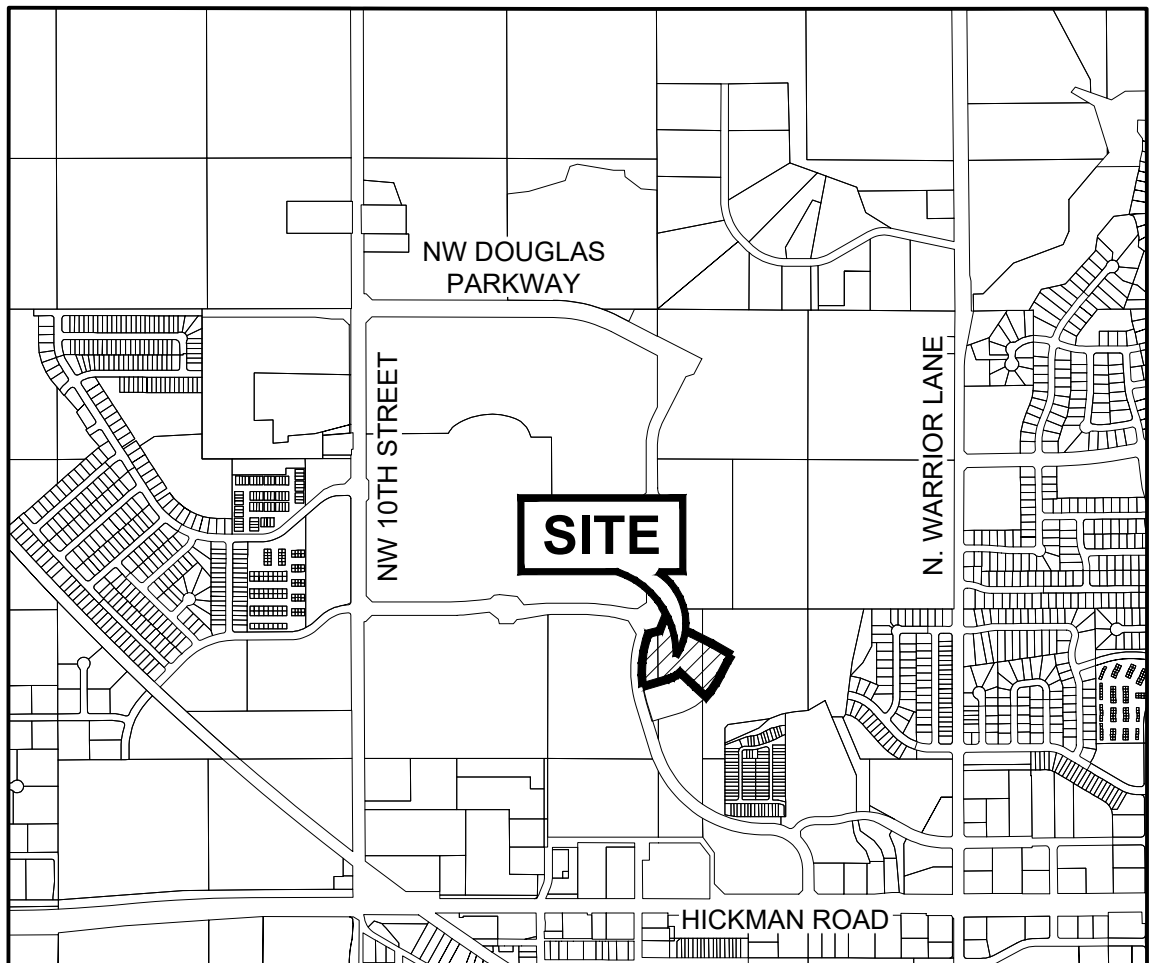


CONSTRUCTION PLANS FOR:
INDI RUN PLAT 5

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-4	TYPICAL SECTIONS AND DETAILS
5	QUANTITIES AND REFERENCE NOTES
6	HYDRANT COVERAGE PLAN
7	EROSION AND SEDIMENT CONTROL PLAN
8-9	GRADING PLAN
10-13	PLAN AND PROFILE
14	STORM SEWER PLAN AND PROFILE
15-18	WATER MAIN PLAN AND PROFILE
19-20	INTERSECTION DETAILS
21-22	LANDSCAPE PLAN

GENERAL LEGEND

PROPOSED	EXISTING
PROPERTY BOUNDARY	SANITARY MANHOLE
SECTION LINE	WATER VALVE BOX
CENTER LINE	FIRE HYDRANT
RIGHT OF WAY	WATER CURB STOP
BUILDING SETBACK	WELL
PERMANENT EASEMENT	STORM SEWER MANHOLE
TEMPORARY EASEMENT	STORM SEWER SINGLE INTAKE
TYPE SW-501 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-502 STORM INTAKE	FLARED END SECTION
TYPE SW-503 STORM INTAKE	DECIDUOUS TREE
TYPE SW-505 STORM INTAKE	CONIFEROUS TREE
TYPE SW-506 STORM INTAKE	DECIDUOUS SHRUB
TYPE SW-512 STORM INTAKE	CONIFEROUS SHRUB
TYPE SW-513 STORM INTAKE	ELECTRIC POWER POLE
TYPE SW-401 STORM MANHOLE	GUY ANCHOR
TYPE SW-402 STORM MANHOLE	STREET LIGHT
FLARED END SECTION	POWER POLE W/ TRANSFORMER
TYPE SW-301 SANITARY MANHOLE	UTILITY POLE W/ LIGHT
STORM/SANITARY CLEANOUT	ELECTRIC BOX
WATER VALVE	ELECTRIC TRANSFORMER
FIRE HYDRANT ASSEMBLY	ELECTRIC MANHOLE OR VAULT
SIGN	TRAFFIC SIGN
DETECTABLE WARNING PANEL	TELEPHONE JUNCTION BOX
WATER CURB STOP	TELEPHONE MANHOLE/VAULT
STORM SEWER STRUCTURE NO.	TELEPHONE POLE
STORM SEWER PIPE NO.	GAS VALVE BOX
SANITARY SEWER STRUCTURE NO.	CABLE TV JUNCTION BOX
SANITARY SEWER	CABLE TV MANHOLE/VAULT
SANITARY SERVICE	MAIL BOX
STORM SEWER	BENCHMARK
STORM SERVICE	SOIL BORING
WATERMAIN WITH SIZE	UNDERGROUND TV CABLE
WATER SERVICE	GAS MAIN
SAWCUT (FULL DEPTH)	FIBER OPTIC
SILT FENCE	UNDERGROUND TELEPHONE
USE AS CONSTRUCTED	OVERHEAD ELECTRIC
MINIMUM PROTECTION ELEVATION	UNDERGROUND ELECTRIC
TOP OF PROPOSED GROUND	FIELD TILE
	SANITARY SEWER WITH SIZE
	STORM SEWER WITH SIZE
	WATER MAIN WITH 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.

OWNER/APPLICANT

INDI RUN WEST, LLC
17389 BERKSHIRE PARKWAY
CLIVE, IOWA 50325
PH: 515-369-4400
CONTACT: ERIC GRUBB
EMAIL: ERIC@SOLIDGROUNDIOWA.COM

ENGINEER

CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PH: 515-369-4400
CONTACT: DOUG MANDERNACH
EMAIL: DOUGM@CDA-ENG.COM

SURVEYOR

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
CONTACT: CHARLIE MCGLOTHLEN
EMAIL: CHARLIE@CDA-ENG.COM
PH: (515) 369-4400

DATE OF SURVEY

JANUARY 3, 2022

SUBMITTAL DATES

FIRST SUBMITTAL: 05/19/2022
SECOND SUBMITTAL: 06/14/2022
THIRD SUBMITTAL: 07/15/2022
FOURTH SUBMITTAL: 08/02/2022
FIFTH SUBMITTAL: 08/11/2022
FOR CONSTRUCTION: 09/06/2022
AS-BUILT: 10/10/2023

BENCHMARKS

BURY BOLT ON HYDRANT @ SE CORNER OF
NE BADGER LANE AND N WARRIOR LANE.
ELEVATION = 1014.03

BURY BOLT ON HYDRANT @ SE CORNER OF
DOUGLAS PARKWAY AND NE BADGER LANE.
ELEVATION = 999.60

LEGAL DESCRIPTION

A PART OF PARCEL "22-20" AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2022, PAGE 9854, BEING A PART OF THE SOUTH ONE HALF OF SECTION 28, TOWNSHIP 79 NORTH, RANGE 26 WEST OF THE FIFTH PRINCIPAL MERIDIAN, IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID PARCEL "22-20"; THENCE SOUTH 30°32'09" EAST ALONG THE WESTERLY LINE OF SAID PARCEL "22-20", A DISTANCE OF 95.07 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 56°34'44" EAST, 147.82 FEET; THENCE SOUTH 65°19'51" EAST, 129.38 FEET; THENCE SOUTHEASTERLY ALONG A CURVE CONCAVE SOUTHWESTERLY WHOSE RADIUS IS 3035.00 FEET, WHOSE ARC LENGTH IS 394.59 FEET AND WHOSE CHORD BEARS SOUTH 61°36'23" EAST, 394.31 FEET; THENCE SOUTH 32°07'05" WEST, 70.00 FEET; THENCE SOUTH 27°01'52" WEST, 133.32 FEET; THENCE SOUTH 27°01'52" WEST, 60.00 FEET; THENCE NORTH 62°58'08" WEST, 0.28 FEET; THENCE SOUTH 33°15'21" WEST, 108.08 FEET; THENCE SOUTH 39°54'11" WEST, 61.31 FEET; THENCE NORTH 46°41'04" WEST, 125.00 FEET; THENCE NORTH 46°41'04" WEST, 60.00 FEET; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE NORTHWESTERLY WHOSE RADIUS IS 330.00 FEET, WHOSE ARC LENGTH IS 1.61 FEET AND WHOSE CHORD BEARS SOUTH 43°27'19" WEST, 1.61 FEET; THENCE NORTH 46°24'17" WEST, 130.00 FEET; THENCE SOUTH 49°20'04" WEST, 40.00 FEET; THENCE SOUTH 60°48'46" WEST, 40.00 FEET; THENCE SOUTH 71°33'31" WEST, 44.00 FEET; THENCE SOUTH 73°26'14" WEST, 229.12 FEET TO THE WESTERLY LINE OF SAID PARCEL "22-20"; THENCE NORTHERLY ALONG SAID WESTERLY LINE AND A CURVE CONCAVE EASTERLY WHOSE RADIUS IS 950.00 FEET, WHOSE ARC LENGTH IS 416.82 FEET AND WHOSE CHORD BEARS NORTH 04°22'59" EAST, 413.48 FEET; THENCE NORTH 16°57'09" EAST CONTINUING ALONG SAID WESTERLY LINE, 55.31 FEET; THENCE NORTH 76°13'12" EAST CONTINUING ALONG SAID WESTERLY LINE, 103.14 FEET; THENCE NORTH 21°51'38" EAST CONTINUING ALONG SAID WESTERLY LINE, 120.00 FEET TO THE POINT OF BEGINNING AND CONTAINING 7.14 ACRES (310,856 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

ZONING

R-2 ONE AND TWO FAMILY RESIDENTIAL DISTRICT

UTILITY WARNING

THE 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.



CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE, URBANDALE, IA 50322
PH: (515) 369-4400
PROJECT NO. 1806.355

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF WAUKEE COSESCO PERMIT. 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.

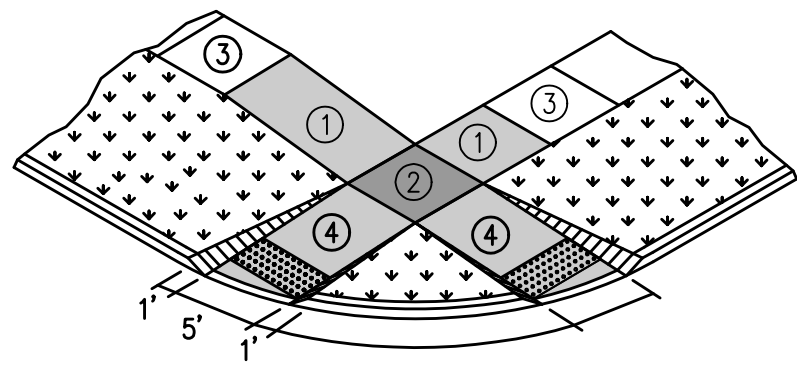
ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

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

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.

JEFFREY J. NESVIK, P.E. 10/26/2023
DATE

LICENSE NUMBER 23810
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1-20

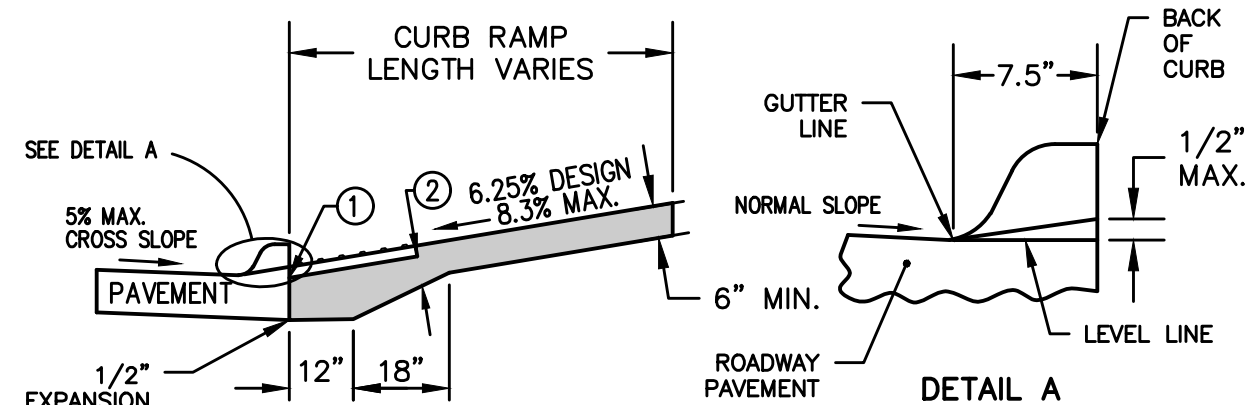


- ① PARALLEL CURB RAMP: TARGET CROSS SLOPE OF 1.5% WITH A MAXIMUM CROSS SLOPE OF 2.0%. THE LENGTH OF THE PARALLEL RAMP IS NOT TO EXCEED 15 FEET, REGARDLESS OF RESULTING SLOPE. DO NOT EXCEED 8.3% SLOPE FOR PARALLEL RAMP SHORTER THAN 15 FEET.
- ② TURNING SPACE: TARGET SLOPE OF 1.5% WITH A MAXIMUM SLOPE PERPENDICULAR TO THE TRAVEL DIRECTIONS OF 2.0%. AT MID-BLOCK CROSSINGS, CROSS SLOPE OF LANDING MAY EXCEED 2.0% TO MATCH THE ROADWAY GRADE. MINIMUM 5 FEET BY 5 FEET.
- ③ TARGET CROSS-SLOPE OF 1.5% WITH A MAXIMUM CROSS-SLOPE OF 2.0%.
- ④ PERPENDICULAR CURB RAMP: TARGET RUNNING SLOPE OF 6.25% WITH MAXIMUM RUNNING SLOPE OF 8.3%.
- THE MINIMUM PAVEMENT DEPTH FOR RAMPS AND TURNING SPACE SHALL BE 6-INCHES.

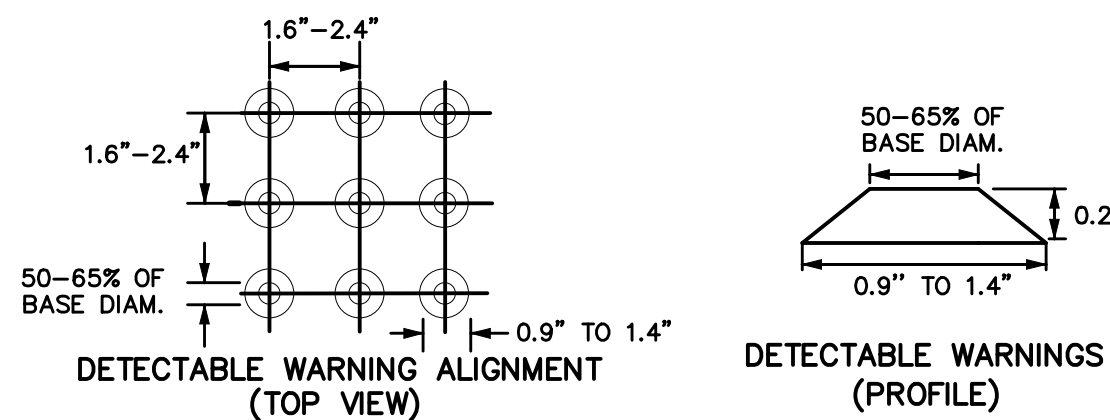
Key
CURB RAMP
TURNING SPACE
DETECTABLE WARNING

CURB RAMPS OUTSIDE OF INTERSECTION RADIUS

NOT TO SCALE

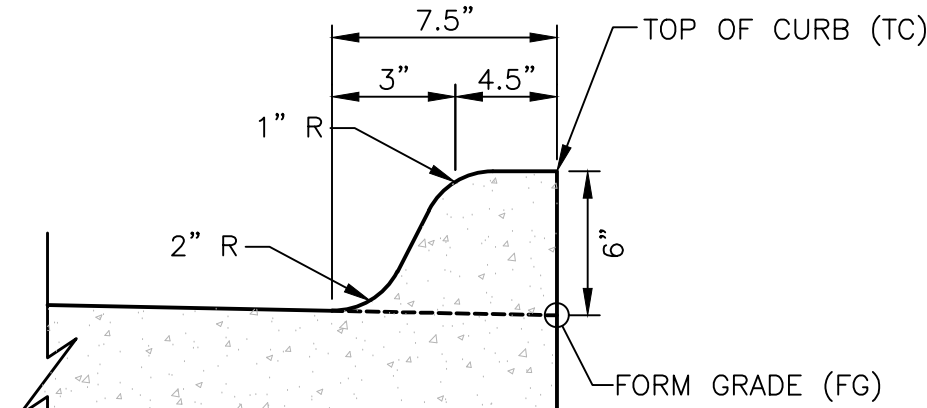


- ① INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.
- ② PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.



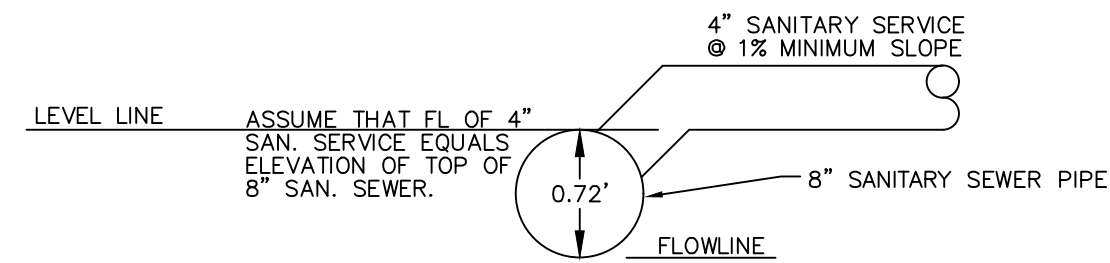
DETECTABLE WARNING DETAIL

NOT TO SCALE



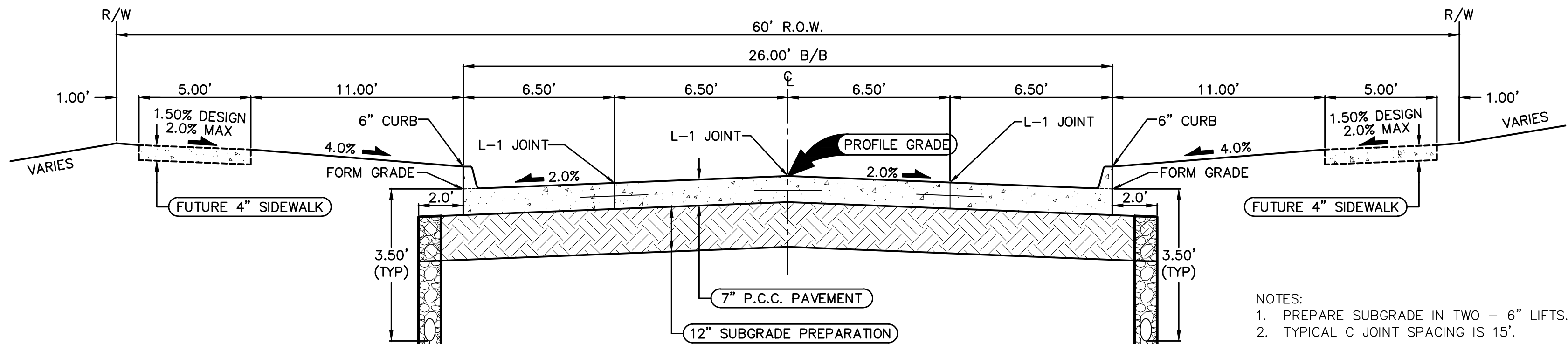
INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL

NOT TO SCALE



SANITARY SERVICE CONNECTION DETAIL

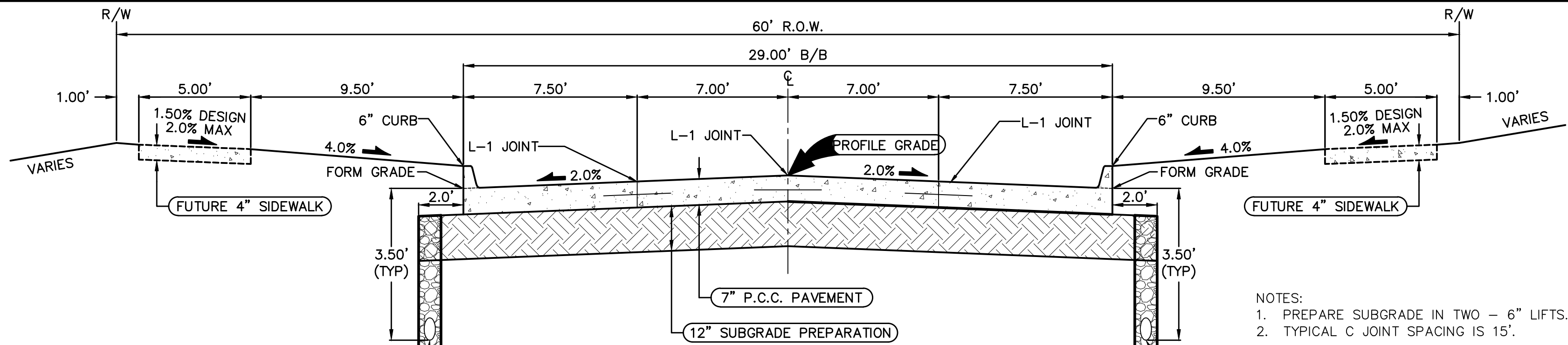
(BASED ON DESIGN ASSUMPTIONS FOR MINIMUM DEPTH OF SANITARY SERVICE)



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

NOT TO SCALE

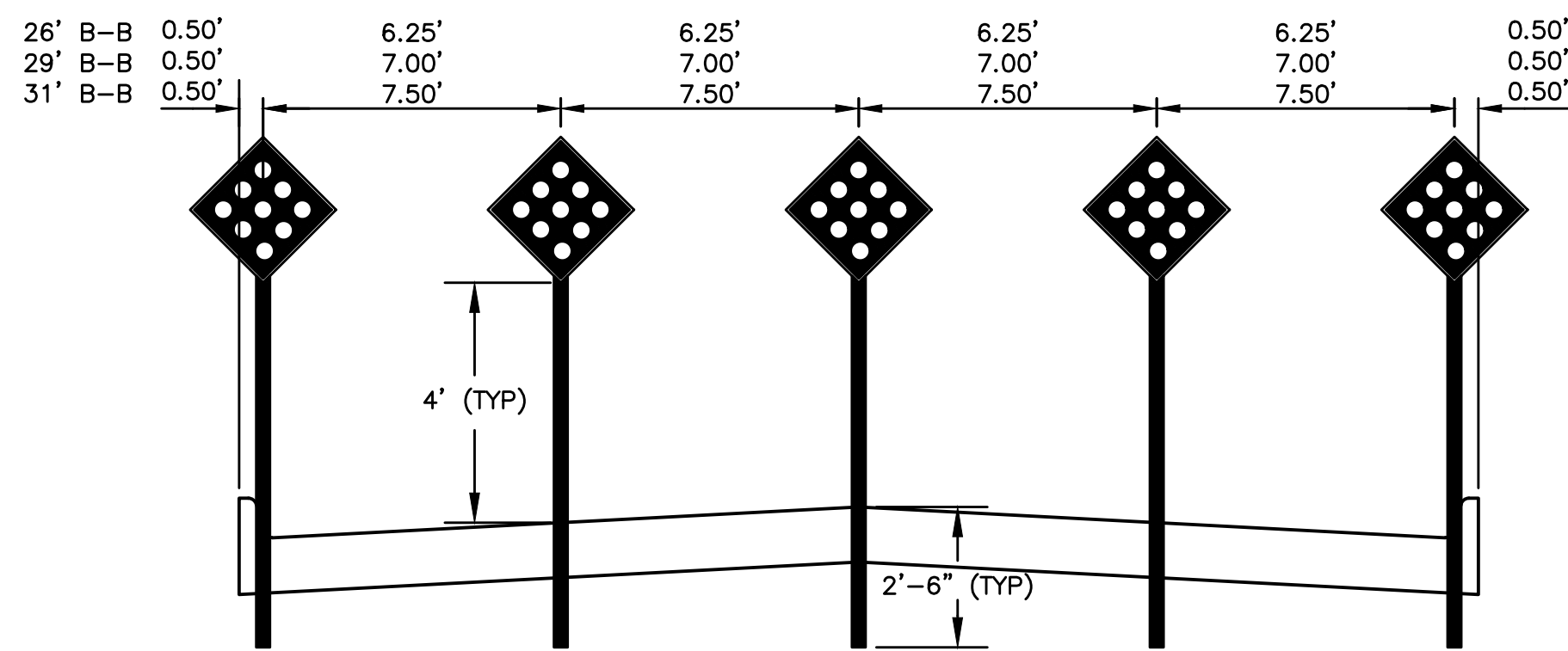
NW INDEPENDENCE CIRCLE



TYPICAL SECTION - 29' P.C.C. ROADWAY WITH 60' ROW

NOT TO SCALE

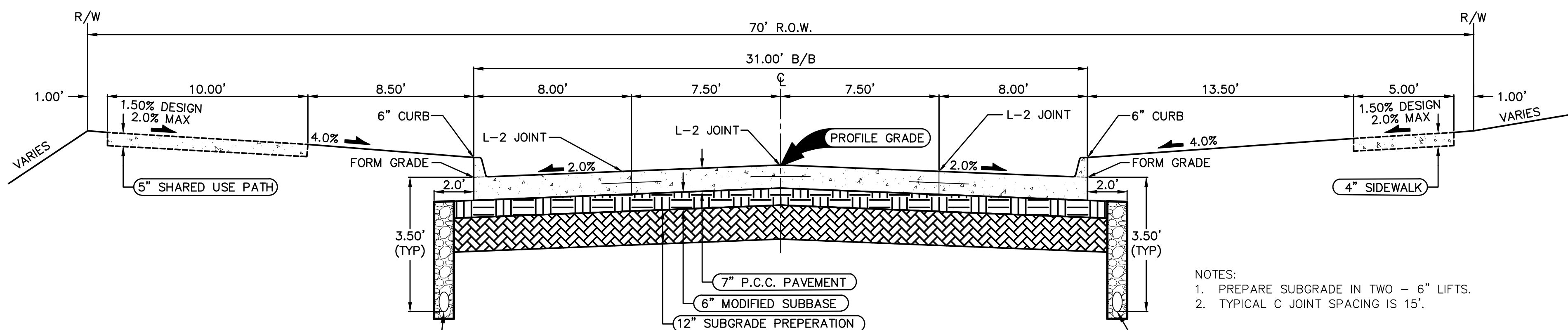
NW SHORTHAIK STREET & NW INDEPENDENCE CIRCLE



PERMANENT ROAD CLOSURE SIGN SPACING DETAIL

NOT TO SCALE

SI-182



TYPICAL SECTION - 31' P.C.C. ROADWAY WITH 70' ROW

NOT TO SCALE

NW SUNRISE DRIVE

FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\1806355-COV-TAB-DET-PLAT 5-AS-BUILT.DWG
DATE PLOTTED: 10/10/2023 1:48 PM
PLOTTER: HP PLOTTER
PLOTTER: HP PLOTTER

DATE	REVISIONS
10/10/2023	AS-BUILT SUBMITTAL
09/06/2023	FOR CONSTRUCTION
08/11/2023	FIFTH SUBMITTAL
08/02/2023	FOURTH SUBMITTAL
07/15/2023	THIRD SUBMITTAL
06/14/2023	SECOND SUBMITTAL

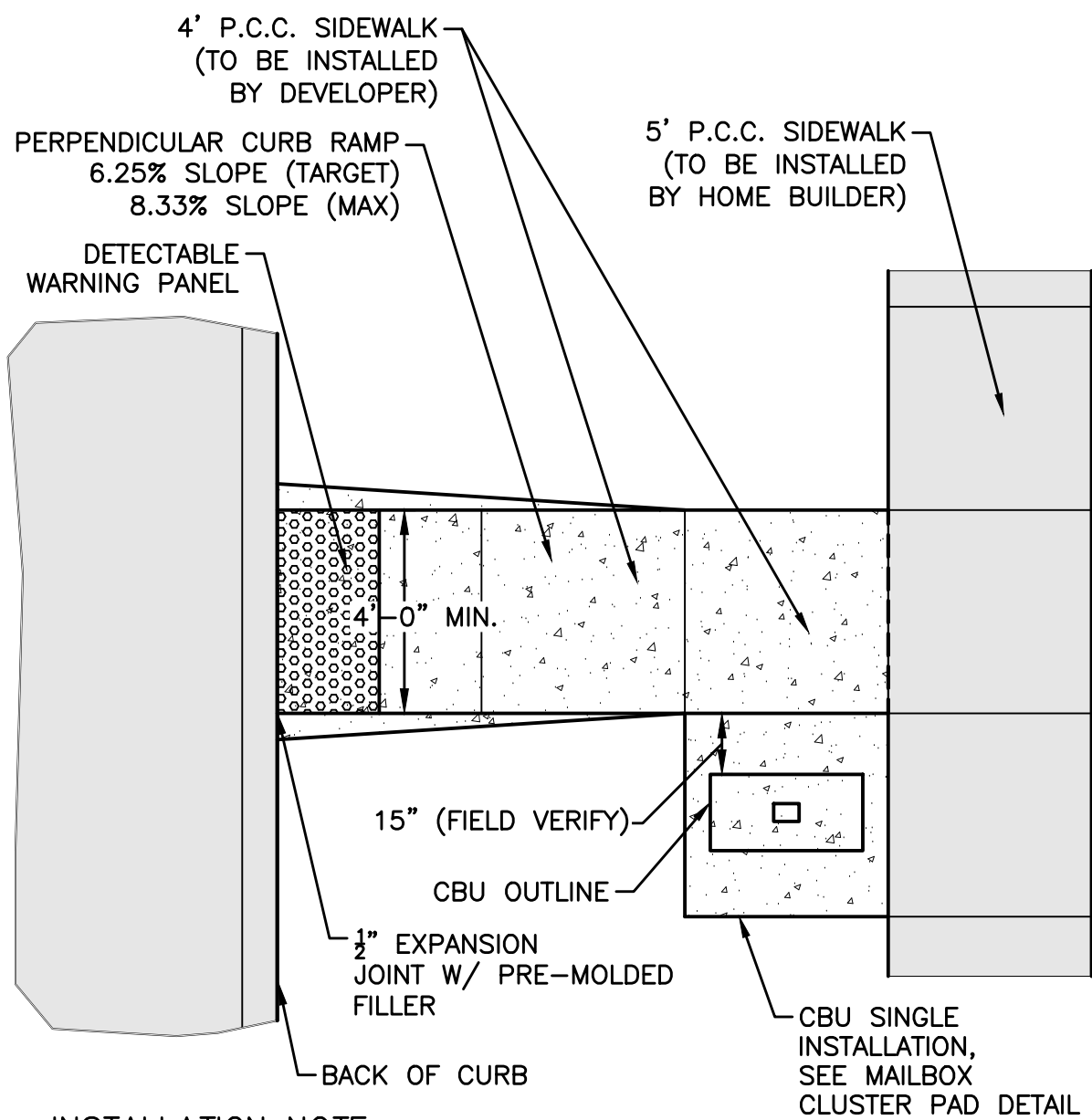
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

INDI RUN PLAT 5
TYPICAL SECTIONS AND DETAILS

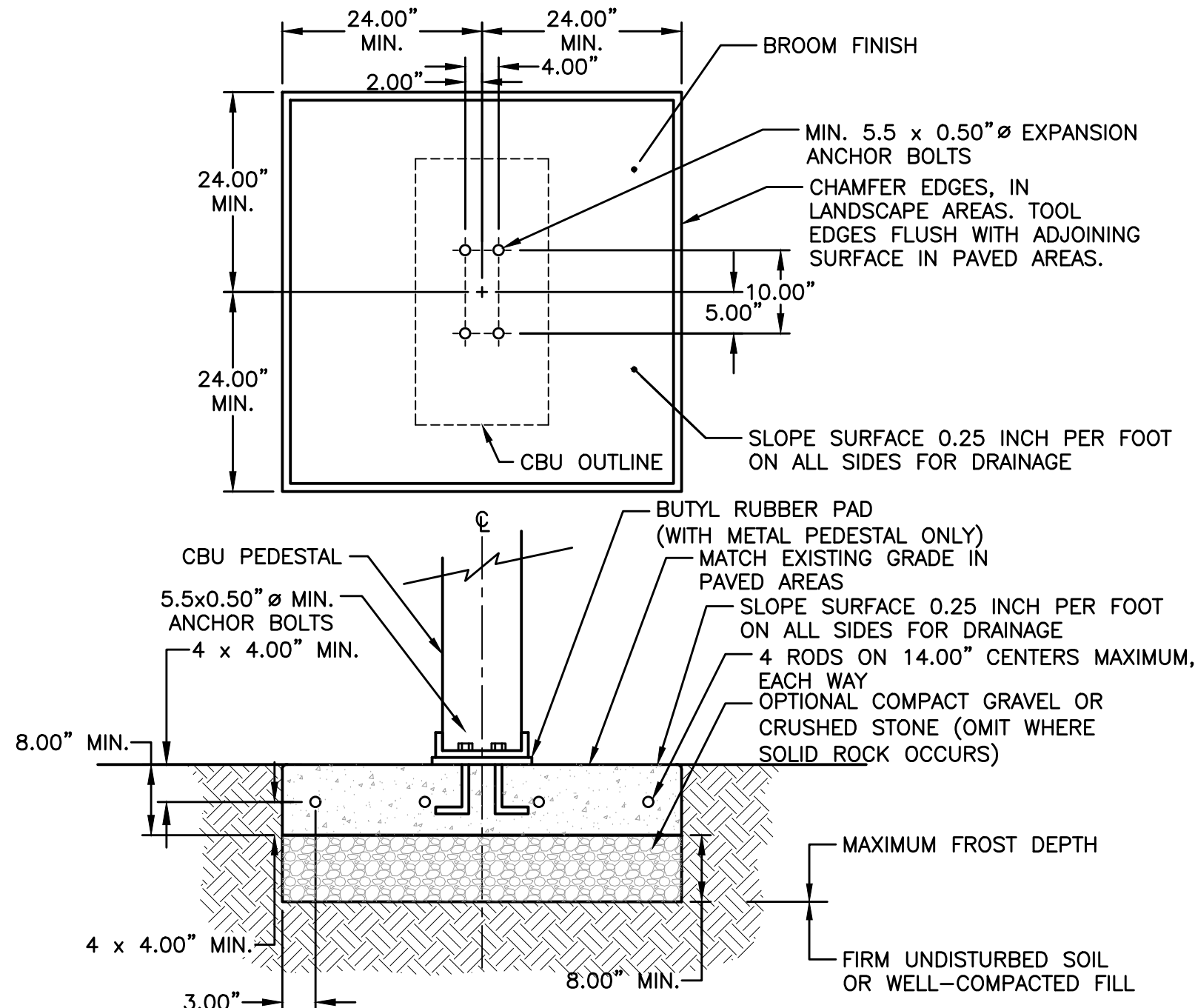
FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\1806355-COV-TAB-DET-PLAT 5-AS-BUILT.DWG
DATE PLOTTED: 10/10/2023 1:48 PM
PLOTTER: HP DesignJet T1200
PLOTTER DRIVER: HP-GL/PS-2



- INSTALLATION NOTE:**
1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
 2. CLUSTER MAILBOX TO BE LOCATED ON THE NO PARKING/STREET LIGHT SIDE OF STREET.
 3. DO NOT LOCATE AT INTERSECTION.
 4. LOCATE NEAR SHARED PROPERTY LINE PER APPROVED PLAN.
 5. DETERMINE SIDEWALK SIDE OF MAILBOX PAD ELEVATION ASSUMING CONSTANT 4% SLOPE FROM BACK OF CURB TO SIDEWALK SIDE OF MAILBOX PAD. RESULTING SLOPE FROM BACK OF CURB TO STREET SIDE OF MAILBOX PAD WILL BE GREATER THAN 4%. FOR EXAMPLE, FOR A 29' WIDE PAVEMENT WITH A 60' WIDE R.O.W. AND A 2% MAILBOX PAD CROSS SLOPE, THE RESULTING SLOPE FROM THE BACK OF CURB TO THE STREET SIDE OF MAILBOX PAD IS 6.2%.

MAILBOX PAD DETAIL

NOT TO SCALE

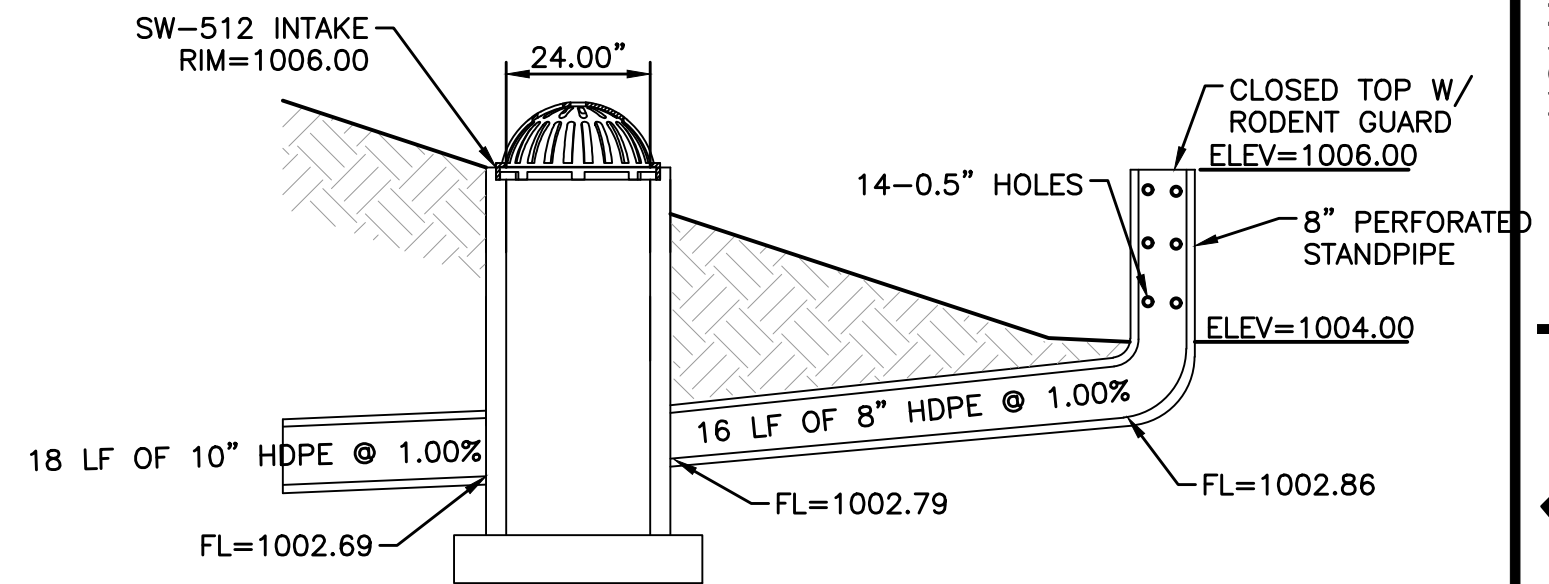


NOTES:

1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, CONTAIN 4% MIN. - 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3.50" - 4.00" SLUMP IN ACCORDANCE WITH ACI 301.
2. REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
3. EXPANSION BOLTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVIDERS:
 - A. HILTI KWIK BOLT (WWW.USHLTI.COM) II-1/2" DIAMETER X 5-1/2" OVERALL LENGTH. GALVANIZED, CATALOG # 000-453-696 KB II 12-512, STAINLESS STEEL: CATALOG # 000-454-744. ENSURE THAT THE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 3-1/2"
 - B. ITW RAMSET REDHEAD TRIBOLT (WWW.RAMSET-REDHEAD.COM) GALVANIZED, 1/2" DIAMETER X 7" OVERALL LENGTH; CATALOG NUMBER: WS-1270G. ENSURE THAT MIN. EMBEDMENT IS CONCRETE IS AT LEAST 4-1/8"
 - C. RAWL STUD (WWW.RAWL.COM) GALVANIZED, 1/2" X 5-1/2" OVERALL LENGTH; CATALOG NUMBER: 7724. ENSURE THAT MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4"

MAILBOX CLUSTER PAD DETAIL

NOT TO SCALE



ST-84: PRIVATE PERMANENT PERFORATED HDPE STANDPIPE

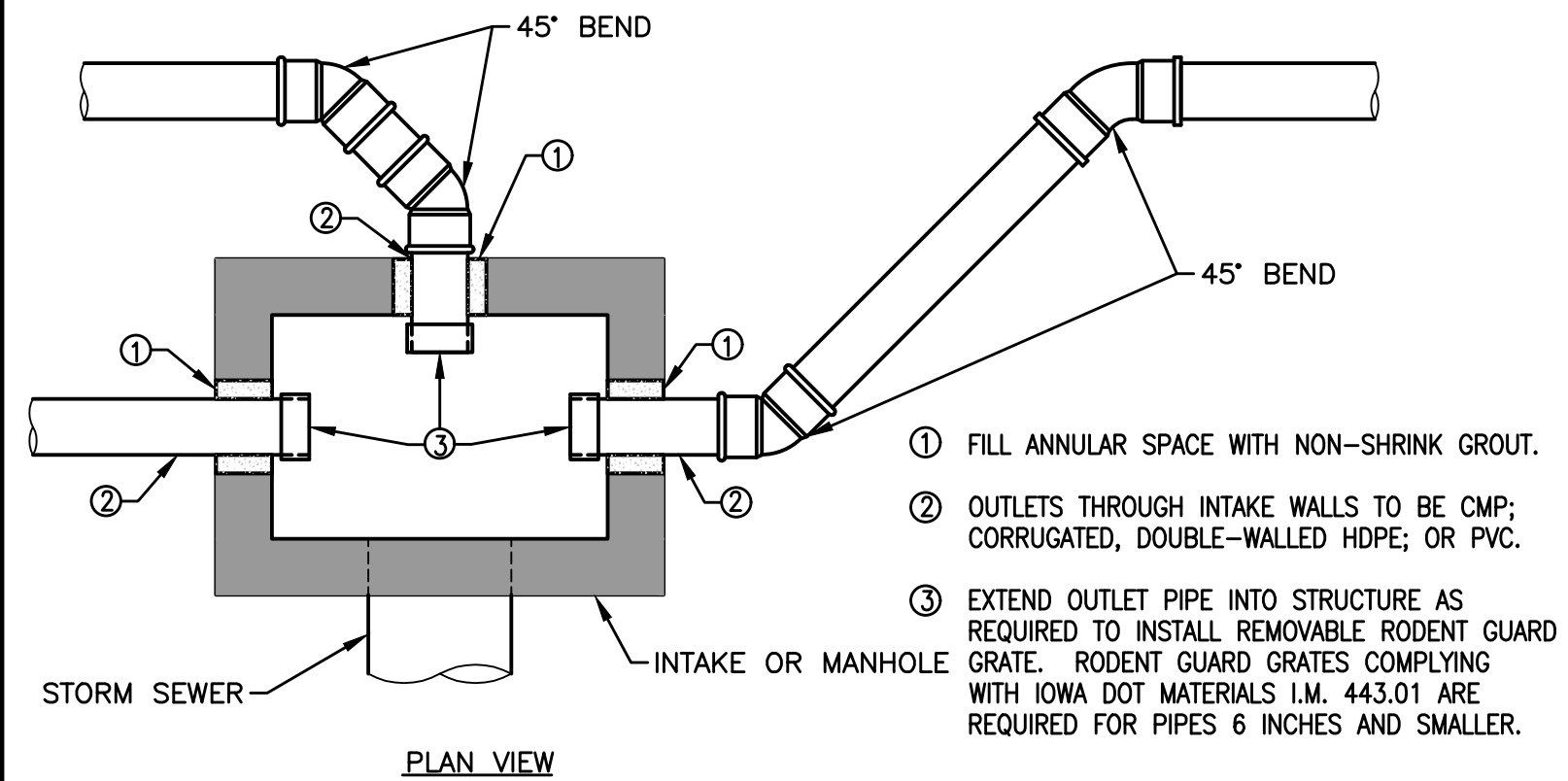
NOT TO SCALE

NOTE: INSTALL FILTER FABRIC AROUND BOTTOM HALF OF STANDPIPE AND INSTALL TEMPORARY EROSION STONE AROUND PIPE TO PROTECT. IN ORDER TO CONVERT SEDIMENT BASIN INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE.

MAINTENANCE NOTE: OWNER/ASSOCIATION SHALL BE RESPONSIBLE FOR INSPECTING THE OUTLET STRUCTURE EVERY 6 MONTHS FOR DURING THE FIRST YEAR OF OPERATION AND REMOVING ANY DEBRIS FROM AROUND THE STANDPIPE TO ENSURE IT OPERATES AS DESIGNED.

ADJUST THE INSPECTION INTERVAL BEYOND THE FIRST YEAR BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

CONDUCT JETTING AND VCUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



SUBDRAIN CONNECTION TO INTAKE

FILE: H:\2018\16063245\DWG\AS-BUILT\PLAT 5\INDI RUN PLAT 5-AS-BUILT.DWG
PLOT: 10/10/2023 1:48 PM
PLOTTER: HP DesignJet T1100
PLOTTER DRIVER: HPGL-ET
PLOTTER MODEL: HP DesignJet T1100
PLOTTER SERIAL: 16063245

GENERAL NOTES

1.

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. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS 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.
- THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
2.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:
A. CITY OF WAUKEE
B. APPROPRIATE UTILITY COMPANIES
C. OWNER
D. CIVIL DESIGN ADVANTAGE
3.

THE CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE AT LEAST ONE WEEK PRIOR TO CONSTRUCTION.
4.

THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
5.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN ALL SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT. INCLUDING STAGING OF CONSTRUCTION DETAILS.
6.

THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
7.

THE CONTRACTOR MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR THE CITY, TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY. THIS WILL BE INCIDENTAL TO THE BID ITEM TRAFFIC CONTROL.
8.

SPECIAL CARE SHALL BE TAKEN WHEN FORMING AT INTERSECTIONS SO THE PROFILES SHOWN ON THE PLANS AND THE ELEVATIONS SHOWN ON THE INTERSECTION DETAILS ARE OBTAINED. SHORT LENGTHS OF FORMS OR FLEXIBLE FORMS MAY BE NECESSARY AT THESE LOCATIONS.

9.

TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, THE CONTRACTOR MUST EXERCISE ADDITIONAL CARE WHEN PAVING FULL WIDTH PAVEMENTS. THIS MAY REQUIRE POURING ONE HALF OF THE PAVEMENT AT A TIME OR OTHER METHODS APPROVED BY THE ENGINEER.
10.

THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS.
11.

PLAN AND PROFILE SHEETS INCLUDED IN THE PROJECT ARE FOR THE PURPOSE OF ALIGNMENT, LOCATION AND SPECIFIC DIRECTIONS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. IRRELEVANT DATA ON THESE SHEETS IS NOT TO BE CONSIDERED A PART OF THIS CONTRACT.
12.

THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
13.

CIVIL DESIGN ADVANTAGE WILL PROVIDE ALL CONSTRUCTION STAKING ON THIS PROJECT. NOTIFY CHARLIE MCGLOTHLEN (515-369-4433) A MINIMUM OF 48 HOURS BEFORE CONSTRUCTION STAKES ARE REQUIRED.
14.

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES REQUIRED ON THE STORM WATER POLLUTION PREVENTION PLAN.
15.

ALL DISTURBED WETLANDS SHOWN ON THE PLANS HAVE BEEN PERMITTED AND MITIGATED OFF SITE. THE CONTRACTOR SHALL NOT DISTURB ANY WETLANDS OUTSIDE OF THE IMPACTED WETLANDS SHOWN ON THE PLANS. PROTECT UNDISTURBED WETLANDS WITH ORANGE PLASTIC SAFETY FENCE. UNDISTURBED WETLAND AREAS ARE CALLED OUT IN THE GRADING PLAN ON SHEET 8 AND SHALL REMAIN PROTECTED THROUGHOUT PROJECT DURATION.
16.

IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.
17.

THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. ALL TRAFFIC CONTROL SHALL COMPLY WITH MUTCD.
18.

ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
19.

DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
20.

ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
21.

ALL FIELD TILES ENCOUNTERED SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS SHALL BE PROVIDED TO ENGINEER FOR NOTATION ON AS-BUILTS INCLUDING LOCATION, TYPE OF TILE, & TILE ELEVATION.

22.

PRIOR TO ANY WORK AT THIS SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
23.

CONTRACTOR SHALL COMPLY WITH ALL PROWAG A.D.A. REQUIREMENTS FOR ACCESSIBLE SIDEWALK RAMPS INCLUDING RAISED TRUNCATED DOME DETECTABLE WARNINGS.
24.

CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
25.

ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
26.

ALL MANHOLE TWO PIECE CASTINGS WITH PRORINGS SHALL BE BOXED OUT IN THE PAVEMENT.
27.

THE GRADING OF THE DETENTION FACILITY AND INSTALLATION OF THE STORM SEWER SYSTEM SHALL BE COMPLETED AND FUNCTIONAL PRIOR TO ANY INCREASE IN THE SIZE OF IMPERVIOUS SURFACES WITHIN THE SITE OR THE PREVIOUSLY MENTIONED ITEMS SHALL BE GRADED/INSTALLED AS SOON AS PRACTICAL.

TRAFFIC CONTROL NOTES

1.

ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2.

PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
3.

THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
4.

SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES. SIGNAGE AND TEMPORARY PEDESTRIAN ACCESS ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION R205 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A-4.
5.

THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	CLEARING AND GRUBBING	LS	1
2	TOP SOIL, ON-SITE	LS	1
3	EXCAVATION, CLASS 10	LS	1
4	SUBGRADE PREPARATION, 12 IN. DEPTH	SY	5,652
5	MODIFIED SUBBASE, 6 IN. DEPTH	SY	2,742
6	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC, 8 IN. DIA.	LF	229
7	SANITARY SEWER SERVICE STUB, PVC, 4 IN. DIA.	EA	14
8	STORM SEWER, TRENCHED, HDPE, 10 IN. DIA.	LF	262
9	STORM SEWER, TRENCHED, RCP, 15 IN. DIA.	LF	237
10	STORM SEWER, TRENCHED, RCP, 18 IN. DIA.	LF	38
11	SUBDRAIN, CORRUGATED PVC, 6 IN. DIA.	LF	2,024
12	SUBDRAIN CLEANOUT, TYPE A-1 6 IN. DIA.	EA	6
13	FOOTING DRAIN COLLECTOR, HDPE, 8 IN. DIA.	LF	242
14	FOOTING DRAIN CLEANOUT, TYPE A-1, 8 IN. DIA.	EA	1
15	STORM SEWER SERVICE STUB, PVC, 2 IN. DIA.	EA	22
16	WATER MAIN, TRENCHED, PVC, 8 IN. DIA.	LF	1,254
17	WATER SERVICE STUB, PVC, 1 IN. DIA.	EA	22
18	VALVE, GATE, 8 IN. DIA.	EA	1
19	12"x8" REDUCER	EA	1
20	FIRE HYDRANT ASSEMBLY	EA	5
21	BLOWOFF HYDRANT	EA	2
22	MANHOLE TYPE SW-301, 48 IN. DIA.	EA	1
23	INTAKE TYPE SW-505	EA	3
24	INTAKE TYPE SW-506	EA	1
25	HDPE INTAKE BASIN, 24 IN. DIA	EA	1
26	HDPE INTAKE BASIN, 30 IN. DIA	EA	1
27	PAVEMENT, PCC, 7 IN.	SY	4,994
28	SIDEWALK, PCC, 6 IN.	SY	14
29	SIDEWALK, PCC, 5 IN.	SY	755
30	SIDEWALK, PCC, 4 IN.	SY	678
31	MAILBOX PAD	EA	1
32	DETECTABLE WARNING	SF	20
33	TRAFFIC CONTROL	LS	1
34	PERMANENT ROAD CLOSURE SIGN - URBAN, SI-182	EA	10
35	CONVENTIONAL SEEDING, SEEDING, FERTILIZING, AND MULCHING	AC	5.70
36	EROSION AND SEDIMENT CONTROL	LS	1
37	TURF REINFORCEMENT MAT	SF	176
38	8-INCH GRANULAR TURNAROUND	SY	1,116
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			

ESTIMATE REFERENCE INFORMATION	
DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSE ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.	
ITEM NO.	DESCRIPTION
	THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2022 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.
	ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS. CITY OF WAUKEE STANDARD DETAILS SHALL GOVERN IF ANY DISCREPANCIES.
1	CLEAR AND GRUB ALL AREAS AFFECTED BY GRADING OPERATIONS. THE CONTRACTOR SHALL FIELD VERIFY CLEARING AND GRUBBING NEEDS PRIOR TO BIDDING. INCLUDES REMOVAL OF ANY EXISTING FIELD FENCE. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. DO NOT DISTURB CROPS OUTSIDE OF THE PROJECT LIMITS.
2	STRIP, SALVAGE AND SPREAD THE TOP 12 INCHES OF TOPSOIL. RESPREAD TOPSOIL WITHIN THE RIGHT OF WAY, ON BACKSLOPES AND IN DEVELOPED AREAS A MINIMUM OF 8 INCHES THICK. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
3	EXCAVATION INCLUDES ALL WORK NECESSARY TO ACHIEVE PROPER GRADES AS SHOWN IN THE PLANS. NO PAYMENT FOR OVERHAUL SHALL BE ALLOWED. SHRINKAGE WAS ASSUMED TO BE 25%.
4	REFER TO SHEET 2 FOR TYPICAL LOCATIONS AND THICKNESS. QUANTITY BASED ON TWO-6 INCH LIMITS.
5	REFER TO FIG. 3010.101 - TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.103 - FLEXIBLE GRAVITY PIPE TRENCH BEDDING FOR CONSTRUCTION DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. SANITARY SEWER SHALL BE SOLID WALL PVC OR TRUSS PIPE. TELEVISE SANITARY SEWER PRIOR TO PAVING AND PROVIDE TELEVISION REPORT TO THE CITY IN HARD COPY AND ELECTRONIC FORMAT. TELEVISION SHALL BE CONSIDERED INCIDENTAL. CONNECTION TO EXISTING SANITARY SEWER SHALL BE CONSIDERED INCIDENTAL.
7	REFER TO FIG. 4010.201 - SANITARY SEWER SERVICE STUB FOR CONSTRUCTION DETAILS.
7, 15, 17	REFER TO TYPICAL SERVICE INSTALLATION DETAIL ON SHEET 2 FOR INTERIM SERVICE LOCATION.
8-10, 12	REFER TO FIG. 3010.101 - TRENCH BEDDING AND BACKFILL ZONES, FIG. 3010.102 - RIGID GRAVITY PIPE TRENCH BEDDING, AND FIG. 3010.103 - FLEXIBLE GRAVITY PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. PIPE LENGTHS INCLUDE PIPE APRONS. TELEVISE STORM SEWER PRIOR TO PAVING AND PROVIDE TELEVISION REPORT TO THE CITY IN HARD COPY AND ELECTRONIC FORMAT. TELEVISION SHALL BE CONSIDERED INCIDENTAL. CONNECTION TO EXISTING STORM SEWER SHALL BE CONSIDERED INCIDENTAL. WHERE THE STORM SEWER CROSSES OVER THE WATER MAIN LOCATE ONE FULL LENGTH OF REINFORCED CONCRETE PIPE (RCP) WITH FLEXIBLE O-RING GASKET JOINTS SO BOTH JOINTS ARE LOCATED AS FAR AS POSSIBLE FROM THE WATER MAIN. CONSTRUCTION OF ROCK CHIMNEYS IS INCIDENTAL TO STORM SEWER CONSTRUCTION WHERE LONGITUDINAL STORM SEWER IS ALSO FUNCTIONING AS A SUBDRAIN. REFERENCE SHEET 4 OF THESE CONSTRUCTION DRAWINGS FOR SUBDRAIN DETAIL.
11	REFER TO FIG. 4040.231 - SUBDRAINS (CASE A - TYPE 1) AND SHEET 3 FOR CONSTRUCTION DETAILS. ALL FITTING AND POROUS BACKFILL SHALL BE CONSIDERED INCIDENTAL. DO NOT WRAP TRENCH IN ENGINEERING FABRIC. ALL ENCOUNTERED FIELD TILE SHALL BE DOCUMENTED AND CONNECTED TO PROPOSED SUBDRAIN. CONNECTIONS TO PROPOSED SUBDRAIN SHALL BE CONSIDERED INCIDENTAL.
14	REFER TO FIG. 4040.232 - SUBDRAIN CLEANOUTS FOR CONSTRUCTION DETAILS.
16	REFER TO FIG. 3010.101 - TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.104 - PRESSURE PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL DETAILS. GRANULAR PIPE BEDDING MATERIAL SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG 5010.101 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 FOR TRACER WIRE DETAILS. CONNECTIONS TO EXISTING WATER MAIN, ALL FITTINGS, PIPE BEDDING MATERIAL, POLYETHYLENE ENCASEMENT, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL INSTALL BENDS AND DEFLECT PIPE JOINTS PER SECTION 5010, PART 301, A.6 AS NECESSARY TO INSTALL HYDRANT ASSEMBLIES AT THEIR SPECIFIED OFFSET AND ROADWAY CENTERLINE AND TO FOLLOW THE WATER MAIN ALIGNMENT AS SHOWN IN THE PLANS.
17	INCLUDES WATER SERVICE, CORPORATION VALVE, AND STOP BOXES.
18	INCLUDES VALVE, VALVE BOX AND COVER, VALVE BOX EXTENSION, AND VALVE STEM EXTENSION.

ESTIMATE REFERENCE INFORMATION	
DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSE ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.	
ITEM NO.	DESCRIPTION
20-21	REFER TO FIG. 5020.201 - FIRE HYDRANT ASSEMBLY FOR FIRE HYDRANT CONSTRUCTION DETAILS. INCLUDES ANCHORING TEE, ANCHORING ELBOW, GATE VALVE, VALVE BOX, ANCHORING PIPE, ANCHORING COUPLING, ELBOWS, TRACER WIRE STATION, FIRE HYDRANT, AND THRUST BLOCKS. CONCRETE FOR THRUST BLOCKS SHALL BE CONSIDERED INCIDENTAL.
22	REFER TO FIG. 6010.301 - CIRCULAR SANITARY SEWER MANHOLE FOR CONSTRUCTION DETAILS. REFER TO FIG. 6010.601 - CASTINGS FOR SANITARY SEWER MANHOLES FOR CASTING DETAILS. TYPE A CASTINGS REQUIRED FOR ALL MANHOLES OUT OF PAVEMENT. TYPE A CASTINGS WITH PRORINGS PER WAUKEE SPECIFICATIONS REQUIRED FOR ALL MANHOLES IN PAVEMENT. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12 INCHES.
23-24	REFER TO FIG. 6010.514 - BOXOUTS FOR GRATE INTAKES. REFER TO FIG. 6010.603 - CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS AND FIG. 6010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 8 INCHES. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12 INCHES.
23	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE FOR CONSTRUCTION DETAILS.
24	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE FOR CONSTRUCTION DETAILS.
25-26	REFER TO FIG. 6010.512 - CIRCULAR AREA INTAKE FOR CONSTRUCTION DETAILS.
27	REFER TO FIG. 7030.101 - JOINTS FOR CONSTRUCTION DETAILS. REFER TO INTERSECTION SHEETS FOR JOINTING AND GEOMETRIC PLAN DETAILS. TYPICAL 'c' AND 'cd' JOINT SPACING IS 15 FEET. COARSE AGGREGATE FOR PCC PAVEMENT SHALL BE CLASS 3 DURABILITY.
28-30	REFER TO TO FIG. 7030.207 - CURB RAMP FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. SIDEWALK SHALL BE 6 INCHES IN DEPTH FOR RAMPS AND TURNING SPACES. MINOR GRADING ADJACENT TO SIDEWALKS SHALL BE CONSIDERED INCIDENTAL.
32	REFER TO FIG. 7030.210 DETECTABLE WARNING PLACEMENT FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS SHALL BE INSTALLED PER SECTION 7030. DETECTABLE WARNING PANELS SHALL BE BRICK RED, PLASTIC PRE-MANUFACTURED PANELS.
33	REFER TO TRAFFIC CONTROL NOTES ON THIS SHEET. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT THE END OF EXISTING PAVEMENT UNIT THE PROJECT IS ACCEPTED BY THE CITY
34	REFER TO IOWA DEPARTMENT OF TRANSPORTATION STANDARD ROAD PLAN SI-182 FOR CONSTRUCTION DETAILS EACH ITEM INCLUDES 5 DELINEATOR POSTS WITH SIGN PANELS.
35	INCLUDES ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO PERFORM SEEDING. SEED MIXTURE SHALL BE TYPE 1 (PERMANENT LAWN MIXTURE) AND TYPE 4 (URBAN TEMPORARY EROSION CONTROL MIXTURE). REFER TO SECTION 9010, 2.02A TYPE 1 (PERMANENT LAWN MIXTURE) AND 2.02D TYPE 4 (URBAN TEMPORARY EROSION CONTROL MIXTURE) FOR SEED MIXTURE. CONTRACTOR SHALL SEED ALL DISTURBED AREAS.
36	REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION DETAILS AND INITIAL EROSION CONTROL PLAN. THE CLIENT/OWNER WILL BE RESPONSIBLE FOR MONITORING THE SITE AND KEEPING THE SWPPP CURRENT THROUGHOUT EACH PHASE OF CONSTRUCTION. CIVIL DESIGN ADVANTAGE IS NOT RESPONSIBLE FOR KEEPING THE SWPPP UPDATED THROUGHOUT CONSTRUCTION OR FOR DISTRIBUTION OF THE PLAN TO CONTRACTORS. IT WILL BE THE DUTY OF THE CLIENT OR CLIENT'S AGENT TO SEE THAT ALL CONTRACTORS RECEIVE A COPY OF THE SWPPP AND SIGN THE CERTIFICATION STATEMENTS. IT IS ALSO THE DUTY OF THE CLIENT OR CLIENT'S AGENT TO PERIODICALLY UPDATE THE SWPPP THROUGHOUT CONSTRUCTION TO MEET ALL EPA, IDNR AND LOCAL GOVERNMENTAL AGENCY'S REQUIREMENTS.
38	REFER TO SHEET 6 FOR LOCATION. TEMPORARY TURNAROUND TO BE 4-INCHES OF 3-INCH ROCK AND 4-INCHES OF GRANULAR SURFACING.

INDI RUN PLAT 5

QUANTITIES AND REFERENCE NOTES

522

1806.355

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

ENGINEER: JJN

PM: DAM

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

REVISIONS

DATE	10/10/2023	09/06/2023	08/11/2023	08/02/2023	07/15/2023	06/14/2023
AS-BUILT SUBMITTAL						
FOR CONSTRUCTION						
FIFTH SUBMITTAL						
FOURTH SUBMITTAL						
THIRD SUBMITTAL						
SECOND SUBMITTAL						

FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\1806355-COV-TAB-DET-PLAT 5-AS-BUILT.DWG
DATE: 10/10/2023 1:48 PM
PLOT: 1806355-PLAT 5-AS-BUILT.DWG
PLOT: 1806355-PLAT 5-AS-BUILT.DWG

EXISTING 150' R HYDRANT
COVERAGE (TYP.)

NW 2ND STREET

NW SHORTHAIK STREET

NW INDEPENDENCE CIRCLE

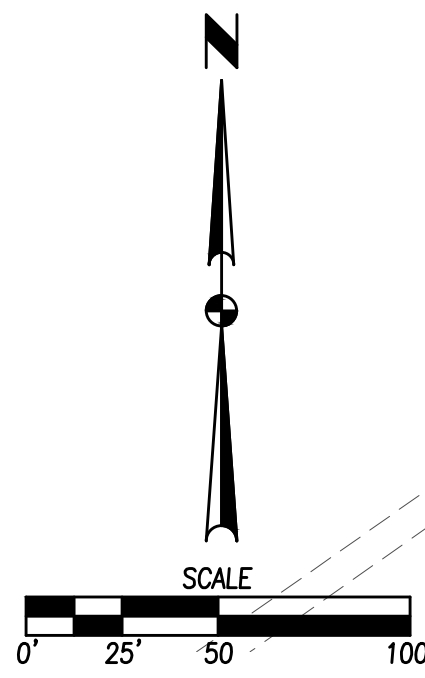
NW SUNRISE DRIVE

OUTLET 'T'
(DETENTION)

150' R HYDRANT
COVERAGE (TYP.)

80' TEMPORARY TURNAROUND
8" THICK GRANULAR MATERIAL
4" BASE OF 3" GRADATION
4" OF 1" GRADATION ON TOP

80' TEMPORARY TURNAROUND
8" THICK GRANULAR MATERIAL
4" BASE OF 3" GRADATION
4" OF 1" GRADATION ON TOP



INDI RUN PLAT 5
HYDRANT COVERAGE PLAN

6
22
1806.355



WAUKEE, IOWA

ENGINEER: J.J.N

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

PM: DAM

REVISIONS
AS-BUILT SUBMITTAL
FOR CONSTRUCTION
FIFTH SUBMITTAL
FOURTH SUBMITTAL
THIRD SUBMITTAL
SECOND SUBMITTAL

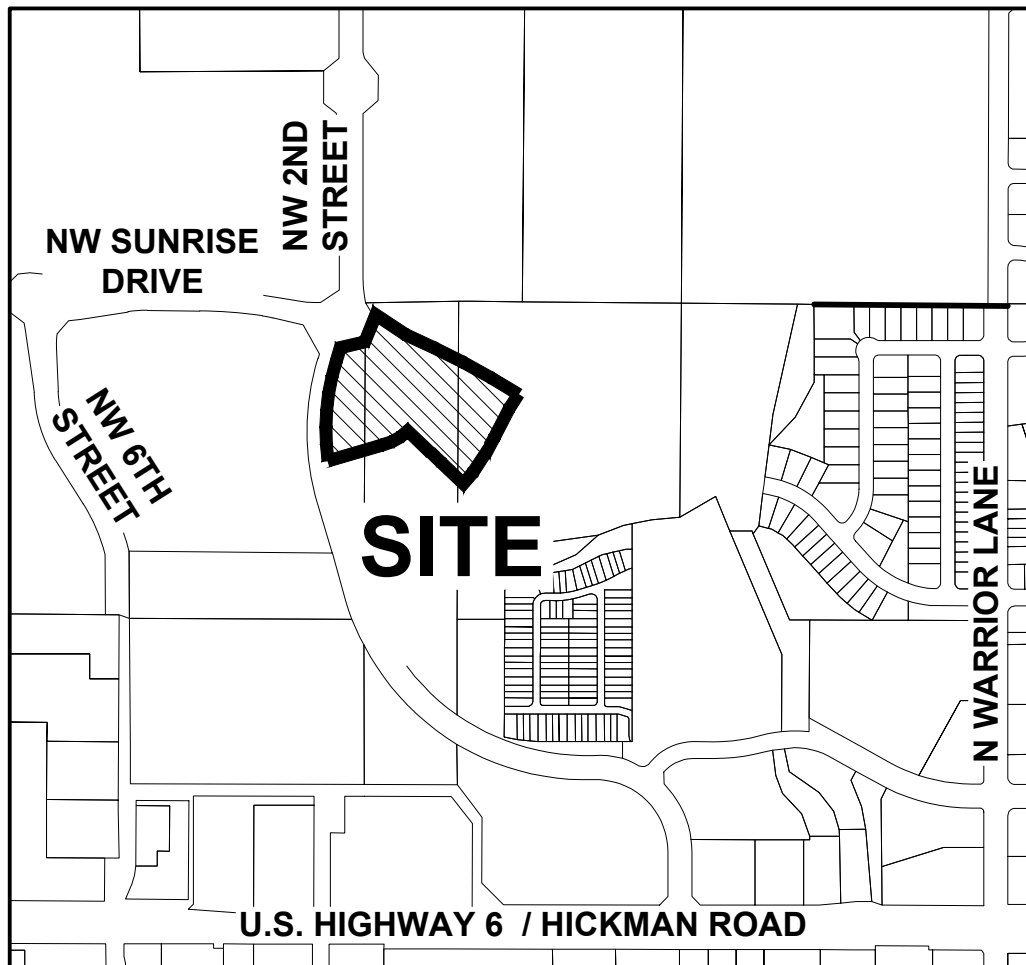
DATE
10/10/2023
09/06/2023
08/11/2023
08/02/2023
07/15/2023
06/14/2023

INDI RUN PLAT 5

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	4,233
2	FILTER SOCK	LF	40
3	SEEDING, FERTILIZING, AND MULCHING	AC	5.55
4	INLET PROTECTION DEVICES	EA	12
5	CONCRETE WASHOUT PIT	EA	1
6	8" HDPE PERMANENT STANDPIPE	EA	1
7	TURF REINFORCEMENT MAT	SF	176

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. 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.
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- DEBRIS SPILLED ONTO THE STREET MUST BE PICKED UP BY THE END OF THE WORK DAY AND PRIOR TO ANY RAIN EVENT.
- FEMA FLOODPLAIN MAPPING UTILIZED AS DEPICTED IN PANEL 19049C0335F WITH AN EFFECTIVE DATE OF 12/07/2018.

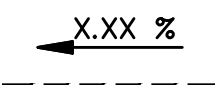
DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 DIRECTLY INTO AN UNNAMED TRIBUTARY OF LITTLE WALNUT CREEK
TOTAL AREA DISTURBED TO DISCHARGE POINT 4.46 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 16,069 CU FT
VOLUME PROVIDED IN SILT FENCE (3031 LF @ 4.5 CU FT/LF OF FENCE) 13,640 CU FT
VOLUME PROVIDED IN TSB #1 72,695 CU FT
TOTAL VOLUME PROVIDED 86,335 CU FT

DISCHARGE POINT #2 TO AN UNNAMED TRIBUTARY OF LITTLE WALNUT CREEK ±1800 FT
TOTAL AREA DISTURBED TO DISCHARGE POINT 2.74 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 9,864 CU FT
VOLUME PROVIDED IN FILTER SOCK (40 LF @ 2.0 CU FT/LF OF SOCK) 80 CU FT
VOLUME PROVIDED IN SILT FENCE (1202 LF @ 4.5 CU FT/LF OF FENCE) 5,409 CU FT
VOLUME PROVIDED IN TSB #2 8,610 CU FT
TOTAL VOLUME PROVIDED 14,099 CU FT

SWPPP LEGEND

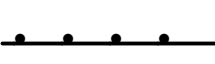
DRAINAGE ARROW



GRADING LIMITS



FILTER SOCK



SILT FENCE



DITCH CHECK



INLET PROTECTION



PORTABLE RESTROOM



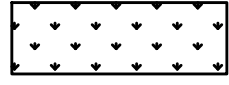
PERMANENT STANDPIPE



CONCRETE WASHOUT PIT



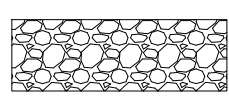
AREA TO BE SEEDED



UNDISTURBED AREA



RIP-RAP



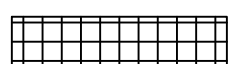
GRAVEL ENTRANCE



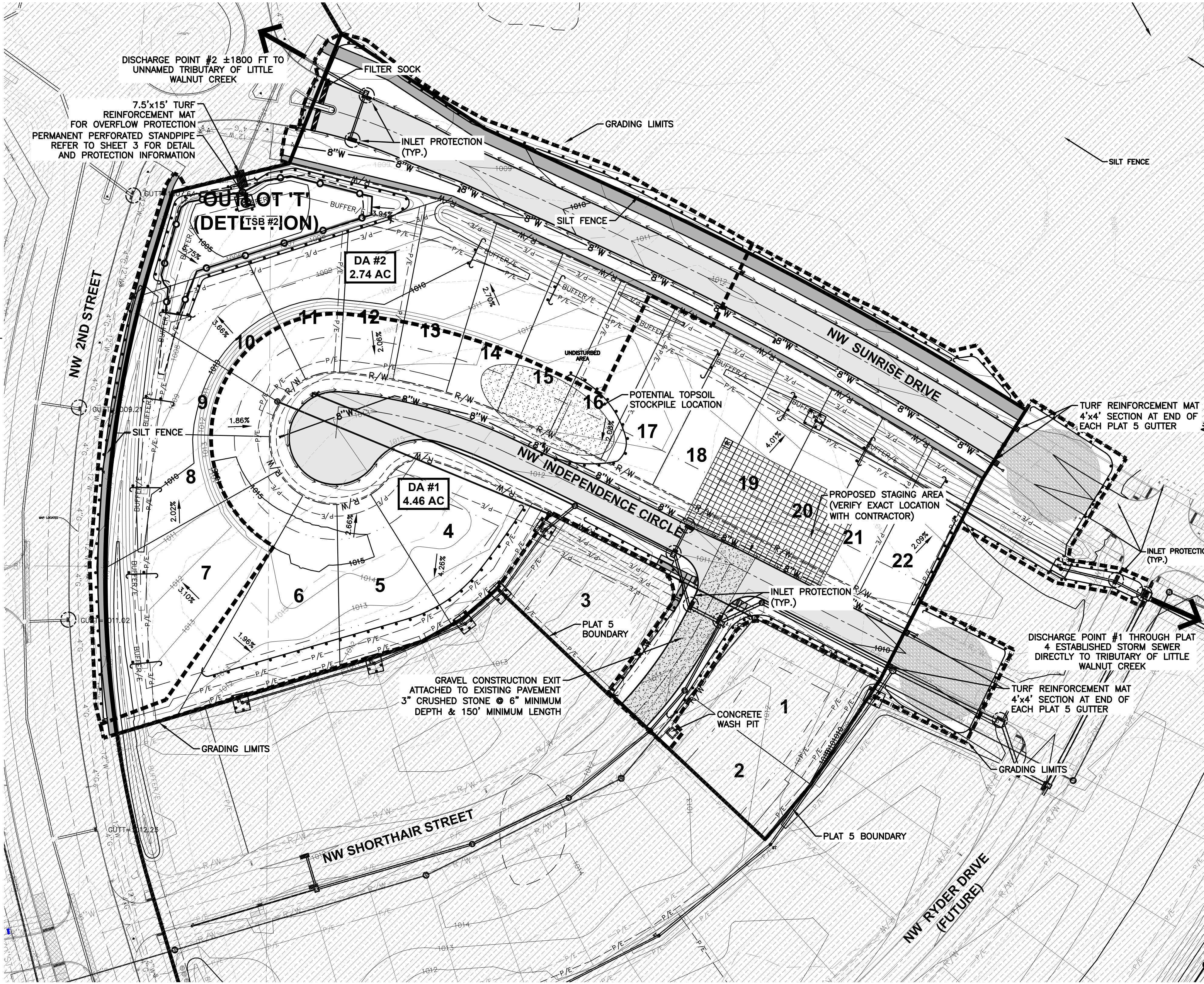
TURF REINFORCEMENT MAT



STAGING AREA

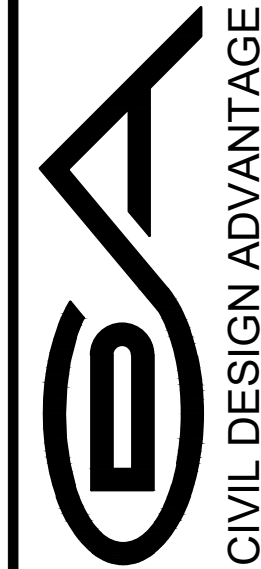


TEMPORARY SEDIMENT BASIN



REVISIONS	DATE	DESCRIPTION
AS-BUILT SUBMITTAL	10/10/2023	
FOR CONSTRUCTION	09/06/2023	
FIFTH SUBMITTAL	08/11/2023	
FOURTH SUBMITTAL	08/02/2023	
THIRD SUBMITTAL	07/15/2023	
SECOND SUBMITTAL	06/14/2023	

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



CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

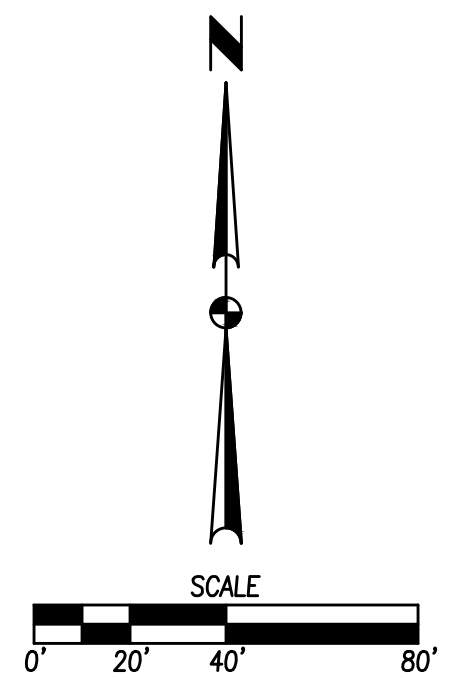
INDI RUN PLAT 5
EROSION AND SEDIMENT CONTROL PLAN

FILE: H:\2018\1806355\INDI RUN PLAT 5\AS-BUILT\INDI RUN PLAT 5-AS-BUILDING
PLANNED BY: J. J. NESIK
DATE: 10/10/2023 1:50 PM
PLOT: 10/10/2023 1:50 PM



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 = 8.12 AC**



INDI RUN PLAT 5 GRADING PLAN



WAUKEE, IOWA

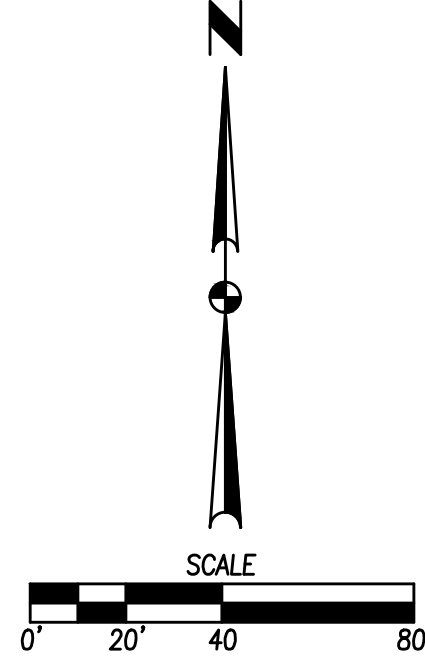
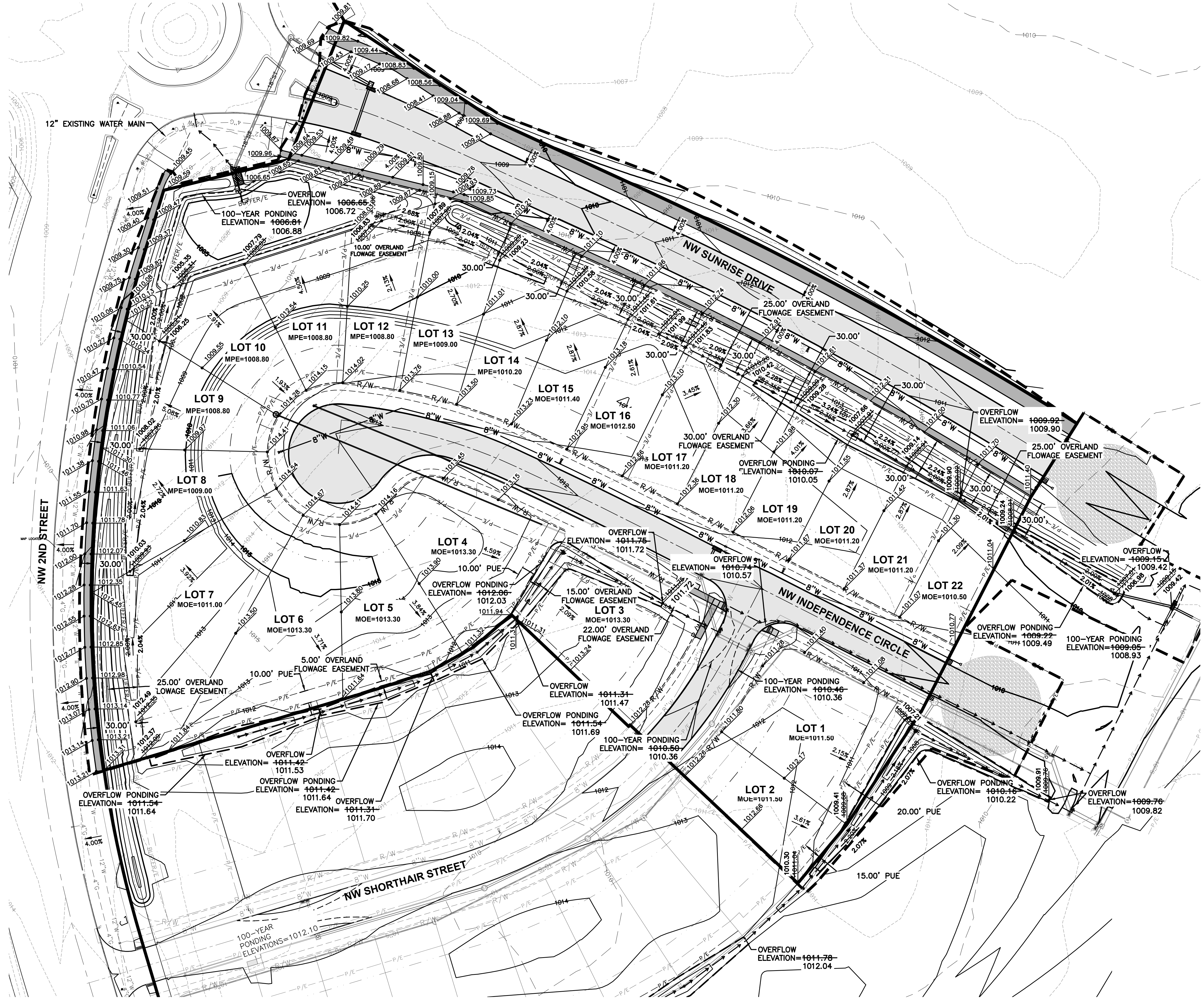
ENGINEER: J.JN

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

PM: DAM

REVISIONS	DATE	DESCRIPTION
AS-BUILT SUBMITTAL	10/10/2023	
FOR CONSTRUCTION	09/06/2023	
FIFTH SUBMITTAL	08/11/2023	
FOURTH SUBMITTAL	08/02/2023	
THIRD SUBMITTAL	07/15/2023	
SECOND SUBMITTAL	06/14/2023	

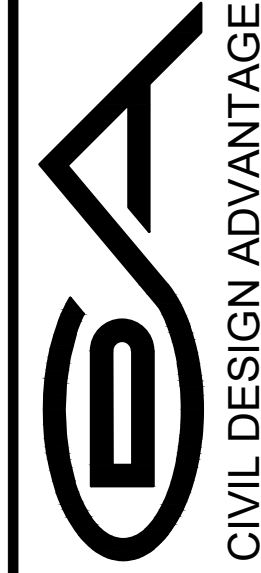
FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\INDI RUN PLAT 5-AS-BUILDING
DRAWING
DATE: 10/10/2023 1:50 PM
PLOT: 10/10/2023 1:50 PM
PLOT: 10/10/2023 1:50 PM
PLOT: 10/10/2023 1:50 PM



INDI RUN PLAT 5

GRADING PLAN

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



WAUKEE, IOWA

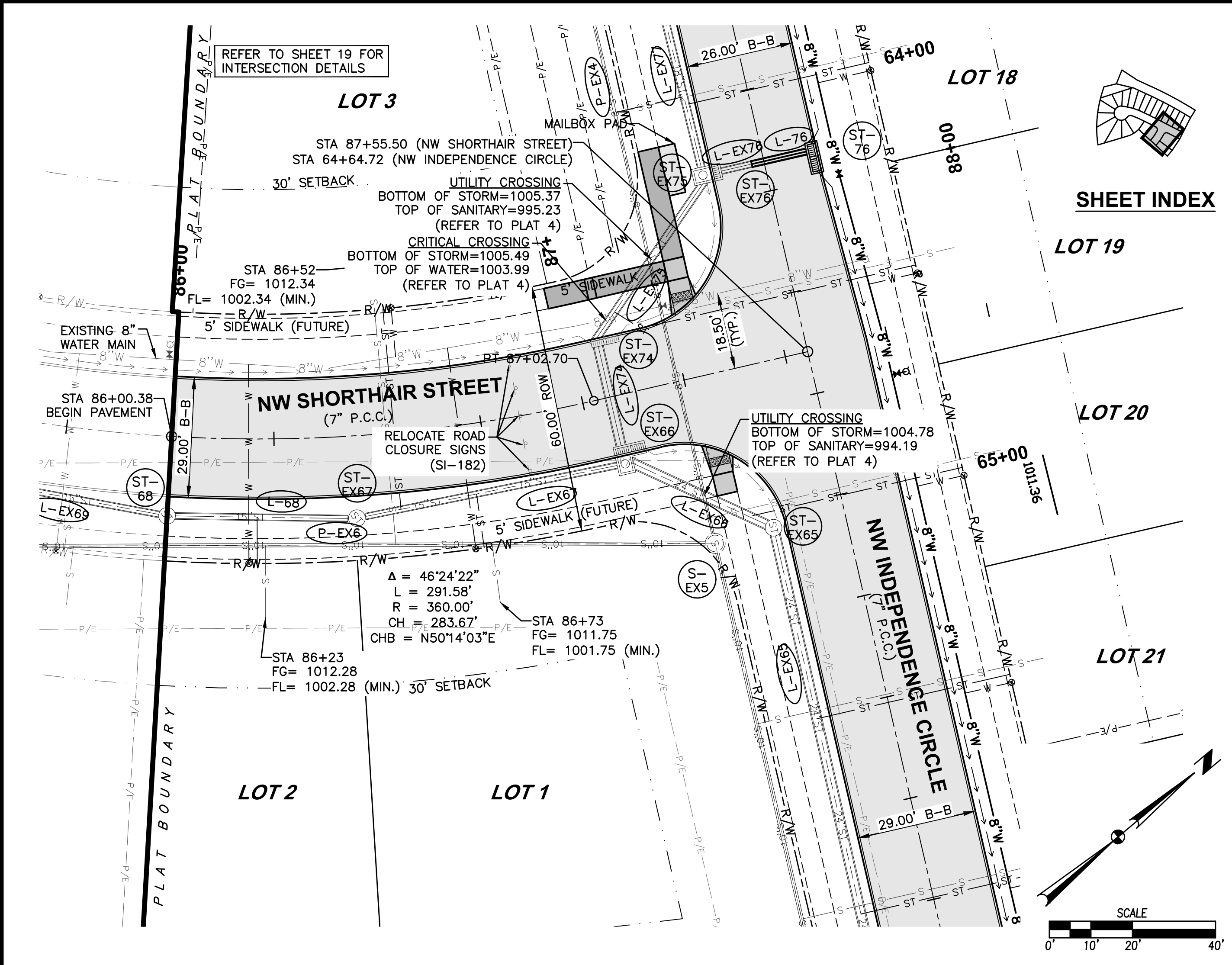
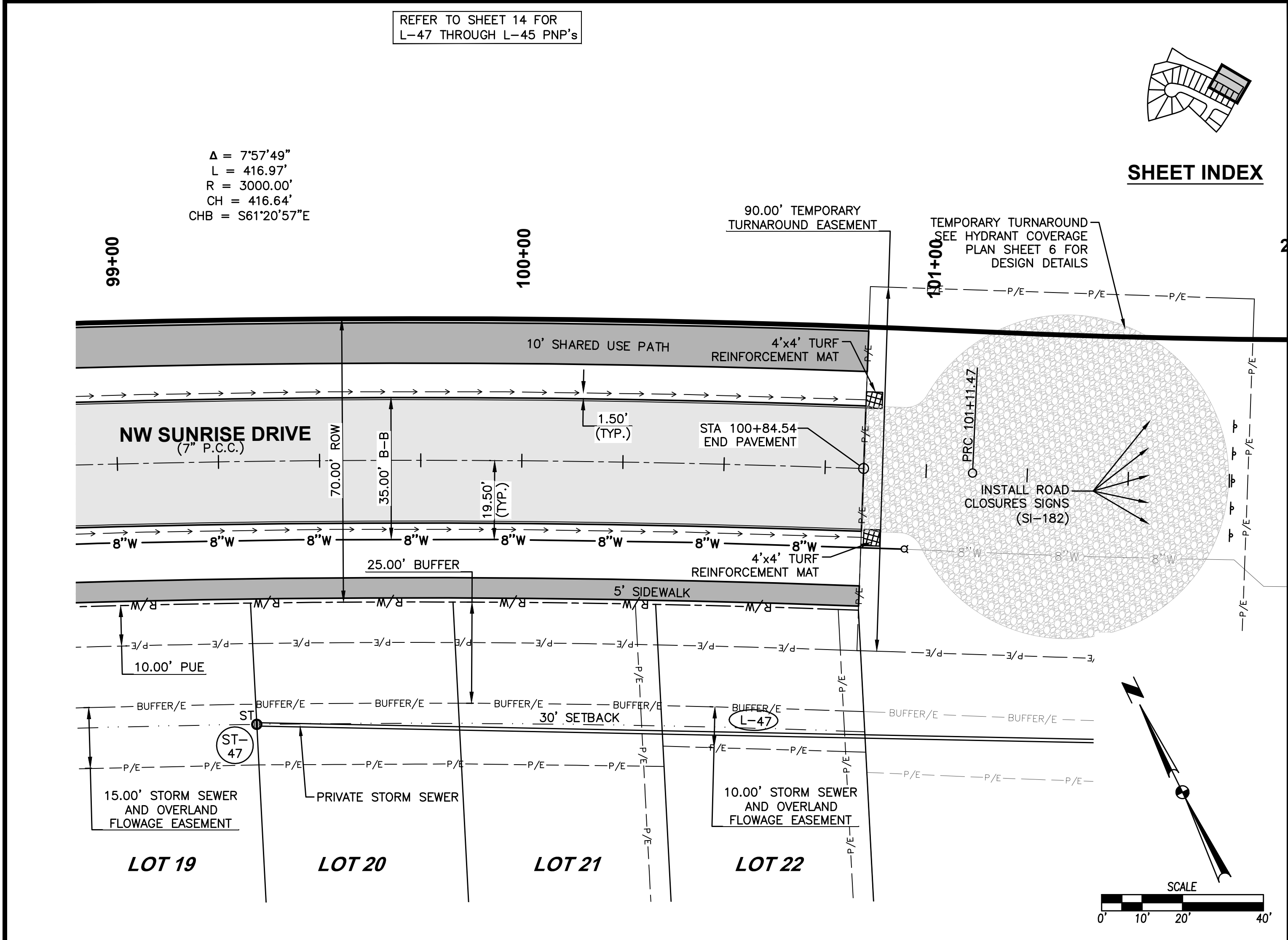
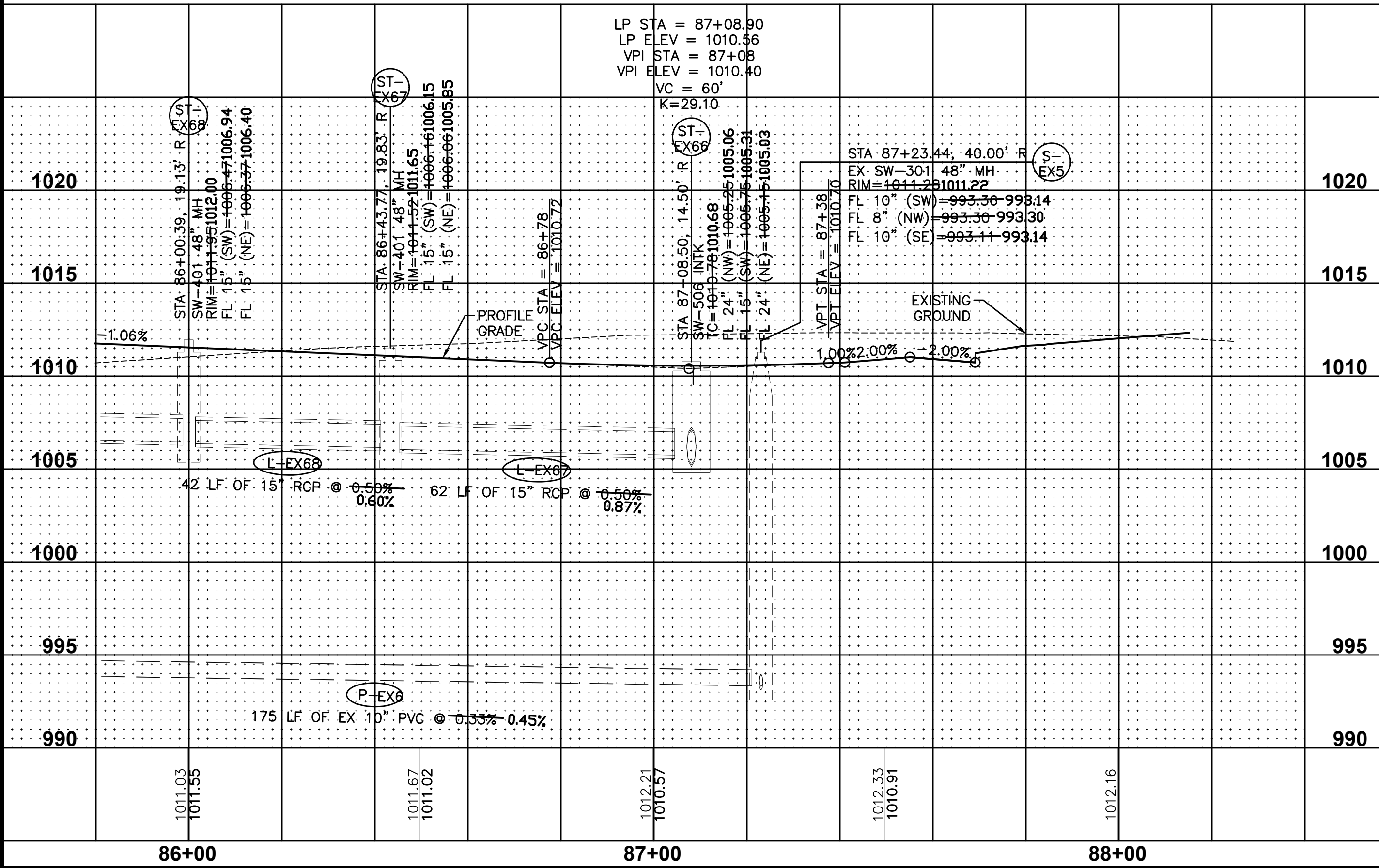
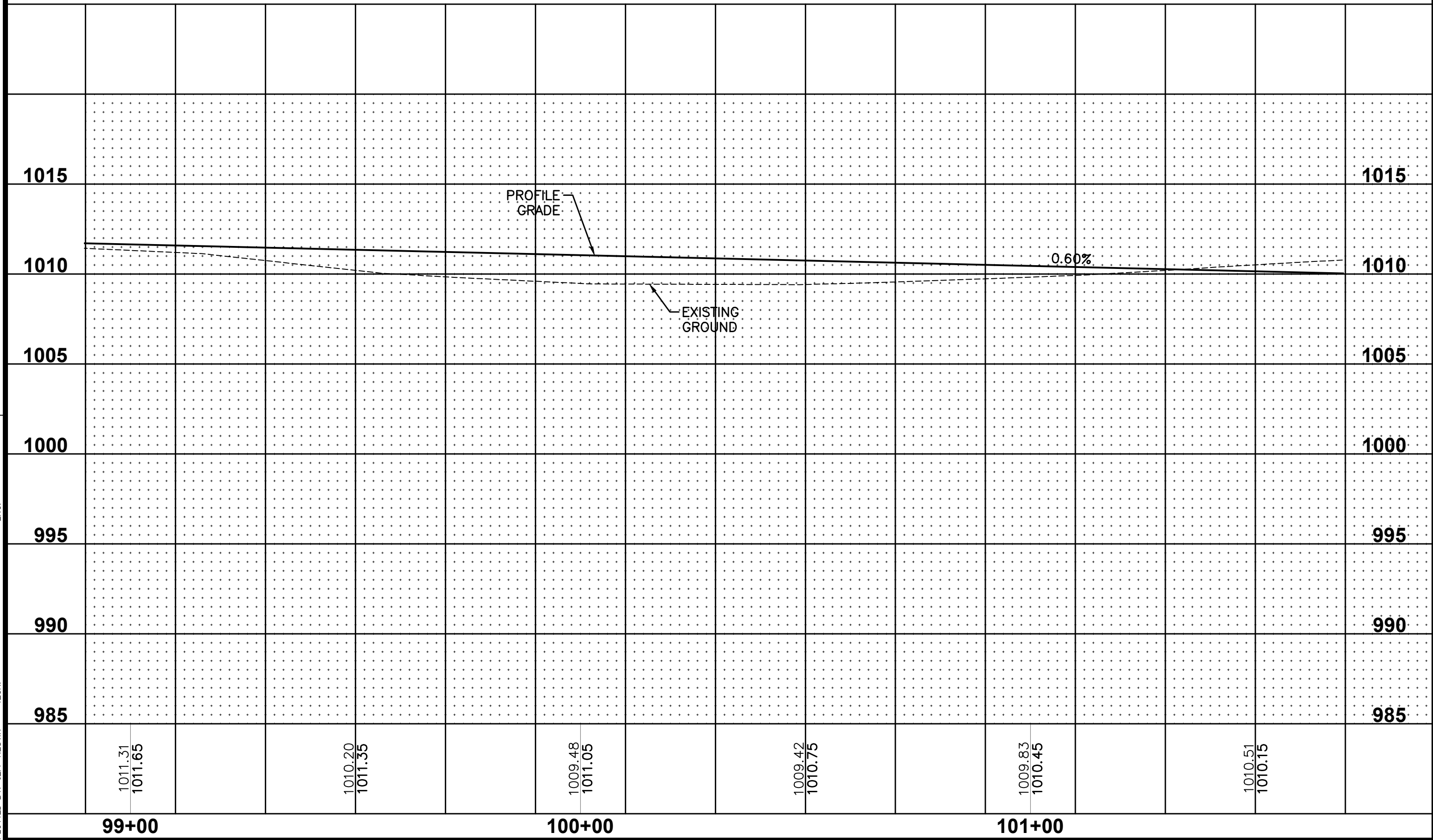
REVISIONS
10/10/2023 AS-BUILT SUBMITTAL
09/06/2023 FOR CONSTRUCTION
08/11/2023 FIFTH SUBMITTAL
08/02/2023 FOURTH SUBMITTAL
07/15/2023 THIRD SUBMITTAL
06/14/2023 SECOND SUBMITTAL

DATE
10/10/2023
09/06/2023
08/11/2023
08/02/2023
07/15/2023
06/14/2023

ENGINEER: JJN

PM: DAM

FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\1806355-PNP-PLAT 5-AS-BUILT.DWG
DATE: 10/10/2023 1:51 PM
PLOT: 1806355-PNP-PLAT 5-AS-BUILT.DWG
PLOT: 1806355-PNP-PLAT 5-AS-BUILT.DWG



INDI RUN PLAT 5

STORM AND SANITARY PLAN AND PROFILE

11/22

1806.355

4121 NW URBANDALE DRIVE

URBANDALE, IA 50322

PHONE: (515) 369-4400

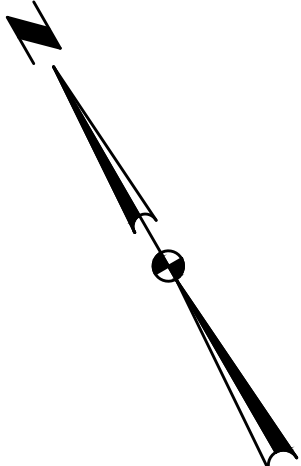
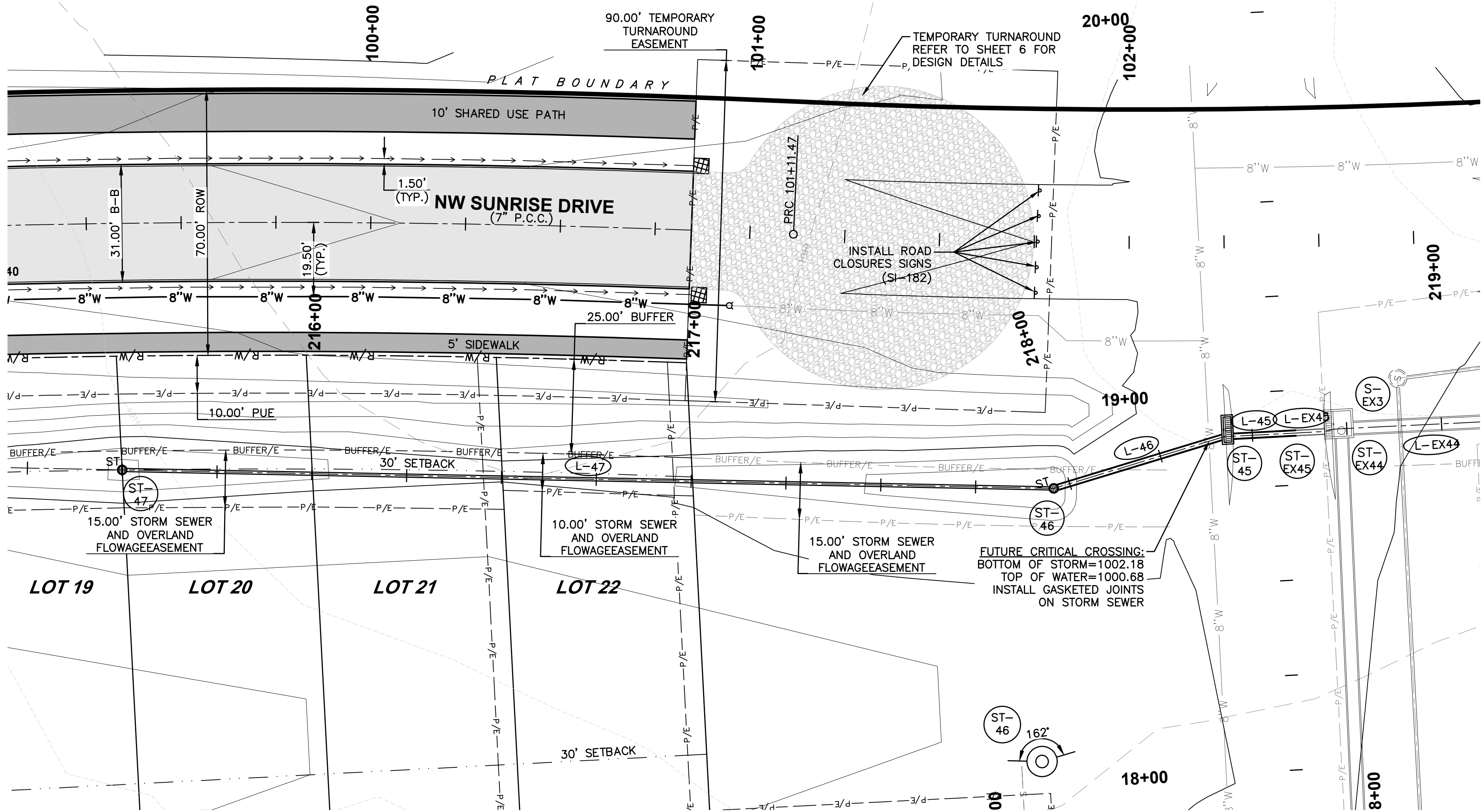
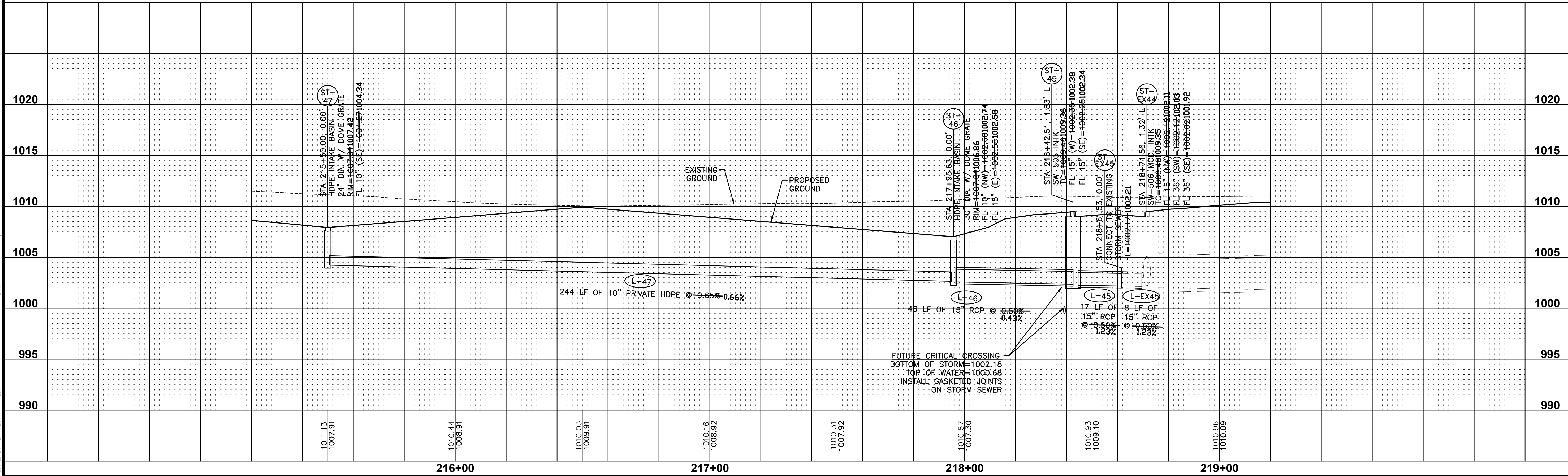
ENGINEER: JJN

PM: DAM

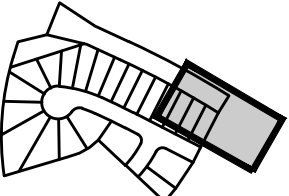
REVISIONS

DATE	DESCRIPTION
10/10/2023	AS-BUILT SUBMITTAL
09/06/2023	FOR CONSTRUCTION
08/11/2023	FIFTH SUBMITTAL
08/02/2023	FOURTH SUBMITTAL
07/15/2023	THIRD SUBMITTAL
06/14/2023	SECOND SUBMITTAL

FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\INDI RUN PLAT 5-AS-BUILT.DWG
DATE: 10/10/2023 1:51 PM
PLOT: 10/10/2023 1:51 PM
PLOTTER: HP DesignJet T1200



SHEET INDEX



INDI RUN PLAT 5
STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA



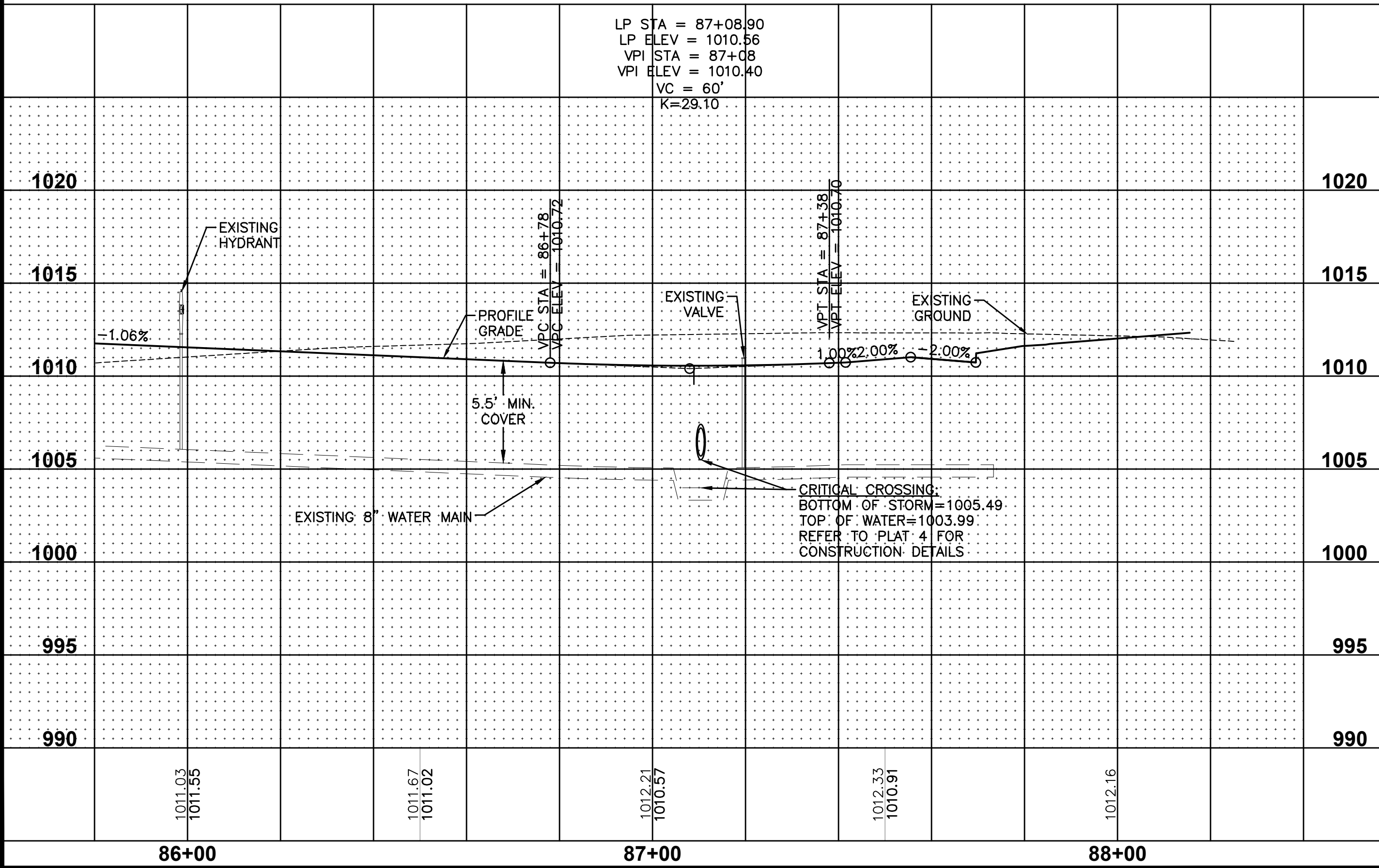
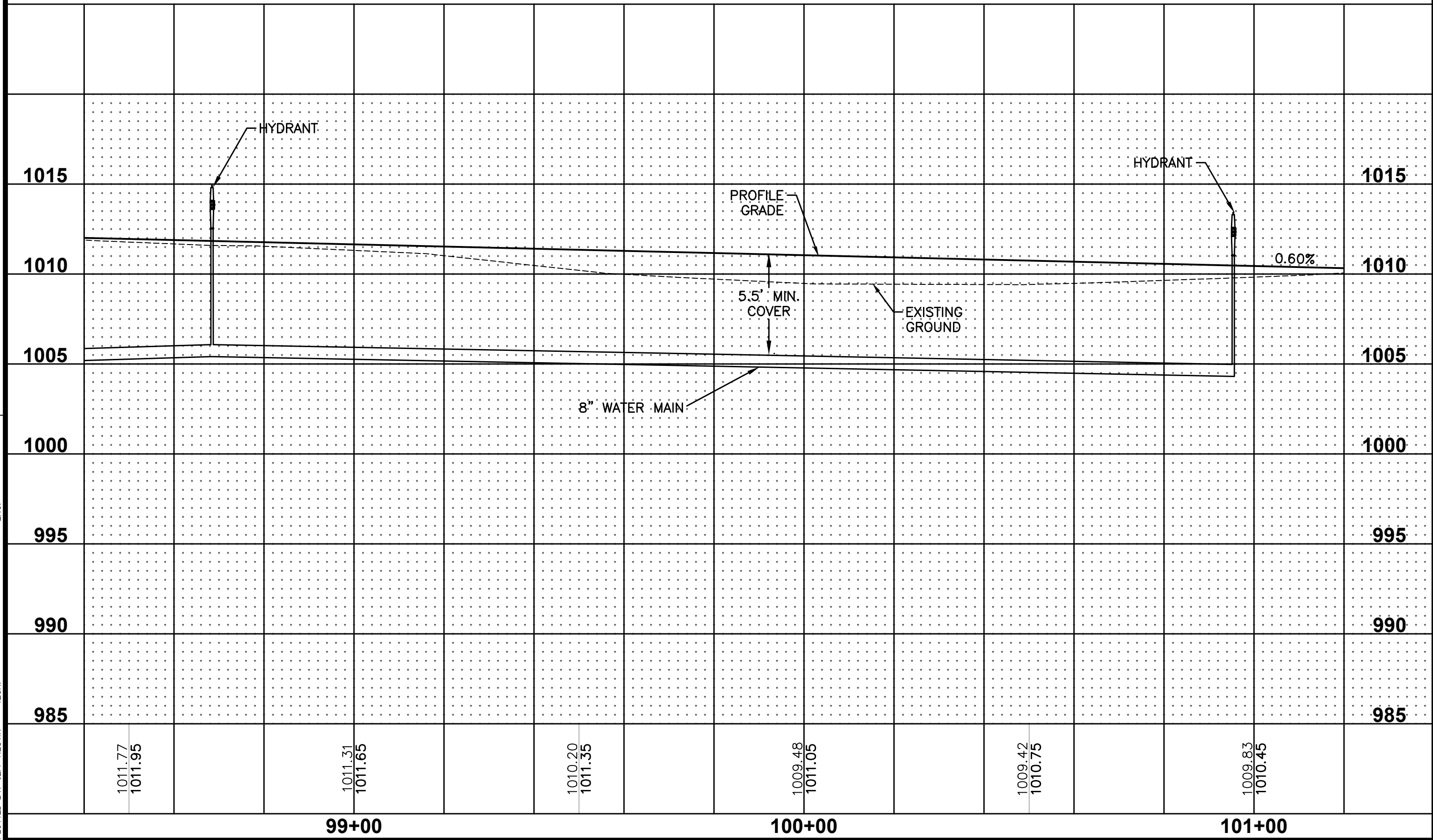
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: JJN

PM: DAM

REVISIONS	DATE
AS-BUILT SUBMITTAL	10/10/2023
FOR CONSTRUCTION	09/06/2023
FIFTH SUBMITTAL	08/11/2023
FOURTH SUBMITTAL	08/02/2023
THIRD SUBMITTAL	07/15/2023
SECOND SUBMITTAL	06/14/2023

FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\INDI RUN PLAT 5-AS-BUILT.DWG
DATE: 10/10/2023 1:52 PM
PLOT: 10/10/2023 1:52 PM
PLOT: 10/10/2023 1:52 PM
PLOT: 10/10/2023 1:52 PM



SHEET INDEX

SHEET INDEX

DATE
10/10/2023
09/06/2023
08/11/2023
08/02/2023
07/15/2023
06/14/2023

REVISIONS
AS-BUILT SUBMITTAL
FOR CONSTRUCTION
FIFTH SUBMITTAL
FOURTH SUBMITTAL
THIRD SUBMITTAL
SECOND SUBMITTAL

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

ENGINEER: JJN

PM: DAM

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

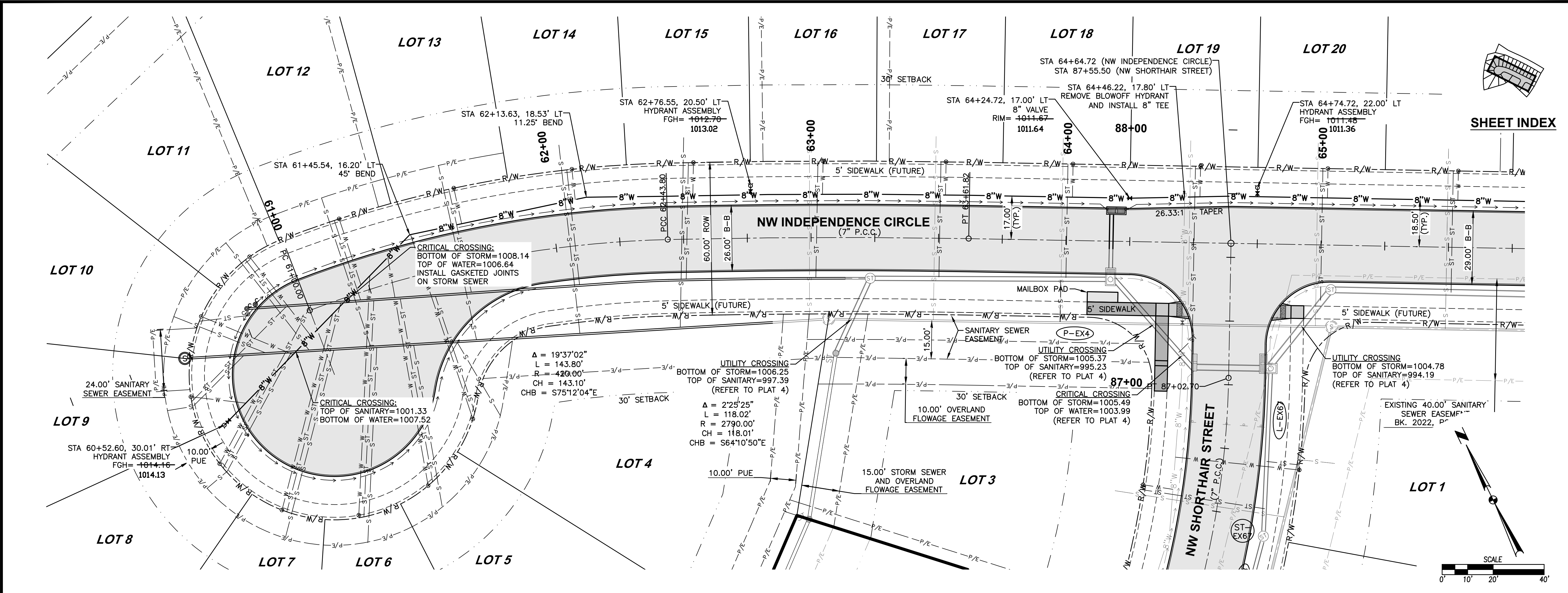
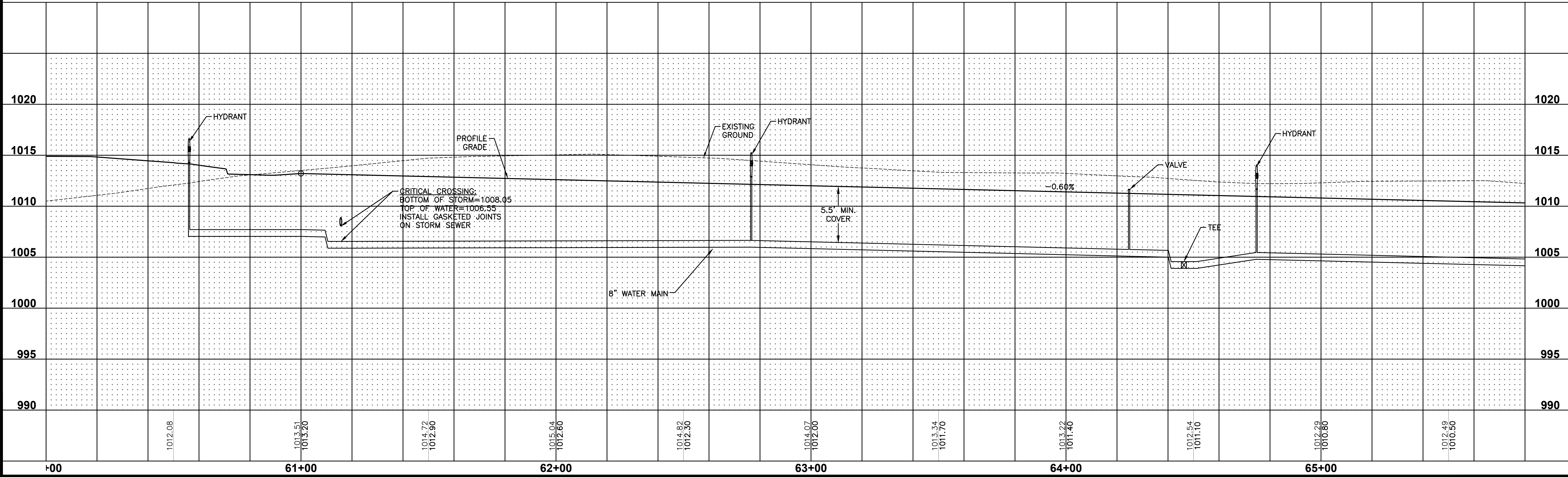
INDI RUN PLAT 5

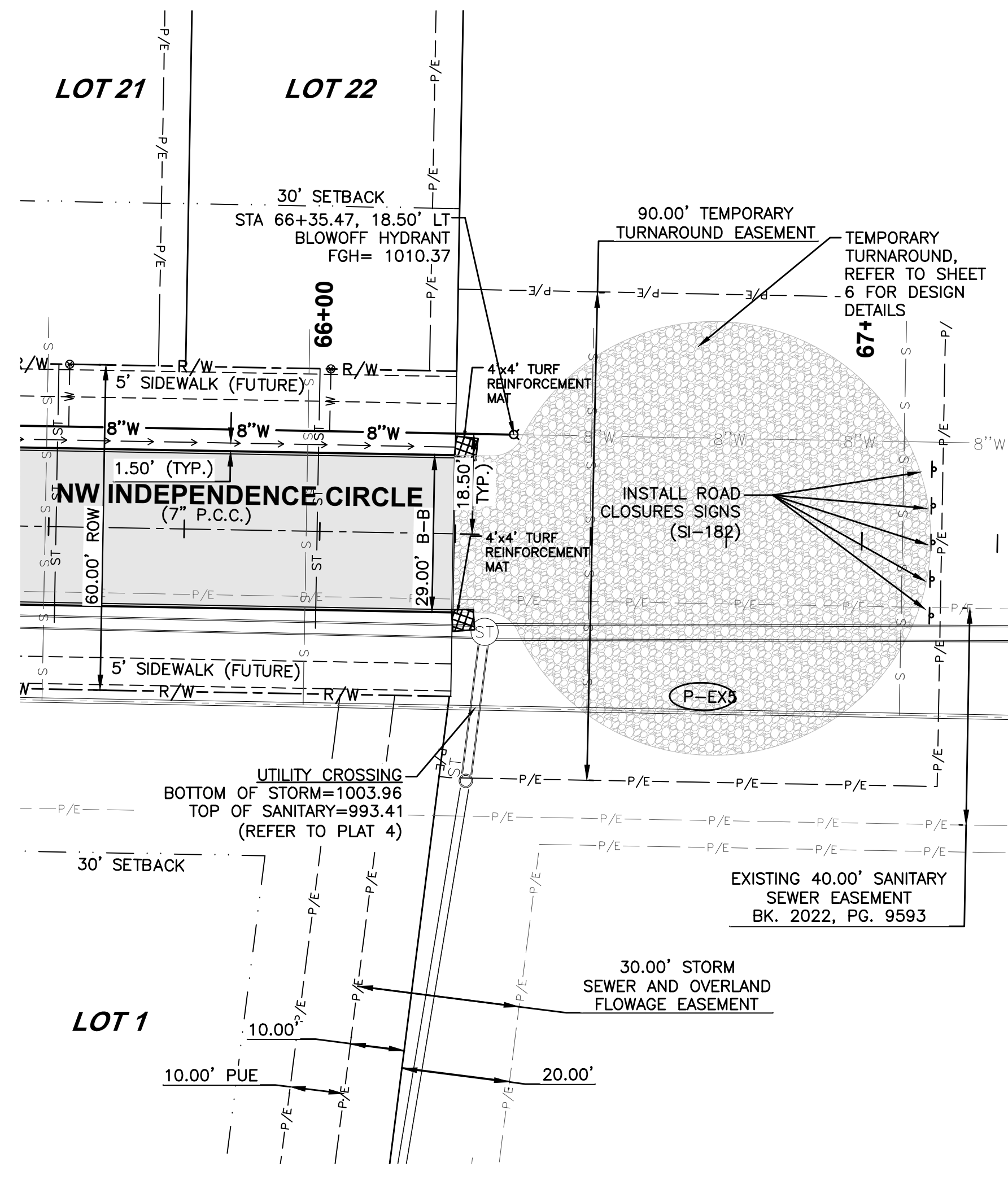
WATER MAIN PLAN AND PROFILE

16/22

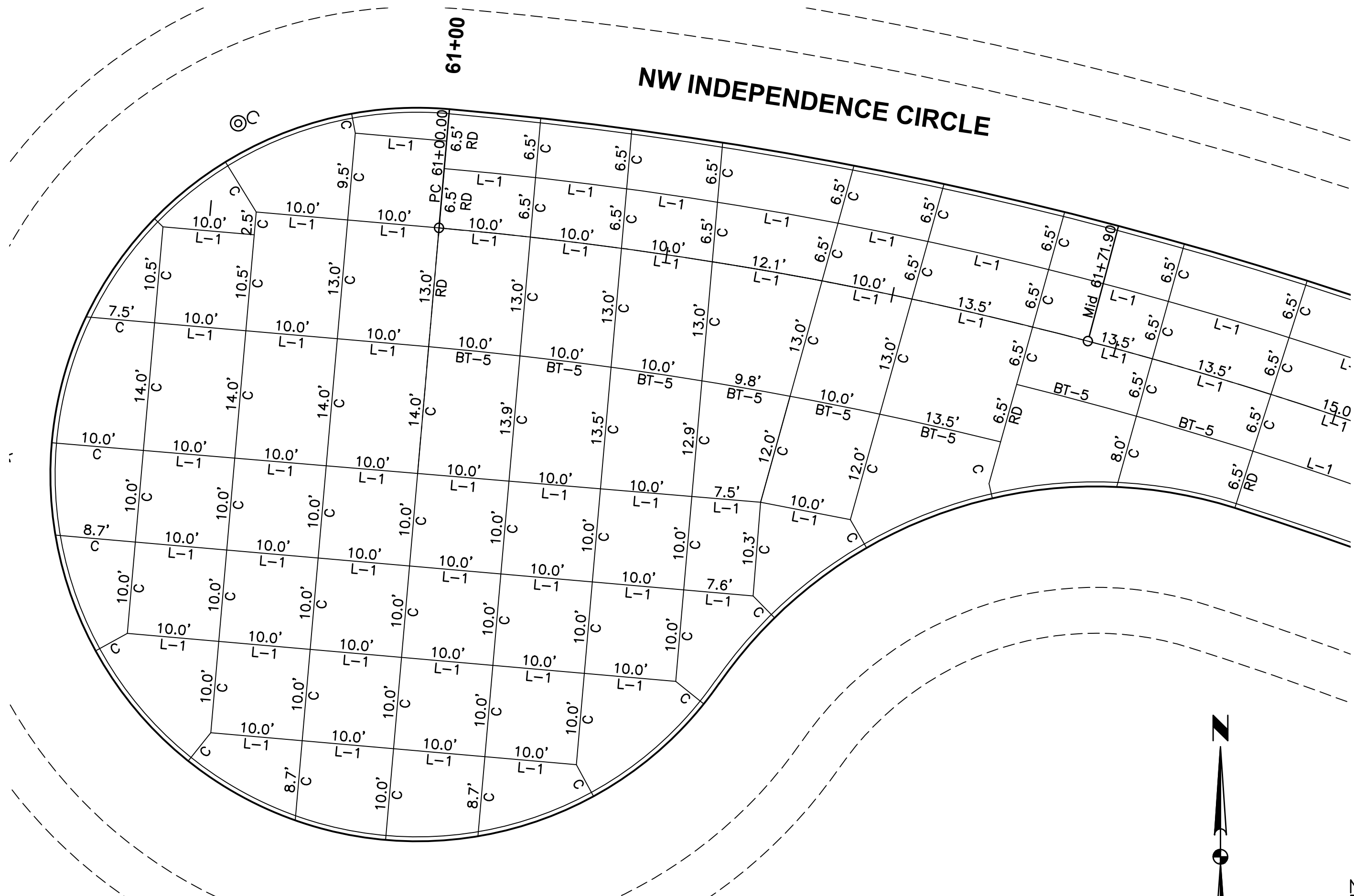
1806.355

FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\INDI RUN PLAT 5-AS-BUILT.DWG
DATE: 10/10/2023 1:52 PM
PLOT: 10/10/2023 1:52 PM
PLOT: 10/10/2023 1:52 PM

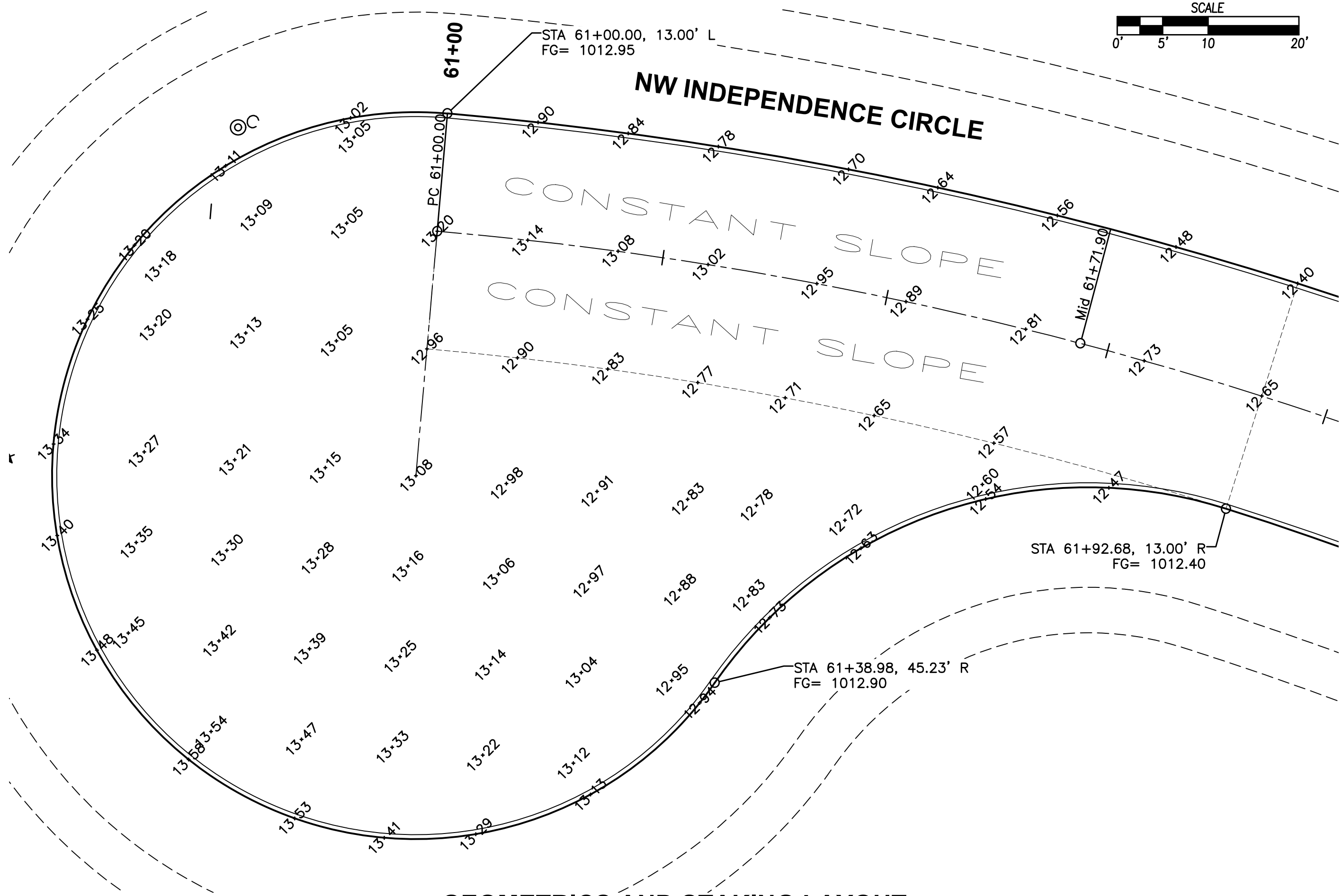




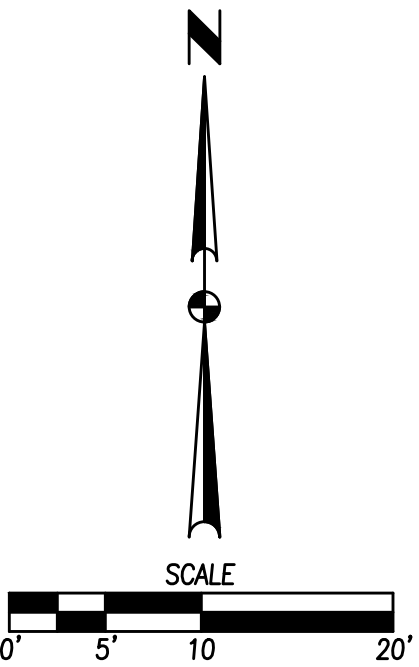
FILE: H:\2018\INDI RUN\AS-BUILT\PLAT 5\INDI RUN-INTERSECTION-PLAT 5-AS-BUILDING
DATE PLOTTED: 10/10/2023 1:52 PM
PLOT BY: JEFF NEVINS



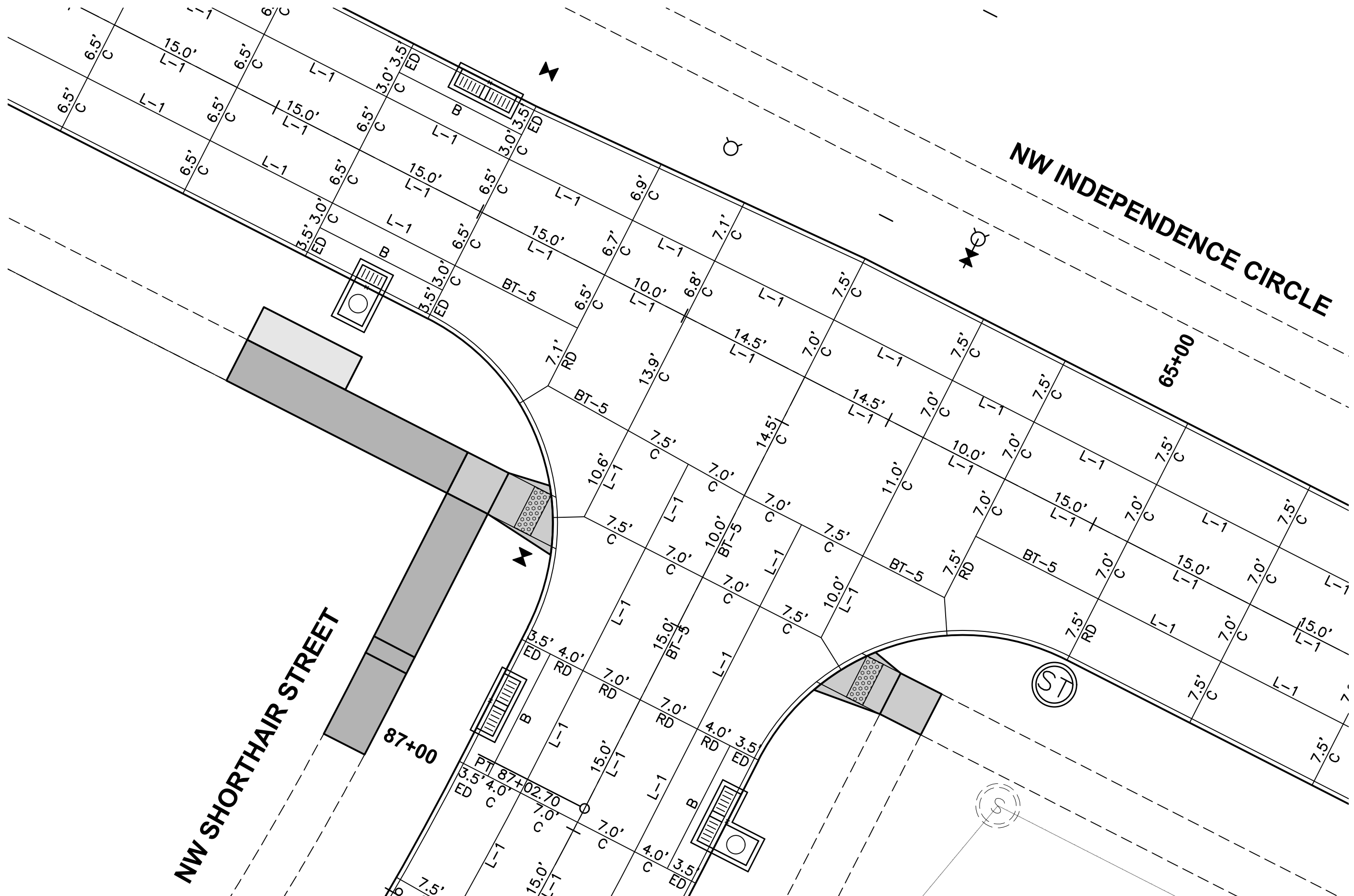
JOINTING LAYOUT



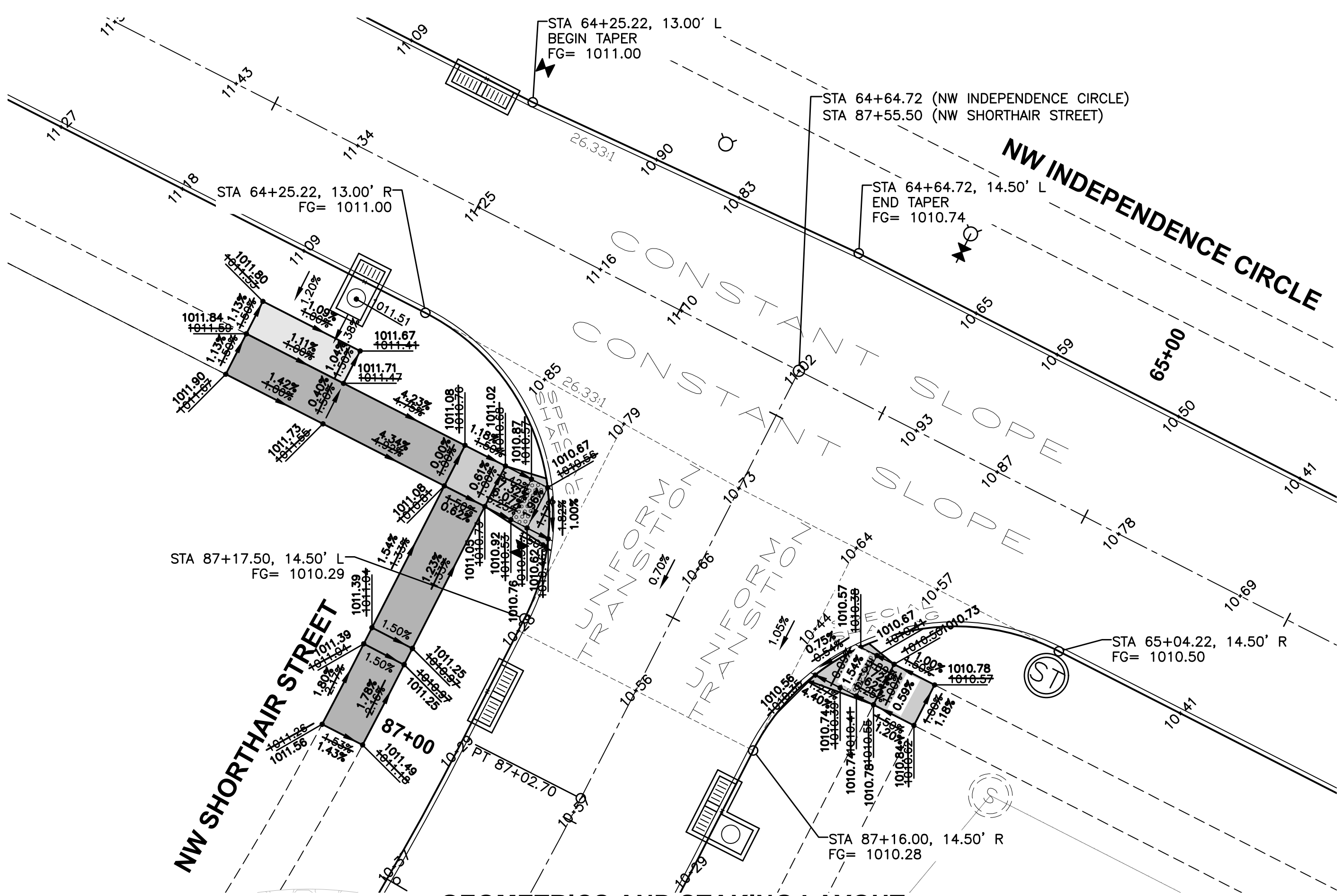
GEOMETRICS AND STAKING LAYOUT



- 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.
 4. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO MATCH PROJECT DATUM.



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

REVISIONS		DATE
AS-BUILT SUBMITTAL	10/10/2023	
FOR CONSTRUCTION	09/06/2023	
FIFTH SUBMITTAL	08/11/2023	
FOURTH SUBMITTAL	08/02/2023	
THIRD SUBMITTAL	07/15/2023	
SECOND SUBMITTAL	06/14/2023	

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

ENGINEER: JJN PM: DAM



CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

INDI RUN PLAT 5

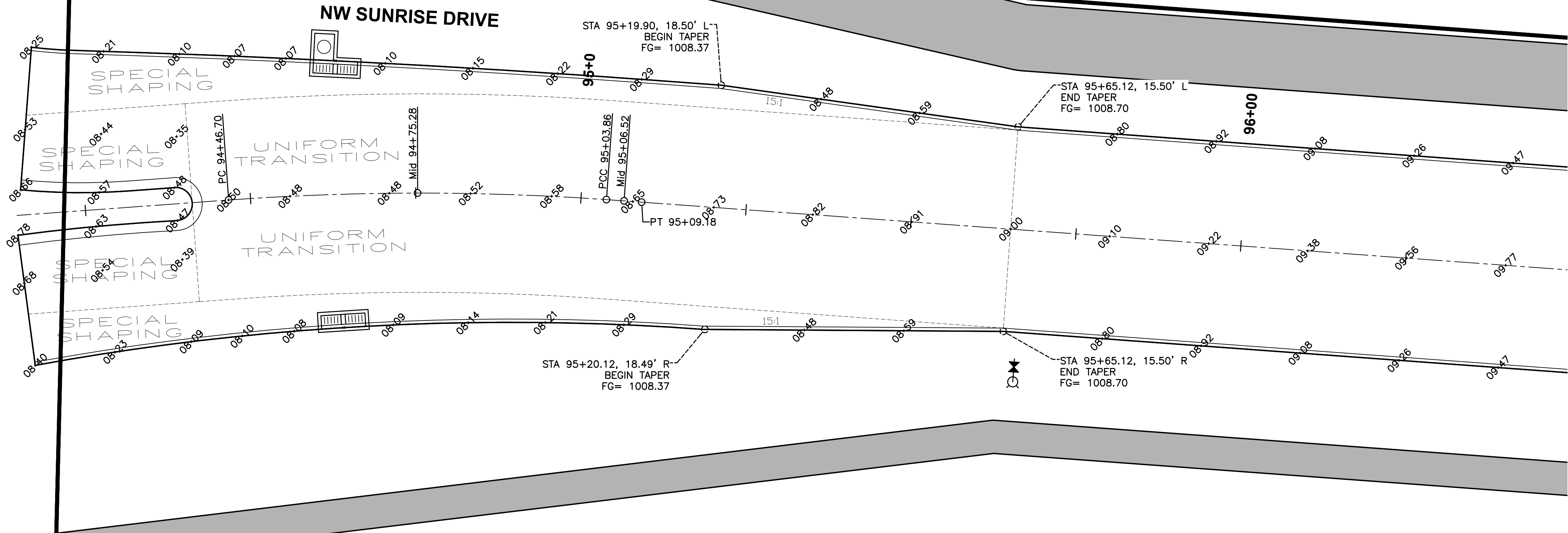
INTERSECTION DETAILS

FILE: H:\2018\1806355\DWG\AS-BUILT\PLAT 5\INDI RUN PLAT 5-AS-BUILDING
DATE: 10/10/2023 1:52 PM
PLOTTER: HP DesignJet T120
PLOTTER DR: HP DesignJet T120

- NOTES:
- ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
 - INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
 - REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
 - ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO MATCH PROJECT DATUM.

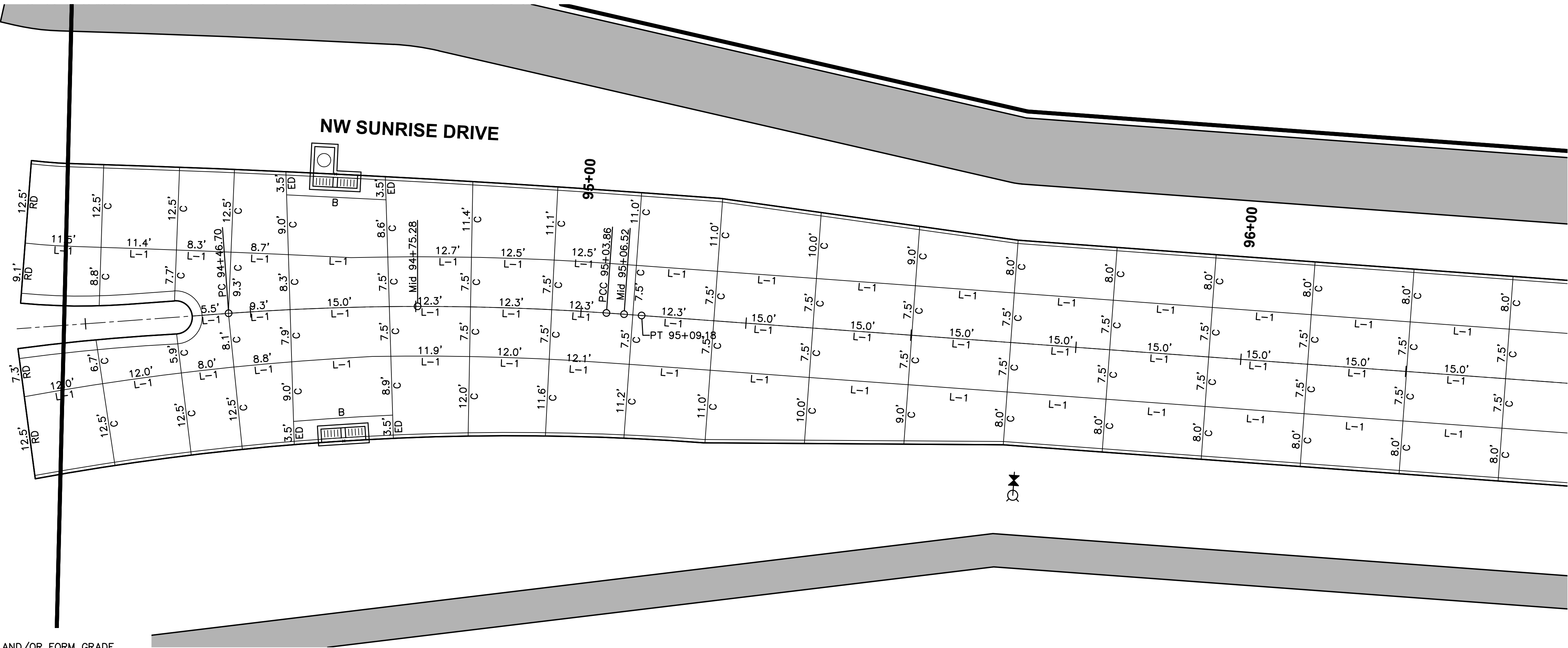
94+00

94+00



GEOMETRICS AND STAKING LAYOUT

JOINTING LAYOUT



LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. THE 2022 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.
10. LANDSCAPE BUFFERS AND RIGHT-OF-WAY AREAS SHALL UTILIZE TYPE 1 SEEDING FOR TEMPORARY STABILIZATION AND ARE TO BE SODDED FOR PERMANENT STABILIZATION AT THE TIME OF ADJOINING LOT DEVELOPMENT.

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.

DETENTION POND 1 BUFFER

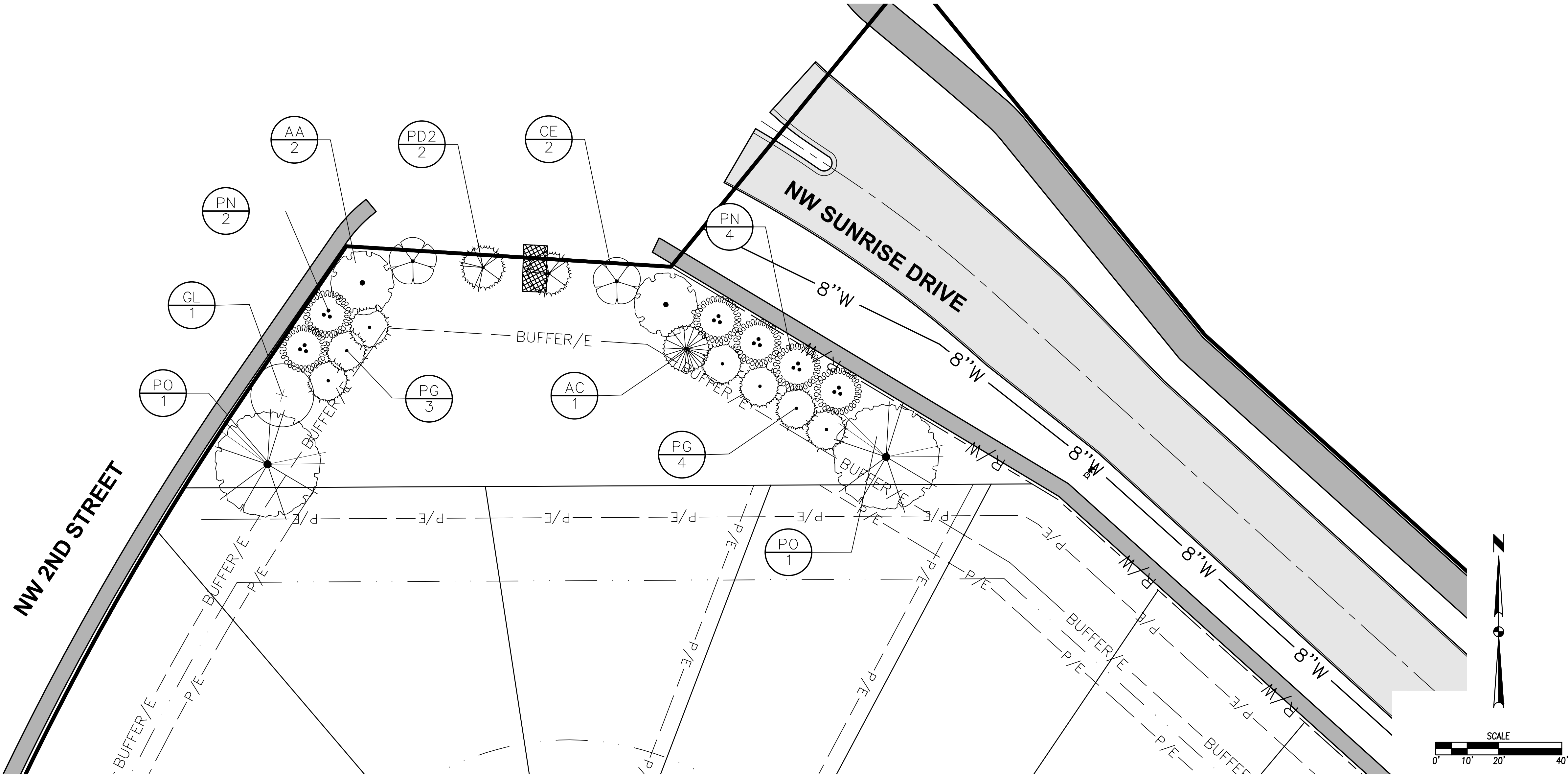
BUFFER LENGTH: 329 LF TOTAL

TREES REQUIRED: TREES PROVIDED:

OVERSTORY:	5	5
EVERGREEN:	9	9
ORNAMENTAL:	9	8

PLANT SCHEDULE

PLANT SCHEDULE DETENTION POND 1				
EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	1	White Fir	Abies Concolor	B&B, 6' HEIGHT
PD2	2	Black Hills White Spruce	Picea glauca 'Densata'	B&B, 6' HEIGHT
PG	7	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT
ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CE	2	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 1.5" CALIPER
PN	6	Newport Flowing Plum	Prenus cerasifera 'Newport'	B&B, 1.5" CALIPER
OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AA	2	Autumn Blaxe Red Maple	Acer rebrum 'Autumn Blaze'	B&B, 2" CALIPER
GL	1	Greenspire Linden	Tilia cordata 'Greenspire'	B&B, 2" CALIPER
PO	2	American Sycamore	Platanus occidentalis	B&B, 2" CALIPER



FILE: H:\2018\1806355\INDIRUN\AS-BUILT\PLAT 5\INDIRUN-AS-BUILT-DWG
DATE PLOTTED: 10/10/2023 1:52 PM
PLOT BY: JEFF NEVINS

INDIRUN PLAT 5
LANDSCAPE PLAN

21
22
1806.355

Waukee, Iowa

Civil Design Advantage

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

ENGINEER: JJN

PM: DAM

REVISIONS

DATE	AS-BUILT SUBMITTAL	FOR CONSTRUCTION	FIFTH SUBMITTAL	FOURTH SUBMITTAL	THIRD SUBMITTAL	SECOND SUBMITTAL
10/10/2023	09/06/2023	08/11/2023	08/02/2023	07/15/2023	06/14/2023	

NW 2ND STREET BUFFER
BUFFER LENGTH: 380 LF TOTAL

TREES REQUIRED: TREES PROVIDED:

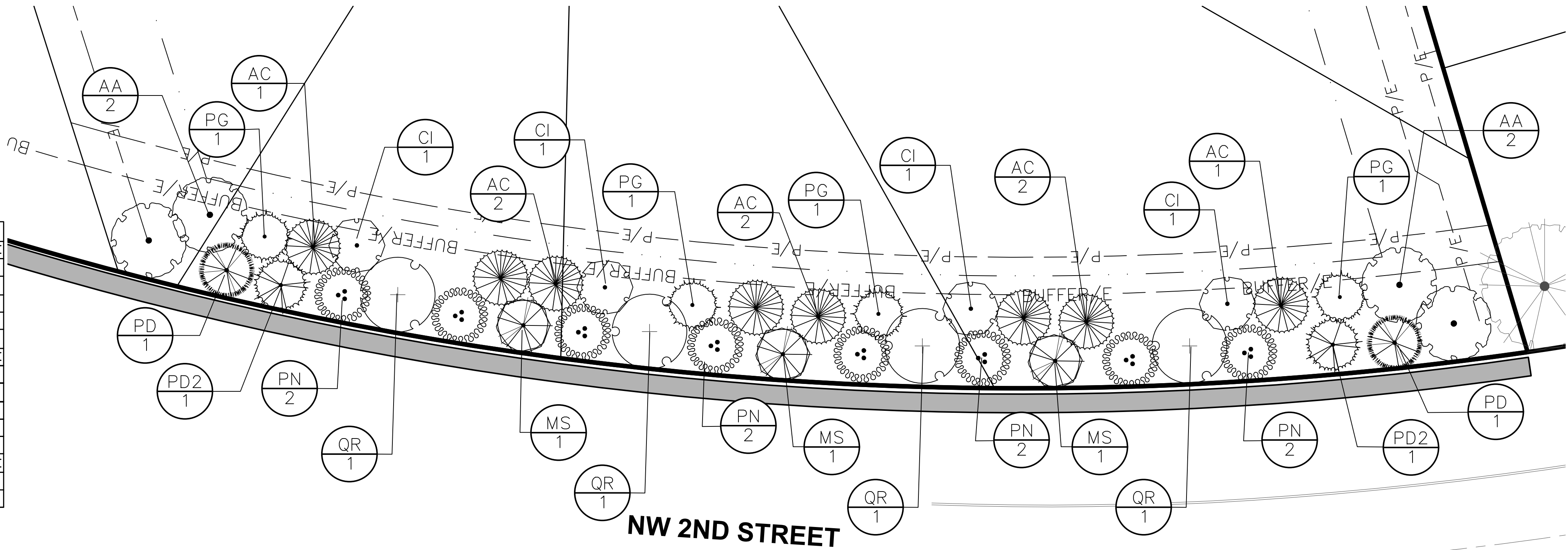
OVERSTORY: 8 8
EVERGREEN: 15 16
ORNAMENTAL: 15 15

PLANT SCHEDULE NW 2ND STREET

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	8	White Fir	Abies Concolor	B&B, 6' HEIGHT
PD	2	Douglas Fir	Psuedotsuga menziesii	B&B, 6' HEIGHT
PD2	2	Black Hills White Spruce	Picea glauca 'Densata'	B&B, 6' HEIGHT
PG	4	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CI	4	Thornless Cockspur Hawthorn	Crataegus crus-galli inermis	B&B, 1.5" CALIPER
MS	3	Spring Snow Crab Apple	Malus x 'Spring Snow'	B&B, 1.5" CALIPER
PN	8	Newport Flowing Plum	Prenus cerasifera 'Newport'	B&B, 1.5" CALIPER

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AA	4	Autumn Blaxe Red Maple	Acer rebrum 'Autumn Blaze'	B&B, 2" CALIPER
QR	4	Red Oak	Quercus rubra	B&B, 2" CALIPER



PLANT SCHEDULE NW SUNRISE DRIVE

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	6	White Fir	Abies Concolor	B&B, 6' HEIGHT
PD	3	Douglas Fir	Psuedotsuga menziesii	B&B, 6' HEIGHT
PD2	6	Black Hills White Spruce	Picea glauca 'Densata'	B&B, 6' HEIGHT
PG	6	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT

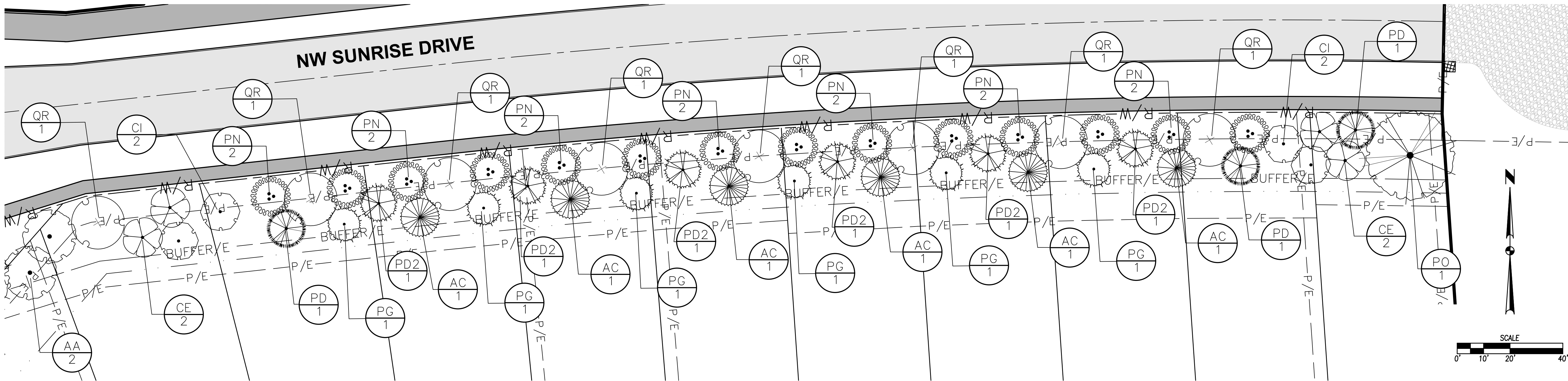
ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
CE	4	Eastern Redbud Multi-trunk	Cercis canadensis	B&B, 1.5" CALIPER
CI	4	Thornless Cockspur Hawthorn	Crataegus crus-galli inermis	B&B, 1.5" CALIPER
PN	14	Newport Flowing Plum	Prenus cerasifera 'Newport'	B&B, 1.5" CALIPER

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AA	2	Autumn Blaxe Red Maple	Acer rebrum 'Autumn Blaze'	B&B, 2" CALIPER
PO	1	American Sycamore	Platanus occidentalis	B&B, 2" CALIPER
QR	8	Red Oak	Quercus rubra	B&B, 2" CALIPER

NW SUNRISE DRIVE BUFFER
BUFFER LENGTH: 524 LF TOTAL

TREES REQUIRED: TREES PROVIDED:

OVERSTORY: 11 11
EVERGREEN: 21 21
ORNAMENTAL: 21 22



FILE: H:\2018\1806355\INDI RUN PLAT 5\1806355-LANDSCAPE-PLAT 5-AS-BUILT.DWG
DATE: 10/10/2023 1:52 PM
PLOT: 1806355-LANDSCAPE-PLAT 5-AS-BUILT.DWG
PLOT: 10/10/2023 1:52 PM
PLOT: 1806355-LANDSCAPE-PLAT 5-AS-BUILT.DWG
PLOT: 10/10/2023 1:52 PM

INDI RUN PLAT 5
LANDSCAPE PLAN

22
1806.355

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

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

ENGINEER: JJN

PM: DAM

REVISIONS

DATE	DESCRIPTION
10/10/2023	AS-BUILT SUBMITTAL
09/06/2023	FOR CONSTRUCTION
08/11/2023	FIFTH SUBMITTAL
08/02/2023	FOURTH SUBMITTAL
07/15/2023	THIRD SUBMITTAL
06/14/2023	SECOND SUBMITTAL