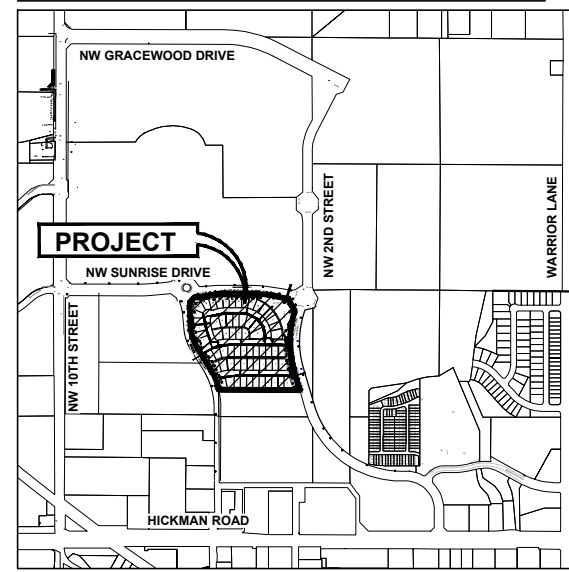


# CONSTRUCTION PLANS FOR:

# WAUKEE CROSSING PLAT 3

## WAUKEE, IOWA

### VICINITY MAP



WAUKEE, IOWA

### INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
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5	QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES
6	HYDRANT COVERAGE PLAN
7-8	GRADING PLAN
9-11	EROSION AND SEDIMENT CONTROL PLAN
12-19	PLAN AND PROFILE
20	SANITARY SEWER PLAN AND PROFILE
21-29	STORM SEWER PLAN AND PROFILE
30-33	INTERSECTION DETAILS
34	LANDSCAPE PLAN

### GENERAL LEGEND

PROPOSED	EXISTING
SECTION LINE	SANITARY MANHOLE
CENTER LINE	WATER VALVE BOX
RIGHT OF WAY	FIRE HYDRANT
PERMANENT EASEMENT	WATER CURB STOP
TEMPORARY EASEMENT	WELL
TYPE SW-501 STORM INTAKE	STORM SEWER MANHOLE
TYPE SW-503 STORM INTAKE	STORM SEWER SINGLE INTAKE
TYPE SW-505 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-506 STORM INTAKE	FLARED END SECTION
TYPE SW-513 STORM INTAKE	DECIDUOUS TREE
TYPE SW-401 STORM MANHOLE	CONIFEROUS TREE
TYPE SW-402 STORM MANHOLE	DECIDUOUS SHRUB
TYPE SW-301 SANITARY MANHOLE	CONIFEROUS SHRUB
STORM/SANITARY CLEANOUT	ELECTRIC POWER POLE
WATER VALVE	GUY ANCHOR
FIRE HYDRANT ASSEMBLY	STREET LIGHT
SIGN	POWER POLE W/ TRANSFORMER
DETECTABLE WARNING PANEL	UTILITY POLE W/ LIGHT
WATER CURB STOP	ELECTRIC BOX
STORM SEWER STRUCTURE NO.	ELECTRIC TRANSFORMER
STORM SEWER PIPE NO.	ELECTRIC MANHOLE OR VAULT
SANITARY SEWER STRUCTURE NO.	TRAFFIC SIGN
SANITARY SEWER PIPE NO.	TELEPHONE JUNCTION BOX
SANITARY SEWER WITH SIZE	TELEPHONE MANHOLE/VAULT
SANITARY SERVICE	TELEPHONE POLE
STORM SEWER	GAS VALVE BOX
STORM SERVICE	CABLE TV JUNCTION BOX
WATERMAIN WITH SIZE	CABLE TV MANHOLE/VAULT
WATER SERVICE	MAIL BOX
SAWCUT (FULL DEPTH)	BENCHMARK
SILT FENCE	SOIL BORING
USE AS CONSTRUCTED (UAC)	UNDERGROUND TV CABLE
TOP OF PROPOSED GROUND	GAS MAIN
MINIMUM OPENING ELEVATION	FIBER OPTIC
MINIMUM GRADE AT EXPOSED STRUCTURE	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

## AS-BUILT DRAWINGS

AS-BUILT PLANS ARE BASED ON SURVEYED INVERT ELEVATIONS AND INFORMATION SUPPLIED BY THE CONTRACTOR. CIVIL DESIGN ADVANTAGE TAKES NO RESPONSIBILITY FOR UNAUTHORIZED CHANGES TO THE PLANS WITHOUT CITY/OWNER KNOWLEDGE. FIELD VERIFICATION OF UTILITIES OR OTHER PLAN ELEMENTS IS ALWAYS RECOMMENDED.

### LEGAL DESCRIPTION

OUTLOT 'W', WAUKEE CROSSING PLAT 2, AN OFFICIAL PLAT IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA.  
PROPERTY CONTAINS 22.0 ACRES (958,327 SF)  
THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

### UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

### OWNER

HRC WAUKEE CROSSING LLC  
6900 WESTOWN PARKWAY  
WEST DES MOINES, IOWA 50266

### DEVELOPER

HUBBELL REALTY COMPANY  
CONTACT: STEVE MOSELEY  
6900 WESTOWN PARKWAY  
WEST DES MOINES, IOWA 50266  
PH. (515) 283-5190

### ENGINEER/ SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC  
CONTACT: EMILY HARDING  
4121 NW URBANDALE DRIVE  
URBANDALE, IOWA 50322  
PH: (515) 369-4400

### ZONING

EXISTING/PROPOSED: R-2  
ONE- AND TWO-FAMILY RESIDENTIAL DISTRICT

### PARKLAND DEDICATION

PARKLAND REQUIRED:  
SINGLE FAMILY: 67 UNITS \* 3  
PERSONS/UNIT \* 6.5 ACRES/1000  
PEOPLE = 1.31 AC

PARKLAND PROVIDED: FEE IN LIEU

### DATE OF SURVEY

DECEMBER 2021

### SUBMITTALS

FIRST SUBMITTAL: 03/08/2022  
SECOND SUBMITTAL: 03/22/2022  
THIRD SUBMITTAL: 04/05/2022  
FINAL SUBMITTAL: 04/22/2022  
REVISED: 06/06/2022  
AS-BUILT: 08/28/2023

### BULK REGULATIONS

R-2' ONE AND TWO FAMILY RESIDENTIAL DISTRICT ZONING REGULATIONS SHALL APPLY TO THIS AREA:  
A. PRINCIPAL PERMITTED USES FOR THIS AREA SHALL INCLUDE ONE AND TWO-FAMILY DWELLINGS.  
B. MINIMUM LOT AREA: 8,000 SQUARE FEET FOR EACH SINGLE-FAMILY DWELLING; 10,000 SQUARE FEET FOR EACH TWO-FAMILY DWELLING. WHERE PUBLIC SEWER FACILITIES ARE NOT AVAILABLE, NOT LESS THAN 20,000 SQUARE FEET FOR EACH SINGLE-FAMILY DWELLING, 40,000 SQUARE FEET FOR EACH TWO FAMILY DWELLING. IF A BUILDING IS A SPLIT LEVEL, EACH LEVEL SHALL BE A MINIMUM 350 SQUARE FEET. IF A BUILDING IS A SPLIT FOYER, THE SQUARE FOOTAGE SHALL BE A MINIMUM OF 950 SQUARE FEET PER STORY.  
C. MINIMUM FLOOR AREA: SINGLE STORY SINGLE-FAMILY - 950 SQUARE FEET. SINGLE STORY TWO-FAMILY - 750 SQUARE FEET PER UNIT. IF BUILDING IS TWO OR MORE STORIES, MINIMUM SQUARE FOOTAGE SHALL BE 1,250 SQUARE FEET FOR SINGLE-FAMILY WITH A MINIMUM OF 600 SQUARE FEET ON THE FIRST FLOOR AND 1,050 SQUARE FEET FOR TWO-FAMILY WITH A MINIMUM OF 500 SQUARE FEET ON THE FIRST FLOOR. IF A BUILDING IS SPLIT LEVEL, EACH LEVEL SHALL BE A MINIMUM 350 SQUARE FEET. IF A BUILDING IS A SPLIT FOYER, THE SQUARE FOOTAGE SHALL BE A MINIMUM OF 950 SQUARE FEET PER STORY.  
D. LOT WIDTH: SINGLE-FAMILY DWELLING - 65 FEET. TWO-FAMILY DWELLING - 80 FEET. WHERE PUBLIC SEWER IS NOT AVAILABLE - 100 FEET.  
E. FRONT YARD: 30 FEET; WHEN FRONTING ON THE RIGHT-OF-WAY OF A STREET, THE FRONT YARD SHALL BE MEASURED FROM THE PROPOSED RIGHT-OF-WAY LINE.  
F. SIDE YARD: A TOTAL OF 15 FEET; ONE SIDE WAY BE REDUCED TO NOT LESS THAN 7 FEET; 15 FEET FOR ANY OTHER PRINCIPAL BUILDING.  
G. REAR YARD: DWELLING - 30 FEET ANY OTHER PRINCIPAL BUILDING - 40 FEET  
H. MAXIMUM BUILDING HEIGHT: PRINCIPAL BUILDING - 40 FEET. ACCESSORY BUILDING - 14 FEET.  
I. MAXIMUM STORIES: PRINCIPAL BUILDING - 3 STORIES. ACCESSORY BUILDING - 1 STORY

### DEVELOPMENT SCHEDULE

BEGIN: SPRING 2022  
END: FALL 2022

### DEVELOPMENT SUMMARY

R-2 RESIDENTIAL = 22.00 ACRES (958,327 SQUARE FEET)  
-LOTS 1-67, AND OUTLOT 'Z'

**CIVIL DESIGN ADVANTAGE**  
4121 NW URBANDALE DRIVE URBANDALE, IOWA 50322  
PH: (515) 369-4400 Fax: (515) 369-4410  
PROJECT NO. 2008.462

**IOWA ONE CALL**  
1-800-292-8989  
www.iowaonecall.com

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

*Emily N. Harding* 8/28/2023  
EMILY N. HARDING, P.E. DATE

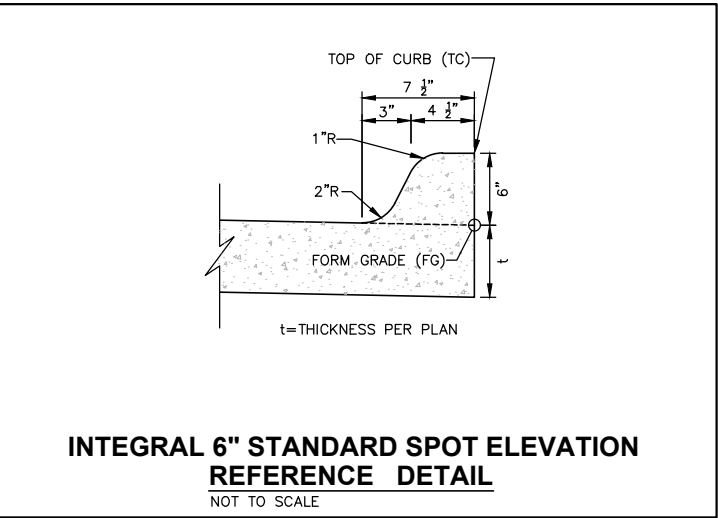
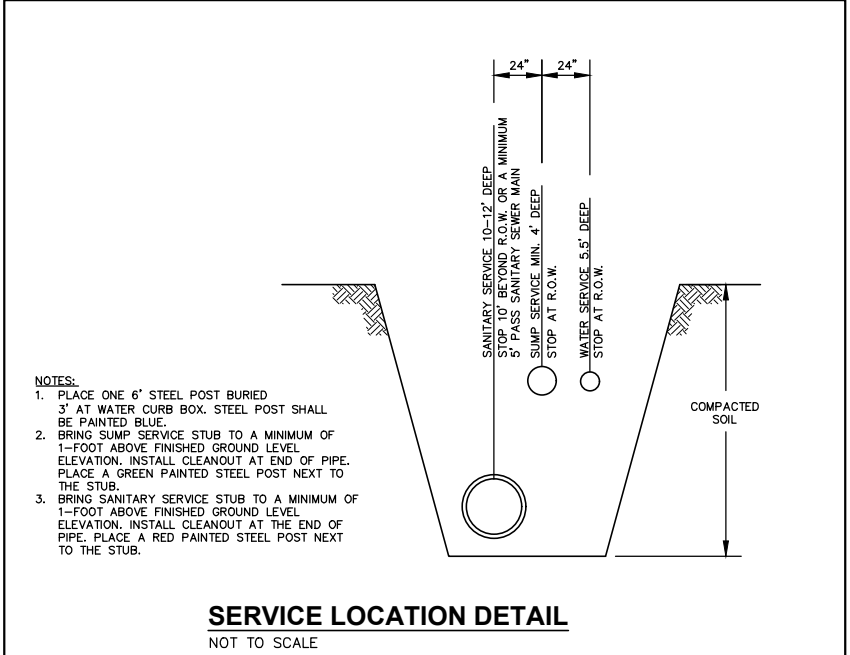
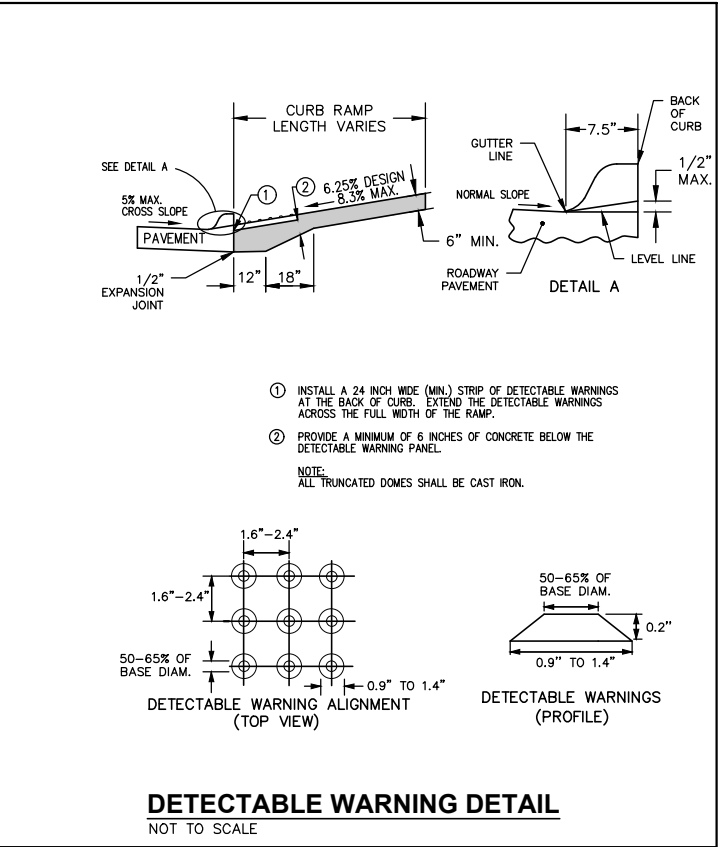
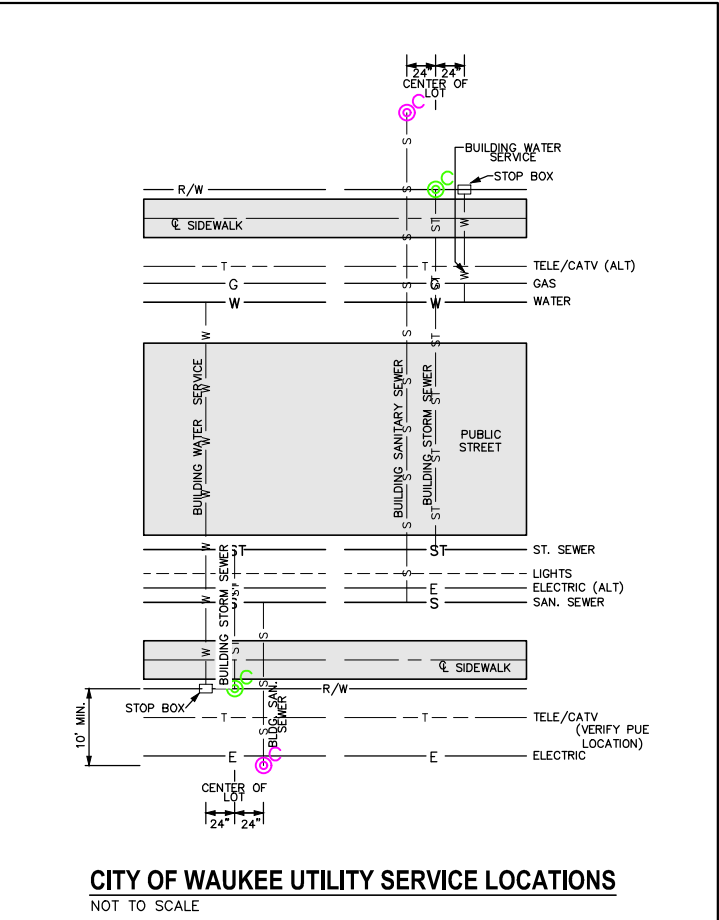
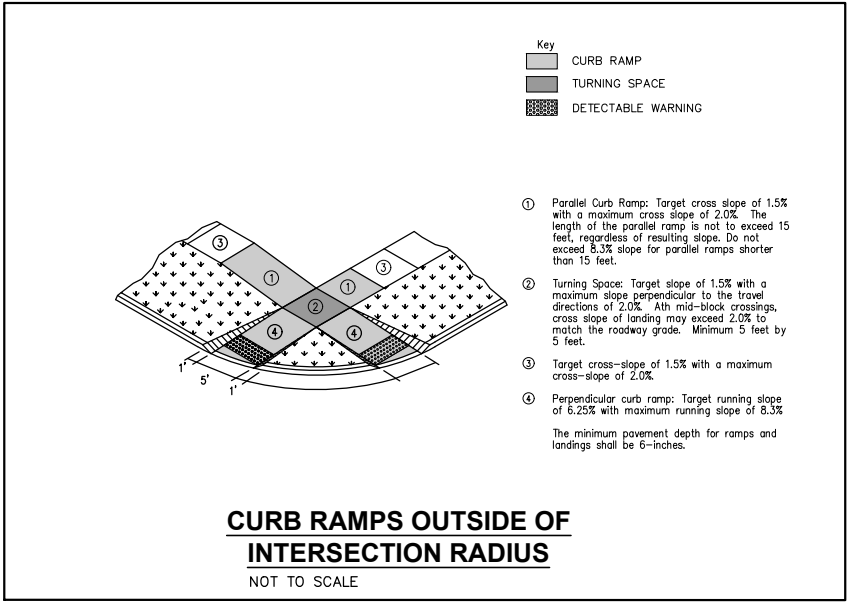
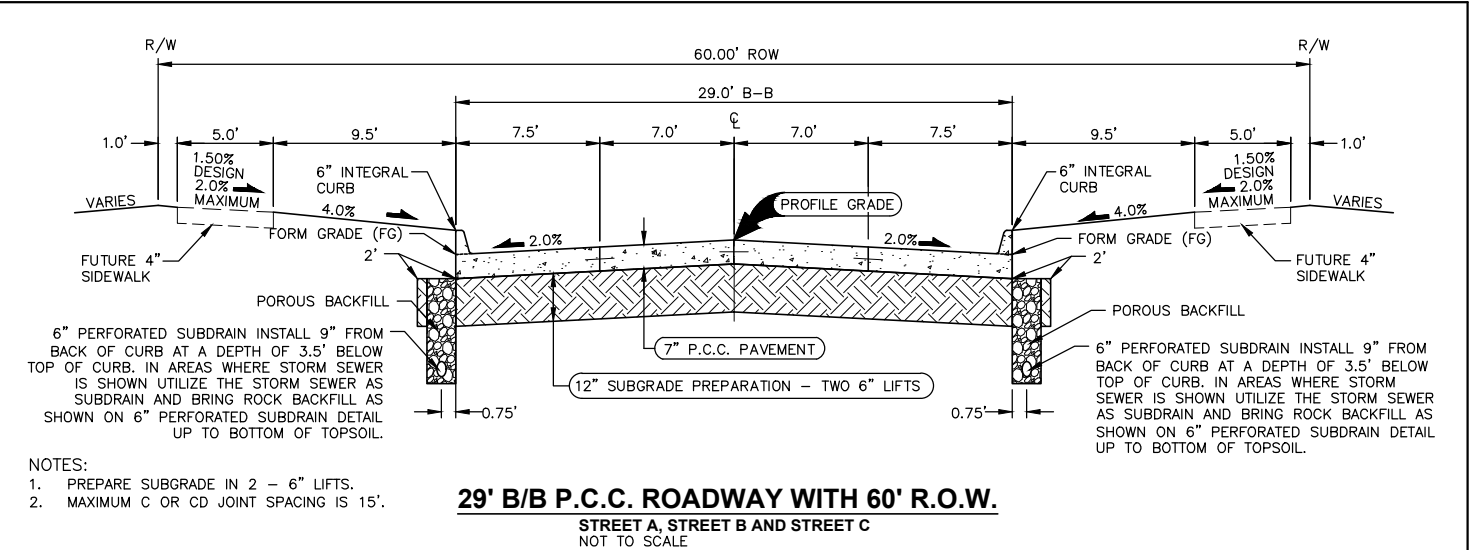
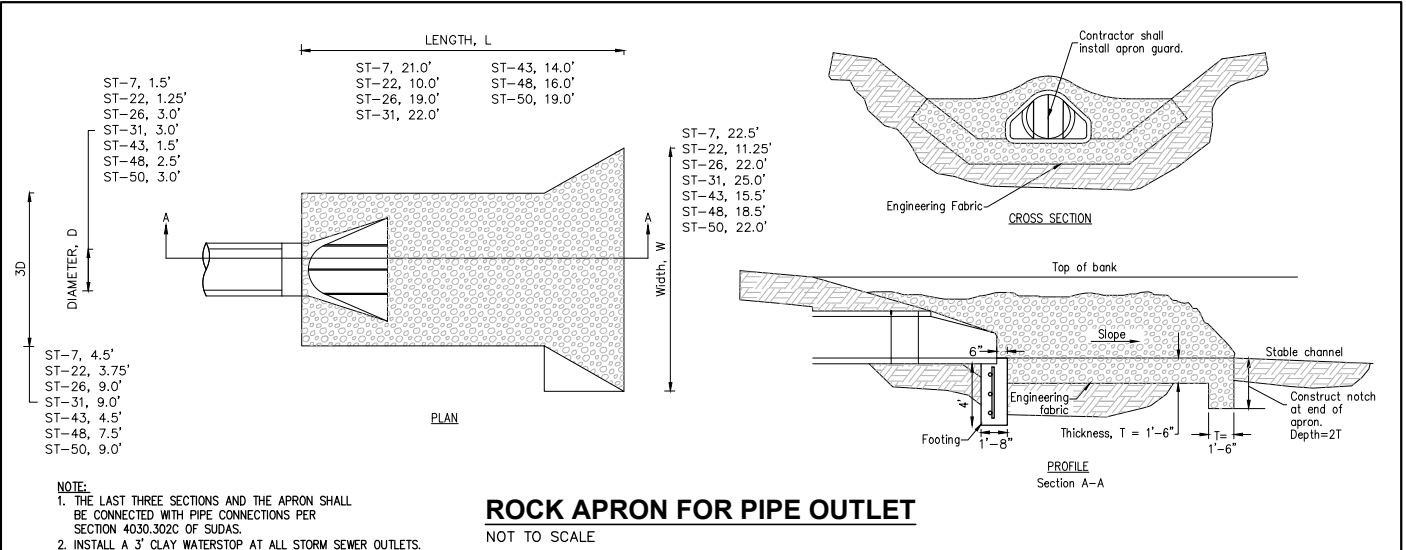
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SHEETS 1-33

ALL CONSTRUCTION SHALL CONFORM TO THE PROJECT SPECIFICATIONS AND THE SOILS REPORT PREPARED BY CONSTRUCTION MATERIALS TESTING (CMT), (PN 212064BRD), DATED JUNE 25, 2021.

THIS PROJECT REQUIRES AN IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

THE 2020 CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2022 SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.



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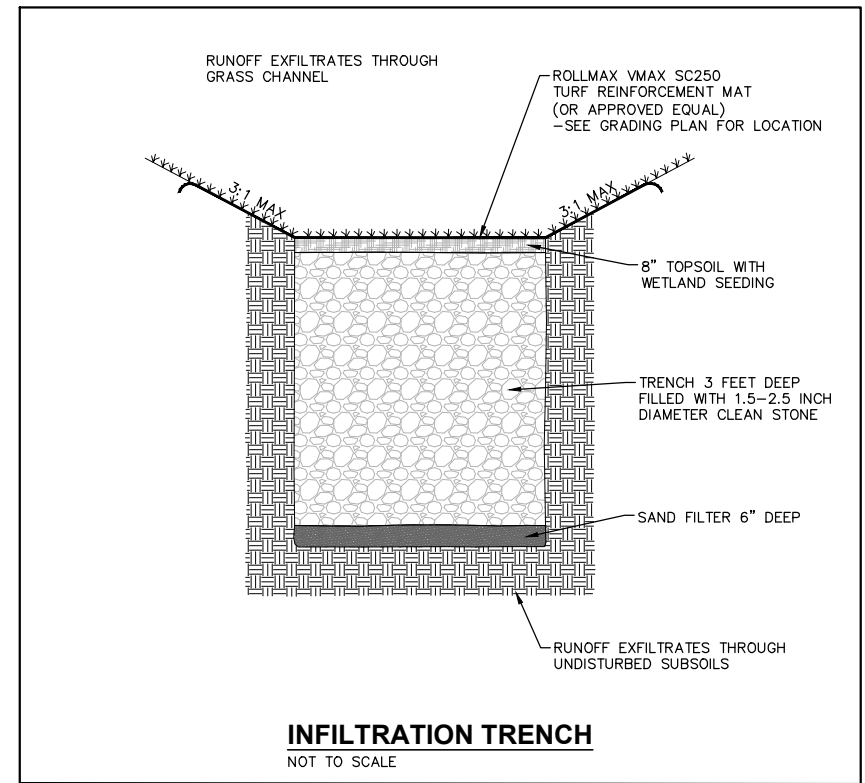
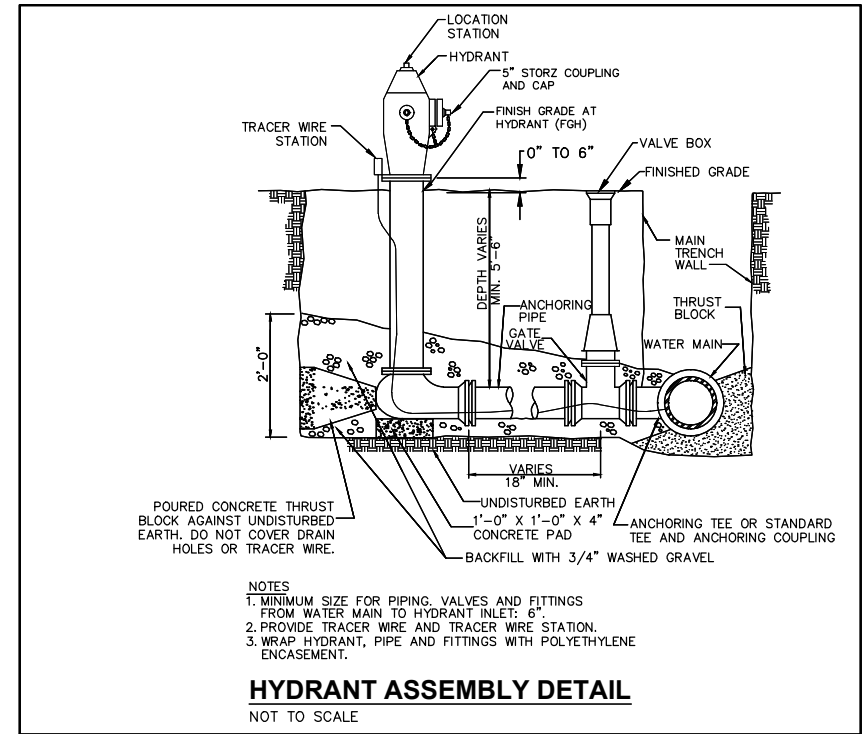
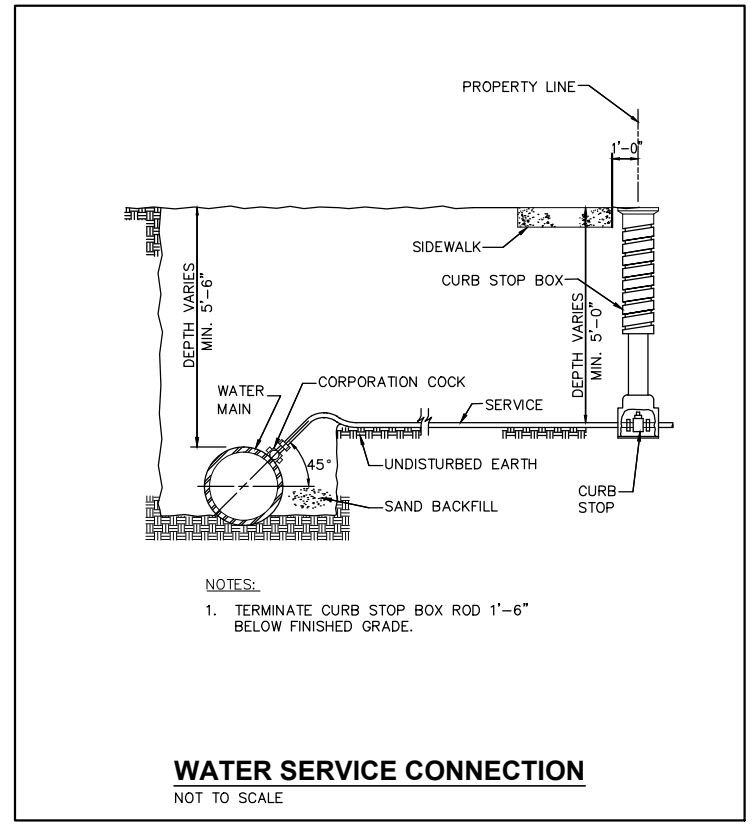
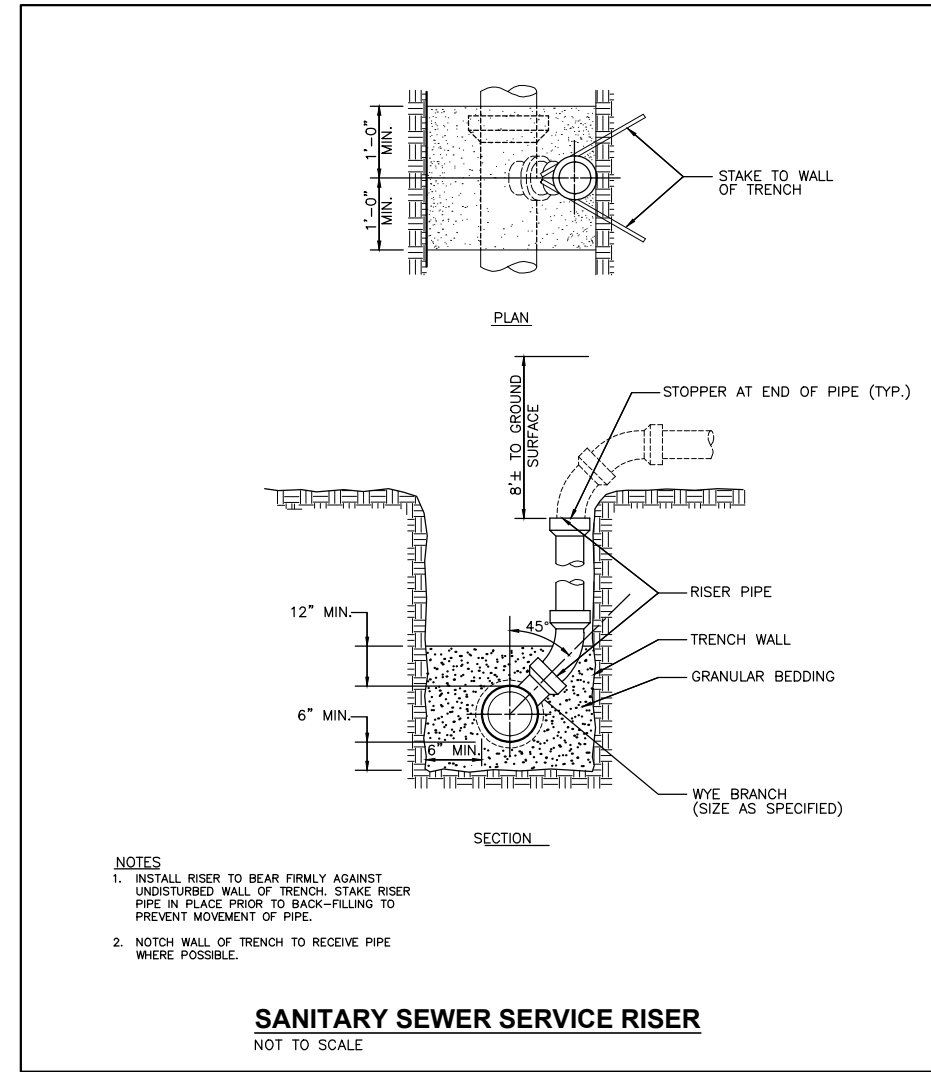
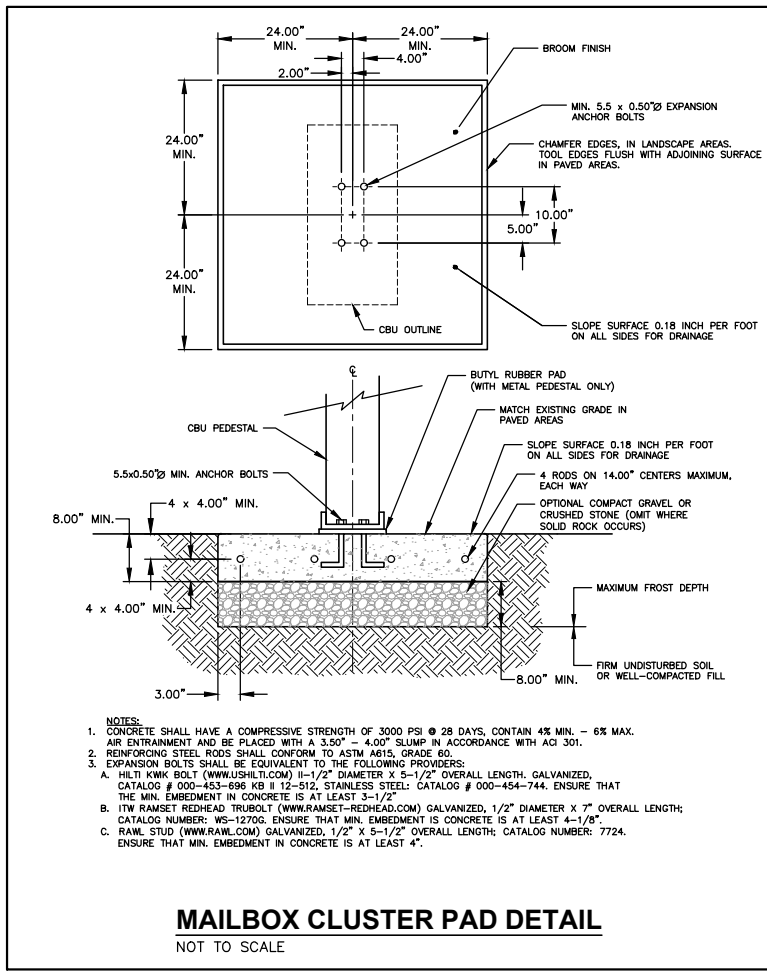
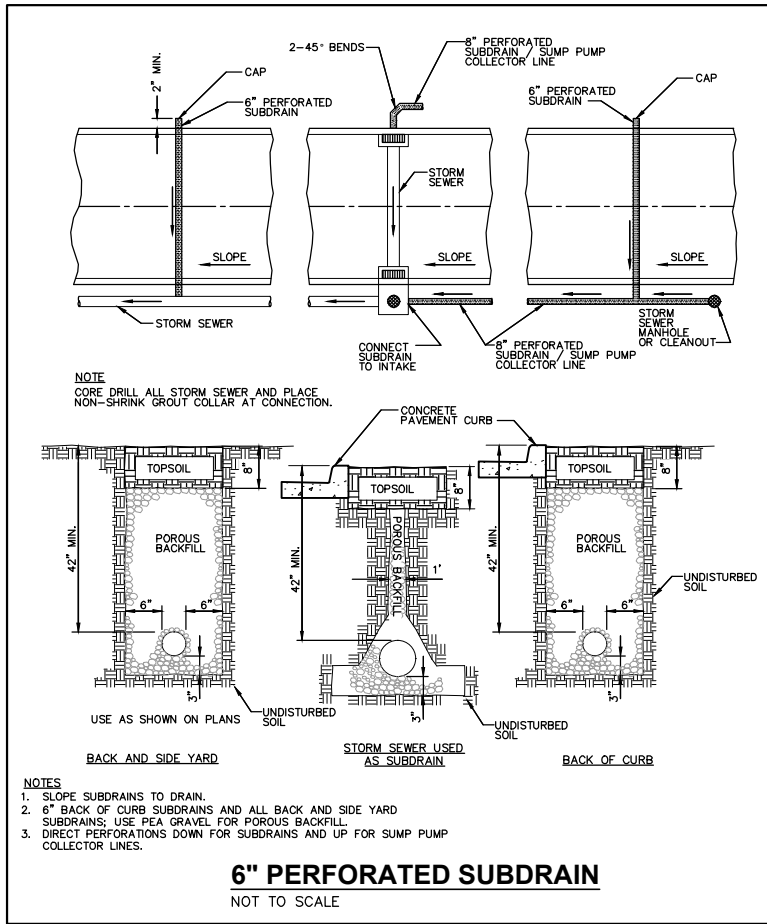
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AS-BUILTS	07-05-2022
REVISED	06-06-2022
FINAL SUBMITTAL	04-22-2022
THIRD SUBMITTAL	04-05-2022
SECOND SUBMITTAL	03-22-2022

4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

**ESA**  
 CIVIL DESIGN ADVANTAGE  
 WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**TYPICAL SECTIONS AND DETAILS**

2 / 34  
 2008.462



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REVISED	06-06-2023
FINAL SUBMITTAL	04-22-2023
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REVISIONS  
 AS-BUILTS  
 REVISED  
 FINAL SUBMITTAL  
 THIRD SUBMITTAL  
 SECOND SUBMITTAL

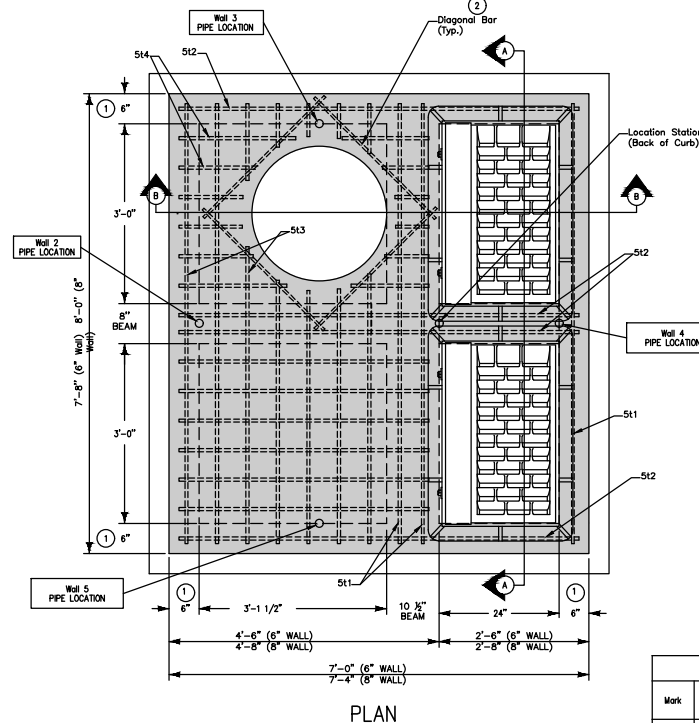
4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

TECH: ENH  
 ENGINEER: ENH

**ESA**  
 CIVIL DESIGN ADVANTAGE  
 WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**TYPICAL SECTIONS AND DETAILS**

3 / 34  
 2008.462

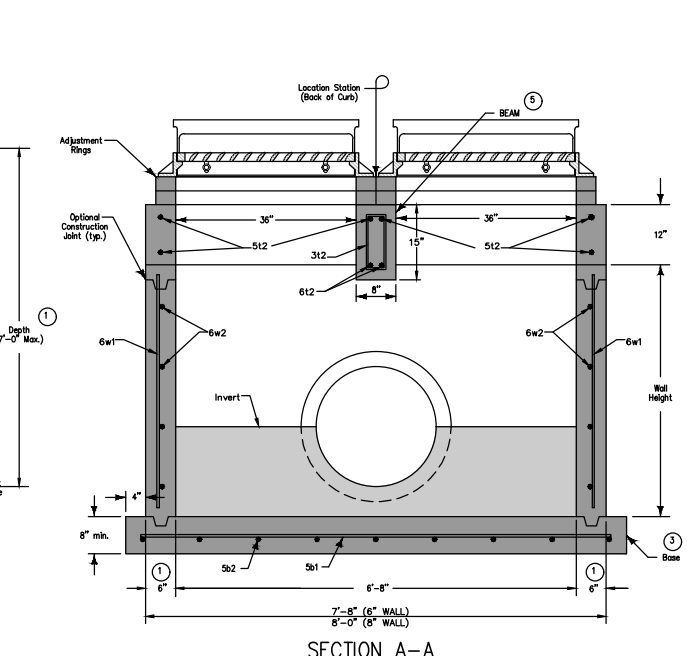
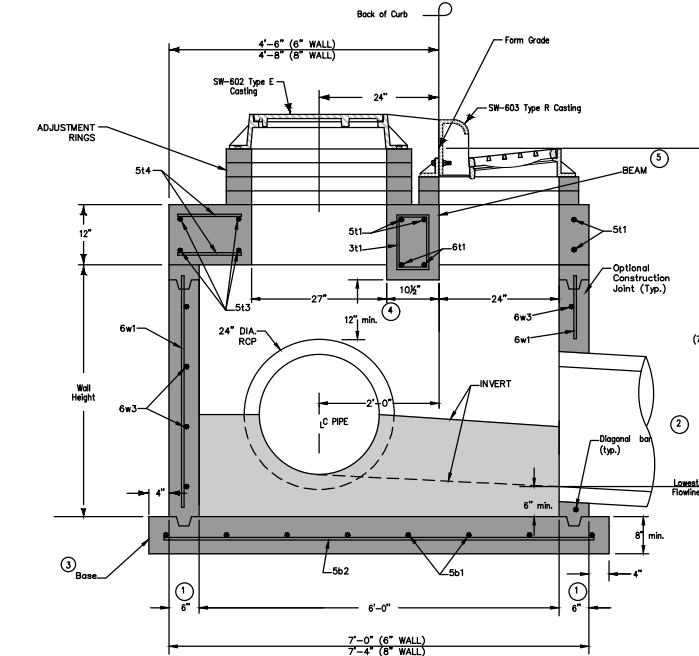


Wall	Max. Dia.
2	48"
3	36"
4	48"
5	24"

Mark	Size	Location	Shape	Count		Length		Spacing	
				6" Wall	8" Wall	6" Wall	8" Wall	6" Wall	8" Wall
3H1	3	Top	□	7	7	3'-2" +	3'-2" +	12"	12"
3I2	3	Top	□	7	7	2'-10" +	2'-10" +	10 3/4"	10 3/4"
5B1	5	Base	□	8	8	7'-10"	8'-2"	12 1/2"	12 1/2"
5B2	5	Base	□	9	9	7'-2"	7'-6"	11 3/4"	12 1/4"
6W1	6	Walls	□	28	28	Wall Height minus 4"	12"	12"	12"
6W2	6	Walls	□	Varies	Varies	6'-8"	7'-0"	12"	12"
6W3	6	Walls	□	Varies	Varies	7'-4"	7'-8"	12"	12"
5I1	5	Top	□	4	4	7'-4"	7'-8"	See Detail	See Detail
5I2	5	Top	□	6	6	6'-8"	7'-0"	See Detail	See Detail
5I3	5	Top	□	14	14	7'-4"	7'-8"	6 1/2"	6 1/2"
5I4	5	Top	□	24	24	4'-2"	4'-4"	5 1/2"	6"
8I1	8	Top	□	2	2	7'-4"	7'-8"	See Detail	See Detail
8I2	8	Top	□	2	2	6'-8"	7'-0"	See Detail	See Detail

- Use 8" wall option for intake depths greater than 7'-0" and less than 10'-0".
- Install four #5 diagonal bars at manhole opening and at all pipe openings.
- 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.
- 12 inch minimum wall height above all pipes.
- Construct 8"x15" and 10 1/2"x15" P.C. concrete beams integral with 12" P.C. concrete flat top.

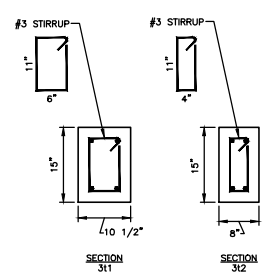
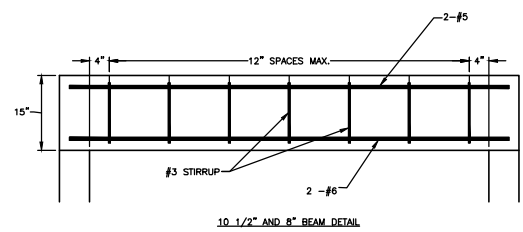
\* Includes 4" for stirrup hook



ST-52  
 FL 30" (SE) = 1006.55  
 FL 24" (W) = 1006.73  
 FL 36" (N) = 1006.53

**MODIFIED SW-506 (ST-52)**  
 DOUBLE GRATE INTAKE WITH MANHOLE

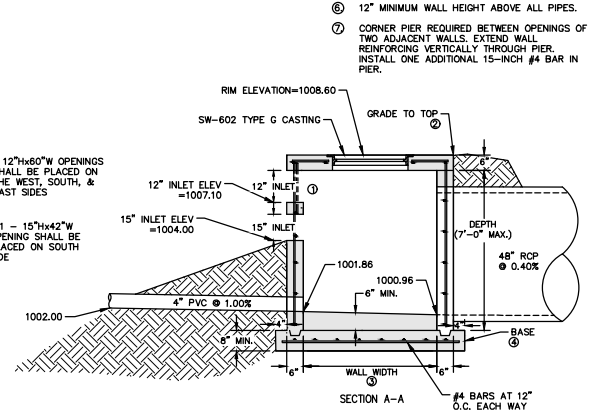
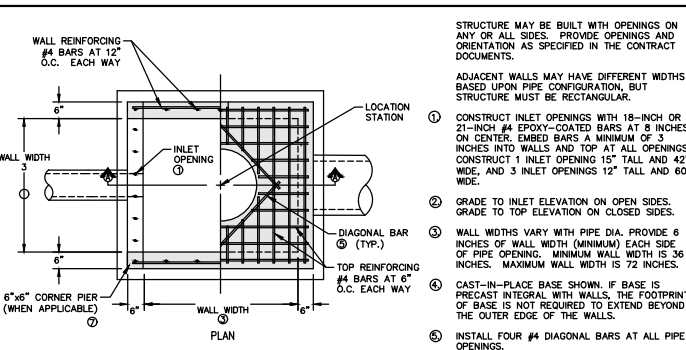
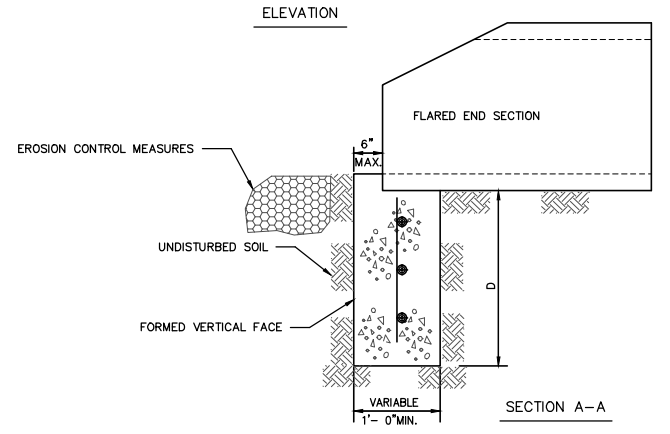
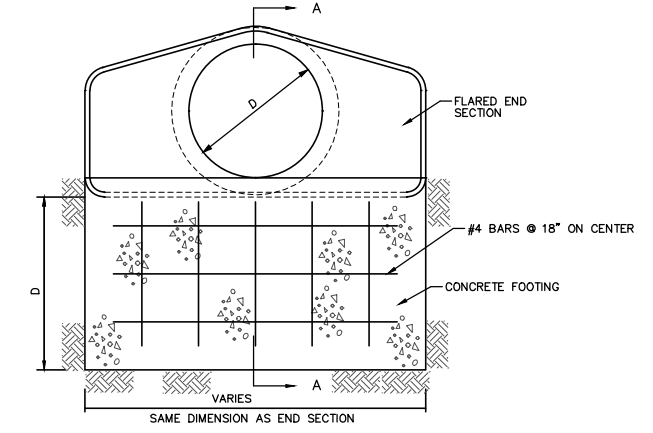
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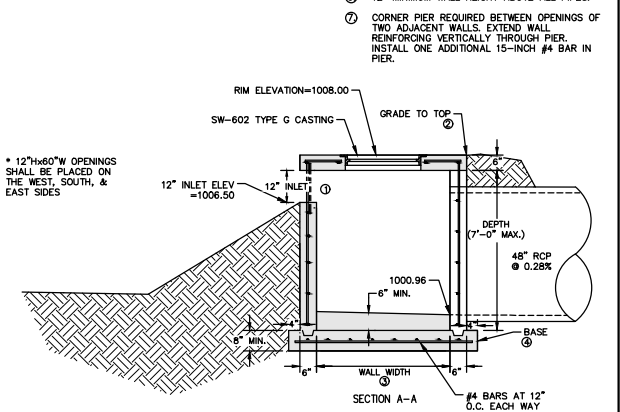
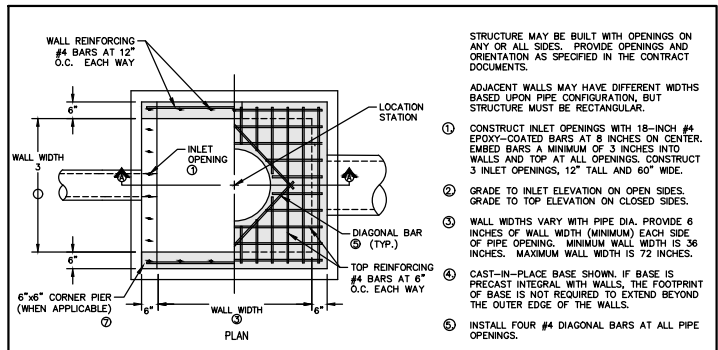
D	W	Mark	Size	Length	Count
12"	2'-4"	4F1	4	2'-0"	3
15"	2'-10"	4F1	4	2'-8"	3
18"	3'-5"	4F1	4	3'-1"	3
24"	4'-6"	4F1	4	4'-2"	3
30"	5'-7"	4F1	4	5'-3"	3
36"	6'-8"	4F1	4	6'-4"	3
42"	7'-3"	4F1	4	6'-11"	3
48"	7'-10"	4F1	4	7'-6"	3
54"	8'-5"	4F1	4	8'-1"	3
60"	8'-11"	4F1	4	8'-7"	3
66"	8'-11"	4F1	4	8'-7"	3
72"	10'-0"	4F1	4	9'-8"	3
78"	10'-7"	4F1	4	10'-3"	3
84"	11'-1"	4F1	4	10'-9"	3

- NOTES:
- D=DIFFERENCE IN ELEVATION BETWEEN FLARED END INVERT AND DRAINAGE WAY CHANNEL FLOW LINE 300 FT DOWNSTREAM OF FLARED END; MINIMUM D=42"
  - INSTALL 3' WIDE CLAY WATERSTOP AT FLARED END SECTION PIPE JOINT.
  - TRASH GUARDS ARE NOT ALLOWED ON PIPES 48" OR LARGER.

**RCP APRON FOOTING DETAIL**  
 NOT TO SCALE



**6'x6' MODIFIED SW-513 INTAKE (ST-2)**  
 NOT TO SCALE



**6'x6' MODIFIED SW-513 INTAKE (ST-5)**  
 NOT TO SCALE

DATE: 08-28-2023  
 AS-BUILTS: 07-05-2022  
 REVISED: 06-06-2022  
 FINAL SUBMITTAL: 04-22-2022  
 THIRD SUBMITTAL: 04-05-2022  
 SECOND SUBMITTAL: 03-22-2022

4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

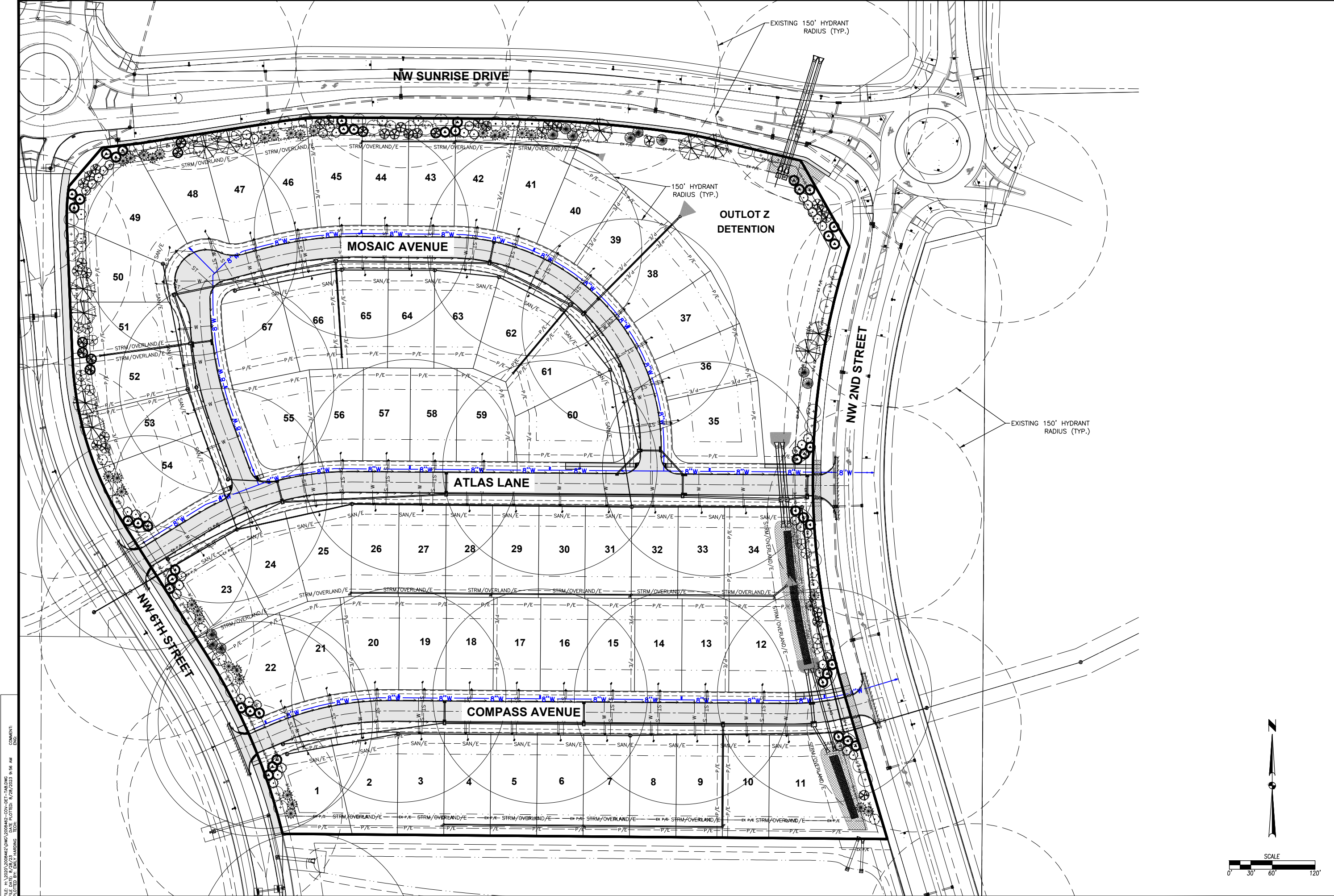
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 ENGINEER: ENH

**ESA**  
 CIVIL DESIGN ADVANTAGE  
 WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**TYPICAL SECTIONS AND DETAILS**

4  
 34  
 2008.462





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REVISIONS	DATE
AS-BUILTS	08-28-2023
NW 6TH ST RAW GRADES	07-05-2022
REVISED	06-06-2022
FINAL SUBMITTAL	04-22-2022
THIRD SUBMITTAL	04-05-2022
SECOND SUBMITTAL	03-22-2022

4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400  
 ENGINEER: ENH  
 TECH:



WAUKEE, IOWA  
 CIVIL DESIGN ADVANTAGE

**WAUKEE CROSSING PLAT 3**  
**HYDRANT COVERAGE PLAN**

GRADING NOTES

- 1. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE THE WAUKEE ENGINEERING DEPARTMENT WITH A CERTIFIED AS-BUILT GRADING PLAN PRIOR TO ACCEPTANCE OF IMPROVEMENTS.
- 2. REMOVE ANY FARM FENCING ON THE PROPERTY AS PART OF THE IMPROVEMENTS.

AREA OF DISTURBANCE = 22.6 AC

TOP OF POND = 1010.00  
1009.67

OVERFLOW ELEVATION = 1008.50  
1008.49

INSTALL APPROXIMATELY 240 SY OF ROLLMAX VMAX SC250 TURF REINFORCEMENT MAT AT OVERFLOW

TOP OF POND = 1010.00  
1009.73

DATE	REVISIONS
08-28-2023	AS-BUILTS
07-05-2022	NW 6TH ST RW GRADES
06-06-2022	REVISED
04-22-2022	FINAL SUBMITTAL
04-05-2022	THIRD SUBMITTAL
03-22-2022	SECOND SUBMITTAL

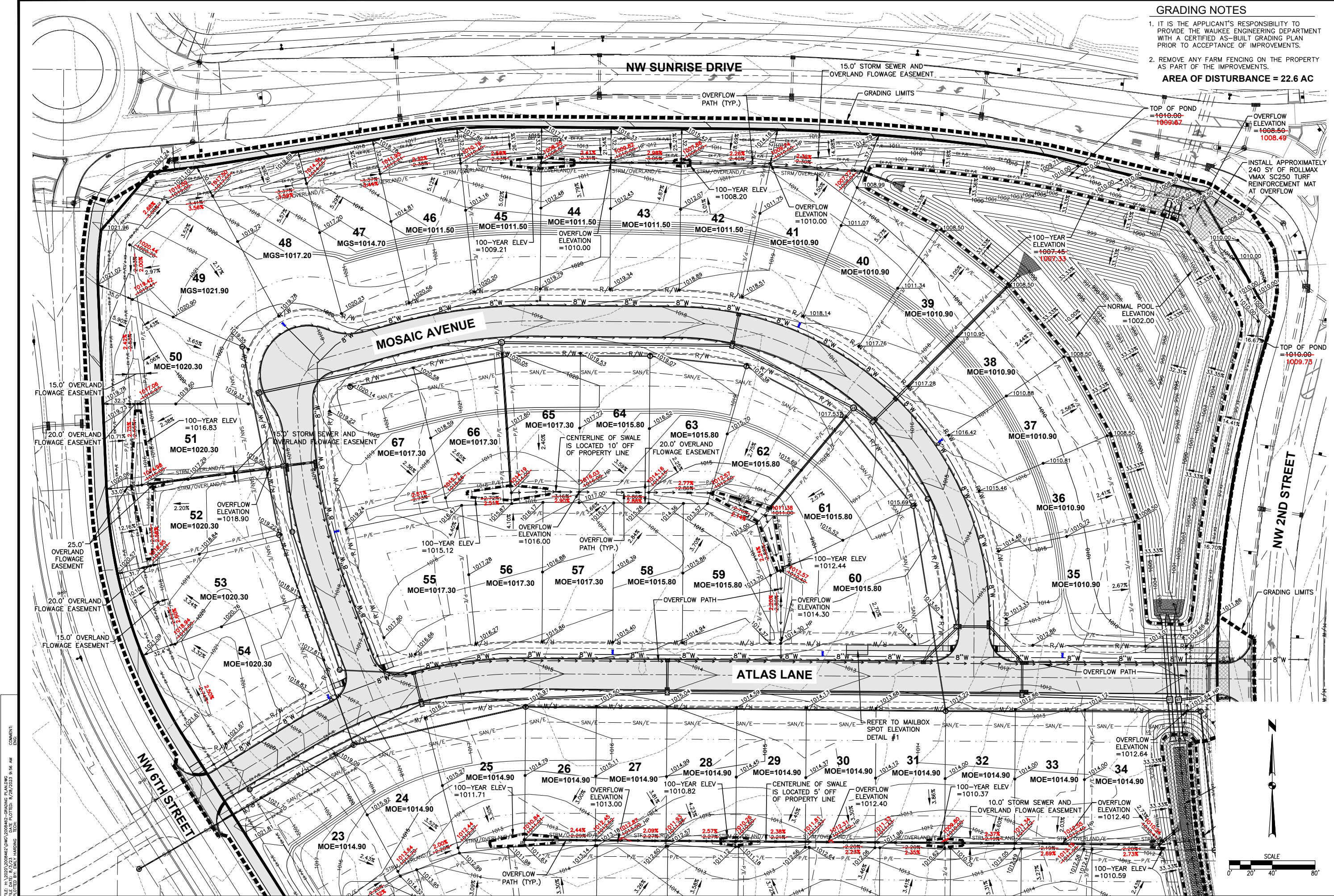
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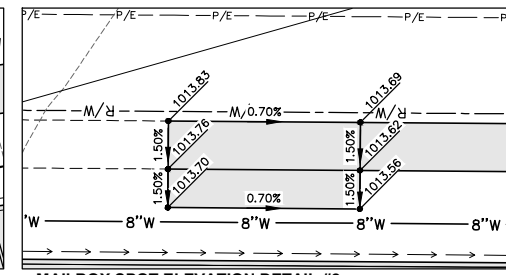
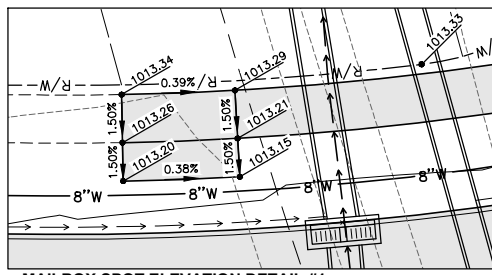
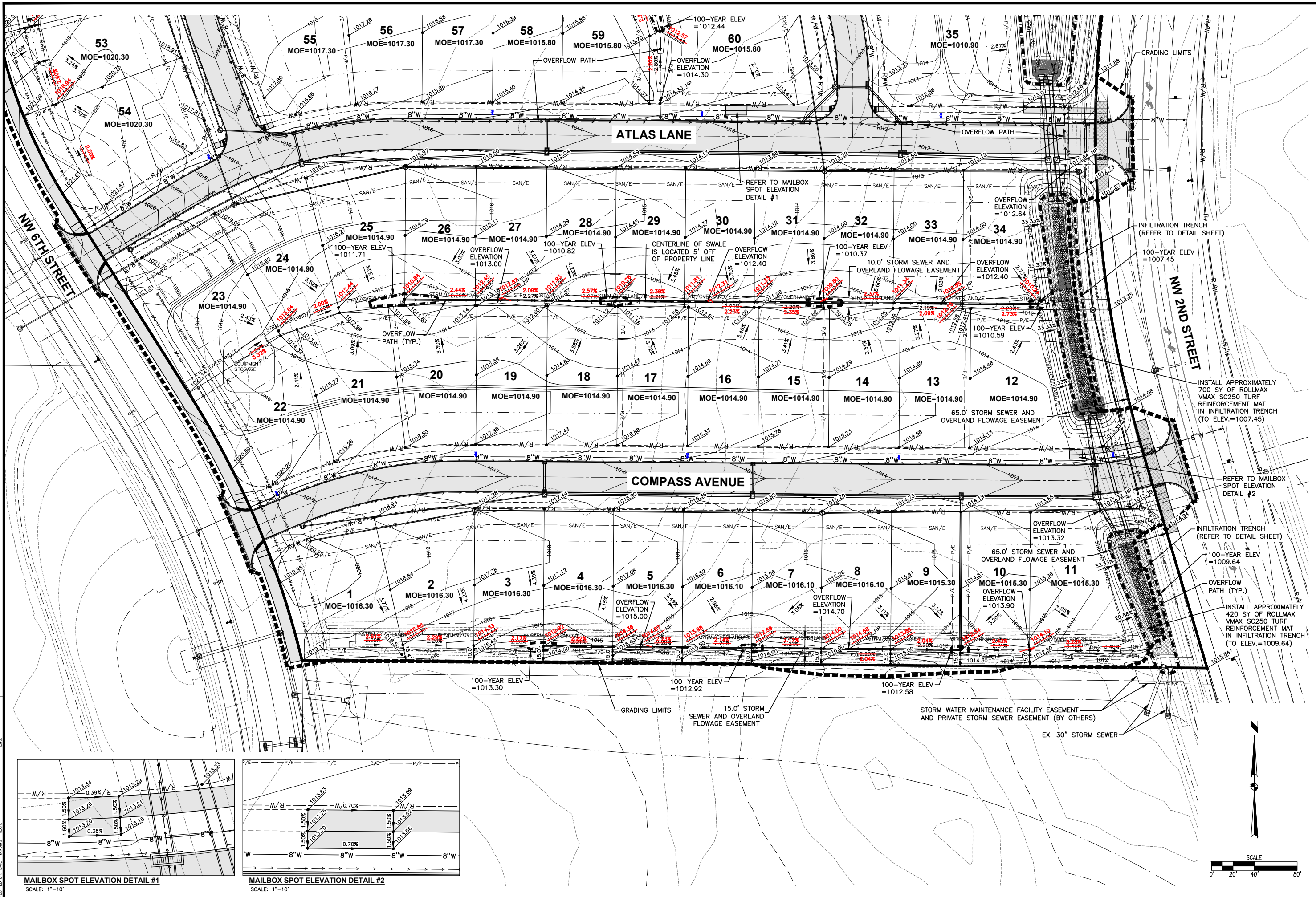
CIVIL DESIGN ADVANTAGE  
WAUKEE, IOWA

WAUKEE CROSSING PLAT 3  
GRADING PLAN

7  
34  
2008.462



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DRAWN: ENR  
CHECKED: ENR



DATE	REVISIONS
08-28-2023	AS-BUILTS
07-05-2023	NW 6TH ST RW GRADES
06-06-2022	REVISED
04-22-2022	FINAL SUBMITTAL
04-05-2022	THIRD SUBMITTAL
03-22-2022	SECOND SUBMITTAL

4121 NW URBANDALE DRIVE  
URBANDALE, IA 50322  
PHONE: (515) 369-4400

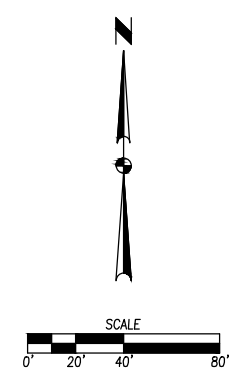


WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**GRADING PLAN**

ENGINEER: ENH

TECH: ENH



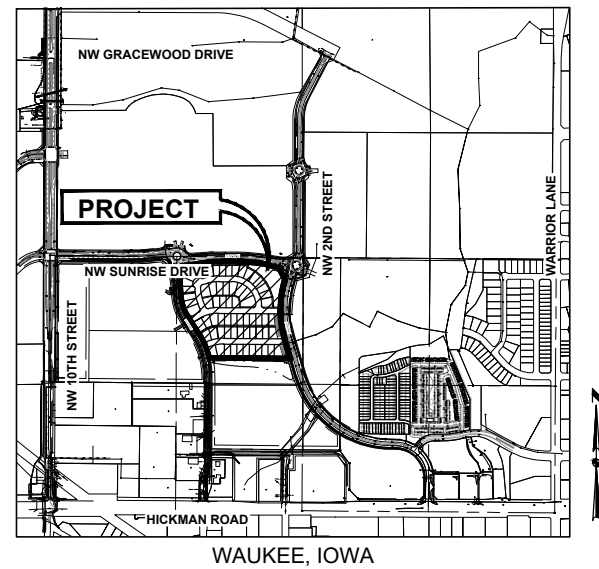
# WAUKEE CROSSING PLAT 3

## EROSION AND SEDIMENT CONTROL PLAN

REVISIONS	DATE
AS-BUILTS	08-28-2023
NW 6TH ST RAW GRADES	07-05-2022
REVISED	06-06-2022
FINAL SUBMITTAL	04-22-2022
THIRD SUBMITTAL	04-05-2022
SECOND SUBMITTAL	03-22-2022

### VICINITY MAP

NOT TO SCALE



### STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	7,500
2	SEEDING, FERTILIZING, AND MULCHING	AC	19.7
3	WETLAND SEEDING *	AC	0.1
4	INLET PROTECTION DEVICES	EA	24
5	CONCRETE WASHOUT PIT	EA	1
6	TEMPORARY SEDIMENT BASIN	EA	1
7	ROLLMAX VMAX SC250 TRM	SY	1,360

\* WETLAND SEEDING MIX PER SUDAS SPECIFICATIONS

### NOTES

- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
- DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- SHOULD A TEMPORARY SEED MIX BE REQUIRED TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENTS IT SHALL BE A SUDAS TYPE 4 TEMPORARY SEED MIX.
- THE INFILTRATION TRENCHES SHALL BE CONSTRUCTED AT THE END OF THE CONSTRUCTION OF THE PUBLIC IMPROVEMENTS, BEFORE HOME CONSTRUCTION. CONTRACTOR SHALL ENSURE THAT THE INFILTRATION TRENCHES ARE SURROUNDED WITH EROSION CONTROL TO PROTECT THEM FROM SILT.
- NO STANDPIPES ARE BEING SHOWN ON THE TEMPORARY SEDIMENT BASINS. WATER RELEASES FROM THE POND FROM THE SURFACE. THE LENGTH OF THE POND AND DISTANCE TO THE OUTLET STRUCTURES SHOULD BE SUFFICIENT TO ALLOW ANY SEDIMENT TO SETTLE PRIOR TO LEAVING THE POND.

### DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF LITTLE WALNUT CREEK	
TOTAL AREA DISTURBED TO DISCHARGE POINT=22.56 ACRES	
STORAGE VOLUME REQUIRED (22.56 ACRES*3600 CU FT)	81,216 CU FT
VOLUME PROVIDED IN SILT FENCE (7,500 LF @ 4.5 CU FT/LF OF FENCE)	33,750 CU FT
VOLUME PROVIDED IN TSB #1	67,386 CU FT
TOTAL VOLUME PROVIDED	101,136 CU FT

### SWPPP LEGEND

DRAINAGE ARROW		AREA TO BE SEEDED	
GRADING LIMITS		STRAW MAT	
FILTER SOCK		UNDISTURBED AREA	
SILT FENCE		RIP-RAP	
DITCH CHECK		GRAVEL ENTRANCE	
INLET PROTECTION		STAGING AREA	
PORTABLE RESTROOM		TEMPORARY SEDIMENT BASIN	
TEMPORARY STANDPIPE			
CONCRETE WASHOUT PIT			

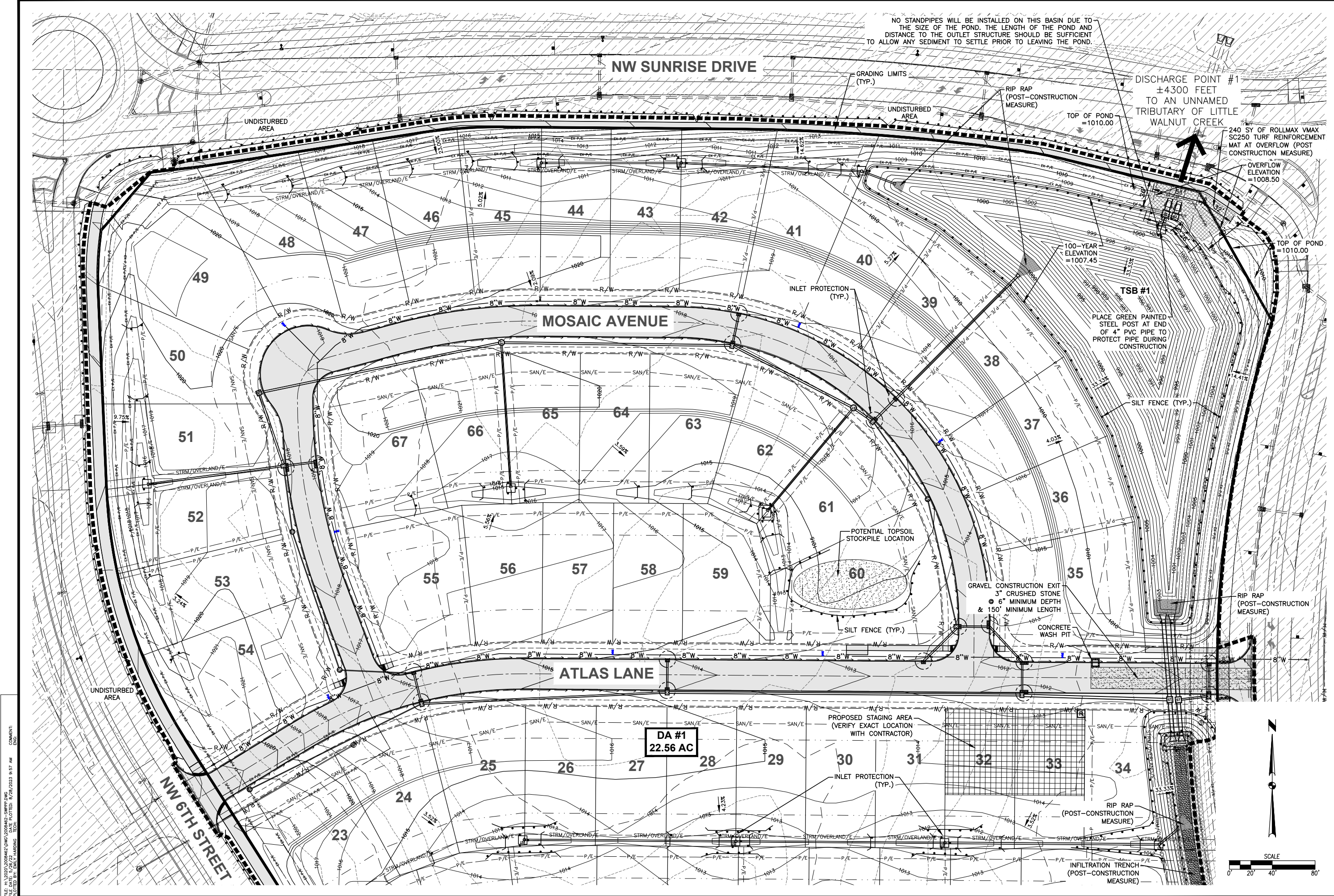
4121 NW URBANDALE DRIVE  
URBANDALE, IA 50322  
PHONE: (515) 369-4400

ENGINEER: ENH  
TECH:



WAUKEE, IOWA

WAUKEE CROSSING PLAT 3  
EROSION AND SEDIMENT CONTROL PLAN



NO STANDPIPES WILL BE INSTALLED ON THIS BASIN DUE TO THE SIZE OF THE POND. THE LENGTH OF THE POND AND DISTANCE TO THE OUTLET STRUCTURE SHOULD BE SUFFICIENT TO ALLOW ANY SEDIMENT TO SETTLE PRIOR TO LEAVING THE POND.

DISCHARGE POINT #1  
±4300 FEET  
TO AN UNNAMED  
TRIBUTARY OF LITTLE  
WALNUT CREEK

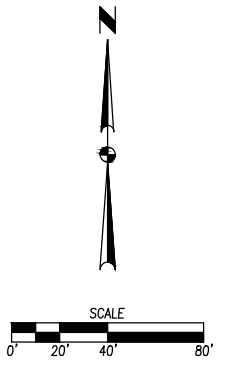
240 SY OF ROLLMAX VMAX  
SC250 TURF REINFORCEMENT  
MAT AT OVERFLOW (POST  
CONSTRUCTION MEASURE)

100-YEAR  
ELEVATION  
=1007.45

TSB #1  
PLACE GREEN PAINTED  
STEEL POST AT END  
OF 4" PVC PIPE TO  
PROTECT PIPE DURING  
CONSTRUCTION

GRAVEL CONSTRUCTION EXIT  
3" CRUSHED STONE  
6" MINIMUM DEPTH  
& 150' MINIMUM LENGTH

DA #1  
22.56 AC



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DATE: 8/24/2023 9:57 AM  
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07-05-2022	NW 6TH ST RW GRADES
06-06-2022	REVISED
04-22-2022	FINAL SUBMITTAL
04-05-2022	THIRD SUBMITTAL
03-22-2022	SECOND SUBMITTAL

4121 NW URBANDALE DRIVE  
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PHONE: (515) 369-4400

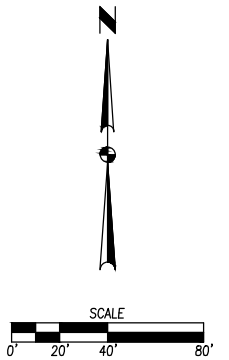
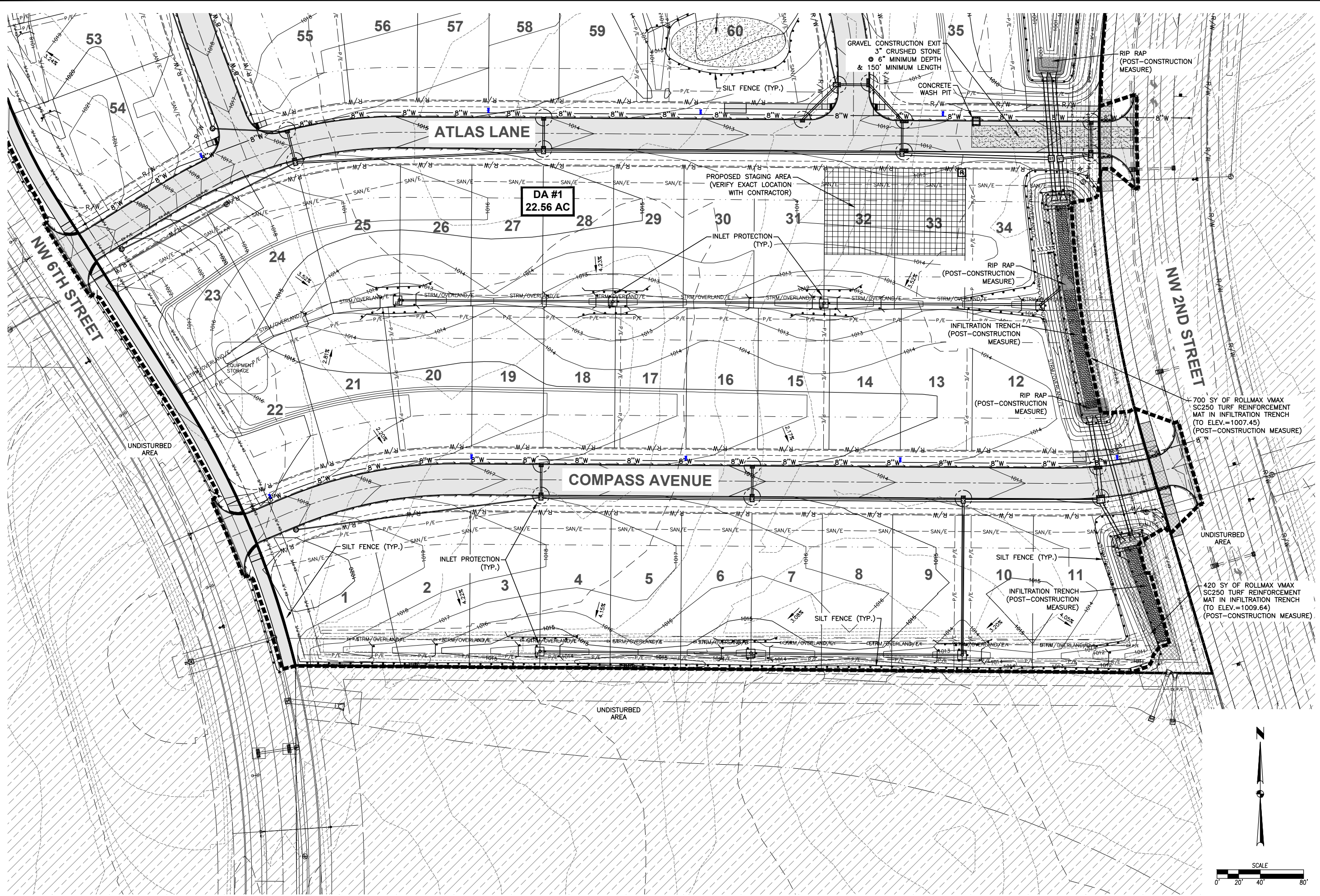


WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
EROSION AND SEDIMENT CONTROL PLAN

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ENGINEER: ENH

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DATE	REVISIONS
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4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400



WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**EROSION AND SEDIMENT CONTROL PLAN**

ENGINEER: ENH

TECH:

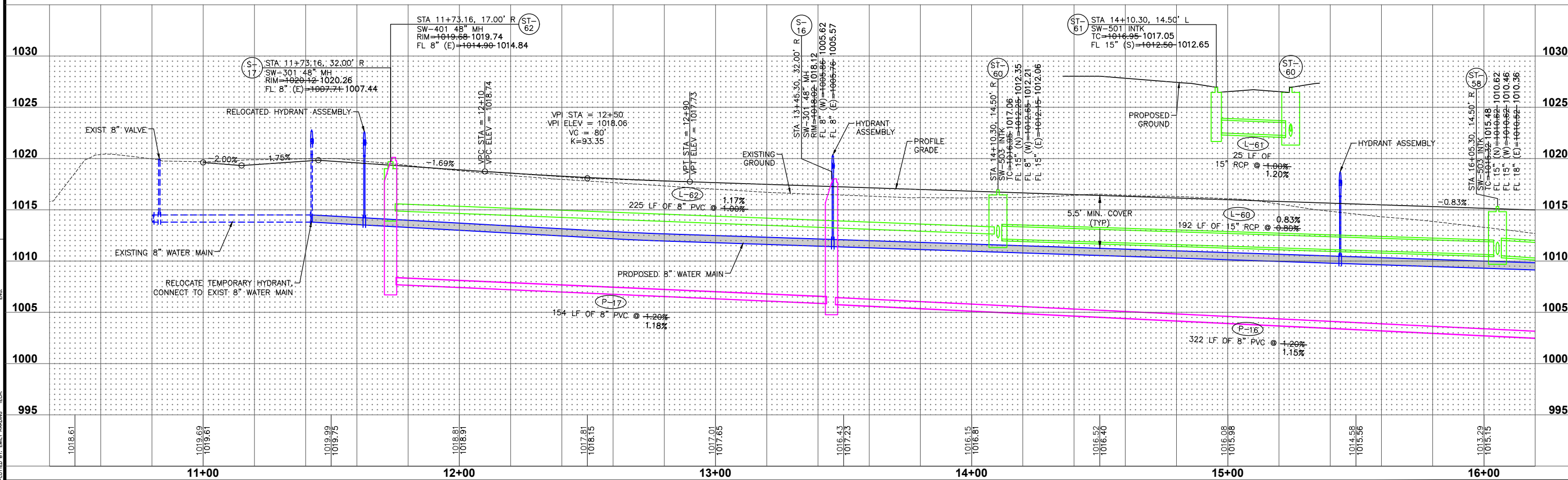
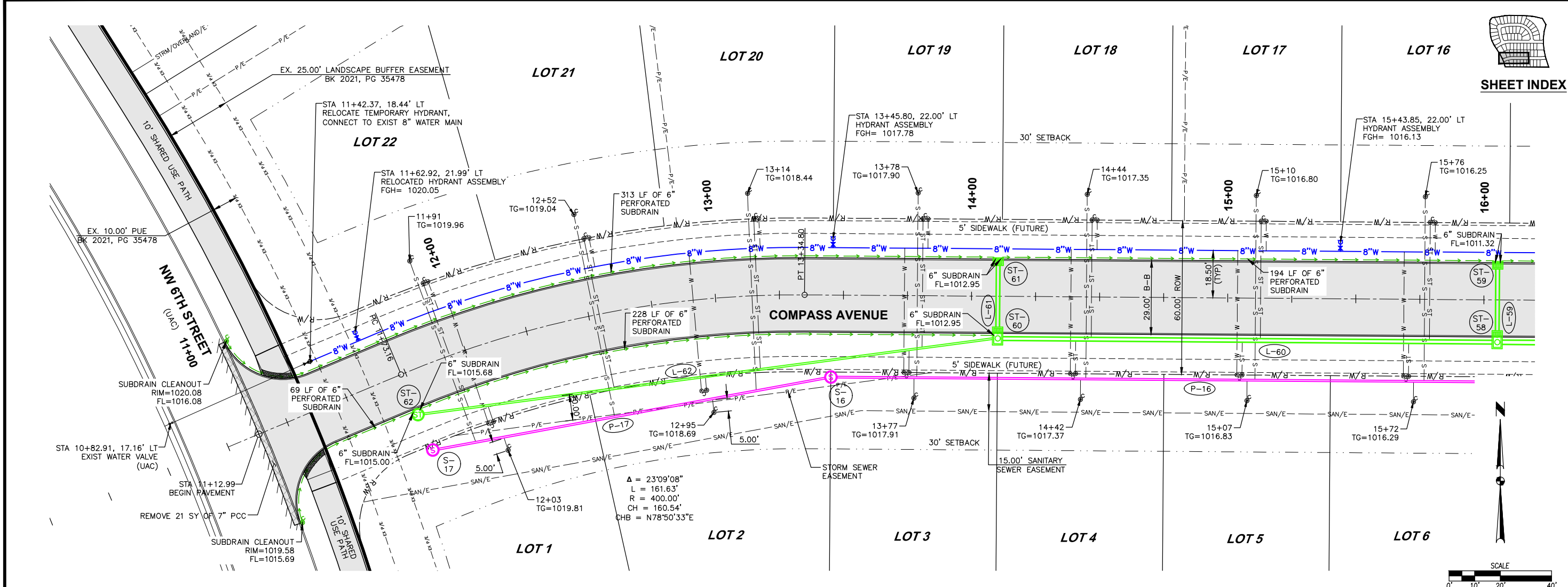
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4121 NW URBANDALE DRIVE  
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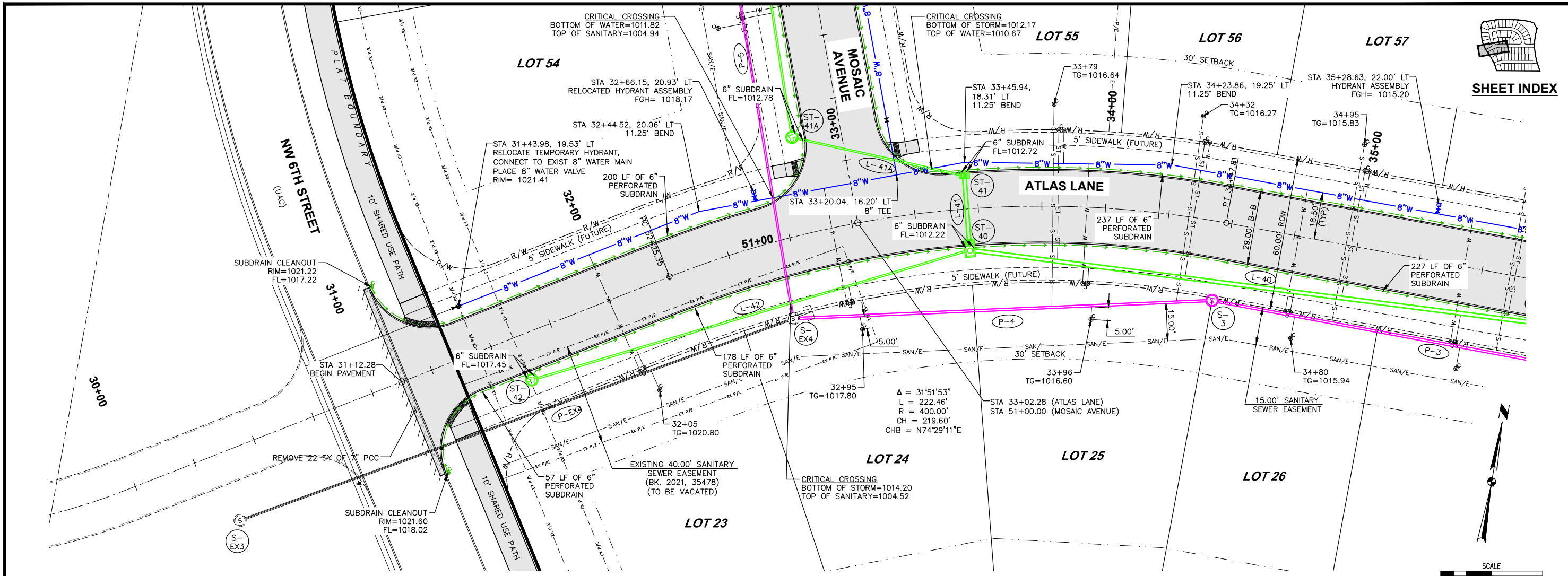
WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**PLAN AND PROFILE**



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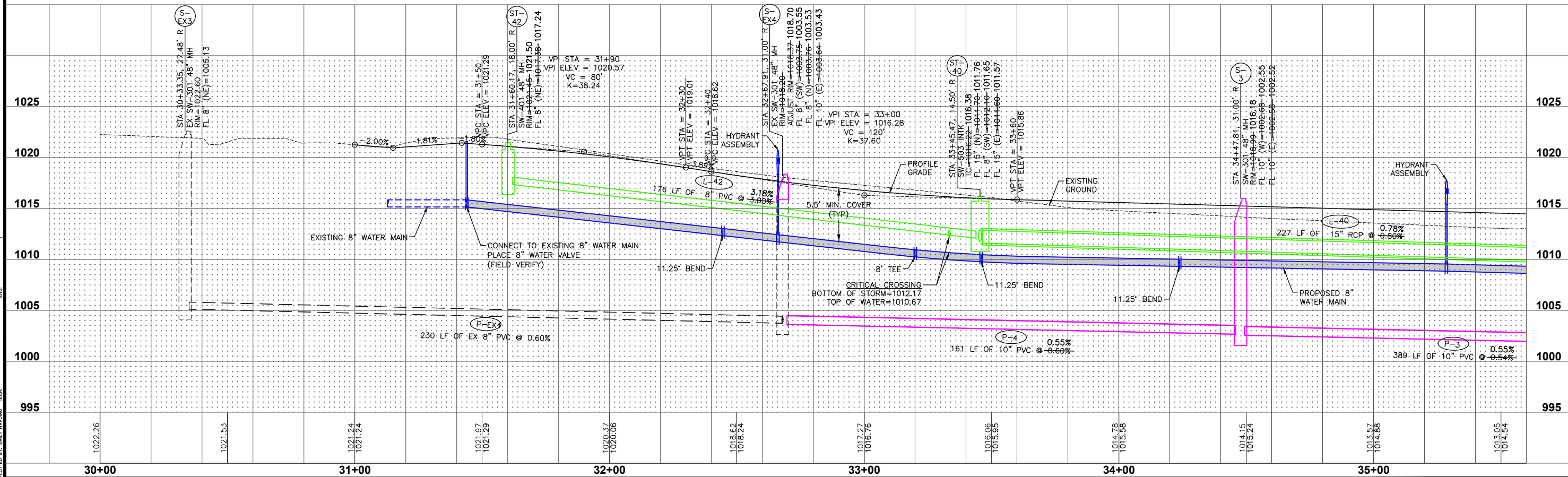
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4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400



TECH: ENH  
 ENGINEER: ENH

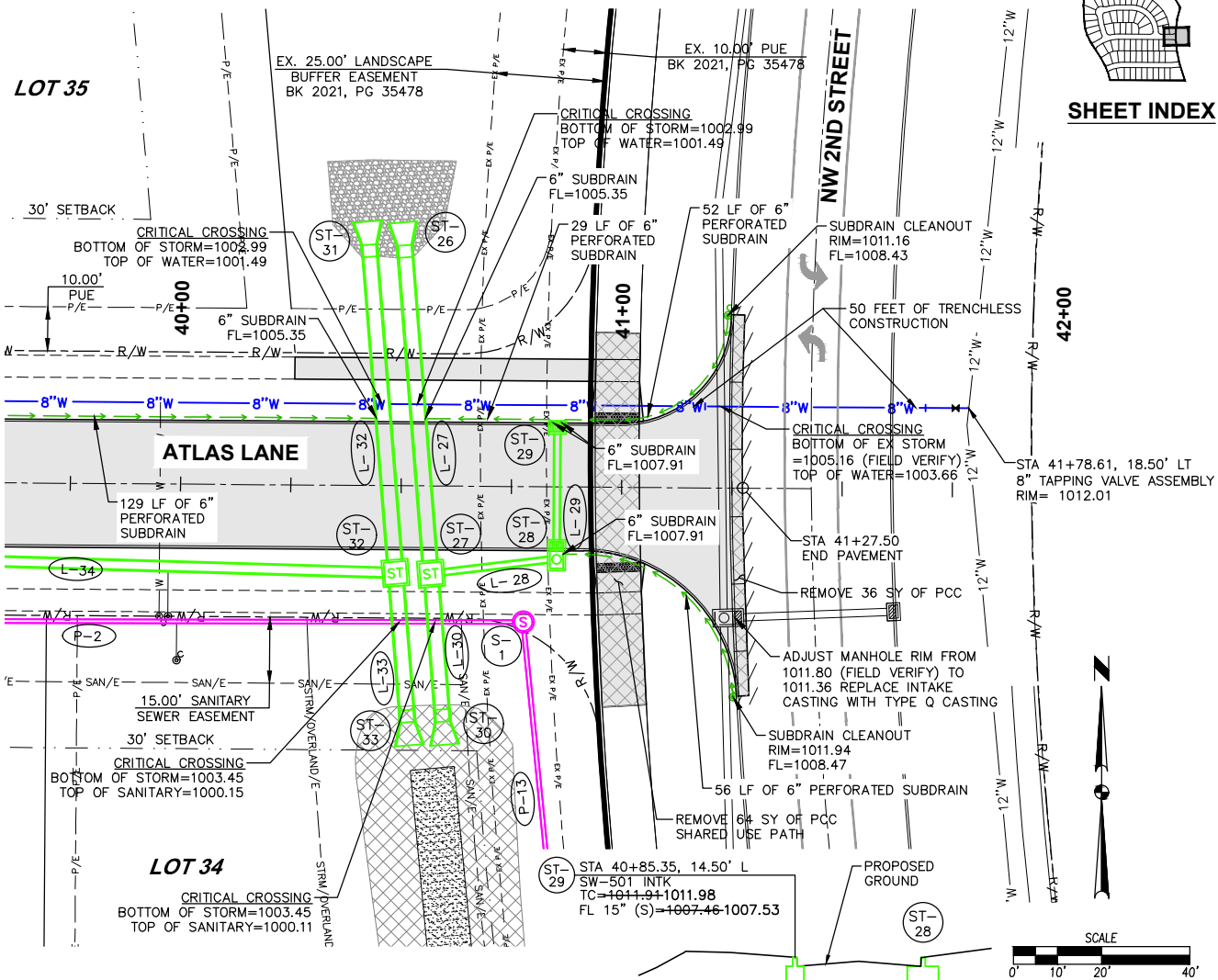
# WAUKEE CROSSING PLAT 3 PLAN AND PROFILE



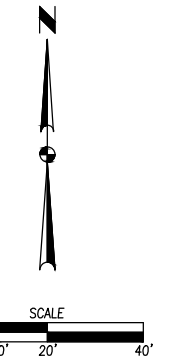
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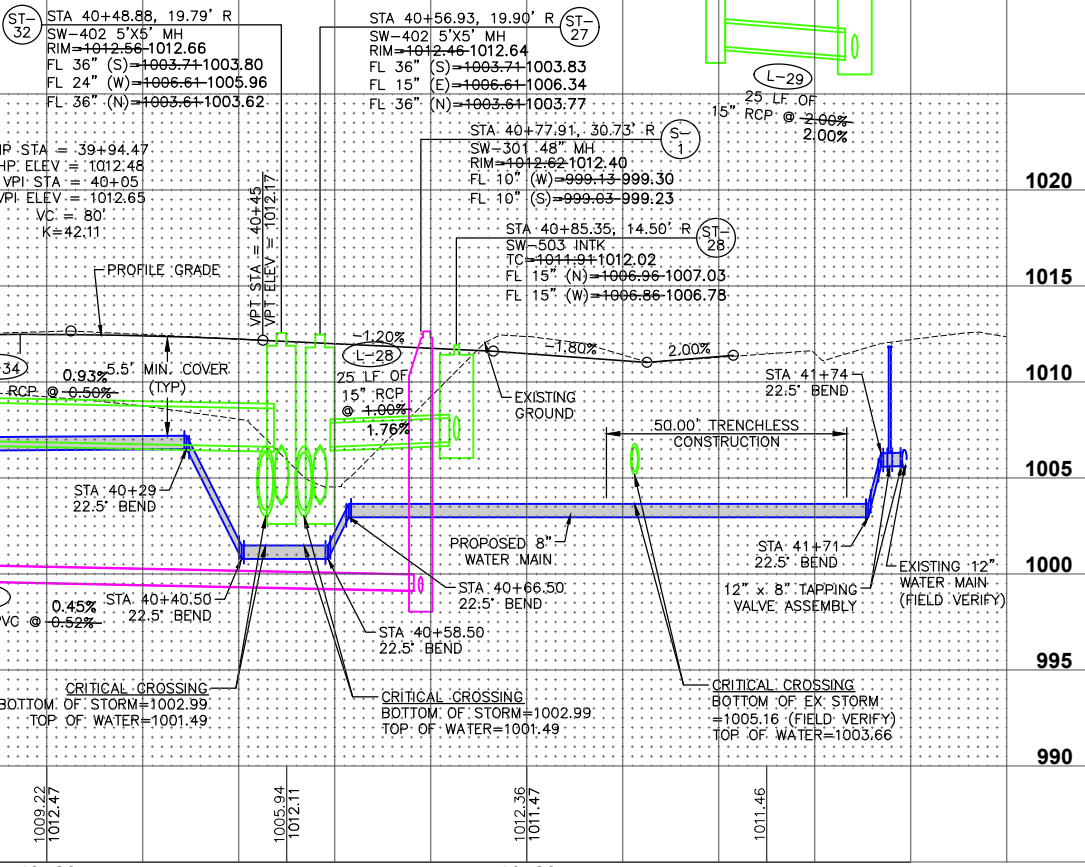


SHEET INDEX



LOT 34

CRITICAL CROSSING  
BOTTOM OF STORM=1003.45  
TOP OF SANITARY=1000.11



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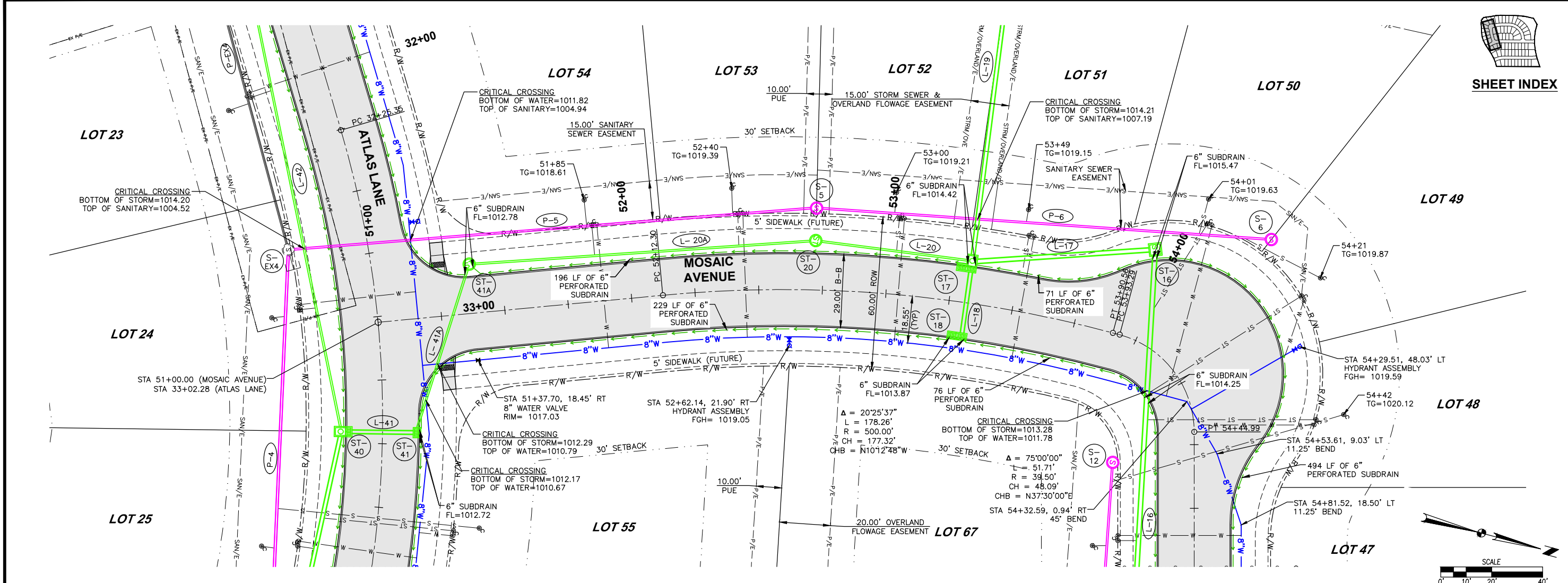
DATE	REVISIONS
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07-05-2022	NW 6TH ST RW GRADES
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04-22-2022	FINAL SUBMITTAL
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4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400  
 ENGINEER: ENH  
 TECH:



WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**PLAN AND PROFILE**



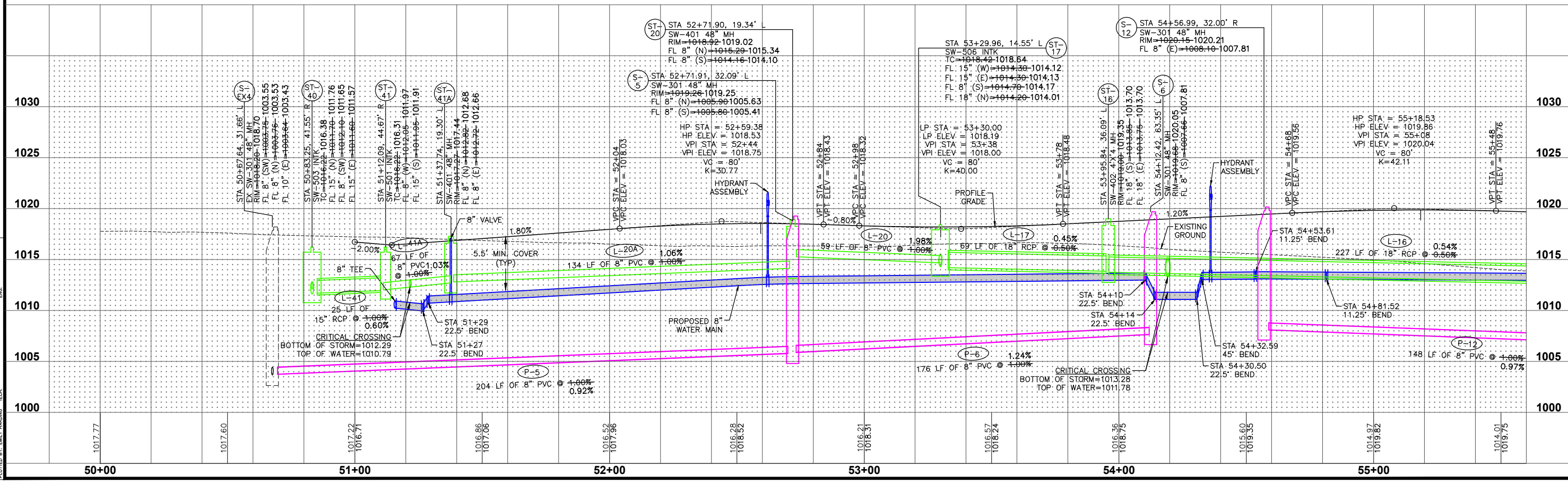
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4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400



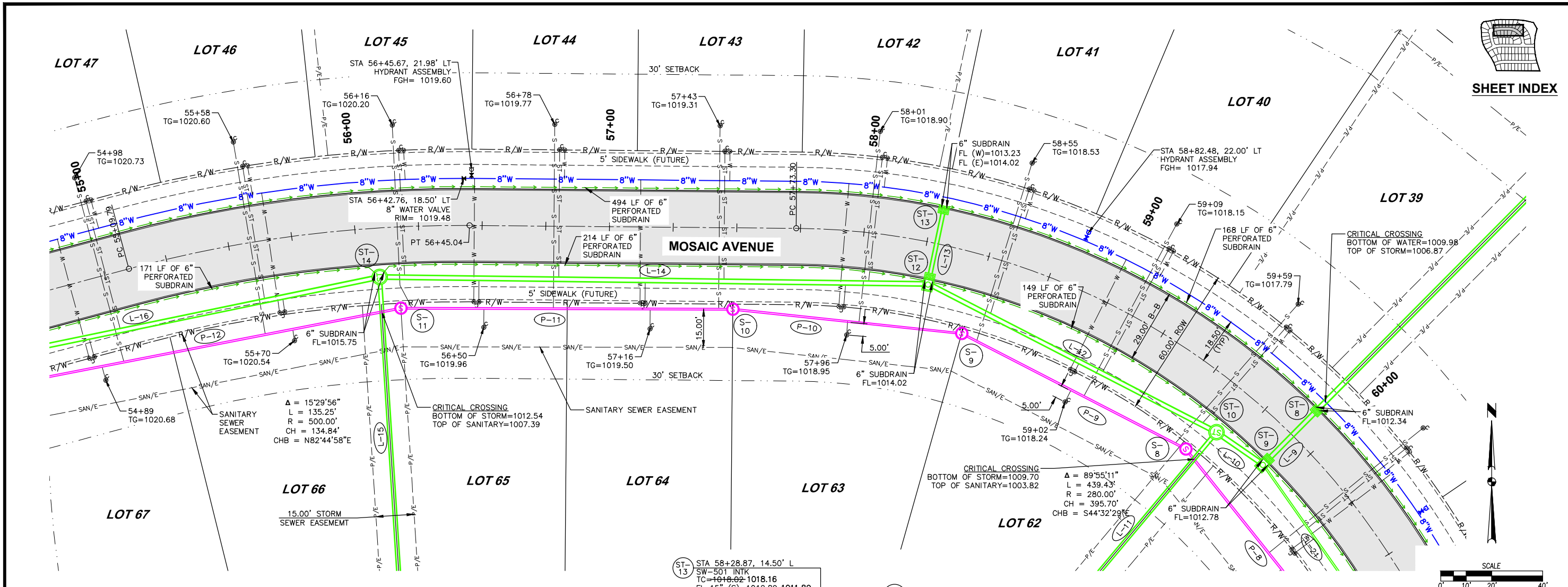
WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**PLAN AND PROFILE**



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 TECH:

TECH: ENH  
 ENGINEER: ENH



DATE	REVISIONS
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07-05-2022	NW 6TH ST R/W GRADES
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04-05-2022	THIRD SUBMITTAL
03-22-2022	SECOND SUBMITTAL

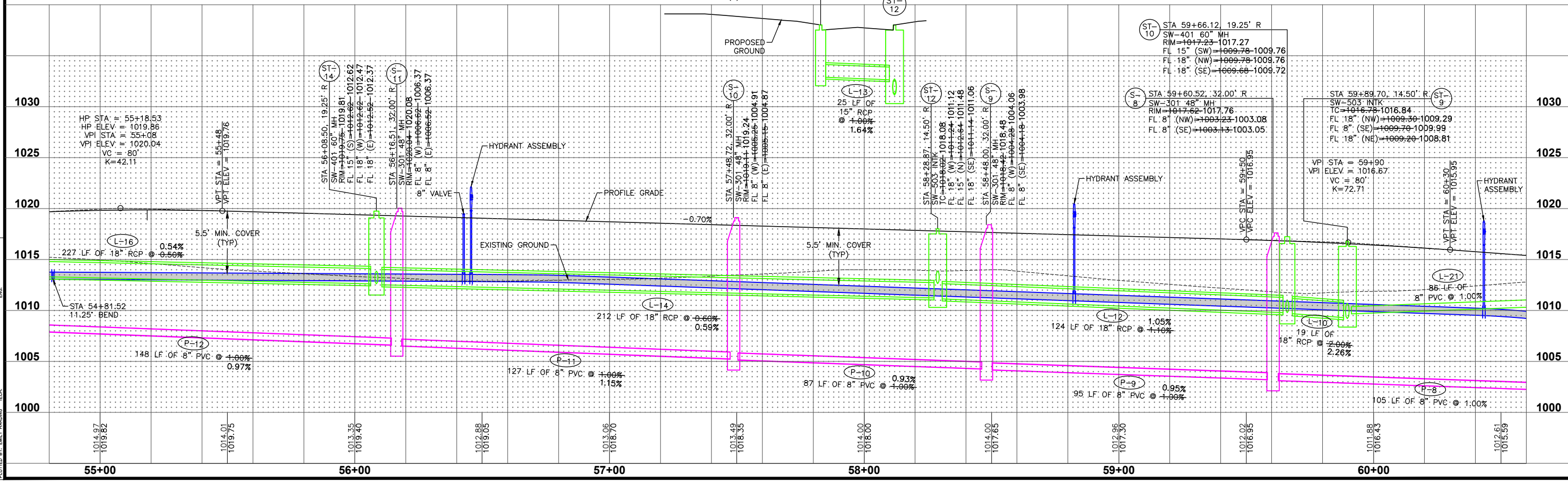
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 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

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 ENGINEER: ENH

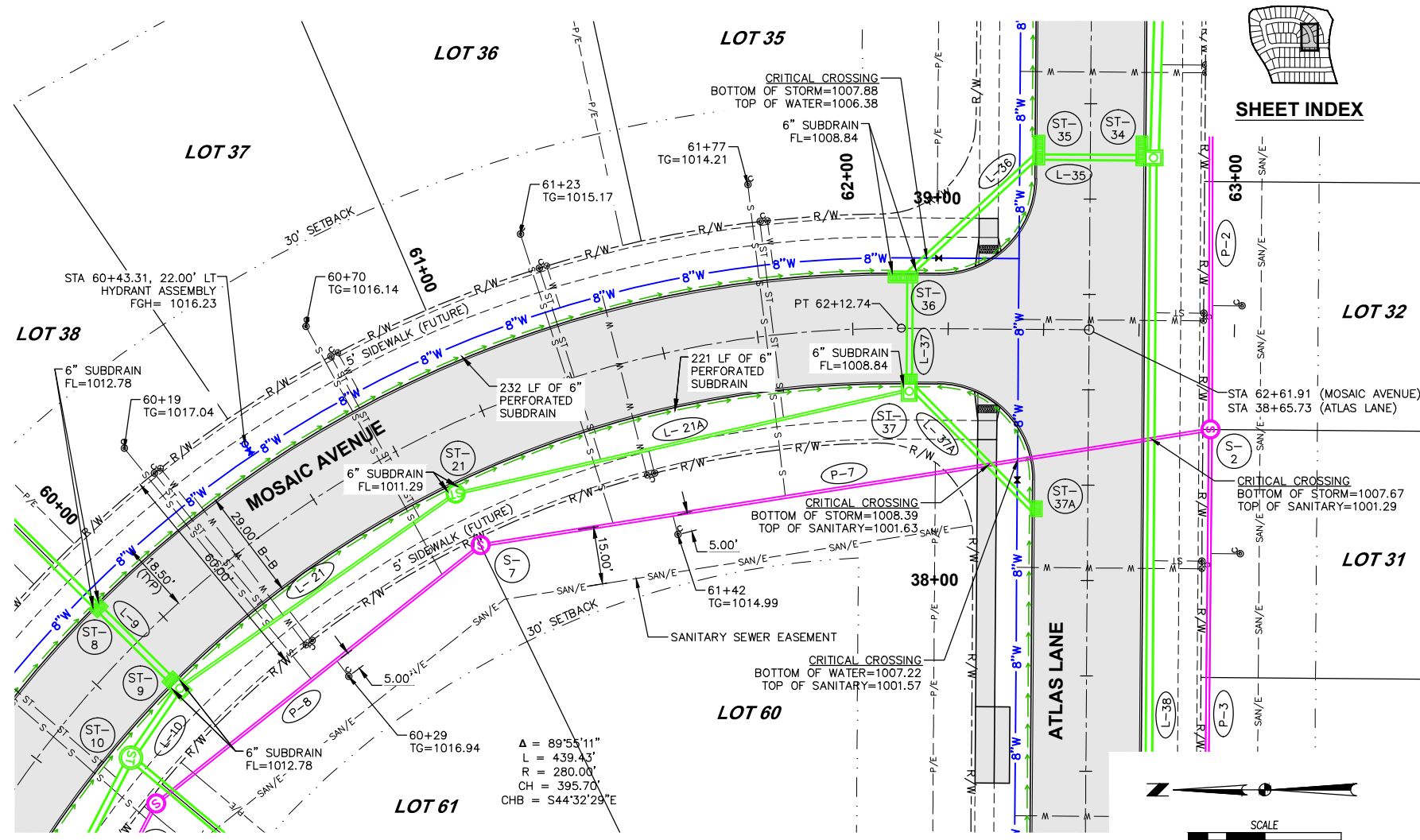


**WAUKEE CROSSING PLAT 3**  
**PLAN AND PROFILE**

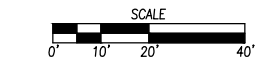
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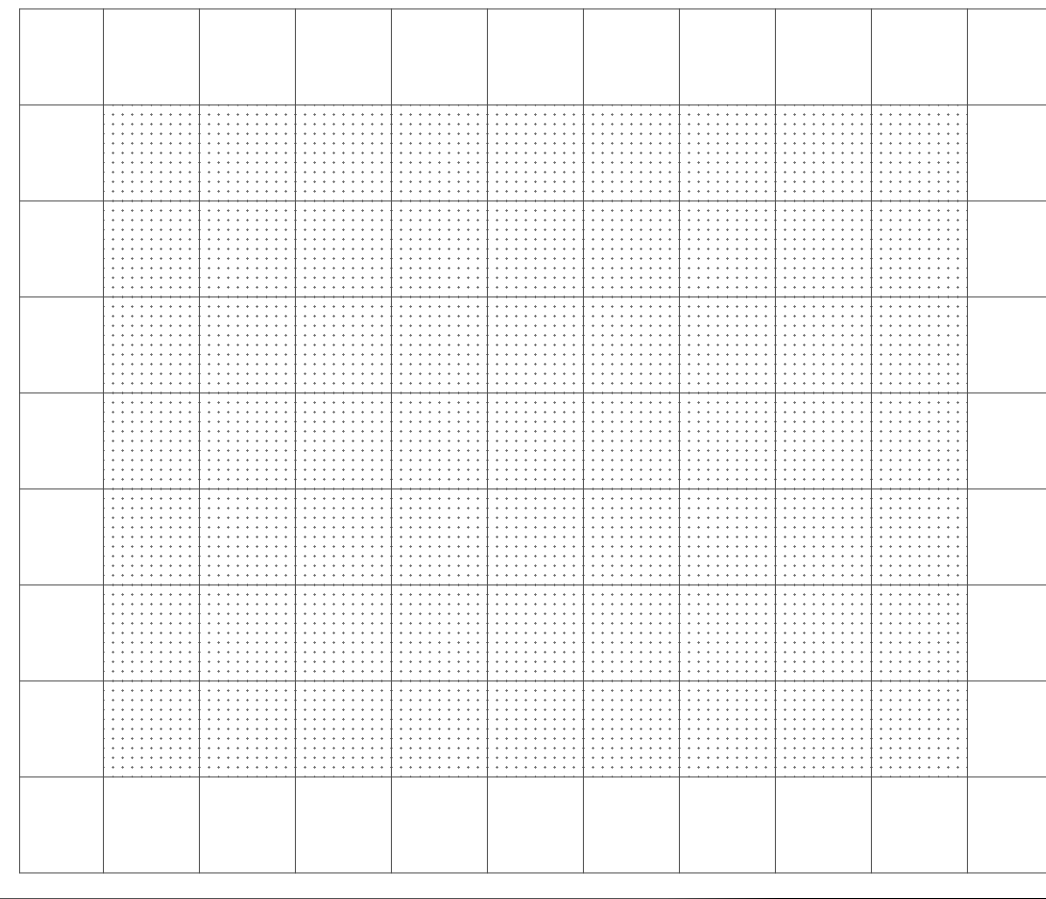
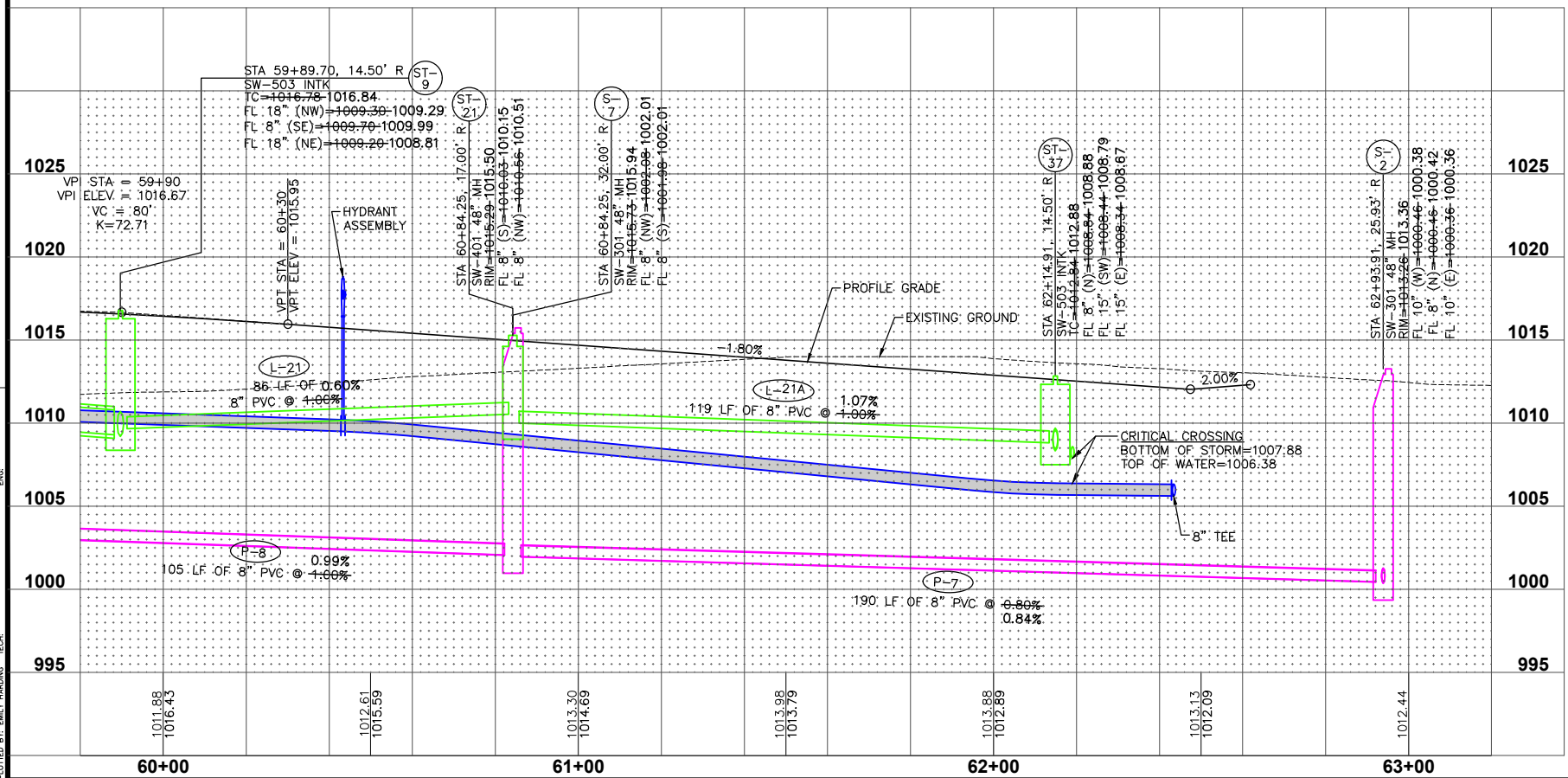
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SHEET INDEX



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NW 6TH ST RAW GRADES	06-06-2023
REVISED	04-22-2023
FINAL SUBMITTAL	04-05-2023
THIRD SUBMITTAL	03-22-2023
SECOND SUBMITTAL	

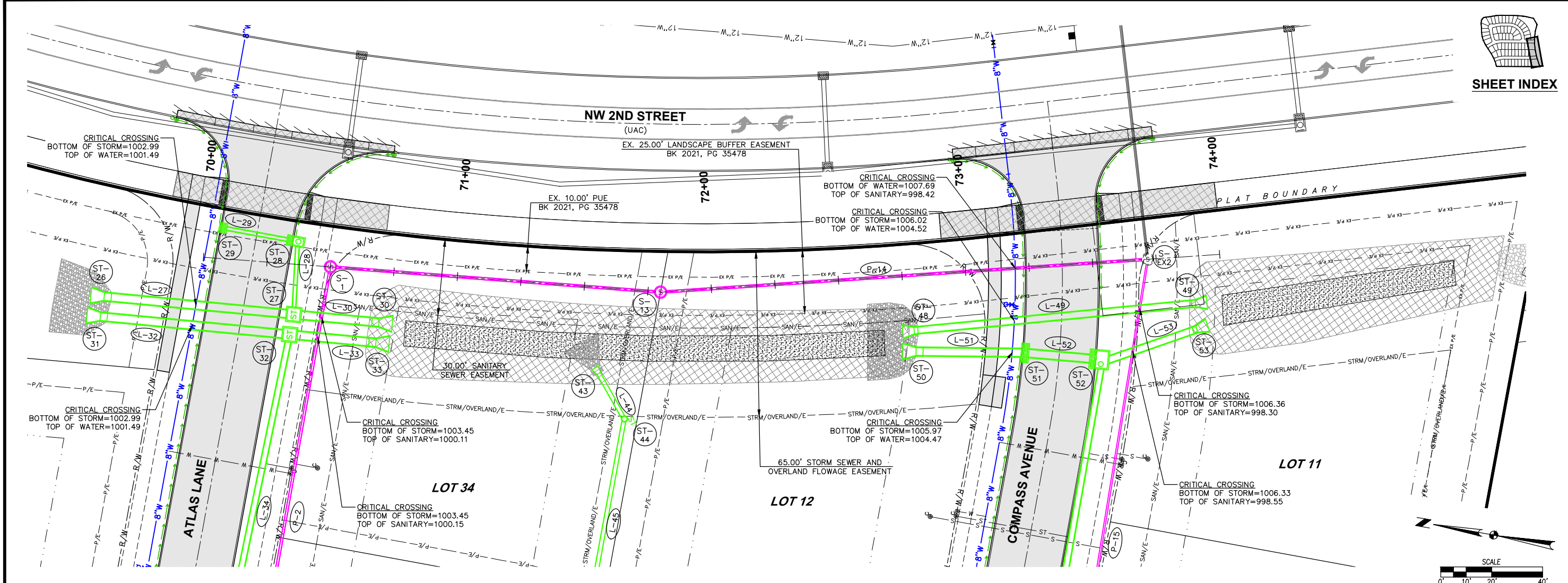
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 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

**TECH:** ENH  
**ENGINEER:** ENH

**WAWKEE CROSSING PLAT 3**  
**PLAN AND PROFILE**

WAUKEE, IOWA

19/34  
 2008.462



DATE	REVISIONS
08-28-2023	AS-BUILTS
07-05-2023	NW 6TH ST RW GRADES
06-06-2023	REVISED
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4121 NW URBANDALE DRIVE  
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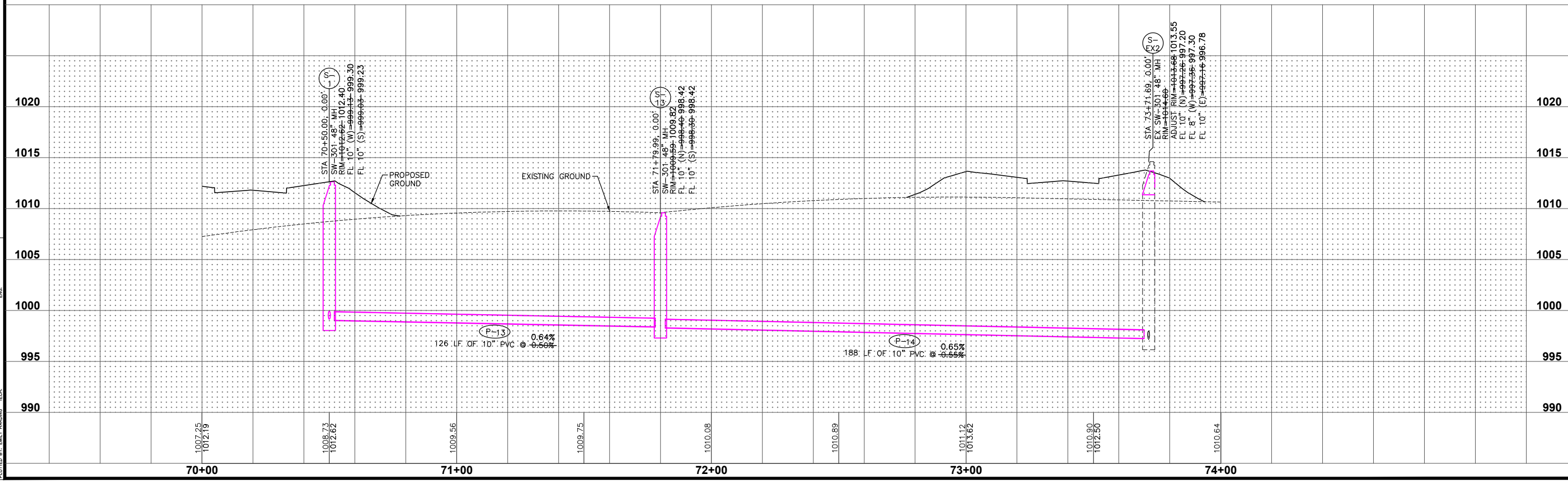
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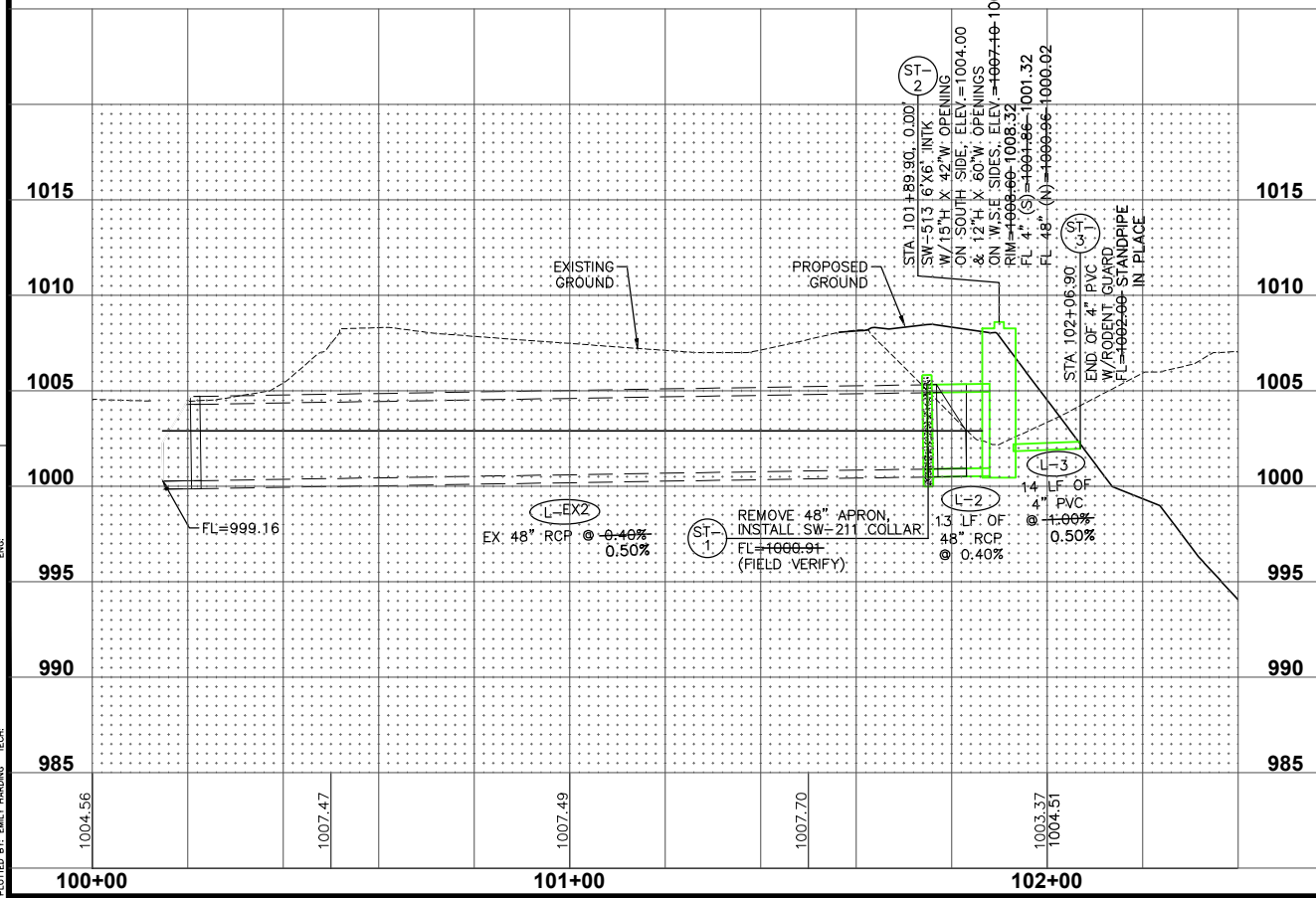
WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**SANITARY SEWER PLAN AND PROFILE**

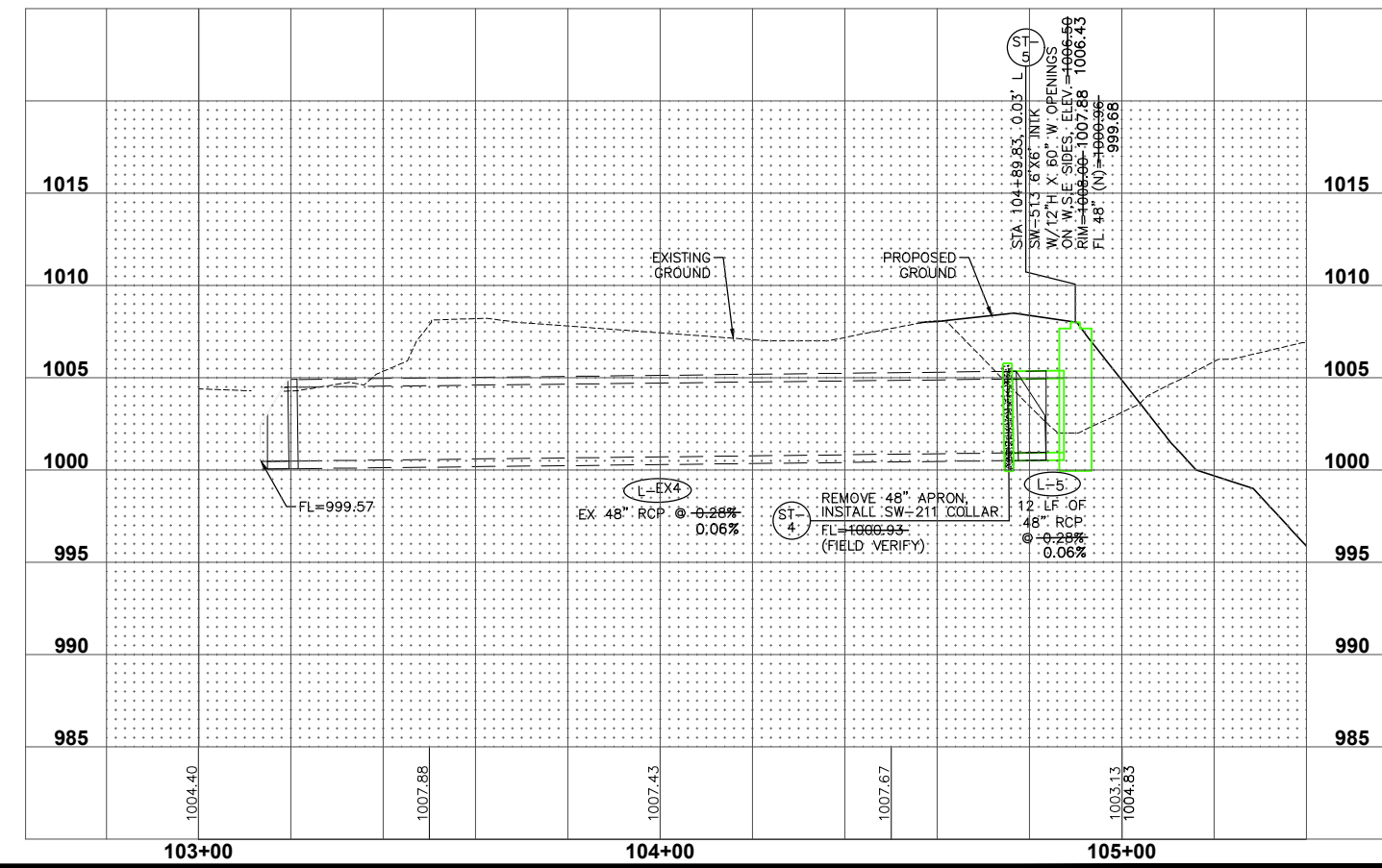
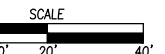
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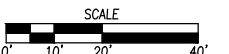
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 DATE: 8/28/2023 10:03 AM



SHEET INDEX



SHEET INDEX



**WAUKEE CROSSING PLAT 3**  
**STORM SEWER PLAN AND PROFILE**

21  
 34  
 2008.462

WAUKEE, IOWA

**ES&A**  
 CIVIL DESIGN ADVANTAGE

ENGINEER: ENH  
 TECH: ENH

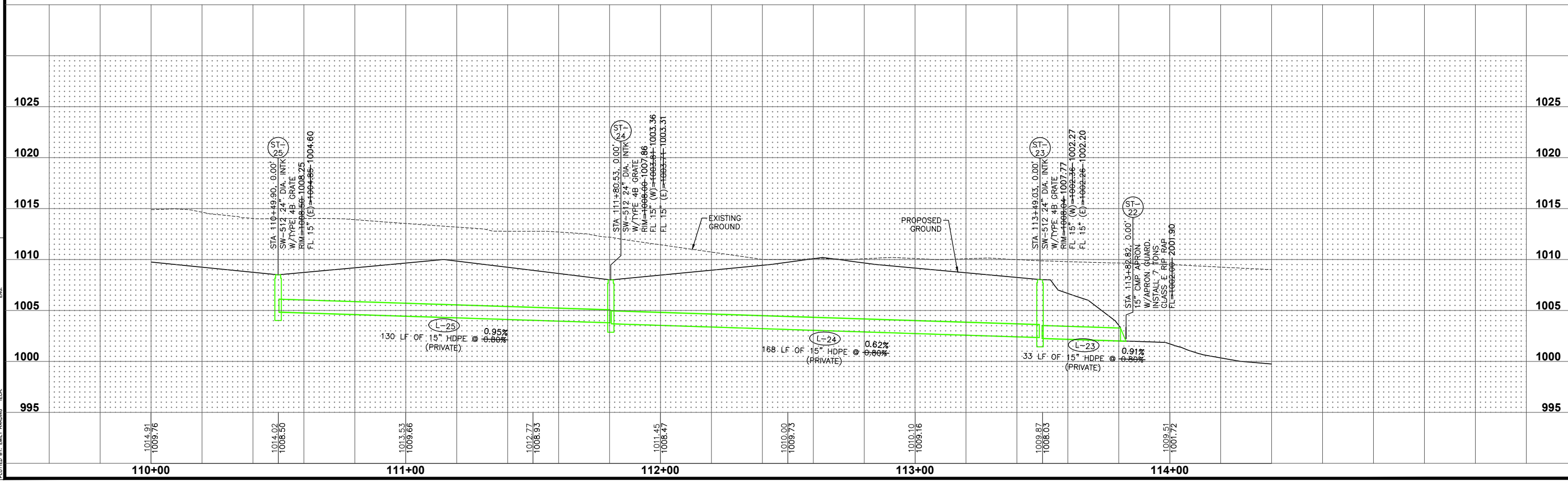
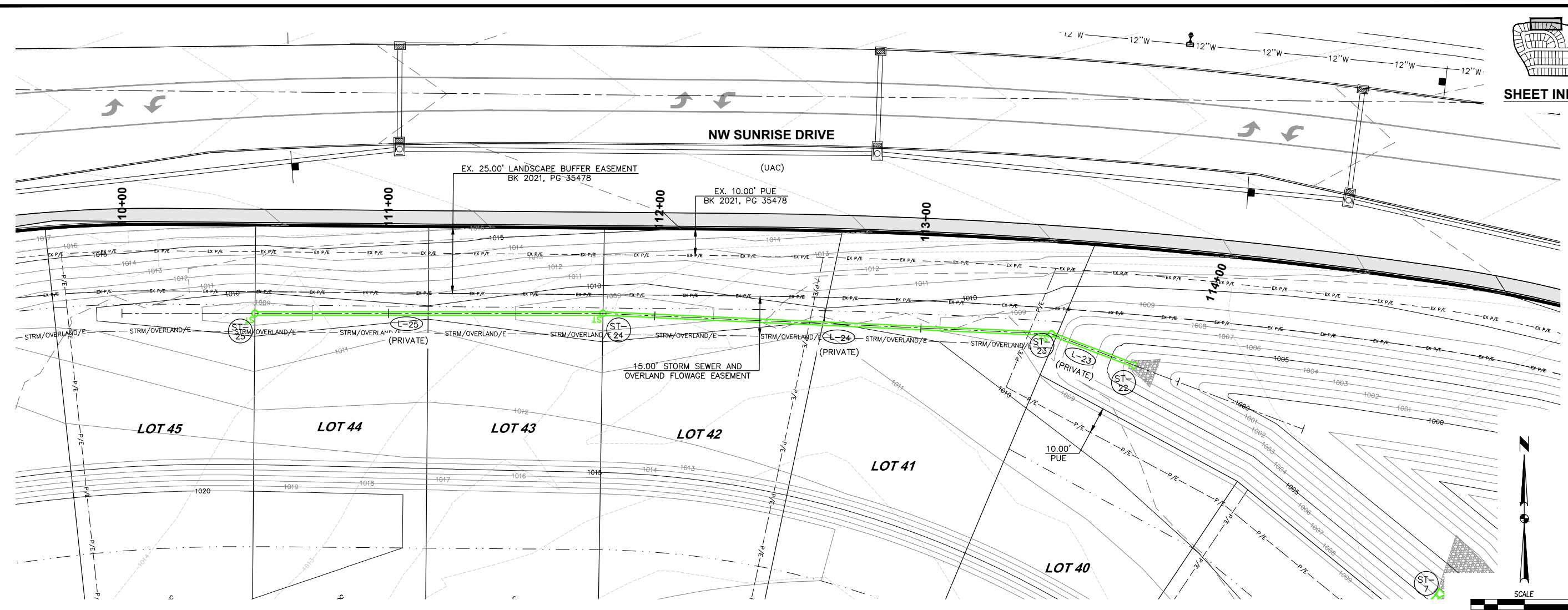
4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

REVISIONS	DATE
AS-BUILTS	08-28-2023
NW 6TH ST RW GRADES	07-05-2023
REVISED	06-06-2023
FINAL SUBMITTAL	04-22-2023
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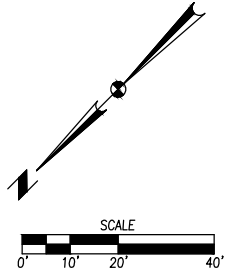
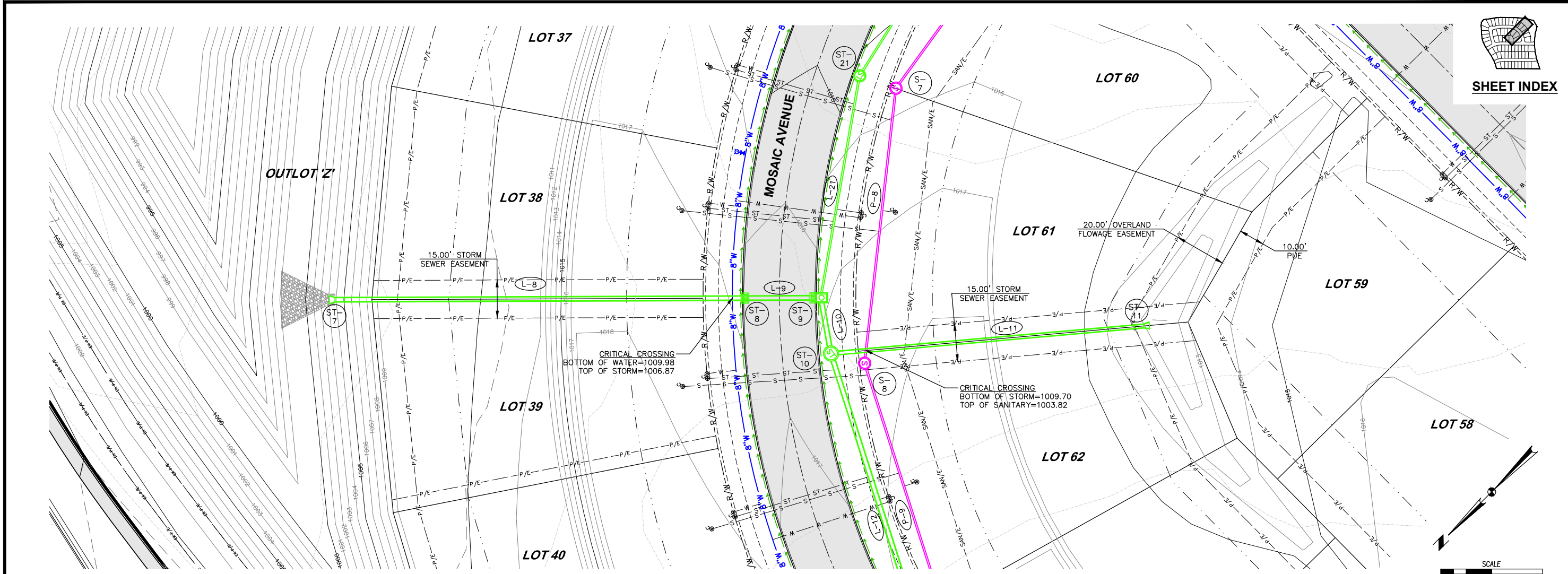


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4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400  
 TECH: ENH  
 ENGINEER: ENH

**WAUKEE CROSSING PLAT 3**  
**STORM SEWER PLAN AND PROFILE**  
 WAUKEE, IOWA  
 22/34  
 2008.462

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 PLOTTED BY: EMILY HANSON, TECH



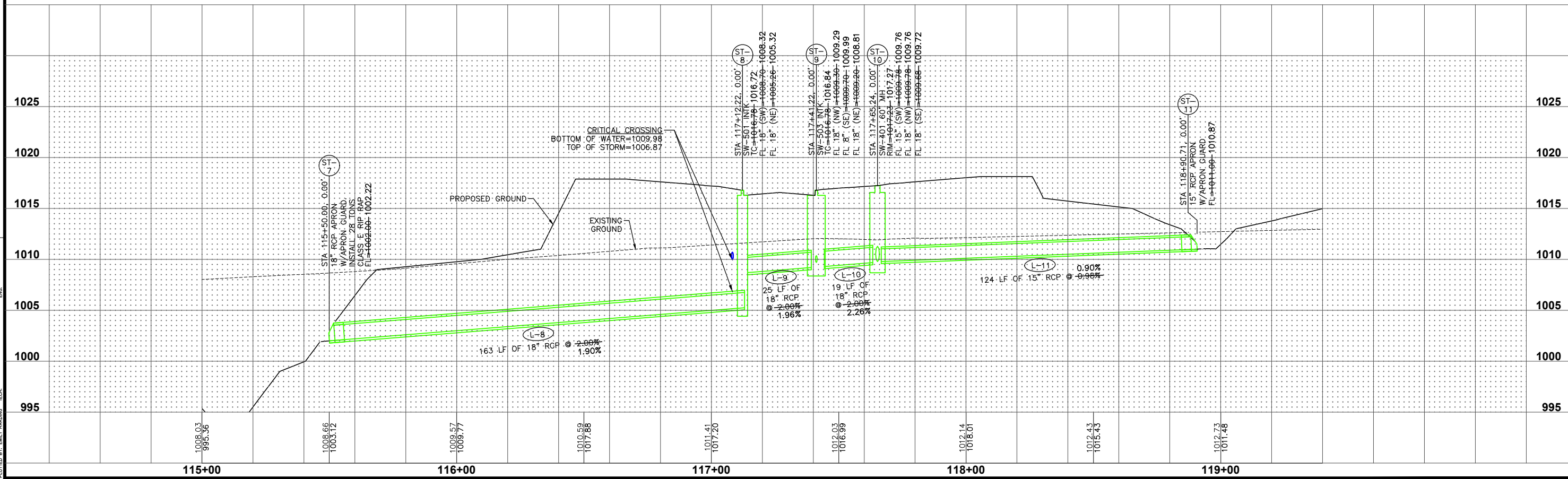
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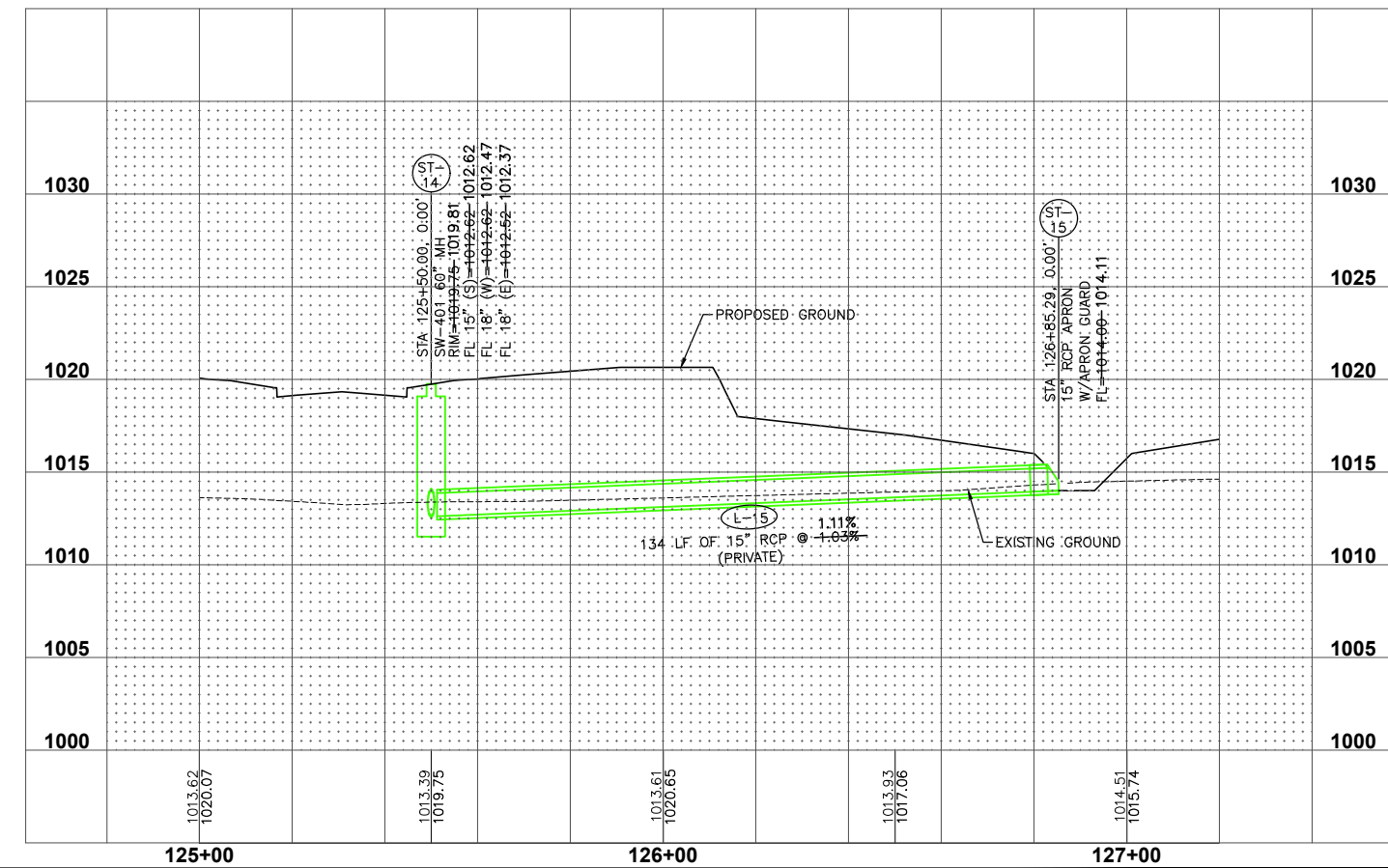
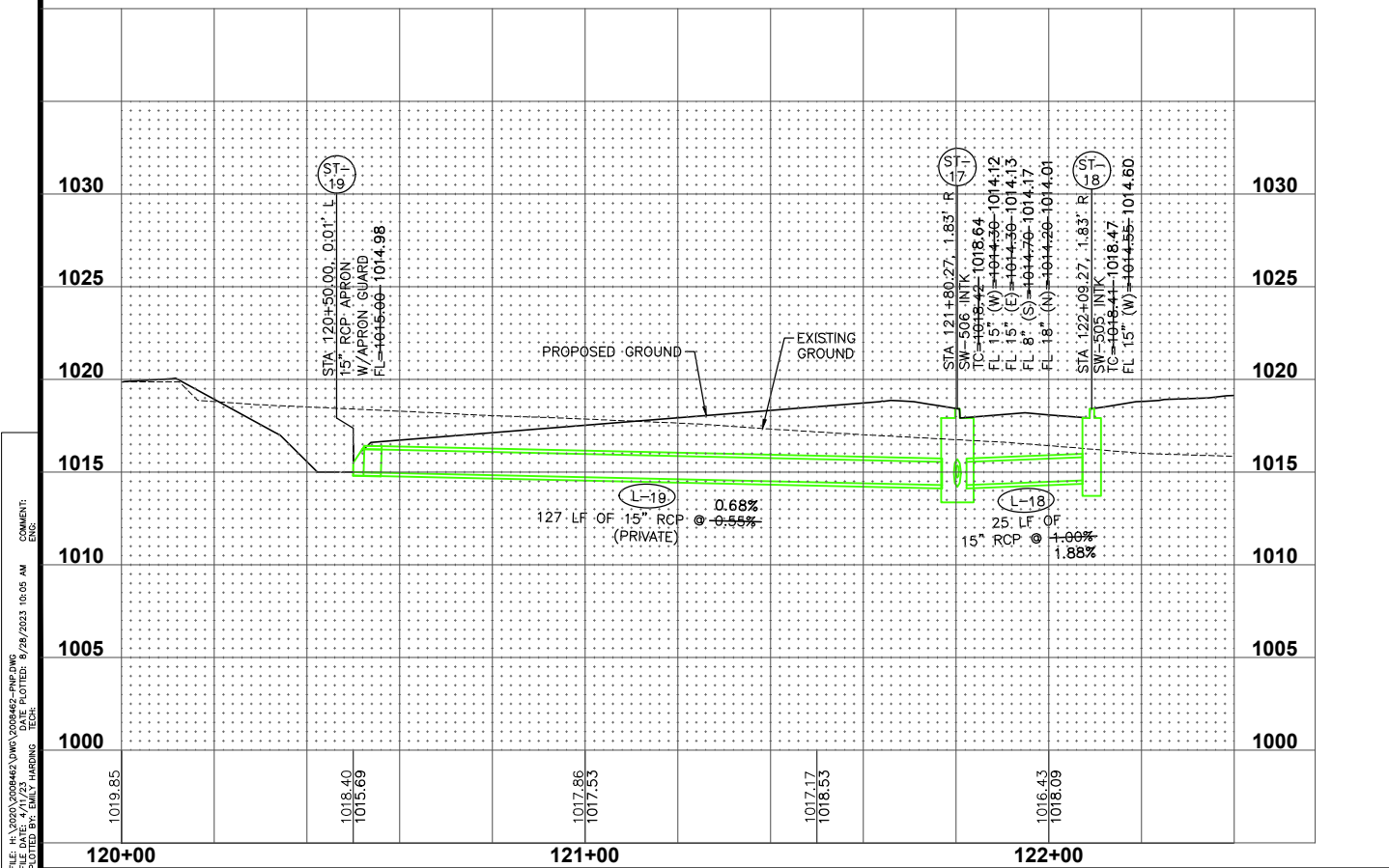
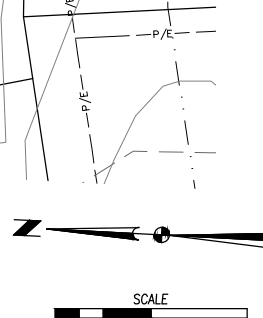
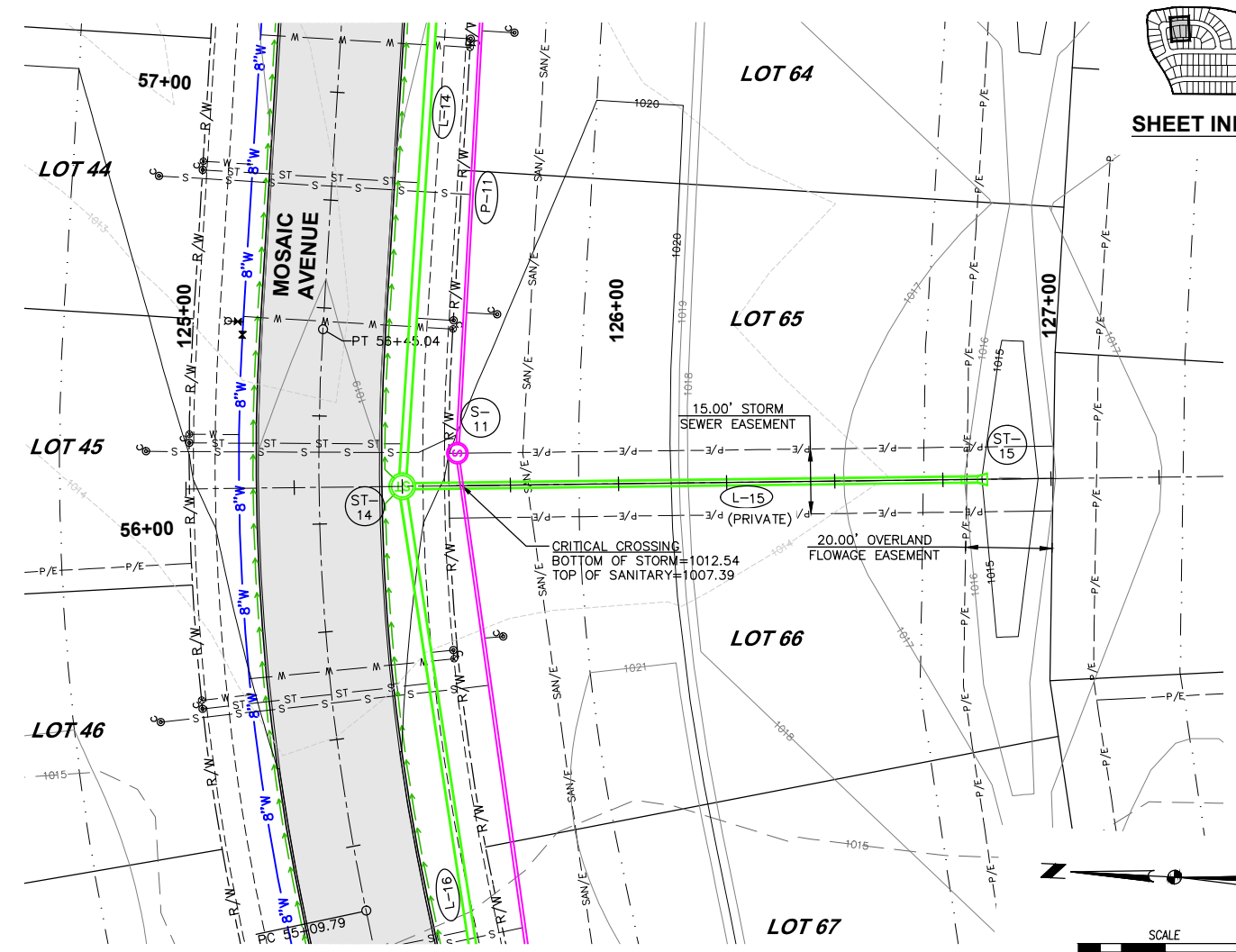
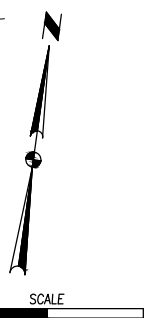
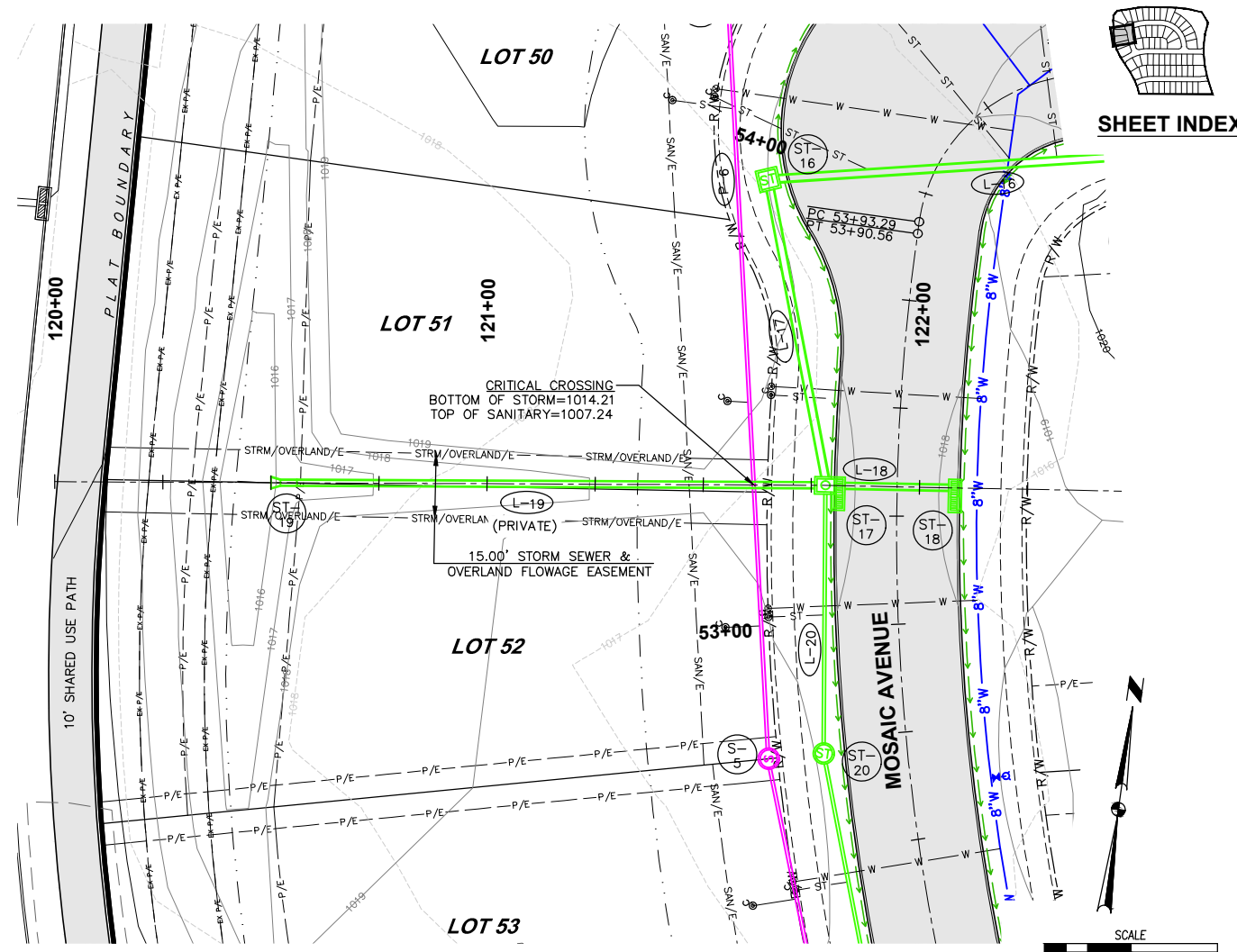
4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400



WAUKEE, IOWA  
 ENGINEER: ENH  
 TECH:

# WAUKEE CROSSING PLAT 3 STORM SEWER PLAN AND PROFILE





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 PLOTTED BY: ENH  
 DATE: 08-28-2023  
 AS-BUILT: 07-05-2023  
 REVISED: 06-06-2023  
 FINAL SUBMITTAL: 04-22-2023  
 THIRD SUBMITTAL: 04-05-2023  
 SECOND SUBMITTAL: 03-22-2023

**WAUKEE CROSSING PLAT 3**  
**STORM SEWER PLAN AND PROFILE**

WAUKEE, IOWA

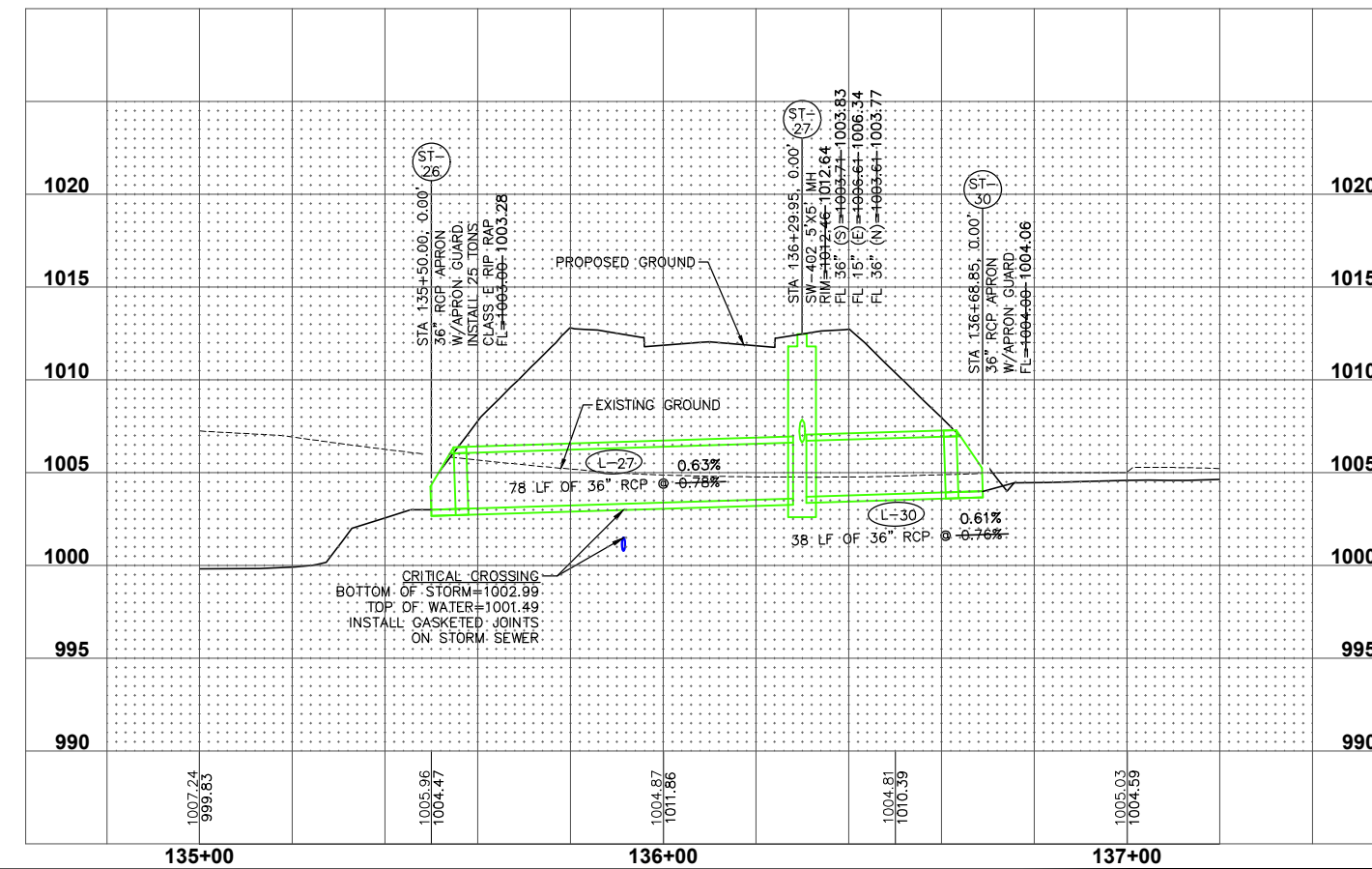
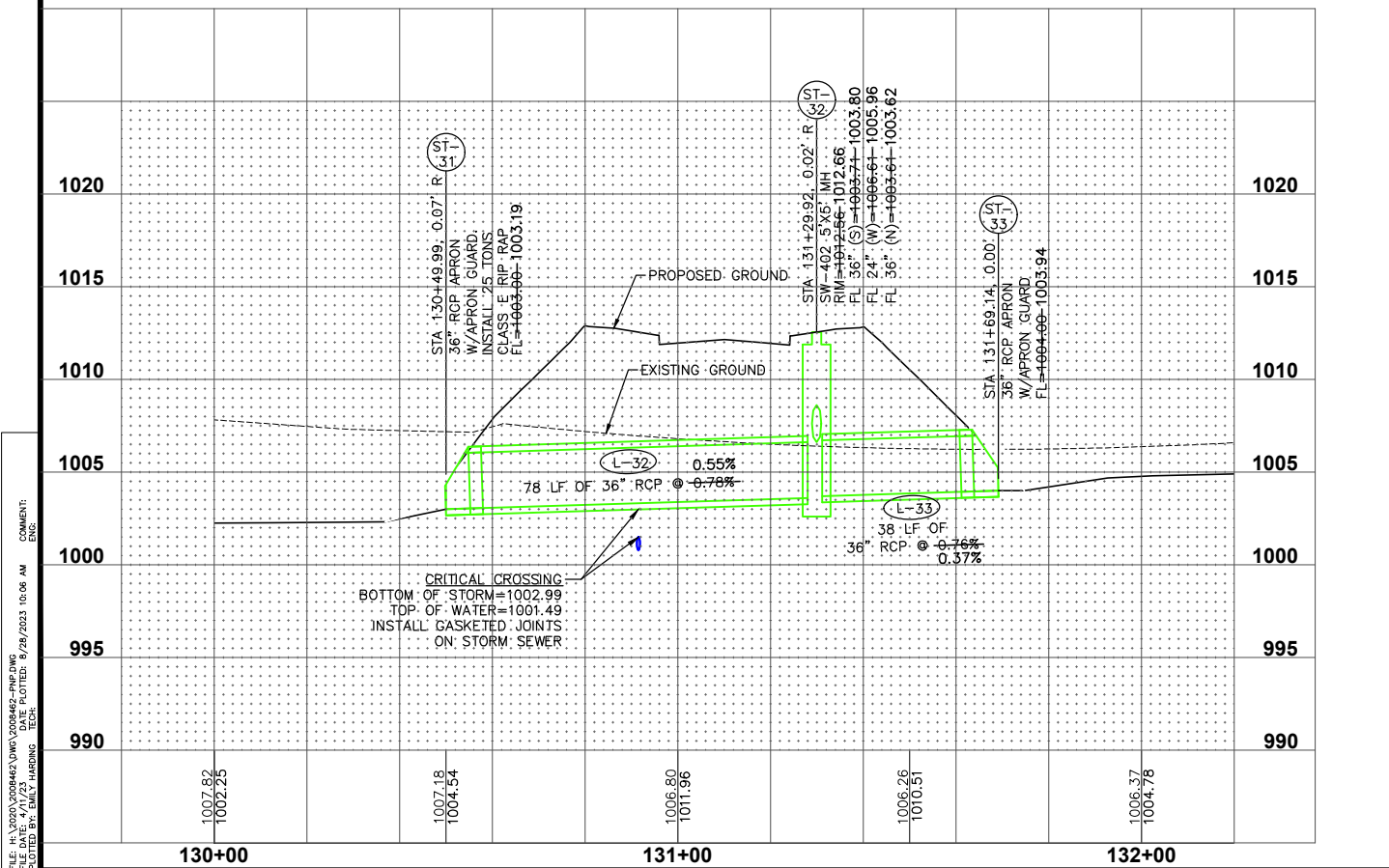
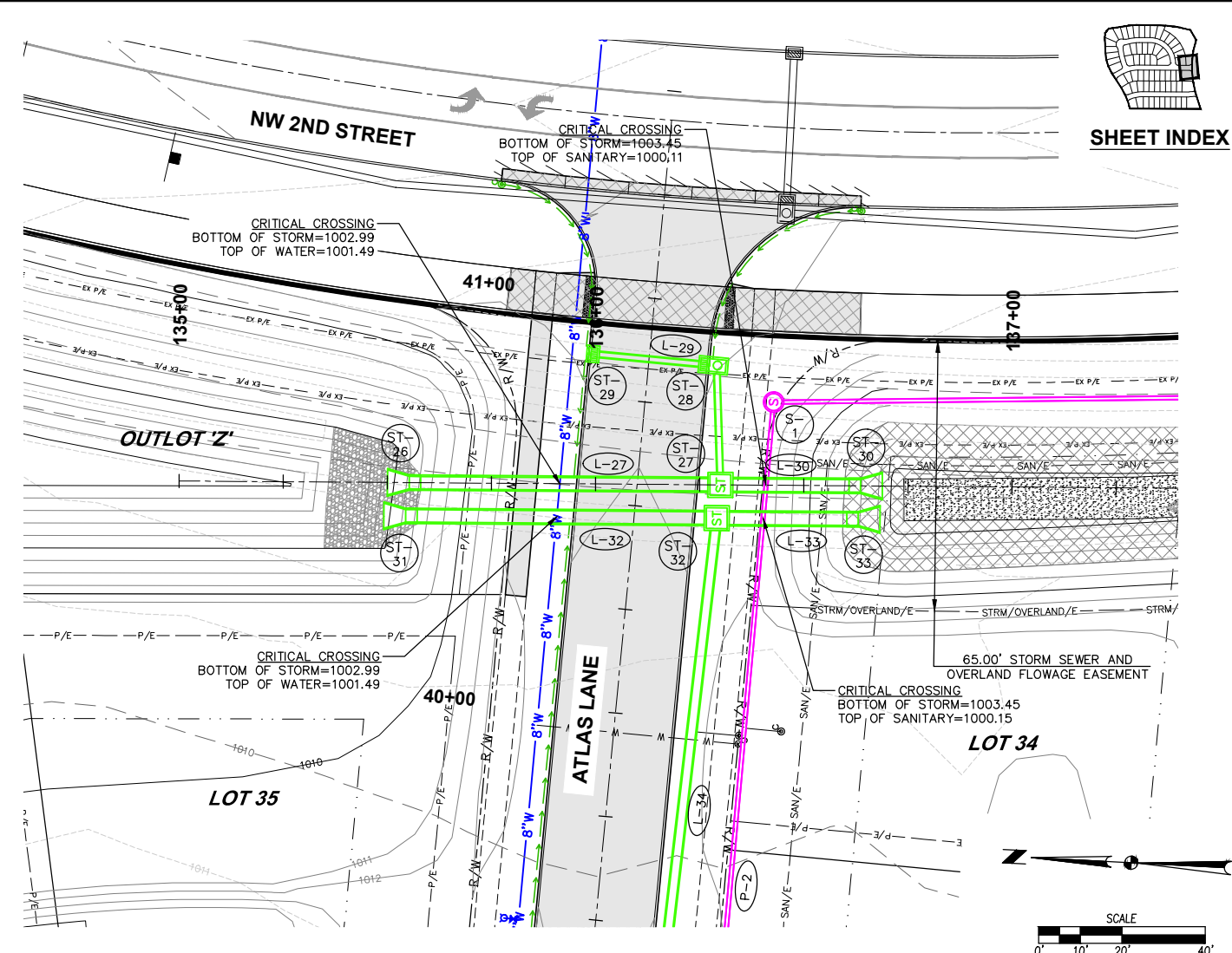
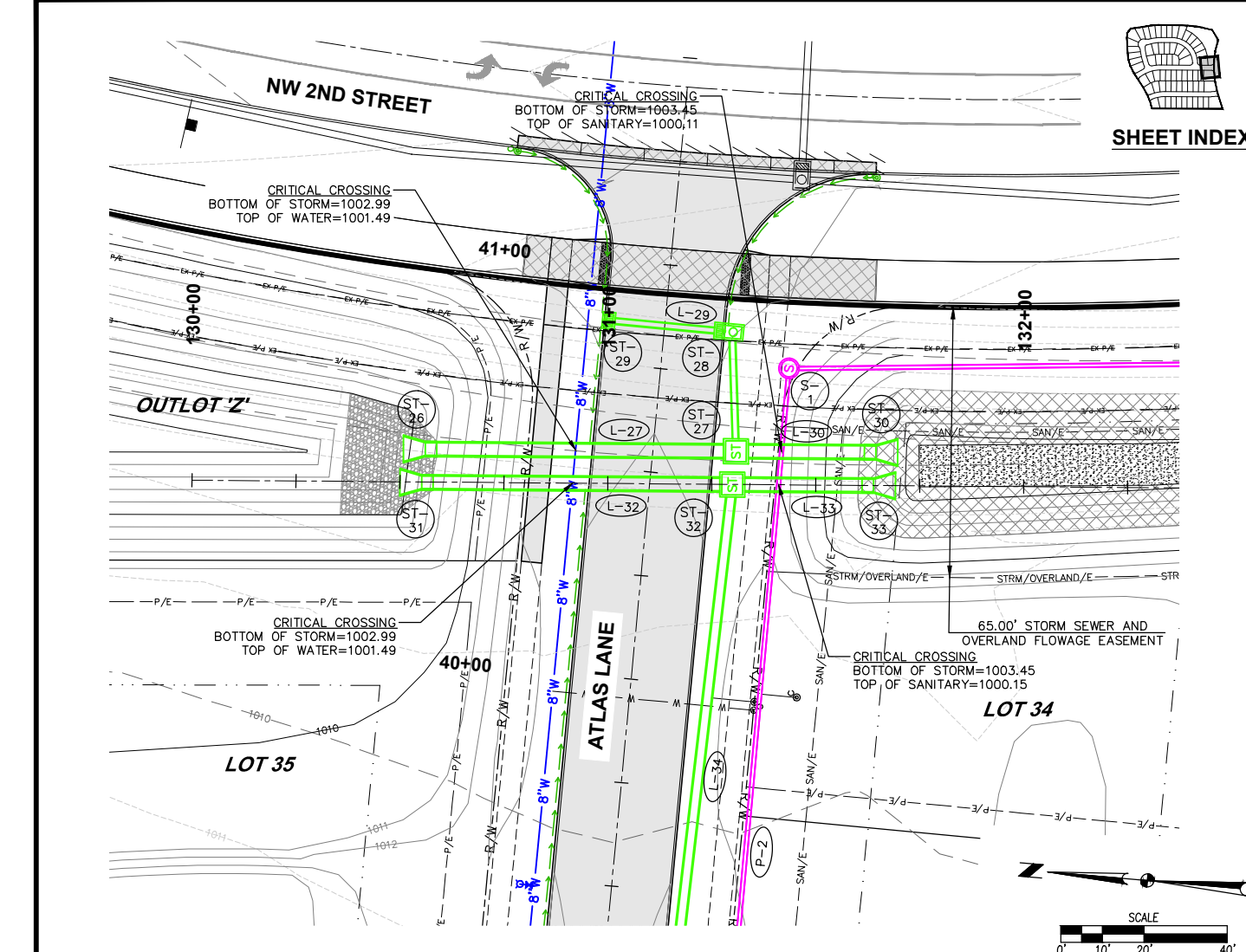
4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

ENGINEER: ENH  
 TECH:

CIVIL DESIGN ADVANTAGE

24  
34

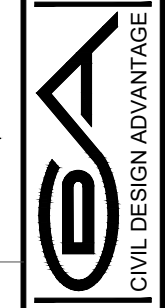
2008.462



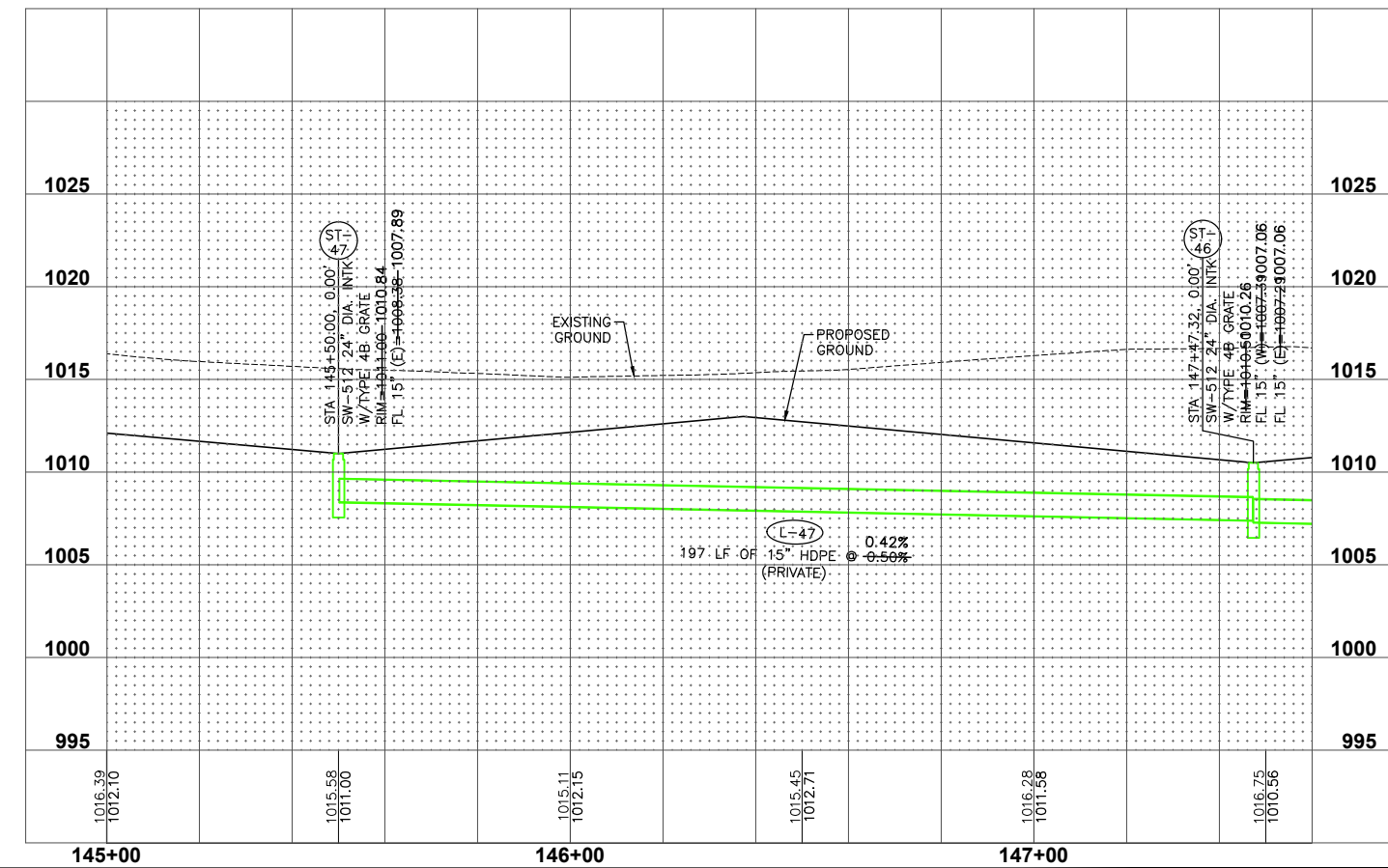
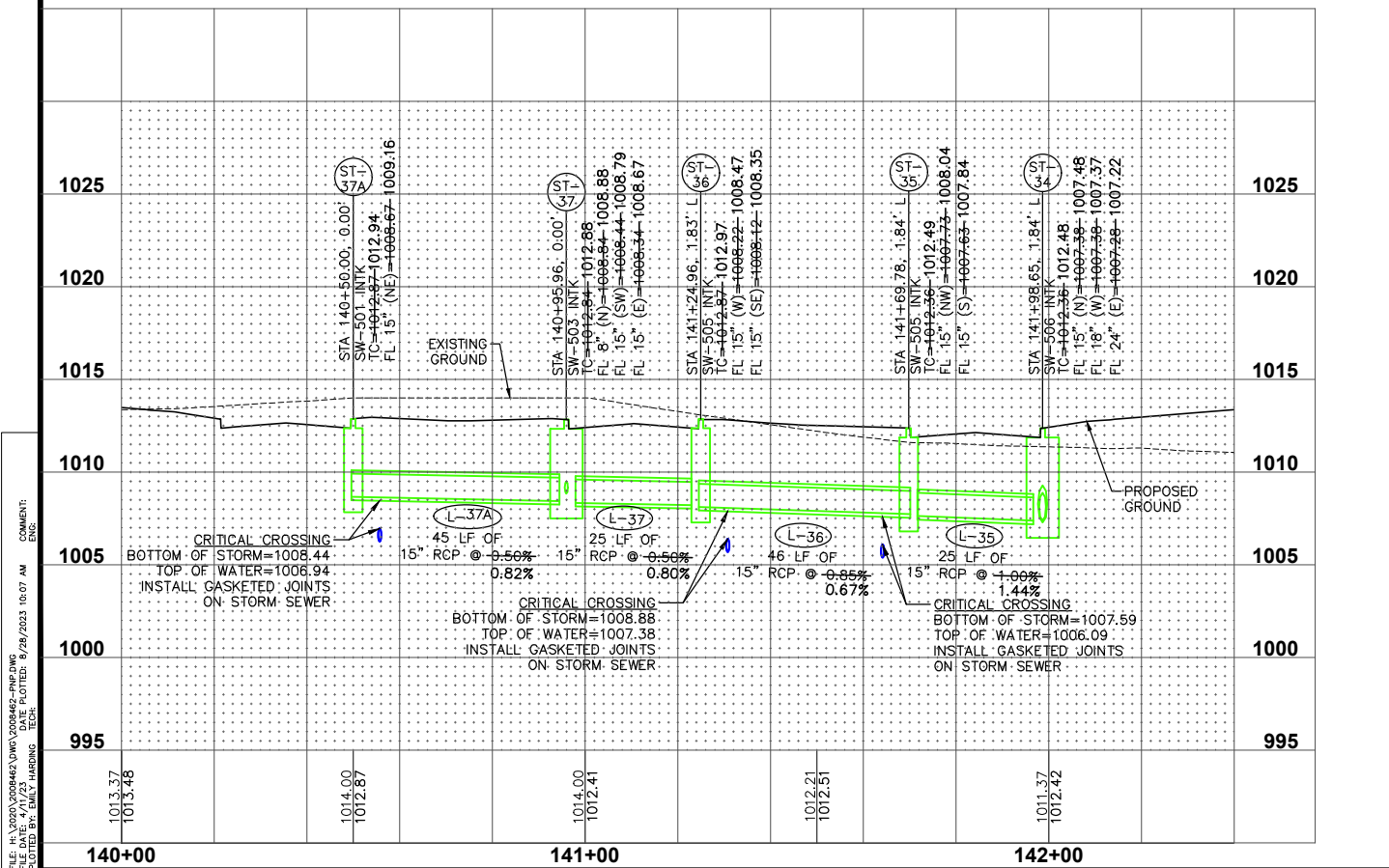
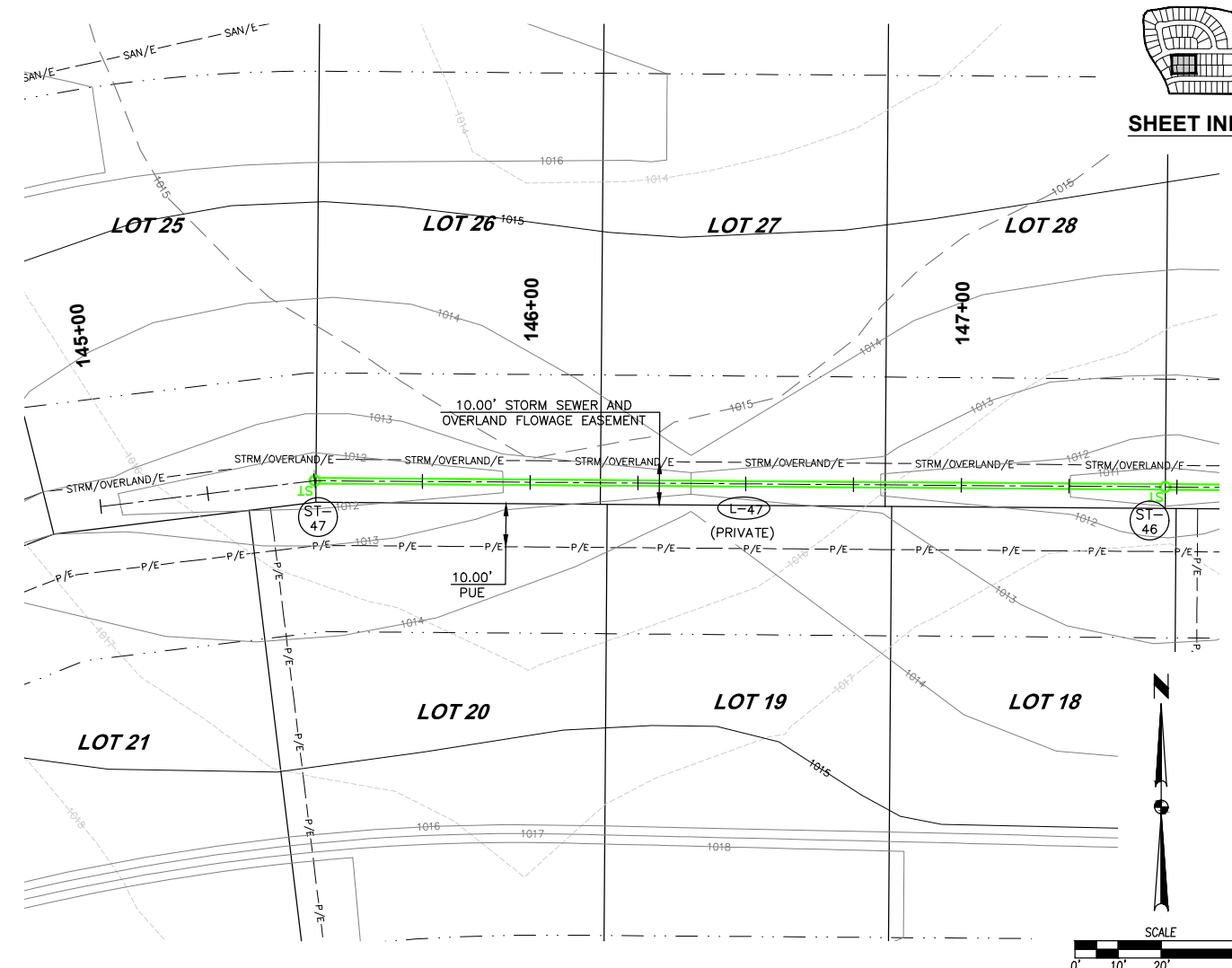
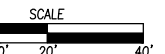
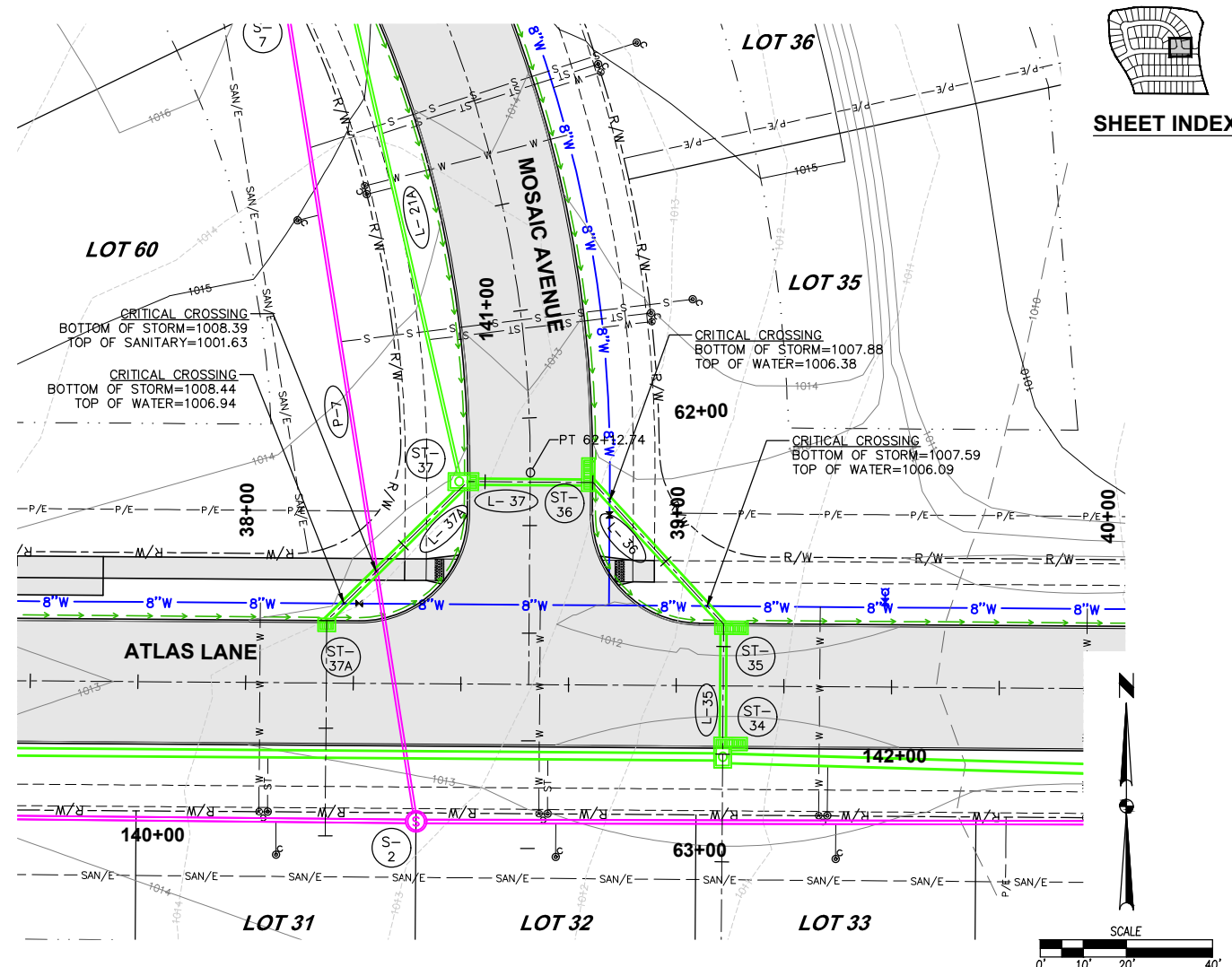
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DATE	REVISIONS
08-28-2023	AS-BUILTS
07-05-2022	NW 6TH ST RW GRADES
06-06-2022	REVISED
04-22-2022	FINAL SUBMITTAL
04-05-2022	THIRD SUBMITTAL
03-22-2022	SECOND SUBMITTAL

4121 NW URBANDALE DRIVE  
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 ENGINEER: ENH  
 TECH:



**WAUKEE CROSSING PLAT 3**  
**STORM SEWER PLAN AND PROFILE**  
 WAUKEE, IOWA  
 25/34  
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08-28-2023	AS-BUILTS
07-05-2023	NW 6TH ST RAW GRADES
06-06-2023	REVISED
04-22-2023	FINAL SUBMITTAL
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03-22-2023	SECOND SUBMITTAL

4121 NW URBANDALE DRIVE  
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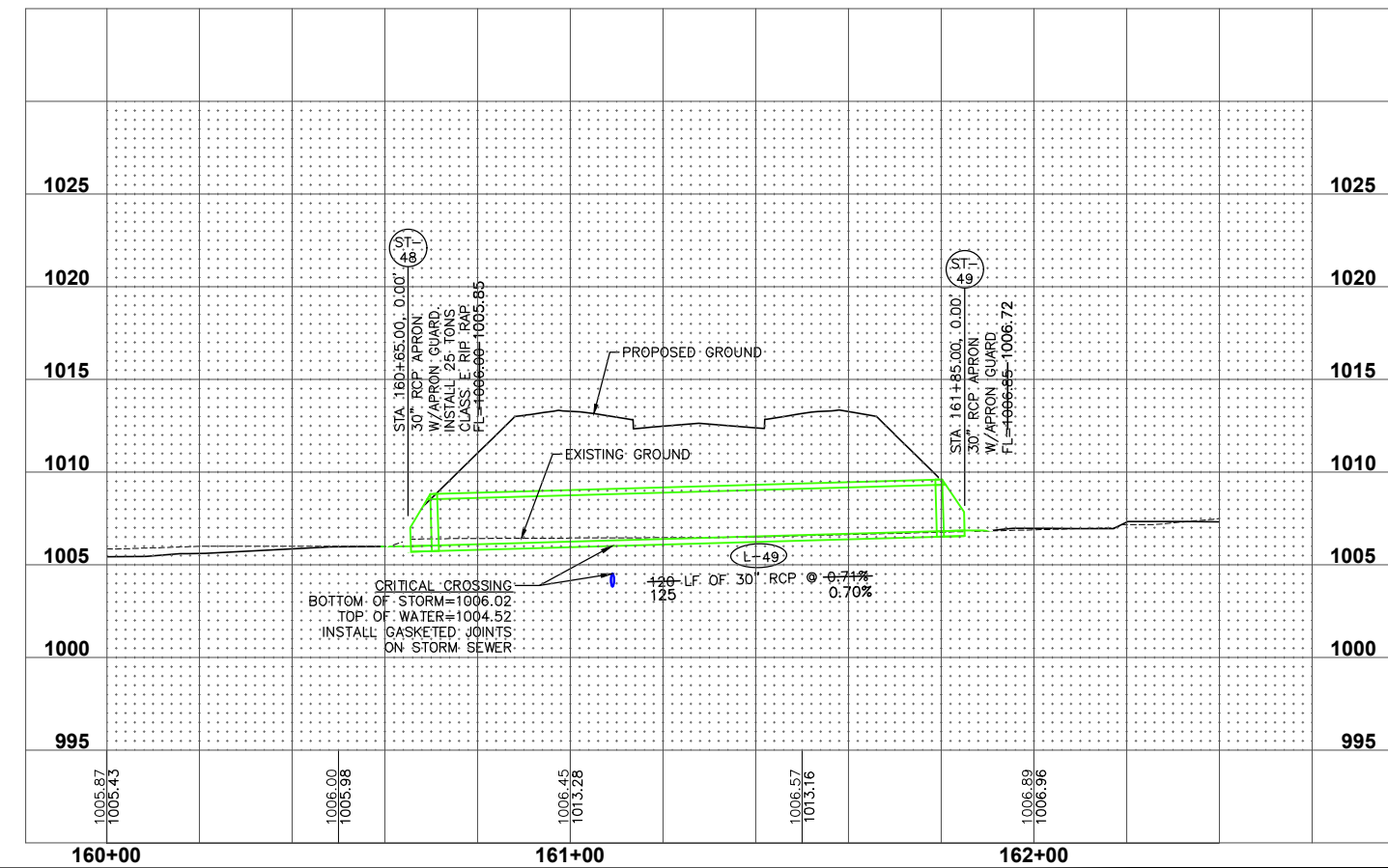
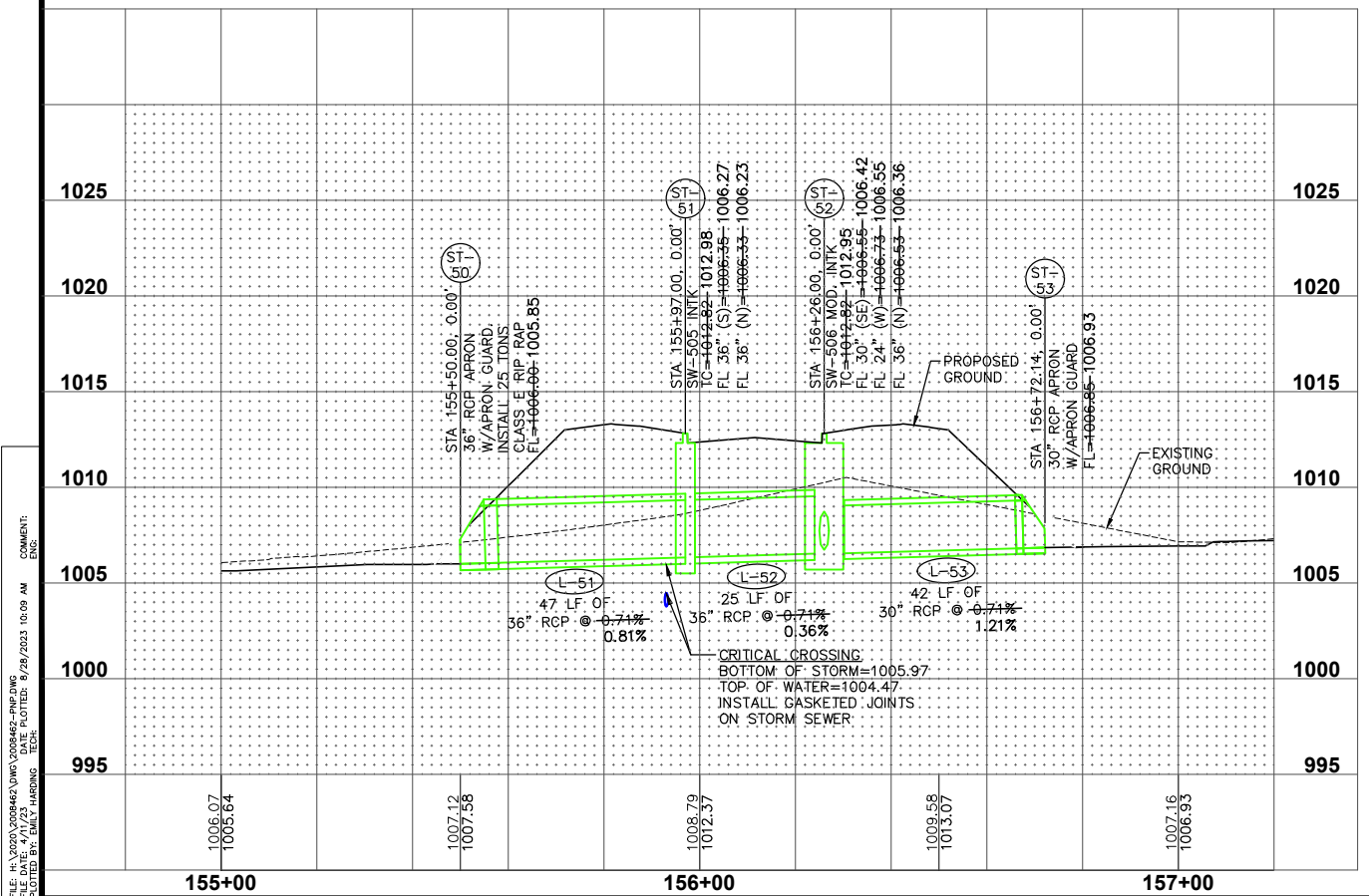
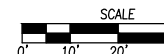
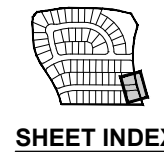
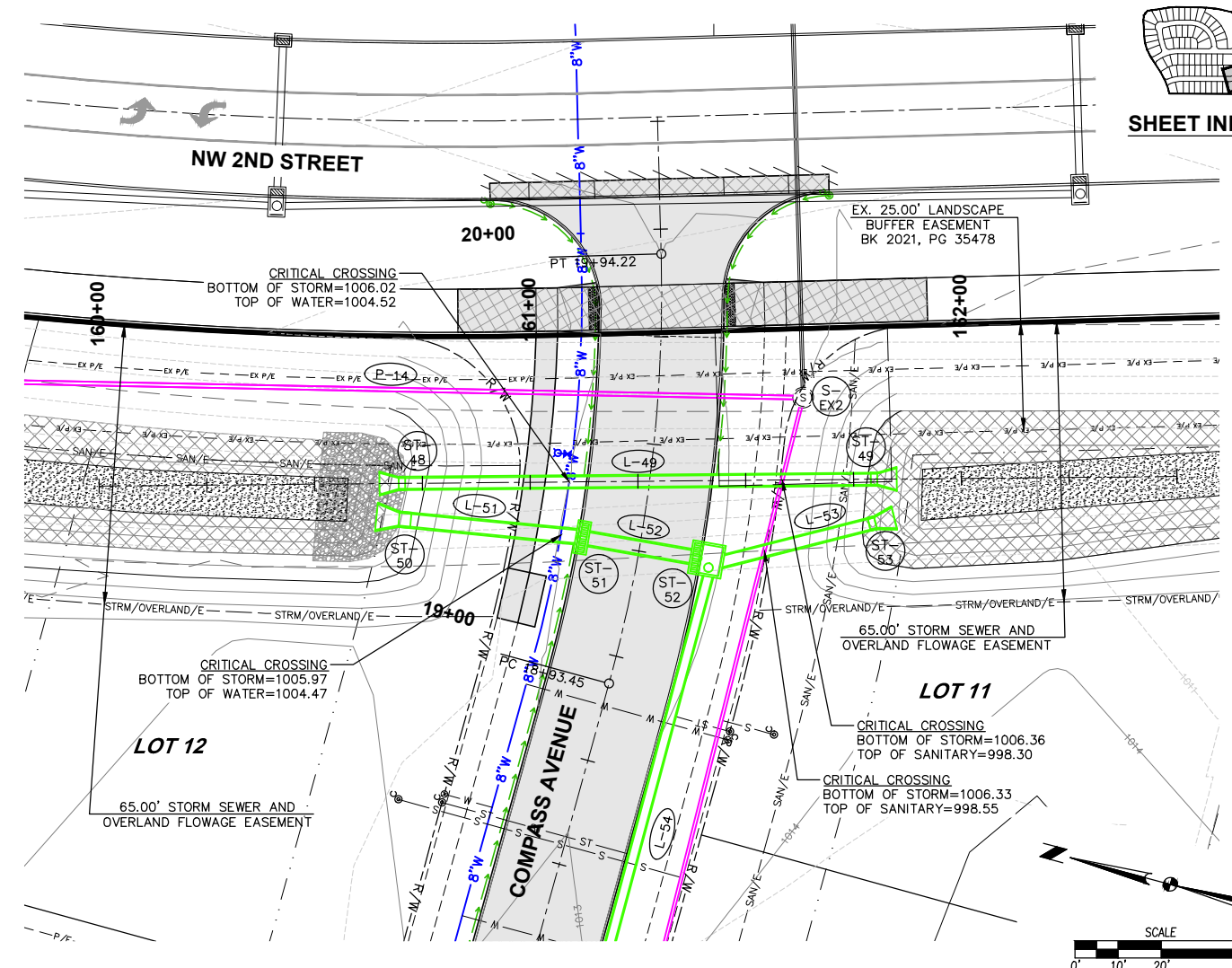
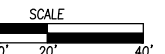
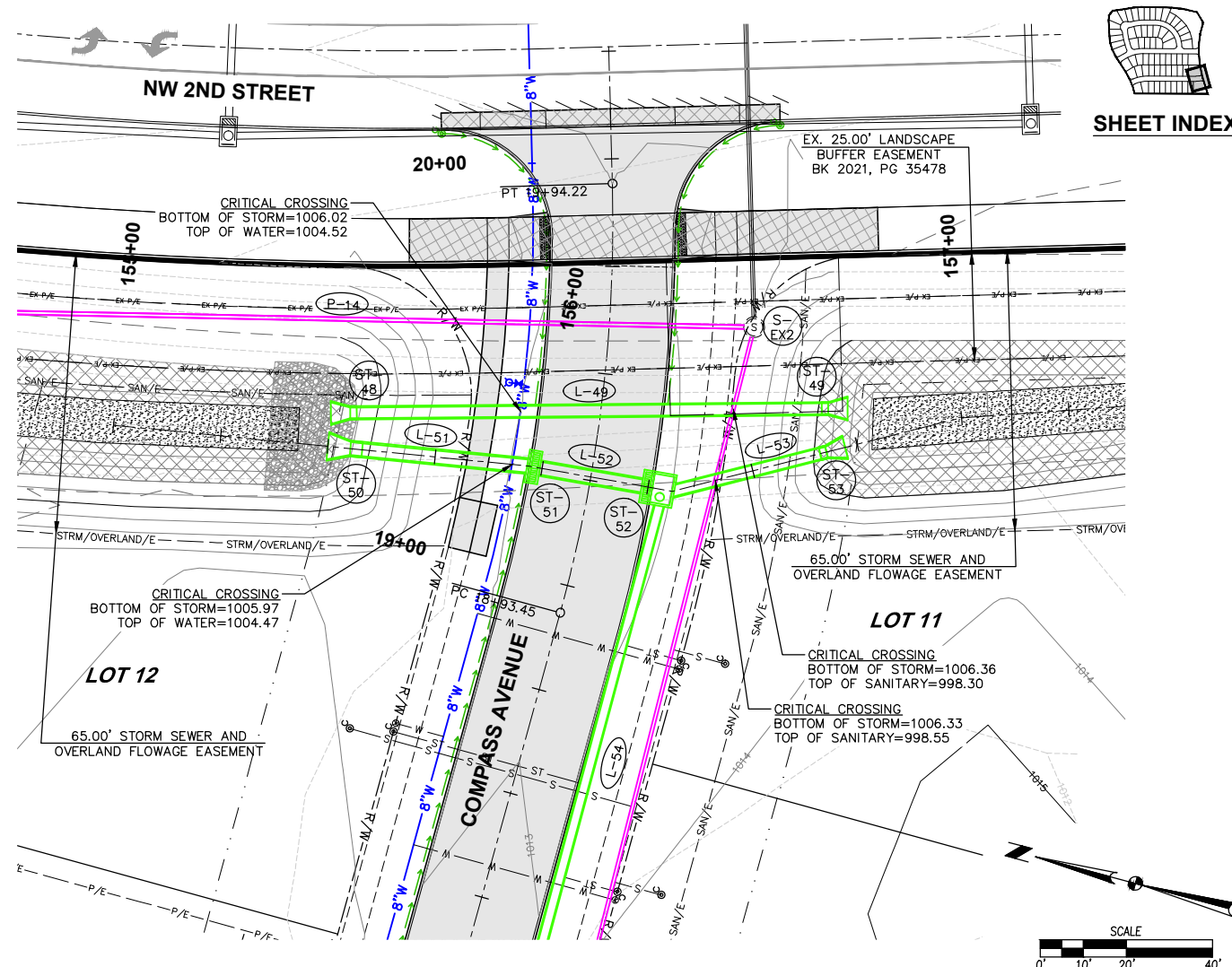
ENGINEER: ENH



WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**STORM SEWER PLAN AND PROFILE**





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AS-BUILTS	07-05-2023
REVISED	06-06-2023
FINAL SUBMITTAL	04-22-2023
THIRD SUBMITTAL	04-05-2022
SECOND SUBMITTAL	03-22-2022

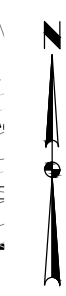
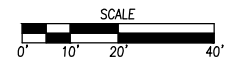
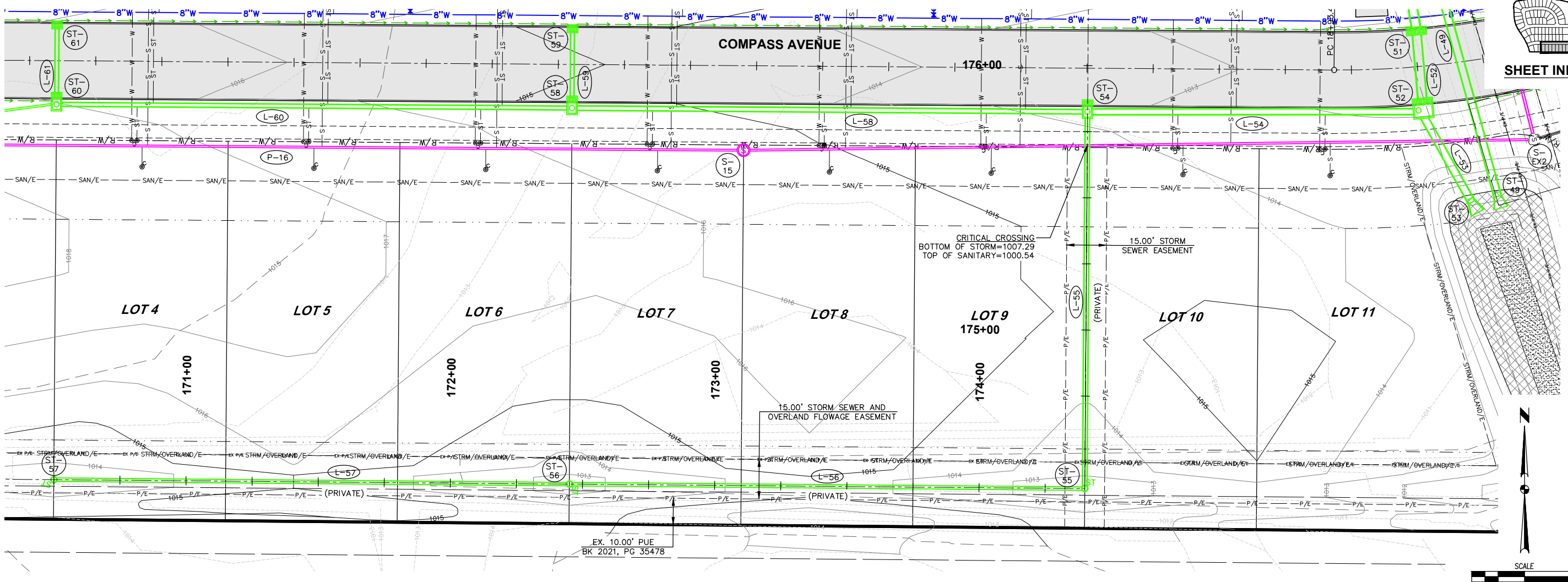
4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

**TECH:** ENH  
**ENGINEER:** ENH

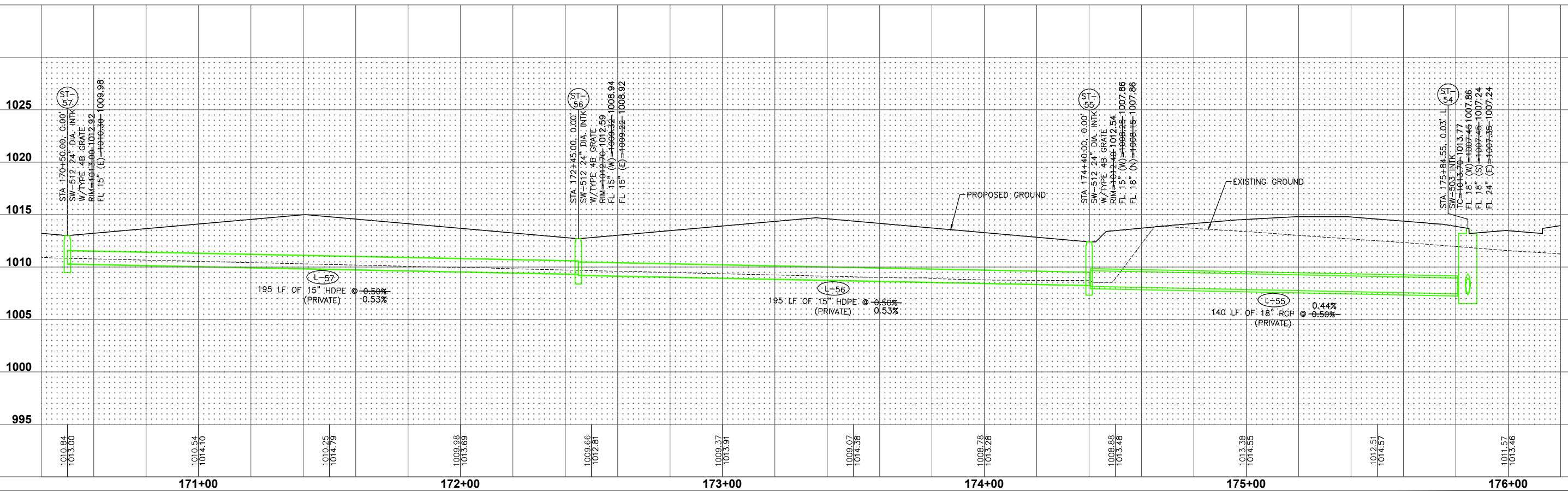
**WAWKEE CROSSING PLAT 3**  
**STORM SEWER PLAN AND PROFILE**

WAUKEE, IOWA

**28**  
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 2008.462



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 ENGR:  
 PLOTTED BY: ENLY HARDING  
 TECH:



DATE	08-28-2023
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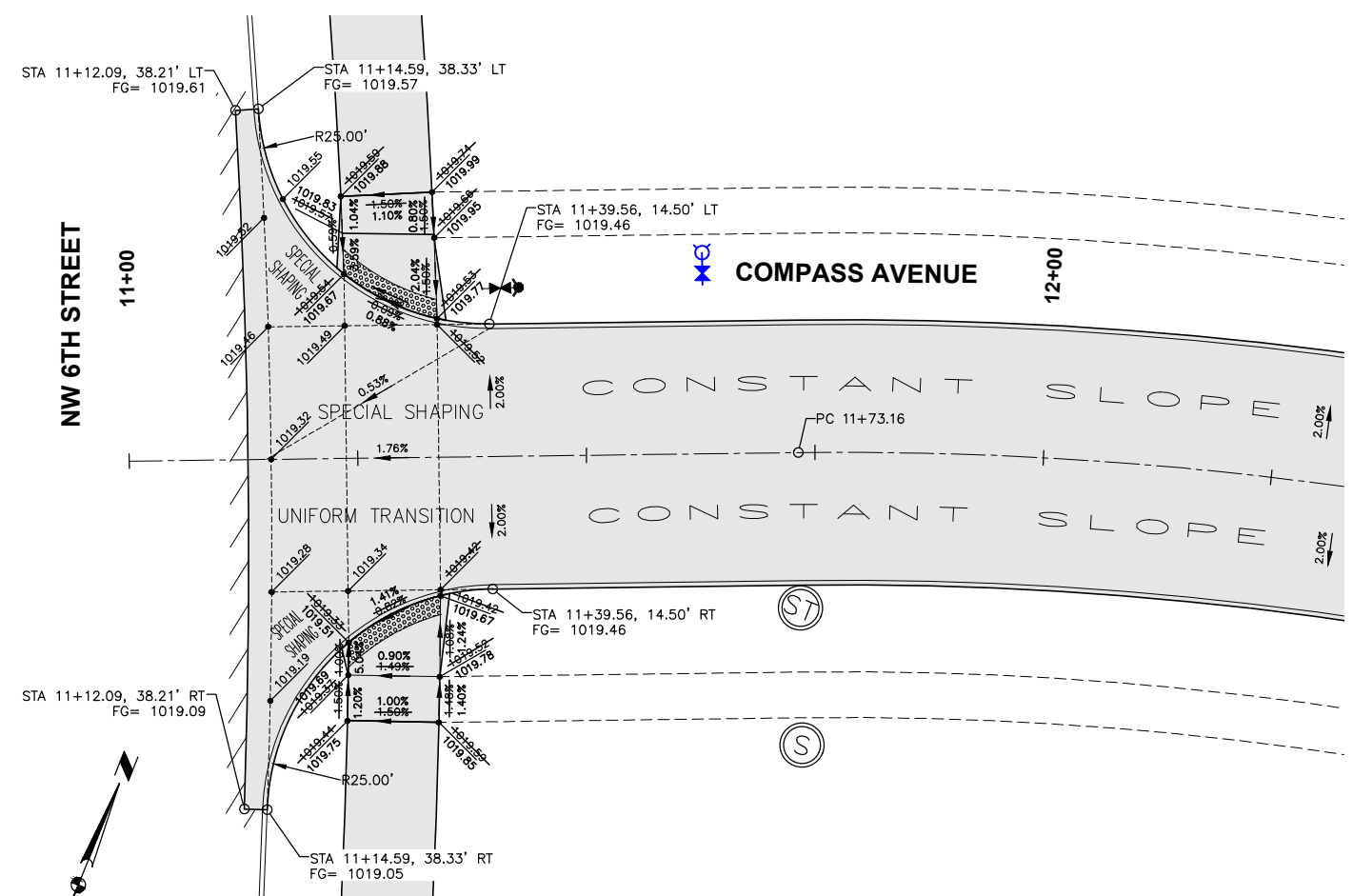
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**WAWKEE CROSSING PLAT 3**  
**STORM SEWER PLAN AND PROFILE**

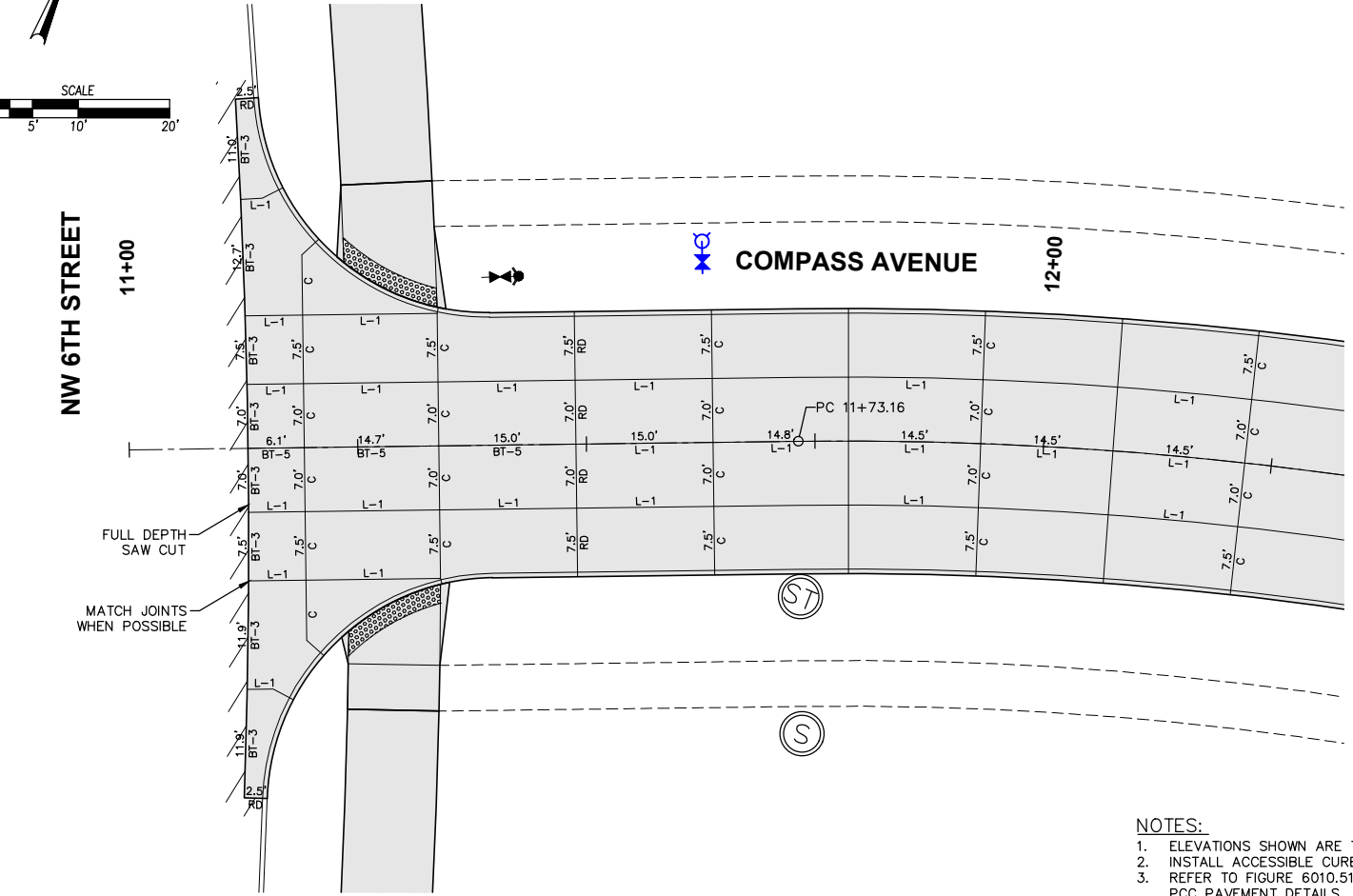
WAWKEE, IOWA

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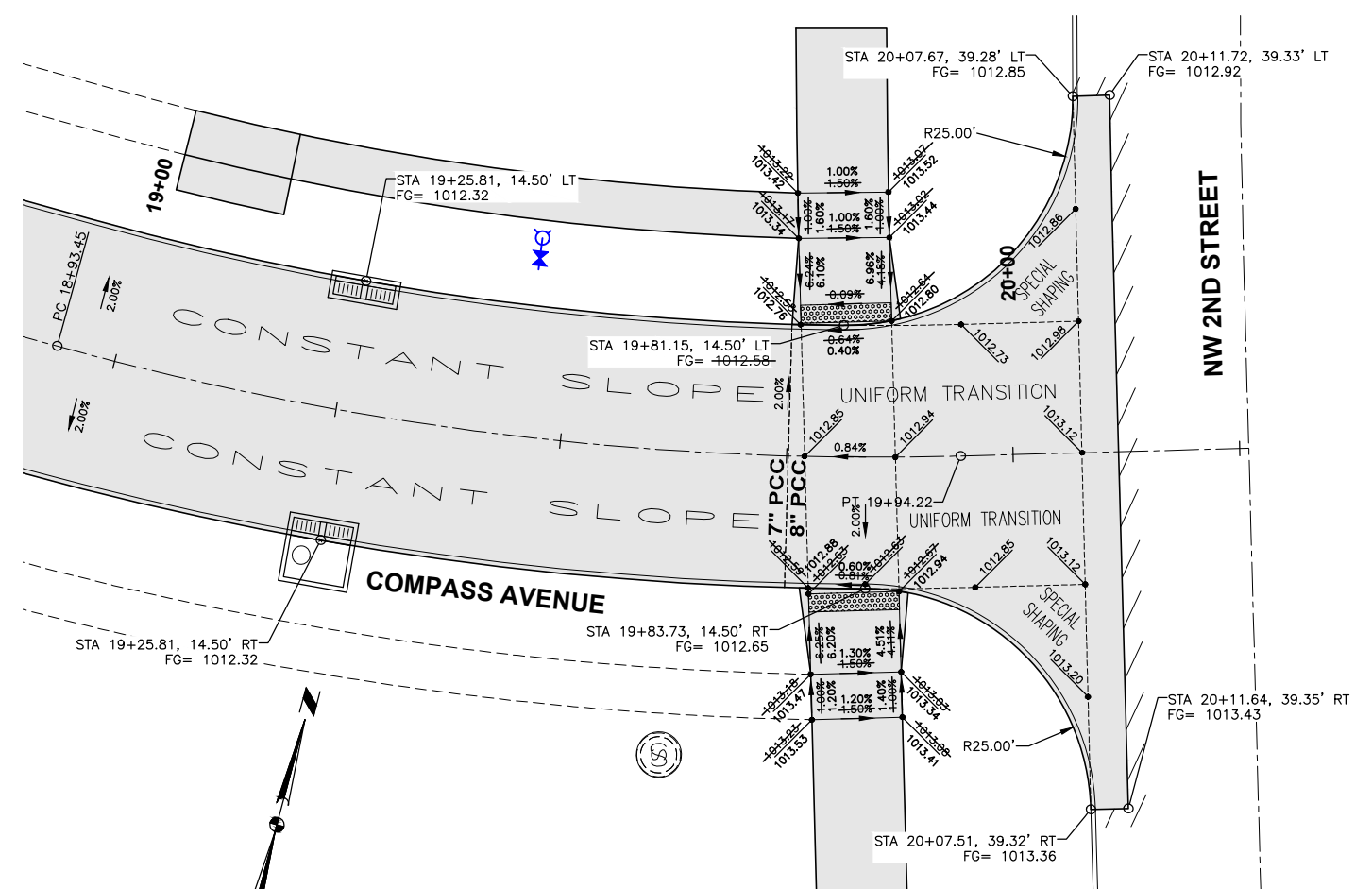


GEOMETRICS AND STAKING LAYOUT

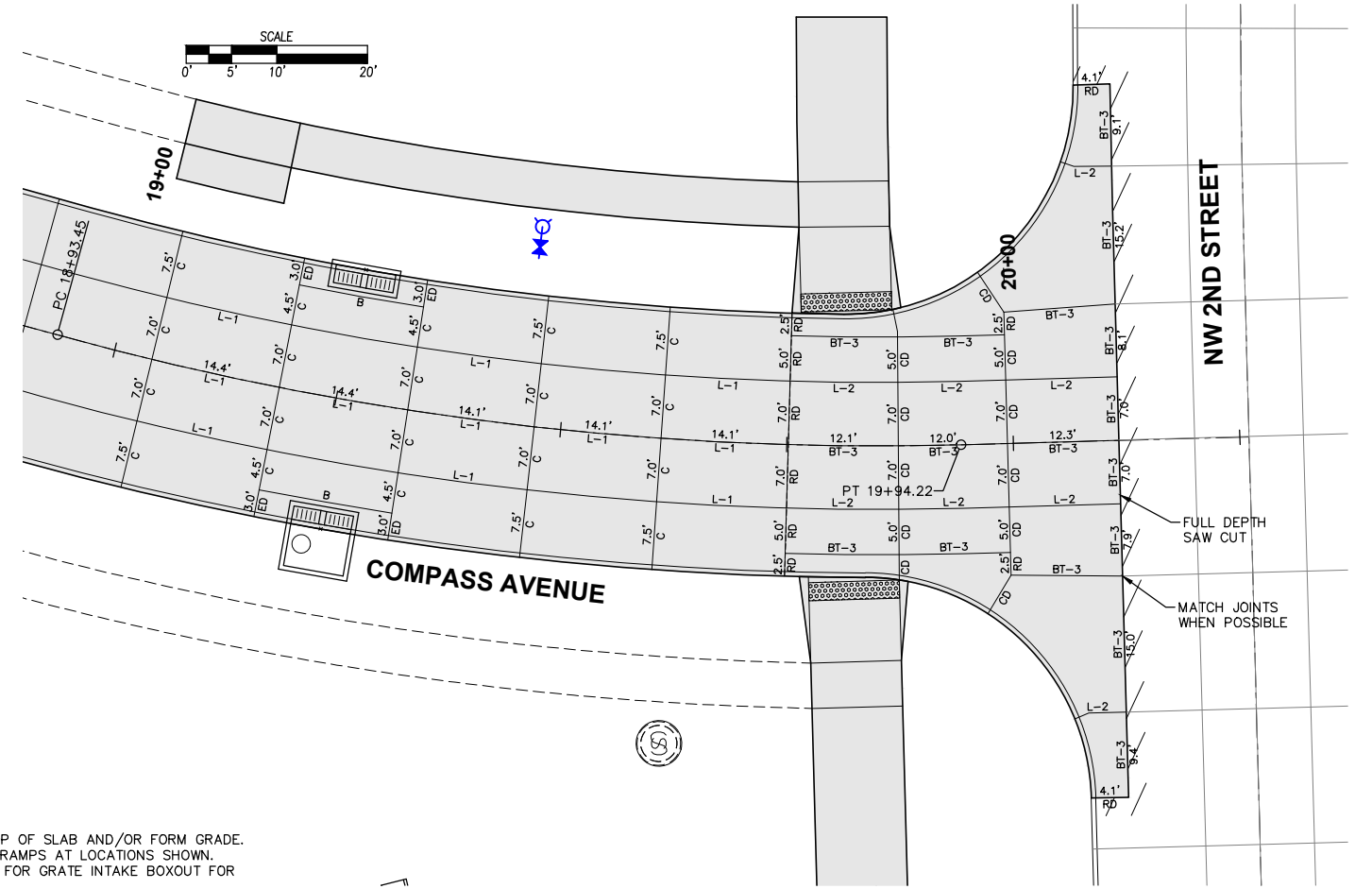


JOINTING LAYOUT

- NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
  2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
  3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.



GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT

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 ENGINEER: ENH

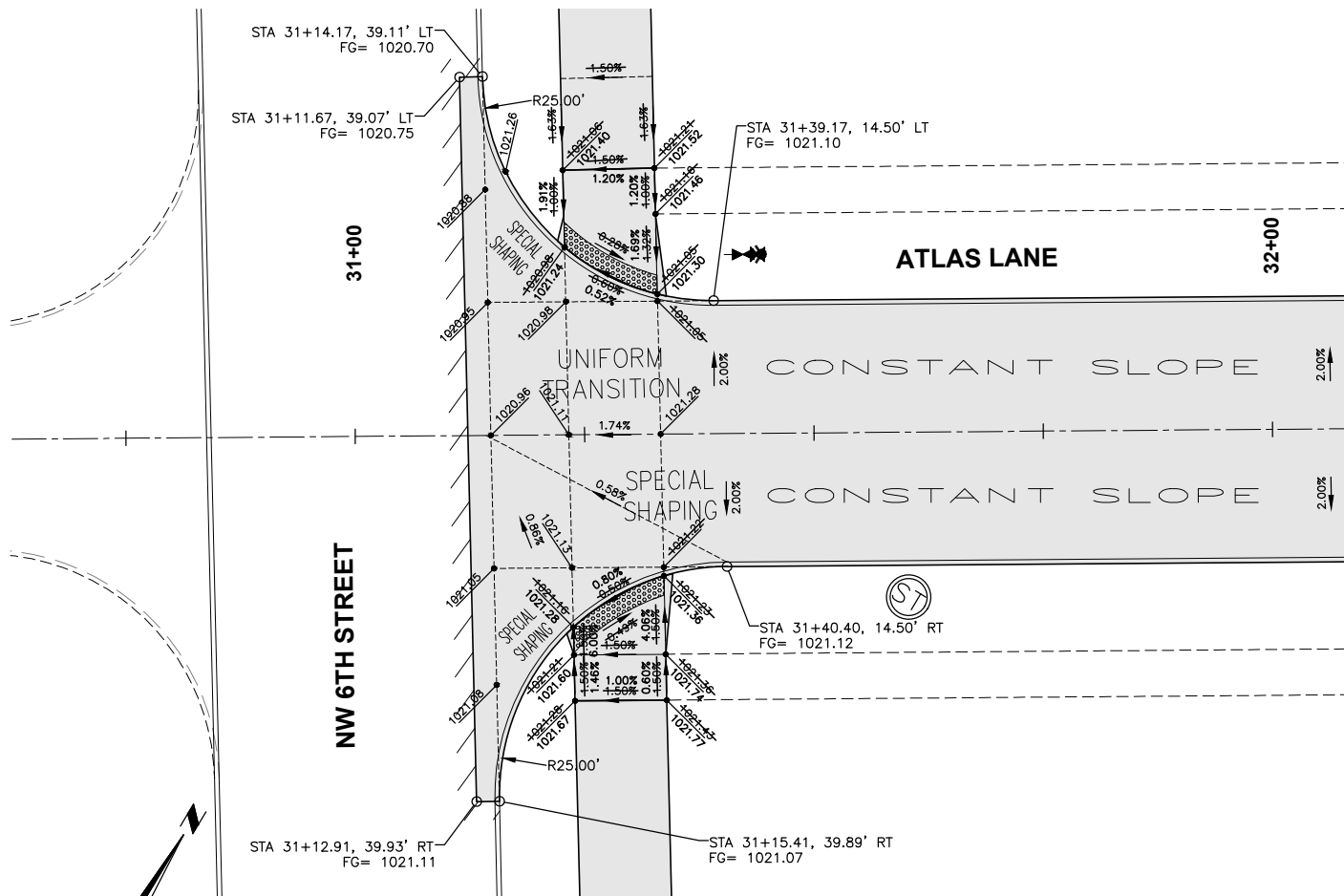
**WAWKEE CROSSING PLAT 3**  
**INTERSECTION DETAILS**

WAWKEE, IOWA

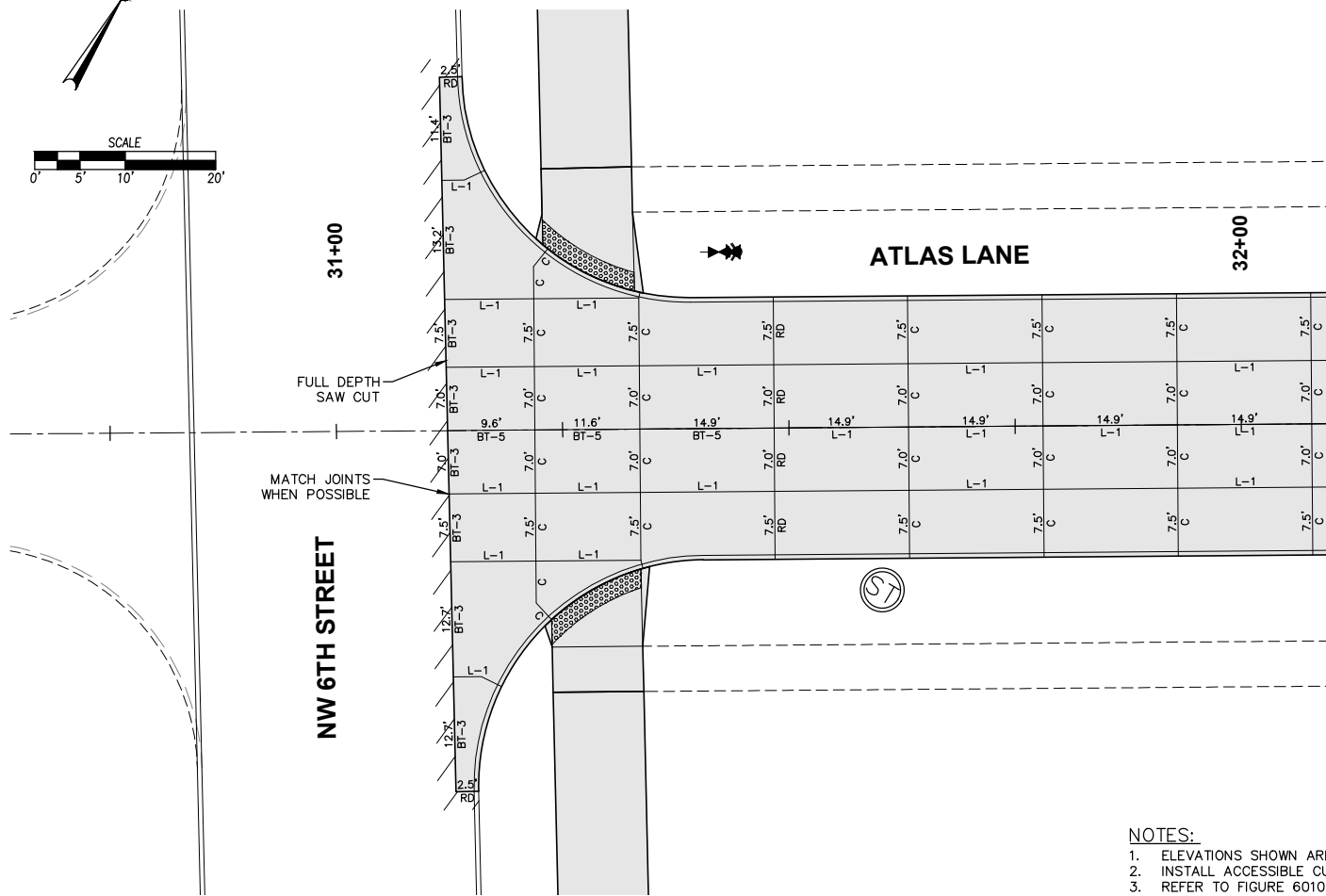
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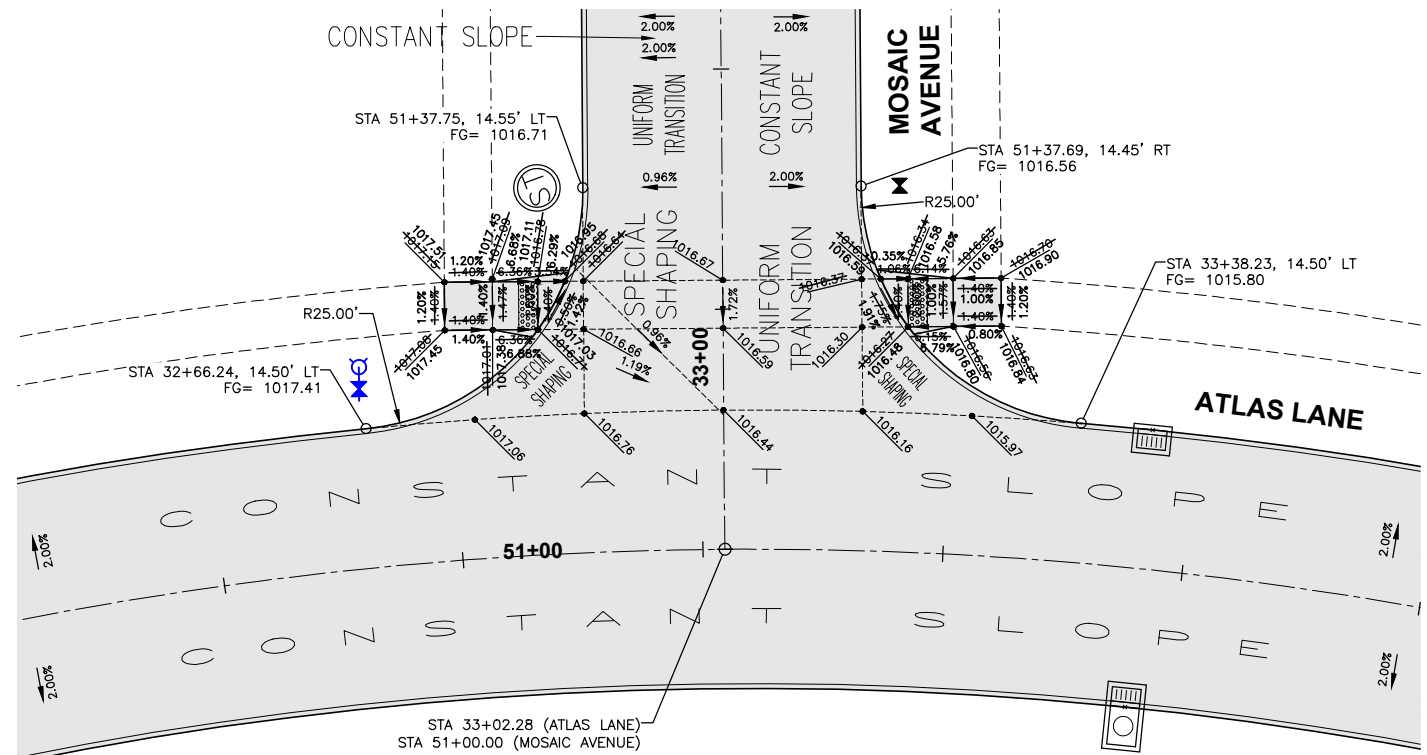


**GEOMETRICS AND STAKING LAYOUT**

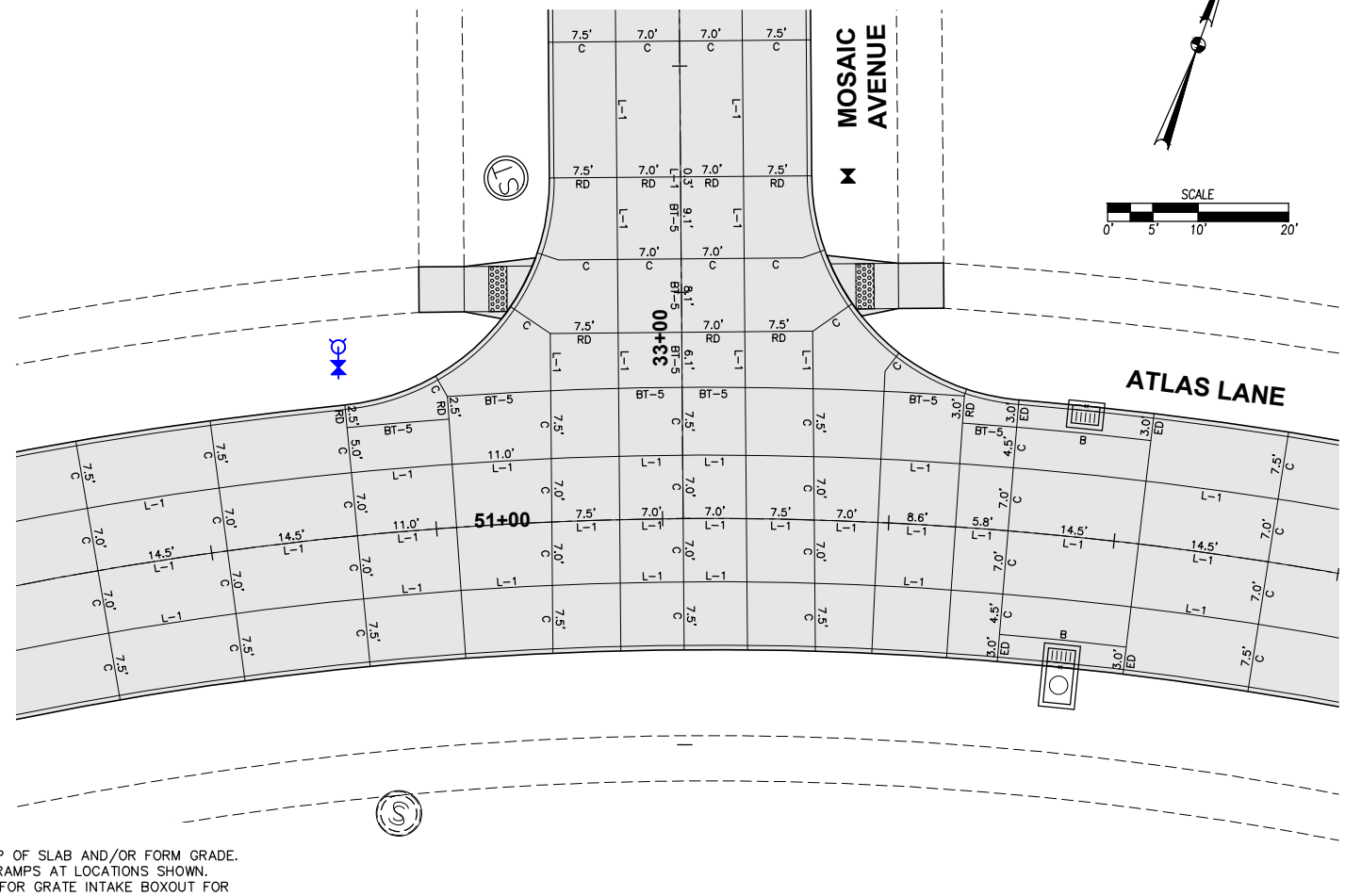


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**GEOMETRICS AND STAKING LAYOUT**



**JOINTING LAYOUT**

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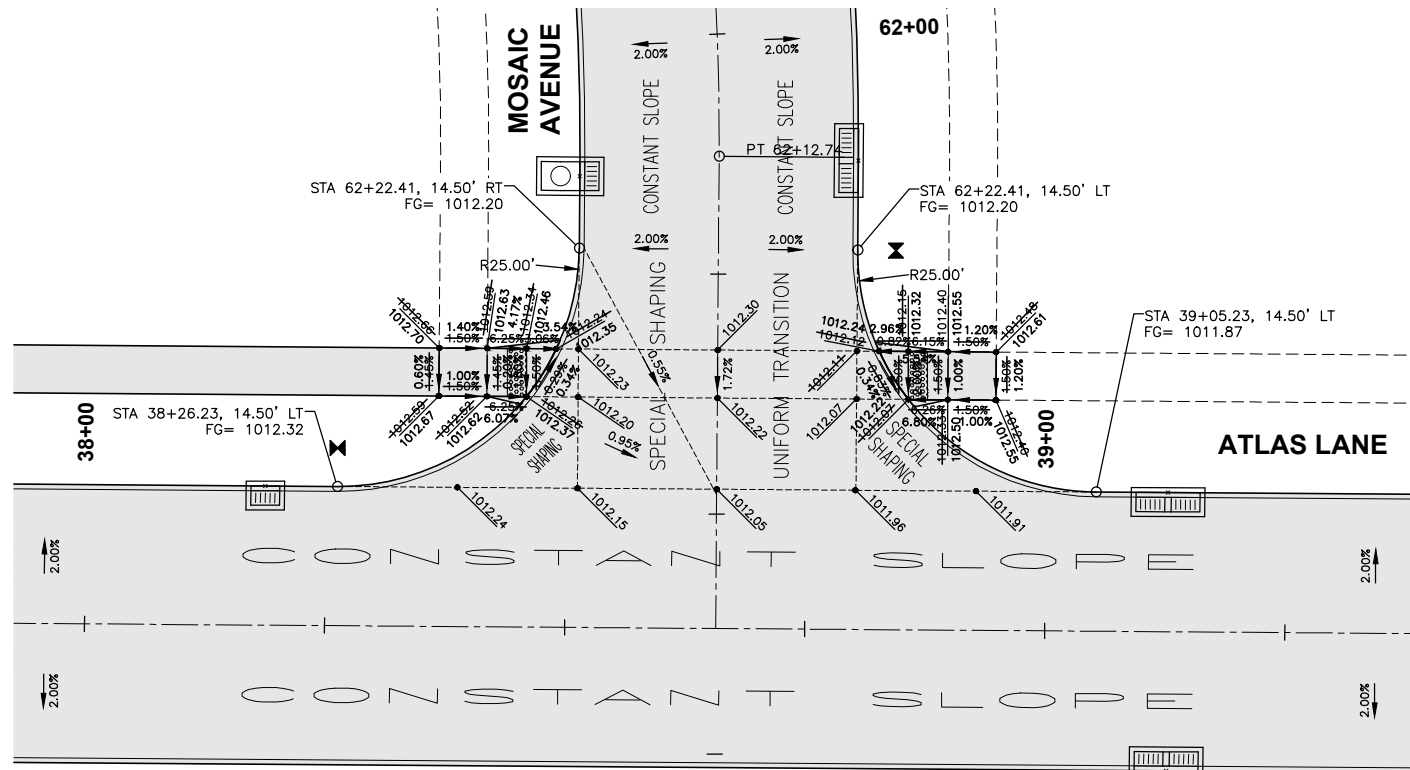
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**WAWKEE CROSSING PLAT 3**  
**INTERSECTION DETAILS**

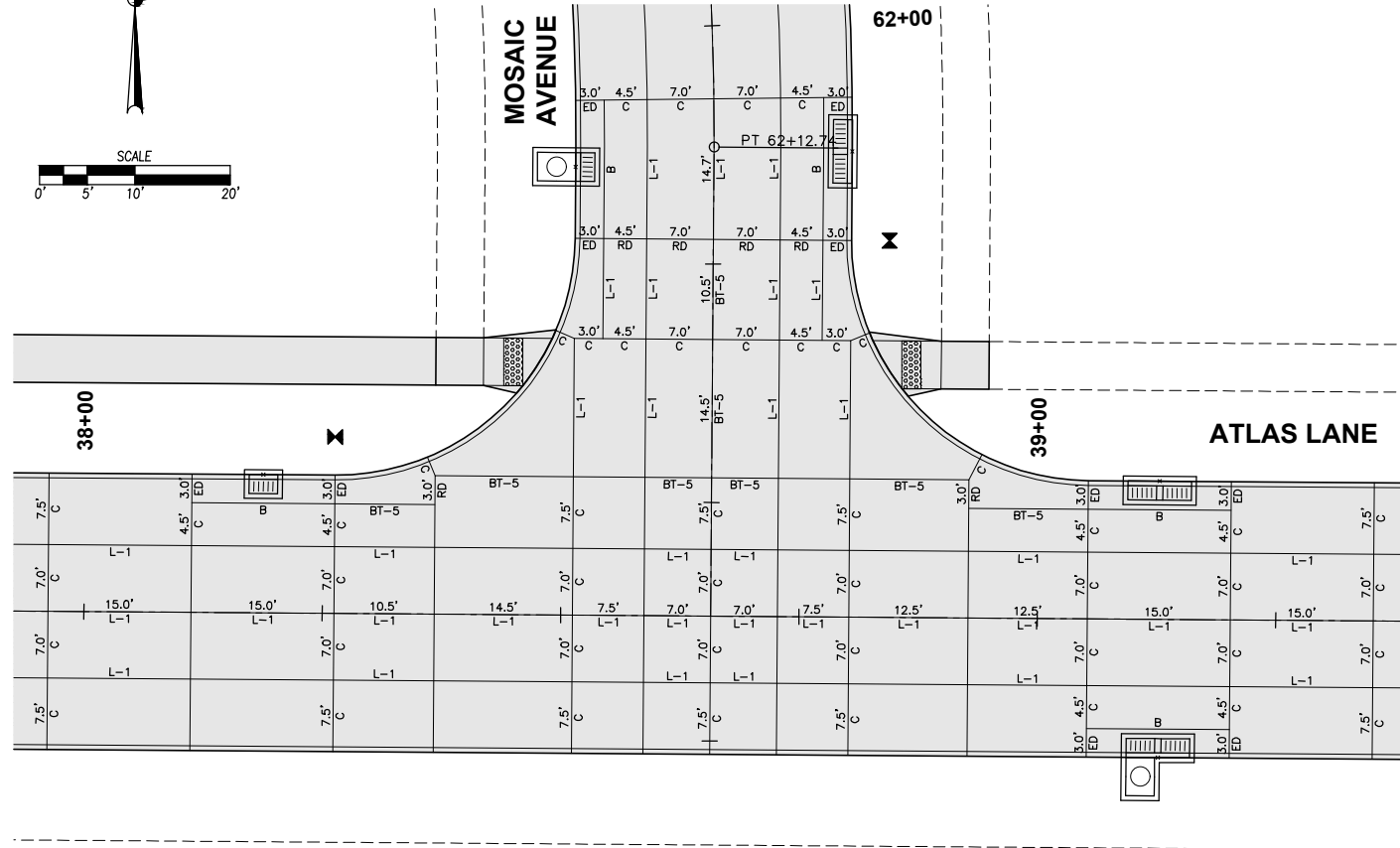
WAWKEE, IOWA

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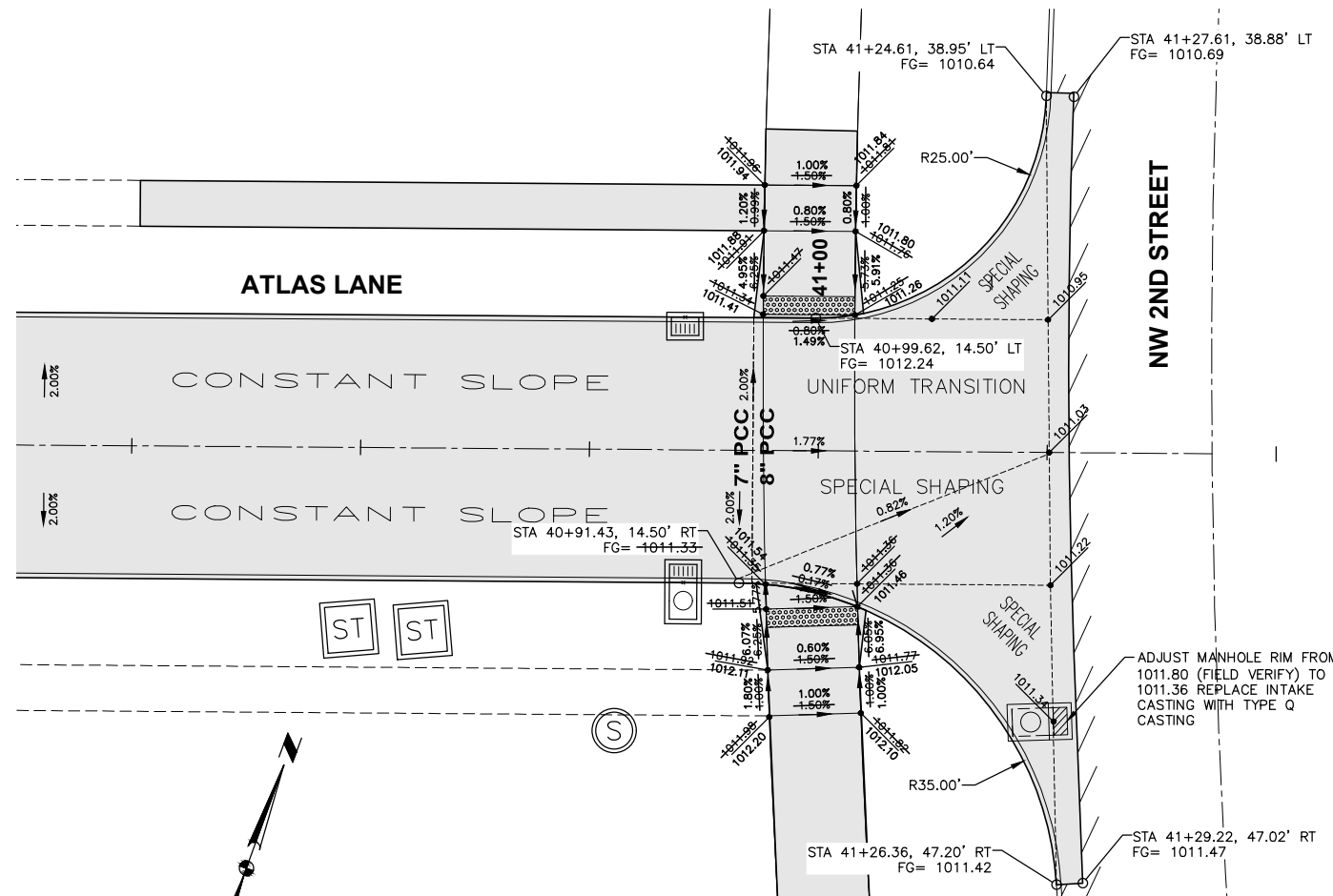


GEOMETRICS AND STAKING LAYOUT

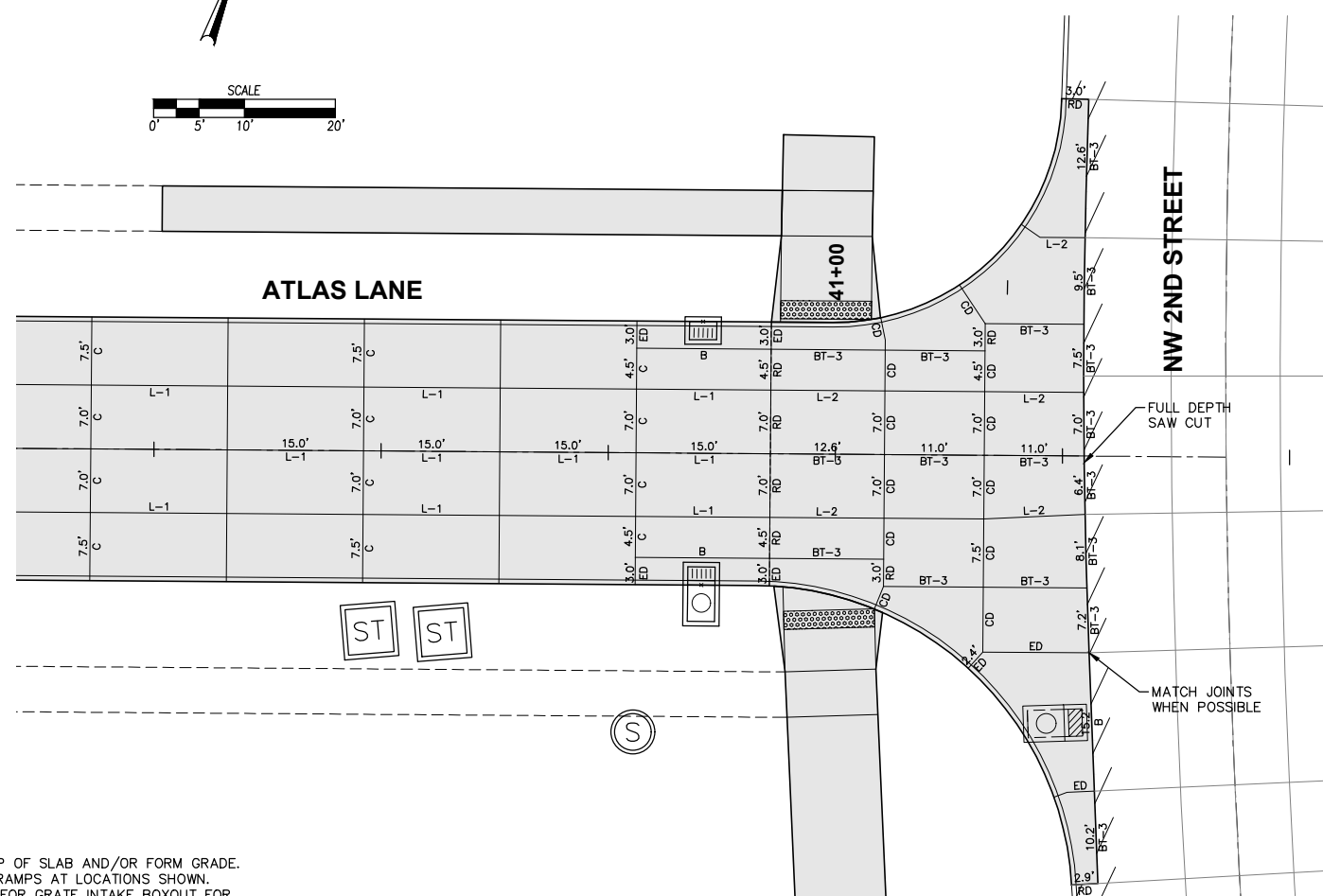


JOINTING LAYOUT

- NOTES:
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GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT

DATE	08-28-2023
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4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
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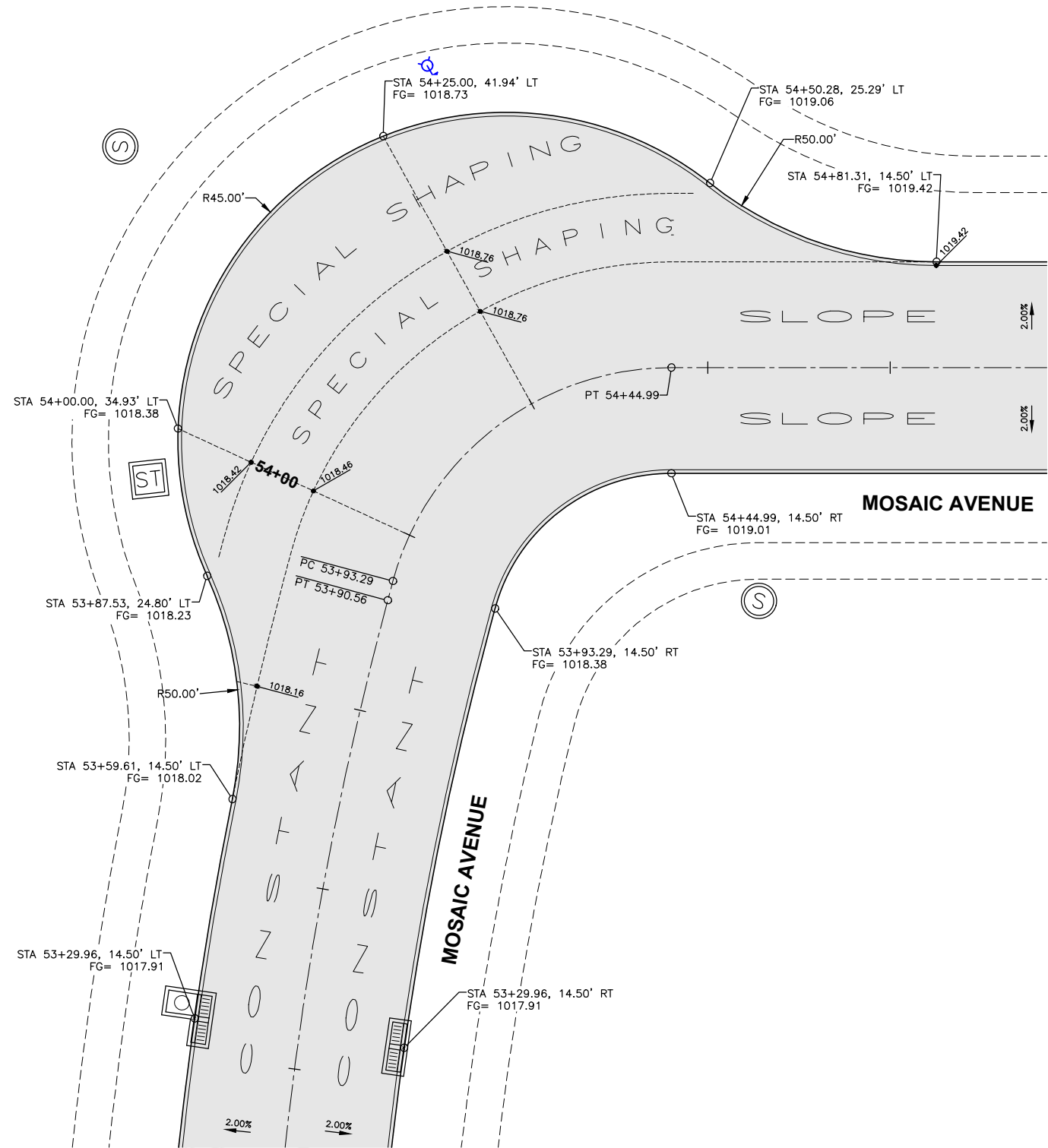
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 CIVIL DESIGN ADVANTAGE  
 WAUKEE, IOWA

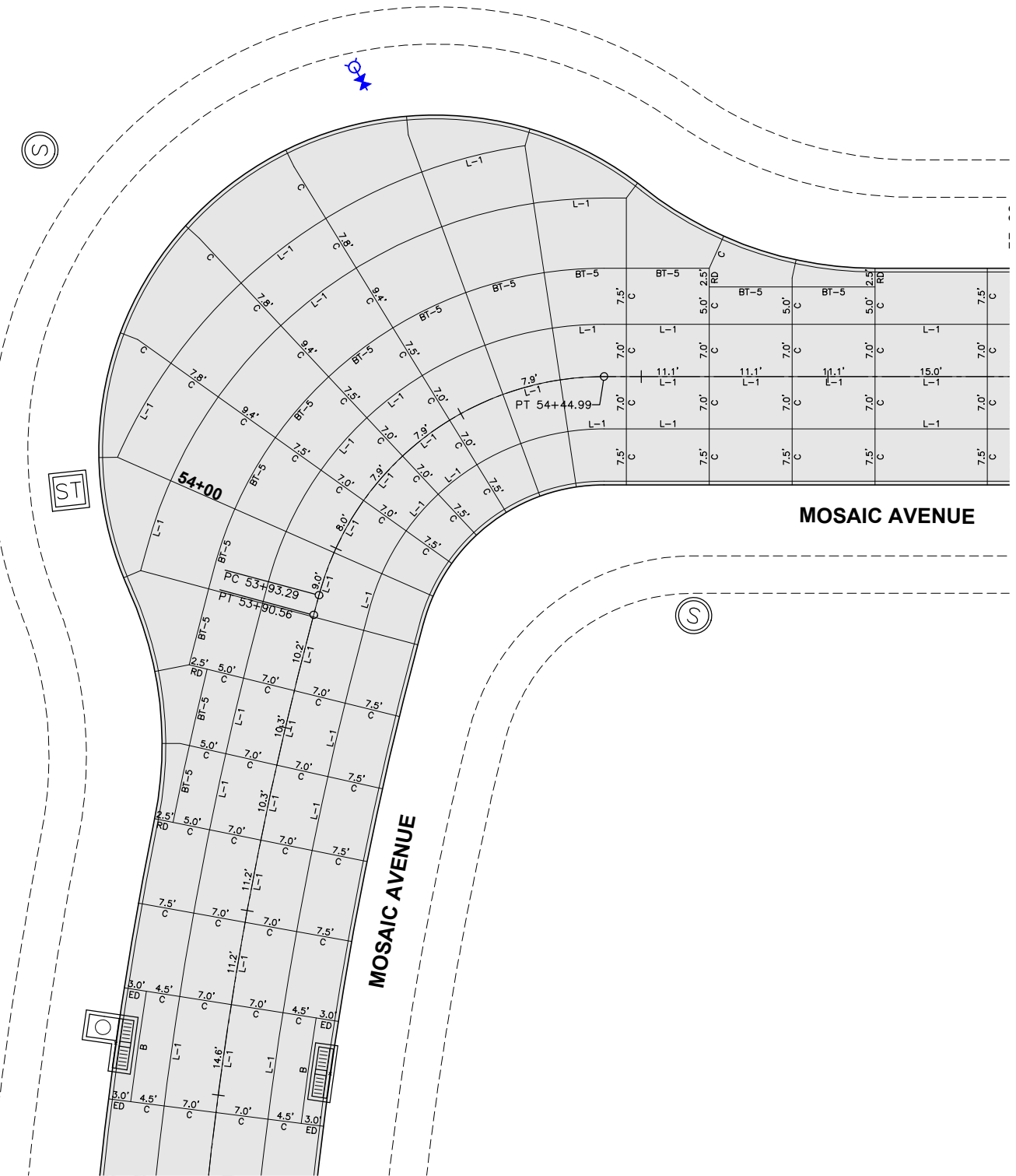
**WAUKEE CROSSING PLAT 3**  
**INTERSECTION DETAILS**

32 / 34  
 2008.462

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**GEOMETRICS AND STAKING LAYOUT**



**JOINTING LAYOUT**

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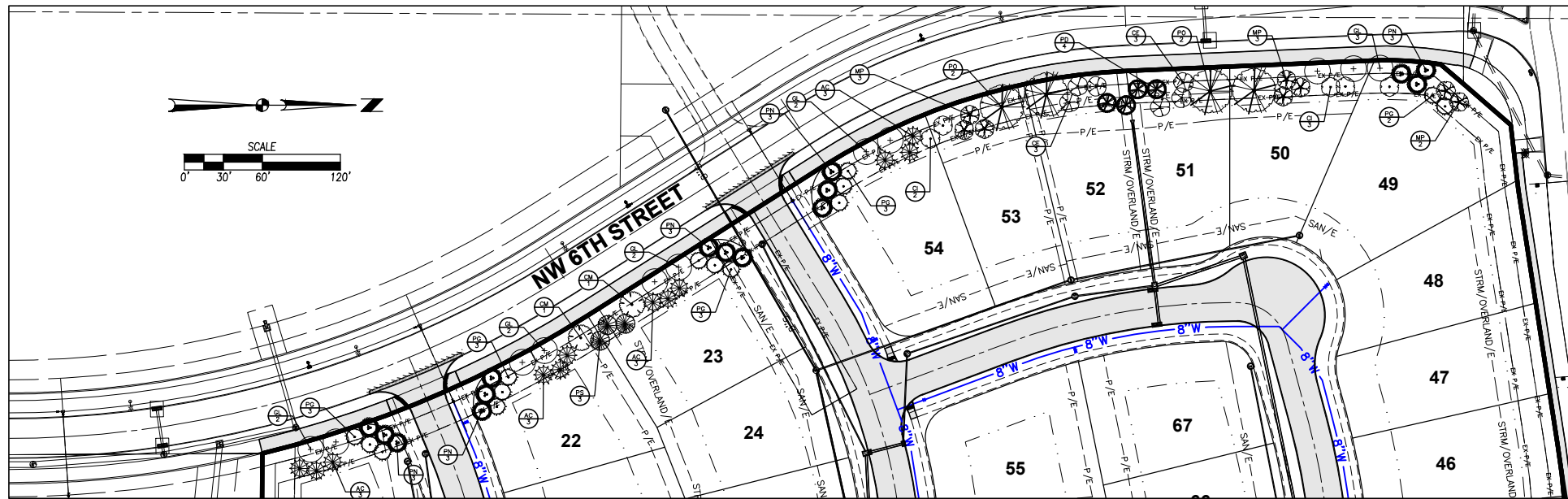
REVISIONS	DATE
AS-BUILTS	08-28-2023
NW 6TH ST RAW GRADES	07-05-2022
REVISED	06-06-2022
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WAUKEE, IOWA  
 CIVIL DESIGN ADVANTAGE

**WAUKEE CROSSING PLAT 3**  
**INTERSECTION DETAILS**



**LANDSCAPE NOTES**

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
3. TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
4. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
5. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING
6. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES TO A (MIN) DEPTH OF 3".
7. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
8. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
9. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.

**BUFFER REQUIREMENTS**

1 OVERSTORY TREE, 2 EVERGREEN TREES AND 2 ORNAMENTAL TREES PER 50 LF. BUFFERS ADJACENT TO DETENTION PONDS MAY HAVE A 2/3 REDUCTION IN PLANTING QUANTITIES. BUFFER REQUIREMENTS ALONG DETENTION AREA CAN BE REDUCED TWO-THIRDS.

**NW 6TH STREET BUFFER**

BUFFER LENGTH: 833 LF TOTAL

TREES REQUIRED: TREES PROVIDED:

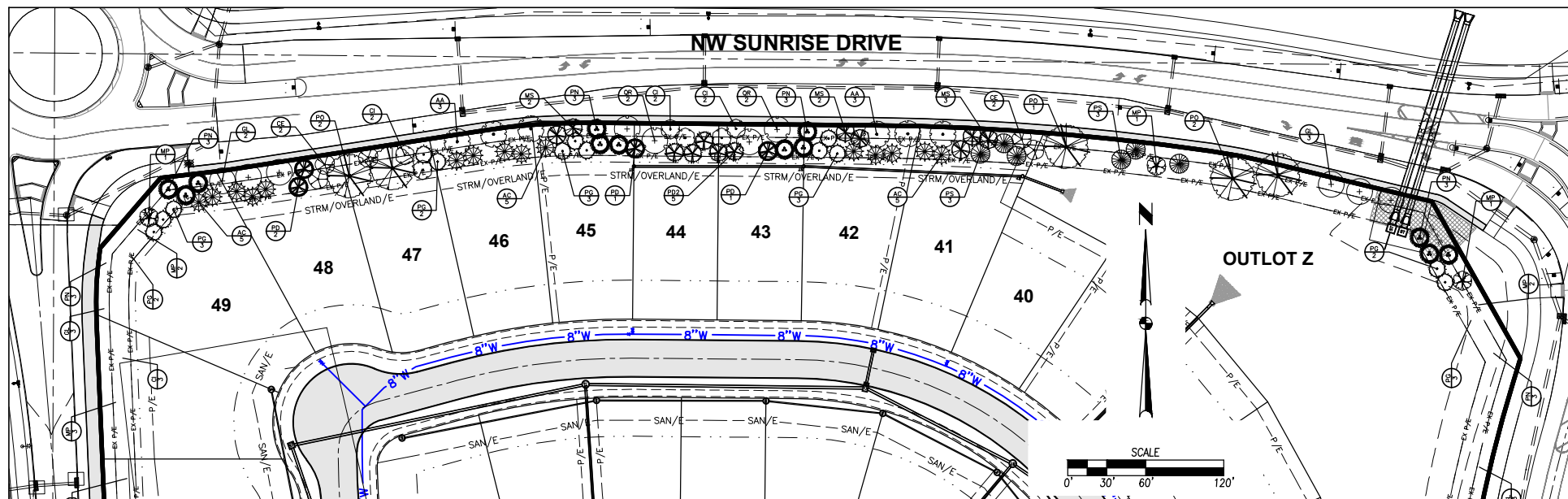
OVERSTORY:	17	17
EVERGREEN:	33	33
ORNAMENTAL:	33	34

**PLANT SCHEDULE NW 6TH**

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	12	White Fir	Abies concolor	B&B, 6" HEIGHT
PD	4	Douglas Fir	Pseudotsuga menziesii	B&B, 6" HEIGHT
PG	14	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6" HEIGHT
PS	3	White Pine	Pinus strobus	B&B, 6" HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CE	6	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 1.5" CALIPER
CI	5	Thornless Cockspur Hawthorn	Crataegus crus-galli inermis	B&B, 1.5" CALIPER
MP	8	Prairiefire Crab Apple	Malus x 'Prairiefire'	B&B, 1.5" CALIPER
PN	15	Newport Flowering Plum	Prunus cerasifera 'Newport'	B&B, 1.5" CALIPER

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CM	2	Crimson King Maple	Acer platanoides 'Crimson King'	B&B, 2" CALIPER
GL	11	Greenspire Linden	Tilia cordata 'Greenspire'	B&B, 2" CALIPER
PO	4	American Sycamore	Platanus occidentalis	B&B, 2" CALIPER



**NW SUNRISE DRIVE BUFFER**

BUFFER LENGTH: 711 LF TOTAL, 355 LF ALONG DETENTION

TREES REQUIRED: TREES PROVIDED:

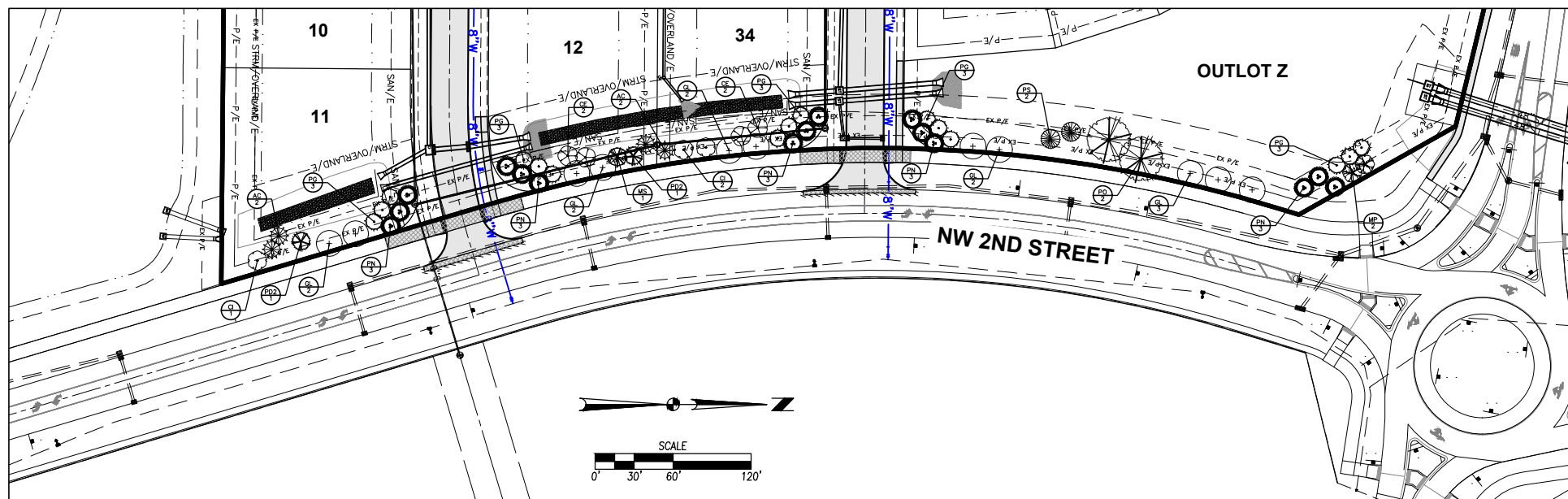
OVERSTORY:	17	17
EVERGREEN:	33	33
ORNAMENTAL:	33	34

**PLANT SCHEDULE NW 6TH**

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	12	White Fir	Abies concolor	B&B, 6" HEIGHT
PD	4	Douglas Fir	Pseudotsuga menziesii	B&B, 6" HEIGHT
PG	14	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6" HEIGHT
PS	3	White Pine	Pinus strobus	B&B, 6" HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CE	6	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 1.5" CALIPER
CI	5	Thornless Cockspur Hawthorn	Crataegus crus-galli inermis	B&B, 1.5" CALIPER
MP	8	Prairiefire Crab Apple	Malus x 'Prairiefire'	B&B, 1.5" CALIPER
PN	15	Newport Flowering Plum	Prunus cerasifera 'Newport'	B&B, 1.5" CALIPER

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CM	2	Crimson King Maple	Acer platanoides 'Crimson King'	B&B, 2" CALIPER
GL	11	Greenspire Linden	Tilia cordata 'Greenspire'	B&B, 2" CALIPER
PO	4	American Sycamore	Platanus occidentalis	B&B, 2" CALIPER



**NW 2ND STREET BUFFER**

BUFFER LENGTH: 792 LF TOTAL, 359 ALONG DETENTION

TREES REQUIRED: TREES PROVIDED:

OVERSTORY:	11	11
EVERGREEN:	23	25
ORNAMENTAL:	22	25

**PLANT SCHEDULE NW 2ND**

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	4	White Fir	Abies concolor	B&B, 6" HEIGHT
PD2	2	Black Hills White Spruce	Picea glauca 'Densata'	B&B, 6" HEIGHT
PG	15	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6" HEIGHT
PS	2	White Pine	Pinus strobus	B&B, 6" HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CE	4	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 1.5" CALIPER
CI	3	Thornless Cockspur Hawthorn	Crataegus crus-galli inermis	B&B, 1.5" CALIPER
MP	2	Prairiefire Crab Apple	Malus x 'Prairiefire'	B&B, 1.5" CALIPER
MS	1	Spring Snow Crab Apple	Malus x 'Spring Snow'	B&B, 1.5" CALIPER
PN	15	Newport Flowering Plum	Prunus cerasifera 'Newport'	B&B, 1.5" CALIPER

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
GL	11	Greenspire Linden	Tilia cordata 'Greenspire'	B&B, 2" CALIPER
PO	2	American Sycamore	Platanus occidentalis	B&B, 2" CALIPER

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 FINAL SUBMITTAL: 04-22-2023  
 THIRD SUBMITTAL: 04-05-2023  
 SECOND SUBMITTAL: 03-22-2023

4121 NW URBANDALE DRIVE  
 URBANDALE, IA 50322  
 PHONE: (515) 369-4400

TECH: ENH  
 ENGINEER: ENH

**ESA**  
 CIVIL DESIGN ADVANTAGE  
 WAUKEE, IOWA

**WAUKEE CROSSING PLAT 3**  
**LANDSCAPE PLAN**

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