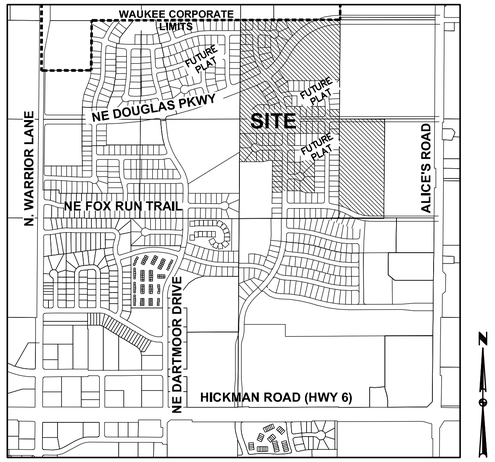
CONSTRUCTION PLANS FOR:

THE LANDING AT SHADOW CREEK PLAT 2

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2–4	TYPICAL SECTIONS AND DETAILS
5	QUANTITIES AND REFERENCE NOTES
6	HYDRANT COVERAGE PLAN
7–9	GRADING PLAN
10–12	EROSION & SEDIMENT CONTROL PLAN
13–38	STORM AND SANITARY SEWER PLAN AND PROFILE
39–56	WATERMAIN PLAN AND PROFILE
57–63	INTERSECTION DETAILS
64	LANDSCAPE PLAN

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 PARCEL 'BB' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2013, PAGE 5655 IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 79, 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 NORTH QUARTER CORNER OF SAID SECTION 27 AND THE NORTHWEST CORNER OF SAID PARCEL 'BB'; THENCE NORTH 89°32'47" EAST ALONG THE NORTHERLY LINE OF SAID PARCEL 'BB', 1320.03 FEET TO THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 27; THENCE SOUTH 00°03'35" EAST ALONG THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 796.83 FEET; THENCE NORTH 89°58'40" WEST, 197.32 FEET; THENCE SOUTH 79°39'00" WEST, 77.87 FEET; THENCE SOUTH 89°34'12" WEST, 414.82 FEET; THENCE SOUTH 05°48'00" EAST, 142.25 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE SOUTHERLY, WHOSE RADIUS IS 370.00 FEET, WHOSE ARC LENGTH IS 34.68 FEET, AND WHOSE CHORD BEARS NORTH 86°53'06" EAST, 34.67 FEET; THENCE NORTH 89°34'12" EAST, 6.43 FEET; THENCE SOUTH 00°25'48" EAST, 198.91 FEET; THENCE NORTH 89°34'37" EAST, 442.08 FEET; THENCE SOUTHERLY ALONG A CURVE CONCAVE WESTERLY, WHOSE RADIUS IS 570.00 FEET, WHOSE ARC LENGTH IS 10.77 FEET, AND WHOSE CHORD BEARS SOUTH 00°36'03" EAST, 10.77 FEET; THENCE SOUTH 00°03'35" EAST, 29.60 FEET; THENCE NORTH 89°56'25" EAST, 190.000 FEET TO SAID WEST LINE; THENCE SOUTH 00°03'35" EAST ALONG SAID WEST LINE, 127.37 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 89°34'37" EAST ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 598.42 FEET TO THE NORTHWEST CORNER OF PARCEL 'AA' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2013, PAGE 5655; THENCE SOUTH 00°03'16" EAST ALONG THE WEST LINE OF SAID PARCEL 'AA', 1281.95 FEET; THENCE SOUTH 89°36'27" WEST, 182.07 FEET; THENCE WESTERLY ALONG A CURVE CONCAVE NORTHERLY, WHOSE RADIUS IS 465.00 FEET, WHOSE ARC LENGTH IS 245.35 FEET, AND WHOSE CHORD BEARS NORTH 75°16'36" WEST, 242.51 FEET; THENCE WESTERLY ALONG A CURVE CONCAVE SOUTHERLY, WHOSE RADIUS IS 785.00 FEET, WHOSE ARC LENGTH IS 197.51 FEET, AND WHOSE CHORD BEARS NORTH 67°22'09" WEST, 196.99 FEET; THENCE NORTH 00°03'35" WEST, 943.56 FEET; THENCE SOUTH 89°56'25" WEST, 190.00 FEET; THENCE NORTH 00°03'35" WEST, 6.57 FEET; THENCE SOUTH 89°34'37" WEST, 401.87 FEET; THENCE SOUTH 00°03'56" EAST, 160.00 FEET; THENCE SOUTH 00°25'23" EAST, 60.00 FEET; THENCE SOUTH 89°34'37" WEST, 0.37 FEET; THENCE SOUTH 00°03'56" EAST, 160.00 FEET; THENCE NORTH 89°34'37" EAST, 77.21 FEET; THENCE NORTH 71°40'03" EAST, 81.31 FEET; THENCE NORTH 89°34'37" EAST, 112.41 FEET; THENCE SOUTH 00°03'35" EAST, 430.00 FEET; THENCE SOUTH 89°34'37" WEST, 112.37 FEET; THENCE NORTH 72°27'20" WEST, 81.00 FEET; THENCE SOUTH 89°34'37" WEST, 170.21 FEET; THENCE SOUTH 89°56'04" WEST, 70.00 FEET; THENCE SOUTH 00°03'56" EAST, 20.21 FEET; THENCE SOUTH 89°56'04" WEST, 130.00 FEET; THENCE NORTH 00°03'56" WEST, 420.00 FEET; THENCE SOUTH 89°56'04" WEST, 49.32 FEET; THENCE SOUTH 79°00'13" WEST, 81.38 FEET; THENCE SOUTH 89°34'37" WEST, 305.77 FEET TO THE WESTERLY LINE OF SAID PARCEL 'BB'; THENCE NORTH 00°03'56" WEST ALONG SAID WESTERLY LINE, 1879.52 FEET TO SAID NORTHWEST CORNER OF PARCEL 'BB' AND THE POINT OF BEGINNING AND CONTAINING 68.77 ACRES (2,995,545 SQUARE FEET).

GENERAL LEGEND

PROPOSED		EXISTING	
SECTION LINE		SANITARY MANHOLE	S
CENTER LINE		WATER VALVE BOX	W
RIGHT OF WAY	R/W	FIRE HYDRANT	
PERMANENT EASEMENT		WATER CURB STOP	CS
TEMPORARY EASEMENT		WELL	WELL
TYPE SW–501 STORM INTAKE		STORM SEWER MANHOLE	ST
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	ST	DECIDUOUS TREE	
TYPE SW–401 STORM MANHOLE	ST	CONIFEROUS TREE	
TYPE SW–402 STORM MANHOLE	ST	DECIDUOUS SHRUB	
TYPE SW–301 SANITARY MANHOLE	S	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	E
STORM SEWER STRUCTURE NO.	ST–10	ELECTRIC TRANSFORMER	E
STORM SEWER PIPE NO.	L–10	ELECTRIC MANHOLE OR VAULT	E
SANITARY SEWER STRUCTURE NO.	S–10	TRAFFIC SIGN	
SANITARY SEWER PIPE NO.	P–10	TELEPHONE JUNCTION BOX	T
SANITARY SEWER WITH SIZE		TELEPHONE MANHOLE/VAULT	T
SANITARY SERVICE	S	TELEPHONE POLE	
STORM SEWER		GAS VALVE BOX	G
STORM SERVICE	ST	CABLE TV JUNCTION BOX	TV
WATERMAIN WITH SIZE		CABLE TV MANHOLE/VAULT	TV
WATER SERVICE	W	MAIL BOX	M
SAWCUT (FULL DEPTH)		BENCHMARK	BM
SILT FENCE		SOIL BORING	SB
USE AS CONSTRUCTED	(UAC)	UNDERGROUND TV CABLE	TV
MINIMUM PROTECTION ELEVATION	MPE	GAS MAIN	G
TOP OF PROPOSED GROUND	TG	FIBER OPTIC	FO
MINIMUM OPENING ELEVATION	MOE	UNDERGROUND TELEPHONE	T
MINIMUM GRADE AT STRUCTURE	MGS	OVERHEAD ELECTRIC	OE
		UNDERGROUND ELECTRIC	E
		FIELD TILE	TILE
		SANITARY SEWER W/ SIZE	8"S
		STORM SEWER W/ SIZE	15" RCP
		WATER MAIN W/ SIZE	8"W

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 2014 EDITION OF SUDAS STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.

OWNER/DEVELOPER

LANDING AT SHADOW CREEK, LLC
CONTACT: BILL SPENCER
3405 SE CROSSROADS DRIVE, SUITE E
GRIMES, IA 50111

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 SIDE YARD SETBACK:
– 15' SIDE YARD SETBACK
(TOTAL=15', MIN. SIDE=7')

SUBMITTAL DATES

FIRST SUBMITTAL:	10/07/2014
SECOND SUBMITTAL:	10/21/2014
THIRD SUBMITTAL:	11/06/2014
FOURTH SUBMITTAL:	12/22/2014
FIFTH SUBMITTAL:	01/19/2015
SIXTH SUBMITTAL:	01/29/2015
FINAL SUBMITTAL:	02/09/2015
REVISED SUBMITTAL:	04/17/2015
FINAL SUBMITTAL:	05/04/2015
AS–BUILT SUBMITTAL:	12/09/2015

BENCHMARKS

1. STORM SEWER MANHOLE RIM LOCATED AT THE N.E. CORNER OF WARRIOR LANE AND FOX RUN TRAIL INTERSECTION. MANHOLE IS LOCATED 4' FROM THE EAST BACK OF CURB LINE OF WARRIOR LANE AND 46' NORTH OF FOX RUN TRAIL CENTERLINE. ELEVATION = 1014.23

2. SANITARY SEWER MANHOLE RIM LOCATED ON THE WEST SIDE OF NE DARTMOOR DRIVE, 121' +/– NORTH OF THE CENTERLINE OF NE BOWMAN DRIVE. MANHOLE IS LOCATED 9' FROM THE WEST BACK OF CURB LINE OF NE DARTMOOR DRIVE. ELEVATION = 1020.12

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.

UTILITY NOTE

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN. A REQUEST WAS MADE TO IOWA ONE CALL FOR THE UTILITIES TO LOCATE THEIR UTILITIES IN THE FIELD.

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111
PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 1408.409

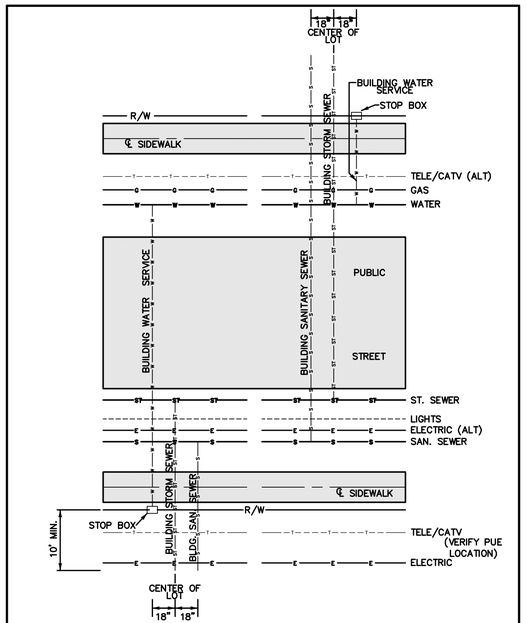
IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
Know what's below. Call before you dig.

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.

LICENSED PROFESSIONAL ENGINEER
ERIN K. OLLENDIKE
16926
IOWA

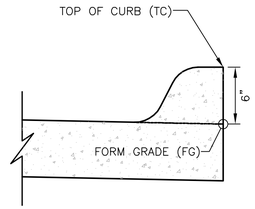
ERIN K. OLLENDIKE, P.E. — DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2015
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1–63



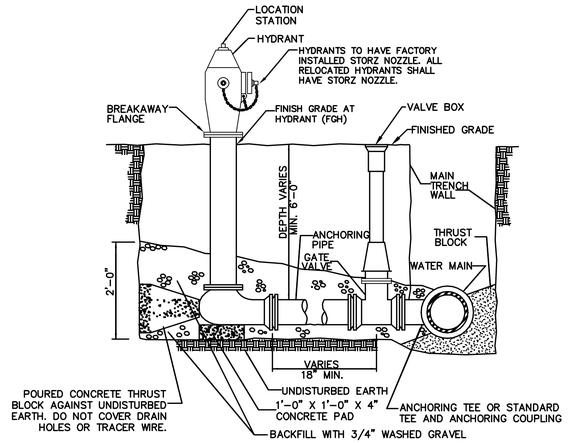
CITY OF WAUKEE
UTILITY SERVICE LOCATIONS

NOT TO SCALE



INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL

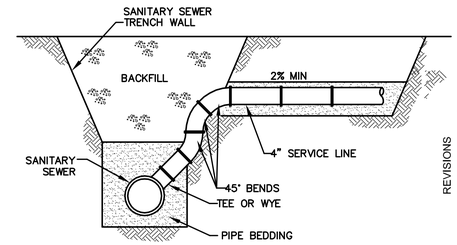
NOT TO SCALE



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.

HYDRANT ASSEMBLY DETAIL

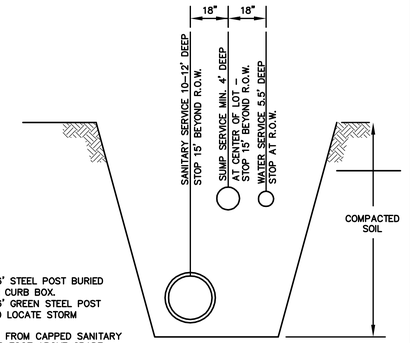
NOT TO SCALE



NOTES:
1. USE FOR SERVICE CONNECTION WHEN SANITARY SEWER DEPTH EXCEEDS 12.0'.

SANITARY SEWER SERVICE RISER

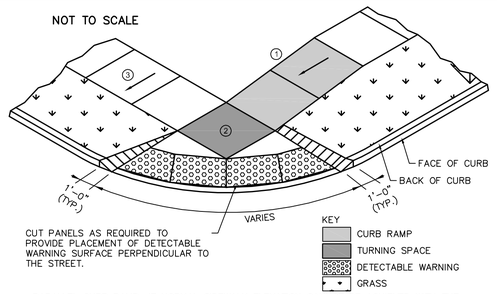
NOT TO SCALE



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



PARALLEL CURB RAMP: IF NORMAL SIDEWALK ELEVATION CANNOT BE ACHIEVED WITH THE PERPENDICULAR RAMP BETWEEN THE STREET AND LANDING DUE TO LIMITED RAMP LENGTH, PROVIDE A PARALLEL RAMP TO MAKE UP THE ELEVATION DIFFERENCE BETWEEN THE TURNING SPACE AND THE STANDARD SIDEWALK.

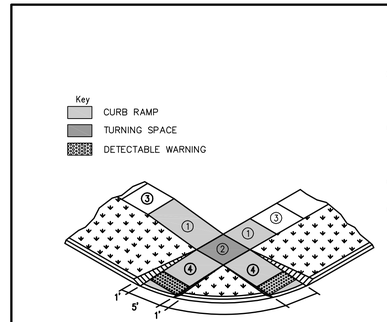
① THE LENGTH OF THE PARALLEL RAMP IS NOT REQUIRED TO EXCEED 15 FEET, REGARDLESS OF THE RESULTING SLOPE. DO NOT EXCEED 8.3% SLOPE FOR PARALLEL RAMPS SHORTED THAN 15 FEET.

② TURNING SPACE: TARGET SLOPE OF 1.5% WITH A MAXIMUM SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL OF 2.0% MINIMUM 5 FT BY 5 FT.

③ TARGET CROSS SLOPE OF 1.5% WITH A MAXIMUM CROSS SLOPE OF 2.0%

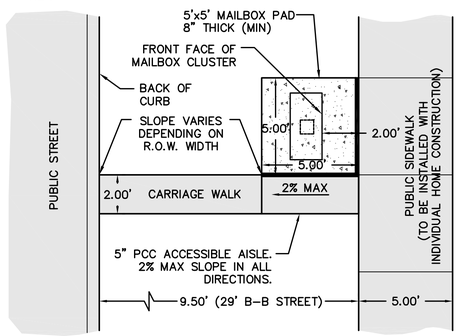
THE MINIMUM PAVEMENT DEPTH FOR RAMPS AND LANDINGS SHALL BE 6-INCHES.

CURB RAMP DETAIL



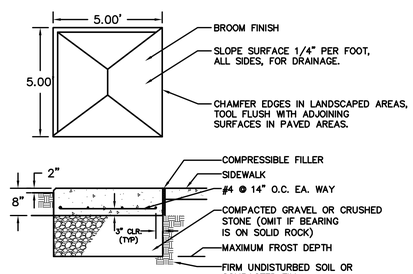
CURB RAMPS OUTSIDE OF INTERSECTION RADIUS

INSTALLATION NOTE:
1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
2. CLUSTER MAILBOX TO BE LOCATED ON THE 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

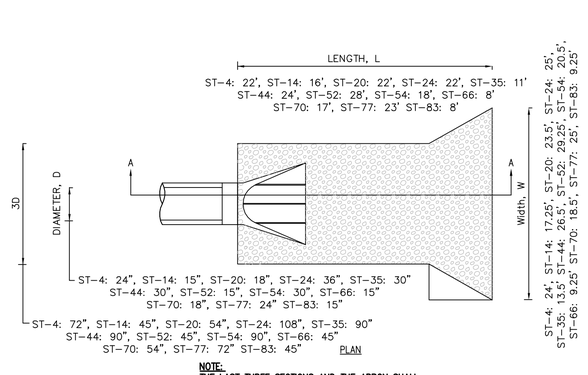
NOT TO SCALE



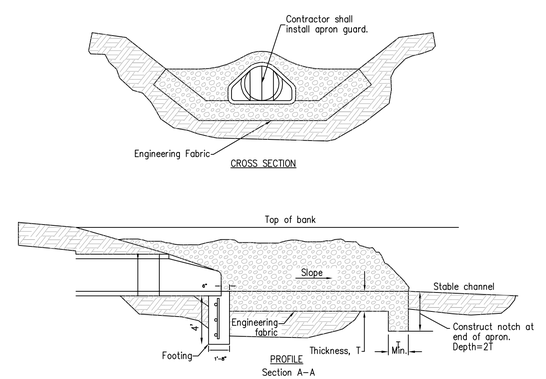
GENERAL NOTES
1. CONCRETE: C4 MIX.
2. REINFORCING STEEL: ASTM A615, GRADE 60.
3. THIS BASE DETAIL CAN BE USED FOR NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) CLUSTER BOXES AND PARCEL LOCKERS WITH 4"X10" BOLT PATTERN.
4. REQUIRED EXPANSION BOLT CAPACITY, BASED ON CALCULATED DESIGN LOAD= 3100 LBS TENSION, 2000 LBS SHEAR.
5. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.

MAILBOX PAD DETAIL

NOT TO SCALE



NOTE:
THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.302C OF SUDAS.



ROCK APRON FOR PIPE OUTLET

NOT TO SCALE

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/28/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

CIVIL DESIGN ADVANTAGE

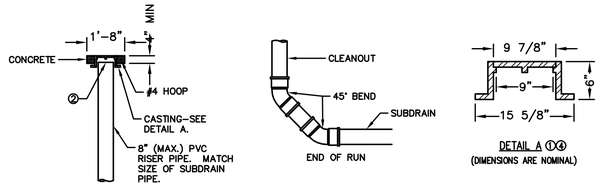
WAUKEE, IOWA

THE LANDING AT SHADOW CREEK PLAT 2
TYPICAL SECTIONS AND DETAILS

2 / 64

1408.409

FILE: N:\2014\1408409\DWG\1408409-CIV-DET-TMD.DWG
PLOT DATE: 1/6/2016 10:08 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.
TECH:



① HEAVY DUTY CASTING. MARK LID WITH "STORM" OR "STORM C.O."

② DO NOT ALLOW CASTING TO BEAR ON TOP OF RISER PIPE; PROVIDE 2 INCH CLEARANCE, MINIMUM.

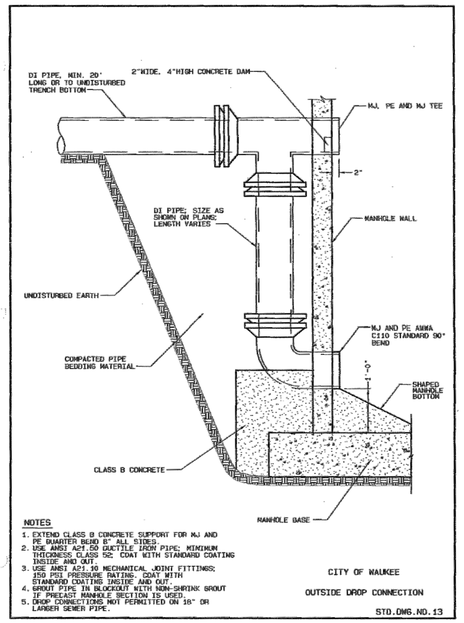
③ 24 INCH DIAMETER RCP FOR SUBDRAIN 8 INCHES OR SMALLER; 30 INCH DIAMETER RCP FOR 10 TO 12 INCH SUBDRAIN. A MANUFACTURED CLEANOUT MAY BE USED IN LIEU OF A TYPE B CLEANOUT, IF APPROVED BY THE ENGINEER.

④ DESIGN IS INTENDED FOR USE IN CONJUNCTION WITH 8 INCH PVC RISER PIPE. OTHER SIZED CAPS MAY BE USED WITH SMALLER PIPE, AS APPROVED BY THE ENGINEER.

⑤ PROVIDE TYPE G CASTING, AS REQUIRED TO FIT PIPE SIZE.

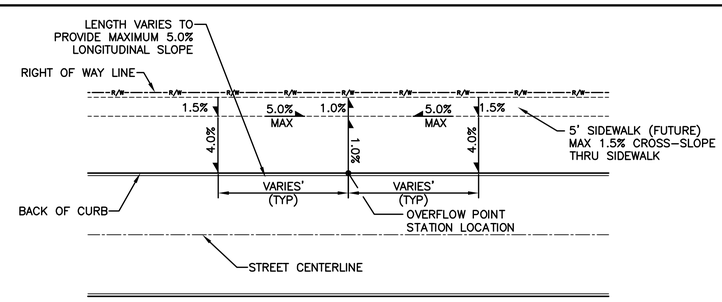
TYPE A-1 SUBDRAIN CLEANOUT

NOT TO SCALE



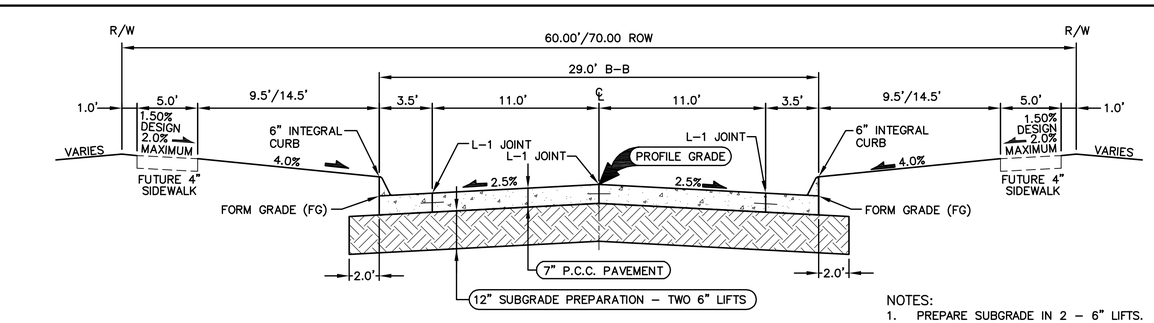
SANITARY SEWER DROP CONNECTION

NOT TO SCALE



TYPICAL RIGHT OF WAY GRADING FOR OVERFLOW AT BACK-OF-CURB

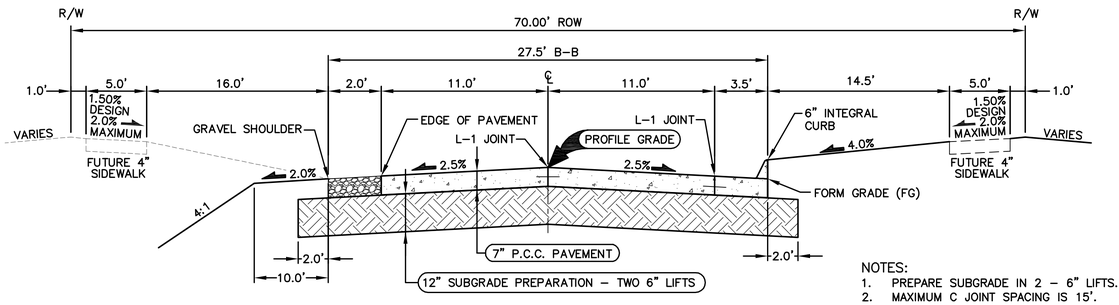
NOT TO SCALE



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

29' B/B P.C.C. ROADWAY WITH 60'/70' R.O.W.

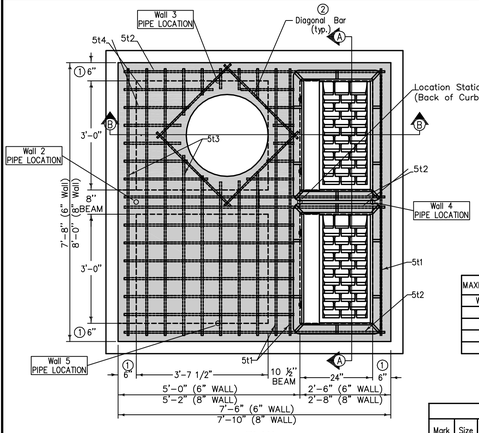
NOT TO SCALE NE BELLFLOWER COURT, NE BROOKSHIRE COURT, NE DELLWOOD COURT/DRIVE, NE WILDEN DRIVE, NE BOBCAT DRIVE/COURT



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

NE DELLWOOD DRIVE WITH GRAVEL SHOULDER AND 70' R.O.W.

NOT TO SCALE STA. 154+43.27 TO STA. 159+11.20



PLAN

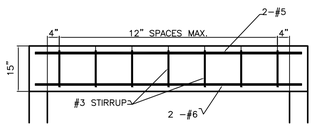
① Use 8" wall option for intake depths greater than 7'-0" and less than 10'-0".

② Install four #5 diagonal bars at manhole opening and at all pipe openings.

③ 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.

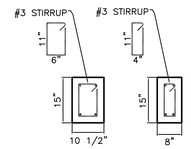
④ 12 inch minimum wall height above all pipes.

⑤ Construct 8"x15" and 10 ½"x15" P.C. concrete beams integral with 12" P.C. concrete flat top.



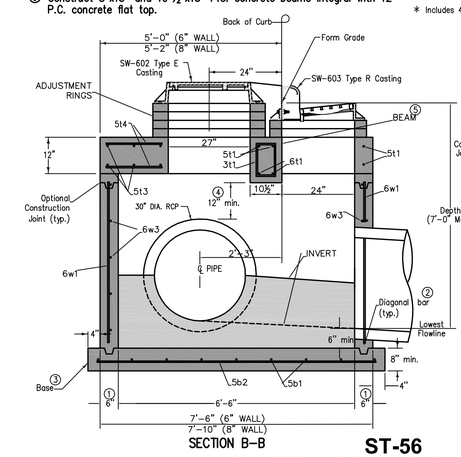
10 1/2" AND 8" BEAM DETAIL

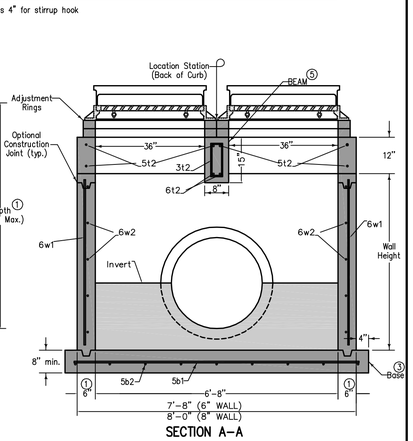
MAXIMUM PIPE DIAMETERS	
Wall	Max. Dia.
2	48"
3	30"
4	48"
5	30"



REINFORCING BAR LIST								
Mark	Size	Location	Shape	Count		Length		Spacing
				6" Wall	8" Wall	6" Wall	8" Wall	6" Wall / 8" Wall
3t1	3	Top	▭	7	7	3'-2"*	3'-2"*	12" / 12"
3t2	3	Top	▭	7	7	2'-10"*	2'-10"*	11 5/8" / 11 5/8"
5b1	5	Base	—	9	9	7'-10"	8'-2"	11 ½" / 12"
5b2	5	Base	—	9	9	7'-8"	8'-0"	11 ¾" / 12 ¼"
6w1	6	Walls	—	28	28	Wall Height minus 4"		12" / 12"
6w2	6	Walls	—	Varies	Varies	7'-2"	7'-6"	12" / 12"
6w3	6	Walls	—	Varies	Varies	7'-4"	7'-8"	12" / 12"
5t1	5	Top	—	4	4	7'-4"	7'-8"	See Detail / See Detail
5t2	5	Top	—	6	6	7'-2"	7'-6"	See Detail / See Detail
5t3	5	Top	—	16	16	7'-4"	7'-8"	6 ⅜" / 6 ¼"
5t4	5	Top	—	24	24	4'-8"	4'-10"	5 ⅜" / 6"
6t1	6	Top	—	2	2	7'-4"	7'-8"	See Detail / See Detail
6t2	6	Top	—	2	2	7'-2"	7'-6"	See Detail / See Detail

* Includes 4" for stirrup hook





ST-56
SW-506 (MODIFIED RECTANGLE)

DOUBLE GRATE INTAKE WITH MANHOLE

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	03/04/15
REVISED SUBMITTAL	04/17/15

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

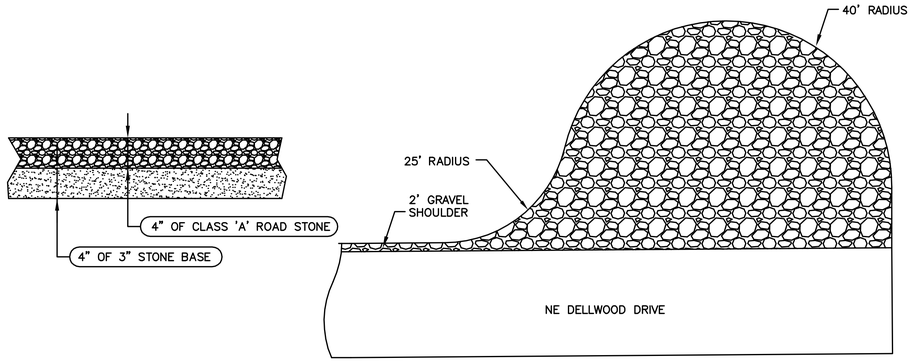
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

THE LANDING AT SHADOW CREEK PLAT 2
TYPICAL SECTIONS AND DETAILS

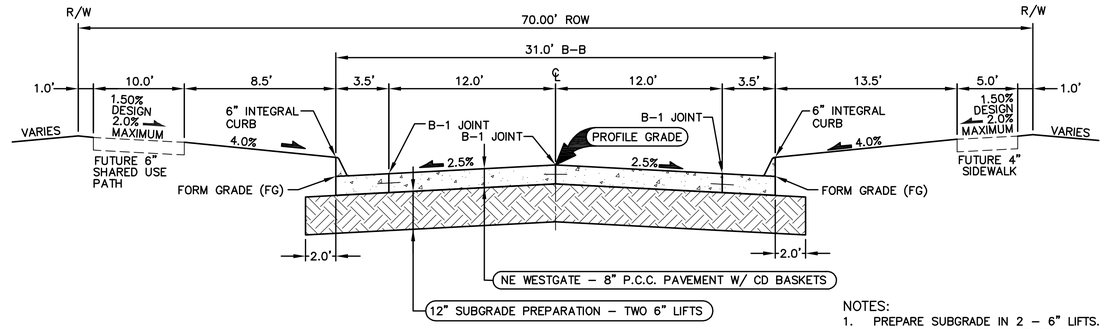
3/64

1408.409

FILE: N:\2014\1408409\MKV\1408409-CIV-SET-TMD.DWG
PLOT DATE: 12/9/2015 10:08 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

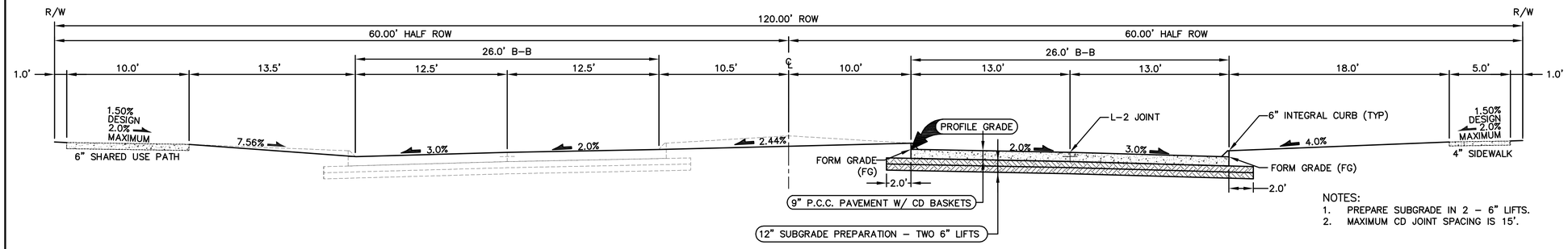


TEMPORARY TURNAROUND SURFACING
NOT TO SCALE



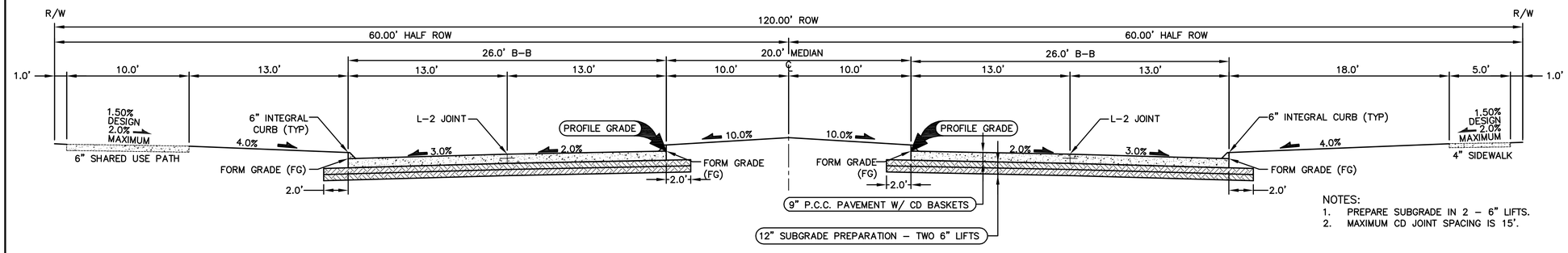
NOTES:
1. PREPARE SUBGRADE IN 2 – 6" LIFTS.
2. MAXIMUM C AND CD JOINT SPACING IS 15'.

31' B/B P.C.C. ROADWAY WITH 70' R.O.W.
NOT TO SCALE — NE WESTGATE DRIVE



NOTES:
1. PREPARE SUBGRADE IN 2 – 6" LIFTS.
2. MAXIMUM CD JOINT SPACING IS 15'.

NE DOUGLAS PARKWAY (PARTIAL BUILD) WITH 120' R.O.W.
NOT TO SCALE



NOTES:
1. PREPARE SUBGRADE IN 2 – 6" LIFTS.
2. MAXIMUM CD JOINT SPACING IS 15'.

NE DOUGLAS PARKWAY (FULL BUILD) WITH 120' R.O.W.
NOT TO SCALE

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
TYPICAL SECTIONS AND DETAILS
WAUKEE, IOWA

FILE: H:\2014\1408409\LDWG\1408409-CDV-DET-TMP.DWG
PLOTTED BY: JARED MURRAY 9/9/2015 10:09 AM
XREF: FDOT01
COMMENT:
ENG:
TECH:

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	61.36
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	28702
5	SANITARY SEWER DROP CONNECTION	EA	8
6	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	2310
7	SANITARY SEWER GRAVITY MAIN, 10" DIA	LF	3865
8	SANITARY SEWER GRAVITY MAIN, 15" DIA	LF	1191
9	SANITARY SEWER SERVICE STUB, 4" DIA	EA	82
10	FOOTING DRAIN SEWER COLLECTOR, 8" DIA PVC, PERFORATED	LF	1396
11	STORM SEWER, 15" RCP	LF	1833
12	STORM SEWER, 18" RCP	LF	1143
13	STORM SEWER, 24" RCP	LF	1782
14	STORM SEWER, 30" RCP	LF	1040
15	STORM SEWER, 36" RCP	LF	47
16	STORM SEWER SERVICE STUB, 4" DIA	EA	82
17	STORM SEWER, 15" RCP APRON W/FOOTING & APRON GUARD	EA	5
18	STORM SEWER, 18" RCP APRON W/FOOTING & APRON GUARD	EA	6
19	STORM SEWER, 24" RCP APRON W/FOOTING & APRON GUARD	EA	6
20	STORM SEWER, 30" RCP APRON W/FOOTING & APRON GUARD	EA	3
21	STORM SEWER, 36" RCP APRON W/FOOTING & APRON GUARD	EA	2
22	WATER MAIN, 8" DIA	LF	3968
23	WATER MAIN, 12" DIA	LF	3186
24	WATER SERVICE STUB, 1" DIA	EA	82
25	VALVE, 8" DIA	EA	13
26	VALVE, 12" DIA	EA	7
27	FIRE HYDRANT ASSEMBLY	EA	27
28	TEMPORARY FIRE HYDRANT ASSEMBLY	EA	7
29	TEMPORARY FIRE HYDRANT ASSEMBLY (RELOCATED)	EA	1
30	TEMPORARY STORM SEWER CLEANOUT	EA	1
31	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	27
32	MANHOLE, SW-401, 48" (STORM SEWER)	EA	17
33	MANHOLE, SW-401, 60" (STORM SEWER)	EA	2
34	MANHOLE, SW-401, 72" (STORM SEWER)	EA	3
35	INTAKE, SW-501	EA	5
36	INTAKE, SW-503	EA	6
37	INTAKE, SW-505	EA	10
38	INTAKE, SW-506	EA	11
39	INTAKE, SW-506 - MODIFIED	EA	1
40	INTAKE, SW-513	EA	1
41	PAVEMENT, 7" P.C.C.	SY	10192
42	PAVEMENT, 8" P.C.C. W/ CD BASKETS	SY	8622
43	PAVEMENT, 9" P.C.C. W/ CD BASKETS (DEVELOPER)	SY	5745
44	PAVEMENT, 4" P.C.C. SIDEWALK	SY	312
45	PAVEMENT, 6" P.C.C. SHARED USE PATH	SY	1672
46	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	383
47	DETECTABLE WARNING PANELS	SF	537
48	SEEDING, FERTILIZING, AND MULCHING	AC	55.49
49	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	30
50	TRAFFIC CONTROL	LS	1
51	EROSION CONTROL	LS	1
52	ROCK OUTLET PROTECTION, CLASS 'E' RIP RAP	TONS	233
53	MAILBOX CLUSTER	EA	7
54	STORM SEWER CLEANOUT	EA	1

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE 2014 EDITION OF SUDAS STANDARD SPECIFICATIONS AND TO CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS. 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.

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.

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 2014 EDITION OF SUDAS STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS 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 THE TOP 6 INCHES OF TOPSOIL. RESPREAD TOPSOIL WITHIN THE RIGHT OF WAY, ON BACKSLOPES AND IN DEVELOPED AREAS A MINIMUM OF 6 INCHES THICK. RESPREAD TOPSOIL IN AREAS THAT ARE FARMED A MINIMUM OF 12 INCHES THICK. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER. 6 INCH TOPSOIL QUANTITY = 49,500 CY
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 AND 4 FOR TYPICAL LOCATIONS AND THICKNESS.
5	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
6-8	SANITARY SEWER FOR 8", 10" AND 15" 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.
11-16	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 TELEVISE 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 INSTALLED. TRACER WIRE IS TO RUN ALONG STORM SEWER MAINS IN CONFORMANCE WITH WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
9, 16, 24	REFER TO SHEET 2 FOR SERVICE LOCATION DETAIL. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
17-21	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.
22-26	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.
27	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.
28-29	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF EXISTING FIRE HYDRANTS. ANY RELOCATED HYDRANTS ARE TO INCLUDE STORZ FITTINGS.
30	REFER TO DETAIL ON SHEET 3. REFER TO SHEET 21 FOR LOCATION.
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.
35-40	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". INSTALL SW-603 TYPE Q GRATE ON ST-71 UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE. REFER TO SHEET 29 FOR LOCATION. DO NOT INSTALL CASTING ON ST-75 AND ST-79 AND PLACE STEEL PLATE OVER STRUCTURE UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE. REFER TO SHEETS 29 AND 30 FOR LOCATIONS.
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.

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. 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 WILL 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.

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
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 FIG 6010.513 - OPEN-SIDED AREA INTAKE (SW-513) AND DETAIL ON SHEET 6 FOR CONSTRUCTION DETAILS.
41-43	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM CD AND C JOINT SPACING IS 15 FEET.
44-46	REFER TO FIG. 7030.204 - GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 - CURB RAMPS WITH 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.
48	SUDAS TYPE 1 PERMANENT LAWN MIXTURE SEED SHALL BE USED WITHIN THE PROPOSED RIGHT-OF-WAY AND MEDIANS ON N.E. DOUGLAS PARKWAY IN ADDITION TO THE PROPOSED LANDSCAPE BUFFERS, OUTLOTS AND DISTURBED PARKLAND. THE REMAINDER OF SITE SHALL CONFORM TO THE SPECIFICATION FOR TYPE (4) URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE = 10.44 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 45.05 AC
49	REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS. REFER TO IDOT STANDARD ROAD PLAN SI-182 FOR CONSTRUCTION DETAILS.
50	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..
51	REFER TO SHEETS 10-12 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 - 2707 LF OF SILT FENCE - 55.28 ACRES OF SEEDING, FERTILIZING AND MULCHING. - 33 INLET PROTECTION DEVICES - 315 LF OF DITCH CHECK
52	INSTALL ENGINEERING FABRIC UNDER ALL RIP-RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL.
53	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS. MAILBOX CLUSTERS ARE LOCATED BETWEEN LOTS 8/9, 21/22, WEST SIDE OF LOT 39, BETWEEN LOTS 48/49, EAST SIDE OF LOT 57, BETWEEN LOTS 67/68 AND 78/79.
54	REFER TO FIG. 4040.232 - SUBDRAIN CLEANOUTS FOR CONSTRUCTION DETAILS.

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.

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. THE GENERAL PERMIT #2 HOLDER SHALL SUBMIT WRITTEN VERIFICATION THAT A MINIMUM TOPSOIL DEPTH OF 6" WAS SPREAD ACROSS ALL LOTS AND RIGHT-OF-WAYS WITHIN THE PLAT.

29. 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.

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

31. 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.

32. 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.

33. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND TELEVISING ALL STORM AND SANITARY SEWERS. ALL CLEANING AND TELEVISING SHALL BE APPROVED BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT 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.

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

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

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

37. 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.

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/28/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

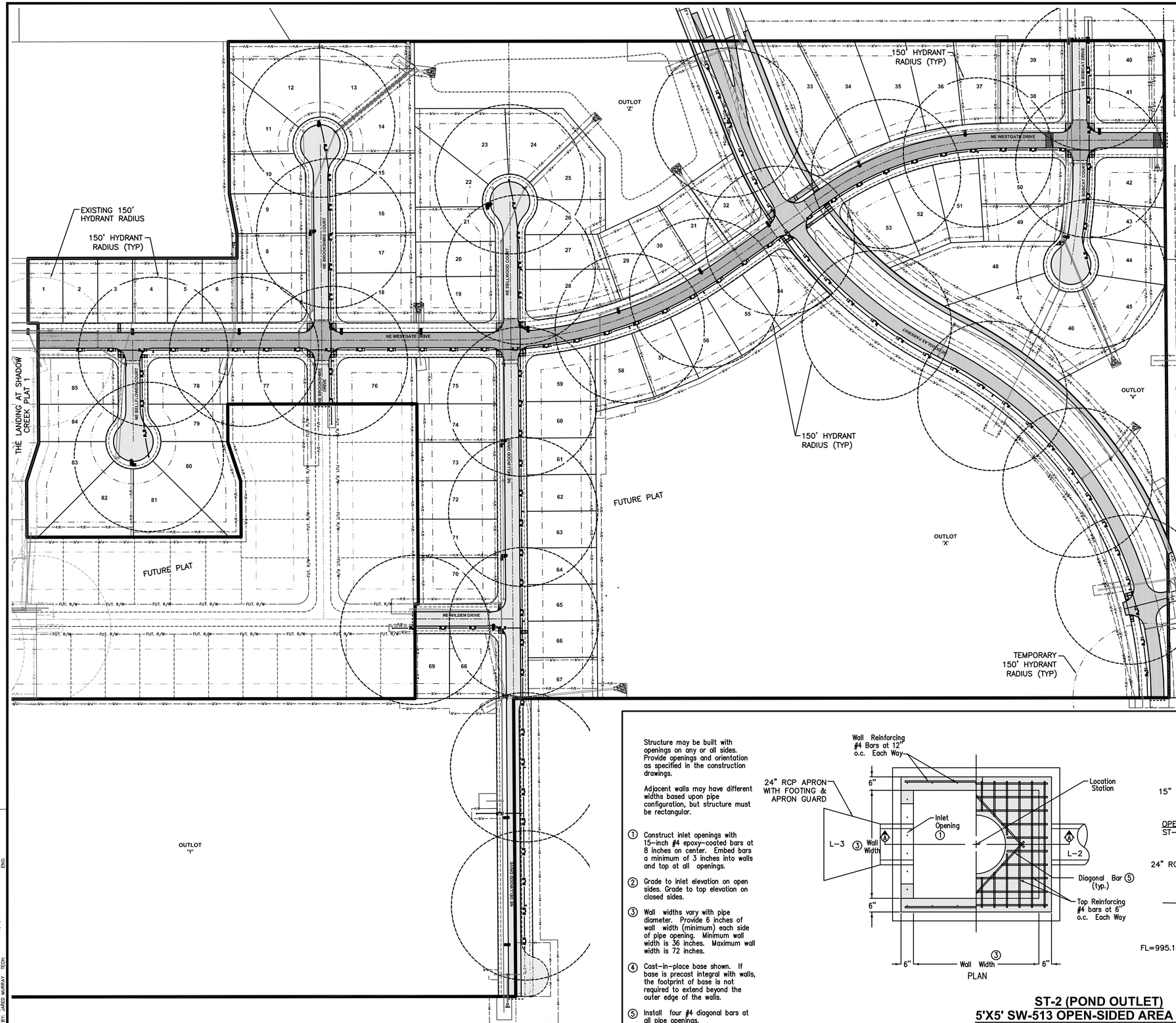
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM

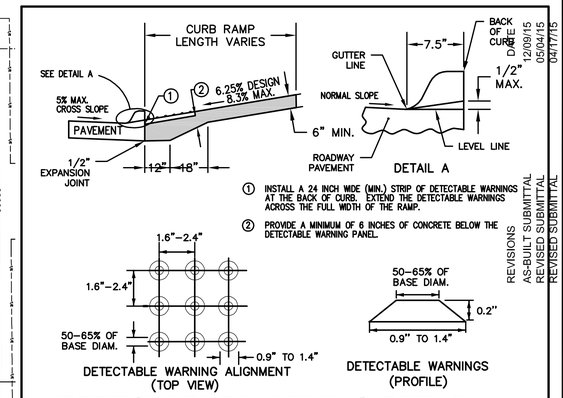
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

THE LANDING AT SHADOW CREEK PLAT 2

QUANTITIES AND REFERENCE NOTES

FILE: H:\2014\1408409\DWG\1408409-CIV-SET-TAB.DWG
PLOTTED BY: JARED MURRAY 6/9/2015 10:09 AM
COMMENT:
ENG:
TECH:





DETECTABLE WARNING DETAIL

NOT TO SCALE

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

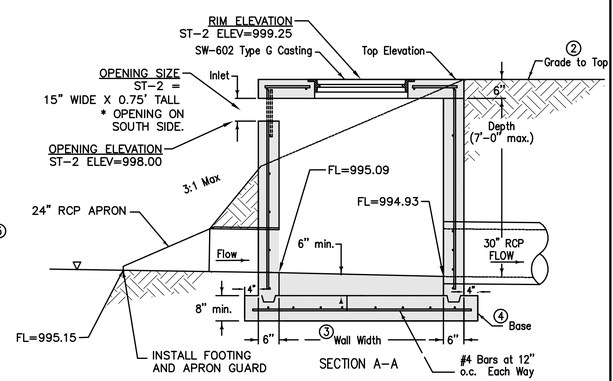
THE LANDING AT SHADOW CREEK PLAT 2

HYDRANT COVERAGE PLAN

Structure may be built with openings on any or all sides. Provide openings and orientation as specified in the construction drawings.

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. Embed bars a minimum of 3 inches into walls and top at all openings.
2. Grade to inlet elevation on open sides. Grade to top elevation on closed sides.
3. Wall widths vary with pipe diameter. 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.



ST-2 (POND OUTLET)
5'X5' SW-513 OPEN-SIDED AREA INTAKE

NOT TO SCALE

* REFER TO SHEET 37 FOR LOCATION.

1408.409

FILE: I:\2014\1408409\CIVIL\1408409-CIV-DET-TAB.DWG
XREF: 1408409-CIV-DETTBL, XR_PLOTTED: 10/9/2015 10:09 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.

OVERFLOW ELEV=1024.09

100-YEAR ELEVATION=1007.09

CENTERLINE OF SWALE IS LOCATED 5' OFF OF PROPERTY LINE

GRADING LIMITS

NE WILDEN DRIVE

NE DELLWOOD DRIVE

TEMPORARY DRAINAGE SWALE

OVERFLOW ROUTE

INSTALL 30 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED

REFER TO DETAIL ON SHEET 3 FOR ROW GRADING AT OVERFLOW POINTS

SPOT ELEVATIONS ARE LOCATED 5' FROM THE PROPERTY LINE.

INTAKE TO BE INSTALLED WITH FUTURE PLAT

FUTURE HIGH POINT ELEVATION MINIMUM OF 1020.28 TO PROVIDE AT LEAST 2% FALL TO NORTH AND SOUTH LOW POINTS.

TEMPORARY DRAINAGE COURSE

FULL BUILD-OUT 100-YEAR ELEVATION=1016.84

OVERFLOW AT BOC =1018.83

TEMPORARY 100-YEAR 1018.65

OUTLOT 'Y'

INSTALL 5 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

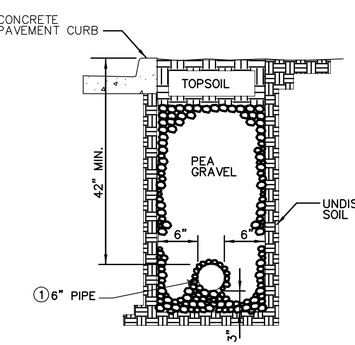
TEMPORARY TURNAROUND WITH 4 INCHES OF 3 INCH ROCK WITH 4 INCHES OF ROAD STONE ON TOP

TEMPORARY DRAINAGE SWALE

SCALE 0' 30' 60' 120'

SHEET INDEX

1	6" PERFORATED SUBDRAIN
2	GRADING PLAN
3	GRADING PLAN
4	GRADING PLAN
5	GRADING PLAN
6	GRADING PLAN
7	GRADING PLAN
8	GRADING PLAN
9	GRADING PLAN
10	GRADING PLAN
11	GRADING PLAN
12	GRADING PLAN
13	GRADING PLAN
14	GRADING PLAN
15	GRADING PLAN
16	GRADING PLAN
17	GRADING PLAN
18	GRADING PLAN
19	GRADING PLAN
20	GRADING PLAN
21	GRADING PLAN
22	GRADING PLAN
23	GRADING PLAN
24	GRADING PLAN
25	GRADING PLAN
26	GRADING PLAN
27	GRADING PLAN
28	GRADING PLAN
29	GRADING PLAN
30	GRADING PLAN
31	GRADING PLAN
32	GRADING PLAN
33	GRADING PLAN
34	GRADING PLAN
35	GRADING PLAN
36	GRADING PLAN
37	GRADING PLAN
38	GRADING PLAN
39	GRADING PLAN
40	GRADING PLAN
41	GRADING PLAN
42	GRADING PLAN
43	GRADING PLAN
44	GRADING PLAN
45	GRADING PLAN
46	GRADING PLAN
47	GRADING PLAN
48	GRADING PLAN
49	GRADING PLAN
50	GRADING PLAN
51	GRADING PLAN
52	GRADING PLAN
53	GRADING PLAN
54	GRADING PLAN
55	GRADING PLAN
56	GRADING PLAN
57	GRADING PLAN
58	GRADING PLAN
59	GRADING PLAN
60	GRADING PLAN
61	GRADING PLAN
62	GRADING PLAN
63	GRADING PLAN
64	GRADING PLAN



1. PLACE PERFORATIONS DOWN FOR ALL INSTALLATIONS.
2. ALL SUBDRAINS ARE TO BE TIED INTO STORM SEWER STRUCTURES AND THEIR LOCATIONS ARE TO BE INCLUDED IN THE AS-BUILTS FOR THE SUBDIVISION.
3. THE GEOTECHNICAL ENGINEER SHALL BE PRESENT ONSITE DURING SUBGRADE PREPARATION AND PROOF ROLL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE GEOTECHNICAL ENGINEER IS PRESENT ONSITE AND A COPY OF ALL REPORTS AND FINDINGS REQUIRING ALTERATION FROM THE APPROVED PLAN SET BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT FOR REVIEW AND DISCUSSION PRIOR TO COMMENCING WITH PAVING WITHIN THE PROJECT.
4. CORE DRILL ALL STORM SEWER AND PLACE NON-SHRINK GROUT COLLAR AT CONNECTION.
5. RODENT GUARDS ARE TO BE INSTALLED WHERE THE PIPE TIES INTO THE STRUCTURE.

6" PERFORATED SUBDRAIN

NOT TO SCALE

REVISIONS

DATE	
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

WAUKEE, IOWA

GRADING PLAN

7/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-GRADING-AS-BUILT.DWG
PLOT DATE: 4/9/2016 10:14 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

GRADING LIMITS

25' OVERLAND FLOWAGE EASEMENT

45' OVERLAND FLOWAGE EASEMENT

100-YEAR ELEVATION=1005.26

INSTALL 27 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

100-YEAR ELEVATION

OVERFLOW ELEVATION=1001.52 REFER TO DETAIL ON SHEET 9

OVERFLOW =1012.88

WET BOTTOM DETENTION POND 100-YEAR ELEVATION=1000.92 NORMAL POOL=995.15

INSTALL 15 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

OUTLOT 'Z'

CENTERLINE OF SWALE IS LOCATED 5' OFF OF PROPERTY LINE

INSTALL 25 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

FUTURE PARKLAND

CENTERLINE OF SWALE IS LOCATED 5' OFF OF PROPERTY LINE

INSTALL 10 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

OVERFLOW =1011.10

OVERFLOW =1005.20

OVERFLOW ROUTE

NE BROOKSHIRE COURT

NE DELLWOOD COURT

INSTALL 25 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

OVERFLOW ROUTE

OVERFLOW = 1014.14

NE WESTGATE DRIVE

OVERFLOW ROUTE

OVERFLOW = 1024.00 REFER TO DETAIL ON SHEET 9

100-YEAR ELEV=1023.42

100-YEAR ELEVATION =1018.53

OVERFLOW = 1019.00 REFER TO DETAIL ON SHEET 9

100-YEAR ELEVATION=1013.43

NE ELLINGTOWER COURT

NE BROOKSHIRE DRIVE

CENTERLINE OF SWALE IS LOCATED 5' OFF OF PROPERTY LINE

NE DELLWOOD DRIVE

OVERFLOW =1007.09 REFER TO DETAIL ON SHEET 9

100-YEAR ELEVATION=1007.09

OVERFLOW ELEV=1024.09

CENTERLINE OF SWALE IS LOCATED 5' OFF OF PROPERTY LINE

CENTERLINE OF SWALE IS LOCATED 5' OFF OF PROPERTY LINE

GRADING LIMITS

TEMPORARY DRAINAGE SWALE

NE WILDEN DRIVE

SCALE 0' 30' 60' 120'

SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

THE LANDING AT SHADOW CREEK PLAT 2

GRADING PLAN

8/64

1408.409

FILE: I:\2014\1408409\GWO\1408409-GRADING_AS-BUILT.DWG
REF: I:\2014\1408409\GWO\1408409-EOTTDI PLAT.dwg
PLOTTED BY: JARED MURRAY TECH:

COMMENT:
ENG:
AM
PLAT

40' TEMPORARY CONSTRUCTION EASEMENT

CENTERLINE OF SWALE IS LOCATED 5' OF OFF PROPERTY LINE

100-YEAR ELEVATION=995.79

20' STORM SEWER AND OVERLAND FLOWAGE EASEMENT

NE WESTGATE DRIVE

NE BOBCAT COURT

20' OVERLAND FLOWAGE EASEMENT

10' OVERLAND FLOWAGE EASEMENT

NE SHADOW CREEK PARKWAY

TEMPORARY DRAINAGE SWALE

100-YEAR ELEVATION

OVERFLOW ROUTE

OUTLOT 'X'

CENTERLINE OF SWALE IS LOCATED 5' OFF OF PROPERTY LINE

GRADING LIMITS

TEMPORARY DRAINAGE SWALE

TEMPORARY DRY BOTTOM DETENTION POND 100-YEAR ELEVATION=995.79

3" CRUSH

SHEET INDEX

OVERFLOW =994.50

INSTALL 5 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

REMOVE FIELD FENCE AND BRUSH LOCATED ALONG PROPERTY BOUNDARY.

100-YEAR ELEVATION

INSTALL 18 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

OVERFLOW =992.00

INSTALL 30 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

TEMPORARY DRAINAGE SWALE.

DRY BOTTOM DETENTION POND 100-YEAR ELEVATION=990.85

OUTLOT 'V'

WAUKEE CORPORATE LIMITS

100-YEAR ELEVATION

INSTALL 15 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

GRADING LIMITS

OUTLOT 'V'

WAUKEE CORPORATE LIMITS

100-YEAR ELEVATION

INSTALL 15 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

SHEET INDEX

GRADING LIMITS

OUTLOT 'X'

TEMPORARY DRAINAGE SWALE

OVERFLOW ROUTE

TEMPORARY DRY BOTTOM DETENTION POND 100-YEAR ELEVATION=995.79

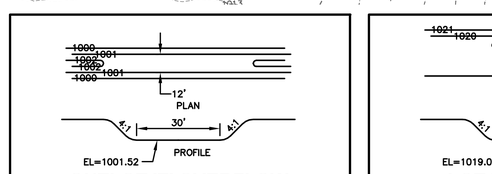
OVERFLOW ELEVATION =997.50

INTSALL 28 TONS OF CLASS 'E' RIP RAP. REFER TO DETAIL ON SHEET 2.

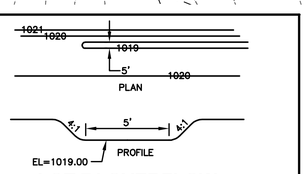
3" CRUSHED STONE @ 6" MINIMUM DEPTH

FARM ACCESS

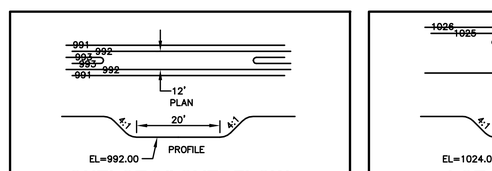
WAUKEE CORPORATE LIMITS



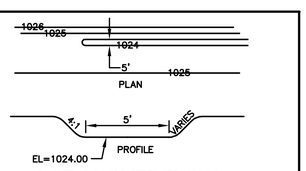
OUTLOT 'Z' OVERFLOW
NOT TO SCALE



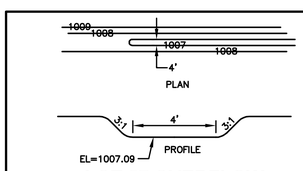
LOT 74 OVERFLOW
NOT TO SCALE



OUTLOT 'V' OVERFLOW
NOT TO SCALE



LOT 82 OVERFLOW
NOT TO SCALE



LOT 57 OVERFLOW
NOT TO SCALE

SCALE
0' 30' 60' 120'

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

WAUKEE, IOWA

GRADING PLAN

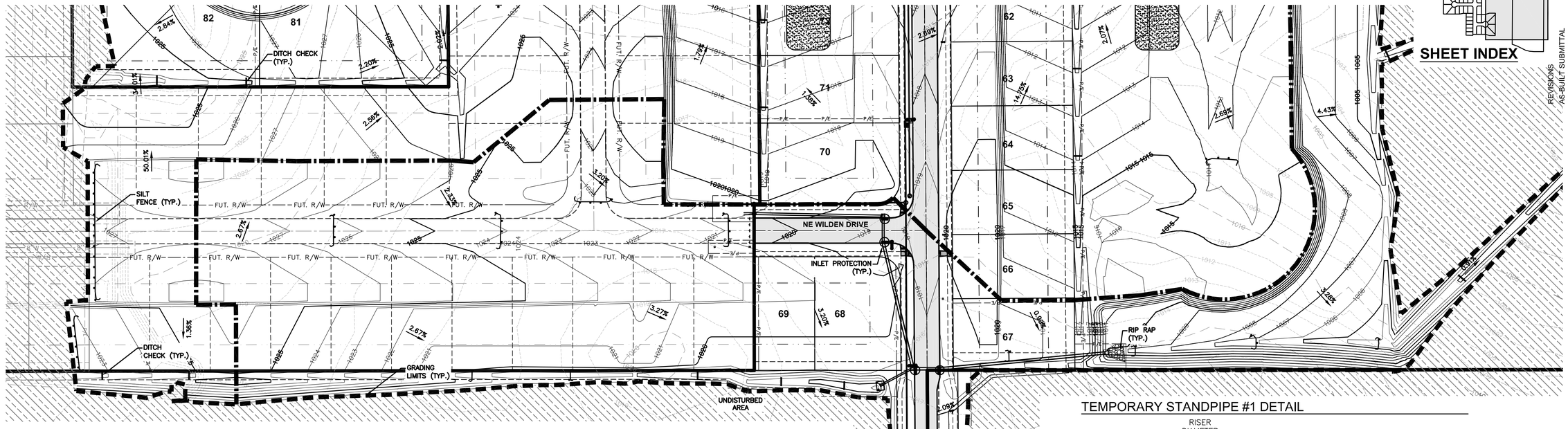
9 / 64

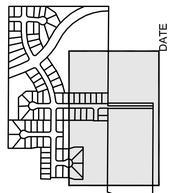
1408.409

FILE: H:\2014\1408409\DWG\1408409-GRADING-AS-BUILT.DWG
PLOT DATE: 12/9/2015 10:51:13 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:

THE LANDING AT SHADOW CREEK PLAT 2

EROSION AND SEDIMENT CONTROL PLAN





REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
SIXTH SUBMITTAL	01/29/15
REVISED SUBMITTAL	05/04/15
FIFTH SUBMITTAL	01/19/15
REVISED SUBMITTAL	04/17/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

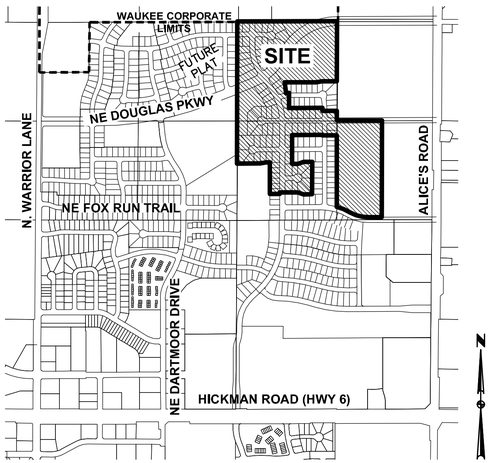
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

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			

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO LITTLE WALNUT CREEK ±1250 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	33.80 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	121,680 CU FT
VOLUME PROVIDED IN SILT FENCE (1750 LF @ 4.5 CU FT/LF OF FENCE)	7,875 CU FT
VOLUME PROVIDED IN DITCH CHECK (231 LF @ 15 CU FT/LF)	3,465 CU FT
VOLUME PROVIDED IN TSB #1	282,707 CU FT
TOTAL VOLUME PROVIDED	294,047 CU FT

DISCHARGE POINT #2 & #3 TO LITTLE WALNUT CREEK ±750 FT

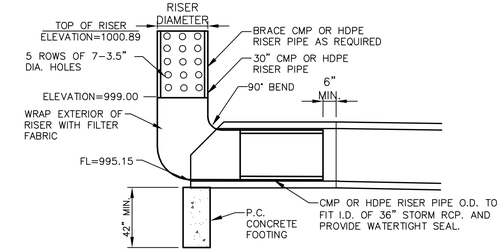
TOTAL AREA DISTURBED TO DISCHARGE POINT	27.95 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	100,620 CU FT
VOLUME PROVIDED IN SILT FENCE (957 LF @ 4.5 CU FT/LF OF FENCE)	4,307 CU FT
VOLUME PROVIDED IN DITCH CHECK (84 LF @ 15 CU FT/LF)	1,260 CU FT
VOLUME PROVIDED IN TSB #2	38,918 CU FT
VOLUME PROVIDED IN TSB #3	115,241 CU FT
TOTAL VOLUME PROVIDED	159,726 CU FT

STABILIZATION QUANTITIES

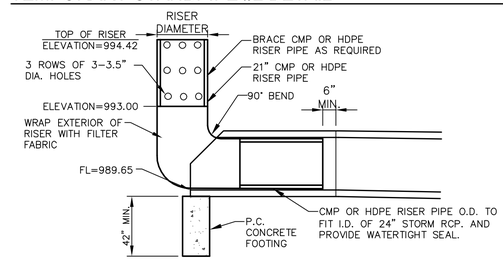
ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	2707
2	DITCH CHECKS	LF	315
3	SEEDING, FERTILIZING, AND MULCHING	AC	56.45
4	INLET PROTECTION DEVICES	EA	33
5	CONCRETE WASHOUT PIT	EA	1
6	TEMPORARY STANDPIPE	EA	3

SCALE
0' 30' 60' 120'

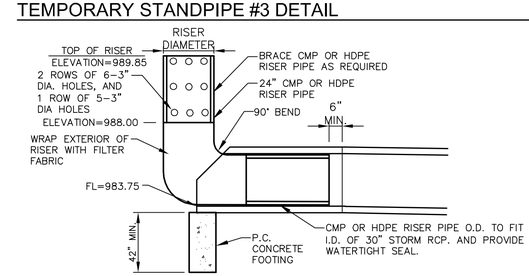
TEMPORARY STANDPIPE #1 DETAIL



TEMPORARY STANDPIPE #2 DETAIL



TEMPORARY STANDPIPE #3 DETAIL



FILE: N:\2014\1408409\DWG\1408409-SWPPP.DWG
XREF: ALTA.DWG, BOUNDARY.DWG, TOPO.DWG
PLOTTED BY: JARED MURRAY 10/9/2015 10:16 AM
COMMENT: ENG.

PROPERTY BOUNDARY (TYP.)

GRADING LIMITS (TYP.)

SILT FENCE (TYP.)

UNDISTURBED AREA

RIP RAP (TYP.)

PROPOSED STAGING AREA VERIFY EXACT LOCATION WITH CONTRACTOR

CONCRETE WASH PIT

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

SILT FENCE (TYP.)

DISCHARGE POINT #1
±1250 FEET TO
AN UNNAMED TRIBUTARY OF
LITTLE WALNUT
CREEK

INSTALL TEMPORARY STANDPIPE, SEE DETAIL

OUTLOT 'Z'

TSB #1

NE BROOKSHIRE COURT

NE BELL FLOWER COURT

NE BROOKSHIRE DRIVE

NE DELLWOOD COURT

NE DELLWOOD DRIVE

NE WESTGATE DRIVE

INLET PROTECTION (TYP.)

DITCH CHECK (TYP.)

PROPOSED TOPSOILSTOCKPILE LOCATION. VERIFY FINAL LOCATION WITH CONTRACTOR.

DA #1
33.80 AC

FUT. R/W

SCALE
0' 30' 60' 120'

SHEET INDEX

	DATE
REVISIONS	12/09/15
AS-BUILT SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
REVISED SUBMITTAL	02/09/15
FINAL SUBMITTAL	01/29/15
SIXTH SUBMITTAL	01/19/15
FIFTH SUBMITTAL	12/22/14
FOURTH SUBMITTAL	11/06/14
THIRD SUBMITTAL	10/21/14
SECOND SUBMITTAL	10/07/14
FIRST SUBMITTAL	

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

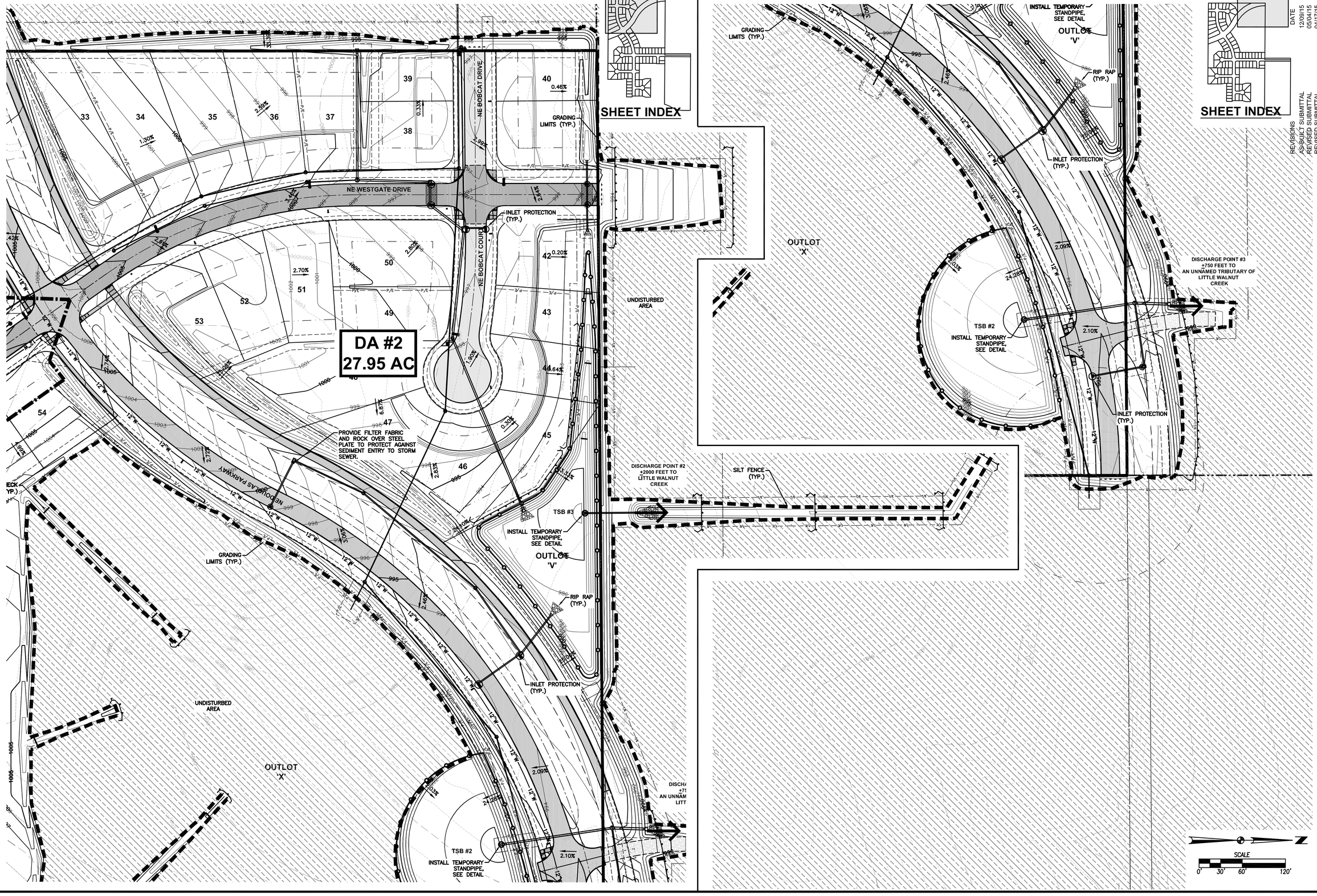
THE LANDING AT SHADOW CREEK PLAT 2

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

1408.409

FILE: N:\2014\1408409\DWG\1408409-SWPPP.DWG
LAST SAVED: JARED MURRAY 1/5/2016 10:16 AM
PLOTTED BY: JARED MURRAY 1/5/2016 10:16 AM
COMMENT: ENG.



REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	
SIXTH SUBMITTAL	01/29/15
REVISED SUBMITTAL	
FIFTH SUBMITTAL	01/19/15
REVISED SUBMITTAL	
FOURTH SUBMITTAL	12/22/14
REVISED SUBMITTAL	12/09/15
THIRD SUBMITTAL	11/06/14
REVISED SUBMITTAL	05/04/15
SECOND SUBMITTAL	10/21/14
REVISED SUBMITTAL	04/17/15
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

12/64

1408.409

FILE: P:\2014\1408409\DWG\1408409-SWPPP.DWG
PLOT SCALE: 1:1 PLOT DATE: 2/9/2016 10:16 AM COMMENT: ENG.
PLOTTED BY: JARED MURRAY TECH:

REFER TO SHEET 19 FOR L-39 AND L-40 AND NE BELLFLOWER COURT PLAN AND PROFILE.

REFER TO SHEET 39 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 57 FOR INTERSECTION DETAIL.

REFER TO SHEET 38 FOR L-36 AND L-37 PLAN AND PROFILE.

LOT 1 | LOT 2 | LOT 3 | LOT 4 | LOT 5 | LOT 6 | LOT 7

BP 109+00.00

109+00 | 110+00 | 111+00

EXISTING TEMPORARY SANITARY AND STORM SEWER EASEMENT

214+81 TG=1025.89 | 215+51 TG=1025.51 | 216+21 TG=1025.13 | 216+91 TG=1024.74 | 217+61 TG=1024.36 | 218+31 TG=1023.92

30' SETBACK

STREET LIGHT LOCATION

20' SANITARY SEWER EASEMENT

20' STORM SEWER EASEMENT

20' OVERLAND FLOWAGE EASEMENT

10' PUE

215+00 | 216+00 | 217+00 | 218+00 | 219+00

S-EX2 | P-EX2 | S-38 | P-38 | S-35 | P-35

ST-EX4 | L-EX4 | ST-43 | ST-EX3 | L-43 | L-38 | ST-36

10' SHARED USE PATH (FUTURE)

STREET LIGHT LOCATION

RELOCATE PERMANENT ROAD CLOSURE SIGNS TO THE END OF PROPOSED NE BROOKSHIRE DRIVE

REMOVE EXISTING APRON AND RIP RAP AND CONNECT TO EXISTING STORM SEWER

STA 214+66.42 BEGIN PAVEMENT

ST-38 | ST-39 | L-39 | P-36 | L-40

NE WESTGATE DRIVE

31.00' B-B | 70.00 ROW | 19.50' TYP.

8" P.C.C.

L-37

CRITICAL CROSSING
BOTTOM OF STORM=1018.15
TOP OF WATER=1016.65

5' SIDEWALK (FUTURE)

20' STORM SEWER EASEMENT

CRITICAL CROSSING
BOTTOM OF STORM=1015.93
TOP OF WATER=1014.43

STA 216+56.21 (NE WESTGATE DRIVE)
STA 110+00.00 (NE BELLFLOWER COURT)

S-36 | L-41 | ST-40 | ST-41

EX. 20' STORM SEWER EASEMENT
THE LANDING AT SHADOW CREEK PLAT 1

30' SETBACK

10' SANITARY SEWER EASEMENT

P-37 | L-42

NE BELLFLOWER COURT

7" P.C.C.

ST-37

EX. 10' PUE
THE LANDING AT SHADOW CREEK PLAT 1

EX. 25' OVERLAND FLOWAGE EASEMENT
THE LANDING AT SHADOW CREEK PLAT 1

LOT 85 | LOT 78

15' OVERLAND FLOWAGE EASEMENT

10' PUE

S-35 | ST-36

SCALE 0' 10' 20' 40'

SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/28/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

13/64

1408.409

1040 | 1035 | 1030 | 1025 | 1020 | 1015 | 1010 | 1005

STA 214+46.22, 36.00' LT
EX SW-301 48" MH
RIM=1025.81
FL 8" (N)=1013.81
FL 8" (S)=1015.33

STA 214+83.58, 19.32' LT
REMOVE TEMPORARY APRON AND CONNECT TO STORM SEWER
FL=1019.43 (VERIFY)

-0.55%

L-EX4
41 LF OF
EX 15" RCP @ 1.00%

L-43
102 LF OF 15" RCP @ 1.00%

P-EX2
45 LF OF
EX 8" PVC @ 0.55%

P-38
161 LF OF 8" PVC @ 0.55%

STA 214+93.21, 36.00' LT
CONNECT TO EXISTING
8" SANITARY SEWER
FL=1013.56 (VERIFY)

STA 215+86.21, 15.50' LT
SW-503 INTK
TC=~~1024.49~~ 1024.84
FL 15" (S)=~~1018.21~~ 1017.98
FL 15" (E)=~~1018.02~~ 1017.75
FL 24" (N)=~~1017.42~~ 1017.51

STA 216+56.21, 36.00' LT
SW-301 48" MH
RIM=~~1024.66~~ 1024.93
FL 8" (S)=~~1012.87~~ 1012.61
FL 8" (E)=~~1010.74~~ 1010.61
FL 8" (N)=~~1010.64~~ 1010.58

DROP CONNECTION
REFER TO DETAIL ON SHEET 3,
BOTTOM FL=1010.74

L-38
271 LF OF 24" RCP @ ~~0.56%~~ 0.65%

HP STA = 218+09.92
HP ELEV = 1023.139
VPI STA = 218+60
VPI ELEV = 1022.86
VC = 100'
K=40.78

VPC STA = 218+10
VPC ELEV = 1023.14

STA 218+61.21, 20.45' LT
SW-403 72" MH
RIM=~~1022.36~~ 1022.88
FL 24" (S)=~~1015.99~~ 1015.76
FL 24" (E)=~~1015.99~~ 1015.68
FL 30" (W)=~~1015.89~~ 1015.66

VPT STA = 219+10
VPT ELEV = 1021.36

EXISTING GROUND

PROFILE GRADE

-3.00%

P-35
354 LF OF 8" PVC @ 1.60% ~~1.80%~~

1025.11 1025.11 | 1024.06 1024.84 | 1024.32 1024.56 | 1024.29 1024.29 | 1024.01 1024.01 | 1023.74 1023.74 | 1023.47 1023.47 | 1023.19 1023.19 | 1027.57 1022.72 | 1027.37 1021.65 | 1025.40 1020.16

215+00 | 216+00 | 217+00 | 218+00 | 219+00

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 12/9/2015 10:15 AM
PLOTTED BY: JAKED MURRAY
COMMENT:
ENG:
TECH:

REFER TO SHEET 21 FOR NE BROOKSHIRE COURT PLAN AND PROFILE.

REFER TO SHEET 57 FOR INTERSECTION DETAILS.

REFER TO SHEET 40 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 38 FOR L-21 THROUGH L-23 PLAN AND PROFILE.

REFER TO SHEET 58 FOR INTERSECTION DETAILS.

REFER TO SHEET 23 FOR NE DELLWOOD DRIVE PLAN AND PROFILE.

LOT 7

LOT 18

LOT 19

LOT 28

LOT 74

LOT 76

LOT 75

LOT 59

10' SANITARY SEWER EASEMENT

10' PUE

10' OVERLAND FLOWAGE EASEMENT

INTSALL 25 TONS OF CLASS 'E' RIP RAP

30' SETBACK

20' SANITARY SEWER EASEMENT

20' STORM SEWER EASEMENT

STA 220+36.21 (NE WESTGATE DRIVE)
STA 127+00.00 (NE BROOKSHIRE DRIVE)

NE BROOKSHIRE COURT

NE DELLWOOD COURT

NE BROOKSHIRE DRIVE

NE DELLWOOD DRIVE

7" P.C.C.

8" P.C.C.

NE WESTGATE DRIVE

STREET LIGHT LOCATION

10' SHARED USE PATH (FUTURE)

5' SIDEWALK (FUTURE)

31.00' B-B

70.00' ROW

19.50' TYP.

PC 224+80.71

STA 224+16.19 (NE WESTGATE DRIVE)
STA 147+00.00 (NE DELLWOOD DRIVE)

△ = 35°08'23"
L = 490.64'
R = 800.00'
CH = 482.99'
CHB = N17°38'10"W

CRITICAL CROSSING
BOTTOM OF STORM=1011.64
TOP OF WATER=1010.14

CRITICAL CROSSING
BOTTOM OF STORM=1009.34
TOP OF WATER=1007.84

CRITICAL CROSSING
BOTTOM OF STORM=1009.04
TOP OF WATER=1007.54

5' SANITARY SEWER EASEMENT

25' OVERLAND FLOWAGE EASEMENT

126+00 127+00 128+00 146+00 147+00 148+00

220+00 221+00 222+00 223+00 224+00 225+00

S-31 S-21

SCALE 0' 10' 20' 40'

SHEET INDEX

DATE	REVISIONS
12/09/15	FINAL SUBMITTAL
05/04/15	AS-BUILT SUBMITTAL
04/17/15	REVISED SUBMITTAL
	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/28/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE WESTGATE DRIVE

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

1408.409

FILE: H:\2014\1408409\DWG\1408409-PNP-AS-BUILT.DWG
PLOTTED: 4/7/2015 10:18 AM
PLOTTED BY: JARED MURRAY
COMMENT:
DNS:
TCH:

STA 219+90.46, 15.50' L
SW-503 INTK
TC=1019.18
FL 18" (E)=1011.53
FL 18" (NW)=1011.37

STA 220+13.98, 37.78' L
SW-301 48" MH
RIM=1017.44 1018.08
FL 8" (E)=1002.85 1002.53
FL 8" (W)=999.68 999.46
FL 8" (S)=1005.33 1004.92
FL 8" (N)=999.58 999.52

VPC STA = 220+80
VPC ELEV = 1016.26

LP STA = 222+30.00
LP ELEV = 1014.01
VPI STA = 221+80
VPI ELEV = 1013.26
VC = 200'
K=50.00

STA 222+29.17, 15.50' L
SW-506 INTK
TC=1014.44
FL 18" (E)=1009.20 1009.10
FL 18" (W)=1009.10 1008.56

VPT STA = 222+80
VPT ELEV = 1014.26

PROFILE GRADE

EXISTING GROUND

3.00%

1.00%

-4.60%

VPC STA = 223+90
VPC ELEV = 1015.36

STA 223+93.60, 38.54' L
SW-301 48" MH
RIM=1016.98 1015.07
FL 8" (S)=997.70 997.41
FL 8" (W)=998.46 998.26
FL 10" (E)=994.64 994.50
FL 10" (N)=994.54 994.43

HP STA = 224+07.86
HP ELEV = 1015.452
VPI STA = 224+40
VPI ELEV = 1015.86
VC = 100'
K=17.86

VPT STA = 224+90
VPT ELEV = 1013.56

VPC STA = 225+40

P-35 354 LF OF 8" PVC @ ~~1.50%~~ 1.60%

DROP CONNECTION
REFER TO DETAIL ON SHEET 3.
BOTTOM FL=~~999.68~~ 999.43

P-31 375 LF OF 8" PVC @ ~~0.50%~~ 0.56%

DROP CONNECTION
REFER TO DETAIL ON SHEET 3.
BOTTOM FL=~~994.54~~ 994.46

P-21 173 LF OF 10" PVC @ ~~0.50%~~ 0.54%

1025 1020 1015 1010 1005 1000 995 990

1023.35 1018.66 | 1021.36 1017.16 | 1019.50 1015.70 | 1017.37 1014.85 | 1016.15 1014.10 | 1014.75 1014.05 | 1013.64 1014.46 | 1013.26 1014.96 | 1013.49 1015.43 | 1013.36 1014.95 | 1012.83 1013.10

220+00 221+00 222+00 223+00 224+00 225+00

REFER TO SHEET 26 FOR L-13 PLAN AND PROFILE.

REFER TO SHEET 41 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 37 FOR L-5 AND L-6 PLAN AND PROFILE.

REFER TO SHEET 59 FOR INTERSECTION DETAILS.

REFER TO SHEET 28 FOR NE DOUGLAS PARKWAY PLAN AND PROFILE.

LOT 28 | LOT 29 | LOT 30 | LOT 31 | LOT 32

Δ = 35°08'23"
L = 490.64'
R = 800.00'
CH = 482.99'
CHB = N17°38'10"W

STA 230+60.69 (NE WESTGATE DRIVE)
STA 72+93.89 (NE DOUGLAS PARKWAY)

10' OVERLAND FLOWAGE EASEMENT
10' PUE
20' SANITARY SEWER EASEMENT
20' STORM SEWER EASEMENT
30' SETBACK
TRAFFIC SIGNAL EASEMENT
STREET LIGHT LOCATION
10' SHARED USE PATH (FUTURE)
5' SIDEWALK (FUTURE)
20' STORM SEWER AND OVERLAND FLOWAGE EASEMENT
25' LANDSCAPE BUFFER EASEMENT
15' PUE

226+98 TG=1007.76
227+85 TG=1006.88
228+71 TG=1006.12
229+42 TG=1006.10
229+34 TG=1006.19
228+53 TG=1006.35
227+73 TG=1007.13
226+92 TG=1007.94
226+12 TG=1009.61

CRITICAL CROSSING
BOTTOM OF STORM=1003.69
TOP OF WATER=1002.19

NE WESTGATE DRIVE
8" P.C.C.
70.00' ROW
31.00' B-B
19.50' TYP.

NE DOUGLAS PARKWAY
9" P.C.C.

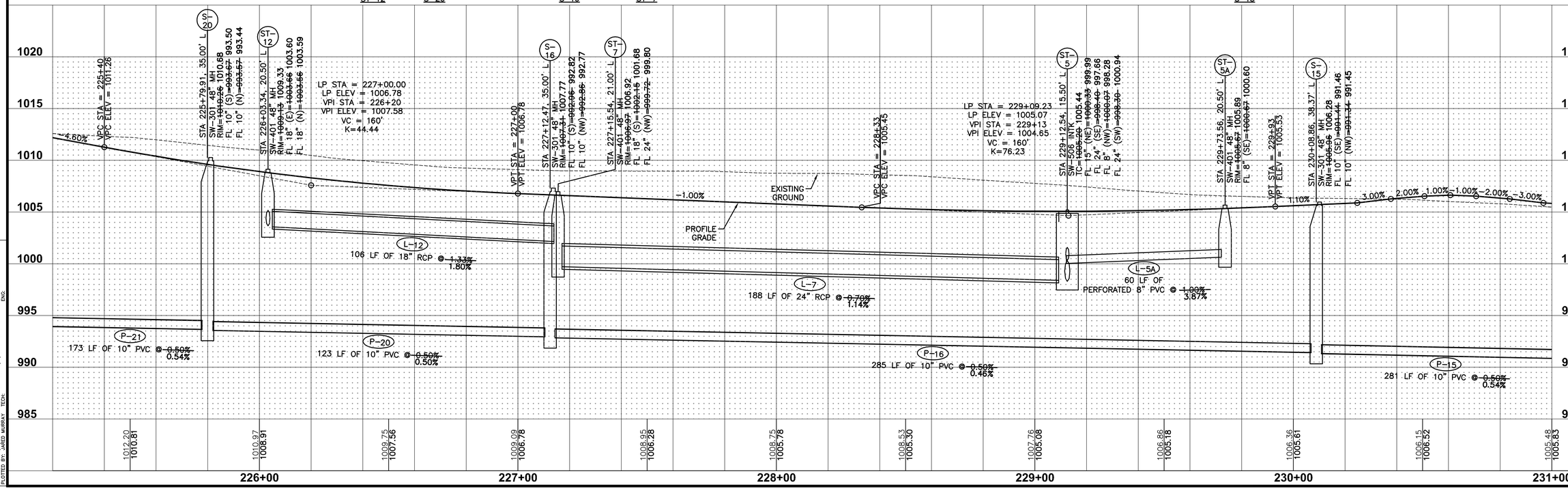
LOT 58 | LOT 57 | LOT 56 | LOT 55 | LOT 54

ST-12 S-20 S-16 ST-7 S-15

SHEET INDEX

COVER SHEET	1
GENERAL NOTES	2
SITE PLAN	3
EROSION CONTROL PLAN	4
EROSION CONTROL DETAILS	5
EXISTING CONDITIONS AND REMOVALS	6
OVERALL PLAT	7
PLAT 2	8
OVERALL GRADING PLAN	9
GRADING PLAN	10
GRADING PLAN	11
GRADING PLAN	12
GRADING PLAN	13
GRADING PLAN	14
GRADING PLAN	15
GRADING PLAN	16
GRADING PLAN	17
GRADING PLAN	18
GRADING PLAN	19
GRADING PLAN	20
GRADING PLAN	21
GRADING PLAN	22
GRADING PLAN	23
GRADING PLAN	24
GRADING PLAN	25
GRADING PLAN	26
GRADING PLAN	27
GRADING PLAN	28
GRADING PLAN	29
GRADING PLAN	30
GRADING PLAN	31
GRADING PLAN	32
GRADING PLAN	33
GRADING PLAN	34
GRADING PLAN	35
GRADING PLAN	36
GRADING PLAN	37
GRADING PLAN	38
GRADING PLAN	39
GRADING PLAN	40
GRADING PLAN	41
GRADING PLAN	42
GRADING PLAN	43
GRADING PLAN	44
GRADING PLAN	45
GRADING PLAN	46
GRADING PLAN	47
GRADING PLAN	48
GRADING PLAN	49
GRADING PLAN	50
GRADING PLAN	51
GRADING PLAN	52
GRADING PLAN	53
GRADING PLAN	54
GRADING PLAN	55
GRADING PLAN	56
GRADING PLAN	57
GRADING PLAN	58
GRADING PLAN	59
GRADING PLAN	60
GRADING PLAN	61
GRADING PLAN	62
GRADING PLAN	63
GRADING PLAN	64

SCALE 0' 10' 20' 40'



DATE	REVISIONS
12/09/15	FINAL SUBMITTAL
05/04/15	AS-BUILT SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

15/64

1408.409

FILE: N:\2014\1408409\DWG\1408409-PNP-AS-BUILT.DWG
PLOT SCALE: 1:1 | PLOTTED: 1/4/2016 10:19 AM
PLOTTED BY: JARED MURRAY | TECH:
COMMENT: ENG.

REFER TO SHEET 42 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 35 FOR L-62 PLAN AND PROFILE.

LOT 33 | LOT 34 | LOT 35 | LOT 36 | LOT 37

15' PUE

25' LANDSCAPE BUFFER EASEMENT

30' SETBACK

TRAFFIC SIGNAL EASEMENT

STREET LIGHT LOCATION

10' SANITARY SEWER EASEMENT

20' STORM SEWER AND OVERLAND FLOWAGE EASEMENT

STREET LIGHT LOCATION

10' PUE

10' SHARED USE PATH (FUTURE)

5' SIDEWALK (FUTURE)

NE WESTGATE DRIVE
8" P.C.C.

NE DOUGLAS PARKWAY
9" P.C.C.

72+00 | 73+00 | 231+00 | 232+00 | 233+00 | 234+00 | 235+00 | 236+00

231+82
TG=1005.56

232+49
TG=1004.51

232+05
TG=1005.33

233+03
TG=1003.55

233+20
TG=1003.05

233+90
TG=1001.44

234+02
TG=1001.29

234+62
TG=999.81

PC 231+23.00

PT 234+93.98

31.00' B-B
70.00' ROW

19.50' TYP.

Δ = 35°08'23"
L = 367.98'
R = 600.00'
CH = 362.24'
CHB = N17°38'10"W

STA 230+60.69 (NE WESTGATE DRIVE)
STA 72+93.89 (NE DOUGLAS PARKWAY)

CRITICAL CROSSING
BOTTOM OF STORM=990.49
TOP OF WATER=988.99

S-14 | ST-64 | S-13 | ST-63 | ST-61

163° | 169° | 170° | 93° | 92°

SCALE
0' 10' 20' 40'

SHEET INDEX

1	COVER SHEET
2	GENERAL NOTES
3	SITE PLAN
4	SITE PLAN
5	SITE PLAN
6	SITE PLAN
7	SITE PLAN
8	SITE PLAN
9	SITE PLAN
10	SITE PLAN
11	SITE PLAN
12	SITE PLAN
13	SITE PLAN
14	SITE PLAN
15	SITE PLAN
16	SITE PLAN
17	SITE PLAN
18	SITE PLAN
19	SITE PLAN
20	SITE PLAN
21	SITE PLAN
22	SITE PLAN
23	SITE PLAN
24	SITE PLAN
25	SITE PLAN
26	SITE PLAN
27	SITE PLAN
28	SITE PLAN
29	SITE PLAN
30	SITE PLAN
31	SITE PLAN
32	SITE PLAN
33	SITE PLAN
34	SITE PLAN
35	SITE PLAN
36	SITE PLAN
37	SITE PLAN
38	SITE PLAN
39	SITE PLAN
40	SITE PLAN
41	SITE PLAN
42	SITE PLAN
43	SITE PLAN
44	SITE PLAN
45	SITE PLAN
46	SITE PLAN
47	SITE PLAN
48	SITE PLAN
49	SITE PLAN
50	SITE PLAN
51	SITE PLAN
52	SITE PLAN
53	SITE PLAN
54	SITE PLAN
55	SITE PLAN
56	SITE PLAN
57	SITE PLAN
58	SITE PLAN
59	SITE PLAN
60	SITE PLAN
61	SITE PLAN
62	SITE PLAN
63	SITE PLAN
64	SITE PLAN

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

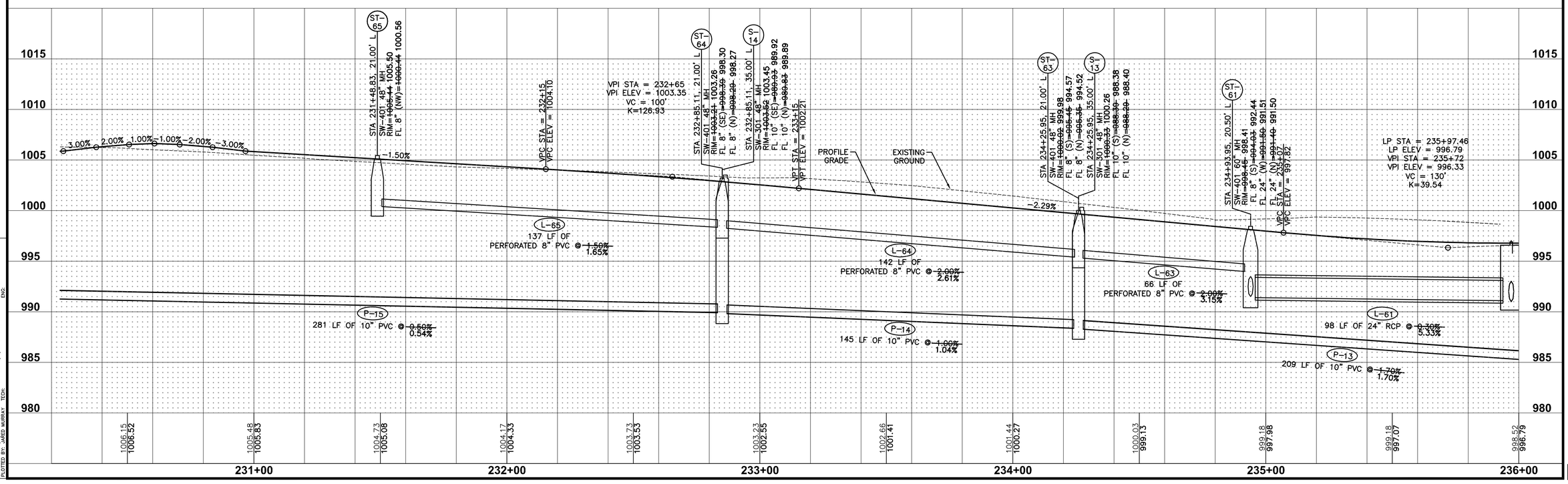
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA



FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 12/9/2015 8:19 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.

REFER TO SHEET 33 FOR NE BOBCAT DRIVE PLAN AND PROFILE.

REFER TO SHEET 35 FOR L-62 PLAN AND PROFILE.

REFER TO SHEET 43 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 60 FOR INTERSECTION DETAILS.

REFER TO SHEET 18 FOR L-57 THROUGH L-60 PLAN AND PROFILE.

LOT 37 | LOT 38 | LOT 41 | LOT 51 | LOT 50 | LOT 42

NE BOBCAT DRIVE

NE WESTGATE DRIVE

NE BOBCAT COURT

PLAT BOUNDARY

WAUKEE CORPORATE LIMITS

20' STORM SEWER EASEMENT

10' PUE

5' SANITARY SEWER EASEMENT

30' SETBACK

10' SANITARY SEWER EASEMENT

15' OVERLAND FLOWAGE EASEMENT

TEMPORARY CONSTRUCTION EASEMENT

234+62
TG=999.81

STREET LIGHT LOCATION

STA 236+58.44 (NE WESTGATE DRIVE)
STA 195+00.00 (NE BOBCAT DRIVE)

10' SHARED USE PATH (FUTURE)

INSTALL 5 PERMANENT ROAD CLOSURE SIGNS (TYPE SI-182)

PT 234+90.98

8" P.C.C.

19.50' TYP.

31.00' B-B

70.00' ROW

PROVIDE ADDITIONAL PAVEMENT REINFORCEMENT ACROSS ENTIRE PANEL. PROVIDE REBAR ON 30" CENTERS, EACH WAY.

STA 238+28.28
END PAVEMENT

5' SIDEWALK (FUTURE)

CRITICAL CROSSING
BOTTOM OF STORM=990.49
TOP OF WATER=988.99

CRITICAL CROSSING
BOTTOM OF STORM=991.93
TOP OF WATER=990.43

INSTALL 5 TONS OF CLASS 'E' RIP RAP

PC 195+57.91

7" P.C.C.

234+02
TG=1001.29

10' OVERLAND FLOWAGE EASEMENT

SCALE
0' 10' 20' 40'

S-6

SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOTTED: 6/9/2016 10:20 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:

STA 234+25.95, 21.00' L
SW-401 48" MH
RIM=~~1000.02~~ 999.98
FL 8" (S)=~~996.45~~ 994.57
FL 8" (N)=~~996.35~~ 994.52

STA 234+25.95, 35.00' L
SW-501 48" MH
RIM=~~1000.23~~ 1000.26
FL 10" (S)=~~988.30~~ 988.38
FL 10" (N)=~~988.20~~ 988.40

STA 234+93.95, 20.50' L
SW-401 60" MH
RIM=~~998.16~~ 998.41
FL 8" (S)=~~994.03~~ 992.44
FL 24" (W)=~~991.80~~ 991.51
FL 24" (N)=~~991.40~~ 991.50
VPC STA = 235+07
VPC ELEV = 997.02

LP STA = 235+97.46
LP ELEV = 996.79
VPI STA = 235+72
VPI ELEV = 996.33
VC = 130'
K=39.54

STA 235+97, 15.50' L
SW-506 INTK
TC=~~996.31~~ 997.28
FL 24" (S)=~~991.11~~ 986.28
FL 24" (E)=~~991.01~~ 991.29

STA 236+35.18, 36.73' L
SW-301 48" MH
RIM=~~997.36~~ 997.25
FL 10" (S)=~~984.74~~ 984.85
FL 10" (E)=~~981.33~~ 981.52
FL 15" (W)=~~981.23~~ 981.43

VPI STA = 236+37
VPI ELEV = 996.98

VPC STA = 236+98
VPC ELEV = 997.59

HP STA = 237+19.24
HP ELEV = 997.699
VPI STA = 237+60
VPI ELEV = 998.21
VC = 125'
K=21.74

PROFILE GRADE

STA 238+13.33, 15.50' L
SW-501 INTK
TC=~~996.79~~ 995.93
FL 15" (W)=~~991.99~~ 992.02
FL 15" (E)=~~991.89~~ 991.92

VPI STA = 238+22
VPI ELEV = 995.25

STA 238+13.07, 47.43' L
15" RCP APRON W/
FOOTING AND APRON GUARD
FL=~~992.21~~ 992.00

STA 238+13.33, 15.50' L
SW-501 INTK
TC=~~996.79~~ 995.93
FL 15" (W)=~~991.99~~ 992.02
FL 15" (E)=~~991.89~~ 991.92

STA 238+13.33, 15.50' R
SW-506 INTK
TC=~~996.79~~ 995.78
FL 15" (W)=~~991.75~~ 991.53
FL 15" (E)=~~991.65~~ 991.63

STA 238+13.78, 50.92' R
15" RCP APRON W/
FOOTING AND APRON GUARD
FL=~~991.47~~ 991.32

L-63
66 LF OF
PERFORATED 8" PVC @ ~~2.00%~~ 3.15%

L-61
98 LF OF 24" RCP @ ~~9.30%~~ 5.33%

P-13
209 LF OF 10" PVC @ ~~1.70%~~ 1.70%

DROP CONNECTION
REFER TO DETAIL ON SHEET 3.
BOTTOM FL=~~981.33~~ 981.52

L-69
32 LF OF 15" RCP @ ~~0.70%~~ 0.063%
(LENGTH SHOWN INCLUDES APRON)

L-68
27 LF OF
15" RCP @ ~~0.50%~~ 1.44%

L-67
36 LF OF 15" RCP @ ~~0.50%~~ 0.86%
(LENGTH SHOWN INCLUDES APRON)

-2.29%
1.00%
4.75%

1001.44 1000.27 | 1000.03 999.13 | 999.18 997.98 | 999.18 997.07 | 998.52 996.79 | 997.39 997.11 | 995.96 997.61 | 994.41 997.48 | 993.49 996.20

234+00 | 235+00 | 236+00 | 237+00 | 238+00

1015 1010 1005 1000 995 990 985 980

LOT 37

LOT 38

LOT 41

LOT 51

LOT 50

LOT 42

NE WESTGATE DRIVE

NE BOBCAT COURT

PLAT BOUNDARY

20' STORM SEWER EASEMENT

10' PUE

5' SANITARY SEWER EASEMENT

30' SETBACK

BP 315+00.00

10' SANITARY SEWER EASEMENT

STREET LIGHT LOCATION

PT 234+90.98

8" P.C.C.

19.50' TYP.

PC 315+81.00

5' SIDEWALK (FUTURE)

PROVIDE ADDITIONAL PAVEMENT REINFORCEMENT ACROSS ENTIRE PANEL. PROVIDE #4 REBAR ON 30" CENTERS, EACH WAY.

CRITICAL CROSSING
BOTTOM OF STORM=990.49
TOP OF WATER=988.99

CRITICAL CROSSING
BOTTOM OF STORM=991.93
TOP OF WATER=990.43

7" P.C.C.

PC 196+17.91

15' OVERLAND FLOWAGE EASEMENT

STA 236+58.44 (NE WESTGATE DRIVE)
STA 195+00.00 (NE BOBCAT DRIVE)

10' SHARED USE PATH (FUTURE)

70.00' ROW

31.00' B-B

EP 317+17.58

PI 316+38.58

WAUKEE CORPORATE LIMITS

TEMPORARY CONSTRUCTION EASEMENT

INSTALL 5 PERMANENT ROAD CLOSURE SIGNS (TYPE SI-182)

194+00 195+00 196+00 234+00 235+00 236+00 237+00 238+00 239+00 315+00 316+00 317+00 317+18

L-61 L-62 L-63 L-64 L-60 L-59 L-58 L-57 L-56 L-67 L-68 L-69

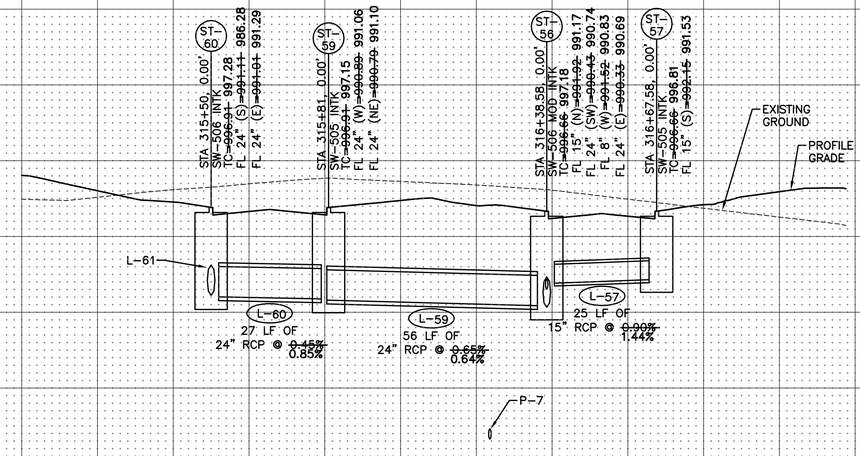
P-13 P-14 P-7 P-6

ST-13 ST-61 ST-63 ST-60 ST-59 ST-56 ST-57 ST-67 ST-68 ST-69

SHEET INDEX

REVISIONS AS-BUILT SUBMITTAL	DATE
REVISED SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

SCALE 0' 10' 20' 40'



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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE WESTGATE DRIVE

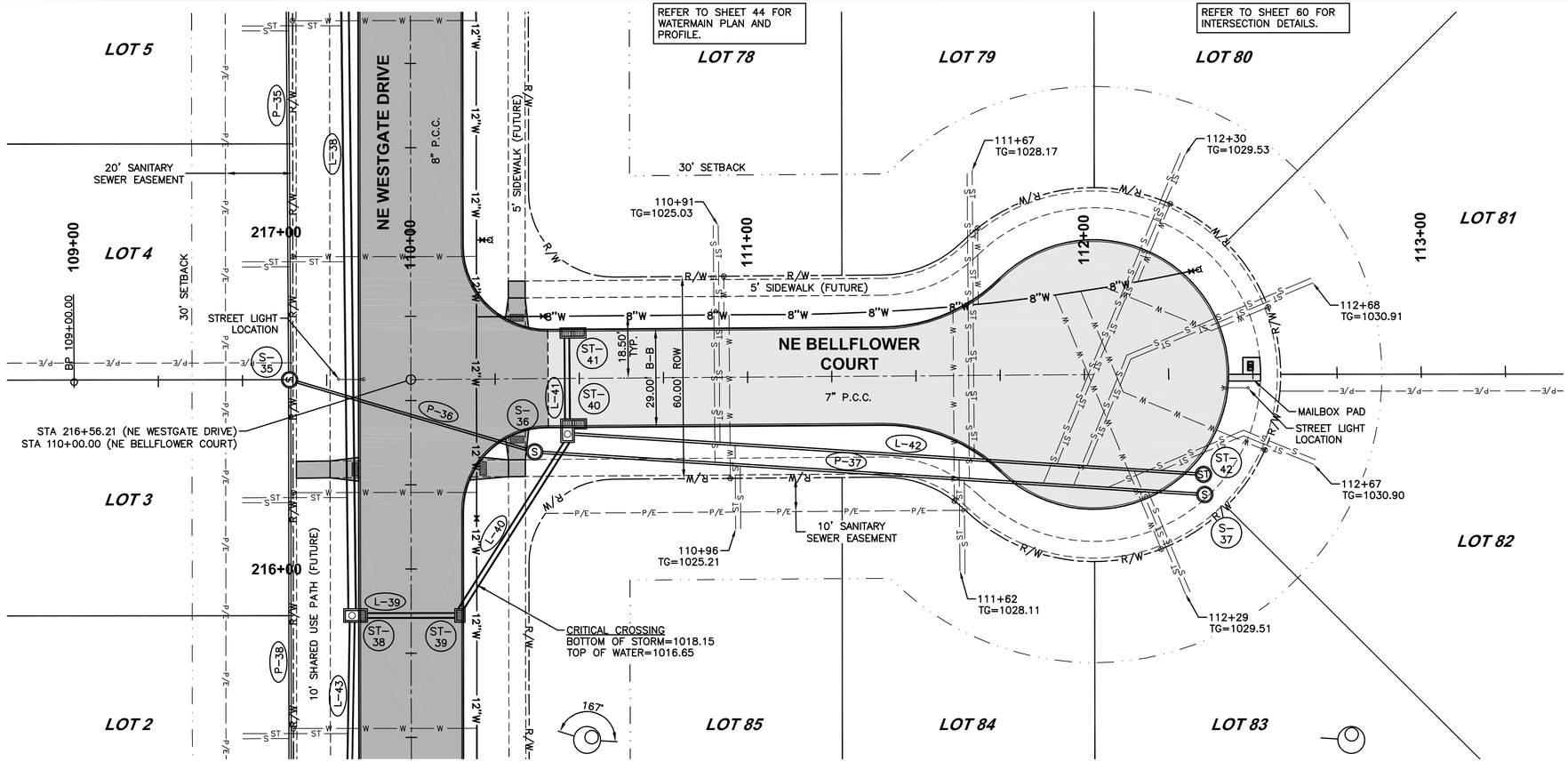
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

18/64

1408.409

FILE: N:\2014\1408409\DWG\1408409-PNP-AS-BUILT.DWG
PLT SCALE: 1"=40' PLOTTED: 1/6/2016 10:20 AM
USER: KRTECH PLOTTED BY: JARED MURRAY
COMMENT: ENG

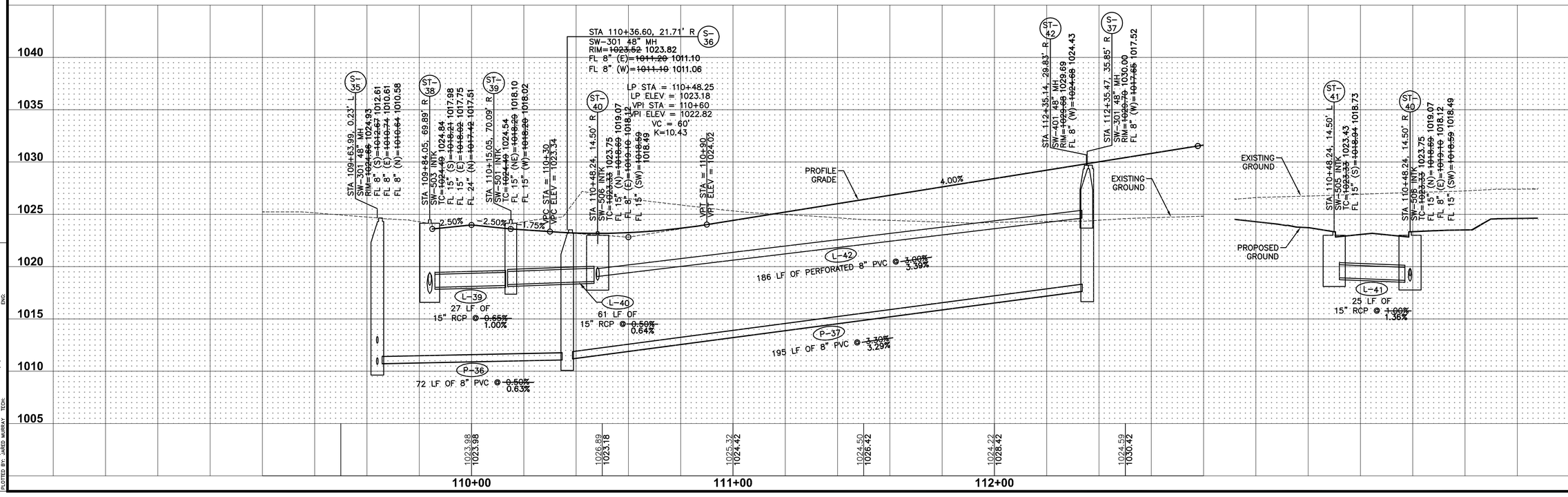


SHEET INDEX

DATE	REVISIONS
12/09/15	FINAL SUBMITTAL
05/04/15	AS-BUILT SUBMITTAL
04/17/15	REVISED SUBMITTAL
	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

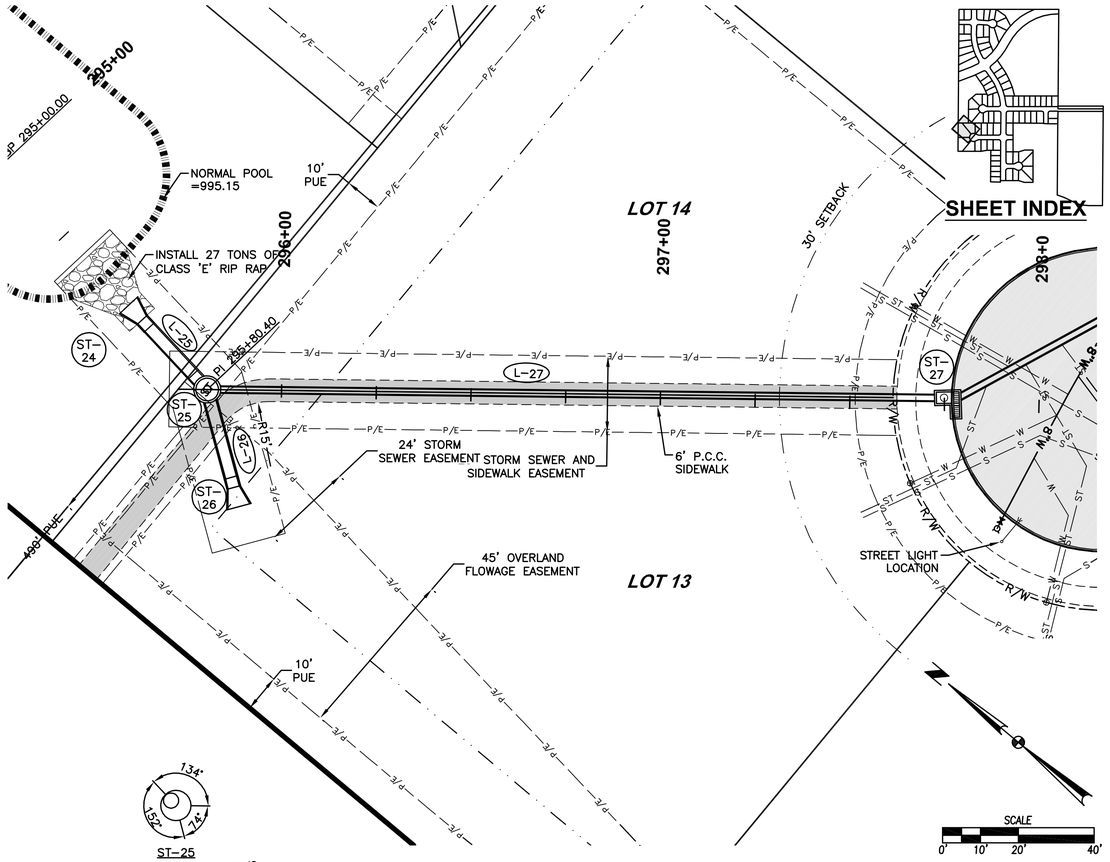
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM
CIVIL DESIGN ADVANTAGE

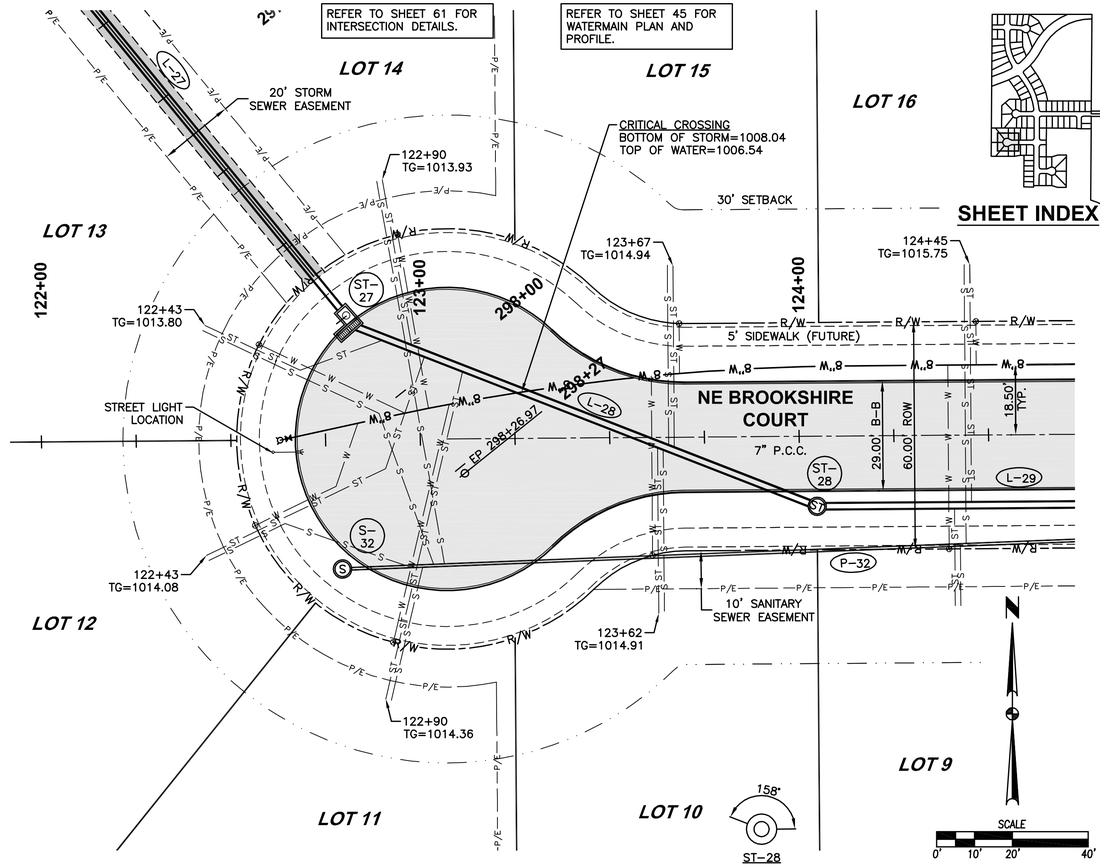
THE LANDING AT SHADOW CREEK PLAT 2
NE BELLFLOWER COURT
STORM & SANITARY SEWER PLAN AND PROFILE
WAUKEE, IOWA

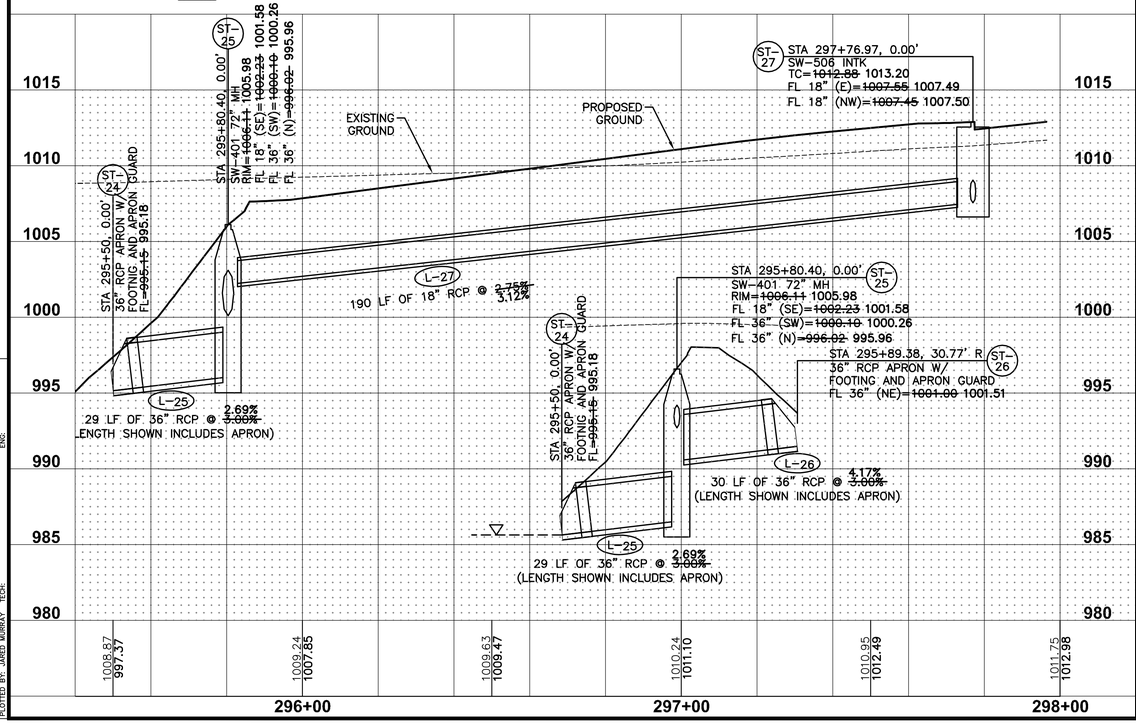


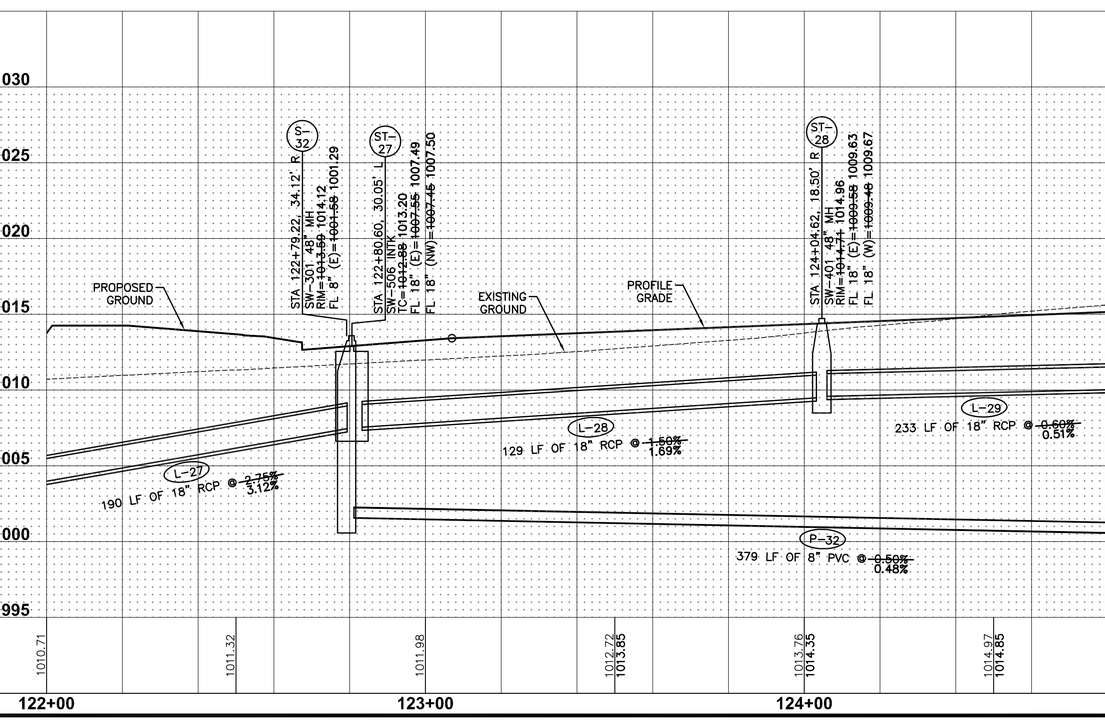
1408.409

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 9/9/2015 10:21 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.









DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

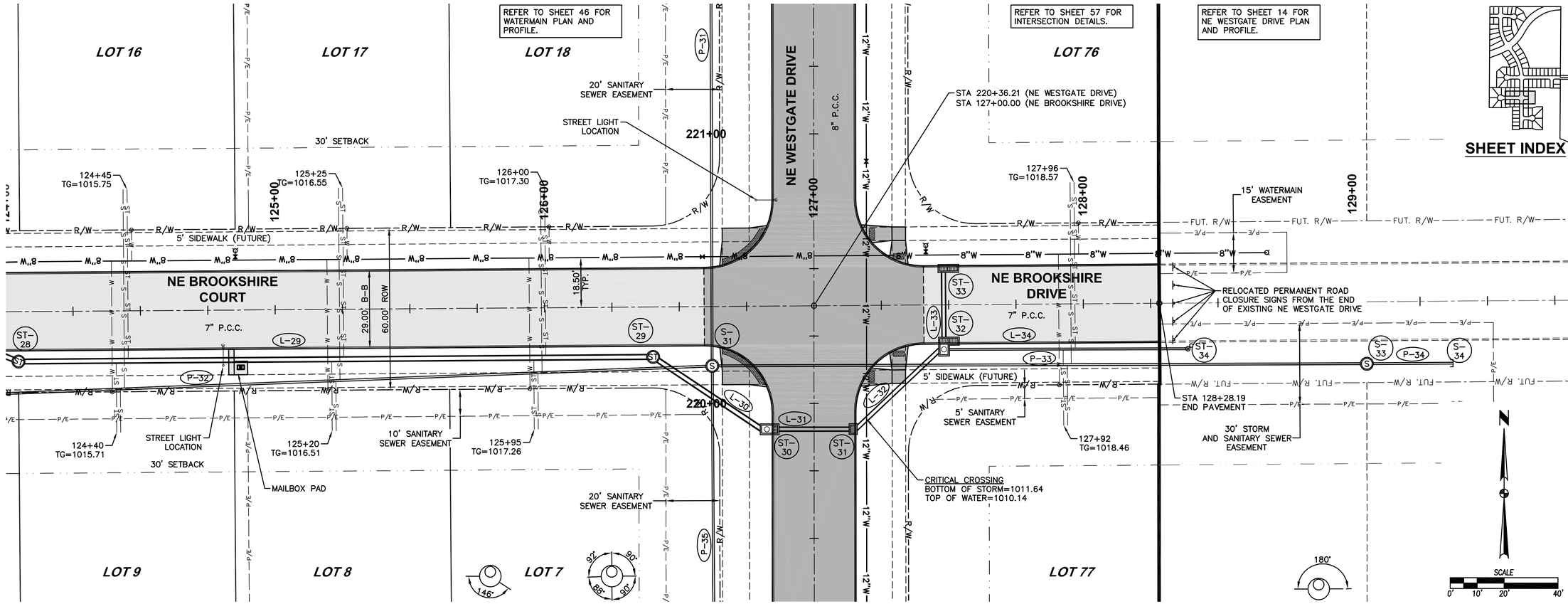
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

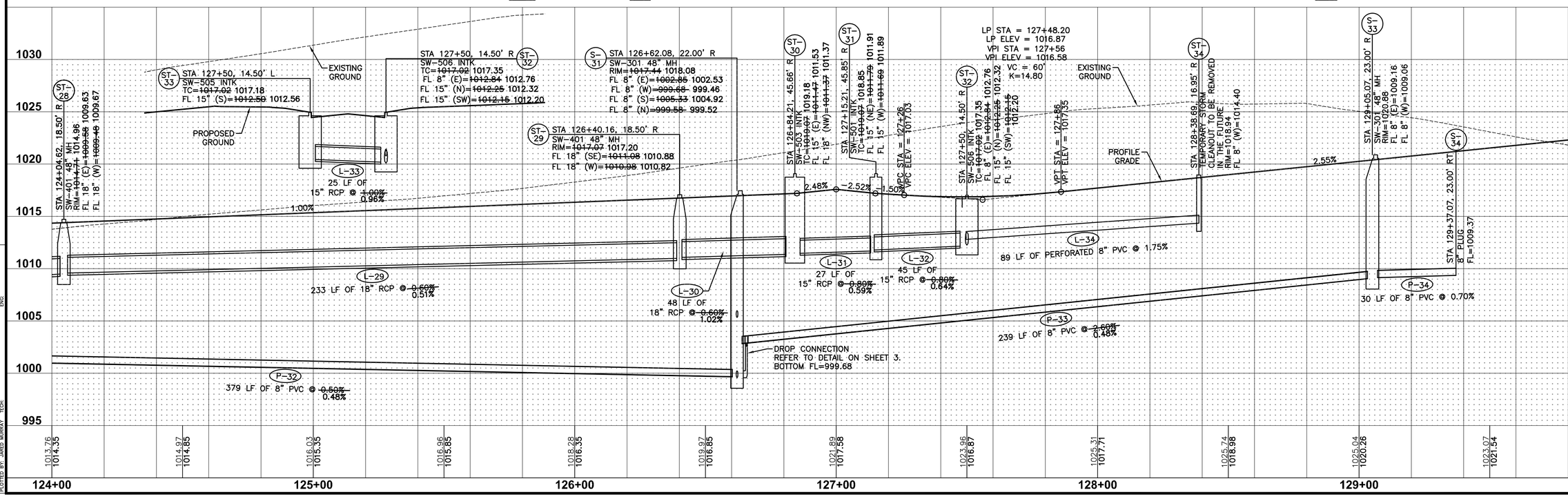
THE LANDING AT SHADOW CREEK PLAT 2
NE BROOKSHIRE COURT
STORM & SANITARY SEWER PLAN AND PROFILE

20/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PNP-AS-BUILT.DWG
PLOTTED: 4/9/2015 10:21 AM
PLOTTED BY: JAKED MURRAY
COMMENT:
ENG:
TECH:





DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

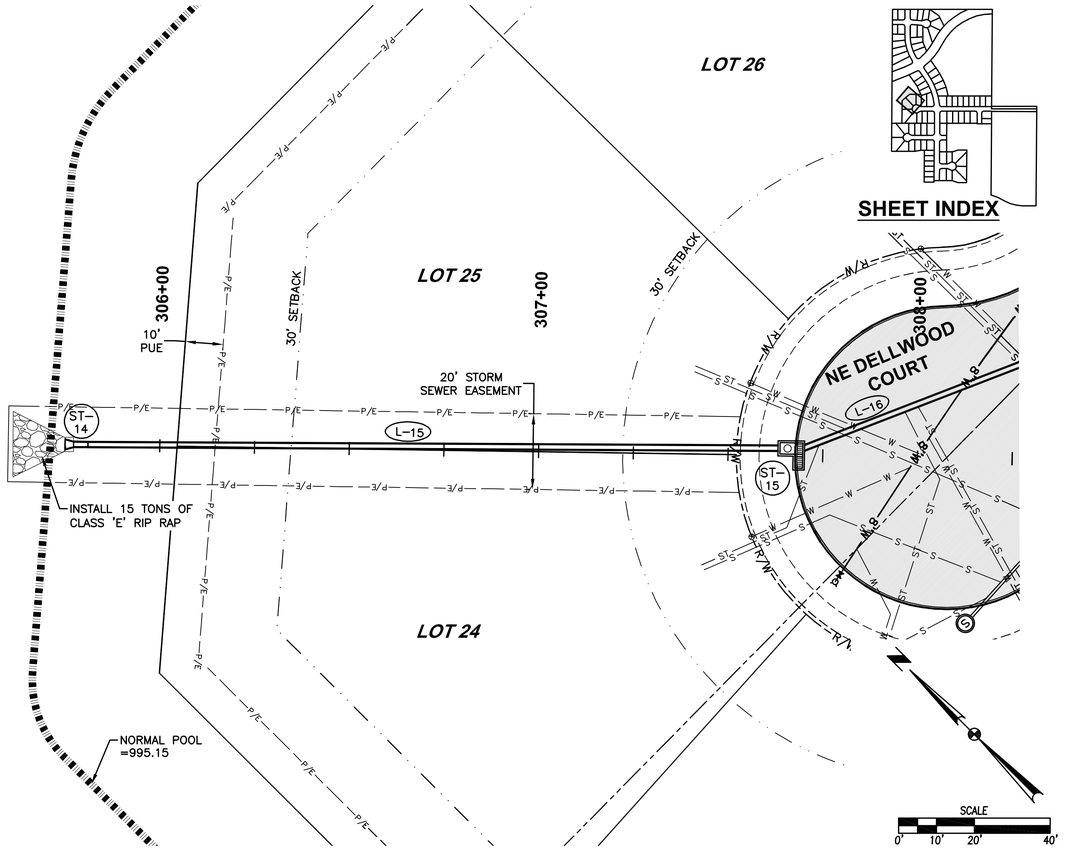
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM
CIVIL DESIGN ADVANTAGE

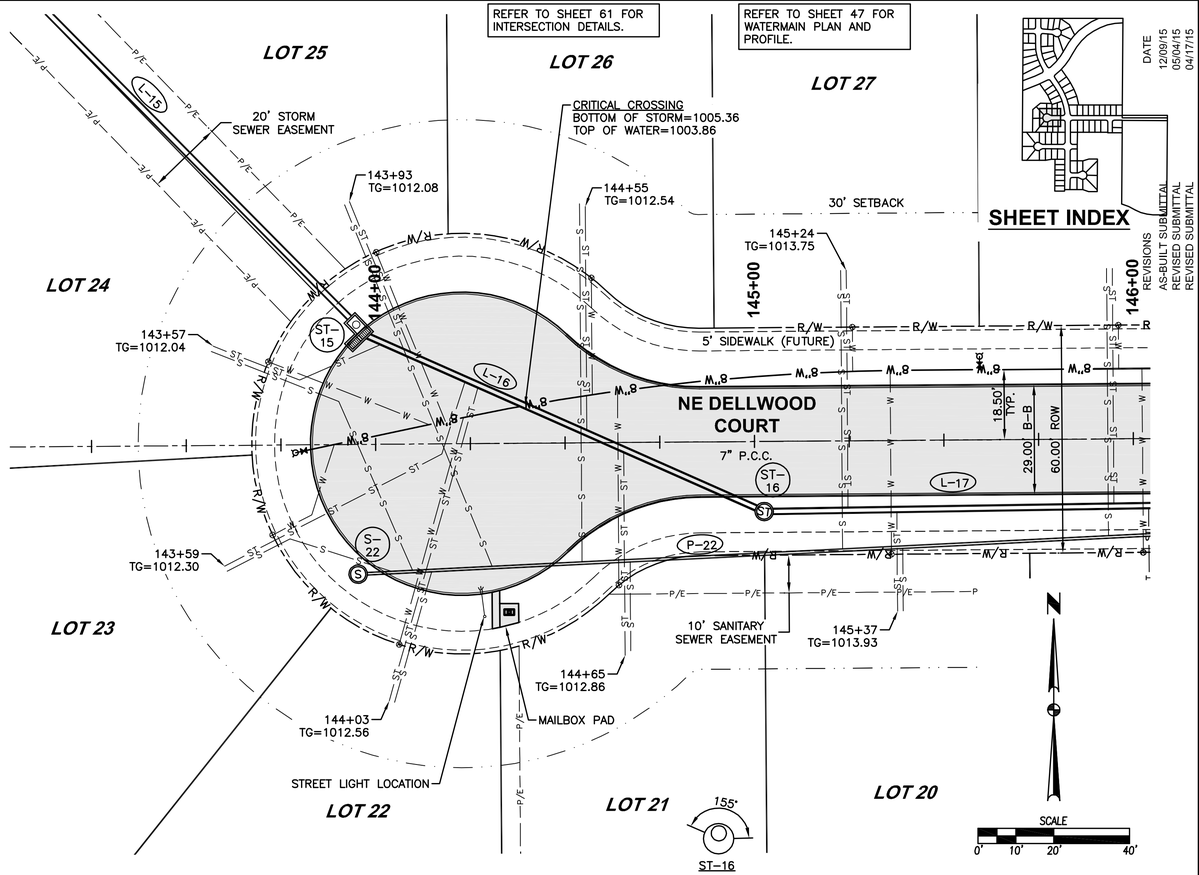
THE LANDING AT SHADOW CREEK PLAT 2
NE BROOKSHIRE COURT
STORM & SANITARY SEWER PLAN AND PROFILE
WAUKEE, IOWA

21/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOTTED: 6/5/2015 10:22 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.





DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

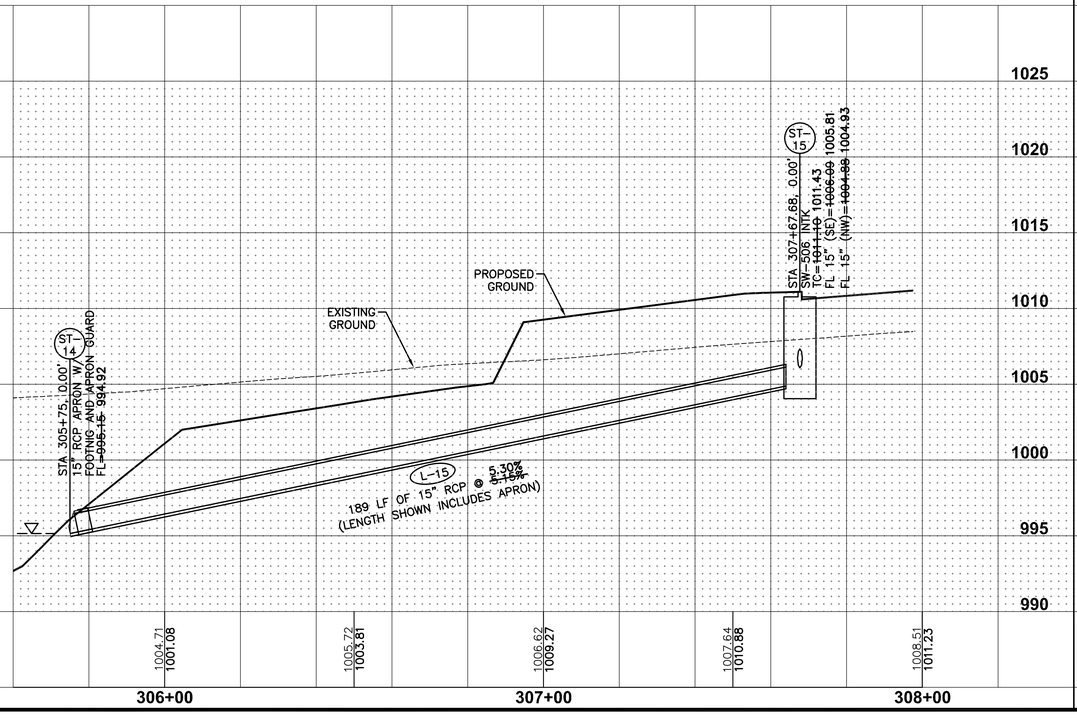
CIVIL DESIGN ADVANTAGE

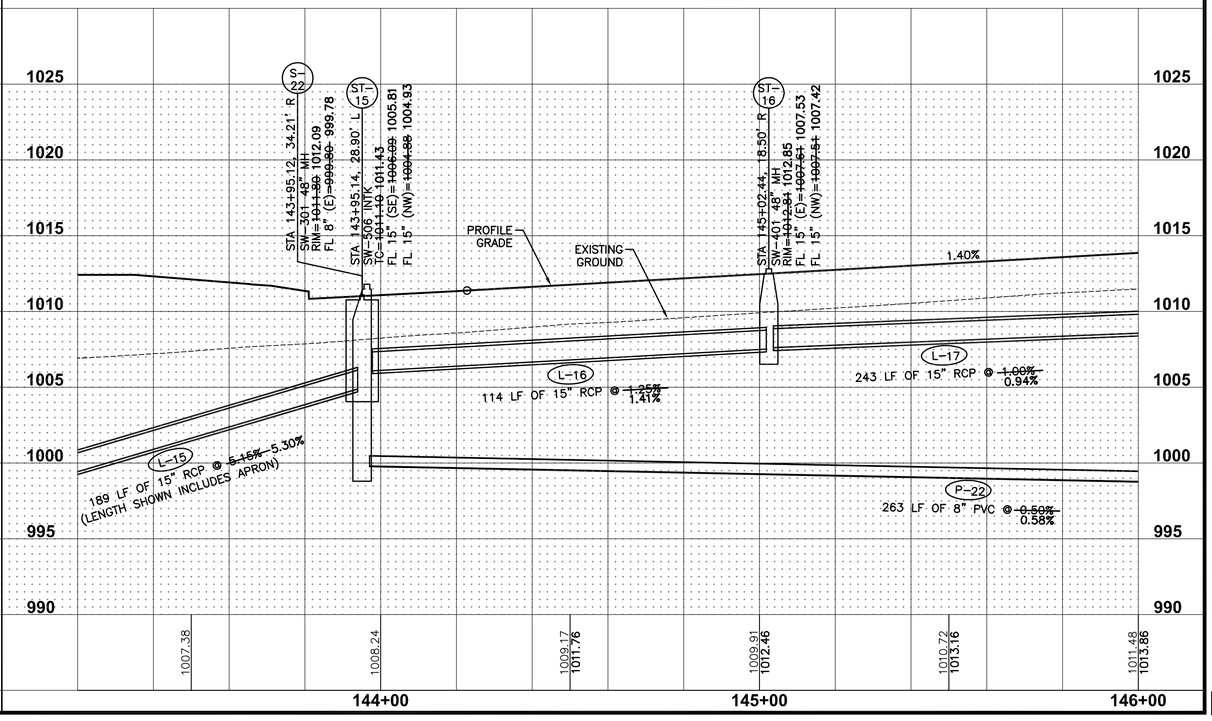
THE LANDING AT SHADOW CREEK PLAT 2
NE DELLWOOD COURT
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

22/64

1408.409





FILE: H:\2014\J408409\DWG\J408409-PHP-AS-BUILT.DWG
PLOT DATE: 10/6/2015 10:22 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.
TECH:

REFER TO SHEET 58 FOR INTERSECTION DETAILS.

REFER TO SHEET 48 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 14 FOR NE WESTGATE DRIVE PLAN AND PROFILE.

LOT 27 | LOT 28 | LOT 59 | LOT 60 | LOT 61 | LOT 62

30' SETBACK

145+24 TG=1013.75

145+94 TG=1014.74

146+00

147+00

147+92 TG=1016.05

148+00

148+61 TG=1016.75

149+00

149+35 TG=1017.48

150+09 TG=1018.22

150+00

151+00

5' SIDEWALK (FUTURE)

NE DELLWOOD COURT

7" P.C.C.

L-17

NE DELLWOOD DRIVE

7" P.C.C.

L-18

L-19A

L-19

ST-18

ST-17

ST-19A

S-23

60.00 ROW

29.00 B-B

18.50' TYP.

224+00

225+00

P-21

P-22

P-23

P-24

S-21

P-31

PC 226+80.71

NE WESTGATE DRIVE

8" P.C.C.

STA 224+16+23 (NE WESTGATE DRIVE)
STA 147+00.00 (NE DELLWOOD DRIVE)

145+37 TG=1013.93

146+03 TG=1014.86

147+96 TG=1016.10

148+67 TG=1016.80

149+46 TG=1017.59

150+24 TG=1018.38

10' SANITARY SEWER EASEMENT

20' SANITARY SEWER EASEMENT

5' SANITARY SEWER EASEMENT

CRITICAL CROSSING
BOTTOM OF STORM=1009.00
TOP OF WATER=1007.50

MAILBOX PAD LOCATION

LOT 20 | LOT 19 | LOT 75 | LOT 74 | LOT 73 | LOT 72

180°

S-23

180°

S-19A

SCALE
0' 10' 20' 40'

SHEET INDEX

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE DELLWOOD DRIVE

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

STA 147+50, 14.50' L
SW-505 INTK
TC=~~1014.93~~ 1015.14
FL 15" (S)=~~1010.39~~ 1010.14
ST-18

STA 147+50, 14.50' R
SW-506 INTK
TC=~~1014.93~~ 1015.30
FL 8" (E)=~~1010.51~~ 1010.15
FL 15" (N)=~~1010.14~~ 1009.96
FL 15" (W)=~~1010.04~~ 1009.82
ST-17

PROPOSED GROUND

EXISTING GROUND

L-18
25 LF OF 15" RCP @ ~~1.00%~~ 0.72%

1.40%

STA 146+62, 23.00' R
SW-301 48" MH
RIM=~~1015.08~~ 1015.07
FL 8" (S)=~~997.70~~ 997.41
FL 8" (W)=~~998.46~~ 998.26
FL 8" (E)=~~994.64~~ 994.50
FL 10" (N)=~~994.64~~ 994.43
S-21

2.52%

-2.48%

1.50%

PVC STA = 147+19
PVC ELEV = 1015.00

LP STA = 147+49.00
LP ELEV = 1014.77
VPI STA = 147+44
VPI ELEV = 1014.62
VC = 50'
K=20.00

STA 147+50, 14.50' R
SW-506 INTK
TC=~~1014.93~~ 1015.30
FL 8" (E)=~~1010.51~~ 1010.15
FL 15" (N)=~~1010.14~~ 1009.96
FL 15" (W)=~~1010.04~~ 1009.82
ST-17

VRT STA = 147+69
VPI ELEV = 1014.87

PROFILE GRADE

EXISTING GROUND

STA 149+05.86, 23.00' R
SW-301 48" MH
RIM=~~1016.73~~ 1016.93
FL 10" (E)=~~995.94~~ 995.79
FL 10" (W)=~~995.84~~ 995.77
S-23

STA 149+83.11, 18.50' R
SW-401 48" MH
RIM=~~1017.33~~ 1017.46
FL 8" (E)=~~1012.47~~ 1012.24
FL 8" (W)=~~1012.37~~ 1012.20
ST-19A

1.00%

L-19
235 LF OF PERFORATED 8" PVC @ ~~1.12%~~ 0.50%

L-19A
232 LF OF PERFORATED 8" PVC @ ~~0.80%~~ 0.88%

L-17
243 LF OF 15" RCP @ ~~1.00%~~ 0.94%

P-22
263 LF OF 8" PVC @ ~~0.50%~~ 0.58%

DROP CONNECTION
REFER TO DETAIL ON SHEET 3.
BOTTOM FL=~~994.64~~ 994.50

P-23
240 LF OF 10" PVC @ ~~0.50%~~ 0.53%

P-24
0.53%
319 LF OF 10" PVC @ ~~0.50%~~

1025 | 1020 | 1015 | 1010 | 1005 | 1000 | 995 | 990

1010.72 1013.16
1011.48 1013.86
1012.39 1014.56
1013.47 1015.43
1014.57 1014.78
1015.79 1015.18
1017.23 1015.68
1018.00 1016.18
1017.29 1016.68
1015.91 1017.18
1014.46 1017.68
1013.52 1016.18

146+00 | 147+00 | 148+00 | 149+00 | 150+00 | 151+00

FILE: H:\2014\1408409\DWG\1408409-PWP-AS-BUILT.DWG
REF: 1408409-PWP-AS-BUILT.DWG
PLOTTED BY: JAKED MURRAY
PLOTTED: 6/1/2016 10:23 AM
COMMENT:
ENG:
TECH:

REFER TO SHEET 49 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 62 FOR INTERSECTION DETAILS.

REFER TO SHEET 27 FOR L-45 THROUGH L-47 PLAN AND PROFILE.

LOT 63 | LOT 64 | LOT 65 | LOT 66 | LOT 67

30' SETBACK

150+82 TG=1018.96

151+00

151+56 TG=1019.70

152+00

152+26 TG=1020.34

264+00

153+04 TG=1020.35

153+00

153+81 TG=1019.76

154+00

155+00

156+00

20' STORM SEWER AND OVERLAND FLOWAGE EASEMENT

CRITICAL CROSSING
BOTTOM OF STORM=1012.37
TOP OF WATER=1010.87

TEMPORARY CONSTRUCTION EASEMENT

STA 154+28.27, 14.50' LT
BEGIN TAPER
FG= 18.34

STA 154+43.27, 11.00' LT
END TAPER
FG= 1018.45

2.00' GRAVEL EDGE

5' SIDEWALK (FUTURE)

NE DELLWOOD DRIVE

7" P.C.C.

0.05 5:1 TAPER

18.50' TYP.

25.50' B-B

70.00' ROW

STREET LIGHT LOCATION

L-19 | ST-19 | S-24 | ST-45 | L-46 | ST-46 | P-25 | P-24

5' SANITARY SEWER EASMENT

151+03 TG=1019.16

151+65 TG=1019.78

30' SETBACK

MAILBOX LOCATION

263+00

L-49 | ST-49 | ST-48 | L-48 | L-47 | ST-47

STA 152+60.68 (NE DELLWOOD DRIVE)
STA 263+59.61 (NE WILDEN DRIVE)

STREET LIGHT LOCATION

20' STORM SEWER EASEMENT

STORM SEWER EASEMENT

30' OVERLAND FLOWAGE EASEMENT

CRITICAL CROSSING
BOTTOM OF STORM=1013.13
TOP OF WATER=1011.63

10' PUE

10' SANITARY SEWER EASMENT

L-50

NE WILDEN DRIVE

7" P.C.C.

OUTLOT 'Y'

LOT 71 | LOT 70 | LOT 68

S-24

SCALE 0' 10' 20' 40'

SHEET INDEX

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/28/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE DELLWOOD DRIVE

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

1408.409

PROFILE GRADE

EXISTING GROUND

VPC STA = 152+00
VPC ELEV = 1019.18

ST-19
STA 152+20.93, 18.50' R
SW-401 48" MH
RIM=1019.75
FL 8" (W)=1013.64 1014.87

S-24
STA 152+28.58, 23.00' R
SW-301 48" MH
RIM=1019.59
FL 8" (S)=1007.41 1007.41
FL 10" (E)=997.52 997.52
FL 10" (W)=997.47 997.47

ST-49
STA 152+45.88, 47.16' R
SW-506 INTK
TC=1019.16
FL 24" (S)=1013.79
FL 24" (E)=1013.74 1012.40

HP STA = 152+66.67
HP ELEV = 1019.518
VPI STA = 152+60
VPI ELEV = 1019.78
VC = 120'
K=66.67

ST-48
STA 152+74.88, 47.34' R
SW-505 INTK
TC=1019.12
FL 24" (W)=1013.60 1013.49
FL 30" (E)=1013.43 1013.47

VPT STA = 153+20
VPT ELEV = 1019.30

~0.80%

VPC STA = 153+75
VPC ELEV = 1018.86

LP STA = 154+20.71
LP ELEV = 1018.68
VPI STA = 154+15
VPI ELEV = 1018.54
VC = 80'
K=57.14

ST-46
STA 154+20.59, 14.50' R
SW-506 INTK
TC=1019.06
FL 18" (SE)=1013.69 1013.45
FL 30" (W)=1012.99 1012.93
FL 30" (N)=1012.89 1012.76

0.60%

VPT STA = 154+55
VPT ELEV = 1018.78

L-19
235 LF OF PERFORATED 8" PVC @ 1.12% ~~0.50%~~

L-49
25 LF OF 24" RCP @ ~~0.55%~~ 4.36%

L-48
147 LF OF 30" RCP @ ~~0.30%~~ 0.37%

P-24
319 LF OF 10" PVC @ 0.53% ~~0.50%~~

P-25
394 LF OF 10" PVC @ ~~0.50%~~ 0.48%

1014.46	1013.52	1013.64	1014.55	1014.15	1015.12	1015.97	1016.32	1016.91	1017.91	1018.82	1018.98
1017.68	1018.18	1018.68	1019.18	1019.50	1019.43	1019.06	1018.72	1018.76	1019.05	1019.35	1019.65

151+00 | 152+00 | 153+00 | 154+00 | 155+00 | 156+00

1030 | 1025 | 1020 | 1015 | 1010 | 1005 | 1000 | 995

FILE: H:\2014\1408409\DWG\1408409-PNP-AS-BUILT.DWG
PLOT DATE: 1/6/2016 10:23 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.

REFER TO SHEET 50 FOR WATERMAIN PLAN AND PROFILE.

TEMPORARY CONSTRUCTION EASEMENT

TEMPORARY TURNAROUND EASEMENT

TEMPORARY TURNAROUND. REFER TO DETAIL ON SHEET 4.

2.00' GRAVEL SHOULDER REFER TO SHEET 3 FOR TYPICAL SECTION.

156+00 157+00 158+00 159+00 160+00 161+00

5' SIDEWALK (FUTURE)

NE DELLWOOD DRIVE

7" P.C.C.

25.50' B-B 70.00' ROW

8.50' TYP.

INSTALL 5 PERMANENT ROAD CLOSURE SIGNS (TYPE SI-182)

INSTALL 5 TONS OF CLASS 'E' RIP RAP

ST-84 ST-83 ST-82 L-84 L-83 L-85 P-25 P-26 P-27 P-28 S-25 S-26 S-27 S-28

STREET LIGHT LOCATION

STREET LIGHT LOCATION

20' STORM SEWER EASEMENT

30' SANITARY AND STORM SEWER EASEMENT

30' SANITARY SEWER EASEMENT

20' WATERMAIN EASEMENT

8"W

P/E 3/d

90° 90° S-25

180° S-27

SCALE 0' 10' 20' 40'

STA 156+26.24, 24.00' RT (ST-85)
SW-301 48" MH
RIM=1026.34 1020.70
FL 10" (E)=999.70 999.50
FL 8" (S)=1002.33 999.47
FL 10" (W)=999.69 999.43

TYPC STA = 156+28
TYPC ELEV = 1019.83

PROFILE GRADE

HP STA = 156+78.49
HP ELEV = 1019.976
VPI STA = 156+78
VPI ELEV = 1020.13
VC = 100'
K=83.33

VPT STA = 157+28
VPT ELEV = 1019.83

PROPOSED GROUND

EXISTING GROUND

STA 159+75.00, 12.51' LT (ST-84)
15" PLUG
FL=1013.98

STA 159+75, 14.50' RT (ST-83)
SW-503 INTK
TC=1014.59 1018.71
FL 15" (S)=1013.78 1013.71
FL 15" (N)=1013.78 1014.48
FL 18" (E)=1013.58 1012.85

STA 159+75.00, 48.84' RT (ST-85)
15" PLUG
FL=1013.93

L-84 25 LF OF 15" RCP @ 0.80%

L-85 29 LF OF 15" RCP @ 0.50%

-0.60%

EXISTING GROUND

STA 159+75, 14.50' RT (ST-83)
SW-503 INTK
TC=1014.59 1018.71
FL 15" (S)=1013.78 1013.71
FL 15" (N)=1013.78 1014.48
FL 18" (E)=1013.58 1012.85

L-83 59 LF OF 18" RCP @ 0.49% ~~0.60%~~
(LENGTH SHOWN INCLUDES APRON)

STA 160+18.95, 24.00' RT (ST-82)
SW-301 48" MH
RIM=1018.18 1017.96
FL 10" (E)=1001.76 1001.50
FL 10" (W)=1001.63 1001.51

STA 160+35.44, 16.50' RT
18" RCP APRON
TC=1015.02
FL 18" (W)=1013.23 1013.14

STA 160+50.95, 23.50' RT
10" PLUG
FL=1001.89

P-28 30 LF OF 10" PVC @ 0.47%

P-27 389 LF OF 10" PVC @ ~~0.50%~~ 0.52%

STA 156+26.24, 24.00' RT (ST-25)
SW-301 48" MH
RIM=1026.34 1020.70
FL 10" (E)=999.70 999.50
FL 8" (S)=1002.33 999.47
FL 10" (W)=999.69 999.43

PROPOSED GROUND

EXISTING GROUND

STA 156+26.30, 56.00' RT (ST-26)
8" PLUG
FL=1002.48

P-26 30 LF OF 8" PVC @ 0.50%

DROP CONNECTION REFER TO DETAIL ON SHEET 3. BOTTOM FL=999.70

1030 1025 1020 1015 1010 1005 1000 995

1018.98 1019.65 | 1018.92 1019.93 | 1018.48 1019.95 | 1017.91 1019.70 | 1017.42 1019.40 | 1017.56 1019.10 | 1017.16 1018.80 | 1016.13 1018.50 | 1014.81 1018.20 | 1014.03

156+00 157+00 158+00 159+00 160+00

SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE DELLWOOD DRIVE
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-PWP-AS-BUILT.DWG
PLOT DATE: 12/9/2015 10:24 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

REFER TO SHEET 51 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 62 FOR INTERSECTION DETAILS.

REFER TO SHEET 24 FOR NE DELLWOOD DRIVE PLAN AND PROFILE.

FUTURE PLAT

LOT 70

10' PUE

10' OVERLAND FLOWAGE EASEMENT

5' SANITARY SEWER EASMENT

30' SETBACK

30' STORM AND SANITARY SEWER EASEMENT

STA 152+60.68 (NE DELLWOOD DRIVE)
STA 263+59.61 (NE WILDEN DRIVE)

10' SANITARY SEWER EASMENT

261+00 | 262+00 | 263+00 | 264+00

S-30 | P-30 | S-29 | P-29 | S-24 | P-24 | L-19 | ST-19

FUT. R/W | R/W | P/E | 3/d | S | ST | W | 8"W | SS

5' SIDEWALK (FUTURE)

ST-51 | L-51 | L-50 | ST-50 | ST-49 | ST-48 | L-49

NE WILDEN DRIVE

INSTALL 5 PERMANENT ROAD CLOSURE SIGNS (TYPE SI-182)

STA 261+62.85
BEGIN PAVEMENT

B-B 29.00 | ROW 60.00 | 18.50' TYP.

7" P.C.C.

15' WATERMAIN EASEMENT

261+97
TG=1021.13

262+63
TG=1020.33

30' SETBACK

CRITICAL CROSSING
BOTTOM OF STORM=1013.13
TOP OF WATER=1011.63

STREET LIGHT LOCATION

NE DELLWOOD DRIVE

7" P.C.C.

153+00

P-25 | L-18

FUTURE PLAT

LOT 69

LOT 68

178° | 179°

ST-50 | S-29

SCALE 0' 10' 20' 40'

SHEET INDEX

1	COVER SHEET
2	GENERAL NOTES
3	SITE PLAN
4	EROSION CONTROL PLAN
5	EROSION CONTROL DETAILS
6	EROSION CONTROL DETAILS
7	EROSION CONTROL DETAILS
8	EROSION CONTROL DETAILS
9	EROSION CONTROL DETAILS
10	EROSION CONTROL DETAILS
11	EROSION CONTROL DETAILS
12	EROSION CONTROL DETAILS
13	EROSION CONTROL DETAILS
14	EROSION CONTROL DETAILS
15	EROSION CONTROL DETAILS
16	EROSION CONTROL DETAILS
17	EROSION CONTROL DETAILS
18	EROSION CONTROL DETAILS
19	EROSION CONTROL DETAILS
20	EROSION CONTROL DETAILS
21	EROSION CONTROL DETAILS
22	EROSION CONTROL DETAILS
23	EROSION CONTROL DETAILS
24	EROSION CONTROL DETAILS
25	EROSION CONTROL DETAILS
26	EROSION CONTROL DETAILS
27	EROSION CONTROL DETAILS
28	EROSION CONTROL DETAILS
29	EROSION CONTROL DETAILS
30	EROSION CONTROL DETAILS
31	EROSION CONTROL DETAILS
32	EROSION CONTROL DETAILS
33	EROSION CONTROL DETAILS
34	EROSION CONTROL DETAILS
35	EROSION CONTROL DETAILS
36	EROSION CONTROL DETAILS
37	EROSION CONTROL DETAILS
38	EROSION CONTROL DETAILS
39	EROSION CONTROL DETAILS
40	EROSION CONTROL DETAILS
41	EROSION CONTROL DETAILS
42	EROSION CONTROL DETAILS
43	EROSION CONTROL DETAILS
44	EROSION CONTROL DETAILS
45	EROSION CONTROL DETAILS
46	EROSION CONTROL DETAILS
47	EROSION CONTROL DETAILS
48	EROSION CONTROL DETAILS
49	EROSION CONTROL DETAILS
50	EROSION CONTROL DETAILS
51	EROSION CONTROL DETAILS
52	EROSION CONTROL DETAILS
53	EROSION CONTROL DETAILS
54	EROSION CONTROL DETAILS
55	EROSION CONTROL DETAILS
56	EROSION CONTROL DETAILS
57	EROSION CONTROL DETAILS
58	EROSION CONTROL DETAILS
59	EROSION CONTROL DETAILS
60	EROSION CONTROL DETAILS
61	EROSION CONTROL DETAILS
62	EROSION CONTROL DETAILS
63	EROSION CONTROL DETAILS
64	EROSION CONTROL DETAILS

LOT 58

10' PUE

30' SETBACK

396+00 | 397+00

20' STORM SEWER AND OVERLAND FLOWAGE EASEMENT

20' OVERLAND FLOWAGE EASEMENT

MH 226+26.05

ST-12 | L-13 | ST-13

5' SIDEWALK (FUTURE)

NE WESTGATE DRIVE

8" P.C.C.

10' PUE

30' SETBACK

LOT 59

225+00

SCALE 0' 10' 20' 40'

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE WILDEN DRIVE

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

1408.409

1030 | 1025 | 1020 | 1015 | 1010 | 1005 | 1000 | 995

ST-51 | ST-50 | S-29

STA 261+51.33, 19.37' LT
24" PLUG
FL=1014.56

STA 261+62.85, 19.50' LT
SW-401 48" MH
RIM=~~1020.98~~ 1020.98
FL 24" (S)=~~1014.62~~ 1014.61
FL 24" (N)=~~1014.42~~ 1014.55

STA 261+62.85, 30.00' LT
SW-301 48" MH
RIM=~~1021.24~~ 1021.15
FL 8" (S)=~~1009.27~~ 1009.02
FL 8" (N)=~~1009.17~~ 1008.98

-1.20%

PROFILE GRADE

EXISTING GROUND

L-51
10 LF OF 24" RCP @ 0.40%

L-50
145 LF OF 24" RCP @ ~~0.40%~~ 0.52%

P-30
30 LF OF 8" PVC @ 1.00%

P-29
170 LF OF 8" PVC @ ~~0.00%~~ 0.92%

STA 261+30.43, 30.45' LT
8" PLUG
FL=1009.57

ST-30

DROP CONNECTION
REFER TO DETAIL ON SHEET 3.
BOTTOM FL=~~997.63~~ 997.52

LP STA = 263+14.24
LP ELEV = 1018.92
VPI STA = 263+16
VPI ELEV = 1018.75
VC = 50'
K=19.28

ST-49

VPC STA = 262+91
VPC ELEV = 1019.06

L STA 263+12.36, 14.50' L
SW-506 INTK
TC=~~1019.07~~ 1019.16
FL 24" (S)=~~1013.54~~ 1013.79
FL 24" (E)=~~1013.74~~ 1012.40

VPT STA = 263+41
VPT ELEV = 1019.10

STA 263+36.41, 31.95' L
SW-301 48" MH
RIM=~~1019.13~~ 1019.59
FL 8" (S)=~~1007.64~~ 1007.41
FL 10" (E)=~~997.63~~ 997.52
FL 10" (W)=~~997.53~~ 997.47

S-24

3.9% 2.50% | -2.50%

1016.49 1020.75 | 1016.00 1020.15 | 1015.77 1019.55 | 1015.75 1018.97 | 1014.77 1019.28 | 1014.06 1018.77

262+00 | 263+00 | 264+00

ST-12

STA 395+50, 0.00'
SW-401 48" MH
RIM=~~1009.13~~ 1009.33
FL 18" (E)=~~1003.66~~ 1003.60
FL 18" (N)=~~1003.66~~ 1003.59

EXISTING GROUND

PROPOSED GROUND

ST-13

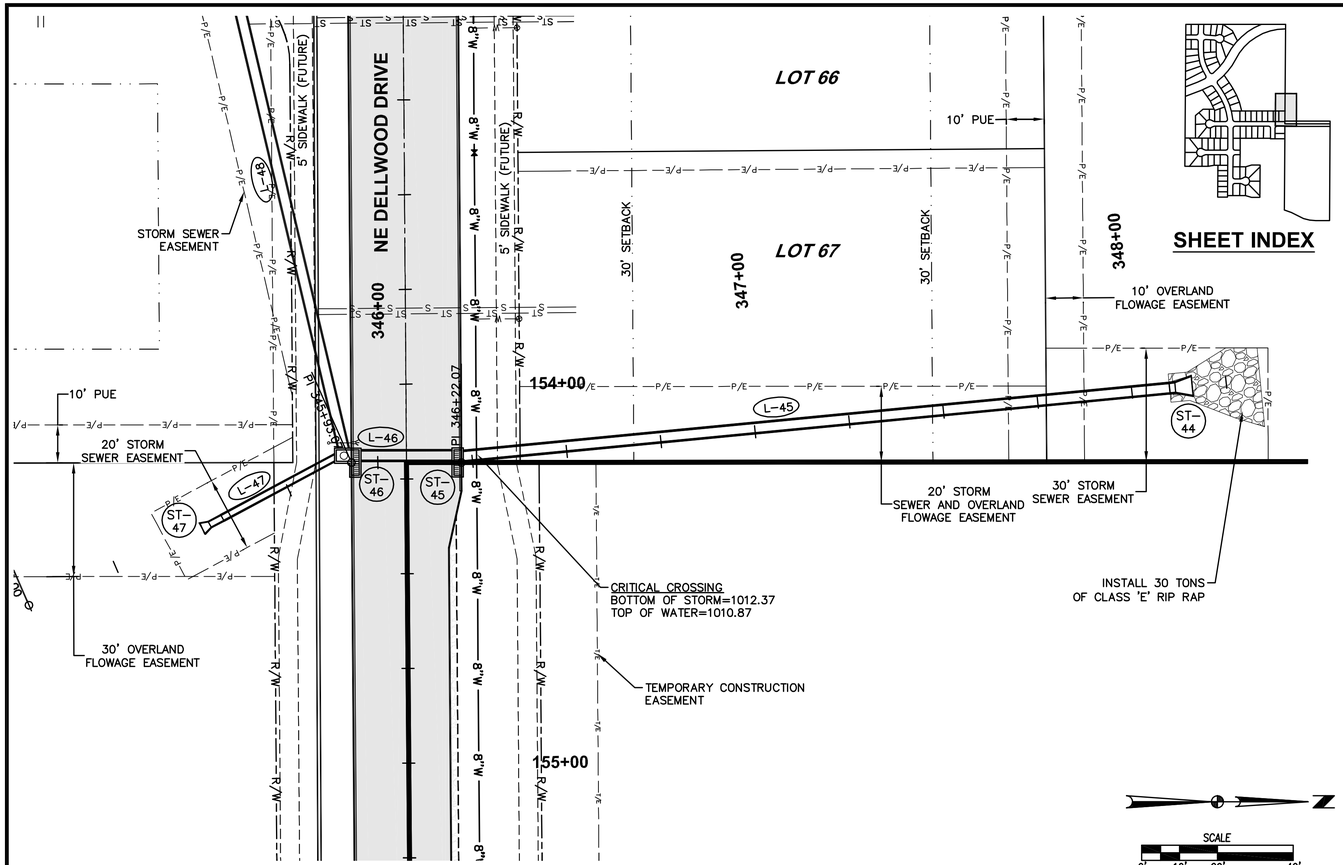
STA 397+52.67, 0.00'
18" RCP APRON W/ FOOTING AND APRON GUARD
FL=~~1004.86~~ 1004.71

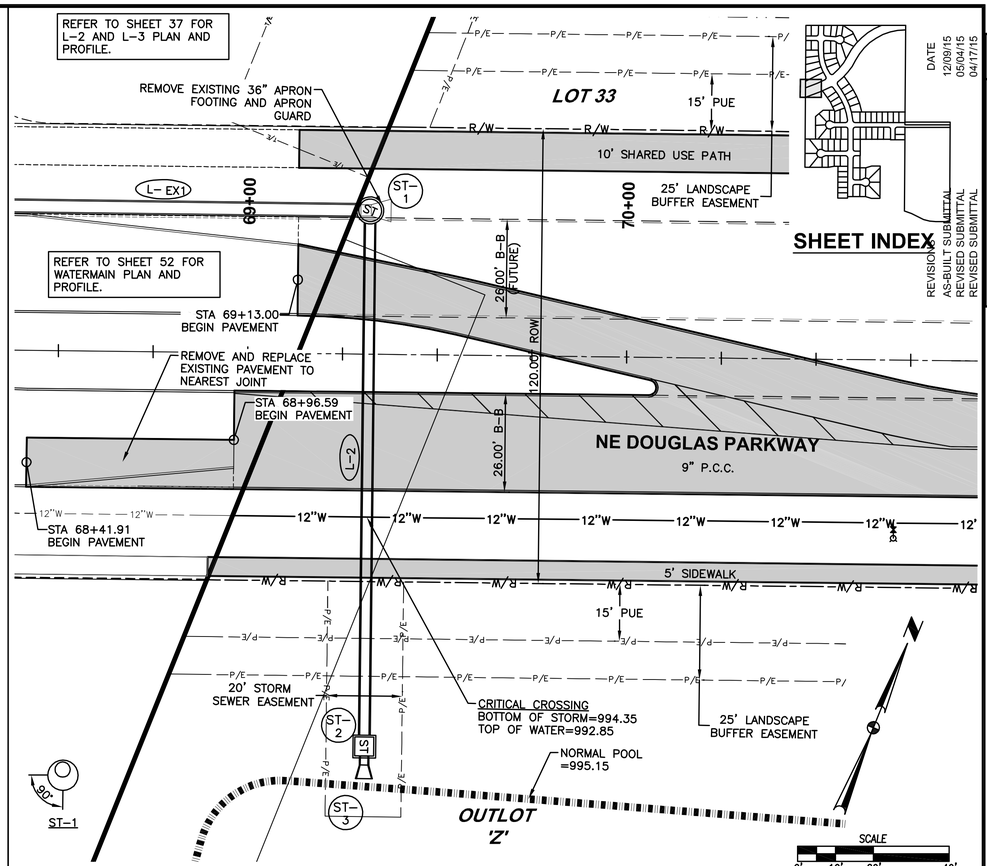
L-13
201 LF OF 18" RCP @ ~~0.50%~~ 0.55%
(LENGTH SHOWN INCLUDES APRON)

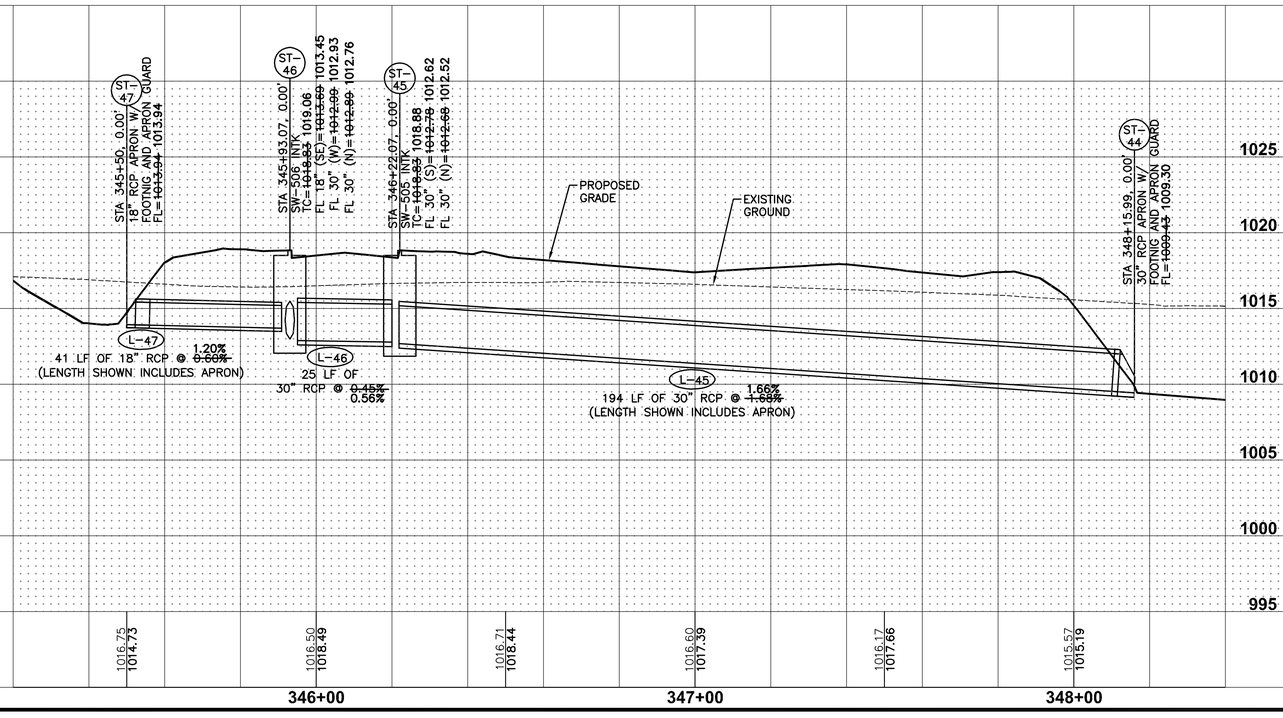
1010.79 1009.13 | 1011.48 1009.85 | 1012.48 1009.67 | 1012.75 1008.66 | 1012.72 1005.89

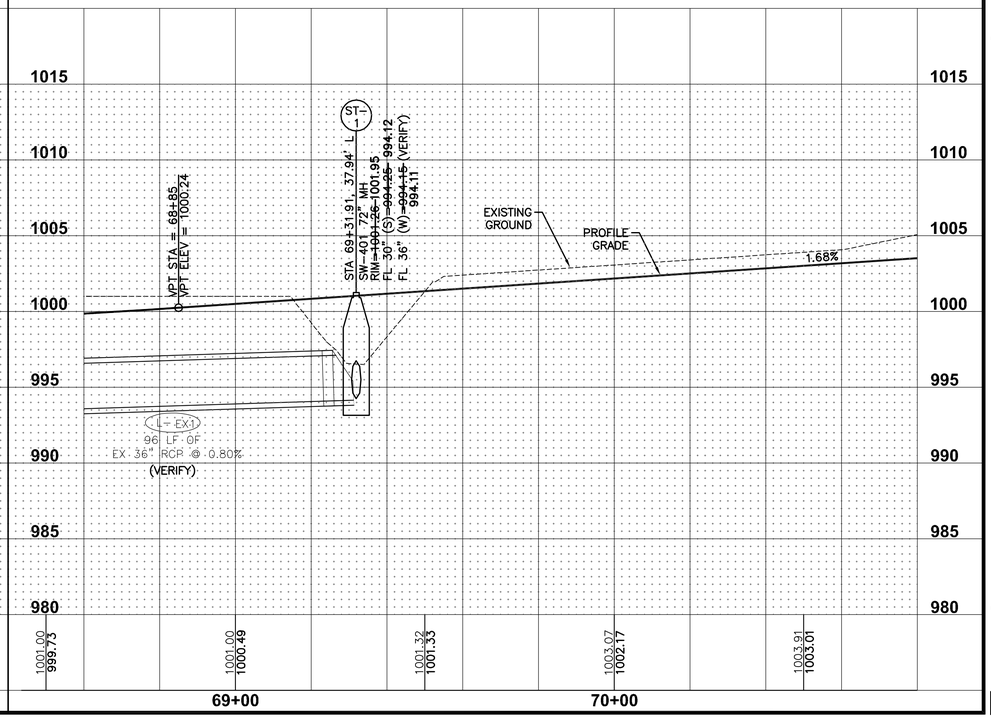
396+00 | 397+00

FILE: H:\2014\J-008409\DWG\1-008409-PNP-AS_BUILT.DWG
PLOT DATE: 9/5/2018 10:24 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.
TECH:









DATE	
12/09/15	FINAL SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

THE LANDING AT SHADOW CREEK PLAT 2

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

27/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 12/9/2015 10:23 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG

REFER TO SHEET 59 FOR INTERSECTION DETAILS.

TRAFFIC SIGNAL EASEMENT

ST-65

P-15

8" P.C.C.

PC 23+23.00

71+00

72+00

231+00

73+00

74+00

75+00

76+00

LOT 53

TRAFFIC SIGNAL EASEMENT

15' PUE

10' PUE

10' SHARED USE PATH

25' LANDSCAPE BUFFER EASEMENT

REFER TO SHEET 15 FOR NE WESTGATE DRIVE PLAN AND PROFILE.

REFER TO SHEET 53 FOR WATERMAIN PLAN AND PROFILE.

Δ = 42°05'40"
L = 587.75'
R = 800.00'
CH = 574.62'
CHB = N47°35'40"E

Mid 74+01.20

PC 71+07.33

26.00' B-B (FUTURE)

120.00' ROW

26.00' B-B

43.00' TYP.

STA 230+60.69 (NE WESTGATE DRIVE)
STA 72+93.89 (NE DOUGLAS PARKWAY)

NE DOUGLAS PARKWAY

9" P.C.C.

12"W

5' SIDEWALK (FUTURE)

5' SIDEWALK

15' PUE

25' LANDSCAPE BUFFER EASEMENT

S-15

230+00

30' SETBACK

10' PUE

10' OVERLAND FLOWAGE EASEMENT

TRAFFIC SIGNAL EASEMENT

ST-5A

NE WESTGATE DRIVE

8" P.C.C.

12"W

LOT 32

20' SANITARY SEWER EASEMENT

P-16

LOT 54

SCALE
0' 10' 20' 40'

SHEET INDEX

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
SIXTH SUBMITTAL	01/28/15
REVISED SUBMITTAL	05/04/15
FIFTH SUBMITTAL	01/19/15
REVISED SUBMITTAL	04/17/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE DOUGLAS PARKWAY

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

1408.409

PROFILE GRADE

EXISTING GROUND

VPC STA = 72+25
VPC ELEV = 1005.94

STA 72+58.30, 53.00' R
SW=301.48* MH
RIM=~~1006.06~~ 1006.28
FL 10" (SE)=~~991.44~~ 991.46
FL 10" (NW)=~~991.34~~ 991.45

HP STA = 72+95.30
HP ELEV = 1006.530
VPI STA = 73+00
VPI ELEV = 1007.20
VC = 150'
K=41.95

VPT STA = 73+75
VPT ELEV = 1005.77

1.68%

-1.90%

1020 1015 1010 1005 1000 995 990 985 980

1005.88 1003.85 | 1006.89 1004.68 | 1006.91 1005.52 | 1006.44 1006.29 | 1005.97 1006.33 | 1005.58 1006.17 | 1005.04 1005.30 | 1004.65 1004.35 | 1004.33 1003.40 | 1004.27 1002.45 | 1004.49 1001.50

71+00 72+00 73+00 74+00 75+00 76+00

FILE: H:\2014\V\08409\DWG\1408409-PNP-AS-BUILT.DWG
PLOT DATE: 6/4/2015 10:23 AM
PLOTTED BY: JAKED MURRAY
COMMENT:
ENG.
TECH:

REFER TO SHEET 34 FOR P-8 PLAN AND PROFILE.

REFER TO SHEET 54 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 36 FOR L-71 AND L-72 PLAN AND PROFILE.

20' OVERLAND FLOWAGE EASEMENT

25' LANDSCAPE BUFFER EASEMENT

15' PUE

30' SANITARY SEWER EASEMENT

10' PUE

20' STORM SEWER EASEMENT

LOT 47

LOT 46

OUTLOT 'V'

10' SHARED USE PATH

ST-74

ST-73

L-74

L-73

L-71

79+00

80+00

78+00

81+00

L-75

P-8

INSTALL SW-603 TYPE 'Q' FRAME AND GRATE UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE

ST-71

ST-75

L-76

26.00' B-B (FUTURE)

70.00' ROW

Mid 81+34.89

COVER STRUCTURE WITH STEEL PLATE UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE.

PRC 76+95.08

NE DOUGLAS PARKWAY

9" P.C.C.

43.00' TYP.

L-72

ST-72

26.00' B-B

12"W

S-8

S-10

5' SIDEWALK (FUTURE)

P-10

ST-76

6" P

S-9

15' PUE

25' LANDSCAPE BUFFER EASEMENT

30' SANITARY SEWER EASEMENT

SANITARY SEWER EASEMENT

OUTLOT 'X'

Δ = 62°59'53"
L = 879.62'
R = 800.00'
CH = 835.98'
CHB = N58°02'50"E

165'

174'

67'

165'

154'

ST-74

S-8

ST-73

S-10

SCALE
0' 10' 20' 40'

HP STA = 76+45.86
HP ELEV = 1000.626
VPI STA = 76+96
VPI ELEV = 999.68
VC = 100'
K=285.71

VPC STA = 76+46
VPC ELEV = 1000.63

STA 76+88.47, 36.00' L
SW-503 INTK
TC=999.19, 1000.14
FL 15" (SE)=994.62, 994.53
FL 15" (NE)=994.62, 994.47

STA 77+90.38, 46.00' L
SW-401 48" MH
RIM=997.17, 991.17
FL 15" (SW)=993.16, 993.20
FL 15" (NE)=993.36, 993.29

VPT STA = 77+46
VPT ELEV = 998.55

EXISTING GROUND

PROFILE GRADE

-2.25%

STA 78+64.66, 53.00' R
SW-301 48" MH
RIM=996.43, 997.10
FL 10" (NE)=983.41, 983.79
FL 8" (SE)=983.41, 983.78
FL 10" (NW)=983.81, 983.79

VPC STA = 78+53
VPC ELEV = 996.14

STA 79+83.52, 46.00' L
SW-401 48" MH
RIM=994.77, 994.81
FL 15" (SW)=989.56, 989.75
FL 15" (NE)=989.76, 989.74

LP STA = 80+89.84
LP ELEV = 993.48
VPI STA = 80+03
VPI ELEV = 992.77
VC = 300'
K=105.26

STA 80+90.31, 36.00' L
SW-506 INTK
TC=992.28, 993.02
FL 15" (SE)=988.31, 988.41
FL 15" (SW)=988.11, 987.27
FL 18" (NW)=987.94, 987.20

0.60%

VPT STA = 81+53
VPT ELEV = 993.67

STA 81+69.24, 53.00' R
SW-301 48" MH
RIM=994.31, 994.49
FL 10" (E)=986.13, 985.07
FL 10" (SW)=986.03, 985.06

COVER STRUCTURE WITH STEEL PLATE UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE.

EXISTING GROUND

PROPOSED GROUND

STA 76+88.47, 36.00' L
SW-503 INTK
TC=999.19, 1000.14
FL 15" (SE)=994.62, 994.53
FL 15" (NE)=994.62, 994.47

STA 76+88.47, 36.00' R
SW-503 INTK
TC=999.19, 999.58
FL 15" (NW)=994.96, 995.17

L-75
104 LF OF 15" RCP @ ~~1.00%~~ 1.22%

L-74
201 LF OF 15" RCP @ ~~1.75%~~ 1.76%

L-73
108 LF OF 15" RCP @ ~~1.50%~~ 2.29%

P-10
279 LF OF 10" PVC @ ~~0.40%~~ 0.46%

L-76
68 LF OF 15" RCP @ ~~0.50%~~ X.XX%

INSTALL SW-603 TYPE 'Q' FRAME AND GRATE UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE.

1005
1000
995
990
985
980
975
970

1004.68 1000.55
1003.77 999.55
1002.83 998.46
1001.39 997.33
999.62 996.21
997.82 995.19
996.27 994.41
994.89 993.86
993.83 993.55
992.99 993.48
991.97 993.65
991.59 993.95

77+00 78+00 79+00 80+00 81+00 82+00

SHEET INDEX

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	01/29/15
REVISED SUBMITTAL	01/19/15
REVISED SUBMITTAL	12/22/14
SIXTH SUBMITTAL	11/06/14
FIFTH SUBMITTAL	10/21/14
FOURTH SUBMITTAL	10/07/14
THIRD SUBMITTAL	
SECOND SUBMITTAL	
FIRST SUBMITTAL	

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE DOUGLAS PARKWAY
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 1/29/2015 10:26 AM
PLOTTED BY: JARED MURRAY

COMMENT:
ENG:
TECH:

REFER TO SHEET 35 FOR L-78 AND L-81 PLAN AND PROFILE.

REFER TO SHEET 62 FOR INTERSECTION DETAILS.

REFER TO SHEET 55 FOR WATERMAIN PLAN AND PROFILE.

OUTLOT 'V'

10' SHARED USE PATH

82+00 | 83+00 | 84+00 | 85+00 | 86+00 | 87+00

26.00' B-B (FUTURE)

120.00' ROW

26.00' B-B

NE DOUGLAS PARKWAY

9" P.C.C.

5' SIDEWALK (FUTURE)

25' LANDSCAPE BUFFER EASEMENT

20' STORM SEWER EASEMENT

20' STORM SEWER EASEMENT

COVER STRUCTURE WITH STEEL PLATE UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE.

CITY OF CLIVE

WAUKEE CORPORATE LIMITS

CRITICAL CROSSING:
BOTTOM OF STORM=988.84
TOP OF WATER=987.34

43.00' TYP.

PT 85+74.70

TEMPORARY CONSTRUCTION EASEMENT

15' PUE

INSTALL 5 PERMANENT ROAD CLOSURE SIGNS (TYPE SI-182)

30' SANITARY SEWER EASEMENT

SANITARY SEWER EASEMENT

Δ = 62°59'53"
L = 879.62'
R = 800.00'
CH = 835.98'
CHB = N58°02'50"E

OUTLOT 'X'

ST-78 (80' / 30')

S-11 (166')

SCALE 0' 10' 20' 40'

SHEET INDEX

1	COVER SHEET
2	GENERAL NOTES
3	SITE PLAN
4	SITE PLAN
5	SITE PLAN
6	SITE PLAN
7	SITE PLAN
8	SITE PLAN
9	SITE PLAN
10	SITE PLAN
11	SITE PLAN
12	SITE PLAN
13	SITE PLAN
14	SITE PLAN
15	SITE PLAN
16	SITE PLAN
17	SITE PLAN
18	SITE PLAN
19	SITE PLAN
20	SITE PLAN
21	SITE PLAN
22	SITE PLAN
23	SITE PLAN
24	SITE PLAN
25	SITE PLAN
26	SITE PLAN
27	SITE PLAN
28	SITE PLAN
29	SITE PLAN
30	SITE PLAN
31	SITE PLAN
32	SITE PLAN
33	SITE PLAN
34	SITE PLAN
35	SITE PLAN
36	SITE PLAN
37	SITE PLAN
38	SITE PLAN
39	SITE PLAN
40	SITE PLAN
41	SITE PLAN
42	SITE PLAN
43	SITE PLAN
44	SITE PLAN
45	SITE PLAN
46	SITE PLAN
47	SITE PLAN
48	SITE PLAN
49	SITE PLAN
50	SITE PLAN
51	SITE PLAN
52	SITE PLAN
53	SITE PLAN
54	SITE PLAN
55	SITE PLAN
56	SITE PLAN
57	SITE PLAN
58	SITE PLAN
59	SITE PLAN
60	SITE PLAN
61	SITE PLAN
62	SITE PLAN
63	SITE PLAN
64	SITE PLAN

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE DOUGLAS PARKWAY
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

30/64

1408.409

1010 | 1005 | 1000 | 995 | 990 | 985 | 980 | 975

STA 81+69.24, 53.00' R
SW-301 48" MH
RIM=994.31 994.49
FL 10" (E)=986.12 985.07
FL 10" (SW)=986.03 985.06

STA 83+49.71, 46.00' L
SW-401 60" MH
RIM=994.97 994.62
FL 24" (S)=968.52 988.19
FL 15" (E)=969.91 989.48
FL 30" (N)=968.12 988.15

STA 84+34.12, 36.00' L
SW-503 INTK
TC=994.52
FL 15" (S)=990.26 989.18
FL 15" (W)=990.16 990.06

STA 85+78.94, 53.00' R
SW-301 48" MH
RIM=996.77 996.92
FL 10" (E)=986.73 986.80
FL 10" (W)=986.63 986.50

STA 86+10.94, 52.98' RT
10" PLUG
FL=986.85

VPC STA = 86+75
VPC ELEV = 996.80

STA 84+34.12, 36.00' L
SW-503 INTK
TC=994.76 994.52
FL 15" (S)=990.26 989.18
FL 15" (W)=990.16 990.06

STA 84+34.12, 36.00' R
SW-501 INTK
TC=995.22 995.22
FL 15" (N)=990.53 990.41

0.60%

EXISTING GROUND

PROFILE GRADE

COVER STRUCTURE WITH STEEL PLATE UNTIL FULL BUILD-OUT OF NE DOUGLAS PARKWAY IS COMPLETE.

L-79
87 LF OF 15" RCP @ ~~0.40%~~ 0.67%

P-11
375 LF OF 10" PVC @ ~~0.40%~~ 0.38%

P-12
30 LF OF 10" PVC @ 0.40%

PROPOSED GROUND

EXISTING GROUND

L-80
68 LF OF 15" RCP @ ~~0.40%~~ 1.81%

991.59 993.95 | 991.55 994.25 | 991.52 994.56 | 992.13 994.85 | 993.08 995.15 | 993.55 995.45 | 994.39 995.75 | 997.07 996.05 | 998.77 996.35 | 999.71 996.65 | 1000.42 996.92

82+00 | 83+00 | 84+00 | 85+00 | 86+00 | 87+00

FILE: H:\2014\1408409\GIWD\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 12/9/2015 10:28 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.

FUTURE FOX CREEK ESTATES

FUTURE FOX CREEK ESTATES

FUTURE FOX CREEK ESTATES

FUTURE FOX CREEK ESTATES

181+51

182+00

183+00

184+00

185+00

186+00

187+00

BP 181+50.87

NE BOBCAT DRIVE

15' EXISTING TEMPORARY WATER EASEMENT FOX CREEK ESTATES PLAT 6

Mid 182+60.41

PT 183+69.96

NE BOBCAT DRIVE (FUTURE)

60.00' ROW (FUTURE)

29.06' B-B (FUTURE)

PC 185+65.60

Mid 187+16.91

P-EX

S-EX1

P-EX1

S-1

P-2

S-2

P-3

S-3

P-4

20' EXISTING TEMPORARY STORM AND SANITARY SEWER EASEMENT FOX CREEK ESTATES PLAT 6

30' SANITARY SEWER EASEMENT

176°

S-2

168°

S-3

N

SCALE

0' 10' 20' 40'

SHEET INDEX

1	3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410
2	ENGINEER: EKO
3	EI: JMM
4	THE LANDING AT SHADOW CREEK PLAT 2
5	NE BOBCAT DRIVE (FUTURE)
6	STORM & SANITARY SEWER PLAN AND PROFILE
7	WAUKEE, IOWA
8	CIVIL DESIGN ADVANTAGE

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	
SIXTH SUBMITTAL	01/29/15
REVISED SUBMITTAL	01/19/15
FIFTH SUBMITTAL	12/22/14
REVISED SUBMITTAL	12/09/15
FOURTH SUBMITTAL	11/06/14
THIRD SUBMITTAL	10/21/14
REVISED SUBMITTAL	05/04/15
SECOND SUBMITTAL	10/07/14
REVISED SUBMITTAL	04/17/15
FIRST SUBMITTAL	

1408.409

1005 1000 995 990 985 980 975 970

STA 182+28.32, 24.00' RT (S-EX1)
EX SW-301 48" MH
RIM=989.26 989.47
FL 15" (E)=975.98 (VERIFY)
FL 15" (W)=975.88 (VERIFY)

STA 182+50.04, 22.16' RT (S-1)
SANITARY CONNECTION
FL=976.06 (VERIFY)

FUTURE PROFILE GRADE

VPC STA = 183+63
VPC ELEV = 990.23

STA 183+82.76, 24.00' RT (S-2)
SW-301 48" MH
RIM=990.03 990.68
FL 15" (E)=976.76 976.96
FL 15" (W)=976.69 976.93

HP STA = 184+11.70
HP ELEV = 990.499
VPI STA = 184+13
VPI ELEV = 990.79
VC = 100'
K=43.10

VPT STA = 184+63
VPT ELEV = 990.19

-1.20%

VPC STA = 185+20
VPC ELEV = 989.51

EXISTING GROUND

LP STA = 186+51.33
LP ELEV = 988.72
VPI STA = 186+40
VPI ELEV = 988.07
VC = 240'
K=109.09

STA 186+48.80, 23.00' RT (S-3)
SW-301 48" MH
RIM=990.21 988.72
FL 15" (E)=977.81 978.04
FL 15" (W)=977.71 977.96

P-EX
162 LF OF EX 15" PVC @ 0.40%

P-EX1
21 LF OF EX 15" PVC @ 0.40%

P-2
134 LF OF 15" PVC @ 0.40%

P-3
260 LF OF 15" PVC @ ~~0.40%~~ 0.38%

P-4
169 LF OF 15" PVC @ ~~0.40%~~ 0.56%

988.16 987.71 987.31 986.72 985.88 984.50 983.11 981.67 981.21 980.89 980.85

182+00 183+00 184+00 185+00 186+00 187+00

COMMENT: ENG

FILE: N:\2014\1408409\DWG\1408409-PNP-AS-BUILT.DWG
PLOT DATE: 1/5/2015 10:27 AM
PLOTTED BY: JARED MURRAY TECH

FUTURE FOX CREEK ESTATES

FUTURE FOX CREEK ESTATES

FUTURE FOX CREEK ESTATES

FUTURE FOX CREEK ESTATES

188+00 | 189+00 | 190+00 | 191+00 | 192+00

PT 188+68.23

80.00' ROW (FUTURE)

29.00' B-B (FUTURE)

NE BOBCAT DRIVE (FUTURE)

15' WATERMAIN EASEMENT

8"W

30' SANITARY SEWER EASEMENT

S-4 | S-5

P-4 | P-5 | P-6

171° S-4

180° S-5

SCALE 0' 10' 20' 40'

SHEET INDEX

15' WATERMAIN EASEMENT	8"W
NE BOBCAT DRIVE (FUTURE)	
80.00' ROW (FUTURE)	29.00' B-B (FUTURE)
PT 188+68.23	
30' SANITARY SEWER EASEMENT	
S-4	S-5
P-4	P-5	P-6
171° S-4	180° S-5
SCALE 0' 10' 20' 40'	

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
SIXTH SUBMITTAL	01/29/15
REVISED SUBMITTAL	05/04/15
FIFTH SUBMITTAL	01/19/15
REVISED SUBMITTAL	04/17/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE BOBCAT DRIVE (FUTURE)

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

1408.409

VPT STA = 187+69
VPI ELEV = 989.27

STA 188+27.10, 23.02' R
SW-301.48" MH
RIM=990.20
FL 15" (E)~~978.82~~ 978.97
FL 15" (W)~~978.82~~ 978.98

1.00%

EXISTING GROUND

FUTURE PROFILE GRADE

STA 190+94.65, 23.00' R
SW-301.48" MH
RIM=992.64
FL 15" (E)~~978.77~~ 979.90
FL 15" (W)~~978.67~~ 979.89

VPC STA = 191+24
VPC ELEV = 992.90

VPI STA = 191+74
VPI ELEV = 993.40
VC = 100'
K=57.14

2.75%

VPT STA = 192+24
VPT ELEV = 994.77

P-4
169 LF OF 15" PVC @ ~~0.40%~~ 0.56%

P-5
263 LF OF 15" PVC @ ~~0.40%~~ 0.35%

P-6
365 LF OF 15" PVC @ ~~0.40%~~ 0.42%

1005 | 1000 | 995 | 990 | 985 | 980 | 975 | 970

981.41 | 982.43 | 983.71 | 985.43 | 987.27 | 988.81 | 990.00 | 991.04 | 992.35 | 993.24 | 993.96 | 994.68

188+00 | 189+00 | 190+00 | 191+00 | 192+00 | 193+00

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 1/5/2016 10:27 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

REFER TO SHEET 56 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 60 AND 63 FOR INTERSECTION DETAILS.

REFER TO SHEET 17 FOR NE WESTGATE DRIVE PLAN AND PROFILE

LOT 40 LOT 41 LOT 42 LOT 43 LOT 44 LOT 45 LOT 46 LOT 47 LOT 48 LOT 49 LOT 50 LOT 38 LOT 39

NE WESTGATE DRIVE
8" P.C.C.

NE BOBCAT DRIVE
7" P.C.C.
60.00' ROW
29.00' B-B

NE BOBCAT COURT
7" P.C.C.

10' PUE
30' SETBACK
15' WATERMAIN EASEMENT
INSTALL 5 PERMANENT ROAD CLOSURE SIGNS (TYPE SI-182)
STA 193+00.00 BEGIN PAVEMENT
STREET LIGHT LOCATION
5' SIDEWALK (FUTURE)
5' SANITARY SEWER EASMENT
10' OVERLAND FLOWAGE EASEMENT
10' SANITARY SEWER EASEMENT
10' SHARED USE PATH (FUTURE)
5' SIDEWALK (FUTURE)
STA 195+00 (NE BOBCAT COURT)
STA 236+58.44 (NE WESTGATE DRIVE)
PC 195+49.83
PT 196+60.26
18.50' TYP
CRITICAL CROSSING
BOTTOM OF STORM=991.93
TOP OF WATER=990.43
CRITICAL CROSSING
BOTTOM OF STORM=990.49
TOP OF WATER=988.99
10' SANITARY SEWER EASEMENT
30' SANITARY SEWER EASEMENT
Δ = 8°45'46"
L = 122.35'
R = 800.00'
CH = 122.23'
CHB = S86°05'00"E

193+35 TG=998.67
193+30 TG=998.58
193+98 TG=999.11
194+02 TG=999.09
195+94 TG=997.80
195+99 TG=997.87
196+56 TG=998.41
196+75 TG=998.82
197+28 TG=999.44
197+52 TG=999.58
197+90 TG=999.72
198+05 TG=999.85
198+22 TG=999.99

SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

SCALE 0' 10' 20' 40'

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-PNP-AS-BUILT.DWG
PLOTTED: 4/7/2016 10:28 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

STA 192+94.87, 18.50° R
SW-401 48" MH
RIM=997.06 997.41
FL 8" (E)=992.77 992.66
VPC STA = 193+10
VPC ELEV = 997.14

HP STA = 193+86.64
HP ELEV = 998.196
VPI STA = 193+75
VPI ELEV = 998.93
VC = 130'
K=27.87

VPT STA = 194+40
VPT ELEV = 997.68

STA 194+63.11, 23.00° R
SW-301 48" MH
RIM=997.25 997.25
FL 10" (S)=984.74 984.85
FL 10" (E)=981.33 981.52
FL 15" (W)=981.23 981.43

LP STA = 195+49.83
LP ELEV = 996.51
VPI STA = 195+45
VPI ELEV = 996.37
VC = 45'
K=18.15

STA 195+48.28, 14.50° R
VCT STA = 195+23
TG=996.66 997.18
FL 15" (N)=991.02 991.17
FL 24" (SW)=990.43 990.74
FL 8" (W)=991.62 990.83
FL 24" (E)=990.33 990.69

VPC STA = 195+23
VPC ELEV = 996.71

VPT STA = 195+68
VPT ELEV = 996.59

PROFILE GRADE
EXISTING GROUND

VPC STA = 196+43
VPC ELEV = 997.33

LP STA = 196+43.11
LP ELEV = 997.33
VPI STA = 196+83
VPI ELEV = 997.73
VC = 80'
K=295.94

STA 197+03.26, 21.18° R
SW-401 48" MH
RIM=998.46 998.46
FL 24" (W)=988.70 988.45
FL 24" (E)=988.60 988.47

VPT STA = 197+23
VPT ELEV = 998.23

STA 198+04.92, 16.46° R
SW-301 48" MH
RIM=999.67 999.98
FL 10" (SE)=982.77 982.70
FL 10" (W)=982.67 982.69

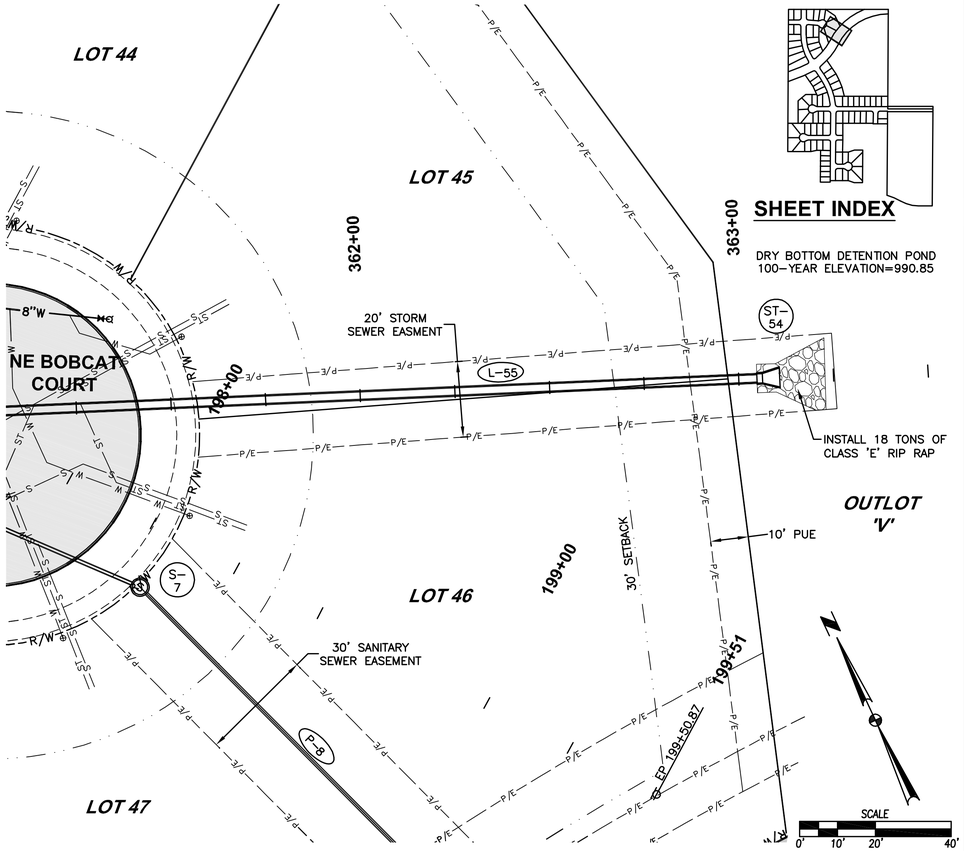
L-58 249 LF OF PERFORATED 8" PVC @ 0.50% 0.73%
L-56 148 LF OF 24" RCP @ 1.10% 0.84%
L-55 259 LF OF 24" RCP @ 1.10% 1.41%
P-6 365 LF OF 15" PVC @ 0.40% 0.42%
P-7 334 LF OF 10" PVC @ 0.40% 0.35%

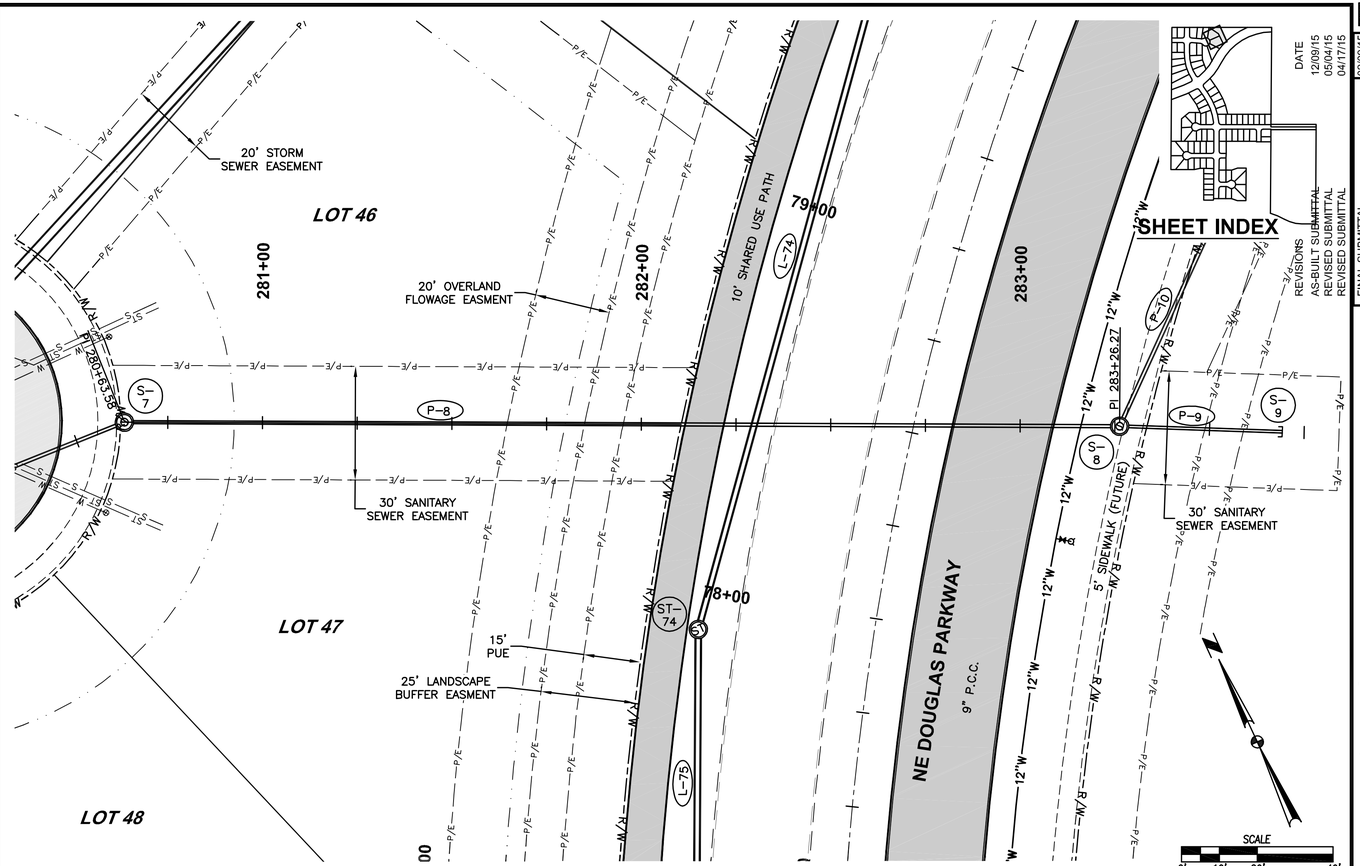
2.75% 2.75% -1.91% 2.51% -2.49% 1.50% 0.98% 1.25%

994.68 994.92 997.95 995.63 998.16 996.29 997.49 997.15 997.20 997.69 996.51 998.16 996.91 998.36 997.40 998.65 997.95 998.79 998.56 998.72

193+00 194+00 195+00 196+00 197+00 198+00

1010 1005 1000 995 990 985 980 975





DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

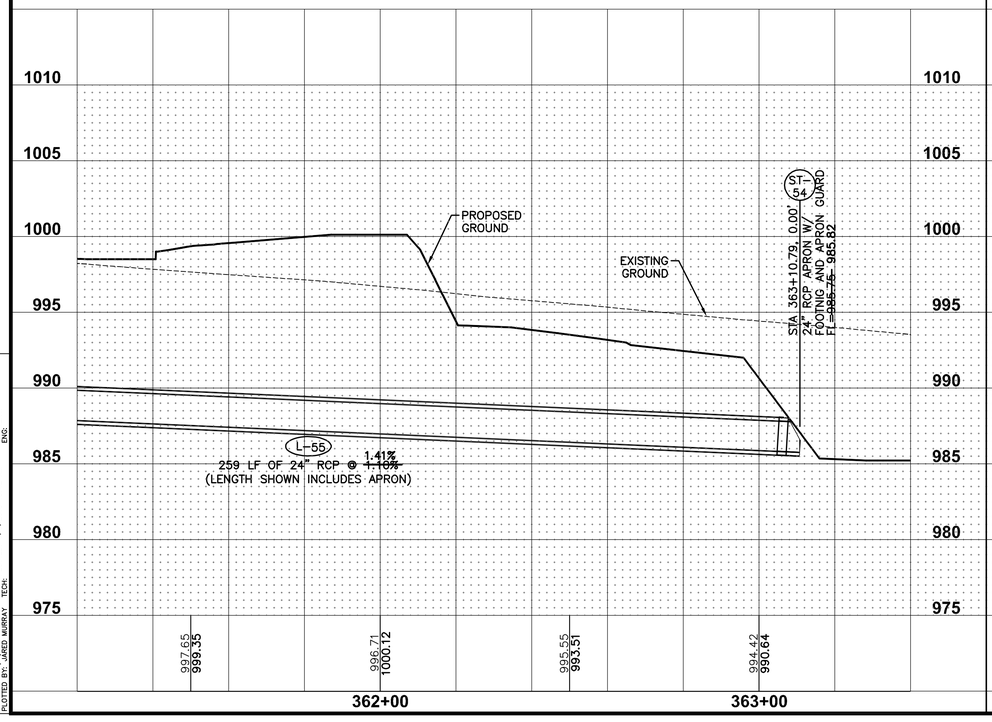
ENGINEER: EKO | EI: JMM

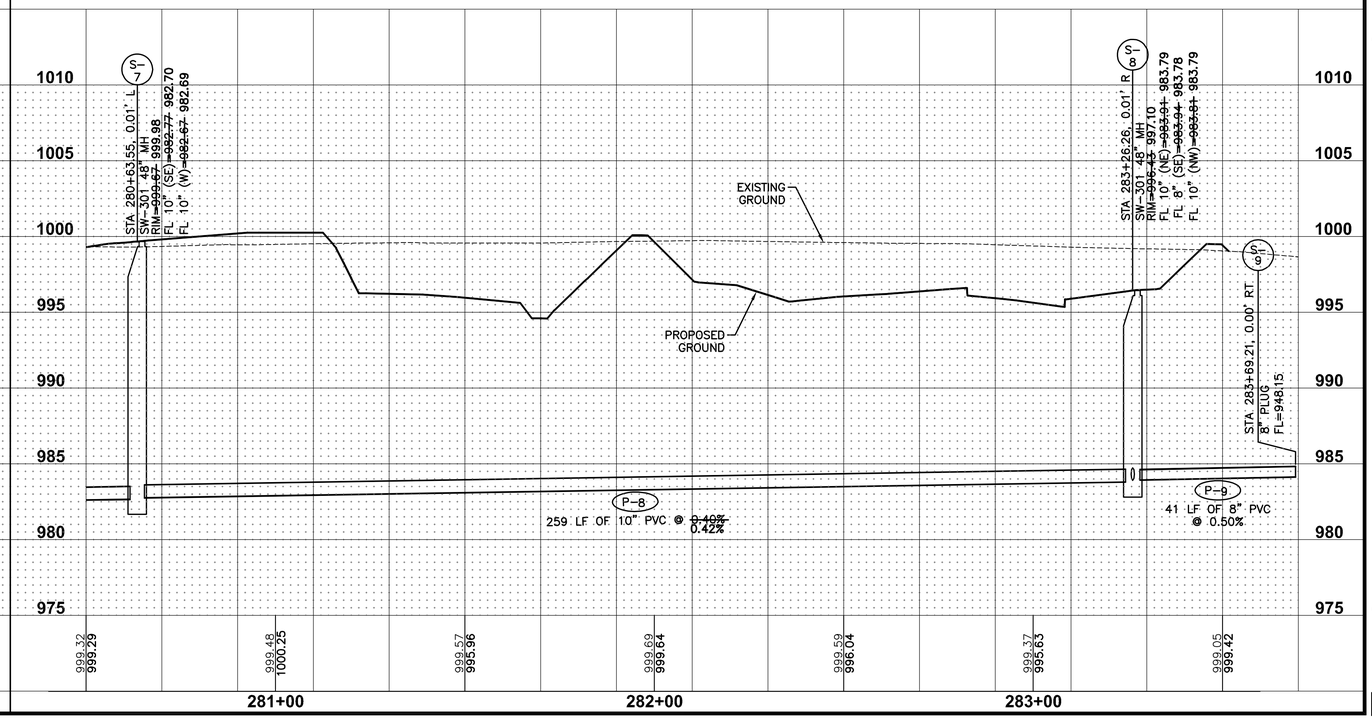
CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

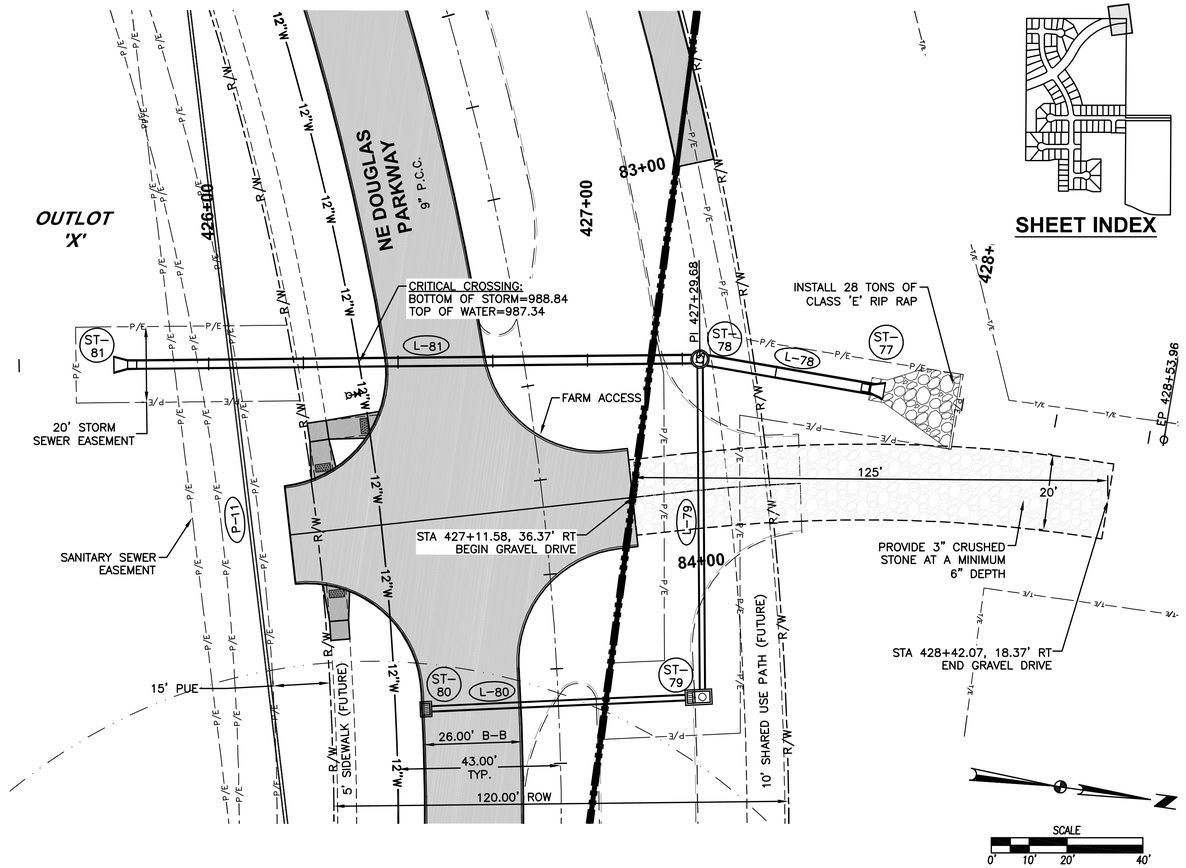
STORM & SANITARY SEWER PLAN AND PROFILE

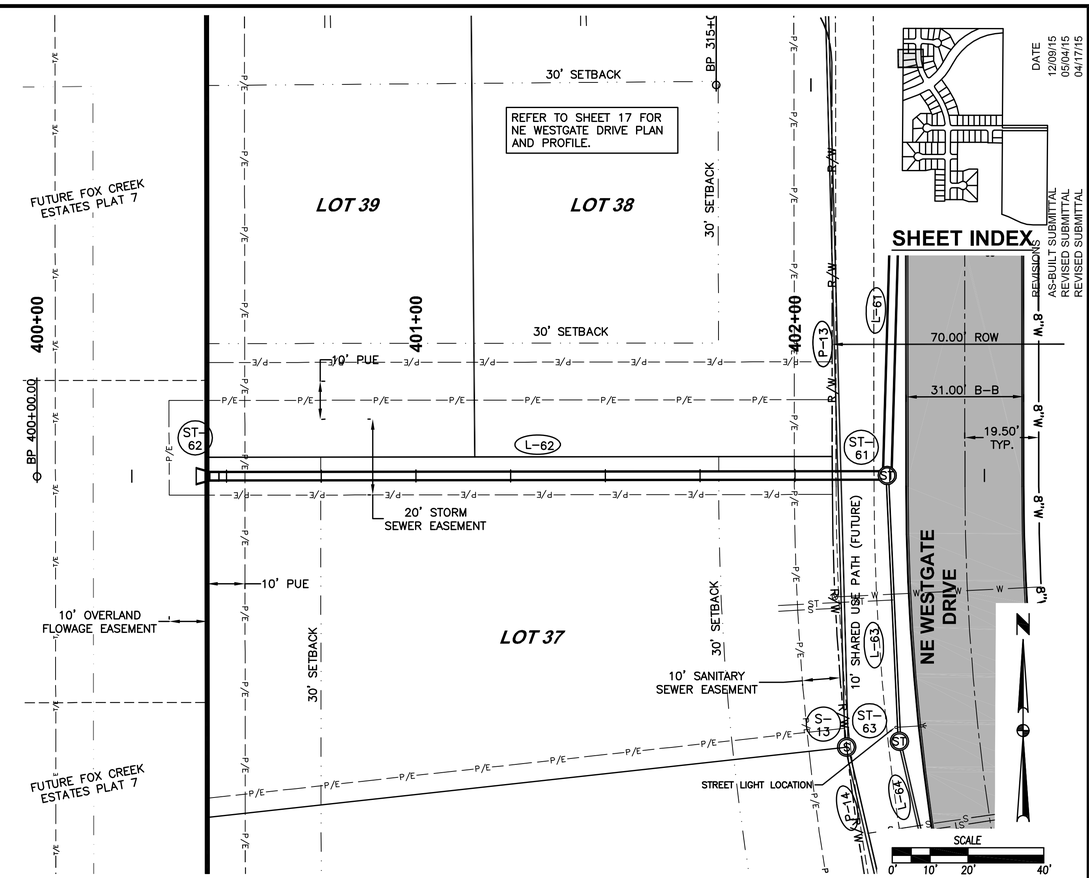
WAUKEE, IOWA





FILE: H:\2014\1408409\DWG\1408409-PWP-AS-BUILT.DWG
PLOT DATE: 4/7/2015 10:42 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:





SHEET INDEX

SHEET INDEX

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

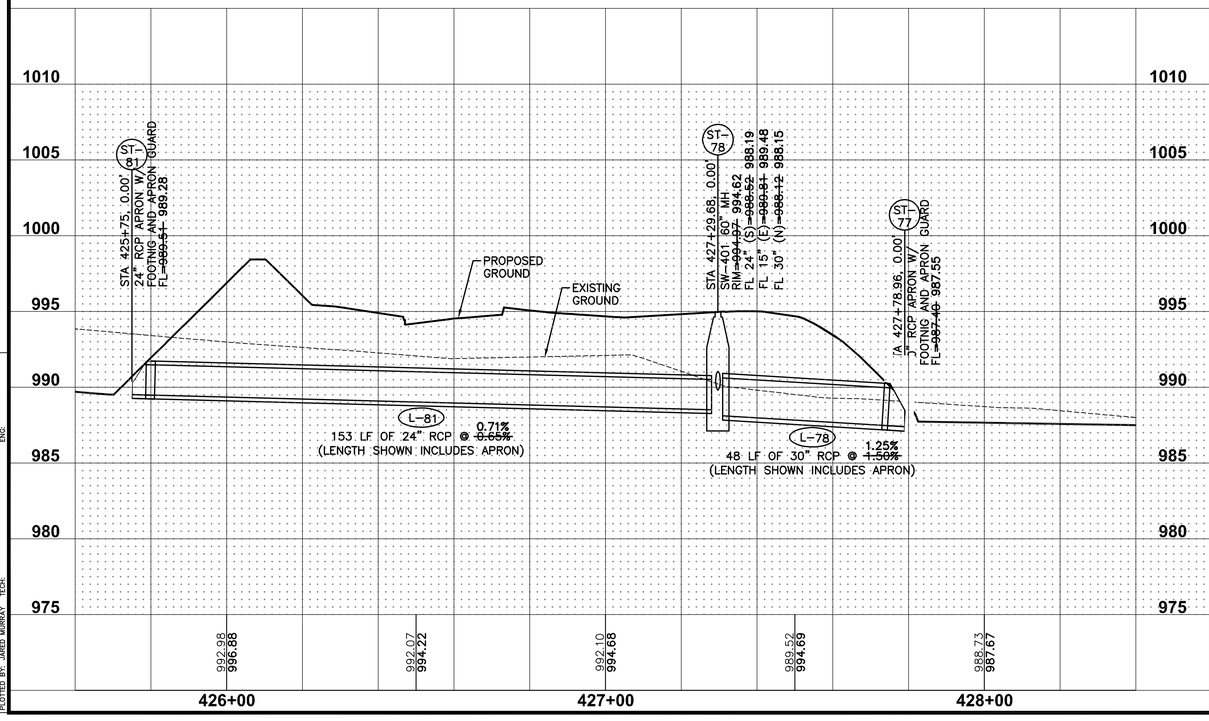
THE LANDING AT SHADOW CREEK PLAT 2

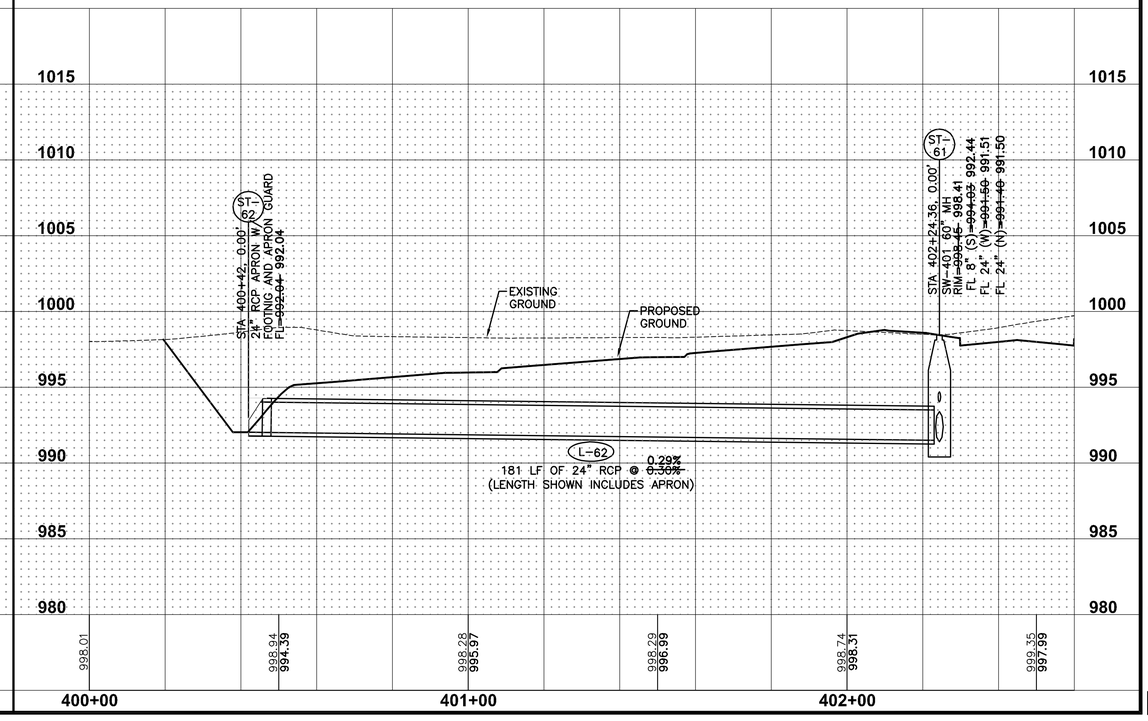
STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

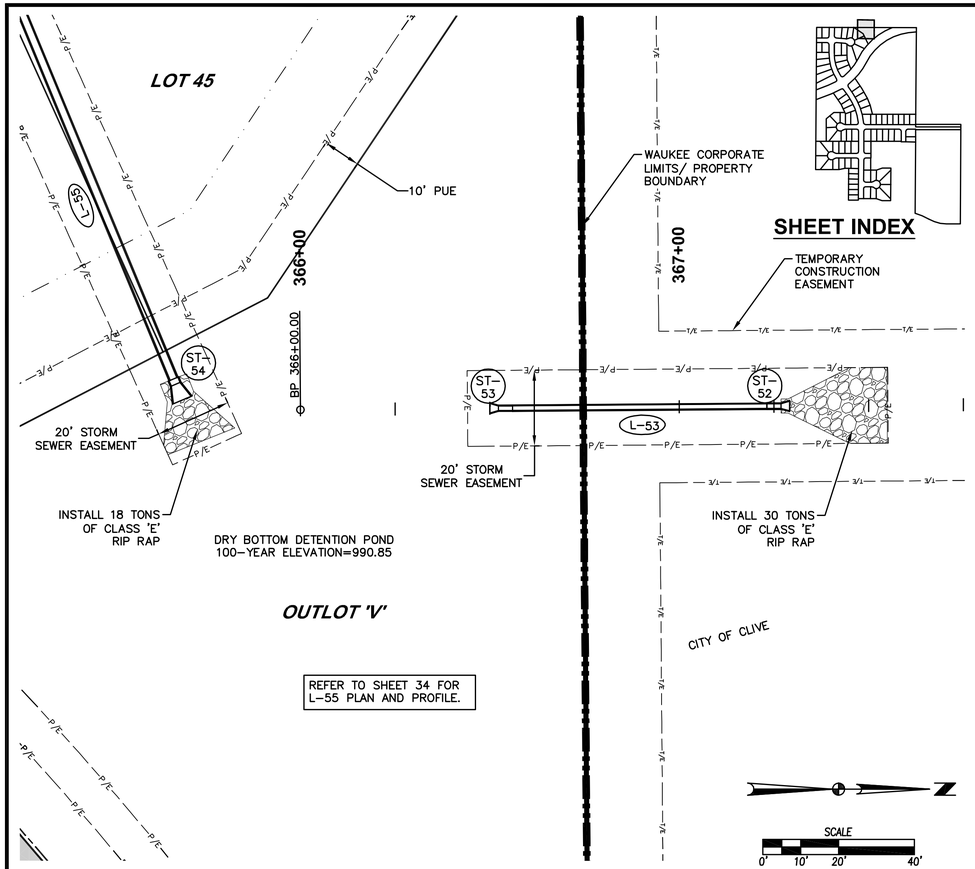
35/64

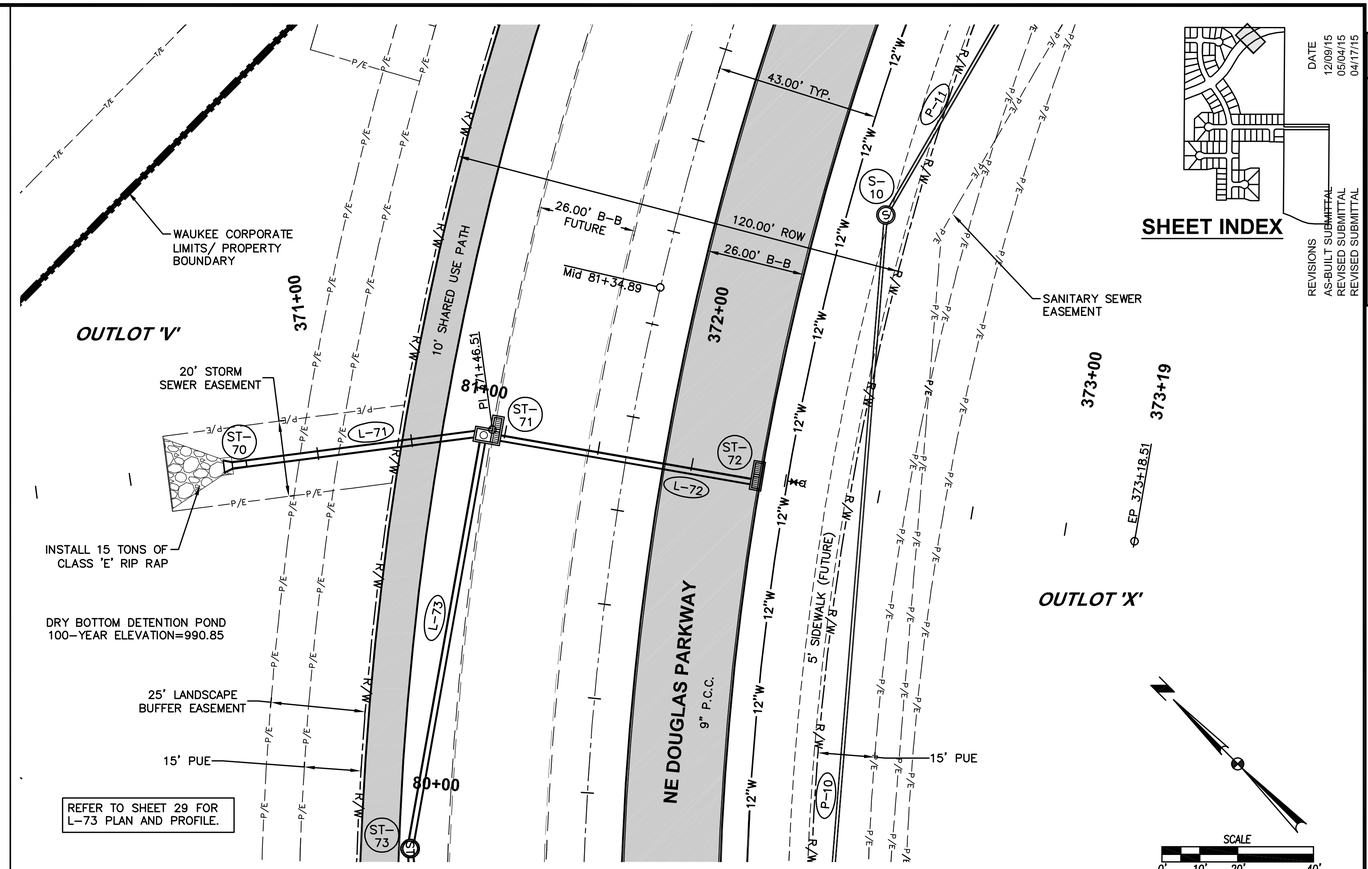
1408.409

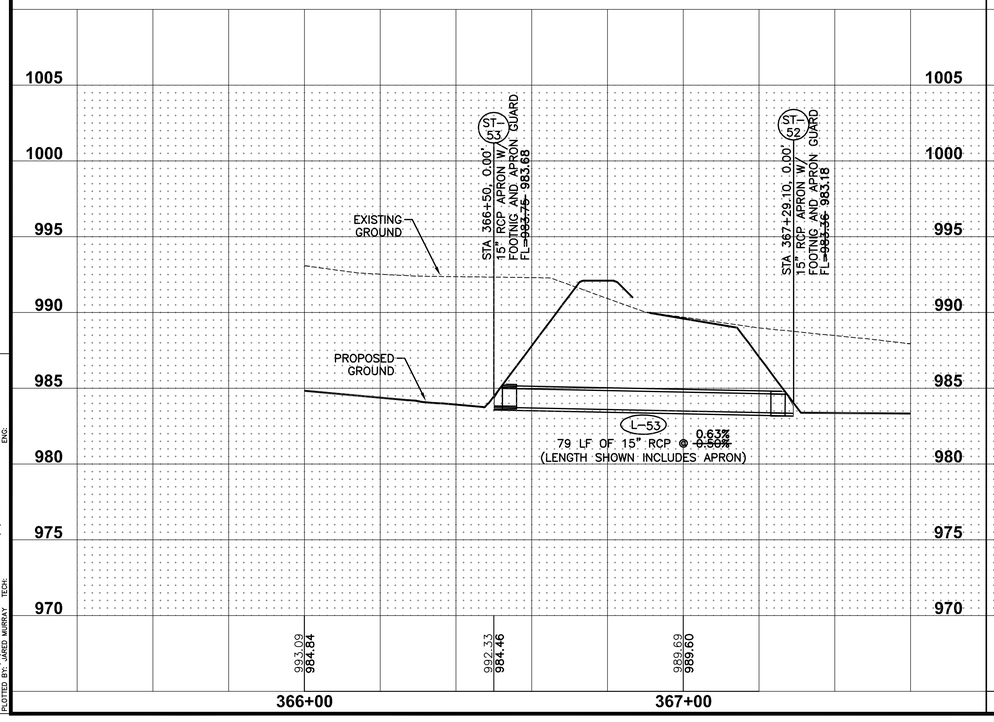


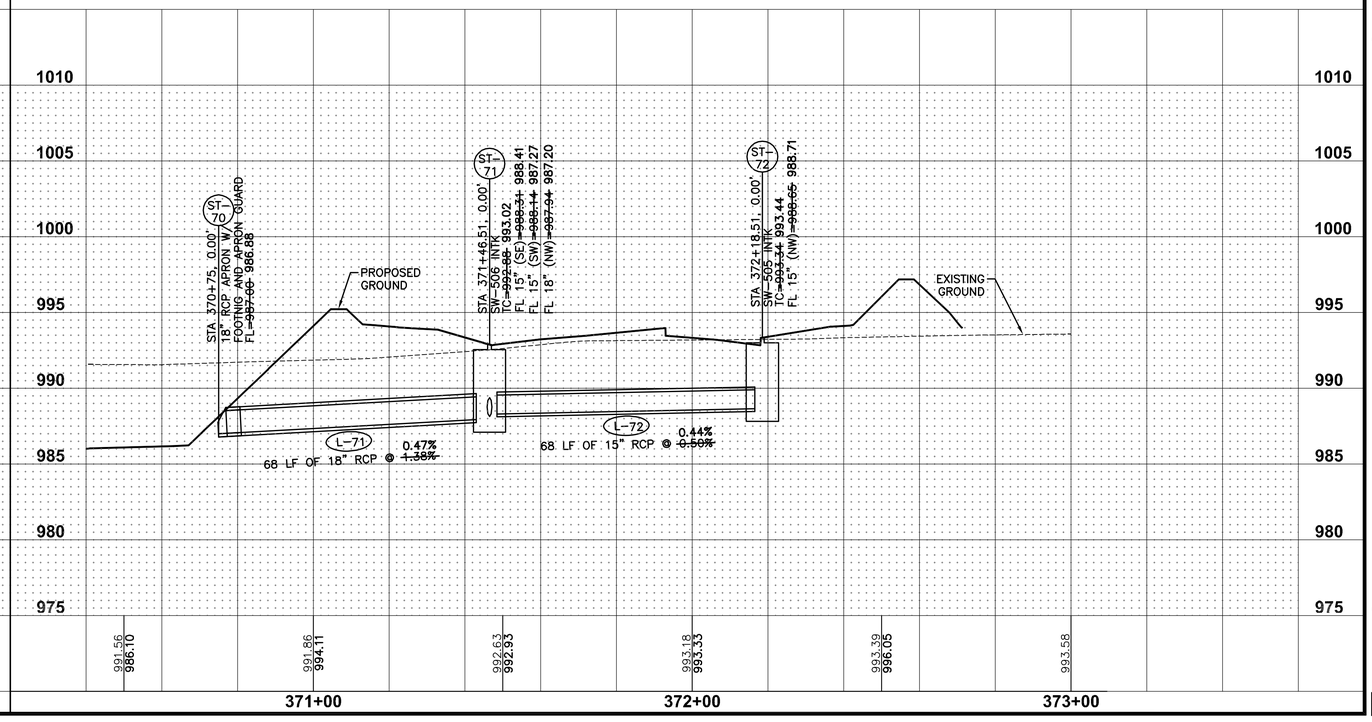


FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 6/5/2015 10:43 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.
TECH:









REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

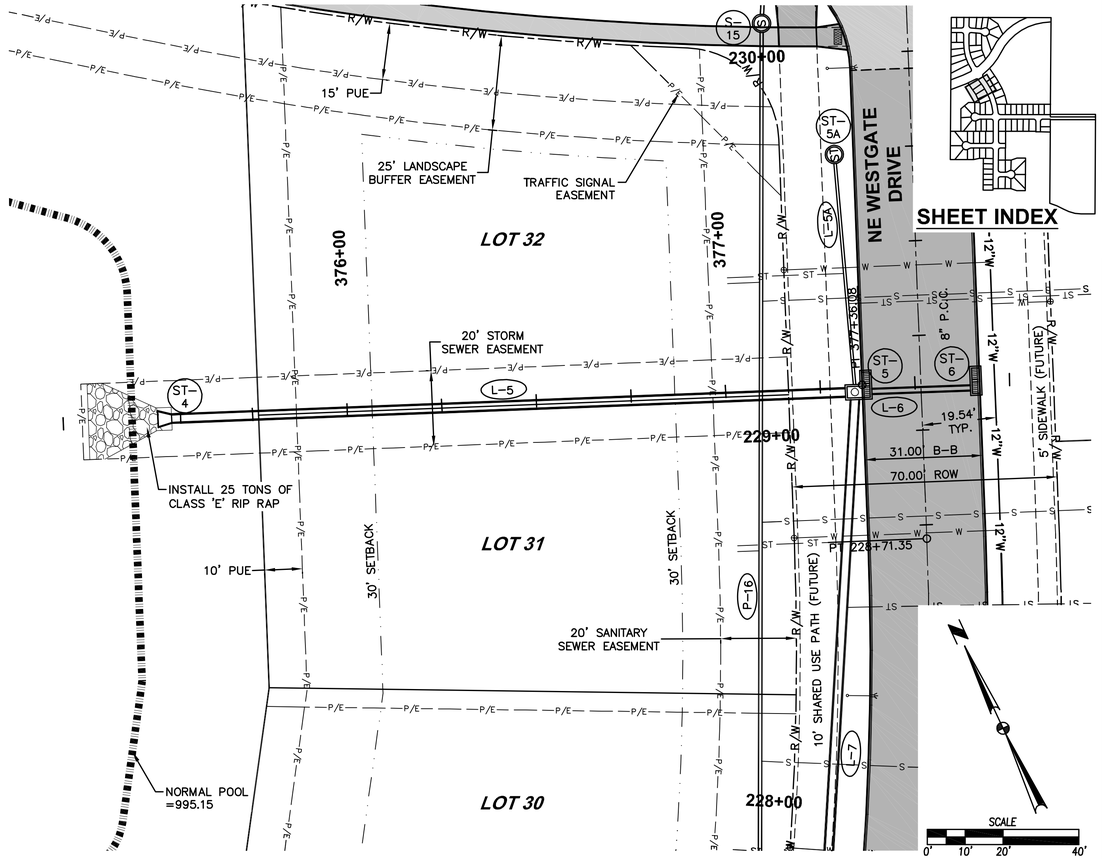
THE LANDING AT SHADOW CREEK PLAT 2

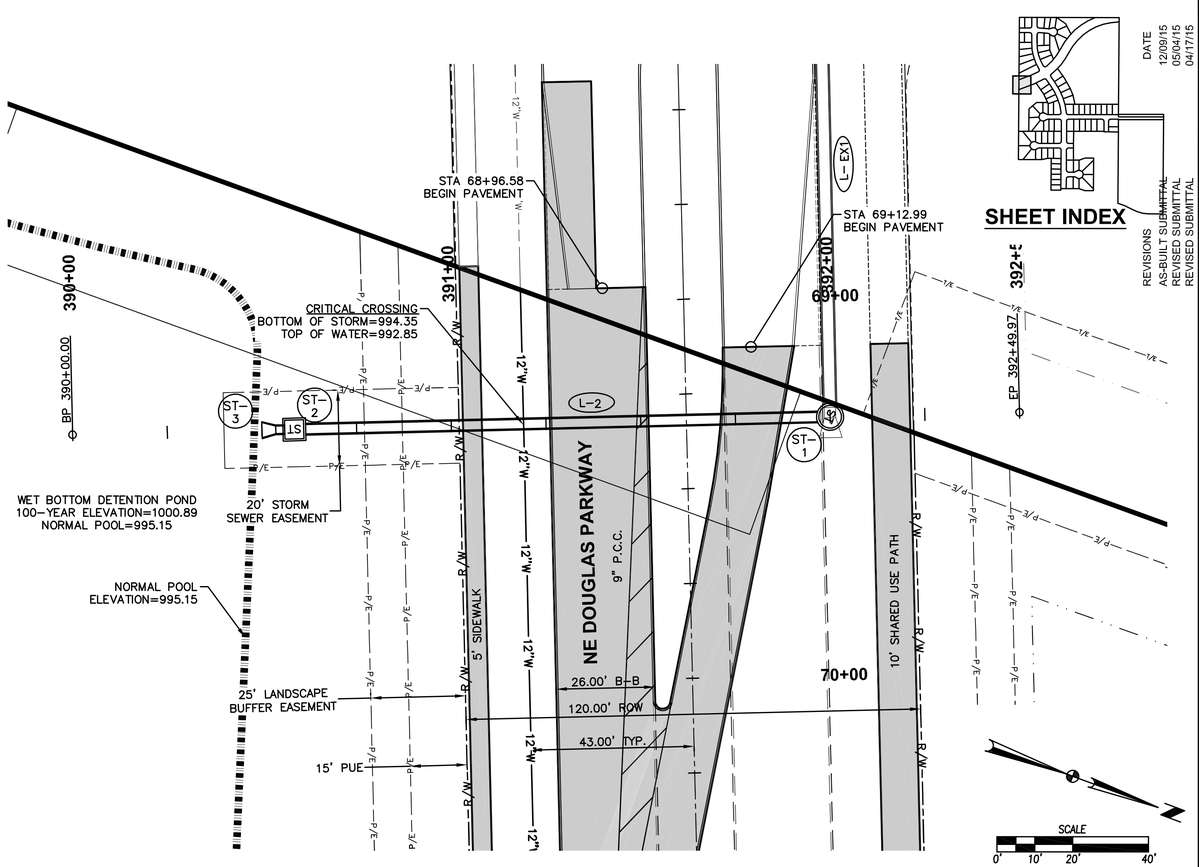
STORM & SANITARY SEWER PLAN AND PROFILE

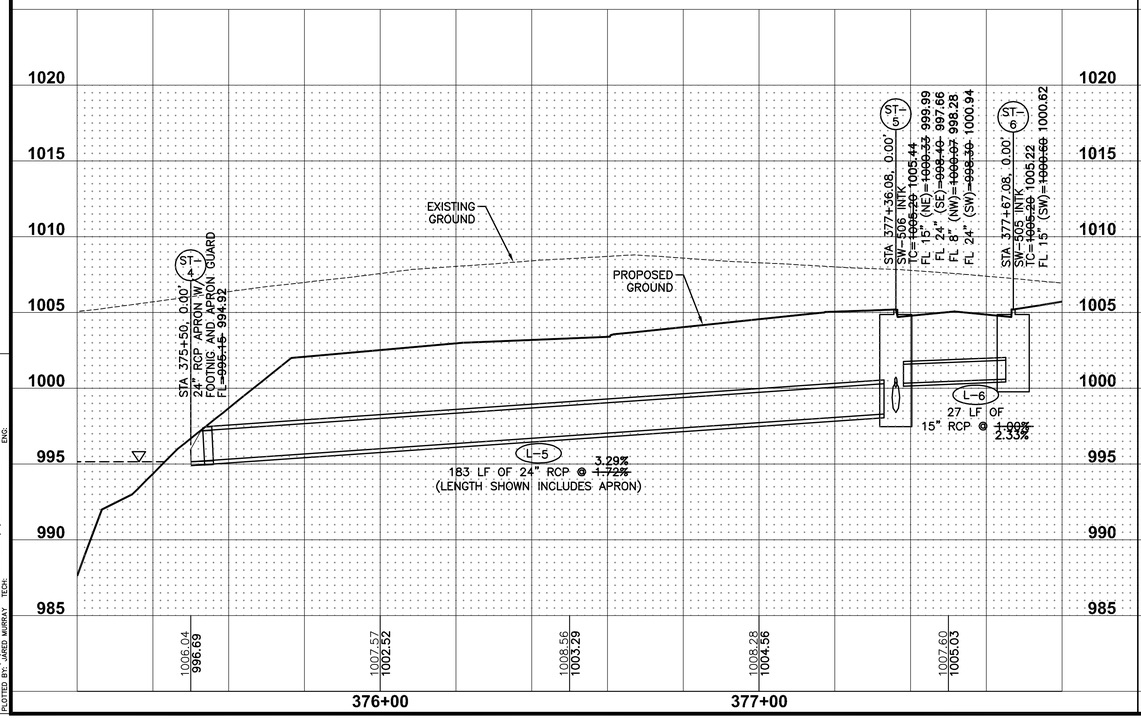
WAUKEE, IOWA

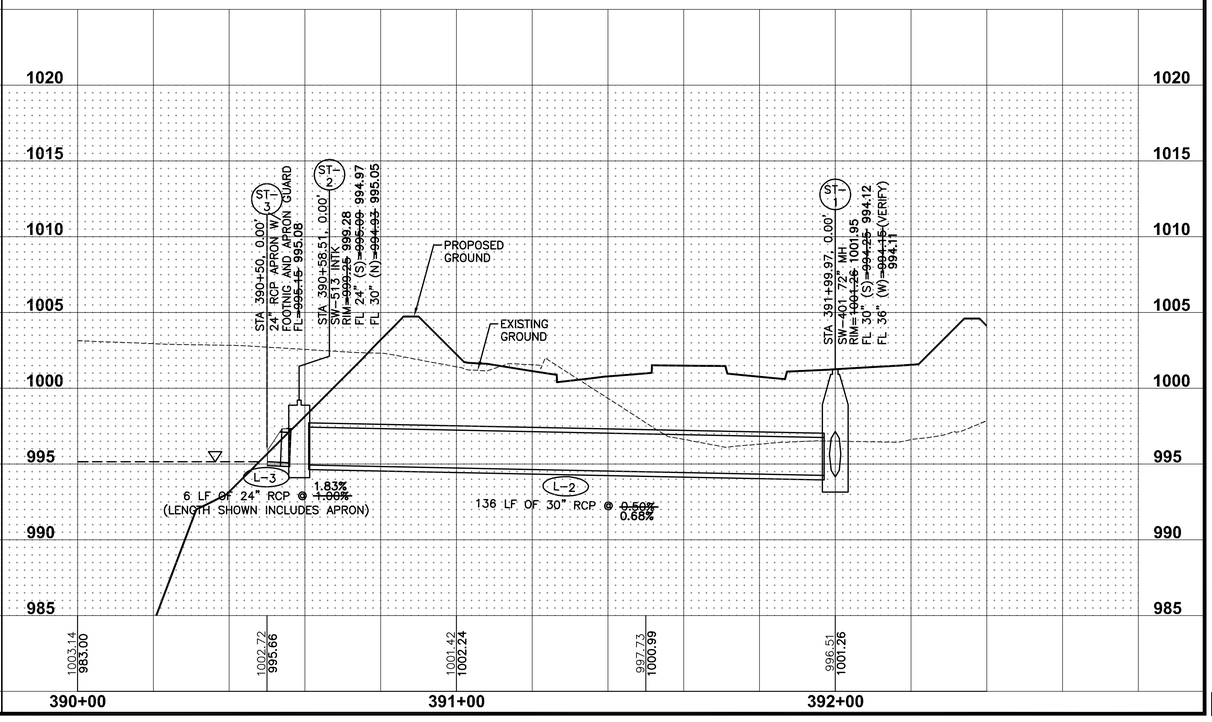
1408.409

FILE: H:\2014\1408409\DWG\1408409-PHP-AS-BUILT.DWG
PLOT DATE: 4/7/2015 10:44 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:









DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

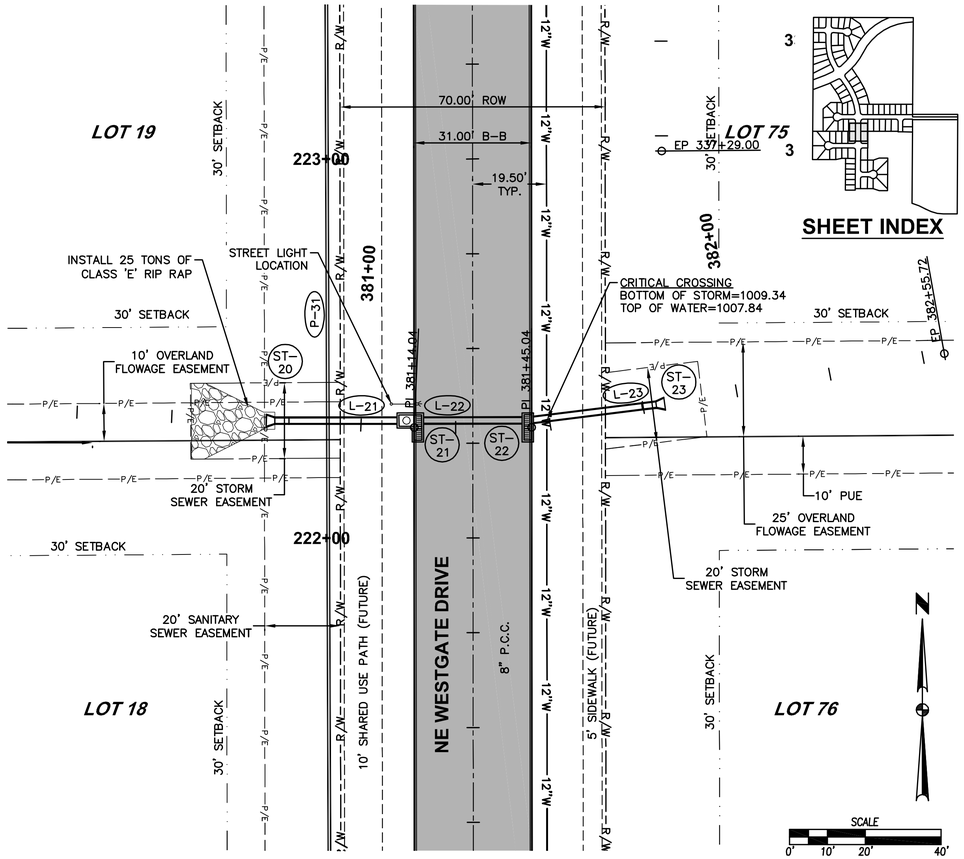
STORM & SANITARY SEWER PLAN AND PROFILE

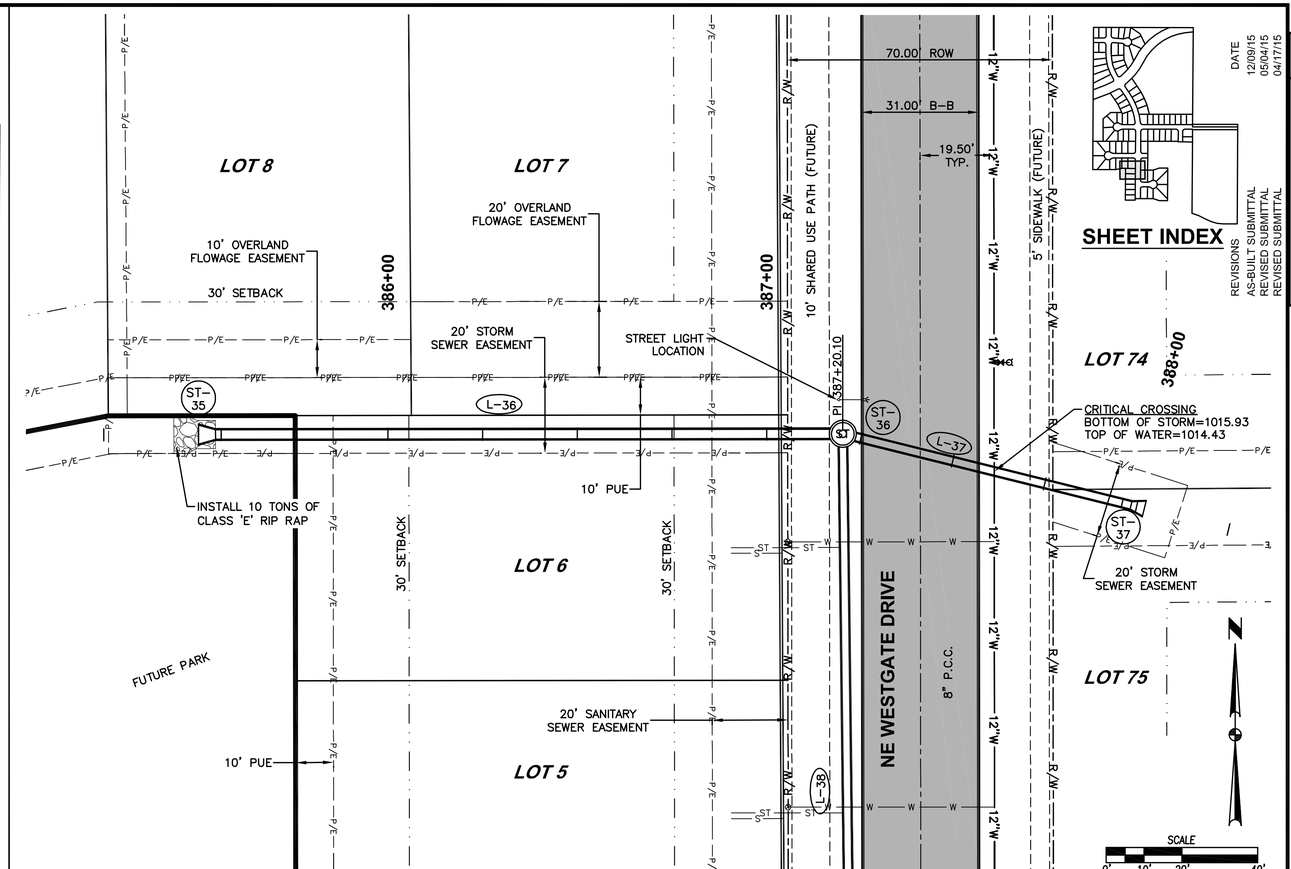
WAUKEE, IOWA

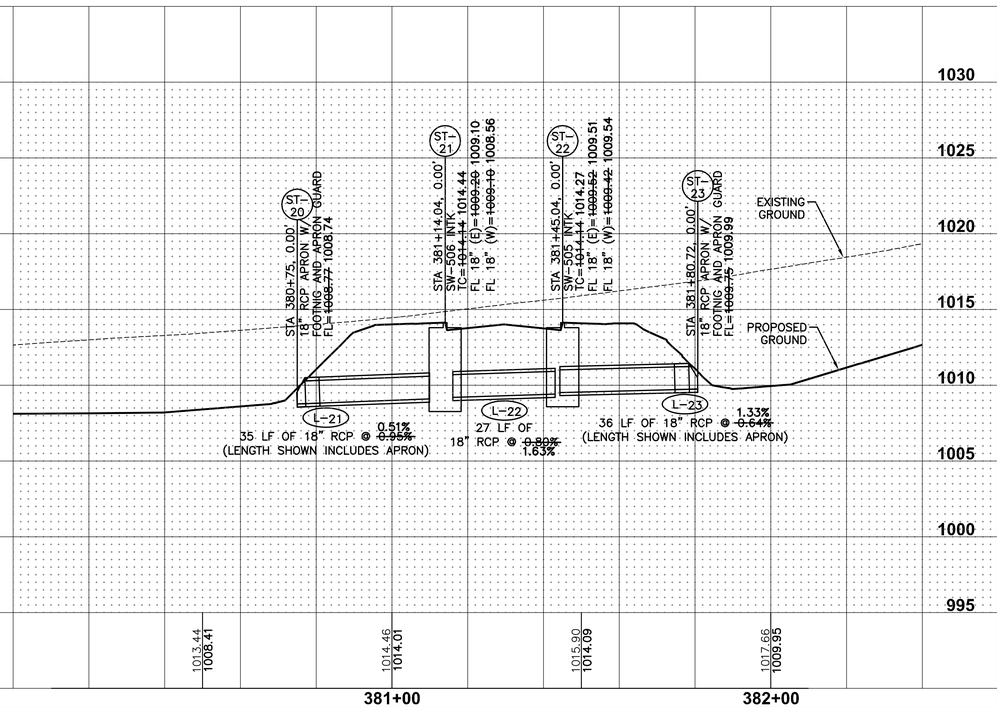
37/64

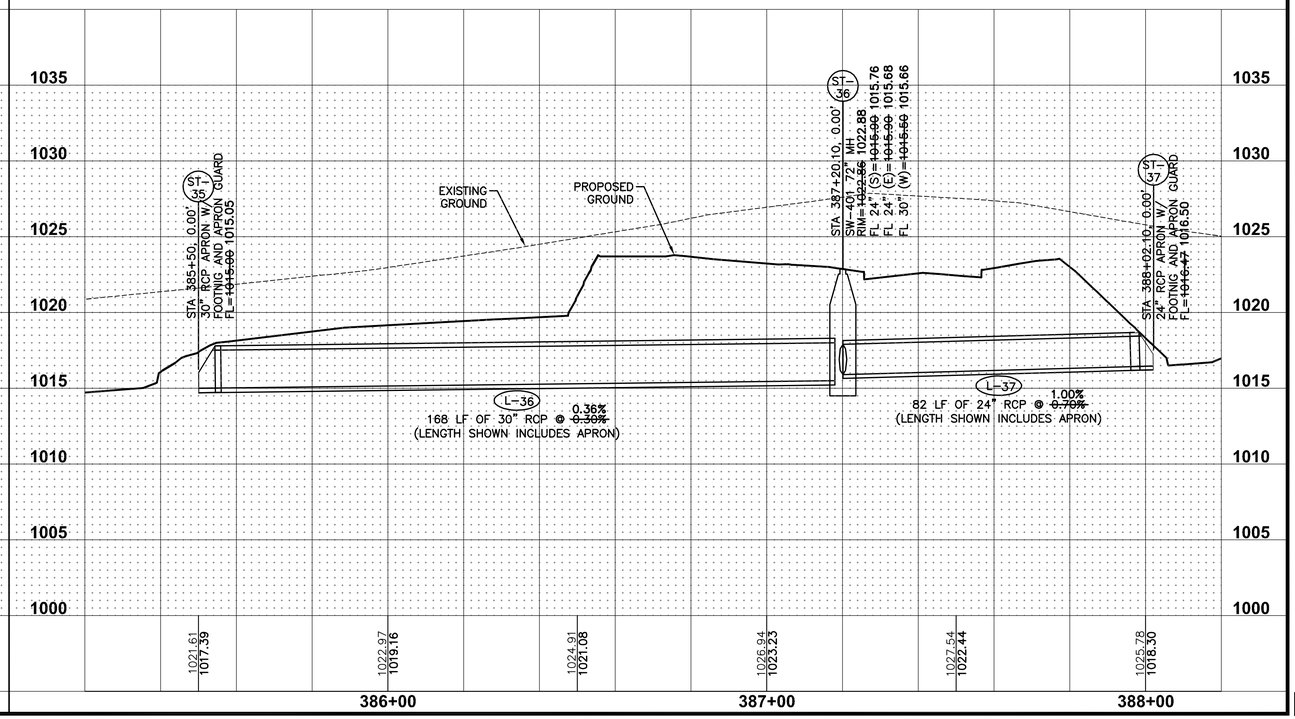
1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-AS-BUILT.DWG
RE-SAVED: 4/7/2015 10:44 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:









DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

THE LANDING AT SHADOW CREEK PLAT 2

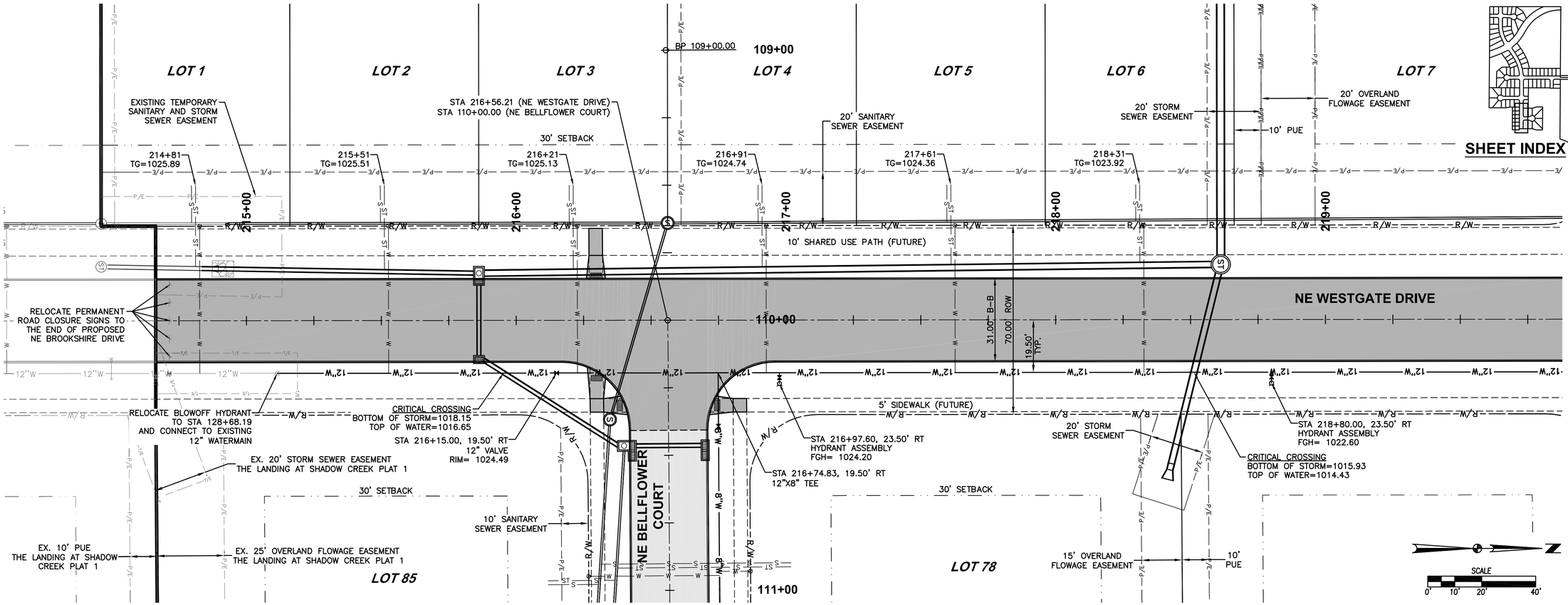
STORM & SANITARY SEWER PLAN AND PROFILE

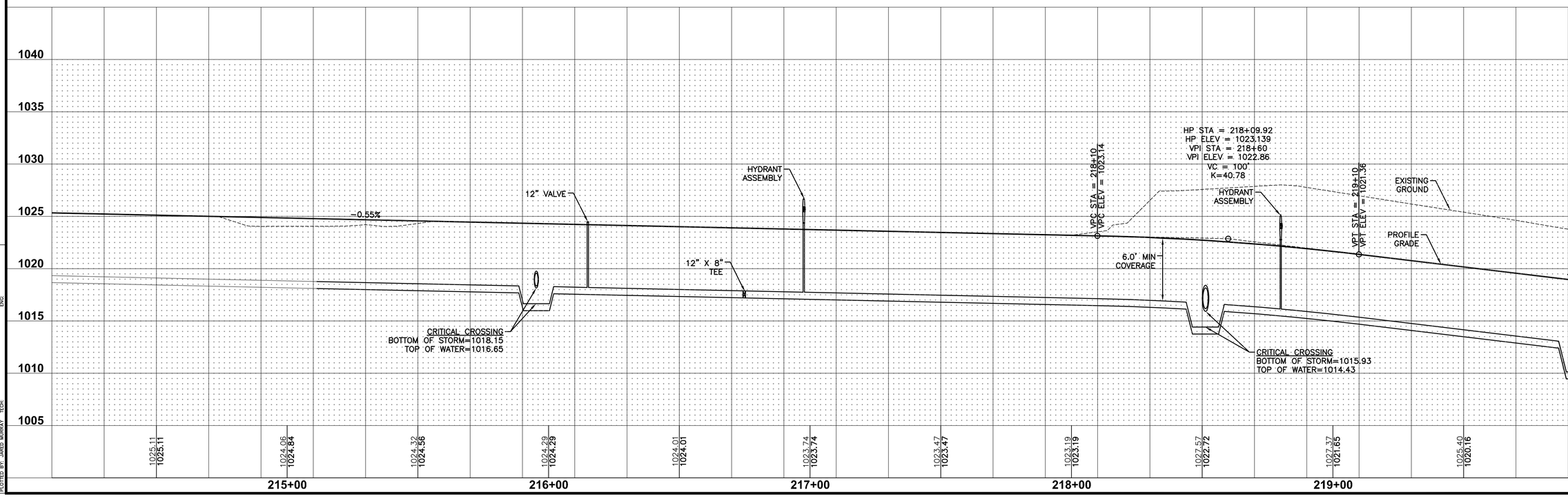
WAUKEE, IOWA

38/64

1408.409

FILE: H:\JOA\1408409\DWG\1408409-PNP-AS-BUILT.DWG
REF: 1408409-PNP-AS-BUILT.DWG
PLOTTED BY: JARED MURRAY
PLOTTED: 4/7/2015 10:45 AM
COMMENT:
ENG:
TECH:





SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

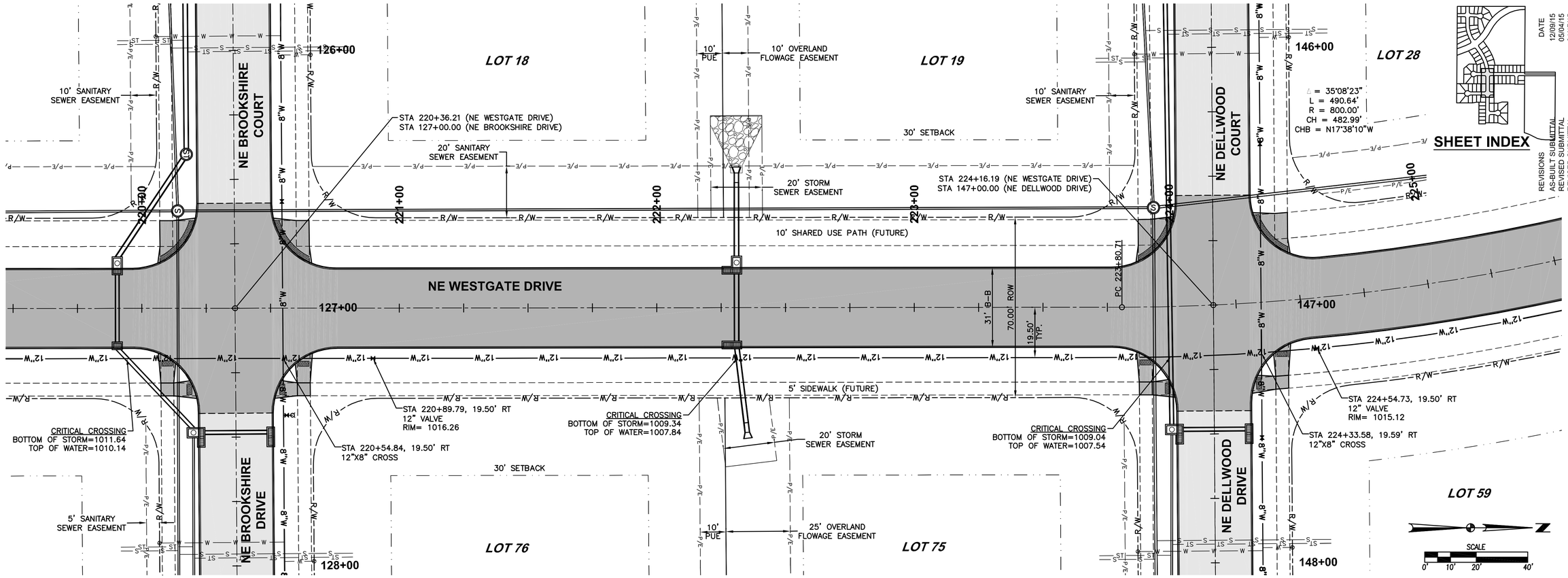
CIVIL DESIGN ADVANTAGE

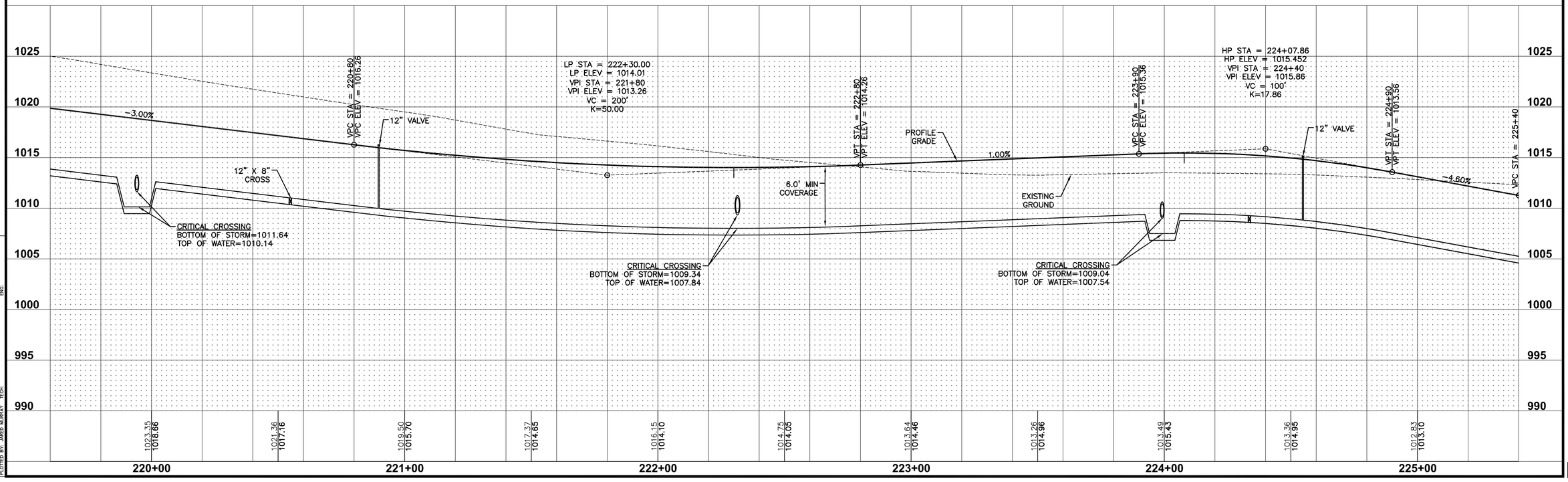
THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGAE DRIVE
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOT DATE: 9/7/2016 8:03 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.
TECH:





REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

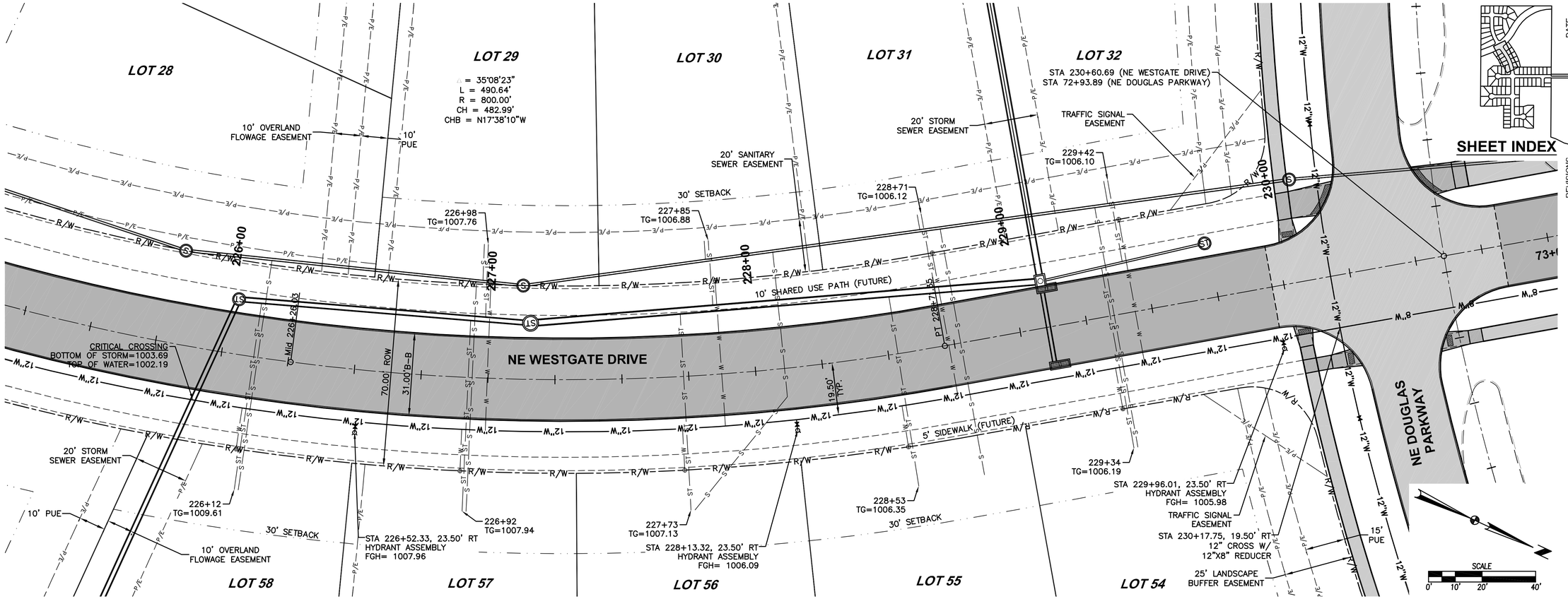
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM

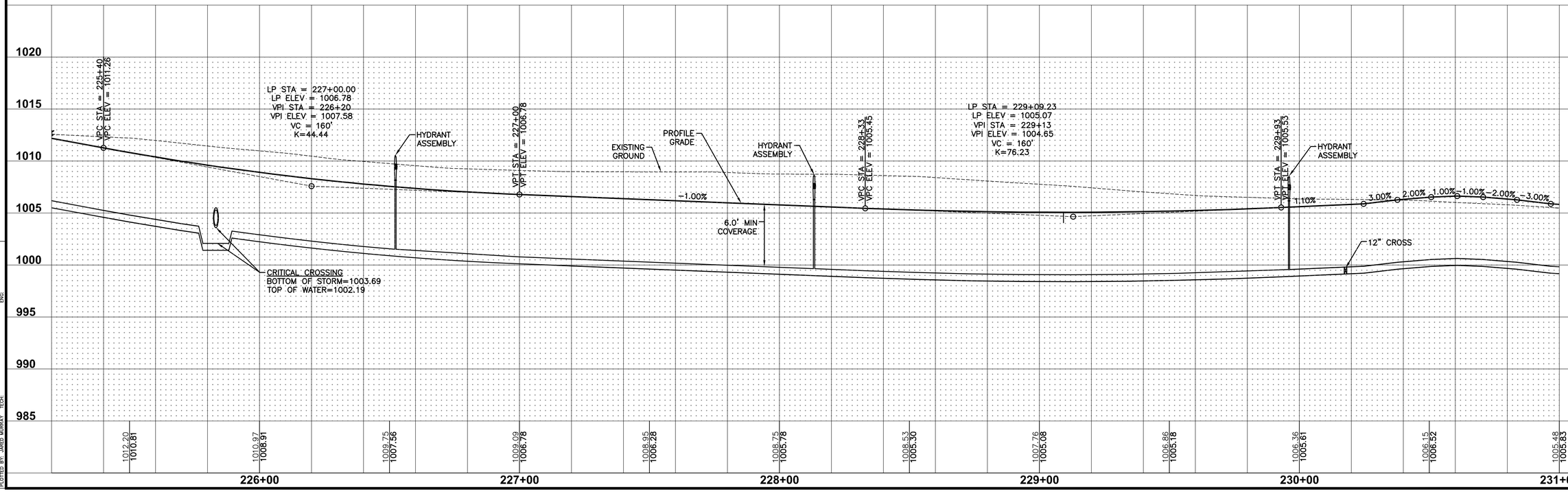
CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-PNP-WATERMAIN.DWG
PLOTTED: 6/4/2015 8:02 AM
PLOTTED BY: JARED MURRAY
TEXT:
COMMENT:
ENG:





SHEET INDEX

	DATE
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

REVISIONS
AS-BUILT SUBMITTAL 12/09/15
REVISED SUBMITTAL 05/04/15
REVISED SUBMITTAL 04/17/15

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

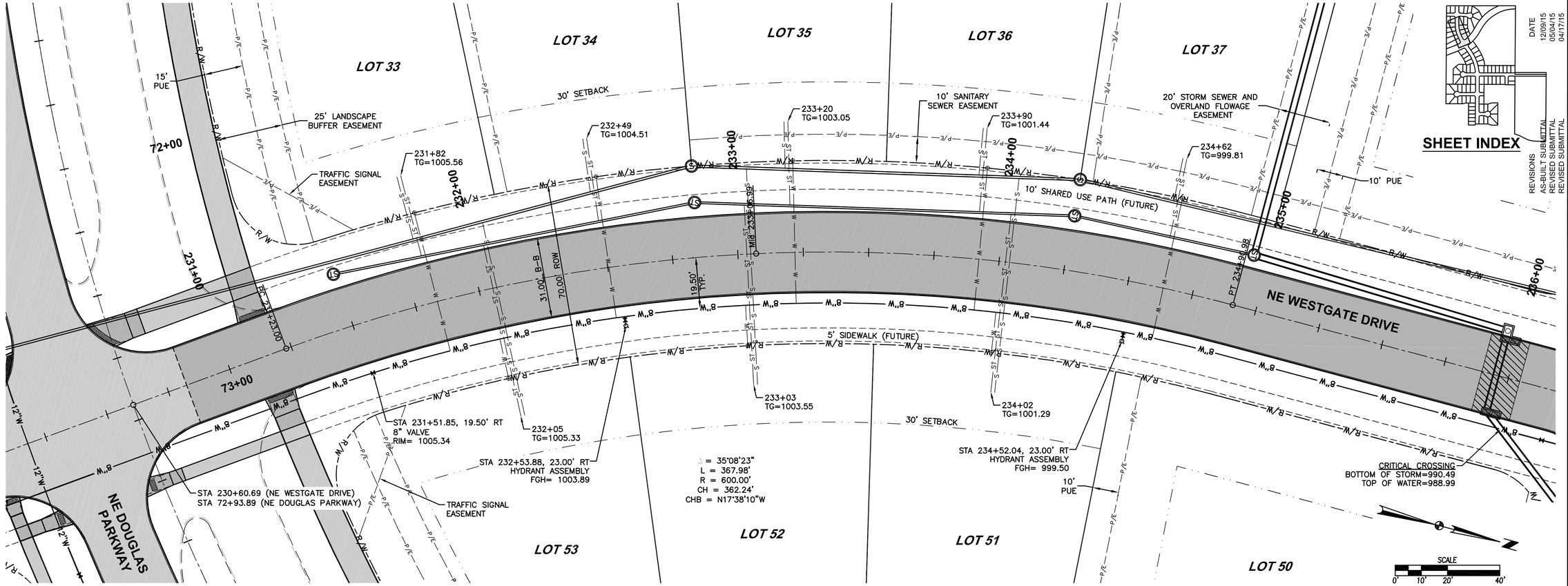
ENGINEER: EKO | EI: JMM

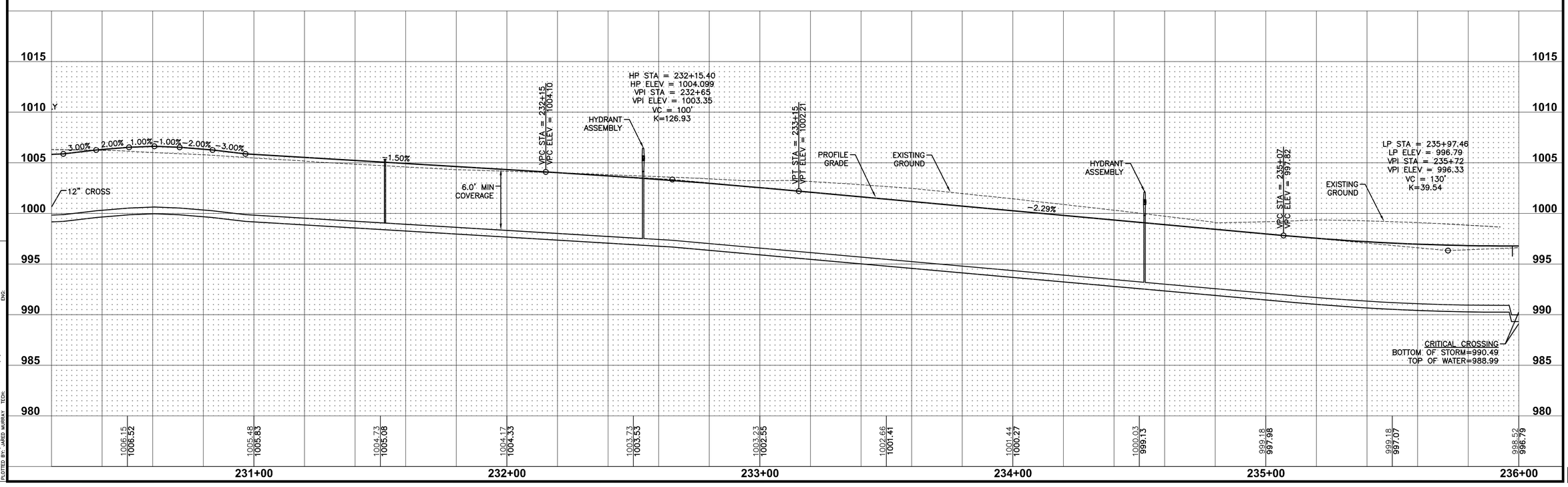
CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOTTED: 6/7/2016 11:02 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG.
TECH.





SHEET INDEX

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

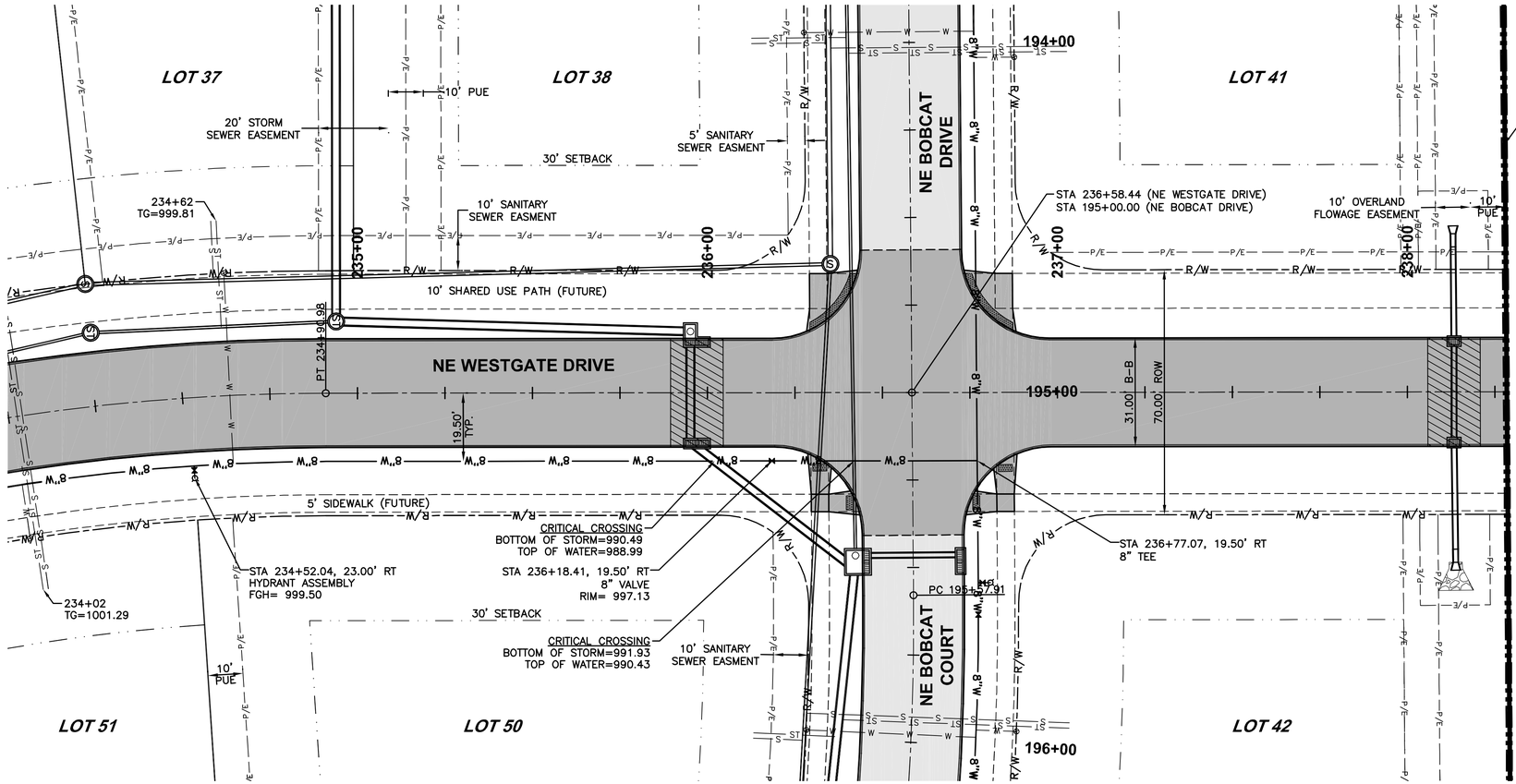
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM

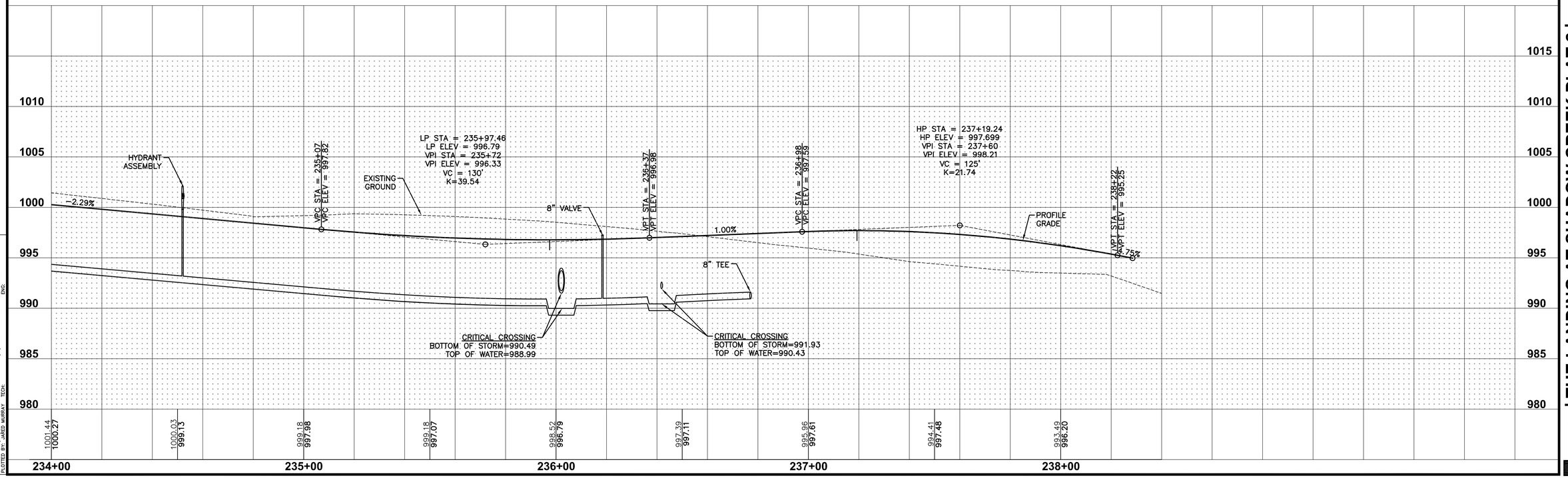
THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOTTED: 5/7/2015 11:02 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG.





SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

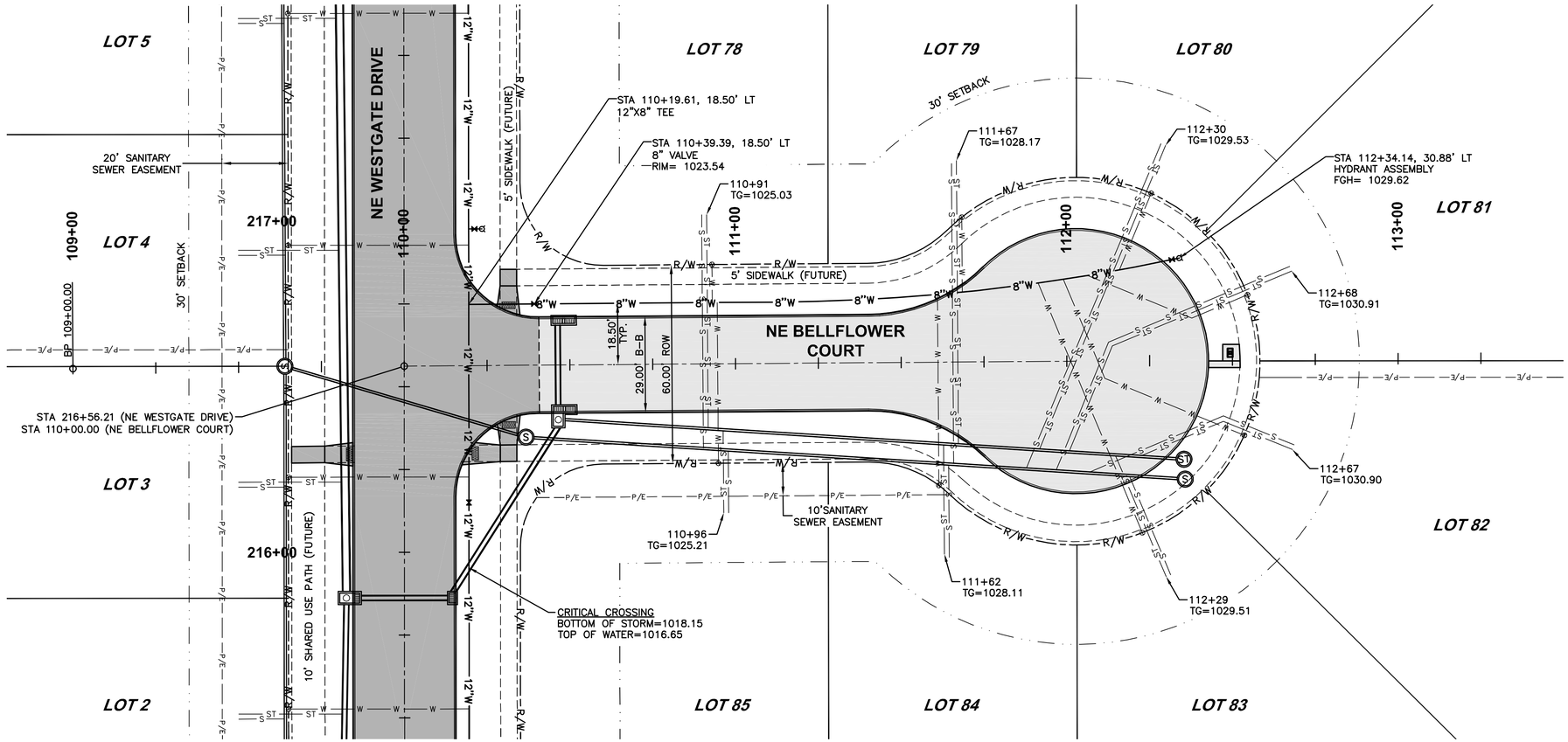
THE LANDING AT SHADOW CREEK PLAT 2
NE WESTGATE DRIVE
WATERMAIN PLAN AND PROFILE

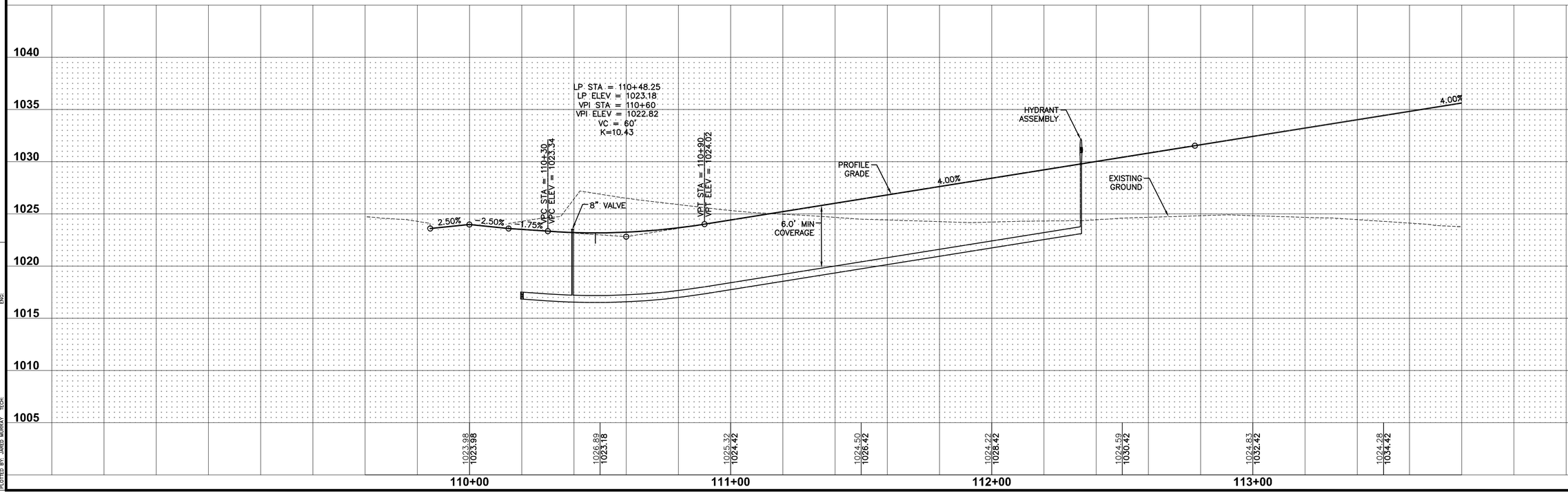
WAUKEE, IOWA

43/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOTTED: 1/5/2016 8:03 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.





SHEET INDEX

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

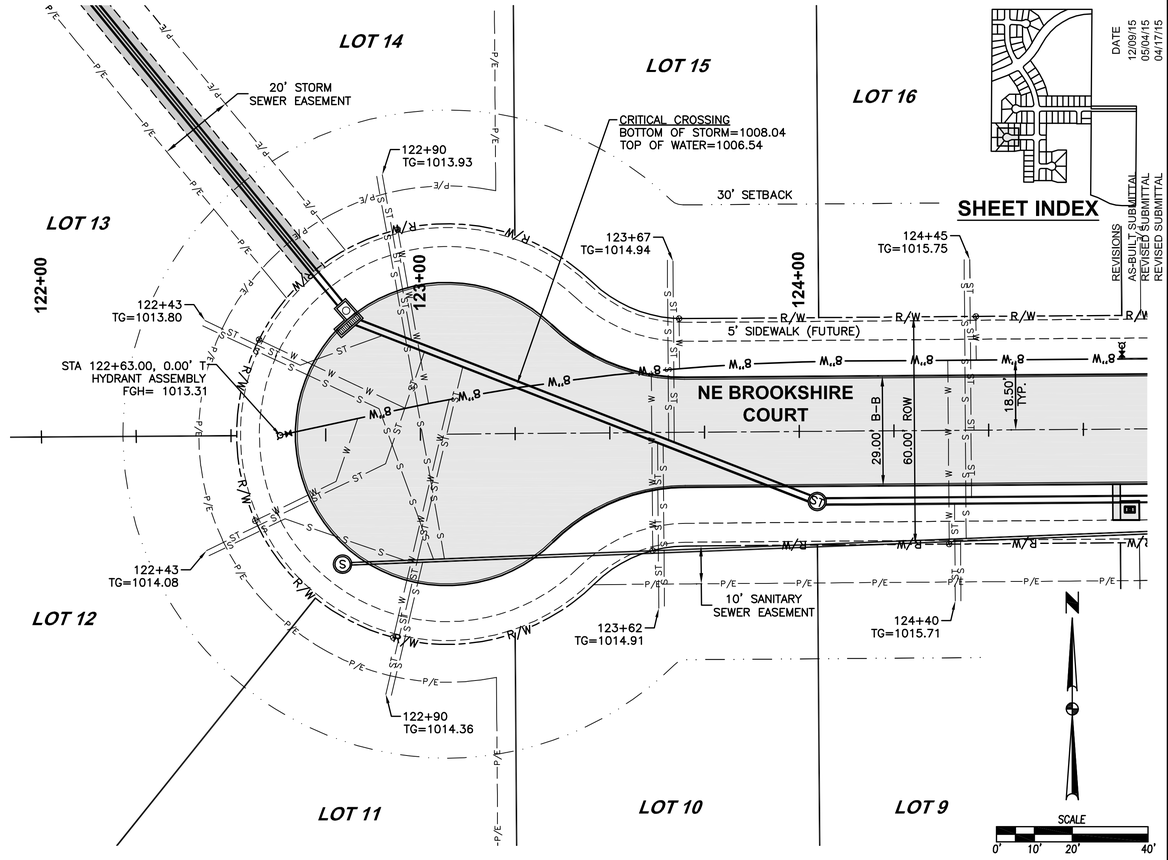
CIVIL DESIGN ADVANTAGE

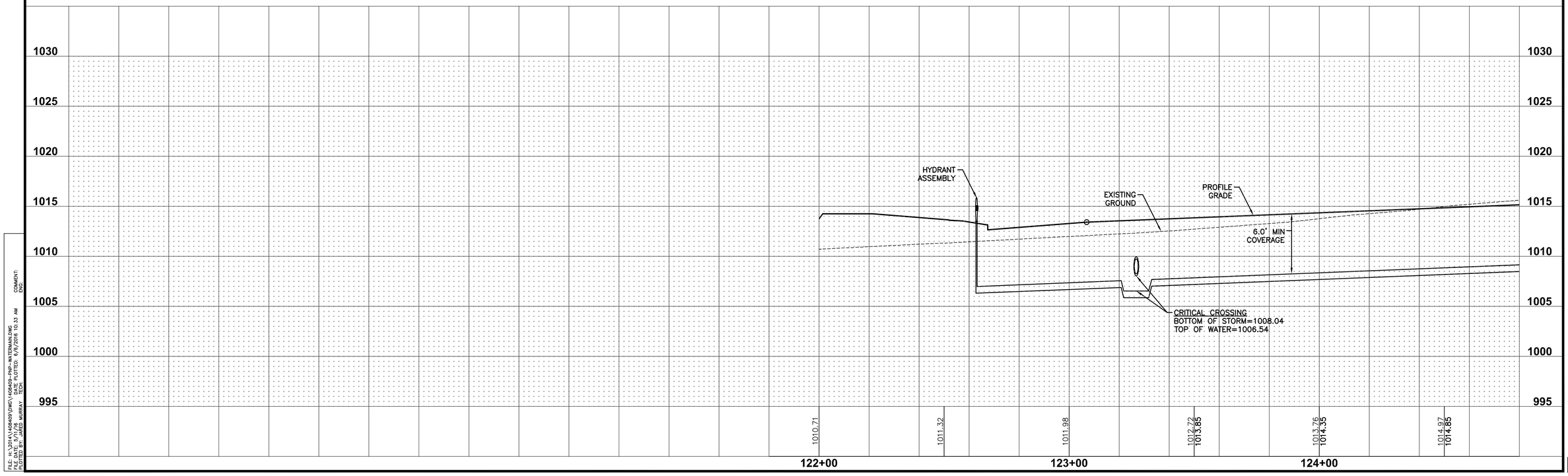
THE LANDING AT SHADOW CREEK PLAT 2
NE BELLFLOWER COURT
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOT DATE: 9/7/2016 8:03 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:





SHEET INDEX

REVISIONS

DATE	
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

ENGINEER: EKO | EI: JMM

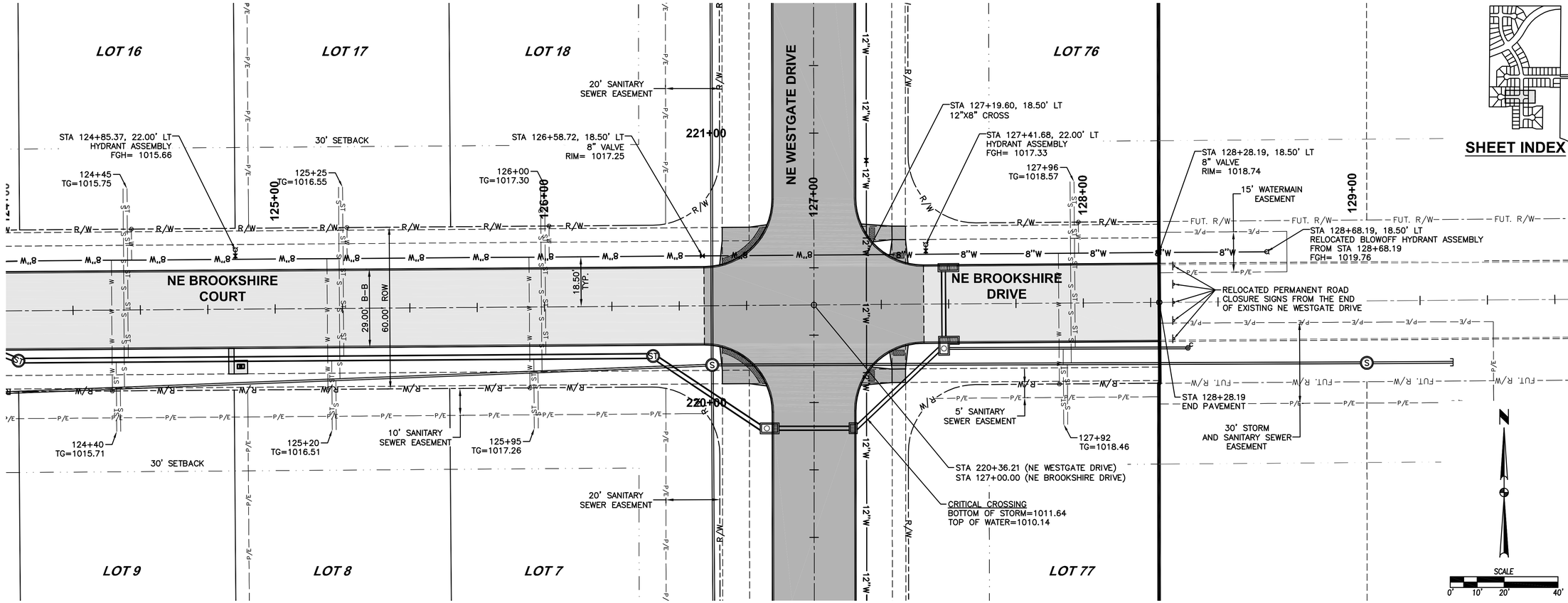
CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE BROOKSHIRE COURT
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

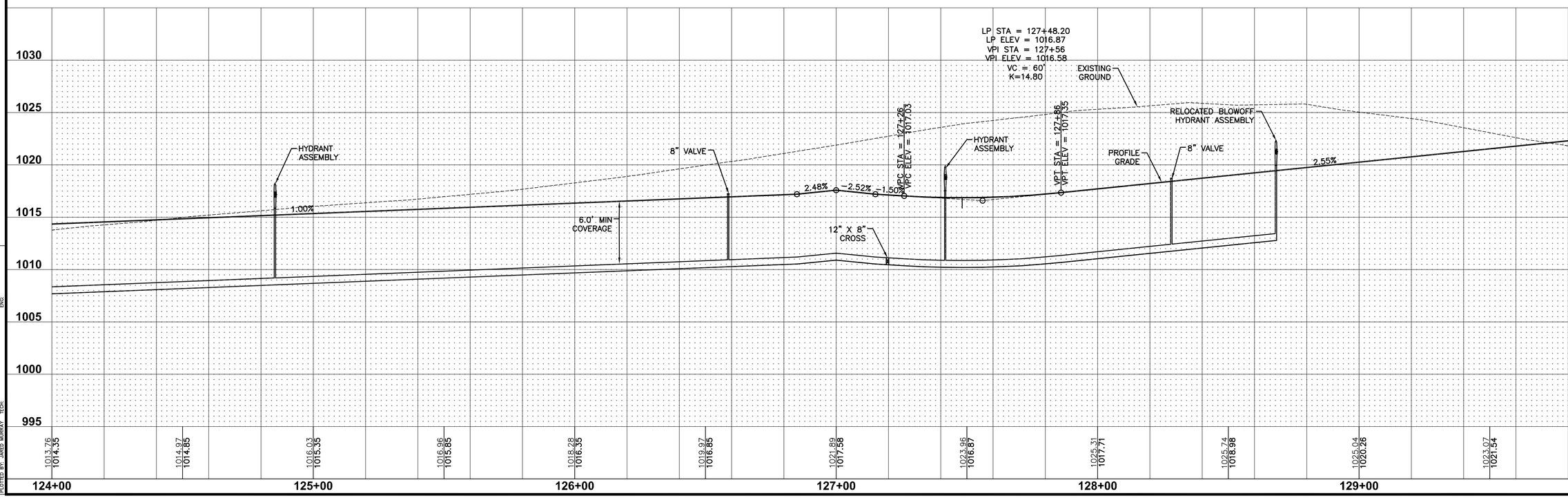
1408.409

FILE: H:\2014\1408409\DWG\1408409-PNP-WATERMAIN.DWG
PLOTTED BY: JARED MURRAY | PLOT DATE: 5/7/2015 10:33 AM
TECH: | ENG: | COMMENT:



SHEET INDEX

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
SIXTH SUBMITTAL	01/28/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14



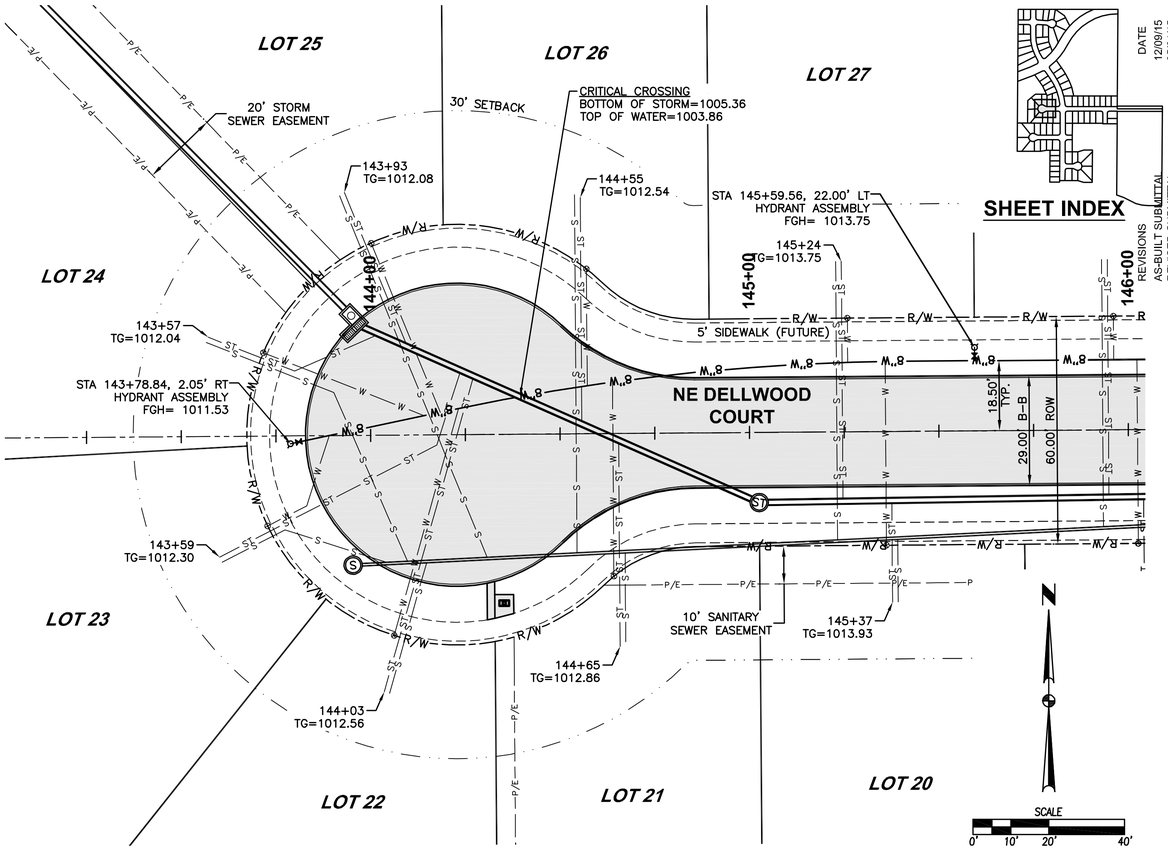
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM

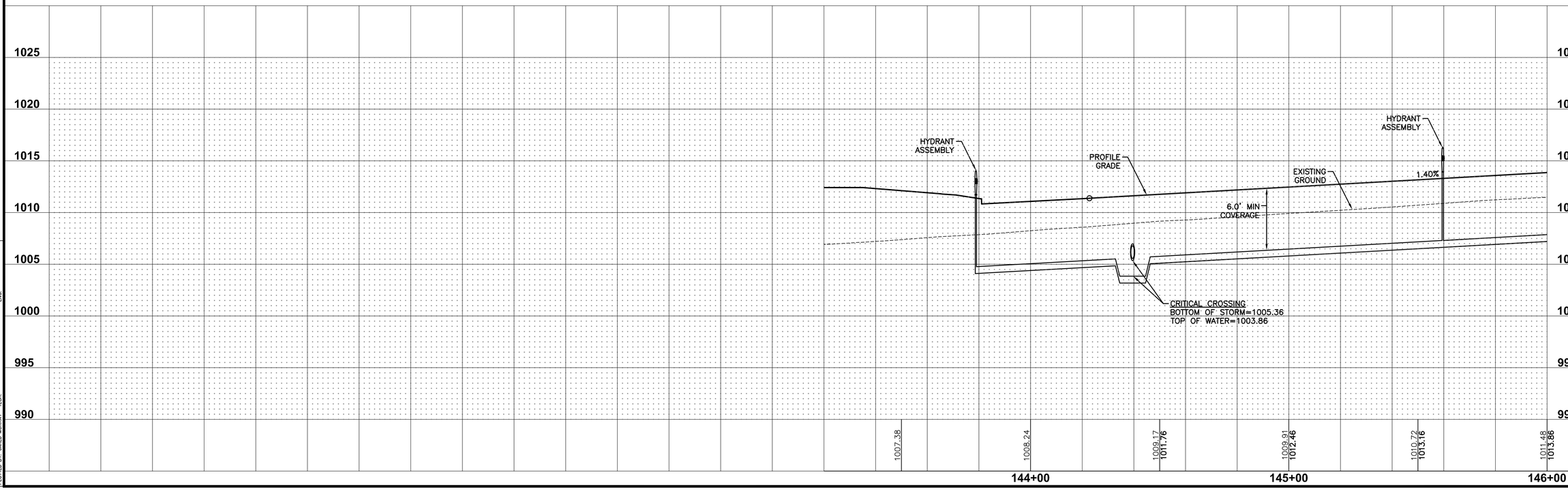
THE LANDING AT SHADOW CREEK PLAT 2
NE BROOKSHIRE
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOT DATE: 12/9/2015 8:13 AM
PLOTTED BY: JARED MURRAY
TEXT:
COMMENT:
ENG:





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

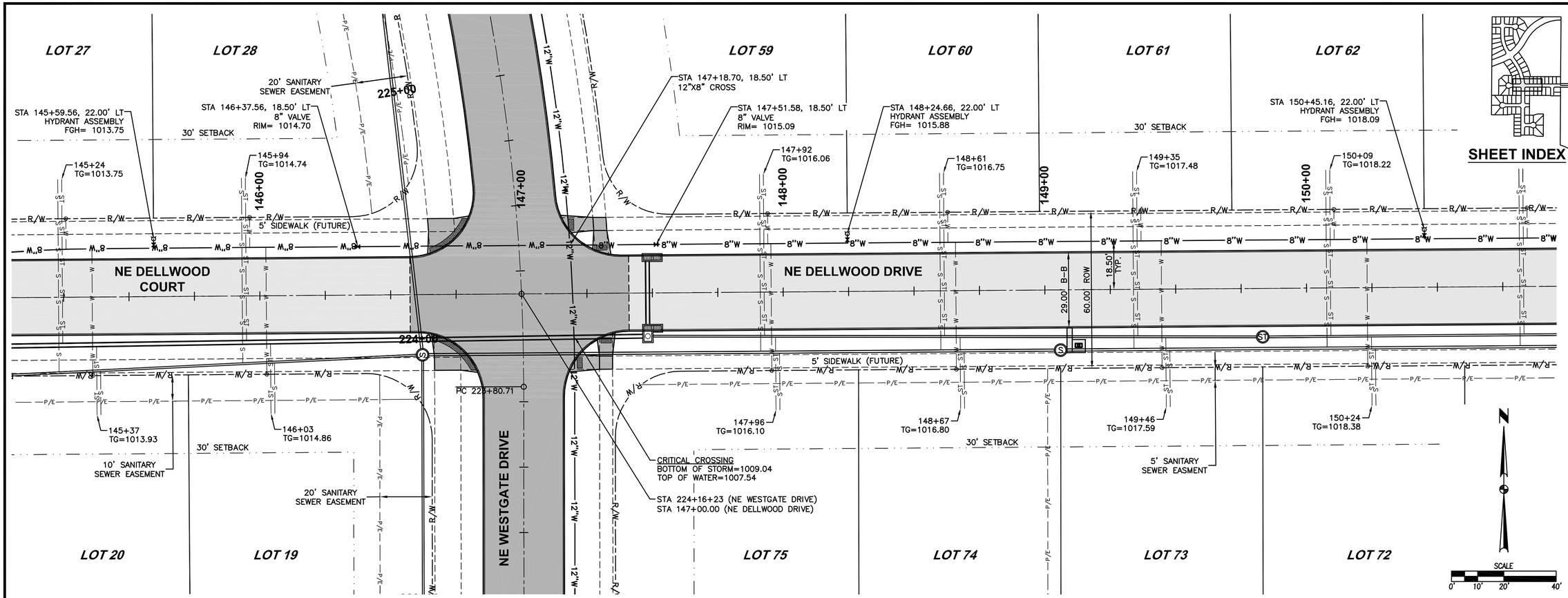
CIVIL DESIGN ADVANTAGE

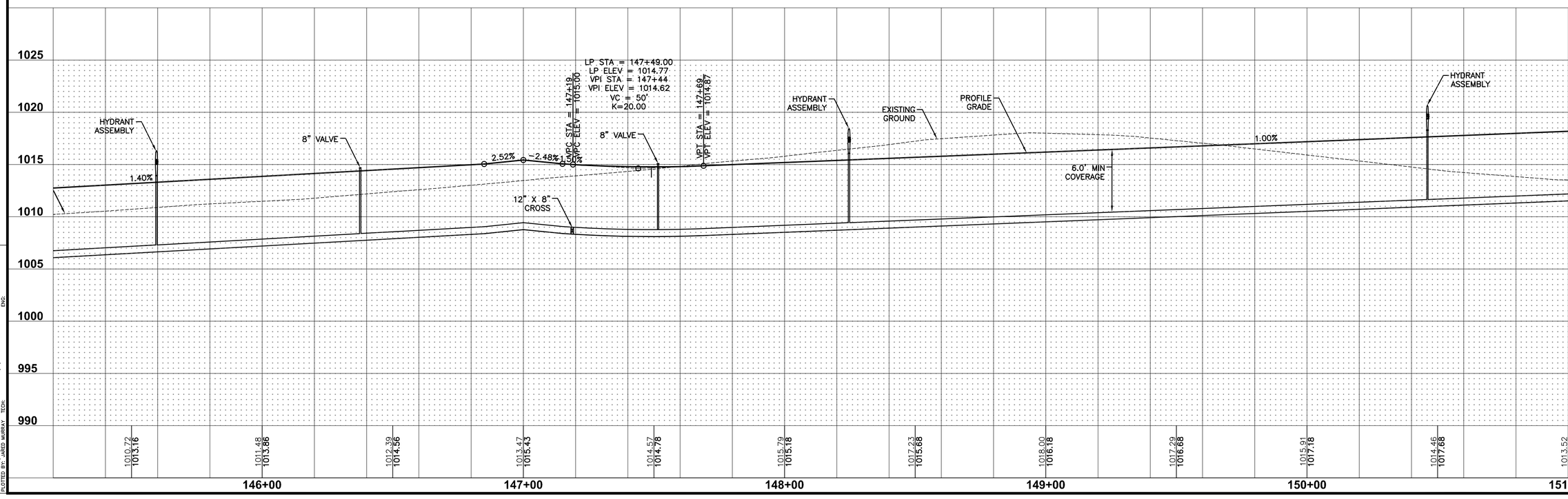
THE LANDING AT SHADOW CREEK PLAT 2
NE DELLWOOD COURT
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOTTED: 5/4/2015 10:34 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:





DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

ENGINEER: EKO | EI: JMM

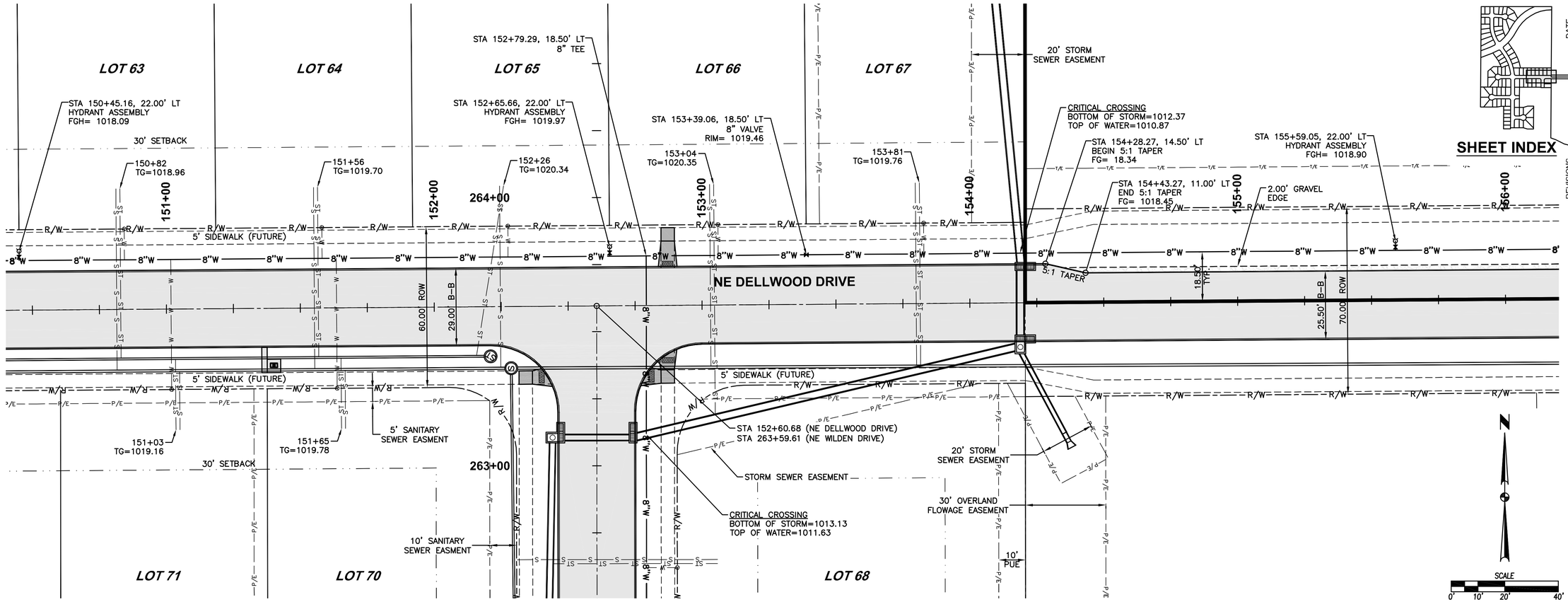
CIVIL DESIGN ADVANTAGE

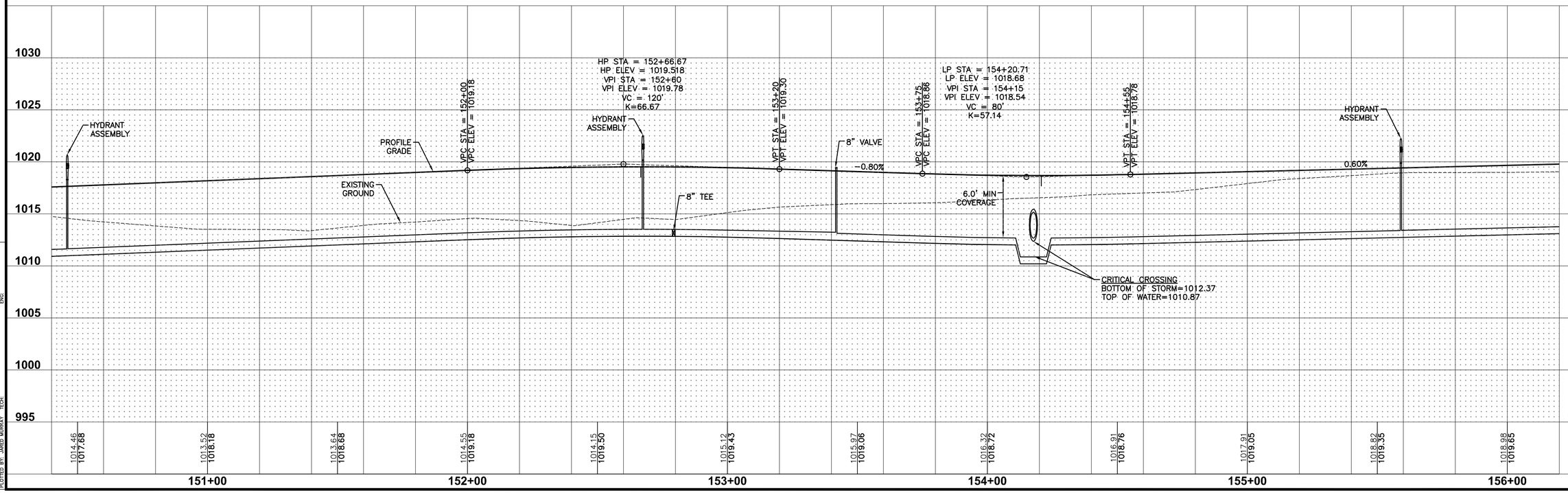
THE LANDING AT SHADOW CREEK PLAT 2
NE DELLWOOD DRIVE
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOTTED: 9/7/2016 8:13:24 AM
PLOTTED BY: JARED MURRAY
TECH:
COMMENT:
ENG:





SHEET INDEX

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
SIXTH SUBMITTAL	01/28/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE DELLWOOD DRIVE

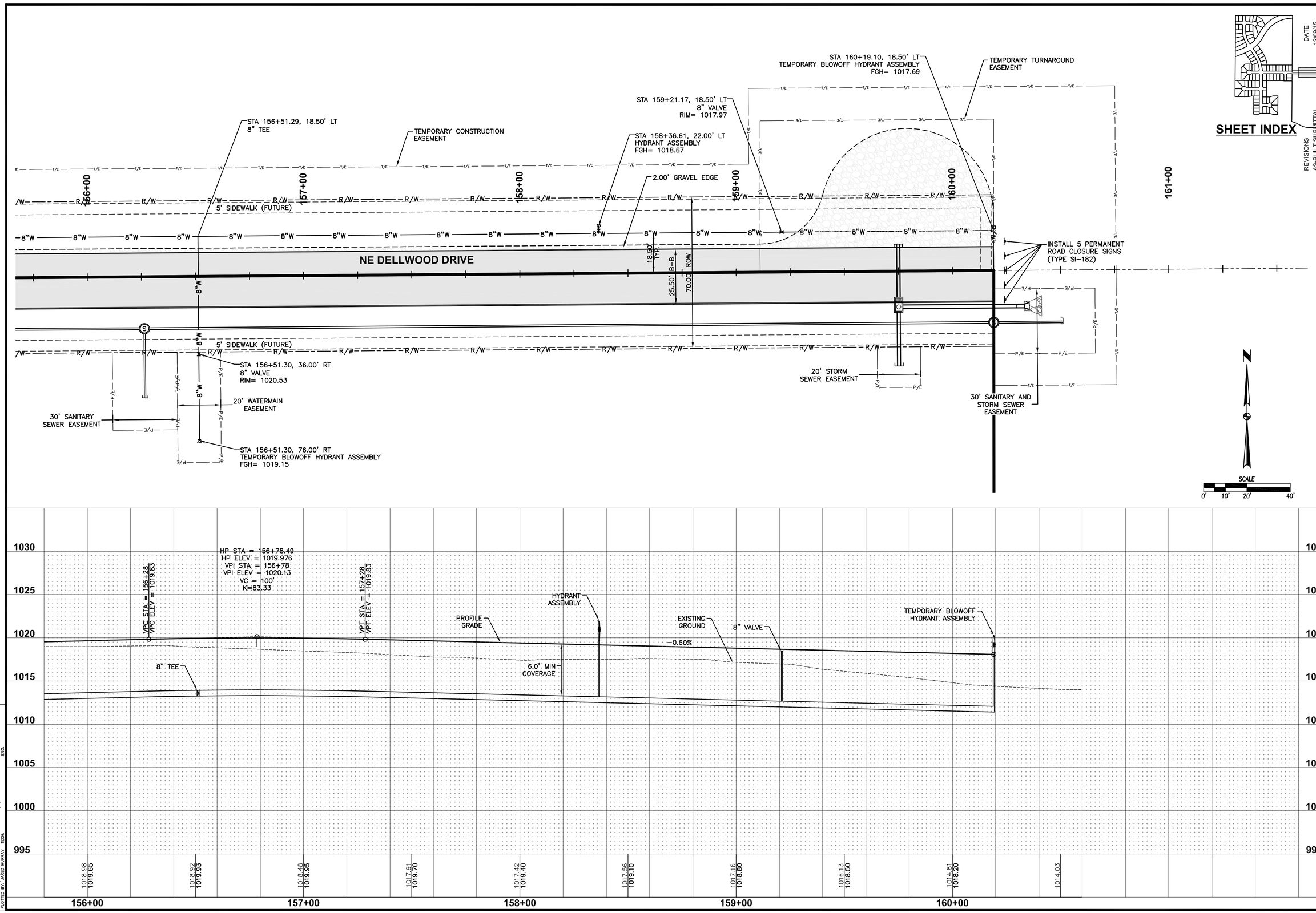
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

49/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOT DATE: 2/9/2015 11:29:04 AM
PLOTTED BY: JARED MURRAY
TECH:
COMMENT:
ENG:



SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

NE DELLWOOD DRIVE

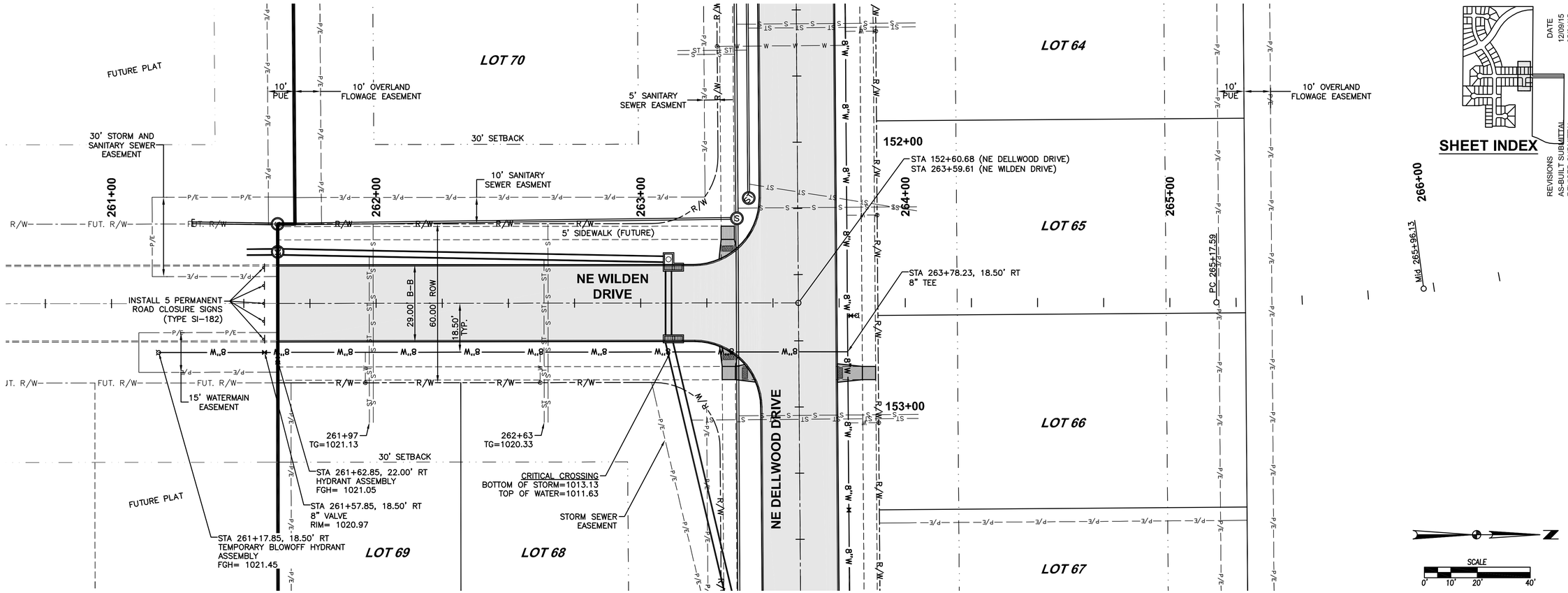
WATERMAIN PLAN AND PROFILE

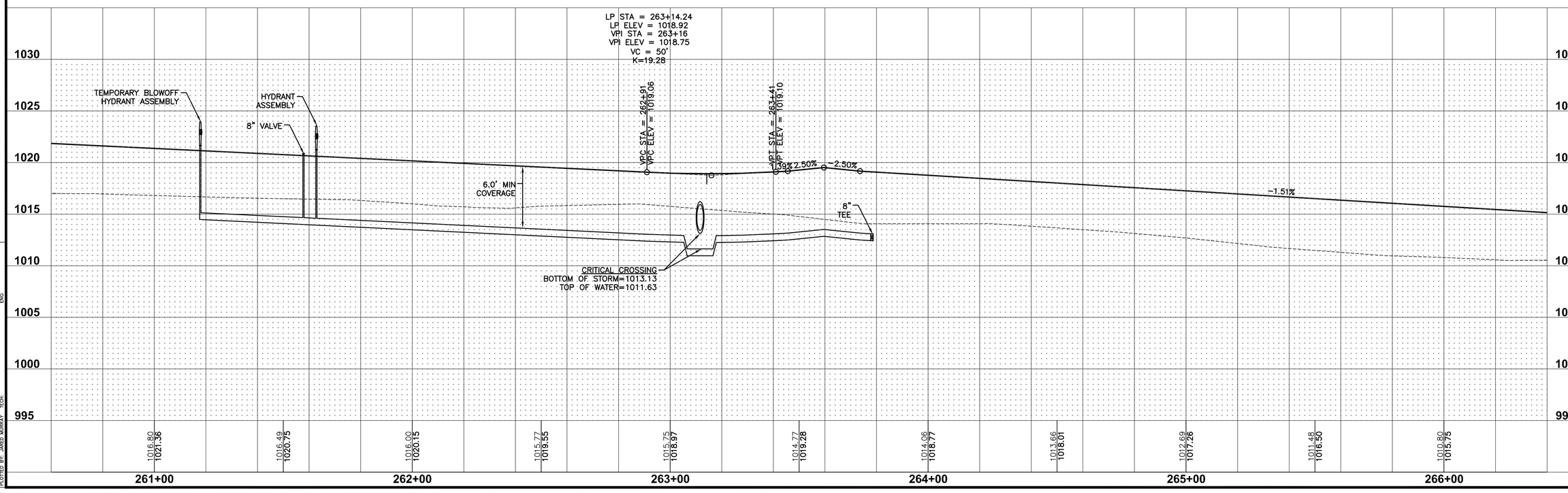
WAUKEE, IOWA

50/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PHP-WATERMAIN.DWG
PLOT DATE: 12/9/2015 10:03:34 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG





REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

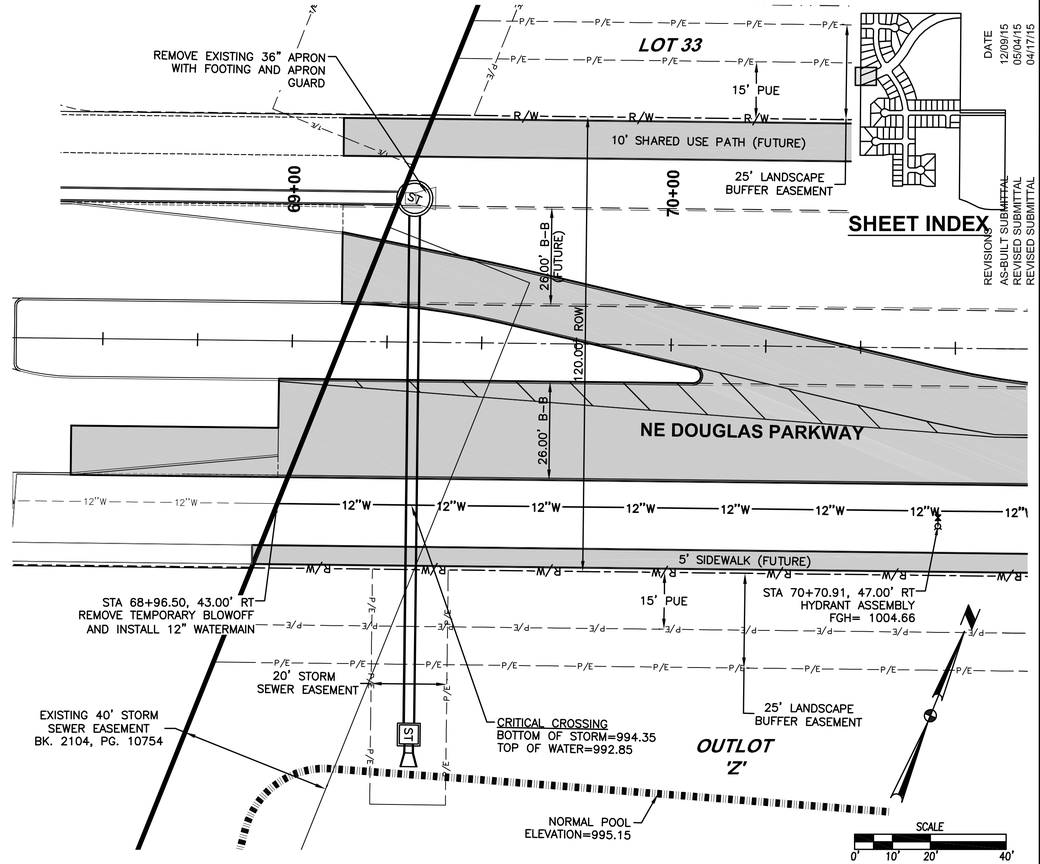
THE LANDING AT SHADOW CREEK PLAT 2
NE WILDEN DRIVE
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

51/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOT DATE: 12/9/2015 8:12:05 AM
PLOTTED BY: JARED MURRAY
TECH:
COMMENT:
ENG:



SHEET INDEX

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

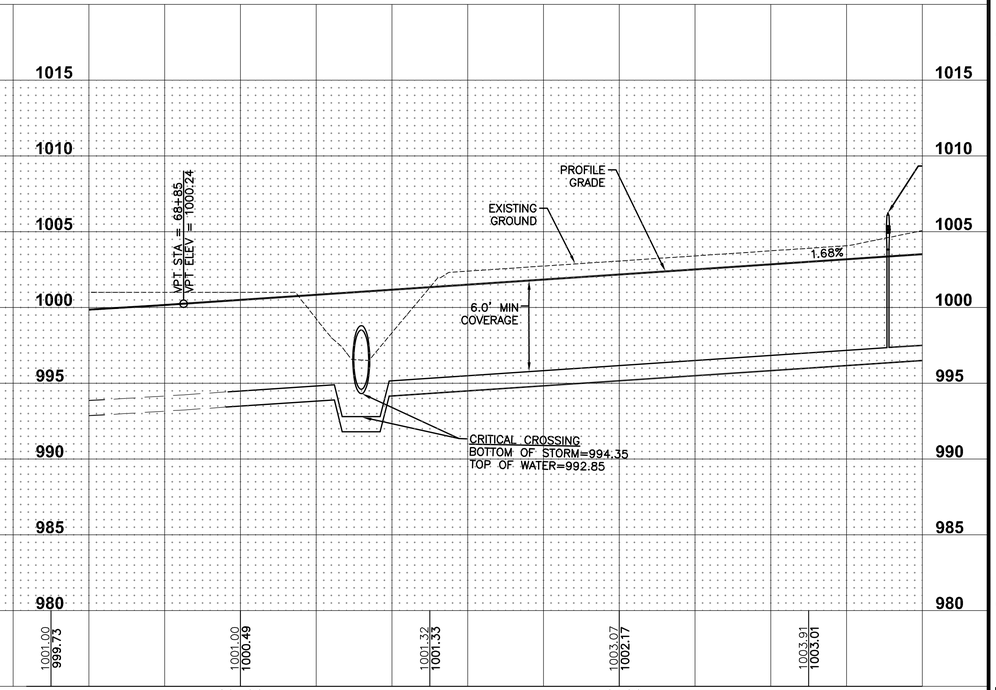
ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

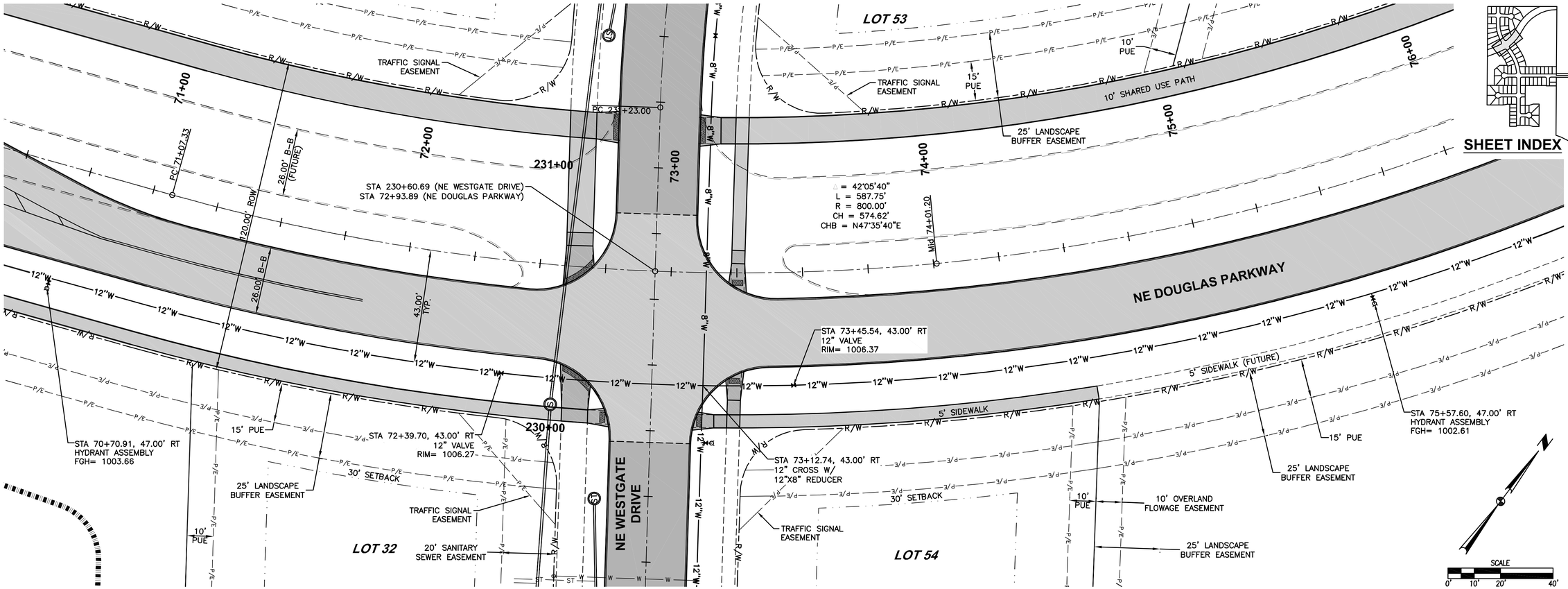
WATERMAIN PLAN AND PROFILE

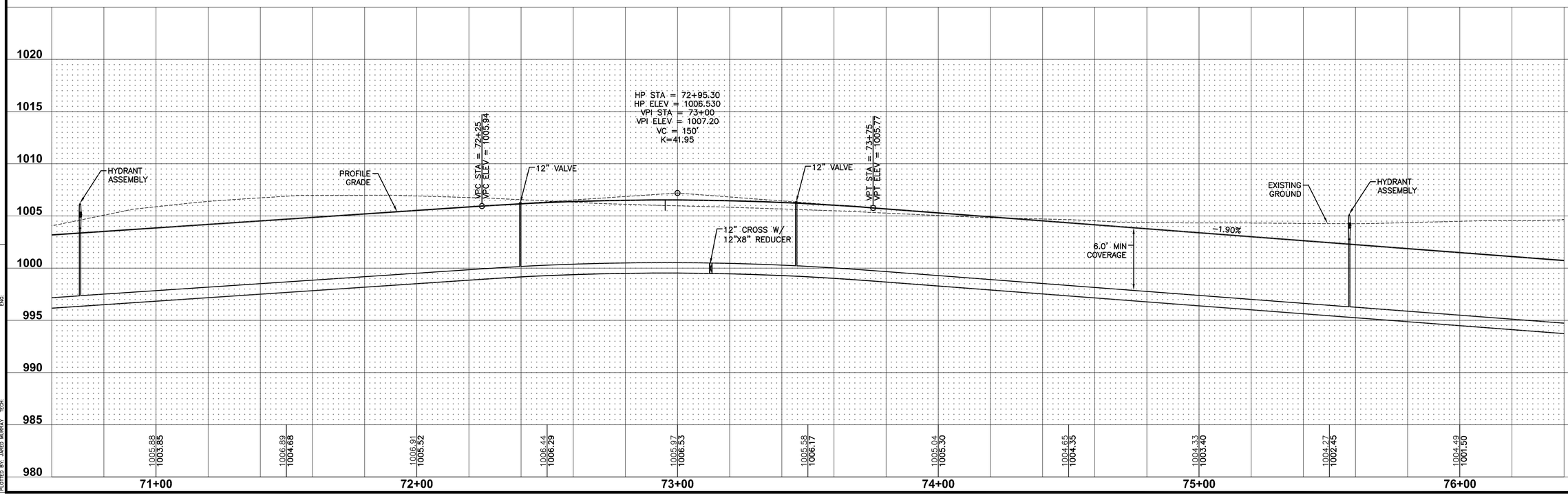
WAUKEE, IOWA



1408.409

FILE: H:\2014\1408409\DWG\1408409-PHP-WATERMAIN.DWG
PLOTTED BY: JARED MURRAY PLOTTED: 10/5/2015 10:33 AM
TECH: COMMENT: ENG.





SHEET INDEX

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

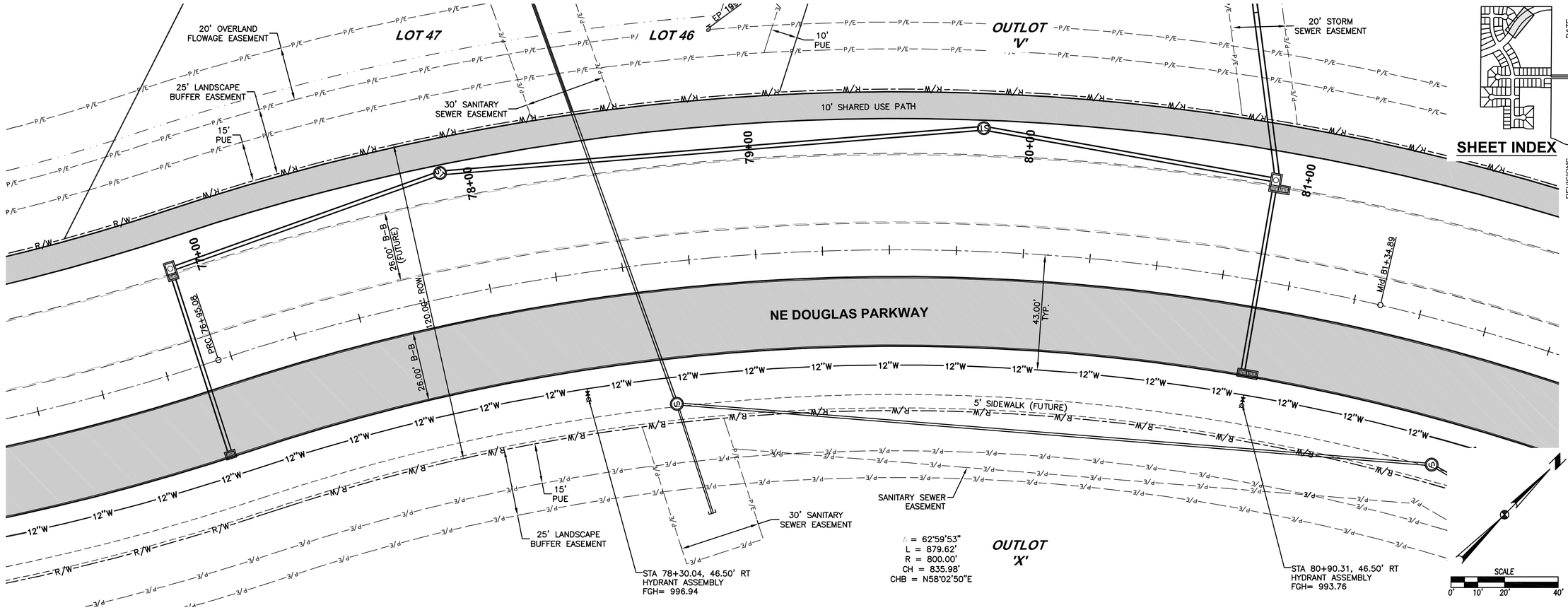
THE LANDING AT SHADOW CREEK PLAT 2
NE DOUGLAS PARKWAY
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

53/64

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOT DATE: 12/9/2015 8:12:05 AM
PLOTTED BY: JARED MURRAY
TECH:
COMMENT:
ENG:



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

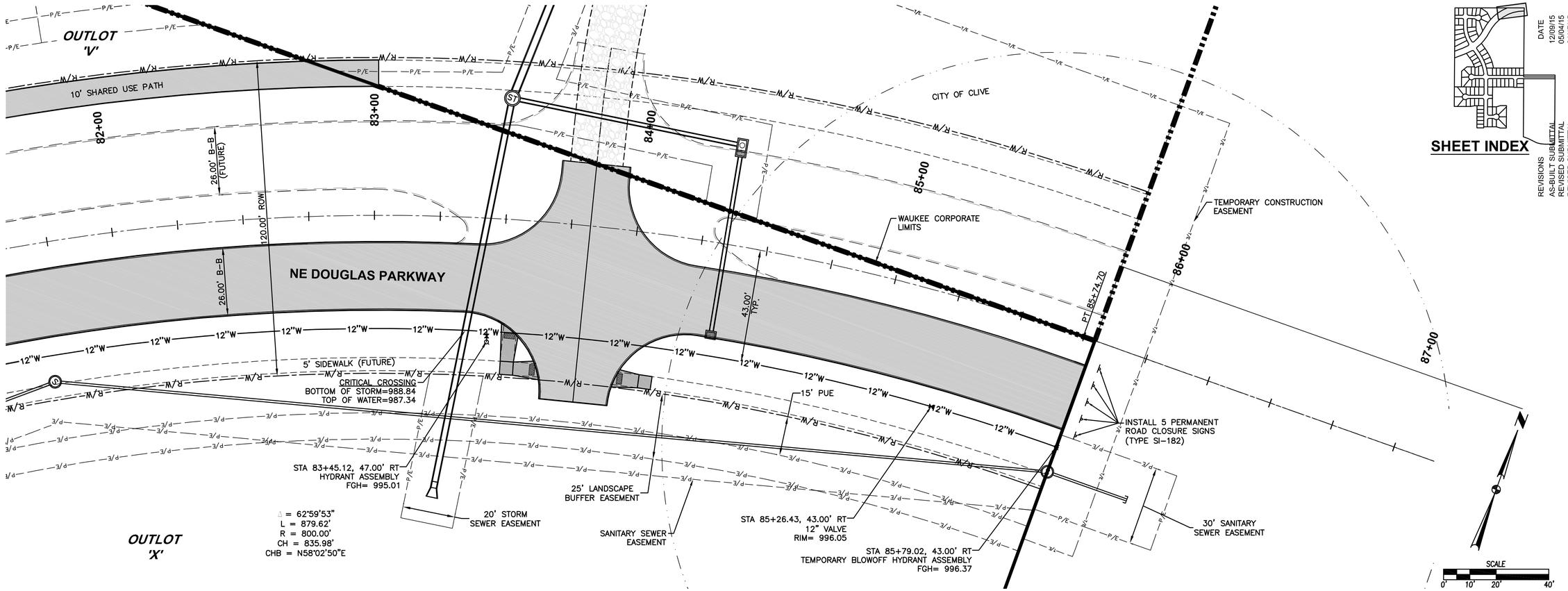
CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
NE DOUGLAS PARKWAY
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

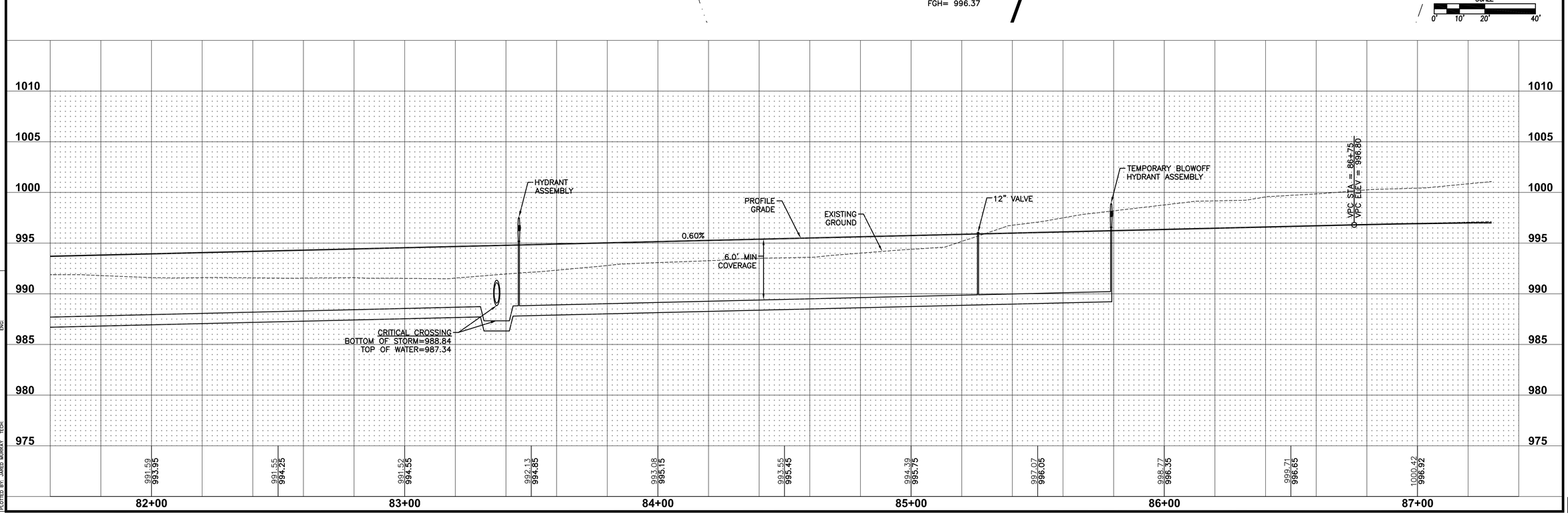
1408.409

FILE: H:\2014\1408409\GIWO\1408409-PWP-WATERMAIN.DWG
PLOT DATE/TIME: 9/4/2015 8:33 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:



SHEET INDEX

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL



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

THE LANDING AT SHADOW CREEK PLAT 2

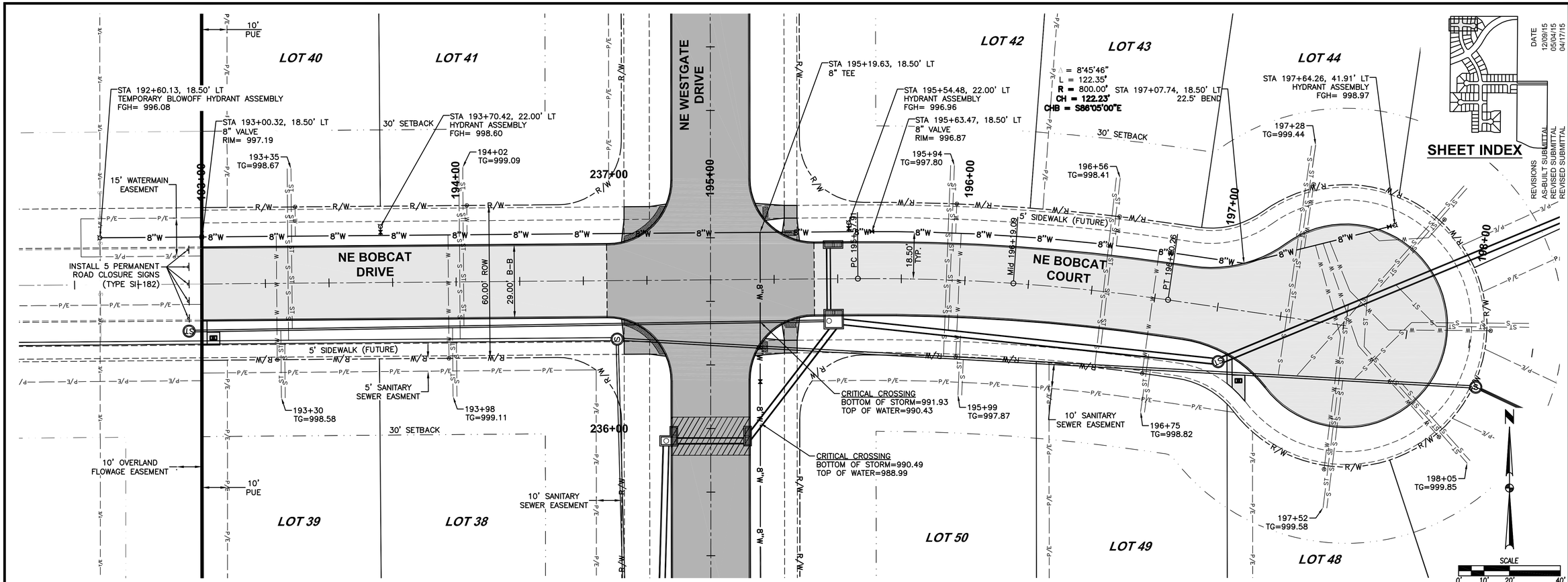
WATERMAIN PLAN AND PROFILE

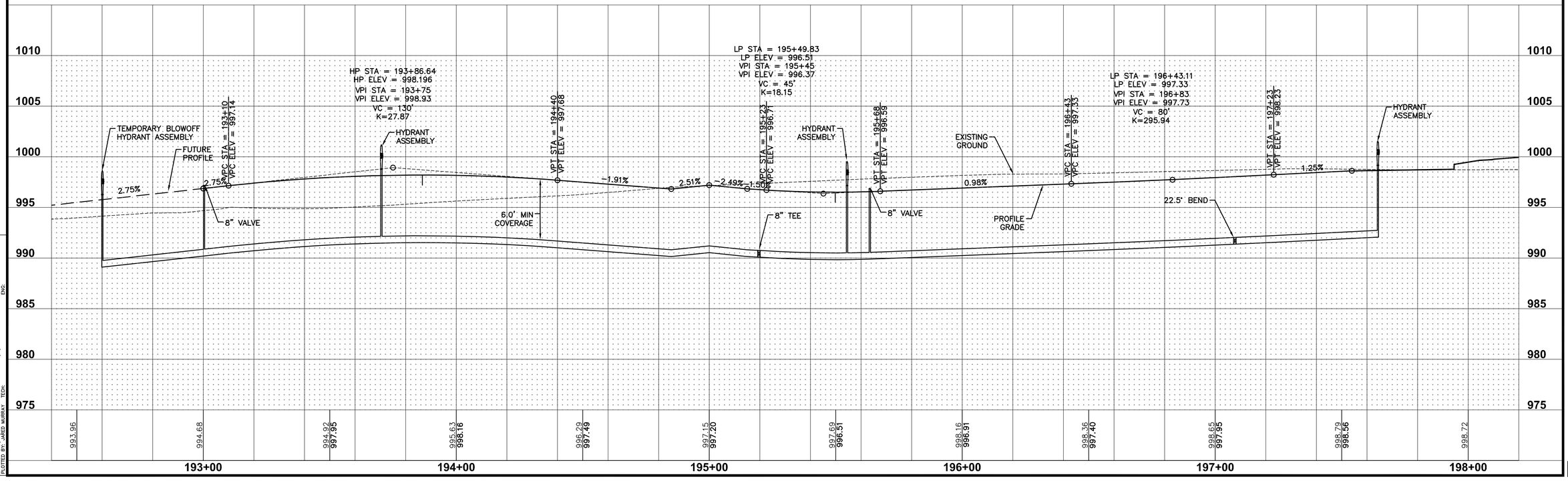
WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

1408.409

FILE: H:\2014\1408409\DWG\1408409-PWP-WATERMAIN.DWG
PLOT DATE: 12/9/2015 8:19:05 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.
TECH:





REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

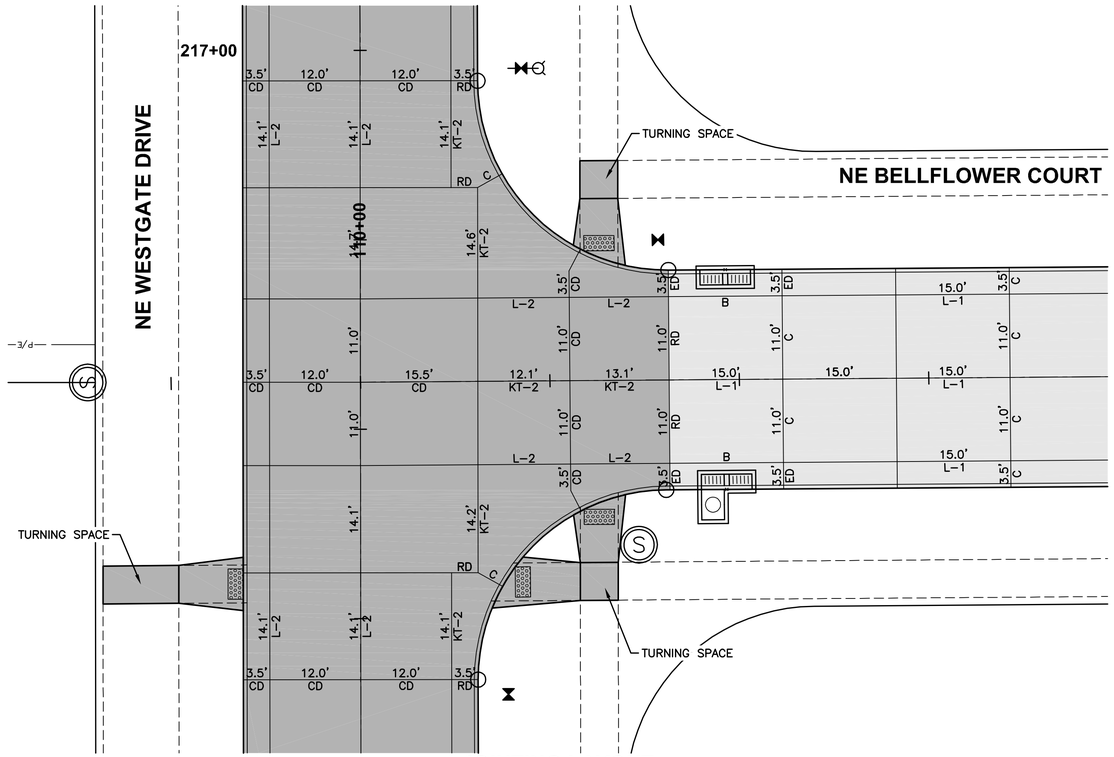
CIVIL DESIGN ADVANTAGE

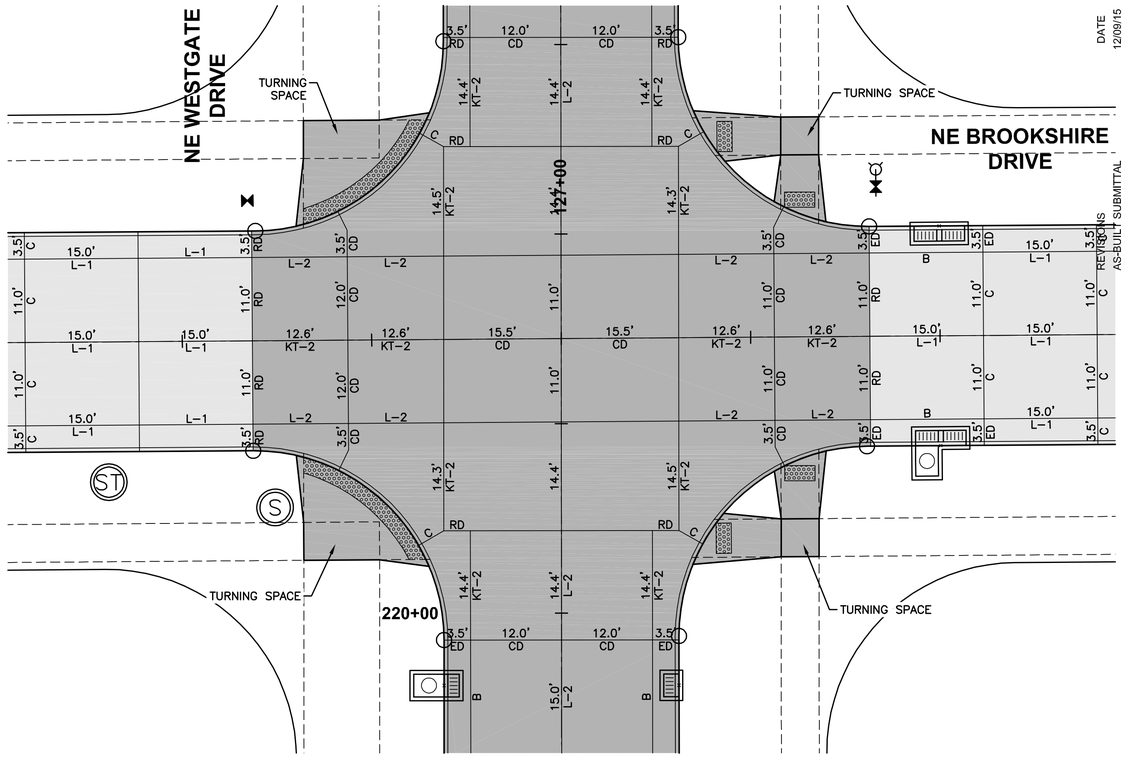
THE LANDING AT SHADOW CREEK PLAT 2

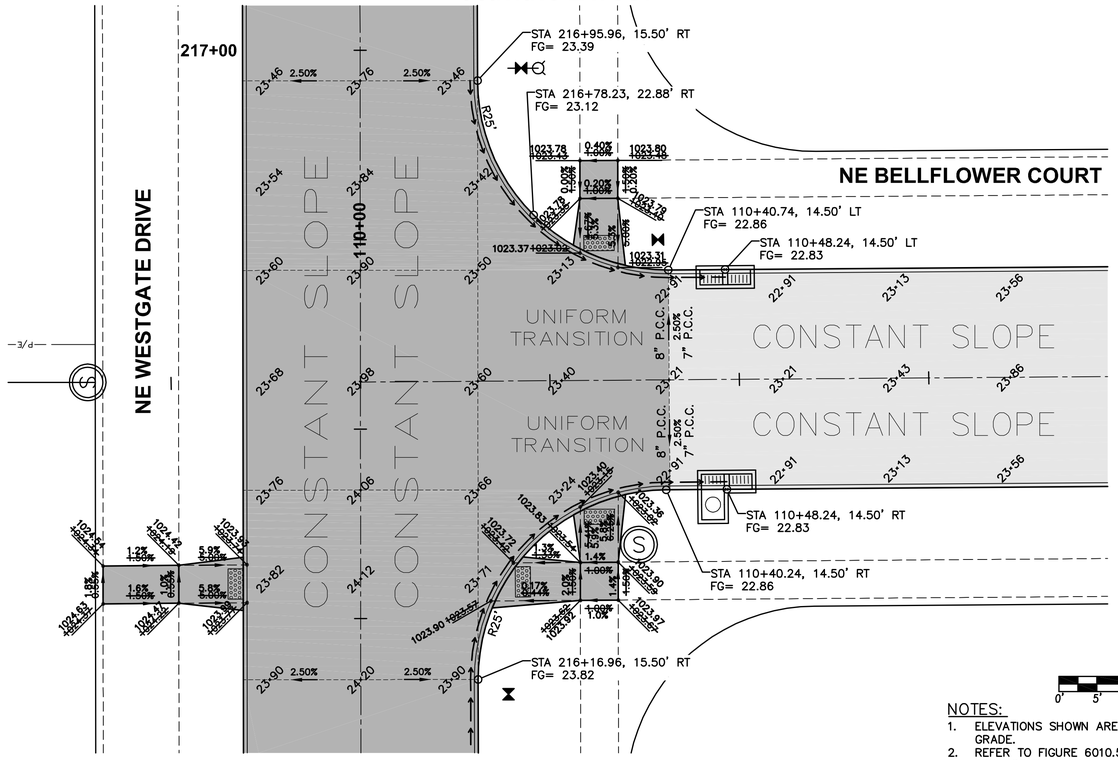
WATERMAIN PLAN AND PROFILE

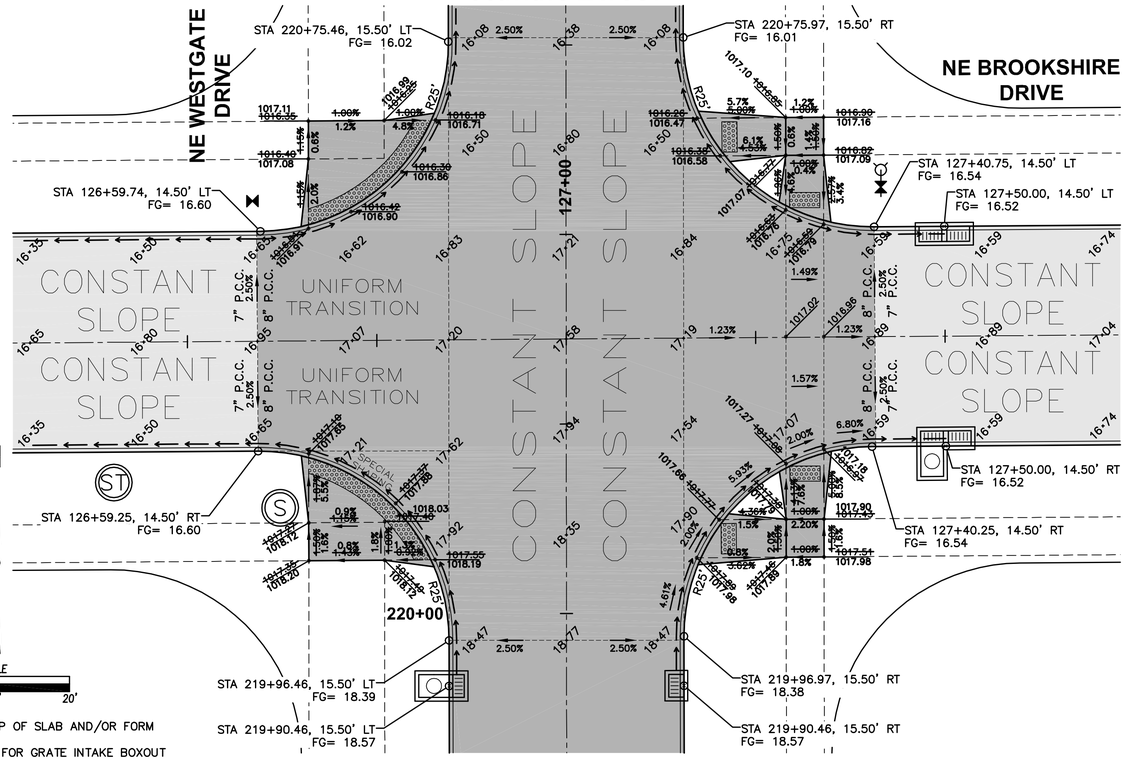
WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-PNP-WATERMAIN.DWG
PLOTTED BY: JARED MURRAY 9/4/2015 10:05 AM
TECH: CUTTER COMMENT: ENG:









SCALE
0' 5' 10' 20'

NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

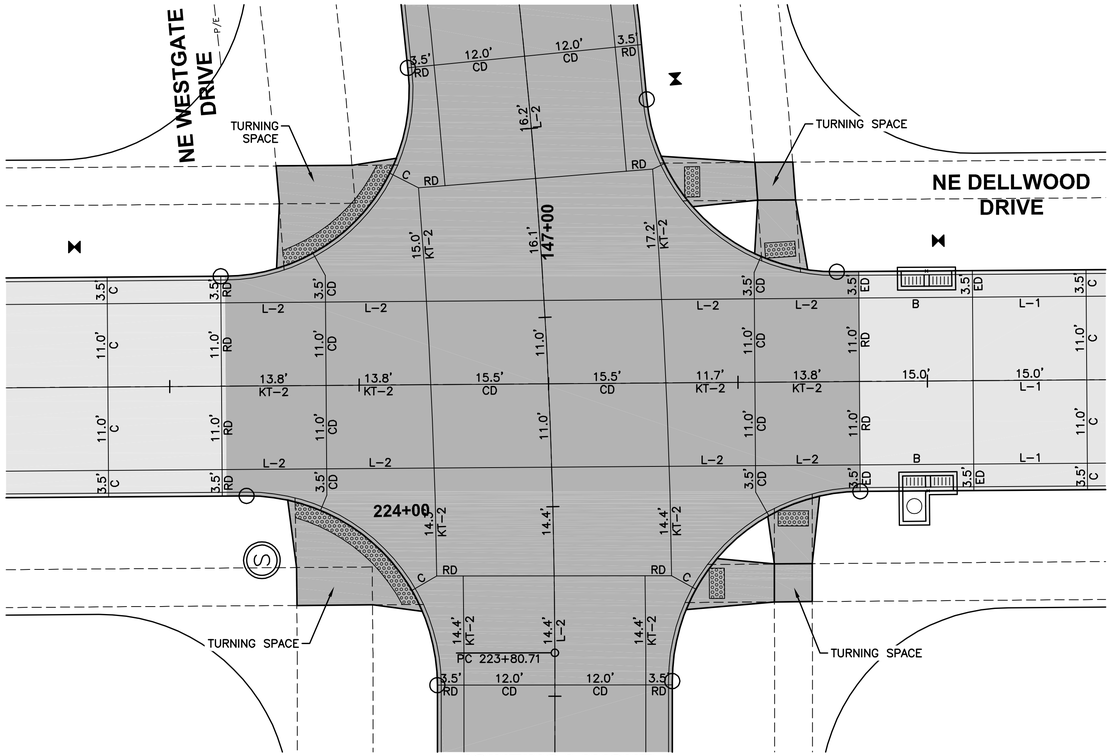
DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

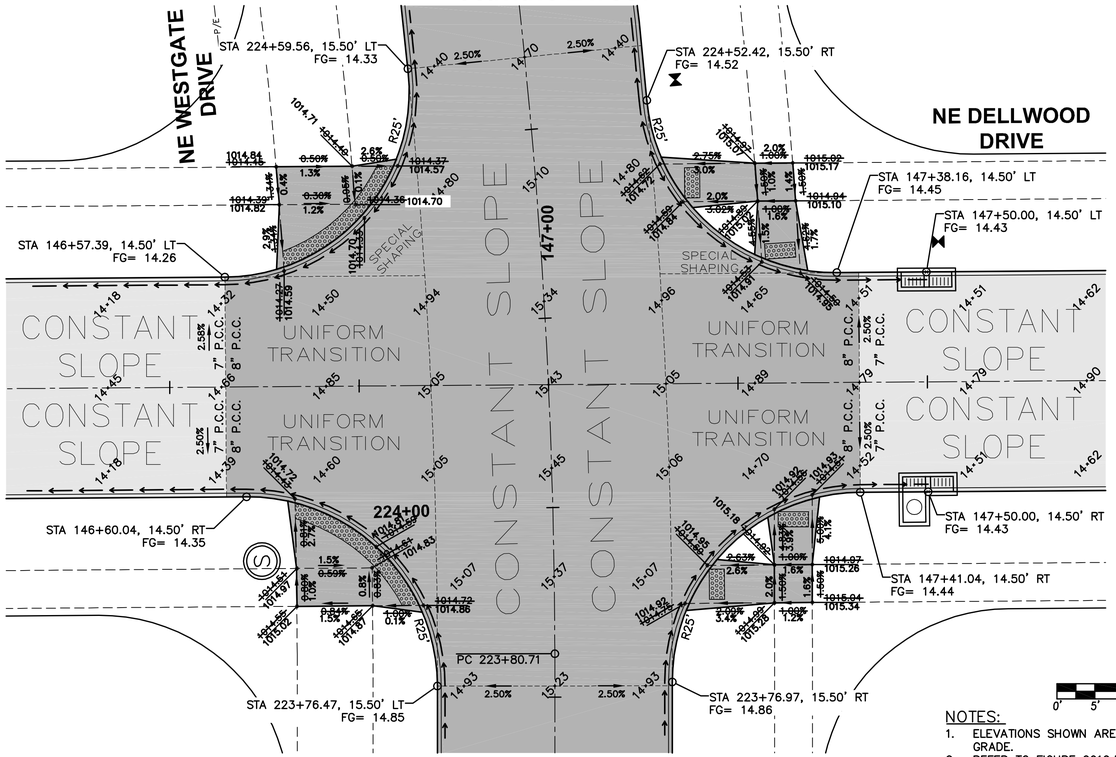
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

THE LANDING AT SHADOW CREEK PLAT 2
INTERSECTION DETAILS

FILE: H:\2014\1408409\DWG\1408409-INTERSECTION-AS-BUILT.DWG
PLOTTED BY: JARED MURRAY PLOTTED: 6/9/2015 10:16 AM
COMMENT:
ENG:
TECH:



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

FILE: H:\2014\1408409\DWG\1408409-INTERSECTION-AS-BUILT.DWG
PLOT DATE: 4/17/2015 8:57:37 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:

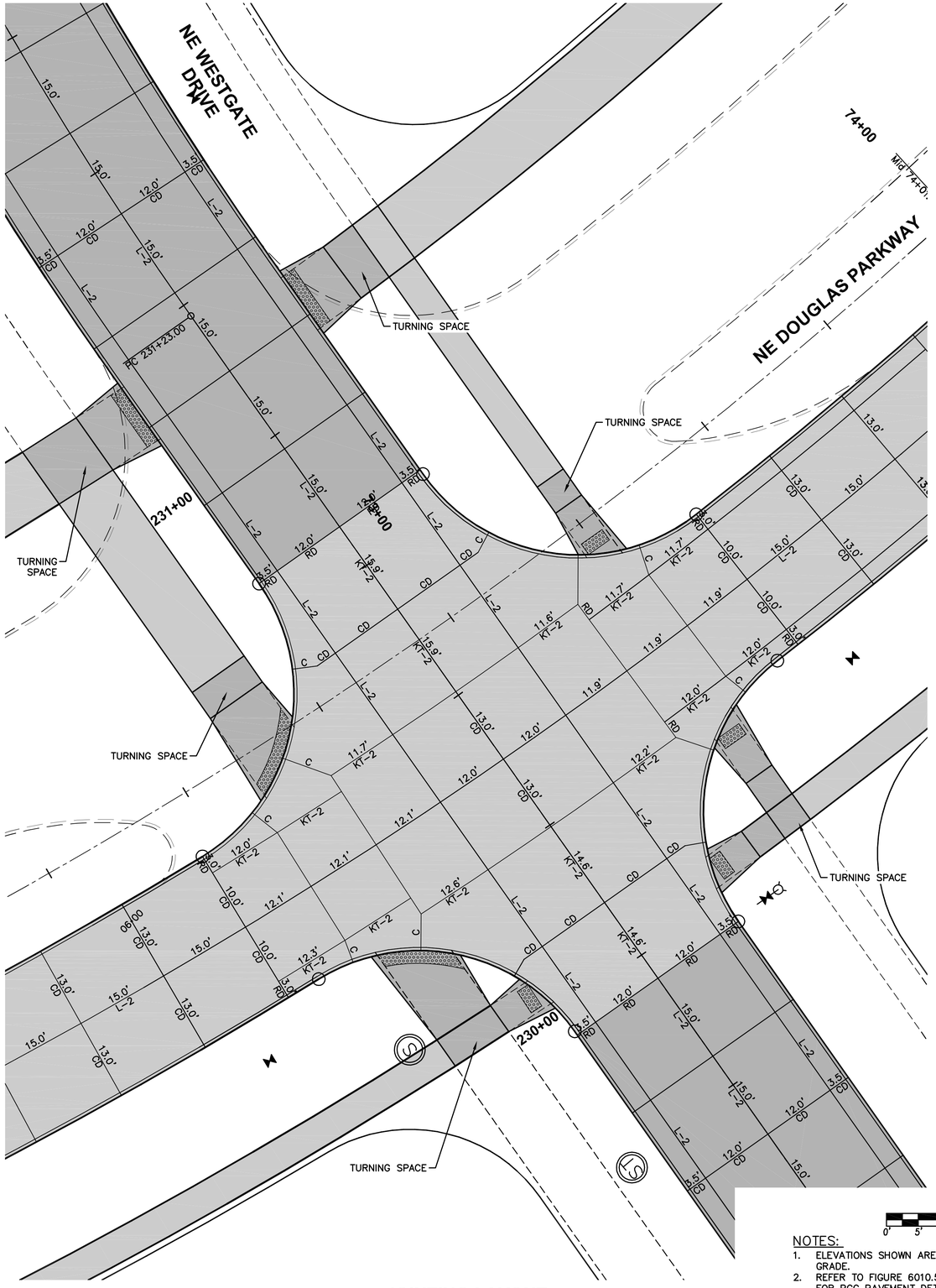
DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

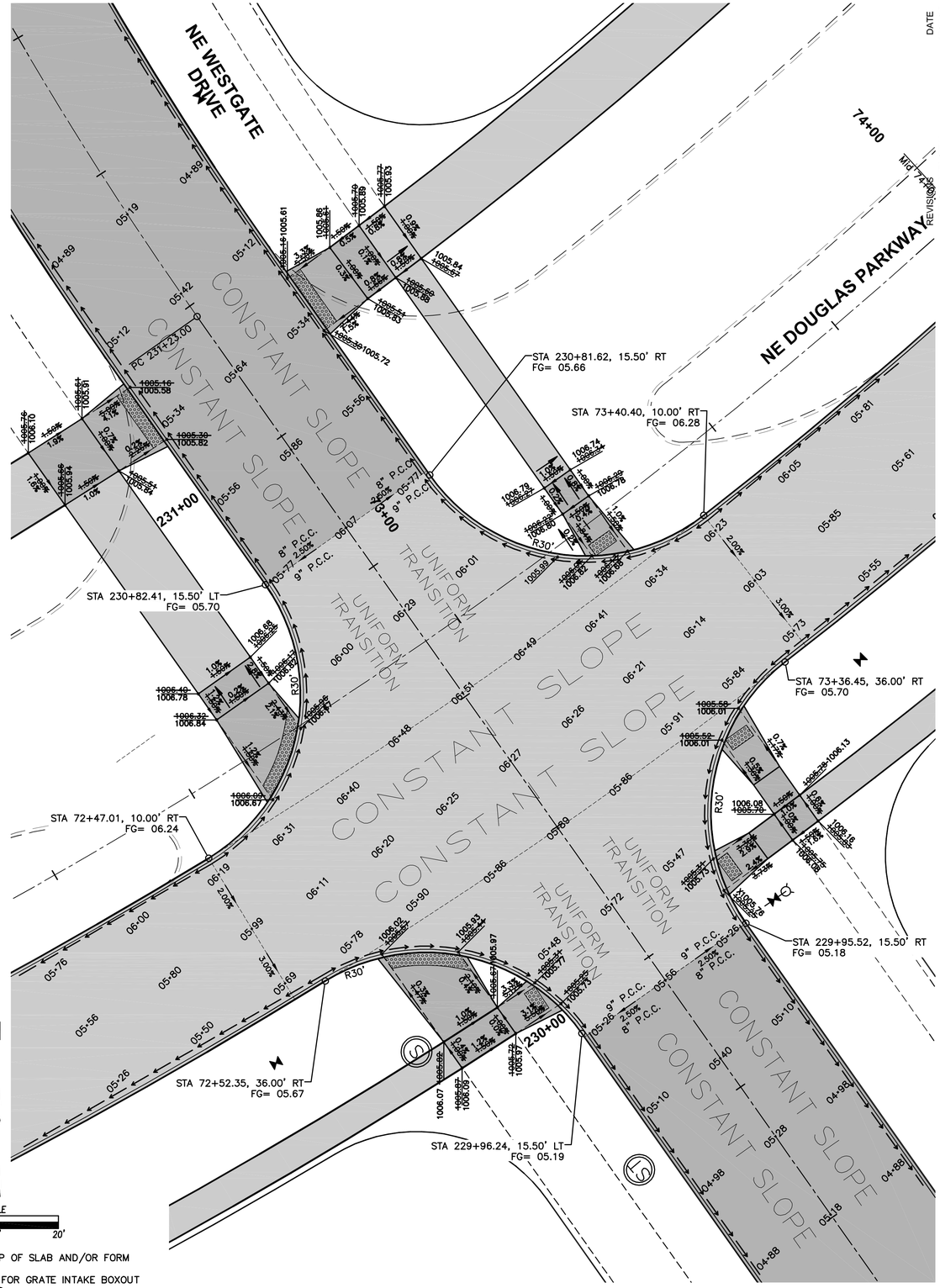
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM
CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
INTERSECTION DETAILS

WAUKEE, IOWA



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

SCALE
0' 5' 10' 20'

NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL
02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
INTERSECTION DETAILS

WAUKEE, IOWA

1408.409

FILE: P:\2014\1408409\DWG\1408409-INTERSECTION-AS-BUILT.DWG
PLOT SCALE: 1:1 PLOT DATE: 12/9/2015 10:47 AM
PLOTTED BY: JARED MURRAY TECH:
COMMENT: ENG:

NE WESTGATE DRIVE

NE BOBCAT COURT

NE BELLFLOWER COURT

TURNING SPACE

237+00

195+00

112+00

PC 195+57.61

JOINTING LAYOUT

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

SCALE 0' 5' 10' 20'

CONSTANT SLOPE

UNIFORM TRANSITION

SPECIAL SHAPING

STA 236+97.65, 15.50' LT FG= 97.22

STA 236+98.22, 15.50' RT FG= 97.22

STA 194+59.78, 14.50' LT FG= 96.96

STA 195+40.78, 14.50' LT FG= 96.18

STA 195+48.28, 14.50' LT FG= 96.16

STA 194+59.23, 14.50' RT FG= 96.97

STA 195+48.28, 14.50' RT FG= 96.16

STA 195+40.23, 14.50' RT FG= 96.18

STA 236+18.65, 15.50' LT FG= 96.47

STA 236+19.22, 15.50' RT FG= 96.47

STA 112+02.80, 40.00' LT FG= 27.54

STA 112+27.80, 31.22' LT FG= 28.75

STA 111+74.90, 28.67' LT FG= 26.72

STA 111+40.03, 14.50' LT FG= 25.67

STA 112+42.80, 0.00' FG= 30.11

STA 111+40.03, 14.50' RT FG= 25.67

STA 111+74.90, 28.67' RT FG= 26.72

STA 112+02.80, 40.00' RT FG= 27.54

STA 112+27.80, 31.22' RT FG= 28.75

GEOMETRICS AND STAKING LAYOUT

REVISIONS	DATE
FINAL SUBMITTAL	02/09/15
AS-BUILT SUBMITTAL	12/09/15
SIXTH SUBMITTAL	01/29/15
REVISED SUBMITTAL	05/04/15
FIFTH SUBMITTAL	01/19/15
REVISED SUBMITTAL	04/17/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

ENGINEER: EKO | EI: JMM

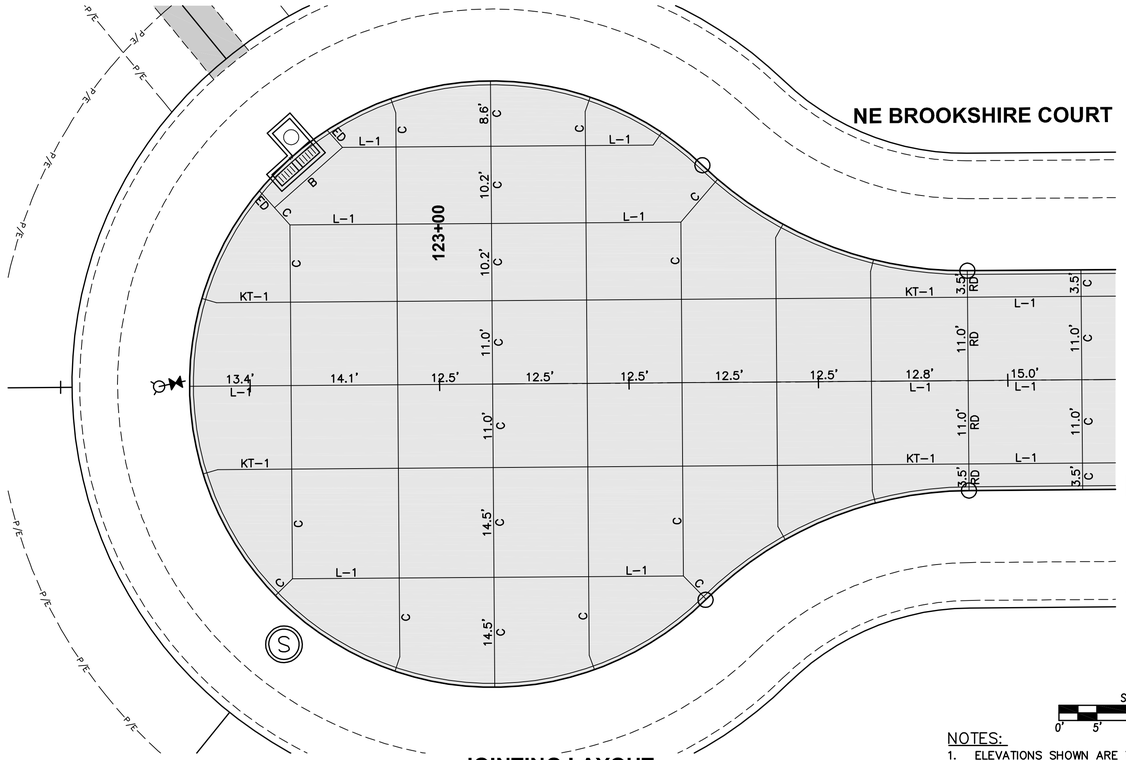
CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

THE LANDING AT SHADOW CREEK PLAT 2

INTERSECTION DETAILS

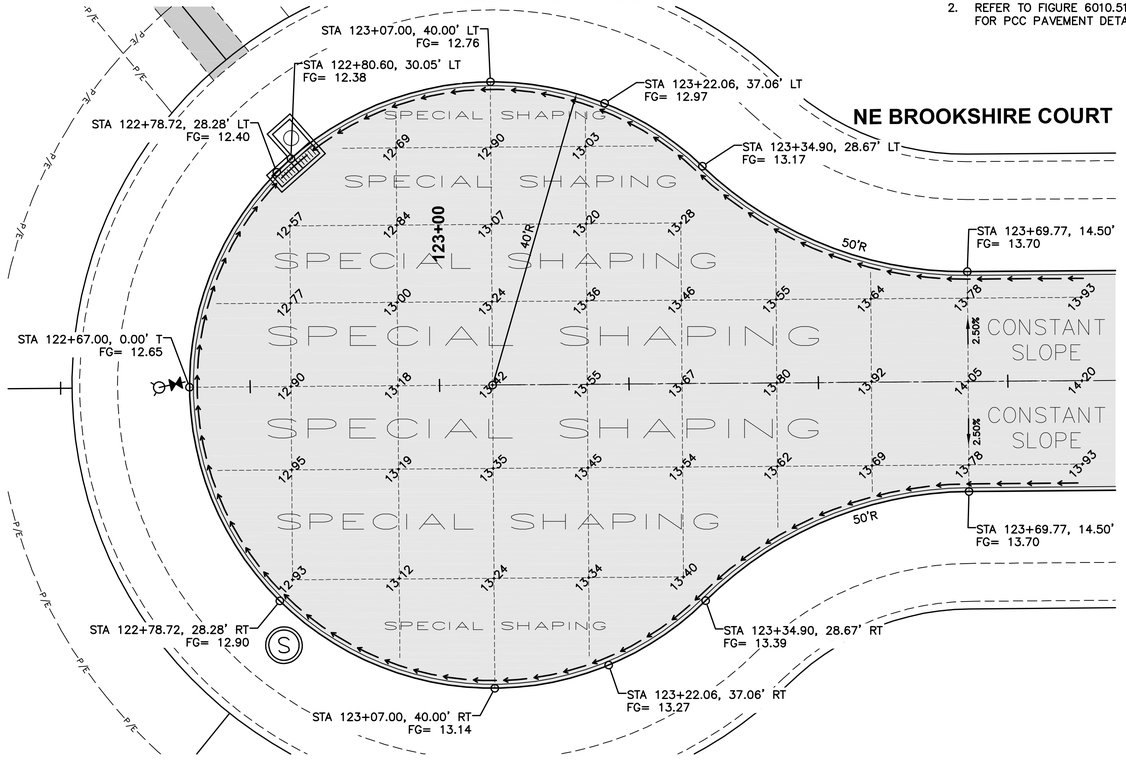
FILE: P:\2014\1408409\DWG\1408409-INTERSECTION-AS-BUILT.DWG
PLOT DATE: 9/4/2015 10:47 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG.



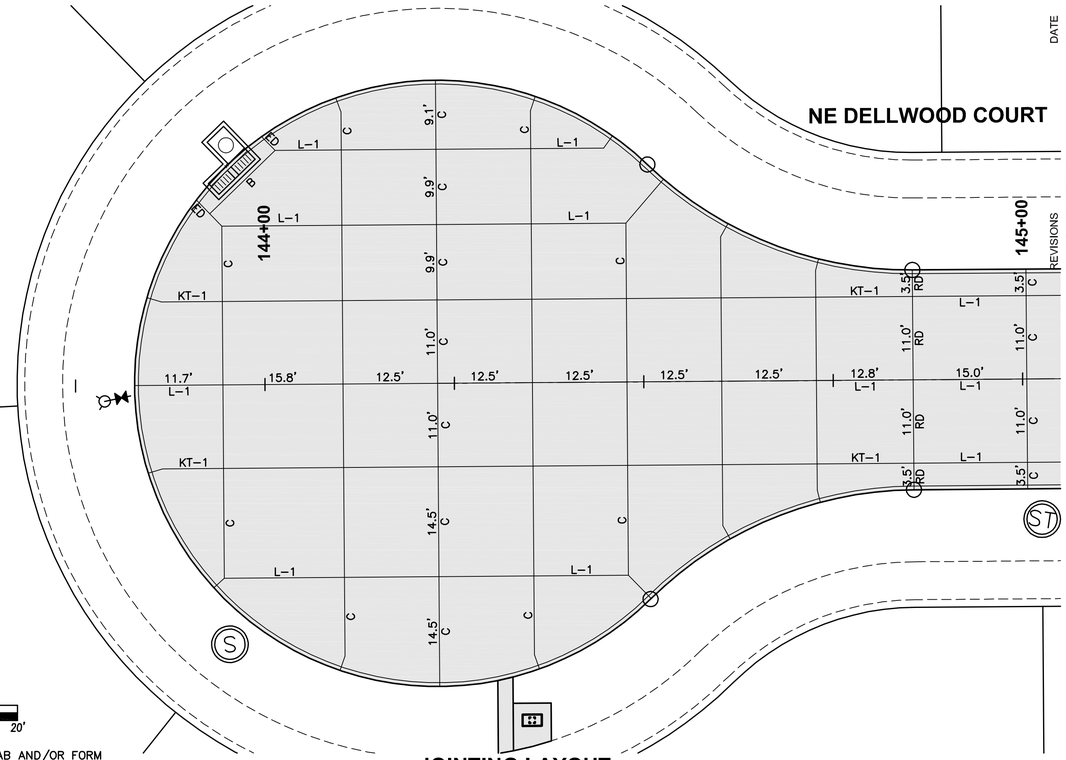
JOINTING LAYOUT

NOTES:

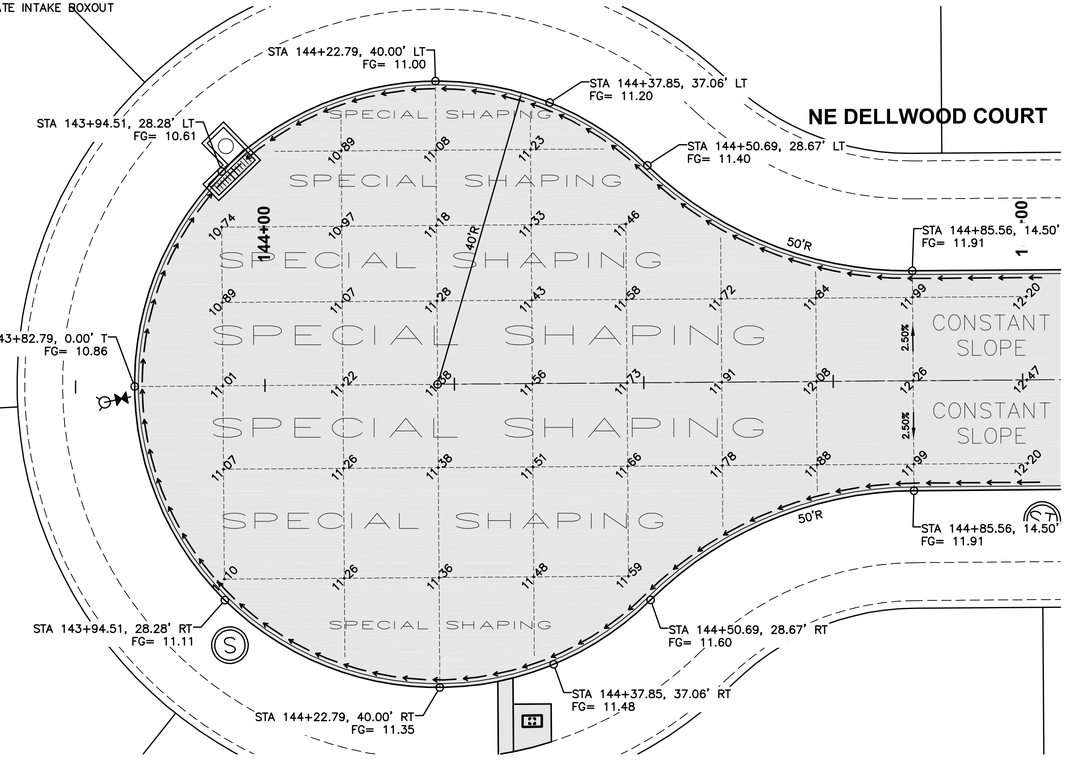
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.



GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

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

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

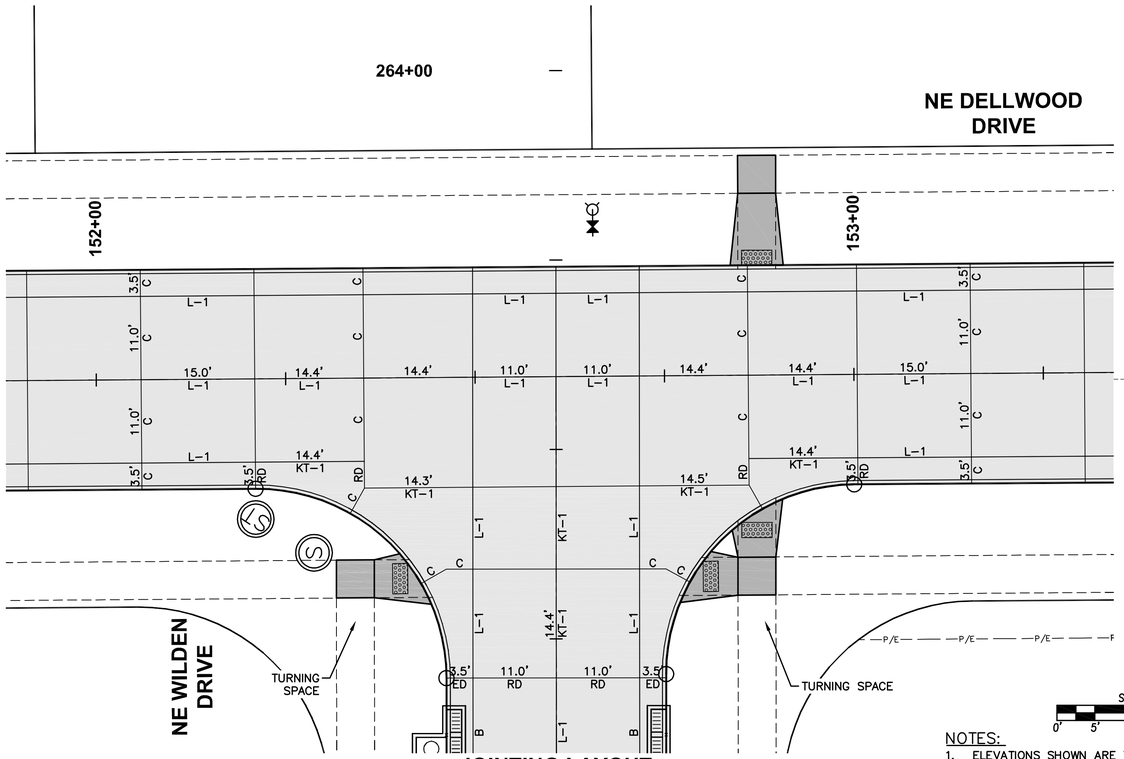
THE LANDING AT SHADOW CREEK PLAT 2

INTERSECTION DETAILS

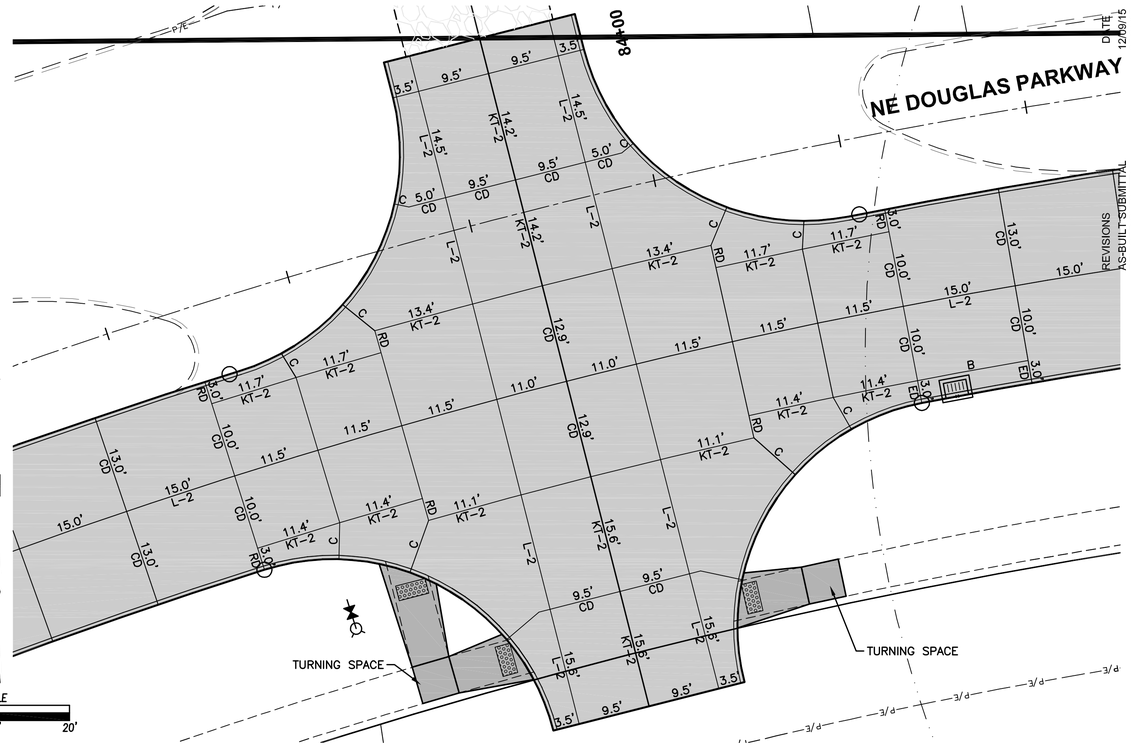
61/64

1408.409

FILE: J:\2014\1408409\DWG\1408409-INTERSECTION-AS-BUILT.DWG
PLOT SCALE: 1:1 PLOT STYLE: FULL COLOR PAGE SETUP: ANSI D
PLOTTED BY: JARED MURRAY TECH: COMMENT: ENG.



JOINTING LAYOUT

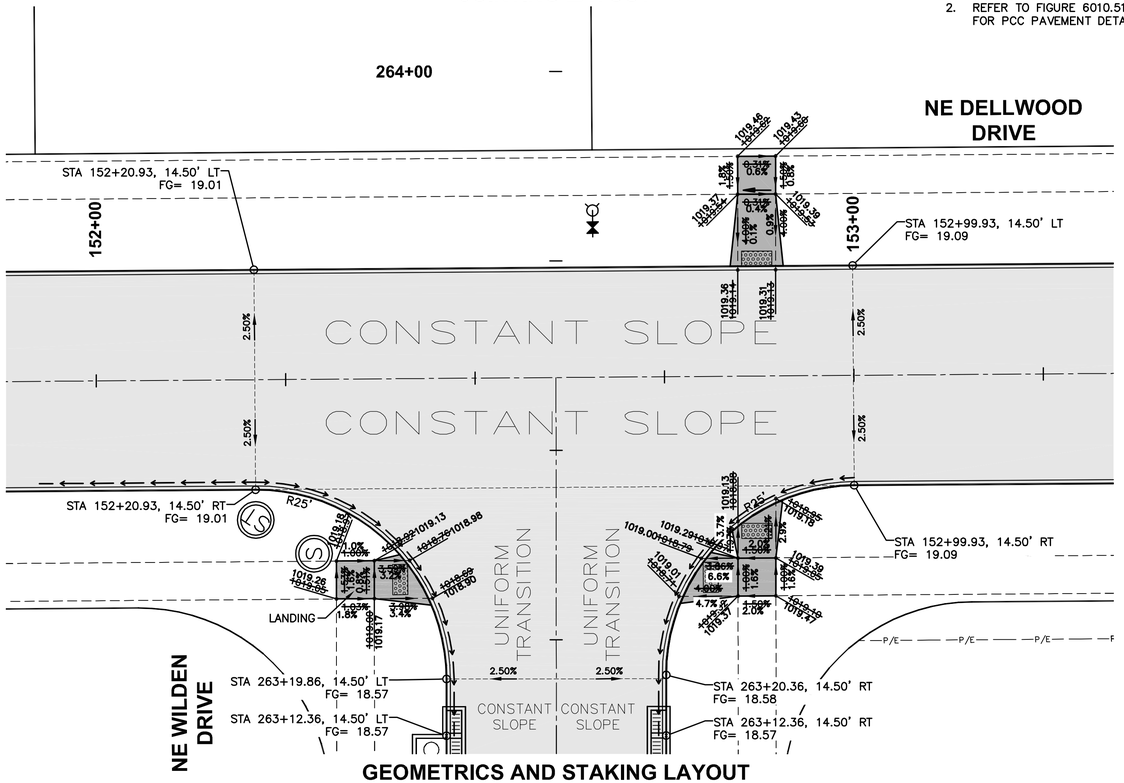


JOINTING LAYOUT

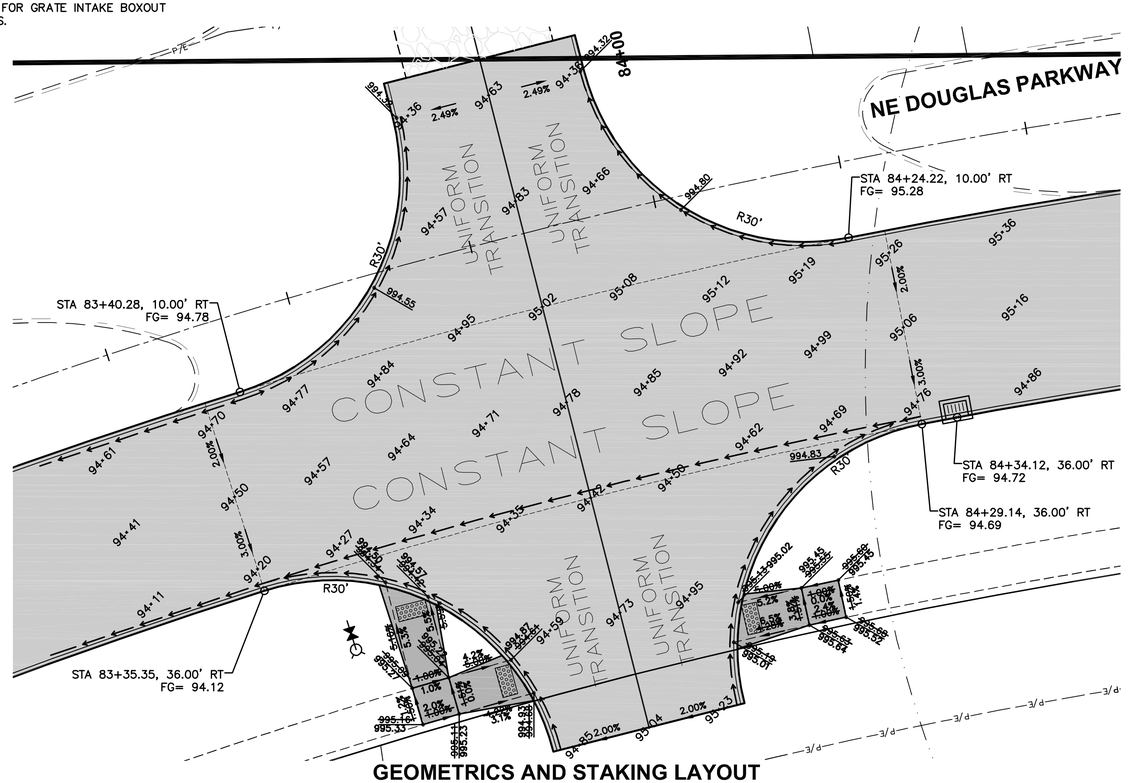
NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

SCALE 0' 5' 10' 20'



GEOMETRICS AND STAKING LAYOUT



GEOMETRICS AND STAKING LAYOUT

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

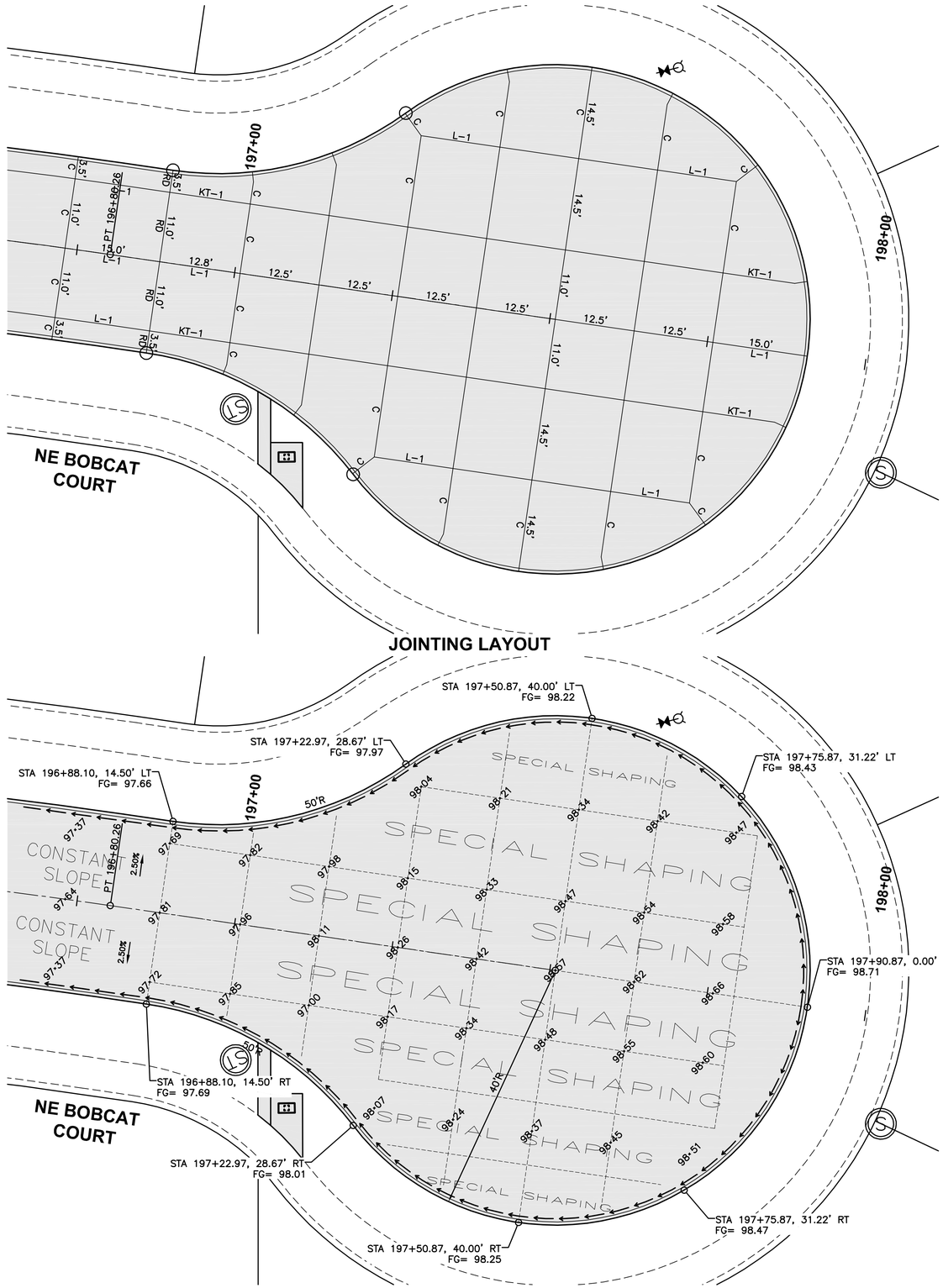
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

THE LANDING AT SHADOW CREEK PLAT 2
INTERSECTION DETAILS

1408.409

FILE: J:\2014\1408409\DWG\1408409-INTERSECTION-AS-BUILT.DWG
PLOT DATE: 9/4/2015 10:48 AM
PLOTTED BY: JARED MURRAY
COMMENT: ENG
TECH:



JOINTING LAYOUT

GEOMETRICS AND STAKING LAYOUT

SCALE
0' 5' 10' 20'

NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

REVISIONS	DATE
AS-BUILT SUBMITTAL	12/09/15
REVISED SUBMITTAL	05/04/15
REVISED SUBMITTAL	04/17/15

FINAL SUBMITTAL	02/09/15
SIXTH SUBMITTAL	01/29/15
FIFTH SUBMITTAL	01/19/15
FOURTH SUBMITTAL	12/22/14
THIRD SUBMITTAL	11/06/14
SECOND SUBMITTAL	10/21/14
FIRST SUBMITTAL	10/07/14

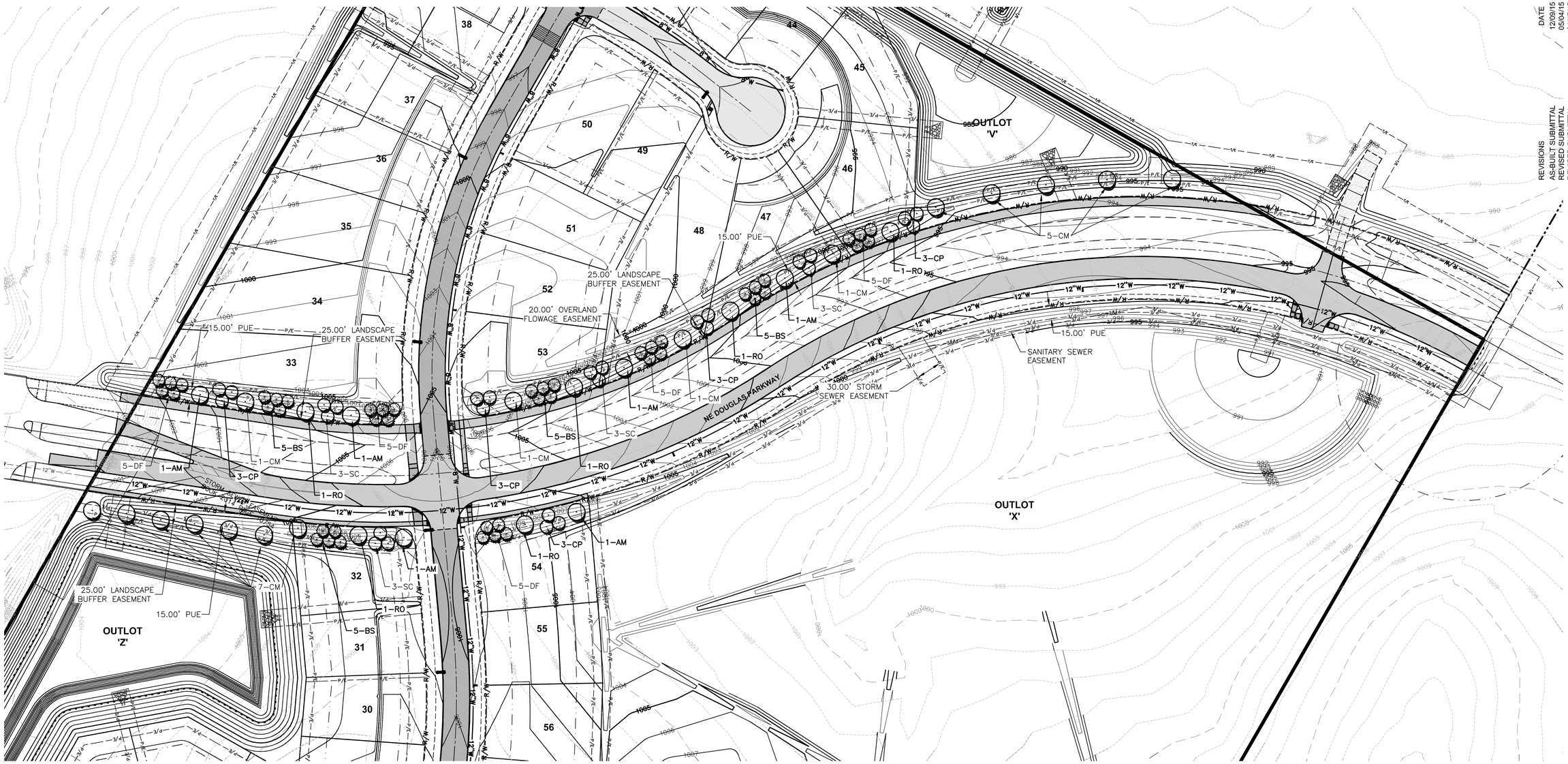
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JMM

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2
INTERSECTION DETAILS

WAUKEE, IOWA

FILE: H:\2014\1408409\DWG\1408409-INTERSECTION-AS-BUILT.DWG
REVISED: 4/17/15 LAST EDITED: 4/17/2015 10:16 AM
PLOTTED BY: JARED MURRAY
COMMENT:
ENG:
TECH:



LANDSCAPE NOTES

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

BUFFER REQUIREMENTS

1 OVERSTORY TREE, 2 EVERGREEN TREES AND 2 ORNAMENTAL TREES PER 50 LF

NE DOUGLAS PARKWAY BUFFER (1000 LF)

OVERSTORY TREES REQUIRED	=20
EVERGREEN TREES REQUIRED	=40
ORNAMENTAL TREES REQUIRED	=40
OVERSTORY TREES PROVIDED	=28
EVERGREEN TREES PROVIDED	=45
ORNAMENTAL TREES PROVIDED	=27

PLANT SCHEDULE

CODE	QTY			SIZE	COND
AM	6	AUTUMN BLAZE MAPLE	ACER RUBRUM 'AUTUMN BLAZE'	1.5" CAL	B&B
CP	15	CHANTICLEER PEAR	PYRUS CALLERYANA 'GLENS'S FORM'	1.5" CAL	B&B
BS	20	COLORADO BLUE SPRUCE	PICEA PUNGENS	6' HT.	B&B
CM	16	CRIMSON KING MAPLE	ACER PLATANOIDES	2" CAL	B&B
RO	6	RED OAK	QUERCUS RUBRA	2" CAL	B&B
DF	25	DOUGLAS FIR	PSEUDOTSGA MENZIESII	6' HT.	B&B
SC	12	SPRING SNOW CRAB	MALUS X 'SPRING SNOW'	1.5" CAL	B&B

SCALE 0' 30' 60' 120'

DATE	REVISIONS
12/09/15	AS-BUILT SUBMITTAL
05/04/15	REVISED SUBMITTAL
04/17/15	REVISED SUBMITTAL

02/09/15	FINAL SUBMITTAL
01/29/15	SIXTH SUBMITTAL
01/19/15	FIFTH SUBMITTAL
12/22/14	FOURTH SUBMITTAL
11/06/14	THIRD SUBMITTAL
10/21/14	SECOND SUBMITTAL
10/07/14	FIRST SUBMITTAL

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

CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 2

WAUKEE, IOWA

LANDSCAPE PLAN

64/64

1408.409

FILE: N:\2014\1408409\DWG\1408409_LANDSCAPE.DWG
PLOT DATE & TIME: 12/9/2015 10:48 AM COMMENT:
PLOTTED BY: JARED MURRAY TECH: ENG.