

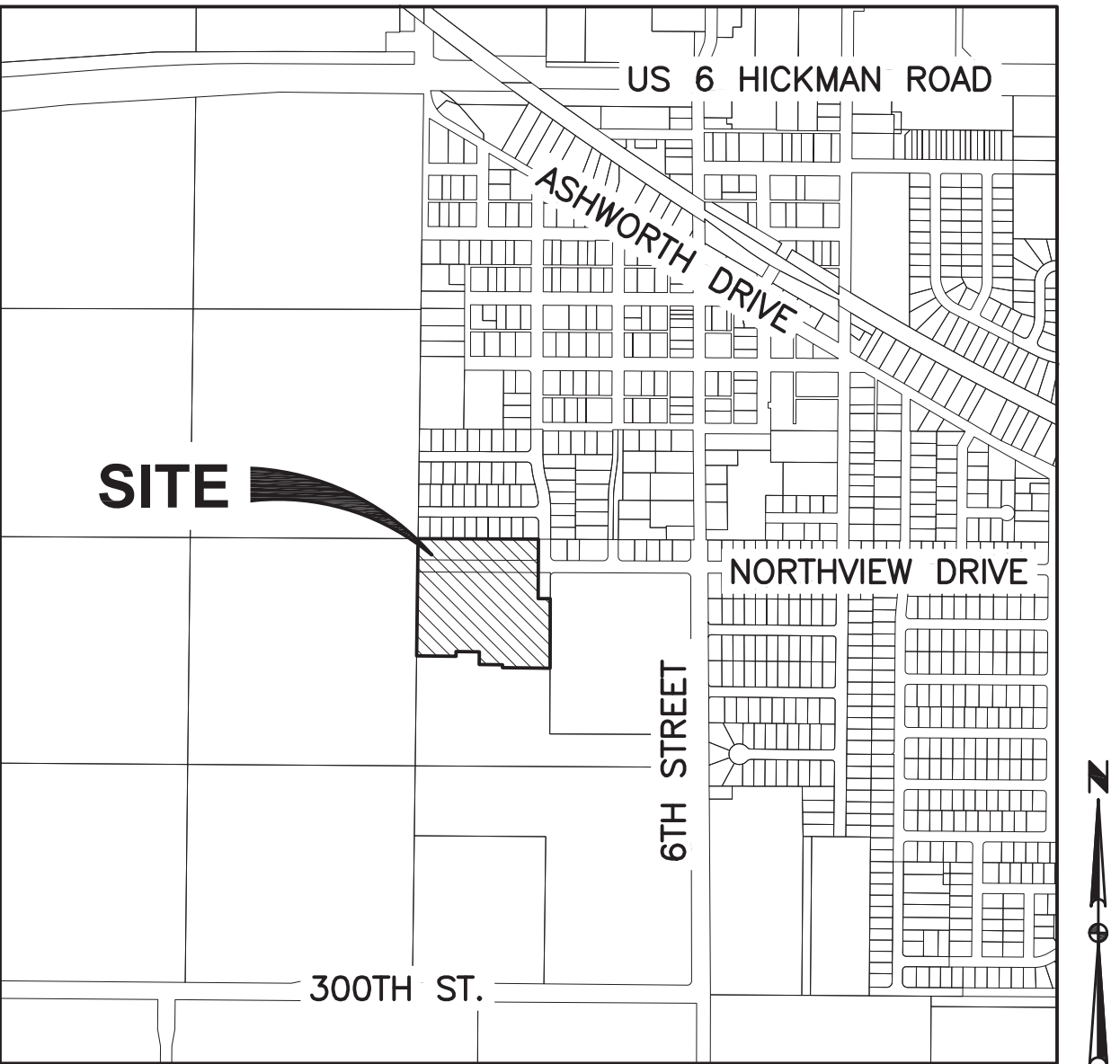
CONSTRUCTION PLANS FOR:

CLAYTON ESTATES PLAT 1

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS AND DETAILS
4	QUANTITIES AND REFERENCE NOTES
5	HYDRANT COVERAGE PLAN
6-7	GRADING PLAN
8-9	EROSION & SEDIMENT CONTROL PLAN
10-16	STORM AND SANITARY SEWER PLAN AND PROFILE
17-21	WATERMAIN PLAN AND PROFILE
22-23	INTERSECTION DETAILS

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.

GENERAL LEGEND

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

OWNER/DEVELOPER

RMCA, LLC
10430 NEW YORK AVE., SUITE C
URBANDALE, IOWA 50322
PH: (515) 727-0356
CONTACT: JAY COWAN

ENGINEER/ SURVEYOR

CIVIL DESIGN ADVANTAGE
CONTACT: ERIN OLLENDIKE
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH. (515) 369-4400
FX. (515) 369-4410

BENCHMARKS

1. ARROW ON HYDRANT NE CORNER OF SE
DARTMOOR DRIVE & LAUREL STREET.
ELEVATION=1039.78

DATE OF SURVEY

AUGUST 15, 2016

BULK REGULATIONS

R-2 ONE AND TWO FAMILY RESIDENTIAL DISTRICT
- MIN. LOT AREA = 8,000 SF (SINGLE FAMILY)
- 30' FRONT YARD SETBACK
- 30' REAR YARD SETBACK
- 15' SIDE YARD SETBACK
(TOTAL=15', MIN. SIDE=7')

SUBMITTAL DATES

FIRST SUBMITTAL: 10/10/2016
SECOND SUBMITTAL: 11/04/2016
THIRD SUBMITTAL: 12/09/2016
FOURTH SUBMITTAL: 01/06/2017
FINAL SUBMITTAL: 01/30/2017
REVISED STORM SEWER: 06/15/2017
AS-BUILT SUBMITTAL: 09/11/2017

NOTES

- ANY CHANGES PROPOSED TO THE CONSTRUCTION DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- THE RESULTS OF THE GEOTECHNICAL REPORT ARE TO BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. THE CONSTRUCTION DRAWINGS ARE SUBJECT TO ANY CHANGES REQUIRED BY THE REPORT.

ZONING

R-2 ONE AND TWO FAMILY RESIDENTIAL DISTRICT

LEGAL DESCRIPTION

PARCELS 17-67 AND 17-68, BOOK 2016, PAGE 9295, IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND CONTAINING 37.07 ACRES (1,614,672 SQUARE FEET).

UTILITY NOTE

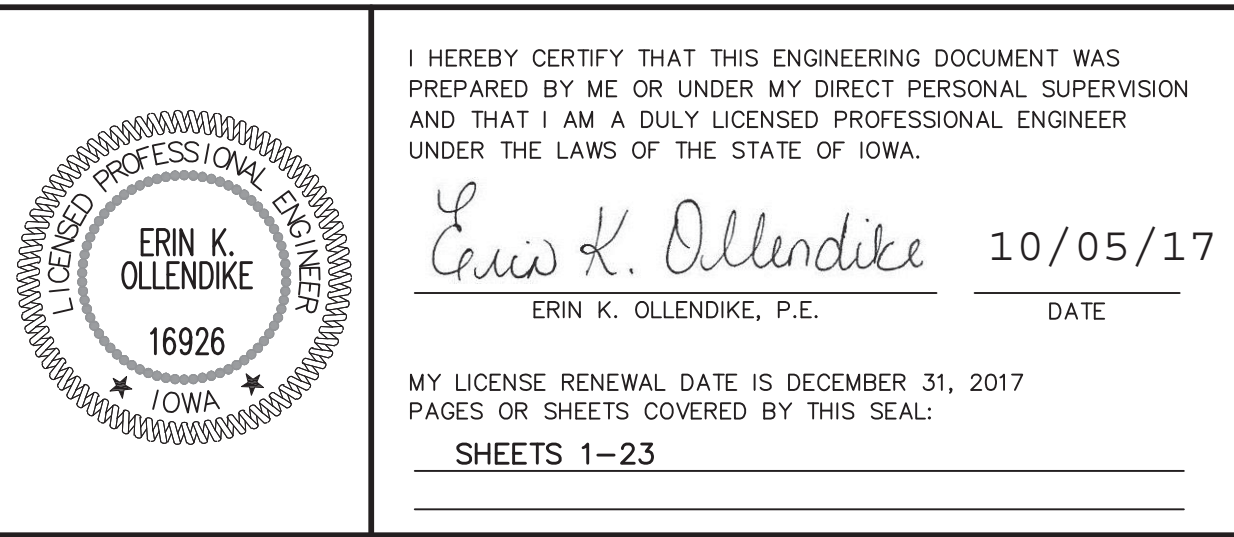
ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT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



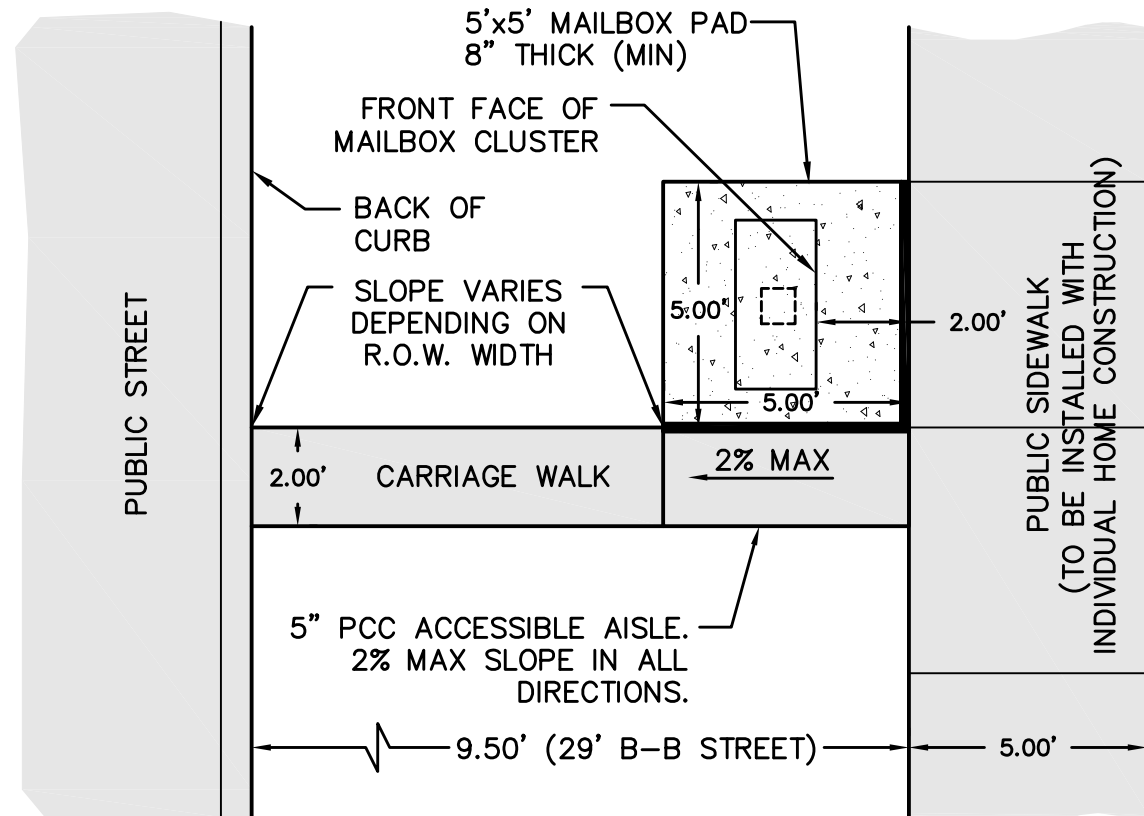
THIS PROJECT REQUIRES AN IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, 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 MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2016 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.

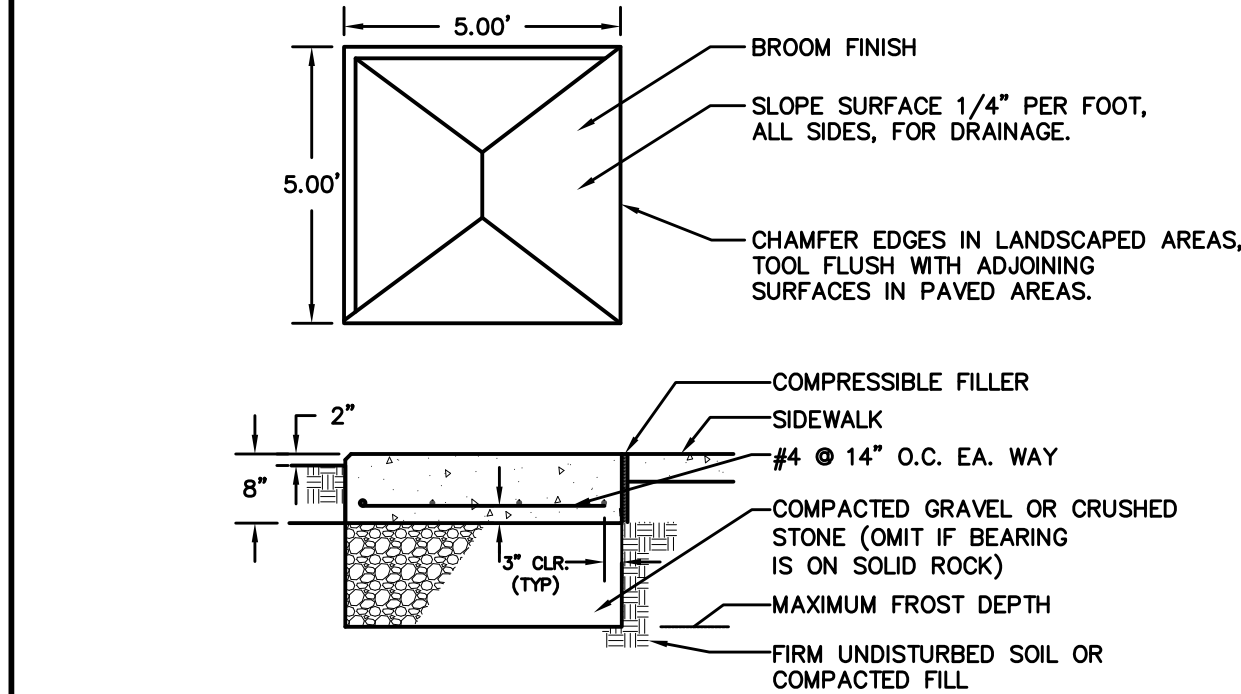


- INSTALLATION NOTE:
1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
 2. CLUSTER MAILBOX TO BE LOCATED ON THE NO PARKING/STREET LIGHT SIDE OF STREET.
 3. DO NOT LOCATE AT INTERSECTION.
 4. LOCATE NEAR SHARED PROPERTY LINE PER APPROVED PLAN.
 5. DETERMINE SIDEWALK SIDE OF MAILBOX PAD ELEVATION ASSUMING 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



GENERAL NOTES

1. CONCRETE: C4 MIX.
2. REINFORCING STEEL: ASTM A615, GRADE 60.
3. THIS BASE DETAIL CAN BE USED FOR NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) CLUSTER BOXES AND PARCEL LOCKERS WITH 4"x10" BOLT PATTERN.
4. REQUIRED EXPANSION BOLT CAPACITY, BASED ON CALCULATED DESIGN LOAD= 3100 LBS TENSION, 2000 LBS SHEAR.
5. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.

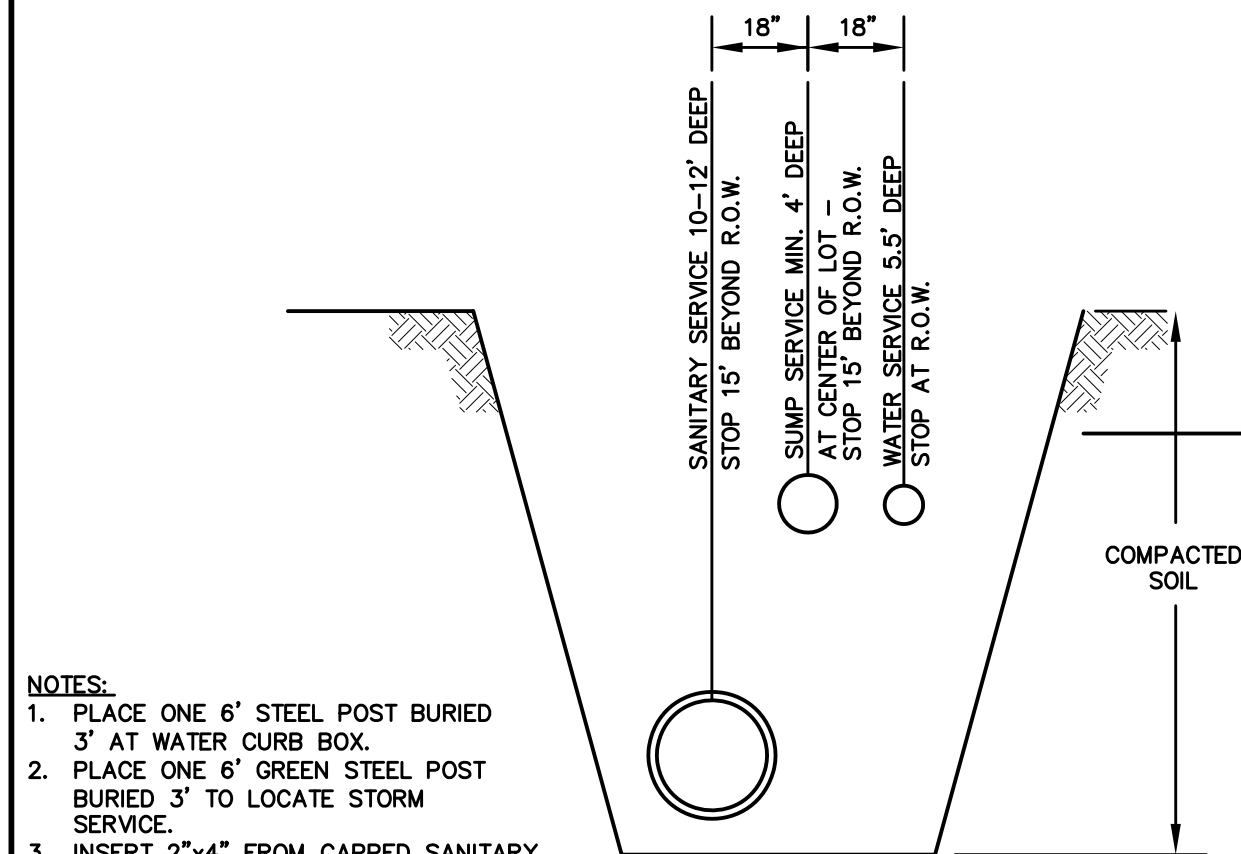
MAILBOX PAD DETAIL

NOT TO SCALE

- NOTES:
1. PLACE ONE 6" STEEL POST BURIED 3" AT WATER CURB BOX.
 2. PLACE ONE 6" GREEN STEEL POST BURIED 3" TO LOCATE STORM SERVICE.
 3. INSERT 2"x4" FROM CAPPED SANITARY SERVICE TO 2 FOOT ABOVE GRADE.

SERVICE LOCATION DETAIL

NOT TO SCALE

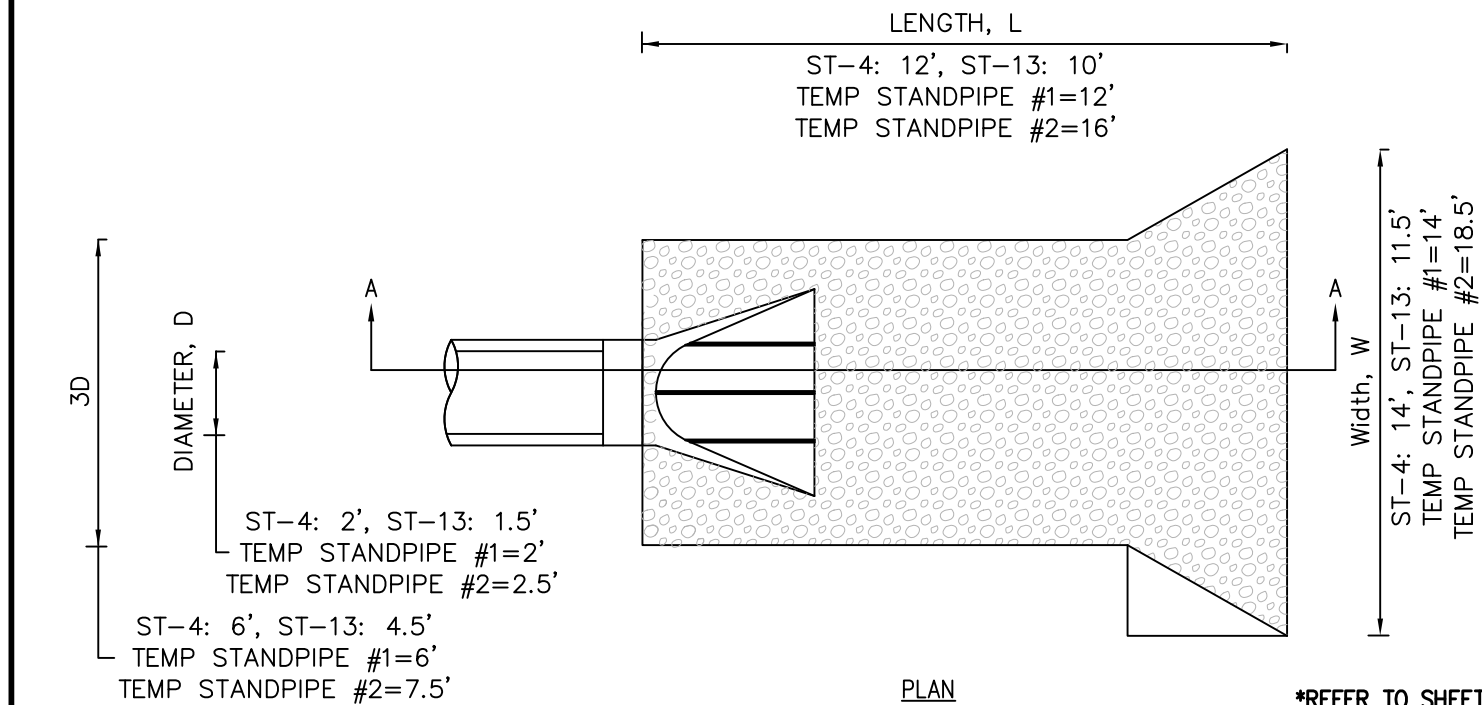


NOTES:

1. PLACE ONE 6" STEEL POST BURIED 3" AT WATER CURB BOX.
2. PLACE ONE 6" GREEN STEEL POST BURIED 3" TO LOCATE STORM SERVICE.
3. INSERT 2"x4" FROM CAPPED SANITARY SERVICE TO 2 FOOT ABOVE GRADE.

SERVICE LOCATION DETAIL

NOT TO SCALE

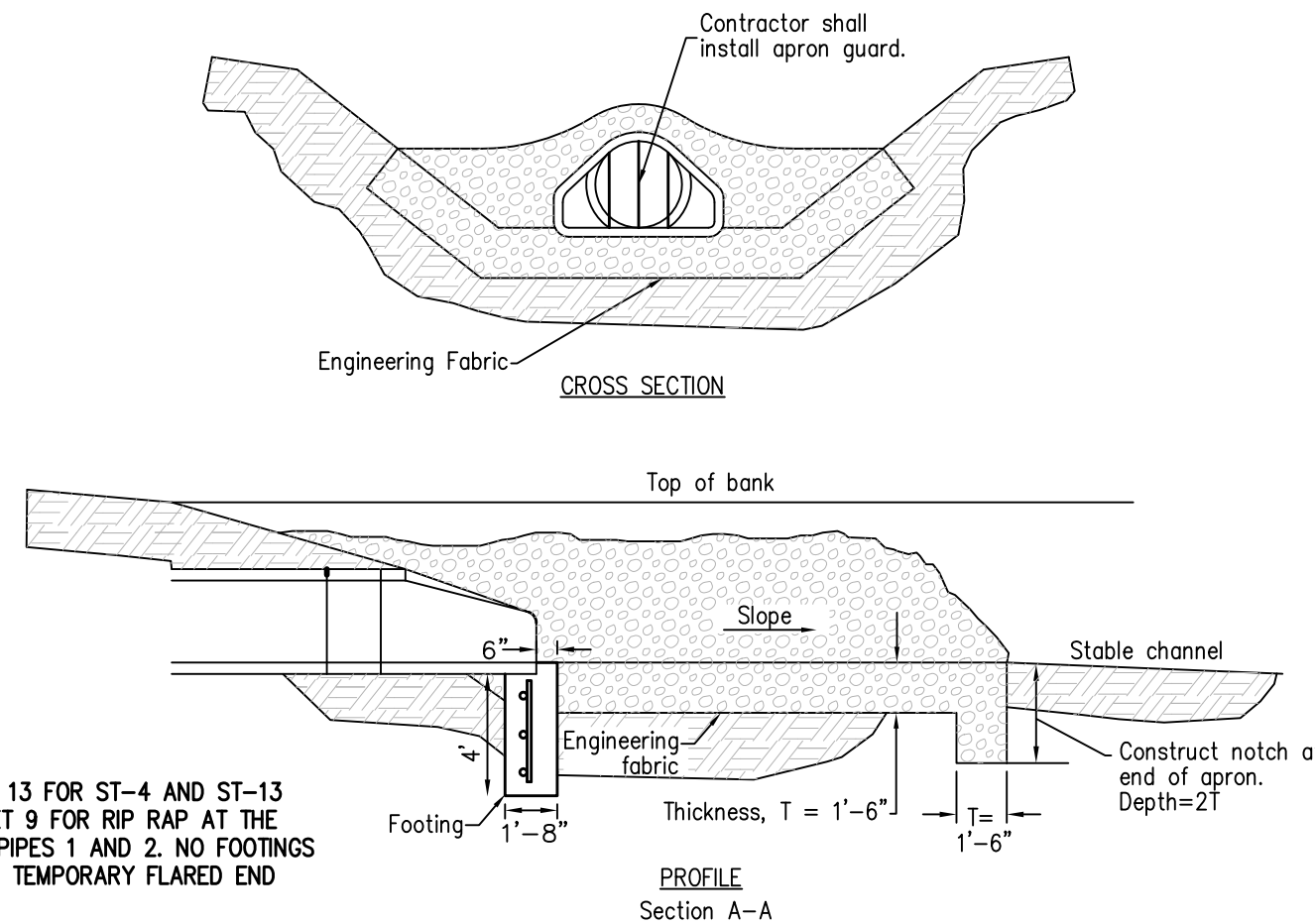


NOTE:

1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.302C OF SUDAS.
2. INSTALL A 3" CLAY WATERSTOP AT ALL STORM SEWER OUTLETS.
3. INSTALL 5 TONS OF CLASS 'E' RIPRAP FOR ST-13, TEMP STANDPIPE #1 AND TEMP STANDPIPE #2.
4. INSTALL 10 TONS OF CLASS 'E' RIPRAP FOR ST-4.

ROCK APRON FOR PIPE OUTLET

NOT TO SCALE

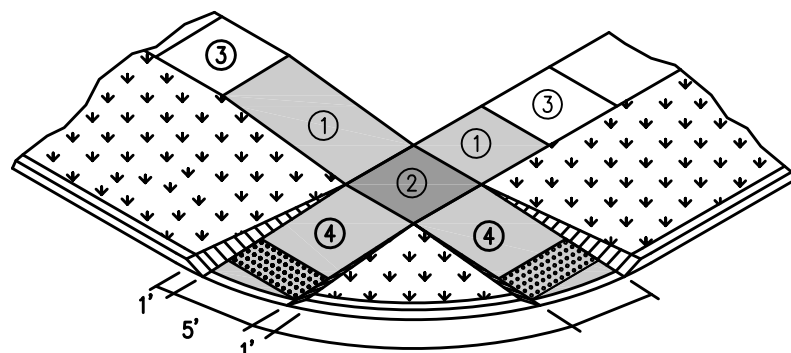


*REFER TO SHEETS 12 AND 13 FOR ST-4 AND ST-13 LOCATIONS. REFER TO SHEET 9 FOR RIP RAP AT THE END OF TEMPORARY STANDPIPES 1 AND 2. NO FOOTINGS WILL BE REQUIRED FOR THE TEMPORARY FLARED END SECTIONS.

ROCK APRON FOR PIPE OUTLET

NOT TO SCALE

- Key
- CURB RAMP
 - TURNING SPACE
 - DETECTABLE WARNING

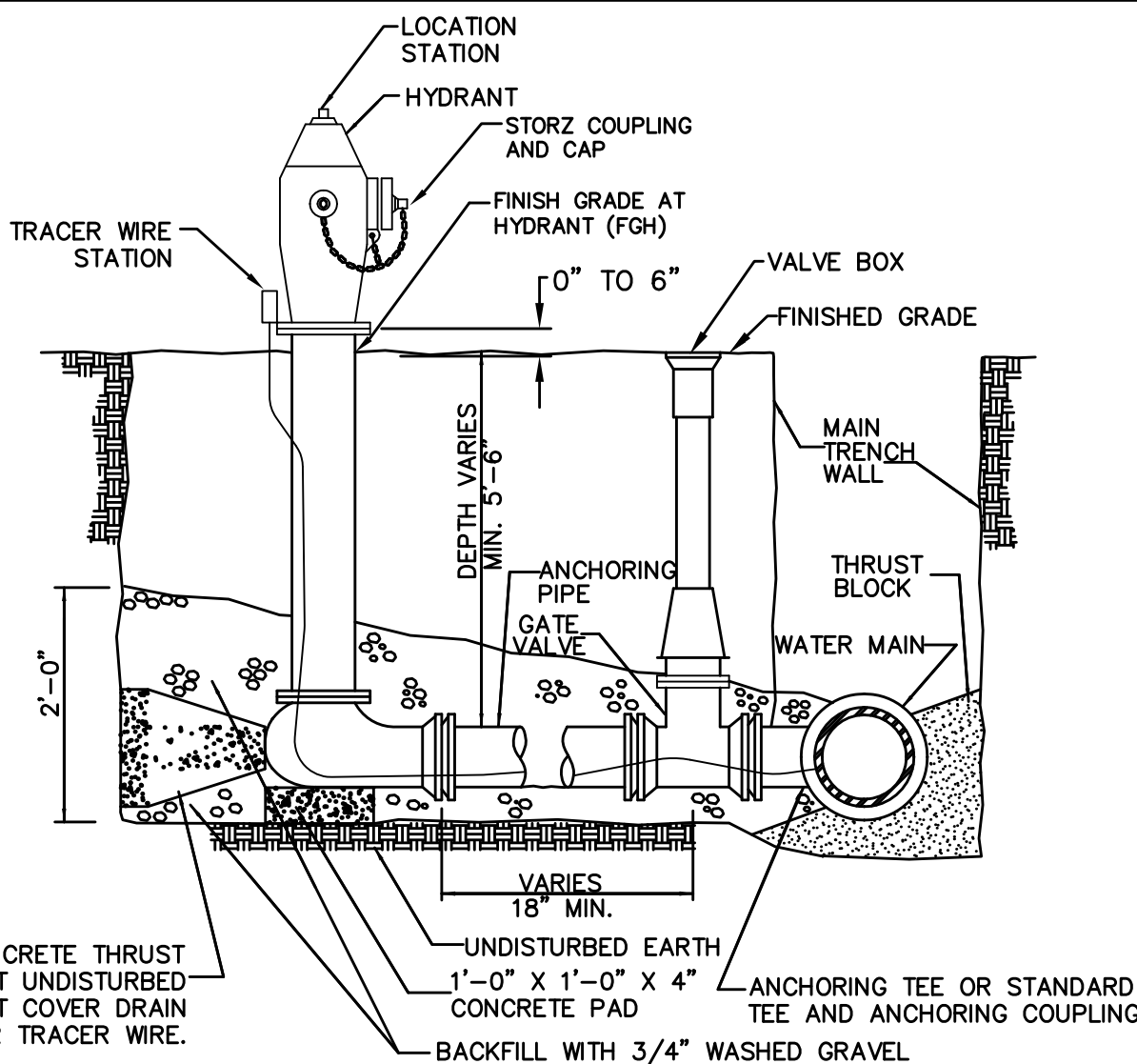


CURB RAMP OUTSIDE OF INTERSECTION RADIUS

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 ramps 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 landings shall be 6-inches.

HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

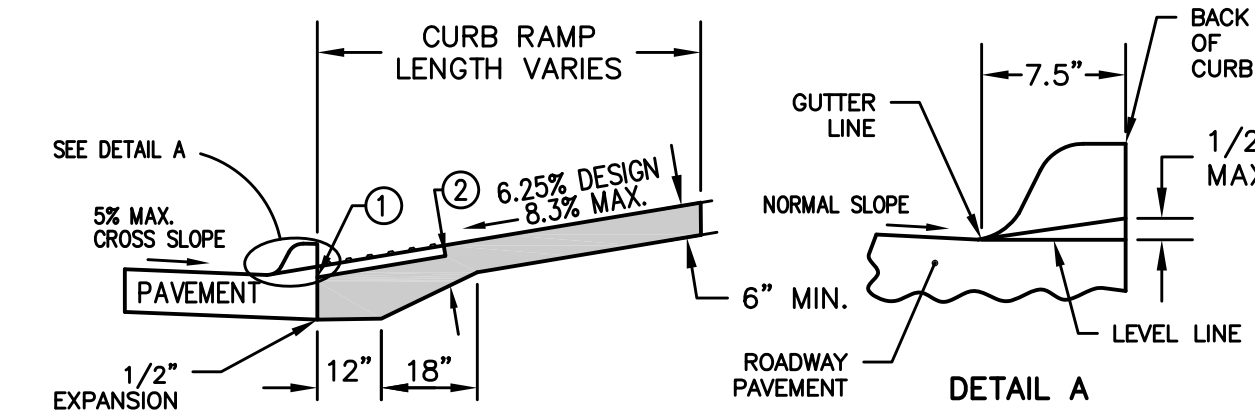


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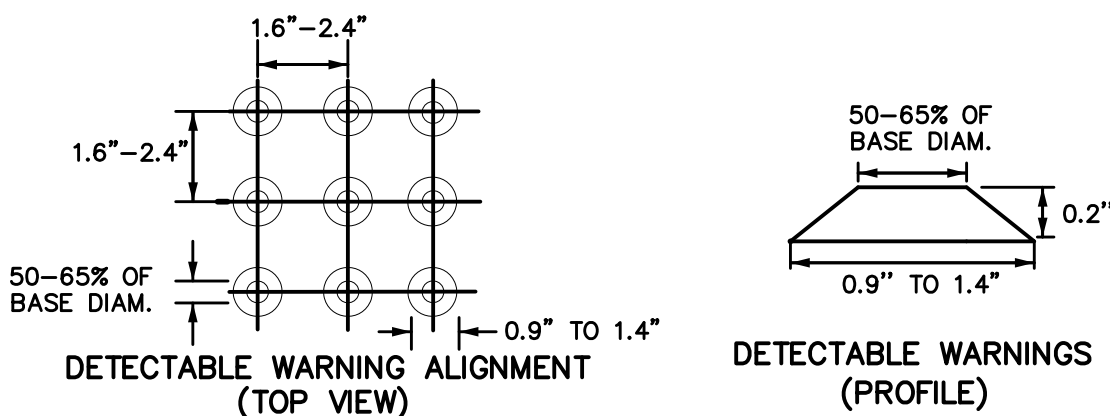
1. MINIMUM SIZE FOR PIPING, VALVES AND FITTINGS FROM WATER MAIN TO HYDRANT INLET: 6"
2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT.

HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

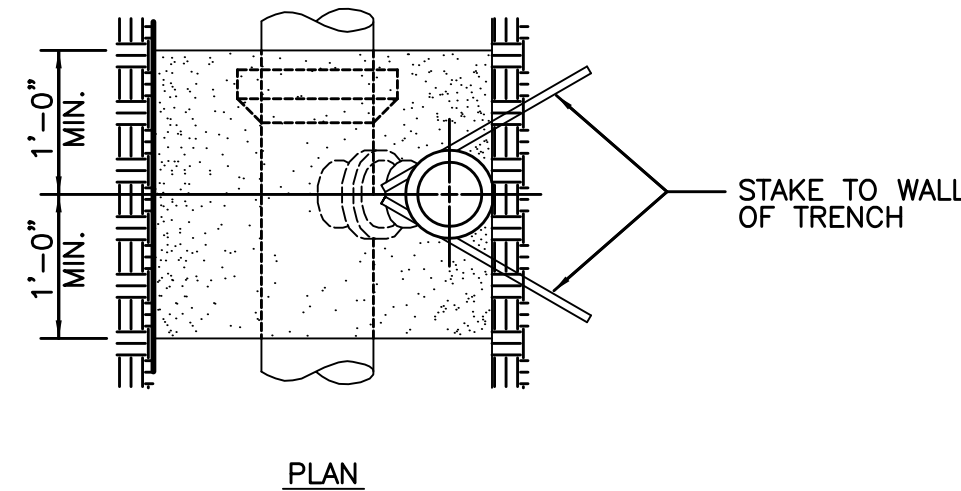


1. INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.
2. PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.

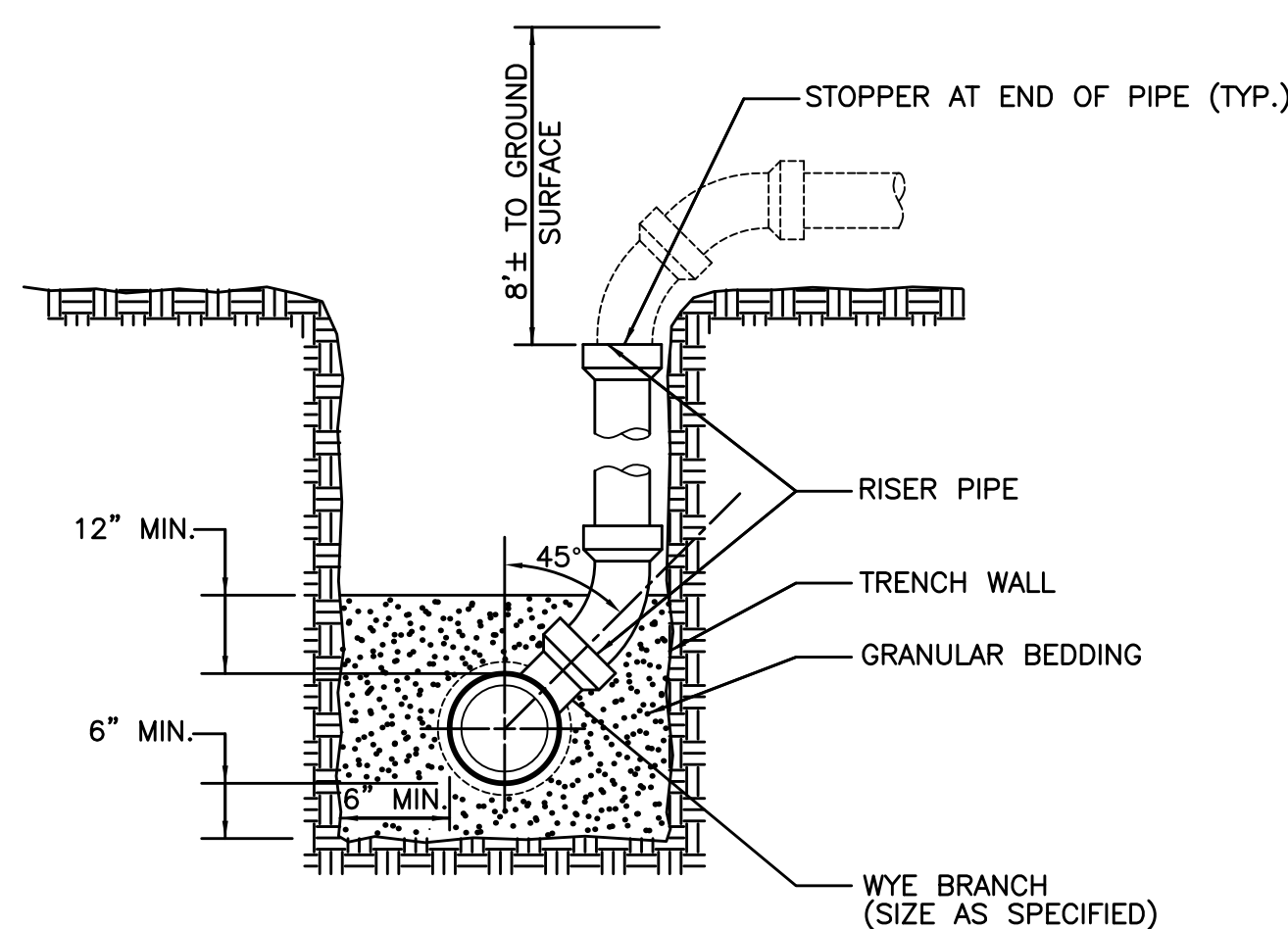


DETECTABLE WARNING DETAIL

NOT TO SCALE



PLAN



SECTION

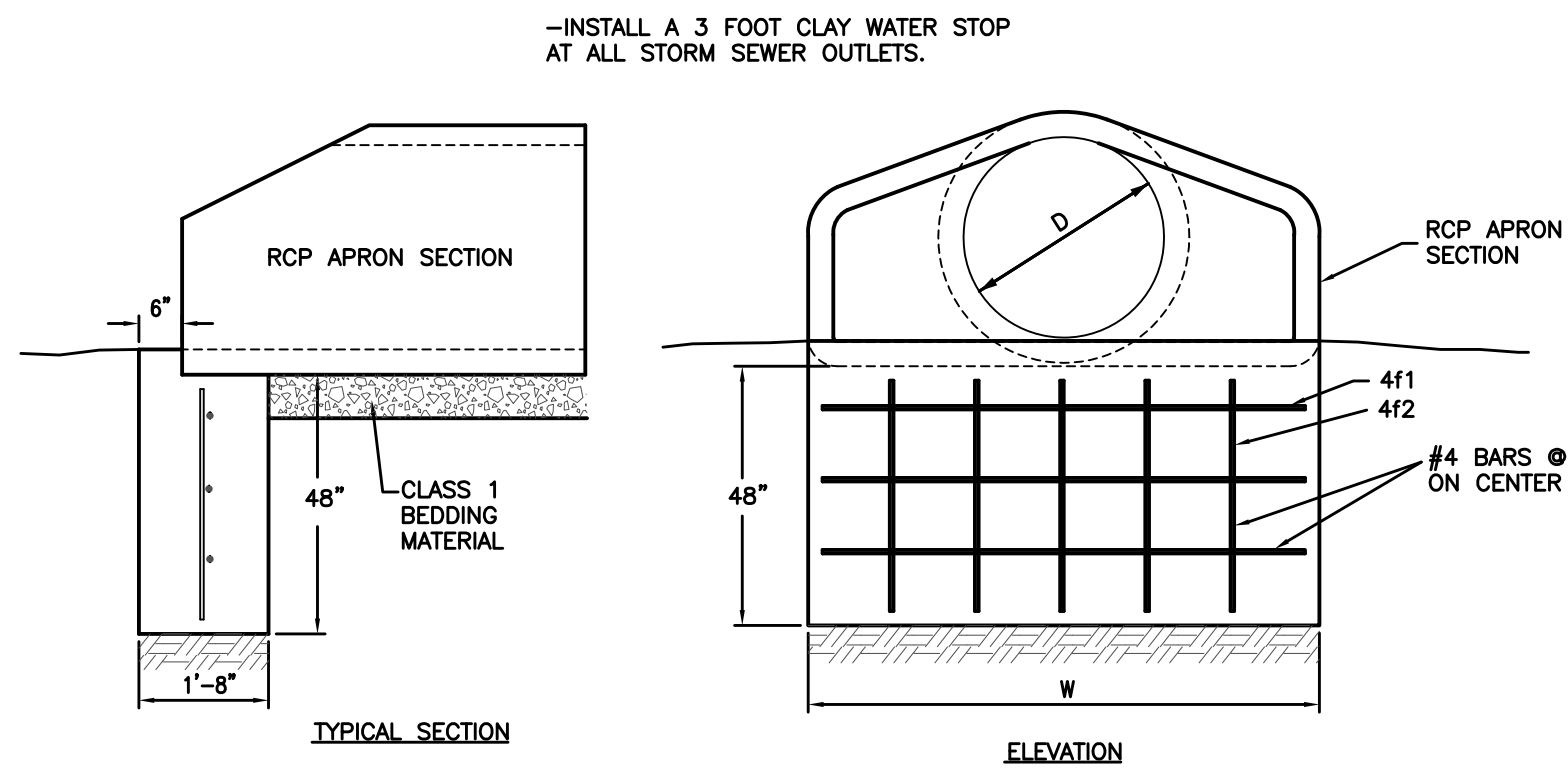
NOTES

1. INSTALL RISER TO BEAR FIRMLY AGAINST UNDISTURBED WALL OF TRENCH. STAKE RISER PIPE IN PLACE PRIOR TO BACK-FILLING TO PREVENT MOVEMENT OF PIPE
2. NOTCH WALL OF TRENCH TO RECEIVE PIPE WHERE POSSIBLE.

SANITARY SEWER SERVICE RISER

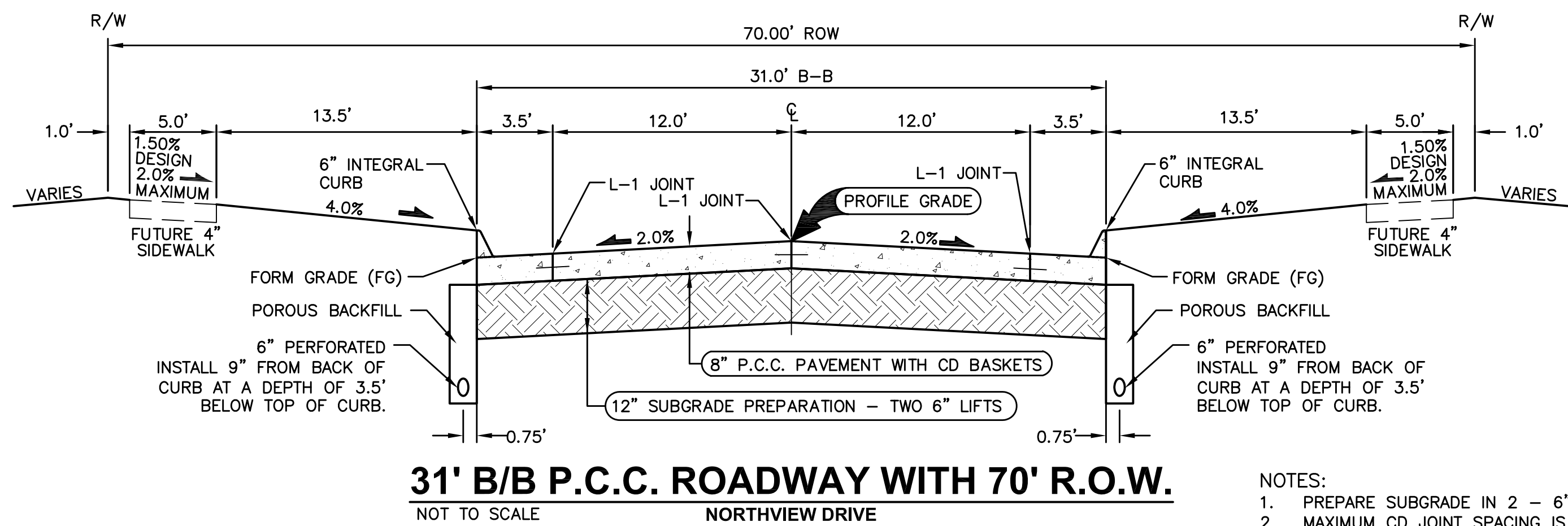
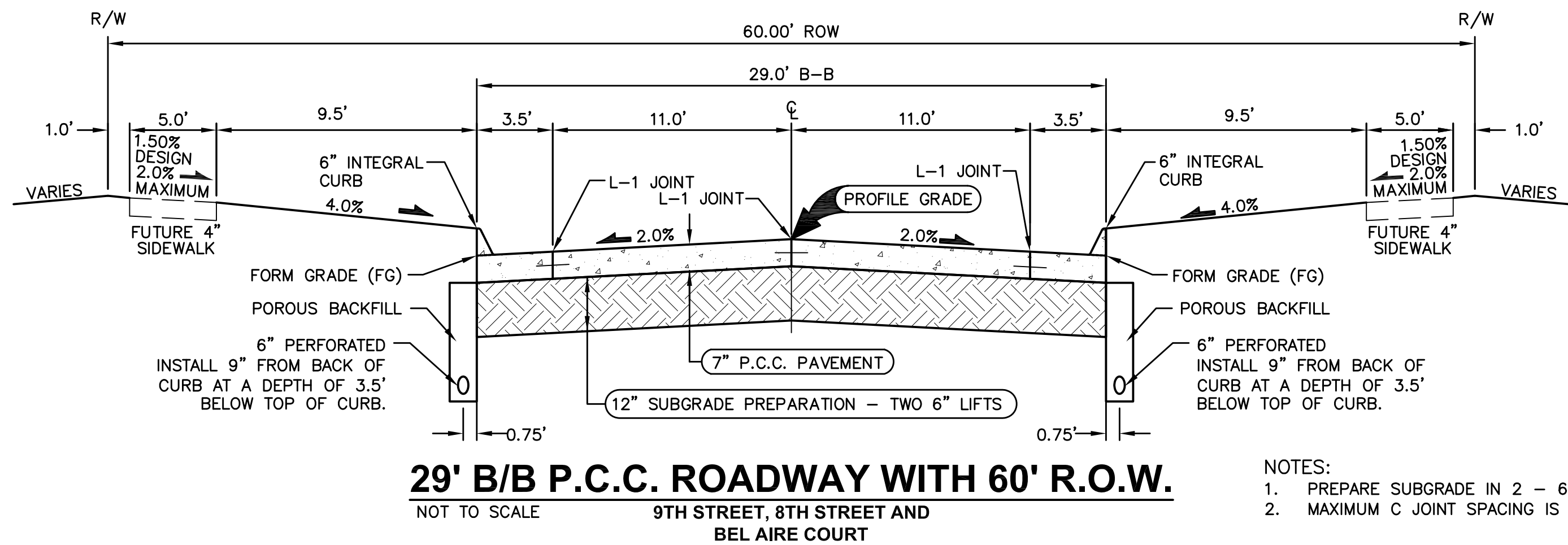
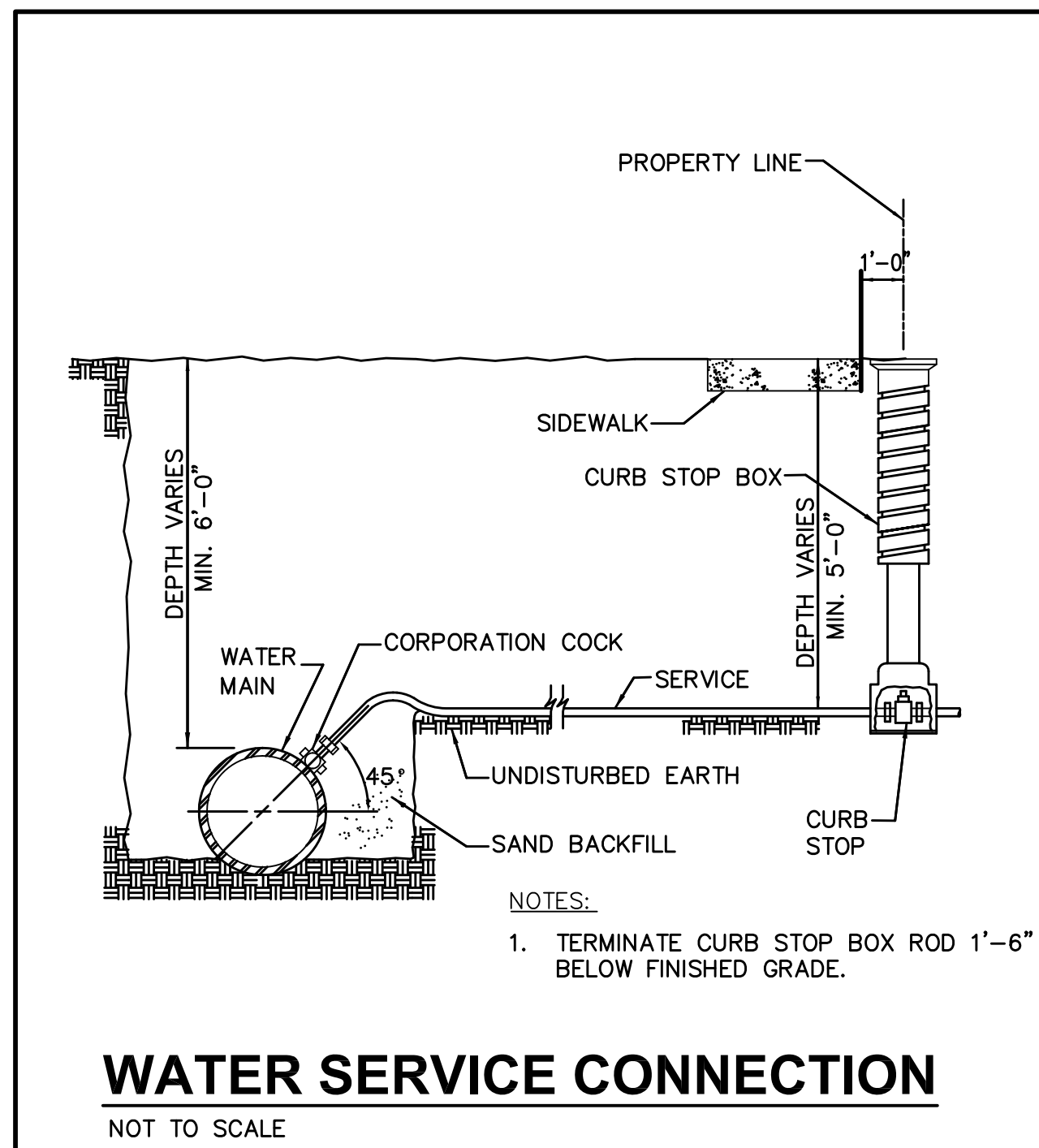
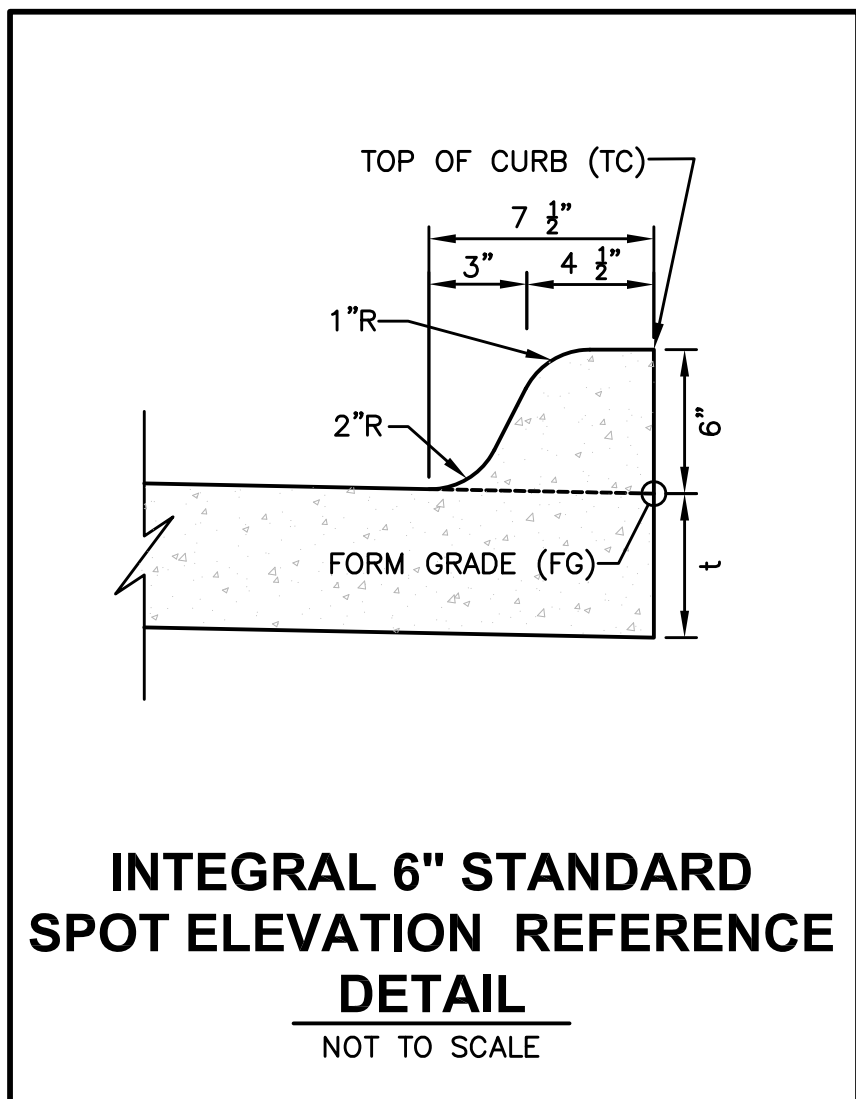
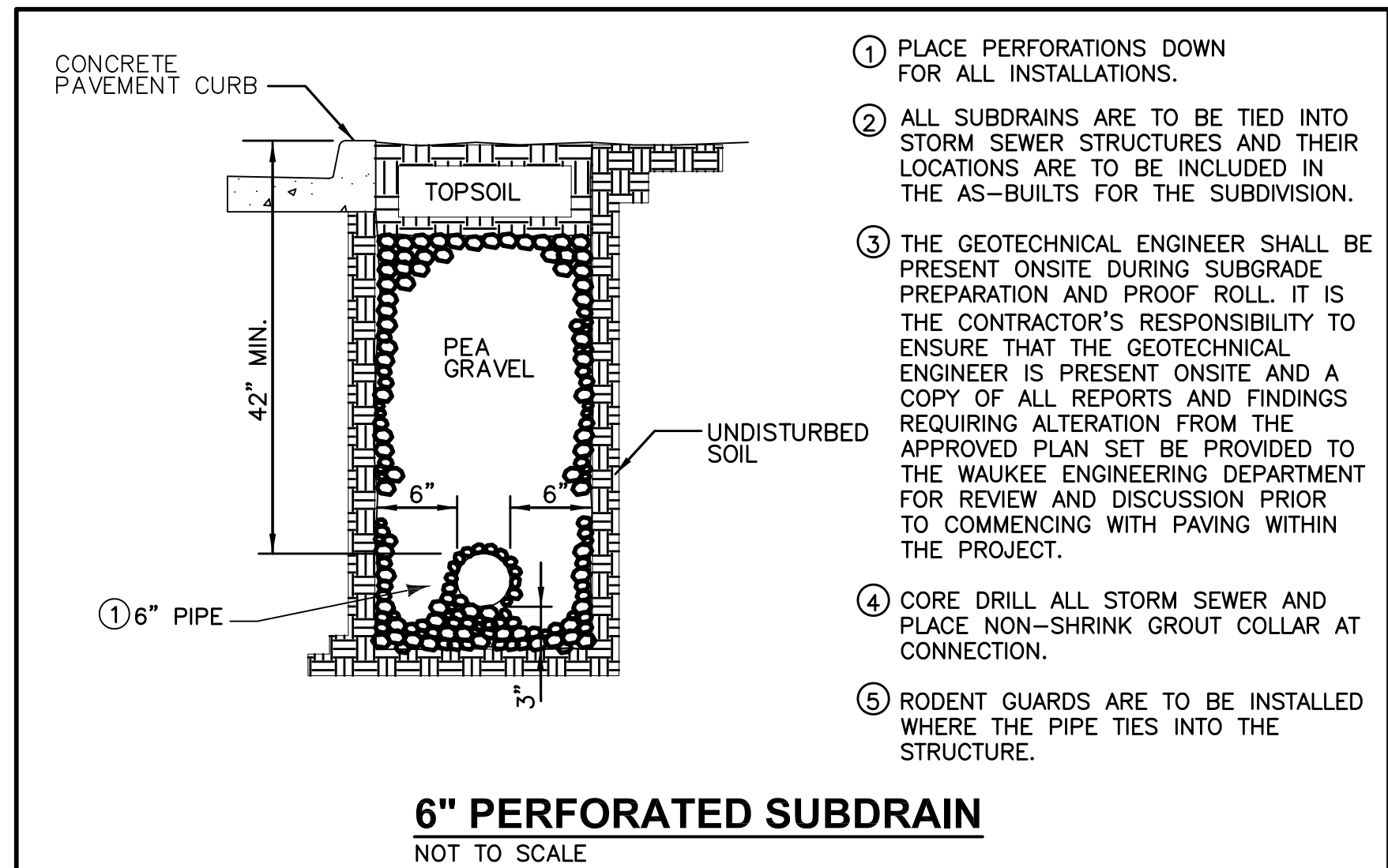
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COMMENTS: EKO



REINFORCING BAR LIST											
D	W	Mark	Size	Length	Count	D	W	Mark	Size	Length	Count
12"	2'-4"	4f1	4	2'-0"	3	48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	2			4f2	4	3'-8"	6
15"	2'-10"	4f1	4	2'-6"	3	54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	2			4f2	4	3'-8"	6
18"	3'-5"	4f1	4	3'-1"	3	60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	3			4f2	4	3'-8"	6
24"	4'-6"	4f1	4	4'-2"	3	66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	3			4f2	4	3'-8"	6
30"	5'-7"	4f1	4	5'-3"	3	72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	4			4f2	4	3'-8"	7
36"	6'-8"	4f1	4	6'-4"	3	78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	5			4f2	4	3'-8"	7
42"	7'-3"	4f1	4	6'-11"	3	84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	5			4f2	4	3'-8"	8

RCP APRON FOOTING DETAIL
NOT TO SCALE



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ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT QUANTITY	
1	COMBINED CLEARING AND GRUBBING	AC	38.0
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	7279
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	1971
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	39
7	SUBDRAIN, 6" PERFORATED PVC	LF	1877
8	STORM SEWER, TRENCHED, 8" PERFORATED PVC	LF	572
9	STORM SEWER, TRENCHED, 12" HDPE	LF	230
10	STORM SEWER, TRENCHED, 15" RCP	LF	1000
11	STORM SEWER, TRENCHED, 18" RCP	LF	414
12	STORM SEWER, TRENCHED, 24" RCP	LF	633
13	STORM SEWER SERVICE STUB, 4" DIA	EA	39
14	STORM SEWER, 15" RCP APRON W/ FOOTING & APRON GUARD	EA	3
15	STORM SEWER, 18" RCP APRON W/ APRON GUARD	EA	1
16	STORM SEWER, 24" RCP APRON W/ APRON GUARD	EA	1
17	WATER MAIN, 8" DIA	LF	1528
18	WATER MAIN, 12" DIA	LF	779
19	WATER SERVICE STUB, 1" DIA	EA	39
20	VALVE, 8" DIA	EA	7
21	VALVE, 12" DIA	EA	3
22	FIRE HYDRANT ASSEMBLY	EA	8
23	TEMPORARY FIRE HYDRANT ASSEMBLY	EA	4
24	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	12
25	MANHOLE, SW-401, 48" (STORM SEWER)	EA	5
26	MANHOLE, SW-401, 48" (STORM SEWER) W/ TYPE 4B CASTING	EA	1
27	INTAKE, SW-501	EA	3
28	INTAKE, SW-503	EA	3
29	INTAKE, SW-505	EA	3
30	INTAKE, SW-506	EA	3
31	INTAKE, SW-512 W/ SW-604 TYPE 4A CASTING	EA	1
32	PAVEMENT, 8" P.C.C. WITH CD BASKETS	SY	2572
33	PAVEMENT, 7" P.C.C.	SY	3886
34	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	121
35	DETECTABLE WARNING PANELS	SF	160
36	SEEDING, FERTILIZING, AND MULCHING	AC	36.1
37	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	15
38	PERMANENT ROAD CLOSURE, URBAN, SI-182 (RELOCATE)	EA	5
39	TRAFFIC CONTROL	LS	1
40	EROSION CONTROL	LS	1
41	ROCK OUTLET PROTECTION, CLASS 'E' RIP RAP	TONS	25
42	8-INCH GRANULAR TURNAROUND	SY	2476
43	STORM SEWER CLEANOUT	EA	7
44	SANITARY SEWER CLEANOUT ADJUSTMENT	EA	2
45	SANITARY SEWER MANHOLE ADJUSTMENT	EA	1
45	MAILBOX PAD	EA	3

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2016 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.
2.

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.
3.

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.
4.

THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING HIS EQUIPMENT ON THE PAVEMENT OR SIDEWALK. PAVEMENT REPLACEMENT SHALL COMPLY WITH THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
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 CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:

A. CITY OF WAUKEE ENGINEERING DEPARTMENT

B. APPROPRIATE UTILITY COMPANIES

C. OWNER

D. CIVIL DESIGN ADVANTAGE
- *

48 HOUR NOTICE SHALL BE GIVEN TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO WEEKEND AND HOLIDAY WORK.
8.

PRIOR TO CONSTRUCTION, THE PROJECT MANAGER SHALL CONTACT THE WAUKEE ENGINEERING DEPARTMENT AND SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST ONE WEEK PRIOR TO THE ANTICIPATED START OF CONSTRUCTION.
9.

9. 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.

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 MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2016 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. INCLUDED REMOVAL OF EXISTING CROPS FOR CONSTRUCTION OF TEMPORARY ACCESS. DO NOT DISTURB CROPS OUTSIDE OF THE PROJECT LIMITS.
2	STRIP, SALVAGE AND RE-SPREAD TOPSOIL PER SECTION 2010 OF SUDAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. 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.
4	REFER TO SHEET 3 FOR TYPICAL LOCATIONS AND THICKNESS.
5	SANITARY SEWER FOR 8" SHALL BE PVC TRUSS PIPE. ANY CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 3010.101 AND 3010.103 FOR PIPE EMBEDMENT DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. EXISTING SANITARY SEWER WILL NEED TO BE RETESTED AFTER SADDLE WYE INSTALLATION.
5-13	REFER TO FIGURE 3010.102 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. CONNECTIONS TO EXISTING STORM SEWER PIPE AND STRUCTURES SHALL BE CONSIDERED INCIDENTAL. WRAP ALL PIPE JOINTS IN ENGINEERING FABRIC. CLEAN AND TELEWISE SANITARY AND STORM SEWER PRIOR TO PAVING AND PROVIDE TELEVISING REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISING SHALL BE CONSIDERED INCIDENTAL. ALL STORM SEWER PIPE THAT CROSSES OVER WATERMAIN SHALL HAVE O-RING GASKETS JOINT RATED AT 13 PSI OR GREATER. O-RING GASKET JOINTS SHALL BE INSTALLED ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER TO THE SEWER IS AT LEAST 10 FEET.
6, 13, 19	REFER TO DETAIL ON SHEET 2 AND PLAN AND PROFILE SHEETS FOR LOCATION AND DEPTH. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
14-16	THE LAST THREE SECTIONS AND APRON SHALL BE CONNECTED WITH PIPE CONNECTORS. REFER TO FIG. 4030.221 - RCP APRON SECTION FOOTING FOR FOOTING CONSTRUCTION DETAILS. APRON GUARD REQUIRED ON ALL APRONS. RCP APRON FOOTING, PIPE APRON GUARD AND PIPE CONNECTORS TO BE CONSIDERED INCIDENTAL. INSTALL CLAY WATERSTOPS AT ALL RCP APRONS, MIN. 3' LONG.
17-21	REFER TO FIG. 3010.101 AND FIG. 3010.104 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 5010.101 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 FOR TRACER SYSTEM DETAILS. ALL FITTINGS, POLYETHYLENE WRAP, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL.
22	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, STORZ FITTINGS, POLYETHYLENE WRAP, THRUST BLOCK AND TRACER WIRE SYSTEM AND FIRE HYDRANT.
23	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF HYDRANTS. ANY RELOCATED FIRE HYDRANTS ARE TO INCLUDE STORZ FITTINGS.
24	REFER TO FIG.6010.301 - CIRCULAR SANITARY SEWER MANHOLE (SW-301) FOR CONSTRUCTION DETAILS. CASTINGS IN PAVEMENT SHALL BE TYPE B RING AND COVER. WHEN CASTINGS ARE NOT IN PAVEMENT, INSTALL MANHOLE CONE SECTION, MANHOLE STEPS, AND RING/COVER CASTING SUCH THAT SEPARATION IS MAINTAINED BETWEEN MANHOLE COVERS AND PAVED AREAS (BACK OF CURB, SIDEWALK PAVEMENT, SIDEWALK APPROACHES/RAMPS). ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.

10.

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.
11.

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. THE IS BE INCIDENTAL TO THE BID ITEM TRAFFIC CONTROL. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED.
12.

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.
13.

THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
14.

THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
15.

ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
16.

PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
17.

ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
18.

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

SIDEWALKS, ACCESSIBLE CURB RAMPS AND SIDEWALK RAMPS INCLUDING RAISED TRUNCATED DOME AND DETECTABLE WARNINGS AND WARNING PANELS SHALL BE DESIGNED AND INSTALLED TO THE LATEST P.R.O.W.A.G. AND A.D.A.
20.

PLACE 3/4" EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDINGS. PLACE 1/2" EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C PAVEMENT. THE PCC RAMP JOINT LOCATED AT THE BACK OF CURB AND ALL EXPANSION JOINTS SHALL BE SEALED.
21.

REMOVE DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.
22.

DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE R.O.W.
23.

ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
24.

IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.
25.

25. ALL FIELD TILES ENCOUNTERED SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS SHALL BE PROVIDED TO THE ENGINEER FOR NOTATION ON AS-BUILTS.

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
25-26	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.
27-30	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 6". THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12".
27	REFER TO FIG. 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
28	REFER TO FIG. 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
29	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.
30	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
31	REFER TO FIG. 6010.512 - CIRCULAR AREA INTAKE (SW-512) FOR CONSTRUCTION DETAILS.
32-33	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
34-35	REFER TO FIG. 7030.204 - GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 - CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, BRICK RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C.
35	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS.
36	THE SITE SEEDING SHALL CONFORM TO THE SPECIFICATION FOR TYPE (1) PERMANENT LAWN MIXTURE AND TYPE (4) URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. TYPE (1) SEED WILL BE REQUIRED WITHIN OUTLOT X AND Z AND THE REMAINING DISTURBED AREAS SHALL BE TYPE (4) SEED. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE = 1.45 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 34.65 AC
37-38	REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS.
39	ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED.
40	REFER TO SHEETS 8 AND 9 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS. EROSION CONTROL QUANTITIES - 1 CONCRETE WASH PIT - 5,870 LF OF SILT FENCE - 36.1 ACRES OF SEEDING, FERTILIZING AND MULCHING. - 12 INLET PROTECTION DEVICES - 1 - 24" CMP/HDPE TEMPORARY STANDPIPE - 1 - 30" CMP/HDPE TEMPORARY STANDPIPE
41	INSTALL ENGINEERING FABRIC UNDER ALL RIP RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL. REFER TO SHEETS 9, 12 AND 13 FOR LOCATIONS.
42	8-INCH TURNAROUND SHALL BE 4-INCHES OF 3-INCH ROCK AND 4-INCHES OF GRANULAR SURFACING. REFER TO SHEET 5 FOR LOCATION OF TEMPORARY TURNAROUNDS.
43	REFER TO FIG. 4040.232 - SUBDRAIN CLEANOUTS FOR CONSTRUCTION DETAILS.
44-45	REFER TO SHEET 11 FOR LOCATIONS.
46	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS. MAILBOX PADS ARE LOCATED BETWEEN LOTS 5/6, 15/16 AND 32/33.

26.

ALL CONSTRUCTION STAKING TO BE COMPLETED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR. ALL CURB DROPS AND SIDEWALK/SHARED USE PATH SHALL ALSO BE STAKED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR
27.

THE CONTRACTOR SHALL SUBMIT A LIST OF CONSTRUCTION MATERIALS TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
28.

A GEOTECHNICAL ENGINEER SHALL BE ONSITE DURING CONSTRUCTION AND FOR PROOF ROLLING TO INSPECT SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE GEOTECHNICAL ENGINEER IS PRESENT. A COPY OF ALL REPORTS AND FINDING REQUIRING ALTERATION FROM THE APPROVED PLAN SET IS TO BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT FOR REVIEW AND DISCUSSION PRIOR TO COMMENCING WITH PAVING WITHIN THE PROJECT.
29.

THE CONTRACTOR SHALL COORDINATE ALL EXISTING PUBLIC UTILITY CONNECTIONS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
30.

ALL TESTING SHALL BE COMPLETED ACCORDING TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE WAUKEE ENGINEERING DEPARTMENT SHALL BE PRESENT TO WITNESS ALL TESTING.
31.

AS-BUILTS SHALL BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT INCLUDING ALL UTILITIES AND AS-BUILT GRADES FOR DRAINAGE SWALES, OVERFLOWS, ACCESSIBLE RAMPS AND DETENTION FACILITIES. THE CONTRACTOR SHALL PROVIDE INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION ON THE RECORD AS-BUILT DRAWINGS.
32.

THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND TELEVISING ALL STORM AND SANITARY SEWERS. THE CITY OF WAUKEE ENGINEERING DEPARTMENT SHALL WITNESS AND APPROVE ALL CLEANING AND TELEVISING PRIOR TO PAVING. A COPY OF THE VIDEOS AND A HARD COPY OF THE INSPECTION REPORT SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. ALL SANITARY SEWER MANHOLES ARE TO BE VACUUM TESTED.
33.

ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE STORZ FITTINGS.
34.

ALL PROPOSED PEDESTRIAN CROSSINGS SHALL BE INSTALLED AS PART OF THE PLAT IMPROVEMENTS.
35.

ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.
36.

ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED. ANY TREES OR BRUSH ALONG THE NORTH PROPERTY BOUNDARY IS ALSO TO BE REMOVED.
37.

VERIFY THAT ALL EXISTING MANHOLES WITHIN THE PLAT BOUNDARY HAVE A MINIMUM OF ONE 4-INCH ADJUSTING RING TO ALLOW FOR FUTURE ADJUSTMENT.
38.

ALL MANHOLES SHALL HAVE A MINIMUM OF 1 - 4" ADJUSTING RING TO ALLOW FOR FUTURE ADJUSTMENT SHOULD THE STRUCTURE END UP IN A DRIVEWAY.

CLAYTON ESTATES PLAT 1

QUANTITIES AND REFERENCE NOTES

423

1608.419

Waukee, Iowa

ENGINEER: EKO

Ei: CGW

PHONE: (515) 369-4400 FAX: (515) 369-4410

GRIMES, IOWA 50111

3405 S.E. CROSSROADS DRIVE, SUITE G

09/11/17

06/15/17

01/30/17

01/06/17

12/09/16

11/04/16

10/10/16

AS-BUILT SUBMITTAL

REVISED STORM SEWER

FINAL SUBMITTAL

FOURTH SUBMITTAL

THIRD SUBMITTAL

SECOND SUBMITTAL

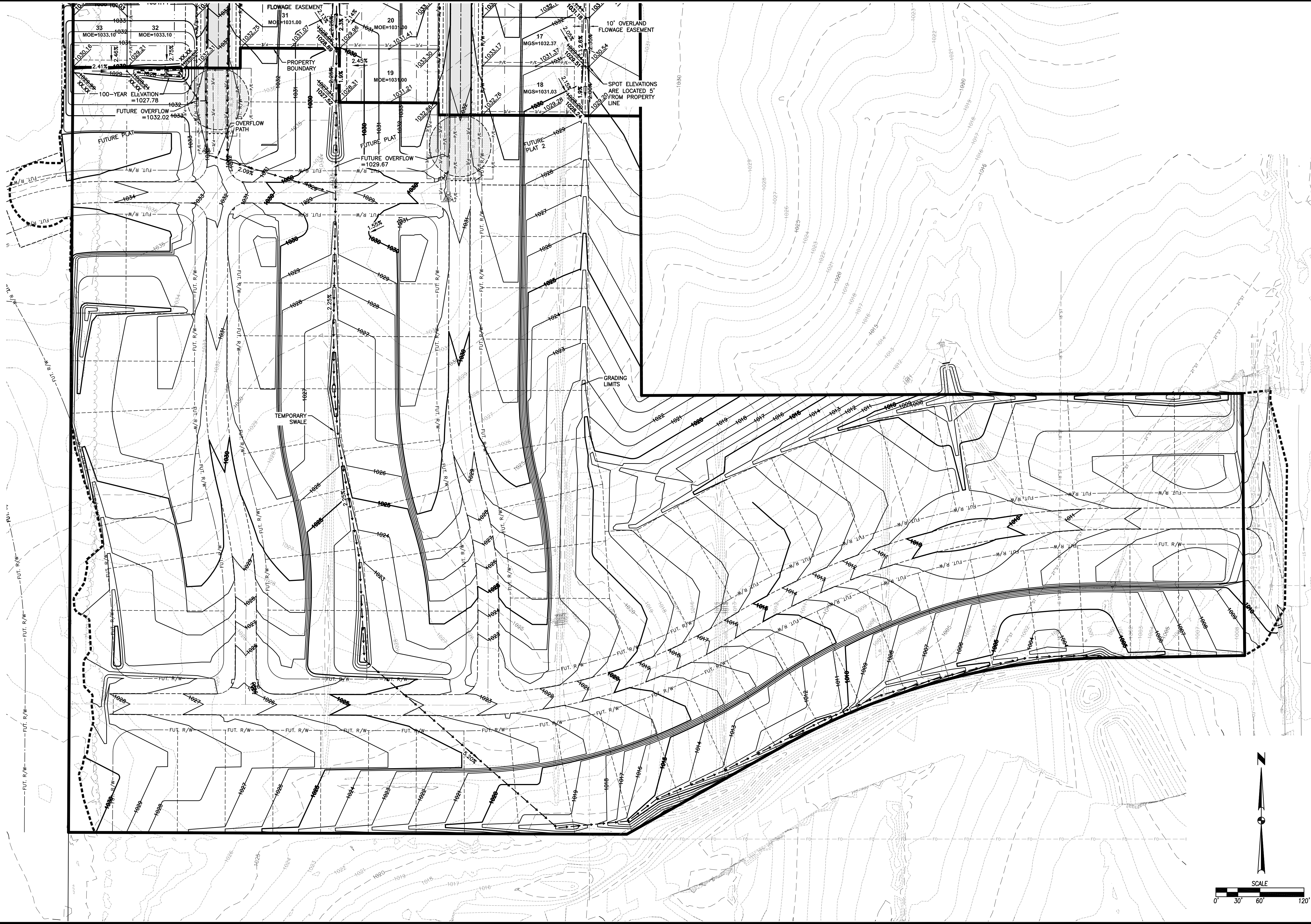
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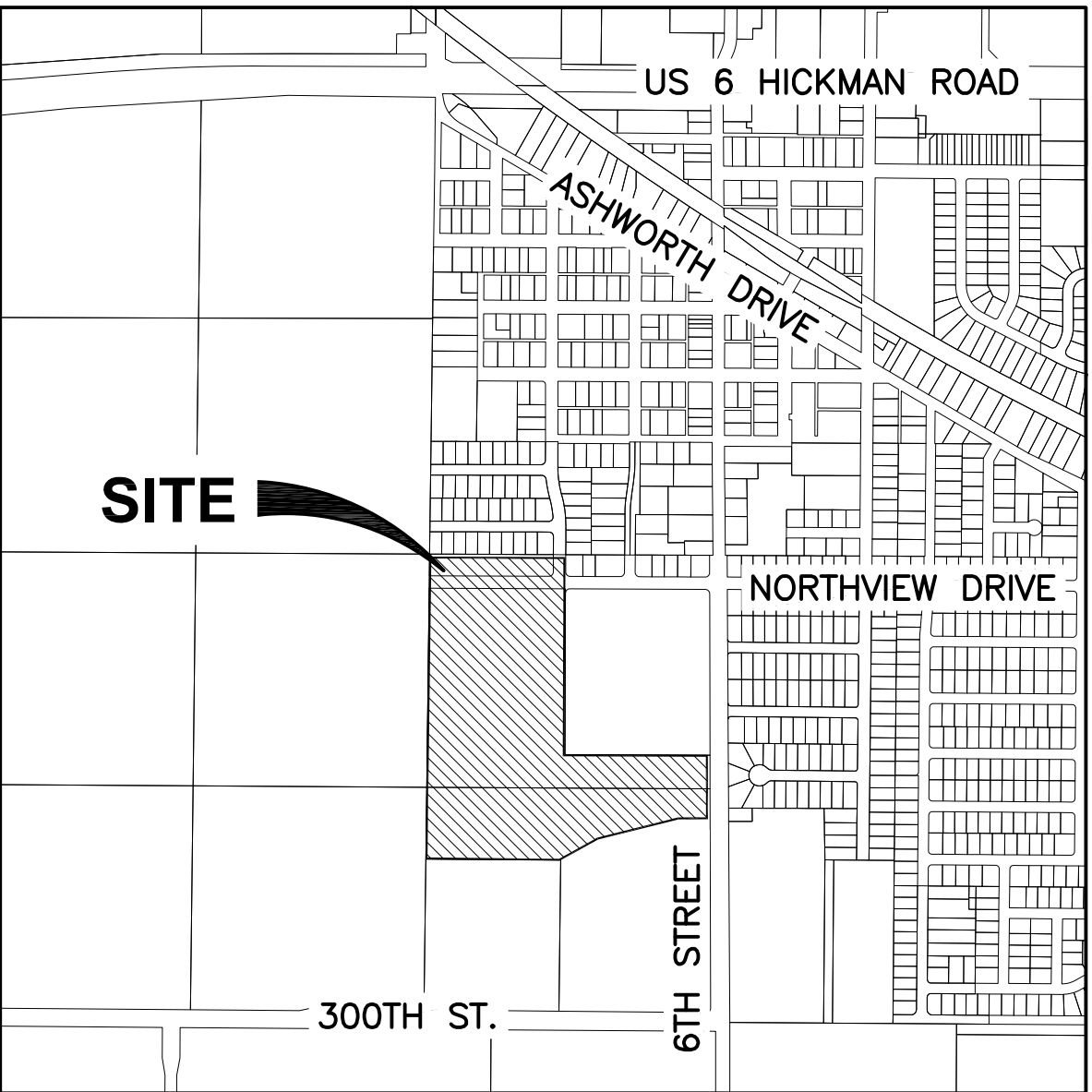
CLAYTON ESTATES PLAT 1	
GRADING PLAN	
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WAUKEE, IOWA	
CIVIL DESIGN ADVANTAGE	
3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	
ENGINEER: EKO	
EI: CGW	
REVISIONS	
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09/11/17	AS-BUILT SUBMITTAL
06/15/17	REVISED STORM SEWER
01/30/17	FINAL SUBMITTAL
01/06/17	FOURTH SUBMITTAL
12/09/16	THIRD SUBMITTAL
11/04/16	SECOND SUBMITTAL
10/10/16	FIRST SUBMITTAL

CLAYTON ESTATES PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

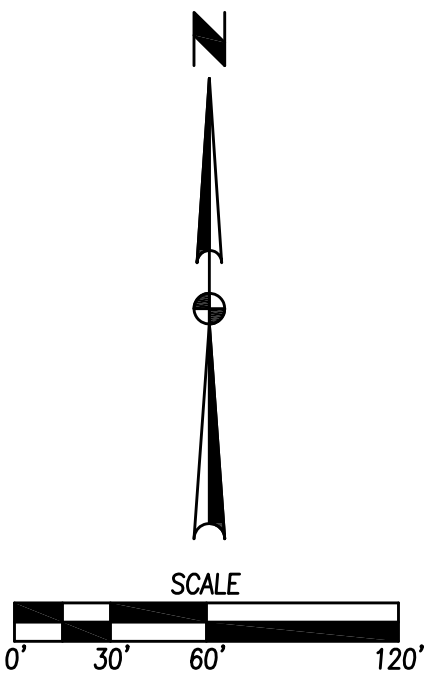
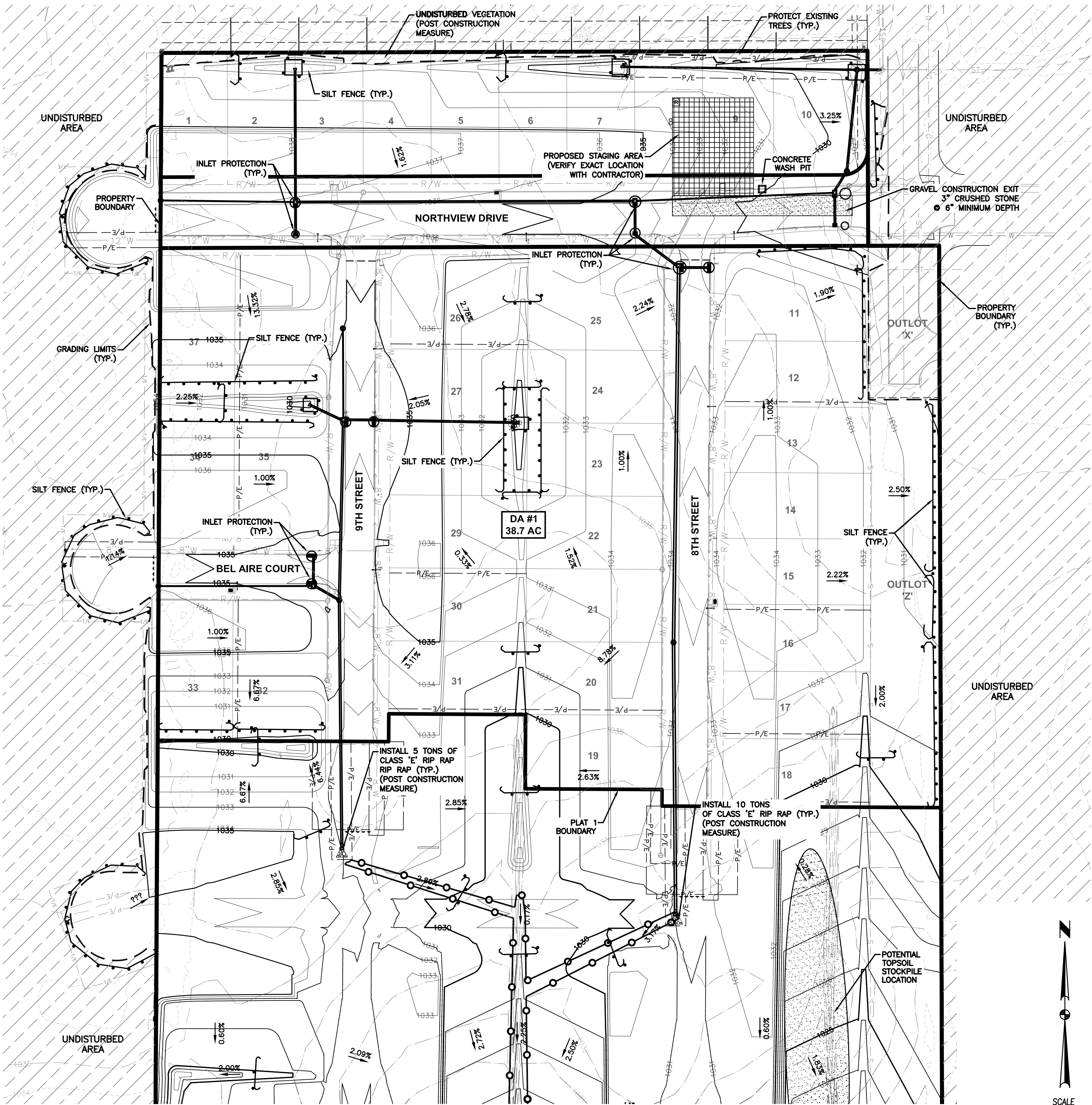
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1	SILT FENCE	LF	5,870
2	SEEDING, FERTILIZING, AND MULCHING	AC	36.1
3	INLET PROTECTION DEVICES	EA	12
4	CONCRETE WASHOUT PIT	EA	1
5	24" CMP/HDPE TEMPORARY STANDPIPE WITH 24" FES	EA	1
6	30" CMP/HDPE TEMPORARY STANDPIPE WITH 30" FES	EA	1

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF SUGAR CREEK ±2000 FT.	38.7 ACRES
TOTAL AREA DISTURBED TO DISCHARGE POINT	139,320 CU FT
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	
VOLUME PROVIDED IN TSB #1	207,920 CU FT
VOLUME PROVIDED IN TSB #2	51,060 CU FT
VOLUME PROVIDED IN SILT FENCE (5870 LF @ 4.5 CU FT/LF OF FENCE)	26,415 CU FT
TOTAL VOLUME PROVIDED	285,395 CU FT

SWPPP LEGEND

DRAINAGE ARROW	X.XX %	AREA TO BE SEEDED	
GRADING LIMITS		STRAW MAT	
FILTER SOCK		UNDISTURBED AREA	
SILT FENCE		RIPRAP	
DITCH CHECK		GRAVEL ENTRANCE	
INLET PROTECTION		STAGING AREA	
PORTABLE RESTROOM	R	TEMPORARY SEDIMENT BASIN	TSB #
CONCRETE WASHOUT PIT			
TEMPORARY STANDPIPE			



CLAYTON ESTATES PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

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WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO

EI: CGW

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GRIMES, IOWA 50111

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AS-BUILT SUBMITTAL

REVISED STORM SEWER

FINAL SUBMITTAL

FOURTH SUBMITTAL

THIRD SUBMITTAL

SECOND SUBMITTAL

FIRST SUBMITTAL

09/11/17

06/15/17

01/30/17

07/06/17

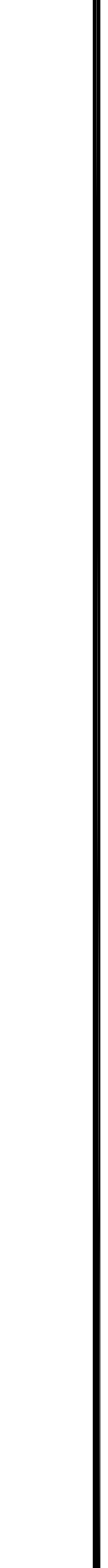
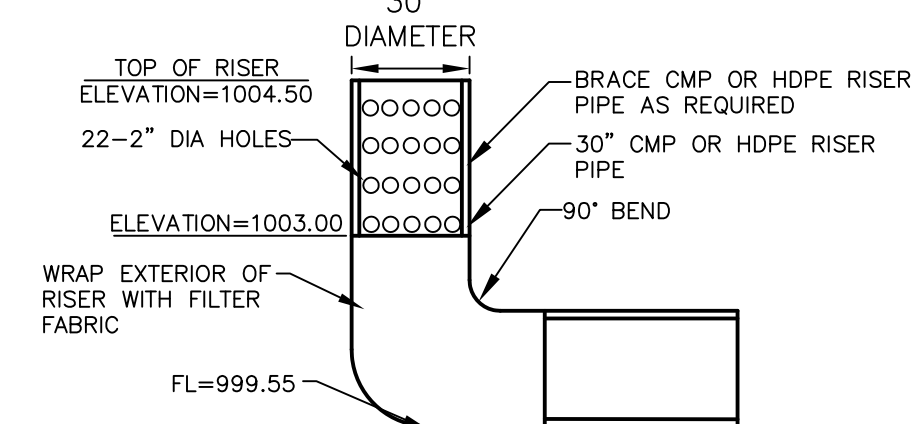
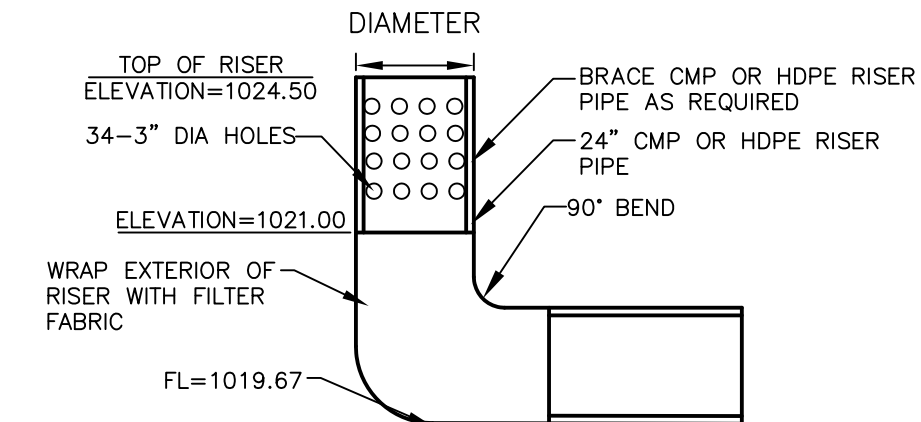
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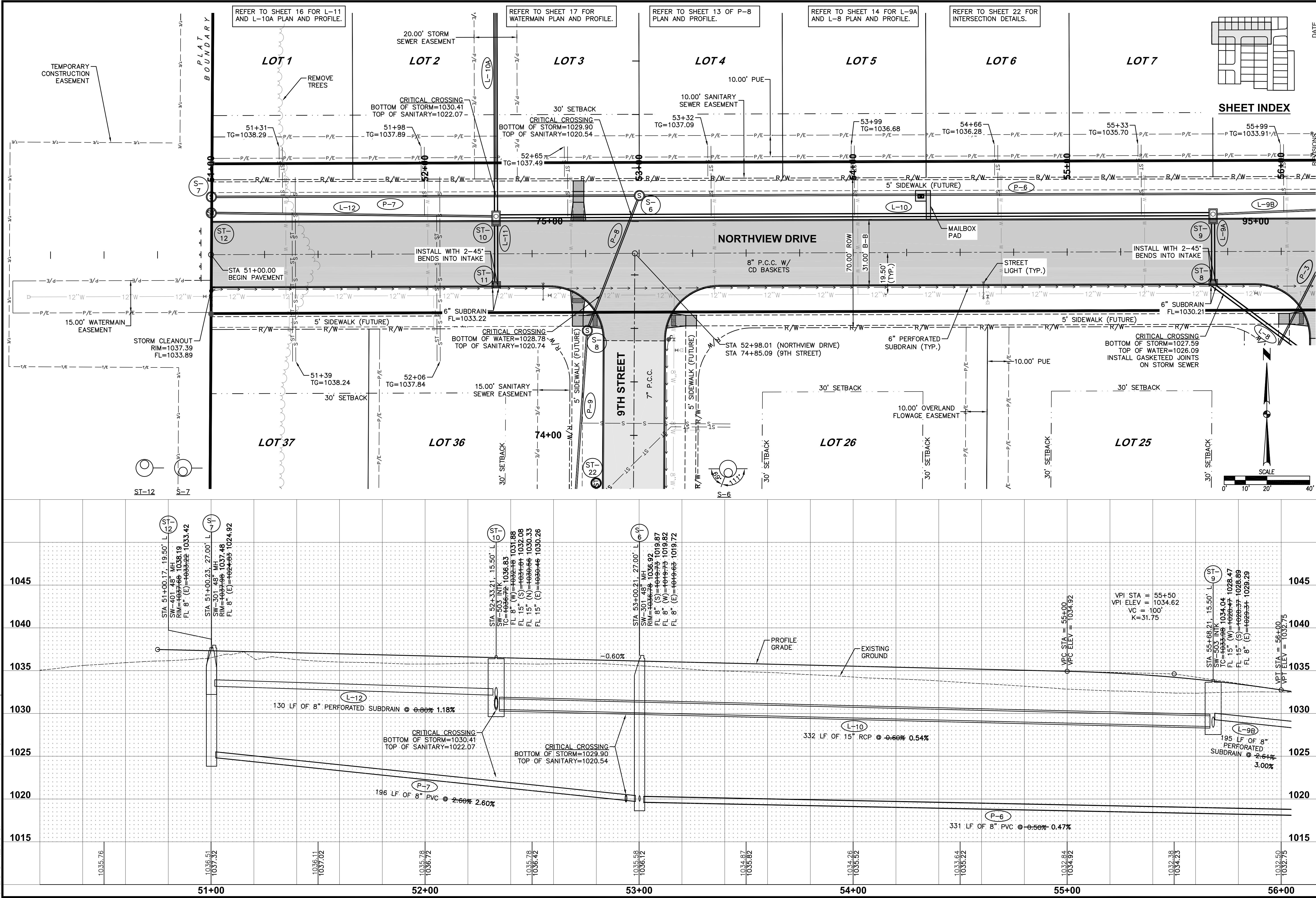
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REVISIONS



REVISIONS	DATE
AS-BUILT SUBMITTAL	09/11/17
REVISED STORM SEWER	06/15/17
FINAL SUBMITTAL	01/30/17
FOURTH SUBMITTAL	01/08/17
THIRD SUBMITTAL	12/09/16
SECOND SUBMITTAL	11/04/16
FIRST SUBMITTAL	10/10/16

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CLAYTON ESTATES PLAT 1
STORM & SANITARY SEWER PLAN AND PROFILE

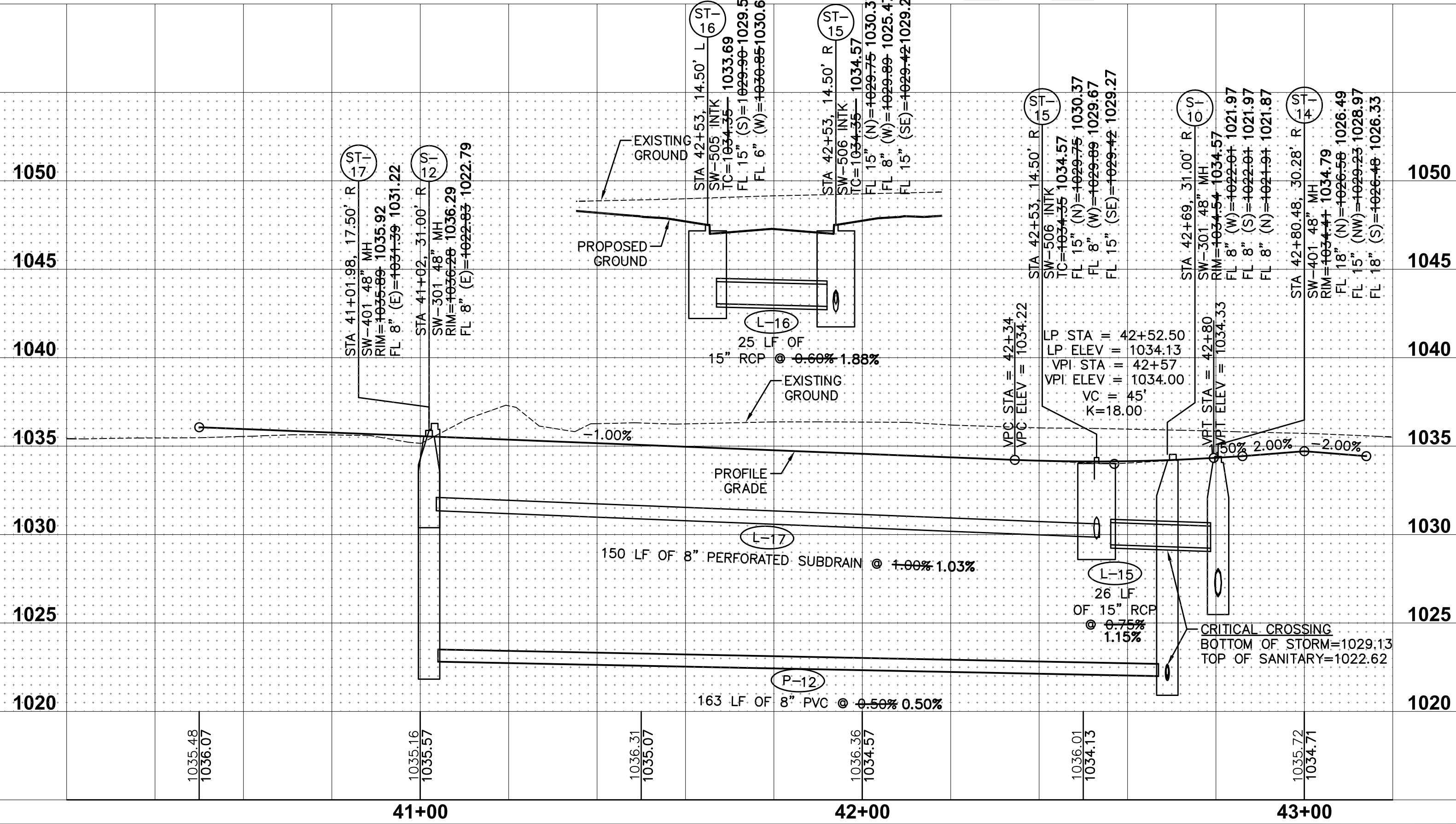
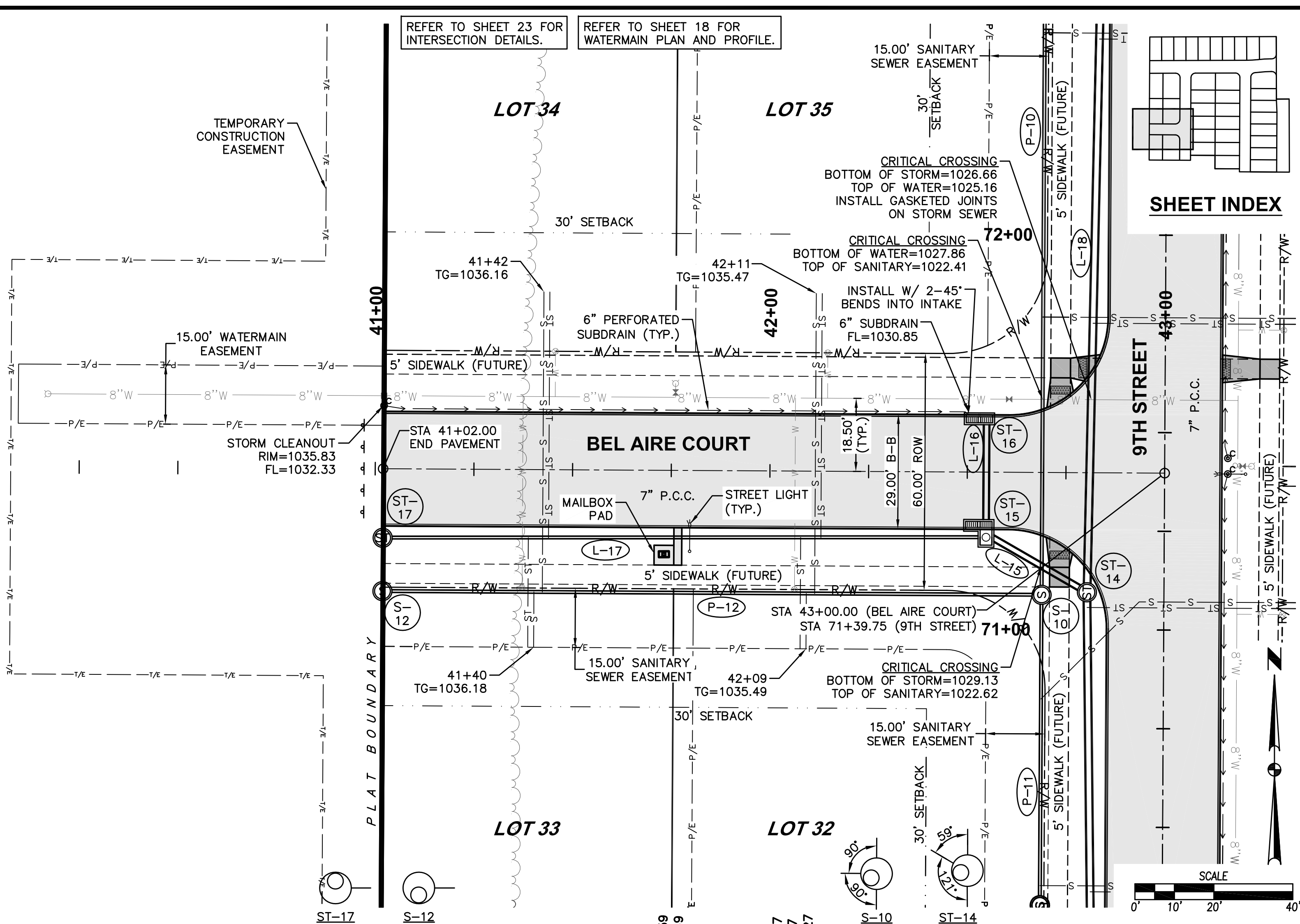
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REVISIONS
AS-BUILT SUBMITTAL
REVISED STORM SEWER
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PHONE: (515) 369-4400 FAX: (515) 369-4410
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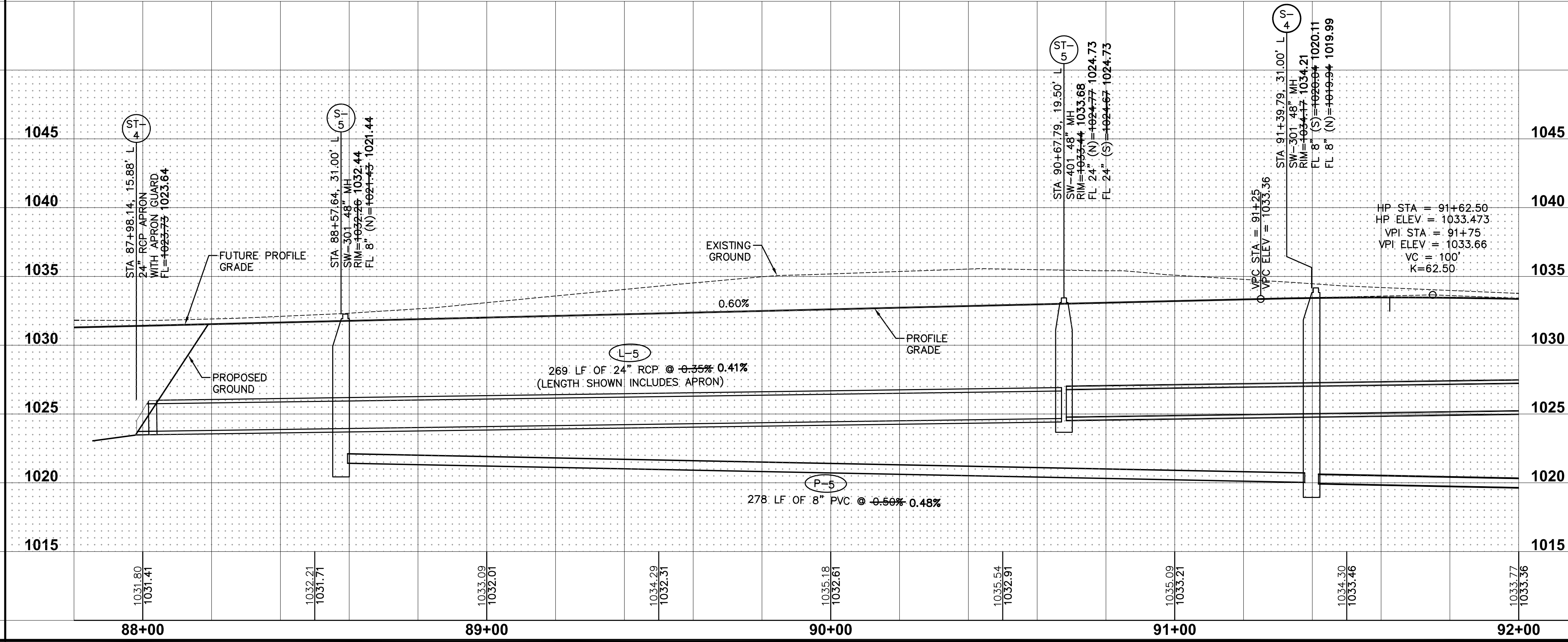
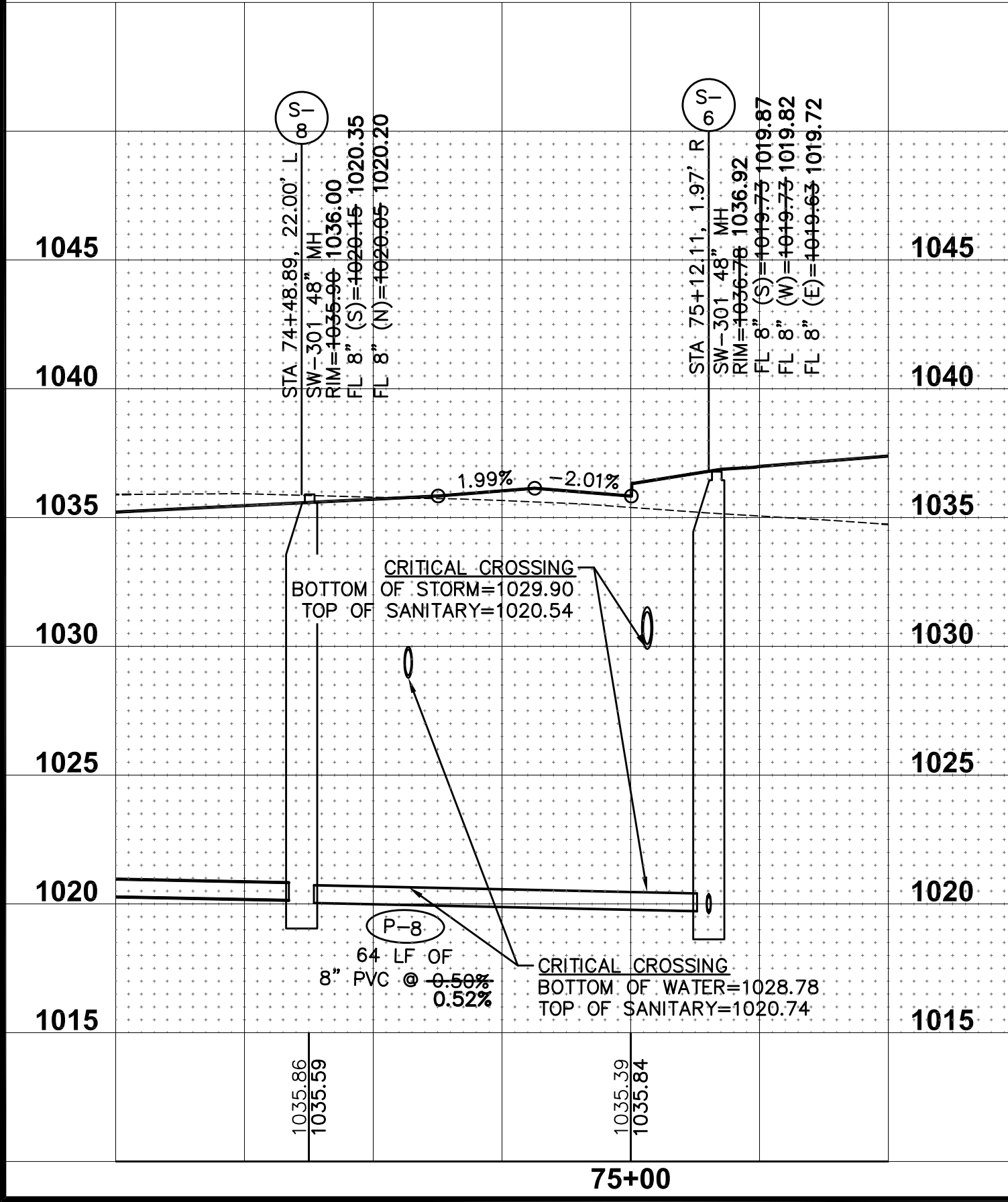
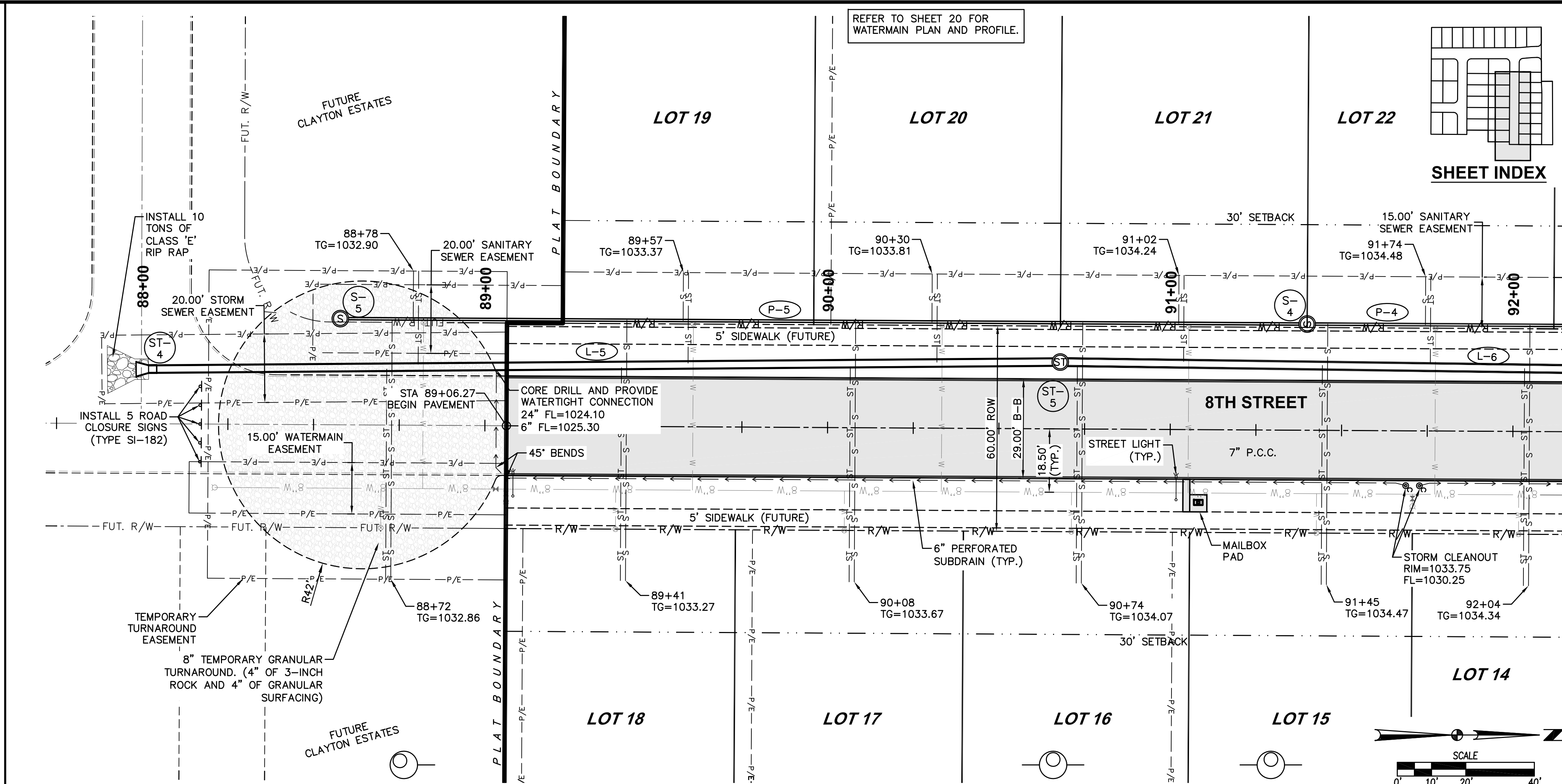
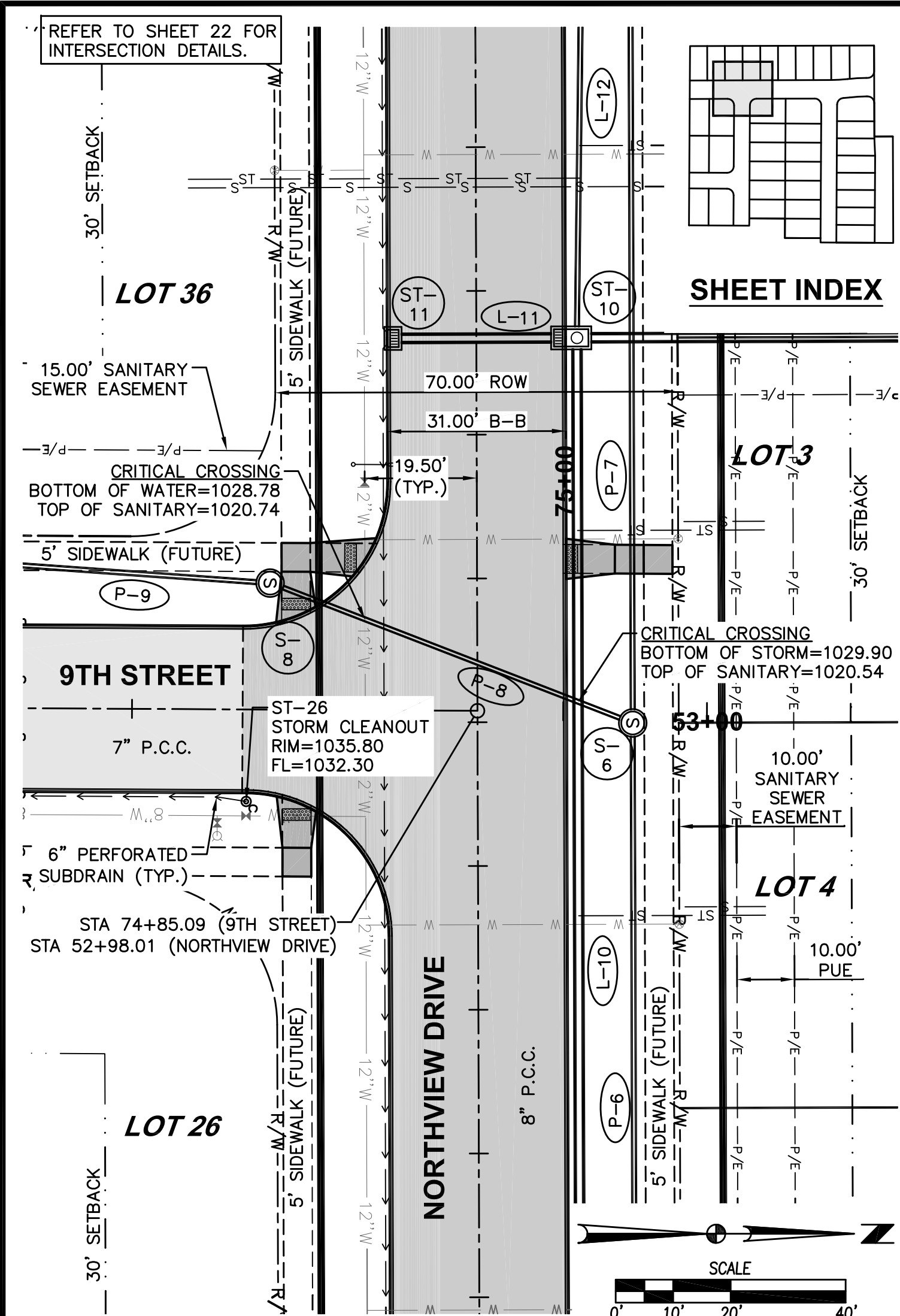
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA



CLAYTON ESTATES PLAT 1 STORM & SANITARY SEWER PLAN AND PROFILE WAUKEE, IOWA 11 / 23 1608.419	CIVIL DESIGN ADVANTAGE 3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410 ENGINEER: EKO EI: CGW
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REVISIONS	DATE
AS-BUILT SUBMITTAL	09/11/17
REVISED STORM SEWER	06/15/17
FINAL SUBMITTAL	01/30/17
FOURTH SUBMITTAL	01/06/17
THIRD SUBMITTAL	12/09/16
SECOND SUBMITTAL	11/04/16
FIRST SUBMITTAL	10/10/16

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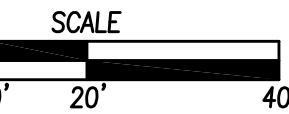
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CLAYTON ESTATES PLAT 1
STORM & SANITARY SEWER PLAN AND PROFILE

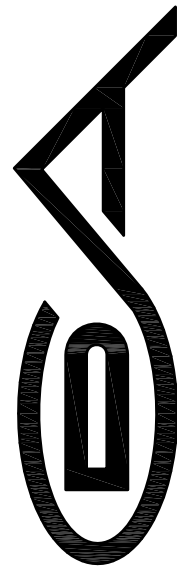
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CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA



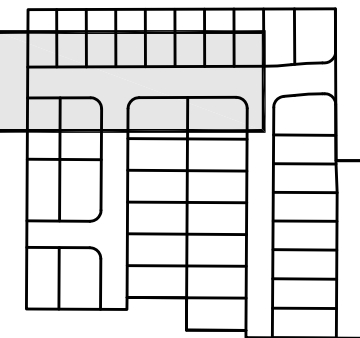
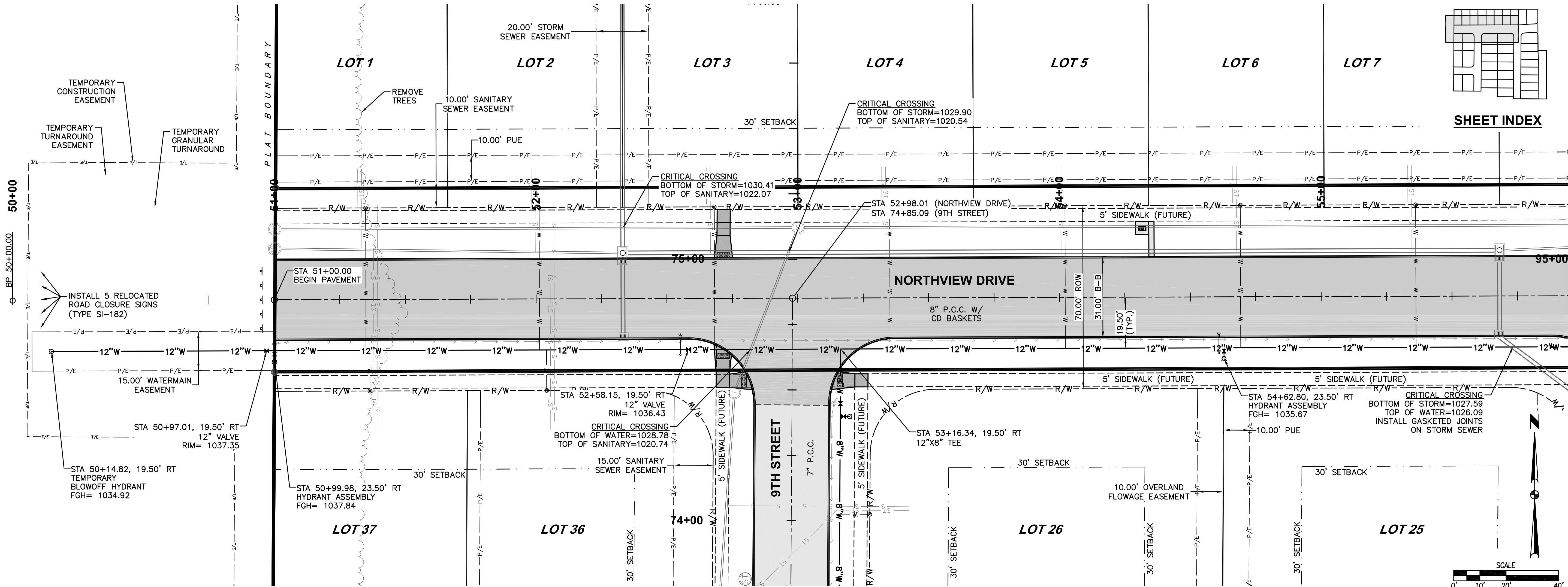
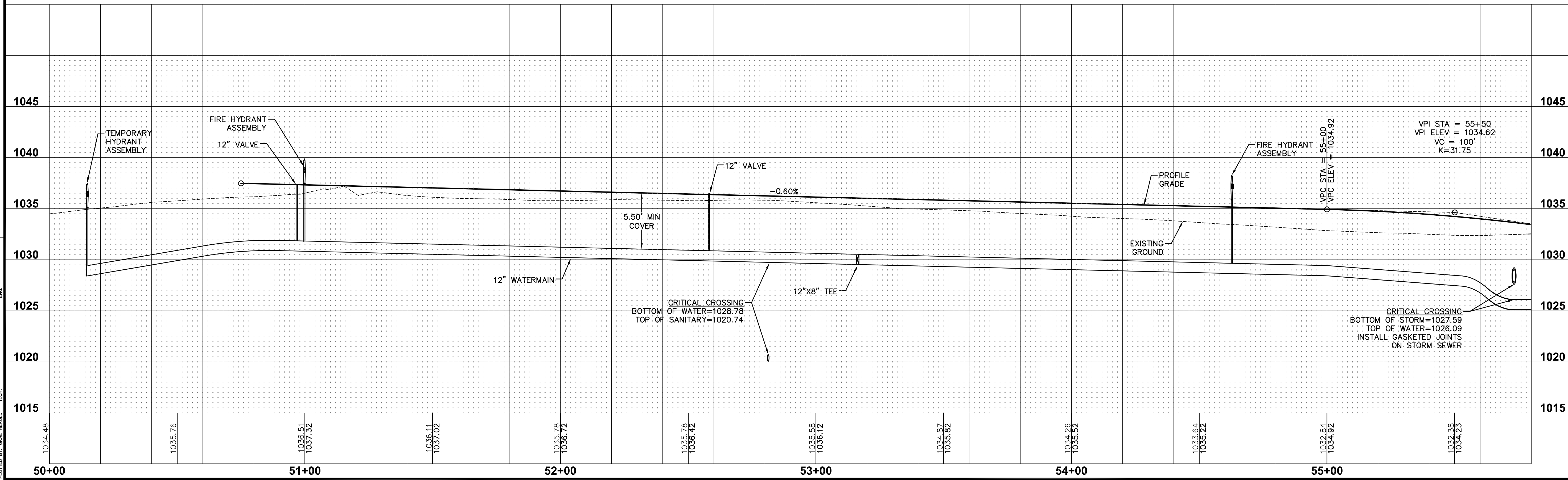
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO EI: CGW



WAUKEE, IOWA

CLAYTON ESTATES PLAT 1

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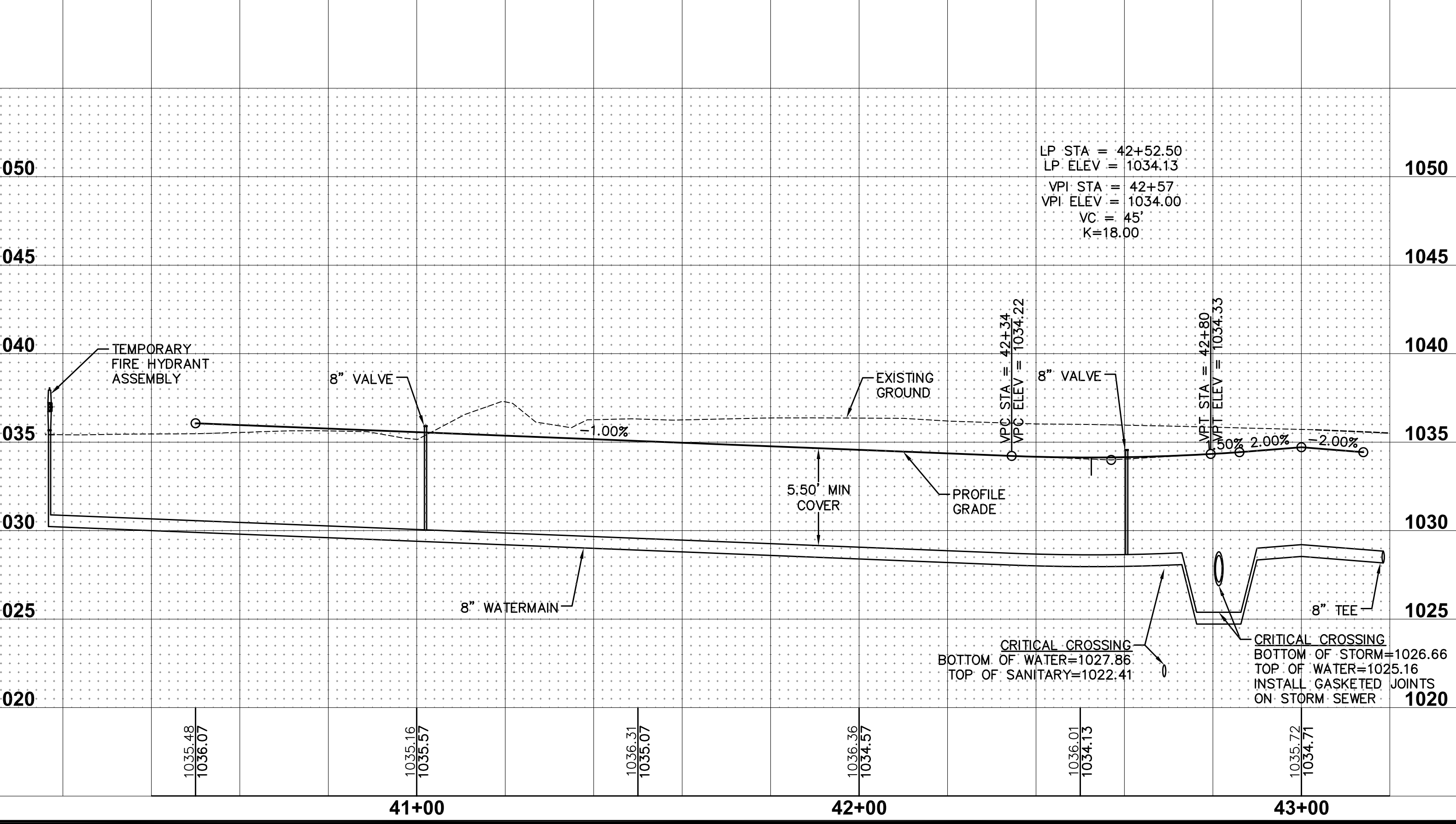
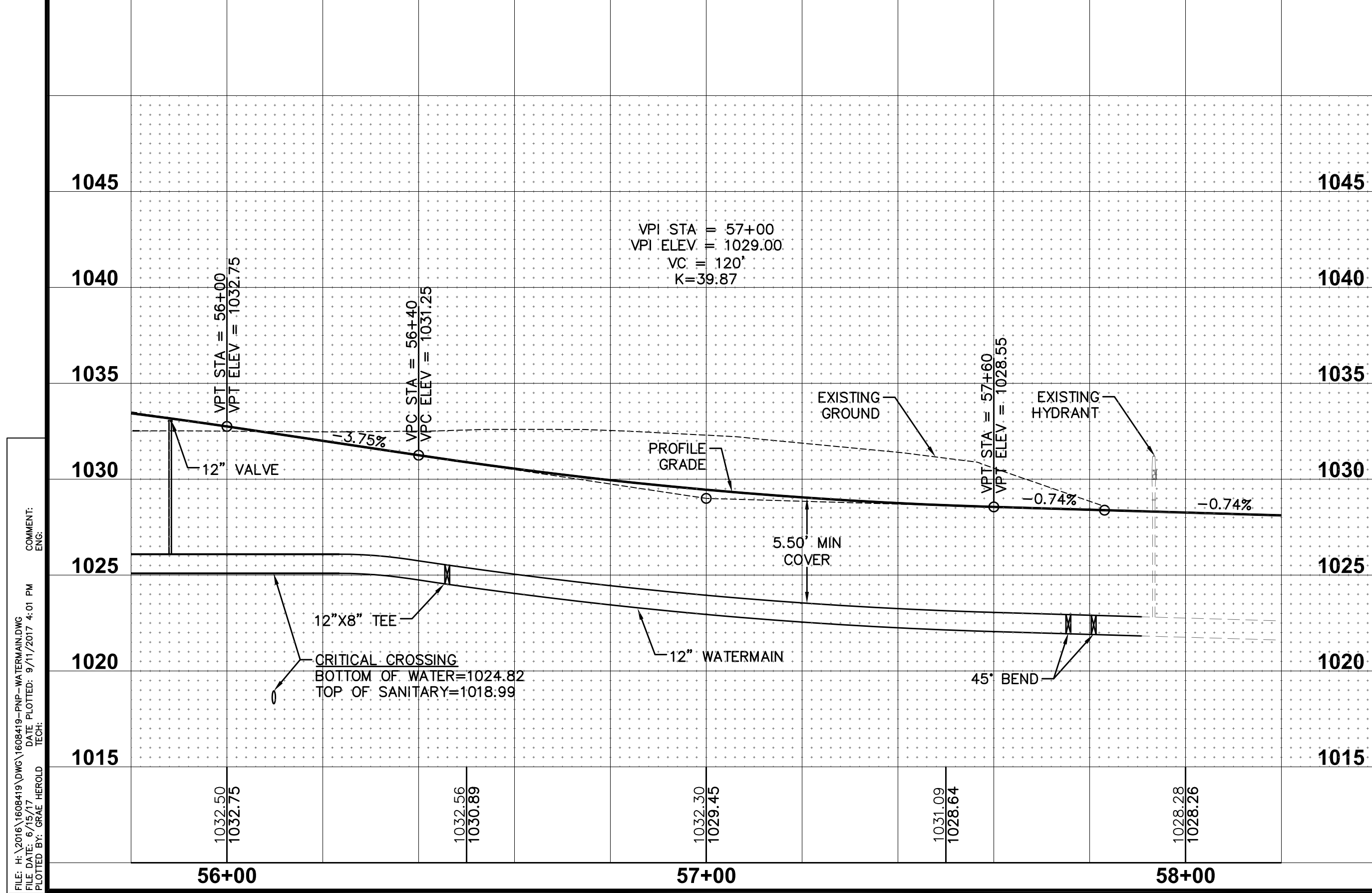
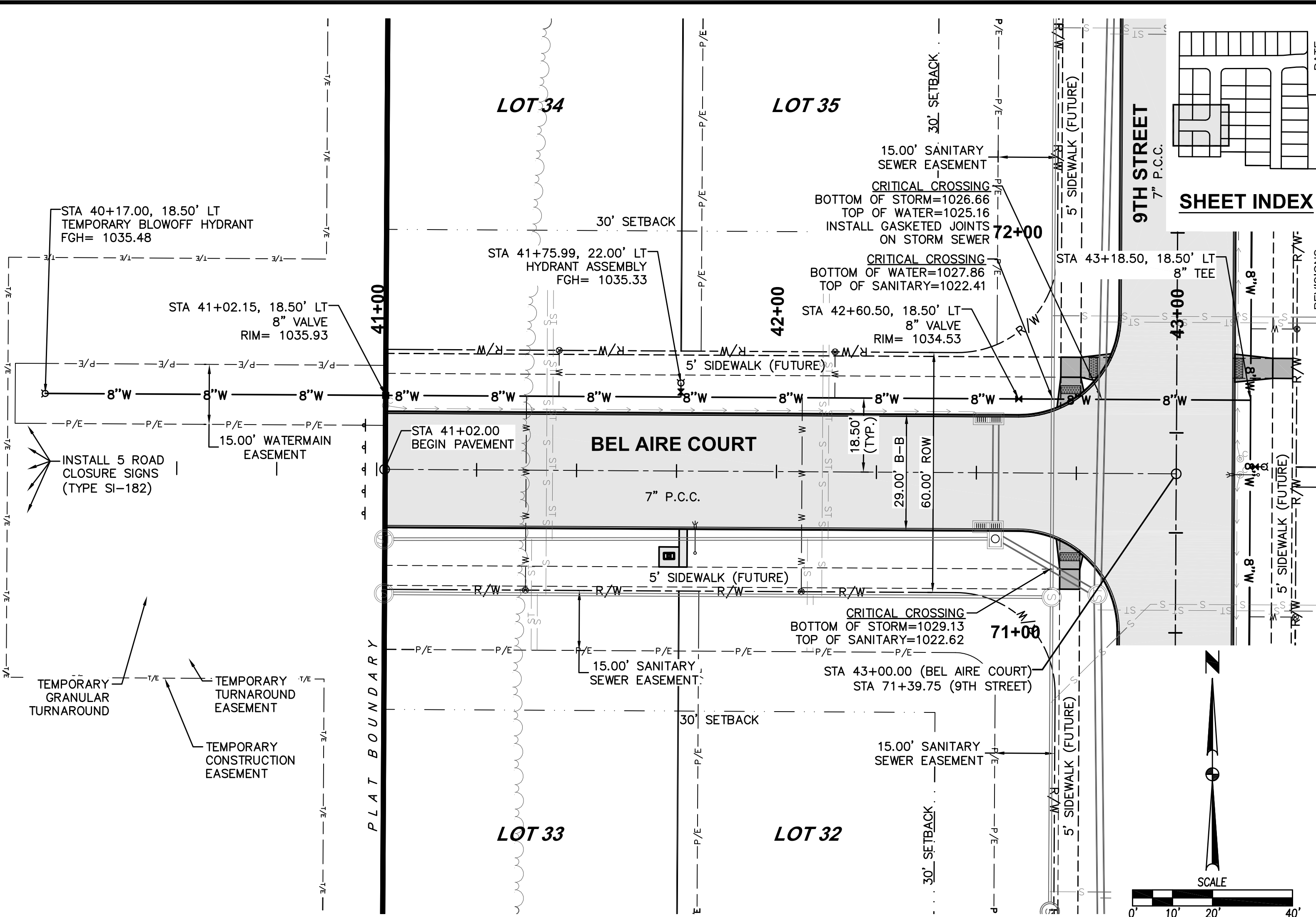
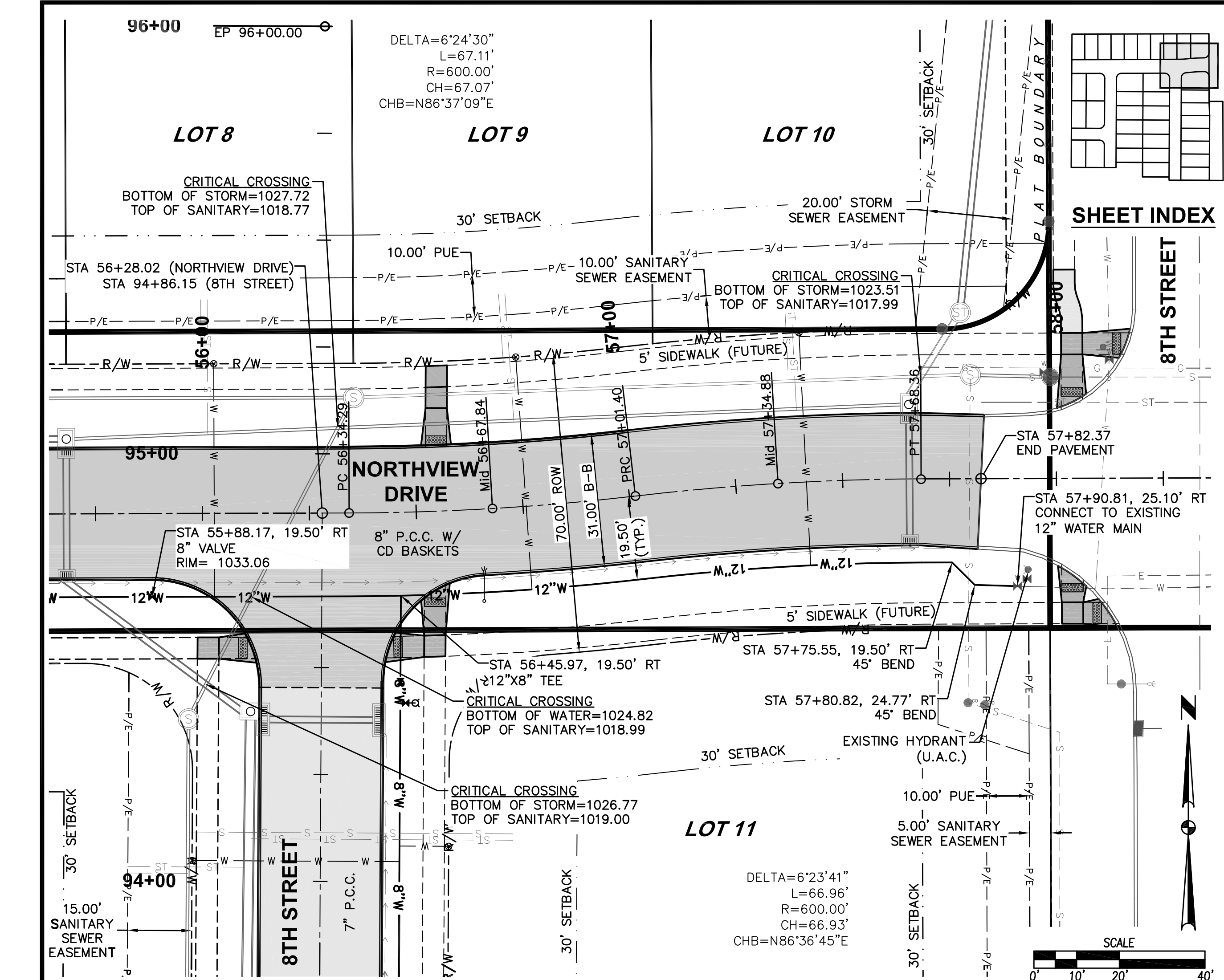
SHEET INDEX

DATE	REVISIONS	DESCRIPTION
09/11/17	AS-BUILT SUBMITTAL	
06/15/17	REVISED STORM SEWER	
01/30/17	FINAL SUBMITTAL	
01/06/17	FOURTH SUBMITTAL	
12/09/16	THIRD SUBMITTAL	
11/04/16	SECOND SUBMITTAL	
10/07/16	FIRST SUBMITTAL	

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CLAYTON ESTATES PLAT 1
WATERMAIN PLAN AND PROFILE

17/23
1608.419



FILE: H:\2016\608419\000\608419-PWP-WATERMAIN.DWG
COMMENTS: 9/11/2017 4:01 PM
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PLOTTER: HP DesignJet 5000

CLAYTON ESTATES PLAT 1
WATERMAIN PLAN AND PROFILE

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1608.419

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

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PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: EKO
Ei: CGW

DATE

09/11/17

06/15/17

01/30/17

01/06/17

12/09/16

11/04/16

10/10/16

AS-BUILT SUBMITTAL

REVISED STORM SEWER

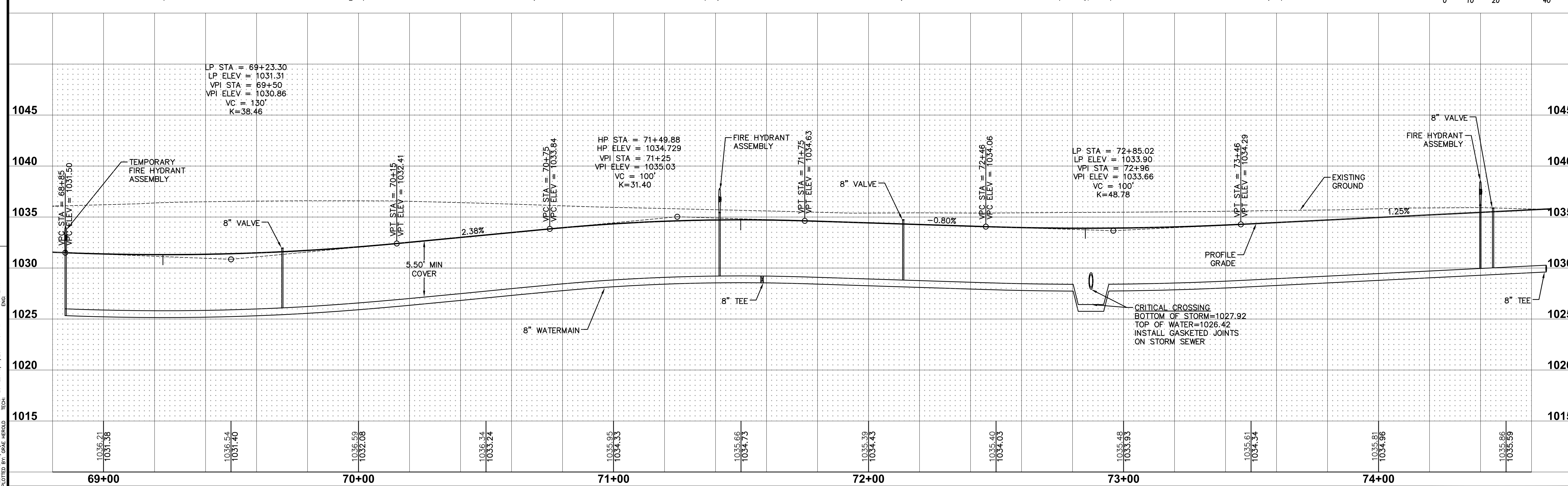
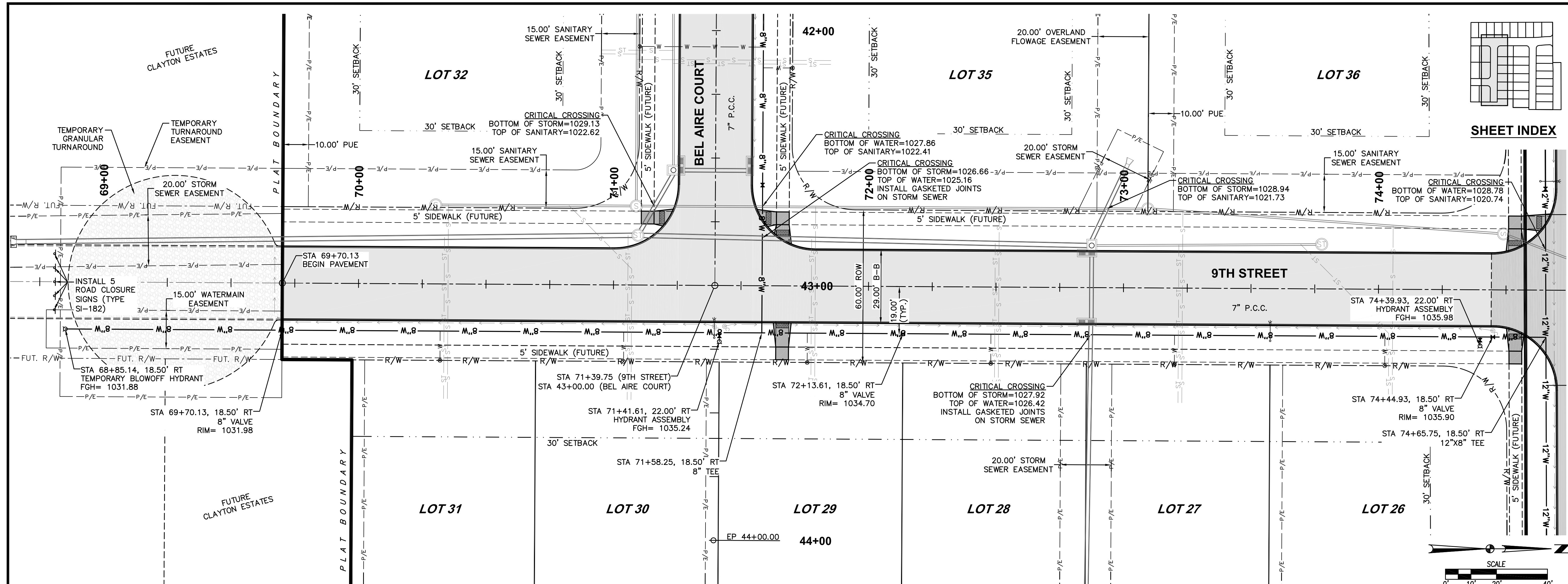
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FOURTH SUBMITTAL

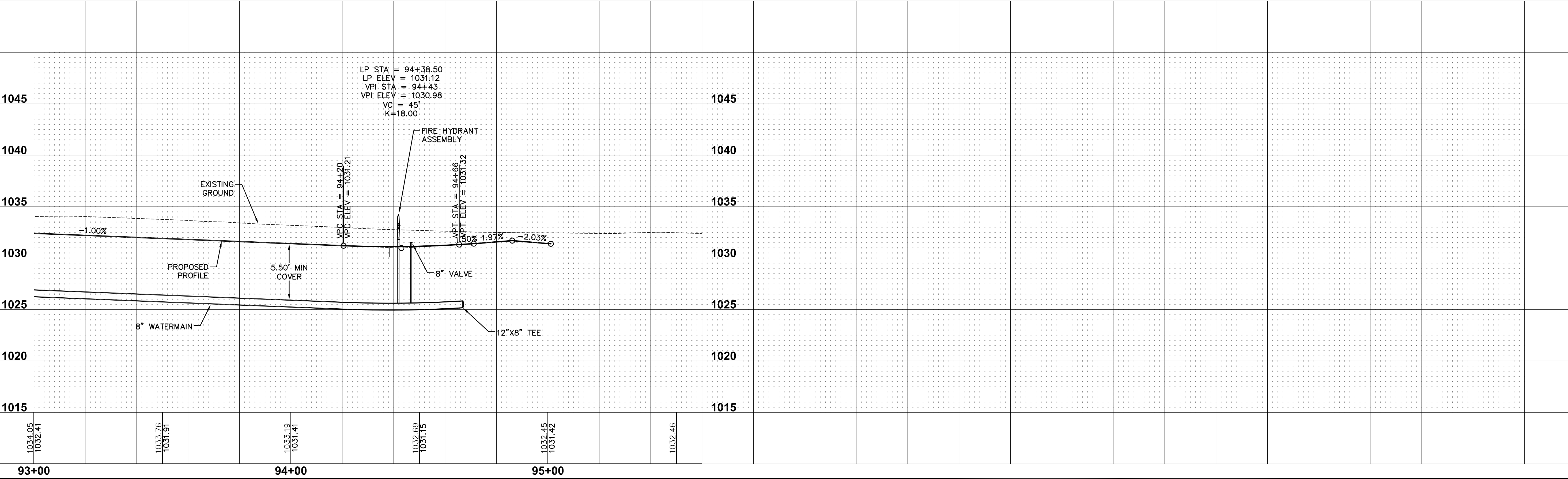
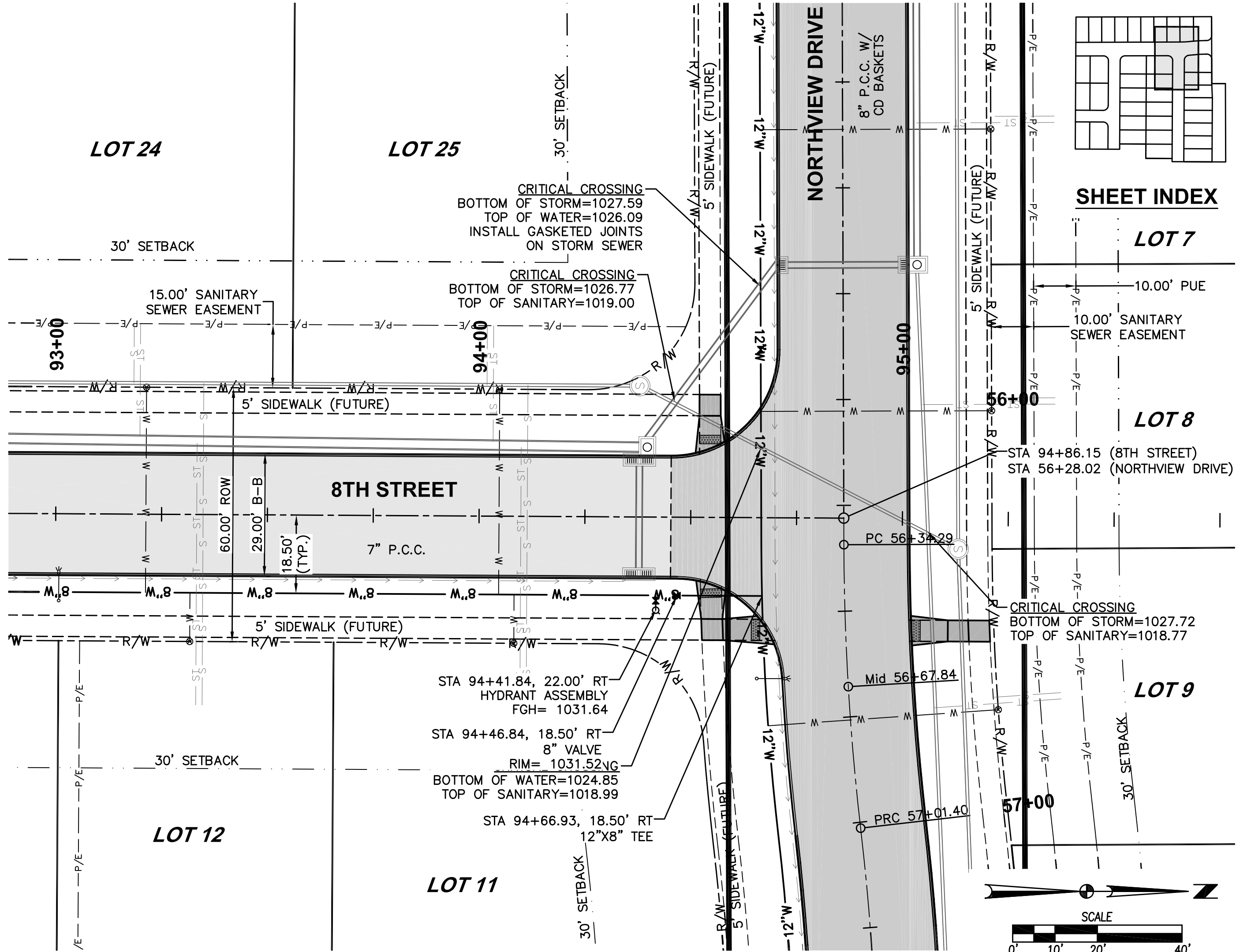
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FIRST SUBMITTAL



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COMMENTS:
DRAWN BY: GWA
CHECKED BY: GWA



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CLAYTON ESTATES PLAT 1
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

SA

CIVIL DESIGN ADVANTAGE

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ENGINEER: EKO Ei: CGW

REVISIONS

DATE

AS-BUILT SUBMITTAL 09/11/17

REVISED STORM SEWER 06/15/17

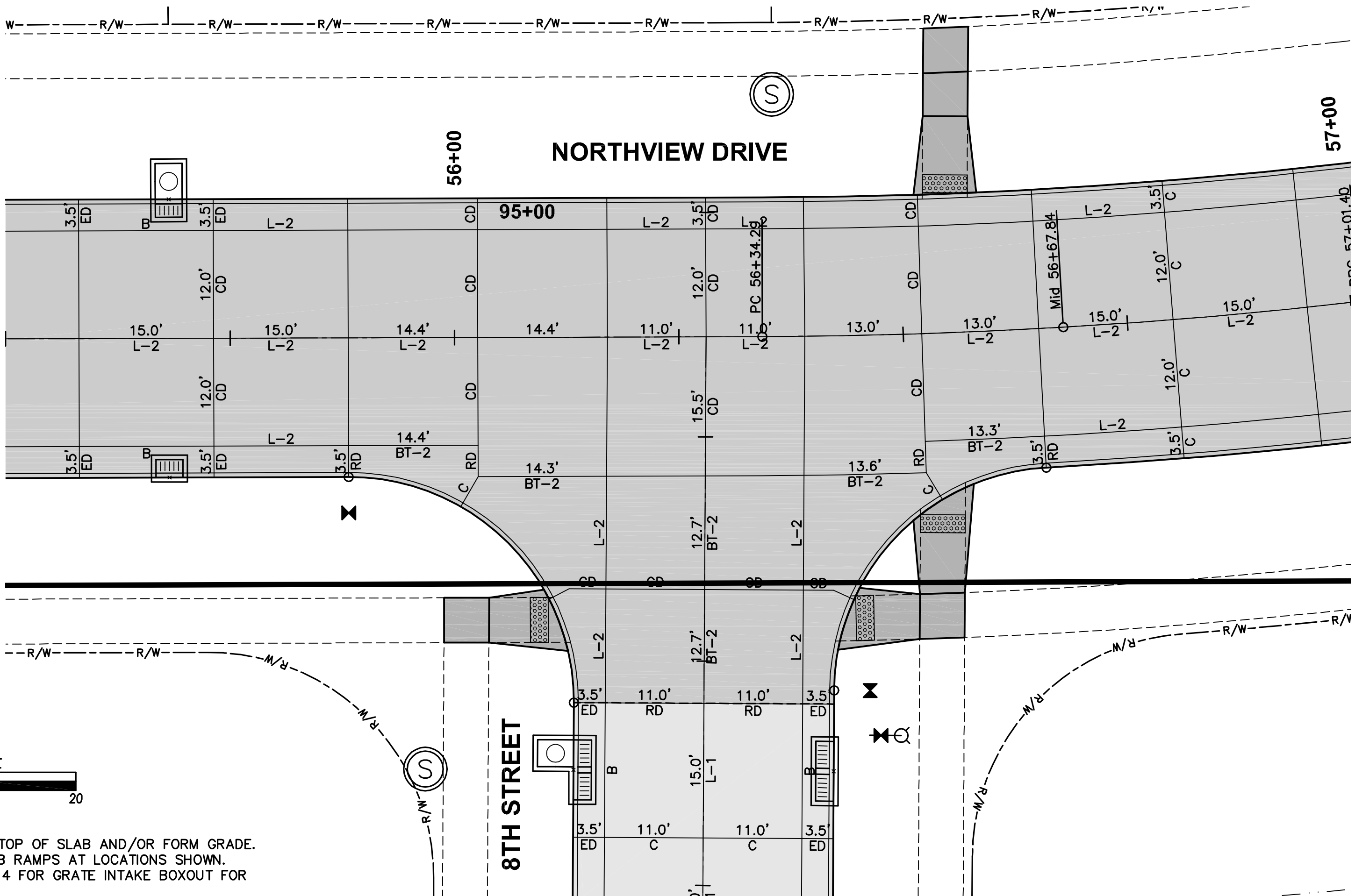
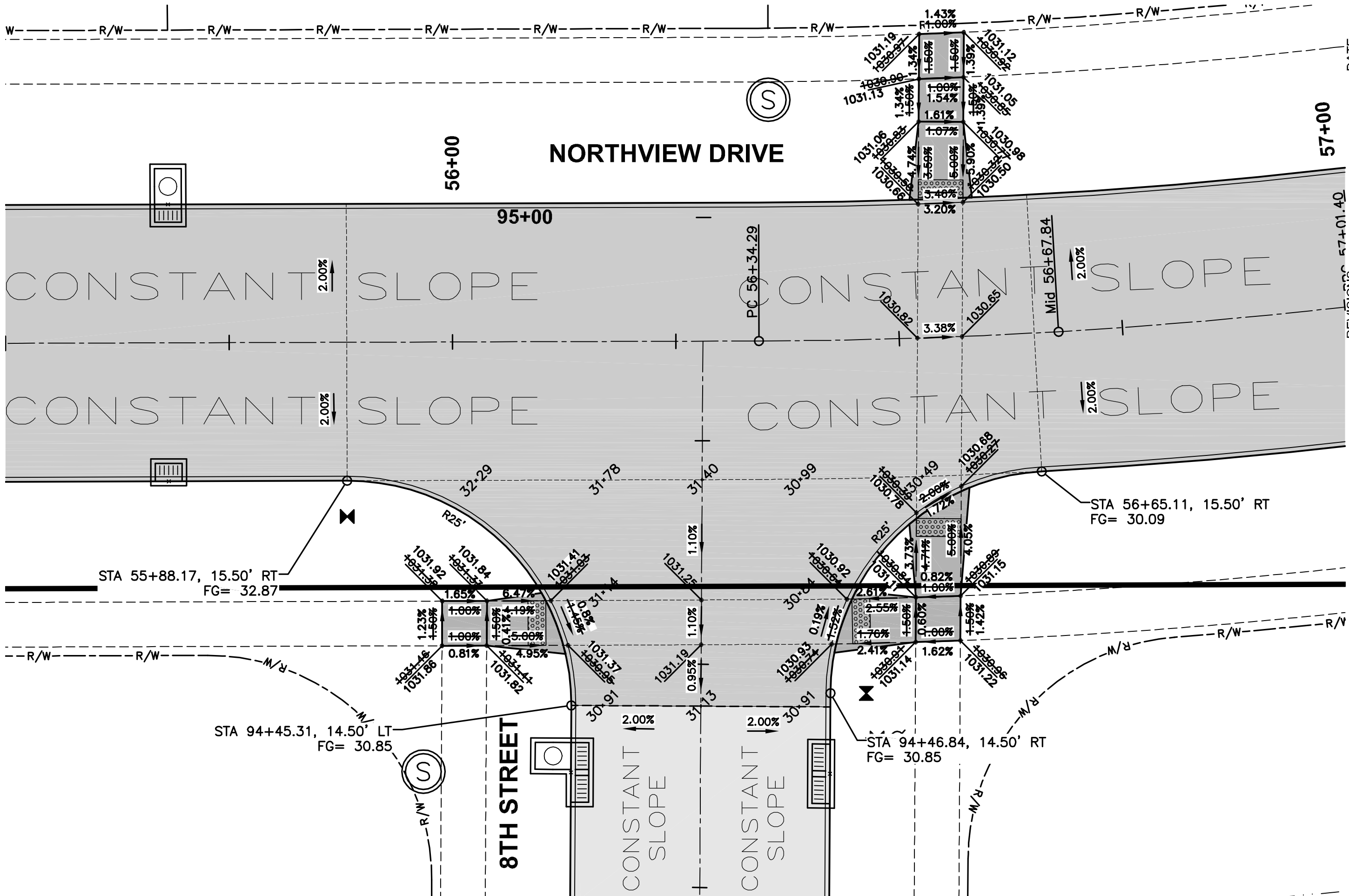
FINAL SUBMITTAL 01/30/17

FOURTH SUBMITTAL 01/06/17

THIRD SUBMITTAL 12/09/16

SECOND SUBMITTAL 11/04/16

FIRST SUBMITTAL 10/10/16



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.

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CLAYTON ESTATES PLAT 1

INTERSECTION DETAILS

WAUKEE, IOWA



CIVIL DESIGN ADVANTAGE



ENGINEER: EKO

EI: CGW

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AS-BUILT SUBMITTAL

REVISED SUBMITTAL

FINAL SUBMITTAL

FOURTH SUBMITTAL

THIRD SUBMITTAL

SECOND SUBMITTAL

FIRST SUBMITTAL

DATE: 09/11/17

REVISIONS: 574-01.40

DATE: 06/15/17

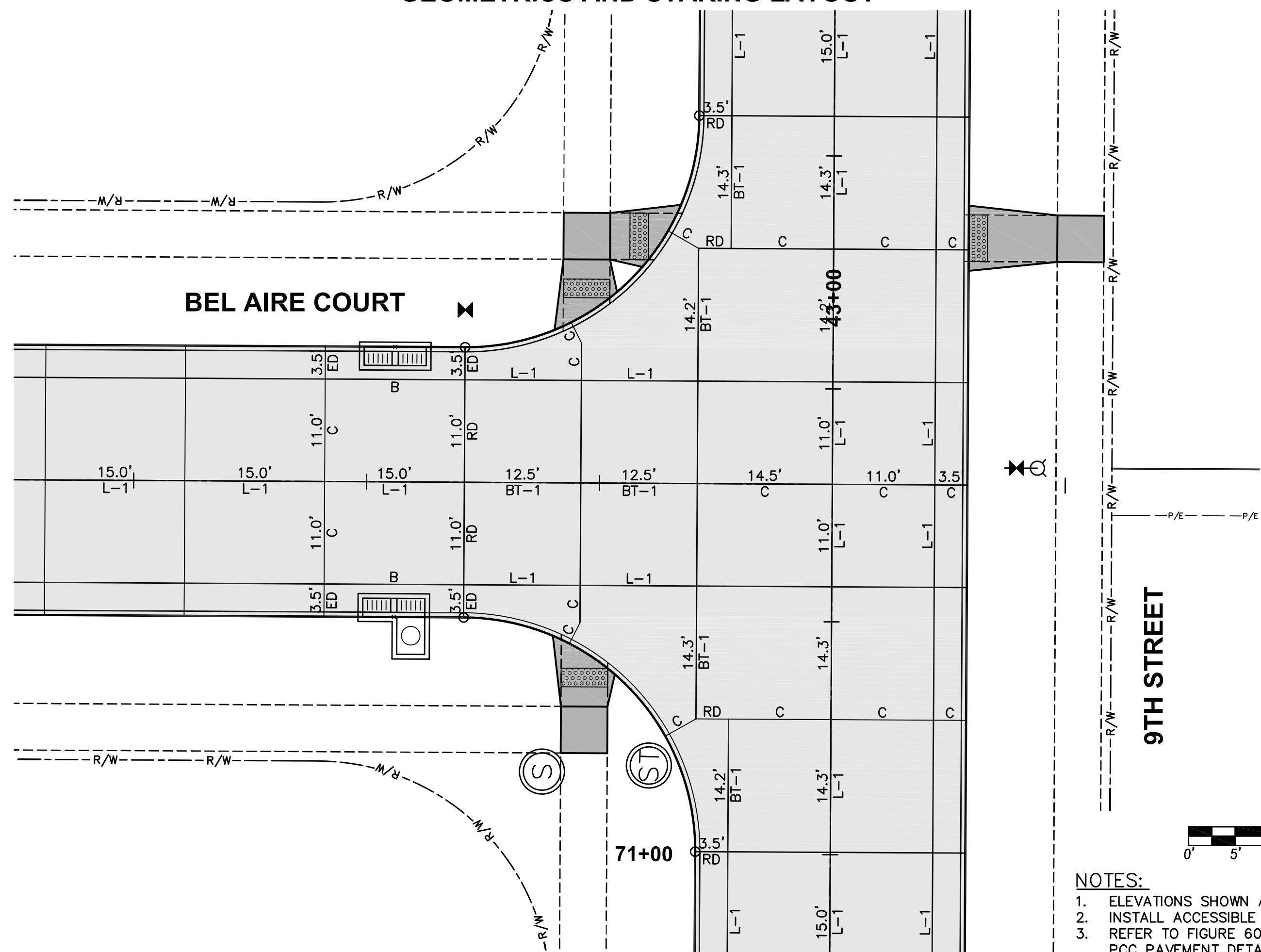
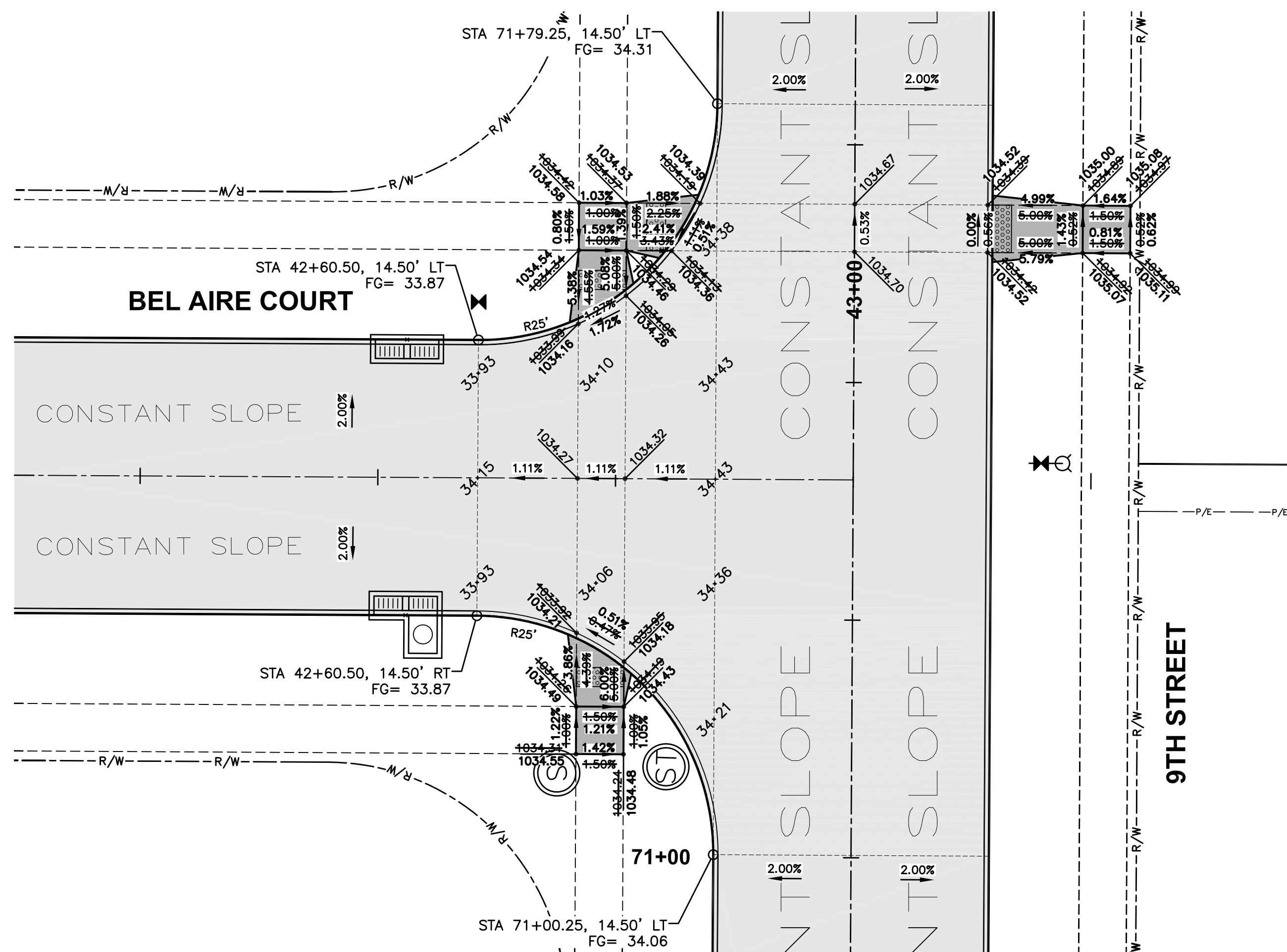
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01/30/17

12/09/17

11/04/16

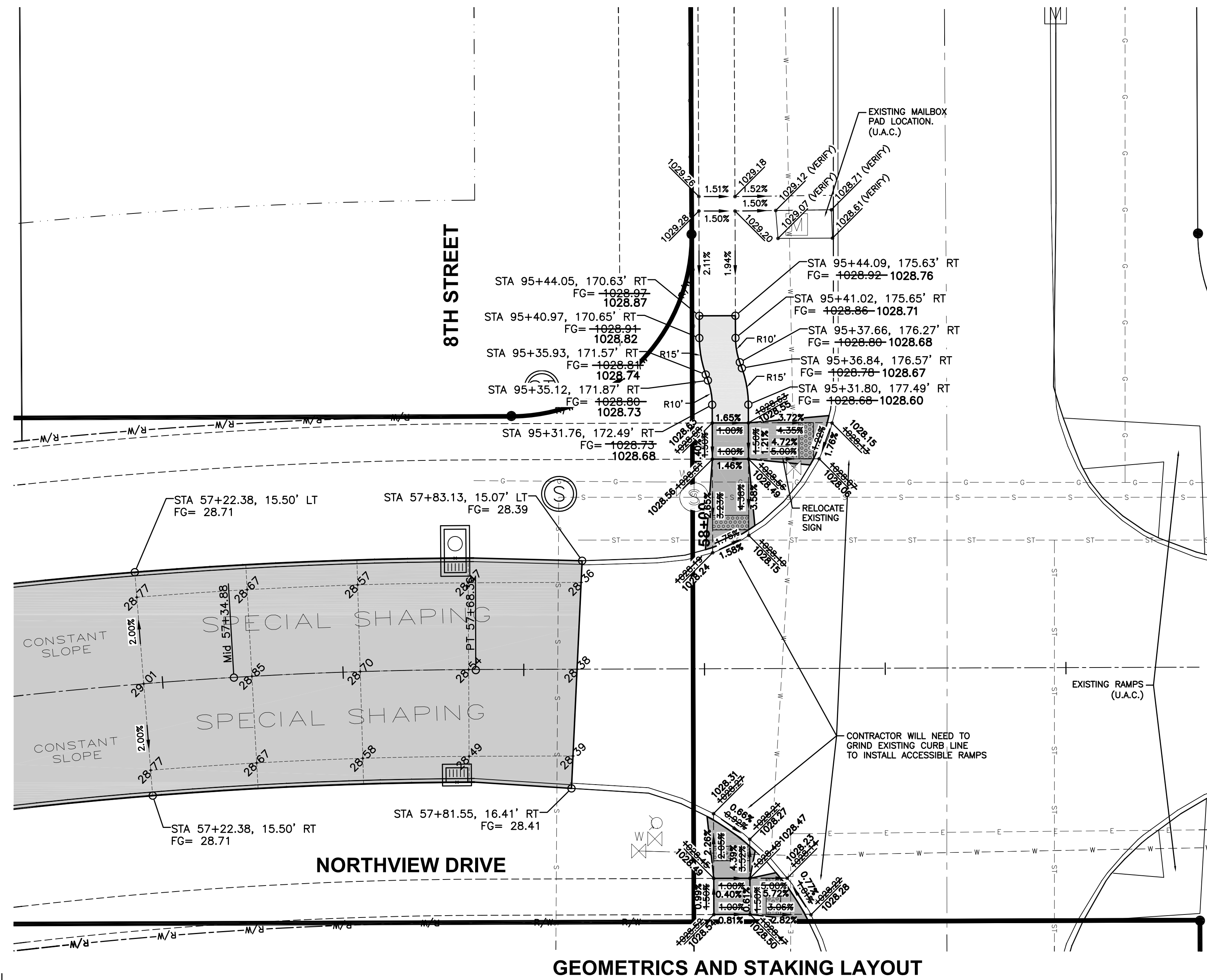
10/10/16



A north arrow pointing upwards, labeled 'N' at the top. Below it is a graphic scale bar with markings for 0', 5', 10', and 20'.

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REVISIONS	DATE
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FIRST SUBMITTAL	10/10/16

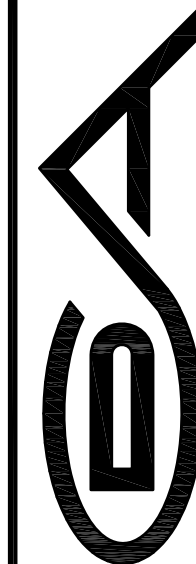
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EI: CGW



WAUKEE. IOWA

CLAYTON ESTATES PLAT 1

INTERSECTION DETAILS

INTERSECTION DETAILS

23/23

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