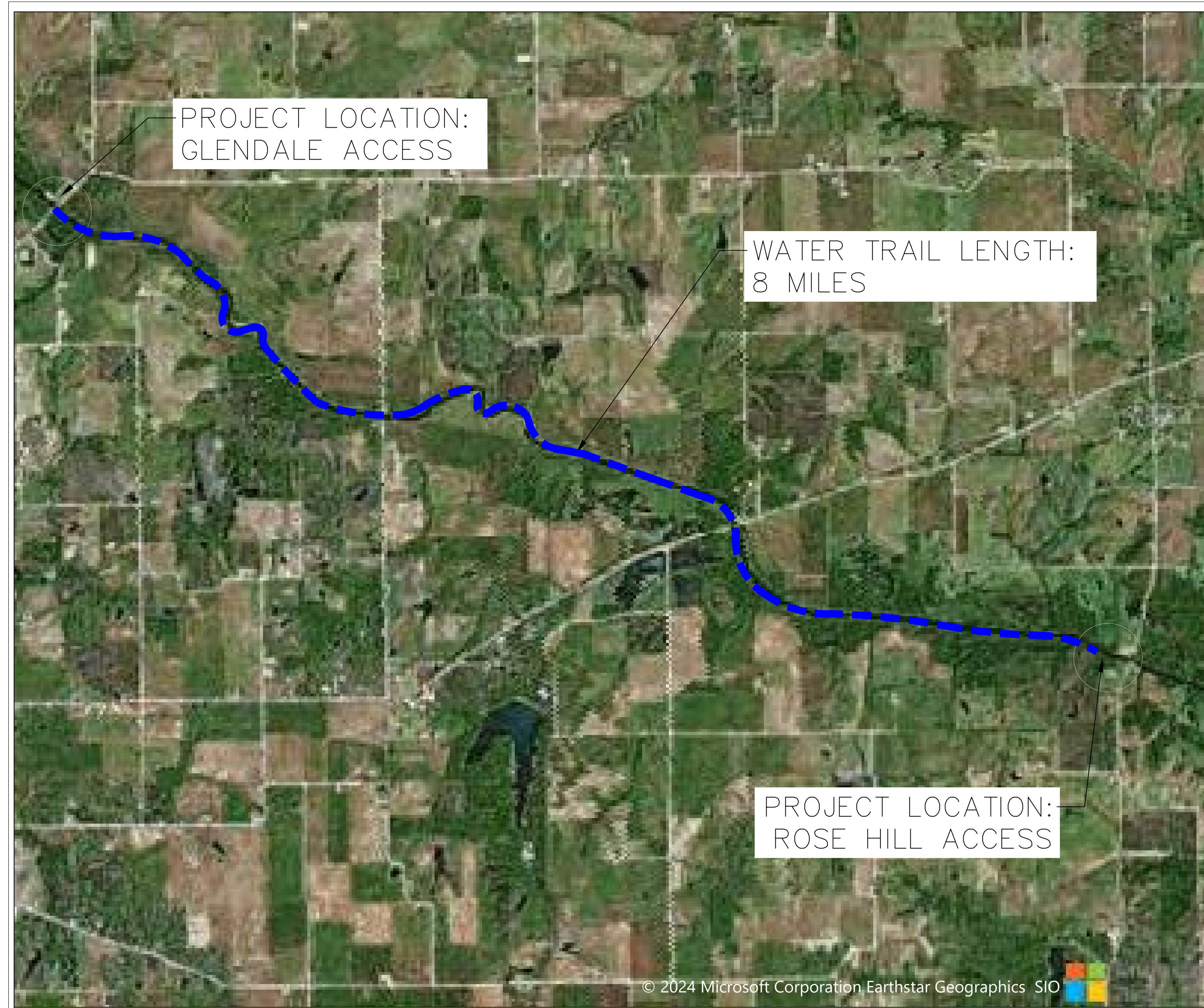
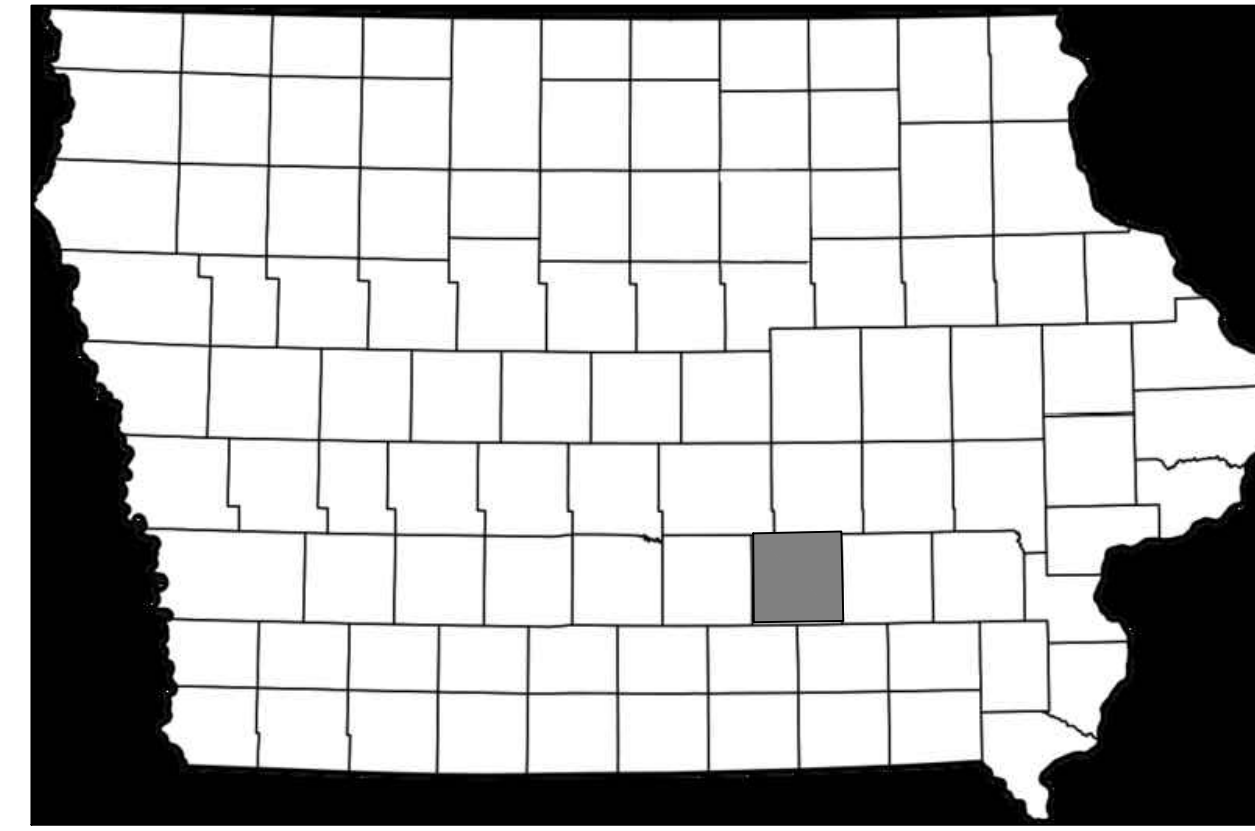
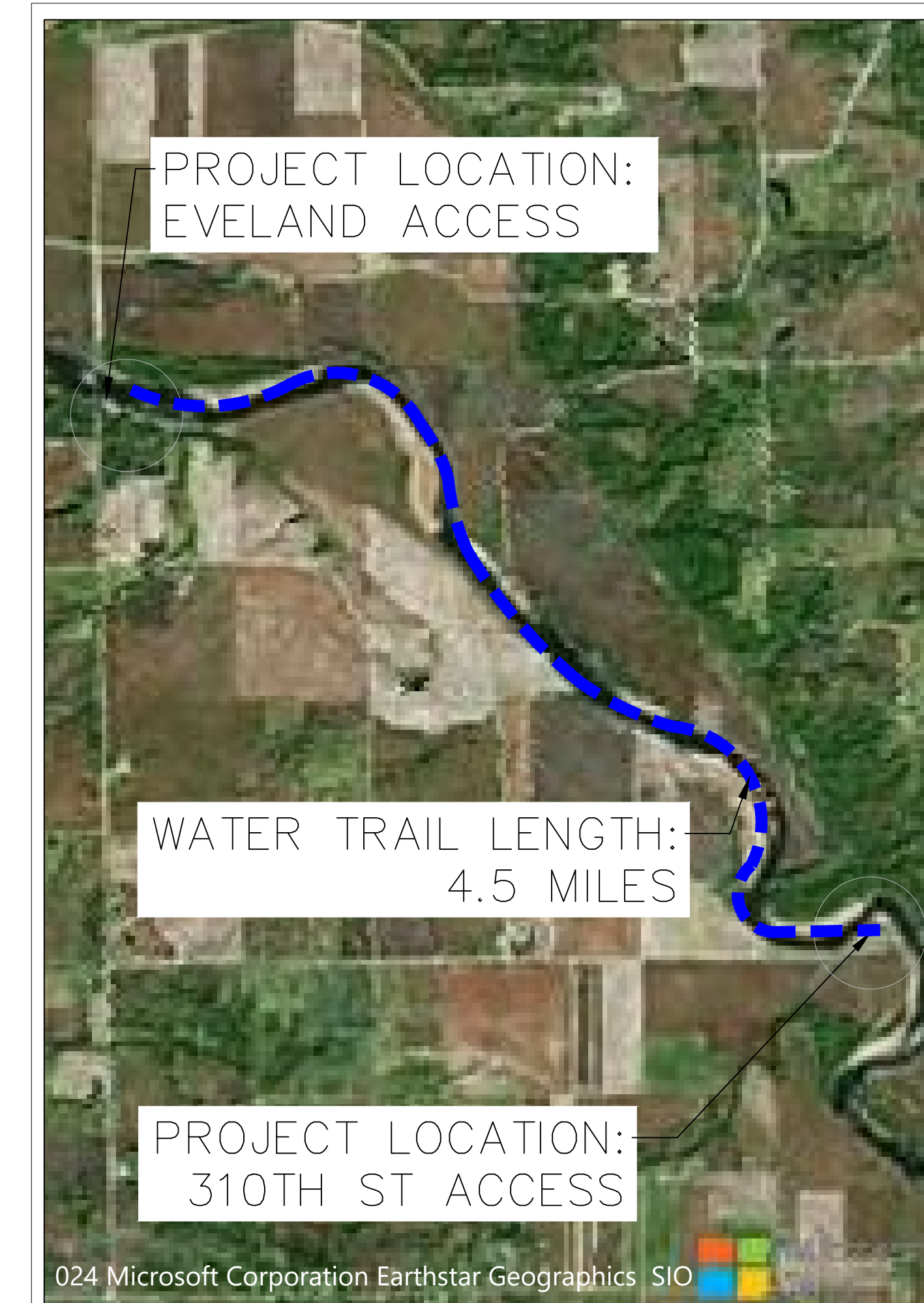
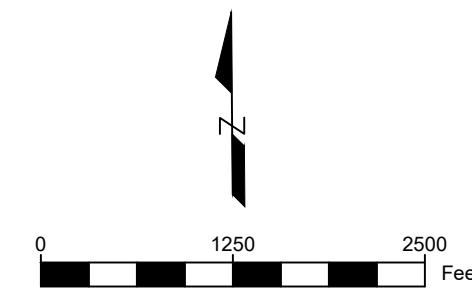


MAHASKA COUNTY WATER TRAILS

CHRIS CLINGAN - DIRECTOR
MAHASKA COUNTY CONSERVATION BOARD
2342 HWY 9, OSKALOOSA IA 52577



OVERALL PROJECT MAP - SOUTH SKUNK RIVER



OVERALL PROJECT MAP - DES MOINES RIVER

Sheet List Table

Sheet Number	Sheet Title
G000	COVER SHEET
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C101	EXISTING CONDITIONS - ROSE HILL
C102	EXISTING CONDITIONS - 310TH ST
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C300	DEMOLITION AND EROSION CONTROL PLAN - GLENDALE
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C600	CIVIL DETAILS
C601	CIVIL DETAILS
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S200	STRUCTURAL DETAILS
S201	STRUCTURAL DETAILS
S202	STRUCTURAL DETAILS
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S207	STRUCTURAL DETAILS
S208	STRUCTURAL DETAILS
S209	STRUCTURAL DETAILS

PROJECT: CEE: 4850
DATE: 4/25/2024
DRAWN BY: AET
REVISION:

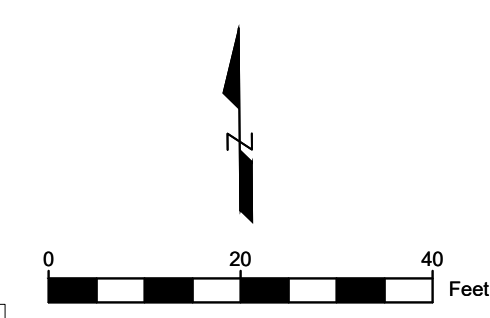
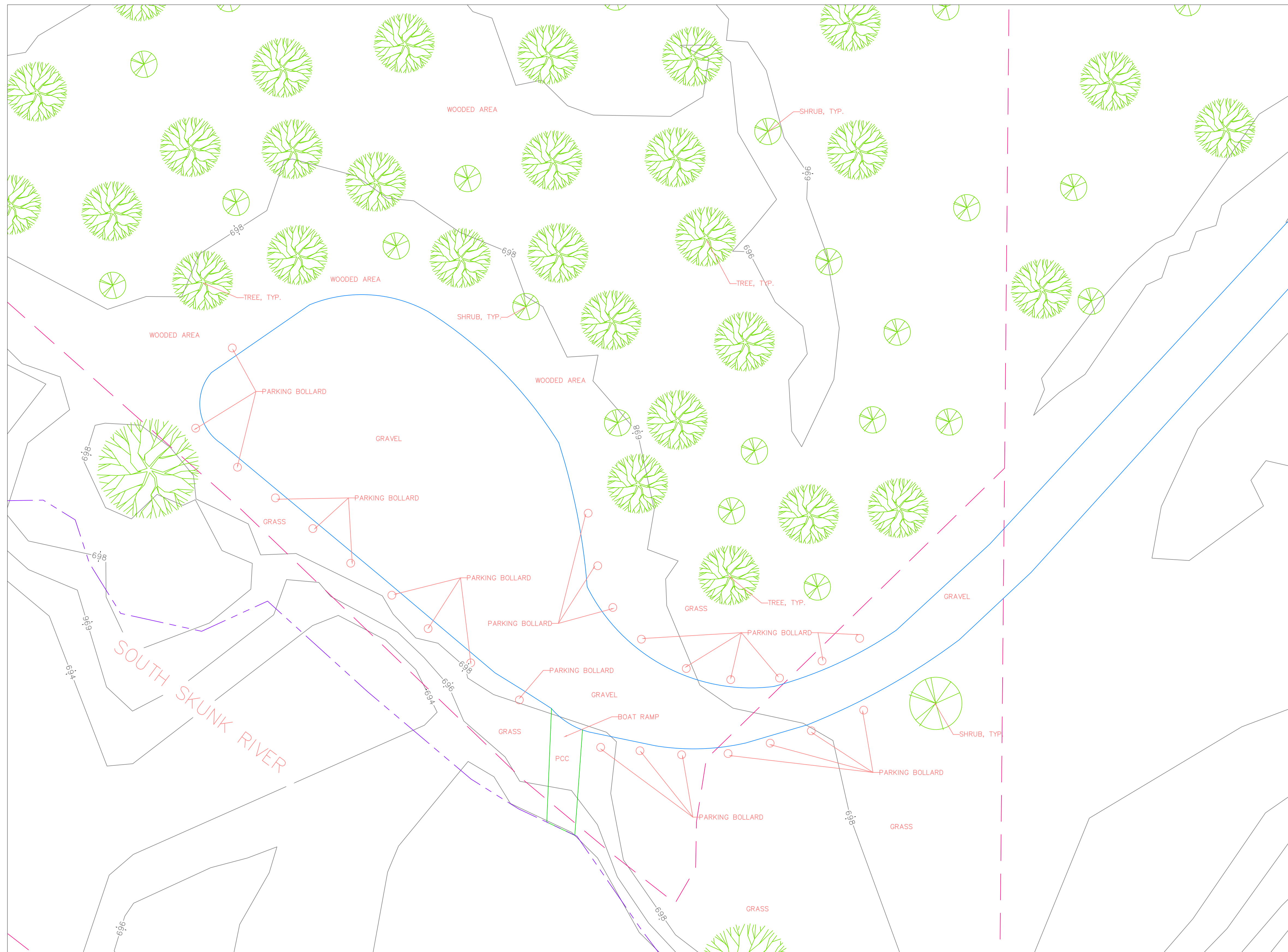
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WATER TRAILS
MAHASKA COUNTY

SHEET NAME
COVER SHEET

SHEET NO.
G000



EXISTING CONDITIONS - GLENDALE

- GRAVEL EDGE
- PCC EDGE
- - - PROPERTY BOUNDARY
- - - RIVER EDGE

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

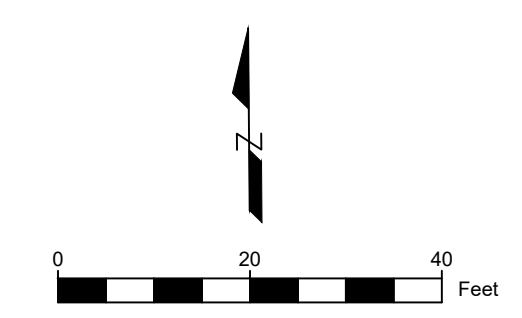
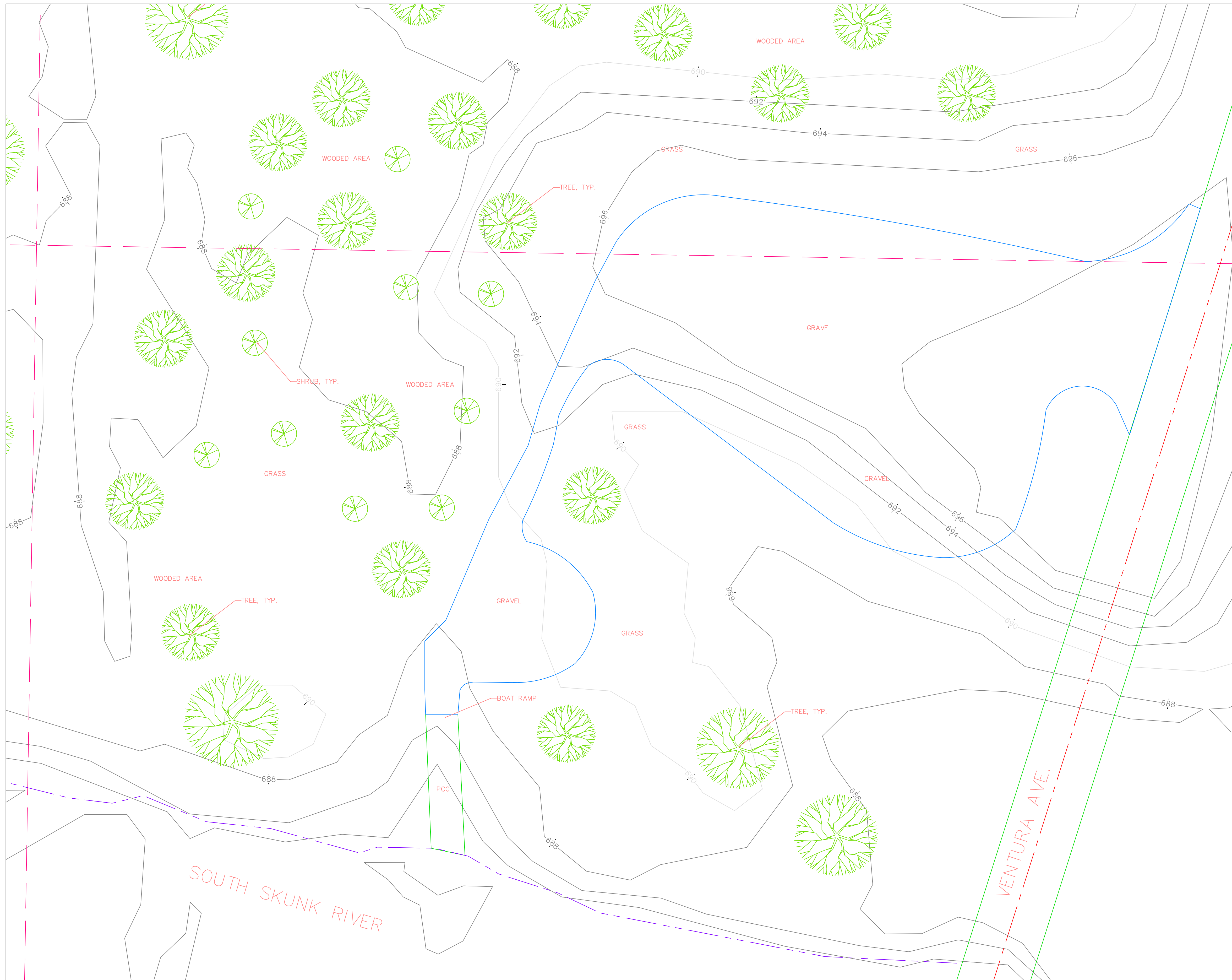
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 EXISTING CONDITIONS
 SHEET NO.

C100



- GRAVEL EDGE
- PCC EDGE
- - - PROPERTY BOUNDARY
- - - RIVER EDGE
- - - ROAD CENTERLINE

EXISTING CONDITIONS - ROSE HILL

PROJECT:	CEE: 4850
DATE :	4/25/2024
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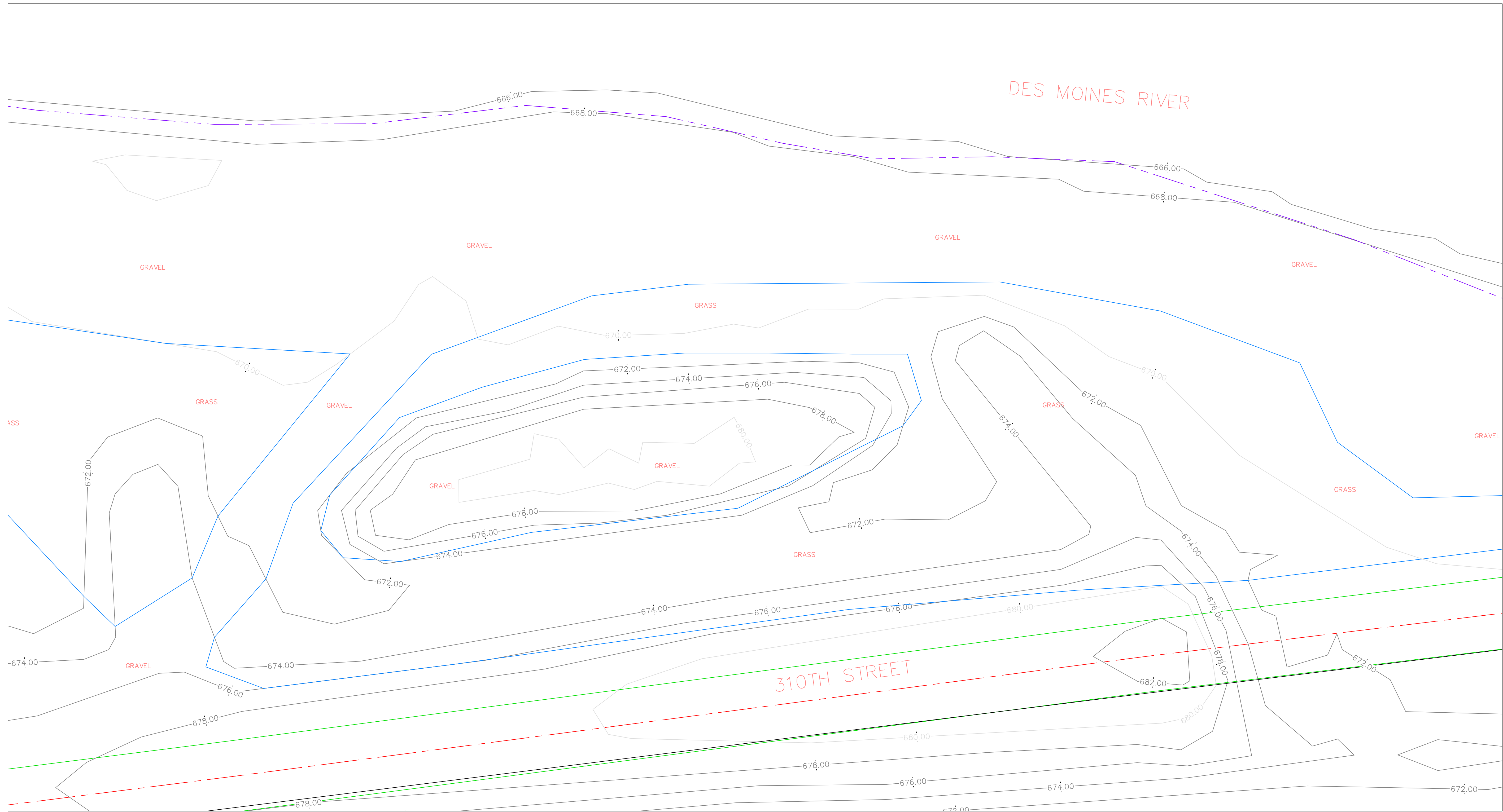
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 MAHASKA COUNTY

SHEET NAME
 EXISTING CONDITIONS

SHEET NO.
C101



- GRAVEL EDGE
- PCC EDGE
- - - RIVER EDGE
- - - ROAD CENTERLINE

EXISTING CONDITIONS - 310TH ST

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	WW
REVISION:	

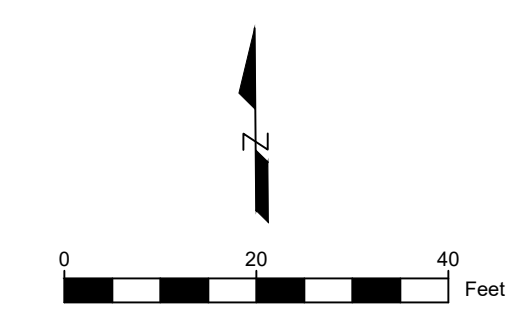
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 EXISTING
 CONDITIONS

SHEET NO.
C102



- GRAVEL EDGE
- PCC EDGE
- - - PROPERTY BOUNDARY
- - - RIVER EDGE

EXISTING CONDITIONS - EVELAND

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

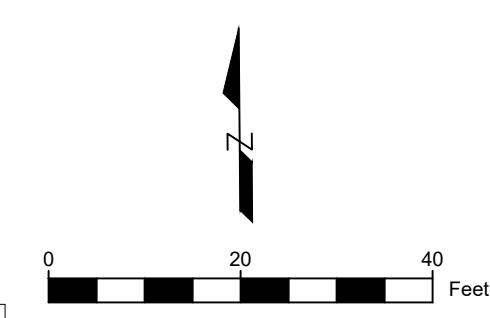
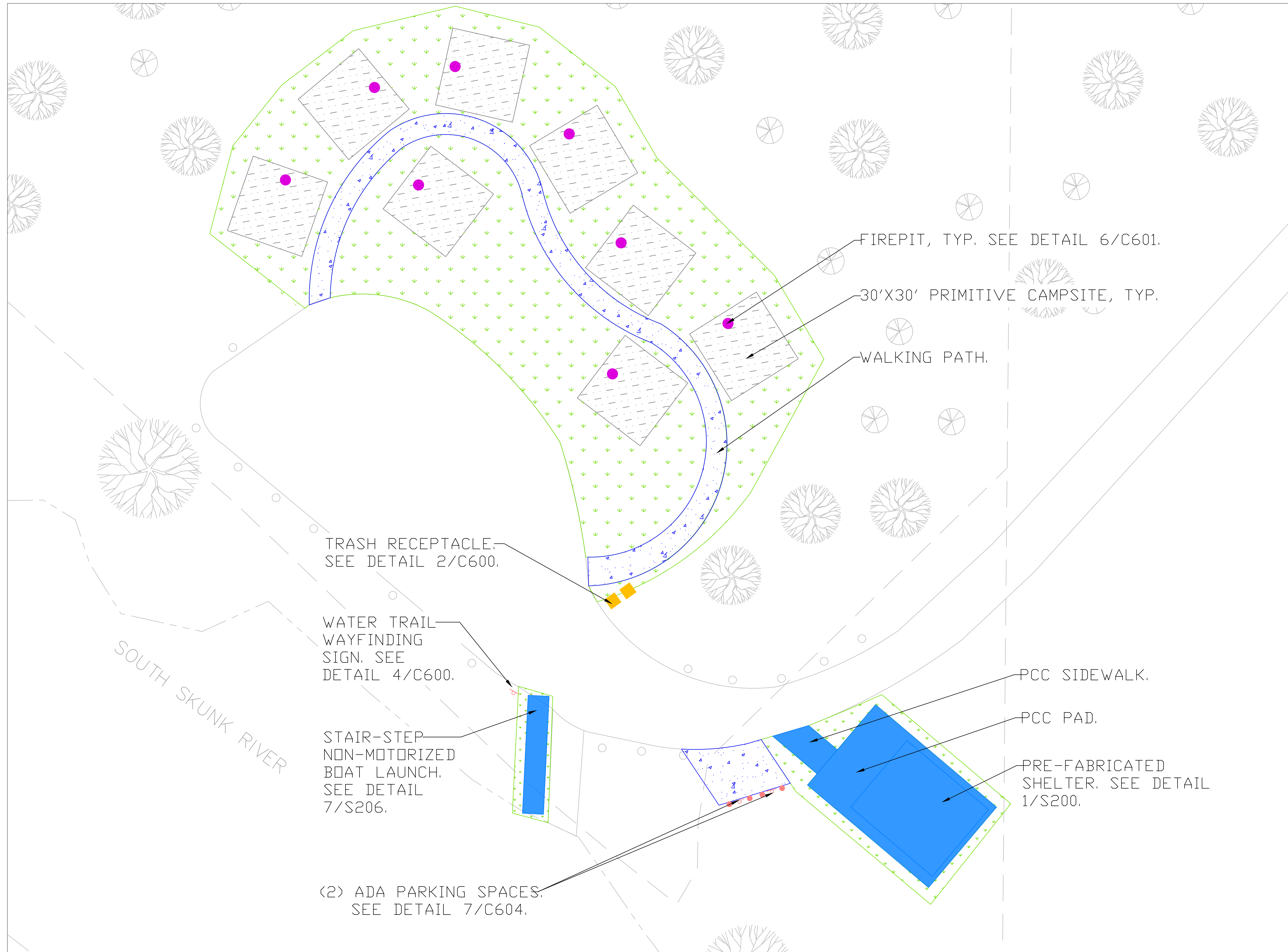
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 EXISTING
 CONDITIONS

SHEET NO.
C103



LEGEND

- 6" PCC. DETAIL 10/C603.
- 6" GRAVEL. DETAIL 11/C603.
- NATIVE GRASS SEEDING
- MULCH

- - - - PROPERTY BOUNDARY
- - - - RIVER EDGE

PROJECT:	CEE: 4850
DATE :	4/25/2024
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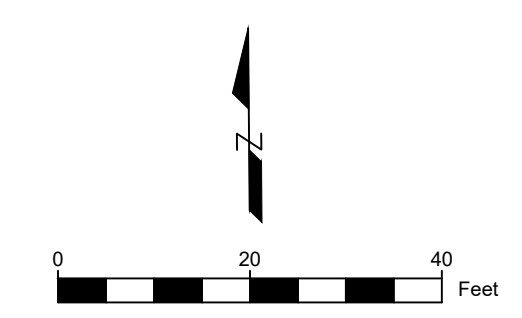
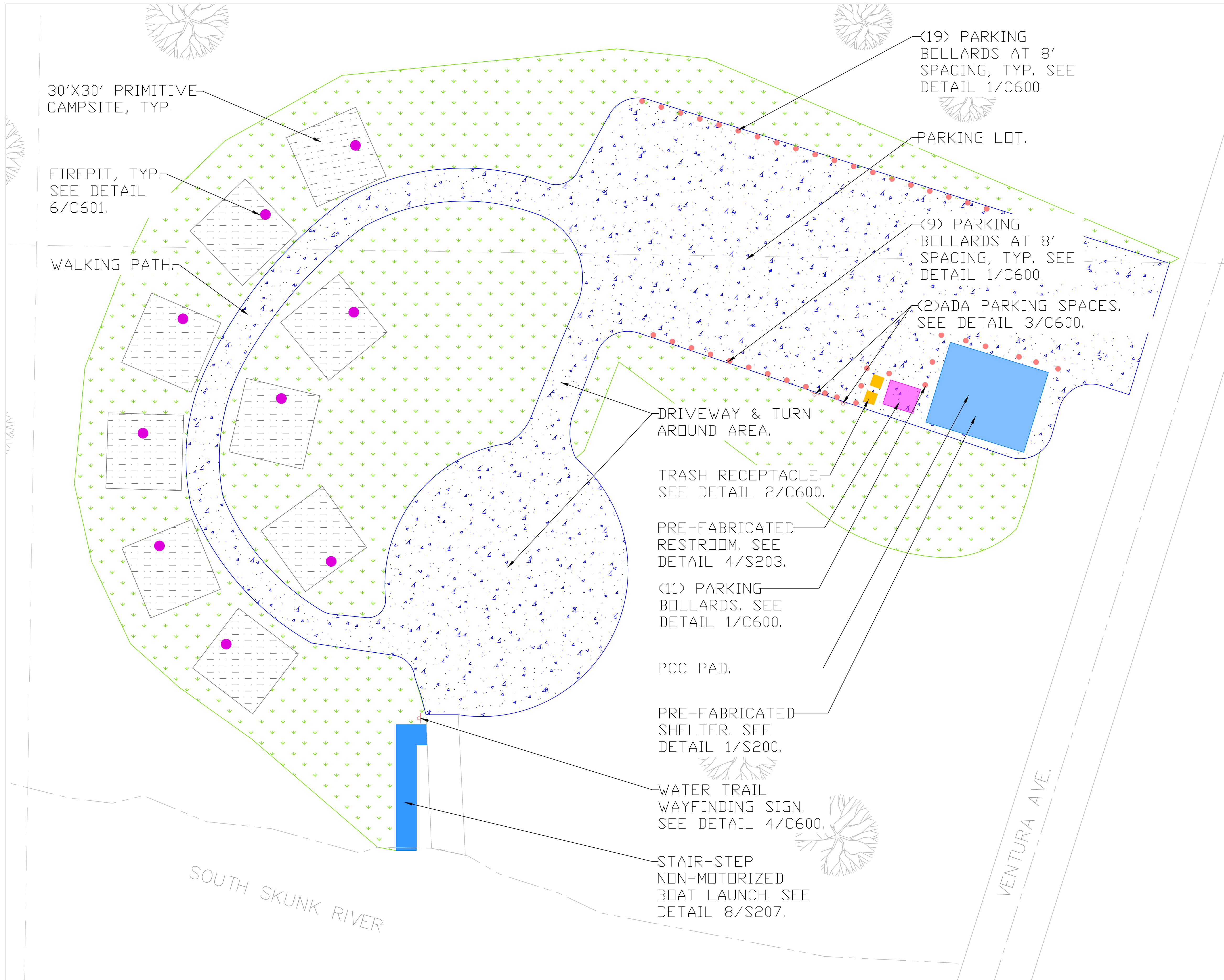
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 SITE PLAN

SHEET NO.
C200

SITE PLAN - GLENDALE



LEGEND

- 6" PCC. DETAIL 10/C603.
- 6" GRAVEL. DETAIL 11/C603.
- NATIVE GRASS SEEDING
- MULCH

- PROPERTY BOUNDARY
- RIVER EDGE
- ROAD CENTERLINE

SITE PLAN - ROSE HILL

PROJECT: CEE: 4850
 DATE: 4/25/2024
 DRAWN BY: AET
 REVISION:

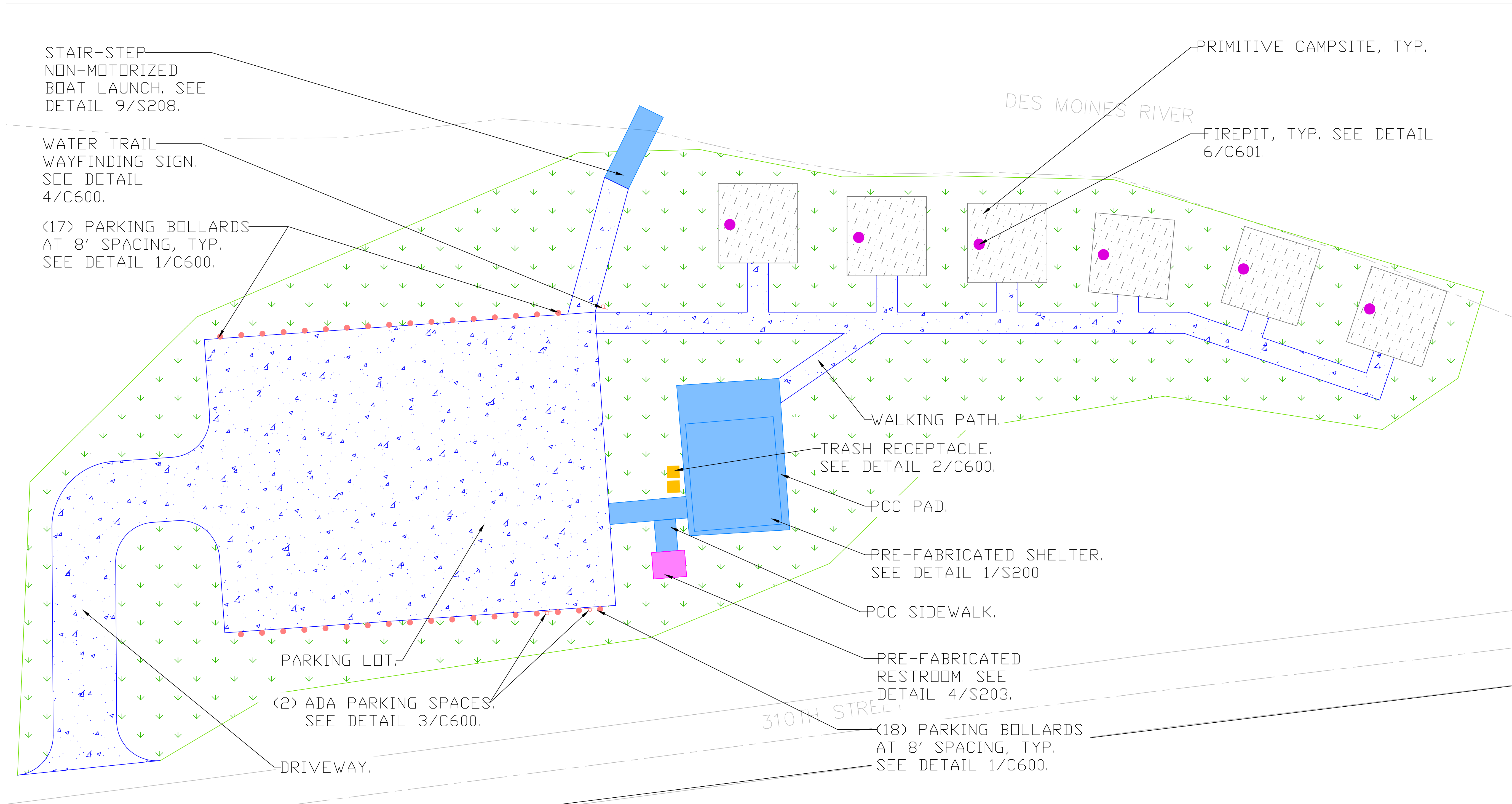
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 SITE PLAN
 SHEET NO.

C201



STAIR-STEP
NON-MOTORIZED
BOAT LAUNCH. SEE
DETAIL 9/S208.

WATER TRAIL
WAYFINDING SIGN.
SEE DETAIL
4/C600.

(17) PARKING BOLLARDS
AT 8' SPACING, TYP.
SEE DETAIL 1/C600.

PRIMITIVE CAMPSITE, TYP.

FIREPIT, TYP. SEE DETAIL
6/C601.

DES MOINES RIVER

WALKING PATH.

TRASH RECEPTACLE.
SEE DETAIL 2/C600.

PCC PAD.

PRE-FABRICATED SHELTER.
SEE DETAIL 1/S200

PCC SIDEWALK.

PRE-FABRICATED
RESTROOM. SEE
DETAIL 4/S203.

PARKING LOT.

(2) ADA PARKING SPACES.
SEE DETAIL 3/C600.

DRIVEWAY.


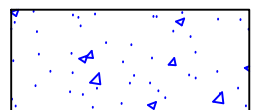

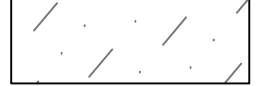
(18) PARKING BOLLARDS
AT 8' SPACING, TYP.
SEE DETAIL 1/C600.

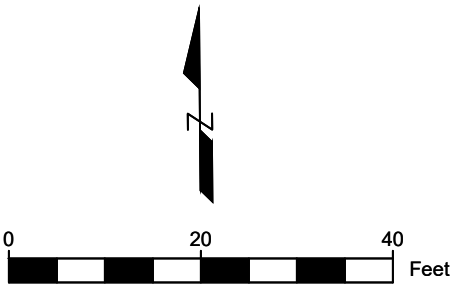
310TH STREET

SITE PLAN - 310TH ST

- PROPERTY BOUNDARY
- RIVER EDGE
- ROAD CENTERLINE

LEGEND

-  6" PCC. DETAIL 10/C603.
-  6" GRAVEL. DETAIL 11/C603.
-  NATIVE GRASS SEEDING
-  MULCH



PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	WW
REVISION:	

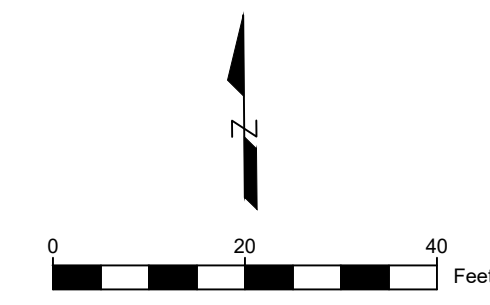
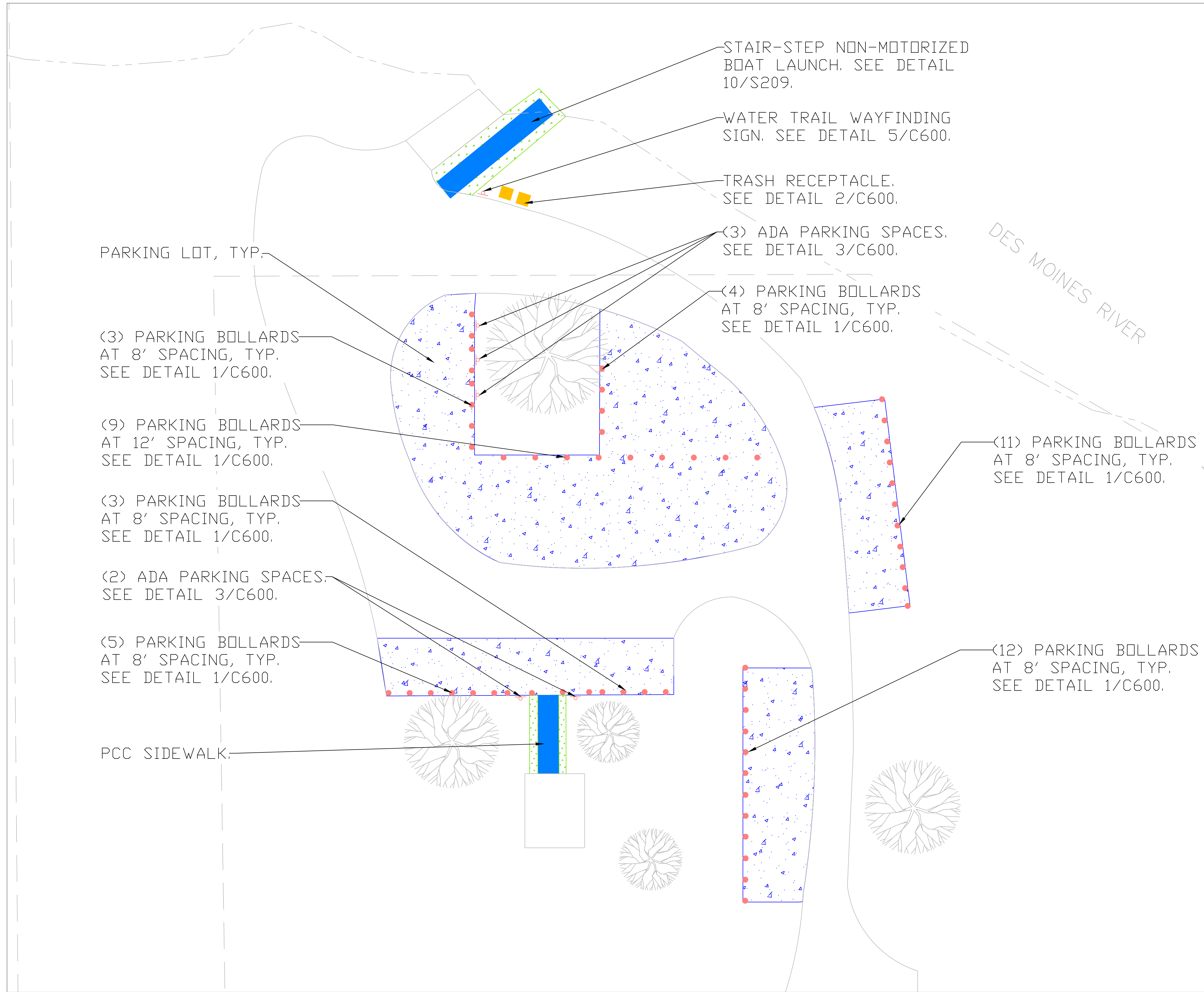
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WATER TRAILS
MAHASKA COUNTY

SHEET NAME
SITE PLAN
SHEET NO.

C202



LEGEND

- 6" PCC. DETAIL 10/C603.
- 6" GRAVEL. DETAIL 11/C603.
- NATIVE GRASS SEEDING

----- PROPERTY BOUNDARY
 ----- RIVER EDGE

SITE PLAN - EVELAND

PROJECT: CEE: 4850
 DATE: 4/4/2024
 DRAWN BY: AET
 REVISION:

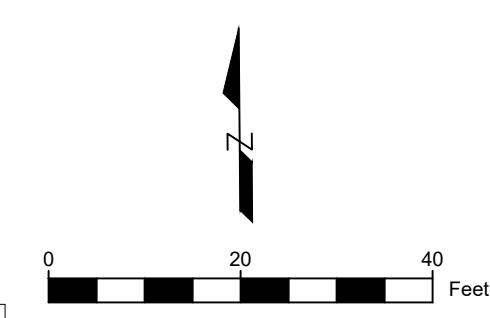
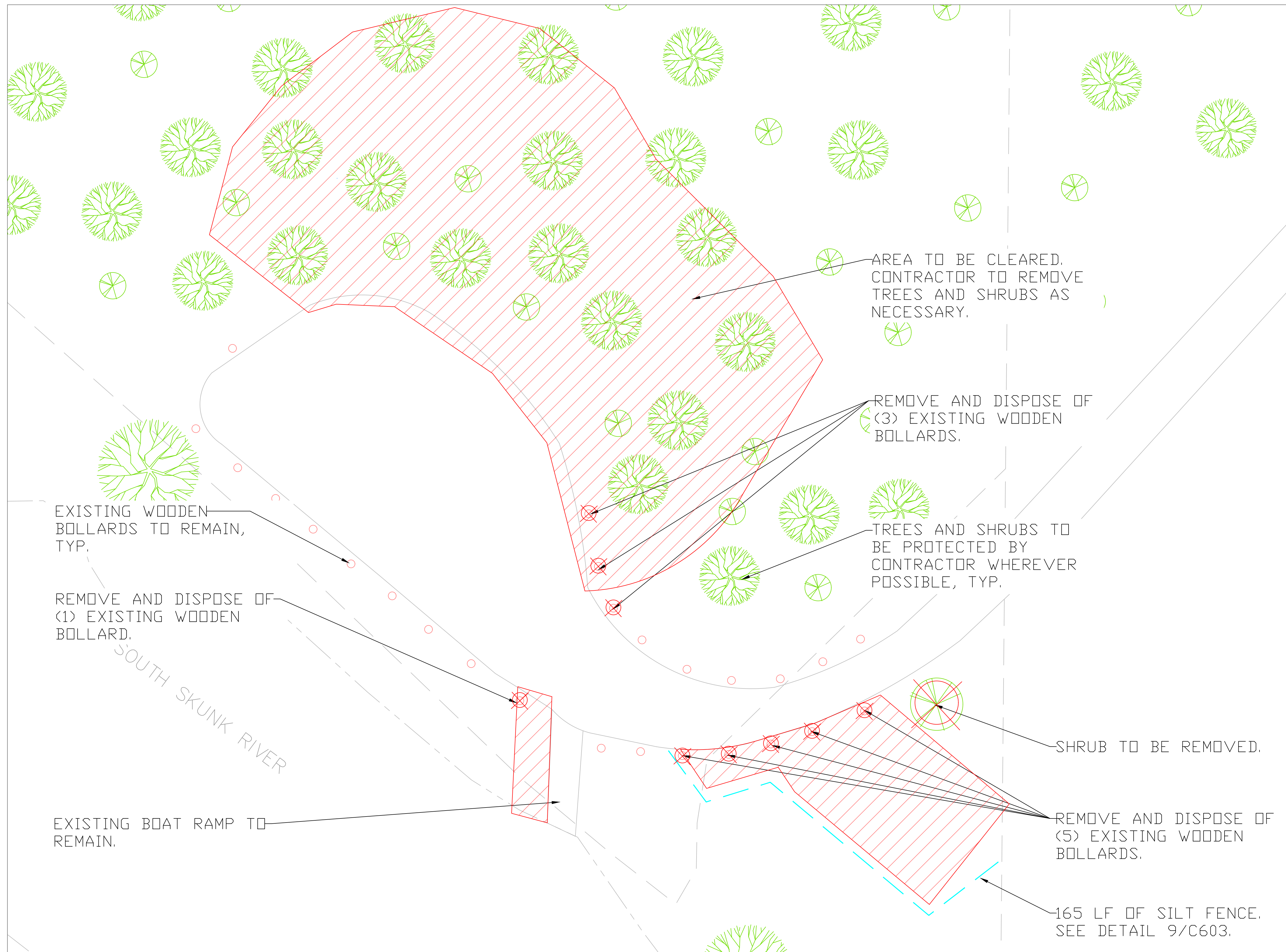
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 SITE PLAN
 SHEET NO.

C203



LEGEND

-  CLEARING AND GRUBBING
-  SILT FENCE
-  SITE FEATURE TO BE REMOVED

-  PROPERTY BOUNDARY
-  RIVER EDGE

DEMOLITION AND EROSION CONTROL PLAN - GLENDALE

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

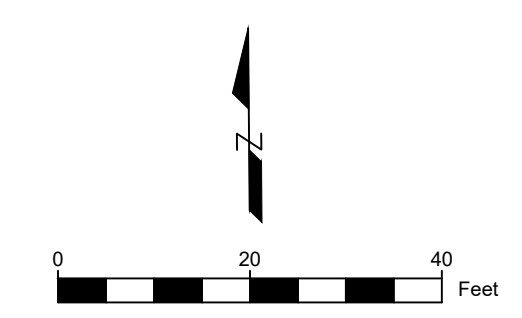
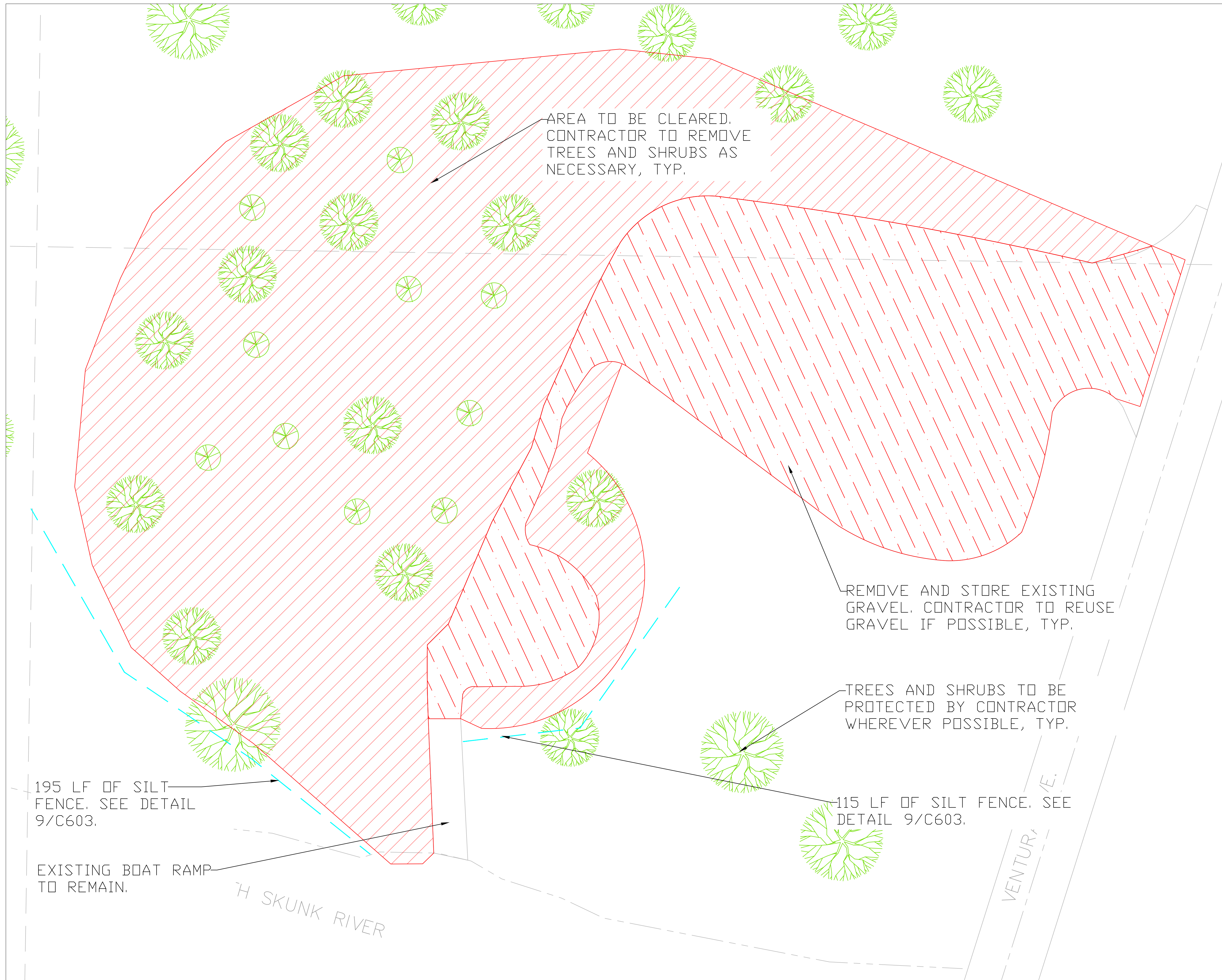
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 DEMO & EROSION CONTROL PLAN

SHEET NO.
C300



LEGEND

- CLEARING AND GRUBBING
- GRAVEL REMOVAL
- SILT FENCE

- PROPERTY BOUNDARY
- RIVER EDGE
- ROAD CENTERLINE

PROJECT:	CEE: 4850
DATE :	4/25/2024
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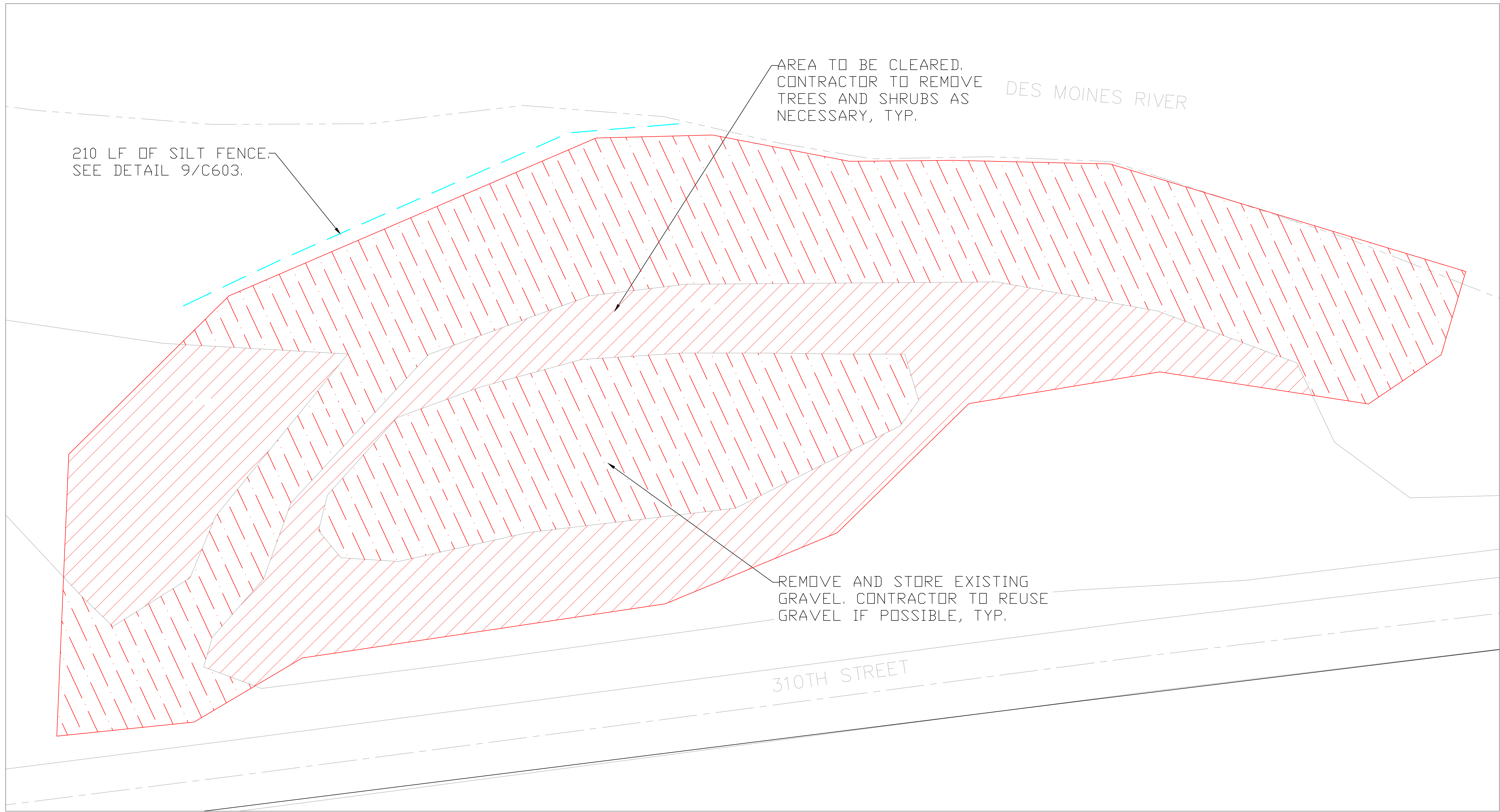
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 DEMO & EROSION CONTROL PLAN
 SHEET NO.

C301

DEMOLITION AND EROSION CONTROL PLAN - ROSE HILL



210 LF OF SILT FENCE.
SEE DETAIL 9/C603.

AREA TO BE CLEARED.
CONTRACTOR TO REMOVE
TREES AND SHRUBS AS
NECESSARY, TYP.

REMOVE AND STORE EXISTING
GRAVEL. CONTRACTOR TO REUSE
GRAVEL IF POSSIBLE, TYP.

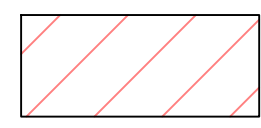
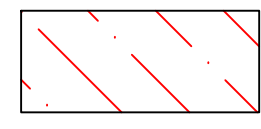

DES MOINES RIVER

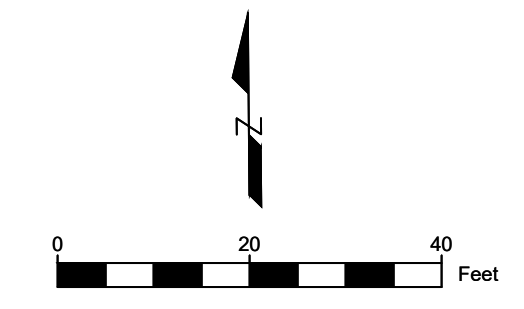
310TH STREET

- PROPERTY BOUNDARY
- RIVER EDGE
- ROAD CENTERLINE

DEMOLITION AND EROSION CONTROL PLAN - 310TH ST

LEGEND

-  CLEARING AND GRUBBING
-  GRAVEL REMOVAL
-  SILT FENCE



PROJECT:	CEE: 4850
DATE :	4/4/2024
DRAWN BY:	WW
REVISION:	

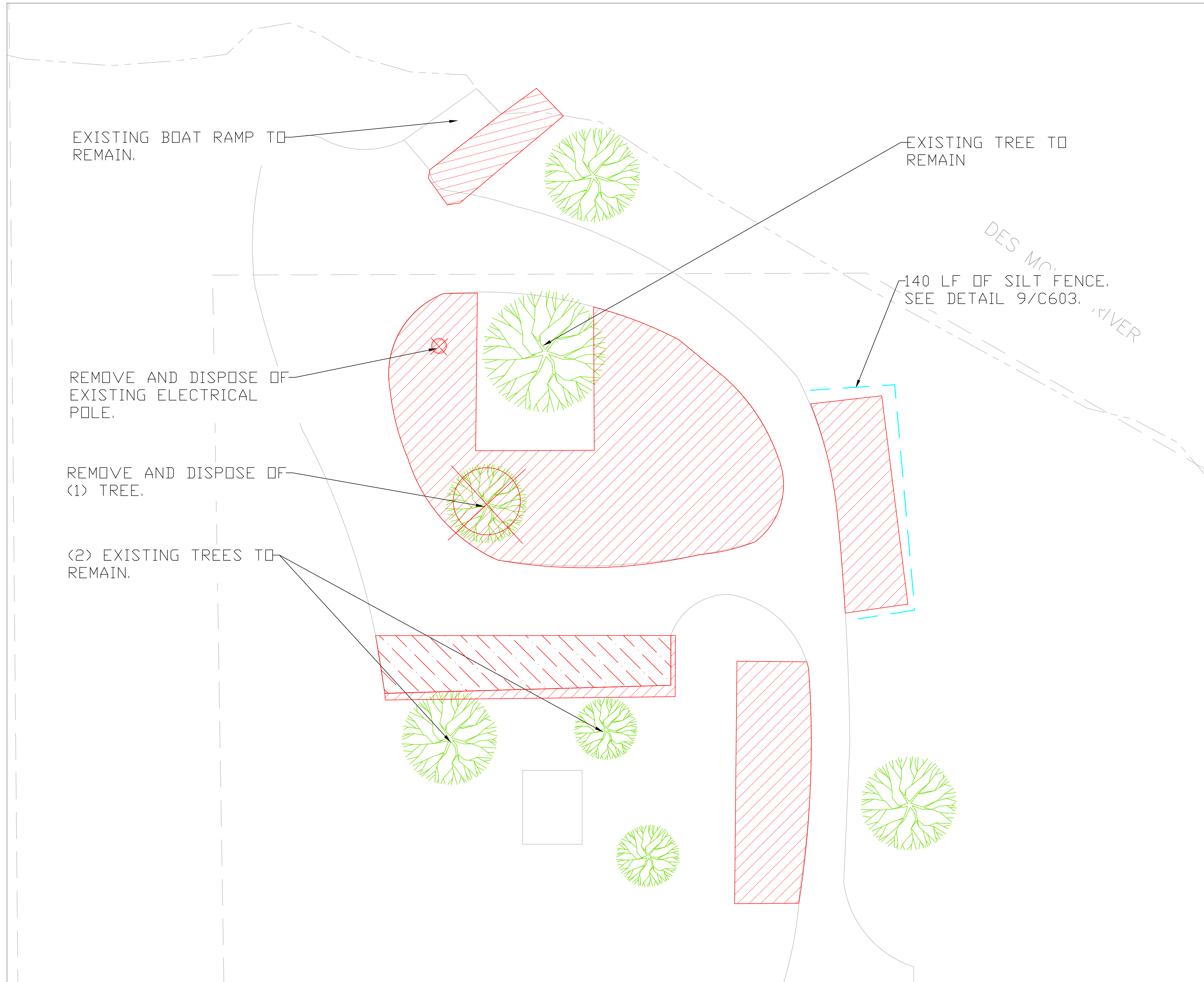
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 DEMO & EROSI
 CONTROL PLAN

SHEET NO.
C302



EXISTING BOAT RAMP TO REMAIN.

EXISTING TREE TO REMAIN

REMOVE AND DISPOSE OF EXISTING ELECTRICAL POLE.

140 LF OF SILT FENCE. SEE DETAIL 9/C603.

REMOVE AND DISPOSE OF (1) TREE.

(2) EXISTING TREES TO REMAIN.

DES MOINES RIVER

LEGEND

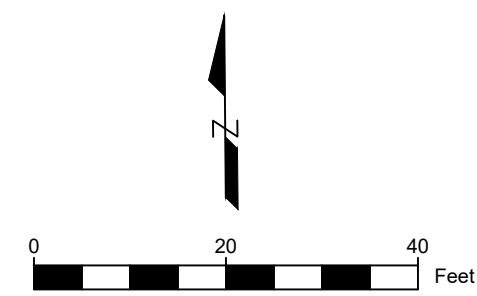
CLEARING AND GRUBBING

GRAVEL REMOVAL

SILT FENCE

SITE FEATURE TO BE REMOVED

--- PROPERTY BOUNDARY
 RIVER EDGE



DEMOLITION AND EROSION CONTROL PLAN - EVELAND

PROJECT:	CEE: 4850
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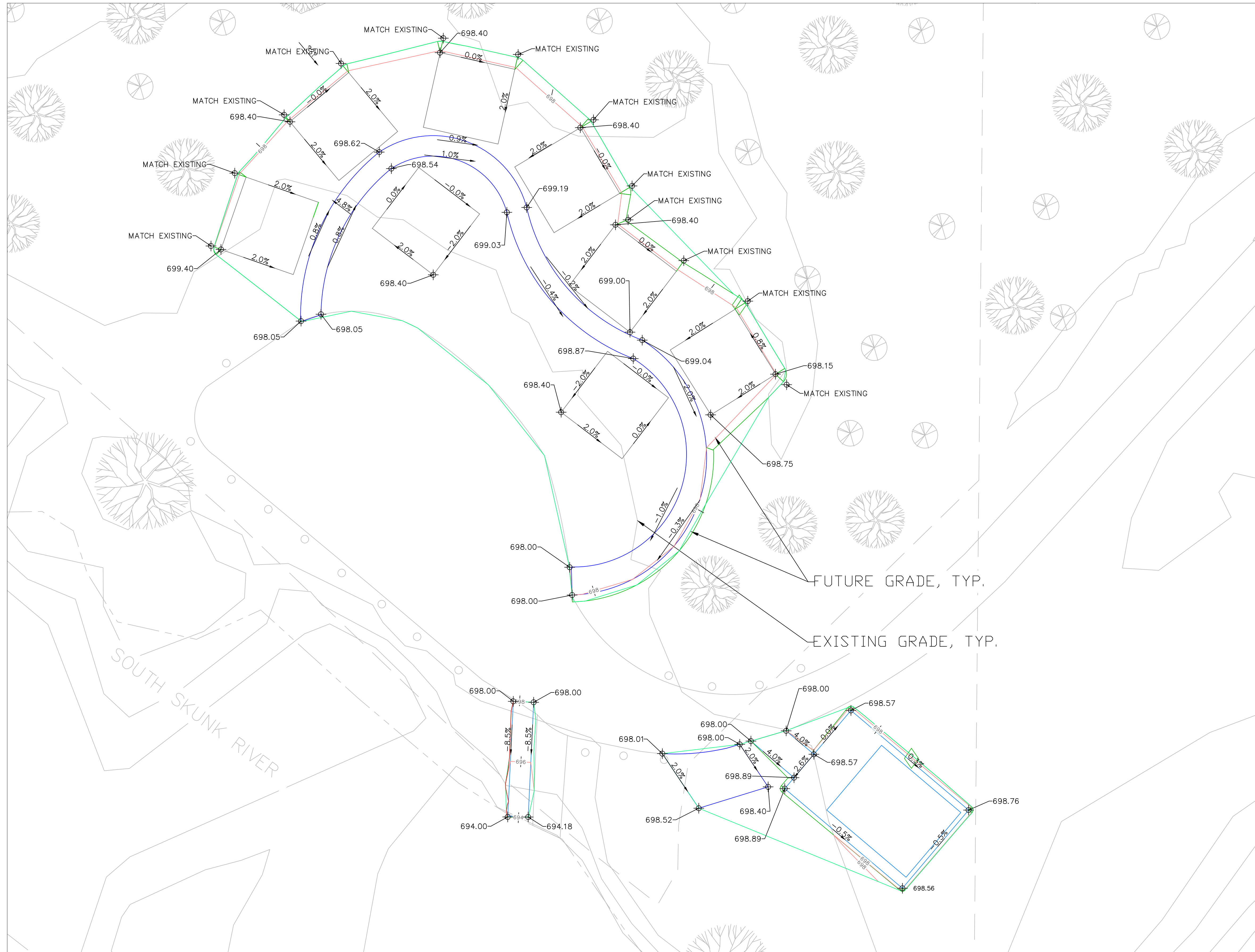
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WATER TRAILS

MAHASKA COUNTY

SHEET NAME
 DEMO & EROSION CONTROL PLAN

SHEET NO.
C303

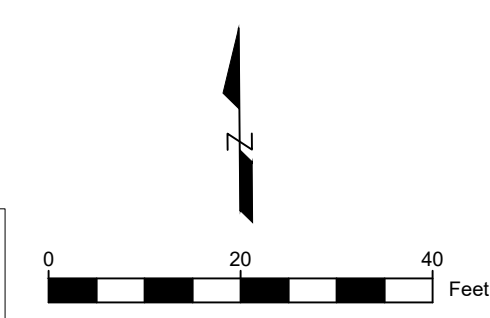


SOUTH SKUNK RIVER

FUTURE GRADE, TYP.

EXISTING GRADE, TYP.

GRADING PLAN - GLENDALE



PROJECT:	CEE: 4850
DATE :	4/25/2024
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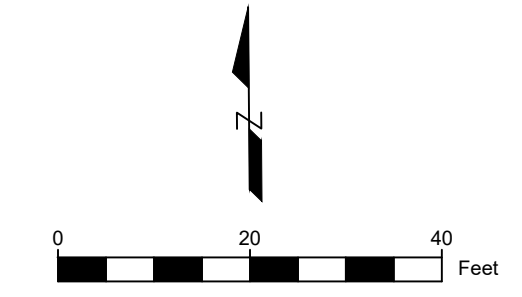
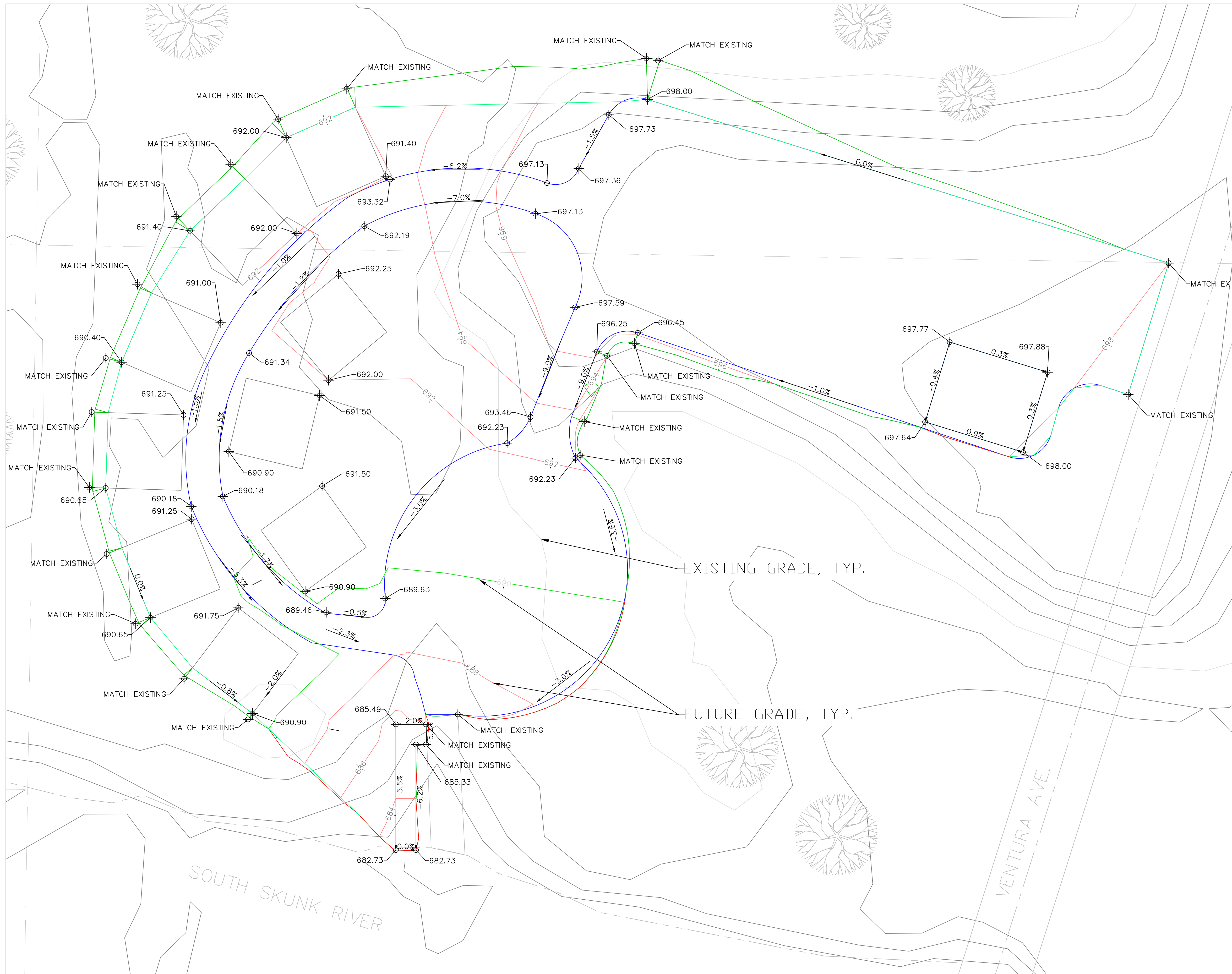
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 GRADING PLAN

SHEET NO.
C400



GRADING PLAN - ROSE HILL

PROJECT: CEE: 4850
 DATE: 4/25/2024
 DRAWN BY: AET
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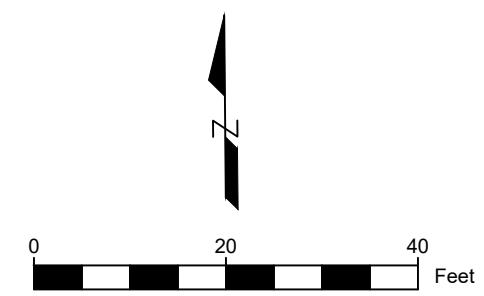
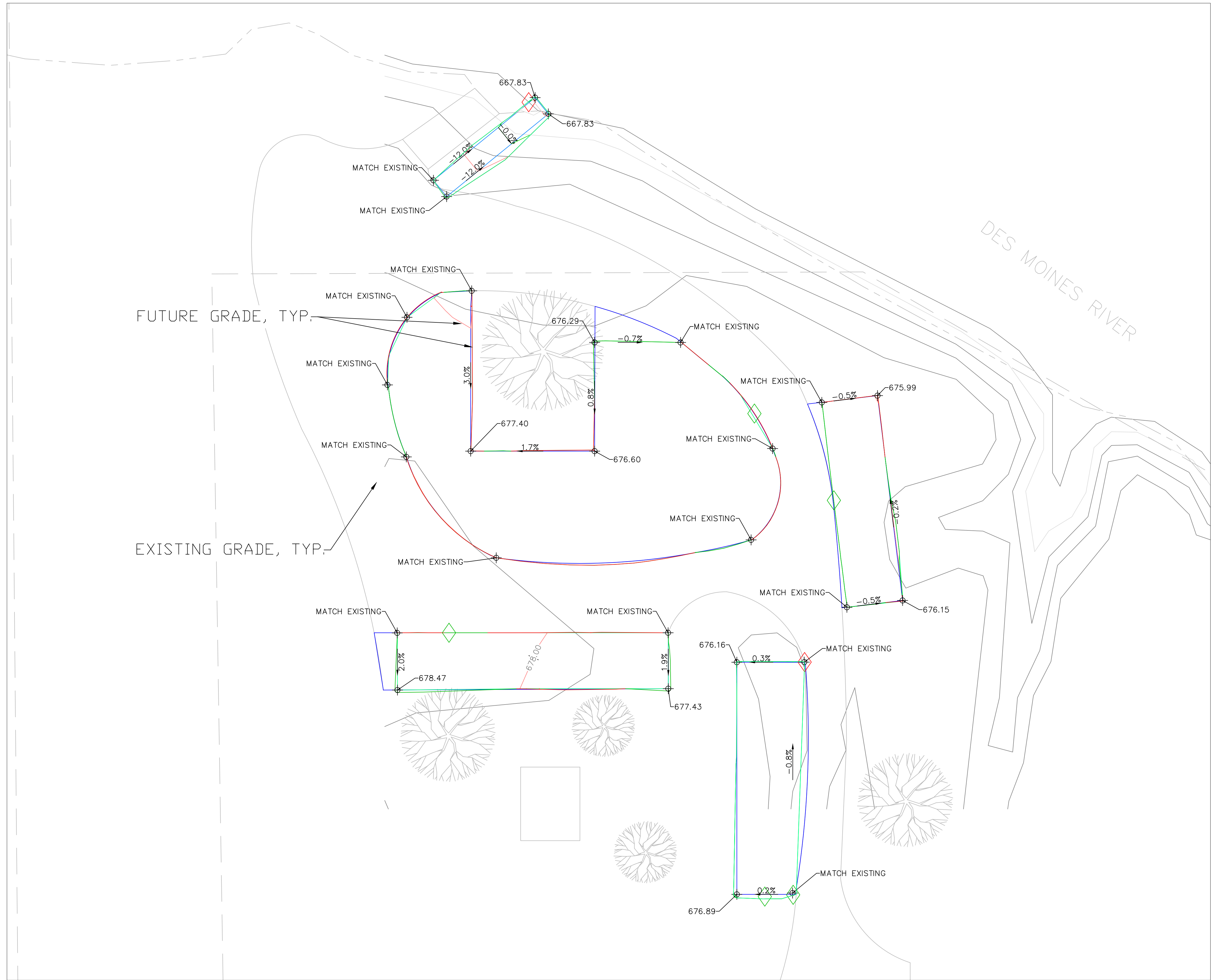
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 GRADING PLAN

SHEET NO.
C401



GRADING PLAN - EVELAND

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
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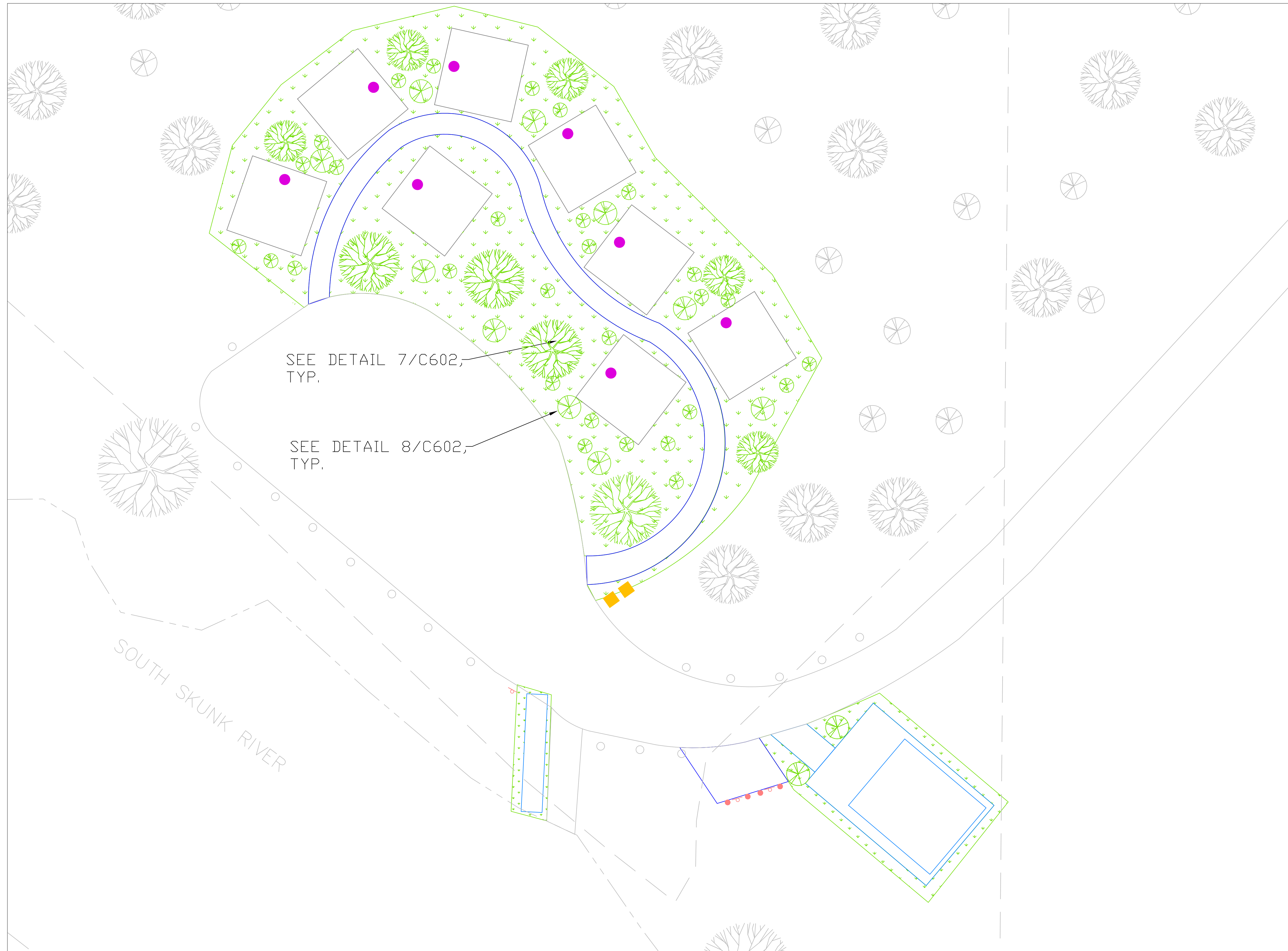
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 GRADING PLAN

SHEET NO.
C403



LANDSCAPING PLAN - GLENDALE

PROJECT: CEE: 4850
 DATE: 4/25/2024
 DRAWN BY: AET
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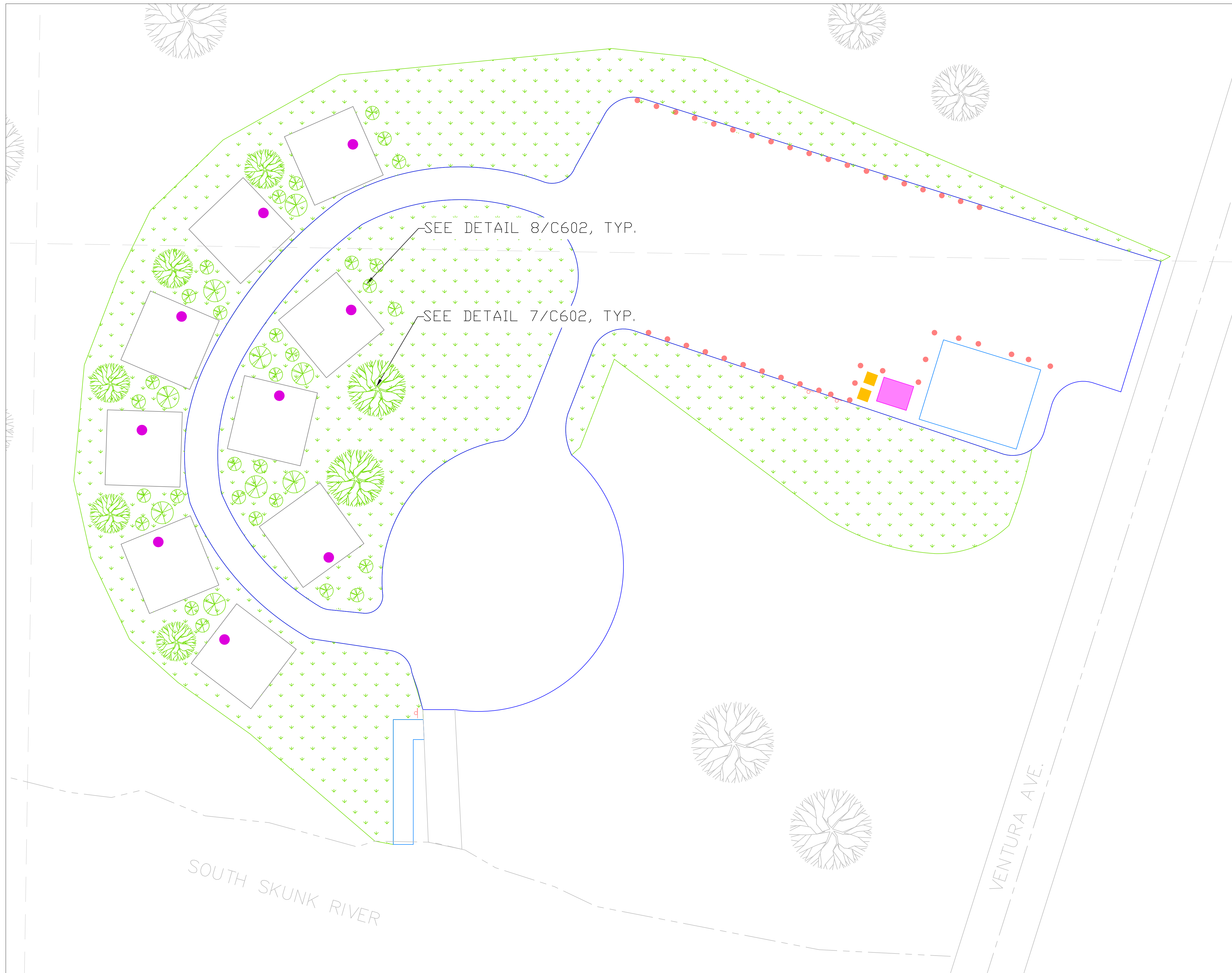
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WATER TRAILS

MAHASKA COUNTY

SHEET NAME
 LANDSCAPING
 PLAN

SHEET NO.
C500



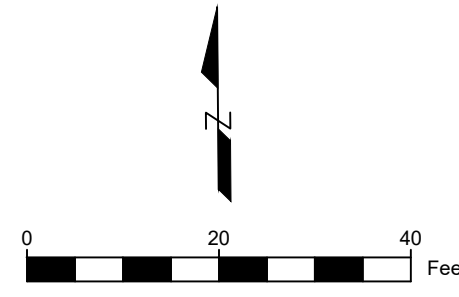
SOUTH SKUNK RIVER

VENTURA AVE.

SEE DETAIL 8/C602, TYP.

SEE DETAIL 7/C602, TYP.

LANDSCAPING PLAN - ROSE HILL



PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

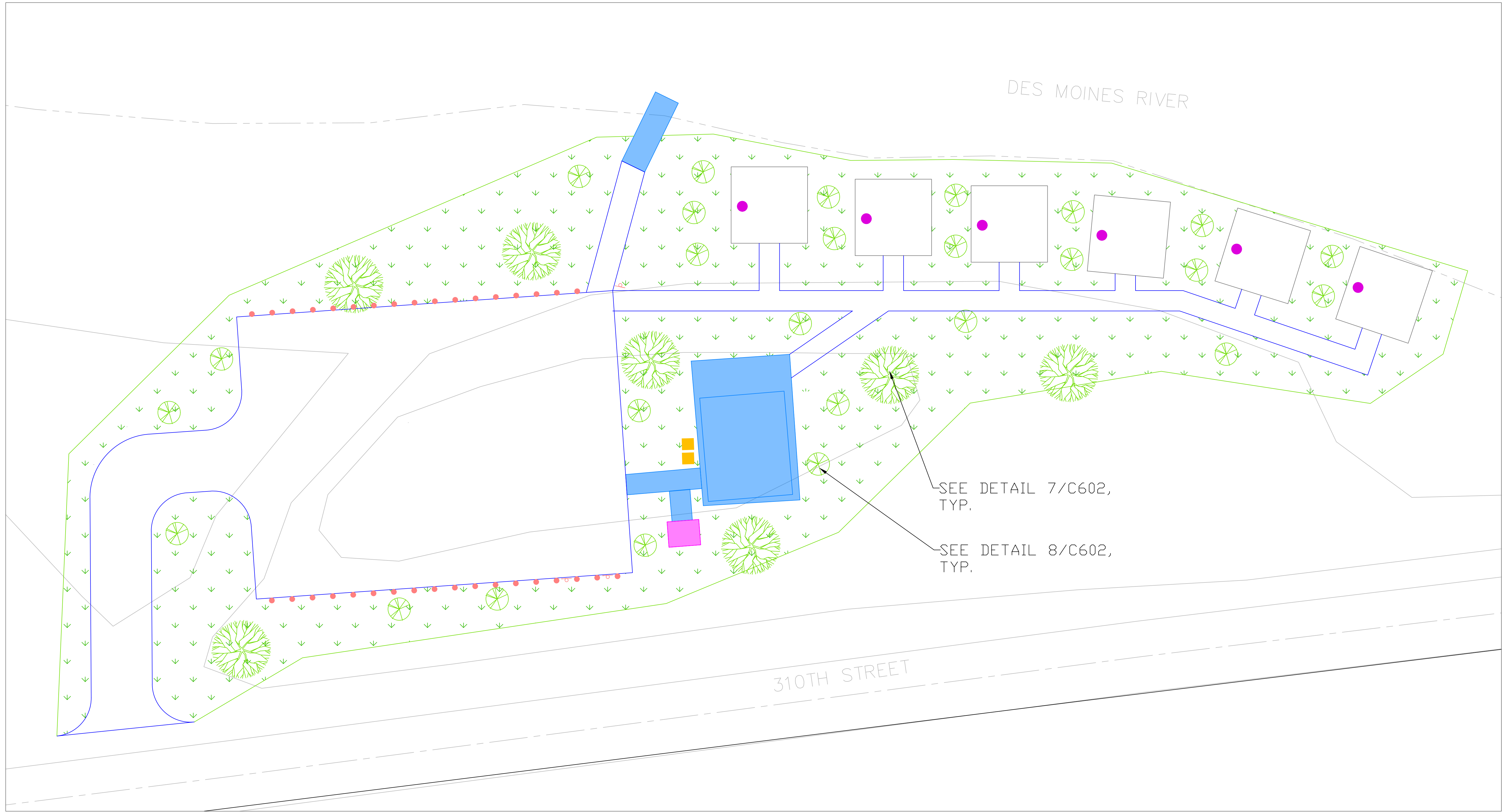
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
LANDSCAPING PLAN

SHEET NO.
C501



DES MOINES RIVER

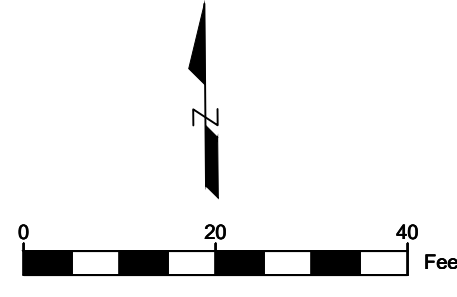
310TH STREET

SEE DETAIL 7/C602,
TYP.

SEE DETAIL 8/C602,
TYP.

- PROPERTY BOUNDARY
- RIVER EDGE
- ROAD CENTERLINE

LANDSCAPING PLAN - 310TH ST



PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	WW
REVISION:	

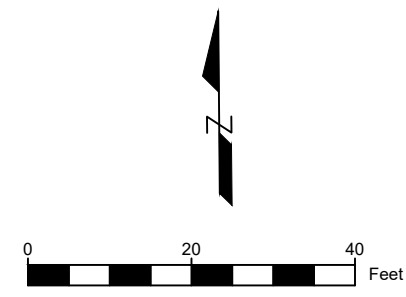
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 LANDSCAPING
 PLAN

SHEET NO.
C502



LANDSCAPING PLAN - EVELAND

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

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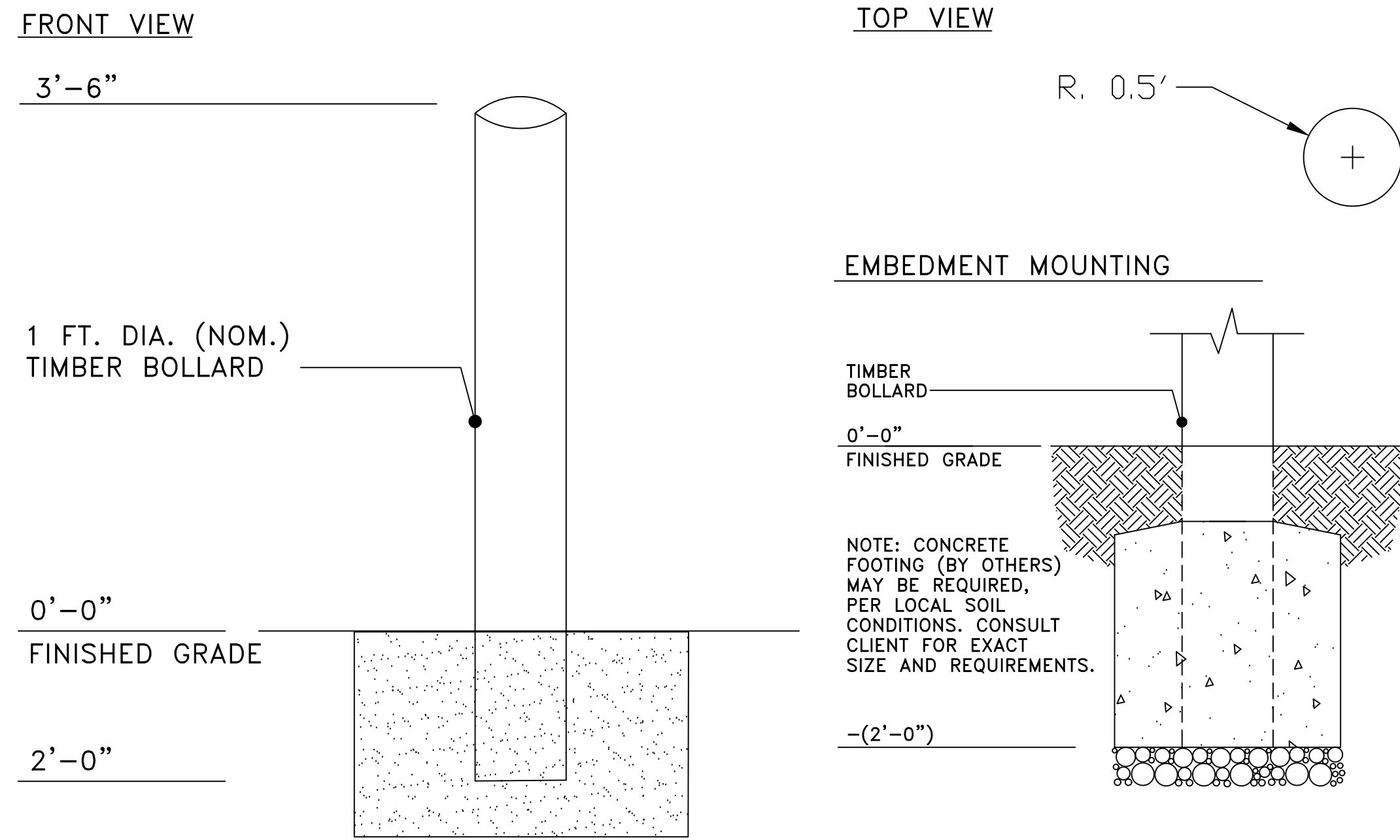
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WATER TRAILS

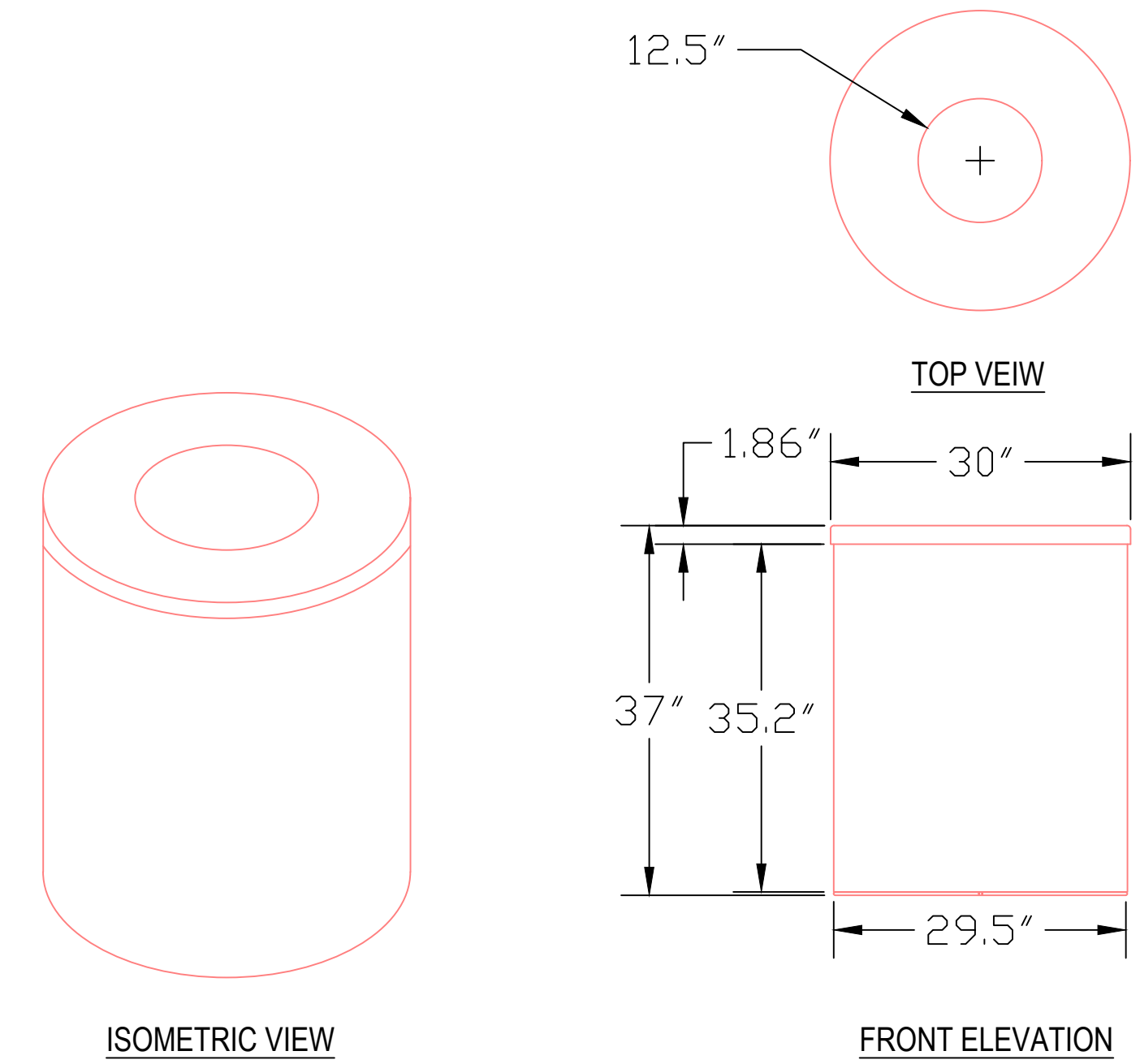
MAHASKA COUNTY

SHEET NAME
 LANDSCAPING
 PLAN

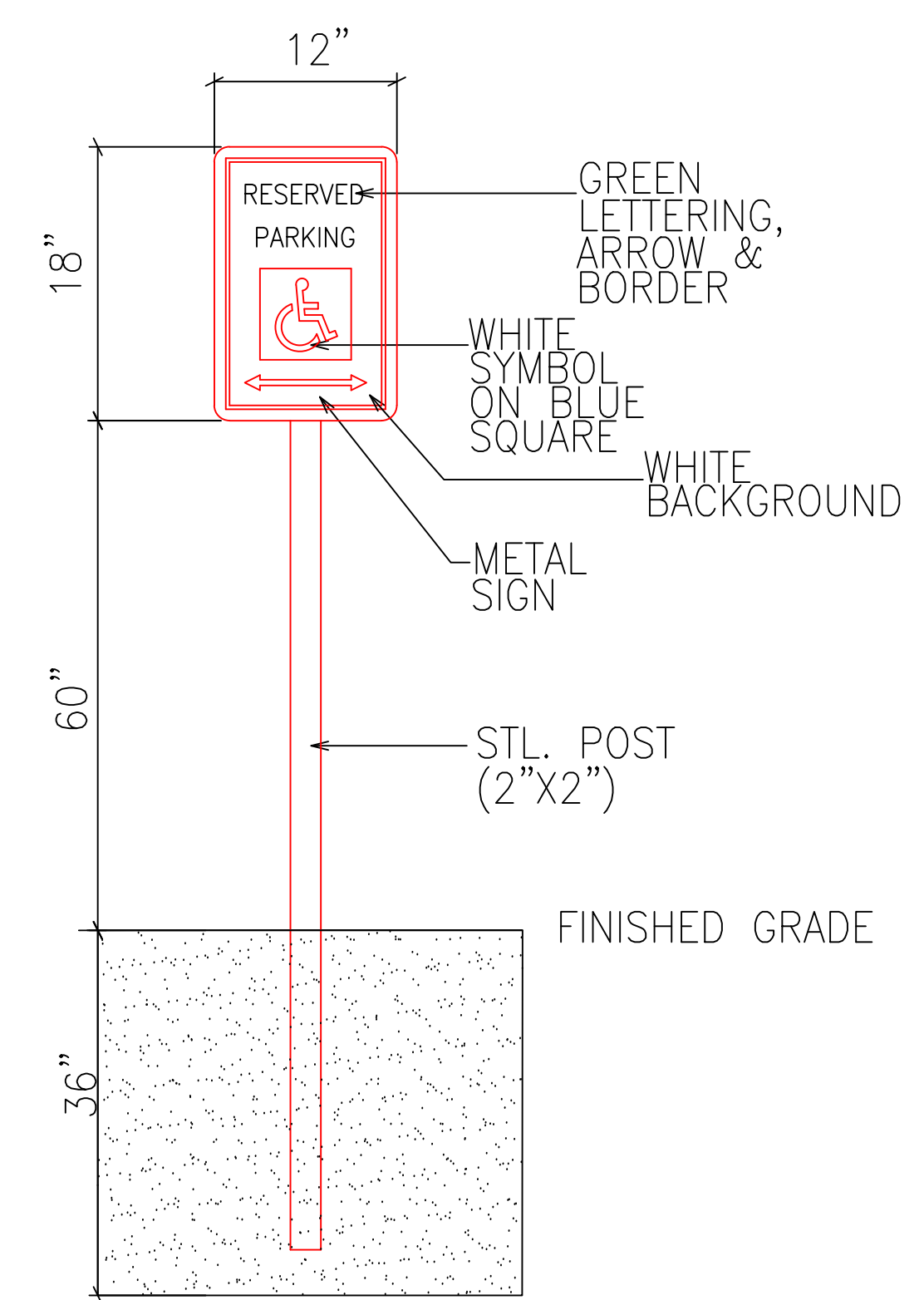
SHEET NO.
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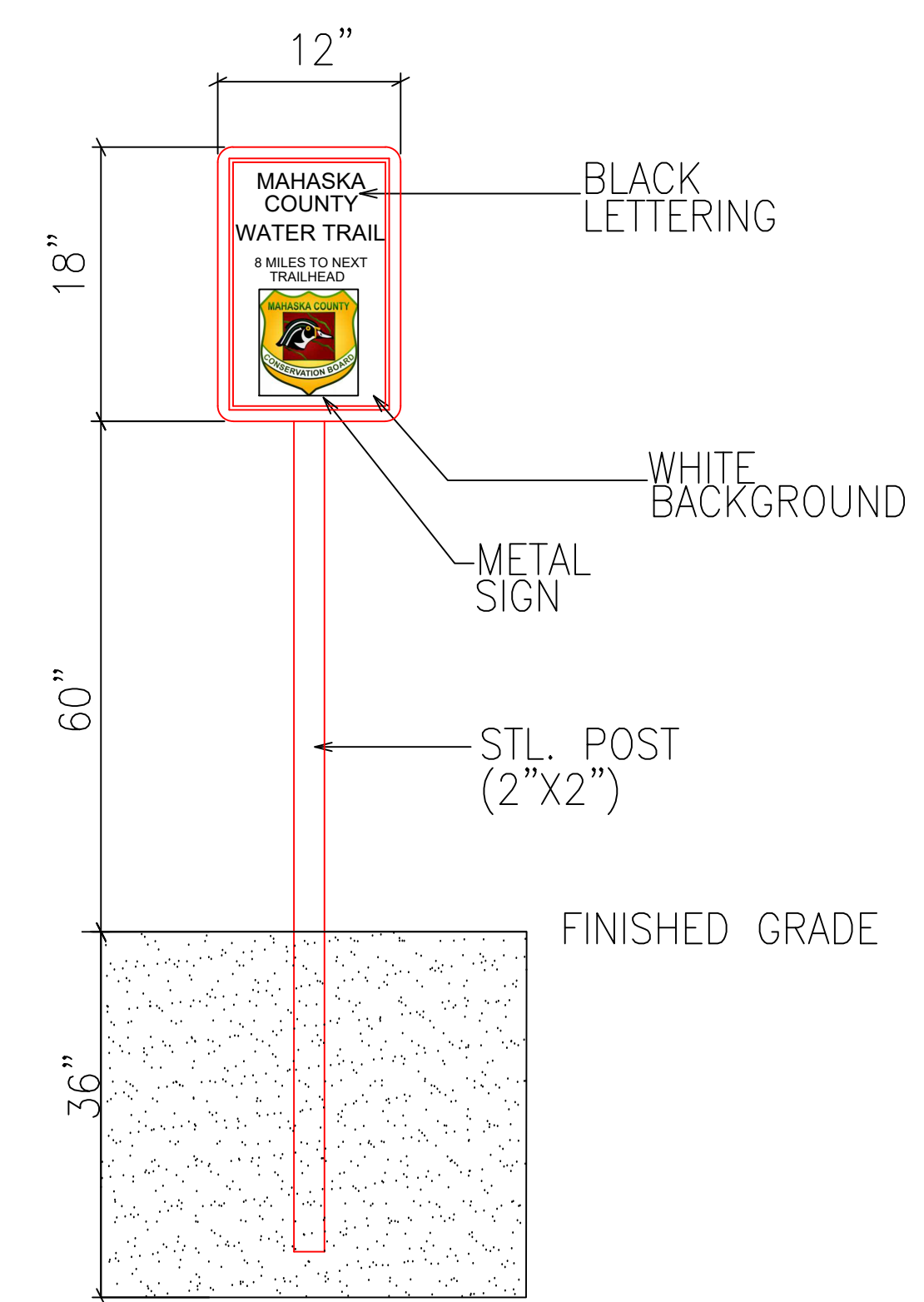
1 PARKING BOLLARD
NOT DRAWN TO SCALE



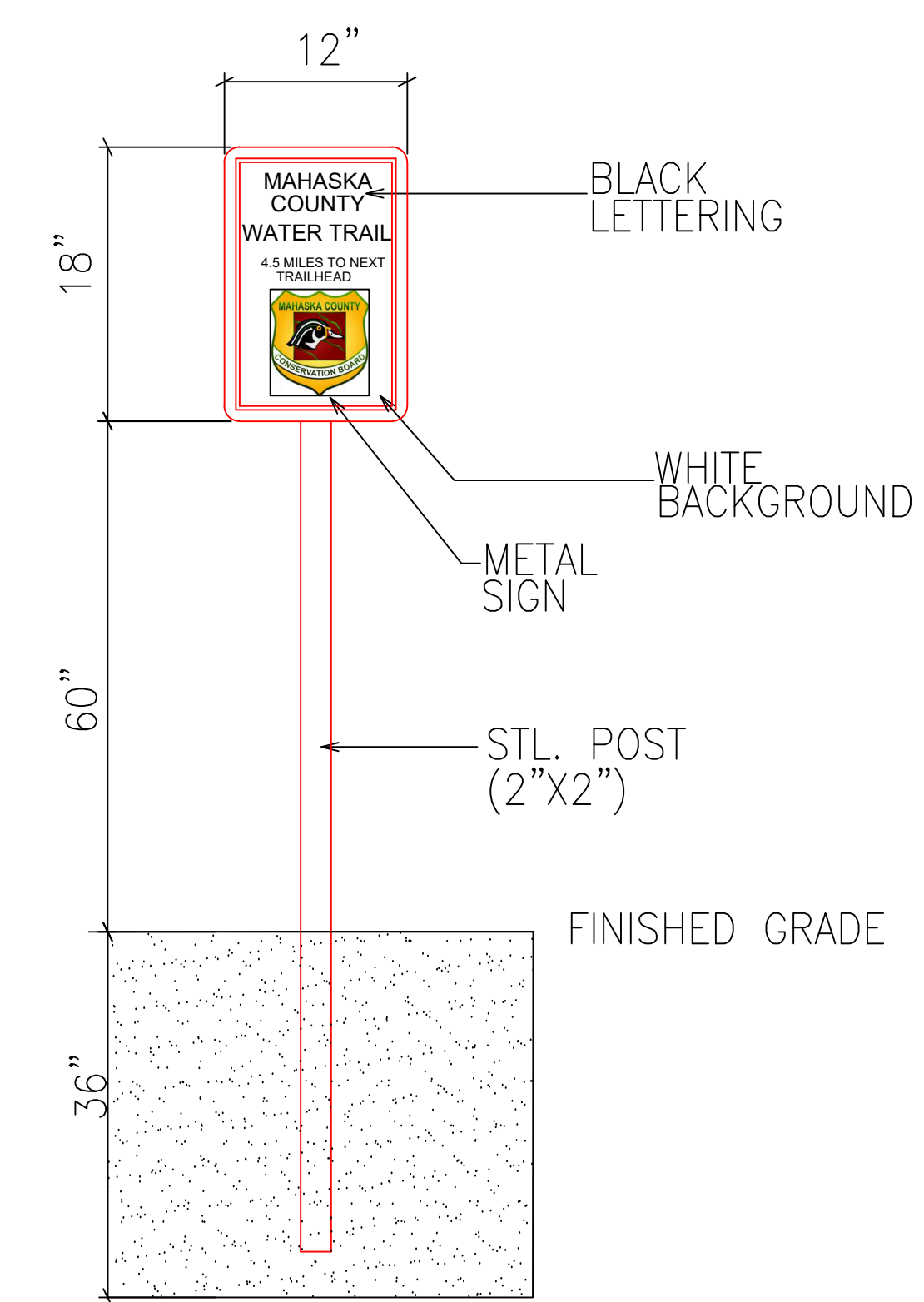
2 TRASH RECEPTACLE
NOT DRAWN TO SCALE



3 ADA PARKING SIGNAGE
NOT DRAWN TO SCALE



4 SOUTH SKUNK RIVER WAYFINDING SIGN
NOT DRAWN TO SCALE



5 DES MOINES RIVER WAYFINDING SIGN
NOT DRAWN TO SCALE

NOTES
1. ALL SPECIFIED PRODUCTS MAY BE REPLACED WITH AN APPROVED EQUAL PER OWNER'S REQUEST.

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

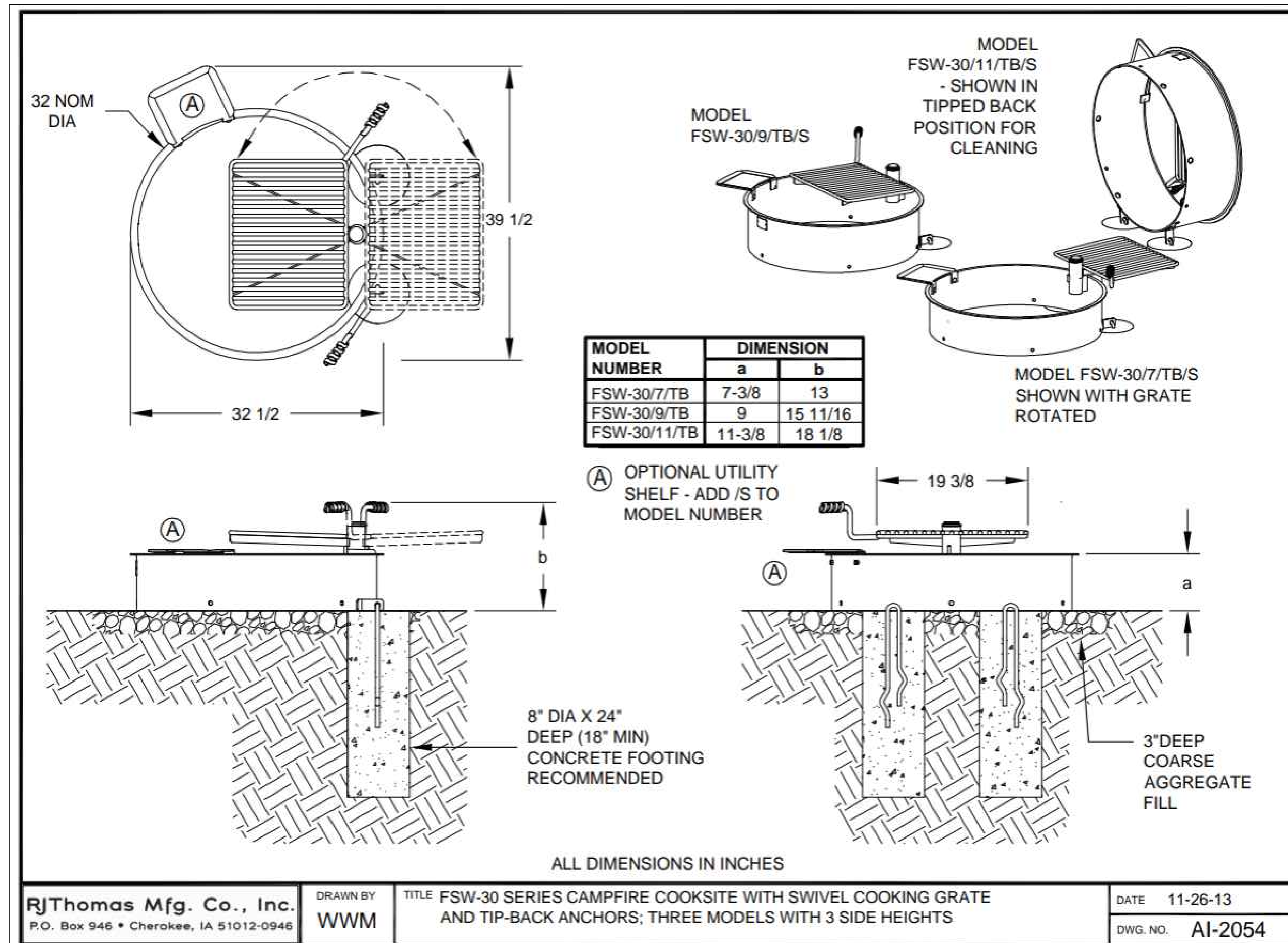
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WATER TRAILS
MAHASKA COUNTY

SHEET NAME
CIVIL DETAILS
SHEET NO.

C600



RJThomas Mfg. Co., Inc.
P.O. Box 946 • Cherokee, IA 51012-0946

DRAWN BY
WWM

TITLE FSW-30 SERIES CAMPFIRE COOKSITE WITH SWIVEL COOKING GRATE AND TIP-BACK ANCHORS; THREE MODELS WITH 3 SIDE HEIGHTS

DATE 11-26-13

DWG. NO. AI-2054

6

FIREPIT

NOT DRAWN TO SCALE

NOTES

1. ALL SPECIFIED PRODUCTS MAY BE REPLACED WITH AN APPROVED EQUAL PER OWNER'S REQUEST.

PROJECT: CEE: 4850
DATE: 4/25/2024
DRAWN BY: AET
REVISION:

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WATER TRAILS

MAHASKA COUNTY

SHEET NAME

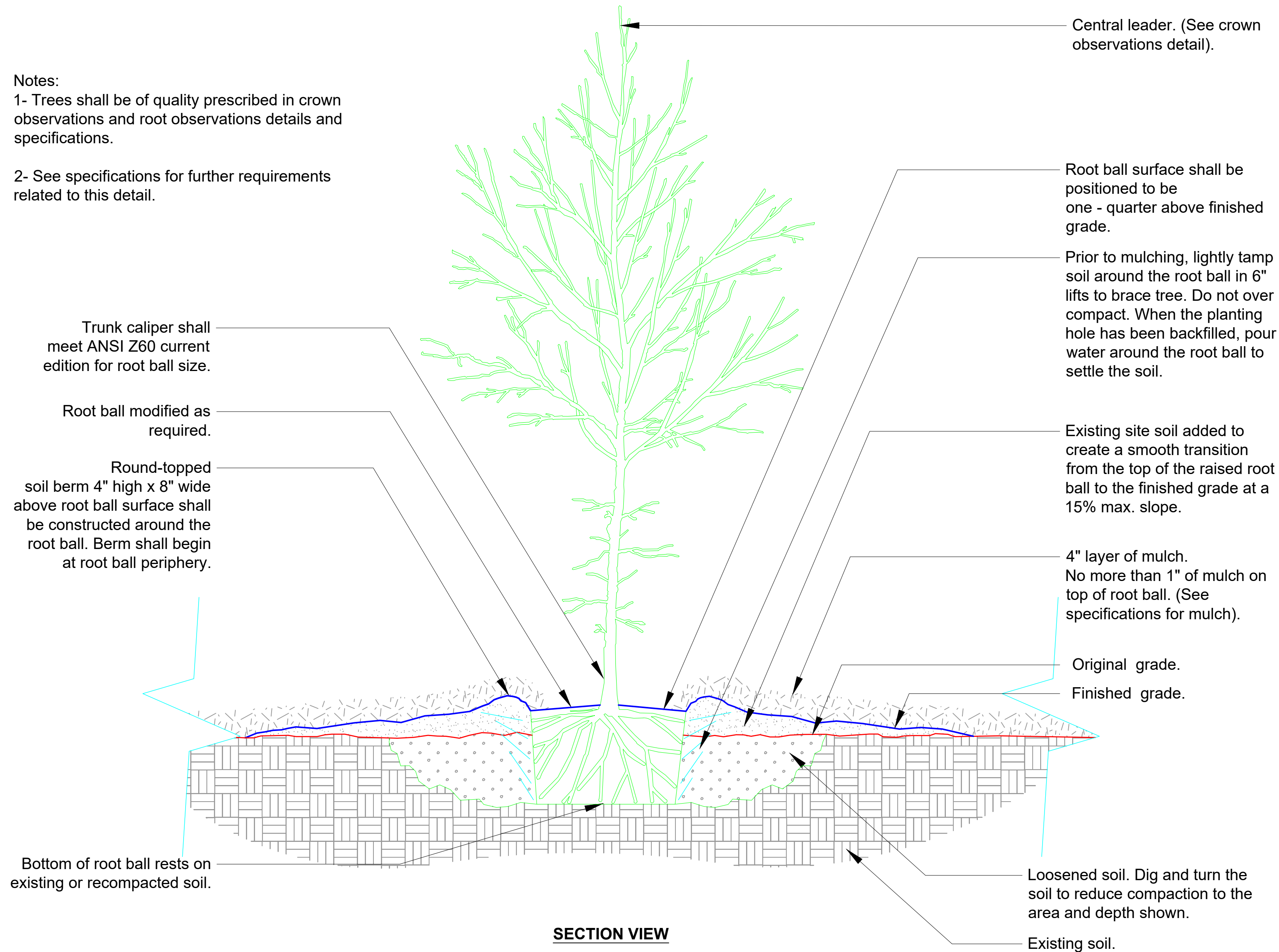
CIVIL DETAILS

SHEET NO.

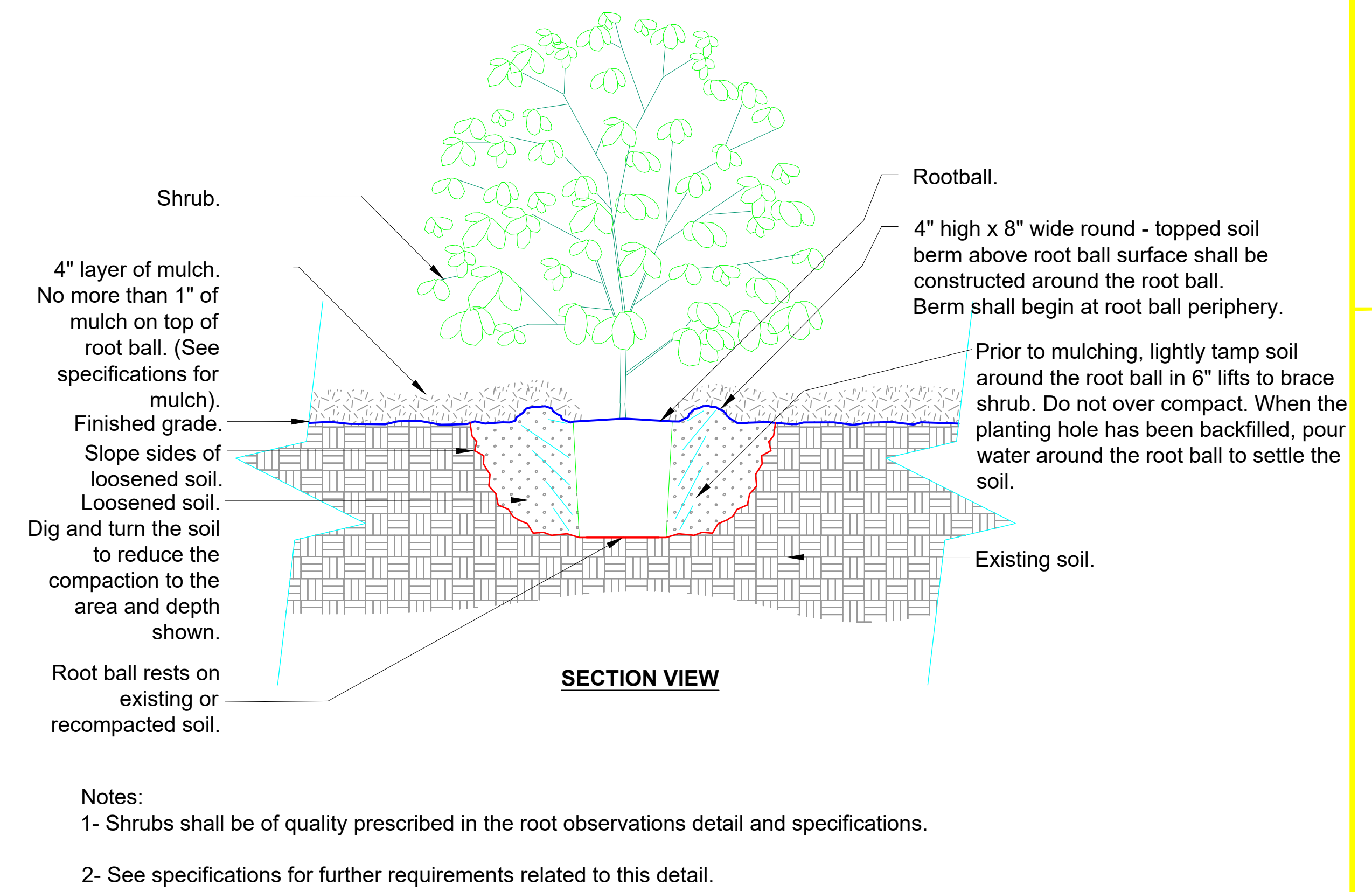
C601

Notes:
 1- Trees shall be of quality prescribed in crown observations and root observations details and specifications.

2- See specifications for further requirements related to this detail.



7 TREE PLANTING
 NOT DRAWN TO SCALE



8 SHRUB PLANTING
 NOT DRAWN TO SCALE

NOTES

- ALL SPECIFIED PRODUCTS MAY BE REPLACED WITH AN APPROVED EQUAL PER OWNER'S REQUEST.

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

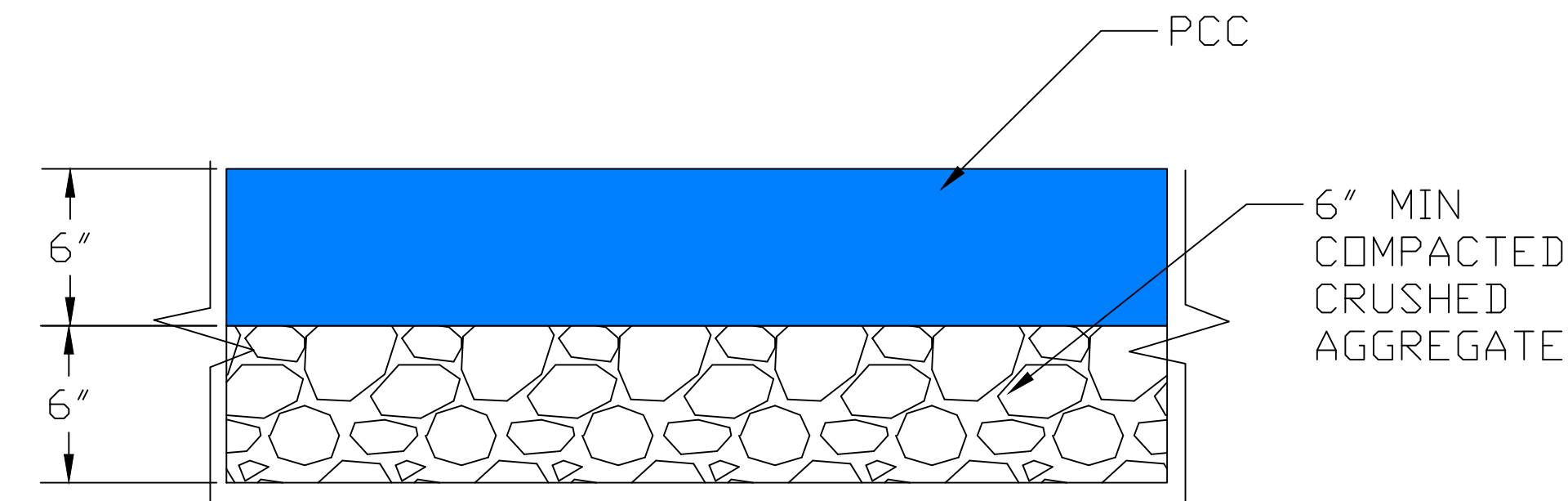
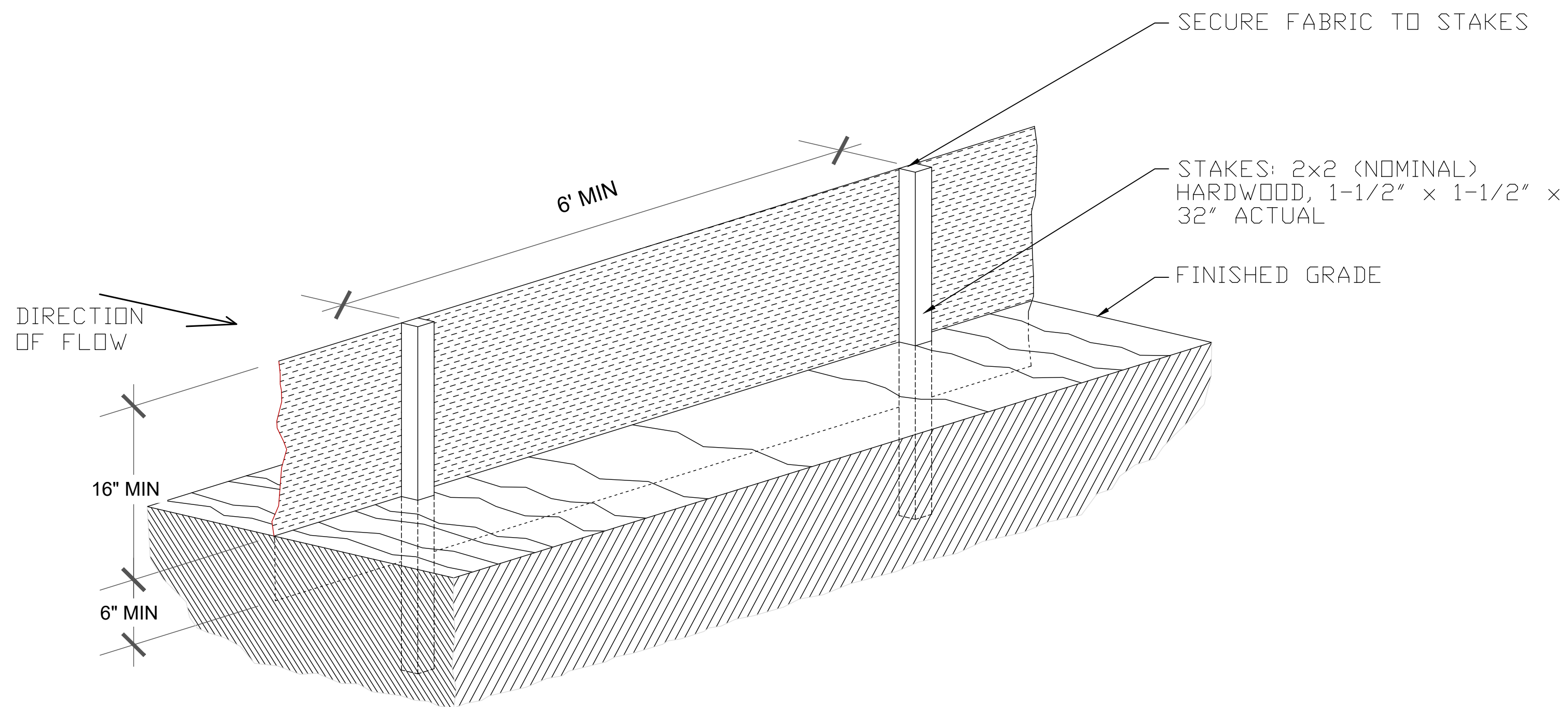
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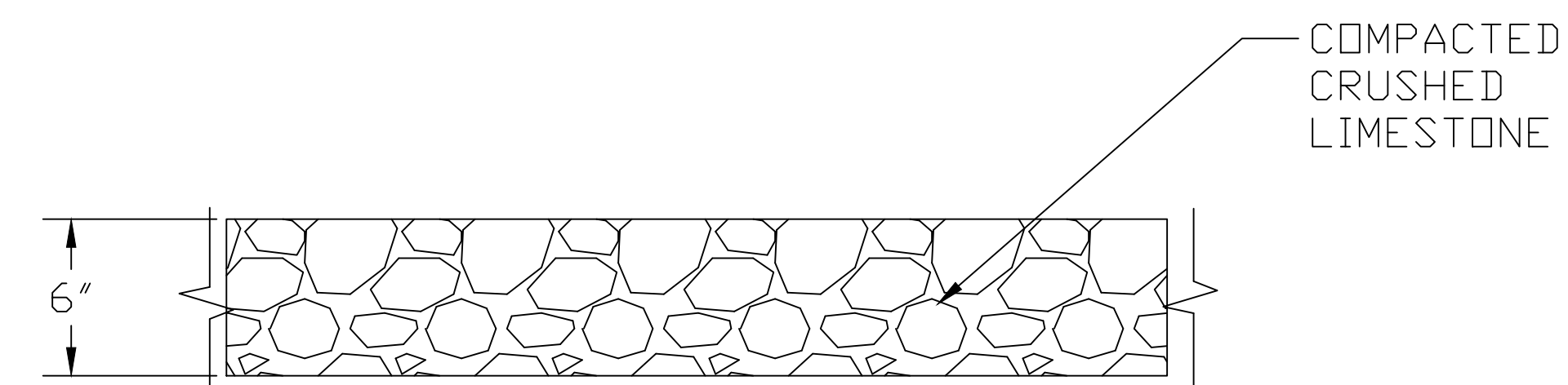
WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 CIVIL DETAILS

SHEET NO.
C602



10 6" PCC
NOT DRAWN TO SCALE



11 6" CRUSHED LIMESTONE
NOT DRAWN TO SCALE

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE GROUND COVER IS REMOVED. CLEARING, GRUBBING, AND STUMPING CAN OCCUR BEFORE SILT FENCE INSTALLATION IF GROUND COVER IS NOT REMOVED.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
4. SILT FENCE SHOULD PREFERABLY BE A MINIMUM OF 10 FEET FROM THE TOE OF SLOPE.
5. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
6. WHERE TWO SECTIONS OF PREFABRICATED SILT FENCE ARE COMBINED INTO ONE RUN, THE END POSTS SHALL BE CONNECTED TOGETHER, NOT SIMPLY OVERLAPPED.
7. SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: A) AN ADDITIONAL RUN OF SILT FENCE SHALL BE PLACED UPSTREAM, B) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, C) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR D) OTHER PRACTICES SHALL BE IMPLEMENTED.
8. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE SILT FENCE.
9. ALL STOCKPILES SHALL BE INCIRCLED WITH SILT FENCE.
10. SILT FENCE FABRIC SHALL MEET THE FOLLOWING SPECIFICATIONS: MINIMUM TENSILE STRENGTH 120 LBS., ASTM D 4632; MAXIMUM ELONGATION AT 60 LBS., 15%, ASTM D 4632; MINIMUM PUNCTURE STRENGTH 50 LBS., ASTM D 4833; MINIMUM TEAR STRENGTH 40 LBS., ASTM D 4533, APPARENT OPENING SIZE \leq 0.84MM, ASTM D 4751; MINIMUM PERMITTIVITY 1×10^{-2} SEC.⁻¹, ASTM D 4491; WATER FLOW RATE 15 GAL./MIN./SQ. FT.; UV EXPOSURE STRENGTH RETENTION, 70%, ASTM G 4355.

9 16" SILT FENCE, 32" STAKES
NOT DRAWN TO SCALE

NOTES

1. ALL SPECIFIED PRODUCTS MAY BE REPLACED WITH AN APPROVED EQUAL PER OWNER'S REQUEST.

PROJECT:	CEE: 4850
DATE :	4/4/2024
DRAWN BY:	AET
REVISION:	

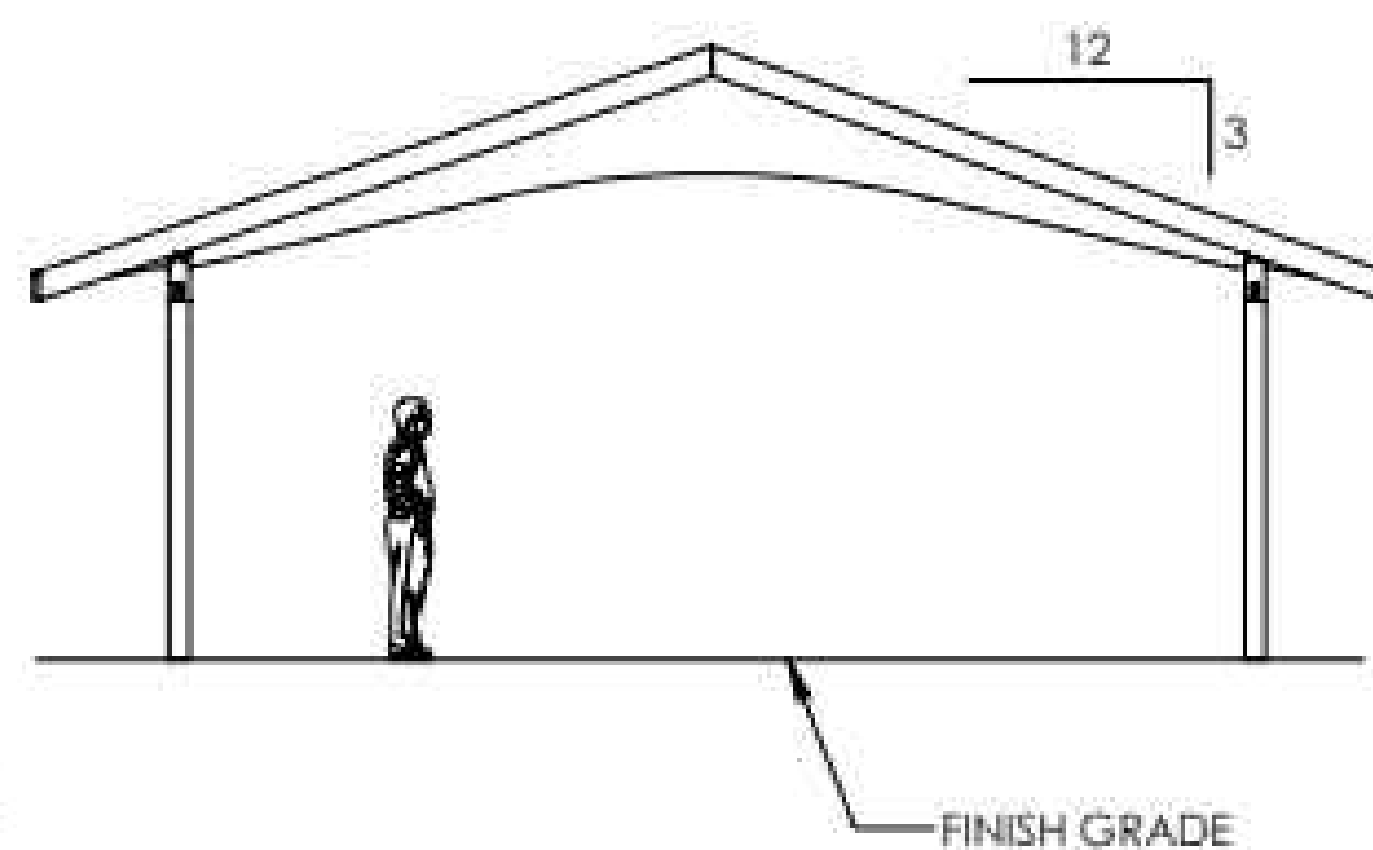
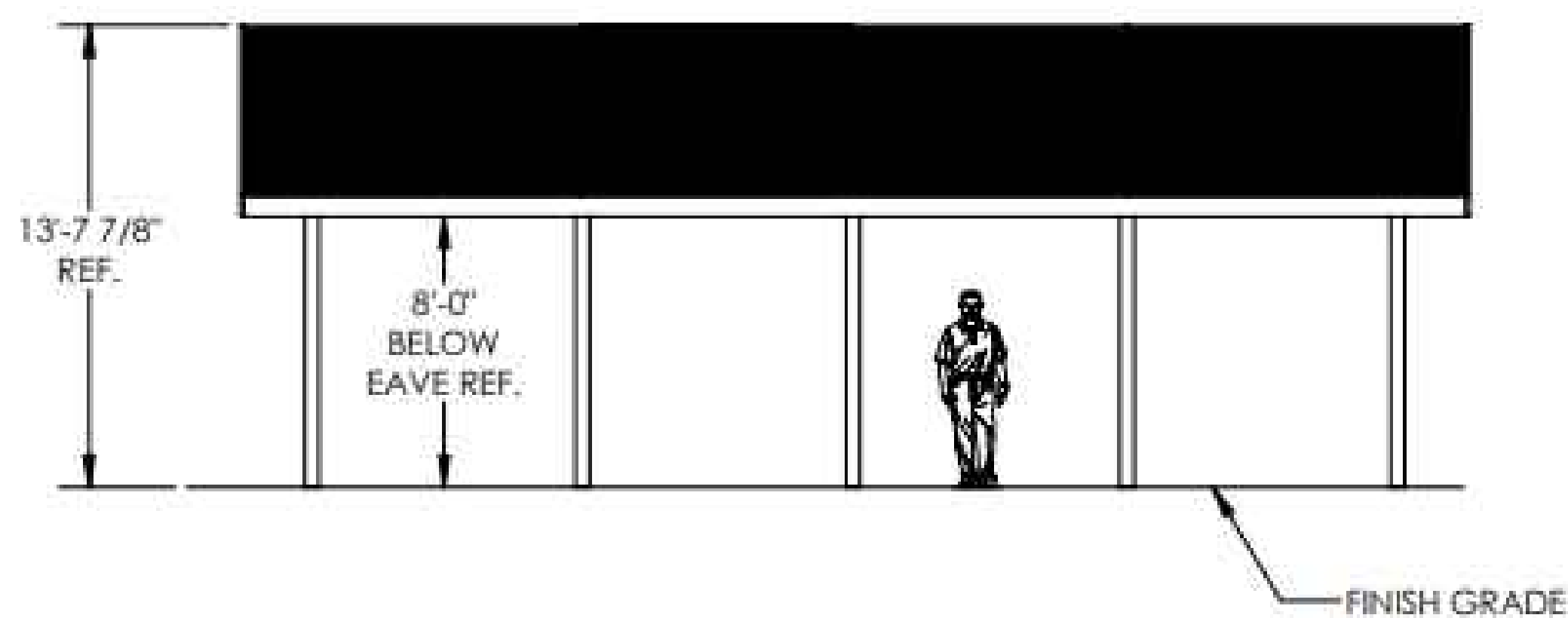
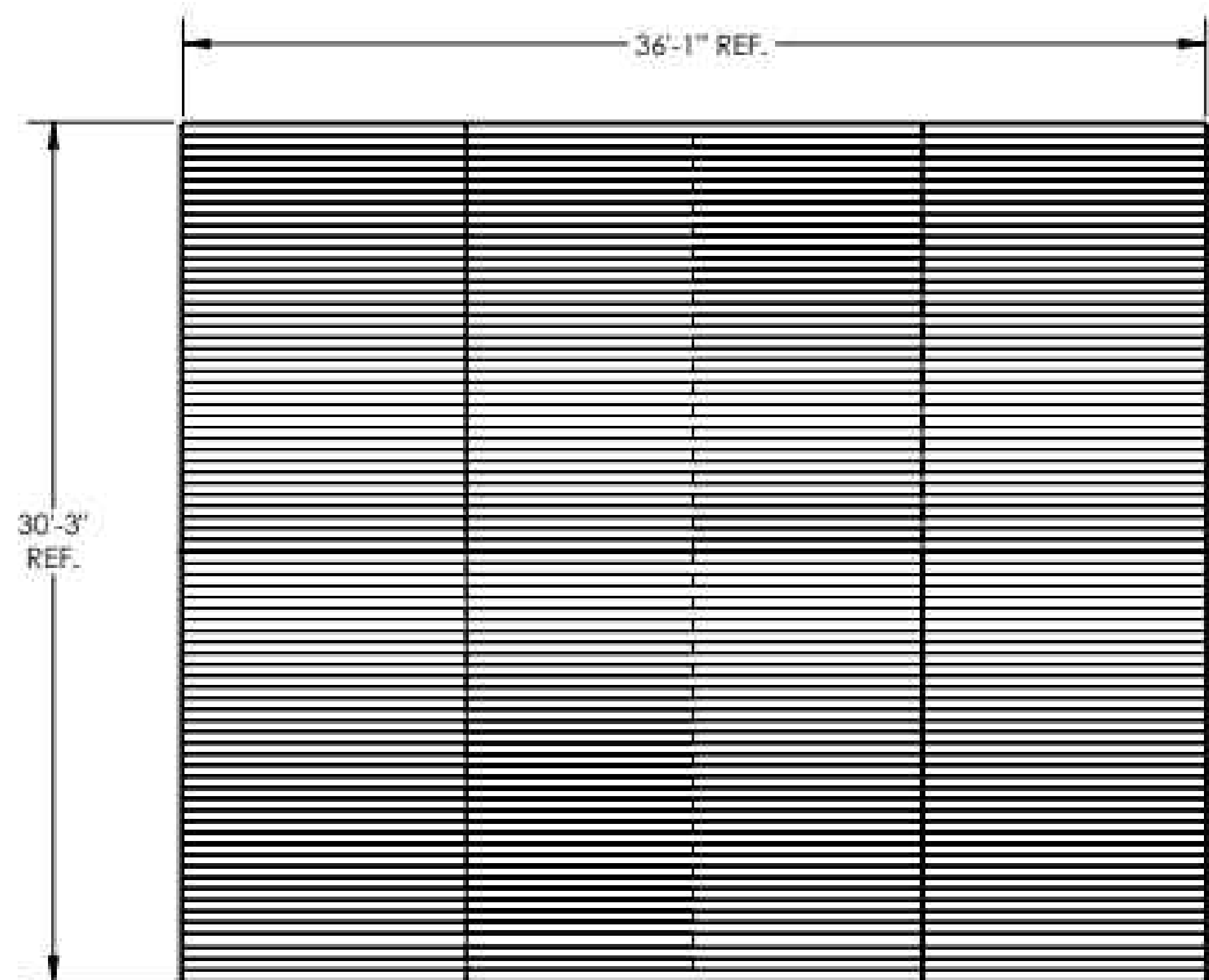
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WATER TRAILS
 MAHASKA COUNTY

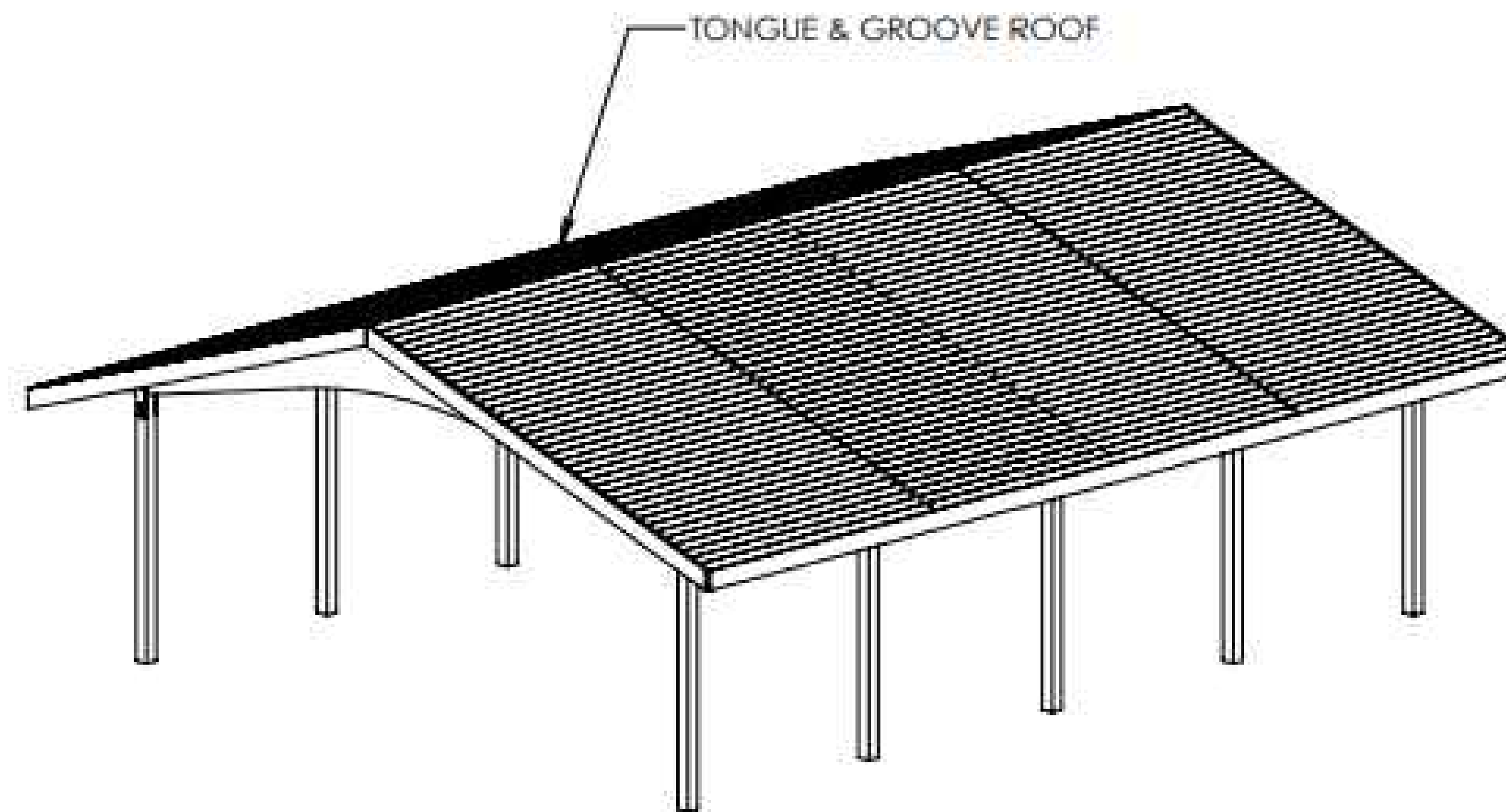
SHEET NAME
 CIVIL DETAILS

SHEET NO.
C603



NOTE: THIS IS A
PLANNING LEVEL DRAWING.

THE STRUCTURE SHOWN IS SUBJECT TO ON-GOING DESIGN REVIEW AND UPDATE. EXPECT SOME CHANGES TO MATERIAL SIZES AND GENERAL DIMENSIONS. ONLY USE DRAWINGS PROVIDED WITH ENGINEERED STRUCTURES FOR CONSTRUCTION.



THIS SHELTER PROVIDES 30X36 SQ. FT. OF SHADE.

SHELTER MODEL:
WOOD RECTANGLE 30X36
WLG 30X36

SCALE: 1:85	REV LEVEL: A	DATE: 9/1/2011
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by **PORTERCORP**
PORTERCORP, 4240 N. 132ND AVE., HOLLAND, MI 49424
www.poligon.com 616-399-1963

SHEET
ELEVATION VIEWS

Copyright laws protect the style and visual appearance of the structure while patents may protect other parts of the design.

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1 SHADED STRUCTURE ELEVATION VIEWS
NOT DRAWN TO SCALE

- NOTES
1. ALL SPECIFIED PRODUCTS MAY BE REPLACED WITH AN APPROVED EQUAL PER OWNER'S REQUEST.

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

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WATER TRAILS
MAHASKA COUNTY

SHEET NAME
STRUCTURAL
DETAILS
SHEET NO.

S100

PROJECT: CEE: 4850
 DATE: 4/25/2024
 DRAWN BY: AET
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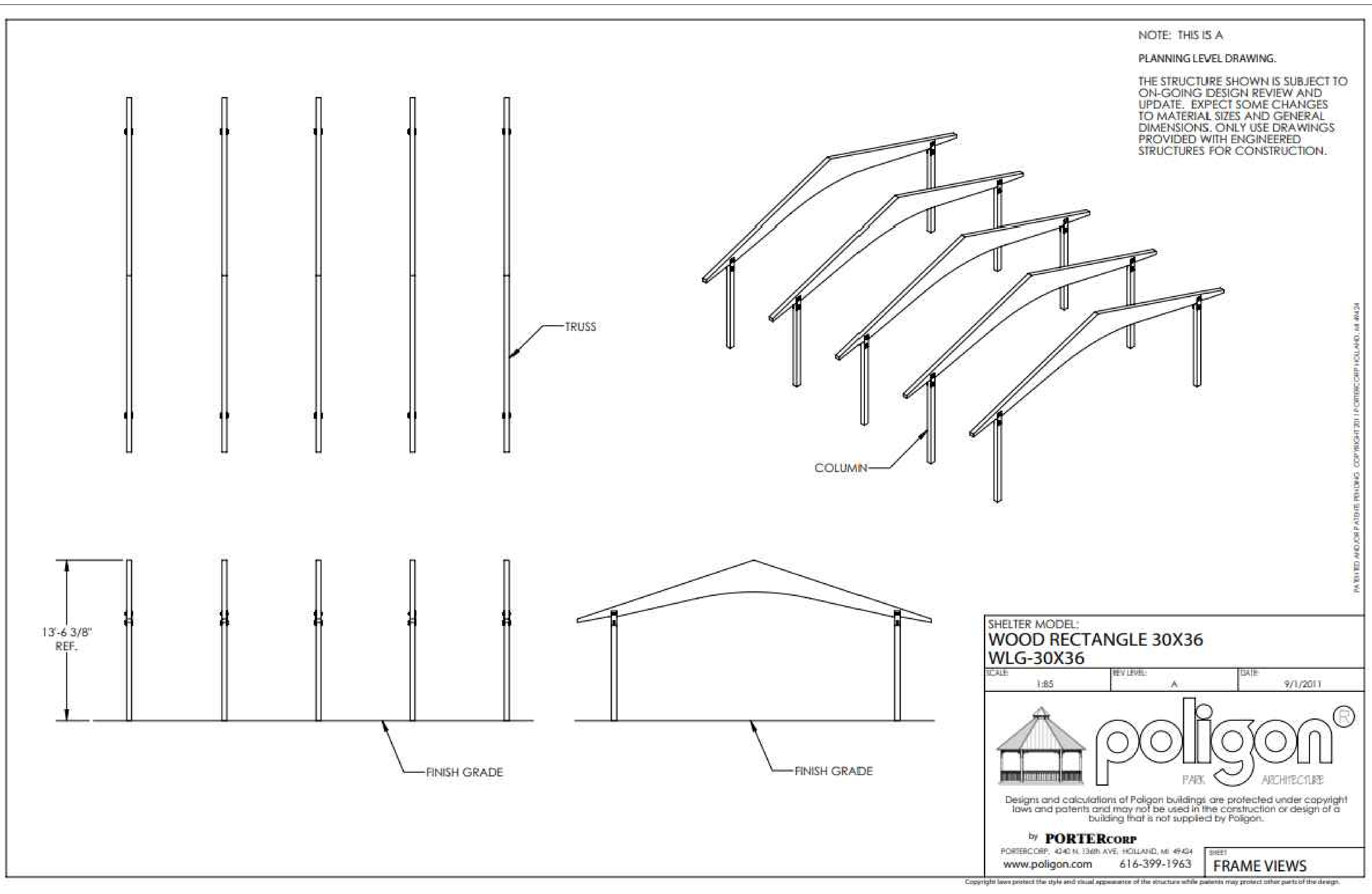
WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 STRUCTURAL
 DETAILS

SHEET NO.

S101

NOTE: THIS IS A
 PLANNING LEVEL DRAWING.
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 UPDATE. EXPECT SOME CHANGES
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2 SHADED STRUCTURE FRAME VIEWS
 NOT DRAWN TO SCALE

- NOTES
1. ALL SPECIFIED PRODUCTS MAY BE REPLACED WITH AN APPROVED EQUAL PER OWNER'S REQUEST.

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 DATE: 4/25/2024
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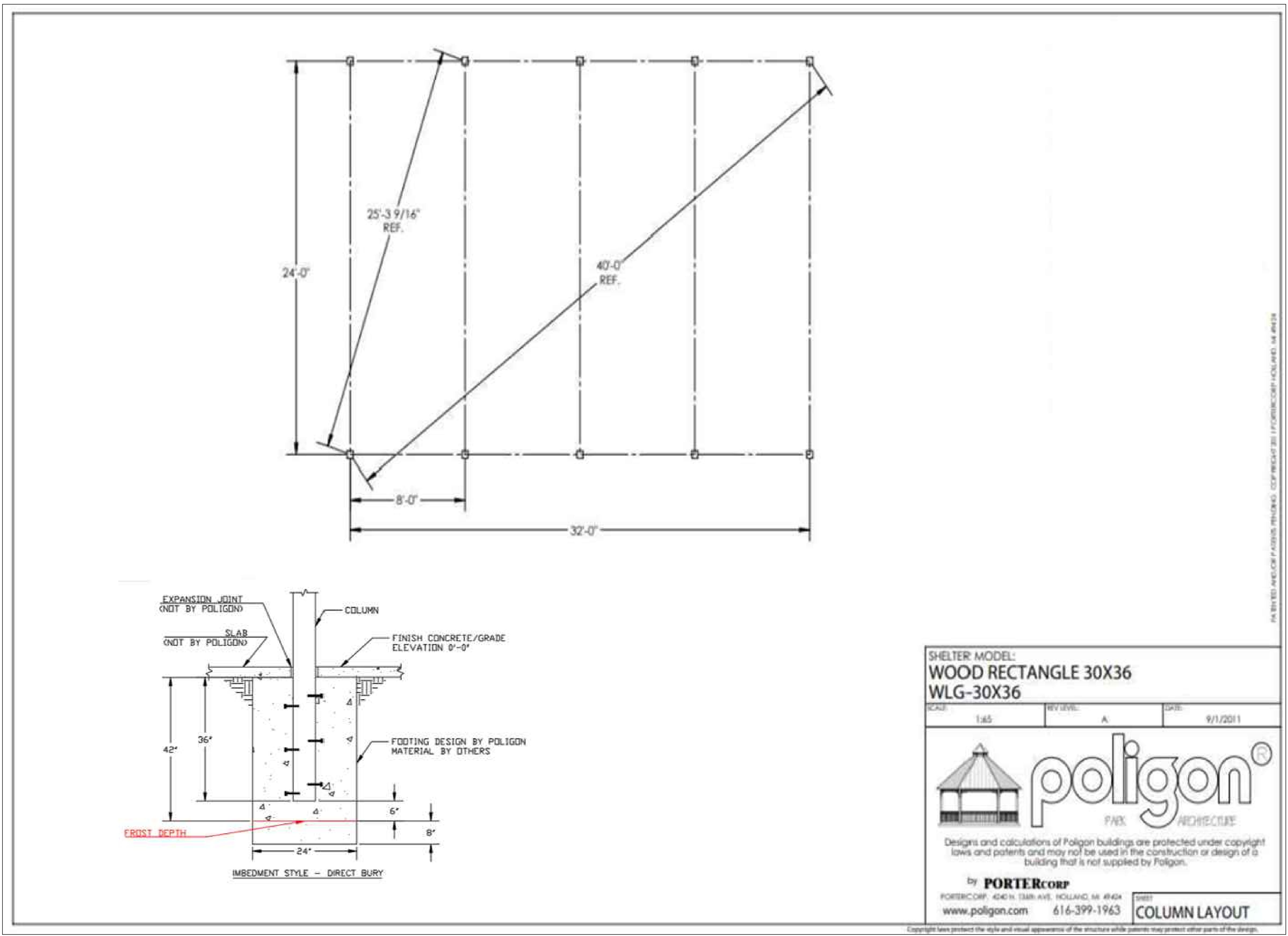
WATER TRAILS
 MAHASKA COUNTY

SHEET NAME

STRUCTURAL
 DETAILS

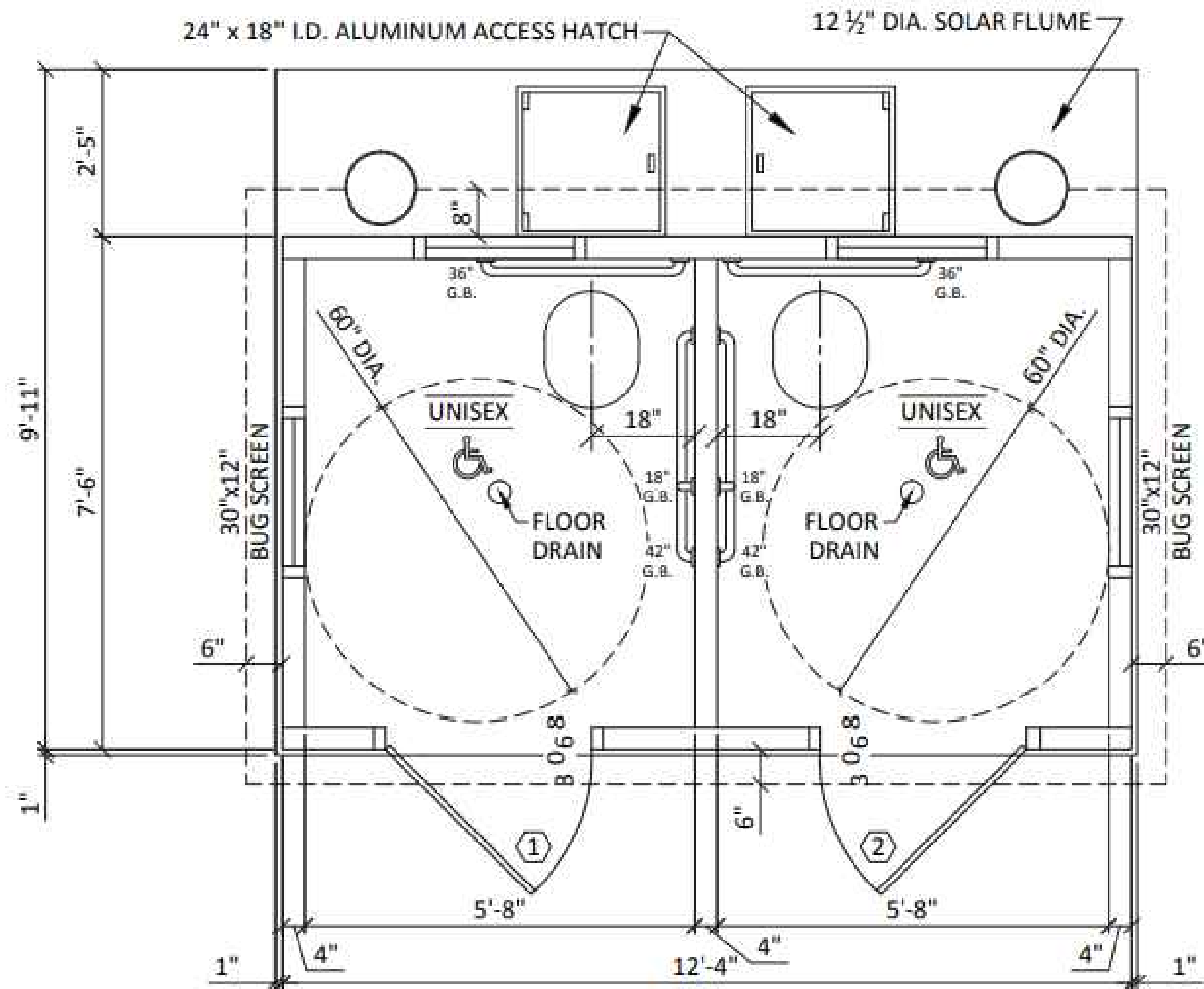
SHEET NO.

S102



3 SHADED STRUCTURE COLUMN LAYOUT
 NOT DRAWN TO SCALE

- NOTES
1. ALL SPECIFIED PRODUCTS MAY BE REPLACED WITH AN APPROVED EQUAL PER OWNER'S REQUEST.



1 FLOOR PLAN
SCALE: 3/8" = 1'-0"



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HUFFCUTT.COM

NOTES

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4 RESTROOM FLOOR PLAN
NOT DRAWN TO SCALE

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

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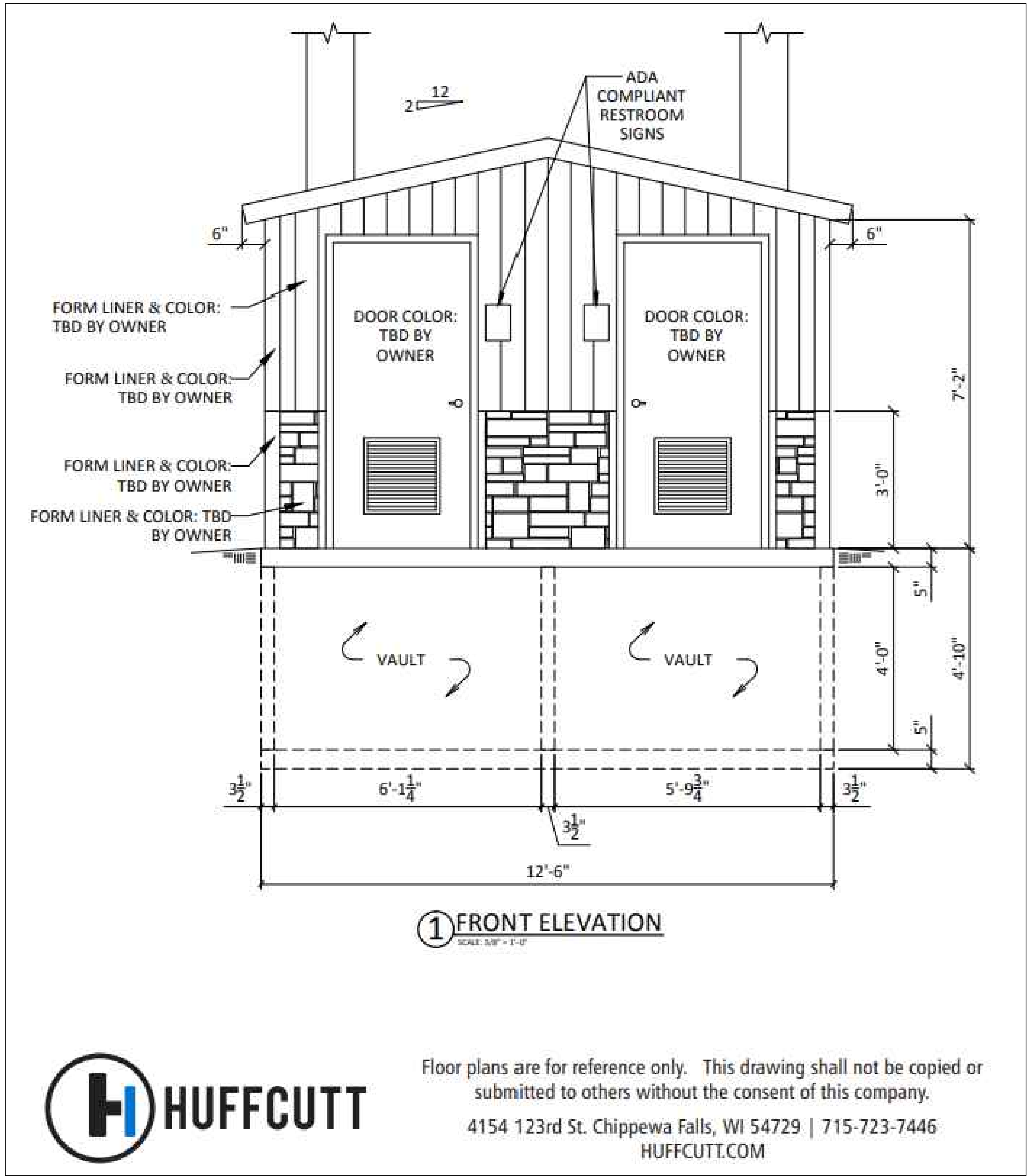
WATER TRAILS
MAHASKA COUNTY

SHEET NAME

STRUCTURAL
DETAILS

SHEET NO.

S103



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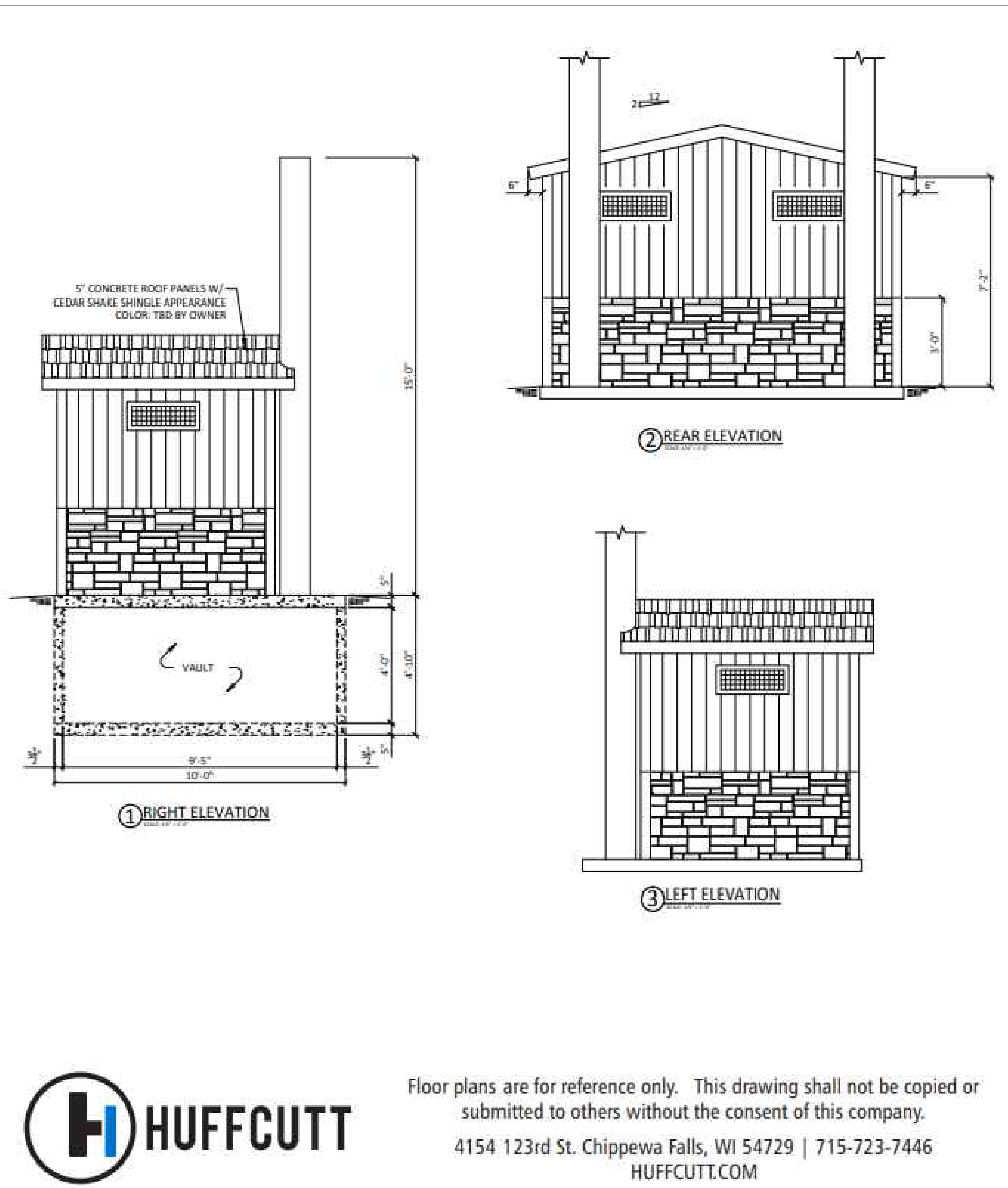
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WATER TRAILS
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SHEET NAME
 STRUCTURAL
 DETAILS

SHEET NO.
S104



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6 RESTROOM SIDE & BACK VIEWS
 NOT DRAWN TO SCALE

- NOTES
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PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	AET
REVISION:	

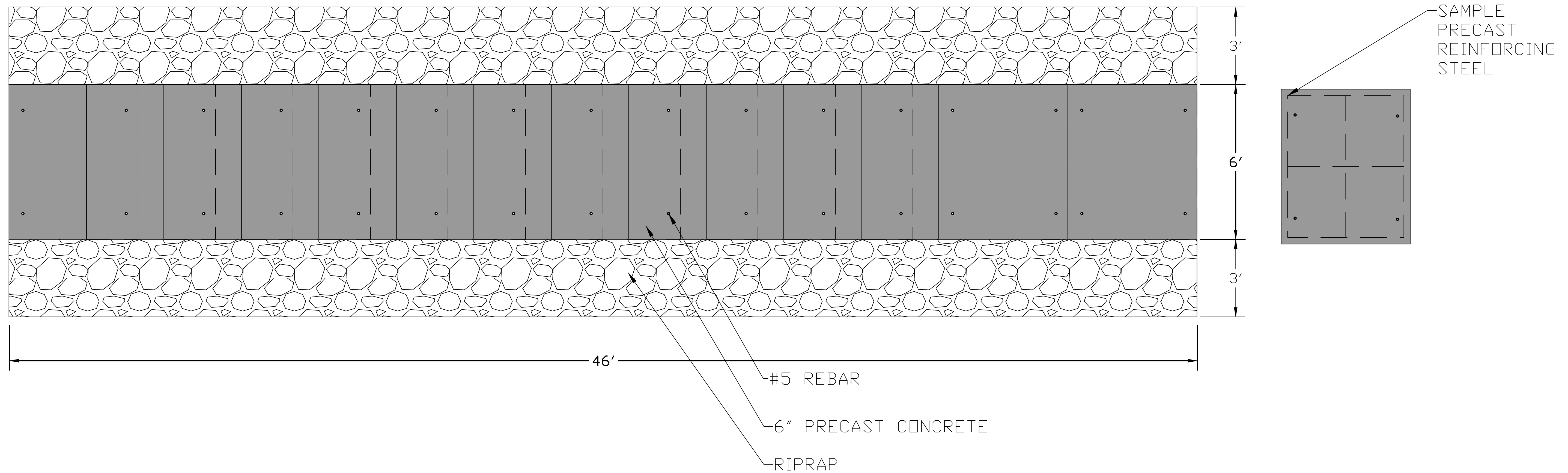
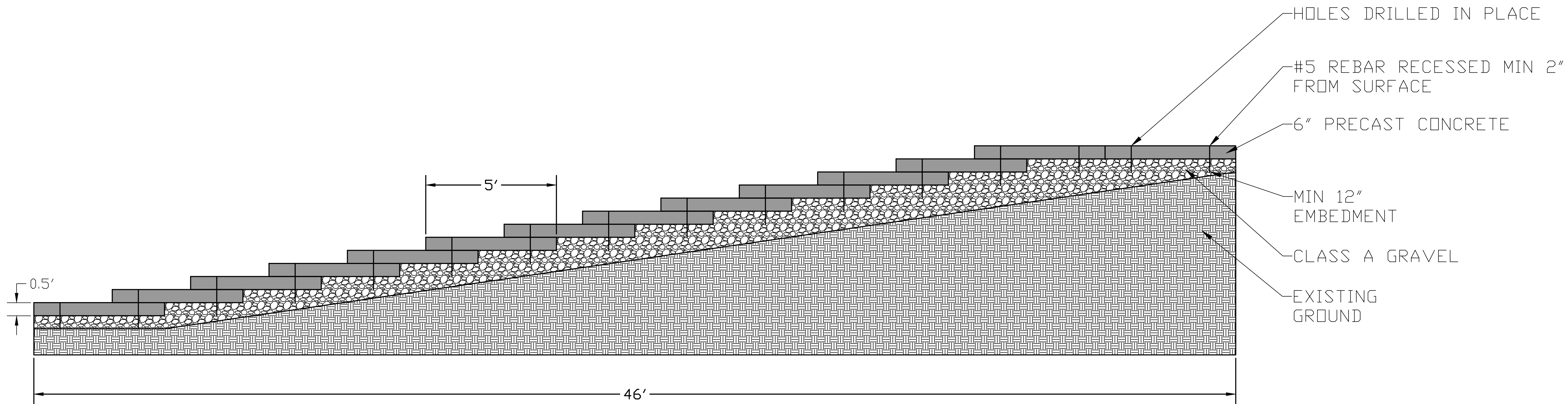
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WATER TRAILS
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SHEET NAME
 STRUCTURAL
 DETAILS

SHEET NO.
S205



PROJECT: CEE: 4850
 DATE: 4/25/2024
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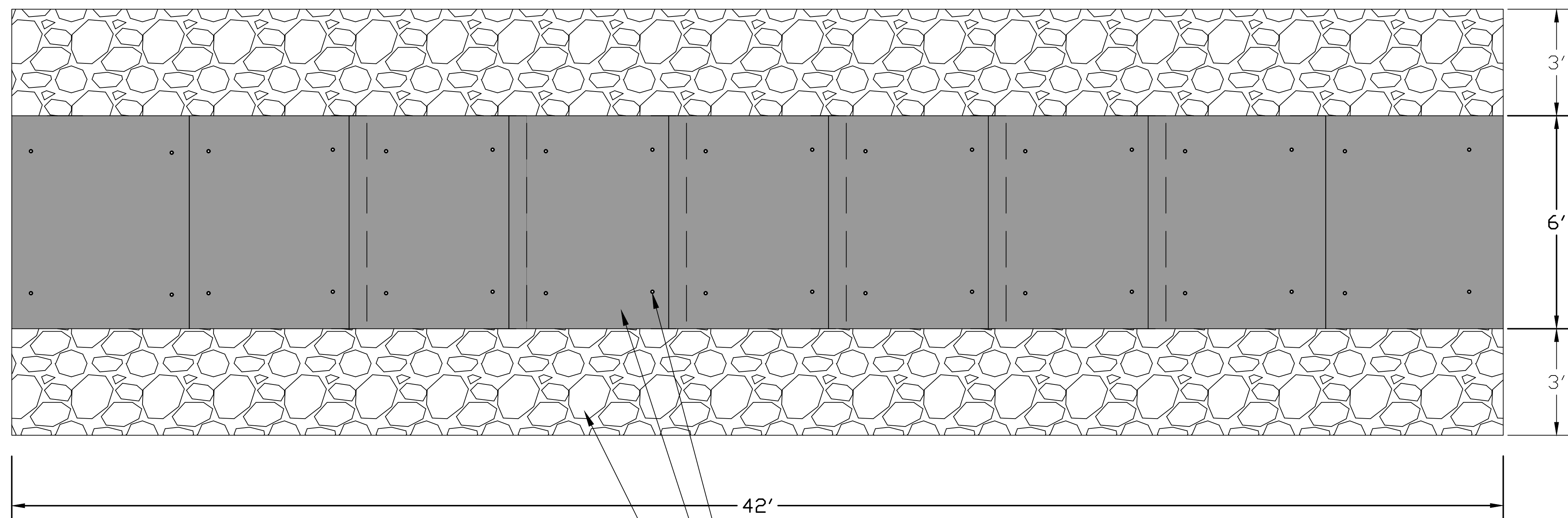
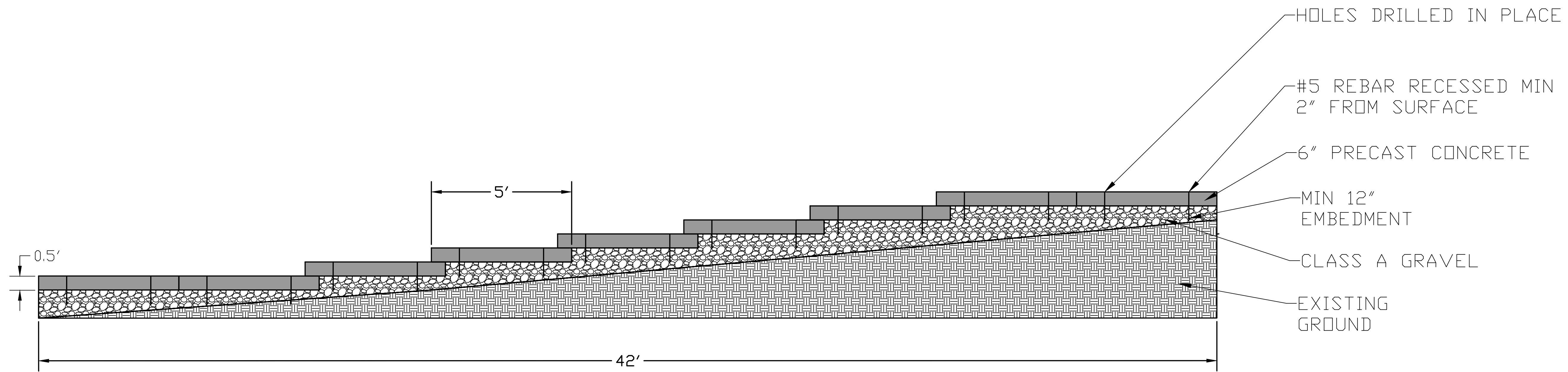
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WATER TRAILS

MAHASKA COUNTY

SHEET NAME
 STRUCTURAL
 DETAILS

SHEET NO.
S206



#5 REBAR

6" PRECAST CONCRETE

RIPRAP

PROJECT:	CEE: 4850
DATE :	4/25/2024
DRAWN BY:	TR
REVISION:	

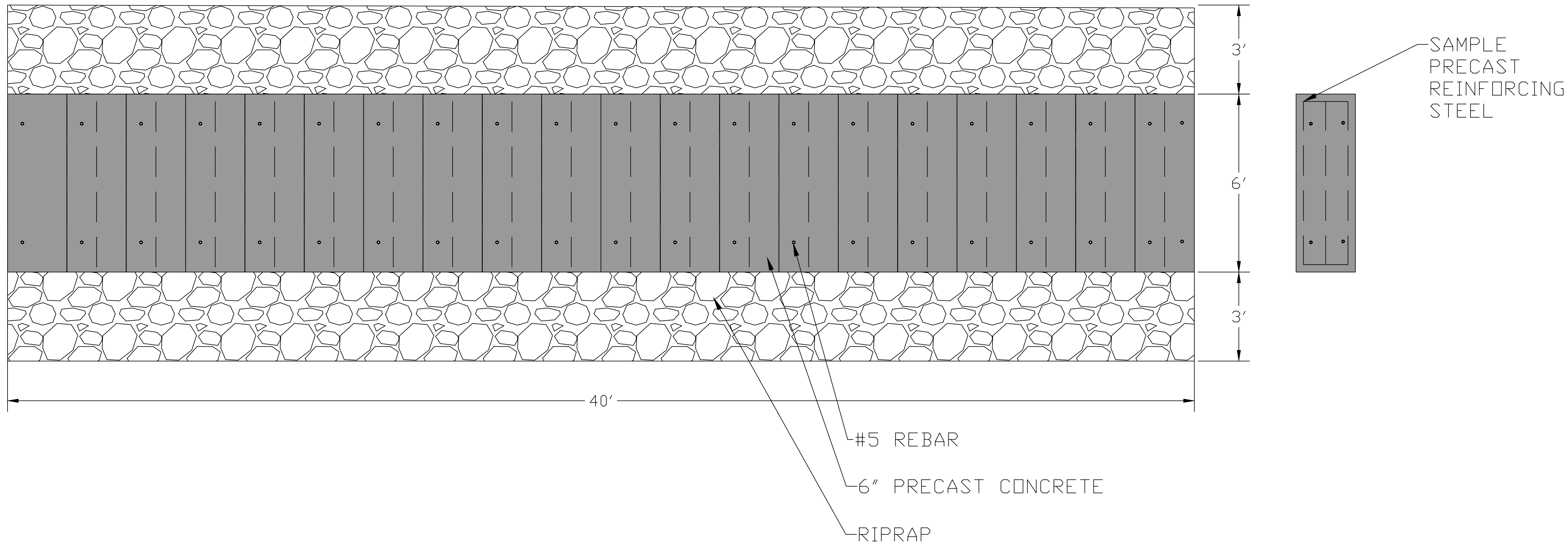
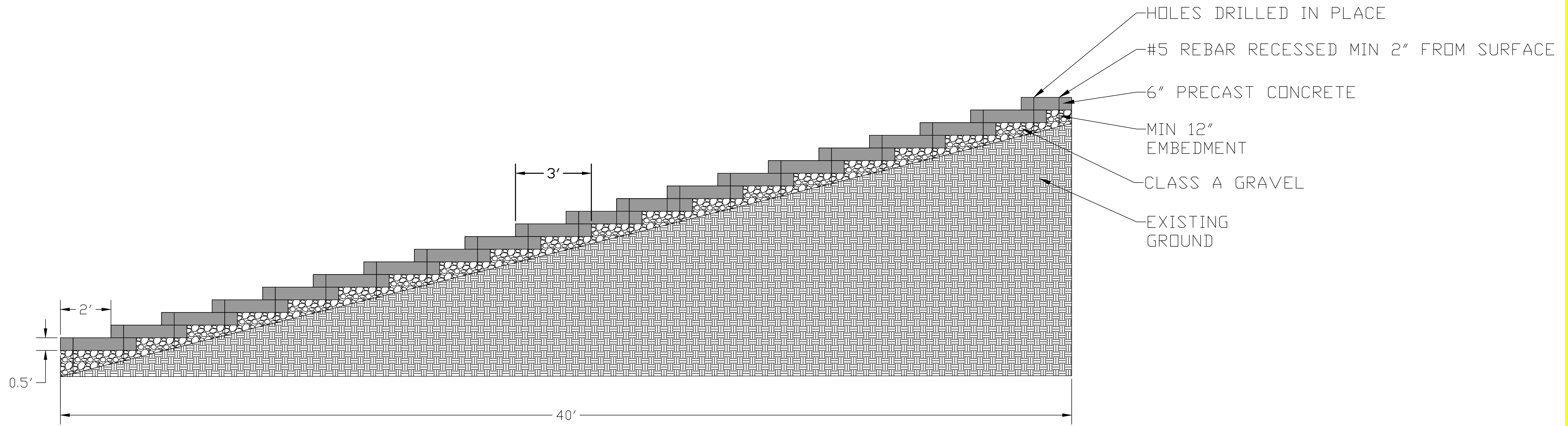
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 STRUCTURAL
 DETAILS

SHEET NO.
S207



PROJECT: CEE: 4850
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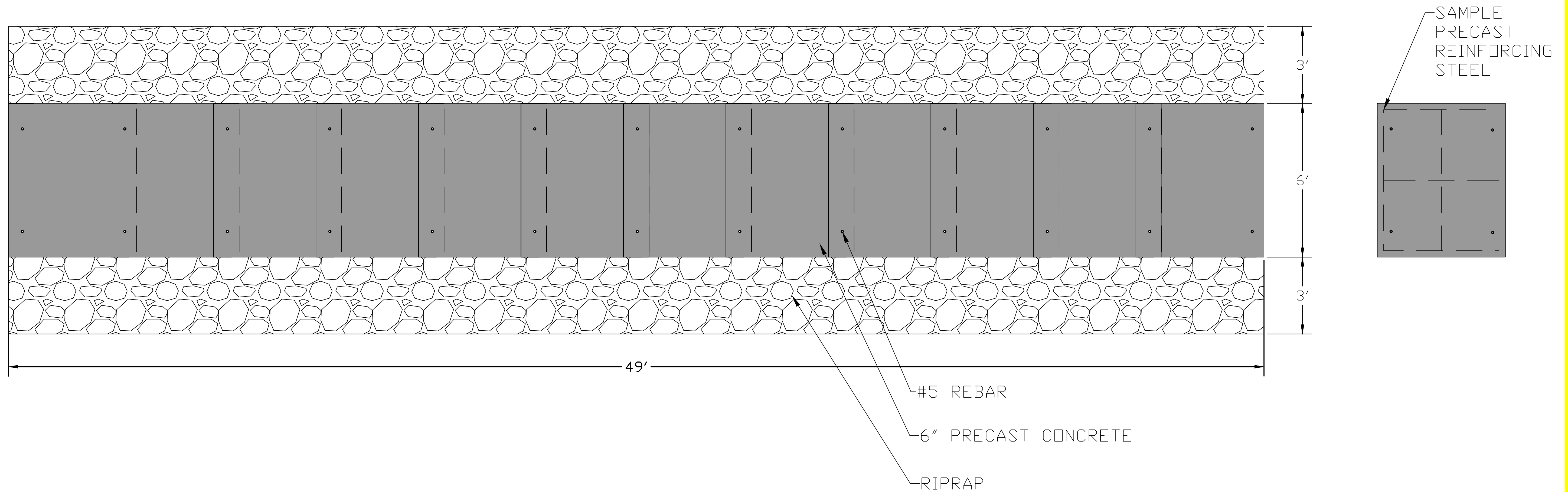
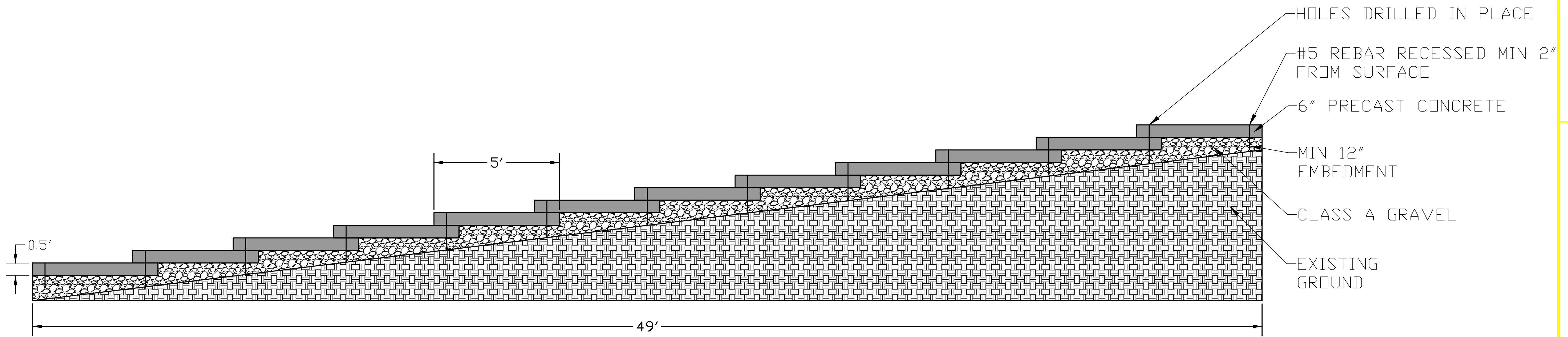
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WATER TRAILS
 MAHASKA COUNTY

SHEET NAME
 STRUCTURAL
 DETAILS

SHEET NO.
S208



PROJECT: CEE: 4850
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SHEET NAME
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 DETAILS

SHEET NO.
S209