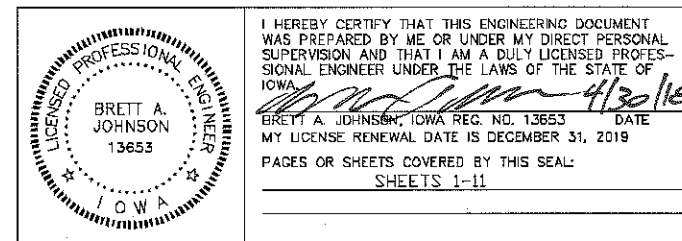


IOWA DEPARTMENT OF NATURAL RESOURCES

IOWA
ONE CALL
1-800-292-8989
www.iowadonecall.com



PROJECT DESCRIPTION

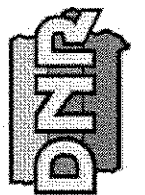
THIS PROJECT CONSISTS OF INSTALLING A PORTLAND CEMENT CONCRETE CANOE RAMP ON THE MIDDLE RIVER LOCATED IN ADAIR COUNTY, IOWA AND INCLUDES GRADING, PLACING RIPRAP ALONG RIVER BANKS, AND INSTALLING REINFORCED PORTLAND CEMENT CONCRETE CANOE ACCESS RAMP ONTO THE MIDDLE RIVER.

[illegible]

CONSULTANT-

IOWA DEPARTMENT OF
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-3034



COVER SHEET

CONSTRUCTION PROJECT FOR:

MIDDLE RIVER CANOE RAMP

ADAIR COUNTY, IOWA

1

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM	UNIT	TOTAL
1	CLEARING AND GRUBBING	LS	1
2	GRADING	LS	1
3	SUBGRADE PREPARATION	SY	90
4	GRANULAR SUBBASE	TONS	19
5	CLASS 'A' CRUSHED STONE	TONS	184
6	MACADAM STONE	TONS	13
7	3-INCH CLEAN LIMESTONE	TONS	50
8	CLASS 'E' RIPRAP	TONS	425
9	BROOMED REINFORCED PCC CANOE LAUNCH RAMP	SY	44.5
10	6-INCH REINFORCED PCC PAVEMENT	SY	74.6
11	8-INCH FILTER SOCK	LF	318
12	SEEDING, FERTILIZING AND MULCHING	AC	0.2
13	MOBILIZATION	LS	1

GENERAL NOTES

1. TWO WEEKS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY:
 - A. IOWA DNR PROJECT MANAGER: BRETT JOHNSON 515-250-3711
 - B. DISTRICT INSPECTOR: MARK JOHNSON 515-250-3713
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS). ALL CONSTRUCTION TESTING TO BE IN ACCORDANCE WITH SUDAS AND IS THE EXPENSE OF THE CONTRACTORS.
3. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ABOVE MENTIONED CONTACTS OF ANY DISCREPANCIES.
4. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL PUBLIC AND/OR PRIVATE UTILITIES SERVING THE AREA TO DETERMINE THE PRESENT EXTENT AND LOCATION OF THEIR FACILITIES BEFORE BEGINNING WORK.
5. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROPER UTILITY IMMEDIATELY UPON BREAKING OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. HE SHALL NOTIFY THE PROPER UTILITY INVOLVED. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED.
6. CONTRACTOR TO PROTECT ALL UTILITY, PAVING, BUILDINGS, ETC. OUTSIDE OF LIMITS OF PROPOSED CONSTRUCTION.
7. IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THE QUANTITIES AND THE PLANS, THE DETAILED PLANS SHALL GOVERN.
8. CONTRACTOR SHALL SEED/MULCH ALL DISTURBED AREAS. USE TYPE 2 (PERMANENT COOL SEASON MIXTURE) SEED MIX.
9. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.
10. FINISHED GRADE ON ALL NON-PAVED AREAS SHALL BE WITHIN 0.20 FOOT OF PLAN GRADE. PAVED AREAS SHALL BE WITHIN 0.10 FOOT.
11. TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 6-INCHES ON ALL DISTURBED UNPAVED AREAS.
12. BACKFILL TO THE TOP OF ALL ROCK OR PAVED SURFACES.
13. ALL ELEVATIONS ARE TO THE GUTTER GRADE UNLESS NOTED OTHERWISE.
14. PROTECT ALL EXISTING TREES AND VEGETATION UNLESS OTHERWISE NOTED.
15. SPOIL MATERIAL THAT WILL BE GENERATED FROM GRADING ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AND SHALL BE INCLUDED IN GRADING BID ITEM.
16. CONSTRUCTION IS TO BE COMPLETED BY MAY 30, 2019.
17. CONTRACTOR TO COORDINATE STAGING AREA WITH INSPECTOR.
18. HAUL ROUTE NOTES:
 - BRIDGE ON 200TH ST WEST OF ENTRANCE ROAD HAS A WEIGHT LIMIT OF 21 TONS
 - 200TH ST EAST OF ENTRANCE ROAD IS A DIRT ROAD
 - BRIDGE ON 210TH ST SOUTH OF THE PARK HAS A 13'11" HEIGHT RESTRICTION, NO WEIGHT RESTRICTION
19. THE IOWA DNR WILL PROVIDE THE CONSTRUCTION SURVEY STAKING FOR THIS PROJECT.

ESTIMATE REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
1	CLEARING & GRUBBING A. CONTRACTOR TO CLEAR AND GRUB THE PROJECT SITE. THERE IS ROUGHLY 0.15 ACRES OF TREES TO BE CLEARED. SEE SHEET #5 FOR CLEARING DETAILS.
2	GRADING A. CONTRACTOR TO GRADE THE SITE AS DETAILED IN THE PLANS. THERE IS A TOTAL CUT/FILL OF ABOUT 700 CY. APPROXIMATELY 400 CY OF SPOIL MATERIAL WILL BE GENERATED AND SHALL BE DISPOSED OF OFF-SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR FINDING SUITABLE SPOIL LOCATION FOR DISPOSAL. THE COST OF THIS TRANSPORT SHALL BE INCLUDED IN THIS BID ITEM.
3	SUBGRADE PREPARATION A. CONTRACTOR SHALL COMPACT THE SUBGRADE FOR THE PAVEMENT IN ACCORDANCE TO SUDAS. B. SUBGRADE PREPARATION SHALL EXTEND 1-FOOT BEYOND THE EDGE OF PAVEMENT ABOVE THE RAMP LOCATION.
4	GRANULAR SUBBASE A. CONTRACTOR TO INSTALL 6-INCH GRANULAR BASE FOR PAVEMENT AREAS. BASE IS TO EXTEND 1-FOOT BEYOND EDGE OF PAVEMENTS. CONTRACTOR TO COMPACT IN ACCORDANCE WITH SUDAS. SEE SHEETS #6 & 9 FOR DETAILS.
5	CLASS 'A' CRUSHED STONE A. CONTRACTOR SHALL PLACE AND COMPACT A 6-INCH DEPTH BASE BELOW THE BOAT RAMP PAVEMENT (60 LF) AS DETAILED ON SHEETS #8 & 9. STONE SHALL ALSO BE PLACED IN THE EXISTING CUL-DE-SAC AT A DEPTH OF BETWEEN 3 AND 6-INCHES. 2-INCHES OF STONE SHALL ALSO BE PLACED AS TOP DRESSING ON THE 3-INCH LIMESTONE BEING PLACED IN THE ENTRANCE ROAD 5 LOW POINT AREAS.
6	MACADAM STONE A. CONTRACTOR SHALL PLACE AND COMPACT A 6-INCH DEPTH MACADAM BASE BELOW THE CRUSHED STONE BASE FOR THE 40-FOOT PANEL LENGTH THAT WILL BE UNDERWATER AS DETAILED ON SHEETS #8 & 9.
7	3-INCH CLEAN LIMESTONE A. CONTRACTOR SHALL PLACE 3-INCH CLEAN LIMESTONE IN 5 LOW POINT AREAS OF ENTRANCE ROAD AT A DEPTH OF 4-INCHES.
8	CLASS 'E' RIPRAP A. CONTRACTOR SHALL PLACE CLASS 'E' RIPRAP IN AREAS OF FILL UNDER THE BOAT RAMP TO ACHIEVE THE PROPER SUBGRADE ELEVATIONS AND ALONG THE SIDES AND END OF THE RAMP AS DETAILED IN THE PLANS ON SHEETS #7-9. RIPRAP SHALL ALSO BE PLACED ALONG BANKS NORTH AND SOUTH OF RAMP FOR BANK PROTECTION.
9	BROOMED REINFORCED CANOE LAUNCH RAMP A. CONTRACTOR TO INSTALL 10'40' REINFORCED PCC (CLASS 'C') CANOE LAUNCH RAMP AS DETAILED IN THE PLANS ON SHEETS #8 & 9. RAMP SHALL HAVE A STRONG BROOM FINISH PERPENDICULAR TO RAMP FOR TRACTION.
10	6-INCH REINFORCED PCC PAVEMENT A. CONTRACTOR TO INSTALL 6-INCH REINFORCED CLASS 'C' PCC PAVEMENT AS DETAILED IN THE PLANS ON SHEETS #6, 8, AND 9.
11	8-INCH FILTER SOCK A. CONTRACTOR SHALL INSTALL 8-INCH FILTER SOCK AS DETAILED IN THE PLANS. ADDITIONAL FILTER SOCK MAY BE REQUIRED BY THE DNR INSPECTOR TO CONTROL EROSION.
12	SEEDING, FERTILIZING & MULCHING A. THE CONTRACTOR SHALL SEED, FERTILIZE & MULCH ALL DISTURBED AREAS. SEED WITH TYPE 2 SEED MIXTURE (PERMANENT COOL SEASON MIXTURE). SEEDING DATES: 3/1-5/31 AND 8/10-9/30.
13	MOBILIZATION A. COST OF MOBILIZATION.

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST. DES MOINES, IA 50319-0034



MIDDLE RIVER CANOE RAMP

ADAIR COUNTY, IOWA

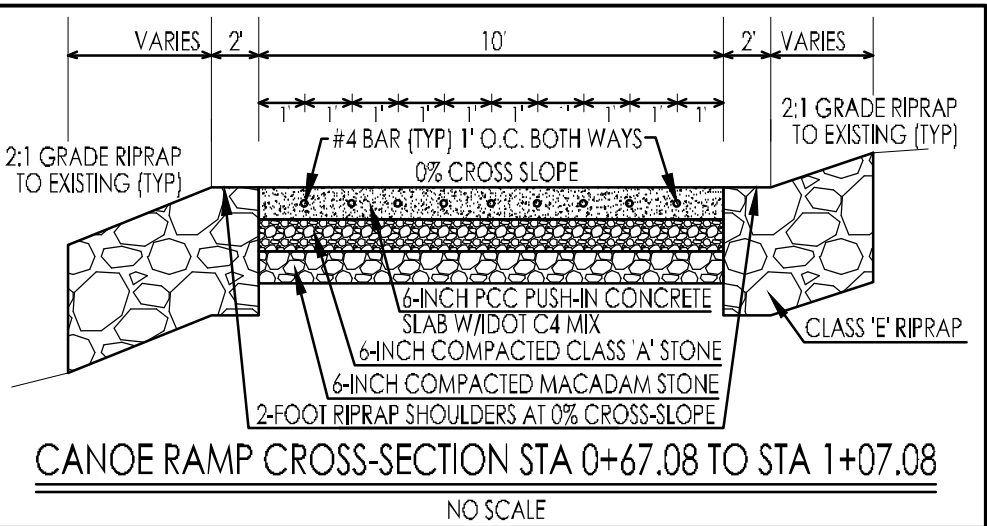
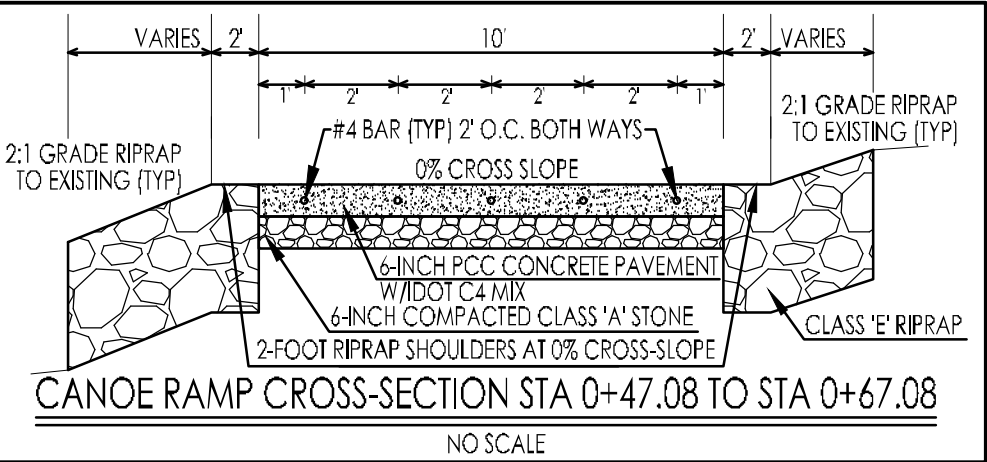
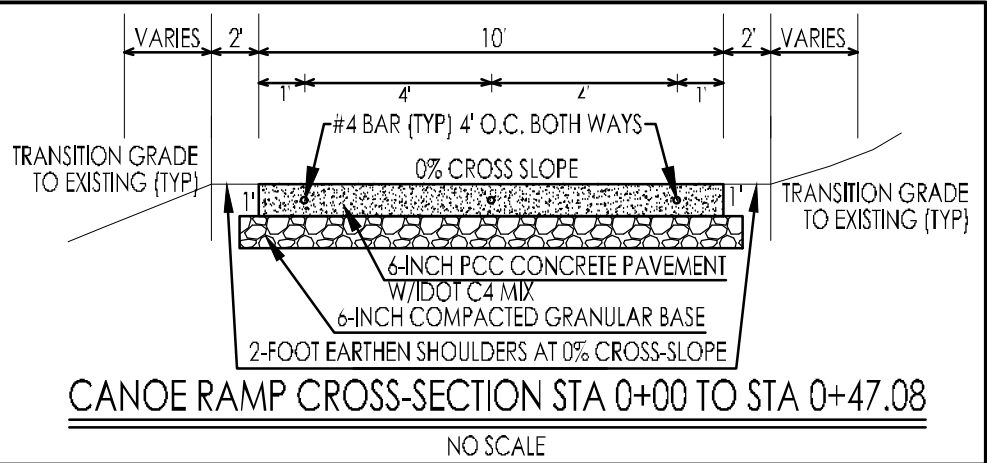
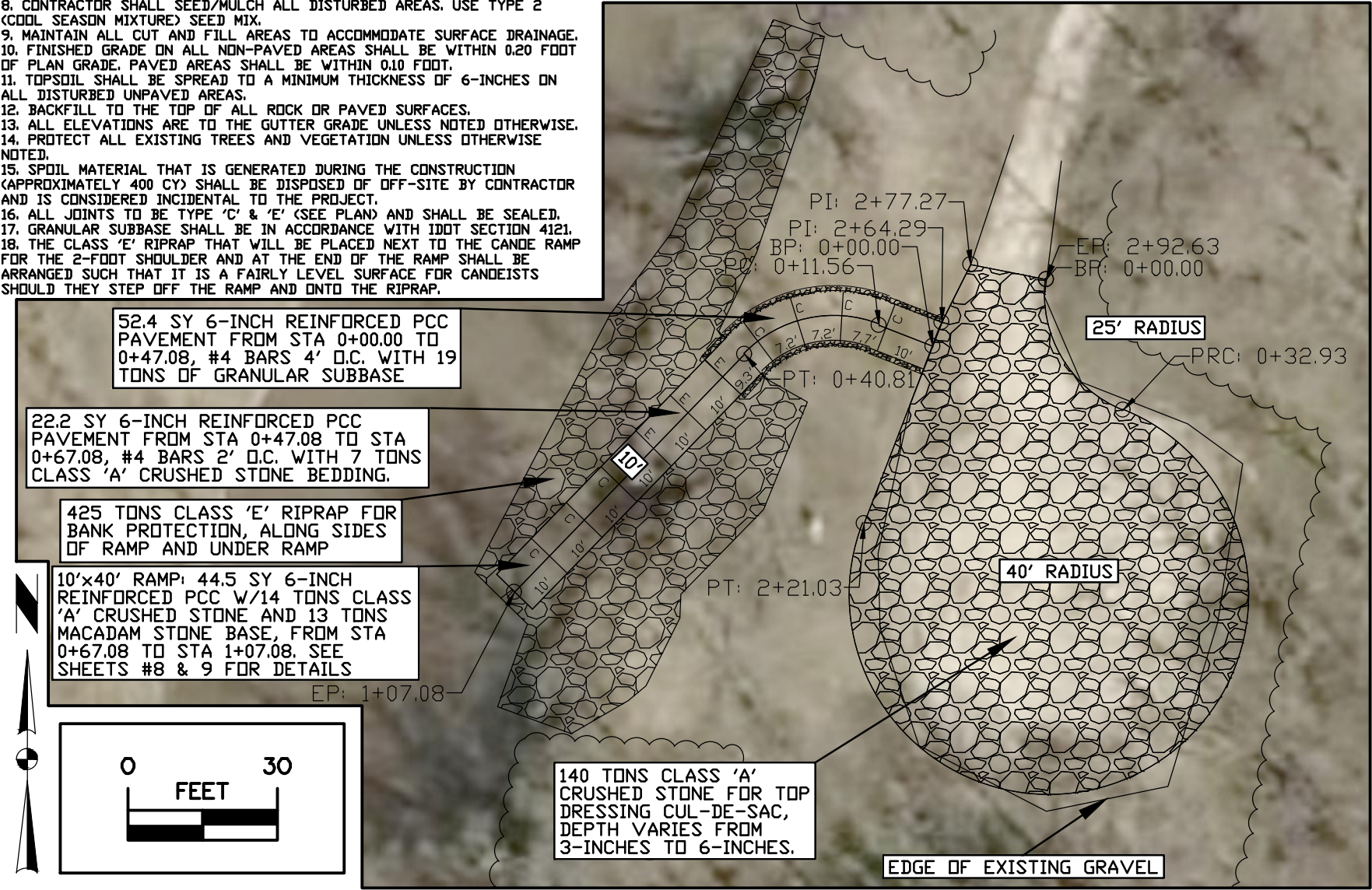
SHEET No:

RAMP CENTERLINE CONTROL LINE

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	11.56'		N68° 50' 52"W	0+00.00'	0+11.56'				(1425876.5460',493703.8416',1093.90')	(1425865.7683',493708.0117',1093.61')	
2	Curve	29.26'	25.00'		0+11.56'	0+40.81'	67.0541 {d}	27.62'	S77° 37' 30"W	(1425865.7683',493708.0117',1093.61')	(1425838.7934',493702.0932',1091.0338')	(1425856.7471',493684.6960')
3	Line	66.27'		S44° 05' 53"W	0+40.81'	1+07.08'				(1425838.7934',493702.0932',1091.0338')	(1425792.6787',493654.5033',1082.75')	

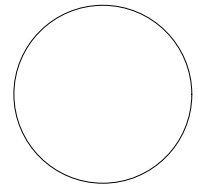
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- TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 6-INCHES ON ALL DISTURBED UNPAVED AREAS.
- BACKFILL TO THE TOP OF ALL ROCK OR PAVED SURFACES.
- ALL ELEVATIONS ARE TO THE GUTTER GRADE UNLESS NOTED OTHERWISE.
- PROTECT ALL EXISTING TREES AND VEGETATION UNLESS OTHERWISE NOTED.
- SPOIL MATERIAL THAT IS GENERATED DURING THE CONSTRUCTION (APPROXIMATELY 400 CY) SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR AND IS CONSIDERED INCIDENTAL TO THE PROJECT.
- ALL JOINTS TO BE TYPE 'C' & 'E' (SEE PLAN) AND SHALL BE SEALED.
- GRANULAR SUBBASE SHALL BE IN ACCORDANCE WITH IDOT SECTION 4121.
- THE CLASS 'E' RIPRAP THAT WILL BE PLACED NEXT TO THE CANOE RAMP FOR THE 2-FOOT SHOULDER AND AT THE END OF THE RAMP SHALL BE ARRANGED SUCH THAT IT IS A FAIRLY LEVEL SURFACE FOR CANOEISTS SHOULD THEY STEP OFF THE RAMP AND ONTO THE RIPRAP.



EDGE OF GRAVEL CUL-DE-SAC CONTROL												
No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	32.93'	25.00'		0+00.00'	0+32.93'	75.4611 {d}	30.60'	S30° 33' 46"E	(1425899.2814',493717.2370',1093.70')	(1425914.8397',493690.8904',1094.25')	(1425924.0861',493714.1176')
2	Curve	188.11'	40.00'		0+32.93'	2+21.03'	269.4455 {d}	56.84'	S66° 25' 46"W	(1425914.8397',493690.8904',1094.25')	(1425862.7405',493668.1606',1094.50')	(1425900.0456',493653.7268')
3	Line	43.26'		N21° 09' 08"E	2+21.03'	2+64.29'				(1425862.7405',493668.1606',1094.50')	(1425878.3502',493708.5047',1093.87')	
4	Line	12.97'		N26° 43' 25"E	2+64.29'	2+77.27'				(1425878.3502',493708.5047',1093.87')	(1425884.1840',493720.0920',1093.84')	
5	Line	15.37'		S79° 17' 30"E	2+77.27'	2+92.63'				(1425884.1840',493720.0920',1093.84')	(1425899.2814',493717.2370',1093.70')	

CONSULTANT:



IOWA DEPARTMENT OF
NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST. DES MOINES, IA 50319-5034



DIMENSION PLAN

CONSTRUCTION PROJECT FOR:

MIDDLE RIVER CANOE RAMP

ADAIR COUNTY, IOWA

NO. BY DATE REVISION

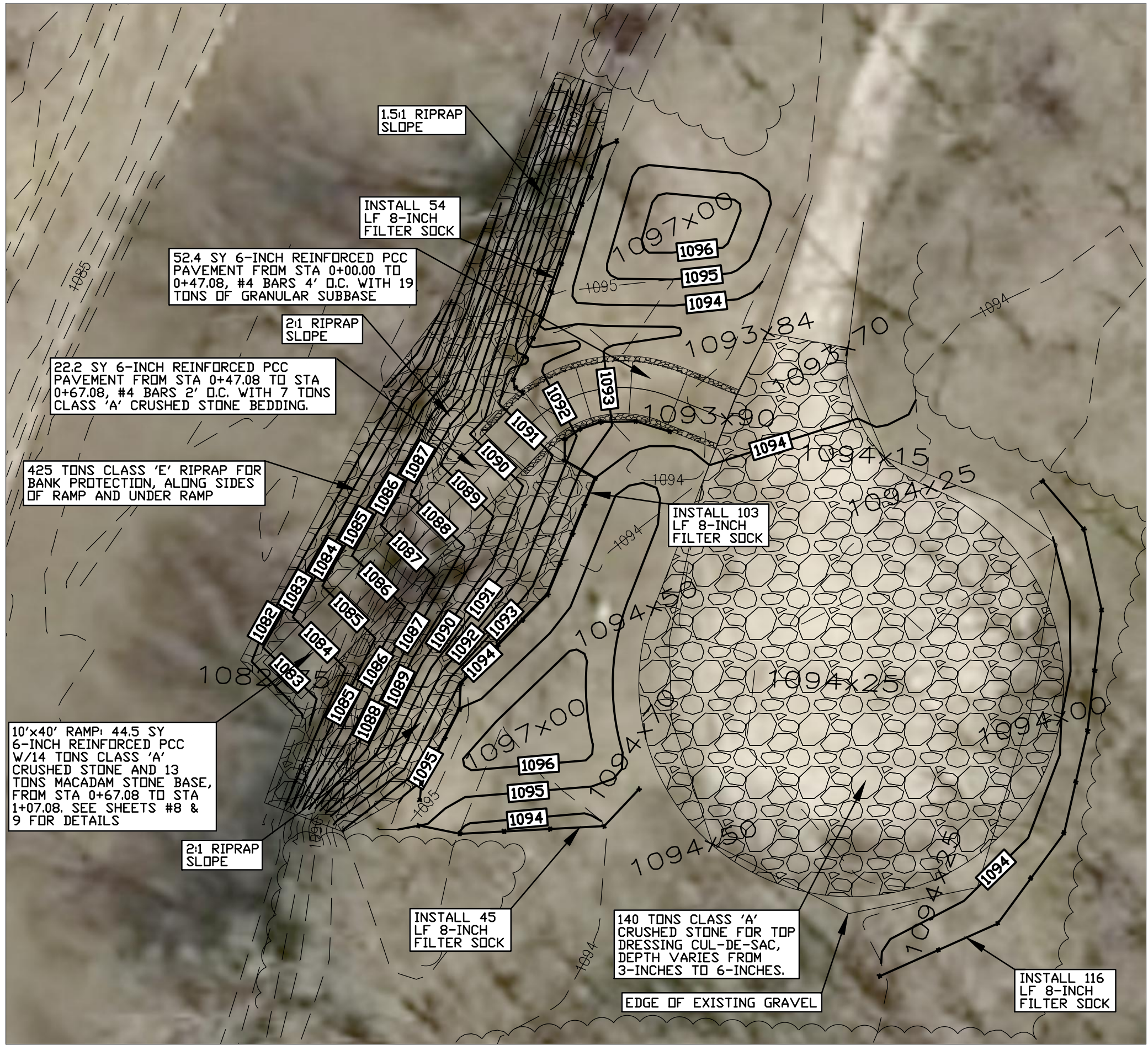
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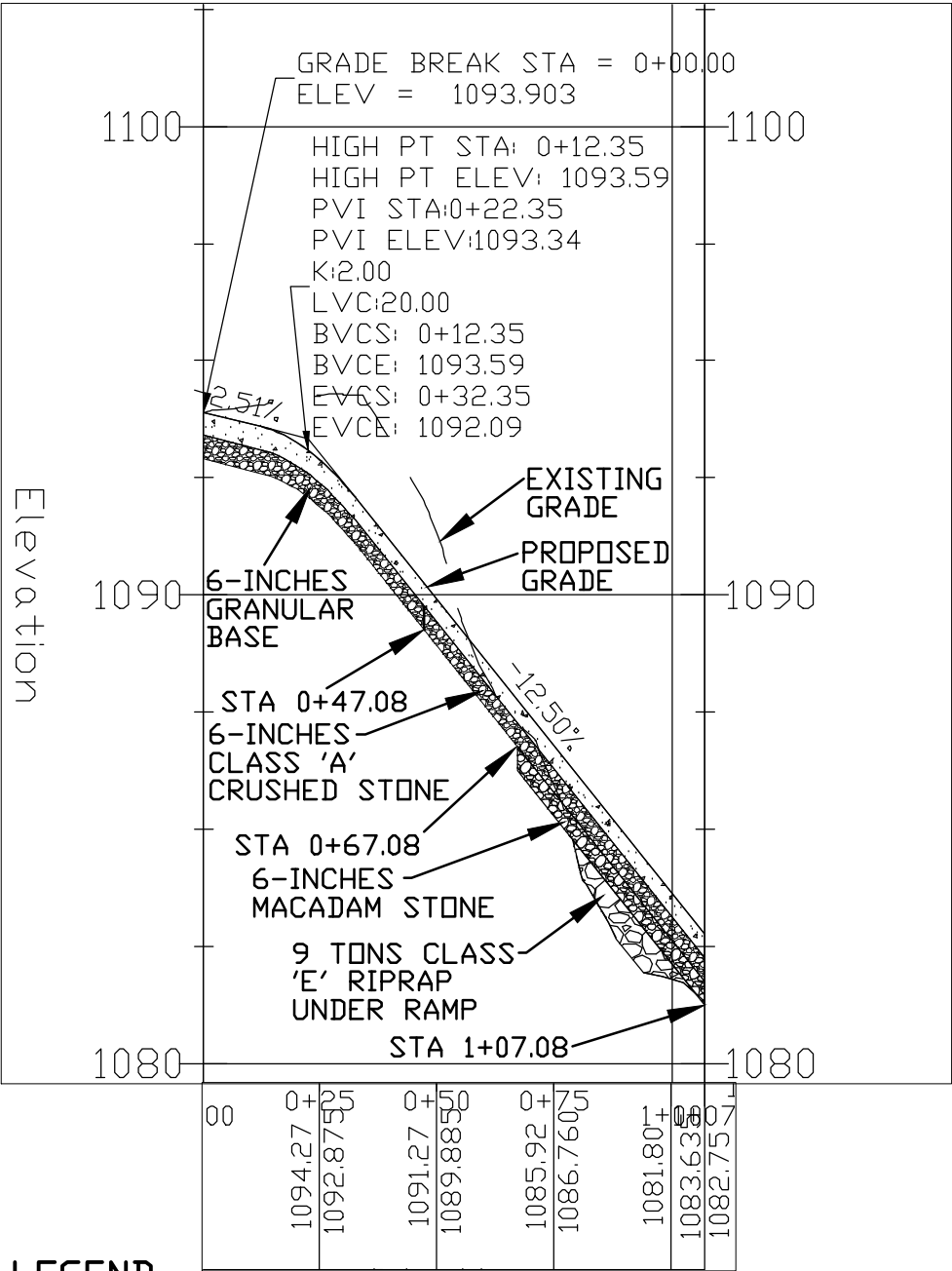
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SHEET NO:



CANOE RAMP ACCESS PROFILE

No.	PVI Station	PVI Elevation	Grade In	Grade Out	A (Grade Change)	Profile Curve Type	Profile Curve Length	K Value
1	0+00.00'	1093.90'		-2.51%				
2	0+22.35'	1093.34'	-2.51%	-12.50%	9.99%	Crest	20.00'	2.003
3	1+07.08'	1082.75'	-12.50%					

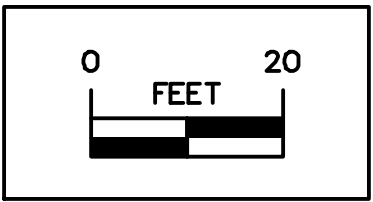


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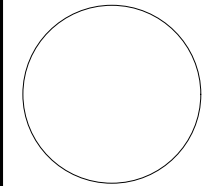
EXISTING/PROPOSED

990 ELEVATION

FILTER SOCK



CONSULTANT:



IOWA DEPARTMENT OF
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST. DES MOINES, IA 50319-5034



RAMP PROFILE

CONSTRUCTION PROJECT FOR:

MIDDLE RIVER CANOE RAMP

ADAIR COUNTY, IOWA

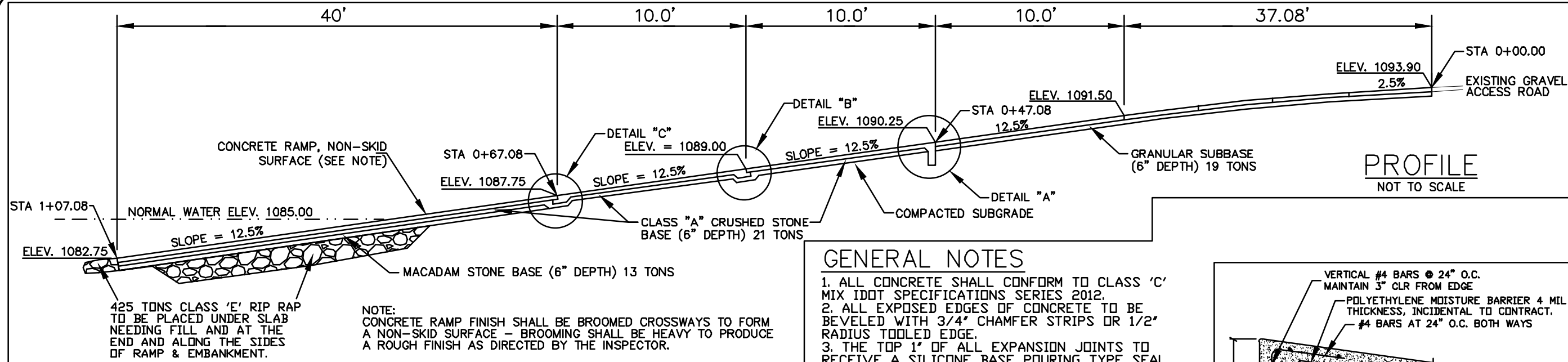
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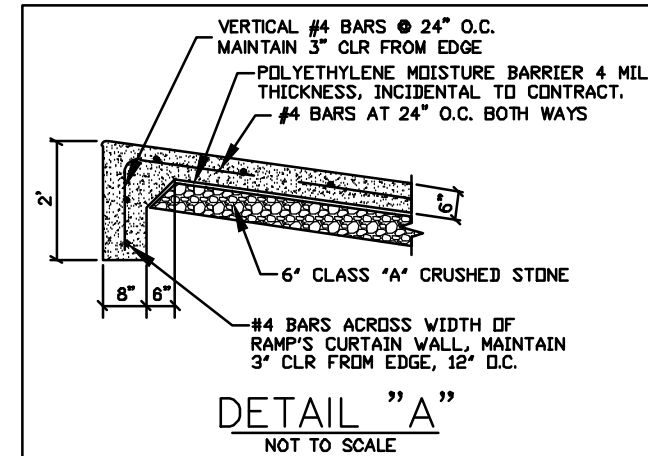
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SHEET No:



GENERAL NOTES

1. ALL CONCRETE SHALL CONFORM TO CLASS 'C' MIX IDOT SPECIFICATIONS SERIES 2012.
2. ALL EXPOSED EDGES OF CONCRETE TO BE BEVELED WITH 3/4" CHAMFER STRIPS OR 1/2" RADIUS TOOLED EDGE.
3. THE TOP 1" OF ALL EXPANSION JOINTS TO RECEIVE A SILICONE BASE POURING TYPE SEAL.
4. EXPANSION JOINTS - 3/4" PREFORMED RESILIENT FILLER MATERIAL.
5. REINFORCING STEEL - GRADE 40 - DEFORMED EPOXY COATED REBAR.
6. THAT PORTION OF THE RAMP TO BE PLACED BELOW THE WATERLINE MAY BE FORMED ABOVE THE WATERLINE AND CAREFULLY PUSHED INTO POSITION UNDERWATER TO THE LOCATION AND ELEVATION AS SHOWN ON THE PLAN AND AS APPROVED BY THE INSPECTOR. THE REMAINING SECTIONS OF THE RAMP SHALL BE FORMED AND POURED IN PLACE.

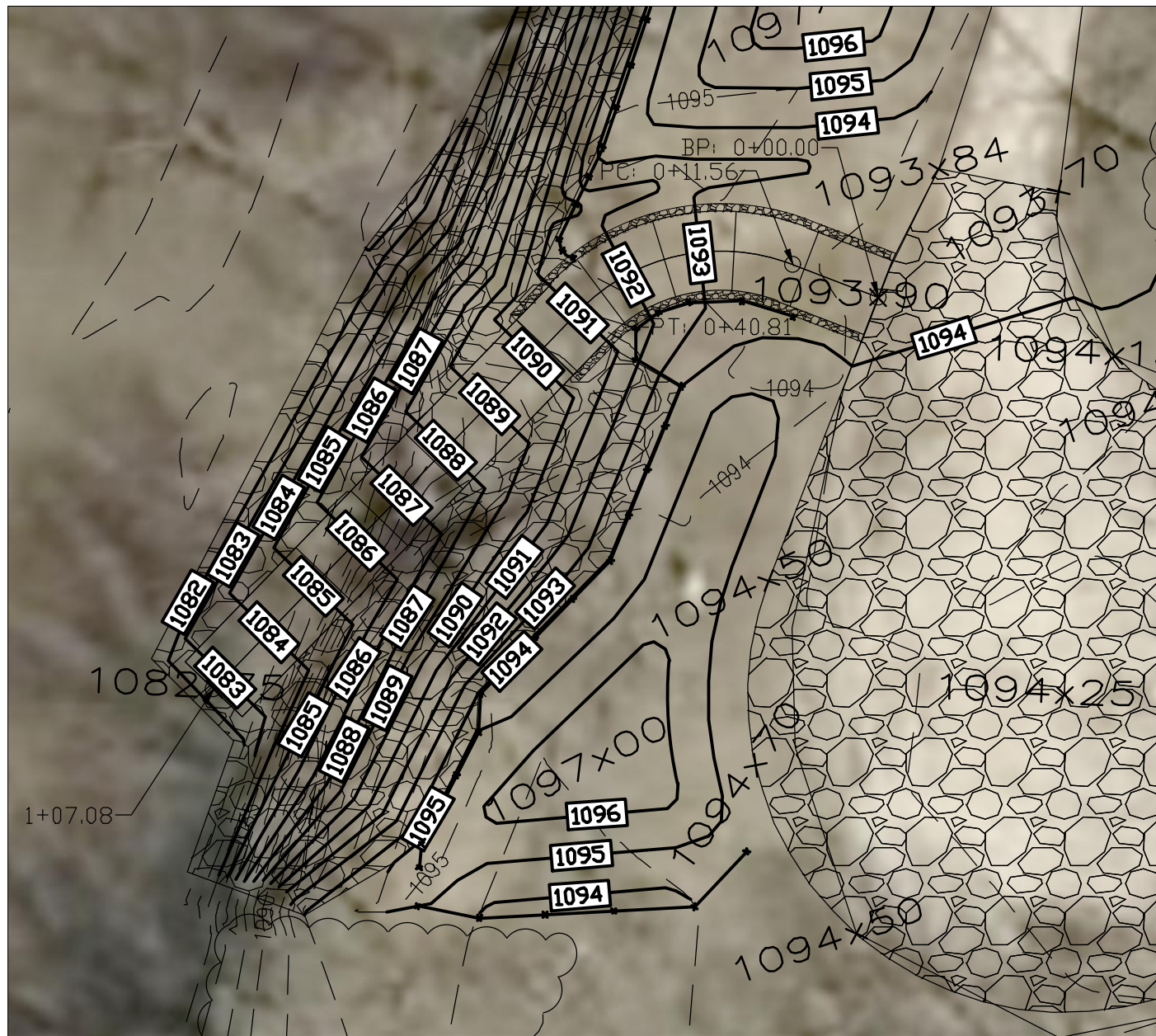
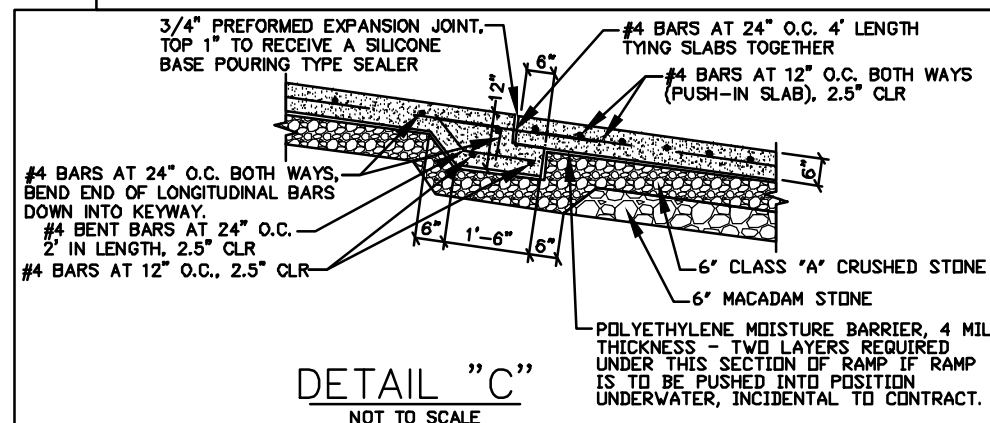
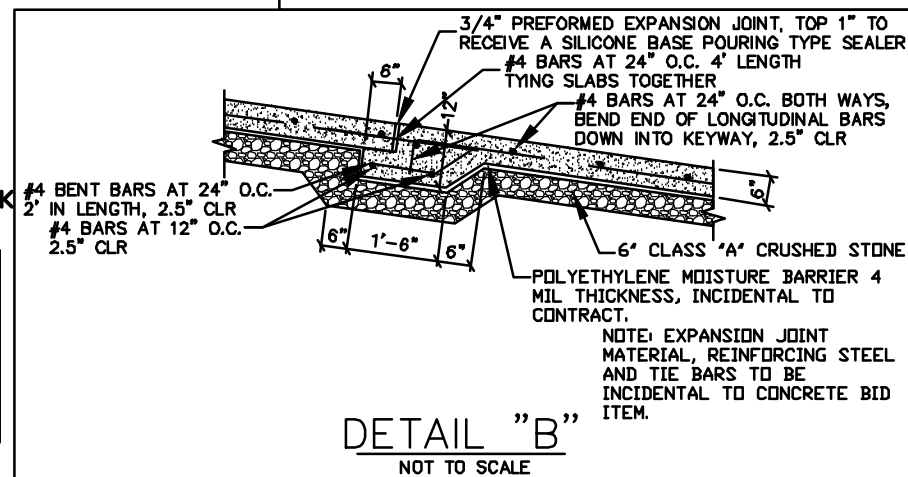
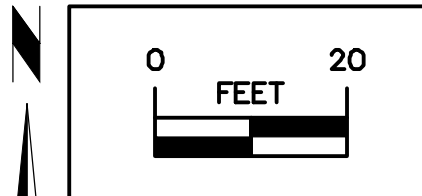


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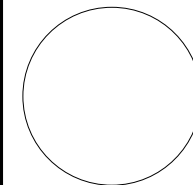
EXISTING/PROPOSED

990 - ELEVATION

FILTER SOCK



CONSULTANT:



IOWA DEPARTMENT OF
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST. DES MOINES, IA 50319-5034



RAMP DETAILS

CONSTRUCTION PROJECT FOR:

MIDDLE RIVER CANOE RAMP

ADAIR COUNTY, IOWA

NO. BY DATE REVISION

DRAWN BY: PROJECT NUMBER:

18-04-01-01

CHKD BY: DATE:

05/02/2018

SHEET NO:

