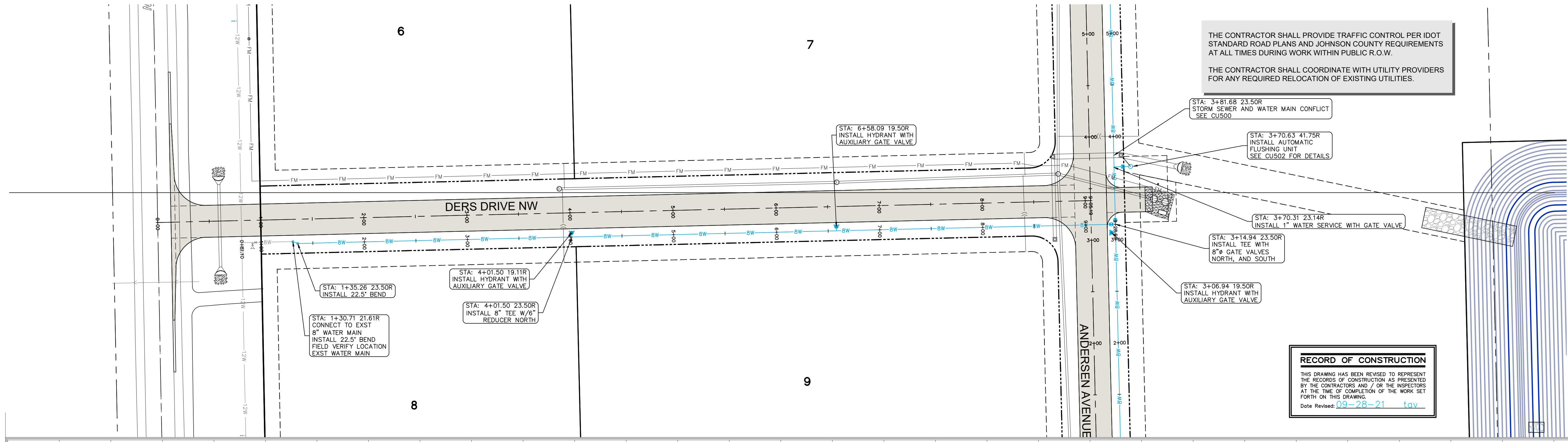
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Project No: **CU104**
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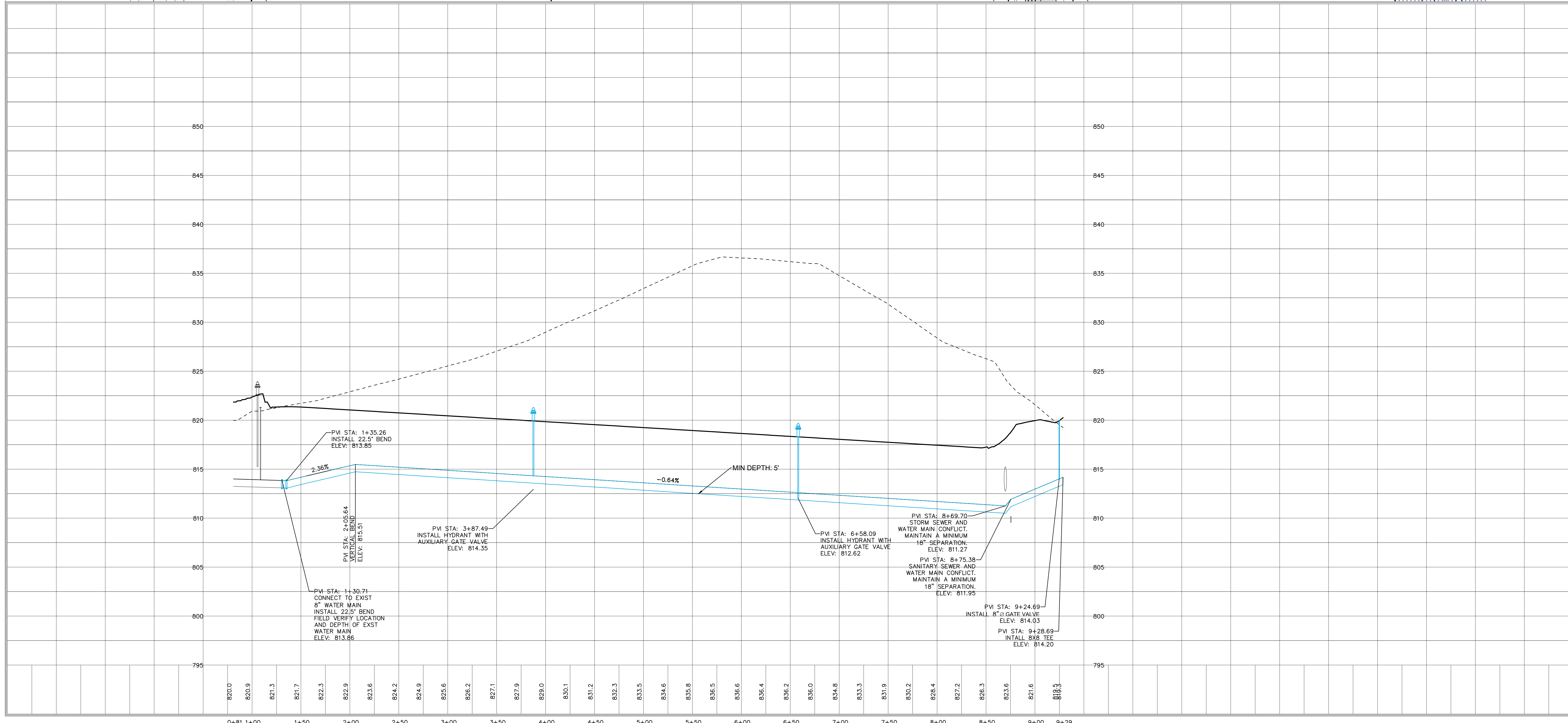
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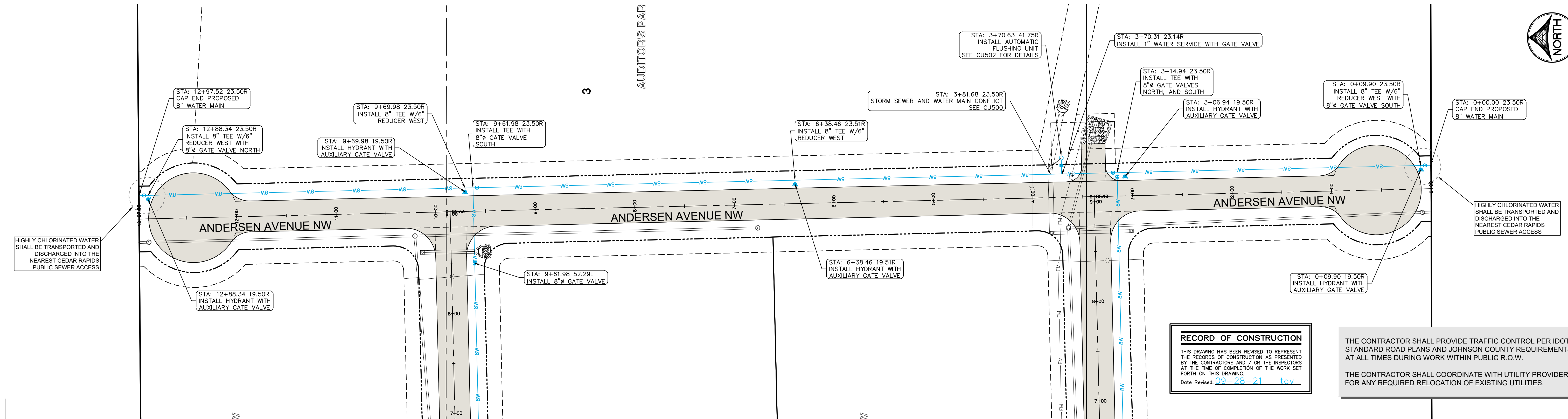


WATER MAIN PLAN

JOCO 50 SUBDIVISION

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Date: 04/19/21
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Project No: **CU130**
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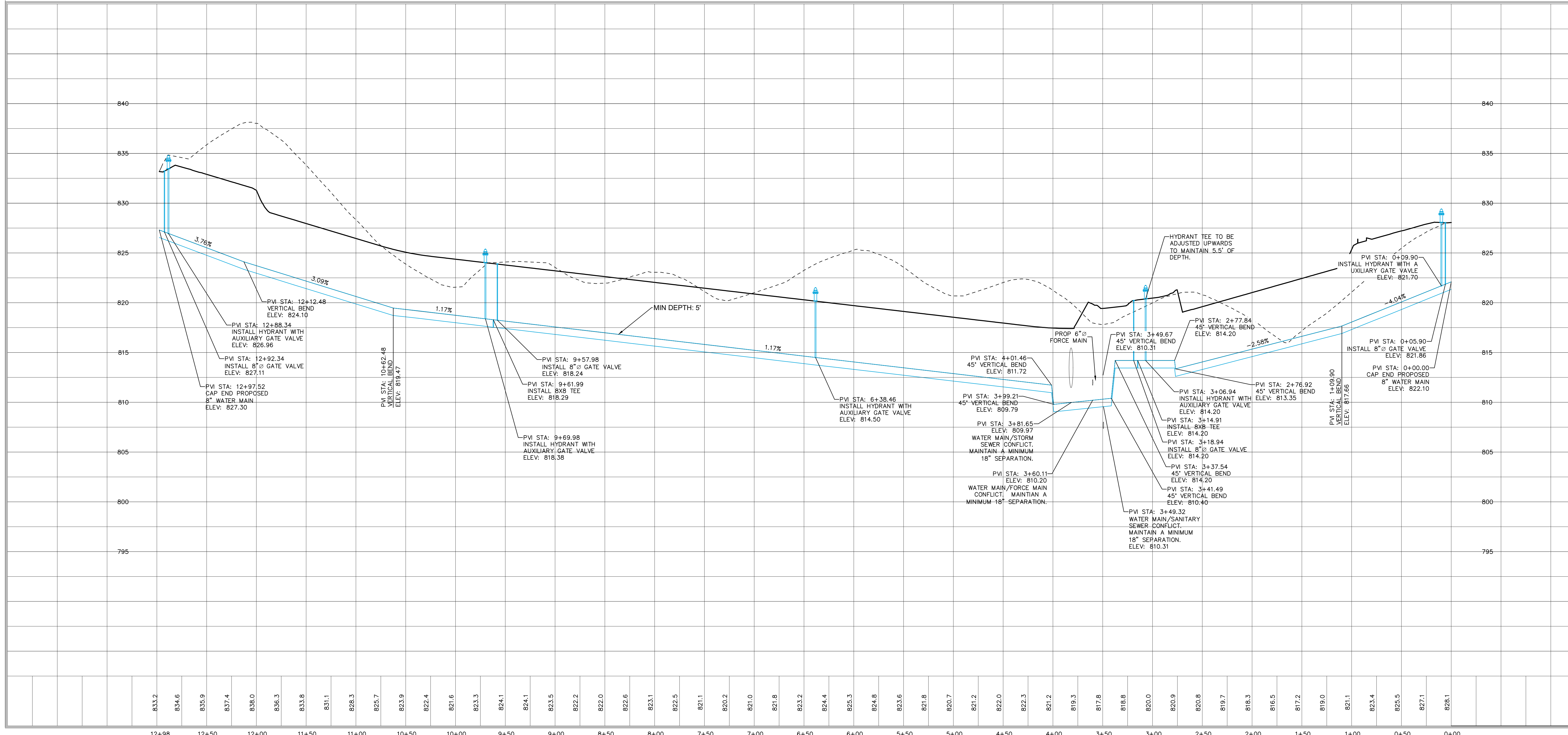
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09/28/21	AS-BUILT - JEB

WATER MAIN PLAN AND PROFILE

JOCO 50 SUBDIVISION

SWISHER
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6385-034WAT-AB

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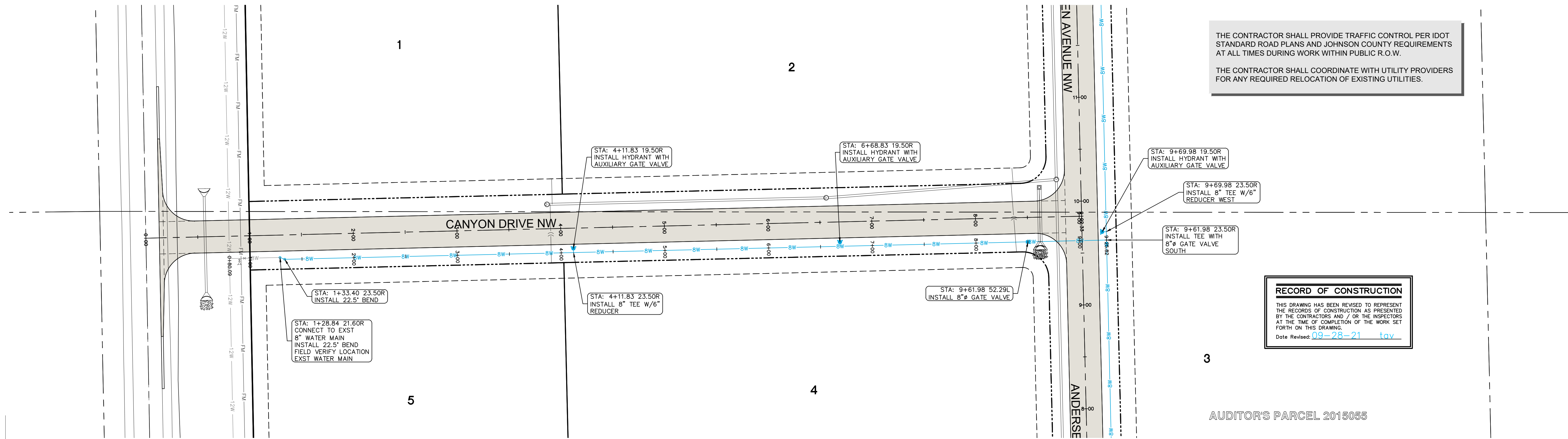
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Project No: **CU131**

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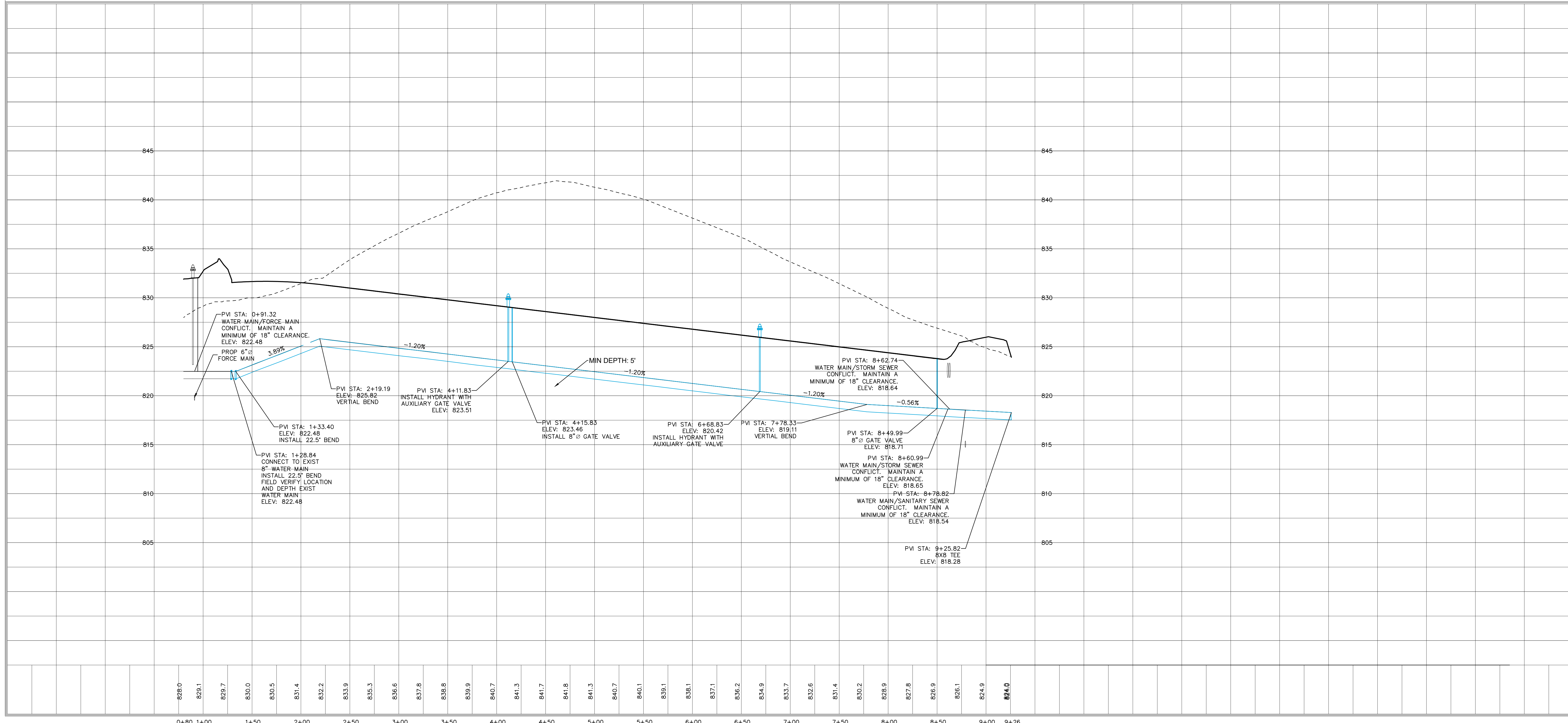
AUDITOR'S PARCEL 2015055



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WATER MAIN PLAN AND PROFILE

JOCO 50 SUBDIVISION

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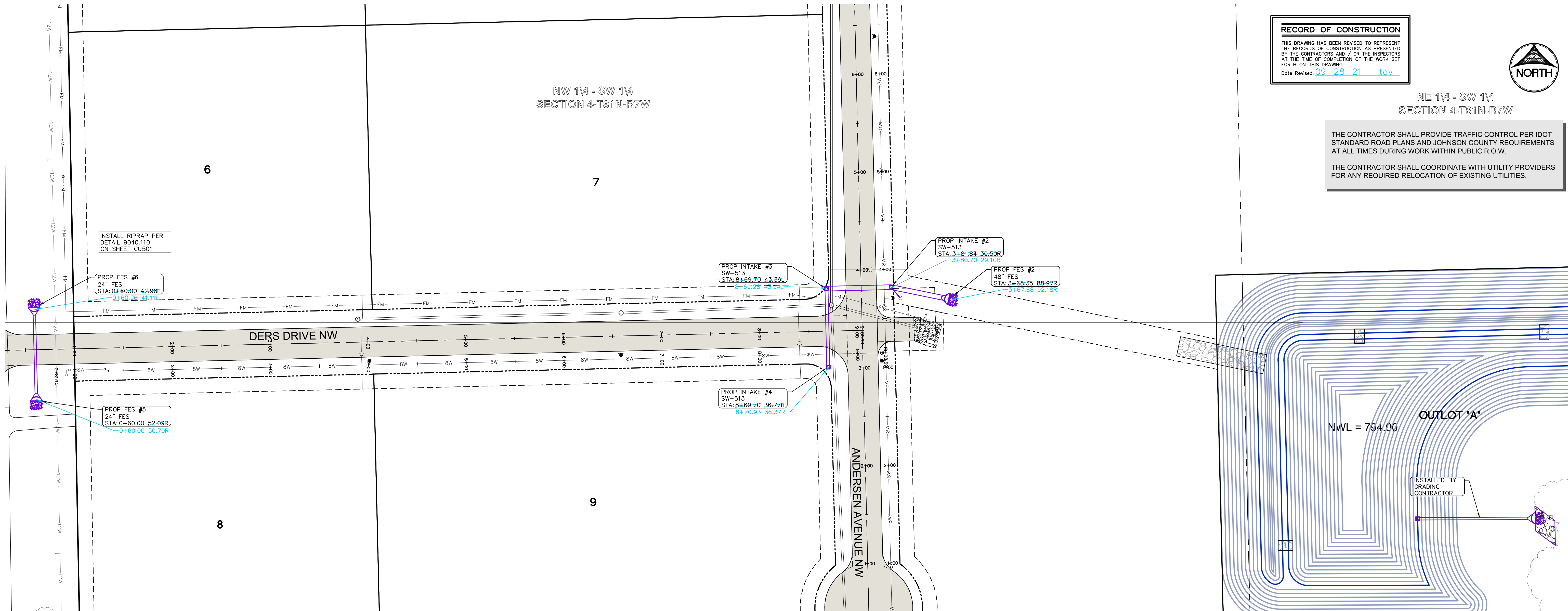
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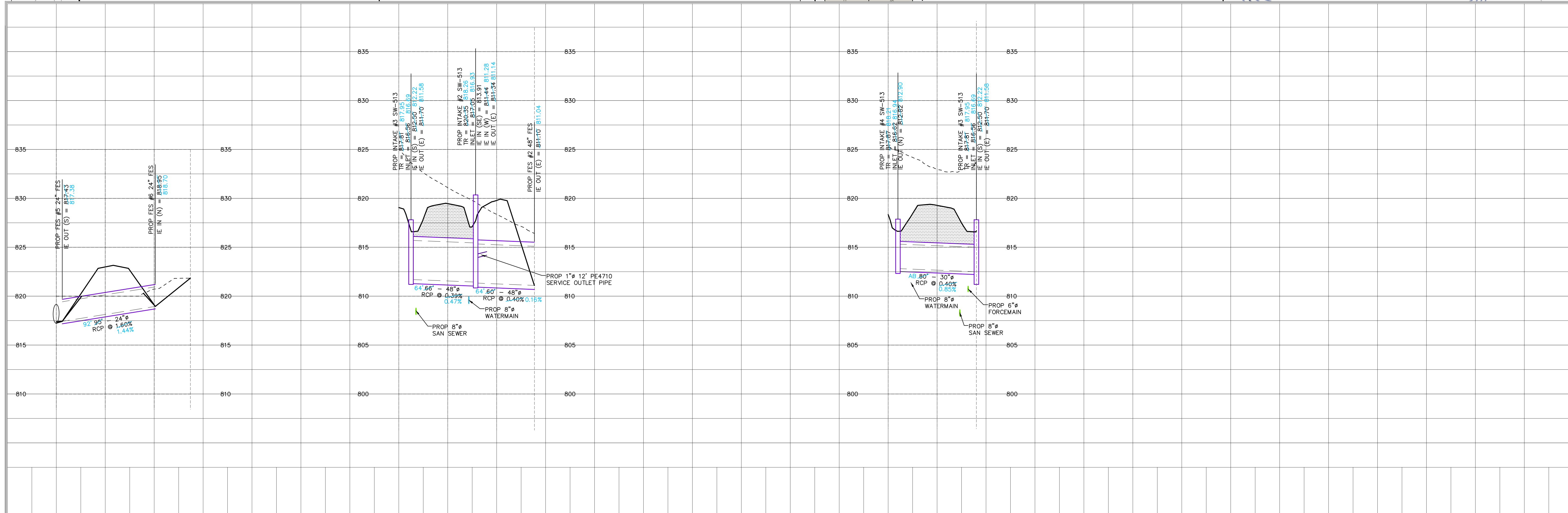
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**STORM SEWER
PLAN AND
PROFILE**

JOCO 50
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Project No: CU160

6385-034 of:

SW 114 - NW 114
SECTION 4-T81N-R7W

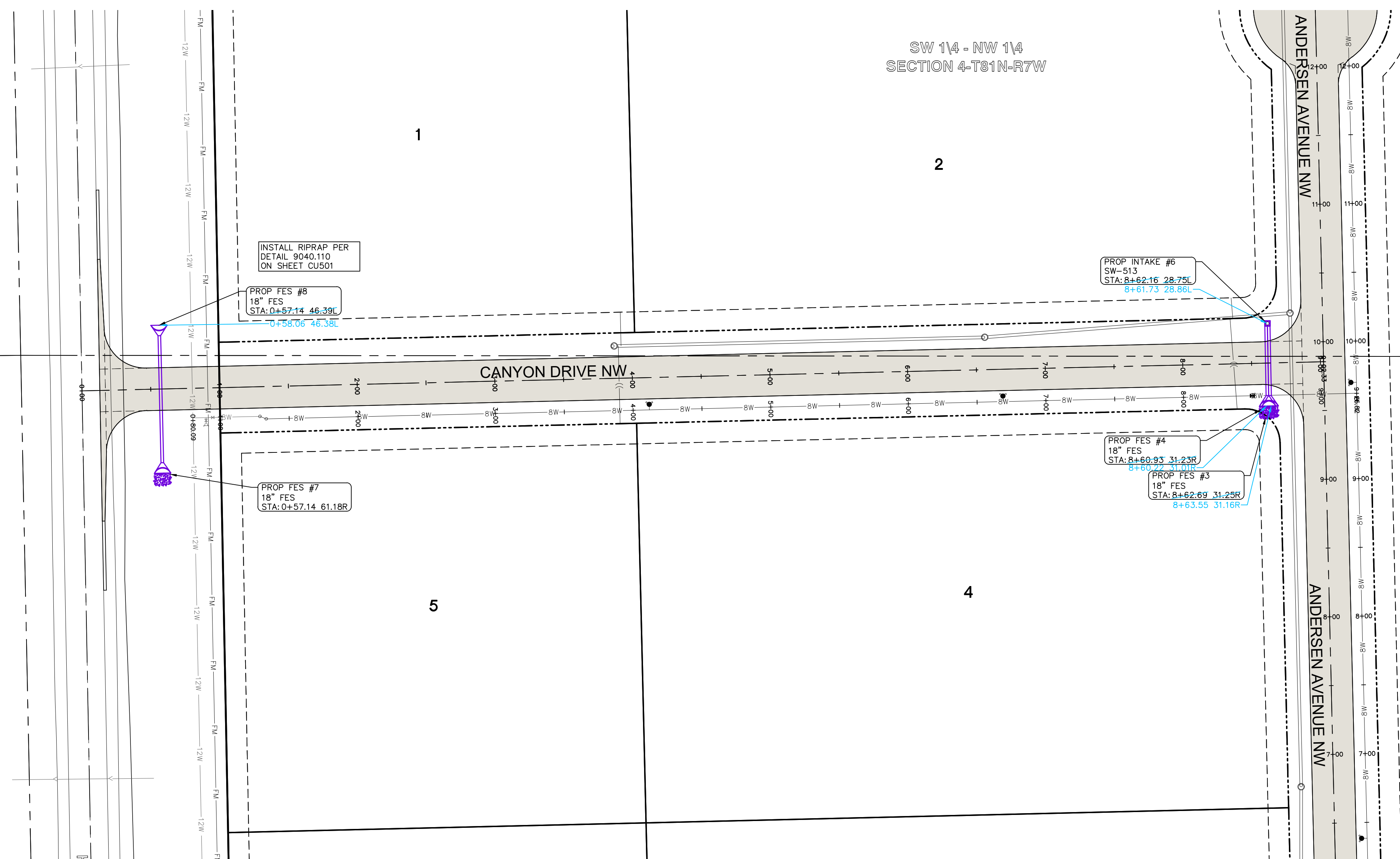


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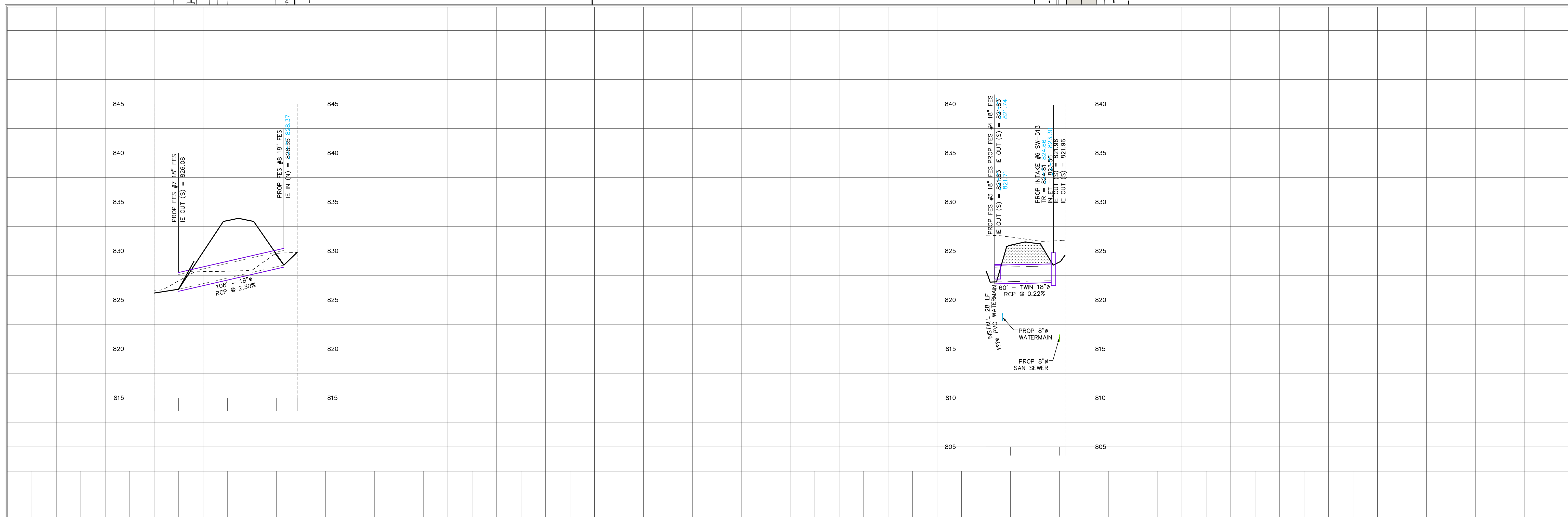
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AUDITOR'S PARCEL 2015055



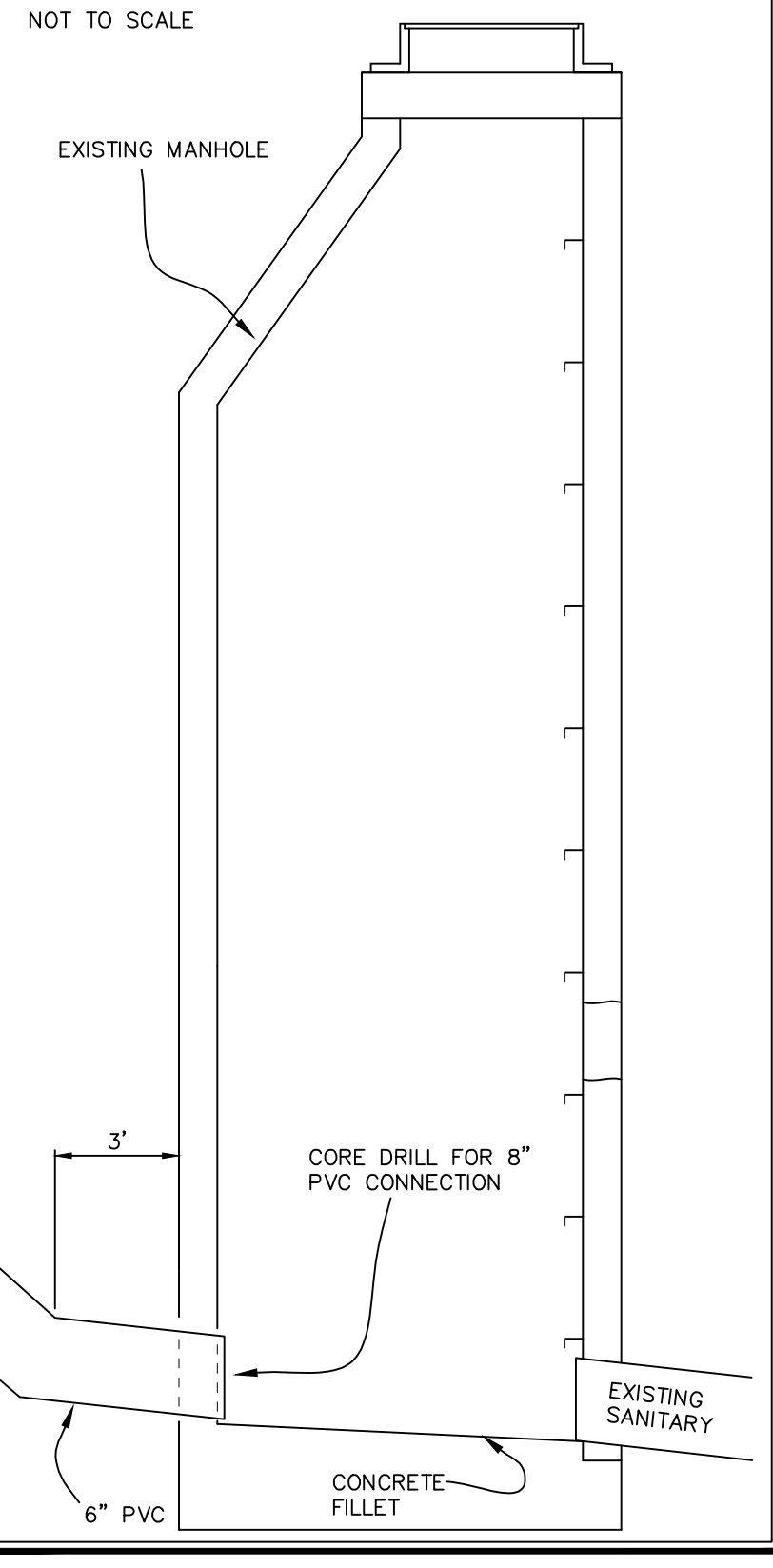
**STORM SEWER
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Project No: CU161
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TERMINAL MANHOLE DETAIL
NOT TO SCALE



SANITARY SEWER AND WATER MAIN CONSTRUCTION NOTES

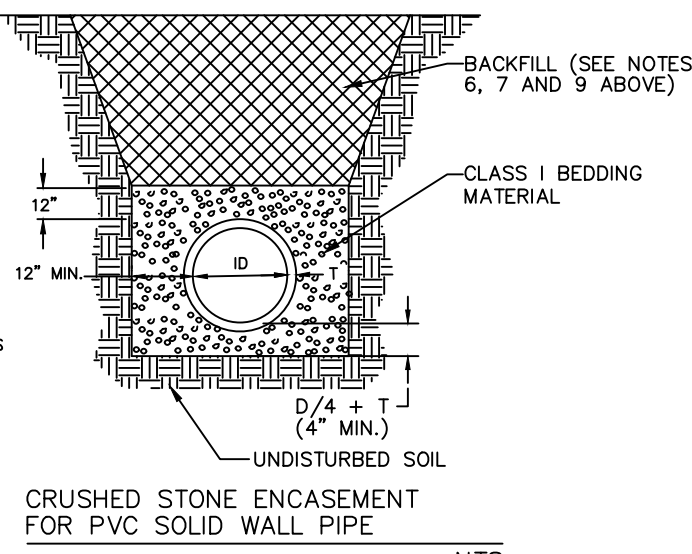
- SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT SUDAS STANDARD SPECIFICATIONS. CURRENT CEDAR RAPIDS GENERAL SUPPLEMENTAL TO SUDAS STANDARD SPECIFICATIONS (2021 ADDITION) AND JOHNSON COUNTY SUDAS AMENDMENTS SHALL ALSO APPLY TO WORK ON THIS PROJECT.
- THE CONTRACTOR SHALL PROVIDE CRUSHED STONE ENCASUREMENT FOR PVC SOLID WALL SANITARY SEWER. THE CONTRACTOR SHALL PROVIDE SANITARY SEWER PIPE & BEDDING ACCORDING TO THE CURRENT SUDAS SPECIFICATIONS AND APPROVED BY JOHNSON COUNTY.
- SANITARY SEWERS TO BE PVC SOLID WALL PIPE UNLESS NOTED OTHERWISE. SANITARY SEWER SERVICE LINES SHALL BE PVC, SDR 23.5 WITH GASKETED JOINTS. SANITARY SEWER SERVICE LINES SHALL BE 6" DIAMETER UNLESS NOTED OTHERWISE.
- CONTRACTOR TO PROVIDE CLOW "BAND-SEAL" COUPLINGS FOR DISMISSAL PIPE CONNECTIONS.
- 8" AND 12" DIAMETER WATER MAINS SHALL BE DR-18 PVC PIPE. ALL WATER MAIN FITTINGS SHALL BE DUCTILE IRON WITH RETAINING GLANDS AND MEGALUGS. ALL FITTINGS FOR WATER MAIN SHALL BE RESTRAINED WITH THRUST BLOCKS. ALL WATER MAINS AND SERVICE LINES SHALL HAVE CLASS P-1 BEDDING PER IOWA DOT STANDARD ROAD PLAN SW-104. FOR ALL WATER LINE VALVES, THE VALVE BOX AND GATE VALVE UNDER AWWA SHOULD BE INCLUDED ALONG WITH A VALVE BOX CENTERING ADAPTOR.
- SANITARY SEWER TRENCHES SHADED ON THE PROFILE VIEW SHALL BE BACKFILLED WITH EITHER OF THE FOLLOWING COMPACTED TO 95% STANDARD PROCTOR DENSITY:
 - SUITABLE EXCAVATED MATERIAL. IF EXCAVATED MATERIAL IS NOT SUITABLE, THEN
 - CRUSHED STONE AS SPECIFIED FOR GRANULAR TRENCH BACKFILL SHALL BE USED.
- GRANULAR TRENCH BACKFILL SHALL BE CLASS A CRUSHED STONE CONFORMING TO I.D.O.T. STANDARD SPECIFICATION 4120.04 WITH 1" MAXIMUM AGGREGATE SIZE. COMPACT TO 95% STANDARD PROCTOR DENSITY.
- ALL SANITARY SEWER SERVICE LINES CROSSING STREET RIGHT-OF-WAY SHALL BE BACKFILLED IN ACCORDANCE WITH THE PRECEDING NOTE.
- WATER MAINS AND SERVICE LINES WITHIN STREET RIGHT OF WAYS OR WITHIN EASEMENTS ADJACENT TO THE STREET RIGHT OF WAYS SHALL BE BACKFILLED WITH EITHER OF THE FOLLOWING COMPACTED TO 95% STANDARD PROCTOR DENSITY:
 - SUITABLE EXCAVATED MATERIAL. IF EXCAVATED MATERIAL IS NOT SUITABLE, THEN
 - CRUSHED STONE AS SPECIFIED FOR GRANULAR TRENCH BACKFILL SHALL BE USED.
- ALL SANITARY SEWER SERVICE LINES SHALL BE EXTENDED :
 - TO THE UTILITY EASEMENT LINE FOR THOSE LOCATIONS WHERE THE LOTS BEING SERVED ARE ON THE OPPOSITE SIDE OF THE STREET FROM THE SEWER MAIN.
 - TO THE UTILITY EASEMENT LINE FOR THOSE LOCATIONS WHERE THE LOTS BEING SERVED ARE ADJACENT TO THE SEWER MAIN.

- 18) ALL SANITARY SEWER AND SERVICE LINES SHALL BE AIR TESTED TO PASS THE FOLLOWING TEST:
- AIR TESTING
- PERFORM FROM MANHOLE-TO-MANHOLE AFTER BACKFILL.
 - PLACE PNEUMATIC PLUGS (1) SEALING LENGTH: EQUAL TO OR GREATER THAN PIPE DIAMETER, (2) CAPABLE OF RESISTING INTERNAL TEST PRESSURE WITHOUT EXTERNAL BRACING OR BLOCKING.
 - INTRODUCE LOW-PRESSURE AIR INTO SEALED LINE AND ACHIEVE INTERNAL AIR PRESSURE 4 PSIG GREATER THAN MAXIMUM PRESSURE EXERTED BY GROUNDWATER ABOVE PIPE INVERT.
 - LIMIT INTERNAL PRESSURE IN SEALED LINE BELOW 8 PSIG.
 - ALLOW 2 MINUTES MINIMUM FOR AIR PRESSURE TO STABILIZE. DISCONNECT LOW-PRESSURE AIR HOSE FROM CONTROL PANEL.
 - MINIMUM TIME FOR PRESSURE TO DROP FROM 3.5 TO 2.5 PSIG GREATER THAN MAXIMUM PRESSURE EXERTED BY GROUNDWATER ABOVE PIPE INVERT:

PIPE DIAMETER, INCHES	MINIMUM TIME, MIN:s	LENGTH FOR TEST, FEET	LONGER LENGTH, S
4	3:46	597	0.380 L
6	5:40	398	0.854 L
8	7:34	298	1.520 L
10	9:26	239	2.374 L
12	11:20	199	3.418 L
15	14:10	159	5.342 L
18	17:00	133	7.692 L
21	19:50	114	10.470 L
24	22:40	99	13.674 L
27	25:30	86	17.306 L
30	28:20	80	21.366 L
33	31:10	72	25.852 L
36	34:00	66	30.768 L

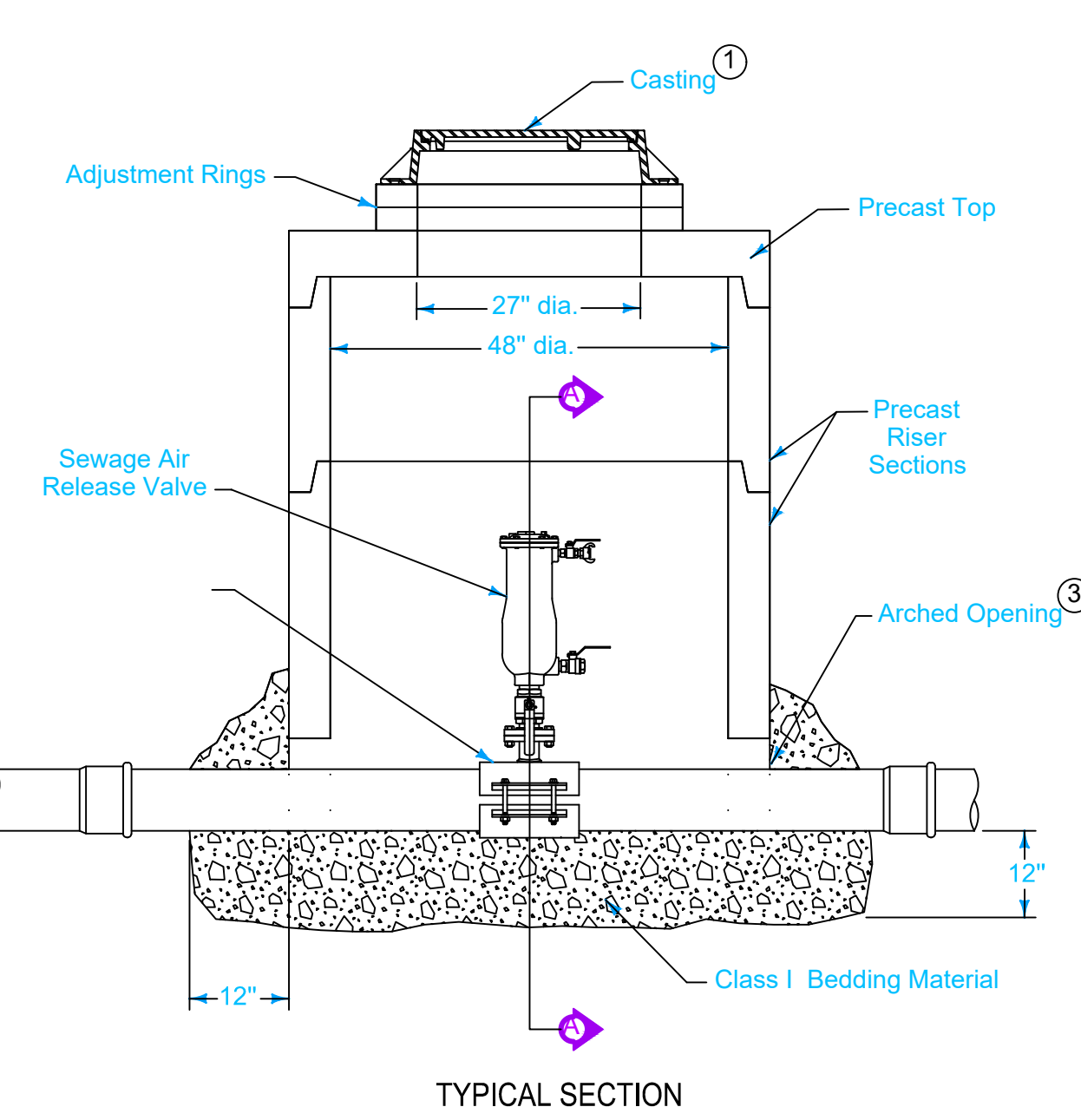
- IN AREAS WHERE GROUND WATER IS KNOWN TO EXIST, THE HEIGHT OF WATER ABOVE THE TOP OF THE PIPE BEING TESTED, IN FEET, SHALL BE DETERMINED AND THAT HEIGHT DIVIDED BY 2.3 TO ESTABLISH THE PRESSURE THAT WILL BE ADDED TO ALL READINGS ABOVE. ALTERNATIVELY, THE ENGINEER MAY ALLOW THE CONTRACTOR TO MEASURE INFILTRATION INTO THE SEWER BY USING A V-NOTCH WEIR OR OTHER SUITABLE DEVICE.
 - LOCATE, REPAIR AND RETEST LEAKS.
 - AIR TESTING SHALL BE CONSIDERED INCIDENTAL TO SANITARY SEWER CONSTRUCTION.
- 19) ALL PVC SOLID WALL SEWERS SHALL HAVE A DEFLECTION TEST PERFORMED AS FOLLOWS:
- DEFLECTION TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
 - DEFLECTION TEST TO BE CONDUCTED USING A RIGID BALL OR MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. NO MECHANICAL PULLING DEVICES ALLOWED.
 - NO PIPE SHALL EXCEED A DEFLECTION OF 5%.
- 20) MANHOLE FRAME AND LID TO BE NEENAH R-1642 SELF SEALING OR APPROVED EQUAL. ALL SANITARY MANHOLES SHALL HAVE INTERIOR CHIMNEY SEALS.

Ø INCHES	B4 FEET & INCHES
4	2'-0"
6	2'-0"
8	2'-0"
10	2'-0"
12	2'-0"
15	2'-0"
18	2'-0"
21	2'-0"

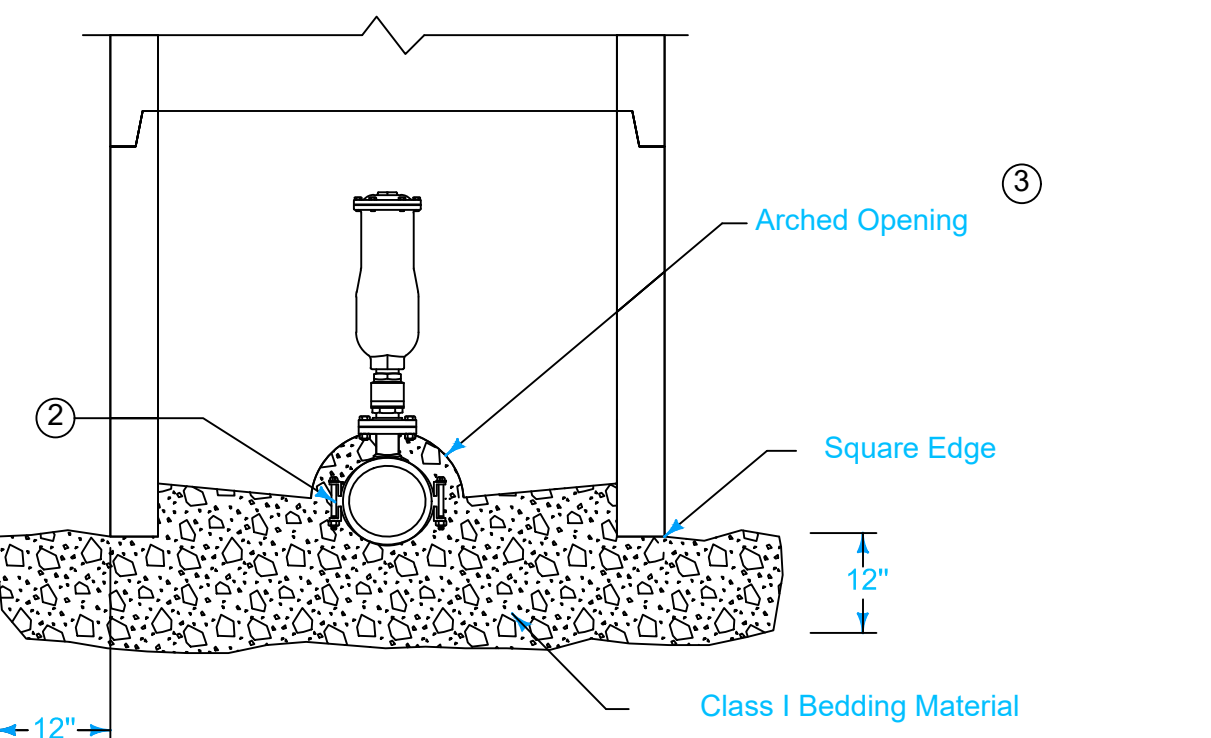


- NOTES:
- PIPE SHALL BE PLACED ON CRUSHED STONE MATERIAL.
 - BELL HOLES SHALL BE HAND SHAPED SO THAT ONLY PIPE BARREL RECEIVES BEARING PRESSURE.
 - PLACE BEDDING TO ENSURE THAT THERE ARE NO VOID SPACES OR ALONGSIDE THE LENGTH OF PIPE.
 - BACKFILL SHALL BE HAND TAMPED UP TO 12" ABOVE TOP OF PIPE.
 - SEE TABLE FOR ALLOWABLE TRENCH WIDTHS.

WHERE PUBLIC OR PRIVATE UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS, OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THOSE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THAT THERE MAY BE OTHER FACILITIES IN THE CONSTRUCTION AREA, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN OR SHOWN HEREON. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION, AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.



- SW-601 Type A or SW-602 Type G casting.
- Place bedding material to springline of pipe.
- Prevent riser from bearing on pipe by providing an arched opening with a diameter up to 6 inches larger than pipe diameter.



D	REVISION
FIGURE 4010.202	2 04-21-20
STANDARD ROAD PLAN	SW-202
SHEET 1 of 1	
REVISIONS: Changed 1 to 1 on Bedding Material.	
SUDAS DIRECTOR: JESSICA NEFF/PHD ENGINEER	
SEWAGE AIR RELEASE VALVE PIT	

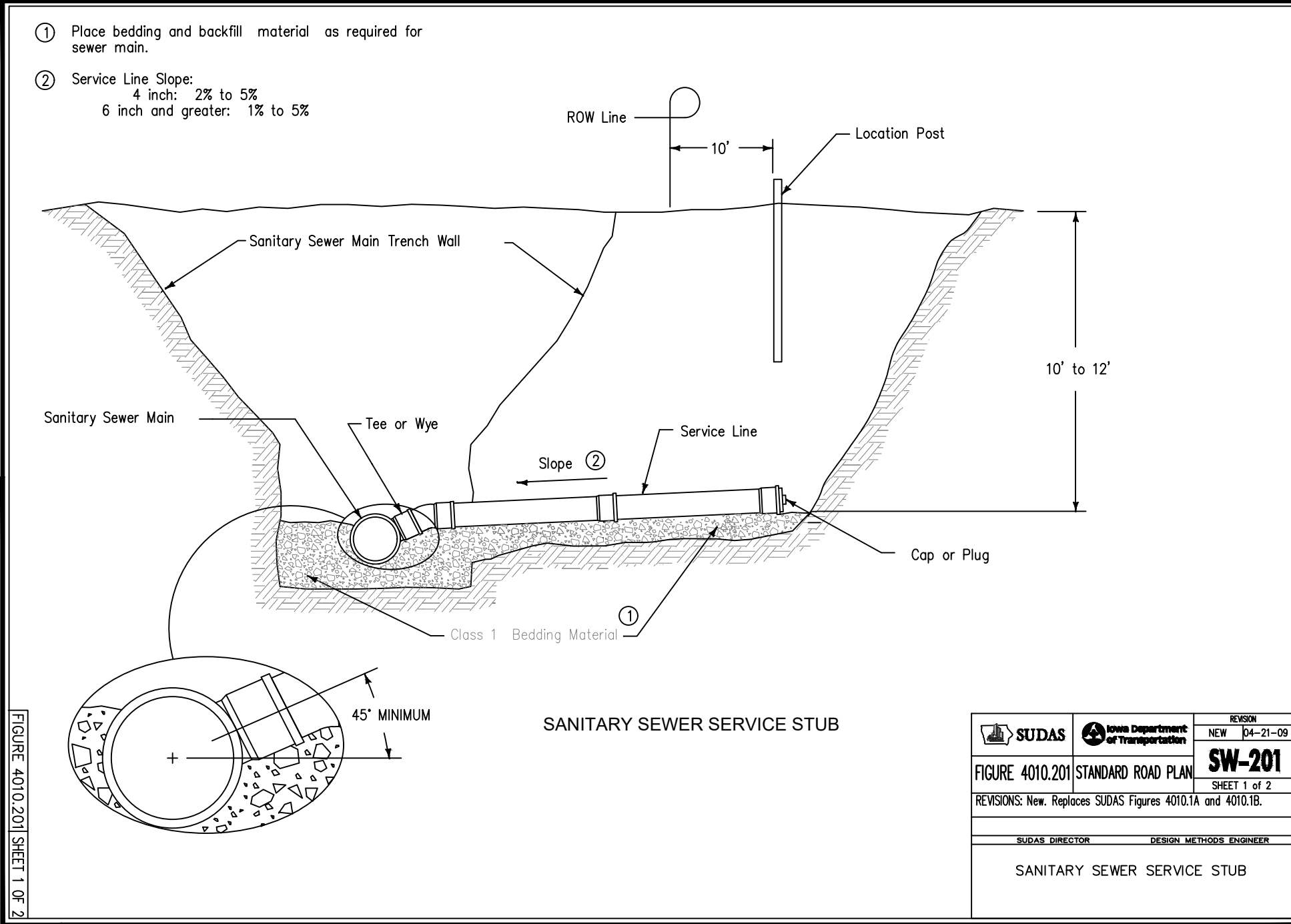
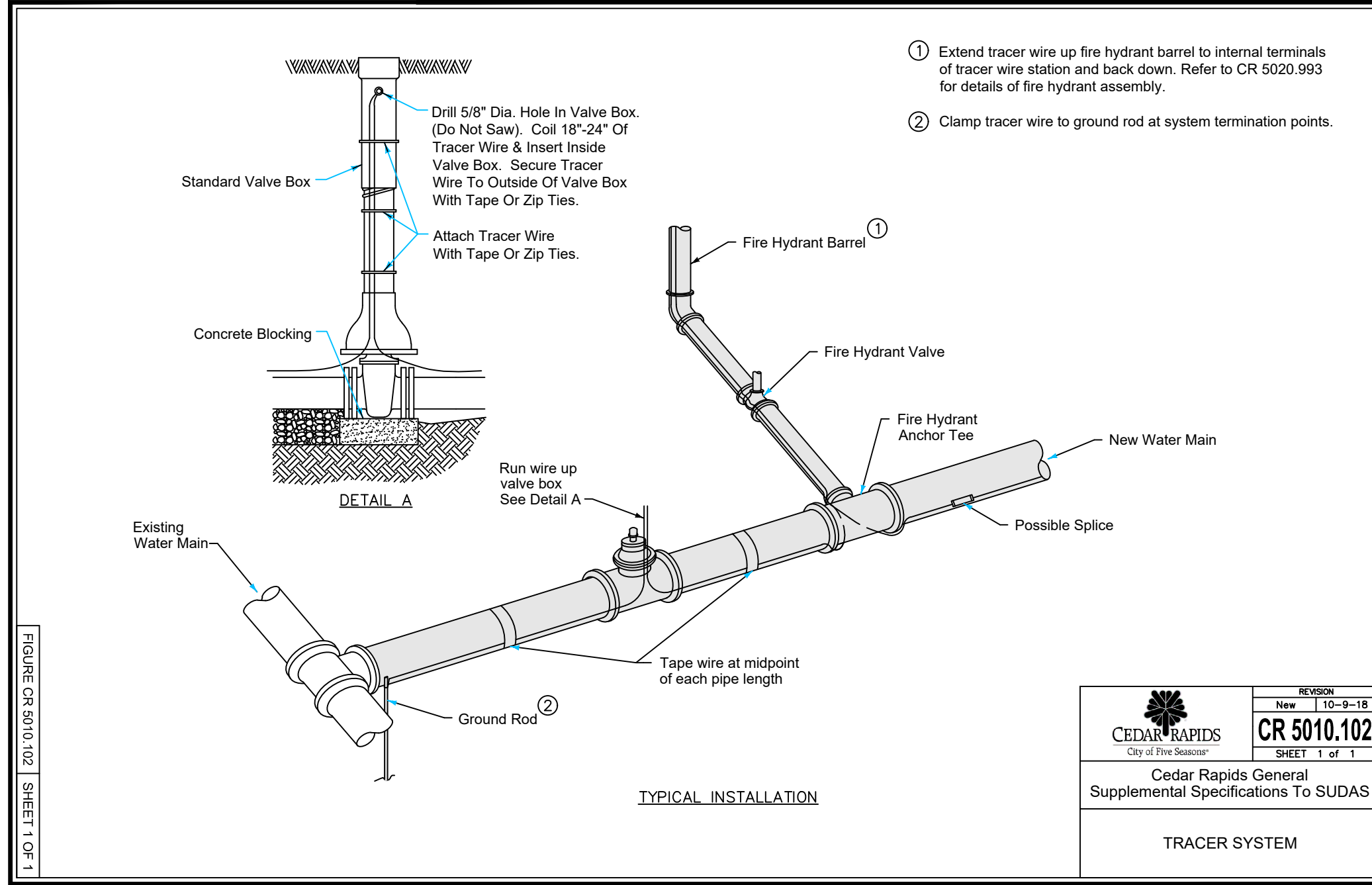
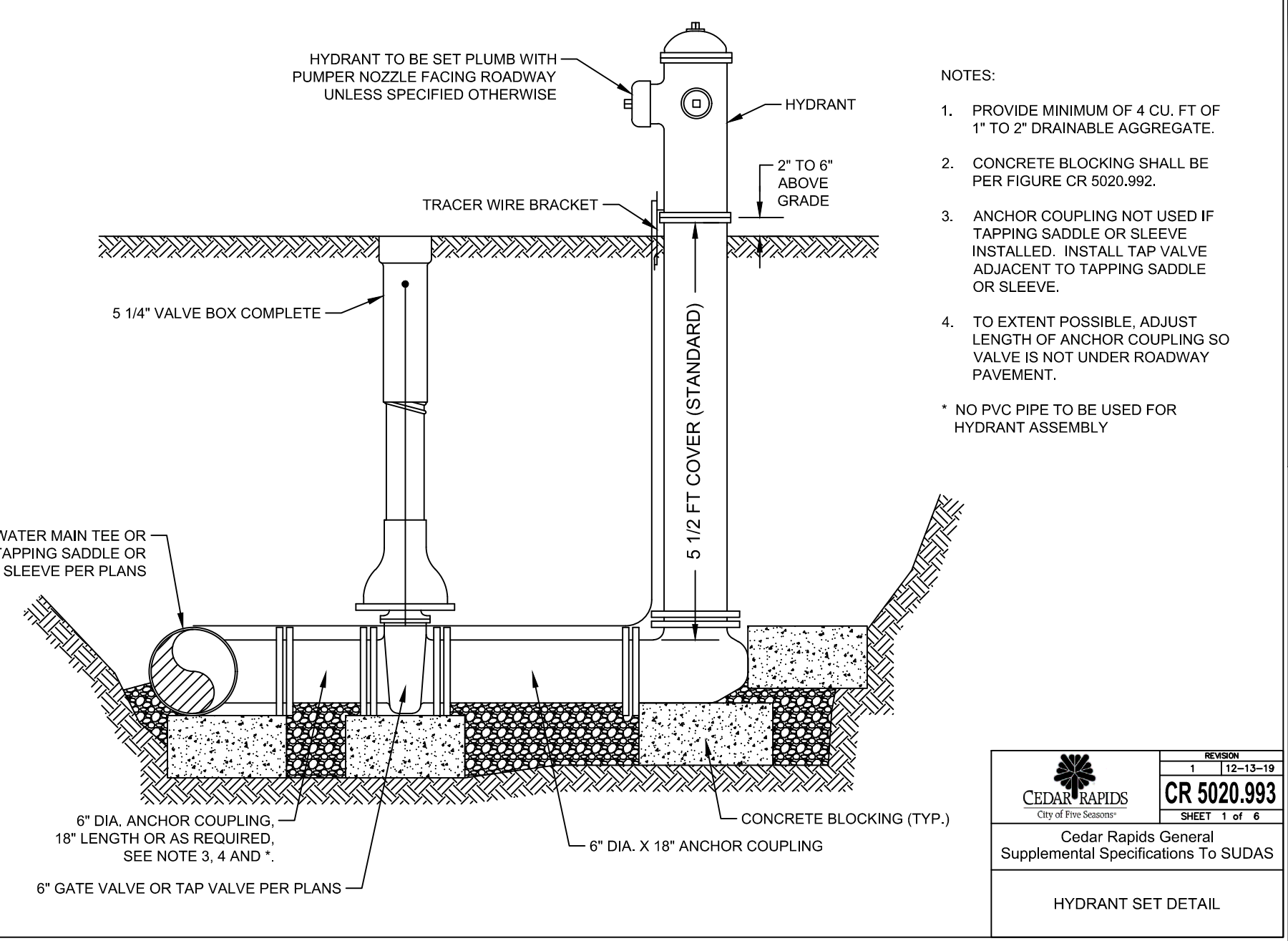


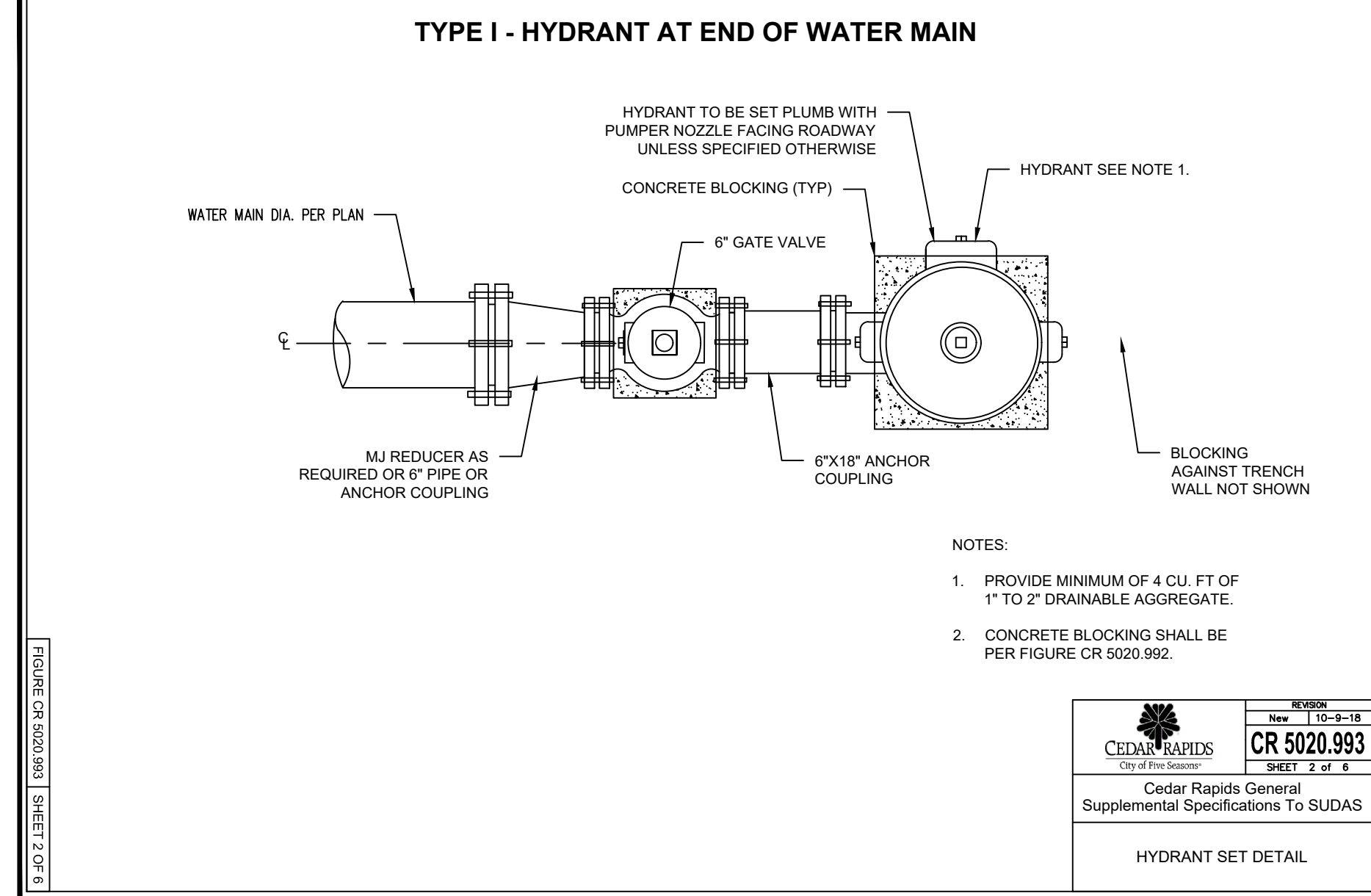
FIGURE 4010.201	REVISION
STANDARD ROAD PLAN	NEW 04-21-20
SW-201	
SHEET 1 of 2	
REVISIONS: New. Replaces SUDAS Figures 4010.1A and 4010.1C.	
SUDAS DIRECTOR: JESSICA NEFF/PHD ENGINEER	
SANITARY SEWER SERVICE STUB	



REVISION
New 10-9-18
CR 5010.102
SHEET 1 of 1
Cedar Rapids General Supplemental Specifications To SUDAS
TRACER SYSTEM



REVISION
New 12-13-18
CR 5020.993
SHEET 1 of 1
Cedar Rapids General Supplemental Specifications To SUDAS
HYDRANT SET DETAIL



REVISION
New 12-13-18
CR 5020.993
SHEET 2 of 2
Cedar Rapids General Supplemental Specifications To SUDAS
HYDRANT SET DETAIL

RECORD OF CONSTRUCTION

THIS DRAWING HAS BEEN REVISED TO REPRESENT THE RECORDS OF CONSTRUCTION AS PRESENTED BY THE CONTRACTORS AND / OR THE INSPECTORS AT THE TIME OF COMPLETION OF THE WORK SET FORTH ON THIS DRAWING.

Date Revised: 09-28-21 tav

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GENERAL NOTES AND DETAILS: SANITARY SEWER AND WATER MAIN

JOCO 50 SUBDIVISION

SWISHER JOHNSON COUNTY IOWA

MMS CONSULTANTS, INC.
6385-034C0V-AB

Date: 04/19/21

Designed by: KJB Field Book No: 1307, PG 39
Drawn by: TAV Scale: NONE
Checked by: KJB Sheet No:
Project No: CU500

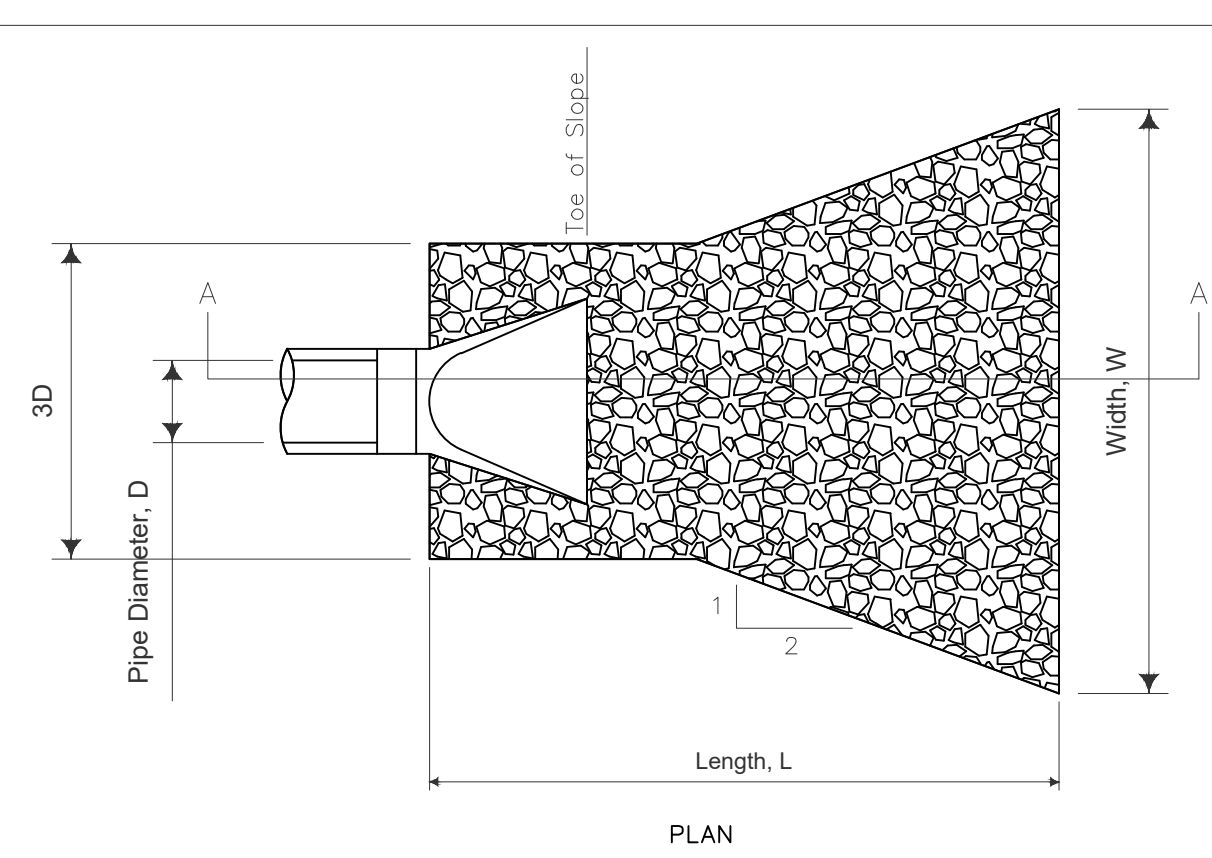
6385-034 of.

STORM SEWER CONSTRUCTION NOTES

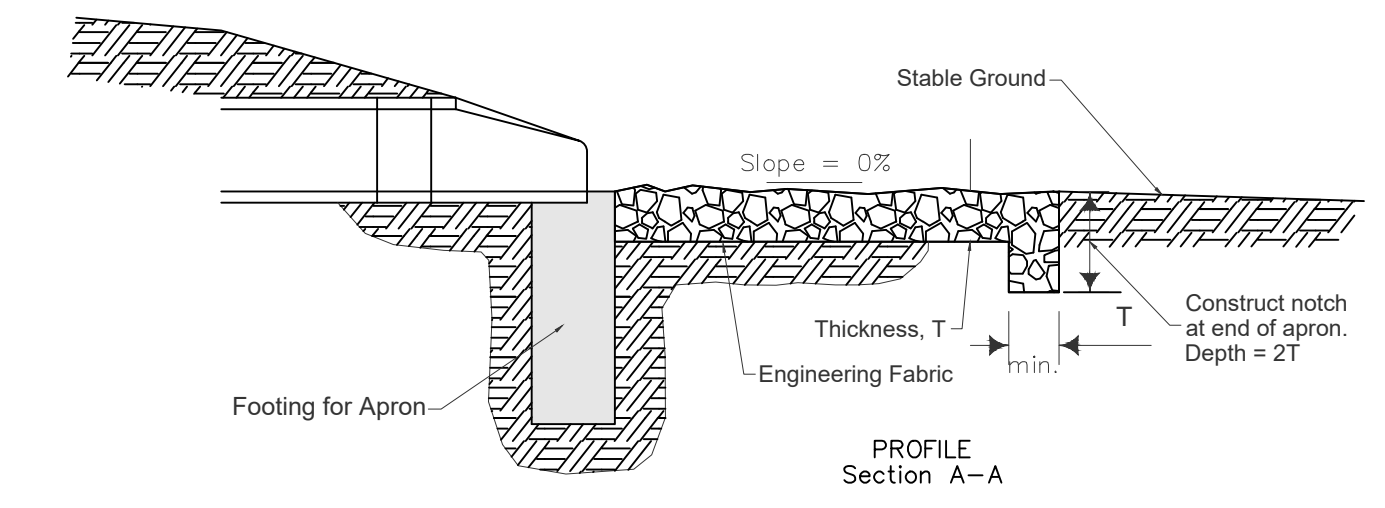
- STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS. THE CEDAR RAPIDS GENERAL SUPPLEMENTAL TO SUDAS STANDARD SPECIFICATIONS (2021 ADDITION) AND JOHNSON COUNTY DESIGN AND CONSTRUCTION STANDARDS AND PROCEDURES SHALL PREVAIL.
- THE CONTRACTOR SHALL USE RCP STORM SEWER PIPE & BEDDING ACCORDING TO SUDAS FIGURE 5010.102 AND CEDAR RAPIDS SUPPLEMENTAL FIGURE 5010.101.
- AT PLACES WHERE A FLARED END SECTION IS REQUIRED, PIPE LENGTH INCLUDES THE FLARED END. THE LAST THREE JOINTS ARE TO BE TIED USING IDOT STANDARD ROAD PLAN RF-14 OR SIMILAR CONSTRUCTION WHERE FLARED END SECTIONS ARE REQUIRED.
- RCP STORM SEWERS SHALL HAVE BELL AND SPIGOT JOINTS WITH O-RING GASKETS OR PROFILE GASKETS.
- LONGITUDINAL SUBDRAIN SHALL BE INSTALLED PER CEDAR RAPIDS SUDAS SUPPLEMENTAL SUBDRAIN DETAIL CASE B, TYPE 1, FIGURE 4040.231. NO ENGINEERING FABRIC SHALL BE PLACED AROUND POROUS BACKFILL.
- STORM SEWER TRENCHES SHADEN ON THE PROFILE VIEW SHALL BE BACKFILLED WITH EITHER OF THE FOLLOWING COMPACTED TO 95% STANDARD PROCTOR DENSITY:
 - SUITABLE EXCAVATED MATERIAL. IF EXCAVATED MATERIAL IS NOT SUITABLE, THEN
 - CRUSHED STONE AS SPECIFIED FOR GRANULAR TRENCH BACKFILL SHALL BE USED.
- GRANULAR TRENCH BACKFILL SHALL BE CRUSHED STONE CONFORMING TO I.D.O.T. STANDARD SPECIFICATION 4120.04 WITH 1" MAXIMUM AGGREGATE SIZE. COMPACT TO 95% STANDARD PROCTOR DENSITY.
- ALL PIPE SHALL BE CERTIFIED.
- ALL STORM INTAKES SHALL BE A MINIMUM OF 48 INCHES FROM TOP OF CURB/RIM TO SUBGRADE. IF INVERT ELEVATIONS ARE INSUFFICIENT TO PROVIDE THIS REQUIRED DEPTH, THE CONTRACTOR IS TO PROVIDE A DEEPER STRUCTURE AND POUR CONCRETE FILLET IN INTAKE TO MAKE INTAKE PIPES DRAIN AT INVERT ELEVATIONS LISTED.
- LIFT HOLES IN STORM SEWER WILL NOT BE ALLOWED.
- PROVIDE CONCRETE FILLETS IN ALL NEW & EXISTING DRAINAGE STRUCTURES PER REFERENCED DETAILS.

WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS, OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THOSE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THAT THERE MAY BE OTHER FACILITIES IN THE CONSTRUCTION AREA, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN OR SHOWN HEREON. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION, AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

L.P. LIPINSKI/DESIGN



d	W	L	T	d ₅₀
12"	4'	4'	6"	3"
15"	6'	6'	6"	3"
18"	7'	7'	8"	4"
24"	10'	10'	12"	6"
30"	14'	14'	12"	6"
36"	17'	17'	18"	9"
42"	20'	20'	18"	9"
48"	22'	22'	18"	9"
54"	26'	26'	24"	12"



REVISION	3	10-21-14
9040.110		
SHEET 1 of 1		

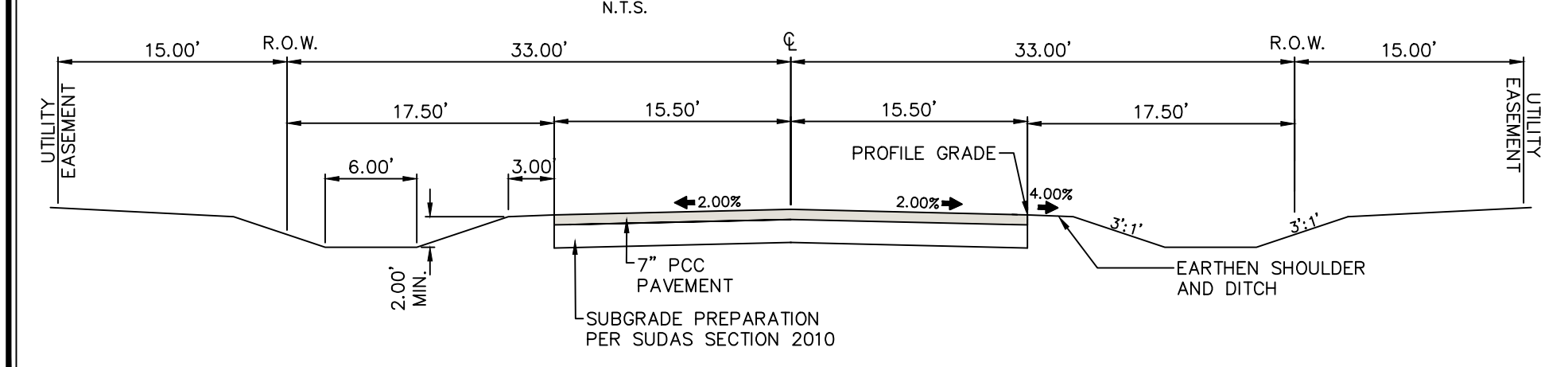
RIP RAP FOR PIPE OUTLET ONTO FLAT GROUND

RECORD OF CONSTRUCTION
 THIS DRAWING HAS BEEN REVISED TO REPRESENT THE RECORDS OF CONSTRUCTION AS PRESENTED BY THE CONTRACTORS AND / OR THE INSPECTORS AT THE TIME OF COMPLETION OF THE WORK SET FORTH ON THIS DRAWING.
 Date Revised: 09-28-21 tav

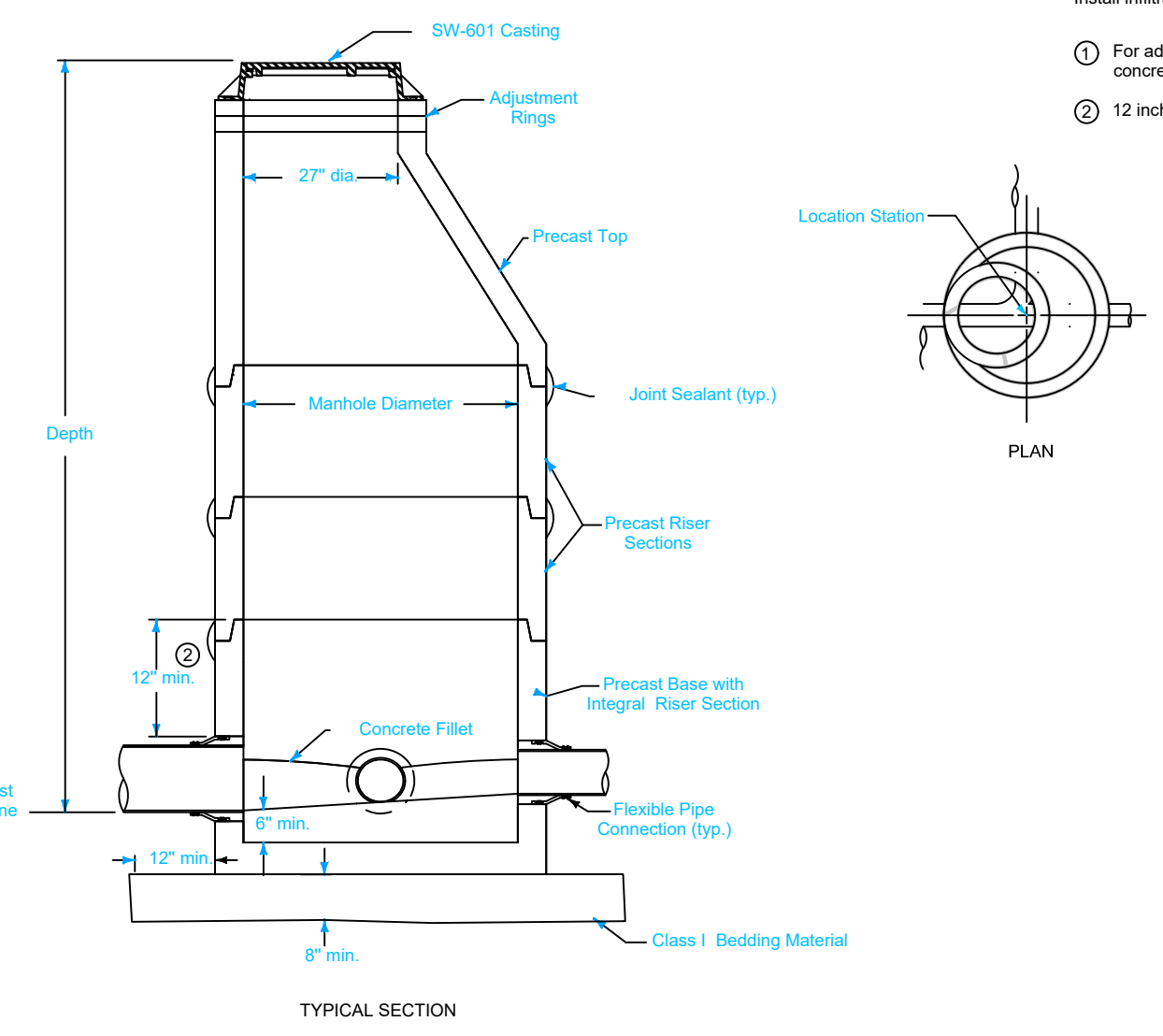
PAVING CONSTRUCTION NOTES

- I.D.O.T. CLASS C-3 CONCRETE SHALL BE USED, UNLESS NOTED OTHERWISE.
- JOHNSON COUNTY DESIGN AND CONSTRUCTION STANDARDS AND PROCEDURES SHALL PREVAIL.
- PAVEMENT JOINTS SHALL CONFORM TO I.D.O.T. STANDARD ROAD PLANS PV-1 CURRENT REVISION.
- ALL SAWED PAVEMENT JOINTS SHALL BE SEALED.
- INSTALL "CD" TRANSVERSE CONTRACTION JOINTS FOR 8" AND 9" PCC PAVEMENT. "C" TRANSVERSE CONTRACTION JOINTS SHALL BE USED FOR 7" PCC PAVEMENT.

TYPICAL STREET SECTION



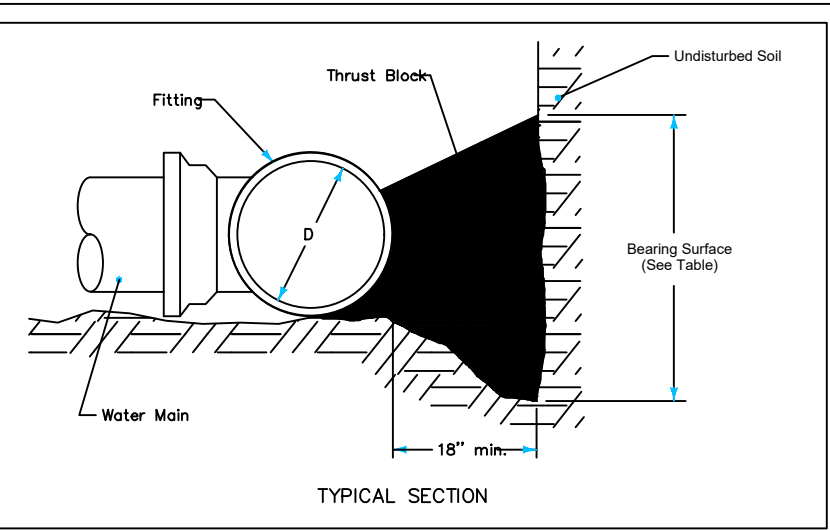
- If manhole depth exceeds 20 feet, install steps.
 Install infiltration barrier.
- For additional configurations, maintain a minimum of 12 inches of concrete between vertical edges of pipe openings.
 - 12 inch minimum riser height above all pipe openings.



Manhole Diameter (inches)	Maximum Pipe Diameter (inches) for 2 Pipes	
	At 180° Separation	At 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

REVISION	1	04-20-21
FIGURE 6010.301	STANDARDROADPLAN	SW-301
SHEET 1 of 1		

THURST BLOCKS



Extend thrust blocks to undisturbed soil. Excavation into trench wall may be necessary.
 Form vertical surfaces of poured concrete thrust blocks except on bearing surface.
 Encase all fittings in polyethylene wrap. Do not allow concrete to directly contact joints or fitting bolts.

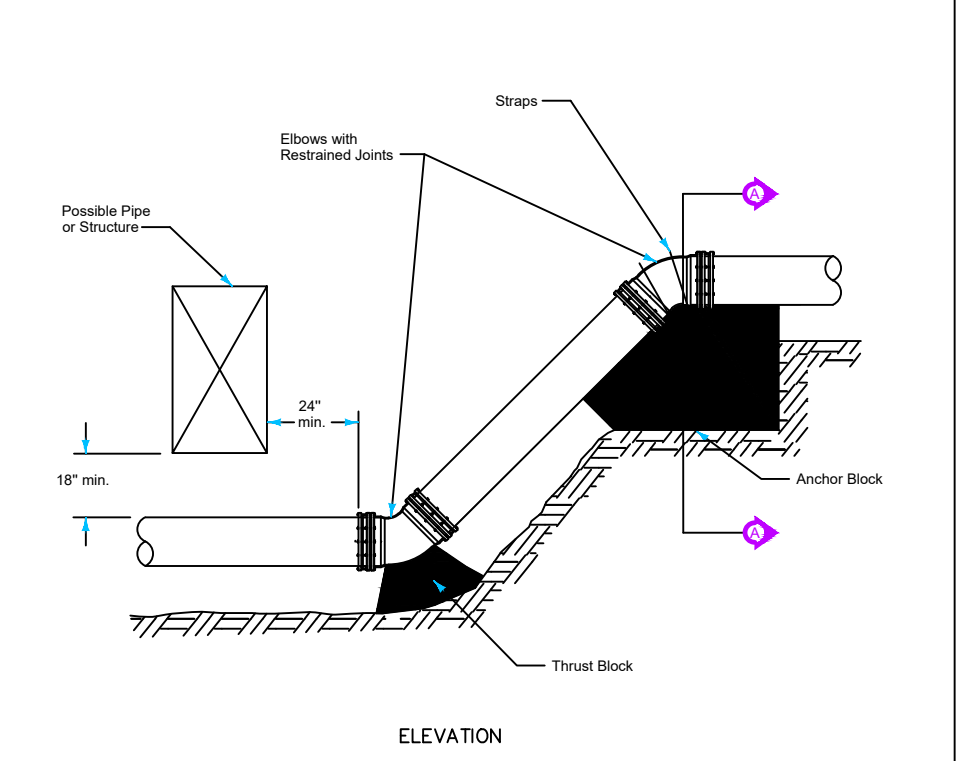
Diameter of Pipe, D (inches)	Bends			Tee
	112°	225°	90°	
4	1	1	2	4
6	1	2	4	6
8	2	4	7	10
10	3	6	11	15
12	4	8	16	21
14	5	11	21	28
16	7	14	27	36
18	9	17	34	45
20	11	21	42	55
24	15	31	60	75
30	24	47	92	120
36	34	67	132	175

Minimum surface area based on water pressure of 150 psi and allowable soil pressure of 1,000 psf.

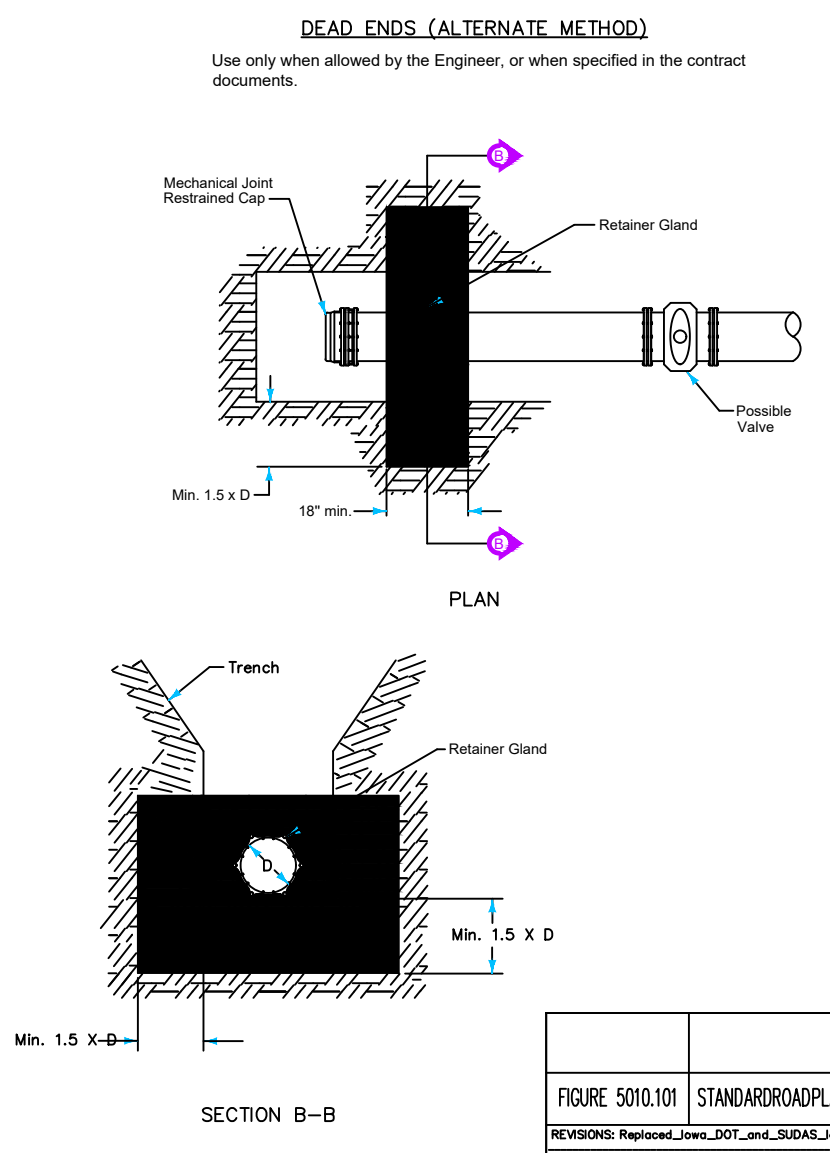
REVISION	1	10-18-14
FIGURE 5010.101	STANDARDROADPLAN	WM-101
SHEET 1 of 2		

THURST BLOCKS

CHANGES IN PIPE DEPTH

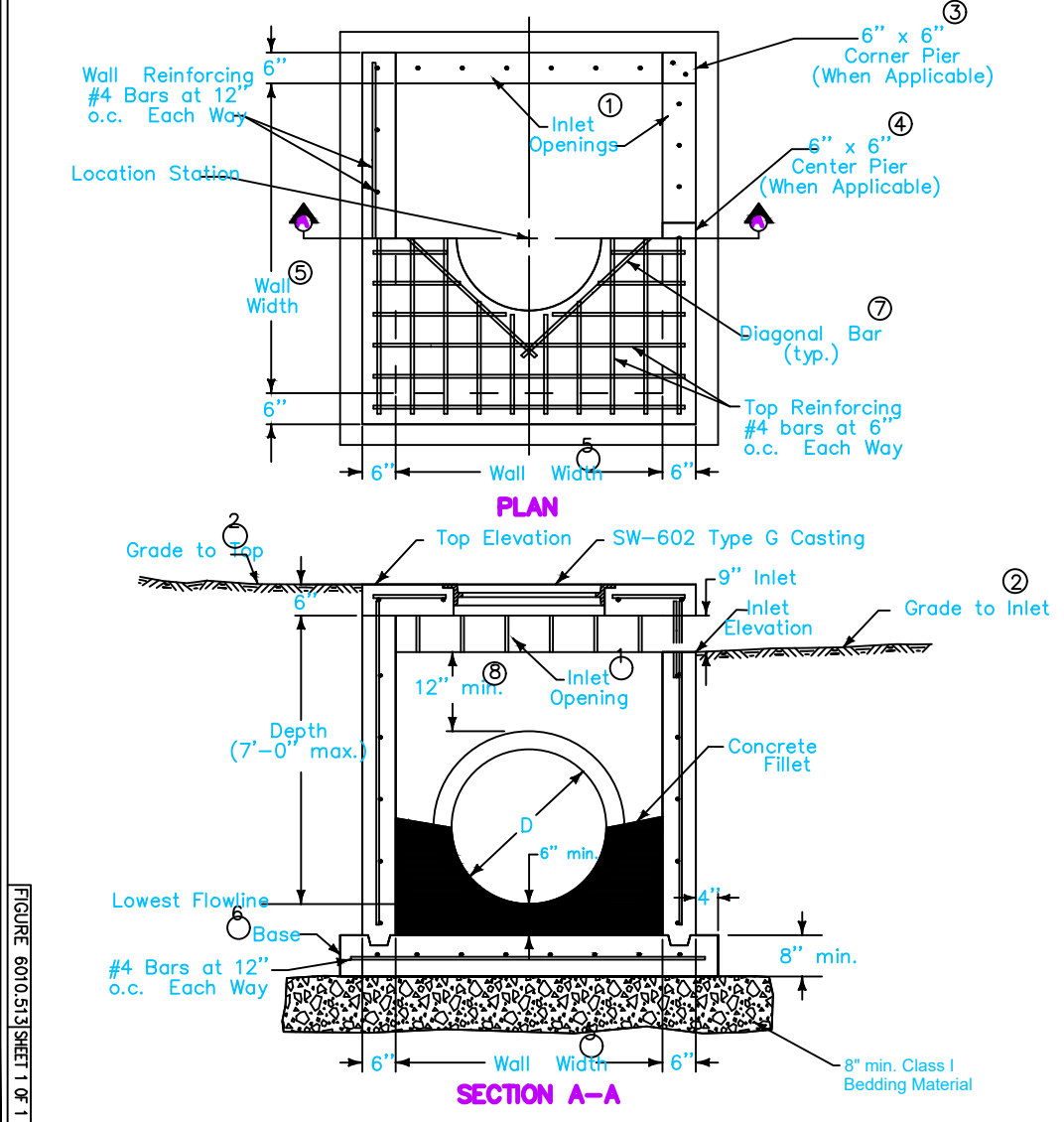
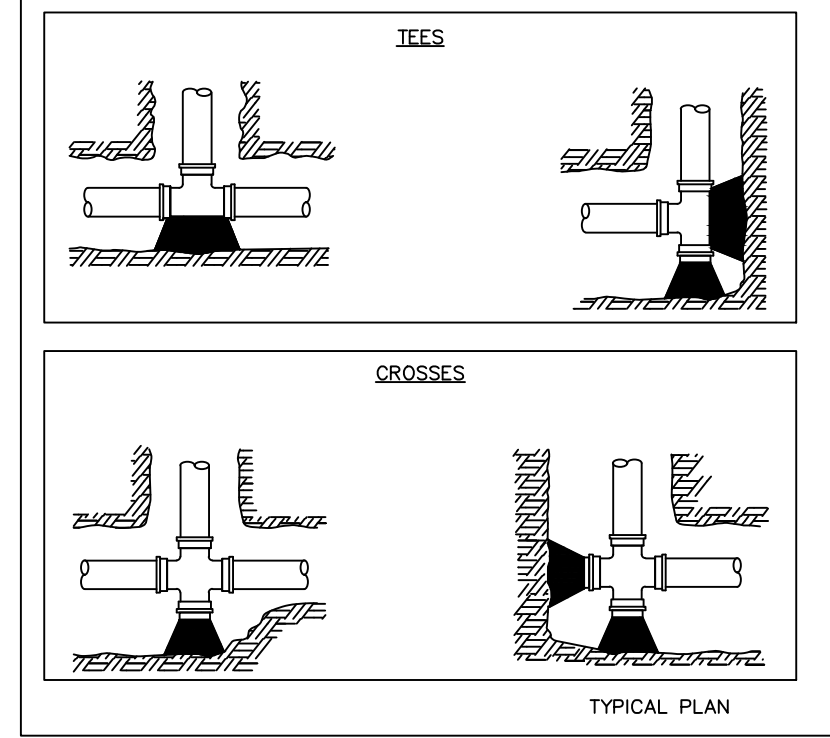


DEAD ENDS (ALTERNATE METHOD)



REVISION	1	10-18-14
FIGURE 5010.101	STANDARDROADPLAN	WM-101
SHEET 2 of 2		

THURST BLOCKS



- Structure may be built with openings on any or all sides. Provide openings and orientation as specified in the contract documents.
- Adjacent walls may have different widths based upon pipe configuration, but structure must be rectangular.
- Construct inlet openings with 15 inch #4 epoxy coated bars at 8 inches on center. Embed bars a minimum of 3 inches into walls and top of all openings.
 - Grade to inlet elevation on open sides. Grade to top elevation on closed sides.
 - Corner pier required between openings of two adjacent walls. Extend wall reinforcing vertically through pier. Install one additional 15 inch #4 bar in pier.
 - Center pier required at center of any inlet opening with length of 5 feet or greater. Extend wall reinforcing vertically through pier. Install one additional 15 inch #4 bar in pier.
 - Wall widths vary with pipe diameter. Provide 6 inches of wall width (minimum) each side of pipe opening. Minimum wall width is 36 inches. Maximum wall width is 72 inches.
 - Cast-in-place base shown. If base is precast integral with walls, the footprint of base is not required to extend beyond the outer edge of the walls.
 - Install four #4 diagonal bars at all pipe openings.
 - 12 inch minimum wall height above all pipes.

REVISION	1	04-20-21
FIGURE 6010.513	STANDARDROADPLAN	SW-513
SHEET 1 of 1		

OPEN-SIDED AREA INTAKE



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Date	Revision
06/11/21	PER CITY COMMENTS - KJC
07/14/21	PER CITY COMMENTS - KJC
07/16/21	PER CITY COMMENTS - KJC
07/19/21	PER CITY COMMENTS - KJC
09/28/21	AS-BUILT - JEB

GENERAL NOTES AND DETAILS: PAVING, SANITARY SEWER, WATER MAIN, AND STORM SEWER

JOCO 50 SUBDIVISION

SWISHER
 JOHNSON COUNTY
 IOWA

RECORD OF CONSTRUCTION

THIS DRAWING HAS BEEN REVISED TO REPRESENT THE RECORDS OF CONSTRUCTION AS PRESENTED BY THE CONTRACTORS AND / OR THE INSPECTORS AT THE TIME OF COMPLETION OF THE WORK SET FORTH ON THIS DRAWING.

Date Revised: 09-28-21 tav

CEDAR RAPIDS SUDAS CONSTRUCTION NOTES

DIVISION 1—GENERAL PROVISIONS

1. ALL SITE CONSTRUCTION SHALL BE ACCORDING TO THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS, LATEST EDITION, AS SUPPLEMENTED BY CITY OF CEDAR RAPIDS REQUIREMENTS, UNLESS OTHERWISE NOTED ON THE DRAWINGS. A COPY OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS REFERENCED IN THESE PLANS CAN BE FOUND AT <http://www.iowasudas.org/>.
2. IOWA CODE 480, UNDERGROUND FACILITIES INFORMATION, REQUIRES VERBAL NOTICE TO IOWA ONE-CALL 1-800-292-8989, NOT LESS THAN 48 HOURS BEFORE EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.
3. THE CITY OF CEDAR RAPIDS IS RESPONSIBLE FOR INSPECTION WITHIN THE PUBLIC RIGHT-OF-WAYS. INSPECTIONS FOR PUBLIC WATER MAIN EXTENSIONS AND WATER SERVICES SHALL BE PROVIDED BY THE UTILITIES DEPT. INSPECTIONS FOR OTHER PUBLIC IMPROVEMENTS WILL BE PROVIDED BY THE CEDAR RAPIDS PUBLIC WORKS DEPARTMENT CONSTRUCTION ENGINEERING DIVISION. PROVIDE A MINIMUM OF 72 HOURS NOTICE PRIOR TO STARTING CONSTRUCTION.
4. PLEASE REFER TO SUDAS 1070 2.07 FOR GENERAL UTILITY NOTES. ABANDONED UTILITIES NOT SHOWN ON THE PLANS MAY EXIST WITHIN THE CONSTRUCTION LIMITS. IF ENCOUNTERED, CONTRACTOR SHALL CONFIRM SAID UTILITIES ARE ABANDONED. CONTRACTOR IS RESPONSIBLE FOR REMOVING THESE LINES AS NECESSARY FOR CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY SANITARY AND STORM SEWER PIPE SIZES AND INVERTS PRIOR TO CONSTRUCTION AND PRIOR TO ORDERING MANHOLES AND/OR PIPE.
6. CONTRACTOR SHALL REPAIR ALL FIELD/DRAIN TILES ENCOUNTERED DURING CONSTRUCTION AS SPECIFIED OR AT A MINIMUM TO ALLOW FLOW USING LIKE MATERIAL IN NEW CONDITION WITH CITY APPROVED CONNECTIONS. CONTRACTOR SHALL RECORD EXISTING TYPE, SIZE, LOCATION AND DEPTH OF ALL FIELD/DRAIN TILES ENCOUNTERED AND REPAIRED DURING CONSTRUCTION. PROVIDE DATA TO THE CITY FOR INCORPORATION INTO RECORD DRAWINGS.
7. CONTRACTOR SHALL NOT STORE EQUIPMENT AND/OR MATERIALS WITHIN PUBLIC RIGHT-OF-WAY ON STREETS AND/OR ALLEYS OPEN TO TRAFFIC. CONTRACTOR SHALL PROVIDE AREAS AS NEEDED FOR STORAGE OF EQUIPMENT AND/OR MATERIALS.
8. CONTRACTOR SHALL ASSIST THE CITY INSPECTOR WITH DAILY RECORD KEEPING INCLUDING DOCUMENTING ALL NECESSARY FIELD LOCATIONS AND MEASUREMENTS.

DIVISION 5—WATER NOTES 10-23-20

1. ALL PERMITS SHALL BE SECURED AND FEES SHALL BE PAID PRIOR TO START OF CONSTRUCTION.
 2. WATER INSPECTION AND WORK ORDER REQUESTS: CONTACT WATER ENGINEERING AT: CALL: 319-286-5950 OR E-MAIL: WATER-ENGINEERING-ADMIN@CEDARRAPIDS.ORG
- FIVE (5) DAYS NOTICE REQUIRED PRIOR TO STARTING WATER CONSTRUCTION
- 48-HOUR MINIMUM NOTICE REQUIRED TO SCHEDULE WATER SUPPLY INTERRUPTION
 - WATER SHUT-DOWN WORK ORDER
 - 24-HOUR MINIMUM NOTICE REQUIRED FOR THE FOLLOWING:
 - WATER TAP WORK ORDER
 - FILL & FLUSH WORK ORDER
 - BACTERIA TESTING WORK ORDER
 - PRESSURE TESTING WORK ORDER
 - OTHER WATER SYSTEM RELATED SERVICES

3. THE CONTRACTOR IS REQUIRED TO NOTIFY IOWA ONE CALL (1-800-292-8989) NOT LESS THAN 48 HOURS PRIOR TO EXCAVATION, EXCLUDING WEEKENDS AND LEGAL HOLIDAYS.
4. CONSTRUCTION OF PUBLIC AND PRIVATE WATER SYSTEM IMPROVEMENTS REQUIRES AN APPROVED PLAN SET ON FILE AT THE CEDAR RAPIDS WATER DEPARTMENT ADMINISTRATION BUILDING, LOCATED AT 1111 SHAVER ROAD NE, PRIOR TO RECEIVING START-WORK APPROVAL.
5. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CEDAR RAPIDS WATER DIVISION FOR ANY VARIANCE FROM THE APPROVED PLAN.
6. ON SITE INSPECTION OF WATER MAIN INSTALLATION WILL BE PROVIDED BY CEDAR RAPIDS WATER DIVISION. THE WATER DIVISION SHALL OPERATE ALL SYSTEM VALVES AND FIRE HYDRANTS IN CONJUNCTION WITH THE WORK.
7. WATER MAIN DESIGN, MATERIALS, INSTALLATION, DISINFECTION, AND TESTING MUST COMPLY WITH CEDAR RAPIDS STANDARD SUPPLEMENTAL SPECIFICATION TO STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) AND AMERICAN WATER WORKS ASSOCIATION (AWWA) DISINFECTING WATER MAINS STANDARD C651. THIS APPLIES TO ALL PUBLICLY AND PRIVATELY OWNED WATER MAINS AND SERVICE LINES ON THE DISTRIBUTION SIDE OF THE METER. FOR PUBLICLY ACCEPTED IMPROVEMENTS CONSTRUCTED AS PART OF A SUBDIVISION, THE CONTRACTOR SHALL PURCHASE FIRE HYDRANTS AND VALVES FROM THE CITY PER CURRENT POLICY. EXCEPTIONS MUST BE PRE-APPROVED BY CEDAR RAPIDS WATER DIVISION.

DIVISION 5—WATER NOTES 10-23-20 (Continued)

8. REQUIREMENTS FOR SEPARATION OF WATER MAINS AND SEWERS IS CONTAINED WITHIN THE CEDAR RAPIDS STANDARD SUPPLEMENTAL SPECIFICATION TO SUDAS, SECTION CR-5010 PIPE AND FITTINGS.
9. CONTRACTOR SHALL INSTALL TRACER WIRE ON ALL PUBLICLY AND PRIVATELY OWNED WATER MAINS AND FIRE SERVICE LINES IRRESPECTIVE OF WATER MAIN MATERIAL. COMPLY WITH FIGURE CR 5010.102 FOR TRACER WIRE INSTALLATION. ENCASE ALL PIPE, VALVES, AND FITTINGS WITH POLYETHYLENE WRAP. ACCORDING TO CEDAR RAPIDS STANDARD SUPPLEMENTAL SPECIFICATION TO SUDAS, SECTION CR-5010 PIPE AND FITTINGS 3.03.
10. WATER MAINS AND LARGE SERVICES (3 INCH OR LARGER) OVER 20 FEET IN LENGTH ARE REQUIRED TO BE DISINFECTED, FLUSHED, FILLED AND PRESSURE TESTED IN ACCORDANCE WITH CEDAR RAPIDS STANDARD SUPPLEMENTAL SPECIFICATION TO SUDAS, SECTION CR-5030 TESTING AND DISINFECTION. DO NOT ALLOW HEAVILY CHLORINATED WATER TO REMAIN IN THE PIPELINE FOR MORE THAN 48 HOURS. THOROUGHLY FLUSH CHLORINATED WATER FROM THE PIPELINE UNTIL THE REPLACEMENT WATER WILL BE EQUAL IN QUALITY TO PERMANENT SOURCE OF SUPPLY THROUGHOUT THE LENGTH OF THE PIPELINE. NEUTRALIZE THE CHLORINATED WATER BY TREATING WITH SODIUM BISULFITE, SODIUM SULFITE, SODIUM THIOSULFATE OR APPROVED CHEMICAL BEFORE DISPOSAL. THE CONTRACTOR IS RESPONSIBLE FOR WATER MAIN FLUSHING OPERATIONS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, VERIFYING PROCEDURES, PROVIDING ADEQUATE PERSONNEL AND EQUIPMENT, OBTAINING APPROVAL TO DISCHARGE INTO STORM OR SANITARY SEWERS, MONITORING SEWERS FOR BACK-UPS, MONITORING FLOW AND DECHLORINATION RESULTS, DISPOSAL OF HIGHLY CHLORINATED WATER SHALL BE IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL CODES.
11. UNLESS SPECIFICALLY APPROVED OTHERWISE, ALL LATERAL CONNECTIONS TO EXISTING MAINS (4 INCH OR LARGER) THAT HAVE BEEN PREVIOUSLY TESTED AND TURNED INTO SERVICE SHALL UTILIZE A 'LIVE TAP' WITH AN APPROVED TAPPING SLEEVE OR SADDLE AND VALVE.
12. ALL SERVICE TAP MATERIALS ARE TO BE FURNISHED BY THE CONTRACTOR. THE CEDAR RAPIDS WATER DIVISION WILL MAKE TAPS UP TO 12 INCHES USING CONTRACTOR SUPPLIED MATERIALS THAT COMPLY WITH CEDAR RAPIDS STANDARD SUPPLEMENTAL SPECIFICATION TO SUDAS. TAPS LARGER THAN 12 INCHES MUST BE MADE BY QUALIFIED CONTRACTOR WITH WATER DIVISION PERSONNEL ON SITE.
13. WARRANTY: FOR THAT PORTION OF THE WATER SYSTEM IMPROVEMENTS THAT ARE TO BE ACCEPTED INTO THE PUBLIC WATER DISTRIBUTION SYSTEM, THE CONTRACTOR SHALL WARRANT THE WORKMANSHIP AND MATERIAL OF THE INSTALLED IMPROVEMENTS FOR A PERIOD OF FOUR (4) YEARS FROM DATE OF ACCEPTANCE AND SHALL FURNISH THE MUNICIPALITY WITH A MAINTENANCE BOND COVERING THE COST OF THE WATER IMPROVEMENTS FOR THAT PERIOD. NO WATER SERVICE SHALL BE PROVIDED PRIOR TO RECEIPT OF THE REQUIRED MAINTENANCE BOND.
14. IF INSTALLATION OF A CASING PIPE IS REQUIRED, IT SHALL COMPLY WITH SUDAS STANDARD SPECIFICATIONS, SECTION 3020 - TRENCHLESS CONSTRUCTION, AND INCLUDE CASING SPACERS AND WATER-TIGHT MECHANICAL RUBBER END SEALS.

DIVISION 8—TRAFFIC CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED TRAFFIC CONTROL PLANS TO THE ENGINEER FOR ALL STAGES OF WORK. WRITTEN NOTICE SHALL BE PROVIDED TO THE ENGINEER AT LEAST 48 HOURS IN ADVANCE OF ROADWAY CLOSURES AND STAGE TRANSITIONS.
2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SUDAS SECTION 8030 - TEMPORARY TRAFFIC CONTROL.

DIVISION 9—EROSION CONTROL NOTES

1. CONTRACTOR SHALL FURNISH AND MAINTAIN EROSION CONTROL AND WATER QUALITY SYSTEMS PER THE PLAN SWPPP TO SATISFY THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE TEMPORARY EROSION AND SEDIMENT CONTROL SYSTEMS. CONTRACTOR SHALL ALSO PREPARE, PROVIDE, AND MAINTAIN A STORMWATER POLLUTION PREVENTION PLAN PER SUDAS 9040.
2. CONTRACTOR AND ALL SUBCONTRACTORS WORKING ON THE SITE SHALL SIGN THE NPDES PERMIT AS CO-PERMITTEES PRIOR TO CONDUCTING ANY LAND DISTURBING ACTIVITIES ON THE SITE.
3. CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL EXISTING AND CONSTRUCTED DRAINAGE CHANNELS AND DRAINAGE STRUCTURES. CONTRACTOR IS LIABLE FOR ALL DAMAGE TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN THE HANDLING OF STORM WATER FLOWS DURING CONSTRUCTION. EXTRA GRADING WORK NECESSARY TO MAINTAIN POSITIVE DRAINAGE WITHIN THE CONSTRUCTION LIMITS IS CONSIDERED INCIDENTAL TO CONSTRUCTION OR RELATED BID ITEMS.

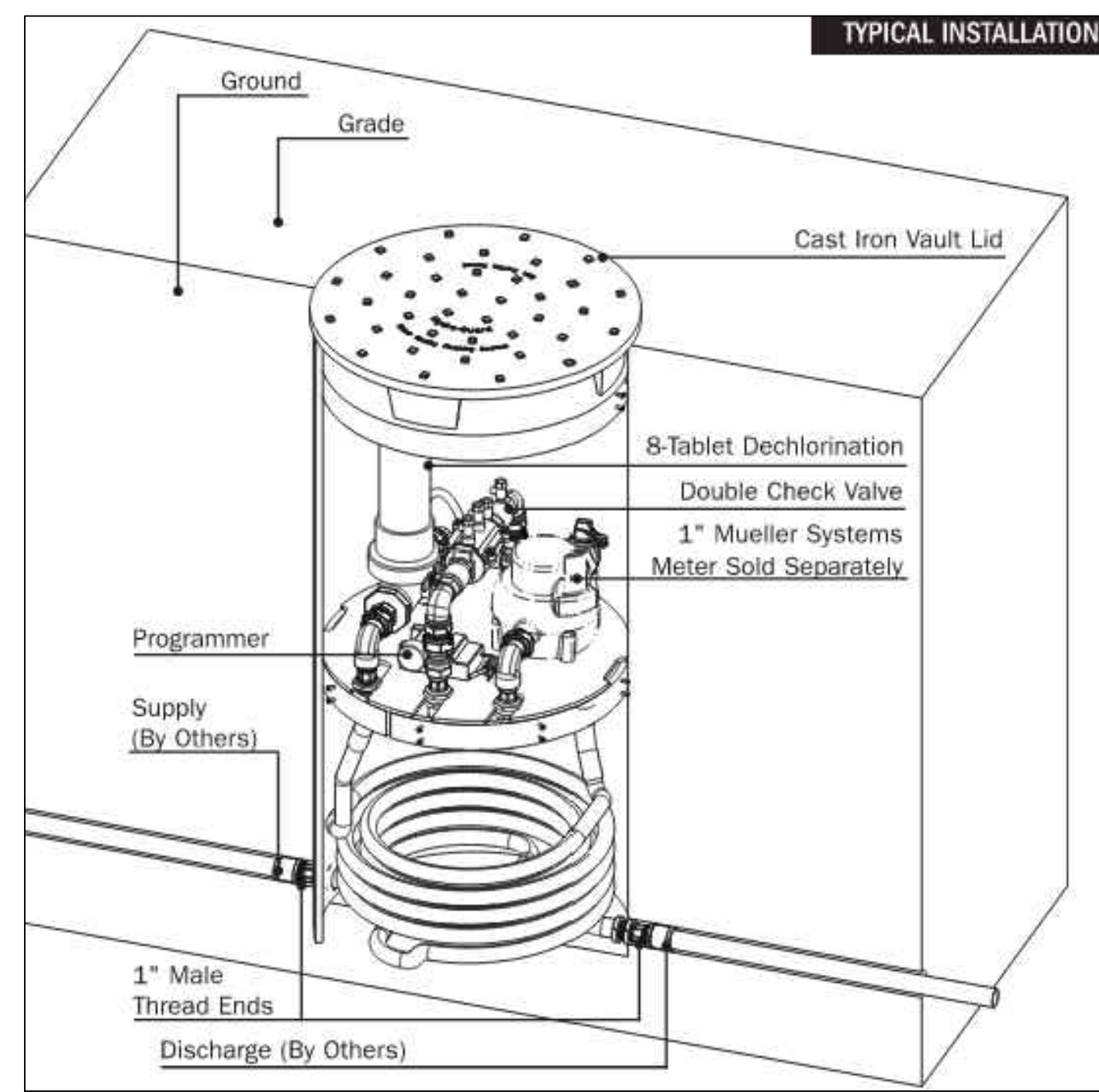


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Date	Revision
06/11/21	PER CITY COMMENTS - KJC
07/14/21	PER CITY COMMENTS - KJC
07/16/21	PER CITY COMMENTS - KJC
07/19/21	PER CITY COMMENTS - KJC
09/28/21	AS-BUILT - JEB

AUTOMATIC FLUSHING DEVICE WITH METER
N.T.S.



AUTOMATIC FLUSHING DEVICE SHALL BE EQUIPPED WITH A METER CAPABLE OF BEING EQUIPPED TO A 1" SERVICE. THE HOUSING SHALL BE A VAULT EQUIPPED WITH A FOAM INSULATED LID. ALL COMPONENTS SHALL BE LOCATED AT OR BELOW FROST DEPTH WITH THE ABILITY TO BE RAISED TO GRADE FOR SERVICING. FLUSHING DEVICE SHALL BE EQUIPPED WITH IN-LINE DECHLORINATION, THERMAL CONTROL VALVE, BACKFLOW DOUBLE CHECK VALVE, AND A 1" FLOW CONTROL VALVE. THE FLOW CONTROL VALVE SHALL CONTROL THE FLOW OF WATER THROUGH THE HYDRANT AND ITS DIAPHRAGM WITH THE EXTENSION AND RETRACTION OF A DC LATCHING SOLENOID.

UNIT MODEL SHALL BE HYDRO-GUARD HG-8 COLD CLIMATE AS MANUFACTURED BY MUELLER WATER PRODUCTS, INC. (1-800-423-1323), OR APPROVED EQUAL.

NOTE: FLUSH WATER LINES FREE OF DEBRIS BEFORE INSTALLATION

GENERAL NOTES AND DETAILS: WATER MAIN AND CEDAR RAPIDS CONSTRUCTION NOTES

JOCO 50 SUBDIVISION

SWISHER
JOHNSON COUNTY
IOWA

MMS CONSULTANTS, INC.
6385-034C0V-AB

Date: 04/19/21

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