BEAVER DAM LAKE MANAGEMENT DISTRICT

ALL ELEVATIONS ARE IN
NAVD 88 - DATUM

LIBRARY LAKE SOUTHEAST STORMWATER IMPROVEMENTS

CUMBERLAND, BARRON COUNTY, WISCONSIN

LEGEND

FEATURE	EXISTING	PROPOSED
MINOR CONTOUR	1246	1246
MAJOR CONTOUR	1245	1245
WATERLINE/SHORELINE		
FENCE		
BURIED ELECTRIC LINES	E-U	
DRIVEWAY		
PROPERTY LINE		
EASEMENT		
DITCH C/L		
TREE LINE	E-U	
TREE		
BUSH		
SANITARY SEWER LINE		
SANITARY SEWER MANHOLE		
STORM SEWER LINE		
STORM SEWER MANHOLE		
STORM SEWER ROAD INLET		
STORM SEWER YARD INLET		
WATERMAIN	W	
SILT FENCE		SF
SEDIMENT LOG		
INLET PROTECTION		
TURBIDITY BARRIER		
CONSTRUCTION LIMITS		

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* THIS PLAN SET CONTAINS 15 PLAN SHEETS

DIGGERS HOTLINE

WISCONSIN STATUE 182.0175 REQUIRES EVERY EXCAVATOR AND EVERYONE RESPONSIBLE FOR PLANNING NON-EMERGENCY EXCAVATIONS TO PROVIDE ADVANCE NOTICE OF AT LEAST **THREE** BUSINESS DAYS TO THE ONE CALL SYSTEM. SEE THE STATE STATUE FOR THE DEFINITION OF EXCAVATION. DIGGERS HOTLINE NEEDS TO BE CONTACTED PRIOR TO EXCAVATION AND PLANNING AN EXCAVATION IN ORDER TO COMPLY WITH THE STATE STATUE.

DIGGERS HOTLINE SHOULD ALSO BE USED TO OBTAIN INFORMATION ON SAFE WORKING CLEARANCES FROM OVERHEAD LINES. OSHA REQUIRES THAT YOU STAY AT LEAST 10 FEET AWAY FROM DISTRIBUTION LINES AND UP TO 16 FEET AWAY FROM TRANSMISSION LINES WITH EXCAVATORS, BACK-HOES, WHEEL LOADERS, DIGGER DERRICKS USED FOR AUGURING HOLES, AND SETTING POLES IN TELECOMMUNICATIONS AND ELECTRICAL WORK, ETC. THE 2010 OSHA CRANE STANDARD REQUIRES ADDITIONAL RESTRICTIONS FOR OTHER TYPES OF CRANES OR HOISTING DEVICES.

SEE THE EXCAVATOR'S GUIDE TO DIGGERS HOTLINE FOR ADDITIONAL INFORMATION.

CONTACTING DIGGERS HOTLINE

BY PHONE: DIGGERS HOTLINE IS AVAILABLE 24 HOURS A DAY, 7 DAYS A WEEK, 365 DAYS A YEAR BY CALLING THE THREE-DIGIT CODE **811** OR BY CALLING (800) 242-8511. TDD USERS MAY CALL (800) 542-2289.

BY EMAIL: ON THE DIGGERS HOTLINE WEBSITE, **WWW.DIGGERSHOTLINE.COM**, YOU CAN EMAIL LOCATE REQUESTS TO THE CALL CENTER. TO ACCESS THE ONLINE EMAIL FORM, GO TO DIGGERS HOTLINE WEBSITE, **WWW.DIGGERSHOTLINE.COM**.

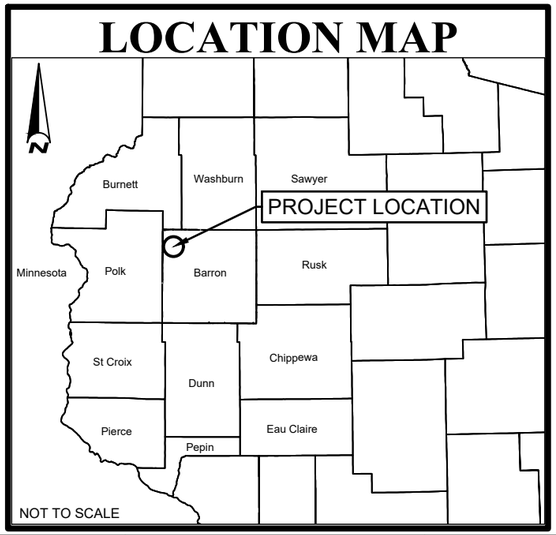
EXISTING UTILITIES

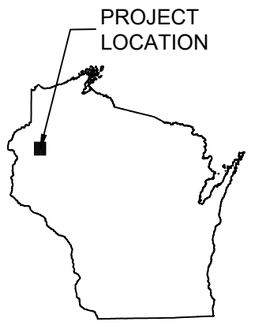
THE LOCATION OF UNDERGROUND FACILITIES AND/OR STRUCTURES AS SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORD AT THE TIME THE PLANS WERE PREPARED AND ARE NOT GUARANTEED TO BE COMPLETE OR CORRECT. THE SUBSURFACE UTILITY INFORMATION SHOWN IS UTILITY QUALITY LEVEL D, AS DETERMINED USING THE GUIDELINES OF "CI/ASCE 38-02 STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE THE EXACT LOCATION OF ALL FACILITIES AND TO PROVIDE ADEQUATE PROTECTION OF SAID UTILITIES DURING THE COURSE OF WORK.

CONSTRUCTION NOTE

CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN OPERATION OF EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT. IN THE EVENT THAT AN INTERRUPTION OF SERVICE IS UNAVOIDABLE IN ORDER TO COMPLETE THE WORK, CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION TO ALL AFFECTED BUSINESSES A MINIMUM OF 3 WORKING DAYS IN ADVANCE OF ANY INTERRUPTION.

LOCATION MAP





GOVERNING SPECIFICATIONS

THE DESIGN ADHERES TO NATURAL RESOURCE CONSERVATION SERVICE (NRSC) STANDARDS, AS WELL AS THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WIDNR).

THE 2020 EDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT) "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

CLIENT
BEAVER DAM LAKE MANAGEMENT DISTRICT
P.O. BOX 232
CUMBERLAND, WI 54829

ENGINEER
EMMONS & OLIVIER RESOURCES, INC.
1919 UNIVERSITY AVE W - SUITE 300
ST. PAUL, MINNESOTA 55104
TELEPHONE: (651) 770-8448
FAX: (651) 770-2552
eorinc.com

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1	10/30/2020	DEM	PRELIMINARY PLANS

NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

DIGGERS HOTLINE™

SUBMISSION DATE: 11/01/2020

DESIGN BY DRL | DRAWN BY DEM | CHECKED BY XXX

EOR PROJECT NO. 00909_0022

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LIBRARY LAKE SOUTHEAST STORMWATER IMPROVEMENTS CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

TITLE SHEET

SHEET 01 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2

GENERAL SITE WORK NOTES

1. CONTRACTOR TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION BY CALLING DIGGERS HOTLINE 1-800-242-8511.
2. VERIFY HORIZONTAL LOCATION AND ELEVATION WHERE A CONNECTION TO EXISTING PAVEMENT, STRUCTURE, PIPE OR OTHER SITE FEATURE IS TO BE MADE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.
3. REFERENCE TO WISDOT SPECIFICATIONS SHALL MEAN THE 2020 SPECIFICATIONS FOR CONSTRUCTION.
4. CONTRACTOR SHALL INSTALL, INSPECT, MAINTAIN AND REMOVE THE NECESSARY SIGNAGE FOR LANE CLOSURES. ALL TRAFFIC CONTROL DEVICES AND SIGNAGE SHALL CONFORM TO THE WMUTCD. ALL TRAFFIC CONTROL IS INCIDENTAL TO THE CONTRACT.

GENERAL UTILITY NOTES

1. CONTRACTOR SHALL CONTACT 'DIGGERS HOTLINE' (1-800-242-8511) AT LEAST THREE BUSINESS DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND INVERTS, SHOWN OR NOT SHOWN. ANY DISCREPANCY BETWEEN PLANS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. ALL UTILITY WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CUMBERLAND SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
4. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE SEWER, WATER AND PLUMBING PERMITS FROM THE CITY OF CUMBERLAND.
5. UTILITY TRENCHES SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698.78 OR AASHTO T-99) FROM THE PIPE ZONE TO WITHIN THREE FEET OF THE GROUND SURFACE AND 100% STANDARD PROCTOR IN THE UPPER THREE FEET.
6. FIELD ADJUST ALL CASTINGS TO MATCH FINAL GRADES.
7. CONNECTION TO THE EXISTING STORM SEWER REQUIRES INSPECTION BY THE CITY OF CUMBERLAND.
8. CONTRACTOR SHALL NOTIFY THE CITY OF CUMBERLAND 48 HOURS IN ADVANCE OF WORKING WITHIN THE EXISTING RIGHT OF WAY. CITY INSPECTORS MUST OBSERVE ALL WORK COMPLETED WITHIN THE EXISTING RIGHT OF WAY INCLUDING REMOVAL OF EXISTING BITUMINOUS PAVEMENT, EXCAVATION OF TRENCHES, PLACEMENT OF UTILITY CONNECTIONS TO EXISTING LINES, BACKFILLING AND PLACEMENT OF BITUMINOUS PAVEMENT OR CONCRETE APRONS, SIDEWALKS, AND CURB & GUTTER.

SITE REMOVAL NOTES

1. BITUMINOUS PAVEMENT REMOVALS ARE TO BE MADE TO A VERTICAL SAW CUT OR TO A NEAT MILLED EDGE IN ACCORDANCE WITH WISDOT SPECIFICATIONS.
2. CONCRETE PAVEMENT, SIDEWALK, CURB & GUTTER AND OTHER POURED CONCRETE ITEMS ARE TO BE REMOVED TO AN EXISTING EXPANSION OR CONTRACTION JOINT. SAW CUT AS NECESSARY FOR A NEAT EDGE OF REMOVAL.
3. SALVAGED SEWER CASTINGS AND MANHOLE SECTIONS SHALL BE CLEANED AND INSPECTED FOR DAMAGE PRIOR TO REINSTALLATION.
4. ALL REMOVAL ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE AND SHALL BE DISPOSED OF OFF-SITE IN A MANNER MEETING ALL APPLICABLE REGULATIONS.

STORM SEWER NOTES

1. STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISDOT SPECIFICATIONS.
2. STORM SEWER SHALL BE PRECAST REINFORCED CONCRETE. CASTING SHALL BE AS SPECIFIED ON THE PLANS OR APPROVED EQUAL.
3. CATCH BASINS SHALL BE PRECAST REINFORCED CONCRETE. CASTING SHALL BE AS SPECIFIED ON THE PLANS OR APPROVED EQUAL.
4. MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C478. CASTING SHALL BE NEENAH R-1733. MANHOLES SHALL HAVE A MINIMUM OF 3 ADJUSTMENT RINGS AND MORTAR AND A MAXIMUM OF 12" OF ADJUSTMENT RINGS AND MORTAR.
5. CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE BY CORE DRILLING OR SAW CUTTING THE EXISTING MANHOLE AT THE PROPOSED INVERT ELEVATION. GROUT IN THE NEW PIPE AND REFORM THE INVERT.
6. PIPE LENGTHS ON THE PLAN INCLUDE THE APRON SECTION.
7. ALL STORM SEWER PIPE JOINTS SHALL BE TIED AT ALL SECTIONS.
8. THE CONTRACTOR WILL LOCATE THE MANHOLE OR CATCH BASIN STRUCTURE AS NECESSARY FROM REFERENCE POINTS. PIPE ALIGNMENTS ARE STAKED TO CENTER OF CASTING - CONTRACTOR WILL ADJUST THE ALIGNMENT TO FIT THE ACTUAL STRUCTURES INSTALLED.

GRADING & EROSION CONTROL NOTES

1. CONTRACTOR SHALL CONTACT 'DIGGERS HOTLINE' (1-800-242-8511) AT LEAST THREE BUSINESS DAYS PRIOR TO EXCAVATION/ CONSTRUCTION, FOR UTILITY LOCATIONS.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
3. ENGINEER SHALL PROVIDE HORIZONTAL AND VERTICAL CONTROL BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SAID HORIZONTAL AND VERTICAL CONTROL POINTS SET BY ENGINEER AND ANY ADDITIONAL CONSTRUCTION STAKING.
4. CONTRACTOR TO ADHERE TO ALL CITY, DNR, WISDOT AND NPDES PERMIT REQUIREMENTS, EVEN IF ACQUISITION OF THE NPDES PERMIT IS NOT REQUIRED, INCLUDING THE REQUIREMENT TO MINIMIZE THE AREA DISTURBED BY GRADING AT ANY GIVEN TIME AND TO COMPLETE VEGETATION RESTORATION WITHIN THE TIME REQUIRED BY THE PERMIT AFTER COMPLETION OF GRADING OF AN AREA.
5. ALL EXPOSED SOIL AREAS WITHIN 100 FEET OF A WATER OF THE STATE OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A WATER OF THE STATE MUST BE STABILIZED WITHIN 24 HOURS.
6. ALL CONSTRUCTION ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK ACROSS FULL WIDTH FROM ENTRANCE POINT TO 50 FEET INTO THE CONSTRUCTION ZONE. SEE DETAIL.
7. INLET PROTECTION IS TO BE USED DURING CONSTRUCTION. SEE DETAIL.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, AND STATE PERMITS.
9. CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS DIRECTED BY THE ENGINEER.
10. REMOVE ALL EROSION CONTROL MEASURES AFTER VEGETATION IS ESTABLISHED, AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS, AS DIRECTED BY THE ENGINEER.
12. IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS.
13. SWEEP ADJACENT STREETS AS DIRECTED BY THE ENGINEER.
14. INSPECT EROSION CONTROL DEVICES AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING EROSION CONTROL DEVICES.
15. SEDIMENT REMOVAL - SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
16. ANY SEDIMENT REMAINING IN PLACE AFTER THE EROSION CONTROL DEVICE IS NO LONGER REQUIRED SHALL BE GRADED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX AS DIRECTED BY THE ENGINEER.
17. SUITABLE GRADING MATERIAL SHALL CONSIST OF ALL SOIL ENCOUNTERED ON THE SITE WITH EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL. STOCKPILE TOPSOIL AND GRANULAR FILL AT LOCATIONS DIRECTED BY ENGINEER.
18. EXISTING GRANULAR MATERIALS SHALL BE SEGREGATED AND STOCKPILED FOR REUSE ON-SITE.
19. CONTRACTOR SHALL STRIP, STOCKPILE AND RE-SPREAD EXISTING ON-SITE TOPSOIL TO PROVIDE A UNIFORM THICKNESS, MINIMUM 6", ON ALL DISTURBED AREAS TO BE SODDED OR SEEDED.
20. SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF THE EXISTING PAVEMENT.
21. GRADES SHOWN ARE FINISHED GRADES, CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATIONS. SUBGRADE ELEVATIONS SHALL BE INSPECTED AND APPROVED PRIOR TO PLACEMENT OF FINISH MATERIALS.
22. FINAL GRADING TOLERANCES ARE ±0.1 FEET OF PLAN GRADES.
23. ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE AND SHALL BE DISPOSED OF OFF-SITE IN A MANNER MEETING ALL APPLICABLE REGULATIONS.
24. CONTRACTOR IS RESPONSIBLE FOR GRADING AND SLOPING THE FINISHED GROUND SURFACE TO PROVIDE SMOOTH & UNIFORM SLOPES, WHICH PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING IN LOWER AREAS. CONTACT ENGINEER IF FIELD ADJUSTMENTS TO GRADING PLANS ARE REQUIRED.
25. UNDER PAVEMENTS COMPACT THE UPPER THREE FEET OF SUBGRADE TO 100% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT AND 95% STANDARD PROCTOR DENSITY BELOW THE UPPER THREE FEET OF SUBGRADE. OUTSIDE OF PAVEMENT AREAS COMPACT EMBANKMENTS TO 95% STANDARD PROCTOR DENSITY.

RESTORATION NOTES

1. TURF RESTORATION IS SEEDING IN ACCORDANCE WITH THE SITE RESTORATION PLAN. ALL SEEDED AREAS ARE TO RECEIVE SOIL STABILIZER (HYDRAULIC BONDED FIBER MATRIX).
2. SEED 50% OF SEEDING MIXTURE NO. 10 WITH TRACER PRIOR TO APPLICATION OF BONDED FIBER MATRIX. APPLY THE 0THER 50% OF SEED WITHIN THE BONDED FIBER MATRIX.

Library Lake Southeast Stormwater Improvements
Engineering Standards
Prepared by EOR; October 30, 2020

1	Streambank or shoreline protection with revegetation, soil bioengineering or upland erosion control	NRCS Technical Guide Streambank and Shoreline Protection Standard 580 (August, 2018)	580
2		NRCS Technical Guide Shoreland Habitat Standard 643A (July, 2001)	643A
3	Sediment Basins	Wisconsin DNR Technical Standard 1001, Wet Detention Basin (October 2007)	1001
4	Pervious Pavement	Wisconsin DNR Technical Standard 1008, Permable Pavement (February, 2016)	1008
5	Rain Gardens	Wisconsin DNR Technical Standard 1009, Rain Garden (September, 2018)	1009
6	Vegetation Planting	NRCS Technical Guide Tree / Shrub Establishment Standard 612 (January, 2018)	612
7	Wisconsin Department of Transportation 2021 Standard Specifications (Spec)	Part 2 - Earthwork	
8		Part 3 -Bases and Subbases	
9		Part 4 - Pavements	
10		Part 5 - Structures	
11		Part 6 - Incidental Construction	

Item No.	WISDOT Spec.	Item	UNITS	Quantity Phase 1	Quantity Phase 2	Quantity Phase 3	Quantity Total
1	201.0115	Clearing	ACRE	0.5			0.5
2	201.0215	Grubbing	ACRE	0.5			0.5
3	204.0100	Removing Pavement	SY	70	600		670
4	204.0150	Removing Curb & Gutter	LF	40	20	60	120
5	204.0165	Removing Guardrail (Wood Bollards)	LF	44			44
6	204.0170	Removing Fence	LF	220			220
7	204.0280	Sealing Pipes	EACH	6			6
8	205.0100	Excavation Common (Phase 1)	CY	1700			1700
9	205.0100	Excavation Common (Phase 2)	CY		1400		1400
10	205.0100	Excavation Common (Phase 3)	CY			500	500
11	209.0000	Rain Garden Media (80:X:X)	CY		50		50
12	209.0000	Iron-Enhanced Sand Filter Media (95:5)	CY		270		270
13	209.1100	Backfill Granular Grade 1 (Drainage Aggregate)	CY		140		140
14	305.0110	Base Aggregate Dense 3/4-Inch (9", Parking Lot)	TON			465	465
15	310.0000	Bedding Coarse ASTM No. 8 (2" Thick)	TON			33	33
16	310.0000	Base ASTM No. 57 (4" Thick)	TON			66	66
17	350.0000	Subbase ASTM No. 2 (12" Thick)	TON			198	198
18	405.0000	PICP Pavers / Blocks (Parking Lot)	SF			2805	2805
19	450.0000	Maccadam (6", Walking Path)	TON			130	130
20	460.5224	HMA Pavement 4 LT 58-28 S (3", Parking Lot)	TON			148	148
21	516.0500	Rubberized Membrane Waterproofing (IESF Liner)	SY		700		700
22	520.1021	Apron Endwalls for Culvert Pipe 21-Inch	EACH	2			2
23	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	1	1		2
24	601.0000	Concrete Curb & Gutter 24-Inch (Parking Lot, Flat Curb)	LF			175	175
25	601.0409	Concrete Curb & Gutter 30-Inch Type A (Highway)	LF		20		20
26	601.0409	Concrete Curb & Gutter 30-Inch Type A (Parking Lot)	LF			803	803
27	602.0415	Concrete Sidewalk 6-Inch	SF			2230	2230
28	602.0505	Curb Ramp Detectable Warning Field Yellow	SF			112	112
29	606.0200	Riprap Medium	CY	50	20		70
30	608.0421	Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	LF	275			275
31	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	62			62
32	608.0515	Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	LF	145	28		173
33	608.0518	Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	LF	301	0		301
34	611.0000	Ditch Grate, Stool Type (Neenah Part No. R-4341-A)	EACH		1		1
35	611.0000	Outlet Control Structure, Pond Skimmer Plate Style (Haala Industries Part No. PS60-72S)	EACH	1	2		3
36	611.0530	Manhole Covers Type J	EACH	7			7
37	611.0624	Inlet Covers Type H	EACH	1			1
38	611.1230	Catch Basins 2x3-FT	EACH		1		1
39	611.2003	Manholes 3-FT Diameter (Outlet Control Structure)	EACH	1			1
40	611.2004	Manholes 4-FT Diameter	EACH	7			7
41	611.2005	Manholes 5-FT Diameter (Outlet Control Structure)	EACH	1	2		3
42	611.2033	Manholes 4x4-FT	EACH		3		3
43	612.0106	Pipe Underdrain 6-Inch	LF		324	177	501
44	619.1000	Mobilization	EACH	1	1	1	3
45	625.0105	Topsoil	CY	360	180	30	570
46	628.1504	Silt Fence	LF	1600	1800	540	3940
47	628.1520	Silt Fence Maintenance	LF	1600	1800	540	3940
48	628.2004	Erosion Mat Class I Type B	SY	4580	1880	500	6960
49	628.6505	Soil Stabilizer Type A	ACRE	3.15	1.88	0.37	5.4
50	628.7010	Inlet Protection Type B	EACH	4	4	2	10
51	628.7560	Tracking Pads	EACH	1	1	1	3
52	630.0110	Seeding Mixture No. 10 (1.5 Pounds Per 1000 Square Feet)	LB		27	13	40
53	630.0175	Seeding Mixture No. 75 (0.70 Pounds Per 1000 Square Feet)	LB	36	14		50
54	630.0200	Seeding Temporary (3.0 Pounds Per 1000 Sqaure Feet)	LB	166	44		210
55	630.0400	Seeding Nurse Crop (0.80 Pounds Per 1000 Square Feet)	LB	35	28	7	70
56	632.0101	Trees (species, root, size)	EACH			30	30
57	632.0201	Shrubs (species, root, size)	EACH		200	400	600
58	643.5000	Traffic Control	EACH	1	1	1	3
59	645.0111	Geotextile Type DF Schedule A	SY			410	410
60	646.1020	Marking Line Epoxy 4-Inch	LF			594	594
61	SP	Dredging Access	LS			1	1
62	SP	Landscape Block	EA	15	16	23	54
63	SP	Public Dock	LF			200	200
64	SP	Maintenance Vehicle Access	SF			1175	1175

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1	10/30/2020	DEM	PRELIMINARY PLANS

NOT FOR CONSTRUCTION

Know what's below. Call before you dig.

DIGGERS HOTLINE™

SUBMISSION DATE: 11/01/2020

DESIGN BY DRL | DRAWN BY DEM | CHECKED BY XXX

EOR PROJECT NO. 00909_0022

Emmons & Olivier Resources, Inc.
water ecology community
1919 University Ave W, Suite 300, St Paul, MN 55104
Tele: 651.770.8448
www.eorinc.com

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P.O. BOX 232
CUMBERLAND, WI 54829

LIBRARY LAKE SOUTHEAST STORMWATER IMPROVEMENTS
CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

SEQ & NOTES

SHEET 02 OF 15 SHEETS

DRAINAGE AREA SUMMARY	
NAME	AREA (SQ-FT)
1S	64,634
2S	17,625
3S	58,113
4S	11,851
5S	68,533
6S	25,562
7S	46,438
8S	13,760
9S	29,210
10S	15,591
11S	11,802
12S	9,471
13S	9,513
14S	6,105
TOTAL	378,208

N

SCALE IN FEET

0 75 150 300

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1	10/30/2020	DEM	PRELIMINARY PLANS

NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

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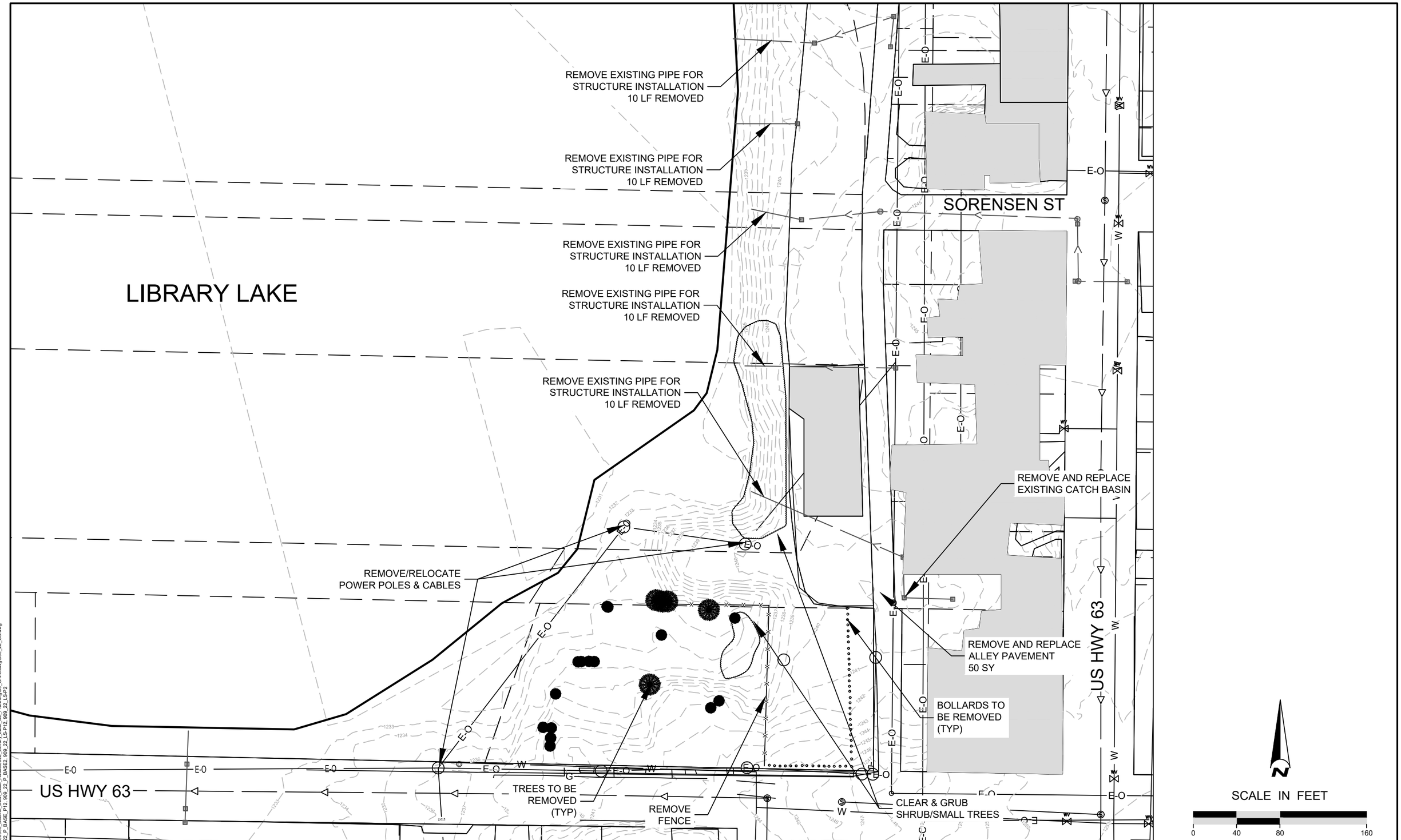
CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

OVERVIEW & DRAINAGE AREA MAP

SHEET 03 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\60909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIS\dwg\909_22_CD.dwg
Xrefs: 909-0022_XrBASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2



Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2_909_22_P_BASE_P12, 909_22_P_BASE2_909_22_LS-P12, 909_22_LS-P2

NO	DATE	BY	REVISION
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4			
3			
2			
1	10/30/2020	DEM	PRELIMINARY PLANS

NOT FOR CONSTRUCTION

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DIGGERS HOTLINE™

SUBMISSION DATE: 11/01/2020

DESIGN BY	DRAWN BY	CHECKED BY
DRL	DEM	XXX

EOR PROJECT NO. 00909_0022

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1919 University Ave W, Suite 300, St Paul, MN 55104
water ecology community
Tele: 651.770.8448
www.eorinc.com

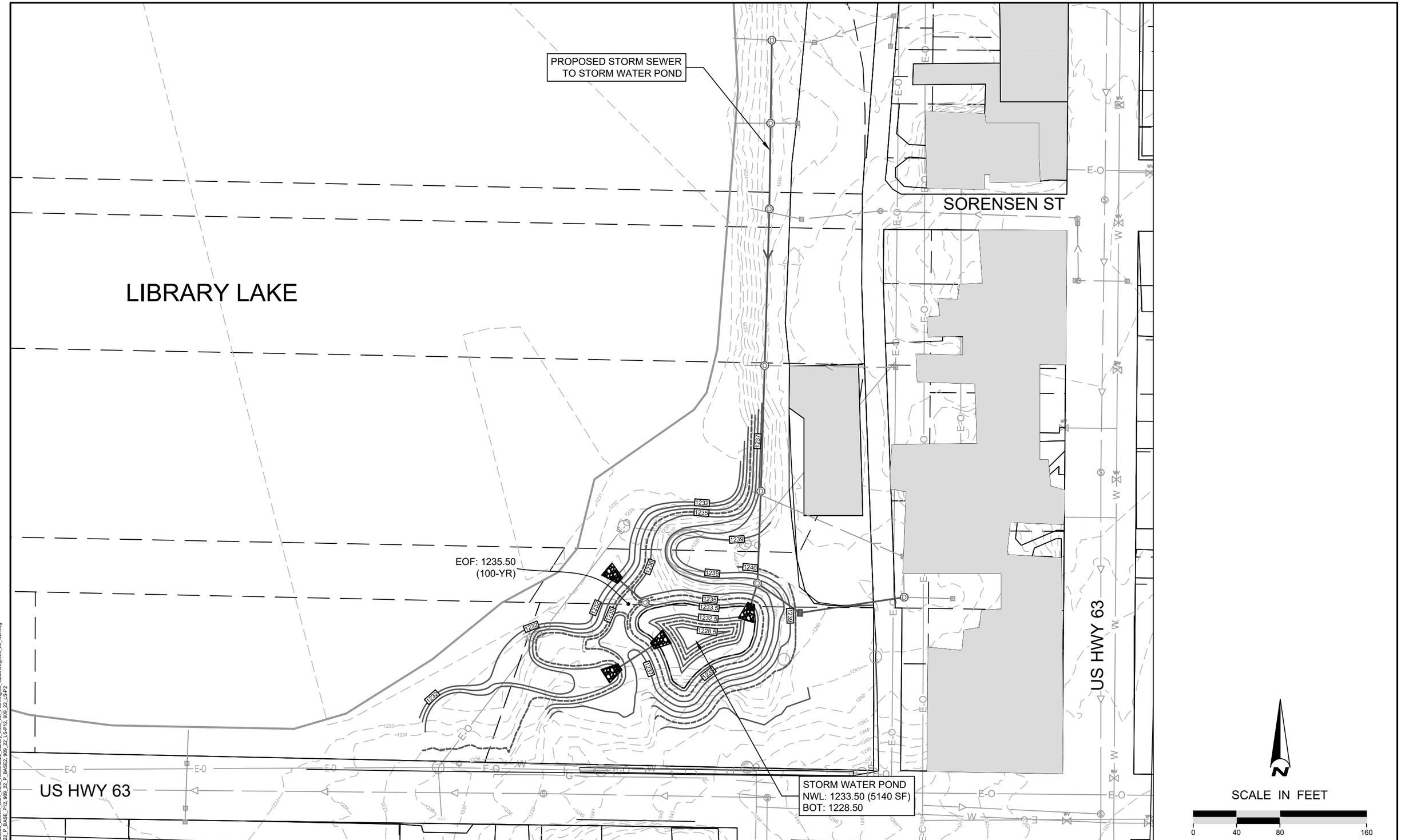
BEAVER DAM LAKE MANAGEMENT DISTRICT
P.O. BOX 232
CUMBERLAND, WI 54829

LIBRARY LAKE SOUTHEAST STORMWATER IMPROVEMENTS
CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

EXISTING CONDITIONS AND REMOVALS

SHEET 04 OF 15 SHEETS



Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2'

NO	DATE	BY	REVISION
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1	10/30/2020	DEM	PRELIMINARY PLANS

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SUBMISSION DATE: 11/01/2020

DESIGN BY	DRAWN BY	CHECKED BY
DRL	DEM	XXX

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CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ----

CITY PROJECT NO. ---

GRADING PLAN PHASE 1

SHEET 05 OF 15 SHEETS

STMH 1
RE: 1239.00
IE: 1234.77 (W)
IE: 1234.77 (E)
IE: 1234.55 (S)

EX CBMH
-ADD BAFFLE

76.6 LF 18" RCP
@ 0.20%

STMH 2
RE: 1239.00
IE: 1234.81 (W)
IE: 1234.81 (E)
IE: 1234.40 (N, S)

EX CBMH
-ADD BAFFLE

79.1 LF 18" RCP
@ 0.20%

SORENSEN ST

STMH 3
RE: 1239.00
IE: 1235.79 (W)
IE: 1235.79 (E)
IE: 1234.24 (N, S)

EX CBMH
-ADD BAFFLE

LIBRARY LAKE

STMH 4
RE: 1239.00
IE: 1233.78 (W)
IE: 1233.78 (E)
IE: 1233.95 (N, S)

144.8 LF 18" RCP
@ 0.20%

STMH 5
RE: 1238.00
IE: 1233.72 (N, S)

116 LF 21" RCP
@ 0.20%

STMH 6
RE: 1237.50
IE: 1233.89 (SE)
IE: 1233.55 (N, S)

85 LF 21" RCP
@ 0.20%

47.8 LF 15" RCP
@ 1.00%

26 LF 21" RCP
@ 0.20%

CBMH 13 (R&R EX. CB)
RE: 1239.91
IE: 1235.64 (N)
IE: 1235.62 (E)
IE: 1235.45 (?)

FES 10
IE: 1231.00
(W/ 10 CY MEDIUM RIPRAP
AND TYPE HR GEOTEXTILE)

37 LF 24" RCP
@ 0.40%

97.3 LF 15" RCP
@ 1.00%

US HWY 63

OCS 8
RE: 1235.00
IE: 1232.74 (W)

CBMH 12
RE: 1240. 00
IE: 1238.12 (N, S)
IE: 1234.47 (E)
IE: 1234.37 (W)

FES 11
IE: 1233.40
(W/ 10 CY MEDIUM RIPRAP
AND TYPE HR GEOTEXTILE)

US HWY 63

48 LF 21" RCP
@ 0.20%

FES 10
IE: 1233.50
(W/ 10 CY MEDIUM RIPRAP
AND TYPE HR GEOTEXTILE)

FES 7
IE: 1233.50
(W/ 10 CY MEDIUM RIPRAP
AND TYPE HR GEOTEXTILE)

N

SCALE IN FEET

0 40 80 160

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1	10/30/2020	DEM	PRELIMINARY PLANS

NOT FOR CONSTRUCTION

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SUBMISSION DATE:
11/01/2020

DESIGN BY DRL | DRAWN BY DEM | CHECKED BY XXX

EOR PROJECT NO.
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MANAGEMENT DISTRICT
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LIBRARY LAKE SOUTHEAST
STORMWATER IMPROVEMENTS
CUMBERLAND, BARRON COUNTY,
WISCONSIN

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

STORM SEWER & SITE PLAN PHASE 1

SHEET 06 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2

LIBRARY LAKE

SILT FENCE

TURBIDITY BARRIER

SEDIMENT CONTROL LOG DITCH CHECKS

INLET PROTECTION (TYP)

SORENSEN ST

EROSION CONTROL MATTING

US HWY 63

US HWY 63

SCALE IN FEET

0 40 80 160

NOT FOR CONSTRUCTION

NO	DATE	BY	REVISION
6			
5			
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1	10/30/2020	DEM	PRELIMINARY PLANS

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SUBMISSION DATE: 11/01/2020

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LIBRARY LAKE SOUTHEAST STORMWATER IMPROVEMENTS
CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

EROSION & SEDIMENT CONTROL PLAN PHASE 1

SHEET 07 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2_909_22_P_BASE_P12, 909_22_P_BASE2_909_22_LS-P12, 909_22_LS-P12, 909_22_LS-P2

LIBRARY LAKE

LAKE SHORELINE
HABITAT RESTORATION
6130 SY
1050 LF

NATIVE PLANTING FOR
STORMWATER MANAGEMENT
920 SY

SORENSEN ST

US HWY 63

US HWY 63

LOW MAINTENANCE TURF RESTORATION -
FUTURE PARK IMPROVEMENTS
3900 SY

N

SCALE IN FEET

0 40 80 160

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1	10/30/2020	DEM	PRELIMINARY PLANS

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CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

RESTORATION PLAN PHASE 1

SHEET 08 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2_909_22_P_BASE_P12, 909_22_P_BASE2_909_22_LS-P12, 909_22_LS-P12, 909_22_LS-P2

LIBRARY LAKE

SORENSEN ST

US HWY 63

EOF: 1235.00
(100-YR)

EOF: 1236.50
(100-YR)

RAIN GARDEN
FG: 1235.50 (861 SF)
SG: 1234.50

IESF BASIN
FG: 1233.50 (4795 SF)
SG: 1231.33

PERMEABLE INTERLOCKING CONCRETE PAVEMENT (PICP) AND ASPHALT PARKING LOT TO BE COMPLETED AS PART OF PHASE THREE.

SCALE IN FEET

0 40 80 160

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2

NO	DATE	BY	REVISION
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STATE PROJECT NO. ---- | CITY PROJECT NO. ---

GRADING PLAN PHASE 2

SHEET 09 OF 15 SHEETS

LIBRARY LAKE

SORENSEN ST

US HWY 63

US HWY 63

LANDSCAPING BLOCKS (TYP) TO BE COMPLETED AS PART OF PHASE THREE

OCS
RE: 1234.50
IE: 1231.30 (E)
IE: 1231.10 (W)

25 LF 24" RCP @ 0.40%

FES
IE: 1231.00
W/10 CY MEDIUM RIPRAP AND TYPE HR GEOTEXTILE)

28 LF 15" RCP @ 1.00%

CB
RE: 1236.50
IE: 1235.50

OCS
RE: 1236.00
IE: 1233.88 (W)
IE: 1233.78 (NE)

FES
IE: 1233.50

PERMEABLE PAVERS

PERMEABLE INTERLOCKING CONCRETE PAVEMENT (PICP) AND ASPHALT PARKING LOT TO BE COMPLETED AS PART OF PHASE THREE.

TRAIL TO BE COMPLETED AS PART OF PHASE THREE

OVERLOOK TO BE COMPLETED AS PART OF PHASE THREE

N

SCALE IN FEET

0 40 80 160

NO	DATE	BY	REVISION
6			
5			
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1	10/30/2020	DEM	PRELIMINARY PLANS

NOT FOR CONSTRUCTION

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CUMBERLAND, BARRON COUNTY, WISCONSIN

STATE PROJECT NO. ---

CITY PROJECT NO. ---

STORM SEWER & SITE PLAN PHASE 2

SHEET 10 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2

LIBRARY LAKE

SORENSEN ST

SILT FENCE

TURBIDITY BARRIER

EROSION CONTROL MATTING

US HWY 63

US HWY 63

SCALE IN FEET

0 40 80 160

NO	DATE	BY	REVISION
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1	10/30/2020	DEM	PRELIMINARY PLANS

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EROSION & SEDIMENT CONTROL PLAN PHASE 2

SHEET 11 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2

LIBRARY LAKE

SORENSEN ST

US HWY 63

US HWY 63

NATIVE TREE PLANTINGS (TYP) TO BE COMPLETED AS PART OF PHASE THREE.

NATIVE PLANTINGS RESTORATION

SCALE IN FEET

0 40 80 160

NO	DATE	BY	REVISION
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1	10/30/2020	DEM	PRELIMINARY PLANS

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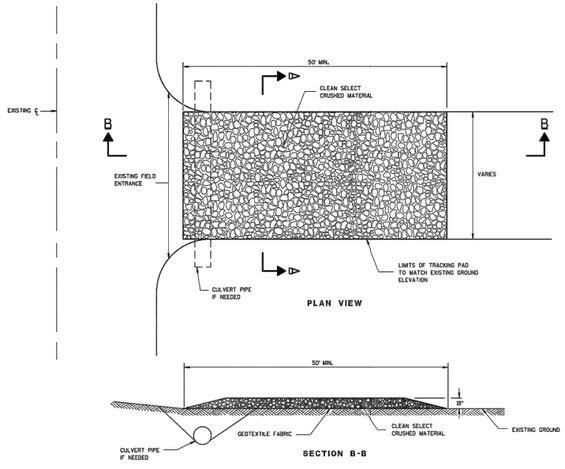
STATE PROJECT NO. ---- | CITY PROJECT NO. ---

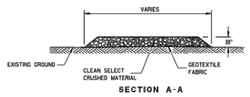
RESTORATION PLAN PHASE 2

SHEET 12 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: 909-0022_X-BASE2, 909_22_P_BASE_P12, 909_22_P_BASE2, 909_22_LS-P12, 909_22_LS-P2

SDD 8e14 Tracking Pad





GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3-24-201 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 14-1

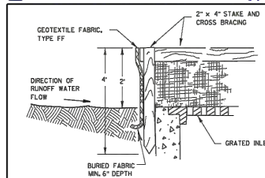
S.D.D. 8 E 14-1

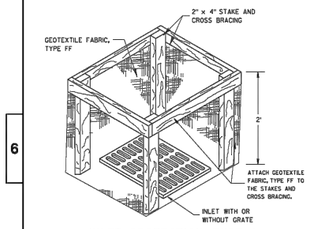
01 / 13

TRACKING PAD

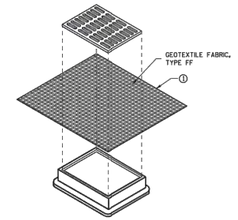
NOT TO SCALE

SDD 8e10 Inlet Protection Type A, B, C and D

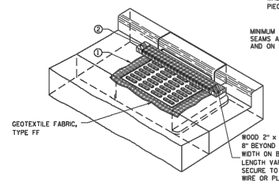




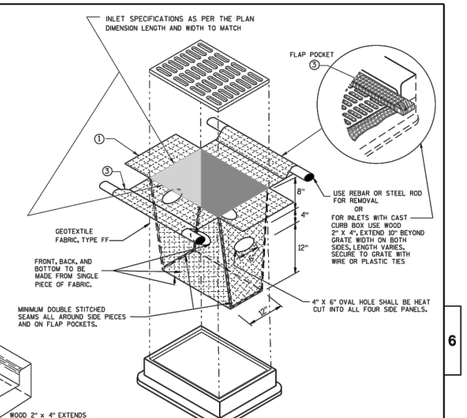
INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10-16-02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 10-2

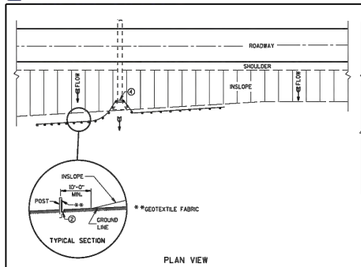
S.D.D. 8 E 10-2

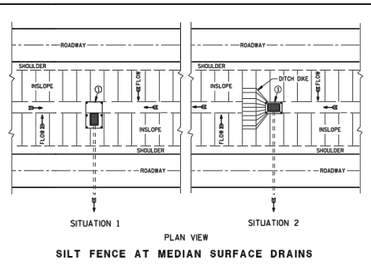
02 / 13

INLET PROTECTION

NOT TO SCALE

SDD 8e9 Silt Fence





GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

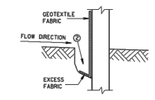
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

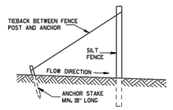
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

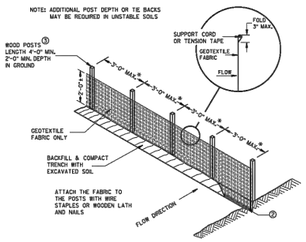
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

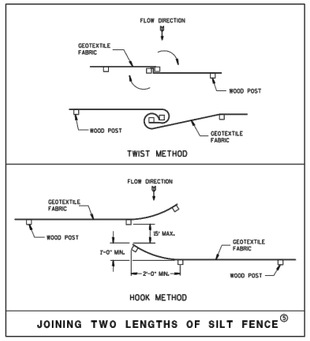


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)





SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-25-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 9-6

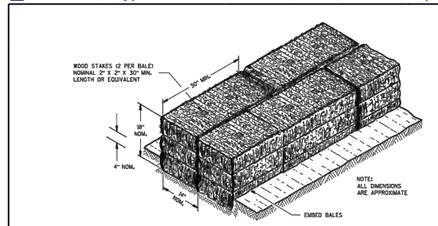
S.D.D. 8 E 9-6

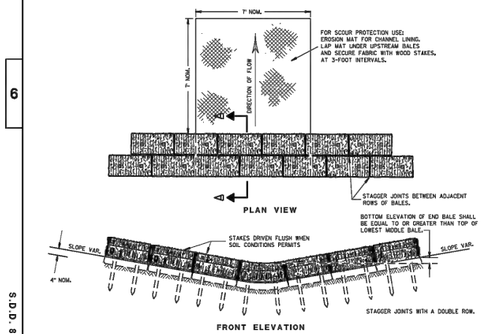
03 / 13

SILT FENCE

NOT TO SCALE

SDD 8e8 Typical Installations of Erosion Bales/Temporary Ditch Checks

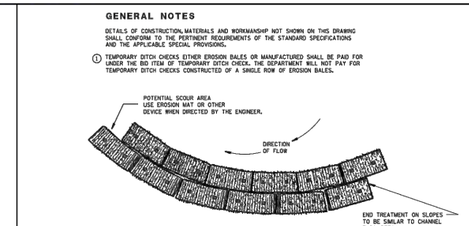


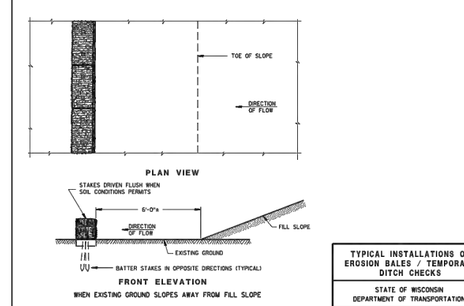


GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.





TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 8-3

S.D.D. 8 E 8-3

04 / 13

EROSION BALES / TEMPORARY DITCH CHECKS

NOT TO SCALE

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
Xrefs: '909-0022_X-BASE2 909_22_P_BASE_P12, 909_22_P_BASE2 909_22_LS-P12, 909_22_LS-P2'

NO	DATE	BY	REVISION
6			
5			
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1	10/30/2020	DEM	PRELIMINARY PLANS

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SUBMISSION DATE: 11/01/2020

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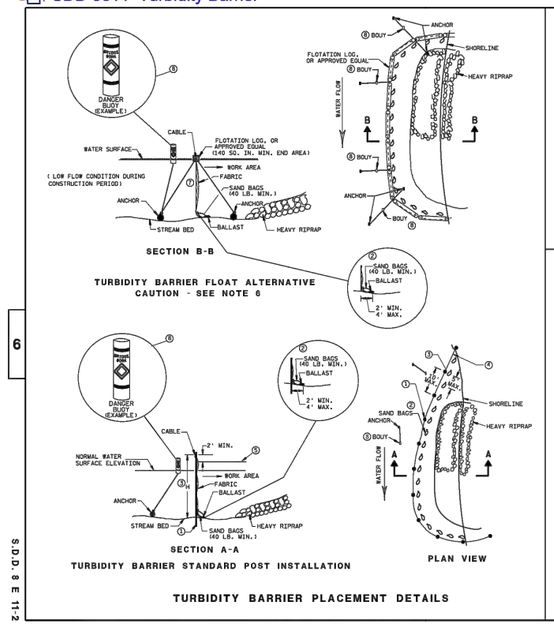
STATE PROJECT NO. ---- | CITY PROJECT NO. ---

DETAIL SHEET 1

SHEET 13 OF 15 SHEETS

SDD 8e11 Turbidity Barrier



GENERAL NOTES

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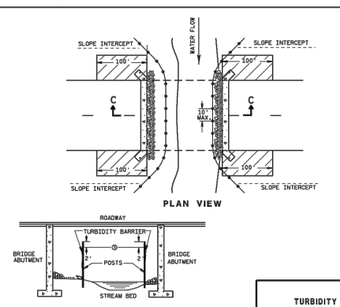
TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

1. DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
2. SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
3. WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
4. IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
5. ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.
6. FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.
7. ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
8. USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.

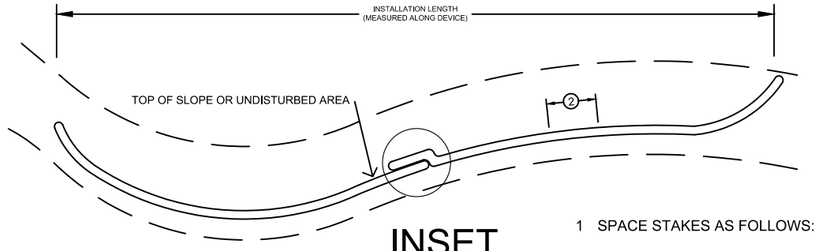


TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

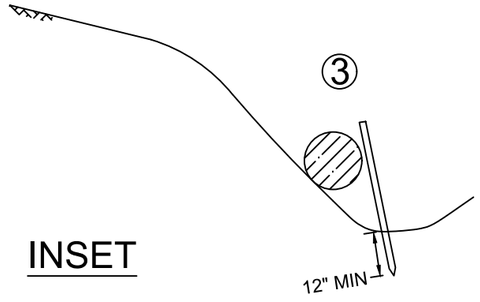
TURBIDITY BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6-04-02 DATE	/S/ Beth Cumberbirch CHIEF ROADWAY DEVELOPMENT ENGINEER

S.D.D. 8 E 11-2

01/14 TURBIDITY BARRIER
NOT TO SCALE



INSET



INSET

1 SPACE STAKES AS FOLLOWS:

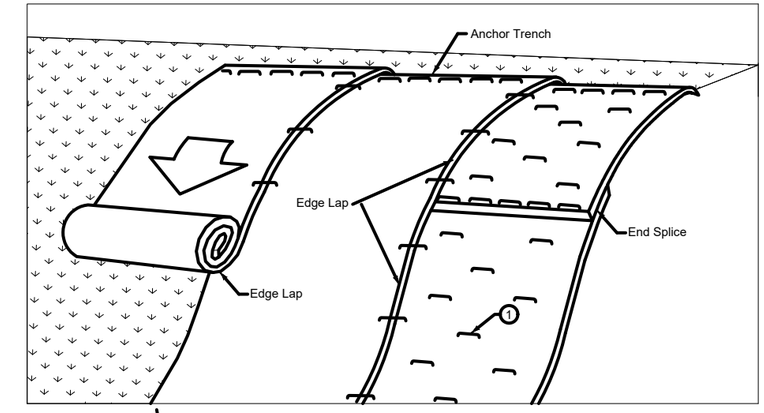
FILTER SOCKS: 2"X2" NOMINAL WOOD STAKES AT 8 FOOT MAXIMUM STAKING.

2 INSTALL SLOPE PROTECTION PERPENDICULAR TO SLOPE (PARALLEL TO CONTOURS). OVERLAP JOINTS PER DETAIL 'A'. RUN THE LAST 10 FEET OF EACH DEVICE UP THE SLOPE TO PREVENT FLOW RUNAROUND.

3. STAKES ARE NOT TO PROTRUDE THROUGH LOGS, BUT RATHER PLACED ON THE DOWNSTREAM SIDE AT A 45 DEGREE ANGLE SO AS TO "PINCH" THE LOG TIGHT TO THE GROUND SURFACE

4. 9" DIA. ROLL ENCLOSED IN TUBE W/ MAXIMUM OF $\frac{3}{8}$" NET OPINING

02/14 SEDIMENT LOGS
NOT TO SCALE



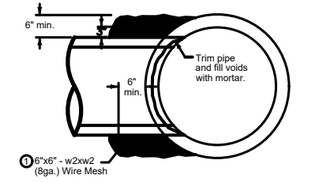
NOTES:

1. SECURE BLANKET TO GROUND ACCORDING TO MANUFACTURER'S RECOMMENDED ANCHORING PATTERN AND MINIMUM SHOWN IN TABLE 1.
2. SPACE TOP ROW OF STAPLES AT 18 INCH, BOTTOM ROW AT 36 INCH CENTERS, AND ALL OTHERS AT 24 INCH CENTERS. APPROXIMATELY 30 STAPLES REQUIRED PER SQUARE (100 SQ.-FT.) OF EROSION CONTROL MAT.
3. WHERE EROSIVE GULLIES HAVE DEVELOPED IN BACKSLOPE, FILL WITH SOIL AND COMPACT PRIOR TO PLACEMENT OF EROSION CONTROL MAT.
4. 4 FEET MINIMUM TO 8 FEET MAXIMUM OR AS SPECIFIED. PLACE STAPLES THE SAME AS FOR SPECIAL DITCH CONTROL.
5. 4 FEET UNLESS SPECIFIED OTHERWISE FOR FORESLOPE PROTECTION.
6. IF EROSIVE RILL HAS DEVELOPED ADJACENT TO SHOULDER MATERIAL, FILL WITH SUITABLE SOIL AND COMPACT PRIOR TO PLACEMENT OF MAT.
7. EROSION CONTROL BLANKET SHALL BE MNDOT CATEGORY 3N.

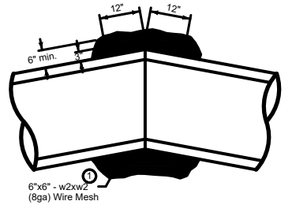
TABLE 1

Max. slope	Min. anchors
≤ 3:1	1.5/yd²
2:1	2/yd²
1:1	2.5/yd²

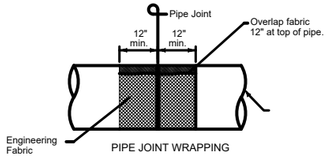
03/14 EROSION CONTROL MATTING
NOT TO SCALE



TYPE PC-1 CONCRETE COLLAR CONNECTION

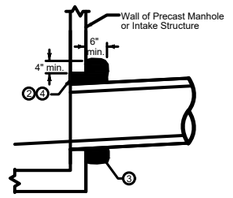


TYPE PC-2 CONCRETE COLLAR CONNECTION

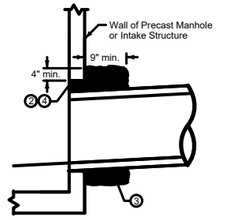


PIPE JOINT WRAPPING

PIPE TO PIPE CONNECTION



CONCRETE COLLAR FOR PIPES 12" AND SMALLER



CONCRETE COLLAR FOR PIPES GREATER THAN 12"

PIPE TO STRUCTURE CONNECTION

1 Lap ends of wire mesh a minimum of 6 inches.

2 Concrete collar is required when annular space between the outside of the pipe and the wall of the structure is 2 inches or greater.

3 Provide two #4 hoop bars in concrete collar. Lap bars a minimum of 6 inches.

4 Trowel concrete flush with inside wall of structure.

NOTE
CONNECTIONS TO EXISTING PIPE AND STRUCTURES MUST INCLUDE BUT NOT LIMITED TO THE FOLLOWING BELL & SPIGOT, GASKET, TIES & GEOTEXTILE FABRIC, MORTAR & REBAR, FLEXSEAL OR SIMILAR WATER INTRUSION SEAL

04/14 CONNECTION TO EXISTING STORM SEWER
NOT TO SCALE

NO	DATE	BY	REVISION
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2			
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water ecology community
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Tele: 651.770.8448
www.eorinc.com

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CUMBERLAND, WI 54829

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CUMBERLAND, BARRON COUNTY, WISCONSIN

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DETAIL SHEET 2

SHEET 14 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
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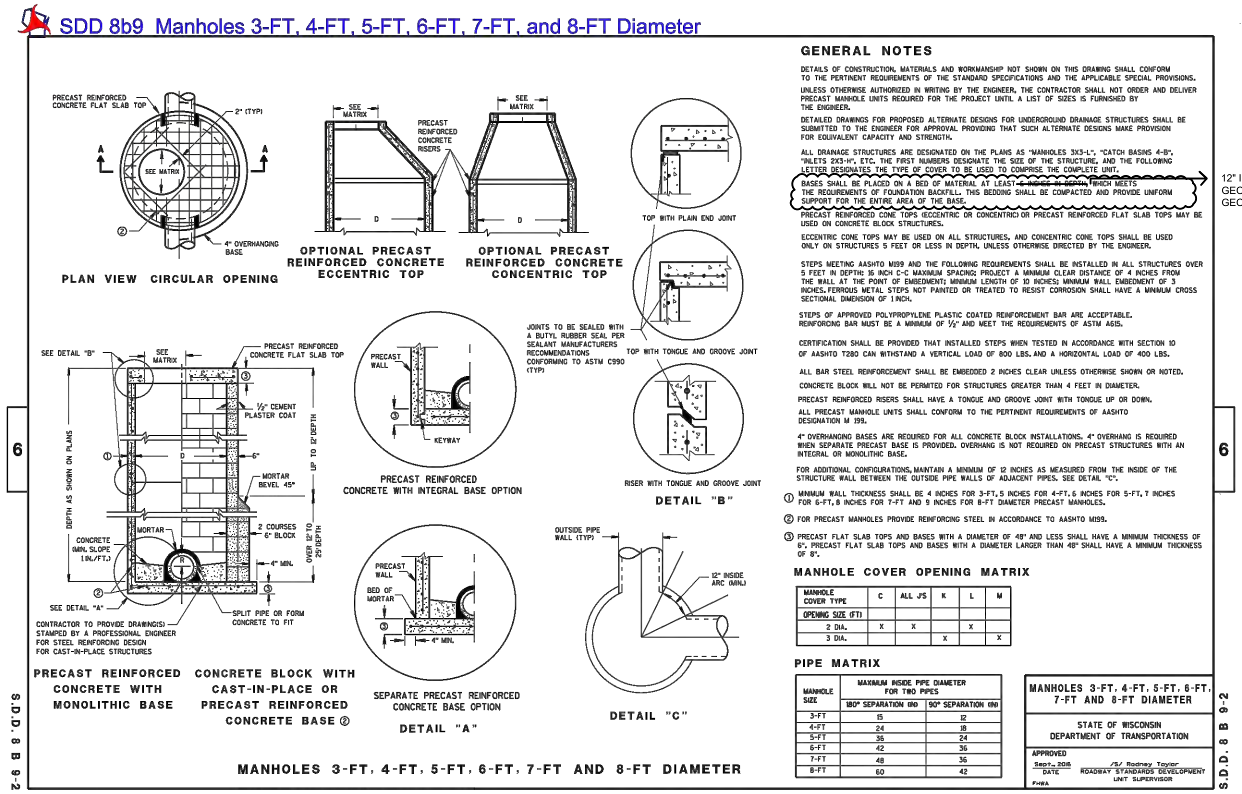
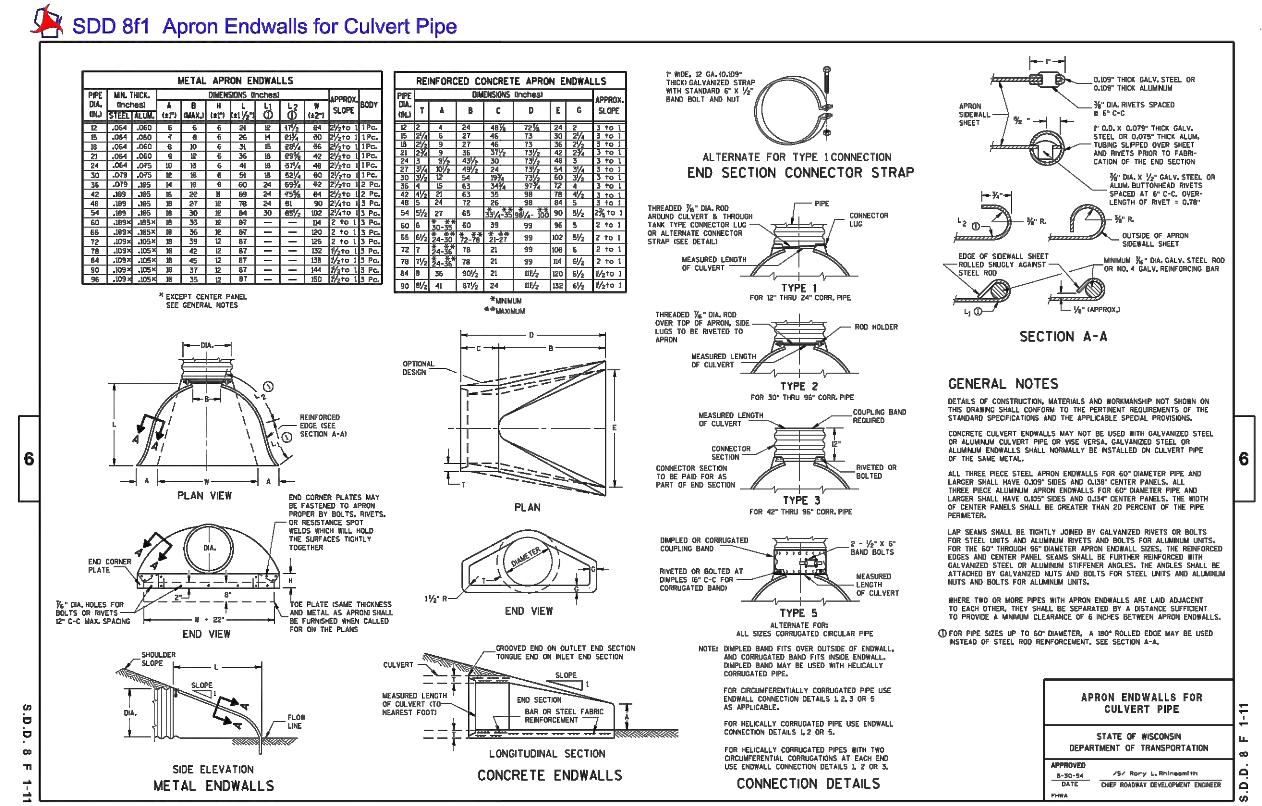
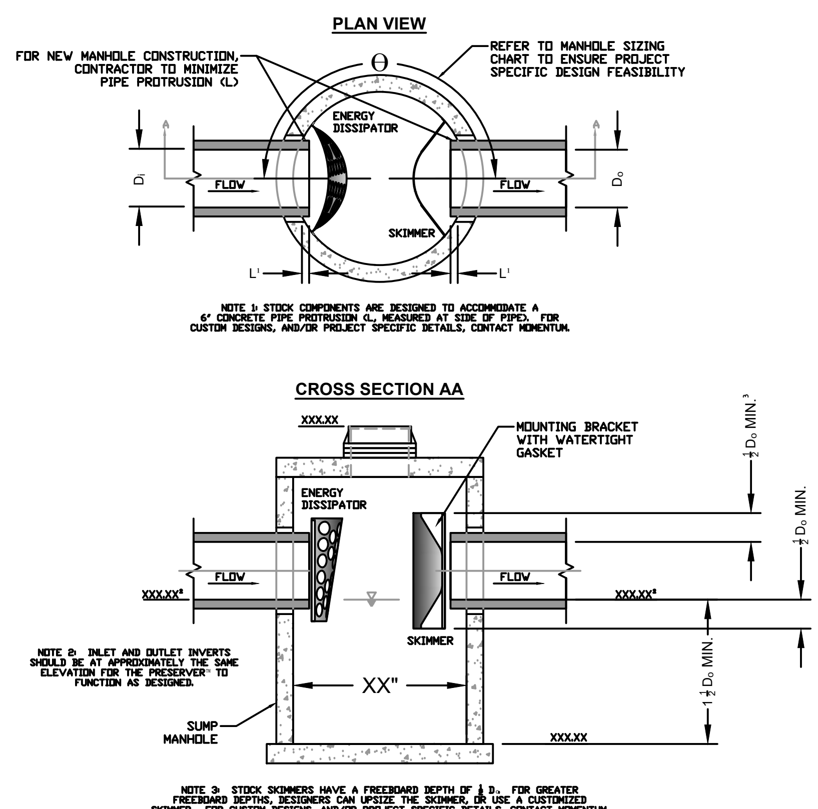


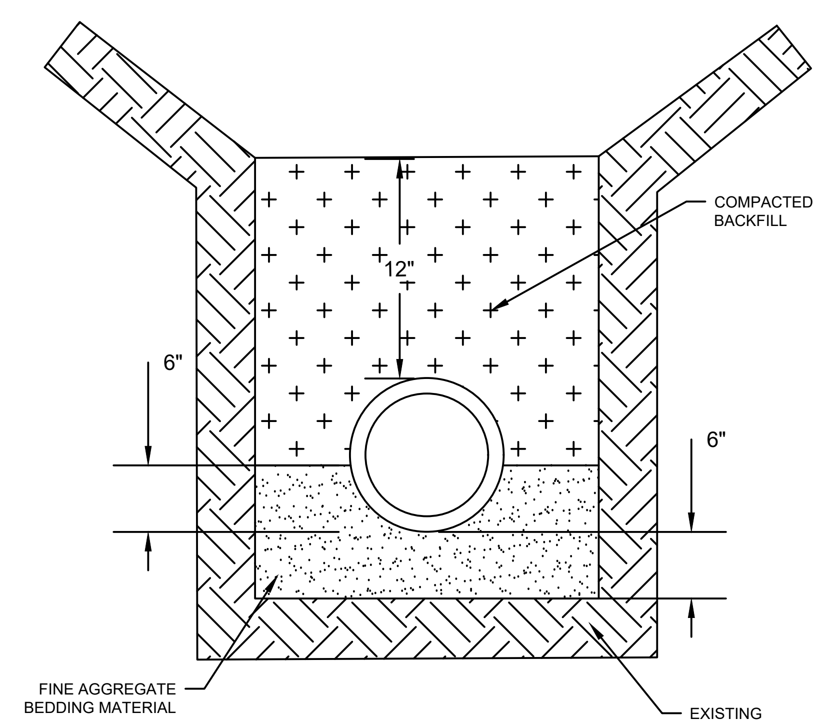
01 MANHOLE DETAIL
15 NOT TO SCALE



02 FLARED END SECTION DETAIL
15 NOT TO SCALE



03 BAFFLE DETAIL
15 NOT TO SCALE



04 PIPE BEDDING DETAIL
15 NOT TO SCALE

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DRL	DEM	XXX

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DETAIL SHEET 3

SHEET 15 OF 15 SHEETS

Plot Date: 10/30/2020
Drawing name: X:\Clients_Private\00909_Beaver_Dam_Lake_Assoc\0022_Library_Lake_SE_Planning\09_GIMS\dwg\909_22_CD.dwg
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