

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

PUBLIC IMPROVEMENT PROJECT APPROVED

JULY 24, 2018

BY THE COMMON COUNCIL OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN APPROVED BY:

[Signature] 4/23/19
City Engineer Date

STORM WATER MANAGEMENT DESIGNED BY:

Madison, Wisconsin
INDEX OF SHEETS

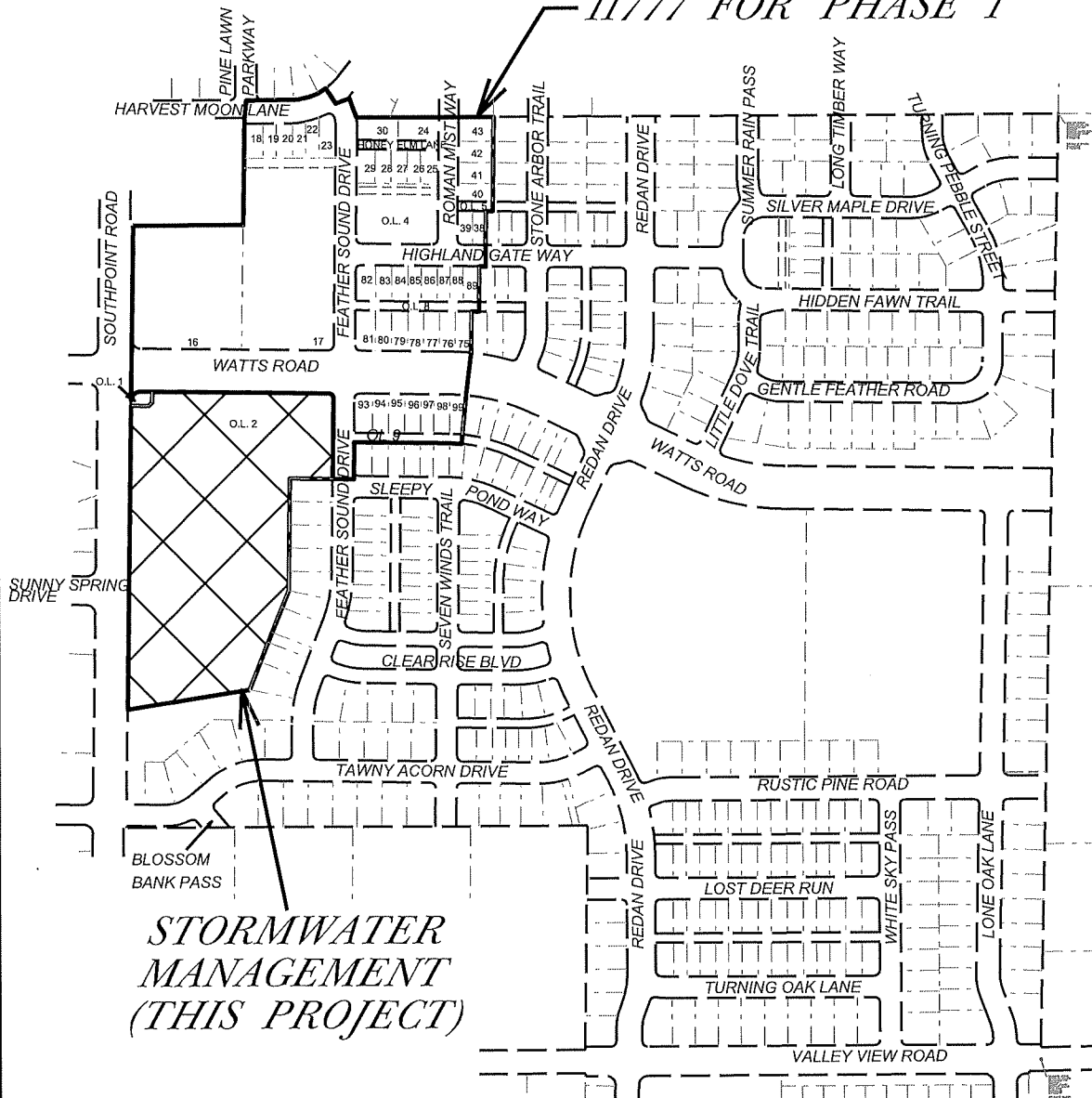
SHEET NO.	1	BASIN LAYOUT PLAN
SHEET NO.	2	DETENTION POND & INFILTRATION BASIN DETAIL

ACACIA RIDGE: STORM WATER MANAGEMENT IMPROVEMENTS

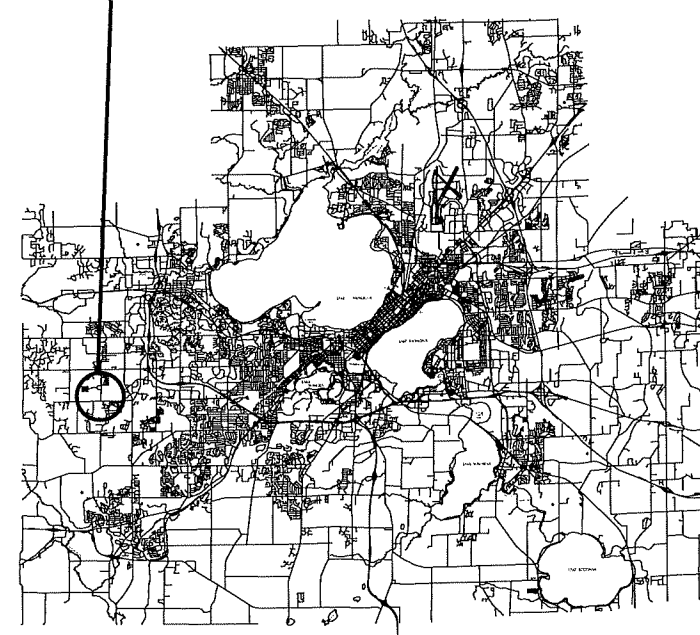
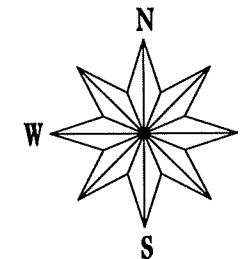
CITY PROJECT NO. 11936
CITY CONTRACT NO. 8199
MUNIS NO. 11936

SEE INDIVIDUAL SHEETS

SEE PROJECT NO. 11777 FOR PHASE 1



PROJECT LOCATION



PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____
ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PROPOSED DETENTION BASIN

TOP OF POND BERM - 1073.00, AREA = 184,496 SQFT
 TOP OF WET POND/OUTLET - 1067.00, AREA = 142,128 SQFT
 BOTTOM OF WET POND - 1059.00

CONNECT PROPOSED 2- 36" OUTLET PIPES TO EXISTING 42" CULVERTS WITH 2- 72" STRUCTURES. PLACE NEENAH R-4349-D FRAME AND GRATES IN CATCH BASINS.
 RIMS = 1069.50
 42" INVERTS W = 1064.68
 36" INVERTS E = 1065.18
 (VERIFY EX 42" INVERT PRIOR TO CONSTRUCTION)

EXTEND EXISTING 2-42" CULVERTS TO PROPOSED CATCH BASINS

2 EXISTING -42" CULVERTS

FUTURE 42" CULVERT DESIGN AND CONSTRUCTION BY CITY APPROX. 120 LF -42" STORMSEWER @ 0.50%

PROPOSED 72" CATCHBASIN W/NEENAH R-4349-D FRAME AND GRATE
 RIM = 1069.50
 42" INV W = 1064.10
 18" INV S = 1064.37
 36" INV E = 1065.18

PLACE 10' X 30' CONCRETE PAD OVER THE THREE CATCH BASINS

10' OVERFLOW WEIR @ 1070.00 W/IRIP-RAP

326 LF - 18" STORMSEWER @ 0.50%

PROPOSED 48" CATCHBASIN
 RIM = 1073.00
 18" INV N = 1066.00
 18" INV S = 1066.77
 8" INV E = 1066.00

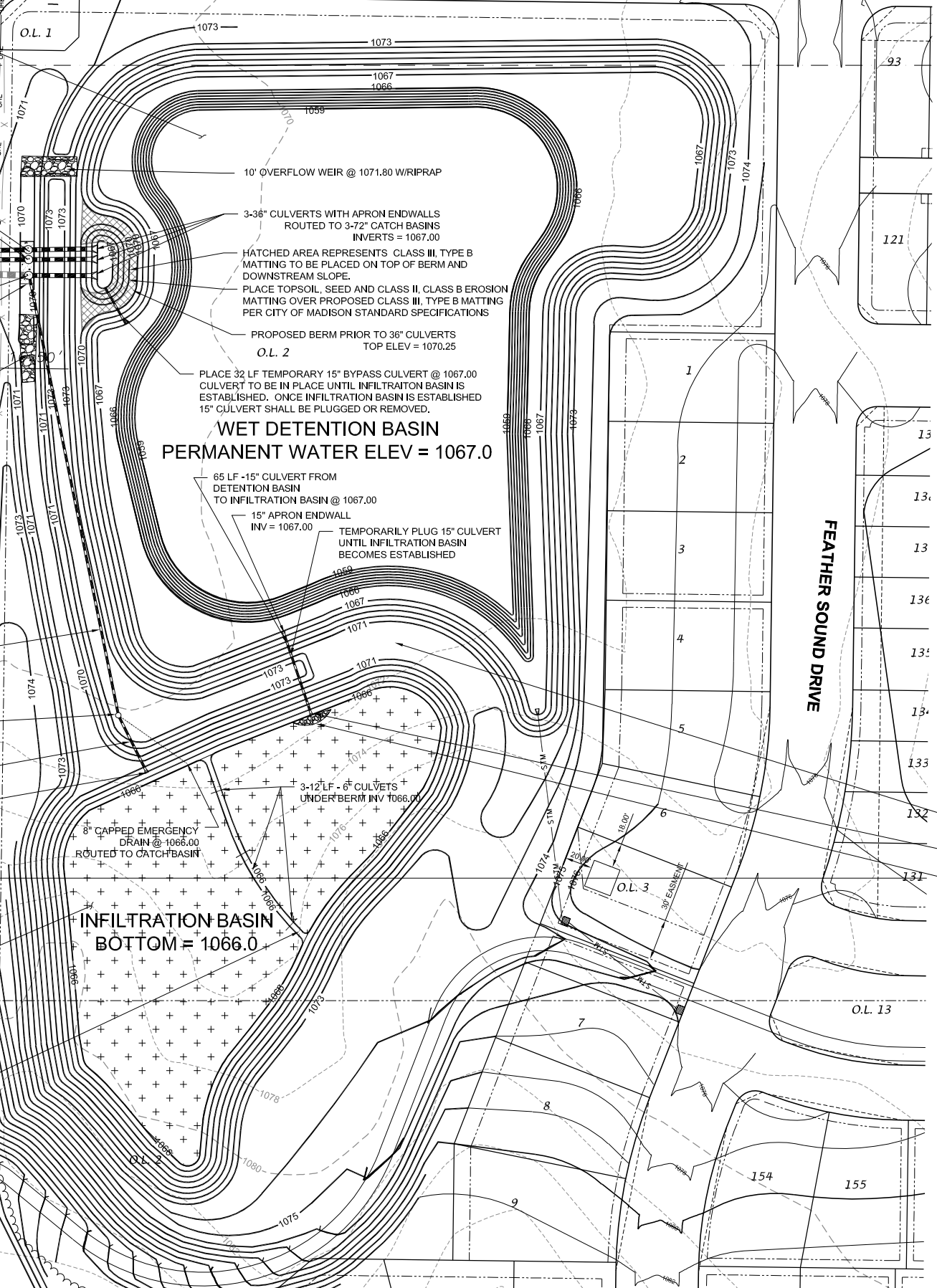
47 LF - 18" STORMSEWER @ 0.50%

18" OUTLET CULVERT W/ APRON ENDWALL
 INV = 1067.00

PROPOSED INFILTRATION BASIN W/ 12" DEPRESSION ZONE
 48,819 SQFT @ 1066.00
 82,568 SQFT (TOP OF BERM) @ 1073.00

PROPOSED 9" TALL BERM SEPARATING THE INFILTRATION BASIN INTO 2 CELLS. PLACE 3- 6" CULVERTS BELOW BERM.
 INV 1066.00

WATTS ROAD



**WET DETENTION BASIN
 PERMANENT WATER ELEV = 1067.0**

PLACE 32 LF TEMPORARY 15" BYPASS CULVERT @ 1067.00 CULVERT TO BE IN PLACE UNTIL INFILTRATION BASIN IS ESTABLISHED. ONCE INFILTRATION BASIN IS ESTABLISHED 15" CULVERT SHALL BE PLUGGED OR REMOVED.

85 LF - 15" CULVERT FROM DETENTION BASIN TO INFILTRATION BASIN @ 1067.00

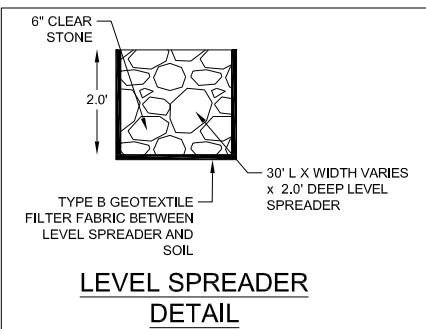
15" APRON ENDWALL INV = 1067.00

TEMPORARILY PLUG 15" CULVERT UNTIL INFILTRATION BASIN BECOMES ESTABLISHED

8" CAPPED EMERGENCY DRAIN @ 1066.00 ROUTED TO CATCH BASIN

**INFILTRATION BASIN
 BOTTOM = 1066.0**

3-12" LF - 6" CULVERTS UNDER BERM INV 1066.00



**LEVEL SPREADER
 DETAIL**

GENERAL NOTES:

- ALL SITE WORK AND MATERIALS SHALL BE PER THE CITY OF MADISON STANDARD SPECIFICATIONS.
- EROSION CONTROL MEASURES SHALL BE PLACED PER THE APPROVED EROSION CONTROL PLAN.
- LENGTHS OF CULVERTS INCLUDE ENDWALLS.
- CULVERT LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION TO ENSURE THAT THEY ARE LONG ENOUGH TO CONFORM TO TYPICAL CROSS SECTION.
- ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL, FERTILIZER, SEED AND MULCH. SEED MIXTURE SHALL BE PER THE CITY OF MADISON REQUIREMENTS. FERTILIZER SHALL BE PLACED PER A SOIL TEST. THE INFILTRATION AREA SHALL BE SEED WITH A SEED MIX TOLERANT OF FLUCTUATING WATER CONDITIONS.
- ENGINEERED SOIL IN INFILTRATION BASIN SHALL BE 70-85% SAND & 15-30% COMPOST
- SEE APPROVED ENGINEERING PLANS FOR SITE STORM SEWER TYPE, LENGTHS, AND SIZES
- A CERTIFIED SOIL INSPECTOR SHALL CERTIFY THAT THE PROPOSED SOILS TO BE USED FOR THE INFILTRATION BASIN BACKFILL LAYER HAS THE INFILTRATION RATE REQUIRED PRIOR TO BACKFILLING. CLEAN SAND OR CLEAR STONE MAY BE USED AS AN ALTERNATIVE BACKFILL MATERIAL.
- THE EMERGENCY DRAIN PIPE IN THE INFILTRATION BASIN MAY BE OPEN TO ALLOW FOR RESTORATION UNTIL FINAL INFILTRATION BASIN RESTORATION OCCURS.

HATCH INDICATES INFILTRATION BASIN BOTTOM AREA. THIS AREA SHALL BE SEED WITH A NATIVE SEED MIX TOLERANT OF FLUCTUATING WATER CONDITIONS.

150' EQUILAZIATION BERM @ 1071.55

15" APRON ENDWALL INV = 1067.00

PLACE 30" LONG X 2' DEEP LEVEL SPREADER AT THE END OF PROPOSED APRON END WALL. FILL WITH 6" CLEAR STONE (SEE DETAIL)

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
 7530 Westward Way, Madison, WI 53717
 Phone: 608.833.7530 • Fax: 608.833.1089
 YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

PROPOSED STORMWATER BASIN LAYOUT

ACACIA RIDGE

CITY OF MADISON, WISCONSIN



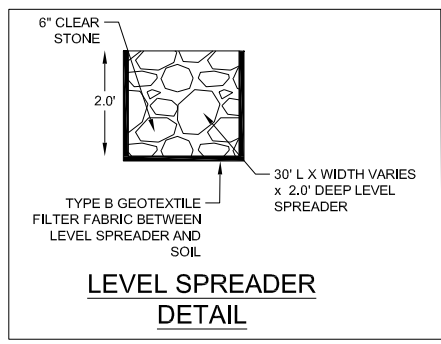
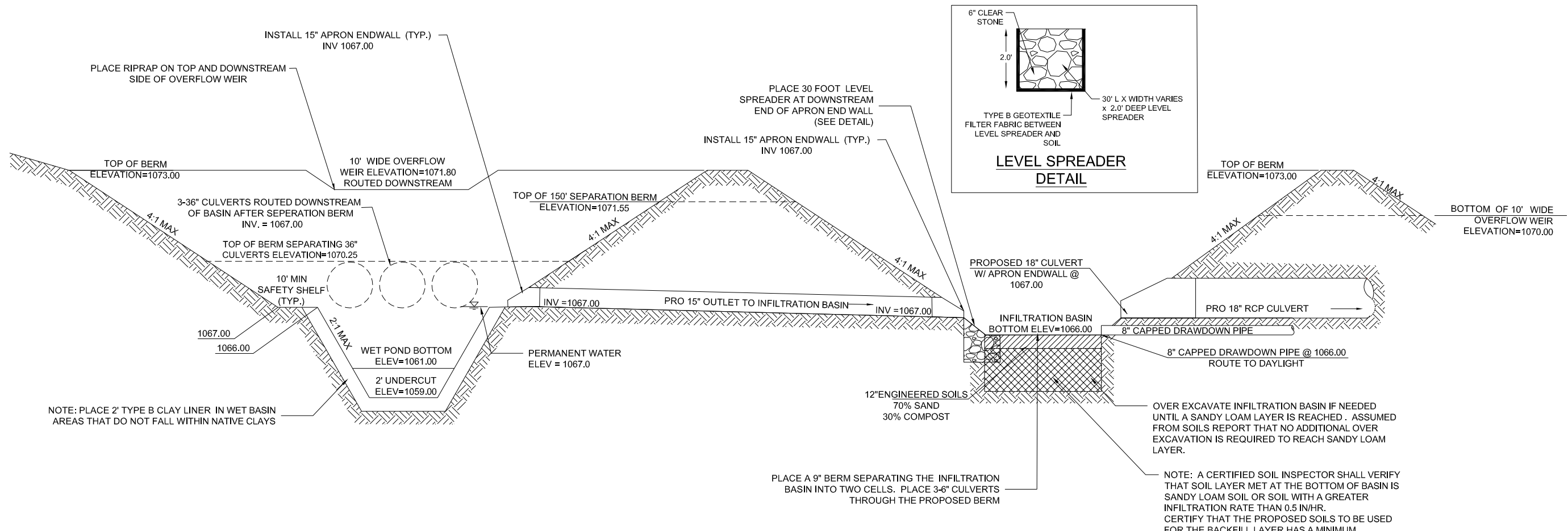
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DRAWN BY: GVP

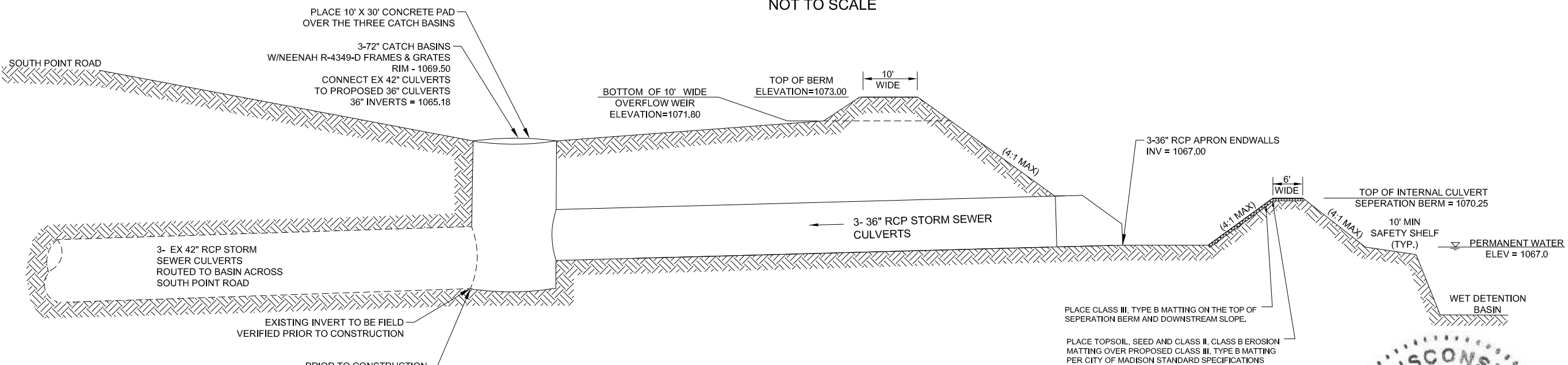
FN: 19-05-106

Sheet Number:
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PROPOSED WET DETENTION & INFILTRATION BASIN DETAIL
NOT TO SCALE



PROFILE VIEW
PROPOSED WET DETENTION TO DOWNSTREAM CULVERTS DETAIL
NOT TO SCALE



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PROPOSED DETENTION POND & INFILTRATION BASIN DETAIL

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CITY OF MADISON, WISCONSIN

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