

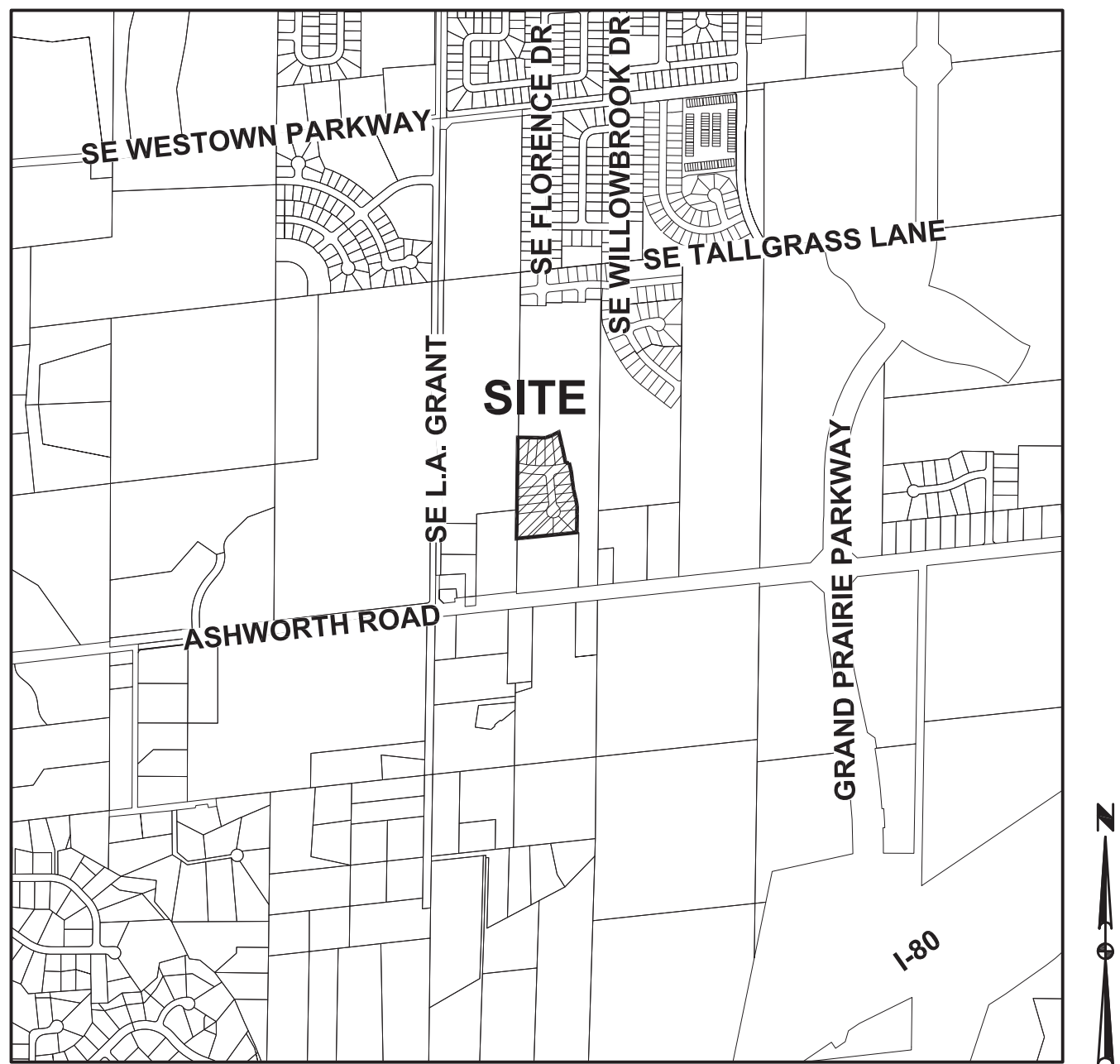
CONSTRUCTION PLANS FOR:

KETTLESTONE RIDGE PLAT 5

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER/DEVELOPER

JERRY'S HOMES
CONTACT: JAY COWAN
3900 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IA 50266
PH: (515) 727-0356

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

ZONING

R-2 ONE AND TWO FAMILY RESIDENTIAL DISTRICT

BULK REGULATIONS

- 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:	09/25/2018
SECOND SUBMITTAL:	10/16/2018
THIRD SUBMITTAL:	11/13/2018
FOURTH SUBMITTAL:	12/14/2018
FIFTH SUBMITTAL:	01/02/2019
FINAL SUBMITTAL:	01/25/2019
AS-BUILT SUBMITTAL:	12/02/2019

BENCHMARKS

BM#1 DALLAS CO G120
ELEVATION=1011.76

BM#2 SE BURY BOLT ON HYDRANT 200 FEET +/-
EAST OF BLUESTEM AND SOUTH SIDE OF SE
TALLGRASS LN.
ELEVATION=1035.49

BM#3 BURY BOLT ON HYDRANT SE FLORENCE DR
& DEAD END.
ELEVATION=1037.32

NOTES

1. ANY CHANGES PROPOSED TO THE CONSTRUCTION DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
2. 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.
3. 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.
4. OUTLOT 'Y' AND OUTLOT 'Z' WILL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION.

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.

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS AND DETAILS
4	QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES
5	HYDRANT COVERAGE PLAN
6	GRADING PLAN
7	EROSION AND SEDIMENT CONTROL PLAN
8-10	STORM AND SANITARY SEWER PLAN AND PROFILE
11-12	WATER MAIN PLAN AND PROFILE
13-14	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.

LEGAL DESCRIPTION

A PART OF THE TRACT OF LAND DESCRIBED IN THE PLAT OF SURVEY RECORDED IN BOOK 2014, PAGE 10019 AS THE "BOOTH FAMILY FARMS LLC PARCEL", BEING A PART OF THE EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE FIFTH PRINCIPAL MERIDIAN, IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THE WEST 500 FEET OF THE SOUTH 500 FEET OF SAID EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER; THENCE NORTH 00°10'55" EAST ALONG THE WEST LINE OF SAID EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER, A DISTANCE OF 232.39 FEET; THENCE NORTH 00°09'25" EAST CONTINUING ALONG SAID WEST LINE, 581.25 FEET; THENCE SOUTH 89°50'35" EAST, 223.01 FEET; THENCE NORTH 69°26'12" EAST, 60.33 FEET; THENCE NORTH 62°38'12" EAST, 55.17 FEET; THENCE SOUTH 13°52'34" EAST, 123.66 FEET; THENCE SOUTH 12°23'46" EAST, 133.72 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 840.00 FEET, WHOSE ARC LENGTH IS 27.75 FEET AND WHOSE CHORD BEARS NORTH 76°31'23" EAST, 27.75 FEET; THENCE SOUTH 14°25'23" EAST, 70.00 FEET; THENCE SOUTH 07°45'20" EAST, 86.64 FEET; THENCE SOUTH 08°21'29" EAST, 65.10 FEET; THENCE SOUTH 14°12'30" EAST, 66.11 FEET; THENCE SOUTH 11°17'46" EAST, 66.60 FEET; THENCE SOUTH 00°09'30" EAST, 69.46 FEET; THENCE SOUTH 00°10'36" WEST, 144.35 FEET TO THE NORTHERLY LINE OF THE WEST 500 FEET OF THE SOUTH 500 FEET OF SAID EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER; THENCE SOUTH 83°36'55" WEST ALONG SAID NORTHERLY LINE, 486.79 FEET TO THE POINT OF BEGINNING AND CONTAINING 7.96 ACRES (346,746 SQUARE FEET). THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

GA

CIVIL DESIGN ADVANTAGE

3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111

PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 1805.311

GENERAL LEGEND

PROPOSED

SECTION LINE	----
CENTER LINE	----
RIGHT OF WAY	---R/W---
PERMANENT EASEMENT	---P/E---
TEMPORARY EASEMENT	---T/E---
TYPE SW-501 STORM INTAKE	
TYPE SW-503 STORM INTAKE	
TYPE SW-505 STORM INTAKE	
TYPE SW-506 STORM INTAKE	
TYPE SW-513 STORM INTAKE	
TYPE SW-401 STORM MANHOLE	
TYPE SW-402 STORM MANHOLE	
TYPE SW-301 SANITARY MANHOLE	
STORM/SANITARY CLEANOUT	
WATER VALVE	
FIRE HYDRANT ASSEMBLY	
SIGN	
DETECTABLE WARNING PANEL	
WATER CURB STOP	
STORM SEWER STRUCTURE NO.	
STORM SEWER PIPE NO.	
SANITARY SEWER STRUCTURE NO.	
SANITARY SEWER PIPE NO.	
SANITARY SEWER WITH SIZE	
SANITARY SERVICE	
STORM SEWER	
STORM SERVICE	
WATERMAIN WITH SIZE	
WATER SERVICE	
SAWCUT (FULL DEPTH)	
SILT FENCE	
USE AS CONSTRUCTED	(UAC)
TOP OF PROPOSED GROUND	TG
MINIMUM OPENING ELEVATION	MOE
MINIMUM GRADE AT STRUCTURE	MGS

EXISTING

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

REFER TO THE KETTLESTONE RIDGE GEOTECHNICAL REPORT PREPARED BY GEOTECH, INC.
(PN 02.15174.00) DATED AUGUST 20, 2015 FOR GEOTECHNICAL REQUIREMENTS.

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 2018 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.

IOWA
ONE CALL

1-800-292-8989
www.iowaonecall.com

16926
ERIN K. OLLENDIKE

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.

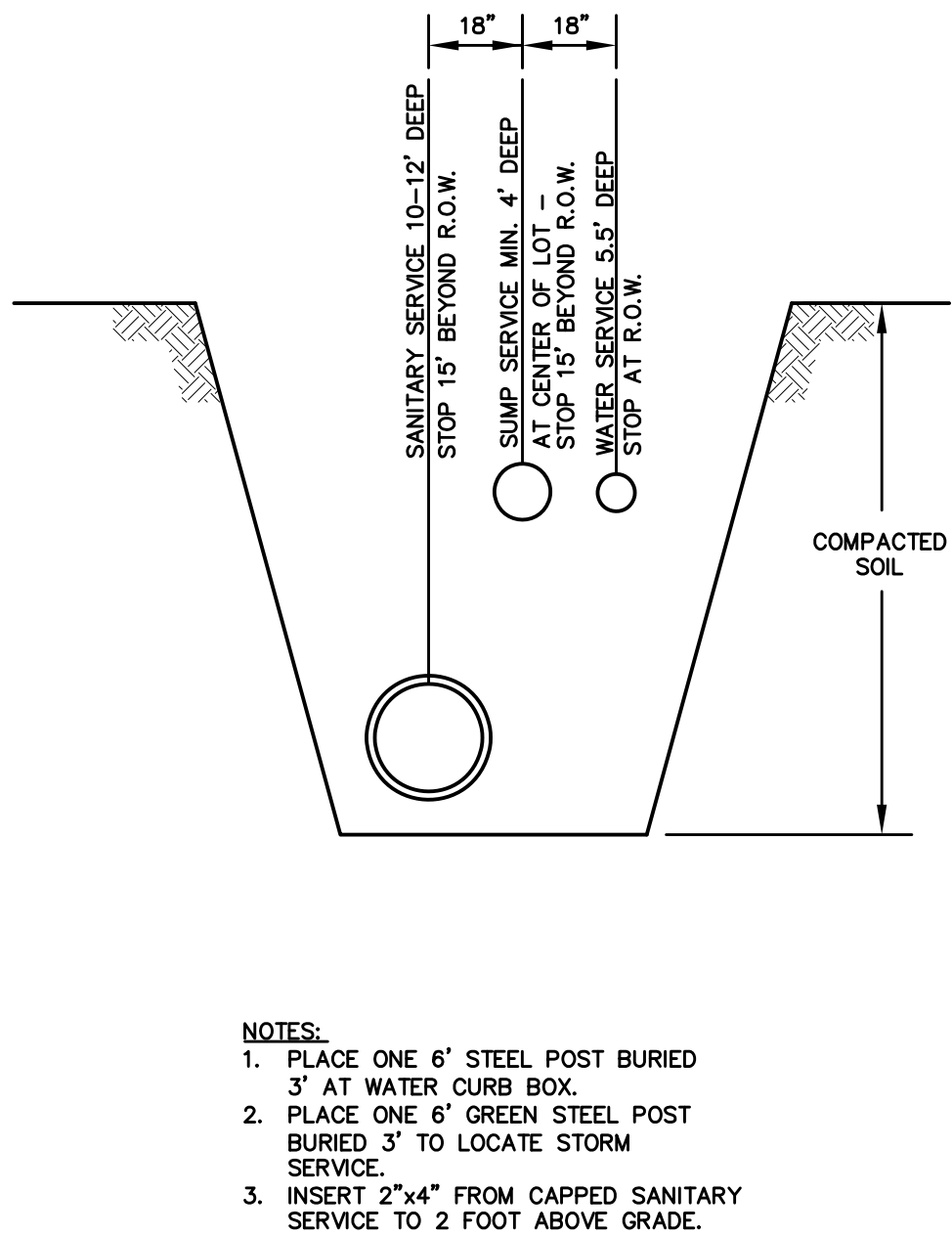
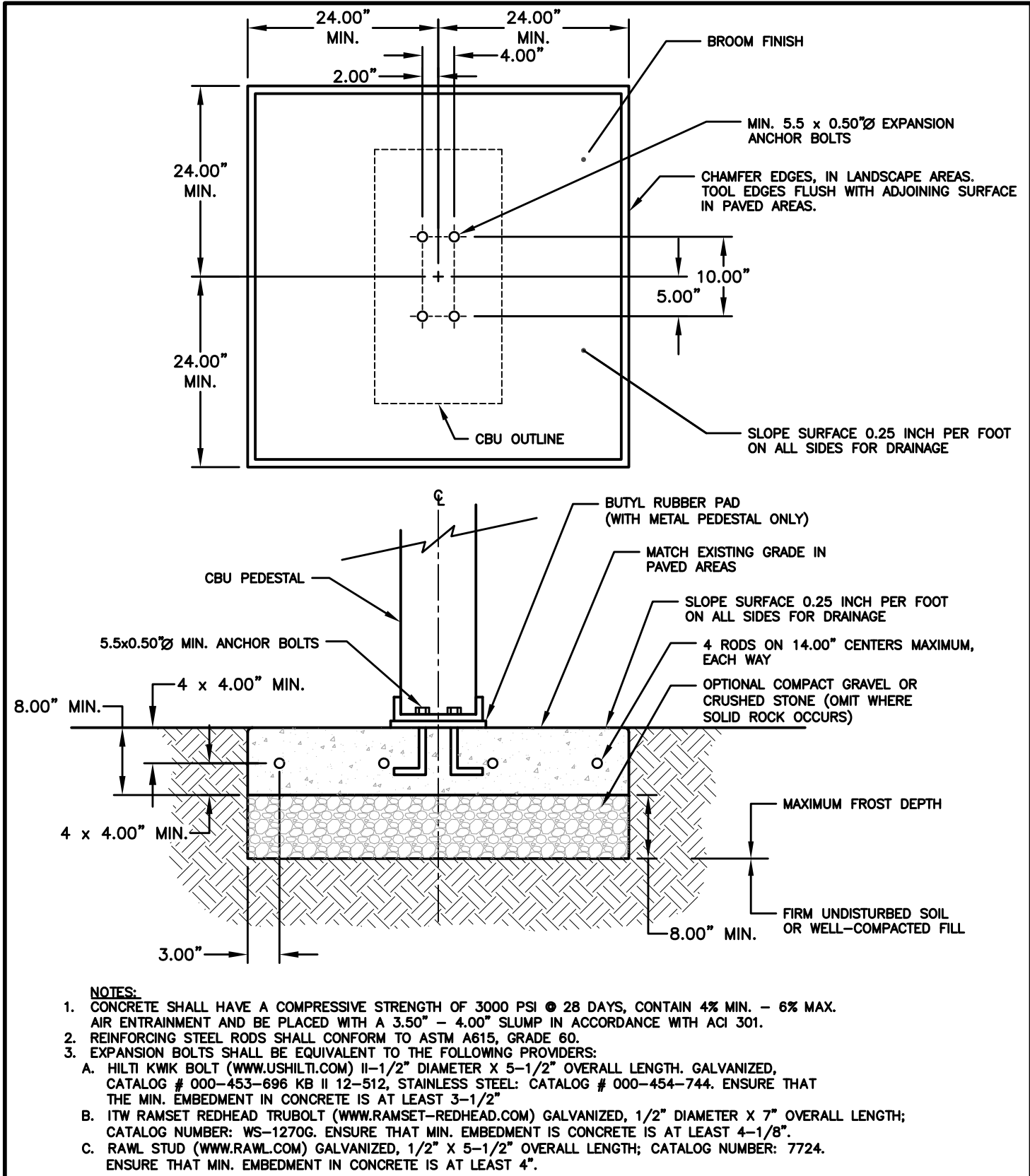
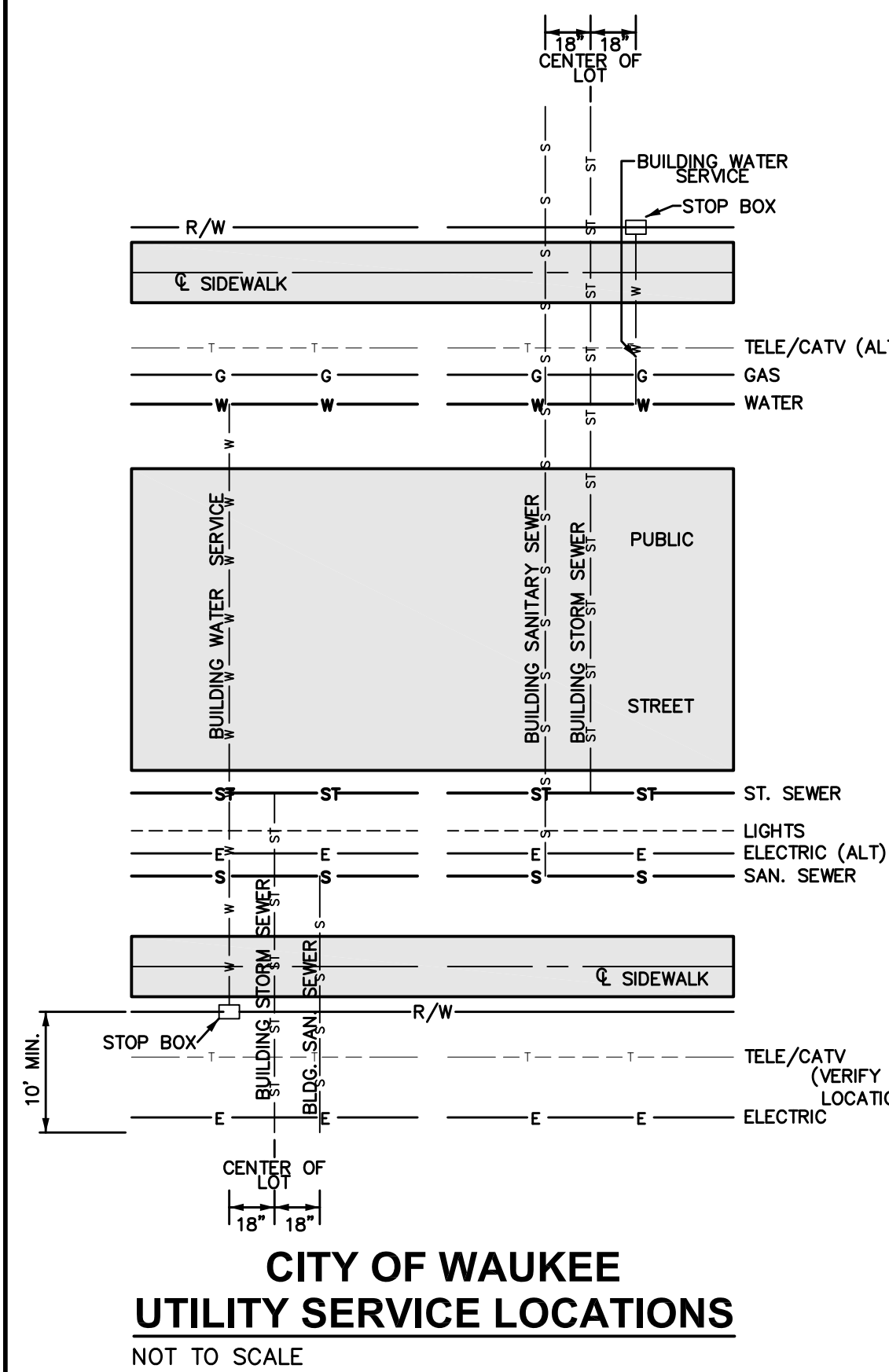
Erin K. Ollendike
ERIN K. OLLENDIKE, P.E.

12-16-19
DATE

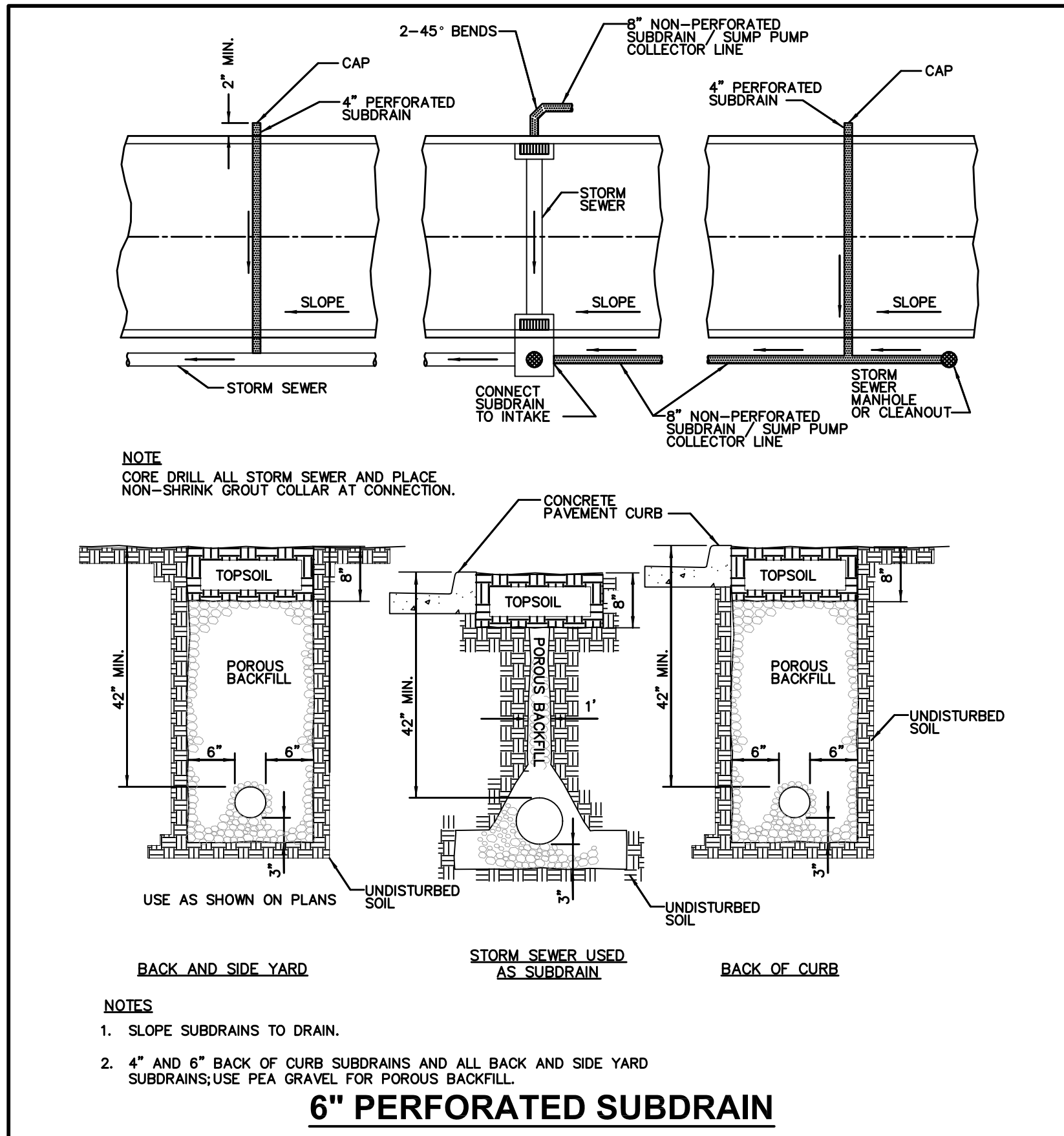
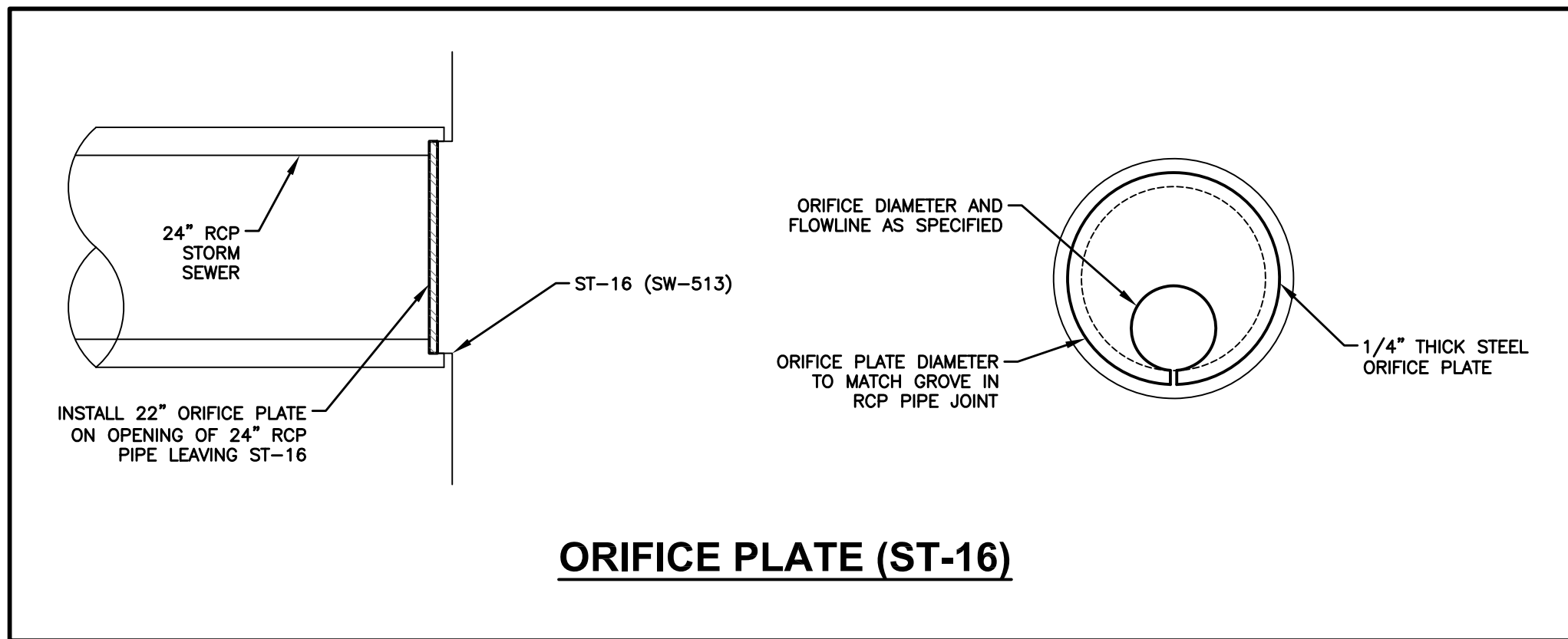
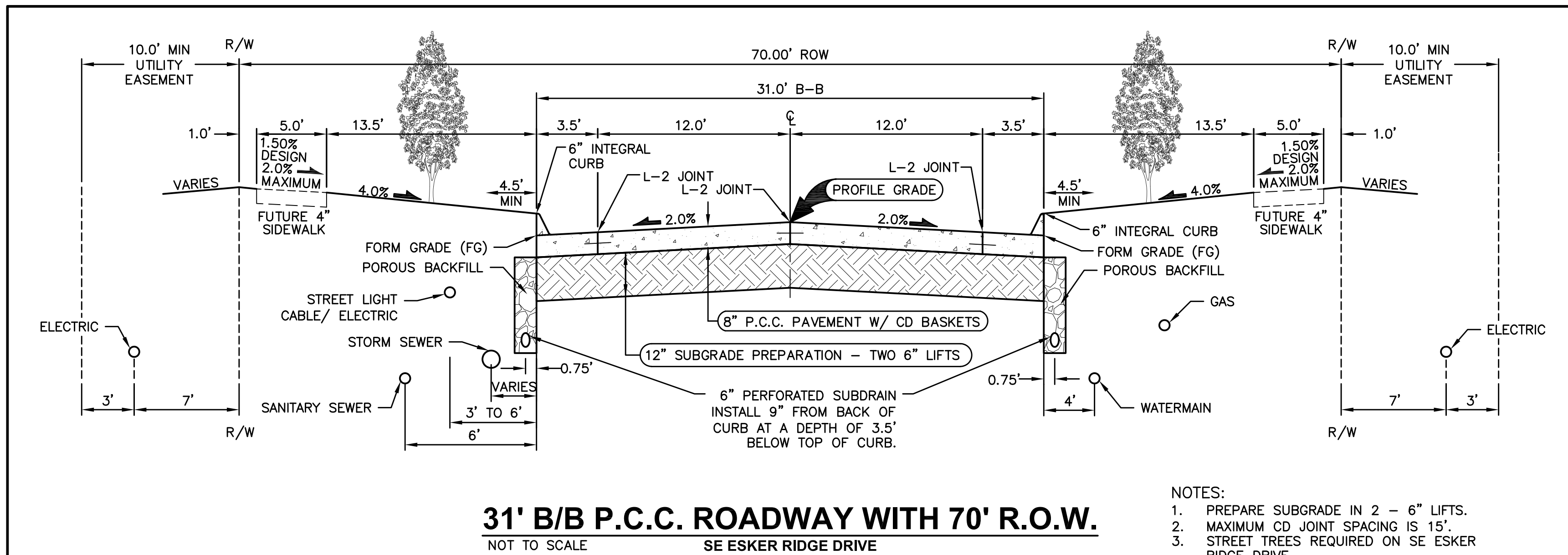
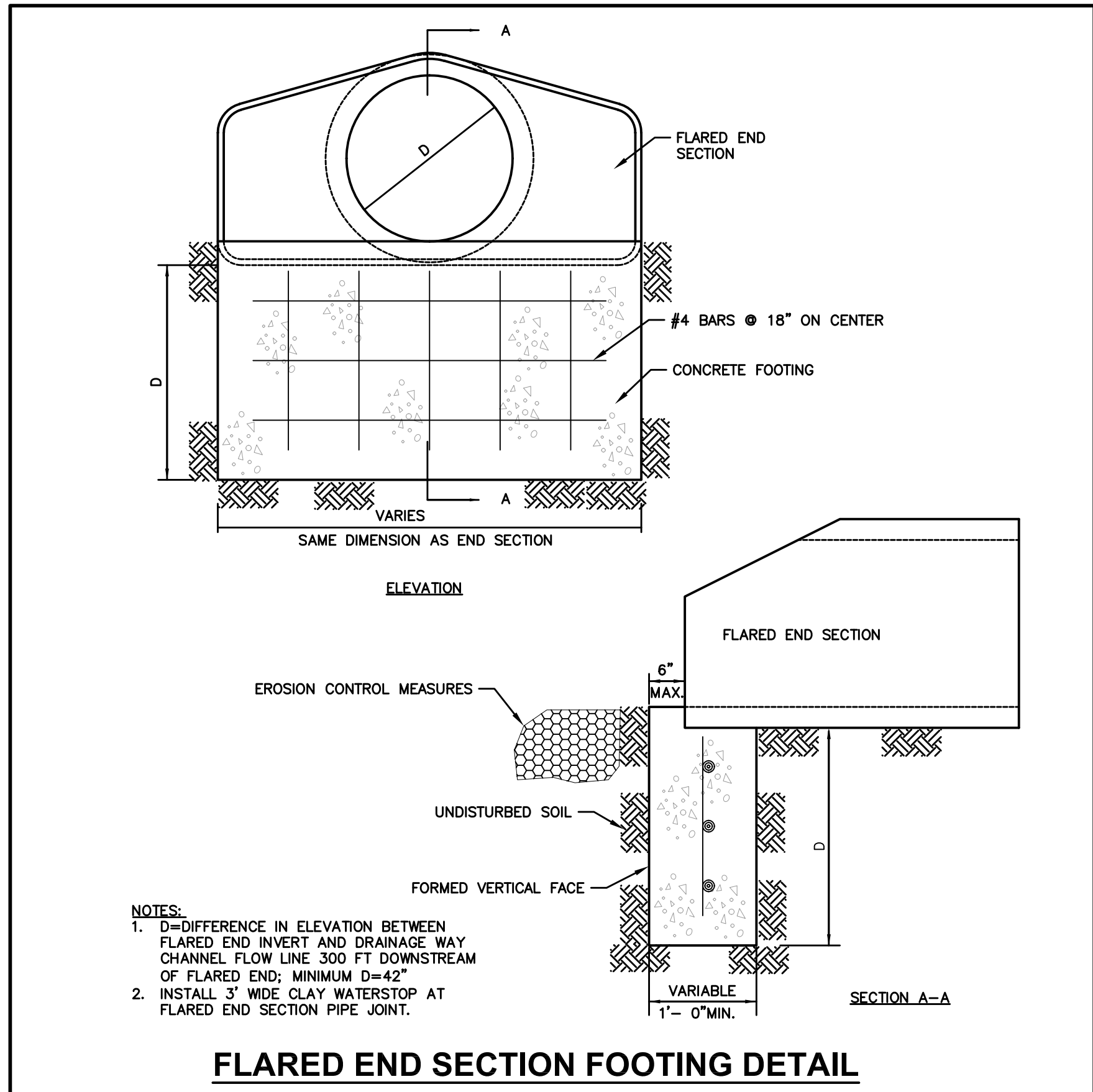
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2019
PAGES OR SHEETS COVERED BY THIS SEAL:

SHEETS 1-14

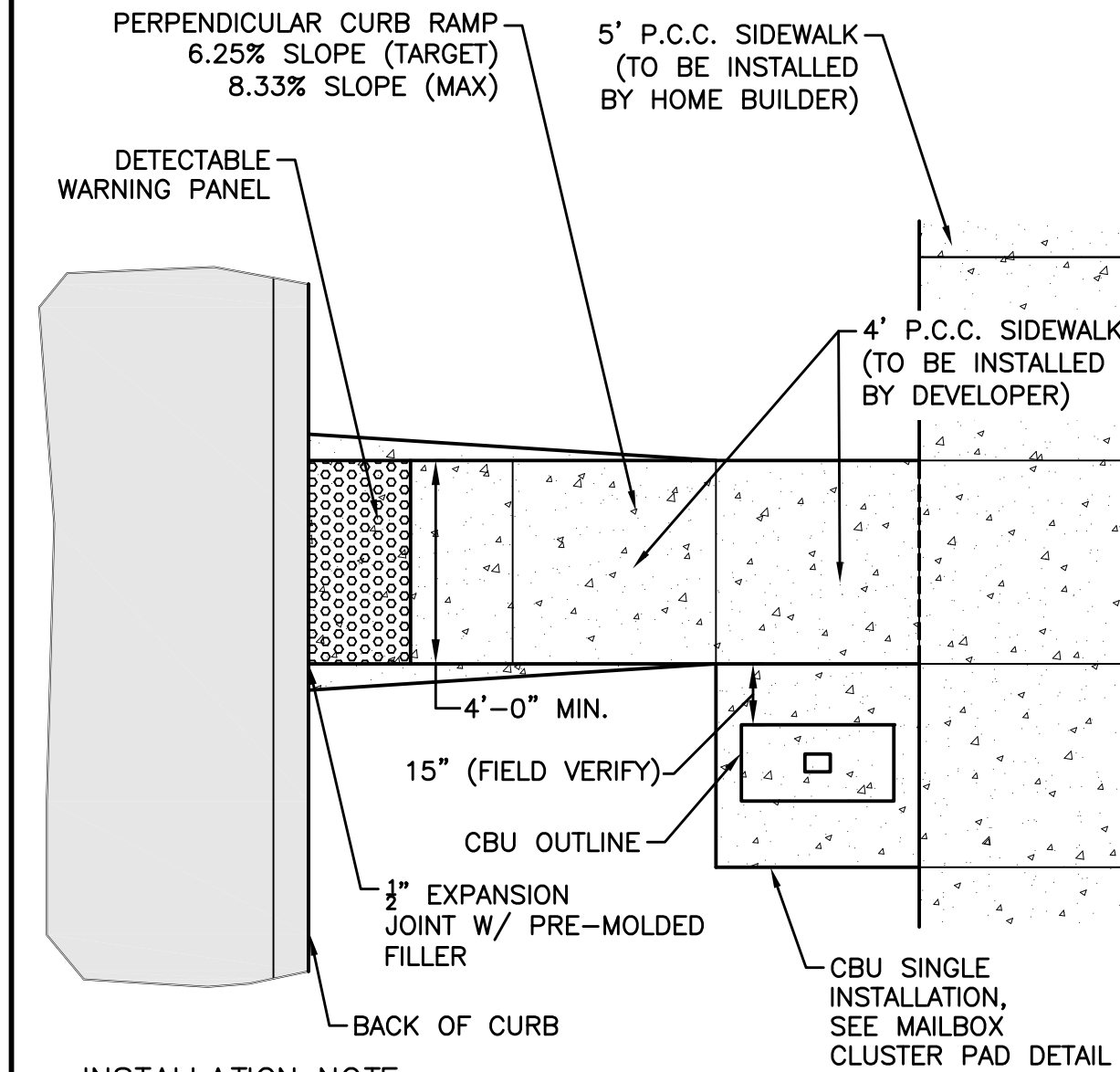
FILE: H:\2018\180531\DWG\180531-COV-DET-FAB-ASBUIL.DWG
COMMENTS: EKO
DATE: 12/27/2018 12:26 PM
PLOTTER: HP DesignJet T1200
PLOT: 12/27/2018 12:26 PM



SERVICE LOCATION DETAIL
NOT TO SCALE



FILE: H:\2018\160311\DWG\160311-COV-DET-FAB-AS-BUILT.DWG
COMMENTS: ENG.
DATE PLOTTED: 12/27/2018 12:26 PM
PLOTTER: HP DesignJet 5000PS
PLOTTER: HP DesignJet 5000PS

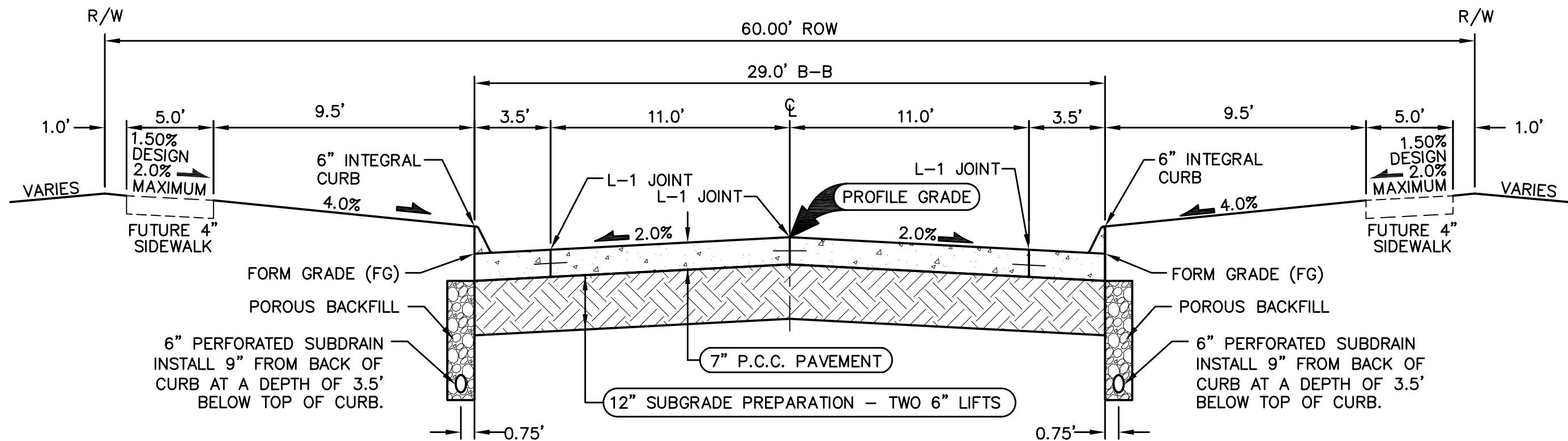


INSTALLATION NOTE:

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

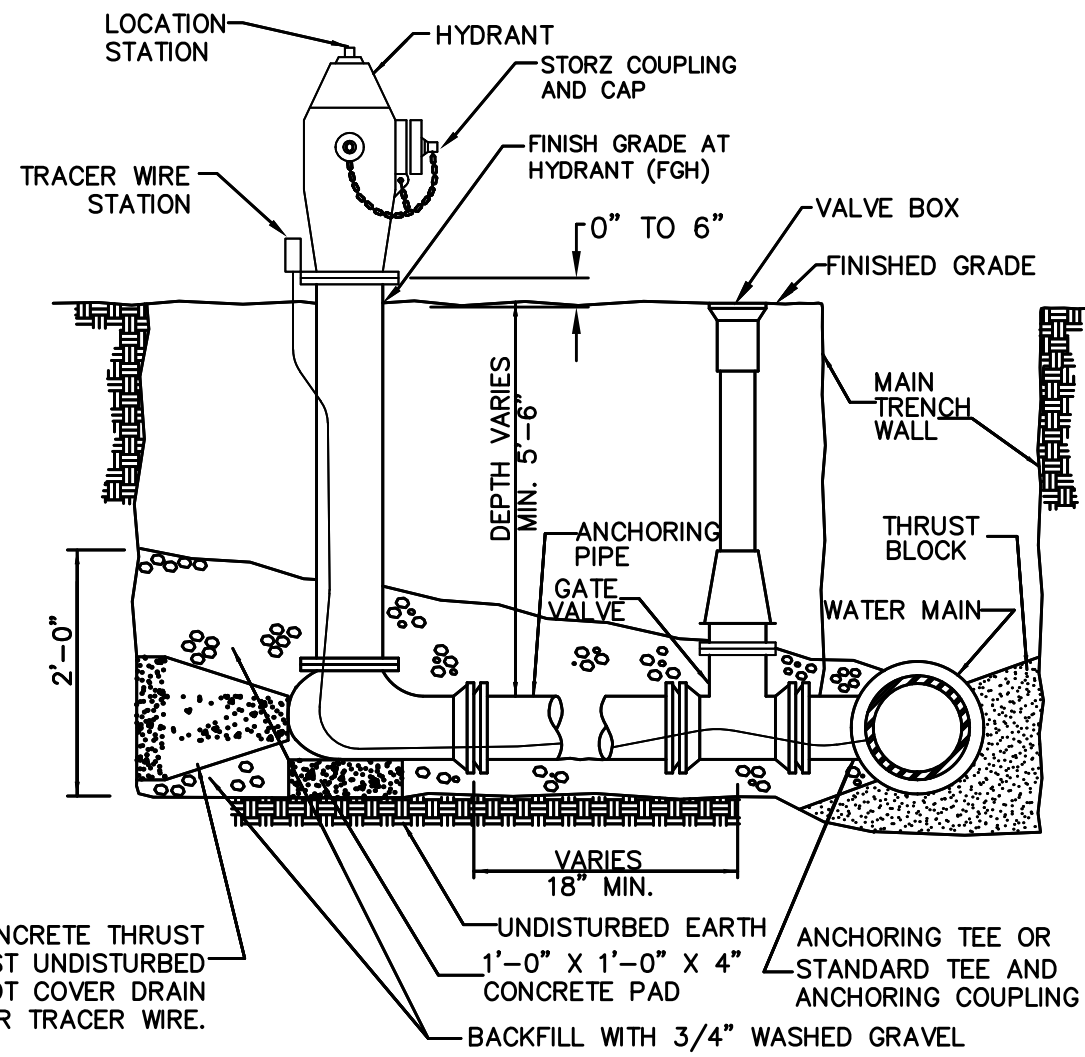


29' B/B P.C.C. ROADWAY WITH 60' R.O.W.

NOT TO SCALE SE PIEDMONT CIRCLE

NOTES:

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



HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

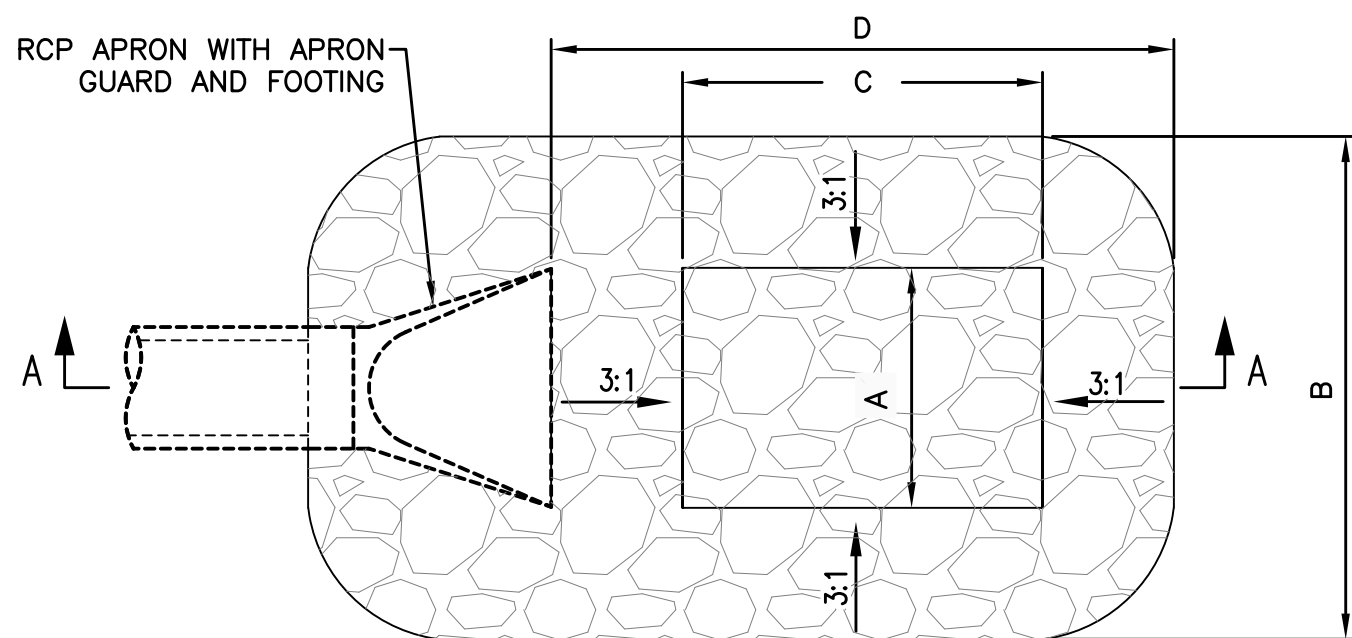
NOTES:

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.

MATERIAL NOTES

1. THE GEOTEXTILE FABRIC SHALL CONFORM TO IOWA DOT SECTION 4196 ENGINEERING FABRICS, PART C, EMBANKMENT EROSION CONTROL
2. ROCK RIPRAP SHALL CONFORM TO IOWA DOT SECTION 4130, CLASS "E" REVETMENT

DIM/ELEV	ST-3
A	13'
B	25'
C	12'
D	25'
E	1006.62
F	1004.00
G	1006.00
H	1006.00



SECTION A-A

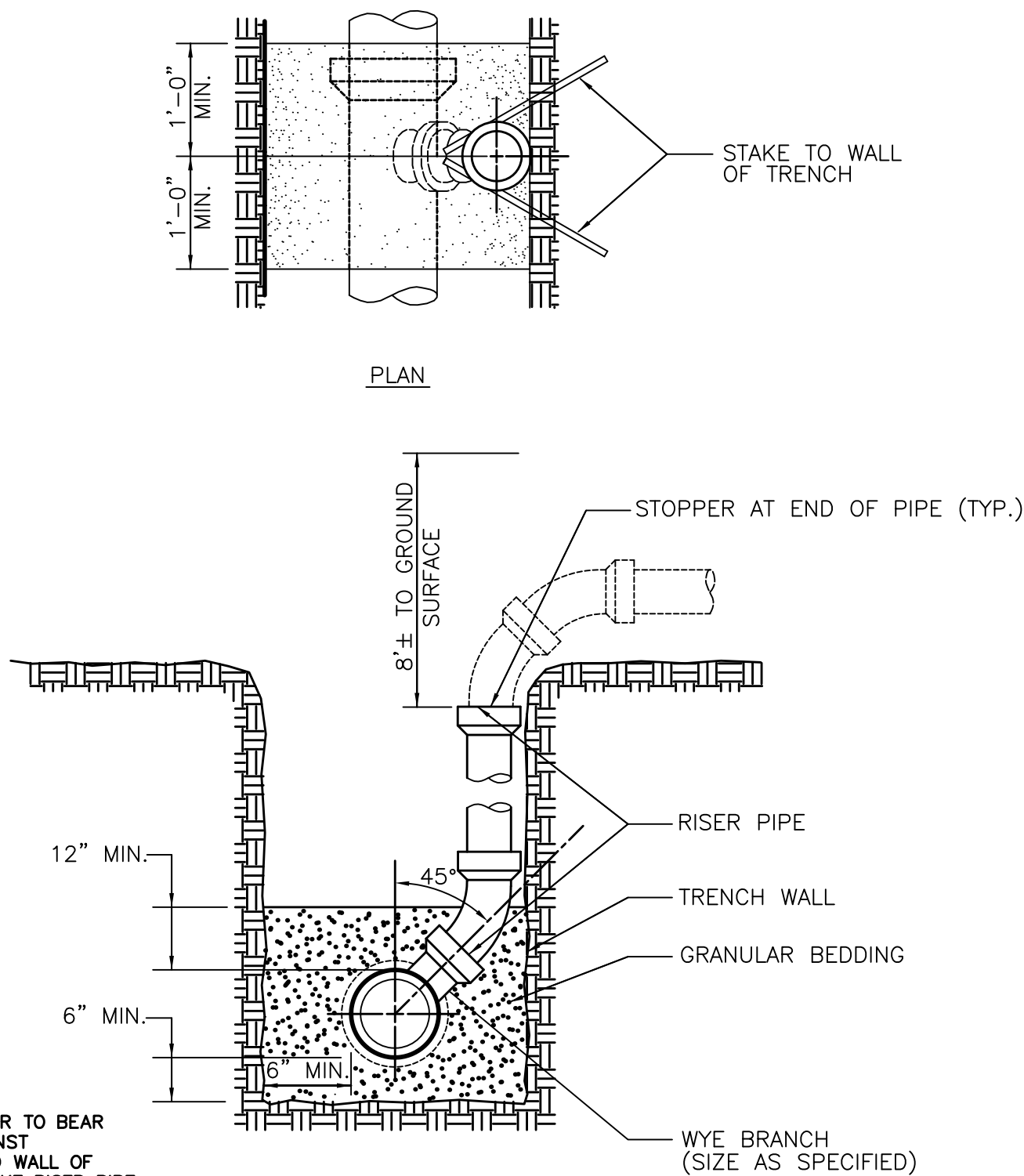
NOT TO SCALE

RIPRAP STILLING BASIN DETAIL

NOT TO SCALE

CROSS-SECTION

NOT TO SCALE

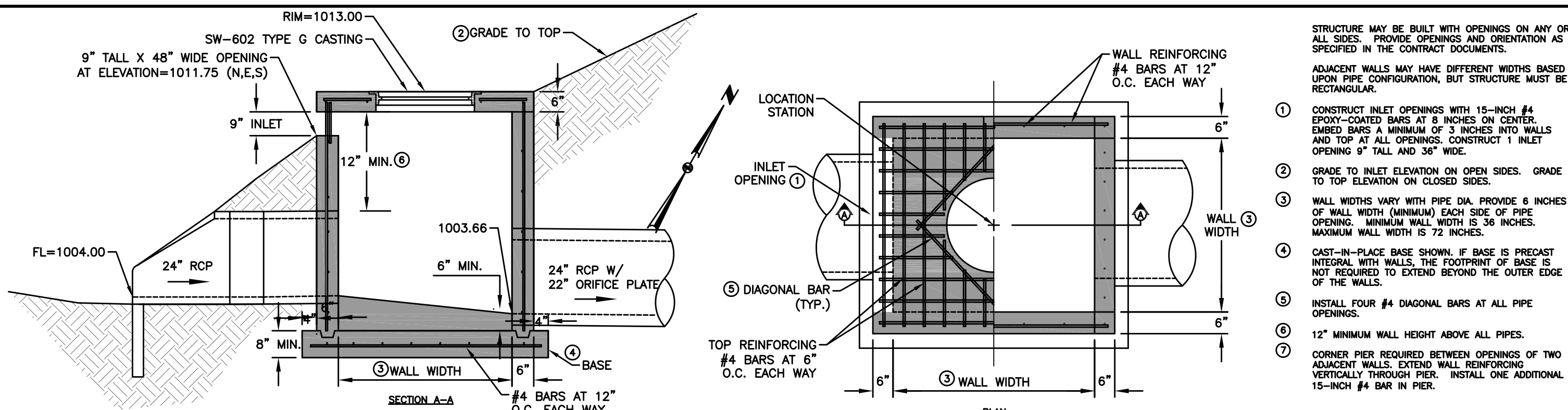


SANITARY SEWER SERVICE RISER

NOT TO SCALE

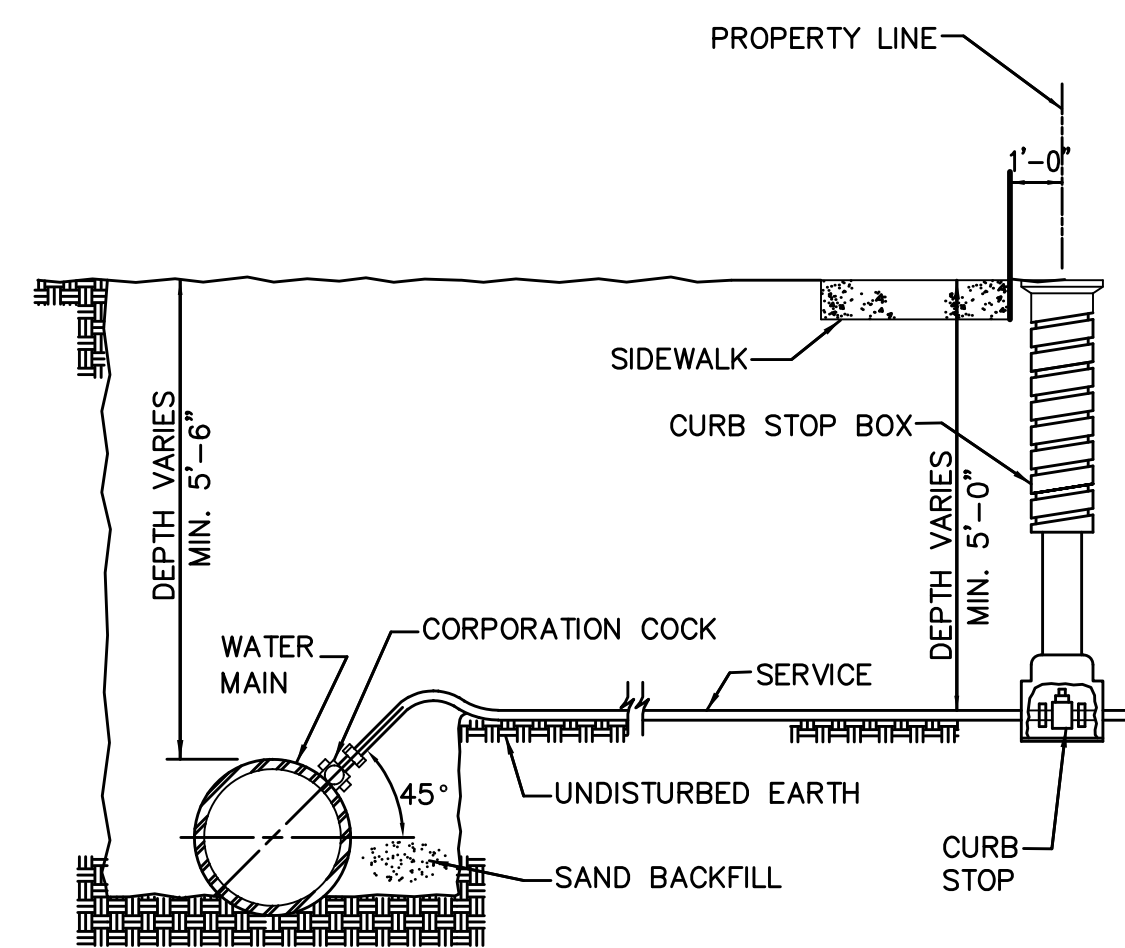
NOTES:

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.



5' X 5' SW-513 INTAKE (ST-16)

NOT TO SCALE

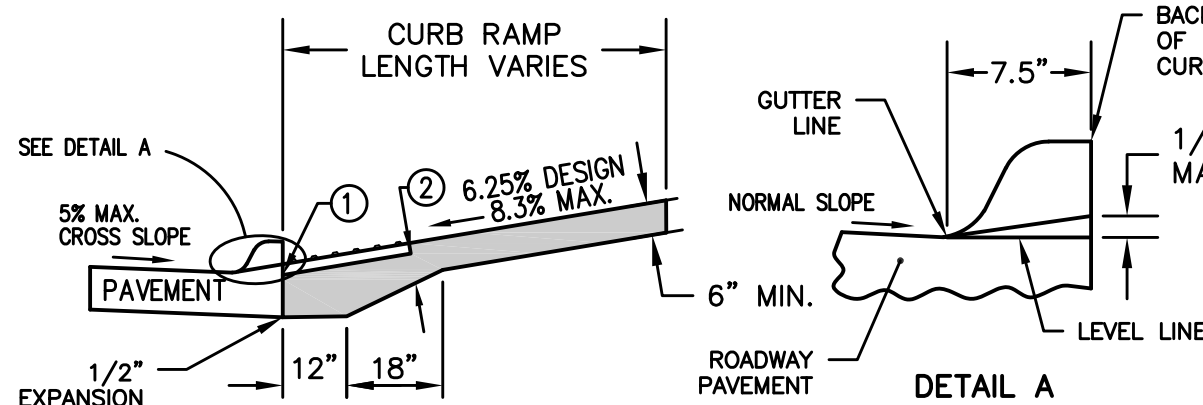


NOTES:

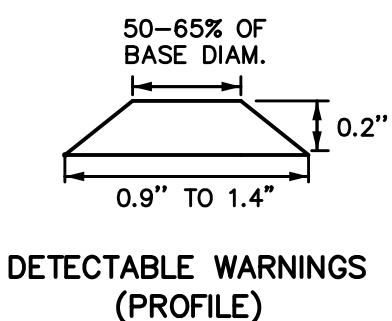
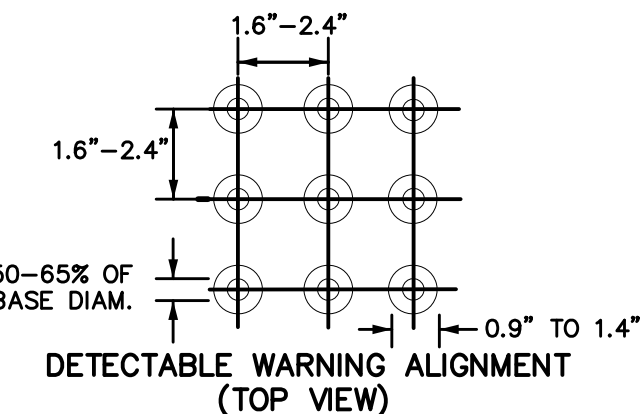
1. TERMINATE CURB STOP BOX ROD 1'-6" BELOW FINISHED GRADE.

WATER SERVICE CONNECTION

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

STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

1. CONSTRUCT INLET OPENINGS WITH 15-INCH #4 EPOXY-COATED BARS AT 8 INCHES ON CENTER. BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 1 INLET OPENING 9" TALL AND 36" WIDE.
2. GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.
3. WALL WIDTHS VARY WITH PIPE DIA. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.
4. CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.
5. INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.
6. 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.
7. CORNER PIER REQUIRED BETWEEN OPENINGS OF TWO ADJACENT WALLS. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15-INCH #4 BAR IN PIER.

FILE: H:\2018\180531\DWG\180531-COV-DET-FAB-AS-BUILT.DWG COMMENT: REVISIONS: 12/2/2018 12:26 PM
PLOT: 12/2/2018 12:26 PM PLOTTED BY: JAWHANN MOHAMMAD

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT QUANTITY	
1	COMBINED CLEARING AND GRUBBING	AC	8.74
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	3,350
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	749
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	17
7	SUBDRAIN, 6" PERFORATED PVC	LF	1,206
8	STORM SEWER, 6" HDPE	LF	828
9	STORM SEWER, TRENCHED, 8" PERFORATED PVC	LF	316
10	STORM SEWER, TRENCHED, 15" RCP	LF	199
11	STORM SEWER, TRENCHED, 18" RCP	LF	22
12	STORM SEWER, TRENCHED, 24" RCP	LF	233
13	STORM SEWER, TRENCHED, 30" RCP	LF	358
14	STORM SEWER, TRENCHED, 36" RCP	LF	74
15	STORM SEWER SERVICE STUB, 4" DIA.	LF	17
16	STORM SEWER, 15" RCP APRON	EA	3
17	STORM SEWER, 18" RCP APRON	EA	2
18	STORM SEWER, 24" RCP APRON	EA	1
19	STORM SEWER, 30" RCP APRON	EA	1
20	STORM SEWER, 36" RCP APRON	EA	1
21	FOOTING FOR CONCRETE PIPE APRON, RCP 15" DIA	EA	3
22	FOOTING FOR CONCRETE PIPE APRON, RCP 18" DIA	EA	1
23	FOOTING FOR CONCRETE PIPE APRON, RCP 24" DIA	EA	1
24	FOOTING FOR CONCRETE PIPE APRON, RCP 36" DIA	EA	1
25	PIPE APRON GUARD	EA	8
26	WATER MAIN, 8" DIA	LF	837
27	WATER SERVICE STUB, 1" DIA	EA	17
28	VALVE, 8" DIA	EA	3
29	FIRE HYDRANT ASSEMBLY	EA	4
30	TEMPORARY BLOWOFF HYDRANT ASSEMBLY (RELOCATE)	EA	1
31	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	3
32	MANHOLE, SW-401, 48" (STORM SEWER)	EA	2
33	MANHOLE, SW-401, 60" (STORM SEWER)	EA	2
34	MANHOLE, SW-401, 96" (STORM SEWER)	EA	1
35	INTAKE, SW-501 (STORM SEWER)	EA	1
36	INTAKE, SW-503 (STORM SEWER)	EA	1
37	INTAKE, SW-505 (STORM SEWER)	EA	3
38	INTAKE, SW-506 (STORM SEWER)	EA	1
39	INTAKE, SW-513 (STORM SEWER)	EA	1
40	12" HDPE INTAKE BASIN W/ DOME GRATE	EA	2
41	STORM SEWER CLEANOUT	EA	1
42	PAVEMENT, 7" P.C.C.	SY	1,391
43	PAVEMENT, 8" P.C.C. WITH CD BASKETS	SY	1,592
44	PAVEMENT, 4" P.C.C. SIDEWALK	SY	61
45	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	42
46	DETECTABLE WARNING PANELS	SF	40
47	SEEDING, FERTILIZING, AND MULCHING	AC	8.12
48	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	5
49	TRAFFIC CONTROL	LS	1
50	EROSION CONTROL	LS	1
51	ROCK OUTLET PROTECTION, CLASS 'E' RIP RAP	TON	85
52	ROCK OUTLET PROTECTION, CLASS 'E' RIP RAP (RELOCATED)	TON	35
53	MAILBOX PADS	EA	2
54	TURF REINFORCEMENT MATTING - TYPE 1	SF	410

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2018 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. 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.

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
1	THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2018 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. 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. AREA SHOWN FOR REFERENCE ONLY.
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 2 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.
5-15	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.
8	REFER TO SHEET 6 FOR LOCATION.
6, 15, 27	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.
16-20	THE LAST THREE SECTIONS AND APRON SHALL BE CONNECTED WITH PIPE CONNECTORS PER SECTION 4030 3.02C.
21-24	REFER TO SHEET 2 FOR FOOTING DETAIL.
25	APRON GUARD REQUIRED ON ALL APRONS. REFER TO IOWA DOT STANDARD ROAD PLAN RF-26 FOR DETAILS.
26-27	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.
29	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.
29-30	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF HYDRANTS. ANY RELOCATED FIRE HYDRANTS ARE TO INCLUDE STORZ FITTINGS.

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.

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.
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. THIS SHALL 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. REQUIREMENTS.
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.

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
31	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.
32-34	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.
35-38	REFER TO FIG. 6010.514 - BOXOUTS FOR GRATE INTAKES FOR CONSTRUCTION DETAILS. REFER TO FIG. 6010.603 - CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 12" FOR EXISTING INTAKES AND 8" FOR PROPOSED INTAKES.
35	REFER TO FIG. 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
36	REFER TO FIG. 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
37	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.
38	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
39	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
40	REFER TO SHEET 6 FOR LOCATION.
41	REFER TO FIG. 4040.232 - SUBDRAIN CLEANOUT FOR CONSTRUCTION DETAILS
42-43	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
45-46	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.
46	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
47	THE SITE SEEDING SHALL CONFORM TO THE SPECIFICATION FOR TYPE (1) PERMANENT LAWN MIXTURE AND TYPE (4) URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE = 0.67 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 7.45 AC
48	REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS. REFER TO IDOT STANDARD ROAD PLAN SI-182 FOR CONSTRUCTION DETAILS. EACH LOCATION CONSISTS OF FIVE SIGNS WITH POSTS PER SI-182.
49	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.
50	REFER TO SHEET 7 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
51-52	INSTALL ENGINEERING FABRIC UNDER ALL RIP RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL. REFER TO STORM AND SANITARY PLAN AND PROFILE SHEETS FOR LOCATION.
53	REFER TO SHEET 2 AND 3 FOR CONSTRUCTION DETAILS. MAILBOX PAD IS LOCATED BETWEEN LOTS 3/4 AND 6/7.

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.

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.
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 4-INCH 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.

ALL EXISTING AND PROPOSED MANHOLES SHALL HAVE A MINIMUM OF 1 - 4" ADJUSTING RING TO ALLOW FOR FUTURE ADJUSTMENT SHOULD THE STRUCTURE END UP IN A DRIVEWAY.
38.

THE RESULTS OF THE GEOTECHNICAL EXPLORATION ARE TO BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT AND THE PLAN IS SUBJECT TO ANY CHANGES REQUIRED BY THE REPORT.

DATE

12/02/19

01/25/19

01/02/19

12/14/18

10/16/18

REVISIONS

AS-BUILT SUBMITTAL

FINAL SUBMITTAL

FIFTH SUBMITTAL

FOURTH SUBMITTAL

THIRD SUBMITTAL

SECOND SUBMITTAL

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

ENGINEER: EKO

Ei: JWM

KETTLESTONE RIDGE PLAT 5

QUANTITIES, GENERAL NOTES AND
BID ITEM REFERENCE NOTES

4

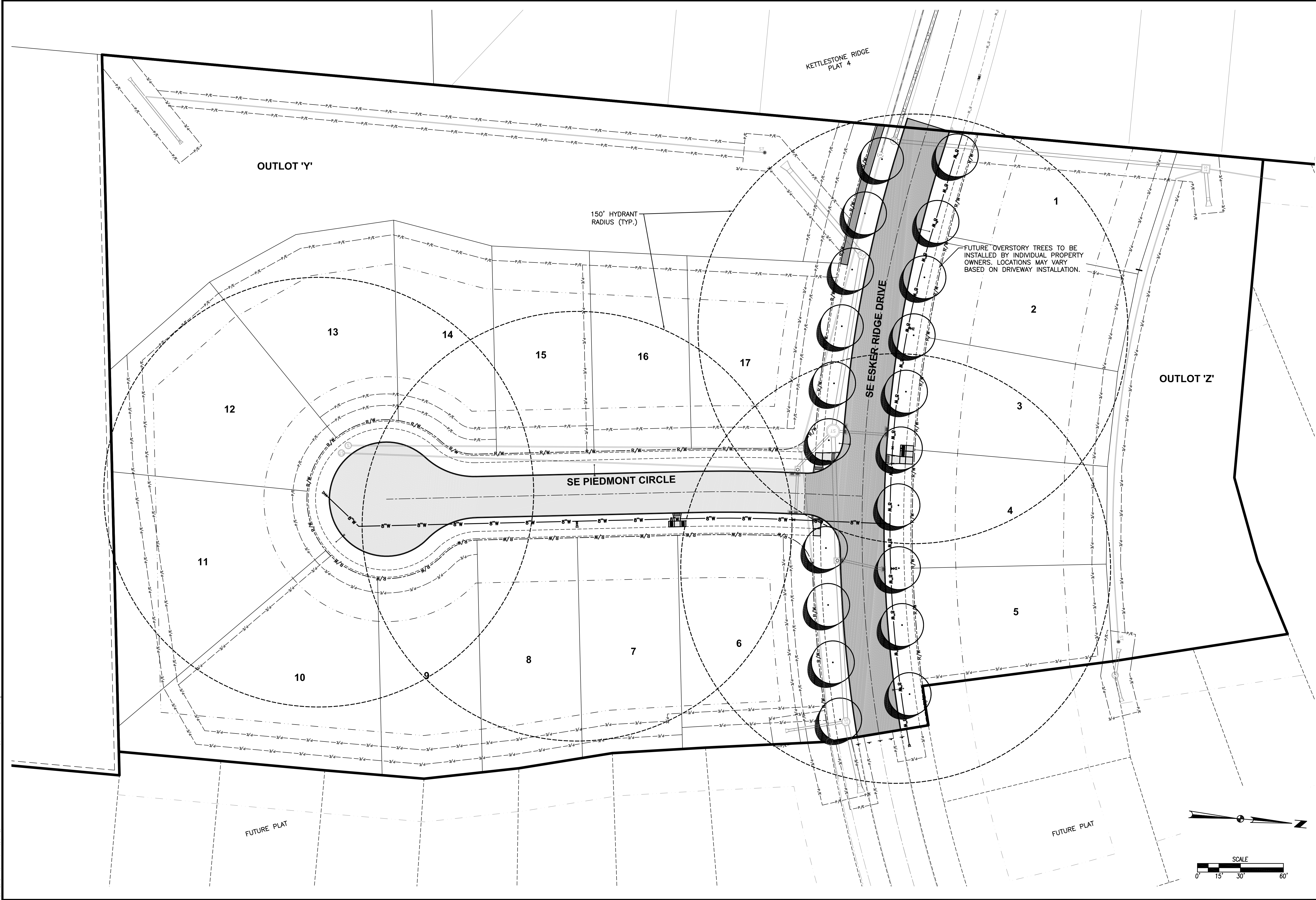
14

1805.311

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

FILE: H:\2018\180531\DWG\180531-COV-DET-FAB-ASBUIL.DWG
COMMENTS: 12/22/2018 12:26 PM
PLOTTER: HP DesignJet 5000
PLOTTER: HP DesignJet 5000



5

14

1805.311

EA

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

KETTLESTONE RIDGE PLAT 5

HYDRANT COVERAGE PLAN

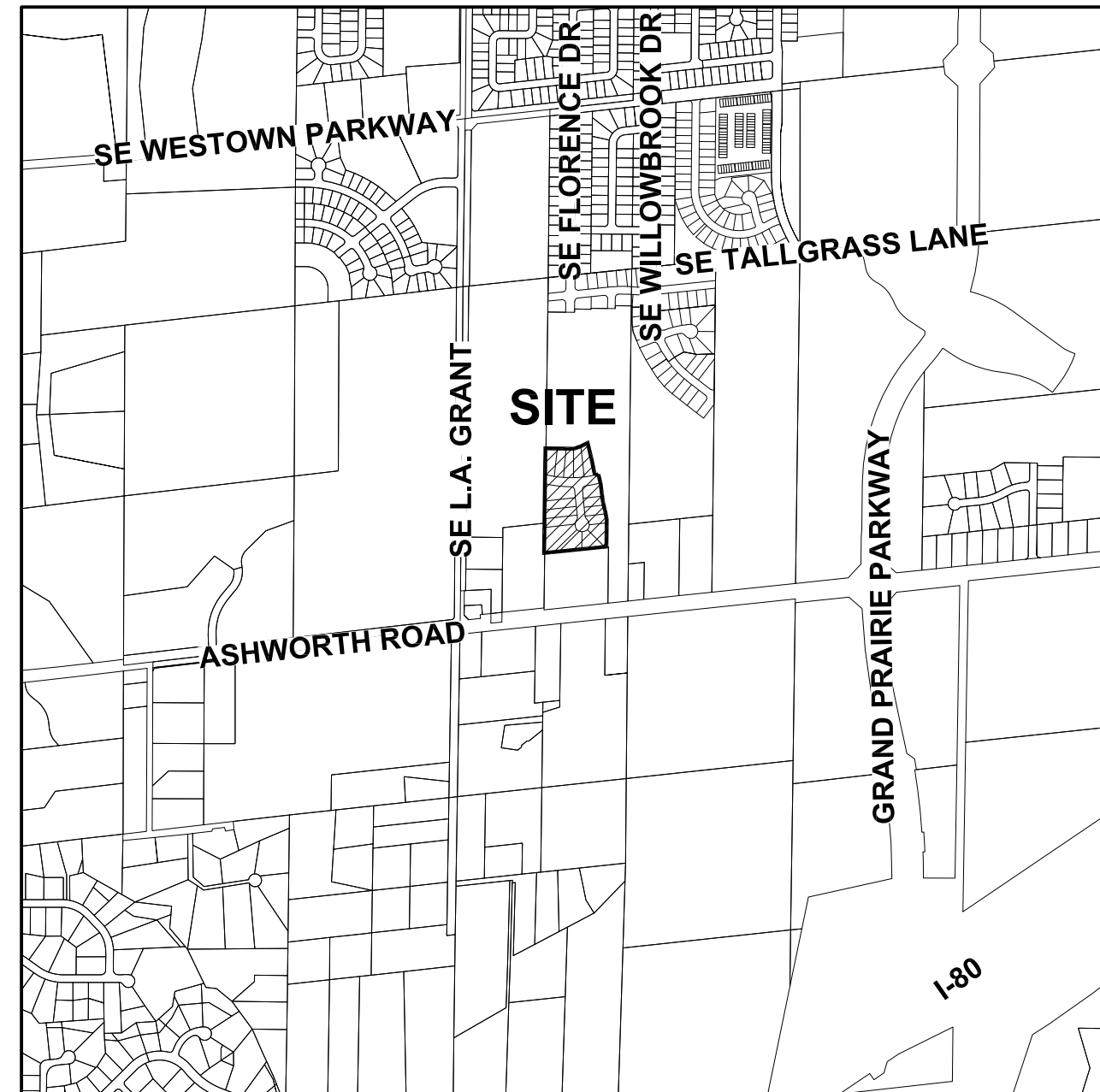
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
Ei: JWM

REVISIONS

DATE	REVISIONS
12/02/19	AS-BUILT SUBMITTAL
01/25/19	FINAL SUBMITTAL
01/02/19	FIFTH SUBMITTAL
12/14/18	FOURTH SUBMITTAL
11/13/18	THIRD SUBMITTAL
10/16/18	SECOND SUBMITTAL

EROSION AND SEDIMENT CONTROL PLAN

NOT TO SCALE

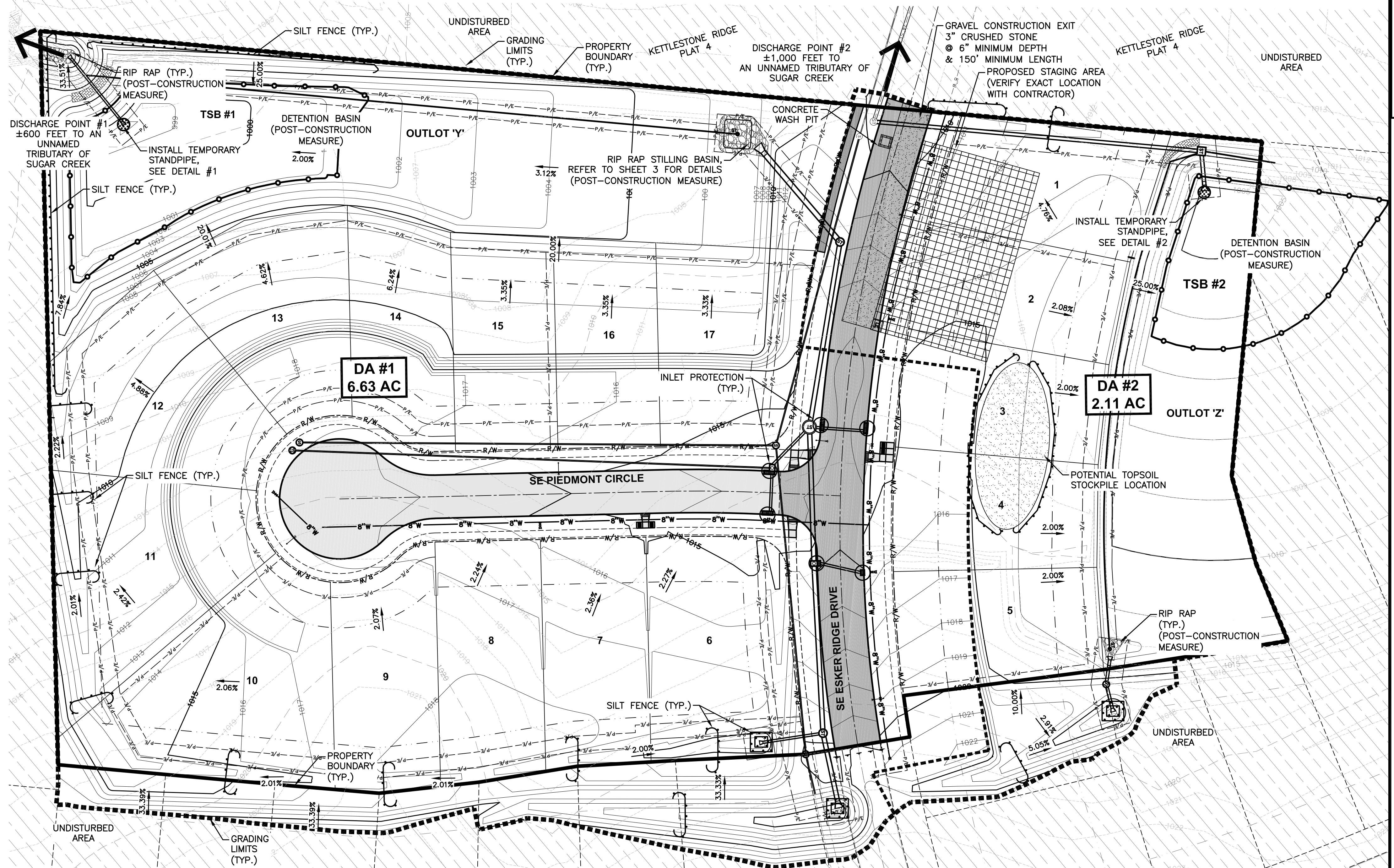


WAUKEE, IOWA

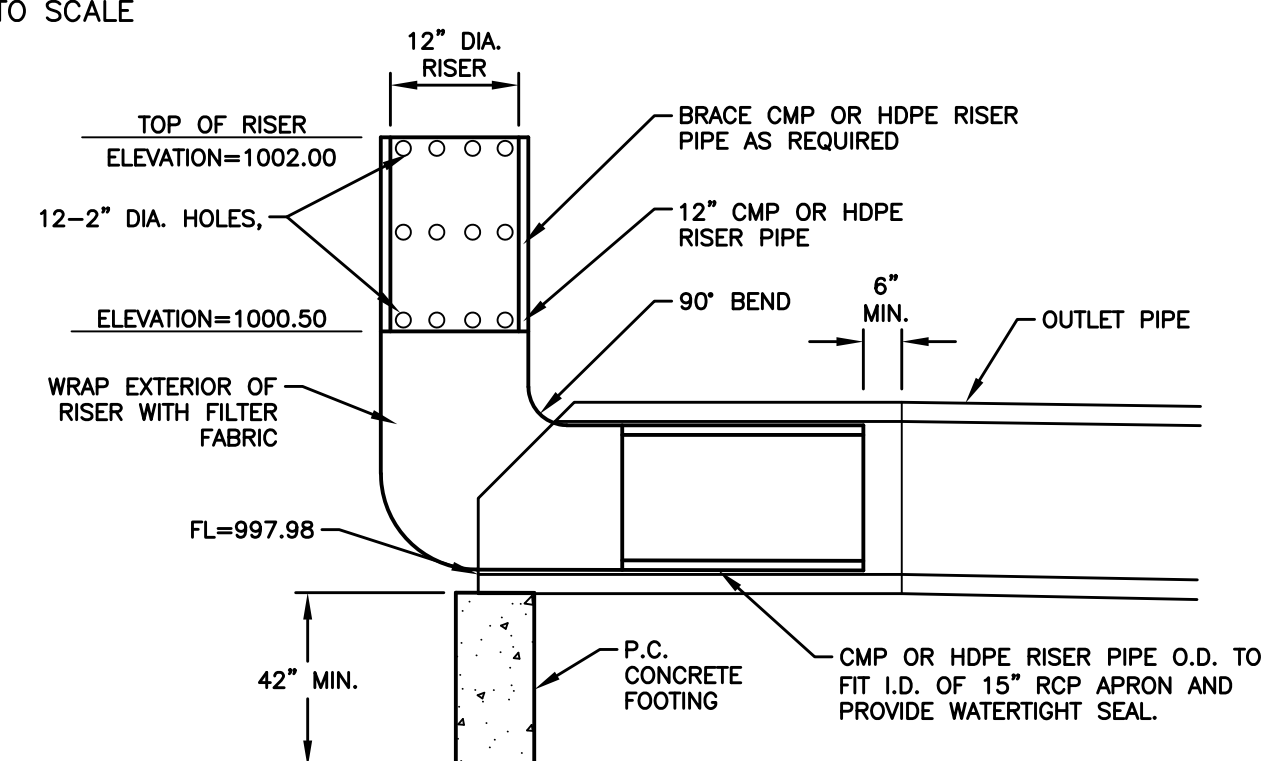
ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	1,585
3	SEEDING, FERTILIZING, AND MULCHING	AC	8.12
4	INLET PROTECTION DEVICES	EA	6
5	CONCRETE WASHOUT PIT	EA	1
6	12" CMP/HDPE TEMPORARY STANDPIPE	EA	1
7	18" CMP/HDPE TEMPORARY STANDPIPE	EA	1
8	RIPRAP CLASS "E"	TONS	85
9	STILLING BASIN	LS	1

<u>DISCHARGE POINT #1 TO SUGAR CREEK ±600 FT</u>	
TOTAL AREA DISTURBED TO DISCHARGE POINT	6.63 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	23,868 CU FT
VOLUME PROVIDED IN SILT FENCE (1,055 LF @ 4.5 CU FT/LF OF FENCE)	4,748 CU FT
VOLUME PROVIDED IN TSB	<u>25,689 CU FT</u>
TOTAL VOLUME PROVIDED	30,437 CU FT
 <u>DISCHARGE POINT #2 TO SUGAR CREEK ±1,000 FT</u>	
TOTAL AREA DISTURBED TO DISCHARGE POINT	2.11 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	7,596 CU FT
VOLUME PROVIDED IN SILT FENCE (530 LF @ 4.5 CU FT/LF OF FENCE)	2,385 CU FT
VOLUME PROVIDED IN TSB	<u>28,721 CU FT</u>
TOTAL VOLUME PROVIDED	31,106 CU FT

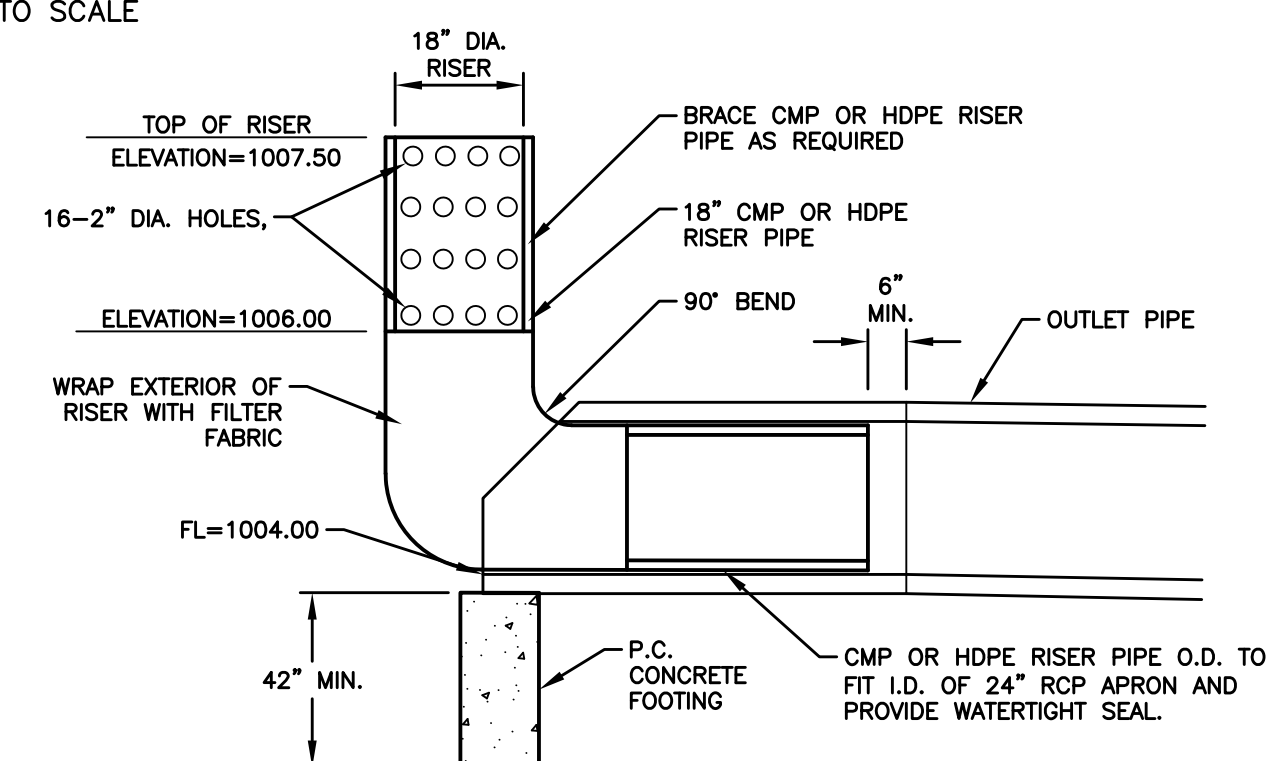
DRAINAGE ARROW		AREA TO BE SEEDED
GRADING LIMITS		
FILTER SOCK		STRAW MAT
SILT FENCE		
DITCH CHECK		UNDISTURBED AREA
INLET PROTECTION		RIP-RAP
PORTABLE RESTROOM		GRAVEL ENTRANCE
TEMPORARY STANDPIPE		STAGING AREA
CONCRETE WASHOUT PIT		TEMPORARY SEDIMENT BASIN



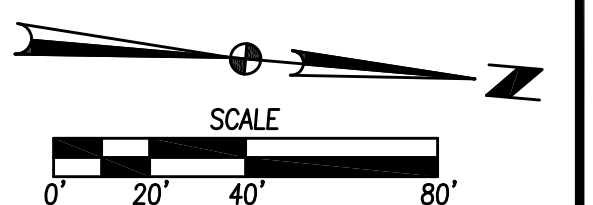
NOT TO SCALE



NOT TO SCALE



1. STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
2. IF Dewatering is needed for any reason, discharge of water offsite shall conform with general permit #2 requirements.
3. Disturbed areas shall be temporarily seeded or mulched immediately whenever earth disturbing activities have permanently or temporarily ceased and will not resume for a period exceeding 14 calendar days.



REVISIONS	DATE
AS-BUILT SUBMITTAL	12/02/19
FINAL SUBMITTAL	01/25/19
FIFTH SUBMITTAL	01/02/19
FOURTH SUBMITTAL	12/14/18
THIRD SUBMITTAL	11/13/18
SECOND SUBMITTAL	10/16/18

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

El: JVVMI

ENGINEER: EKO



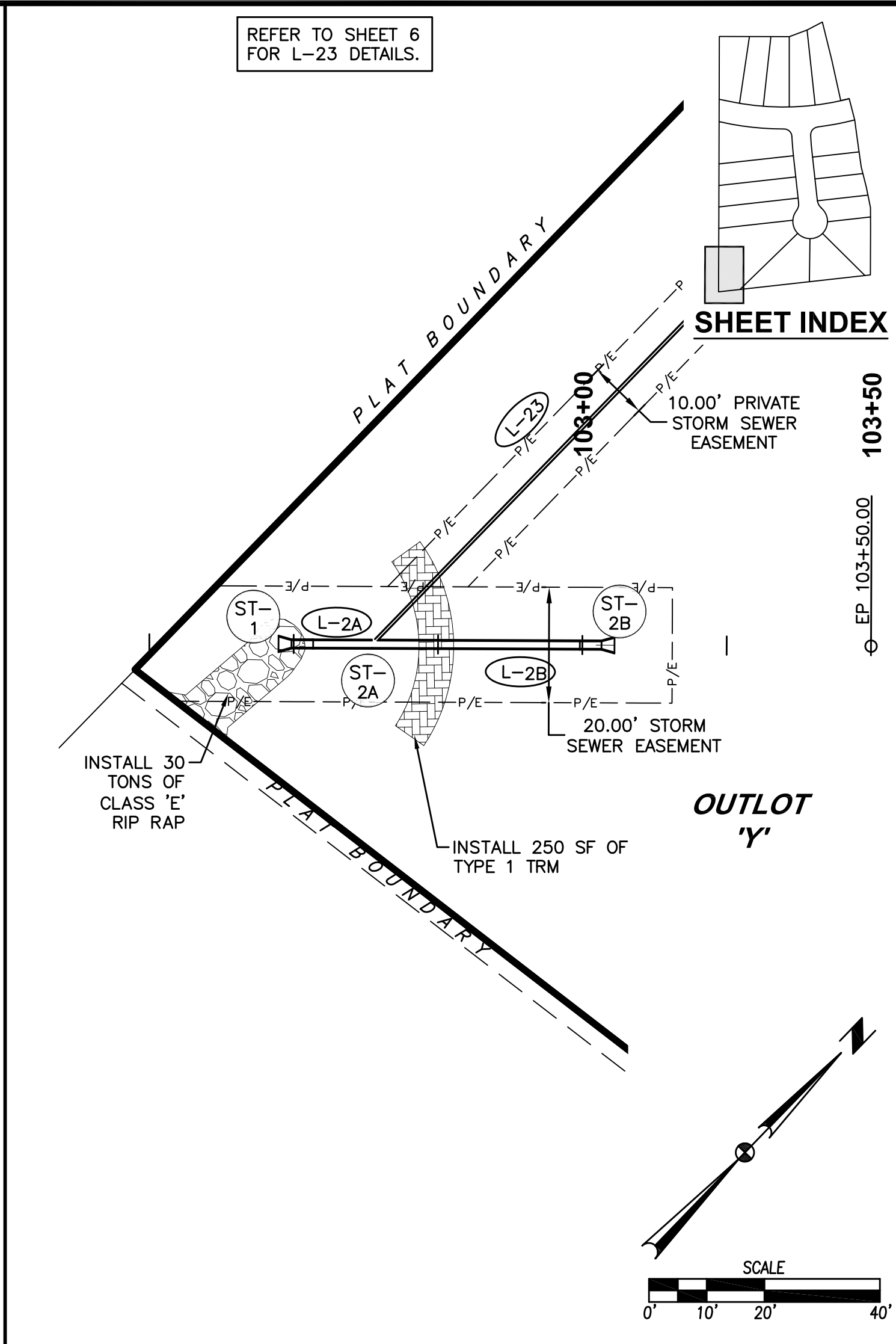
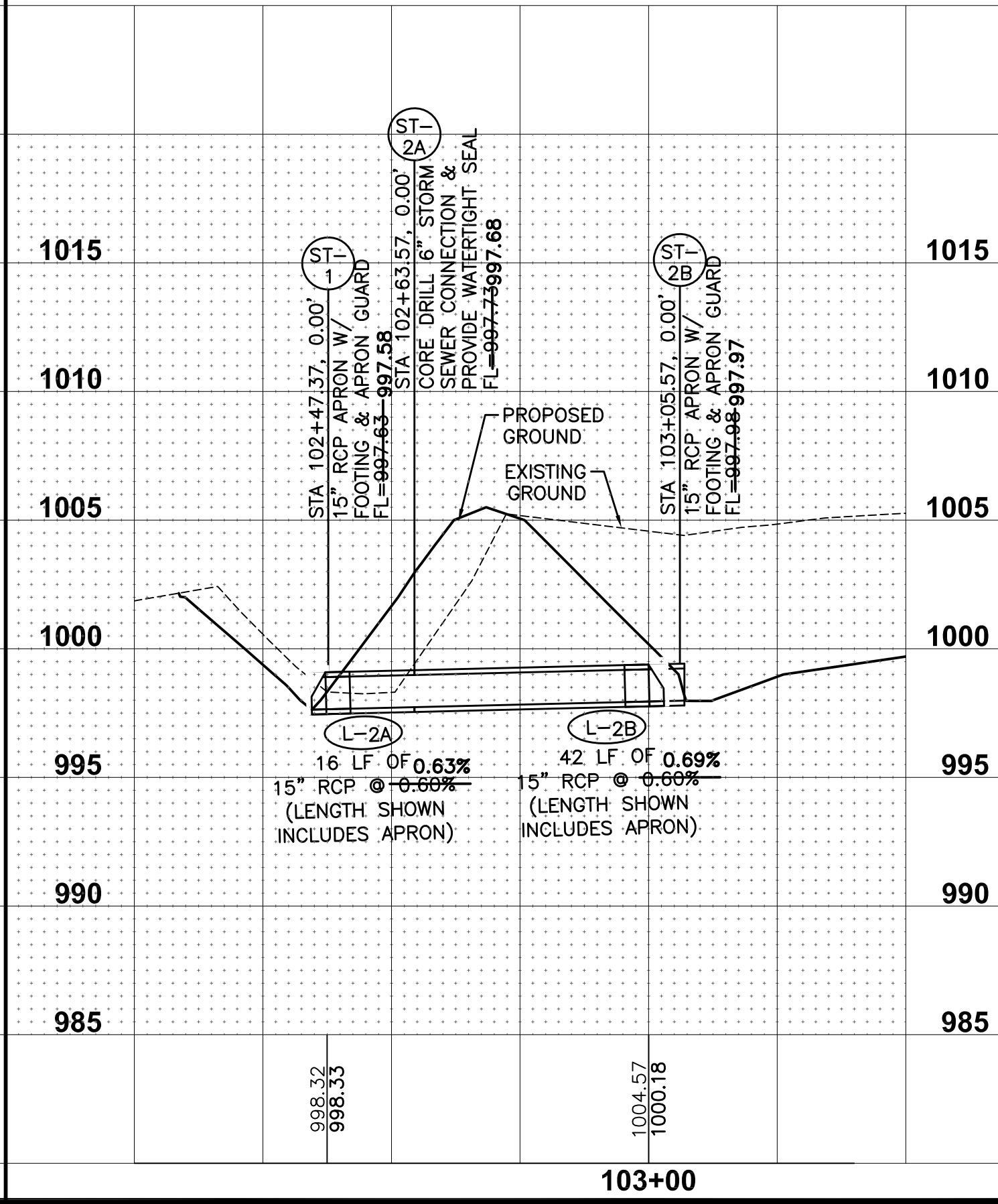
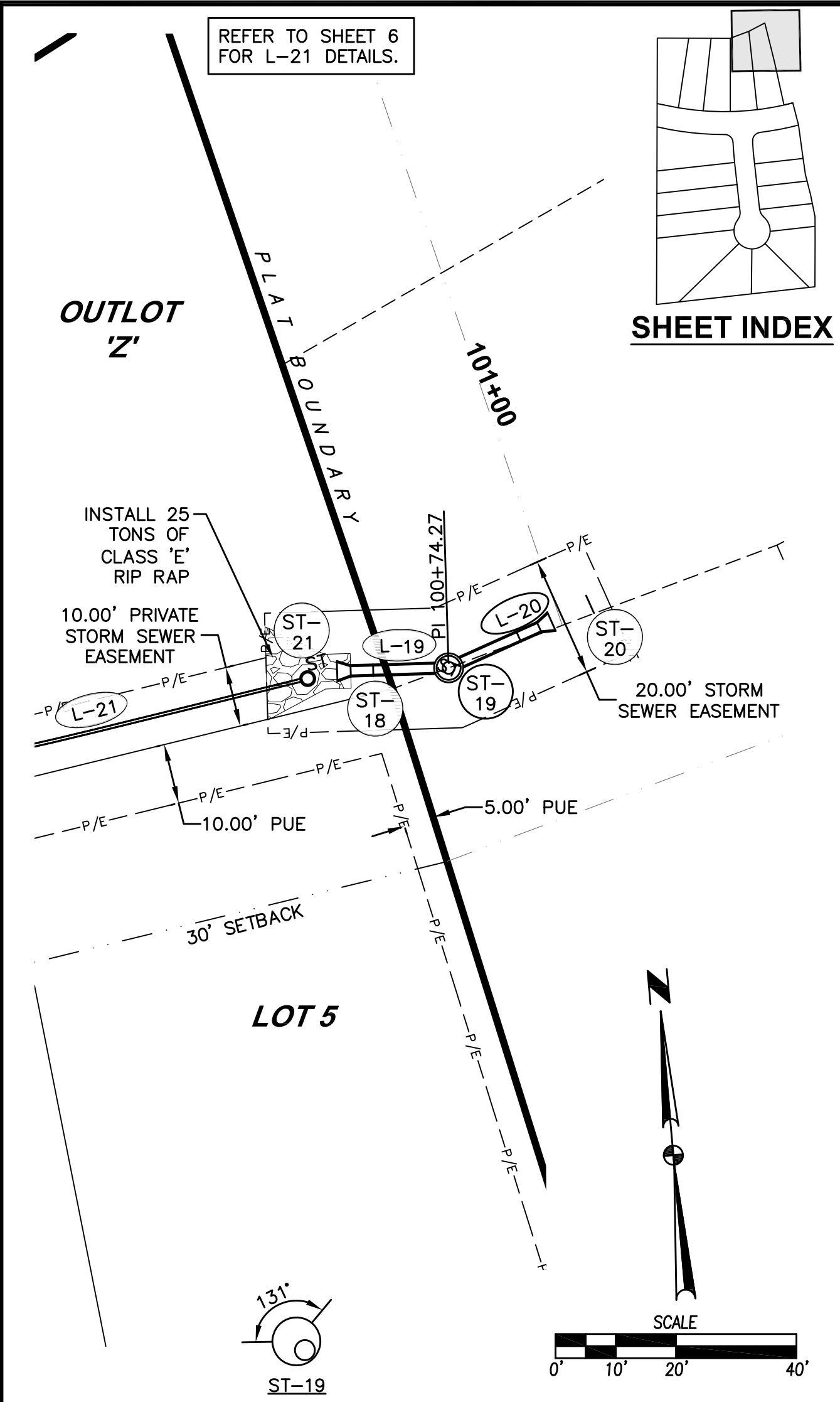
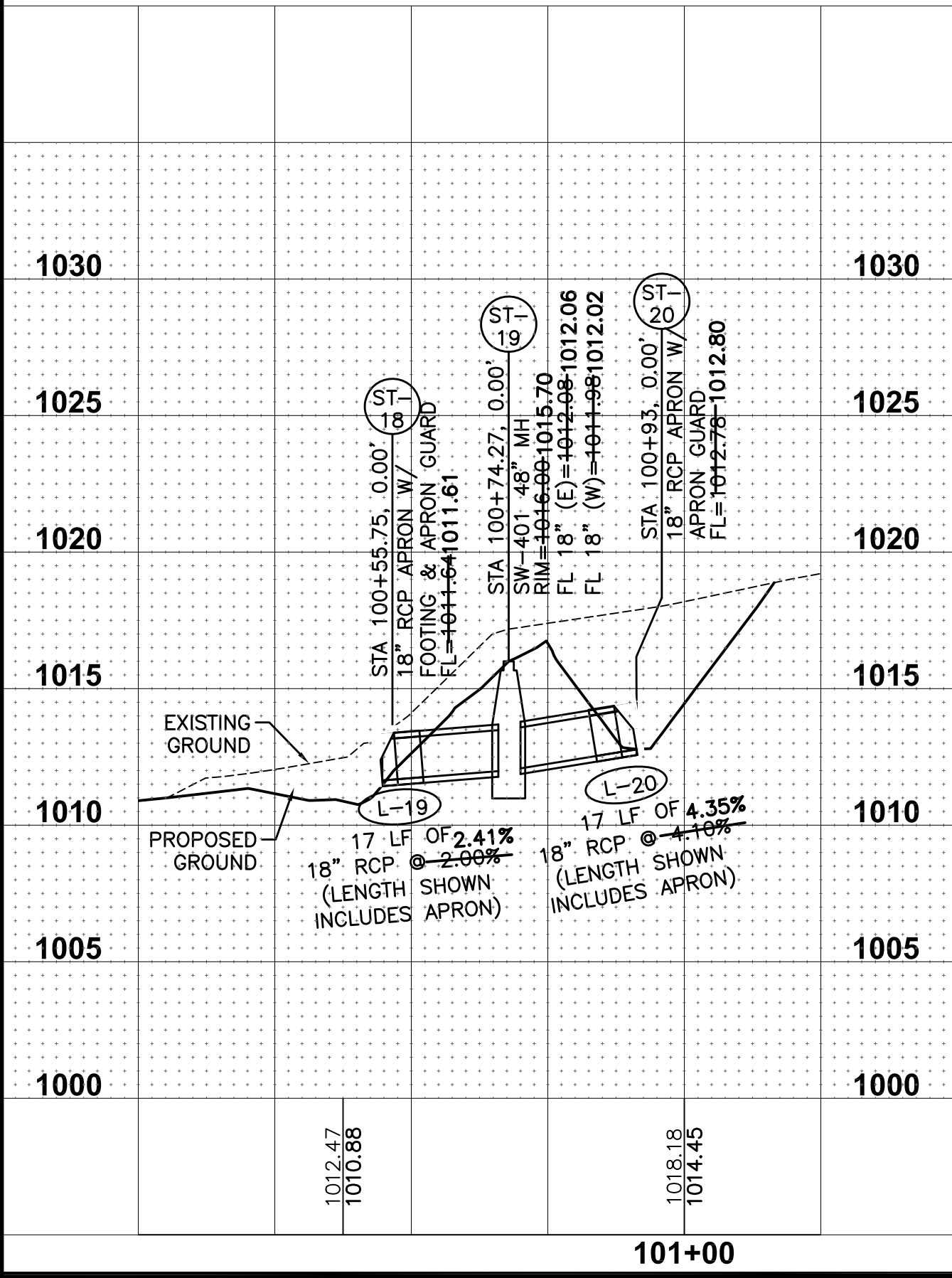
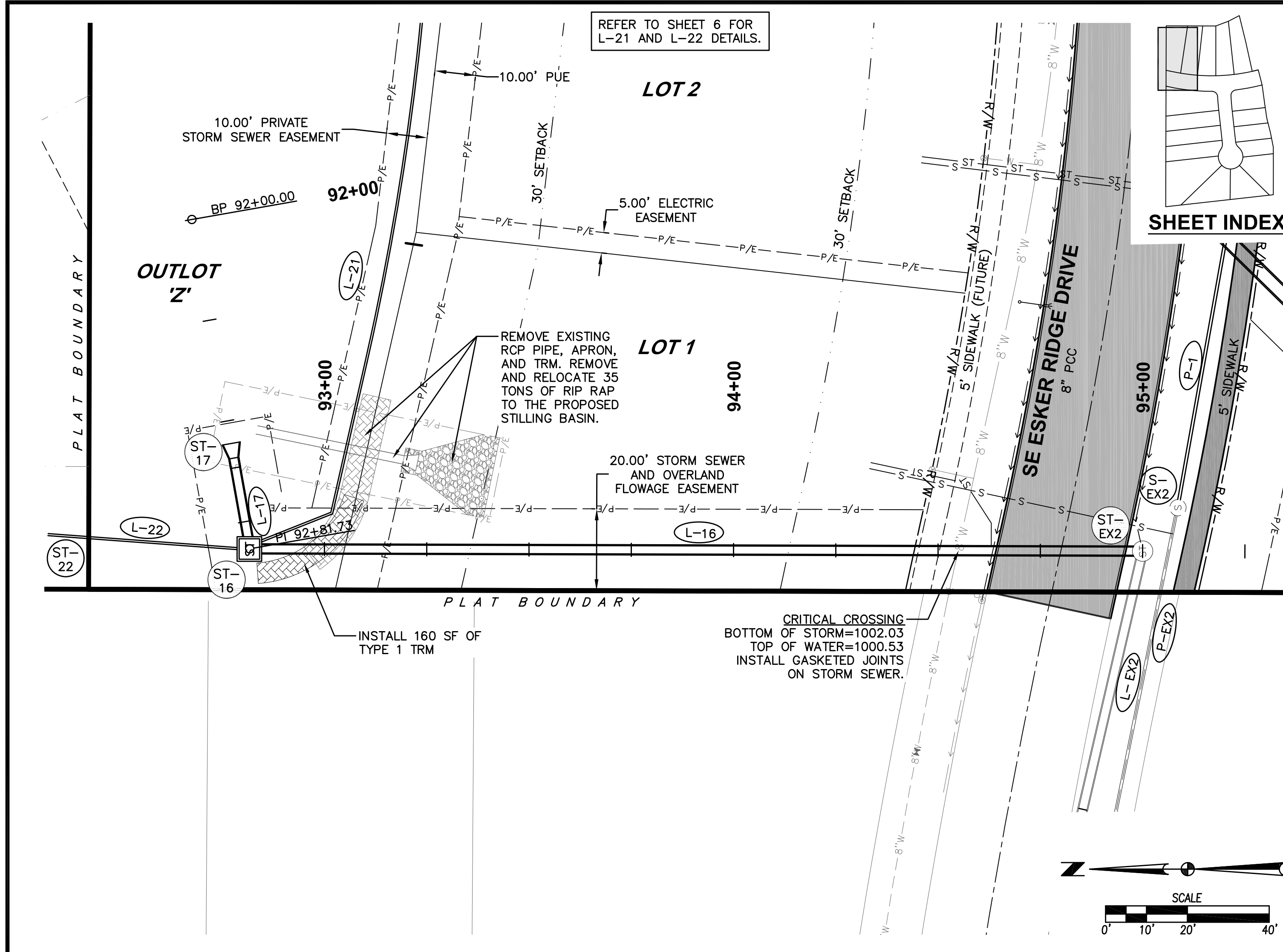
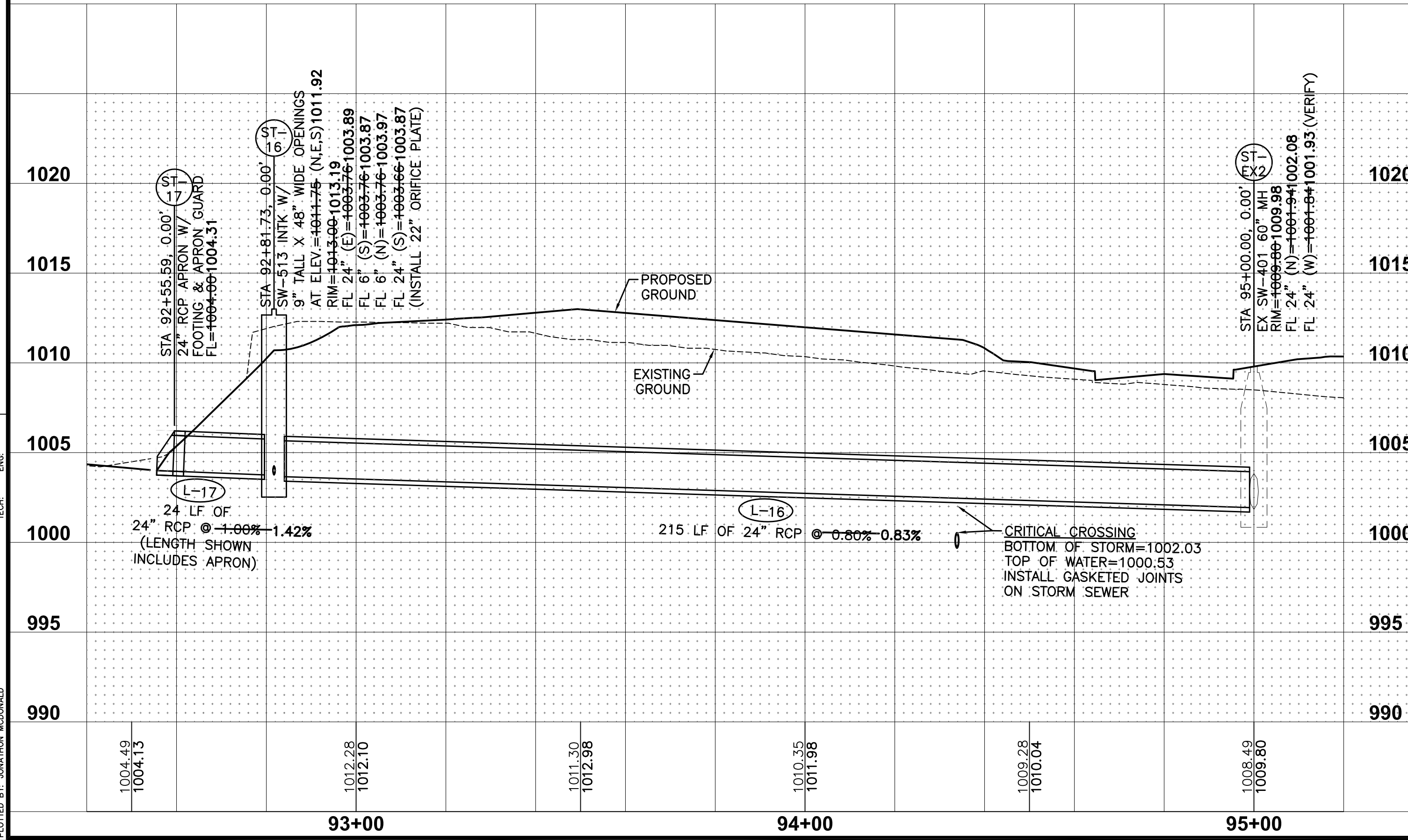
WAUKEE, IOWA

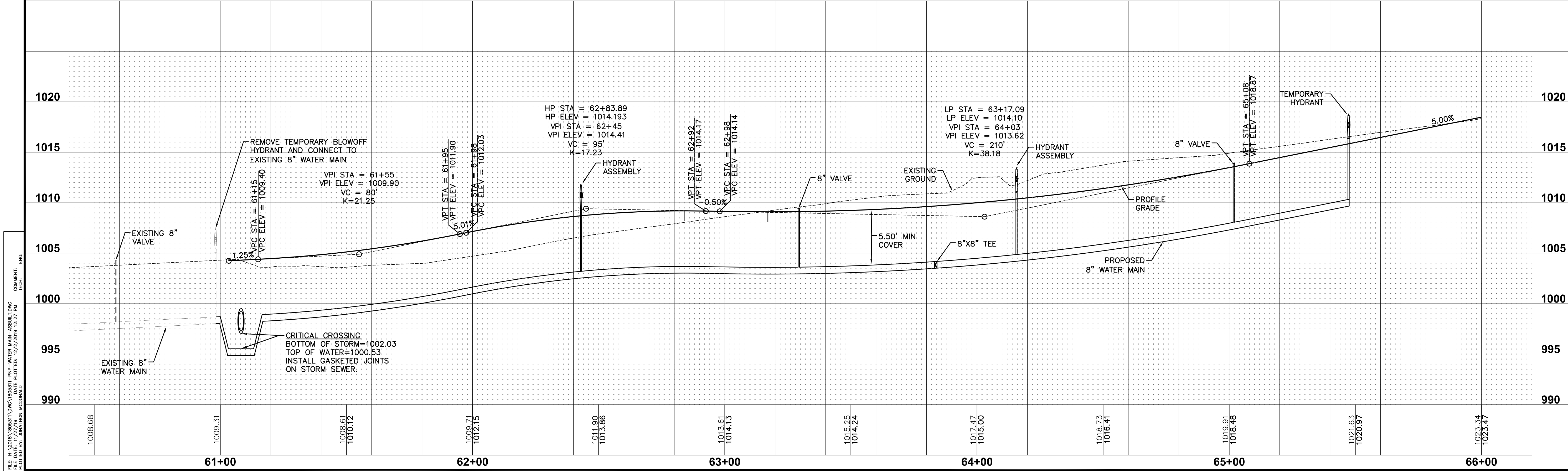
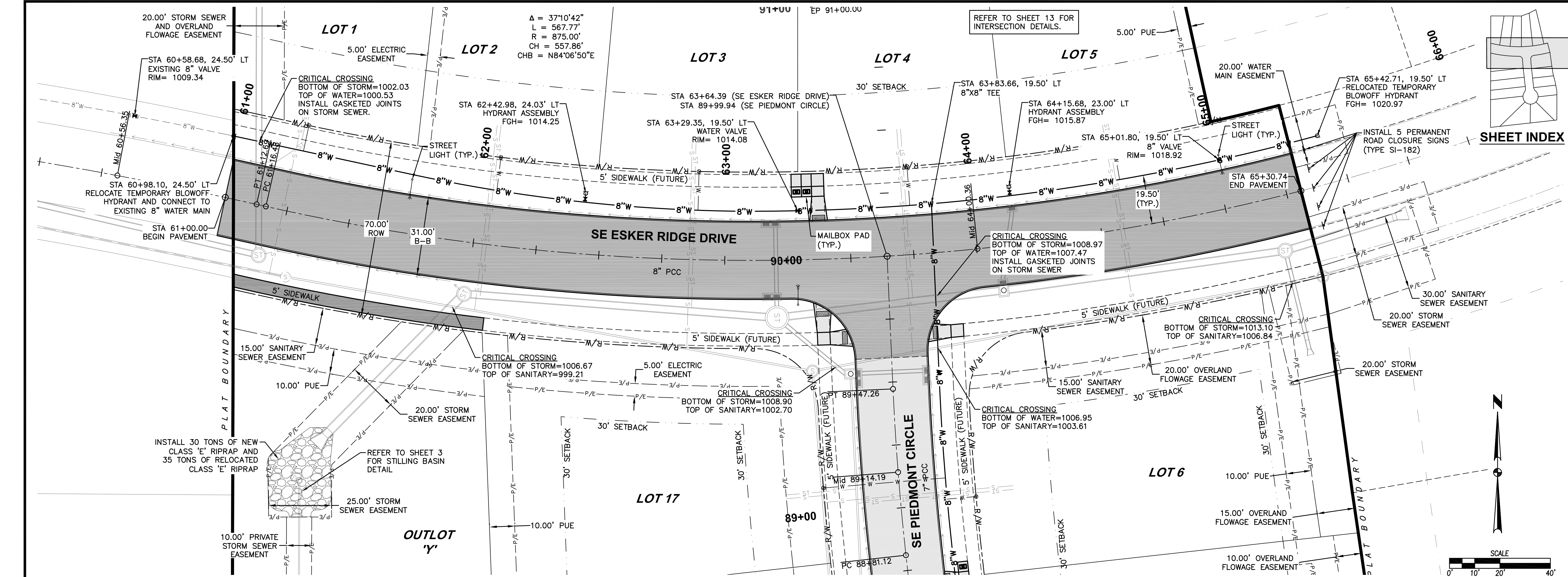
KETTLESTONE RIDGE PLAT 5

Wauke

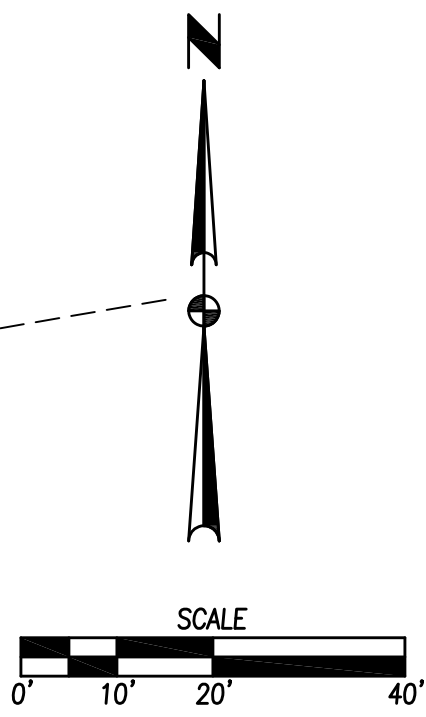
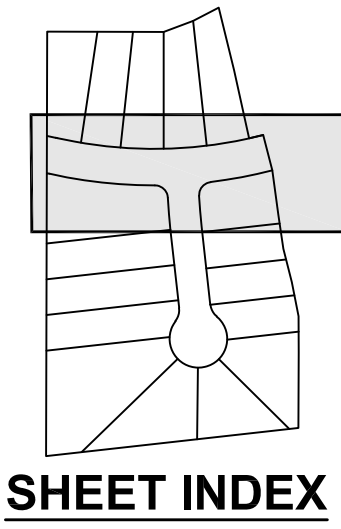
$$\frac{7}{14}$$

FILE: H:\2018\180531\DWG\180531-PNP-STORM AND SANITARY-ASBUIL.DWG
DATE PLOTTED: 12/27/2018 12:26 PM
PLOTTER: HP DesignJet 5000
PLOTTER: HP DesignJet 5000





FILE: H:\2018\180531\DWG\180531-PWP-WATER MAIN-AS-BUILDING
COMMENTS: ENDS
TECH: JMW
PLOTTER: 12/27/2018 12:27 PM
PLOTTER: 12/27/2018 12:27 PM
PLOTTER: 12/27/2018 12:27 PM



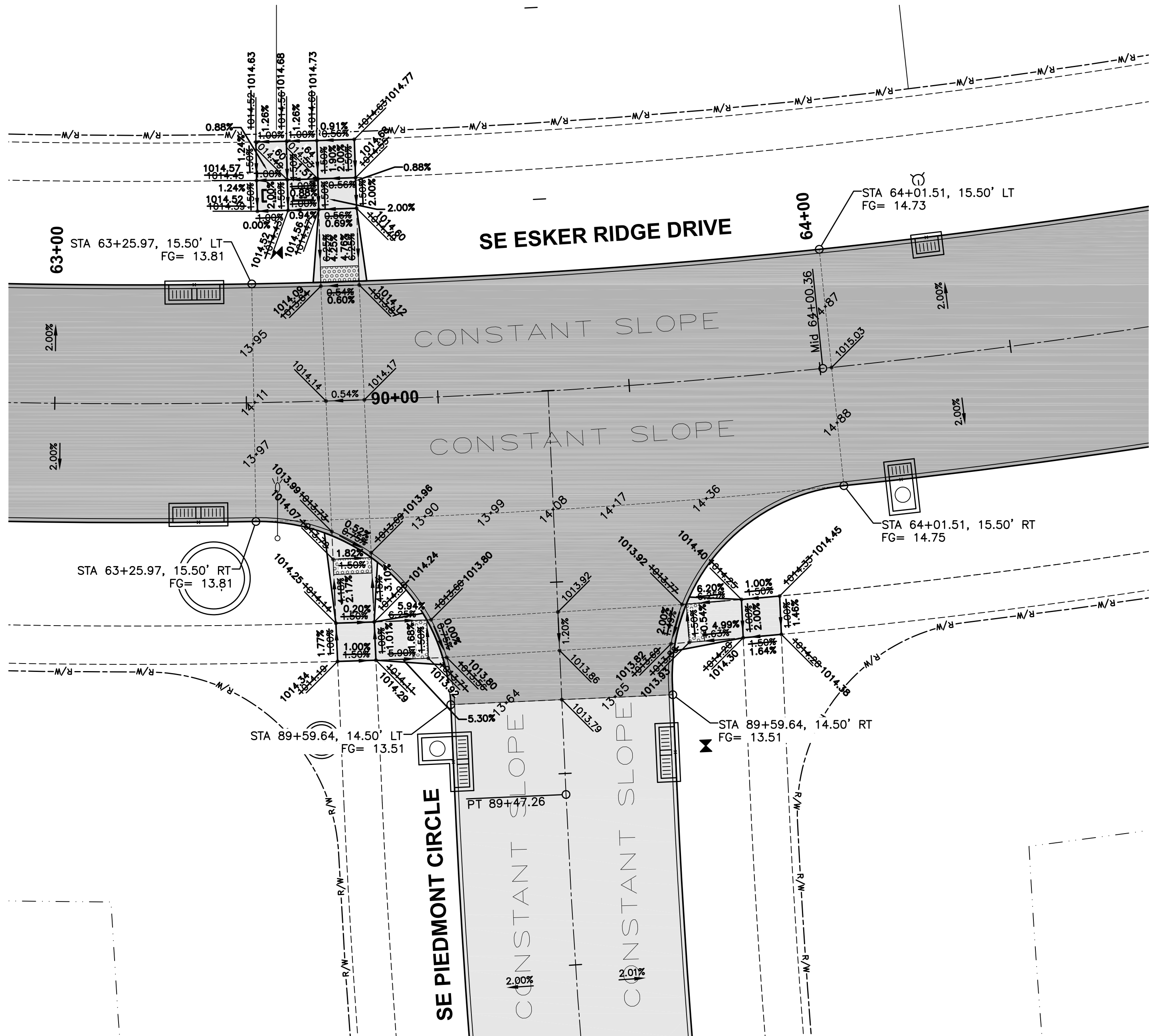
DATE	
12/02/19	AS-BUILT SUBMITTAL
01/25/19	FINAL SUBMITTAL
01/02/19	FIFTH SUBMITTAL
12/14/18	FOURTH SUBMITTAL
11/13/18	THIRD SUBMITTAL
10/16/18	SECOND SUBMITTAL

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

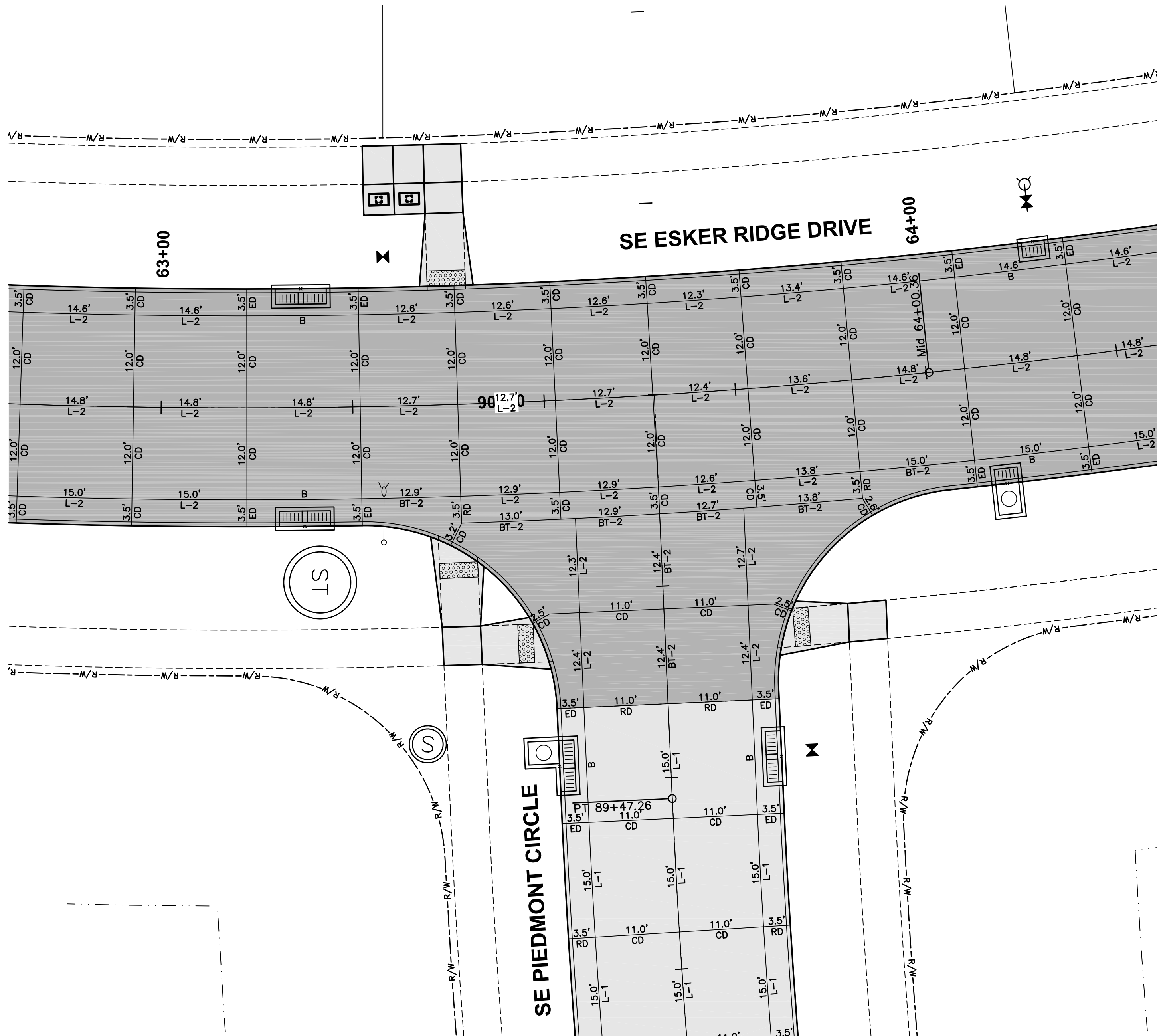
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

11
14
1805.311

KETTLESTONE RIDGE PLAT 5
WATER MAIN PLAN AND PROFILE



GEOMETRICS AND STAKING LAYOUT



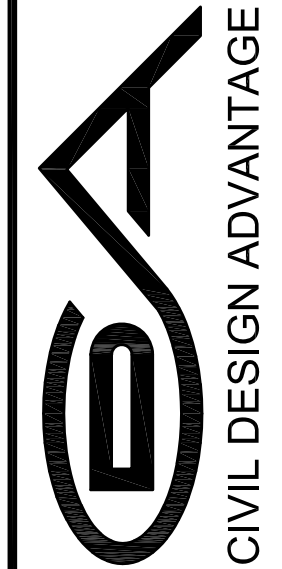
JOINTING LAYOUT

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
4. ORIENT MANHOLE CONE SECTIONS TO KEEP CASTINGS OUT OF SIDEWALK RAMPS.
5. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM.

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/02/19
FINAL SUBMITTAL	01/25/19
FIFTH SUBMITTAL	01/02/19
FOURTH SUBMITTAL	12/14/18
THIRD SUBMITTAL	11/13/18
SECOND SUBMITTAL	10/16/18

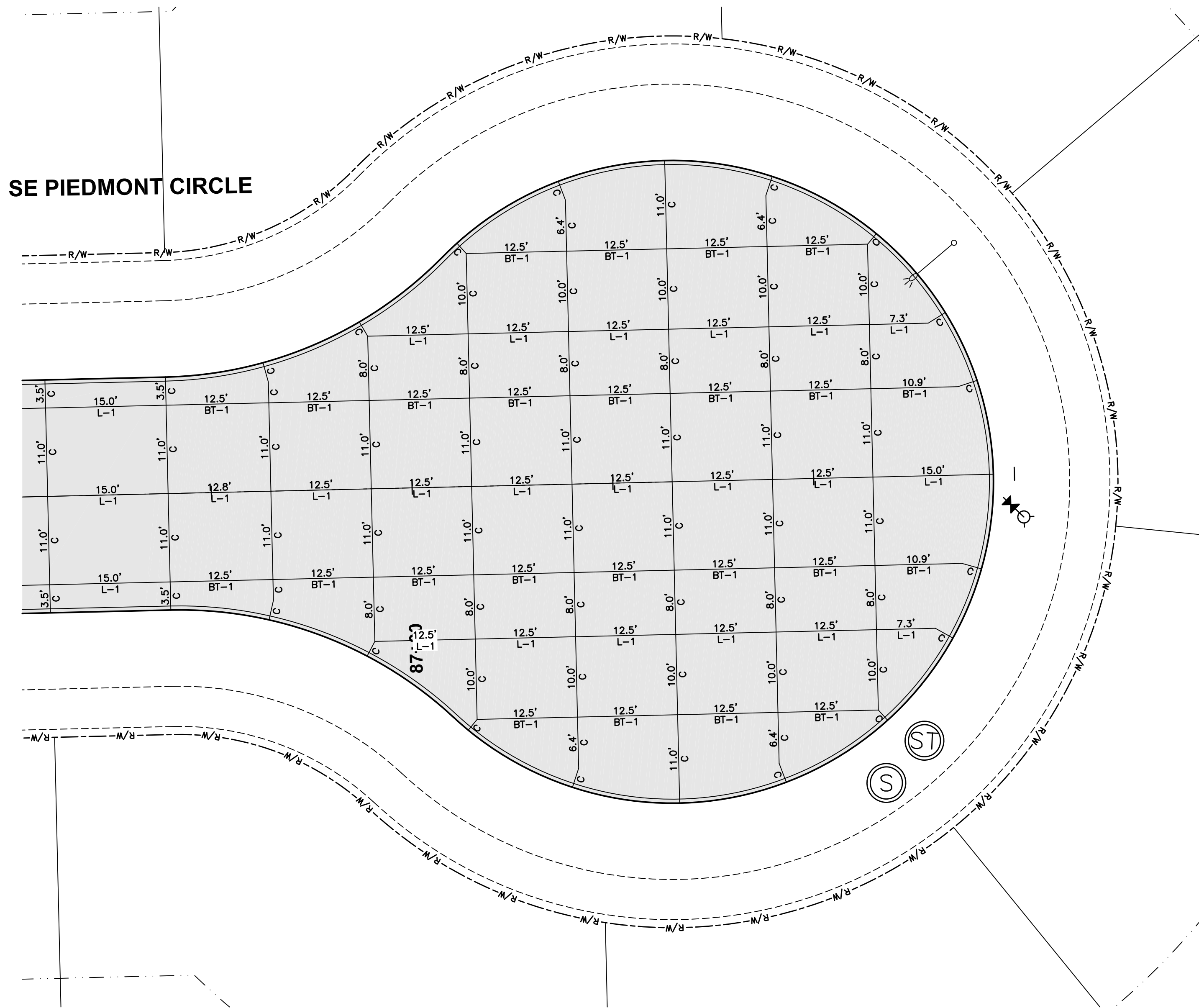
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
E.I.: JWM



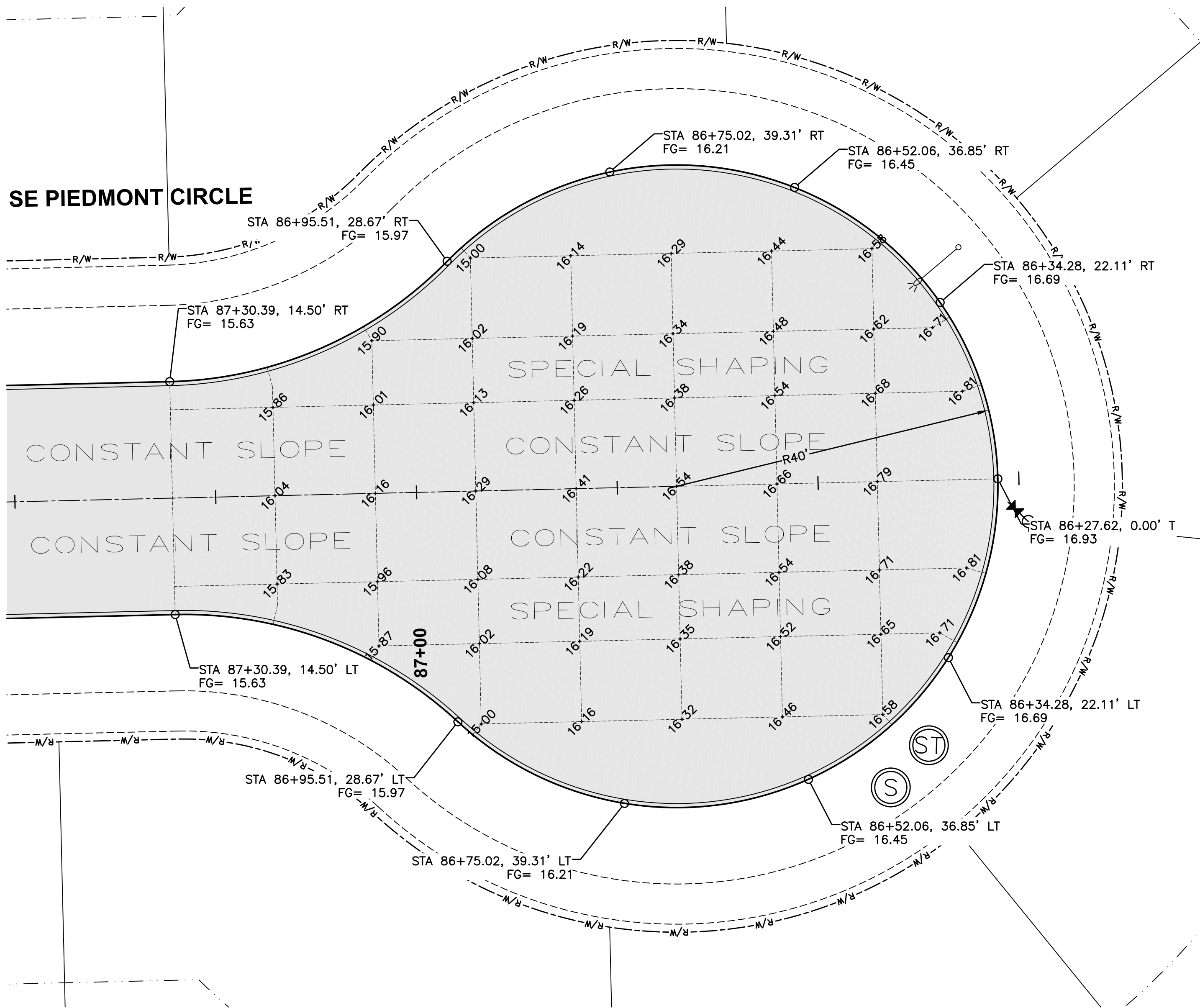
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

KETTLESTONE RIDGE PLAT 5
INTERSECTION DETAILS

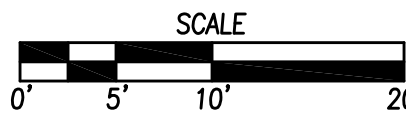
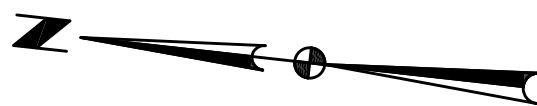
FILE: H:\2018\1805311\DWG\1805311-INTERSECTION-ABSOLUTE.DWG COMMENT: ENDS
PLOT DATE: 12/22/2018 PLOTTED BY: JAWAHAR MADDALA



GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



- 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.
 - ORIENT MANHOLE CONE SECTIONS TO KEEP CASTINGS OUT OF SIDEWALK RAMPS.
 - ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM.

REVISIONS	
DATE	DESCRIPTION
12/02/19	AS-BUILT SUBMITTAL
01/25/19	FINAL SUBMITTAL
01/02/19	FIFTH SUBMITTAL
12/14/18	FOURTH SUBMITTAL
11/13/18	THIRD SUBMITTAL
10/16/18	SECOND SUBMITTAL

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

CIVIL DESIGN ADVANTAGE, INC.
ENGINEER: EKO
Ei: JWM

KETTLESTONE RIDGE PLAT 5
INTERSECTION DETAILS

14
14
1805.311

WAUKEE, IOWA