

Madison, Wisconsin
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W6	WATER ESTIMATE OF MATERIALS

CITY OF MADISON

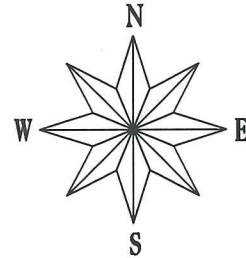
CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

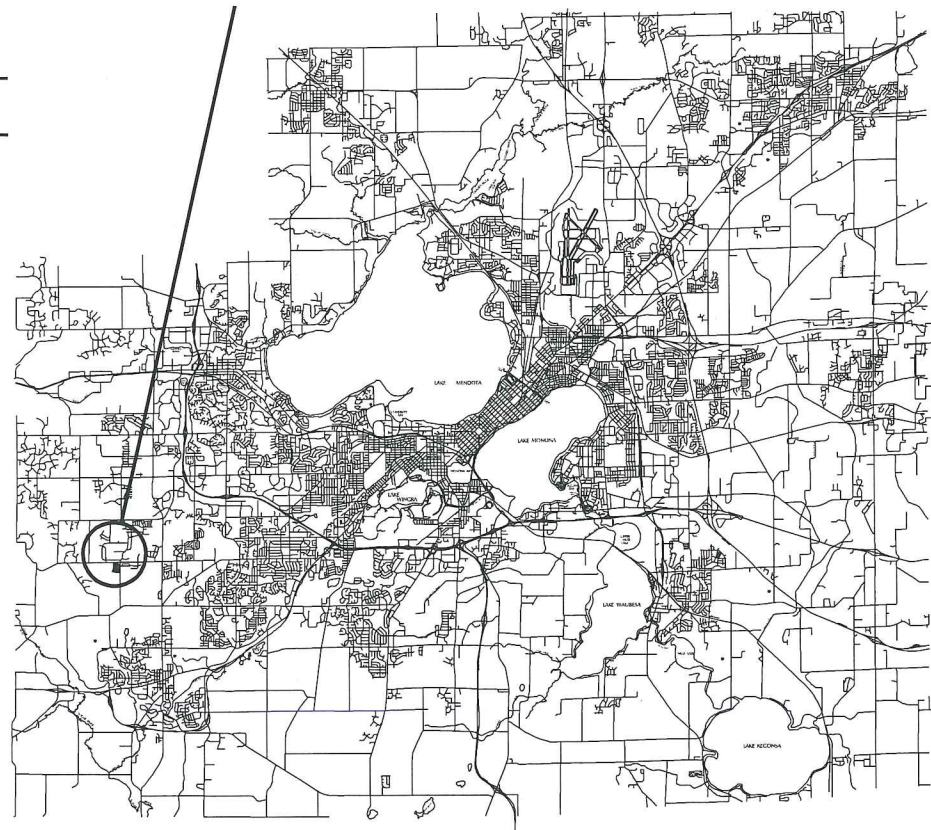
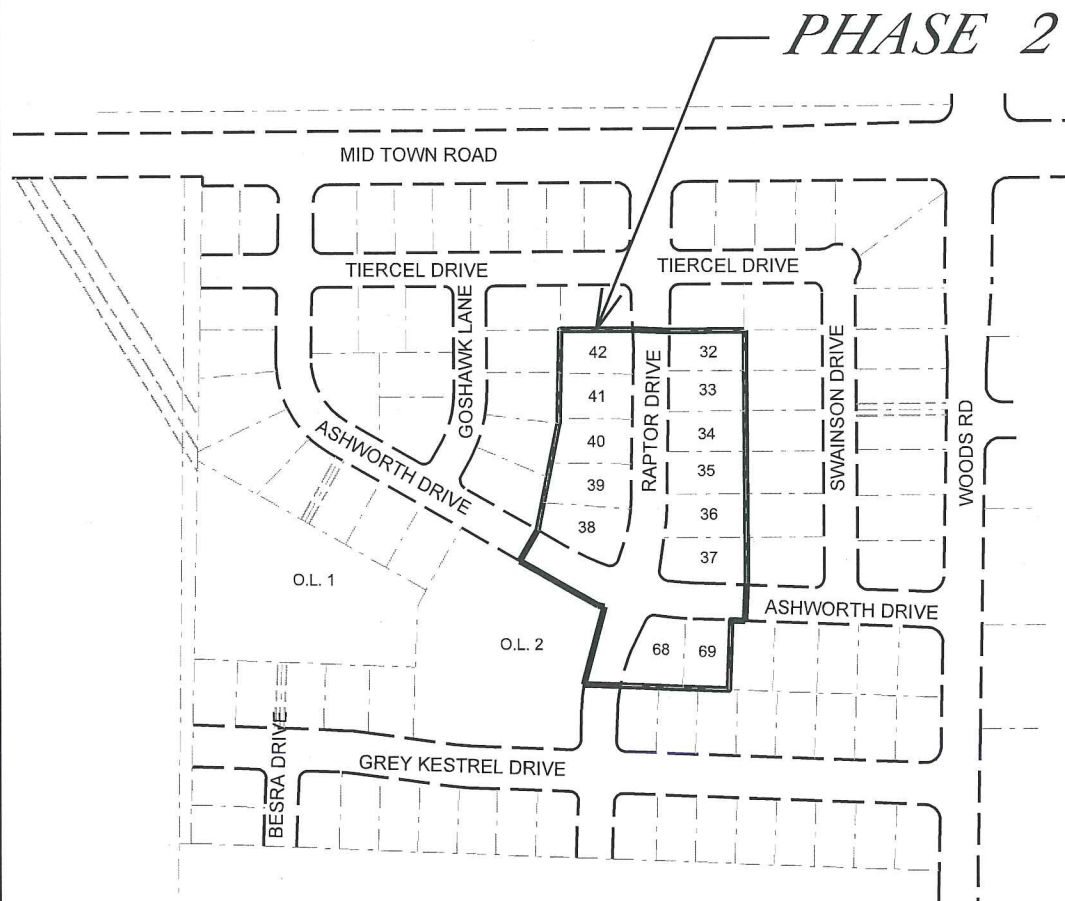
PLAN OF PROPOSED IMPROVEMENT

HAWKS VALLEY PHASE 2

CITY PROJECT NO. 53B2401
CITY CONTRACT NO. 2401
MUNIS NO. 10242



PROJECT LOCATION



PUBLIC IMPROVEMENT PROJECT APPROVED

MAY 5, 2015

BY THE COMMON COUNCIL OF MADISON, WISCONSIN

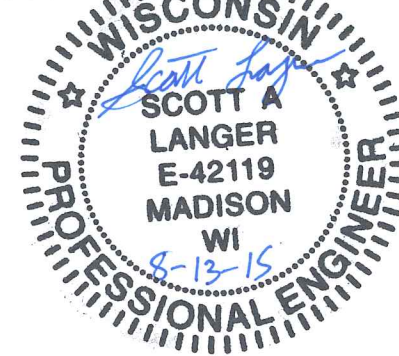
PUBLIC IMPROVEMENT DESIGN APPROVED BY:

Scott Felt 8-11-15
City Engineer Date

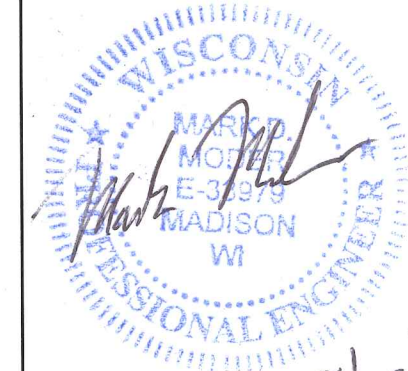
STREET GRADES DESIGNED BY:



STREET GEOMETRICS DESIGNED BY:



SANITARY SEWER DESIGNED BY:



WATER DESIGNED BY:



STORM SEWER DESIGNED BY:



PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

THE LOCATION AND INFORMATION FOR PROPOSED NEW TREES, IN THE PUBLIC RIGHT OF WAY OR ON PUBLIC LANDS ARE APPROXIMATE AND ARE SHOWN FOR REFERENCE ONLY. THE LOCATIONS, SPECIFICATIONS AND PLANTING METHODS OF ALL PROPOSED NEW OR REPLACEMENT TREES IN THE PUBLIC RIGHT OF WAY OR ON PUBLIC LANDS SHALL BE APPROVED BY THE CITY FORESTER PRIOR TO INSTALLATION.

NO TREES IN THE RIGHT OF WAY OR ON PUBLIC LANDS SHALL BE TRIMMED, PRUNED, REMOVED OR ADVERSELY AFFECTED IN ANY WAY UNTIL THE DEVELOPER HAS RECEIVED WRITTEN PERMISSION FROM THE CITY ENGINEER OR CITY FORESTER. SAID WRITTEN PERMISSION SHALL INCLUDE LANGUAGE INDICATING THAT SECTION 10.101 OF THE MADISON GENERAL ORDINANCES AND ADMINISTRATIVE PROCEDURE MEMORANDUM NO. 6-2, REFERING TO NOTIFICATION OF PROPERTY OCCUPANTS AND/OR OWNERS, HAS BEEN COMPLIED WITH.

WORK ON MIDTOWN RD SHALL ONLY TAKE PLACE DURING OFF PEAK HOURS (8:30 A.M. TO 4:00 P.M.). TRAFFIC MAY BE REDUCED TO ONE LANE WITH FLAGGERS MAINTAINING BOTH DIRECTIONS OF TRAFFIC.

WOODS RD MAY BE FULLY CLOSED DURING OFF PEAK HOURS (8:30 A.M. TO 4:00 P.M.) MESSAGE BOARDS NEED TO BE IN PLACE ON WOODS RD IN BOTH DIRECTIONS A MINIMUM OF FIVE DAYS BEFORE THE CLOSURE, NOTIFYING DRIVERS OF THE CLOSURE DATES.

ASHWORTH DRIVE SHALL BE TYPE A PAVEMENT PER STANDARD DETAIL DRAWING 4.02.

RAPTOR DRIVE SHALL BE TYPE B PAVEMENT PER STANDARD DETAIL DRAWING 4.02.

UNDERDRAINS SHALL BE INSTALLED, PER STANDARD DETAIL DRAWING 4.05 FOR 75' ON EACH SIDE OF THE LOW POINT, OR TO THE NEAREST CURB HIGH POINT. ALL UNDERDRAIN SHALL BE WRAPPED.

ALL GUTTERS SHALL DRAIN WITH A MINIMUM GRADES OF 0.5% TOWARD STORM SEWER INLETS.

ALL DITCHES SHALL DRAIN WITH A MINIMUM GRADES OF 0.5%

THE CROSS SLOPE OF SIDEWALKS AND BARRIER FREE SIDEWALK CURB RAMPS SHALL BE 1.5%. THE LONGITUDINAL GRADE OF BARRIER FREE SIDEWALK CURB RAMPS SHALL NOT EXCEED 8.33%. ALL SIDEWALK RAMPS SHALL BE CONSTRUCTED ACCORDING TO S.D.D. 3.03. AT ALL OTHER LOCATIONS THE LONGITUDINAL GRADE OF SIDEWALKS SHALL NOT EXCEED 5.0 % OR THE ADJACENT STREET GRADE WHICHEVER IS GREATER NOR BE LESS THAN 0.5% AND SHALL DRAIN TOWARD STORM SEWER INLETS. SIDE SLOPES WITHIN TEN FEET OF A PUBLIC SIDEWALK SHALL NOT EXCEED 4.00:1. ALL SIDEWALK AND SIDEWALK RAMP ELEVATIONS AND GRADES SHALL BE FIELD VERIFIED AND SET TO COMPLY WITH THE CITY OF MADISON STANDARD SPECIFICATIONS AND THE A.D.A. GUIDELINES.

OBTAIN A PRINT OUT OF THE ALIGNMENT FROM THE CITY ENGINEER PRIOR TO STAKING THIS PROJECT.

CURB STATION AND OFFSETS SHALL BE TO THE FACE OF CURB UNLESS OTHERWISE INDICATED. CURB ELEVATIONS SHALL BE TO THE TOP OF CURB (OR EXTENDED TOP OF CURB FOR DRIVEWAYS OR RAMPS) UNLESS OTHERWISE INDICATED.

POWER POLES AND OTHER OBSTRUCTIONS SHALL BE MOVED TO PROVIDE 2 FEET MINIMUM OF CLEAR DISTANCE FROM ANY FACE OF CURB OR EDGE OF SIDEWALK.

ANY INFORMATION SHOWN ON THIS PLAN, WHICH IS NOT PART OF THIS PROJECT, IS PRELIMINARY AND NOT FOR CONSTRUCTION.

THERE MAY BE EXISTING UTILITIES OR OTHER FEATURES WHICH ARE EITHER NOT SHOWN OR SHOWN INCORRECTLY ON THIS PLAN. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO LOCATE AND IDENTIFY ALL UTILITIES AND TOPOGRAPHY WHICH MAY AFFECT THE CONSTRUCTION OF THESE IMPROVEMENTS.

ALL PERMANENT SIGNING AND POSTING WILL BE DETERMINED AND PROVIDED BY THE TRAFFIC ENGINEERING DIVISION, FOLLOWING CONSTRUCTION OF THESE IMPROVEMENTS.

THE DEVELOPER SHALL PROVIDE, INSTALL AND MAINTAIN ALL STREET END BARRICADES, SIGNING AND TRAFFIC CONTROL, AS REQUIRED BY THE CITY TRAFFIC ENGINEER.

PAVEMENT SAWCUTS SHALL BE AS DIRECTED BY THE CITY CONSTRUCTION ENGINEER. SAWCUTS SHOWN ON THE PLAN ARE APPROXIMATE.

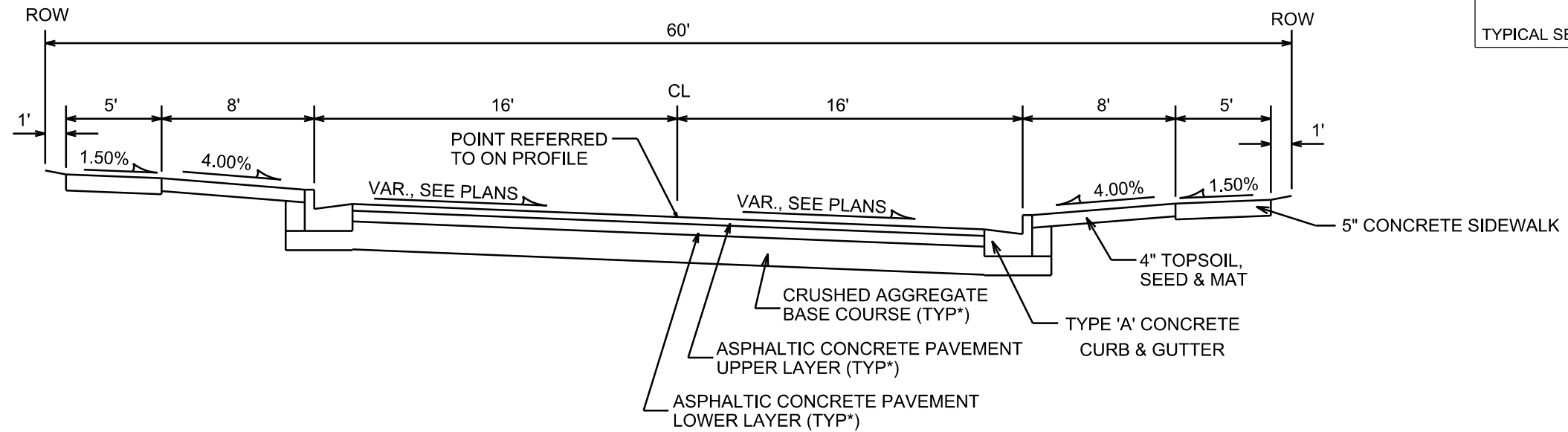
CURB ON CUL DE SACS SHALL BE INSTALLED ACCORDING TO SDD 3.05.

PLOT SCALE: _____

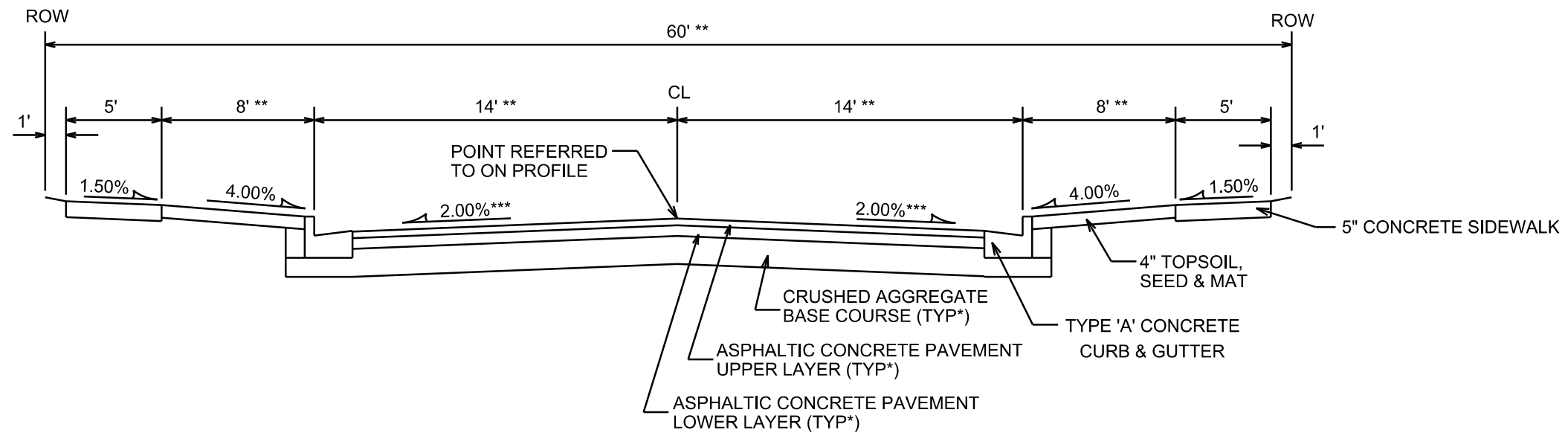
PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



TYPICAL SECTION
ASHWORTH DRIVE
STA 19+16 TO STA 22+75



TYPICAL SECTION
RAPTOR DRIVE
STA 94+35 TO STA 100+42

NOTES:

* ASHWORTH DRIVE TO BE CONSTRUCTED AS TYPE 'A' PAVEMENT AND RAPTOR DRIVE TO BE CONSTRUCTED AS TYPE 'B' PAVEMENT PER CITY OF MADISON MINIMUM PAVEMENT DESIGN

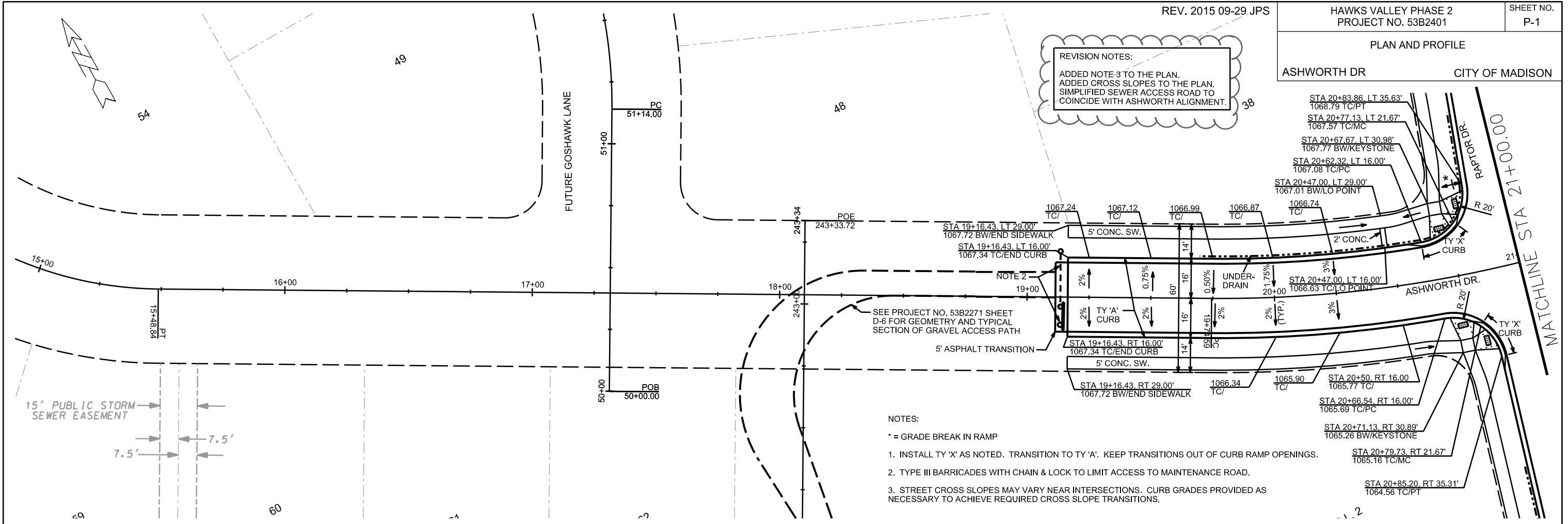
** WIDTH VARIES ON RAPTOR DRIVE FROM STA 94+35 TO STA 97+59. SEE PLANS

CITY OF MADISON MINIMUM PAVEMENT DESIGN

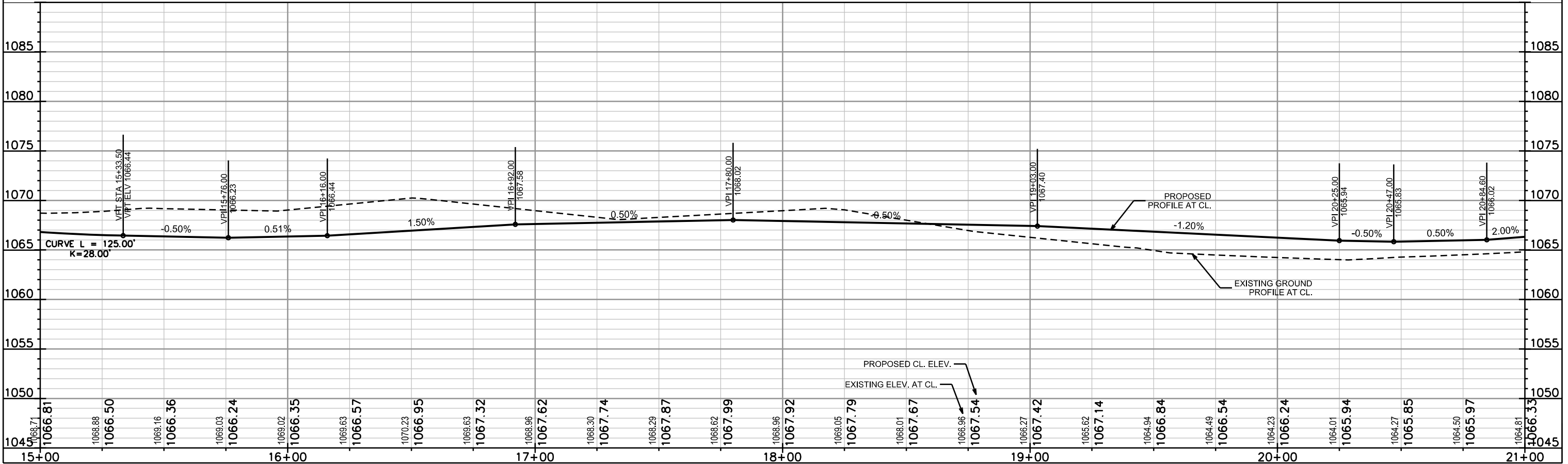
TYPE	CRUSHED AGG. BASE COURSE		ASPHALTIC CONCRETE PAVEMENT			
	LOWER LAYER GRADATION 1	UPPER LAYER GRADATION 2	LOWER LAYER TYPE	LOWER LAYER THICKNESS	UPPER LAYER TYPE	UPPER LAYER THICKNESS
A	6"	4"	E-0.3	1.75"	E-0.3	1.75"
B	6"	4"	E-1	2.25"	E-1	2"
C	6"	4"	E-3	3.25"	E-3	2"

PLAN AND PROFILE
ASHWORTH DR CITY OF MADISON

REVISION NOTES:
ADDED NOTE 3 TO THE PLAN.
ADDED CROSS SLOPES TO THE PLAN.
SIMPLIFIED SEWER ACCESS ROAD TO
COINCIDE WITH ASHWORTH ALIGNMENT.



- NOTES:
- * = GRADE BREAK IN RAMP
 - 1. INSTALL TY 'X' AS NOTED. TRANSITION TO TY 'A'. KEEP TRANSITIONS OUT OF CURB RAMP OPENINGS.
 - 2. TYPE III BARRICADES WITH CHAIN & LOCK TO LIMIT ACCESS TO MAINTENANCE ROAD.
 - 3. STREET CROSS SLOPES MAY VARY NEAR INTERSECTIONS. CURB GRADES PROVIDED AS NECESSARY TO ACHIEVE REQUIRED CROSS SLOPE TRANSITIONS.



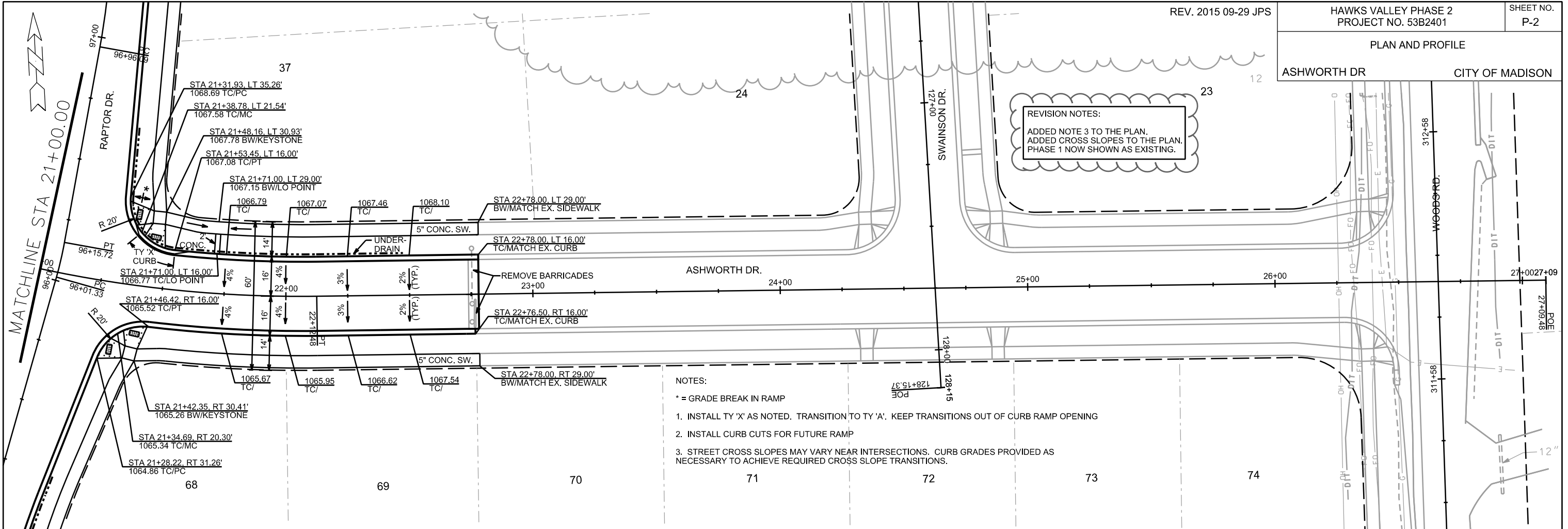
PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

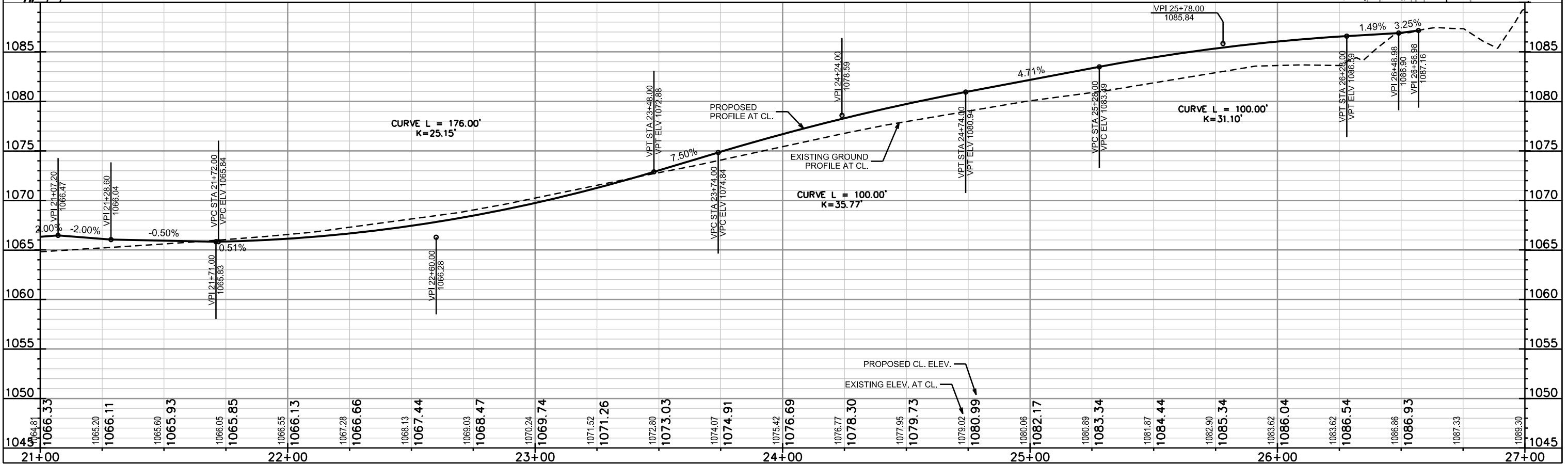
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLAN AND PROFILE
ASHWORTH DR CITY OF MADISON



REVISION NOTES:
 ADDED NOTE 3 TO THE PLAN.
 ADDED CROSS SLOPES TO THE PLAN.
 PHASE 1 NOW SHOWN AS EXISTING.

- NOTES:
 * = GRADE BREAK IN RAMP
- INSTALL 'TY' X AS NOTED. TRANSITION TO 'TY' A'. KEEP TRANSITIONS OUT OF CURB RAMP OPENING
 - INSTALL CURB CUTS FOR FUTURE RAMP
 - STREET CROSS SLOPES MAY VARY NEAR INTERSECTIONS. CURB GRADES PROVIDED AS NECESSARY TO ACHIEVE REQUIRED CROSS SLOPE TRANSITIONS.

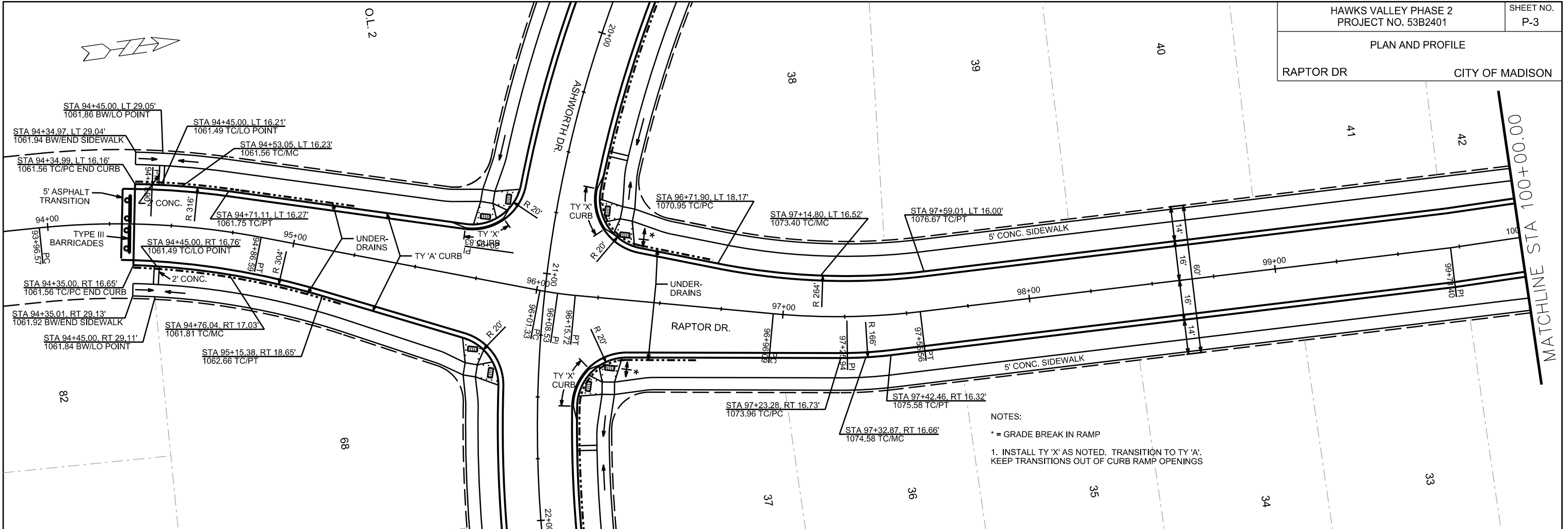


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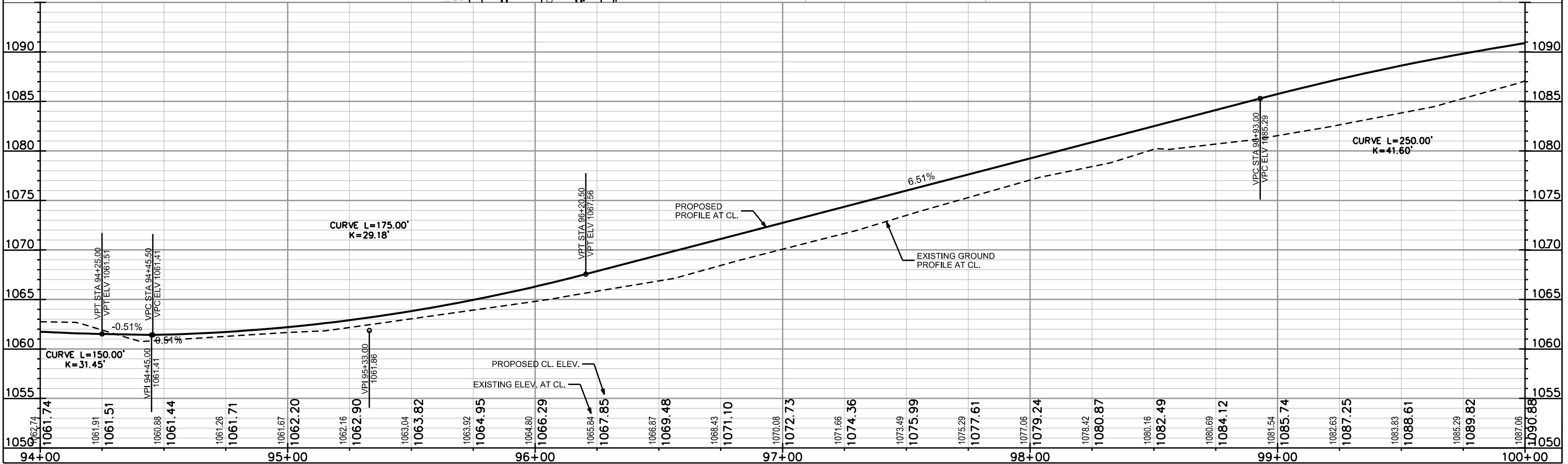
PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



NOTES:
* = GRADE BREAK IN RAMP
1. INSTALL TY 'X' AS NOTED. TRANSITION TO TY 'A'. KEEP TRANSITIONS OUT OF CURB RAMP OPENINGS



PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

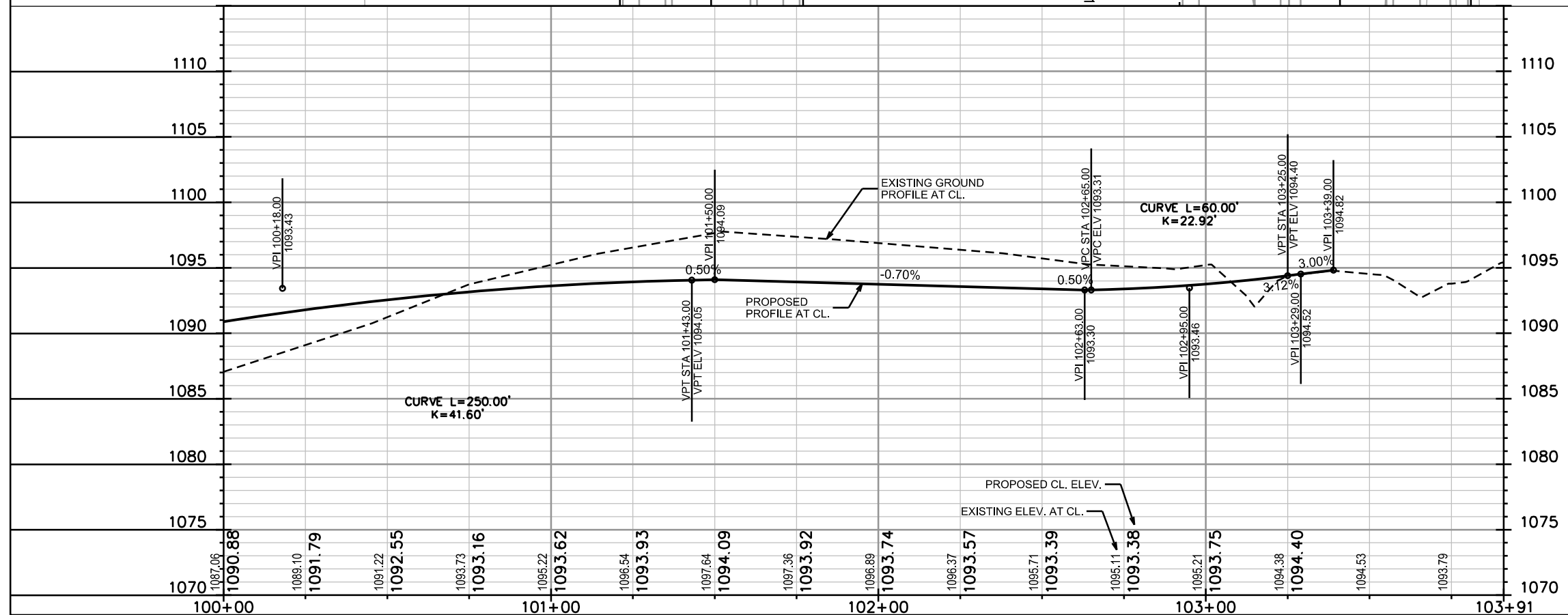
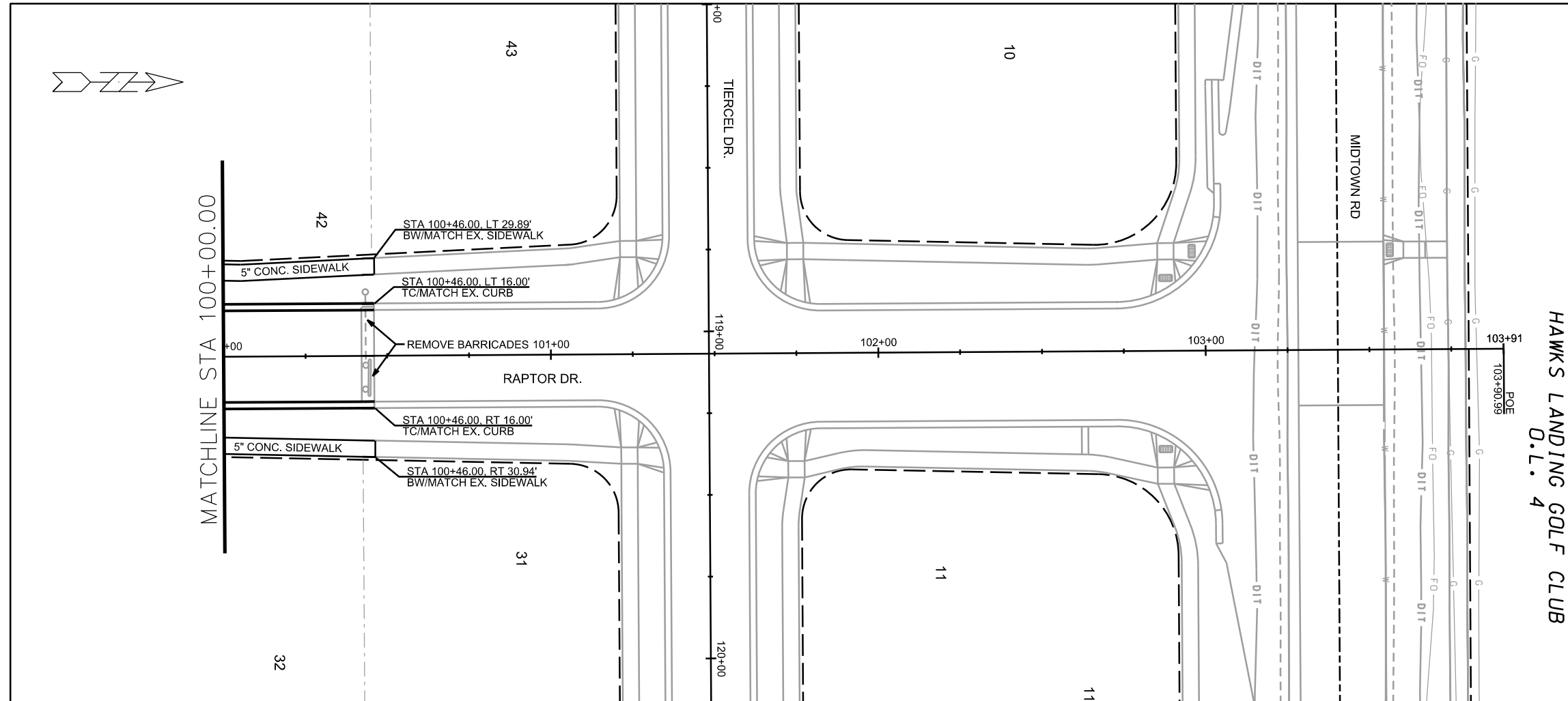
PLAN AND PROFILE

RAPTOR DR

CITY OF MADISON

REV. 2015 09-29 JPS

REVISION NOTES:
PHASE 1 NOW SHOWN AS EXISTING.

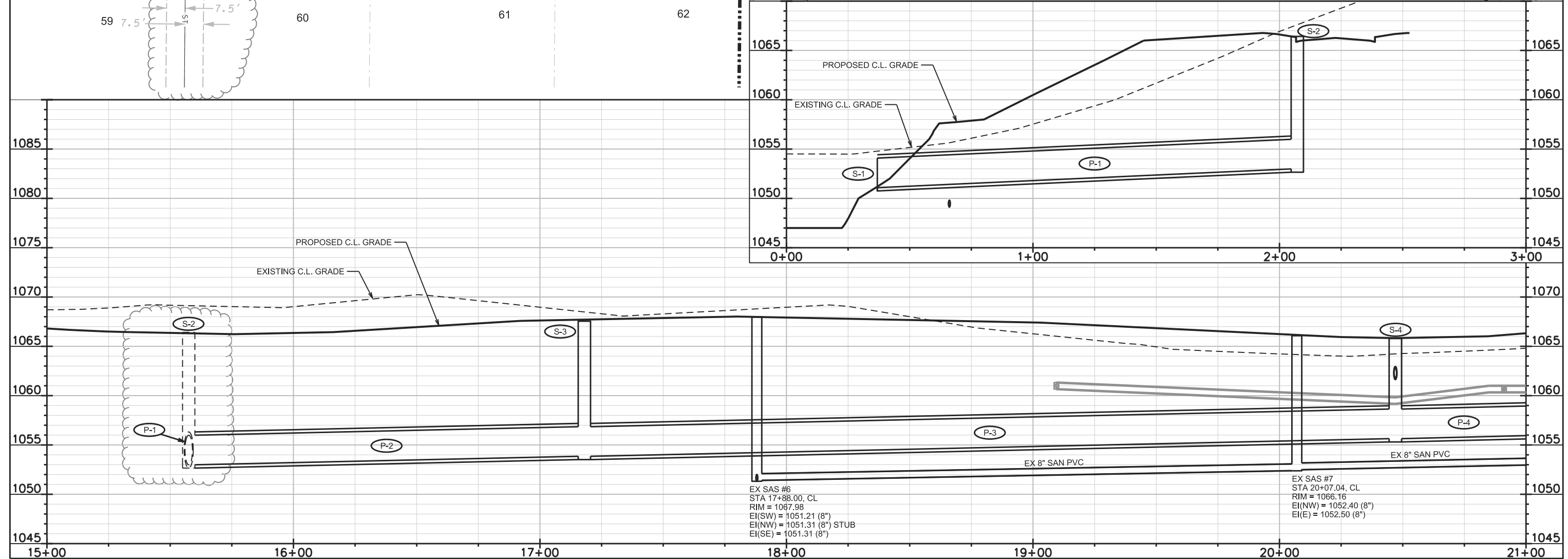
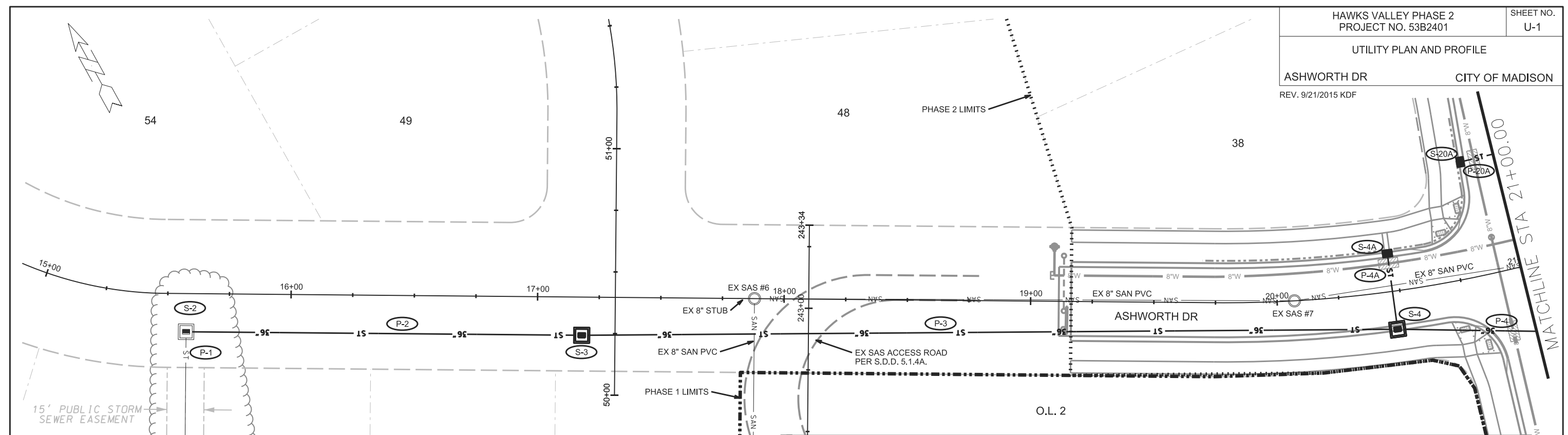


PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



EX SAS #6
STA 17+88.00, CL
RIM = 1067.98
EI(SW) = 1051.21 (8")
EI(NW) = 1051.31 (8") STUB
EI(SE) = 1051.31 (8")

EX SAS #7
STA 20+07.04, CL
RIM = 1066.16
EI(NW) = 1052.40 (8")
EI(E) = 1052.50 (8")

PLOT SCALE:

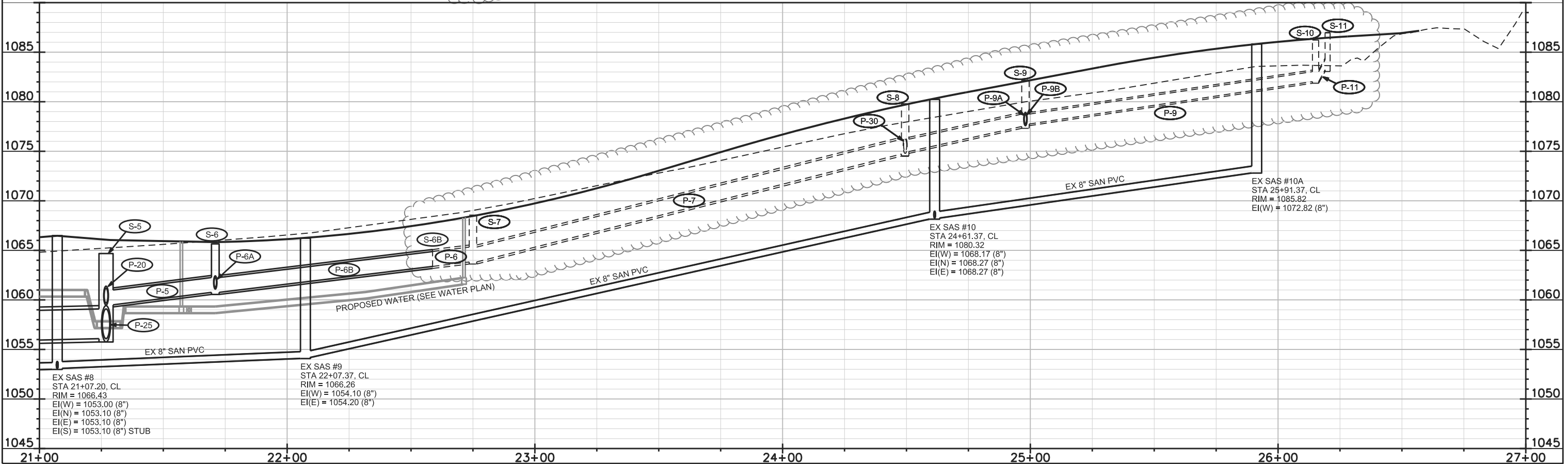
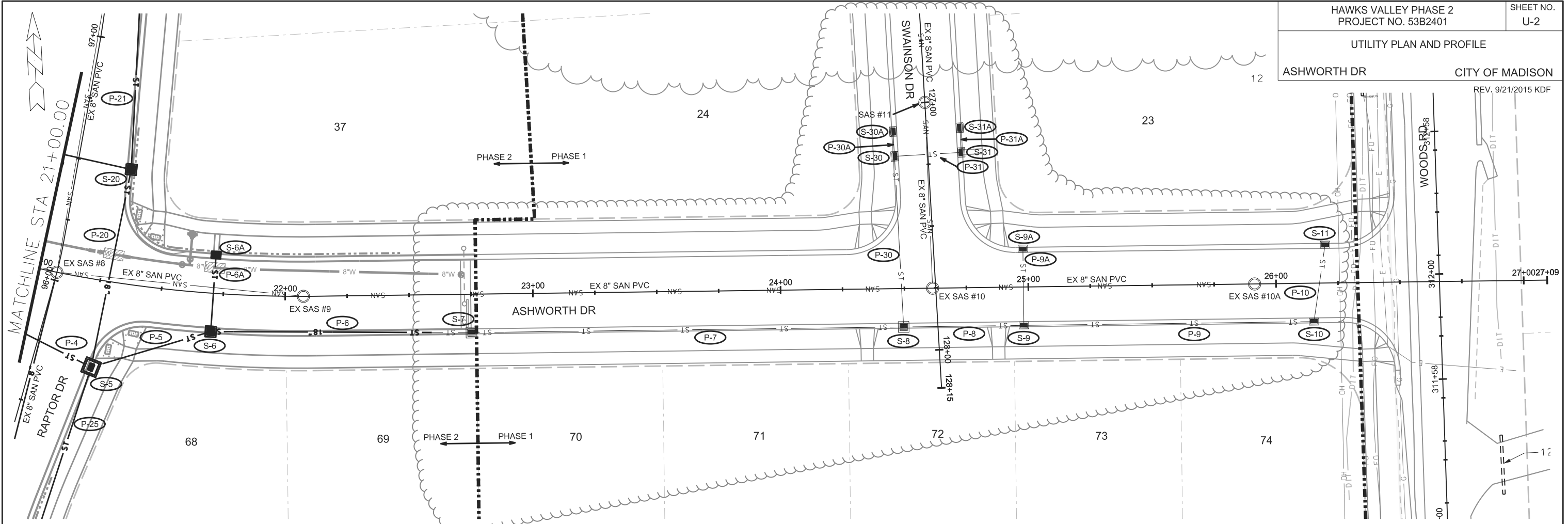
PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

UTILITY PLAN AND PROFILE

ASHWORTH DR CITY OF MADISON
REV. 9/21/2015 KDF

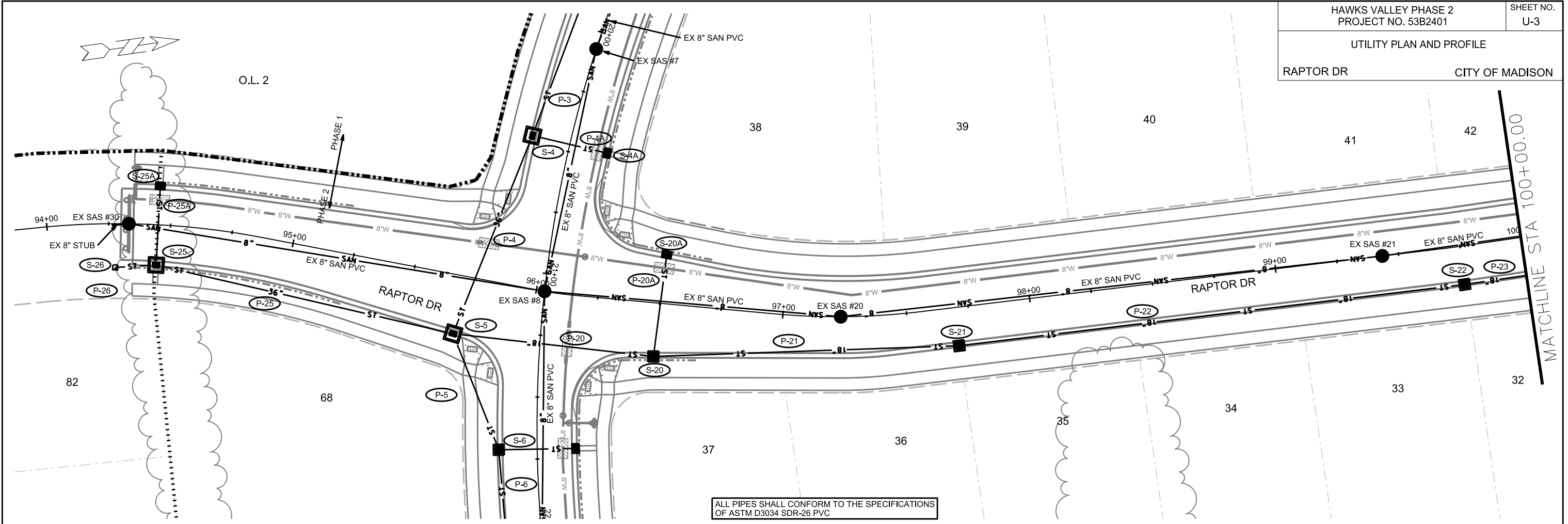


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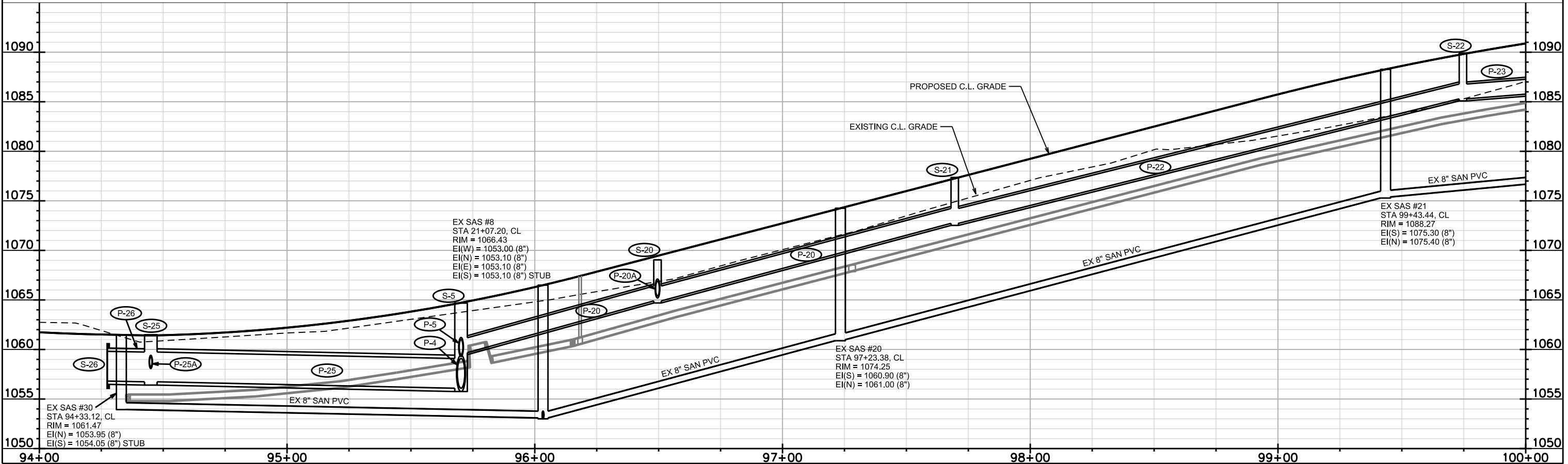
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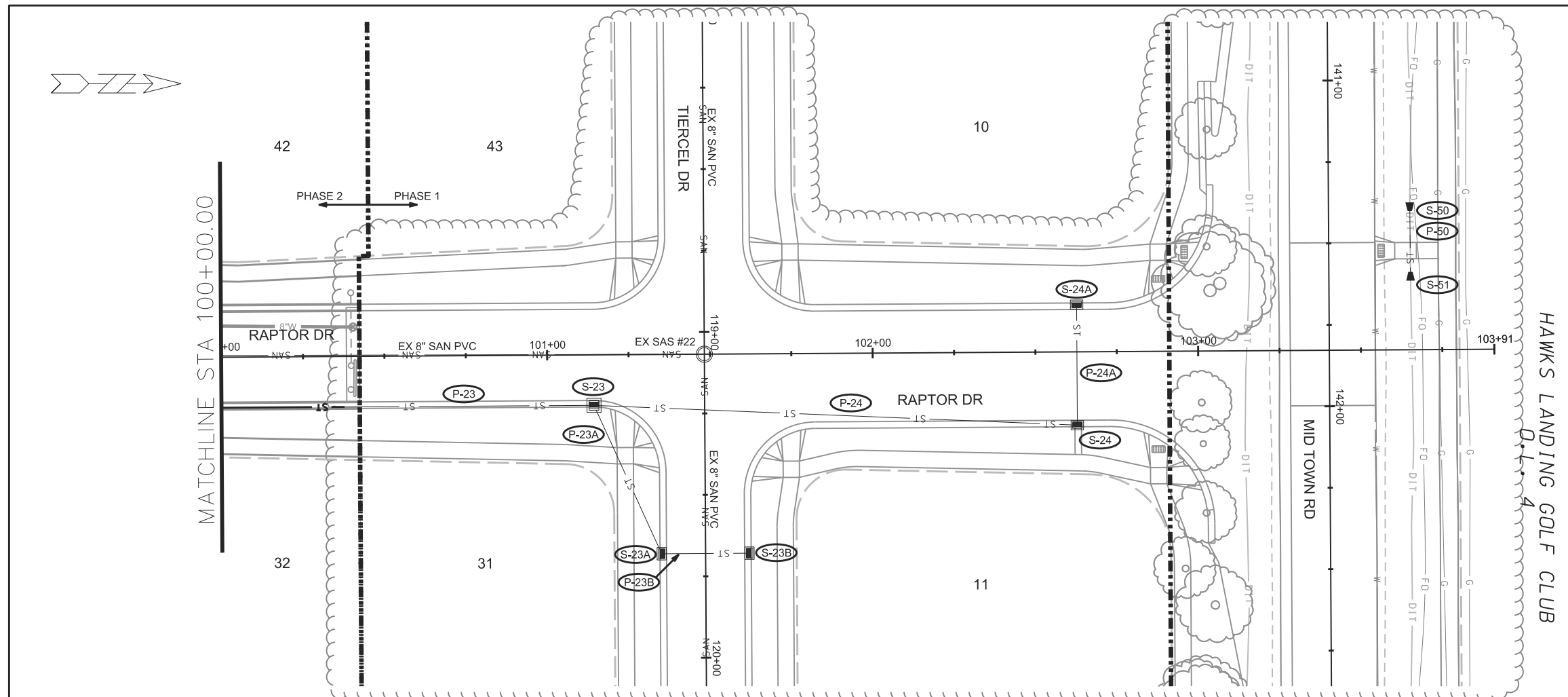
REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

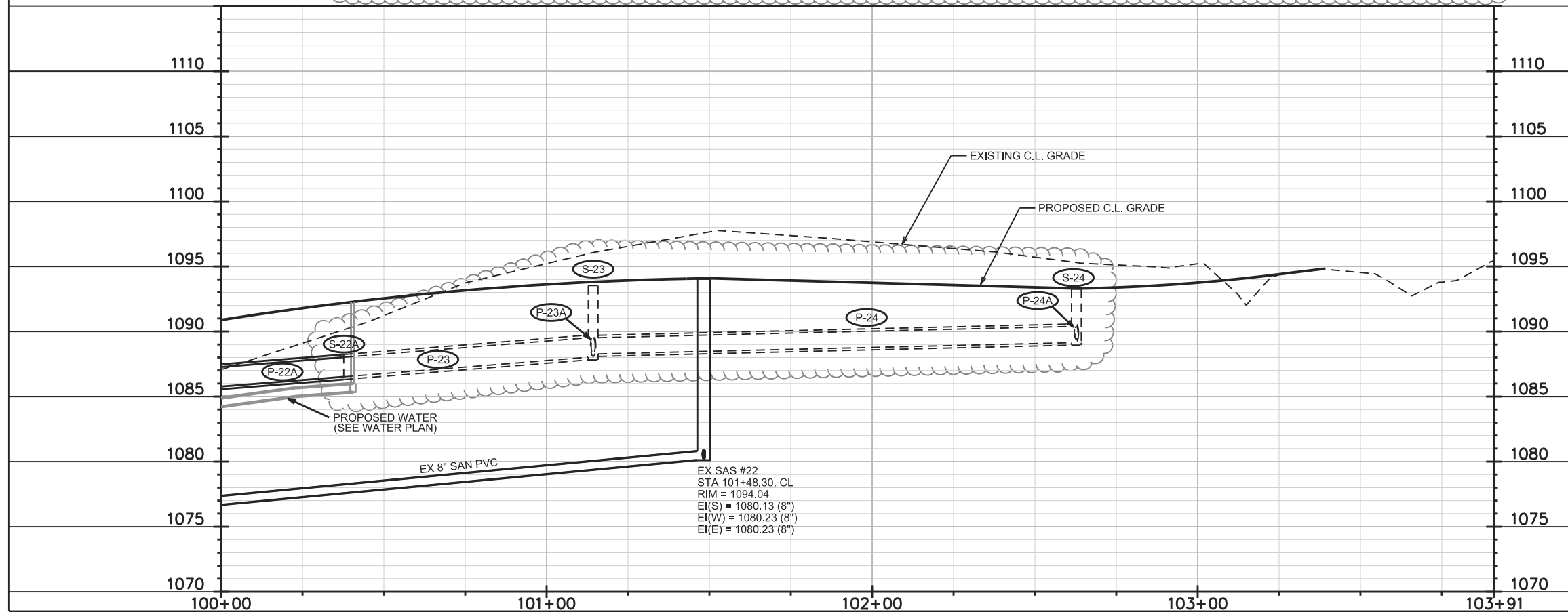


ALL PIPES SHALL CONFORM TO THE SPECIFICATIONS OF ASTM D3034 SDR-26 PVC





ALL PIPES SHALL CONFORM TO THE SPECIFICATIONS
OF ASTM D3034 SDR-26 PVC



EX SAS #22
STA 101+48.30, CL
RIM = 1094.04
EI(S) = 1080.13 (8")
EI(W) = 1080.23 (8")
EI(E) = 1080.23 (8")

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

SANITARY SEWER SCHEDULE

PROPOSED SANITARY STRUCTURES

SAS NO.	STATION	LOCATION (OFFSET)	TOP OF CASTING	E.I.	DEPTH	NOTES
MIDTOWN EASEMENT / OUTLOTS						
SAS #1	231+01.57	LT-5.13	1056.78	1044.72	12.06	-
SAS #3	237+14.42	RT-0.32	1057.80	1048.05	9.75	(1)
SAS #4	239+24.37	CL	1057.80	1049.20	8.60	(1)
SAS #5	241+29.37	CL	1059.00	1050.33	8.67	(1)
ASHWORTH DR						
SAS #6	17+88.00	CL	1067.98	1051.21	16.77	-
SAS #7	20+07.04	CL	1066.16	1052.40	13.76	(3)
SAS #8	21+07.20	CL	1066.49	1053.00	13.49	(3)
SAS #9	22+07.37	CL	1066.26	1054.10	12.16	(3)
SAS #10	24+61.37	CL	1080.32	1068.17	12.15	-
SAS #10A	25+91.37	CL	1085.82	1072.82	13.00	-
TIERCEL DR / SWAINSON DR						
SAS #11	127+00.00	CL	1081.23	1069.02	12.21	-
SAS #12	124+65.00	CL	1089.58	1077.35	12.23	-
SAS #13	122+20.38	LT-12.05	1096.43	1084.45	11.98	-
SAS #22A	117+74.69	CL	1090.89	1080.89	10.00	-
SAS #22B	121+66.82	CL	1096.27	1084.13	12.14	-
RAPTOR DR						
SAS #20	97+23.38	CL	1074.25	1060.90	13.35	-
SAS #21	99+43.44	CL	1088.27	1075.30	12.97	-
SAS #22	101+48.30	CL	1094.08	1080.13	13.95	-
SAS #30	94+33.12	CL	1061.47	1053.95	7.52	(2), (3)

STORM STRUCTURE ADJUSTMENTS

ADJUST NO.	STATION	LOCATION (OFFSET)	EX. TOC ELEV.	ADJUST ELEV.	ADJUST DIFF.	NOTES
MIDTOWN RD						
SAS #1768-001	147+24.56	RT-35.19	1090.04	1089.68	-0.36	-

SPECIFIC NOTES

- (1) INSTALL SAS CASTING AND FRAME R-1916C-0054, LOCKING LID WITH LOGO COVER HEX BOLTED TO SAS CHIMNEY (NO ADJUSTMENT RINGS)
- (2) TO BE CONSTRUCTED AS PART OF PHASE 2
- (3) INSTALL INTERNAL CHIMNEY SEAL PER S.D.D. 5.7.17

PROPOSED SANITARY PIPES

FROM (DNSTM)	TO (UPSTM)	DWNSTRM E.I.	UPSTRM E.I.	PLAN (PAY) LGTH (FT)	SLOPE (%)	PIPE SIZE	PVC TYPE	NOTES
MIDTOWN EASEMENT / OUTLOTS								
EX SAS 1567-015	SAS #1	1041.47	1044.72	130	2.50%	8"	SDR-26	-
SAS #1	SAS #3	1044.82	1048.05	616	0.52%	8"	SDR-26	-
SAS #3	SAS #4	1048.15	1049.20	210	0.50%	8"	SDR-26	-
SAS #4	SAS #5	1049.30	1050.33	205	0.50%	8"	SDR-26	-
SAS #5	SAS #6	1050.43	1051.21	156.5	0.50%	8"	SDR-26	-
ASHWORTH DR								
SAS #6	SAS #7	1051.31	1052.40	219	0.50%	8"	SDR-26	-
SAS #7	SAS #8	1052.50	1053.00	100	0.50%	8"	SDR-26	-
SAS #8	SAS #9	1053.10	1054.10	100	1.00%	8"	SDR-26	-
SAS #9	SAS #10	1054.20	1068.17	254	5.50%	8"	SDR-26	-
SAS #10	SAS #10A	1068.27	1072.82	130	3.50%	8"	SDR-26	-
TIERCEL DR / SWAINSON DR								
SAS #10	SAS #11	1068.27	1069.02	75	1.00%	8"	SDR-26	-
SAS #11	SAS #12	1069.12	1077.35	235	3.50%	8"	SDR-26	-
SAS #12	SAS #13	1077.45	1084.45	250	2.80%	8"	SDR-26	-
SAS #22	SAS #22A	1080.23	1080.89	132	0.50%	8"	SDR-26	-
SAS #22	SAS #22B	1080.23	1084.13	260	1.50%	8"	SDR-26	-
RAPTOR DR								
SAS #8	SAS #20	1053.10	1060.90	120	6.50%	8"	SDR-26	-
SAS #20	SAS #21	1061.00	1075.30	220	6.50%	8"	SDR-26	-
SAS #21	SAS #22	1075.40	1080.13	205	2.31%	8"	SDR-26	-
SAS #8	SAS #30	1053.10	1053.95	170	0.50%	8"	SDR-26	(2)

STORM SEWER SCHEDULE

PROPOSED STORM STRUCTURES

STRUC. NO.	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH	NOTES
OUTLOTS							
S-1	238+98.90	RT-29.24	36" RCP AE	-	1051.00	-	(1), W/ GATE
ASHWORTH DR							
S-2	15+57.52	RT-15.50	5X5 SAS	1066.42	1052.99	13.43	W/R-3067-7004-V
S-3	17+18.02	RT-15.50	5X5 SAS	1067.55	1053.85	13.70	W/R-3067-7004-V
S-4	20+47.00	RT-15.50	5X5 SAS	1065.79	1055.64	10.15	W/R-3067-7004-V
S-4A	20+47.00	LT-15.50	H INLET	1066.63	1062.63	4.00	(3), (5), LP, UD, W/R-3067-7004-VB
S-5	21+26.90	RT-35.25	5X5 SAS	1064.68	1056.09	8.59	W/R-3067-7004-V
S-6	21+71.00	RT-15.50	3X3 SAS	1065.65	1060.76	4.89	W/R-3067-7004-V
S-6A	21+71.00	LT-15.50	H INLET	1066.77	1062.55	4.22	(3), (5), LP, UD, W/R-3067-7004-VB
S-7	22+75.00	RT-15.50	3X3 SAS	1068.56	1063.83	4.73	W/R-3067-7004-V
S-8	24+49.48	RT-15.50	3X3 SAS	1079.80	1074.72	5.08	W/R-3067-7004-V
S-9	24+98.02	RT-15.50	H INLET	1082.17	1077.50	4.67	W/R-3067-7004-V
S-9A	24+98.02	LT-15.50	H INLET	1082.59	1078.17	4.42	W/R-3067-7004-V
S-10	26+15.13	RT-15.50	H INLET	1086.22	1082.03	4.19	W/R-3067-7004-V
S-11	26+20.00	LT-15.50	H INLET	1086.97	1083.22	3.75	W/R-3067-7004-V
TIERCEL DR / SWAINSON DR							
S-23A	119+67.99	RT-13.50	H INLET	1093.42	1089.21	4.21	(5), LP, UD, W/R-3067-7004-VB
S-23B	119+67.99	LT-13.50	H INLET	1093.42	1089.71	3.71	(5), LP, UD, W/R-3067-7004-VB
S-30	127+21.00	RT-13.50	H INLET	1080.99	1077.03	3.96	W/R-3067-7004-V
S-30A	127+11.00	RT-13.50	H INLET	1081.11	1077.42	3.69	W/R-3067-7004-V
S-31	127+21.00	LT-13.50	H INLET	1081.83	1077.83	4.00	(5), LP, UD, W/R-3067-7004-VB
S-31A	127+11.00	LT-13.50	H INLET	1081.90	1077.97	3.93	W/R-3067-7004-V
RAPTOR DR							
S-20	96+49.53	RT-21.62	3X3 SAS	1069.04	1064.90	4.14	W/R-3067-7004-V
S-20A	96+51.13	LT-19.85	H INLET	1069.17	1065.60	3.57	W/R-3067-7004-V
S-21	97+69.52	RT-15.50	3X3 SAS	1077.36	1072.73	4.63	W/R-3067-7004-V
S-22	99+74.65	RT-15.50	3X3 SAS	1089.91	1085.29	4.62	W/R-3067-7004-V
S-23	101+14.30	RT-15.50	3X3 SAS	1093.53	1088.02	5.51	W/R-3067-7004-V
S-24	102+62.74	RT-22.50	H INLET	1093.26	1089.14	4.12	(5), LP, UD, W/R-3067-7004-VB
S-24A	102+62.74	LT-14.51	H INLET	1093.42	1089.77	3.65	(5), LP, UD, W/R-3067-7004-VB
S-25	94+45.00	RT-16.26	5X5 SAS	1061.49	1056.74	4.75	(3), (5), LP, UD, W/R-3067-7004-VB
S-25A	94+45.00	LT-15.71	H INLET	1061.49	1058.49	3.00	(3), (5), LP, UD, W/R-3067-7004-VB
S-26	94+27.61	RT-17.68	STM STUB	-	1056.81	-	(3), (4)

MID TOWN RD (SEE SHEET U-14 FOR STRUCTURE)

PROPOSED STORM PIPES

PIPE NO.	FROM (DNSTM)	TO (UPSTM)	DISCH. E.I.	INLET E.I.	PLAN (PAY) LGTH (FT)	PIPE LGTH (FT)	SLOPE (%)	PIPE SIZE	TYPE	NOTES
OUTLOTS										
P-1	S-1	S-2	1051.19	1052.99	162.5	159.9	1.13%	36"	RCP	(2)
ASHWORTH DR										
P-2	S-2	S-3	1052.99	1053.85	160.5	155.5	0.55%	36"	RCP	-
P-3	S-3	S-4	1053.85	1055.64	331	326	0.55%	36"	RCP	-
P-4	S-4	S-5	1055.64	1056.09	86	81.1	0.55%	36"	RCP	-
P-4A	S-4	S-4A	1061.79	1062.63	31	27.5	3.05%	12"	RCP	(3)
P-5	S-5	S-6	1059.50	1060.76	50.5	45.6	2.76%	18"	RCP	-
P-6	S-6	S-7	1060.76	1063.83	105.5	102.2	3.00%	18"	RCP	-
P-6A	S-6	S-6A	1061.26	1062.55	31	28.5	4.53%	12"	RCP	(3)
P-7	S-7	S-8	1063.83	1074.72	174.5	171.5	6.35%	18"	RCP	-
P-8	S-8	S-9	1074.97	1077.50	48.5	45.5	5.56%	15"	RCP	-
P-9	S-9	S-10	1077.75	1082.03	117	114.1	3.75%	12"	RCP	-
P-9A	S-9	S-9A	1077.75	1078.17	31	29	1.45%	12"	RCP	-
P-10	S-10	S-11	1082.03	1083.22	31.5	29.4	4.05%	12"	RCP	-
TIERCEL DR / SWAINSON DR										
P-23A	S-23	S-23A	1088.27	1089.21	50	46.8	2.01%	15"	RCP	-
P-23B	S-23A	S-23B	1089.46	1089.71	27	25	1.00%	12"	RCP	-
P-30	S-8	S-30	1074.97	1077.03	67.5	66	3.12%	15"	RCP	-
P-30A	S-30	S-30A	1077.28	1077.42	8.5	7	2.00%	12"	RCP	-
P-31	S-30	S-31	1077.28	1077.83	27	25	2.20%	12"	RCP	-
P-31A	S-31	S-31A	1077.83	1077.97	10	7	2.00%	12"	RCP	-
RAPTOR DR										
P-20	S-5	S-20	1059.68	1064.90	81.5	77.4	6.74%	18"	RCP	-
P-20A	S-20	S-20A	1065.40	1065.60	41.5	39	0.51%	12"	RCP	(3)
P-21	S-20	S-21	1064.90	1072.73	123.5	120.5	6.50%	18"	RCP	-
P-22	S-21	S-22	1072.73	1085.29	205.5	202.5	6.20%	18"	RCP	-
P-23	S-22	S-23	1085.29	1088.02	139.5	136.6	2.00%	18"	RCP	-
P-24	S-23	S-24	1088.27	1089.14	148.5	145.6	0.60%	15"	RCP	-
P-24A	S-24	S-24A	1089.39	1089.77	37	35	1.09%	12"	RCP	-
P-25	S-5	S-25	1056.09	1056.74	123	118	0.55%	36"	RCP	(3)
P-25A	S-25	S-25A	1058.25	1058.49	32	28.5	0.84%	12"	RCP	(3)
P-26	S-25	S-26	1056.74	1056.81	16	13.5	0.52%	36"	RCP	(3)

MID TOWN RD (SEE SHEET U-14 FOR PIPES)

SPECIFIC NOTES

- (1) STATION, OFFSET, AND E.I. GIVEN AT RCP AE END
- (2) PLAN AND PIPE LENGTHS DO NOT INCLUDE LENGTH OF RCP AE. PIPE E.I. IS GIVEN AT AE CONNECTION, FOR AE E.I. SEE STRUCTURE CHART
- (3) TO BE CONSTRUCTED AS PART OF PHASE 2
- (4) INSTALL PIPE PLUG
- (5) TAP 2" PVC PIPE INTO THE FRONT OF THE INLET AND ELBOW PIPE UP TO THE TOP OF BINDER LAYER. PIPE SHALL SURFACE IN FRONT OF CURB.

NOTE: PLAN LENGTH (PAY LENGTH) IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. PIPE LENGTH IS ACTUAL LENGTH OF PIPE FROM STRUCTURE WALL TO STRUCTURE WALL. SLOPE CALCULATED USING PIPE LENGTH.

STANDARD NOTES:

- ABBREVIATIONS: AE = APRON ENDWALL; RCP = REINFORCED CONCRETE PIPE; HERCP = HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE; DNA = DOES NOT APPLY; SAS = SEWER ACCESS STRUCTURE; LP = LOW POINT INLET STRUCTURE; FP = FIELD POURED STRUCTURE; TR = TOP OF CONCRETE ROOF; NCM = NO CROWN MATCH FOR PIPES; UD = UNDERDRAIN
- APPROXIMATE DISCHARGE E.I. GIVEN, ADJUST E.I. AND PIPE SLOPE IN THE FIELD.
- TOP OF CASTING GRADE GIVEN IS THE TOP OF CURB FOR INLET STRUCTURES AND THE FLOWLINE OF THE CLOSED CASTING FOR SAS'S.
- TOP OF CONCRETE ROOF (TR) IS 1.25' BELOW TOP OF CASTING UNLESS OTHERWISE NOTED.
- ALL REINFORCED CONCRETE PIPES TO BE CLASS III UNLESS OTHERWISE NOTED.
- SURVEYOR TO CONFIRM THAT ALL INLET STATION / OFFSETS LINE UP WITH PROPOSED CURB AND GUTTER.
- ALL STRUCTURES CALLED OUT AS FIELD POURED SHALL BE FIELD POURED. ALL OTHER STRUCTURES (NOT INDICATED AS FIELD POURED) SHALL BE SUBMITTED TO CITY ENGINEERING FOR APPROVAL IF PRECAST STRUCTURES ARE PREFERRED. CONTACT KYLE FRANK OF CITY ENGINEERING AT (608) 266-4098 FOR PRECAST APPROVALS, FAX SHOP DRAWINGS TO (608)264-9275, OR EMAIL SHOP DRAWINGS TO KRANK@CITYOFMADISON.COM.

STORM SEWER SCHEDULE

PROPOSED STORM STRUCTURES

STRUC. NO.	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH	NOTES
MID TOWN RD							
S-40	148+40.00	RT-34.40	STM TAP	-	1088.00	-	-
S-41	149+00.17	RT-29.78	SADDLED H INLET	1086.91	1084.81	2.10	W/R-1878-B7G
S-42	148+17.13	RT-32.17	H INLET	1089.61	1085.21	4.40	W/R-3067-7004-V
S-43	147+52.50	RT-23.72	3X3 SAS	1089.79	1085.52	4.27	W/R-1050-0054
S-43A	147+46.97	RT-70.77	H INLET	1089.46	1085.74	3.72	LP, UD, W/R-3067-7004-VB
S-43B	146+95.85	RT-69.51	H INLET	1089.46	1086.24	3.22	LP, UD, W/R-3067-7004-VB
S-44	146+25.85	RT-37.81	14"X23" HERCP AE	-	1090.00	-	(1), W/ GATE
S-50	141+37.55	LT-24.97	12" RCP AE	-	1091.42	-	(1), W/ GATE
S-51	141+61.57	LT-25.08	12" RCP AE	-	1091.54	-	(1), W/ GATE

PROPOSED STORM PIPES

PIPE NO.	FROM (DNSTM)	TO (UPSTM)	DISCH. E.I.	INLET E.I.	PLAN (PAY) LGTH (FT)	PIPE LGTH (FT)	SLOPE (%)	PIPE SIZE	TYPE	NOTES
MID TOWN RD										
P-40	EX AS 1768-027	S-41	1084.74	1084.81	16.5	12.8	0.55%	14"X23"	HERCP	-
P-41	S-41	S-42	1084.81	1085.21	83	80.6	0.50%	14"X23"	HERCP	-
P-42	S-42	S-43	1085.21	1085.52	65.5	62.1	0.50%	14"X23"	HERCP	-
P-43	S-43	S-44	1085.52	1090.00	127.5	125.9	3.56%	14"X23"	HERCP	(2)
P-43A	S-43	S-43A	1085.52	1085.74	47.5	44.4	0.50%	15"	RCP	-
P-43B	S-43A	S-43B	1085.99	1086.24	51	49	0.51%	12"	RCP	-
P-50	S-50	S-51	1091.45	1091.51	12	12	0.50%	12"	RCP	(2)

REMOVE STORM STRUCTURES

STRUC. NO.	ID NO.	STATION	LOCATION (OFFSET)	TYPE	NOTES
MID TOWN RD					
R-1	AE 1768-021	149+00.00	RT-30.30	APRON ENDWALL	-
R-2	AE 1768-003	147+76.65	RT-30.65	APRON ENDWALL	-
R-3	AS1768-001	147+51.95	RT-23.75	4X4 SAS	-
R-4	AE 1668-001	146+93.05	RT-29.60	APRON ENDWALL	-
R-5	AE 1768-002	147+50.65	RT-42.85	APRON ENDWALL	-

REMOVE STORM PIPES

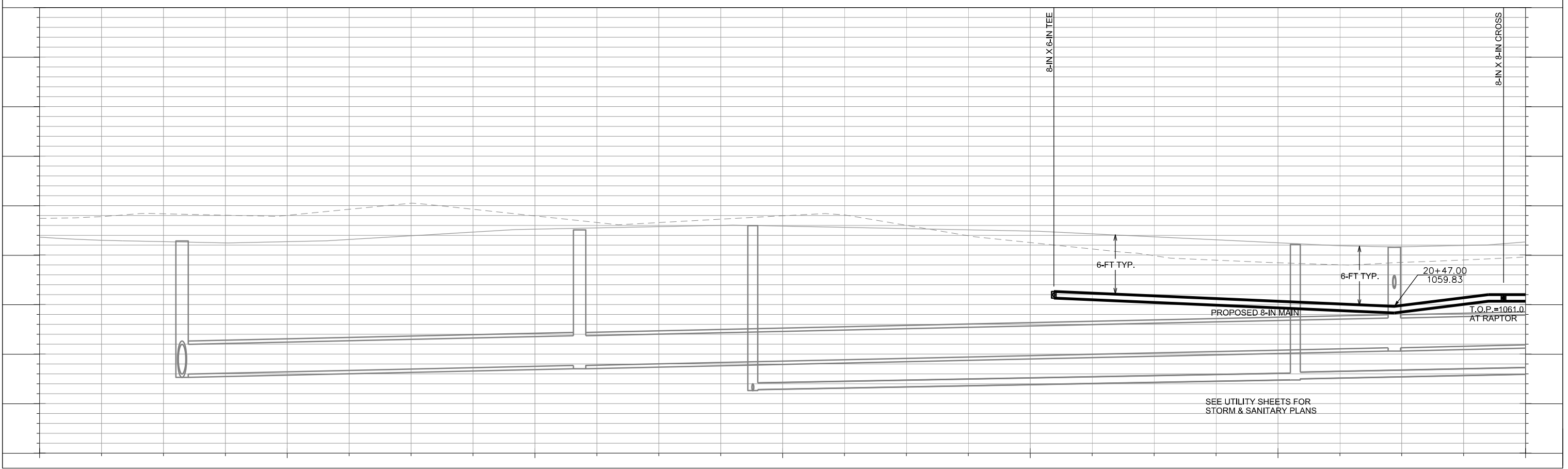
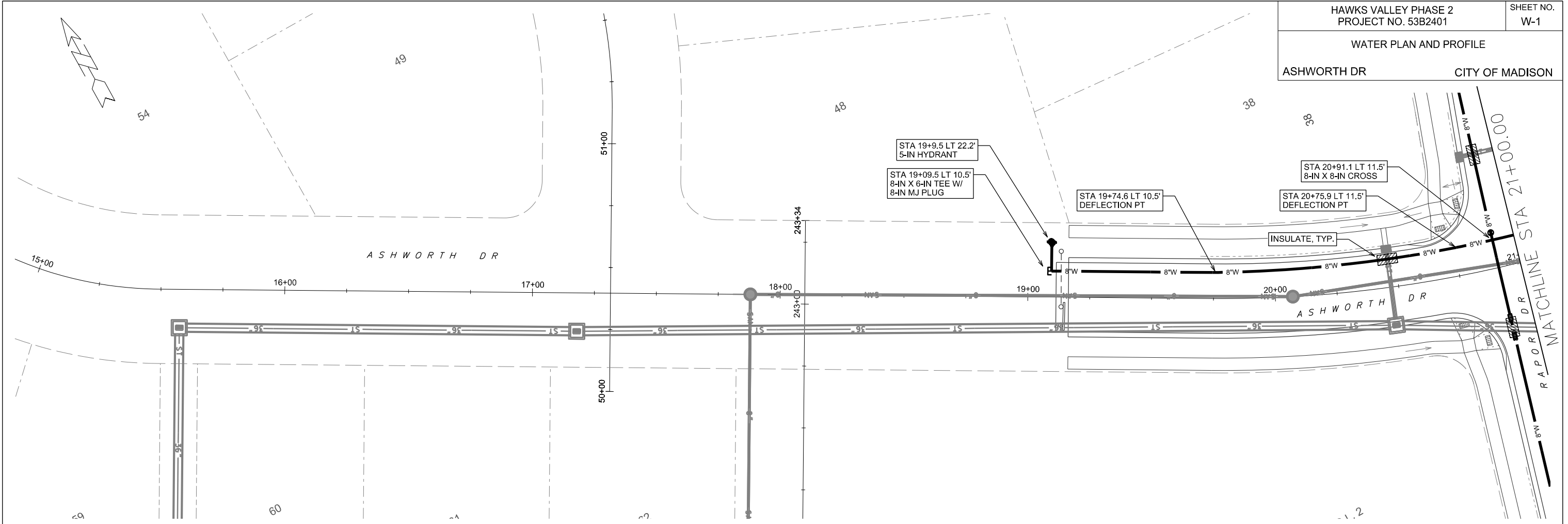
REMOVE NO.	REMOVE FROM	REMOVE TO	LGTH (FT)	PIPE SIZE	PIPE TYPE	PAID (Y/N)	NOTES
MID TOWN RD							
RP-1	S-40	R-1	8	14"X23"	HERCP	N	-
RP-2	R-2	R-3	17	18"	RCP	N	-
RP-3	R-3	R-4	51	18"	RCP	N	-
RP-4	R-3	R-5	14	12"	RCP	N	-

SPECIFIC NOTES

- (1) STATION, OFFSET, AND E.I. GIVEN AT RCP AE END
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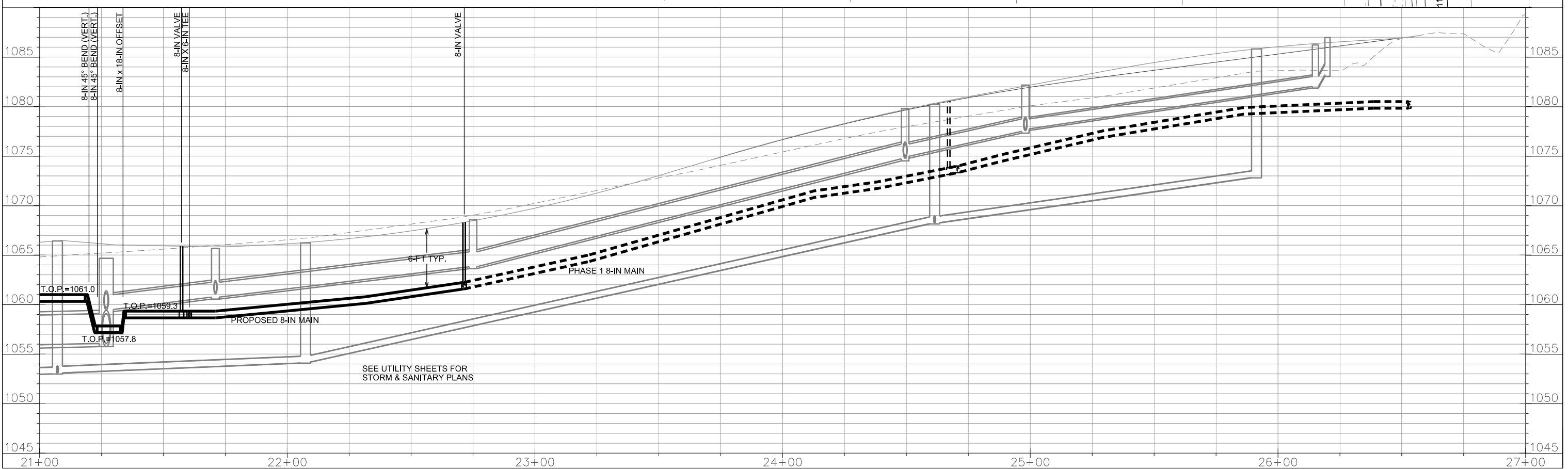
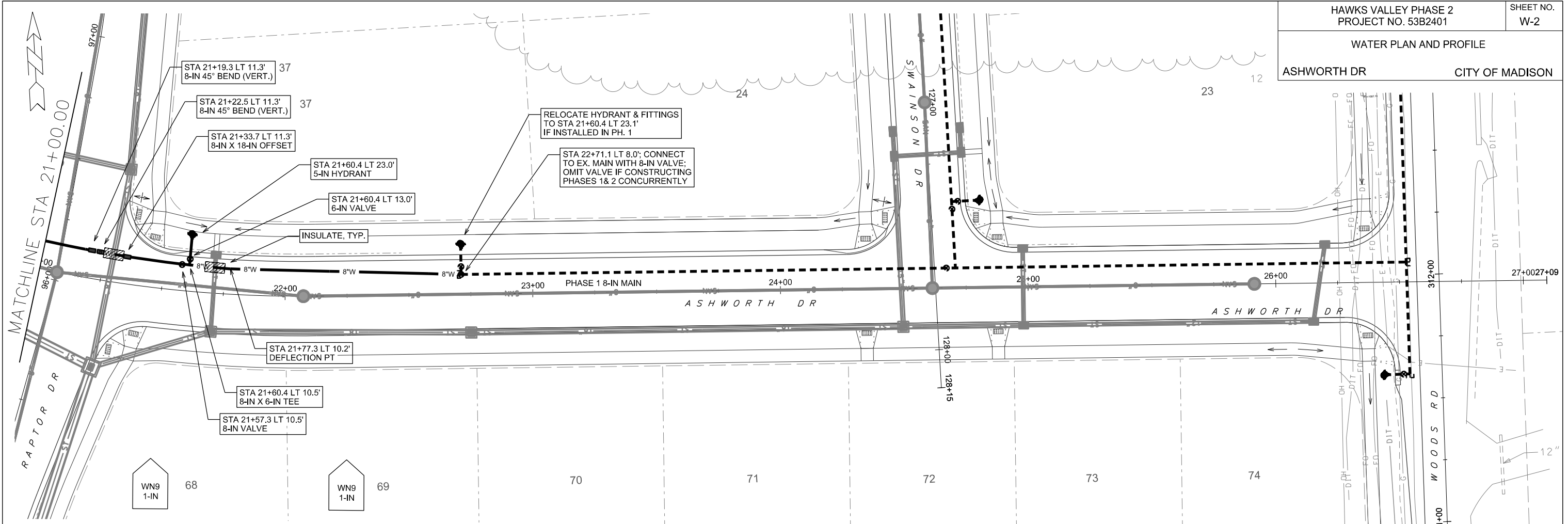


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

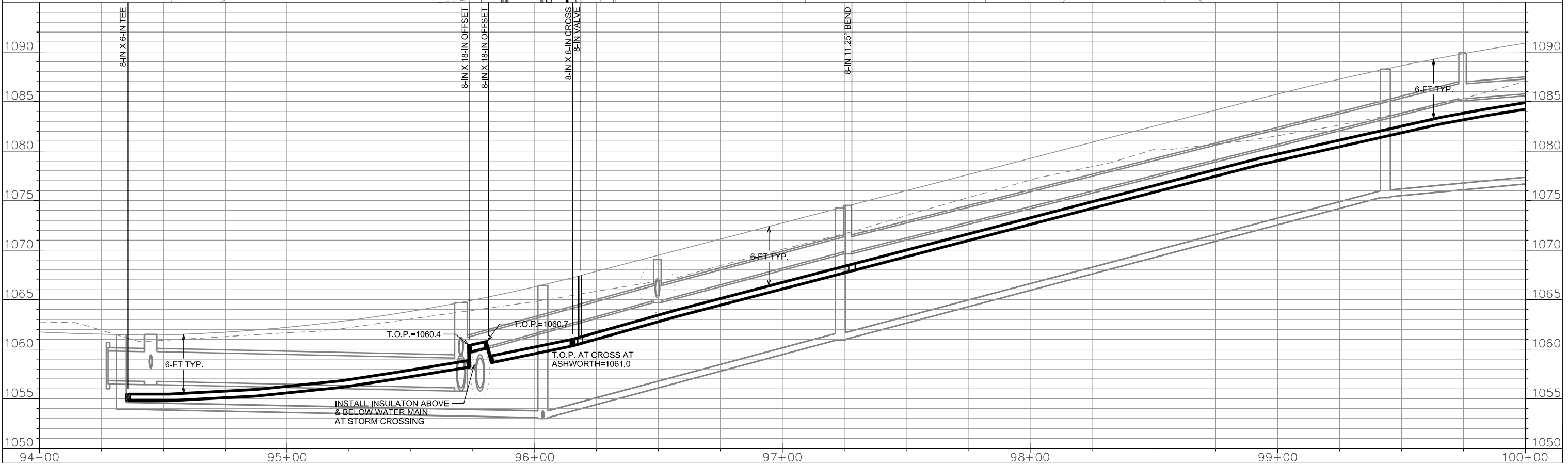
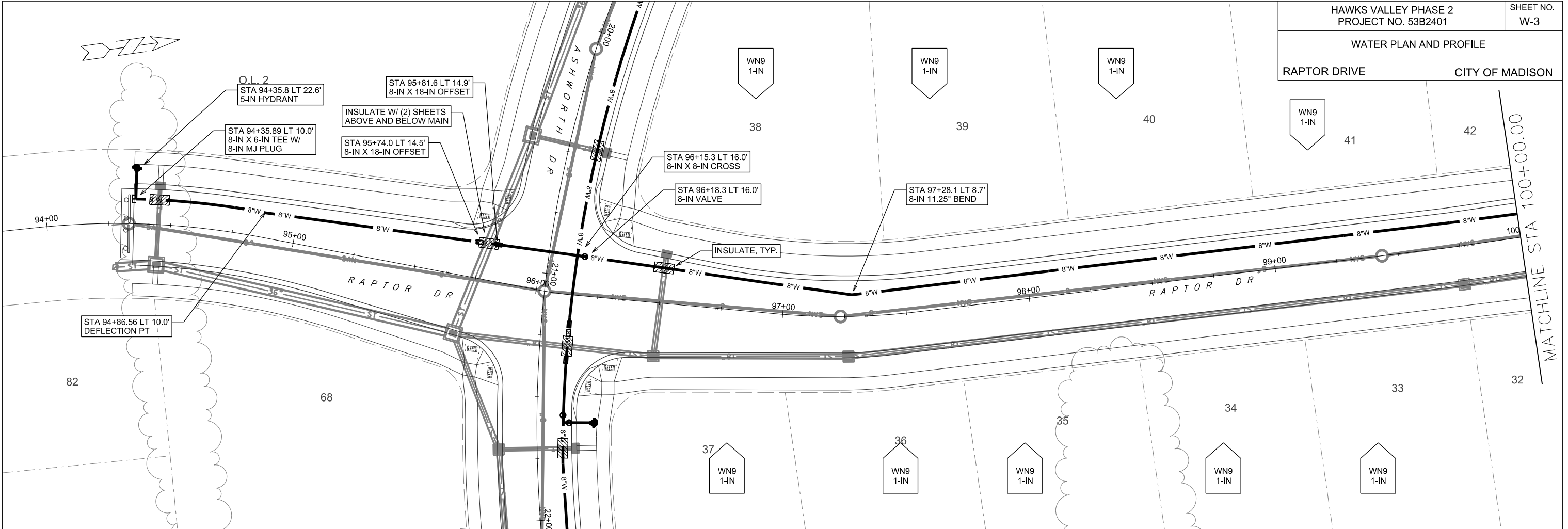


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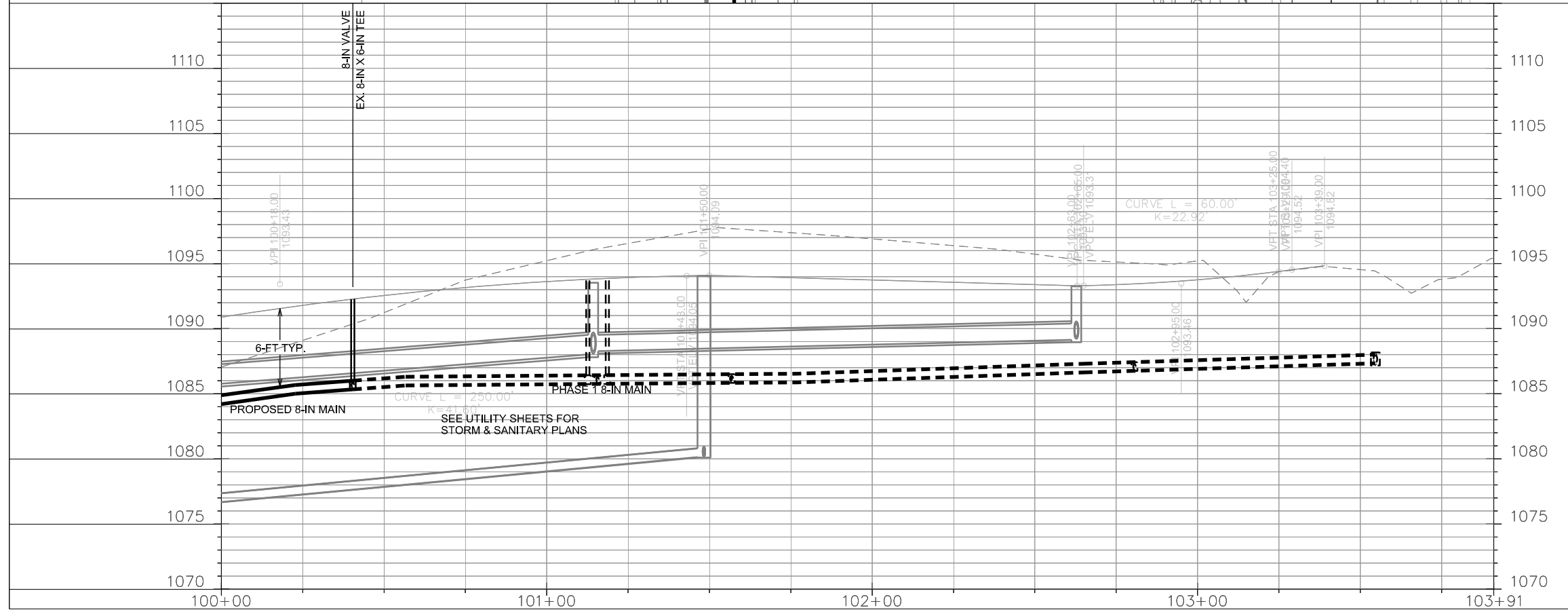
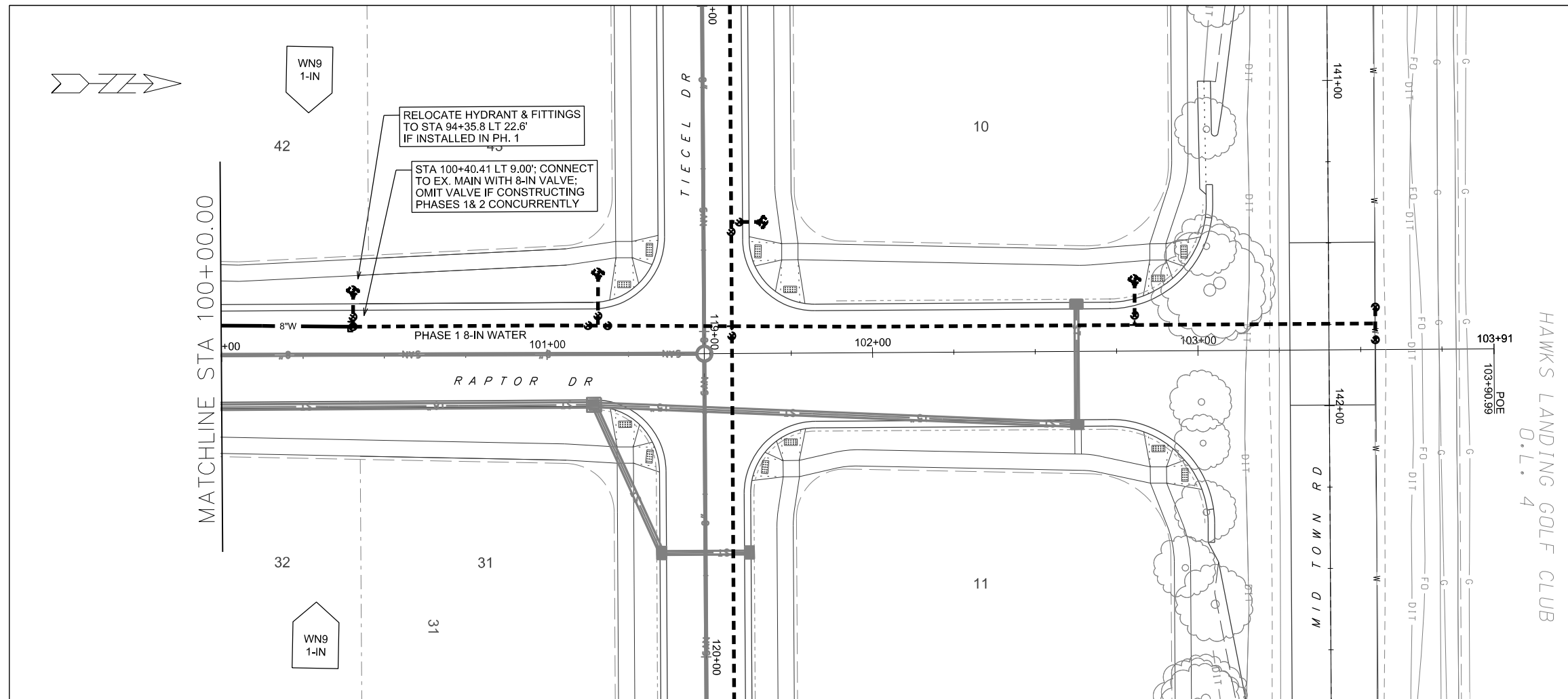


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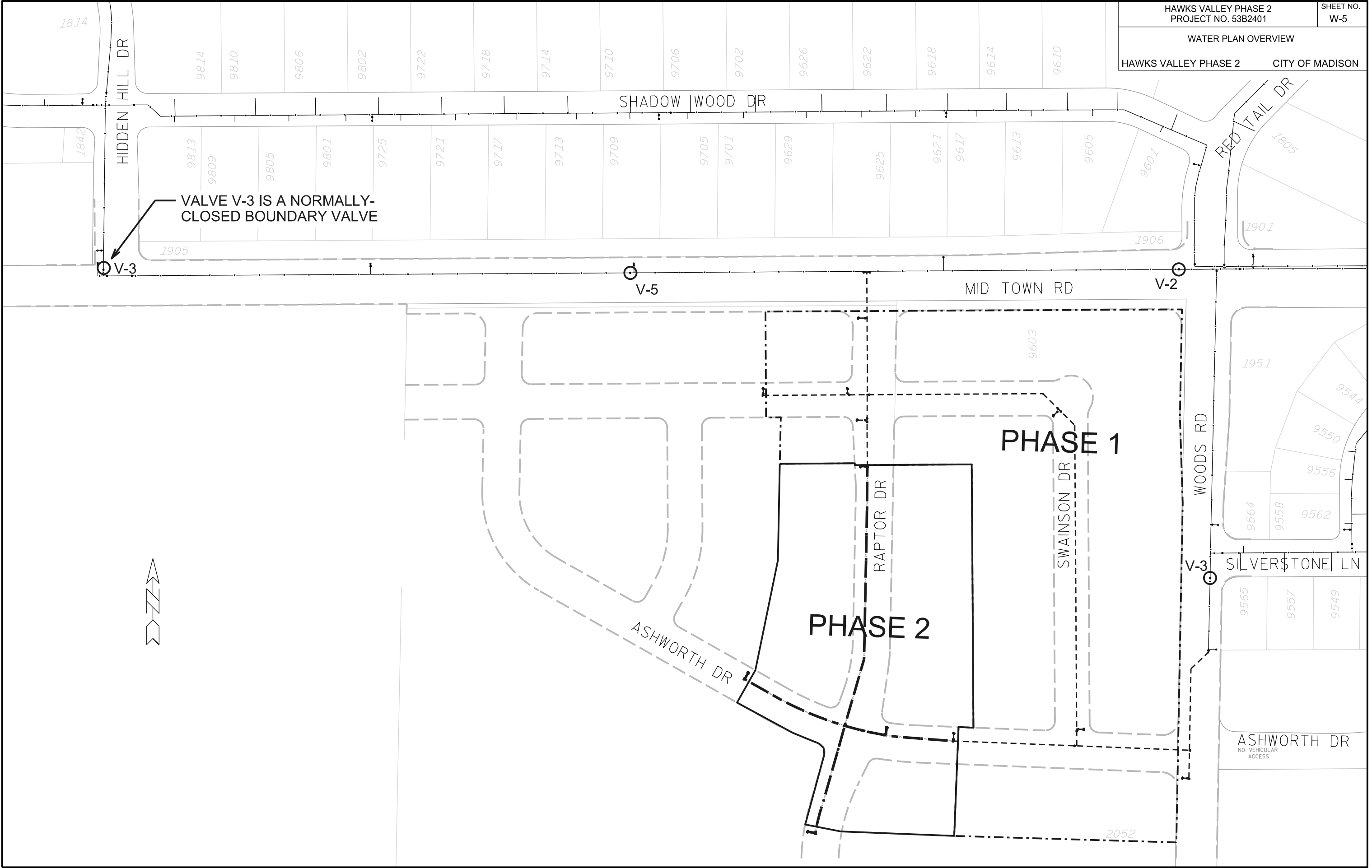


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PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

DISCLAIMER NOTE:
UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING WORK.

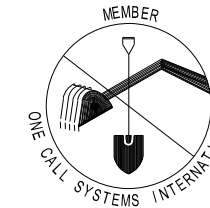
CONSTRUCTION NOTES:

1. CONSTRUCT NEW WATER MAIN 6.0' BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. INSULATE MAIN WITH POLYSTYRENE BOARD AT UTILITY CROSSINGS OR OTHER AREAS IDENTIFIED BY ENGINEER AS HAVING INADEQUATE COVER.
2. VERIFY SIZE OF EXISTING WATER SERVICES AND RECONNECT SERVICES AS INDICATED.
3. MINIMIZE DISRUPTION OF SERVICE TO EXISTING CUSTOMERS. NOTIFY PER CONTRACT REQUIREMENTS OF ANY PLANNED WATER OUTAGE.
4. THE EXISTING UTILITIES SHOWN ON THIS PLAN REPRESENT THE BEST INFORMATION AVAILABLE TO THE WATER UTILITY AT THE TIME OF PLAN PREPARATION. CONTRACTOR IS RESPONSIBLE FOR HAVING EACH UTILITY LOCATED PRIOR TO COMMENCING WORK.

- WN1 REPLACE THE EXISTING LEAD SERVICE WITH A NEW COPPER SERVICE.
- WN2 EXTEND AND RECONNECT THE EXISTING COPPER SERVICE TO THE NEW WATER MAIN.
- WN3 EXISTING SERVICE TO BE ABANDONED WHEN THE WATER MAIN IS CUT OFF.
- WN4 DISCONNECT FROM THE OLD WATER MAIN AND RECONNECT THE EXISTING COPPER WATER SERVICE LATERAL TO THE NEW WATER MAIN.
- WN5 RELOCATE THE EXISTING FIRE HYDRANT.
- WN6 ABANDON WATER VALVE ACCESS STRUCTURE.
- WN7 FURNISH AND INSTALL THE NEW TOP SECTION FOR THE WATER ACCESS STRUCTURE.
- WN8 ABANDON THE VALVE BOX.
- WN9 FURNISH THE DITCH, COMPACTION, AND ALL MATERIALS AND LABOR FOR THE INSTALLATION OF NEW SERVICE LATERAL.
- WN10 REMOVE AND SALVAGE EXISTING HYDRANT
- WN11 REPLACE THE EXISTING COPPER SERVICE WITH A COPPER SERVICE
- WN20+ SEE WATER IMPACT PLAN FOR CONNECTION POINT ISOLATION AND WATER SHUT-OFF NOTIFICATION INFORMATION

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN
CALL DIGGERS HOTLINE TOLL FREE
811 OR 1-800-242-8511
FAX-A-LOCATE 1-800-338-3860
TDD (FOR HEARING IMPAIRED) 1-800-542-2289

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.



ESTIMATE OF MATERIALS SUPPLIED BY CONTRACTOR:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

45-FT - 6-IN PIPE	2 - 8-IN MJ PLUG
980-FT - 8-IN PIPE	1 - 5-IN HYDRANT
1180-FT - POLYWRAP	56 - LF 2-IN FOAM INSULATION
1 - 6-IN VALVE & BOX	COPPER SERVICE TUBING & COUPLINGS (AS REQ'D)
4 - 8-IN VALVE & BOX	HYDRANT OR VALVE BOX RISERS/EXTENSIONS (AS REQ'D)
3 - 8-IN X 6-IN TEE	QUANTITIES MAY DIFFER IF PHASE 1 & 2 ARE BUILT CONCURRENTLY
1 - 8-IN X 8-IN CROSS	
3 - 8-IN X 18-IN OFFSET	
2 - 8-IN 45° BEND	

ESTIMATE OF MATERIALS SUPPLIED BY CITY:

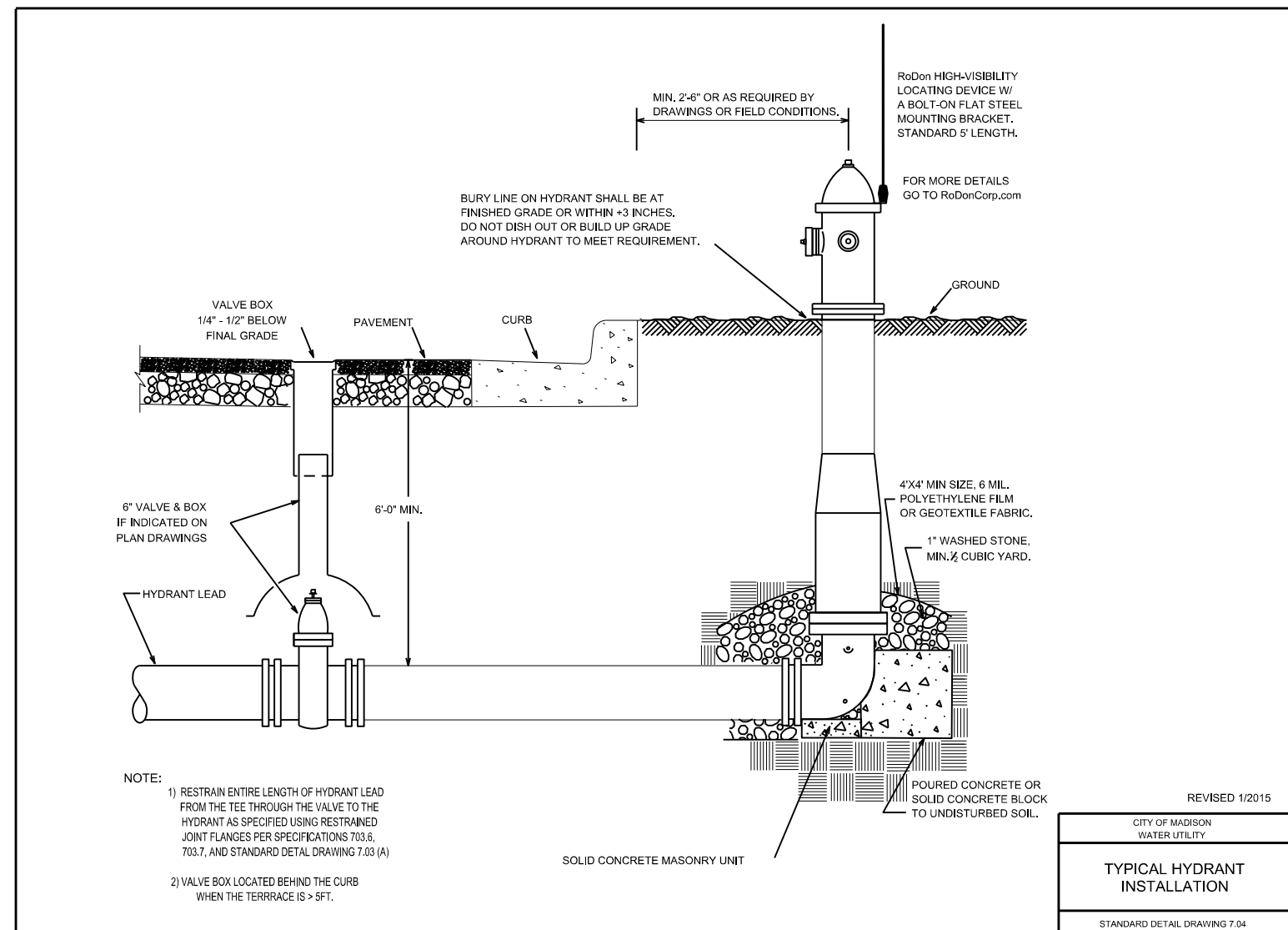
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NONE

ESTIMATE OF MATERIALS SALVAGED:

* ESTIMATE OF MATERIALS IS FOR INFORMATION ONLY. ENGINEER DOES NOT GUARANTEE ACCURACY OF MATERIAL TAKE-OFF.

2 - 5-IN HYDRANT (RE-USE TEMP. FROM PH. 1)



REVISED 1/2015

CITY OF MADISON
WATER UTILITY

TYPICAL HYDRANT
INSTALLATION

STANDARD DETAIL DRAWING 7.04

PLOT SCALE: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION