

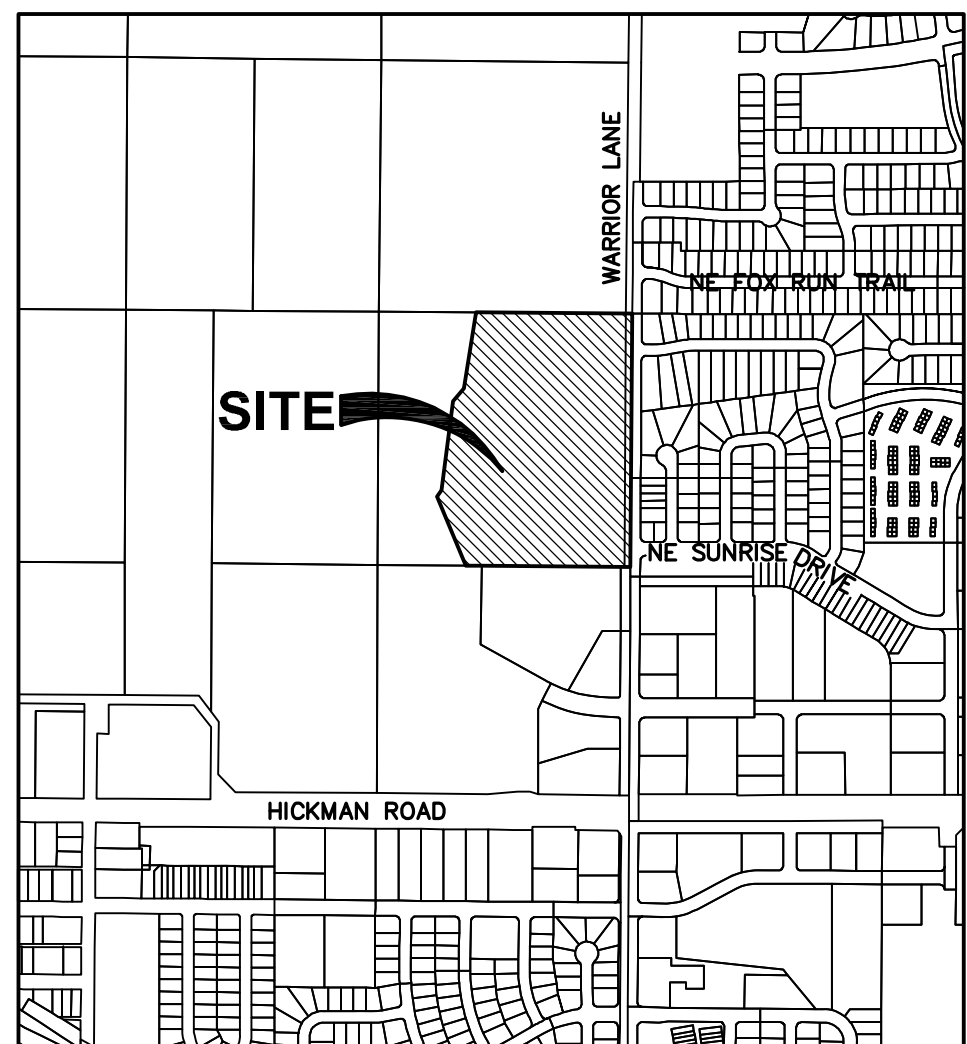
CONSTRUCTION PLANS FOR:

INDI RUN PLAT 1

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER/DEVELOPER

INDI RUN, LLC
17389 BERKSHIRE PARKWAY
CLIVE, IOWA 50325
PH: 515-975-7441
CONTACT: ERIC GRUBB

PROJECT MANAGER

SOLID GROUND, LLC
17389 BERKSHIRE PARKWAY
CLIVE, IOWA 50325
PH: 515-975-7441
CONTACT: ERIC GRUBB

ENGINEER/ SURVEYOR

CIVIL DESIGN ADVANTAGE
CONTACT: RYAN HARDISTY
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
R-4 - PUD

BENCHMARKS

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

BURY BOLT ON HYDRANT @ SE CORNER OF
DOUGLAS AND BADGER.
ELEVATION=999.60'

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	TYPICAL SECTIONS AND DETAILS
3-4	DETAILS
5	QUANTITIES, REFERENCE NOTES AN GENERAL NOTES
6	HYDRANT COVERAGE PLAN
7	GRADING PLAN
8	EROSION & SEDIMENT CONTROL PLAN
9-16	PLAN AND PROFILE
17	N WARRIOR LANE PLAN
18-20	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

PARCEL 17-118 AS SHOWN ON THE PLAT OF SURVEY
RECORDED IN BOOK 2016 PAGE 22096 OF THE NORTHEAST
QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28,
TOWNSHIP 79 NORTH, RANGE 26 WEST IN THE CITY OF
WAUKEE, DALLAS COUNTY, IOWA. CONTAINING 27.96 ACRES
(1,217,755 SQUARE FEET).

PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF
RECORD.

GENERAL NOTES

- A PRE-CONSTRUCTION MEETING WITH THE CITY OF
WAUKEE IS REQUIRED BEFORE CONSTRUCTION.
- ALL SIDEWALKS SHALL BE 5 FEET WIDE.
- ALL PROPOSED PEDESTRIAN CROSSINGS ARE TO BE
INSTALLED AS PART OF PLAT IMPROVEMENTS.
- SIDEWALKS SHALL BE INSTALLED AS PART OF
INDIVIDUAL LOT DEVELOPMENT.
- PRIVATE DETENTION BASINS SHALL BE MAINTAINED BY
THE HOMEOWNERS ASSOCIATION.

SUBMITTAL DATES

FIRST SUBMITTAL:	4/24/2017
SECOND SUBMITTAL:	8/3/2017
THIRD SUBMITTAL:	8/24/2017
FOURTH SUBMITTAL:	9/15/2017
FIFTH SUBMITTAL:	10/12/2017
SIXTH SUBMITTAL:	10/19/2017
FINAL SUBMITTAL:	11/7/2017

GENERAL LEGEND

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

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.

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



CIVIL DESIGN ADVANTAGE

3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111

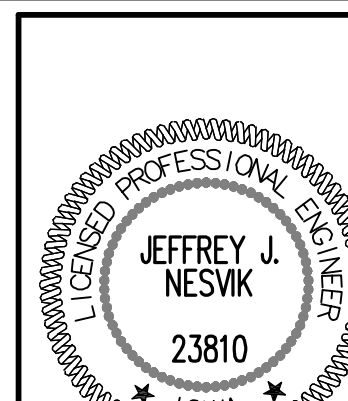
PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 1604.211

IOWA
ONE CALL

1-800-292-8989

www.iowaonecall.com



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

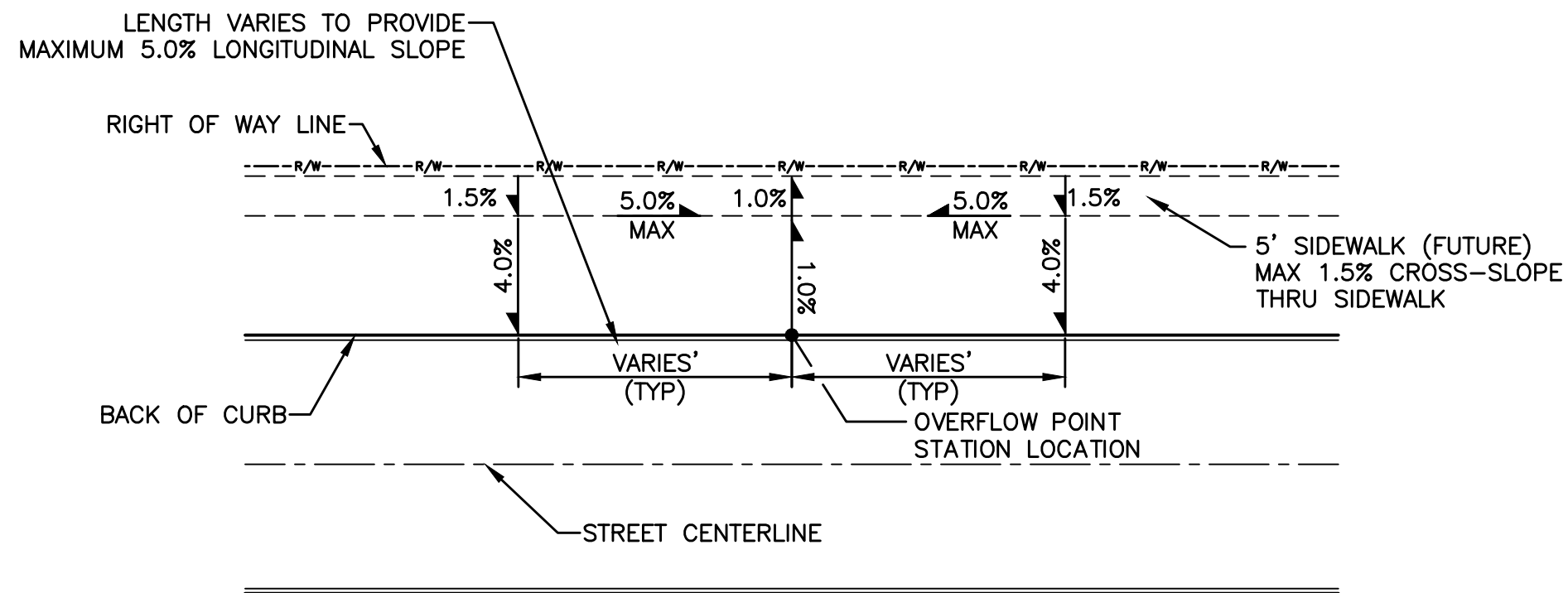
JEFFREY J. NESVIK, P.E.

9/12/18
DATE

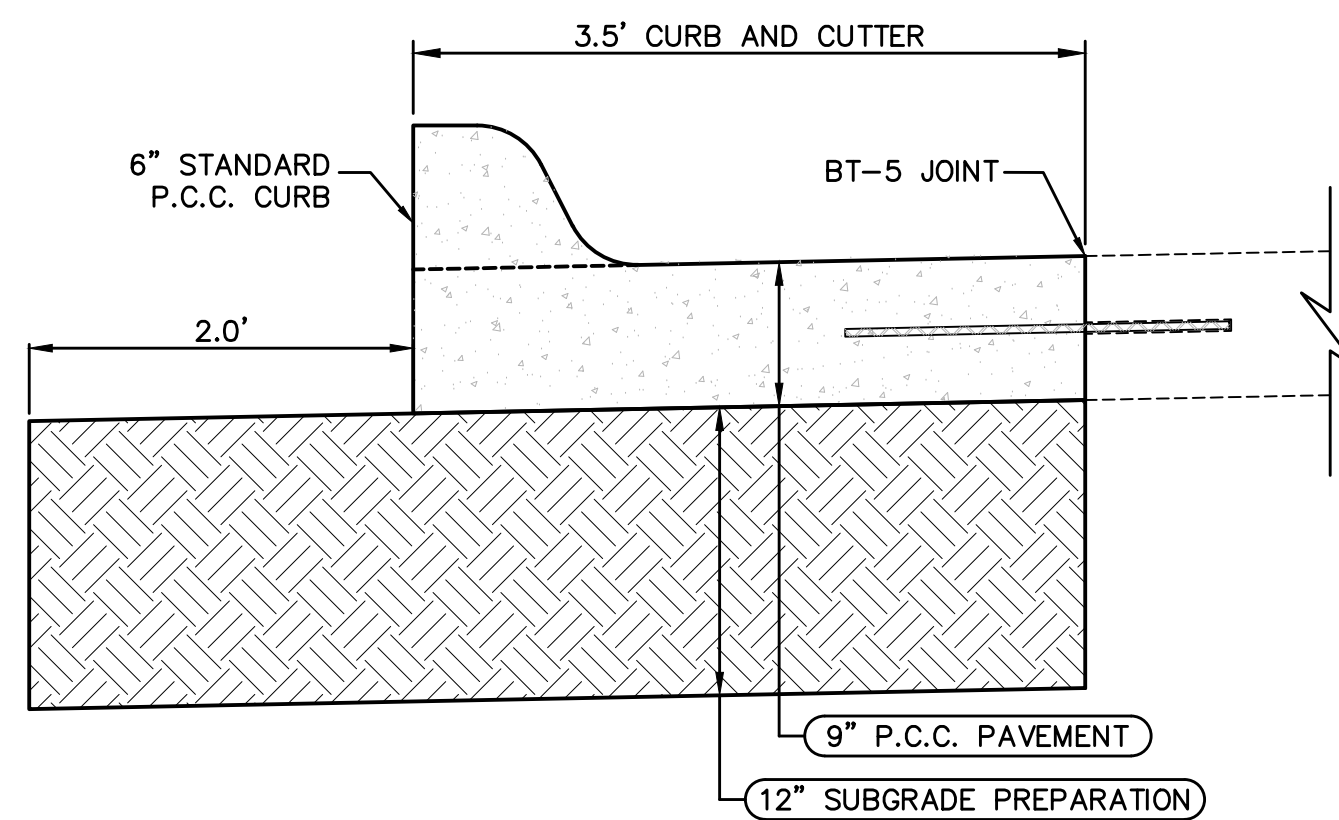
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2018
PAGES OR SHEETS COVERED BY THIS SEAL:

ALL SHEETS

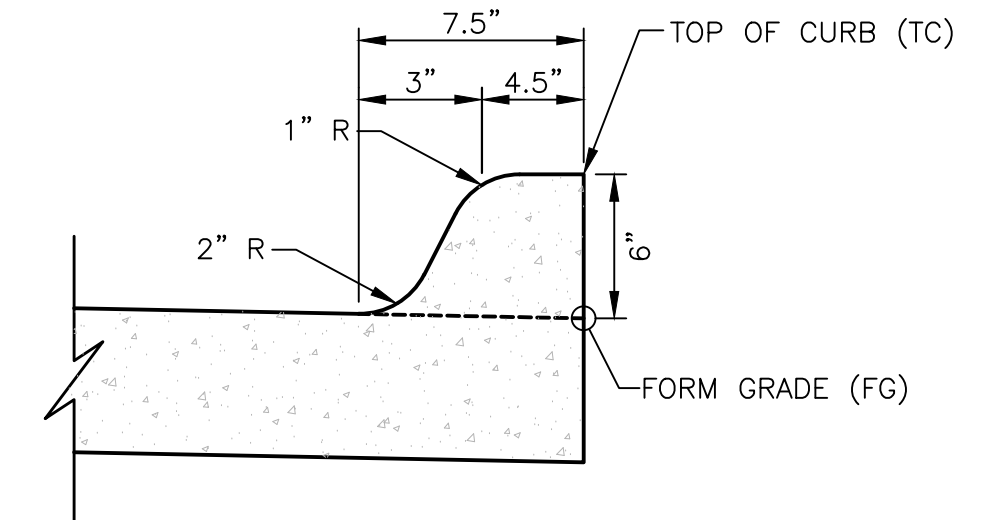
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PLOTED BY: J. J. UNDERHILL
DATE: 9/11/2016 11:15 AM
COMMENTS:
REVISIONS:



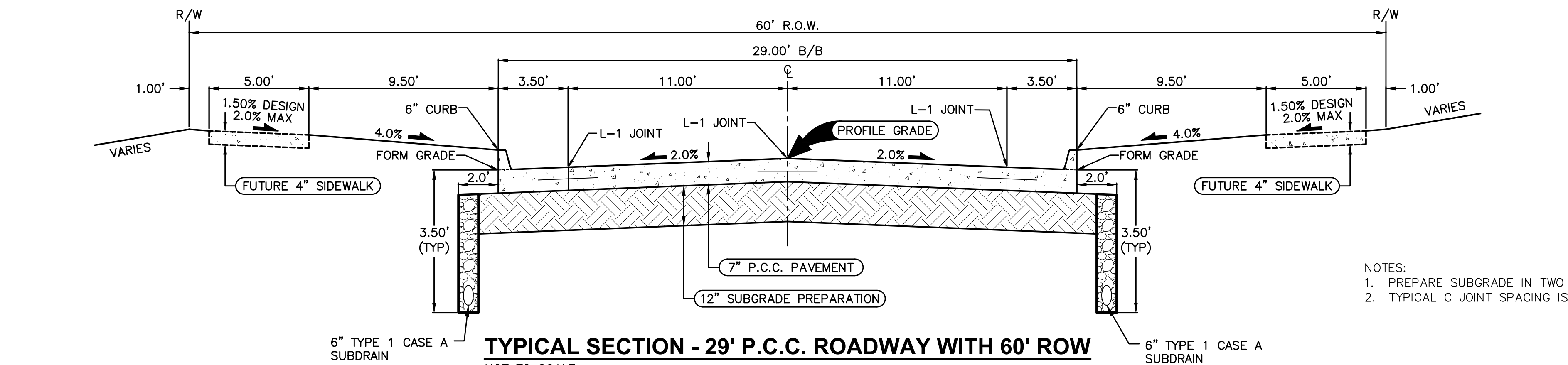
**TYPICAL RIGHT OF WAY GRADING FOR OVERFLOW
AT BACK-OF-CURB**
NOT TO SCALE
NW SUNRISE DRIVE: STA 19+45 (LT)



TYPICAL SECTION - 3.5' CURB AND GUTTER
NOT TO SCALE
WARRIOR LANE

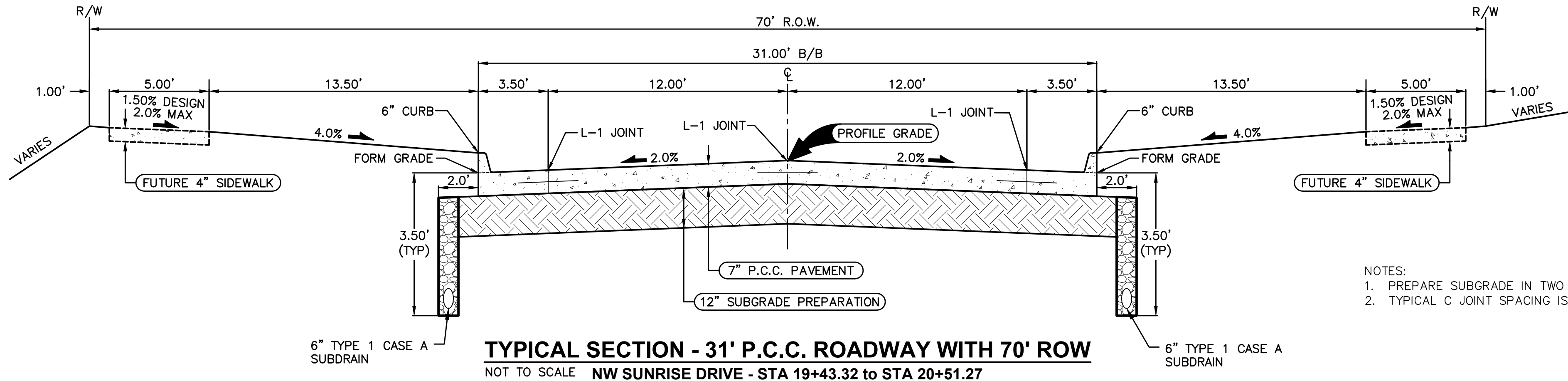


**INTEGRAL 6" STANDARD
SPOT ELEVATION REFERENCE DETAIL**
NOT TO SCALE



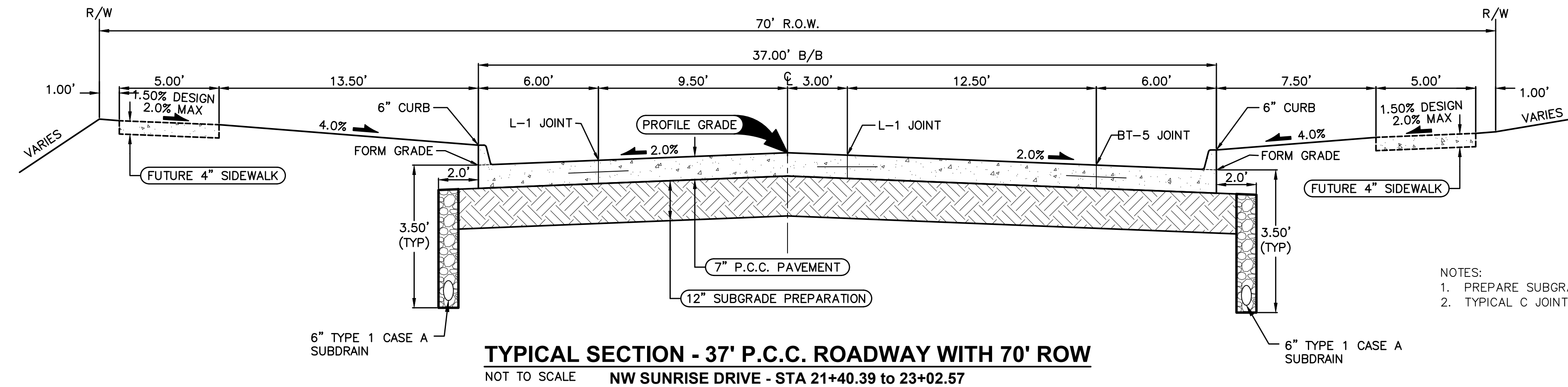
TYPICAL SECTION - 29' P.C.C. ROADWAY WITH 60' ROW
NOT TO SCALE
NW GRACEWOOD DRIVE AND NW LABRADOR DRIVE

- NOTES:
1. PREPARE SUBGRADE IN TWO - 6" LIFTS.
2. TYPICAL C JOINT SPACING IS 15'.



TYPICAL SECTION - 31' P.C.C. ROADWAY WITH 70' ROW
NOT TO SCALE
NW SUNRISE DRIVE - STA 19+43.32 TO STA 20+51.27

- NOTES:
1. PREPARE SUBGRADE IN TWO - 6" LIFTS.
2. TYPICAL C JOINT SPACING IS 15'.

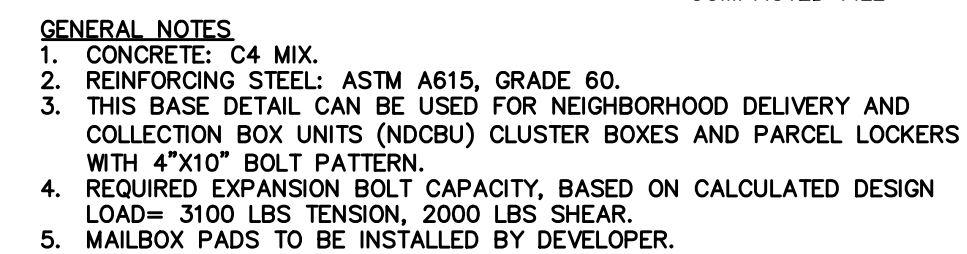


TYPICAL SECTION - 37' P.C.C. ROADWAY WITH 70' ROW
NOT TO SCALE
NW SUNRISE DRIVE - STA 21+40.39 TO 23+02.57

- NOTES:
1. PREPARE SUBGRADE IN TWO - 6" LIFTS.
2. TYPICAL C JOINT SPACING IS 15'.



MAILBOX PAD DETAIL



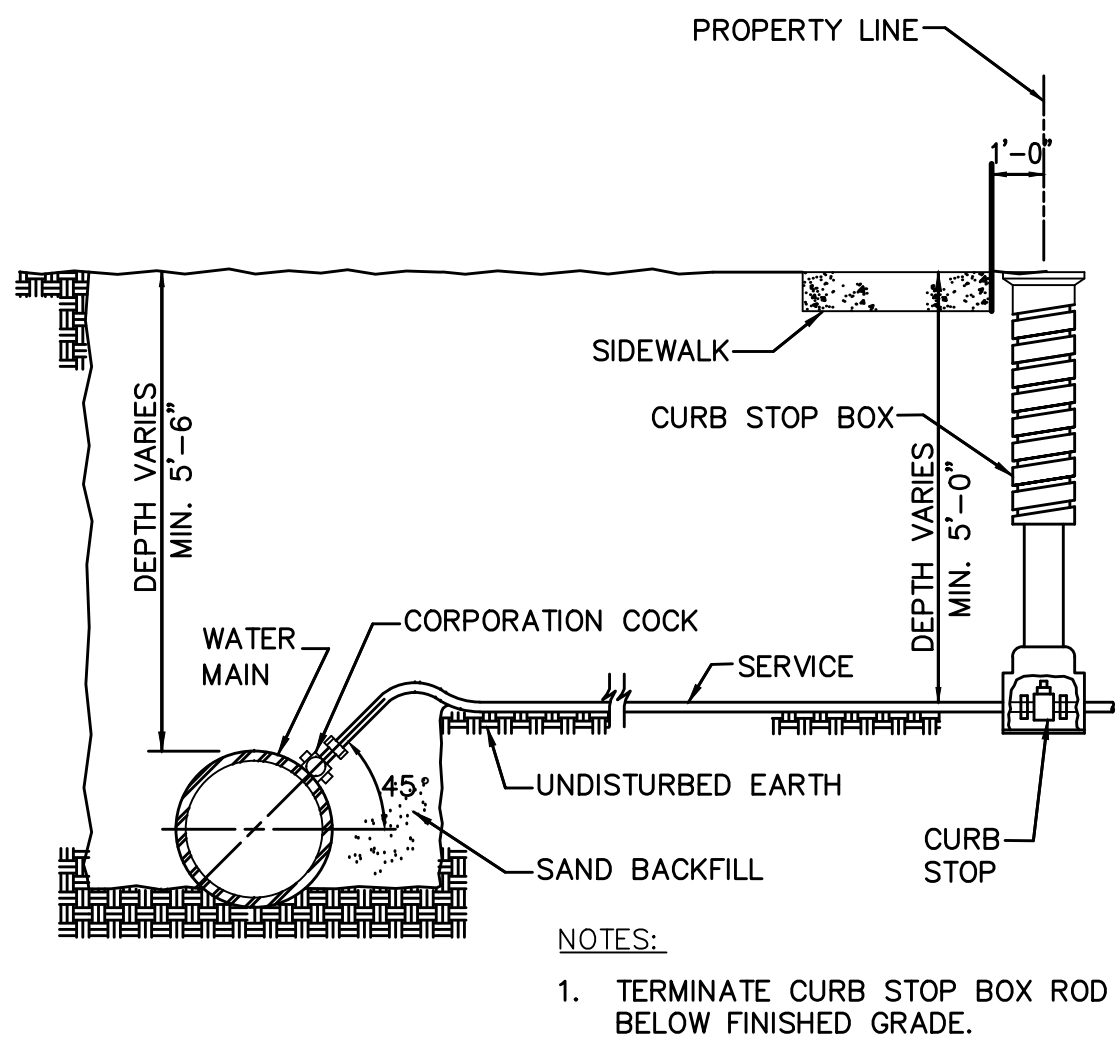
MAILBOX PAD DETAIL

NOT TO SCALE

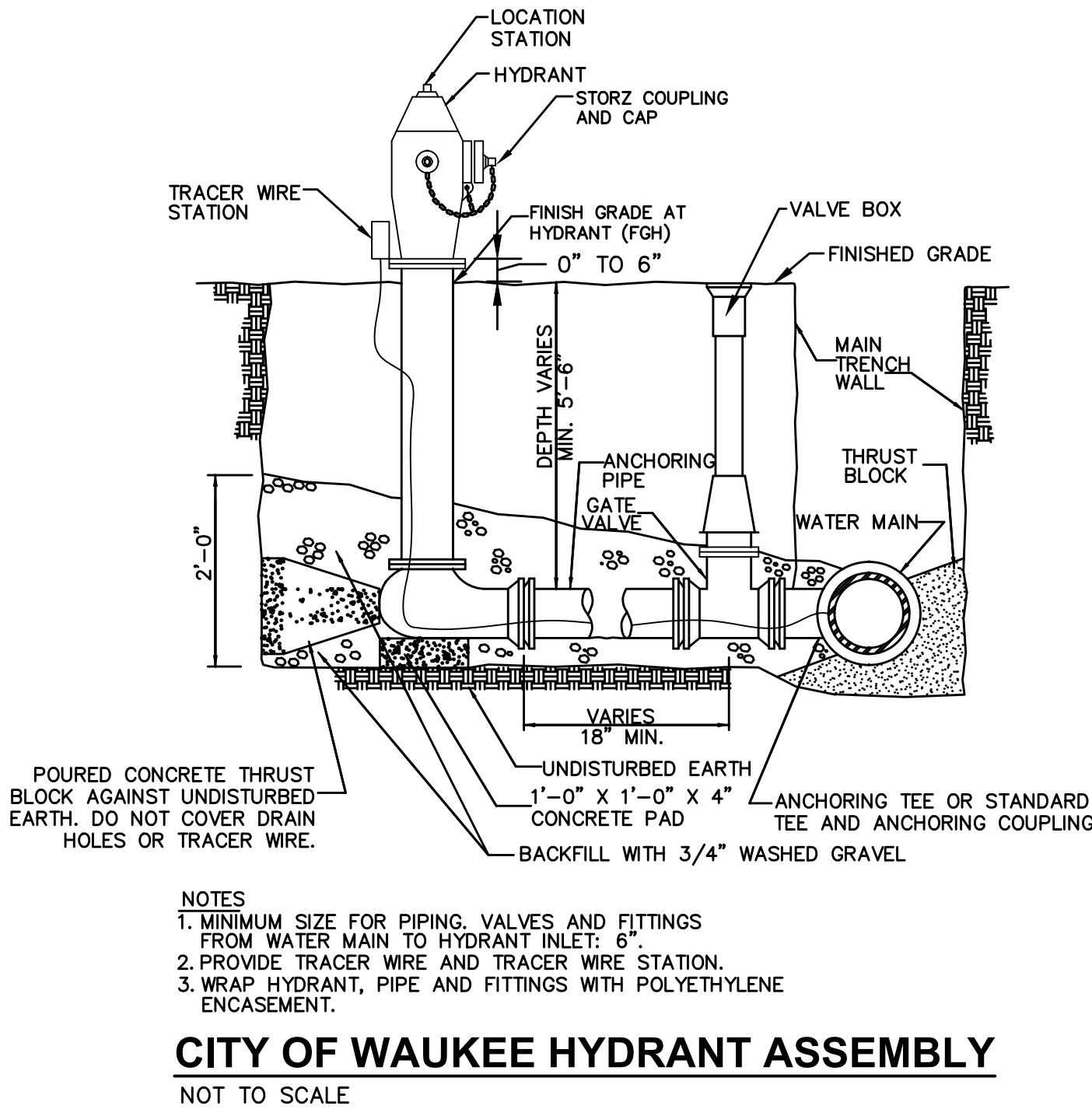
ENGINEER: JJN



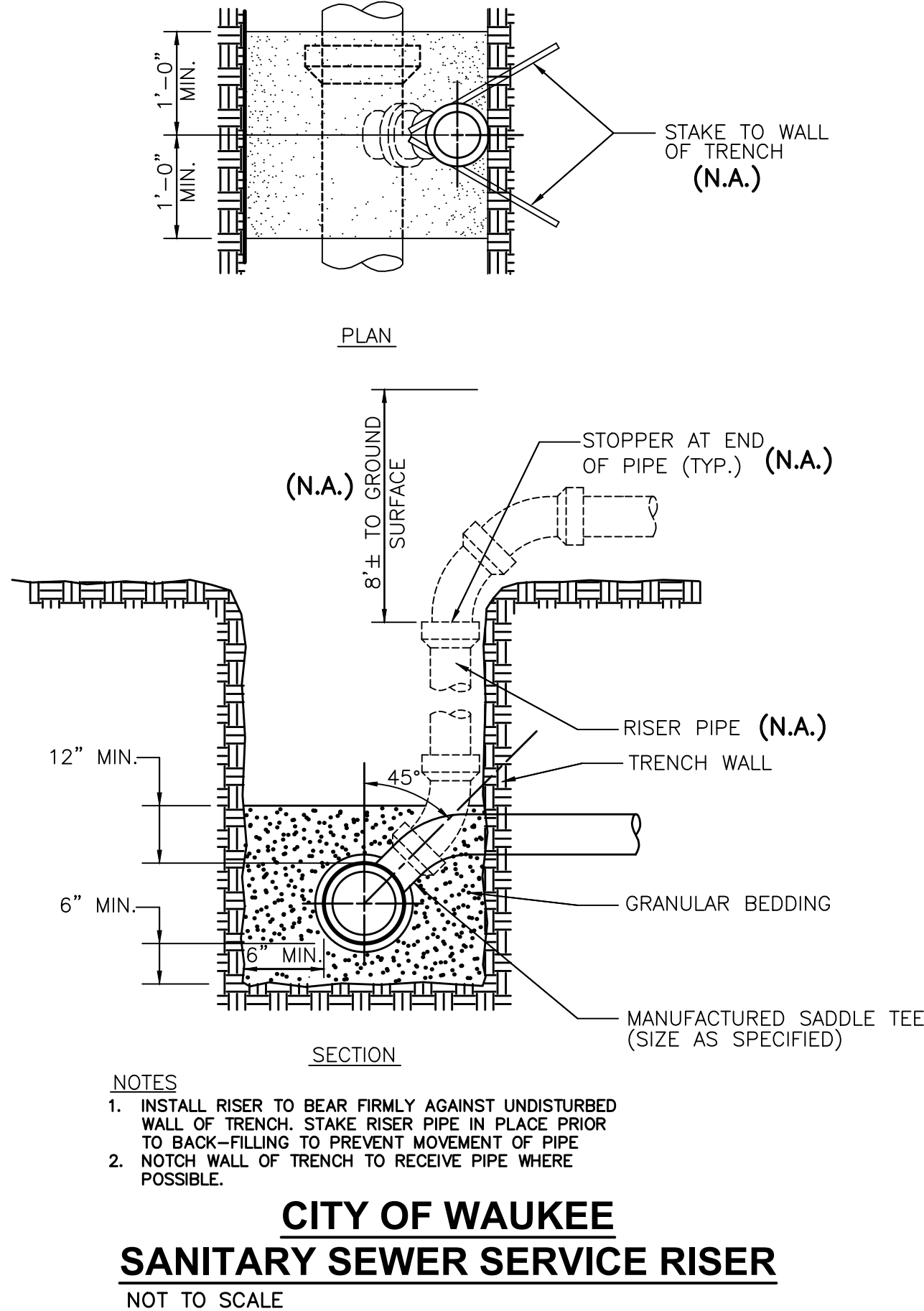
FILE: H:\2016\160421\UWA\160421-COVER.DWG
PLOTED BY: JDS
DATE: 9/11/2016 11:16 AM
COMMENT: CECAL ENG



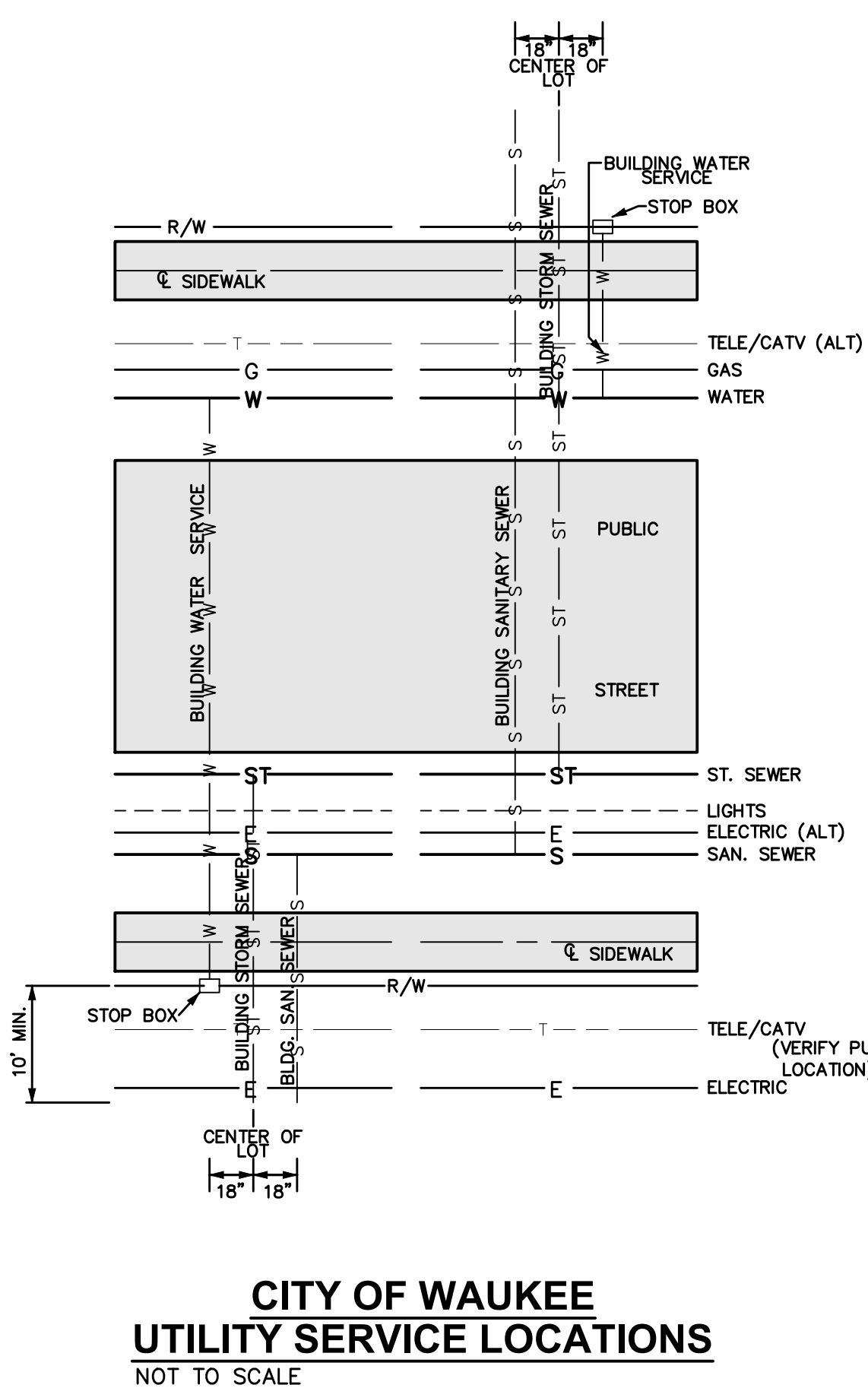
**CITY OF WAUKEE
WATER SERVICE CONNECTION**
NOT TO SCALE



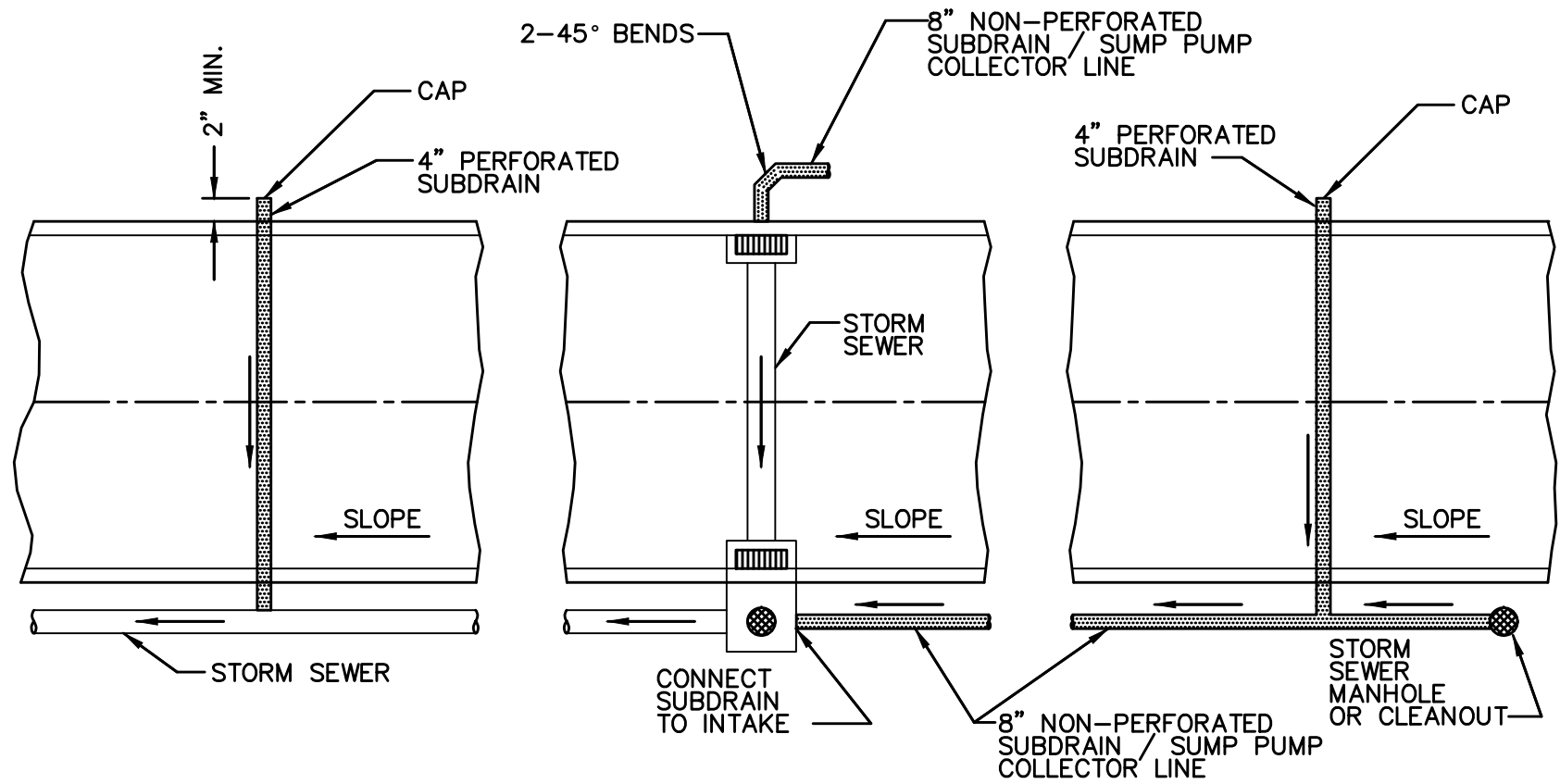
CITY OF WAUKEE HYDRANT ASSEMBLY
NOT TO SCALE



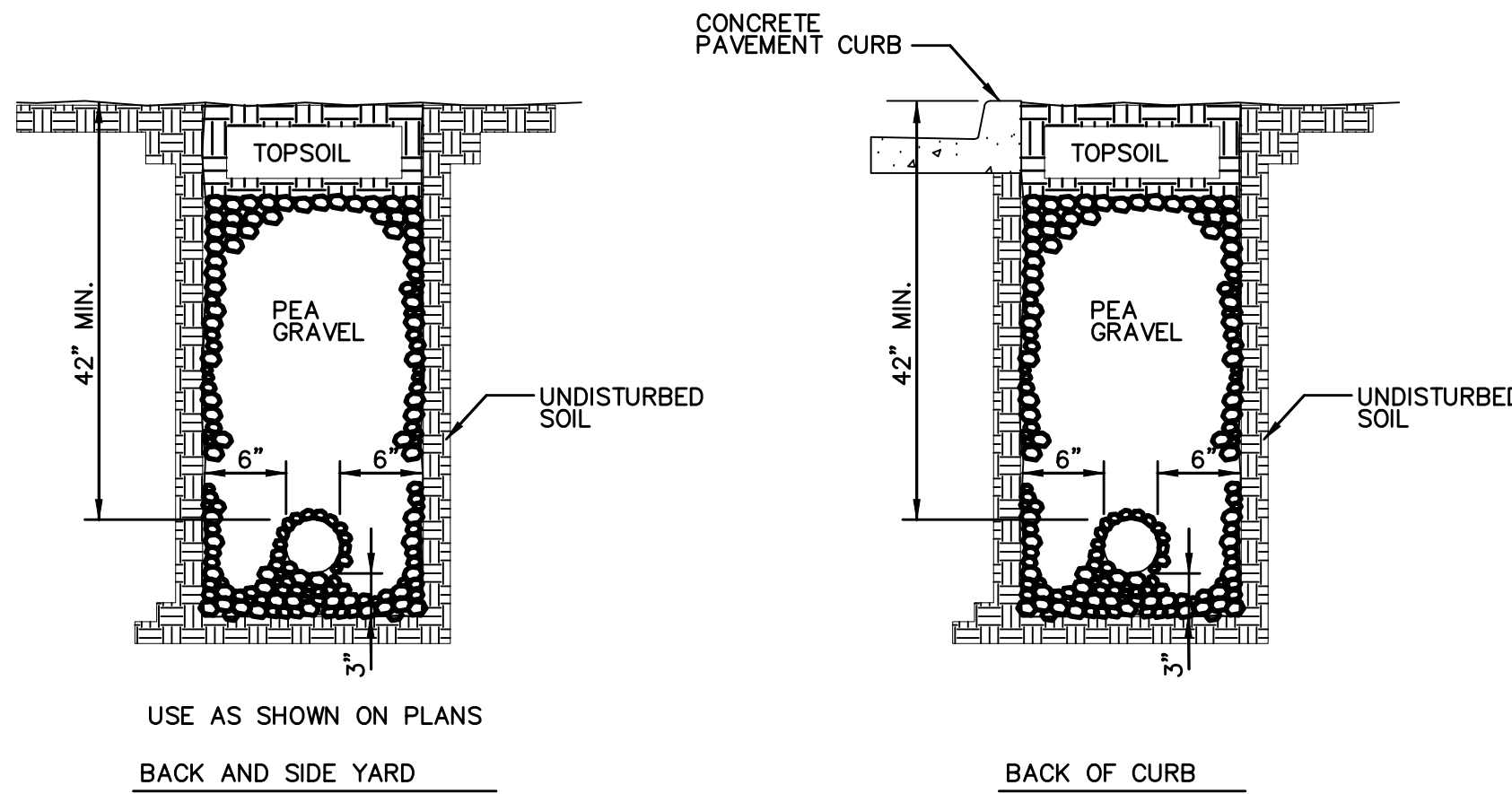
**CITY OF WAUKEE
SANITARY SEWER SERVICE RISER**
NOT TO SCALE



**CITY OF WAUKEE
UTILITY SERVICE LOCATIONS**
NOT TO SCALE

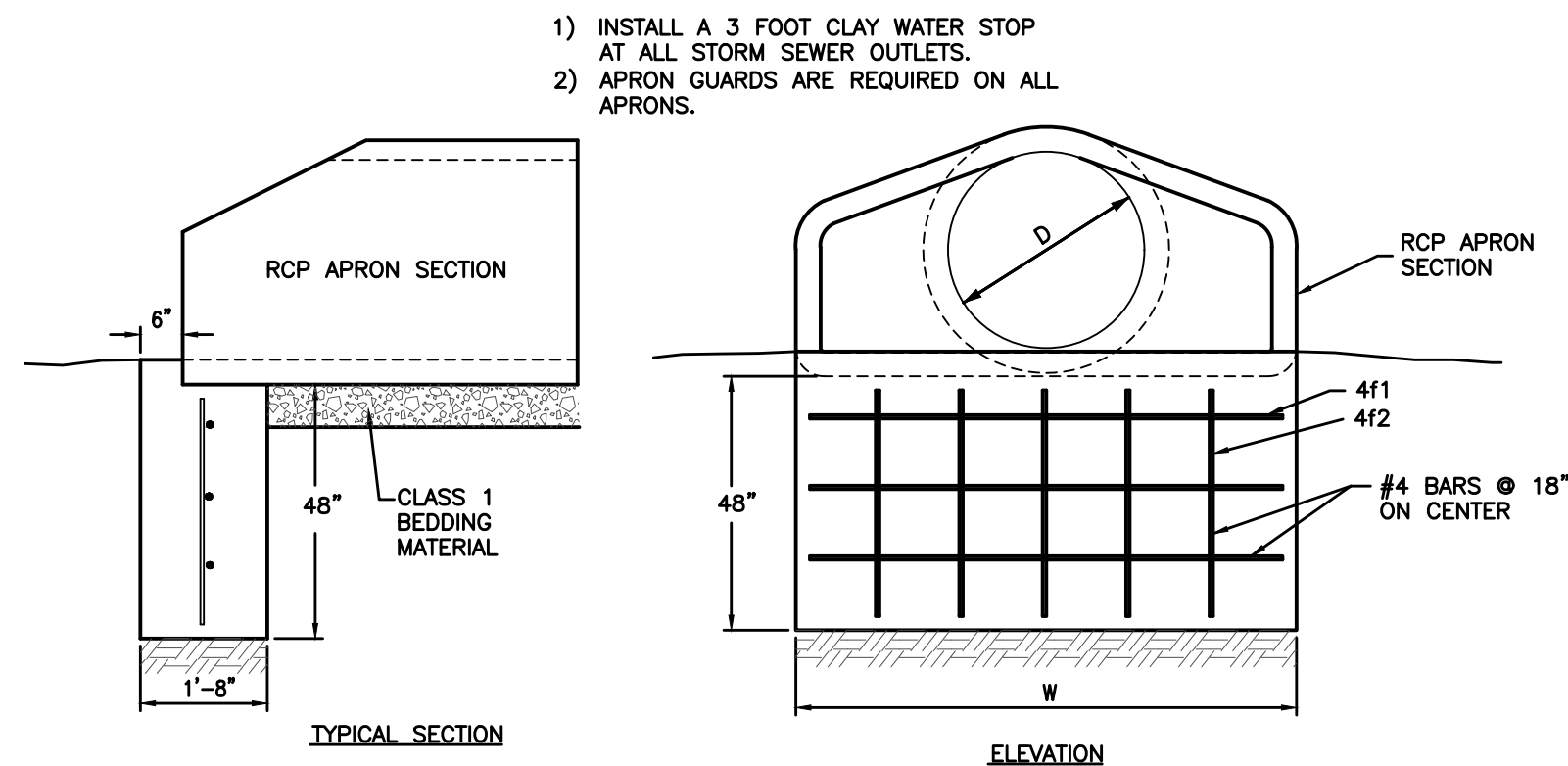


NOTE
CORE DRILL ALL STORM SEWER AND PLACE
NON-SHRINK GROUT COLLAR AT CONNECTION.



- NOTES
1. SLOPE SUBDRAINS TO DRAIN.

CITY OF WAUKEE SUBDRAIN
NOT TO SCALE



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

FILE: H:\2016\60421\DWG\60421-COVERING.DWG
PLOTED BY: J. A. JOHNSON
DATE: 9/11/2018 11:16 AM
COMMENT: EROSION CONTROL

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	CLEARING AND GRUBBING	LS	1
2	TOPSOIL, ONSITE	LS	1
3	EXCAVATION, CLASS 10	LS	1
4	SUBGRADE PREPARATION	SY	7478
5	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC, 8 IN. DIA.	LF	1440
6	SANITARY SEWER GRAVITY MAIN, TRENCHLESS, PVC, 8 IN. DIA.	LF	90
7	SANITARY SEWER SERVICE STUB, PVC, 4 IN. DIA.	EA	39
8	SUBDRAIN, PVC, 6 IN. DIA.	LF	1876
9	FOOTING DRAIN COLLECTOR, PERFORATED PVC, 8 IN. DIA.	LF	567
10	STORM SEWER, TRENCHED, HDPE, 12 IN. DIA.	LF	260
11	STORM SEWER, TRENCHED, RCP, 15 IN. DIA.	LF	677
12	STORM SEWER, TRENCHED, RCP, 18 IN. DIA.	LF	214
13	STORM SEWER, TRENCHED, RCP, 24 IN. DIA.	LF	117
14	STORM SEWER, TRENCHED, RCP, 30 IN. DIA.	LF	492
15	STORM SEWER SERVICE STUB, PVC, 4 IN. DIA.	EA	39
16	STORM SEWER, 15 IN. RCP APRON W/ FOOTING & APRON GUARD	EA	3
17	STORM SEWER, 24 IN. RCP APRON W/ FOOTING & APRON GUARD	EA	4
18	STORM SEWER, 30 IN. RCP APRON W/ FOOTING & APRON GUARD	EA	5
19	WATER MAIN, TRENCHED, PVC, 8 IN. DIA.	LF	1664
20	WATER MAIN, TRENCHLESS, DIP, 8 IN. DIA.	LF	36
21	WATER SERVICE STUB, COPPER, 1 IN. DIA.	EA	39
22	VALVE, 8 IN. DIA.	EA	6
23	TAPPING VALVE ASSEMBLY, 12 IN. DIA. x 8 IN. DIA.	EA	1
24	FIRE HYDRANT ASSEMBLY	EA	5
25	TEMPORARY BLOW-OFF HYDRANT	EA	2
26	SANITARY MANHOLE, TYPE SW-301, 48 IN. DIA	EA	6
27	STORM MANHOLE, TYPE SW-401, 48 IN. DIA	EA	5
28	STORM MANHOLE, TYPE SW-401, 60 IN. DIA	EA	2
29	INTAKE, TYPE SW-501	EA	3
30	INTAKE, TYPE SW-503	EA	1
31	INTAKE, TYPE SW-505	EA	4
32	INTAKE, TYPE SW-506	EA	4
33	INTAKE, TYPE SW-512, 24 IN. DIA	EA	1
34	INTAKE, TYPE SW-512, 30 IN. DIA	EA	1
35	FOOTING DRAIN CLEANOUT, TYPE A-1, 8 IN. DIA.	EA	2
36	SUBDRAIN CLEANOUT, TYPE A-1, 6 IN. DIA.	EA	8
37	PAVEMENT, P.C.C., 9 IN.	SY	800
38	PAVEMENT, P.C.C., 7 IN.	SY	5228
39	CURB AND GUTTER, 42 IN., 9 IN.	LF	1268
40	SIDEWALK, P.C.C., 6 IN.	SY	233
41	SIDEWALK, P.C.C., 4 IN.	SY	174
42	DETECTABLE WARNING	SF	192
43	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	2
44	CONVENTIONAL SEEDING, SEEDING, FERTILIZING AND MULCHING	AC	25.2
45	TRAFFIC CONTROL	LS	1
46	EROSION CONTROL	LS	1
47	ROCK OUTLET PROTECTON, CLASS "e" RIP-RAP	TON	157
48	REMOVAL OF KNOWN PIPE, RCP, 30 IN. DIA.	LF	680
49	REMOVAL OF KNOWN PIPE, RCP, 24 IN. DIA.	LF	137
50	PAVEMENT MARKINGS	LS	1
51	MAILBOX PADS	EA	3
52	TURF REINFORCEMENT MAT, TYPE 1	SF	1125

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2017 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.
- 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.
- 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.
- 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.
- THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:
 - CITY OF WAUKEE ENGINEERING DEPARTMENT
 - APPROPRIATE UTILITY COMPANIES
 - OWNER
 - CIVIL DESIGN ADVANTAGE

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 2017 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.
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 RESPAED 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.
5-6	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 TEE INSTALLATION. ALL SANITARY SEWER PIPE THAT CROSSES OVER TOP OF WATERMAIN SHALL BE OF WATERMAIN GRADE MATERIAL.
7	ALL LOTS MAY REQUIRE GRINDER PUMPS FOR SANITARY SEWER SERVICES. THE NEED FOR A GRINDER PUMP SHALL BE DETERMINED BY EACH HOME BUILDER AT THE TIME THEY APPLY FOR A BUILDING PERMIT.
10-14	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 TELEVISION REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISION 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.
7,15,21	REFER TO PLAN AND PROFILE SHEETS FOR LOCATION AND DEPTH. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
8	REFER TO FIG. 4040.231 CASE "A" FOR CONSTRUCTION DETAILS. REFER TO PLANS FOR LOCATIONS.
9	REFER TO FIG 4040.231 CASE "D" FOR CONSTRUCTION DETAILS. REFER TO SHEETS 11 AND 12 FOR LOCATIONS.
16-18	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.
19-24	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.
24-25	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. REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF HYDRANTS.
26	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.

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

- 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.
- 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.
- 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.
- 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.
- 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.
- THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
- THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
- ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
- 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.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
- ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
- 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.
- 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.
- REMOVE DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.
- 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
27-28	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.
29-32	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".
29	REFER TO FIG. 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
30	REFER TO FIG. 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
31	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.
32	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
33-34	REFER TO FIG. 6010.512 - CIRCULAR AREA INTAKE (SW-512) FOR CONSTRUCTION DETAILS.
37-38	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C OR CD JOINT SPACING IS 15 FEET.
39	REFER TO TYPICAL SECTION ON SHEET 2 FOR CONSTRUCTION DETAILS. A PAVER IS TO BE UTILIZED FOR CURB AND GUTTER PAVING. 6 INCHES OF THE EXISTING EDGE OF WARRIOR LANE SHALL BE SAWCUT OFF TO PROVIDE A CLEAN EDGE.
40-42	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.
43	REFER TO SHEET 3 FOR PERMANENT ROAD CLOSURE SIGN SPACING DETAILS AND PLAN AND PROFILE SHEETS FOR LOCATIONS.
44	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 = 1.00 AC - TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 24.2 AC
45	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. PORTABLE MESSAGE BOARDS ARE REQUIRED TO BE DEPLOYED A MINIMUM OF 7 DAYS PRIOR TO ANY LANE/ROAD CLOSURES.
46	REFER TO SHEET 8 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 WASHOUT PIT - 5,409 LF OF SILT FENCE - 160 LF OF DITCH CHECK - 76 LF OF FILTER SOCK - 25.2 ACRES OF SEEDING, FERTILIZING AND MULCHING. - 24 INLET PROTECTION DEVICES - 1 - 12" PVC TEMPORARY STANDPIPE - 1 - 18" PVC TEMPORARY STANDPIPE - 2 - 24" PVC TEMPORARY STANDPIPE
47	INSTALL ENGINEERING FABRIC UNDER ALL RIP RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL.
48-49	REFER TO SHEETS 7 AND 14 FOR LOCATIONS OF STORM SEWER PIPE TO BE REMOVED. STORM SEWER PIPE REMOVAL INCLUDES EXCAVATION, REMOVAL AND DISPOSAL OF 24" AND 30" DIA. RCP (INCLUDING BEDDING MATERIAL) AND ANY ASSOCIATED FOOTINGS. EXCAVATED TRENCH SHALL BE BACKFILLED WITH EXCAVATED OR CONTRACTOR SUPPLIED (BORROW) SUITABLE BACKFILL MATERIAL (NO PAYMENT FOR OVERHAUL) AND COMPACTED TO 95% OF STANDARD PROCTOR DRY DENSITY IN ALL AREAS. TRENCH COMPACTION TESTING SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL SALVAGE AND RE-INSTALL 30" DIA. RCP STORM SEWER.
50	DURABLE PAVEMENT MARKINGS ARE REQUIRED.
52	REFER TO SECTION 9040, 2.17 AND 3.22 - TURF REINFORCEMENT MATS FOR CONSTRUCTION DETAILS.

- ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
- IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.
- 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.
- 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
- THE CONTRACTOR SHALL SUBMIT A LIST OF CONSTRUCTION MATERIALS TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
- 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 FINDINGS 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.
- THE CONTRACTOR SHALL COORDINATE ALL EXISTING PUBLIC UTILITY CONNECTIONS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- 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.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND TELEVISION ALL STORM AND SANITARY SEWERS. THE CITY OF WAUKEE ENGINEERING DEPARTMENT SHALL WITNESS AND APPROVE ALL CLEANING AND TELEVISION 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.
- ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE STORZ FITTINGS.
- ALL PROPOSED PEDESTRIAN CROSSINGS SHALL BE INSTALLED AS PART OF THE PLAT IMPROVEMENTS.
- ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.
- ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED.
- VERIFY THAT ALL EXISTING MANHOLES WITHIN THE PLAT BOUNDARY HAVE A MINIMUM OF ONE 4-INCH ADJUSTING RING TO ALLOW FOR FUTURE ADJUSTMENT.
- ANY CHANGES TO THE PLAN SET ARE TO BE APPROVED IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO EXECUTION OF THE CHANGES. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE TO THE PLAN SET DURING CONSTRUCTION THAT HAVE NOT RECEIVED WRITTEN APPROVAL FROM THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.

INDI RUN PLAT 1
QUANTITIES, REFERENCE NOTES
AND GENERAL NOTES

5/20
1604.211

DATE

11/7/17
10/19/17
10/12/17
9/15/17
9/24/17
9/24/17
4/24/17

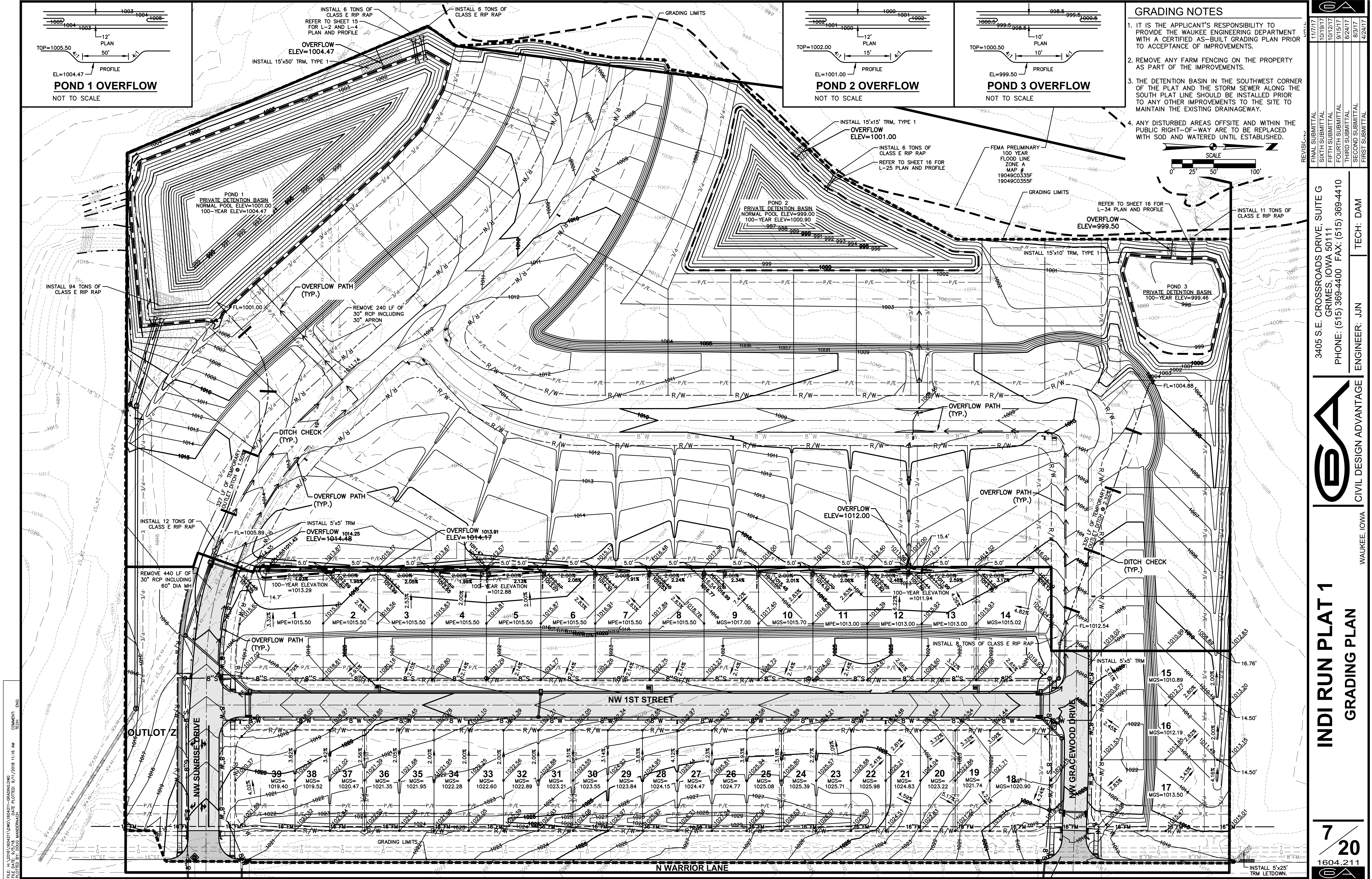
REVISIONS

FINAL SUBMITTAL
SIXTH SUBMITTAL
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FOURTH SUBMITTAL
THIRD SUBMITTAL
SECOND SUBMITTAL
FIRST SUBMITTAL

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

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE



- GRADING NOTES**
- IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE THE WAUKEE ENGINEERING DEPARTMENT WITH A CERTIFIED AS-BUILT GRADING PLAN PRIOR TO ACCEPTANCE OF IMPROVEMENTS.
 - REMOVE ANY FARM FENCING ON THE PROPERTY AS PART OF THE IMPROVEMENTS.
 - THE DETENTION BASIN IN THE SOUTHWEST CORNER OF THE PLAT AND THE STORM SEWER ALONG THE SOUTH PLAT LINE SHOULD BE INSTALLED PRIOR TO ANY OTHER IMPROVEMENTS TO THE SITE TO MAINTAIN THE EXISTING DRAINAGEWAY.
 - ANY DISTURBED AREAS OFFSITE AND WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE REPLACED WITH SOD AND WATERED UNTIL ESTABLISHED.

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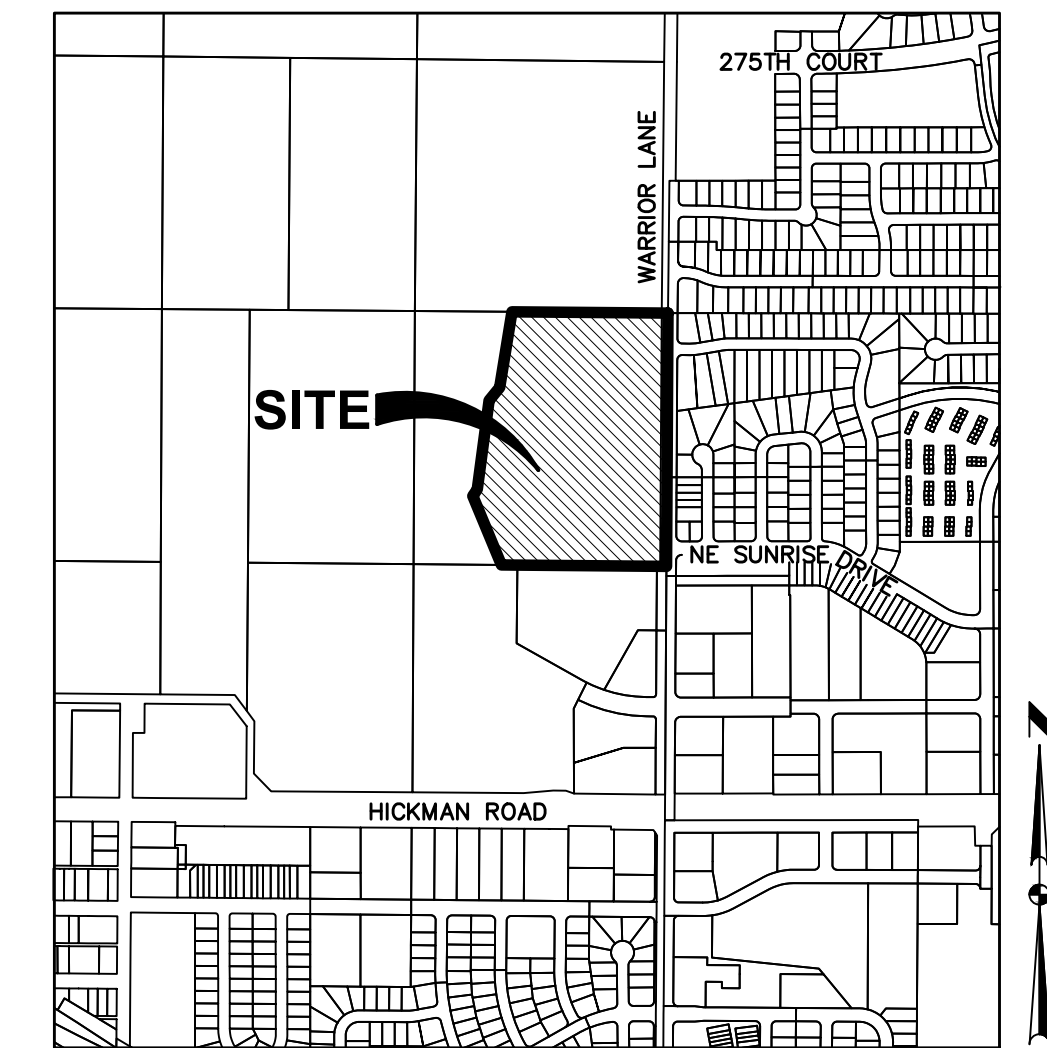
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GRADING PLAN

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VICINITY MAP

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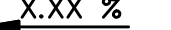
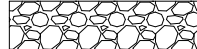
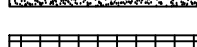
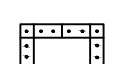
WAUKEE, IOWA

STABILIZATION QUANTITIES			
ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	5,409
2	SEEDING, FERTILIZING, AND MULCHING	AC	25.2
3	INLET PROTECTION DEVICES	EA	24
4	ROCK DITCH CHECK	LF	160
5	FILTER SOCK	LF	76
6	CONCRETE WASHOUT PIT	EA	1
7	12" PVC TEMPORARY STANDPIPE	EA	1
8	18" PVC TEMPORARY STANDPIPE	EA	1
9	24" PVC TEMPORARY STANDPIPE	EA	2

DISCHARGE POINT SUMMARY

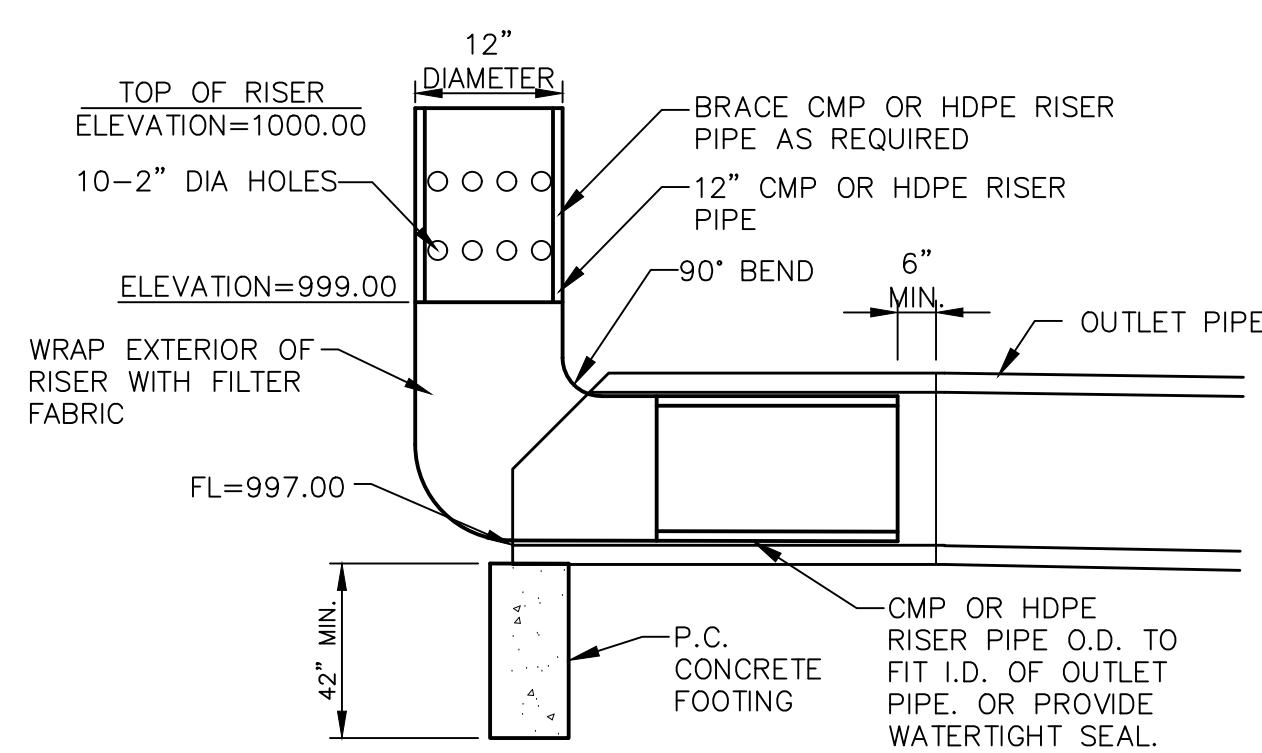
<u>DISCHARGE POINT #1 TO LITTLE WALNUT CREEK ±100 FT</u>		
TOTAL AREA DISTURBED TO DISCHARGE POINT		8.48 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)		16,128 CU FT
VOLUME PROVIDED IN SILT FENCE (965 LF @ 4.5 CU FT/LF OF FENCE)		4,343 CU FT
VOLUME PROVIDED IN DITCH CHECKS (80 LF @ 4.5 CU FT/LF)		360 CU FT
VOLUME PROVIDED IN TSB #1		20,155 CU FT
TOTAL VOLUME PROVIDED		24,858 CU FT
<u>DISCHARGE POINT #2 TO LITTLE WALNUT CREEK ±500 FT</u>		
TOTAL AREA DISTURBED TO DISCHARGE POINT		8.44 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)		30,384 CU FT
VOLUME PROVIDED IN SILT FENCE (1,344 LF @ 4.5 CU FT/LF OF FENCE)		6,048 CU FT
VOLUME PROVIDED IN TSB #2		56,164 CU FT
TOTAL VOLUME PROVIDED		62,212 CU FT
<u>DISCHARGE POINT #3 TO LITTLE WALNUT CREEK ±1200 FT</u>		
TOTAL AREA DISTURBED TO DISCHARGE POINT		11.81 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)		42,516 CU FT
VOLUME PROVIDED IN SILT FENCE (1,886 LF @ 4.5 CU FT/LF OF FENCE)		8,487 CU FT
VOLUME PROVIDED IN DITCH CHECKS (80 LF @ 4.5 CU FT/LF)		360 CU FT
VOLUME PROVIDED IN TSB #3		102,639 CU FT
TOTAL VOLUME PROVIDED		111,486 CU FT
<u>DISCHARGE POINT #4 TO LITTLE WALNUT CREEK ±2500 FT</u>		
TOTAL AREA DISTURBED TO DISCHARGE POINT		1.52 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)		5,472 CU FT
VOLUME PROVIDED IN FILTER SOCK (76 LF @ 2.0 CU FT/LF OF SOCK)		152
VOLUME PROVIDED IN SILT FENCE (1,214 LF @ 4.5 CU FT/LF OF FENCE)		5,463 CU FT
TOTAL VOLUME PROVIDED		5,615 CU FT

SWPPP LEGEND

DRAINAGE ARROW		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		TEMPORARY SEDIMENT BASIN	
CONCRETE WASHOUT PIT			
TEMPORARY STANDPIPE			

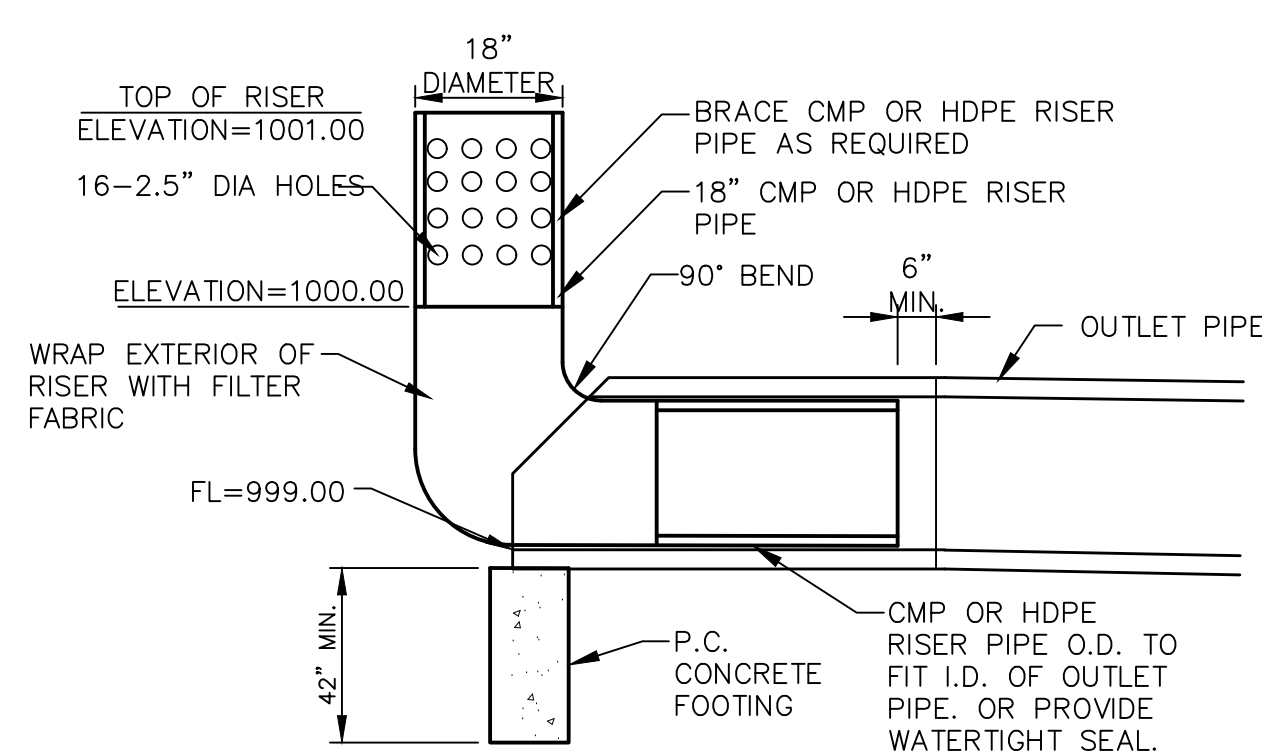
TEMPORARY STAND PIPE DETAIL #1

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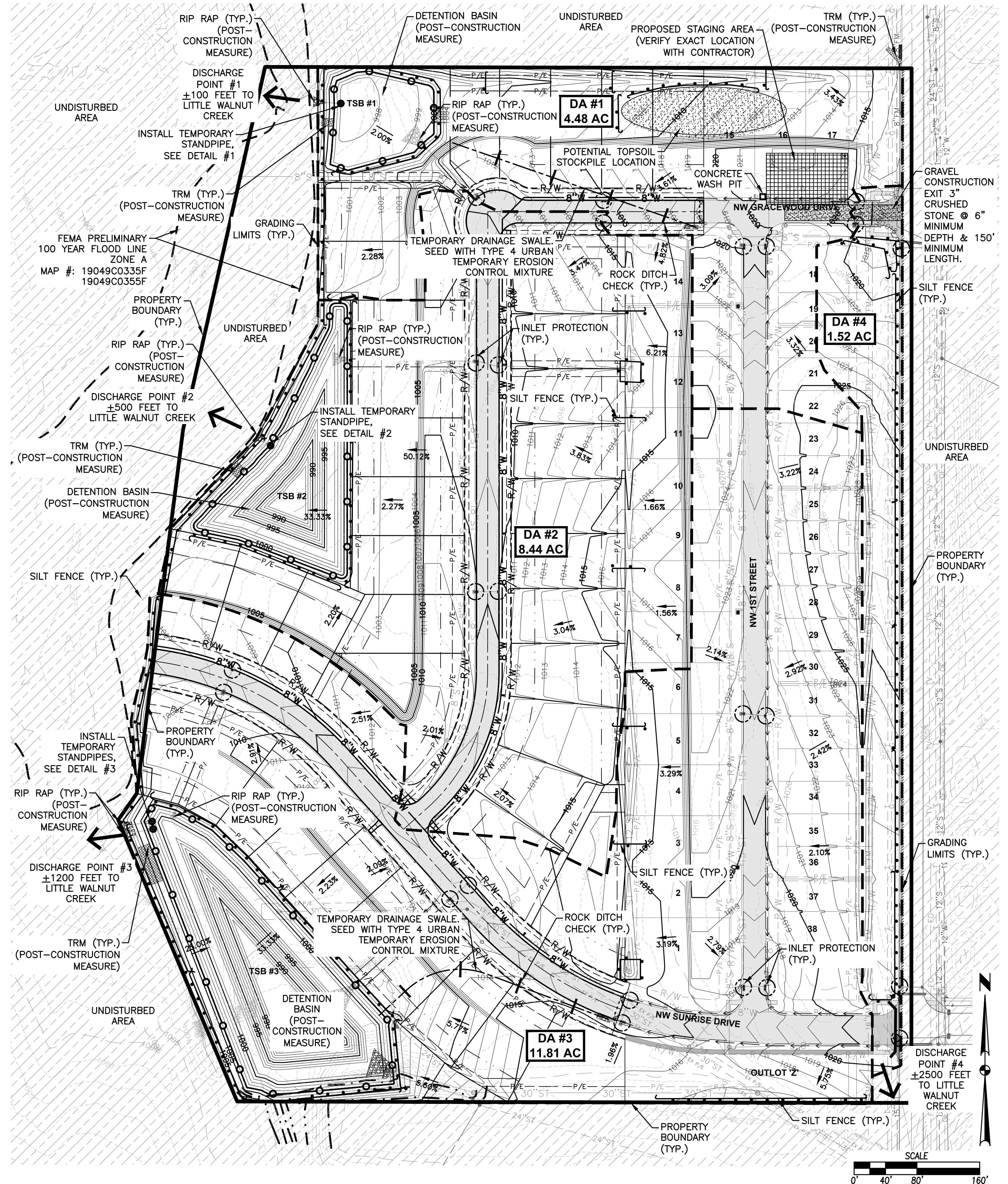
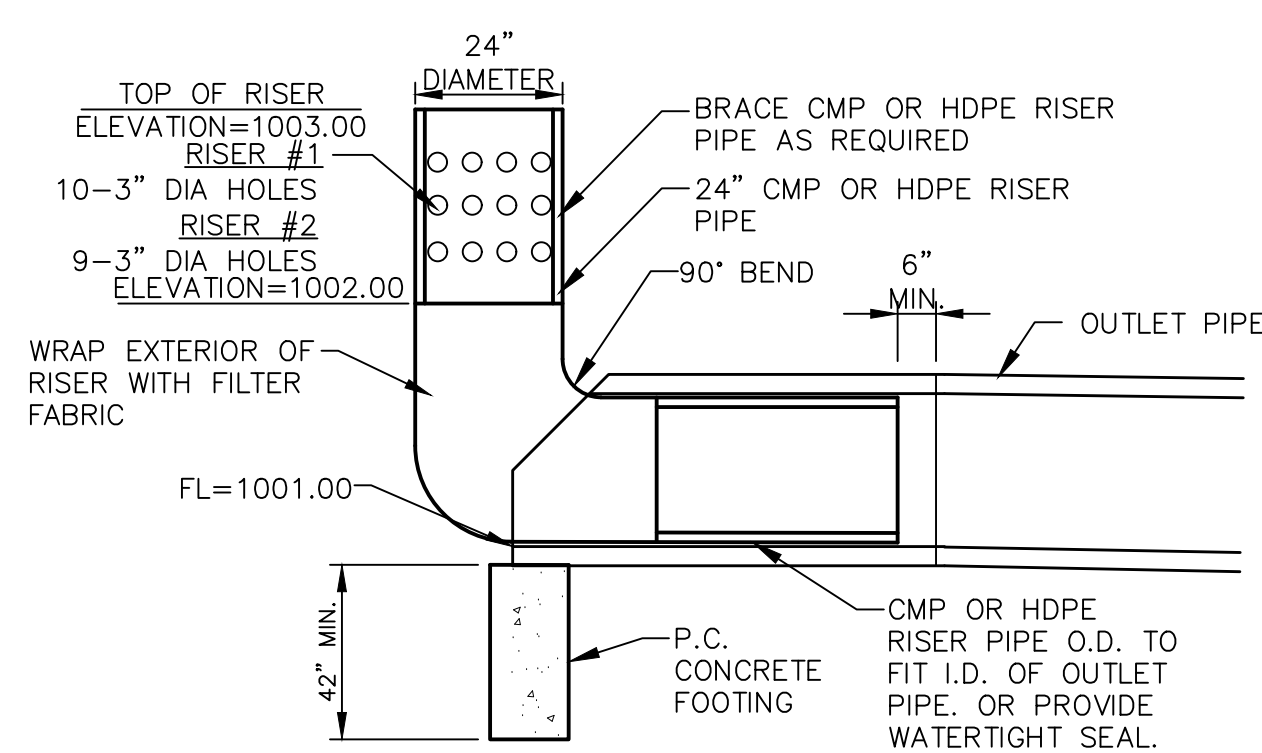
TEMPORARY STAND PIPE DETAIL #2

NOT TO SCALE



TEMPORARY STAND PIPES DETAIL #3 (TWO RISERS)

NOT TO SCALE



REVIEWS	DATE
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SIXTH SUBMITTAL	10/19/17
FIFTH SUBMITTAL	10/12/17
FOURTH SUBMITTAL	9/15/17
THIRD SUBMITTAL	8/24/17
SECOND SUBMITTAL	8/3/17
FIRST SUBMITTAL	4/24/17

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

TECH: DAM

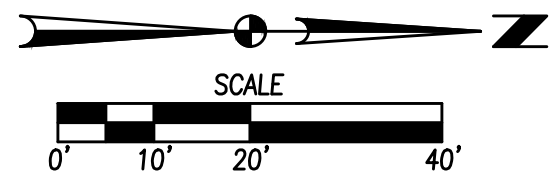
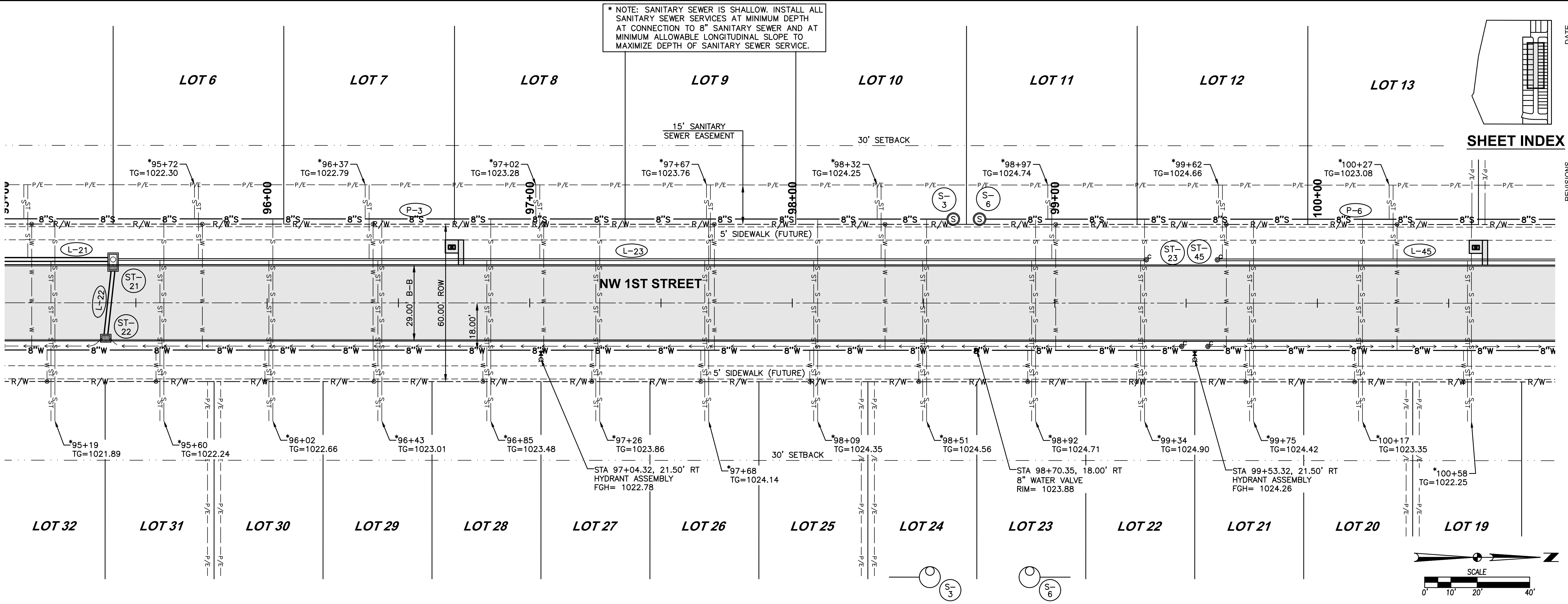
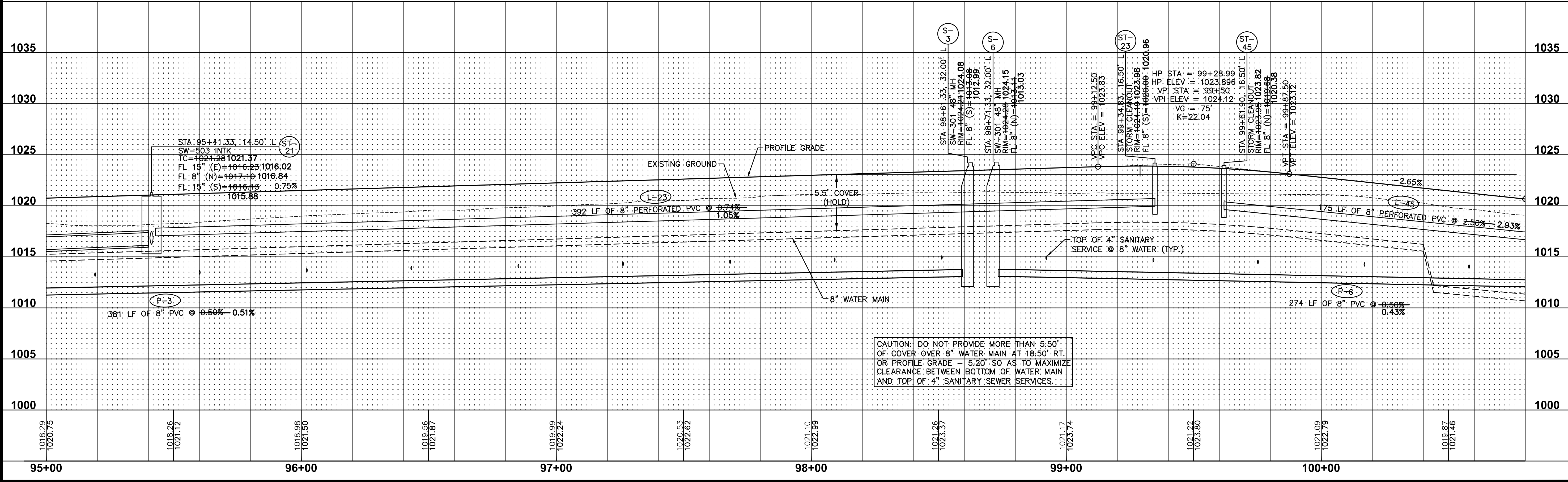
ENGINEER: JJN



INDI RUN PLAT 1
EROSION AND SEDIMENT CONTROL PLAN
WAUKEE, IOWA

8/20
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DESIGNED BY: JLN
CHECKED BY: JLN
REVIEWED BY: JLN



SHEET INDEX

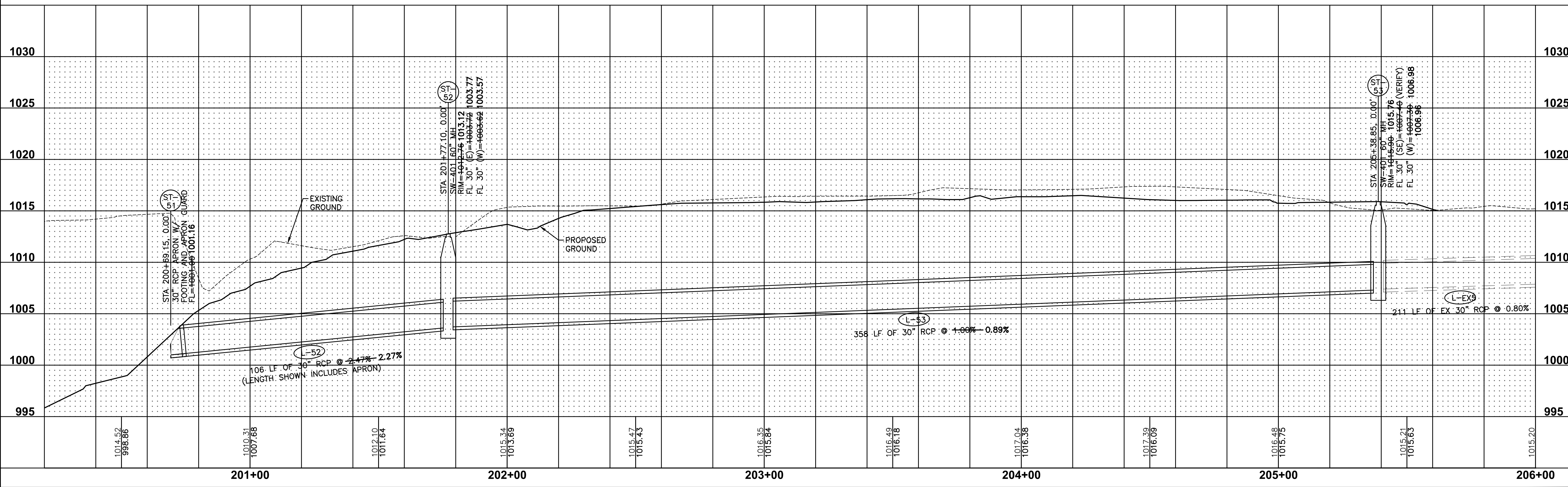
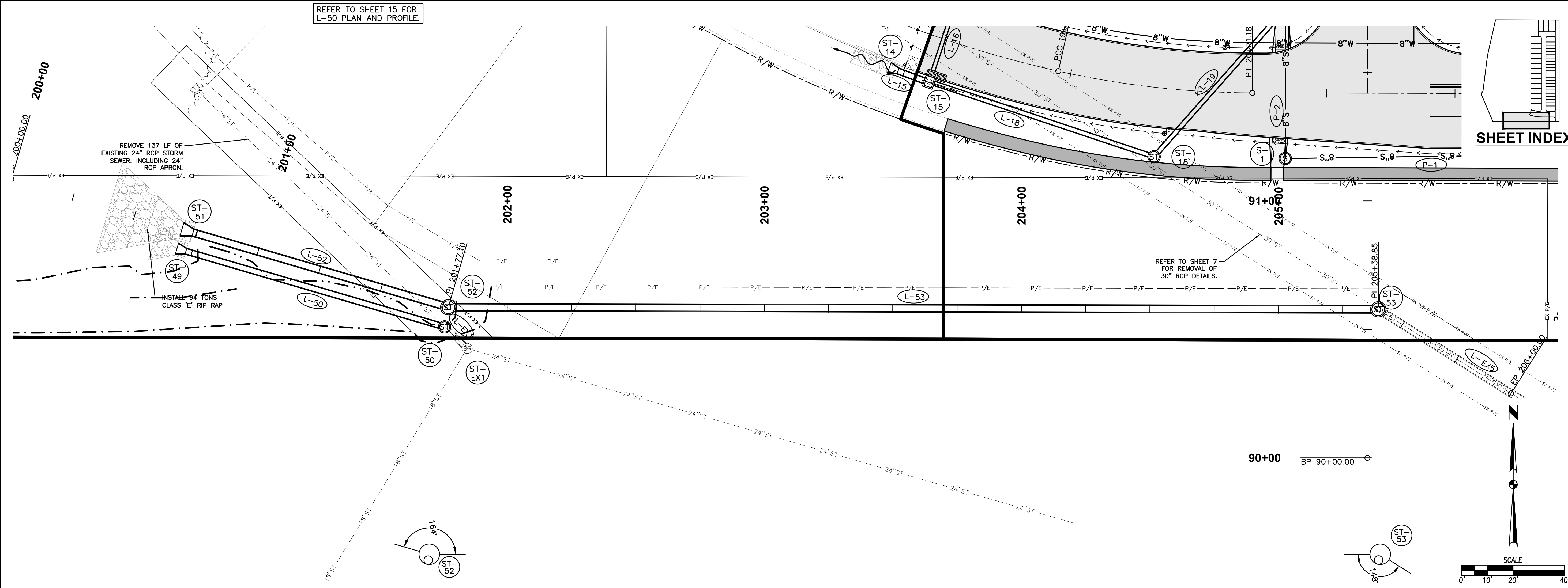
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9/15/17	FOURTH SUBMITTAL	INDI RUN PLAT 1
8/24/17	THIRD SUBMITTAL	INDI RUN PLAT 1
8/24/17	SECOND SUBMITTAL	INDI RUN PLAT 1
4/24/17	FIRST SUBMITTAL	INDI RUN PLAT 1

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GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: JLN TECH: DAM

INDI RUN PLAT 1
PLAN AND PROFILE

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PLOTED BY: JONAS ANDERSON



SHEET INDEX

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10/19/17	SIXTH SUBMITTAL
10/12/17	FIFTH SUBMITTAL
9/15/17	FOURTH SUBMITTAL
9/24/17	THIRD SUBMITTAL
8/24/17	SECOND SUBMITTAL
4/24/17	FIRST SUBMITTAL

REVISIONS	
3405 S.E. CROSSROADS DRIVE, SUITE G	TECH: DAM
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FAX: (515) 369-4410	

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

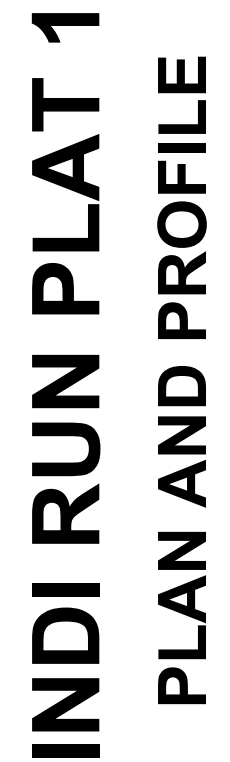
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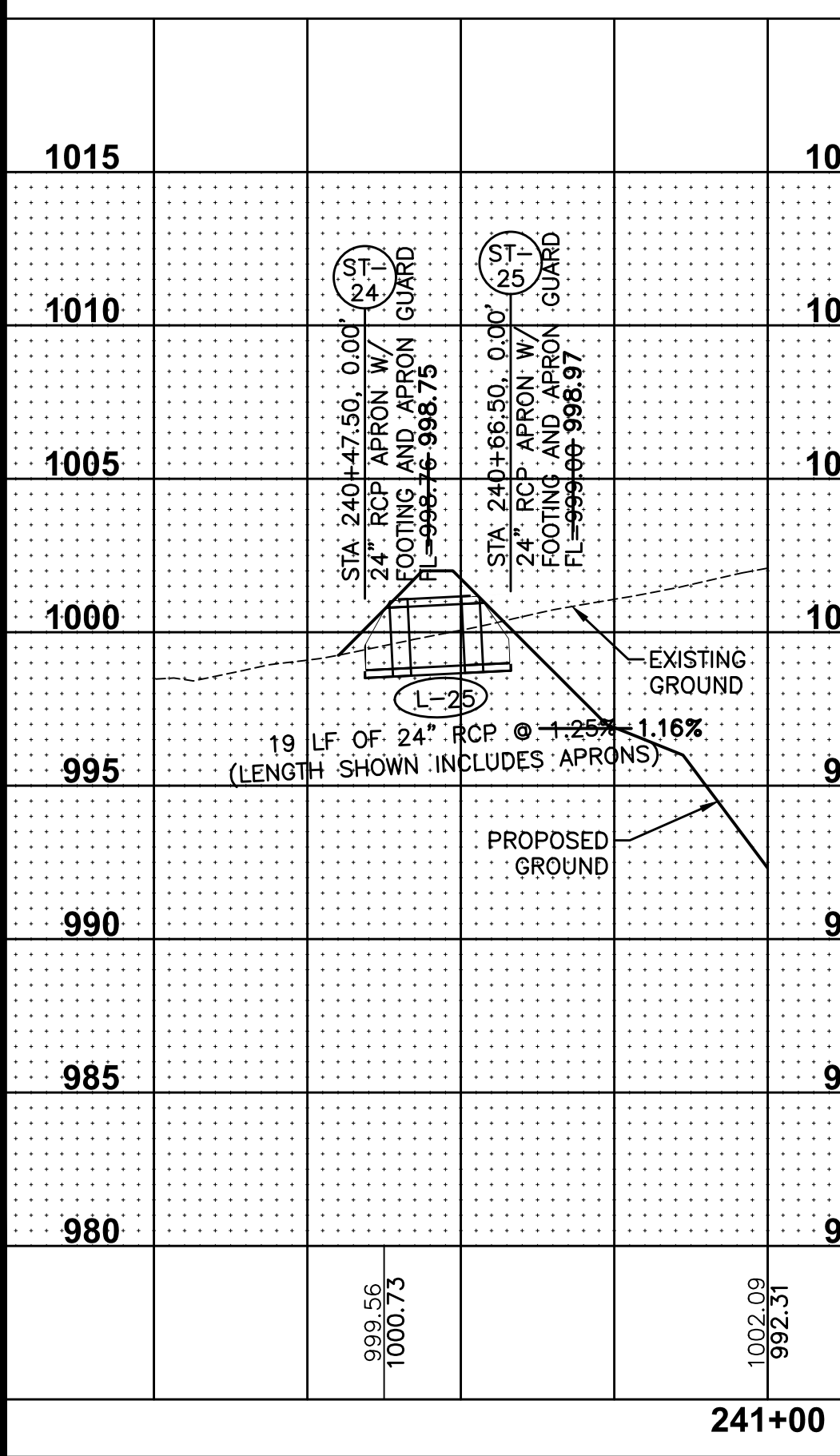
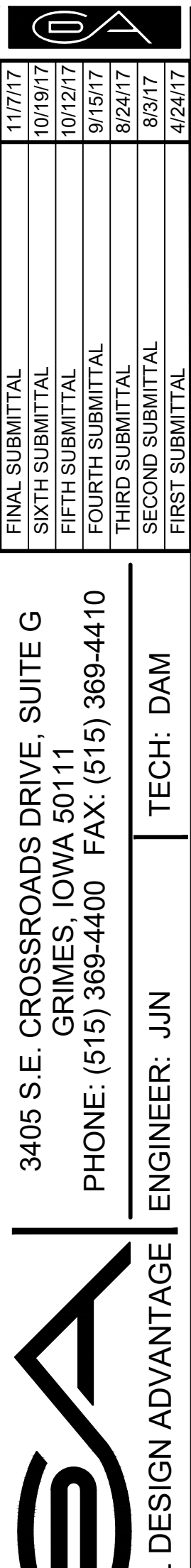
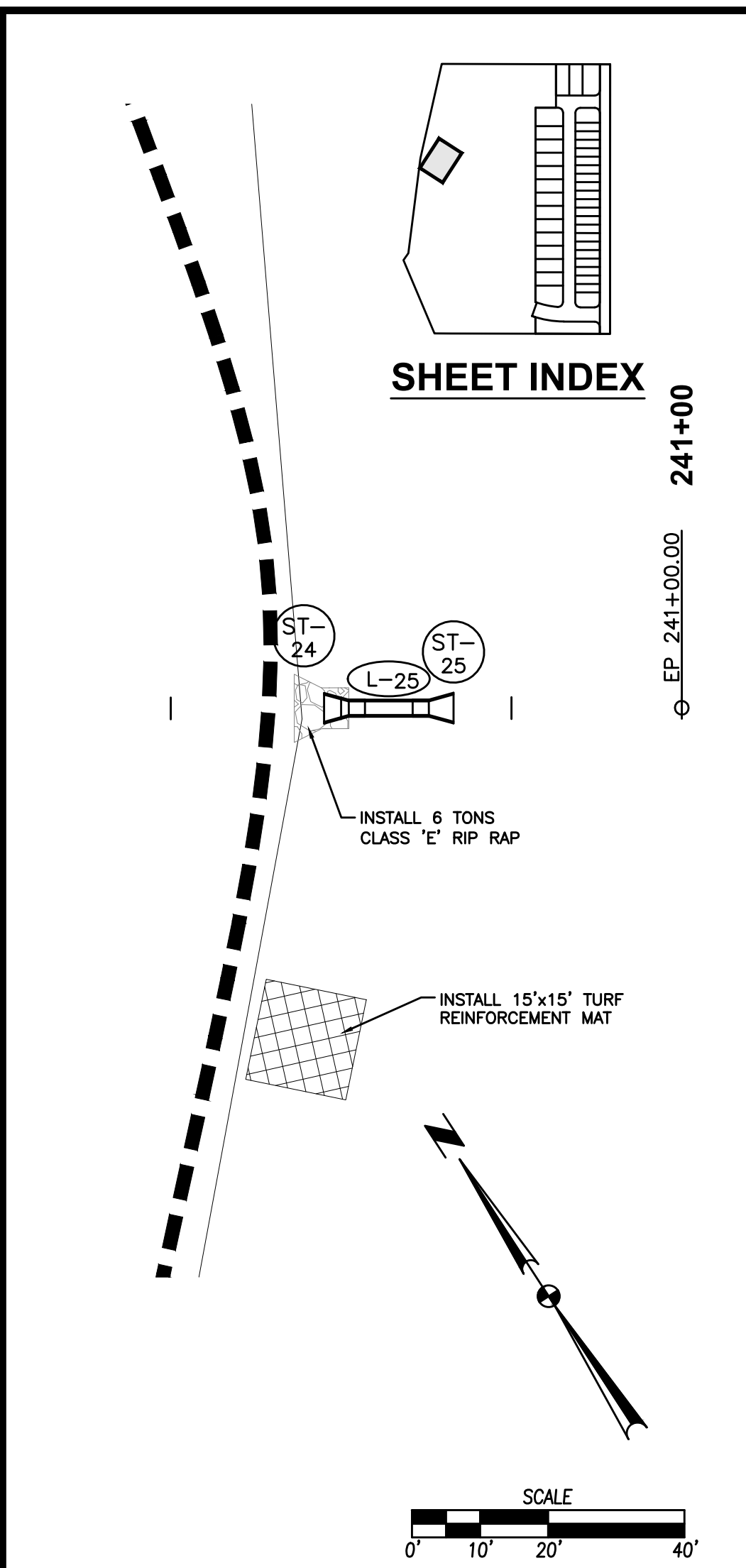
PLAN AND PROFILE

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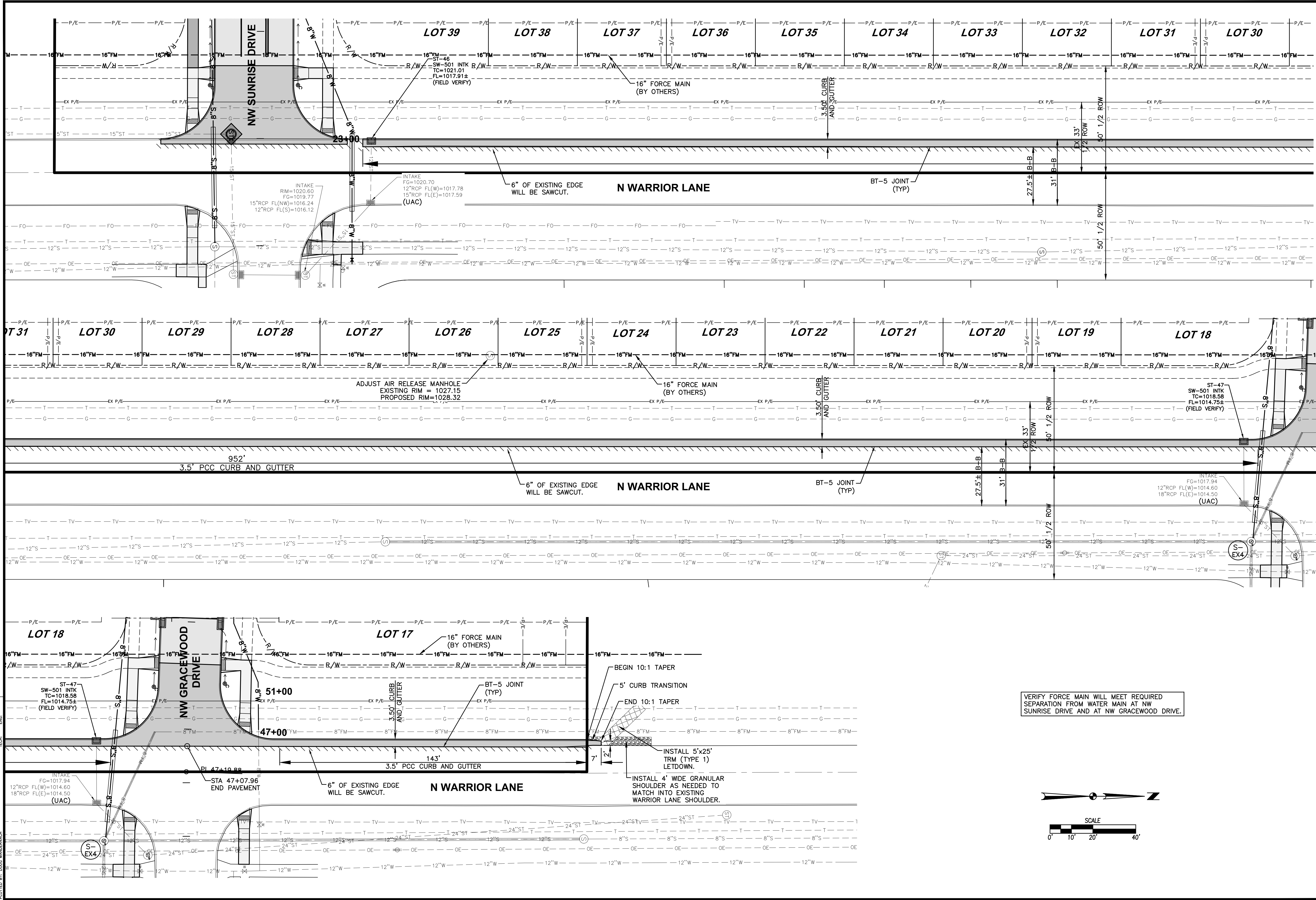
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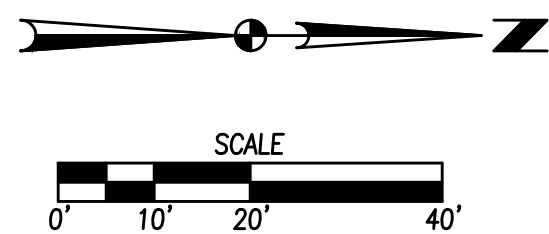




FILE: H:\2016\160421\DWG\160421-PNP-AS-BUILD.DWG
DATE PLOTTED: 9/11/2018 11:19 AM
COMMENTS: ENG.
DESIGNED BY: J. ANDERSON



VERIFY FORCE MAIN WILL MEET REQUIRED
SEPARATION FROM WATER MAIN AT NW
SUNRISE DRIVE AND AT NW GRACEWOOD DRIVE.

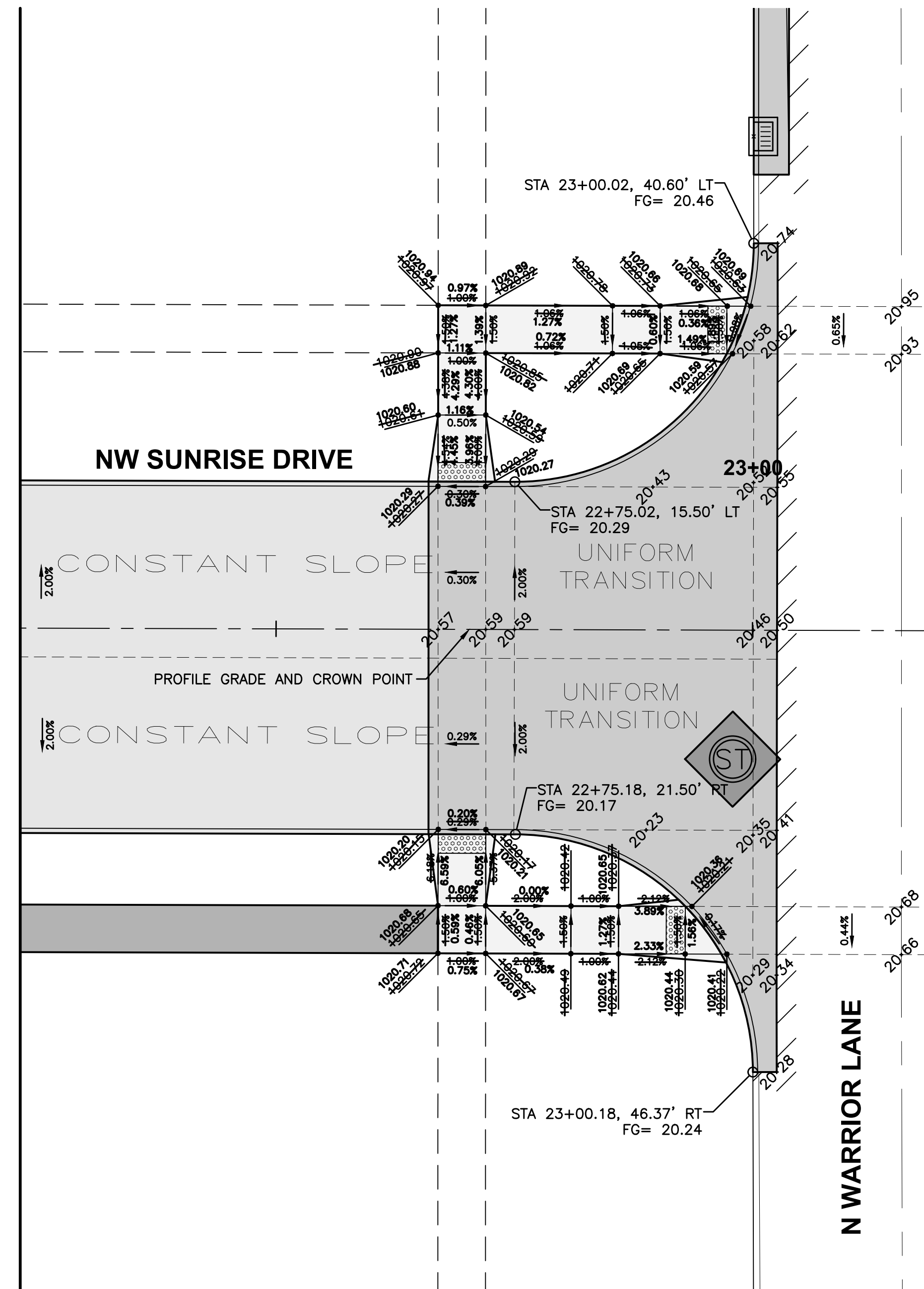


DATE	
11/7/17	FINAL SUBMITTAL
10/19/17	SIXTH SUBMITTAL
10/12/17	FIFTH SUBMITTAL
9/15/17	FOURTH SUBMITTAL
9/24/17	THIRD SUBMITTAL
8/24/17	SECOND SUBMITTAL
4/24/17	FIRST SUBMITTAL

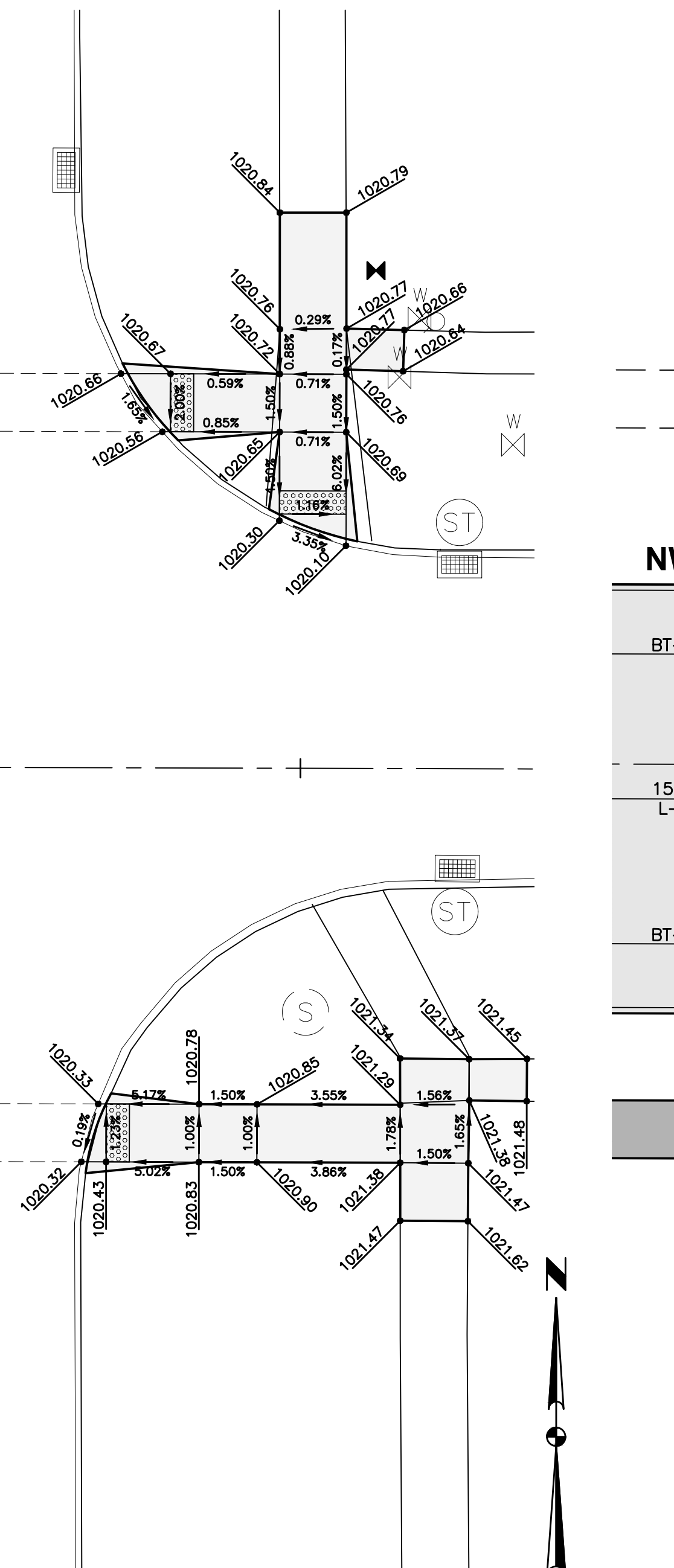
REVISIONS	
3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	TECH: DAM
ENGINEER: JJN	

INDI RUN PLAT 1
N WARRIOR LANE PLAN

17/20
1604.211



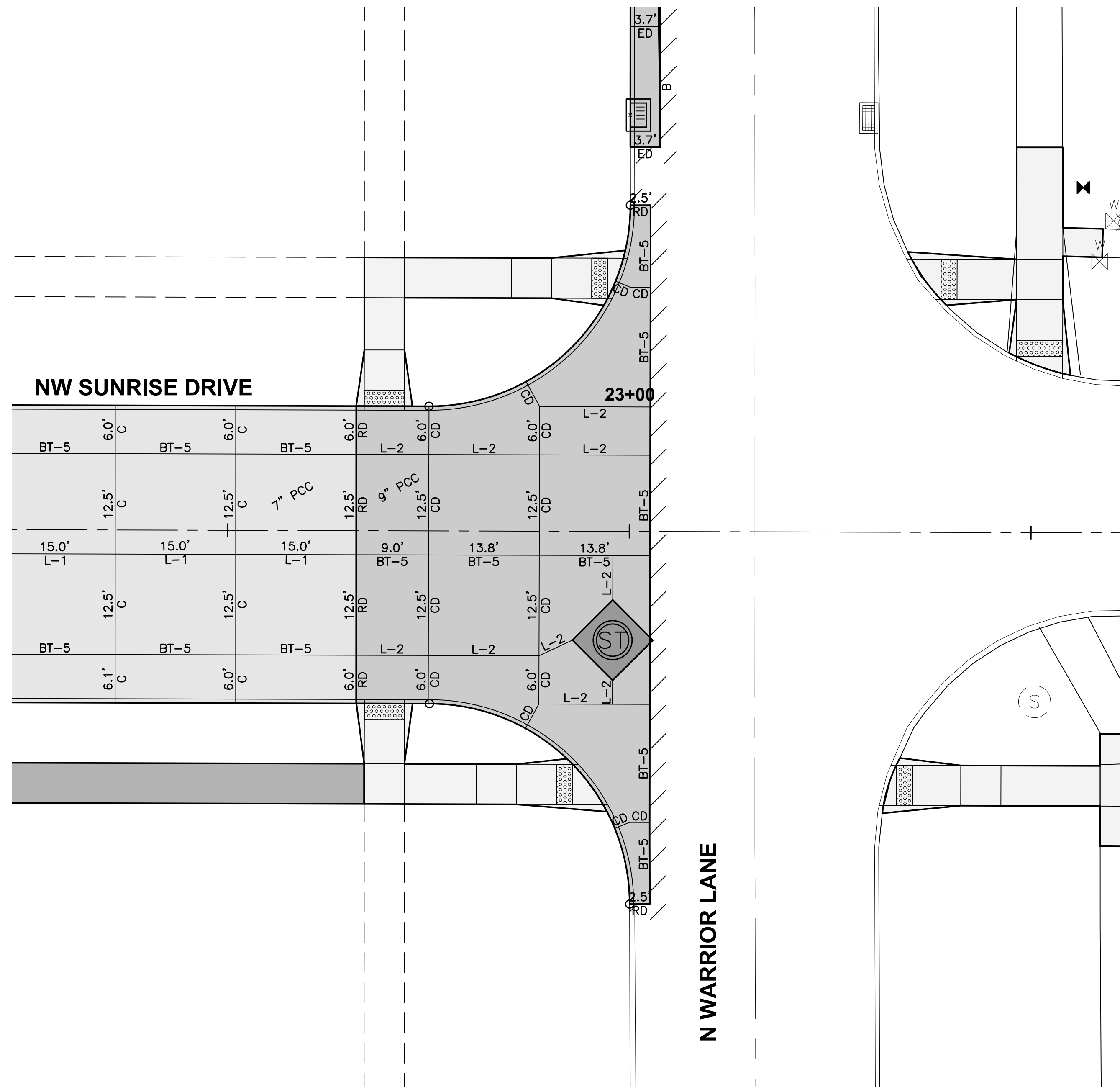
GEOMETRICS AND STAKING LAYOUT



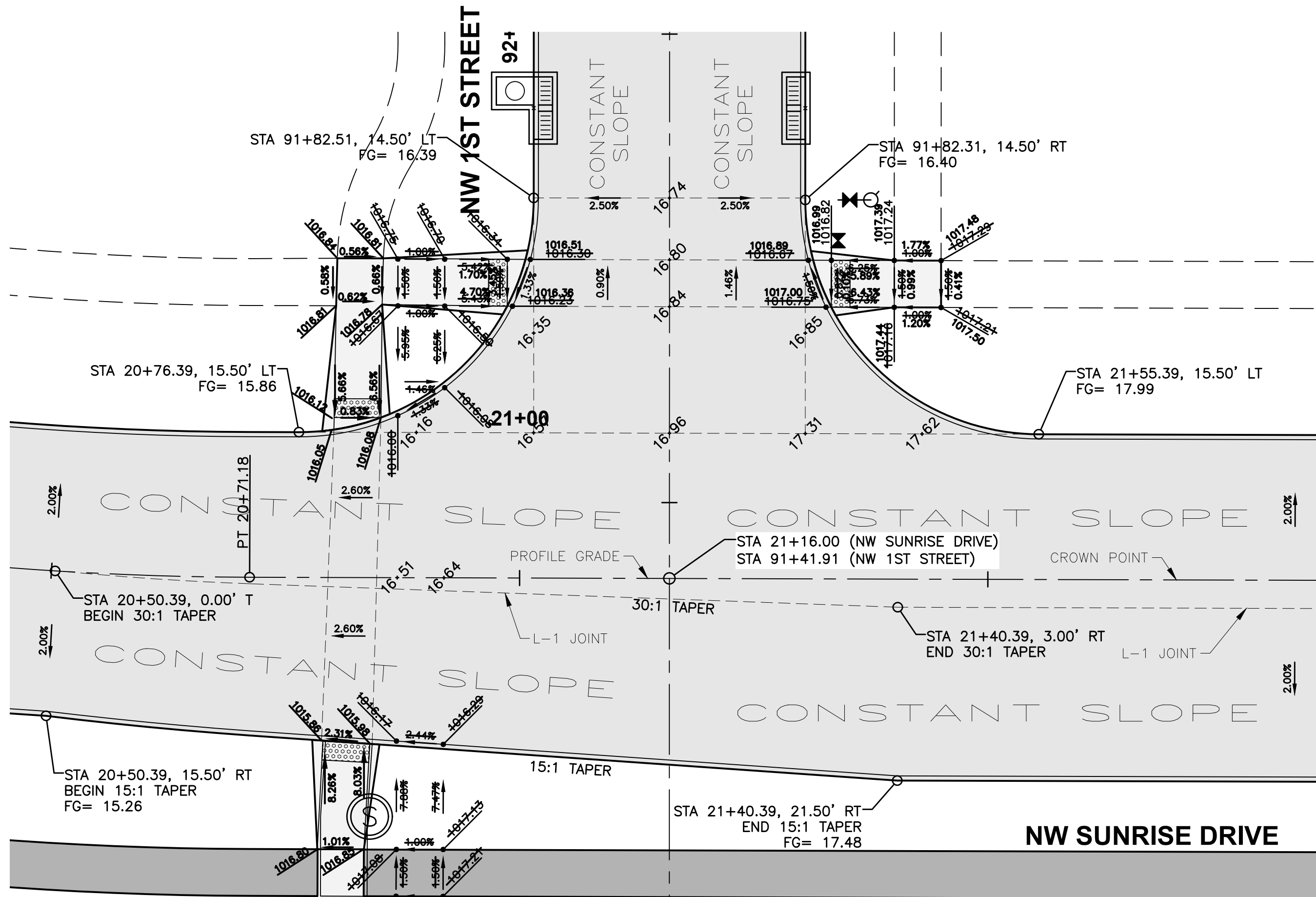
A horizontal scale bar labeled "SCALE" at the top center. Below the bar, there are four tick marks labeled "0'", "5'", "10'", and "20'". The bar is divided into segments by vertical lines at these marks. The segments are filled with alternating black and white colors: the first segment (0' to 5') is black, the second (5' to 10') is white, the third (10' to 15') is black, and the fourth (15' to 20') is white.

NOTES:

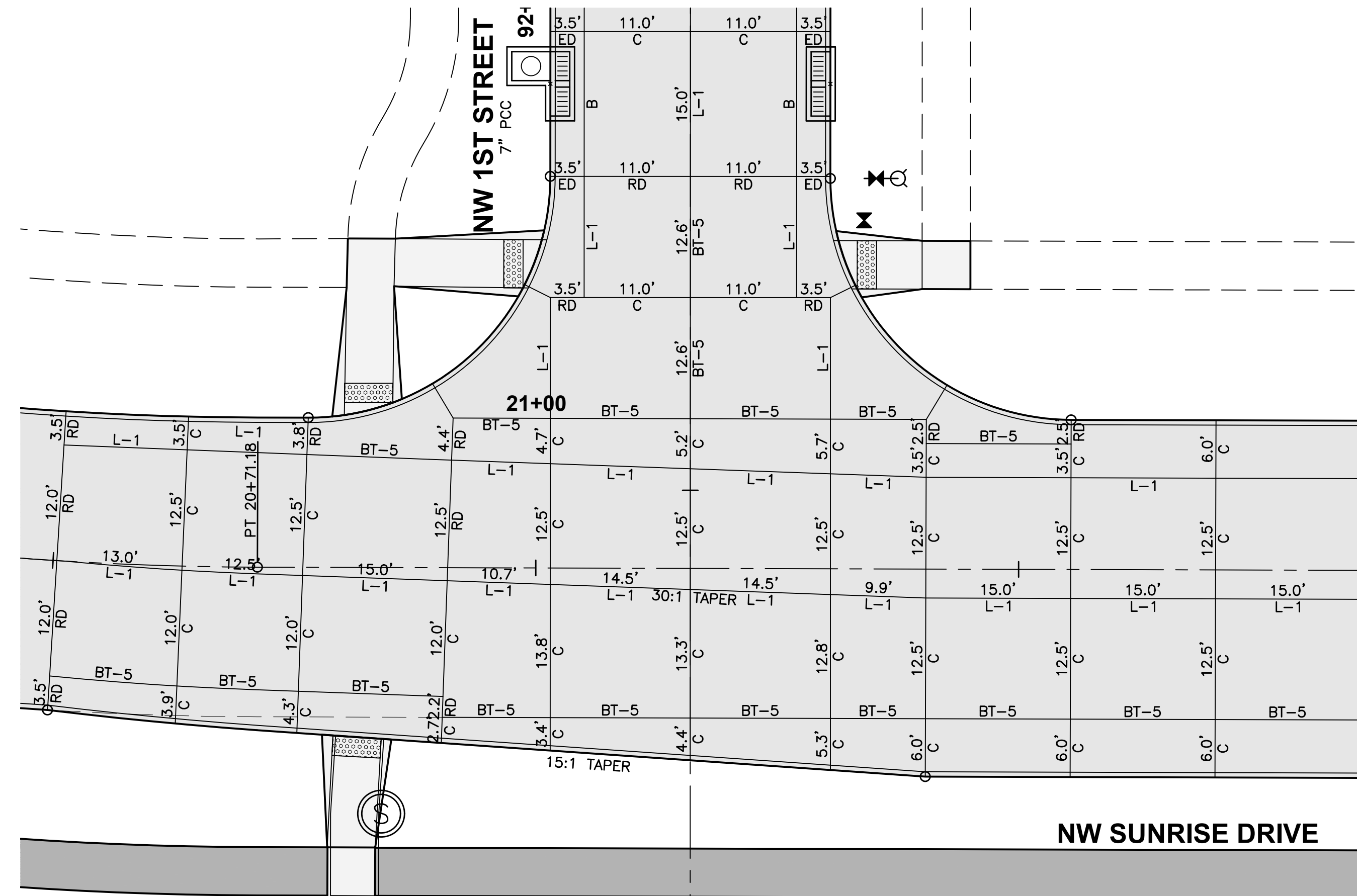
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
4. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO MATCH PROJECT DATUM.



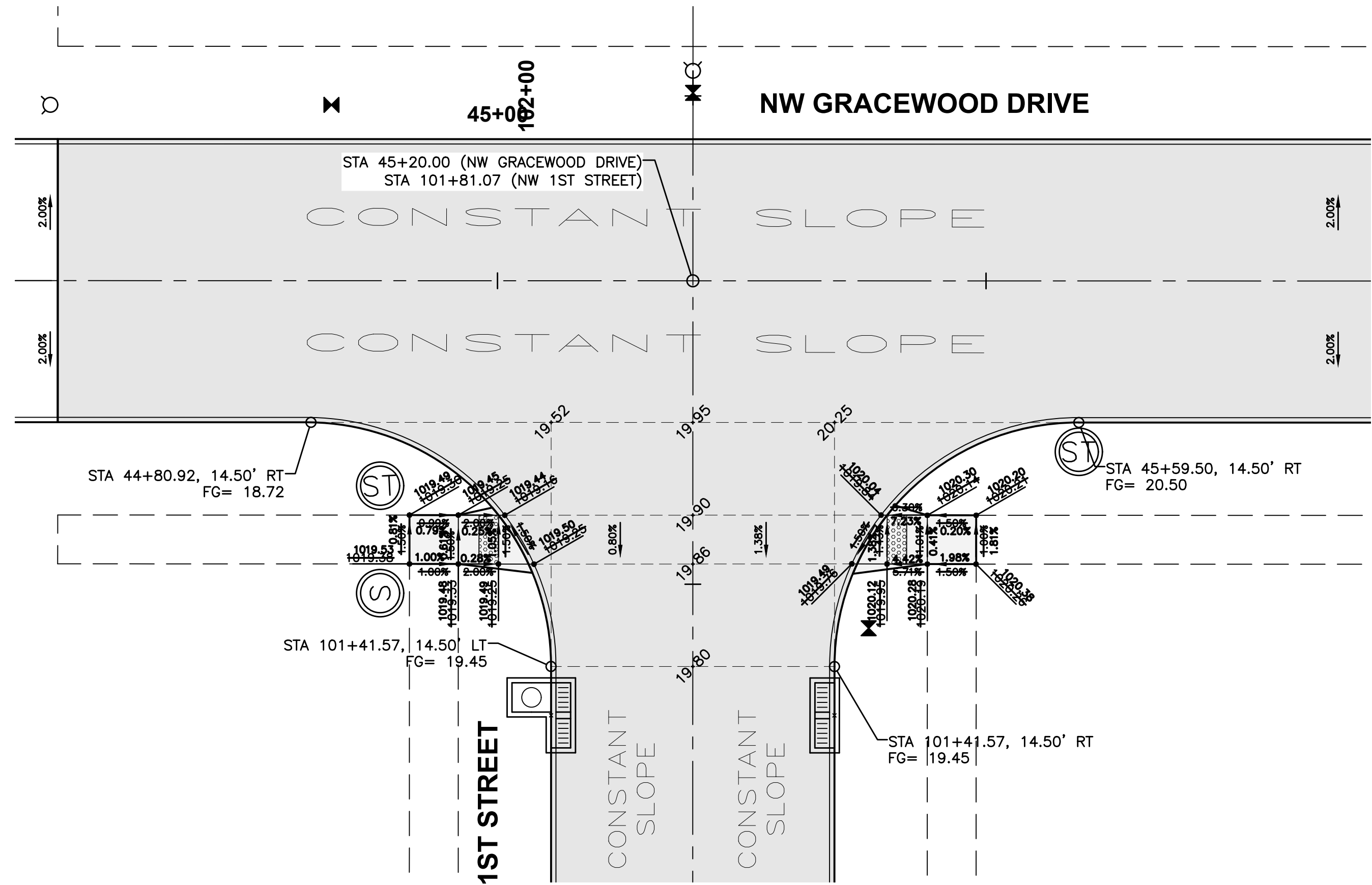
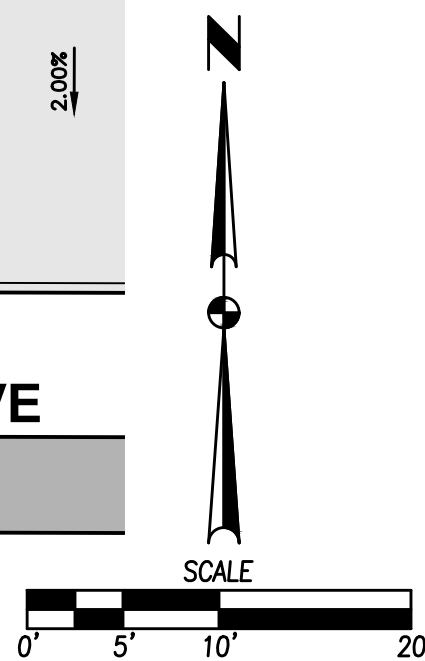
JOINTING LAYOUT



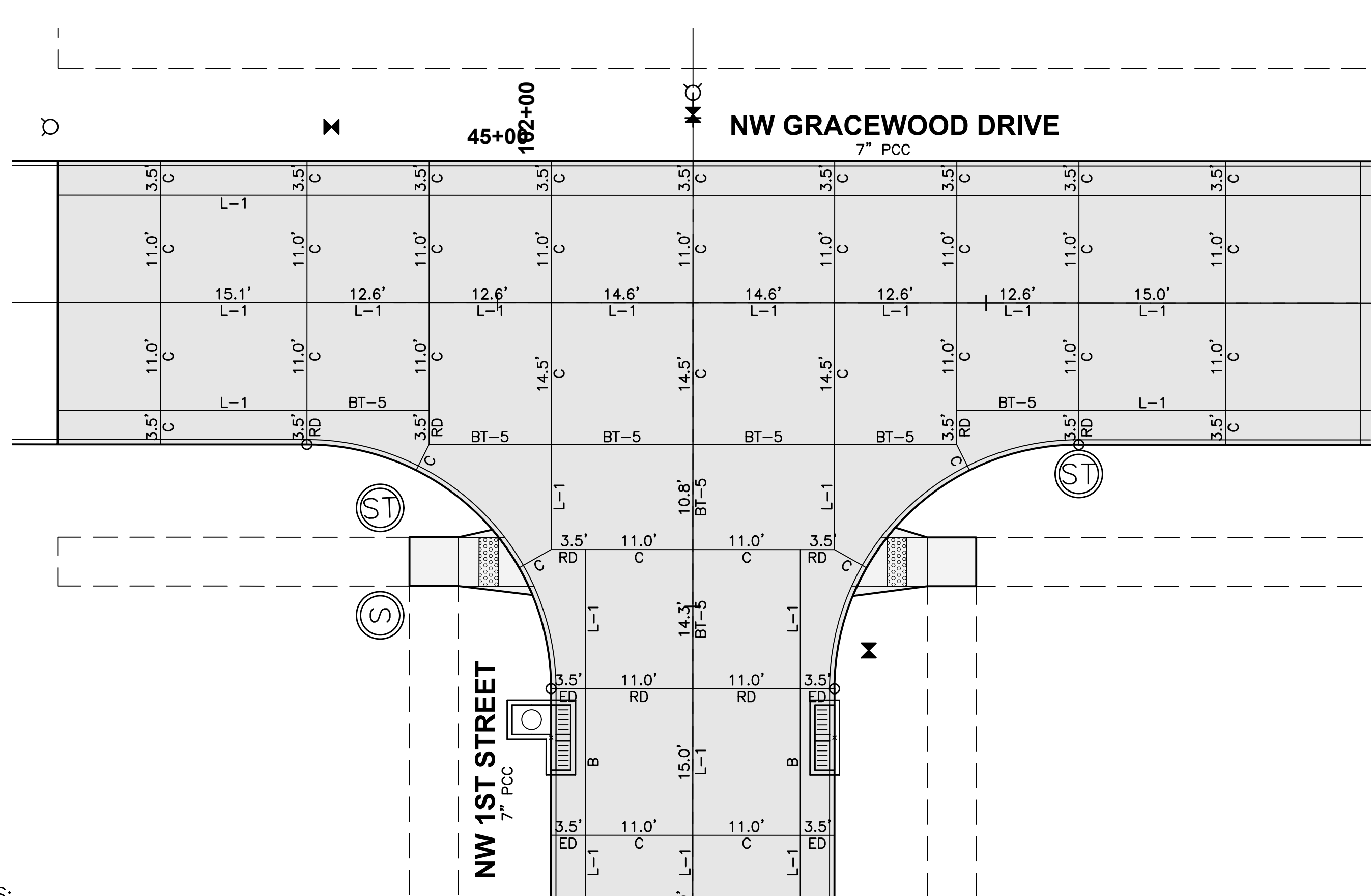
GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT

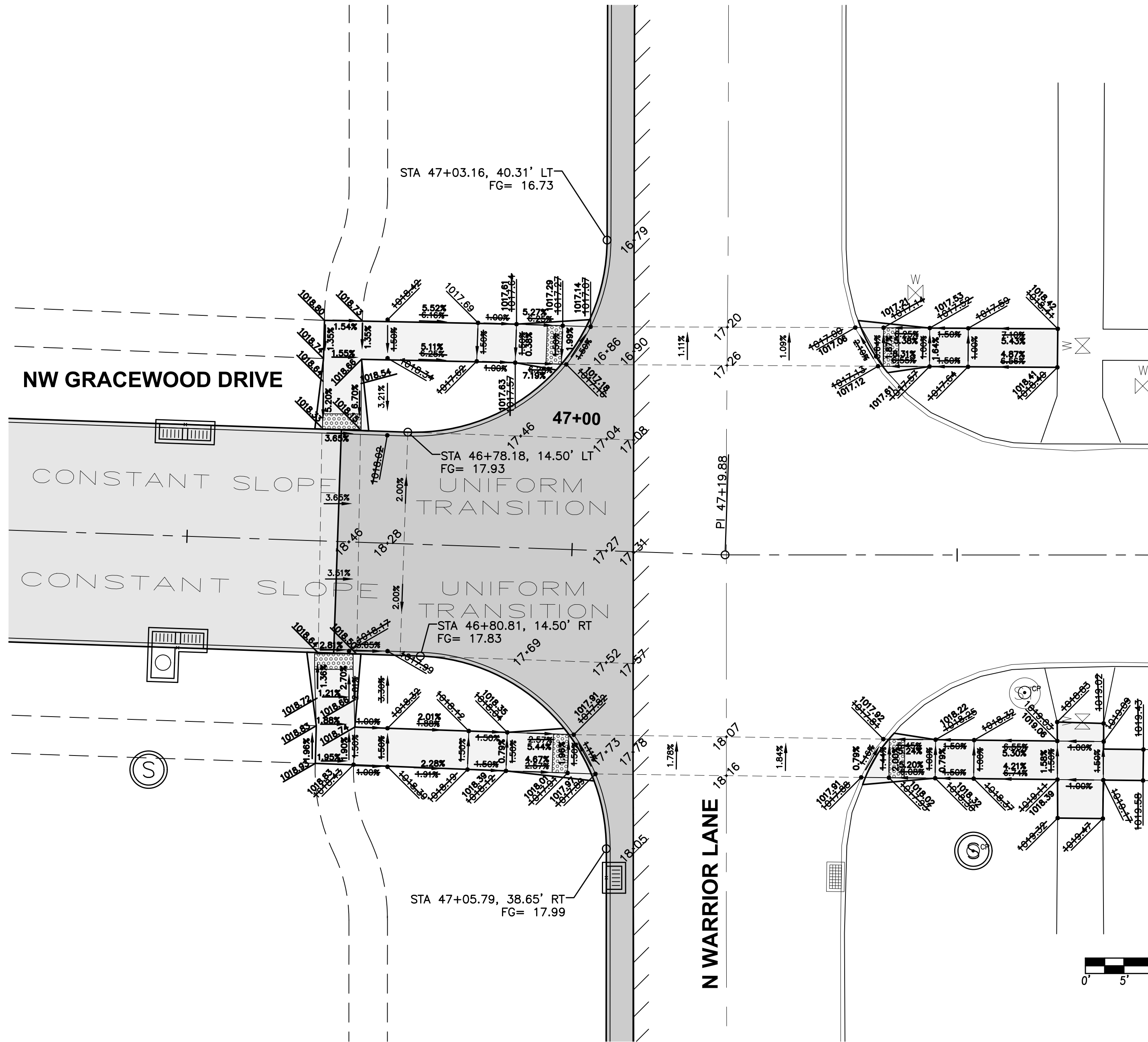


GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT

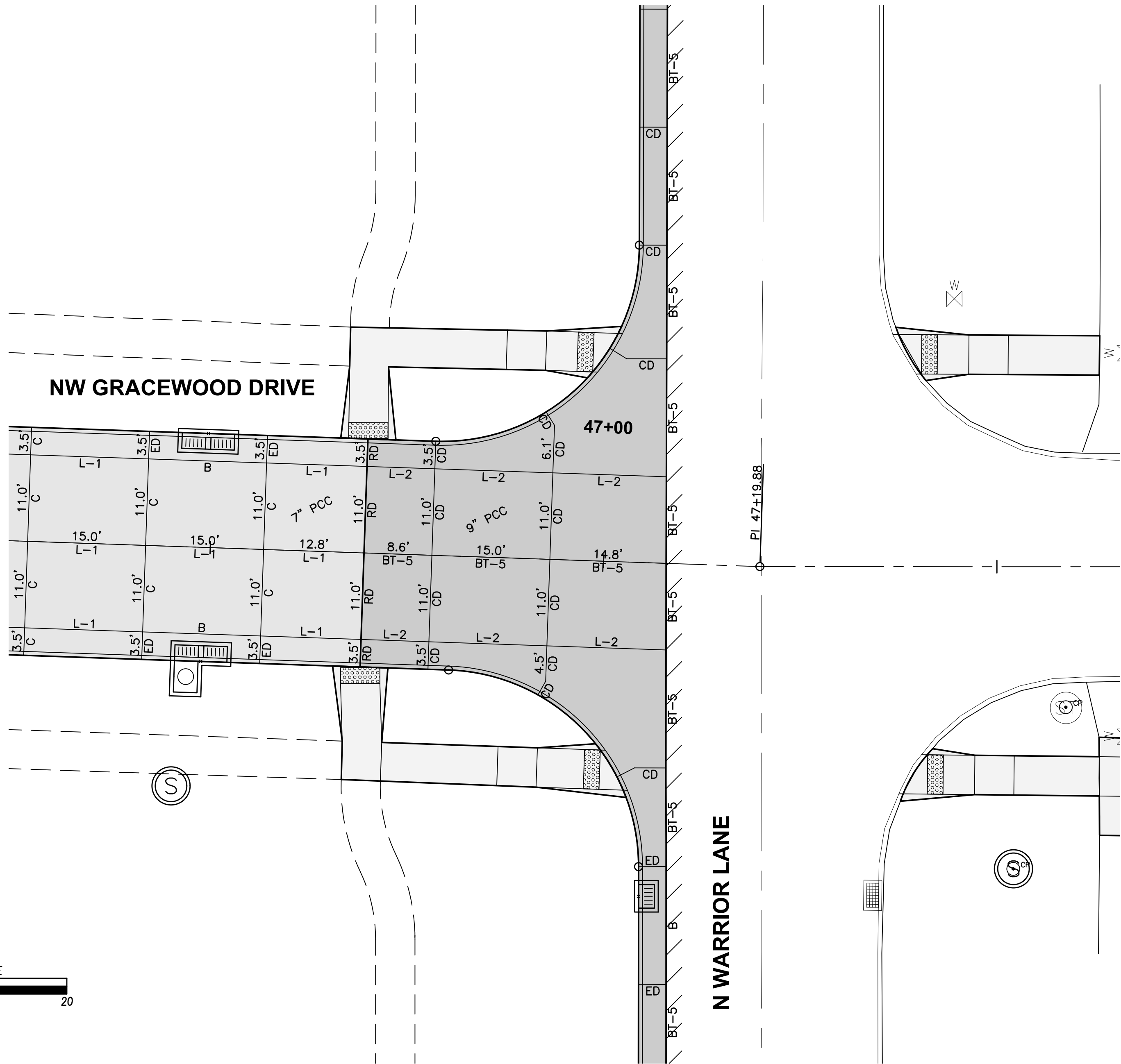
- NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
 2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
 3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
 4. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO MATCH PROJECT DATUM.



GEOMETRICS AND STAKING LAYOUT

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
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4. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO MATCH PROJECT DATUM.



JOINTING LAYOUT