

State of Iowa  
MVS Consultants

# Waterway Access & Development Mason City, IA

PROJECT: CEE: 4850  
DATE: 04/20/2018  
DRAWN BY: PES  
REVISION:

**THE UNIVERSITY OF IOWA**  
**CIVIL AND ENVIRONMENTAL ENGINEERING**  
4105 SEAMANS CENTER FOR THE  
ENGINEERING ARTS AND SCIENCES  
103 S CAPITOL ST  
IOWA CITY, IOWA 52242  
PHONE: 319.335.5647  
FAX: 319.335.5660  
EMAIL: civil-hawks@iowa.edu

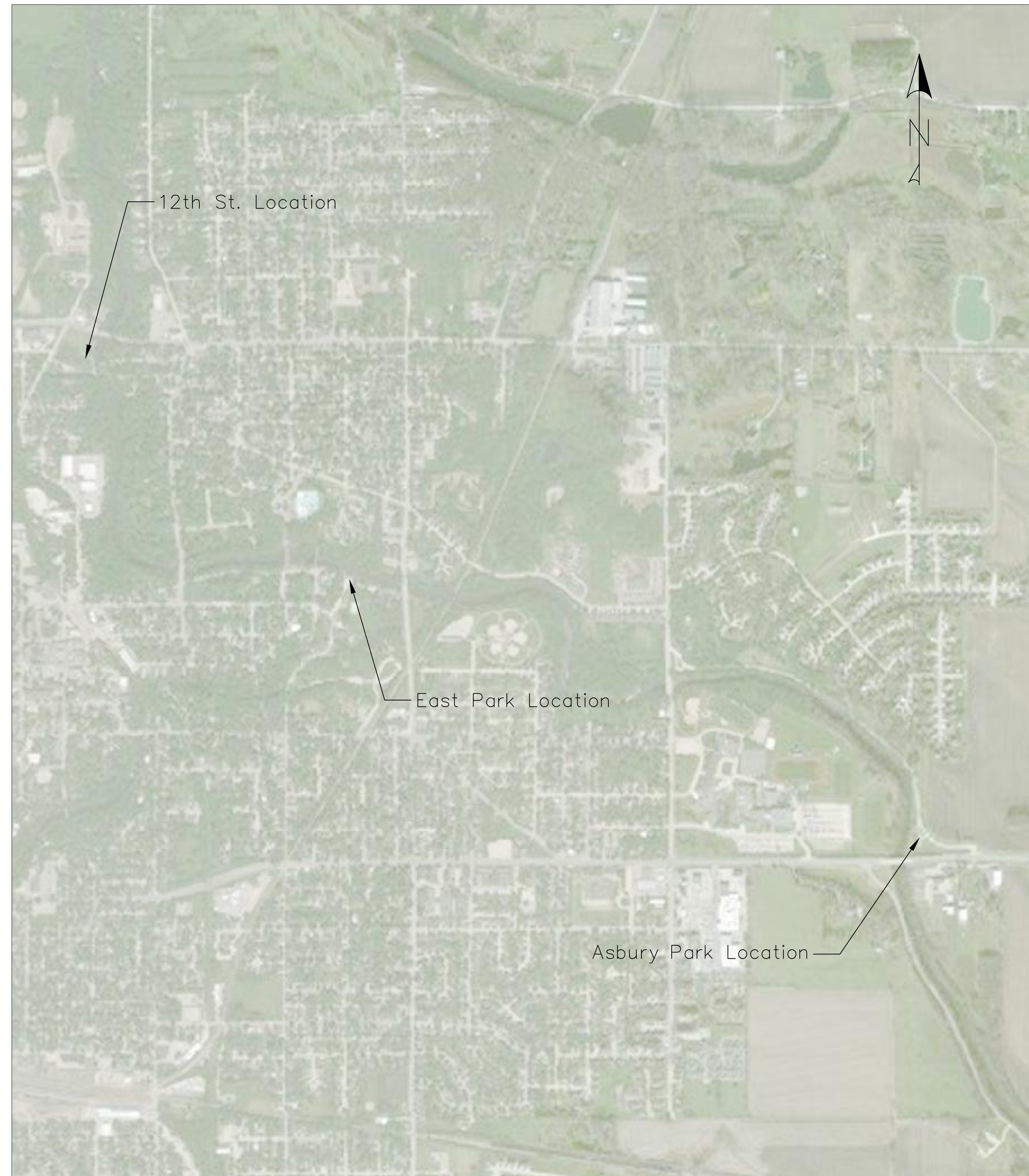


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FOR CONSTRUCTION

**Waterway Access**  
MASON CITY, IA 50401

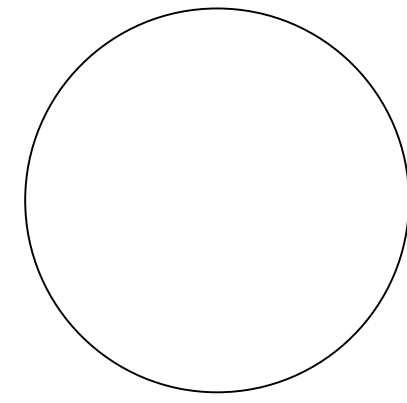
SHEET NAME  
TITLE SHEET  
SHEET NO.  
**00**

Sheet List Table	
Sheet Number	Sheet Title
00	Title Sheet
01	12th Street Site Plan
02	12th Street Grading
03	East Park Site Plan
04	East Park Grading
05	Asbury Park Site Plan
06	Asbury Park Grading
07	Structure Floor Plan
08	Bioretention Basin and 12th St. Details
09	East Park Details
10	Asbury Park Details
11	Structure Details
12	PCC Details
13	HMA Details
14	Sidewalk Details



Location Map



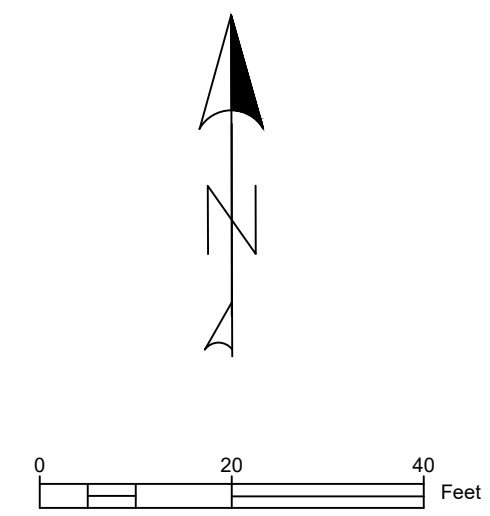
State Seal 

\_\_\_\_\_  
Professional Engineer  
Registered Civil Engineer

\_\_\_\_\_  
Date

Client  
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Director of Development Services  
10 First Street N.W.  
Mason City, IA 50401  
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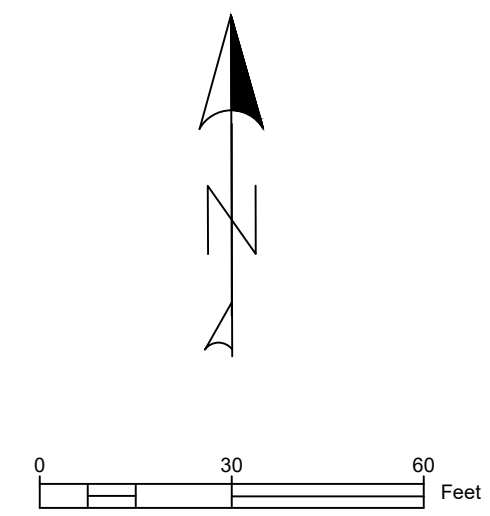
12TH STREET  
 MASON CITY, IA 50401

SHEET NAME  
**12TH STREET  
 SITE PLAN**

SHEET NO.  
**01**







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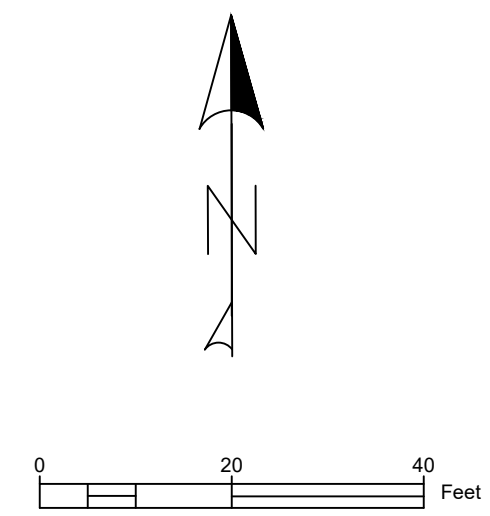
EAST PARK  
 MASON CITY, IA 50401

SHEET NAME  
 EAST PARK  
 SITE PLAN

SHEET NO.  
**03**







PROJECT:	CEE: 4850
DATE :	04/20/2018
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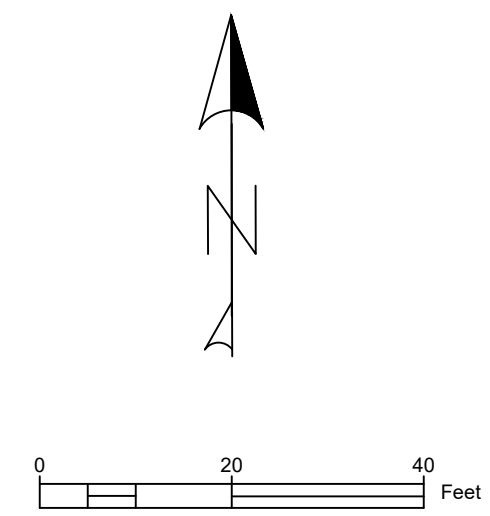
## Waterway Access

ASBURY PARK  
 MASON CITY, IA 50401

SHEET NAME  
 ASBURY PARK  
 SITE PLAN

SHEET NO.  
**05**





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**Waterway Access**

ASBURY PARK  
 MASON CITY, IA 50401

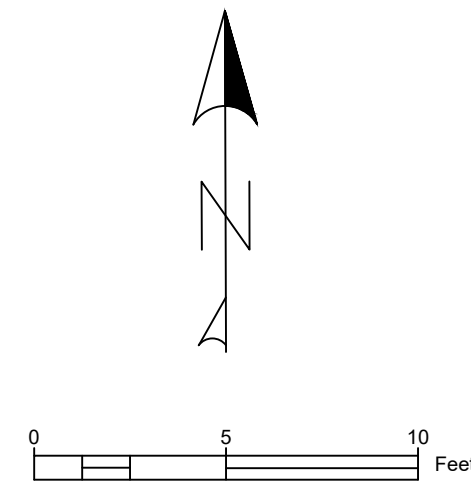
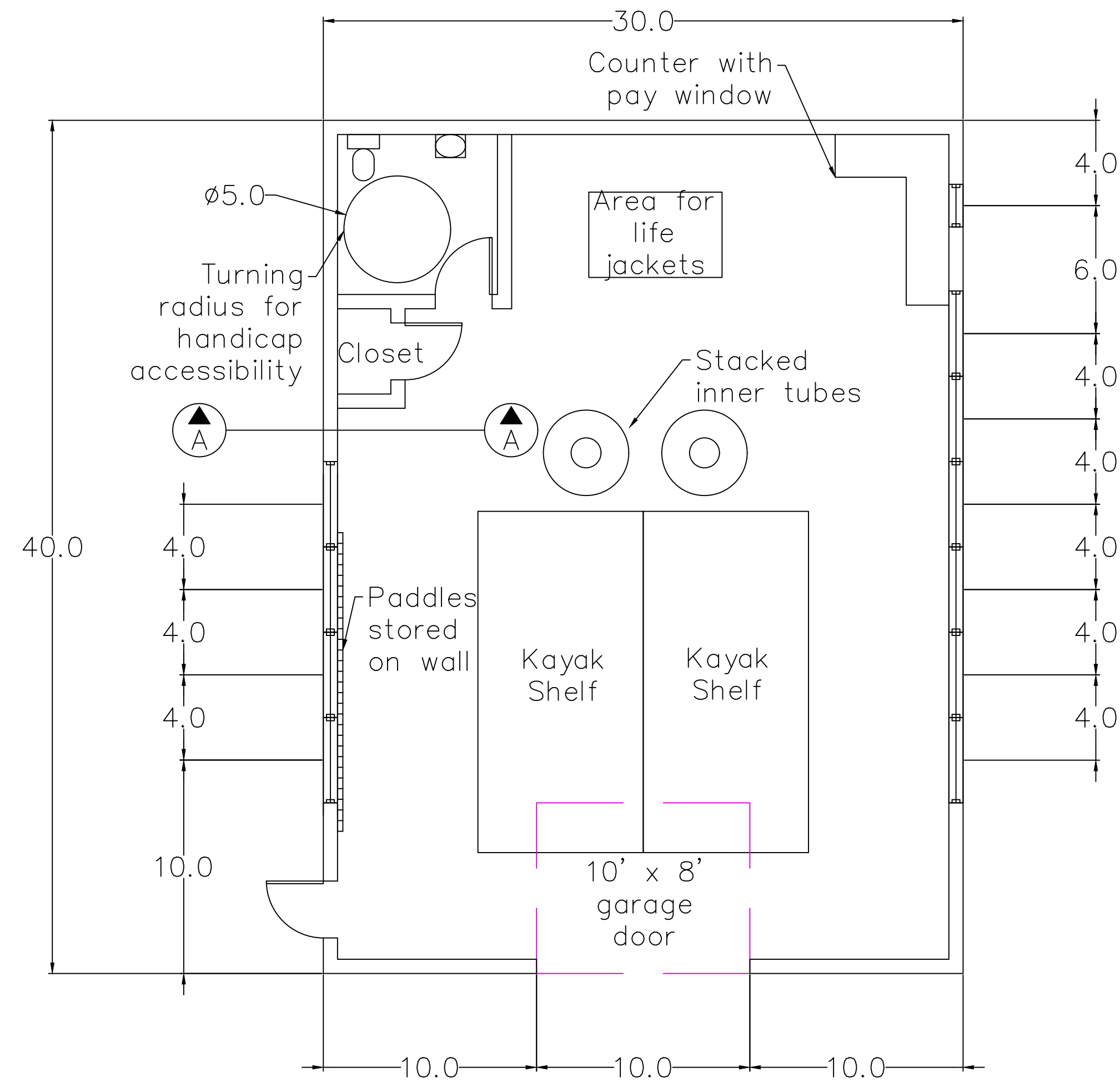
SHEET NAME  
 ASBURY PARK  
 GRADING

SHEET NO.  
**06**



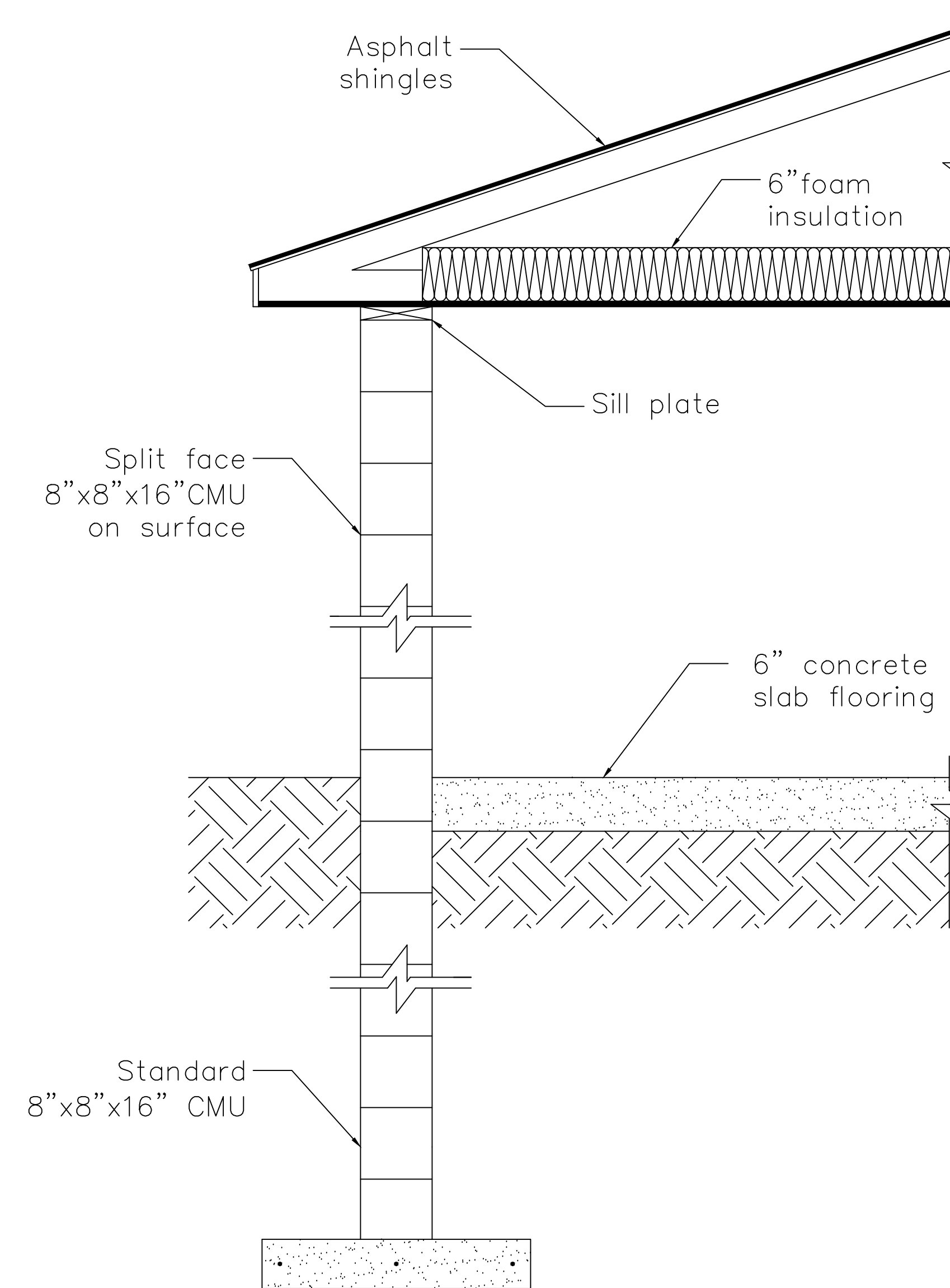
NOTES

- Wall height is 10'
- Wall thickness is 8"
- One 24" x 36" window on eastern wall
- Six 48" x 12" windows on eastern wall
- Four 48" x 12" windows on western wall
- All doors are 32" wide
- Bathroom is 7'-6" x 7'-6"



NOTES

- Wall height: 10'
- Frost line: 60"
- Foundation wall meets footing at the frost line



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**Waterway Access**  
 12TH STREET  
 MASON CITY, IA 50401

SHEET NAME  
 STRUCTURE  
 FLOOR PLAN

SHEET NO.  
**07**

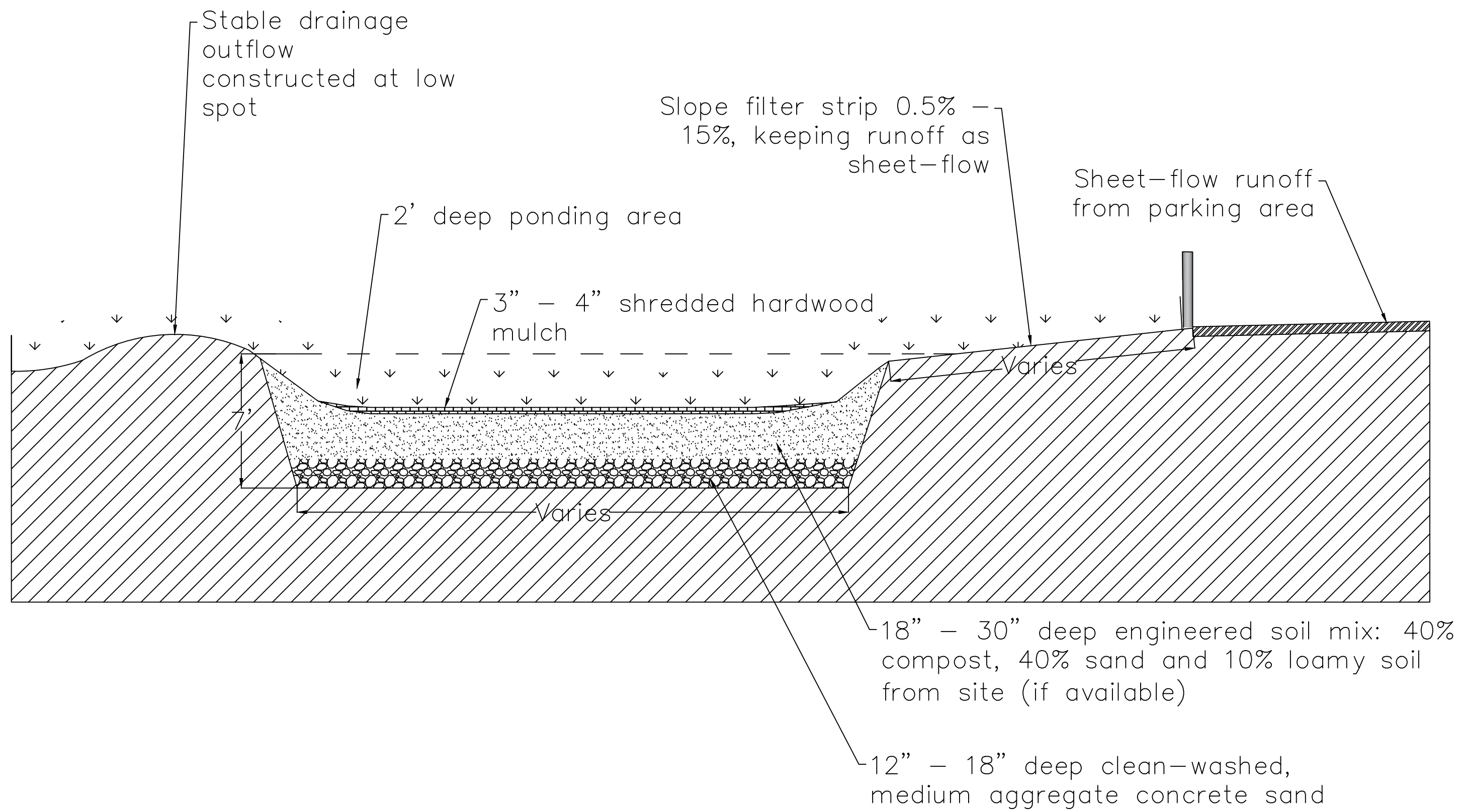
**A Structure Cross Section**  
 SCALE: 1"=1'



NOTES

- 12th Street
  - Bottom Width: 25'
  - Filter Strip Width: 8.5'
- East Park
  - Bottom Width: 25'
  - Filter Strip Width: 5'
- Asbury Park
  - Bottom Width: 11'
  - Filter Strip Width: 10'

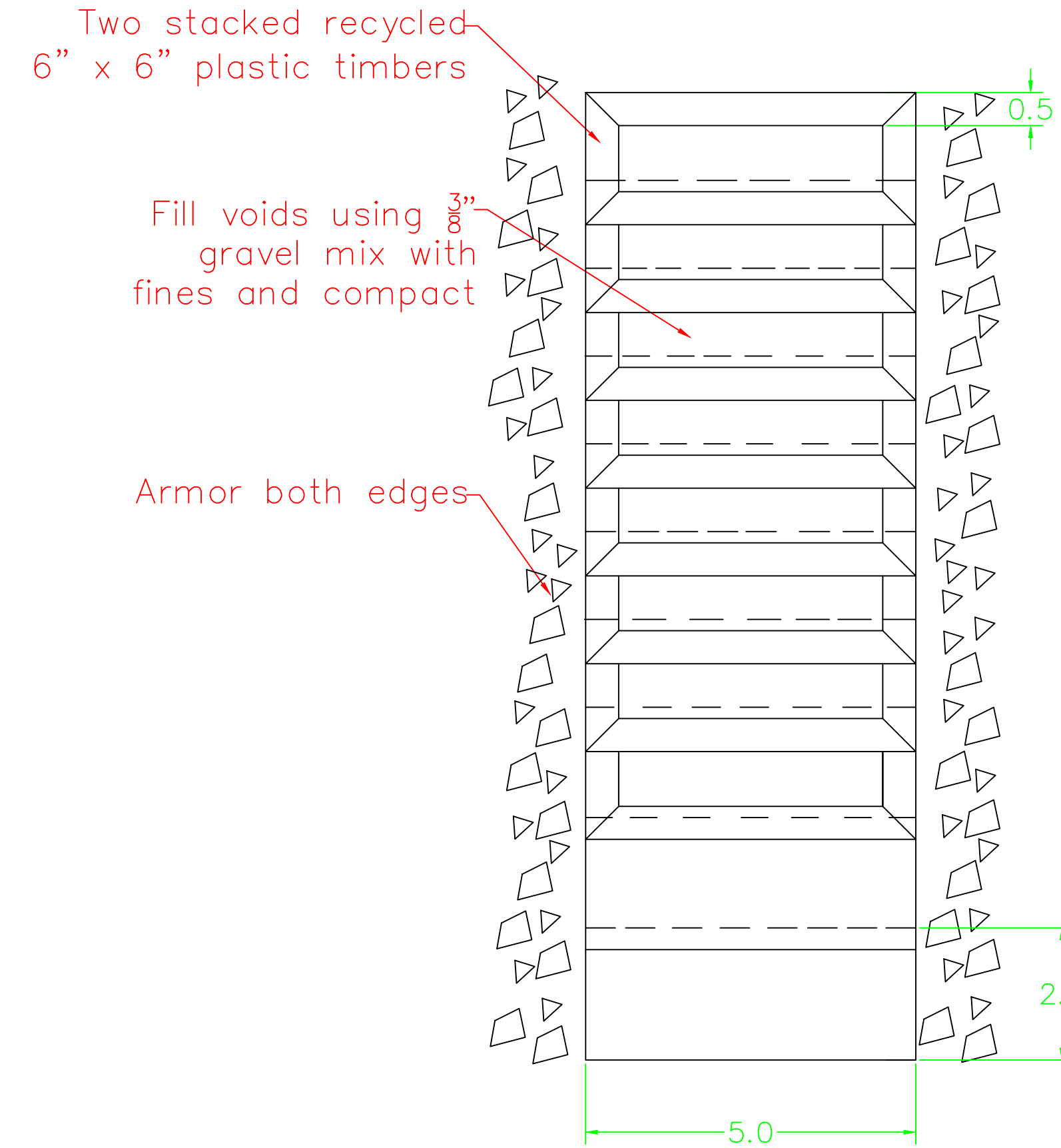
Cross-Section



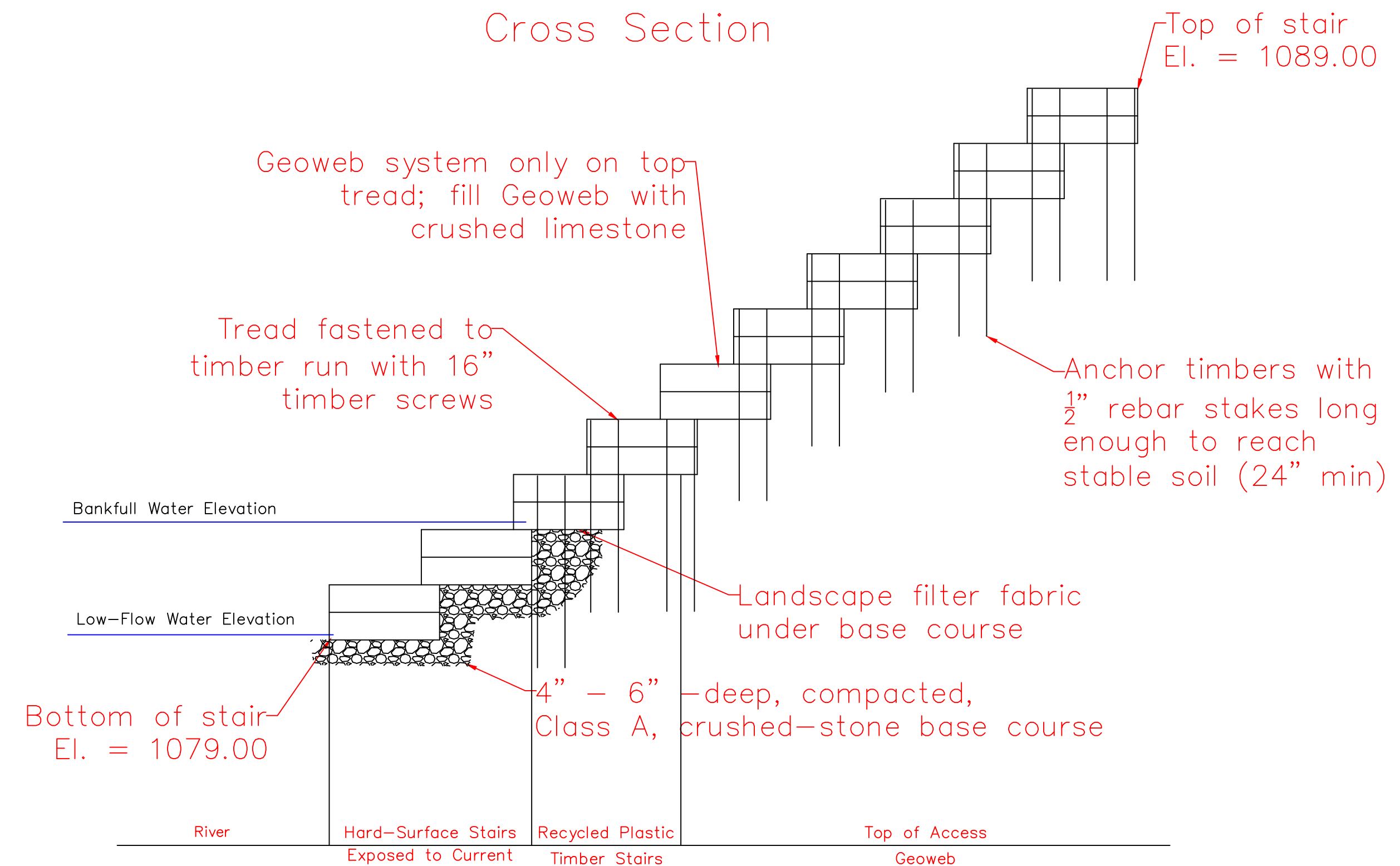
**1 Bioretention Basin**

Not to Scale

Plan View



Cross Section



**2 12th Street Stairs**

Not to Scale

NOTES

- Construct step treads with a 2-3% slope toward the stream to alleviate water ponding on the surface
- Treads should not be steepened to accommodate high streambanks
- Bottom 2-3 steps to be slab stone or concrete surfacing
- All stair treads should be the same width and length
- Canoe slides can be built with two telephone poles or aluminum guardrails along steep slopes

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**Waterway Access**

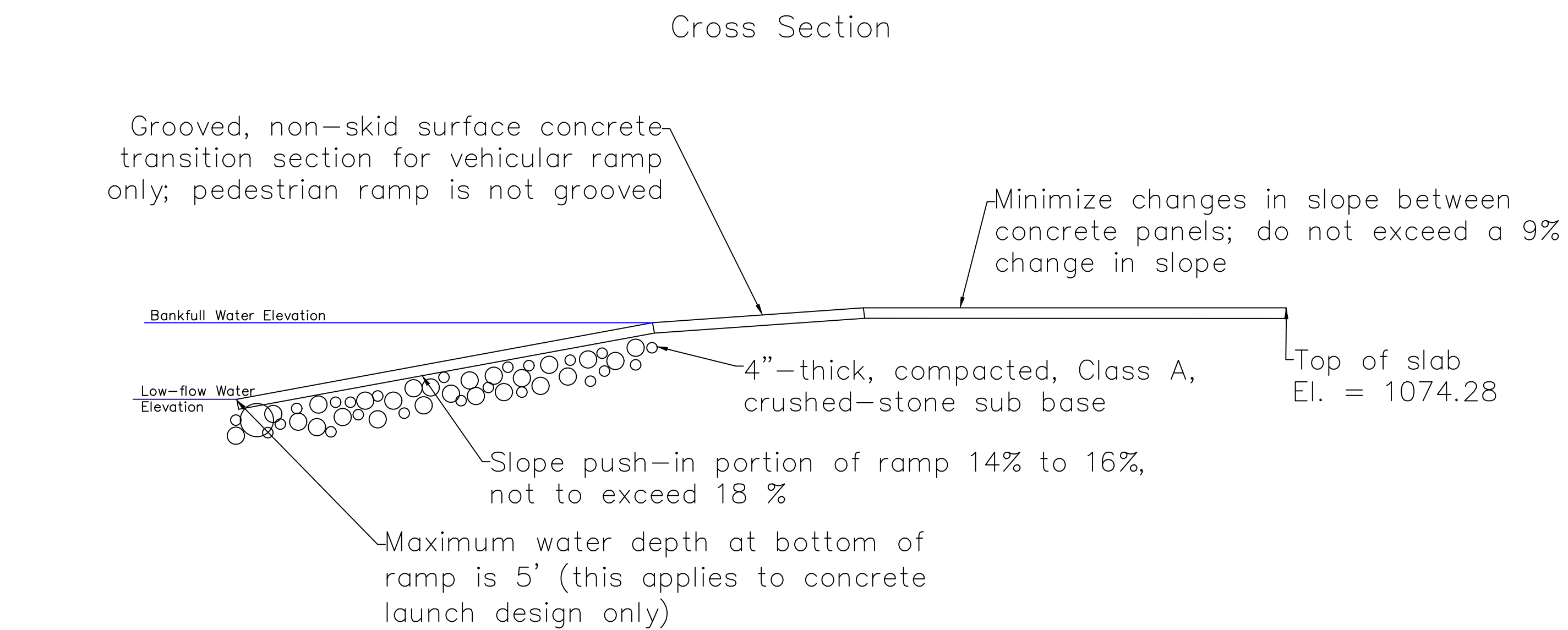
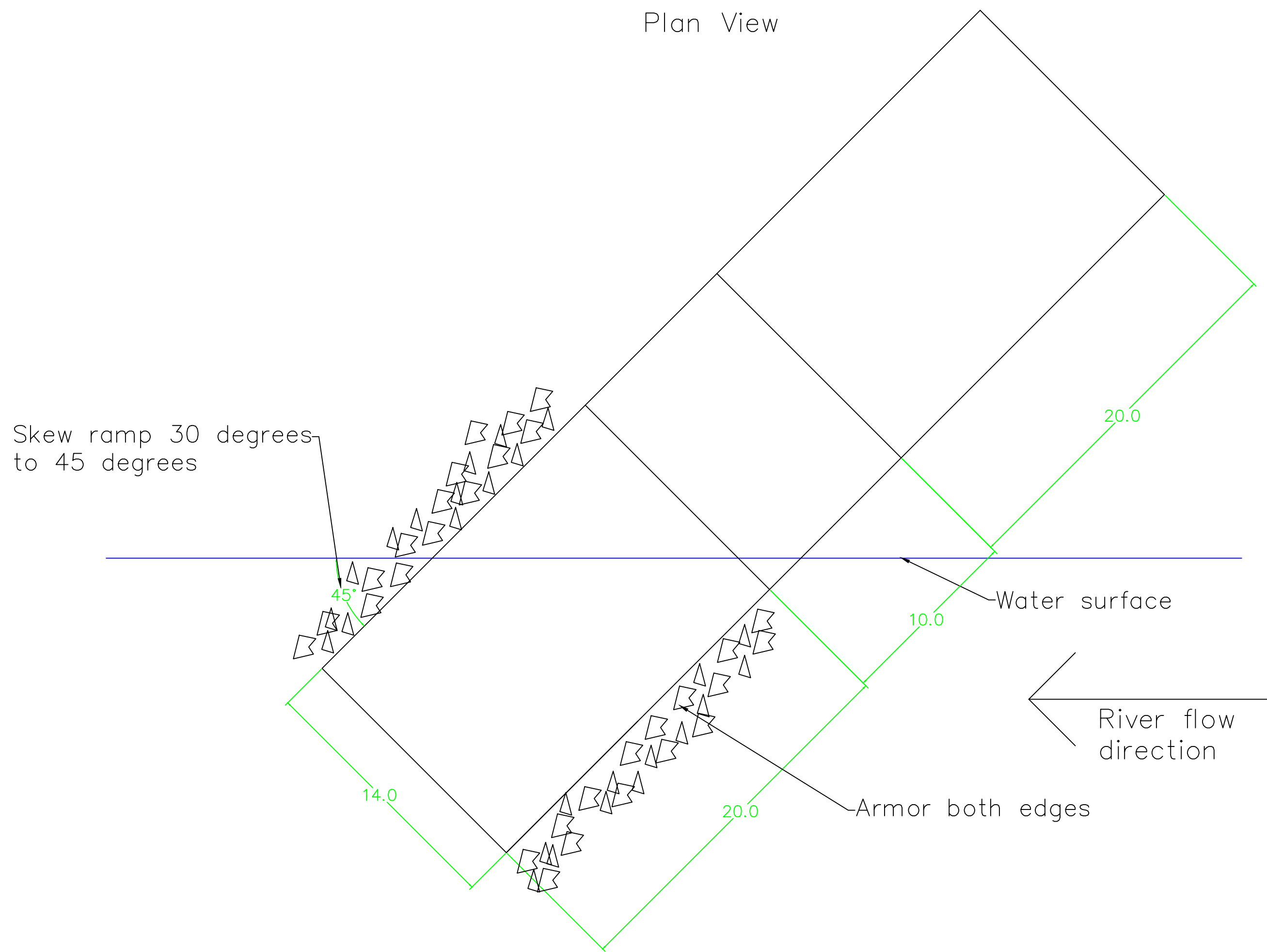
12TH STREET  
 MASON CITY, IA 50401

SHEET NAME

BASIN & 12TH ST.  
 DETAILS

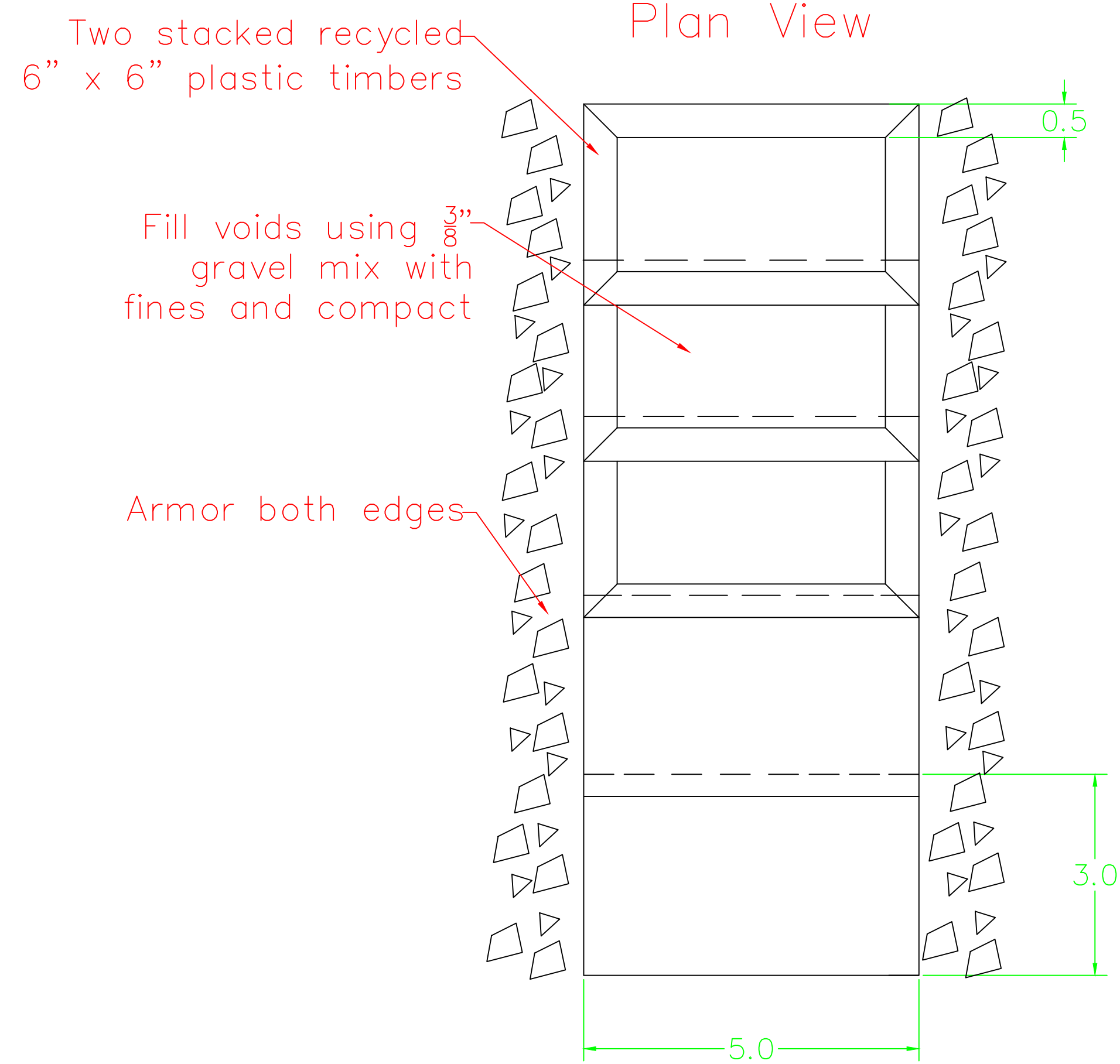
SHEET NO.

**08**

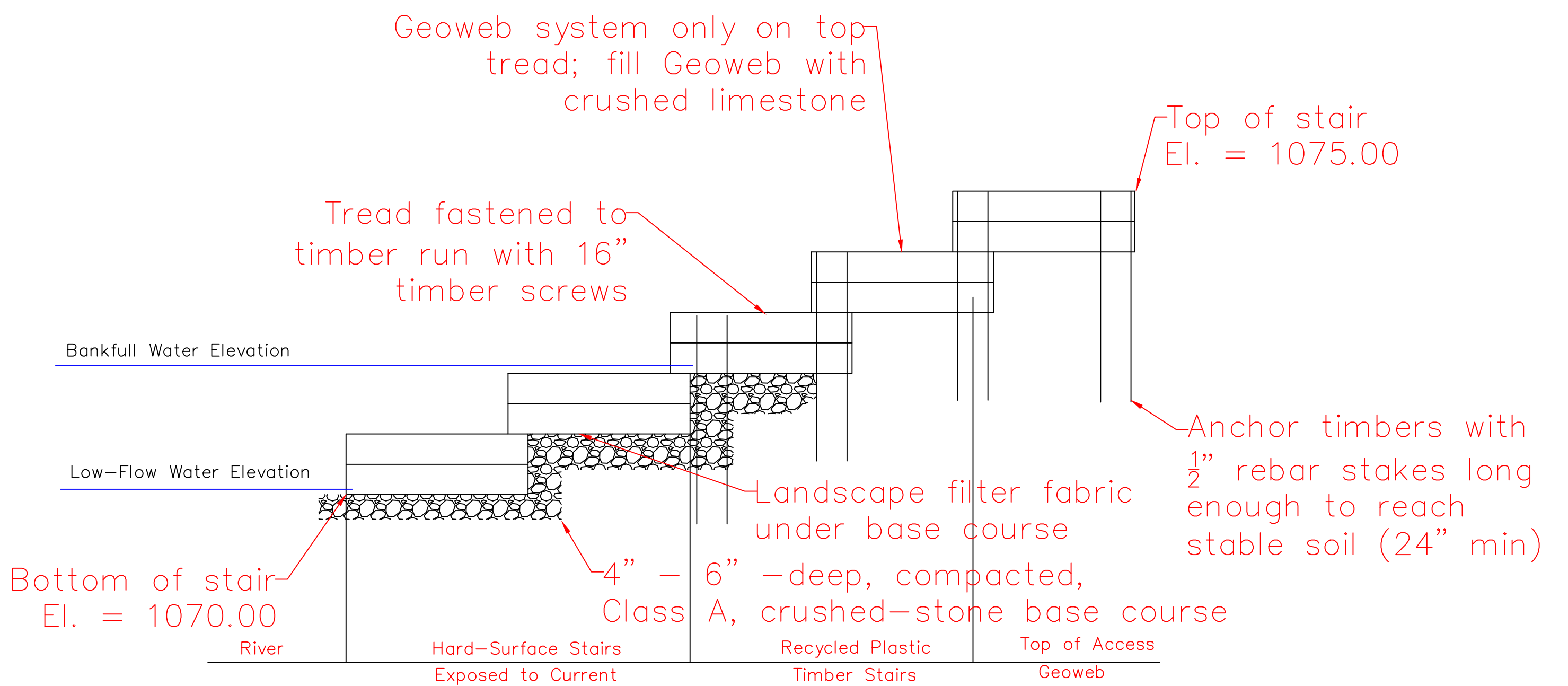


### 3 East Park Boat Ramp

Not to Scale



Cross Section



### 4 East Park Stairs

Not to Scale

- NOTES
- Construct step treads with a 2–3% slope toward the stream to alleviate water ponding on the surface
  - Treads should not be steepened to accommodate high streambanks
  - Bottom 2–3 steps to be slab stone or concrete surfacing
  - All stair treads should be the same width and length
  - Canoe slides can be built with two telephone poles or aluminum guardrails along steep slopes

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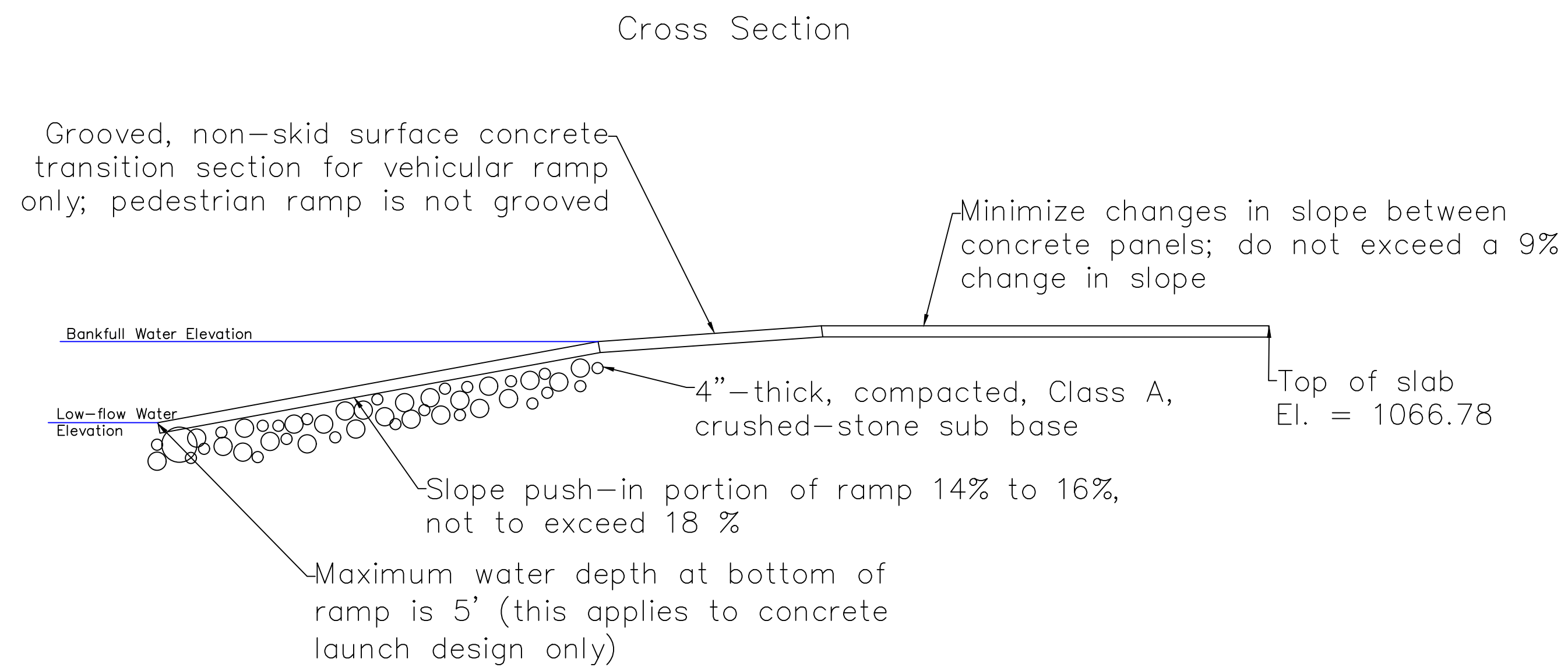
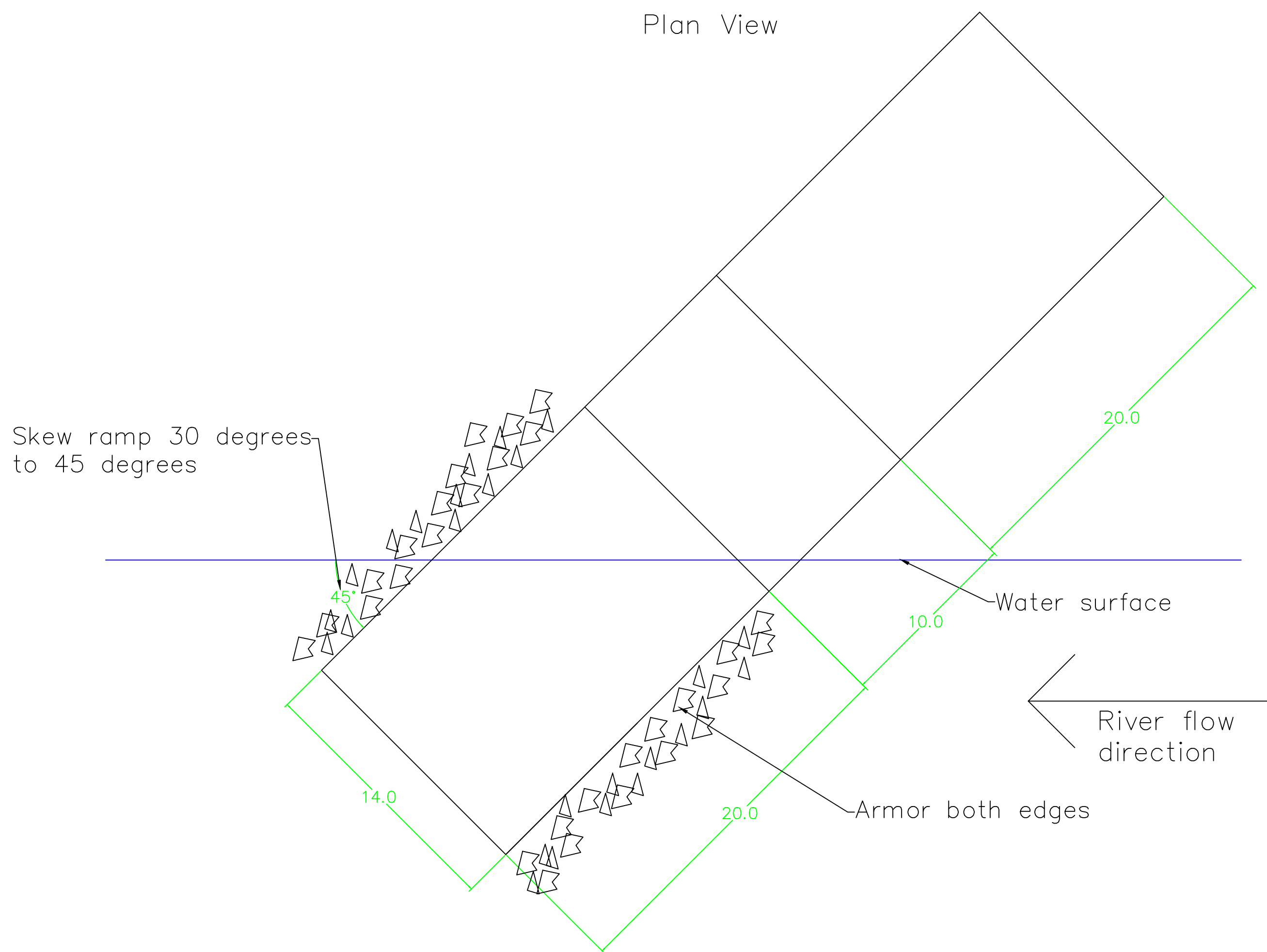
EAST PARK  
 MASON CITY, IA 50401

SHEET NAME

EAST PARK  
 DETAILS

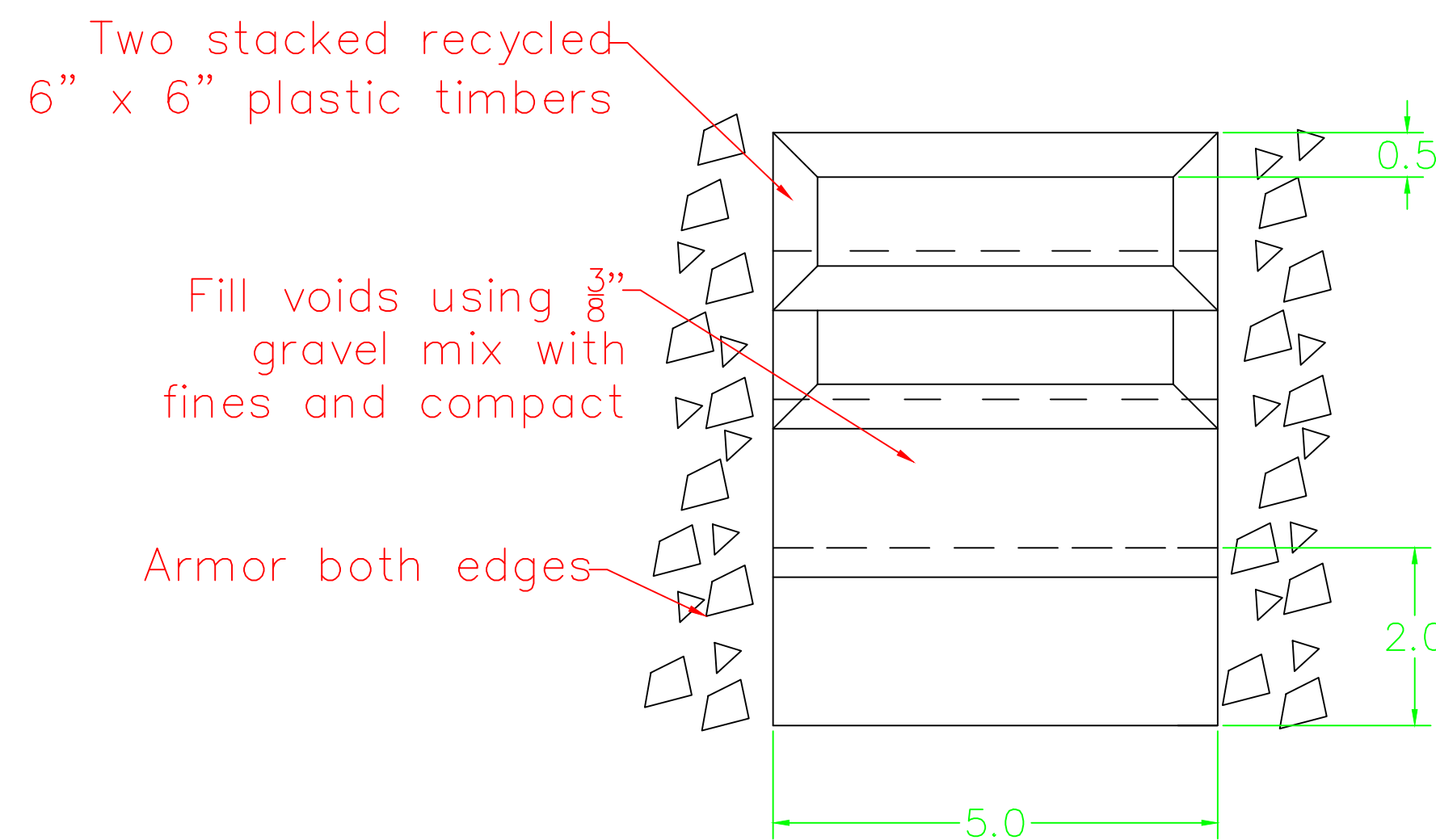
SHEET NO.

09

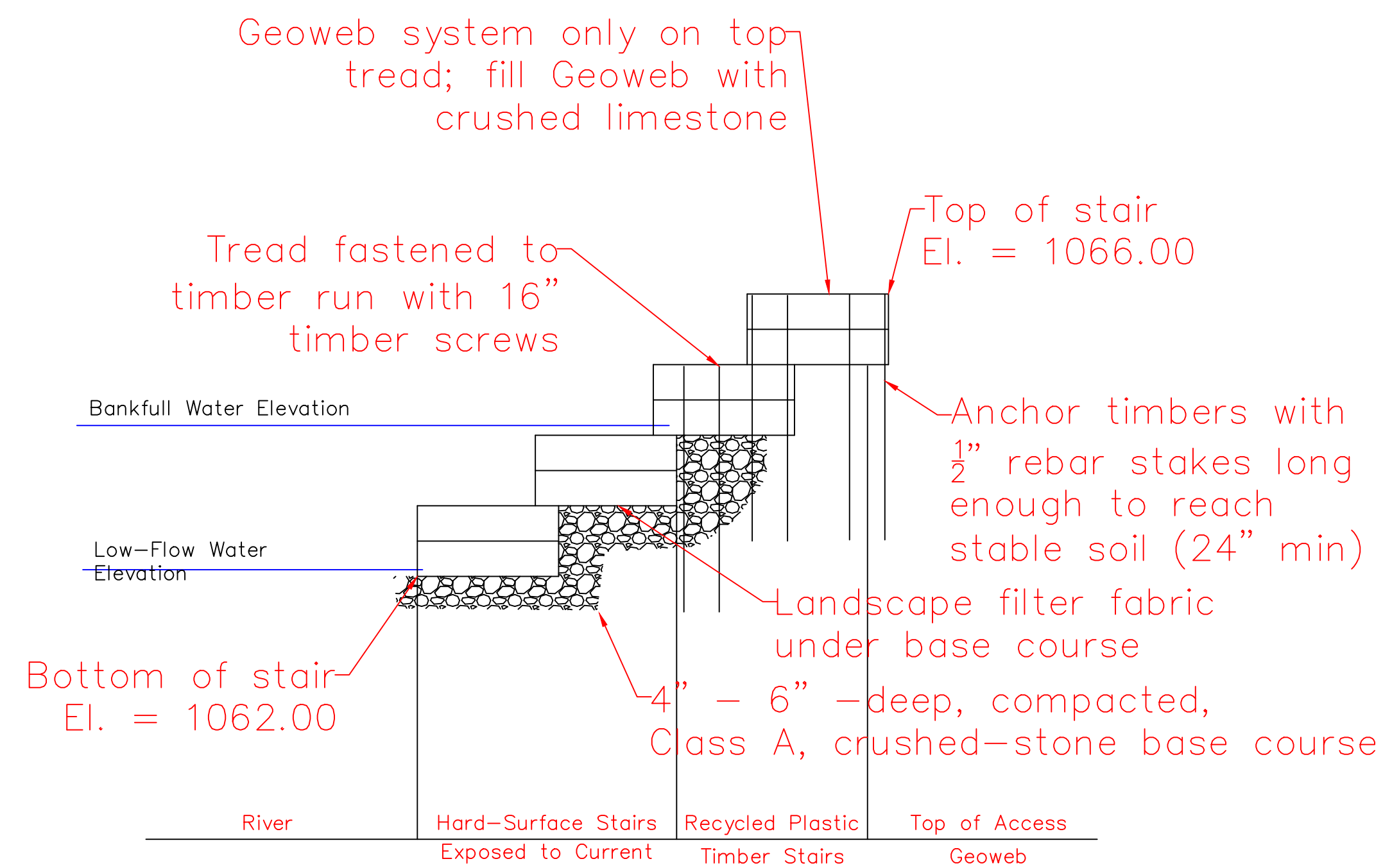


**5 Asbury Park Boat Ramp**  
Not to Scale

Plan View



Cross Section



**6 Asbury Park Stairs**  
Not to Scale

NOTES

- Construct step treads with a 2-3% slope toward the stream to alleviate water ponding on the surface
- Treads should not be steepened to accommodate high streambanks
- Bottom 2-3 steps to be slab stone or concrete surfacing
- All stair treads should be the same width and length
- Canoe slides can be built with two telephone poles or aluminum guardrails along steep slopes

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ASBURY PARK  
MASON CITY, IA 50401

SHEET NAME

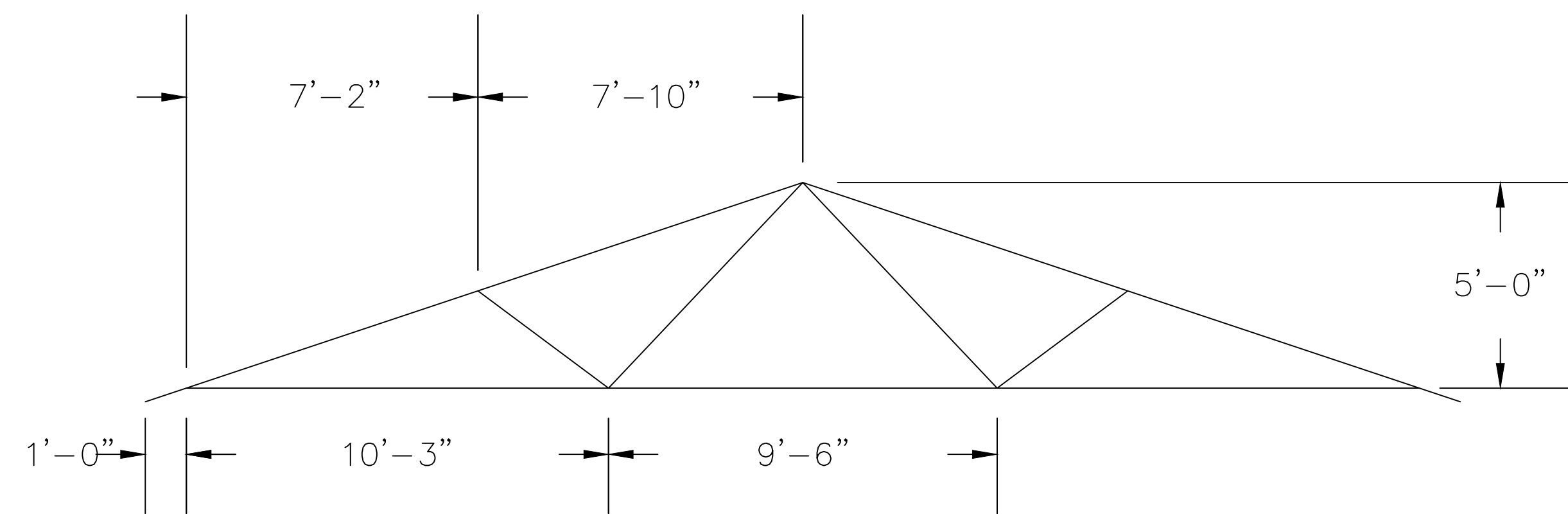
ASBURY PARK  
DETAILS

SHEET NO.

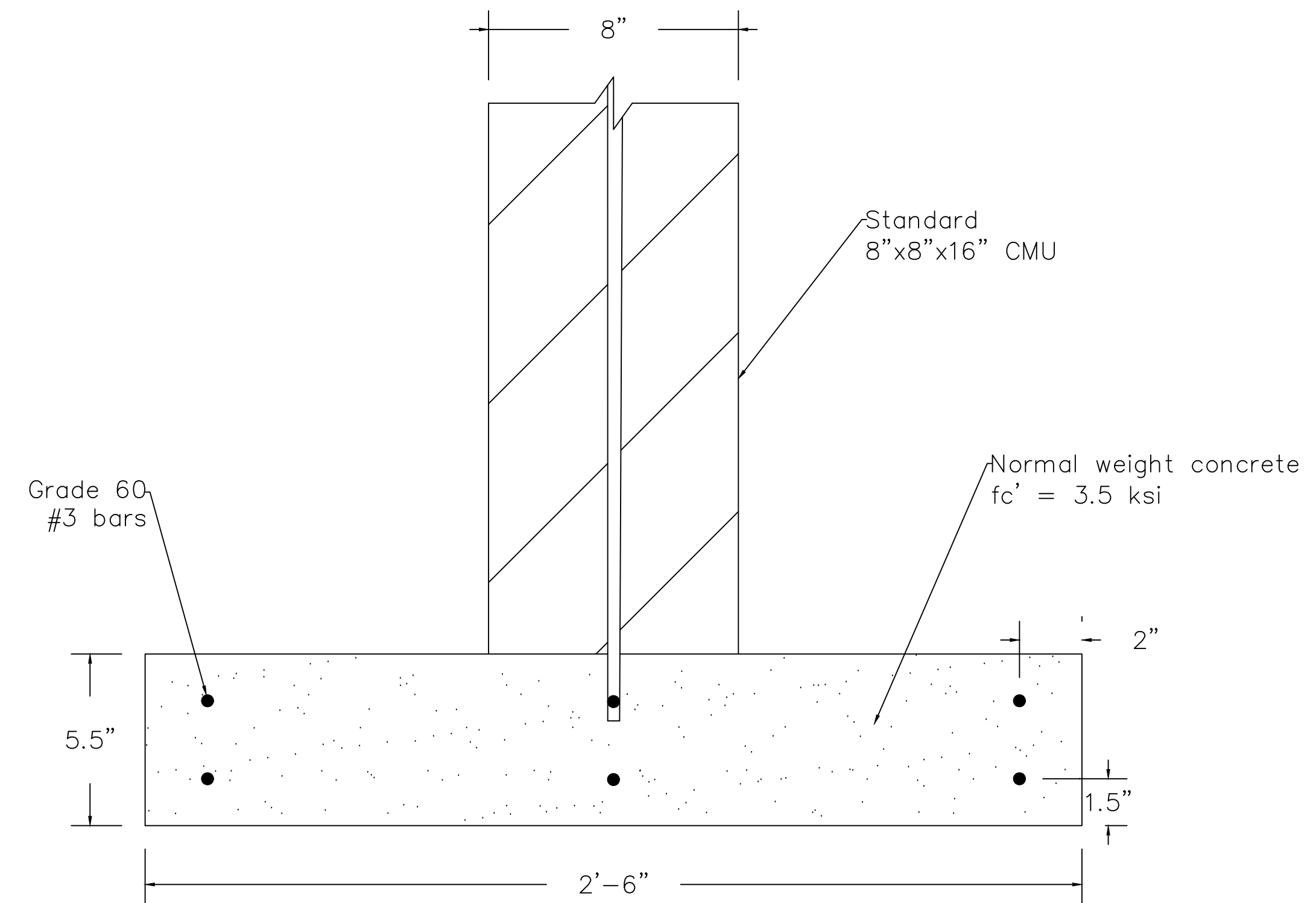
**10**

NOTES

- All members are No. 1 Douglas Fir Larch
- Top chord: 2"x4"
- Web members: 2"x4"
- Truss Spacing: 24" O.C.
- Roof Pitch: 4:12
- Medeek Truss Designer used to calculate truss



**7** Truss Detail  
Not to Scale



**8** Footing Detail  
Not to Scale

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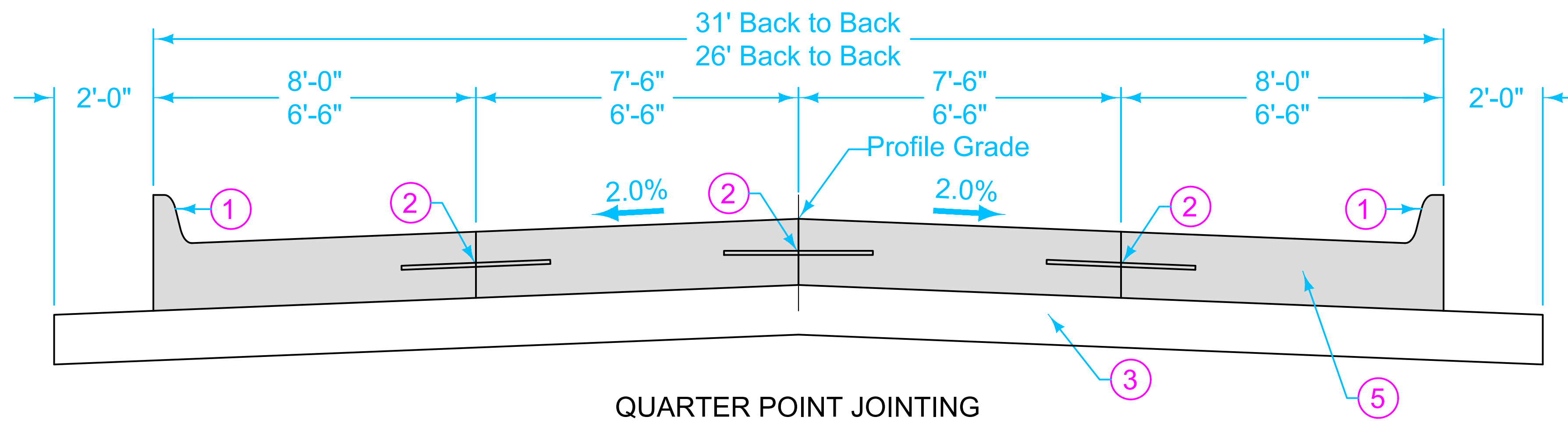


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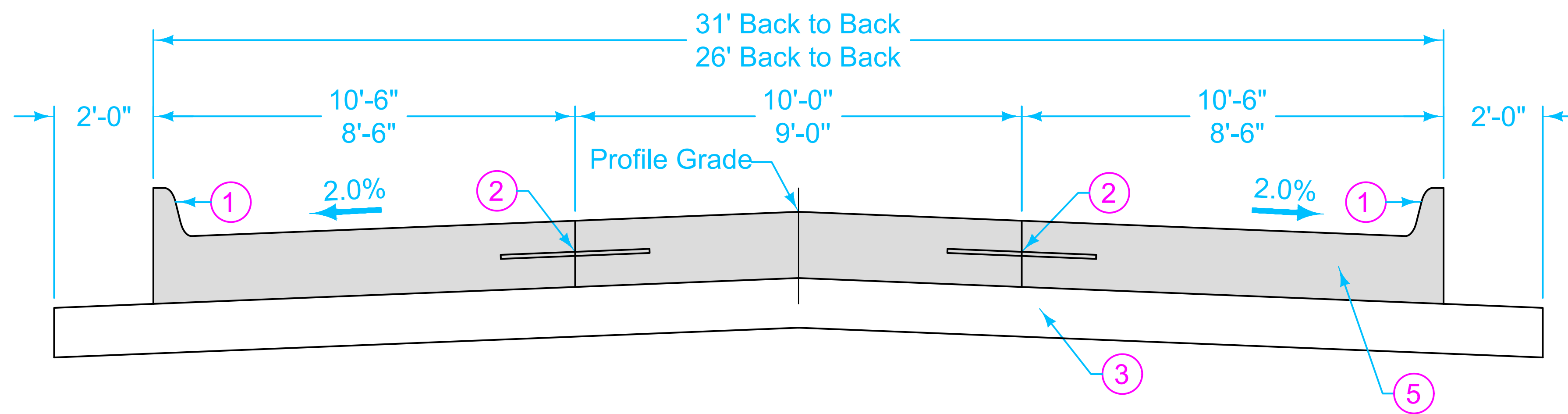
**Waterway Access**  
 12TH STREET  
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SHEET NAME  
 STRUCTURE  
 DETAILS

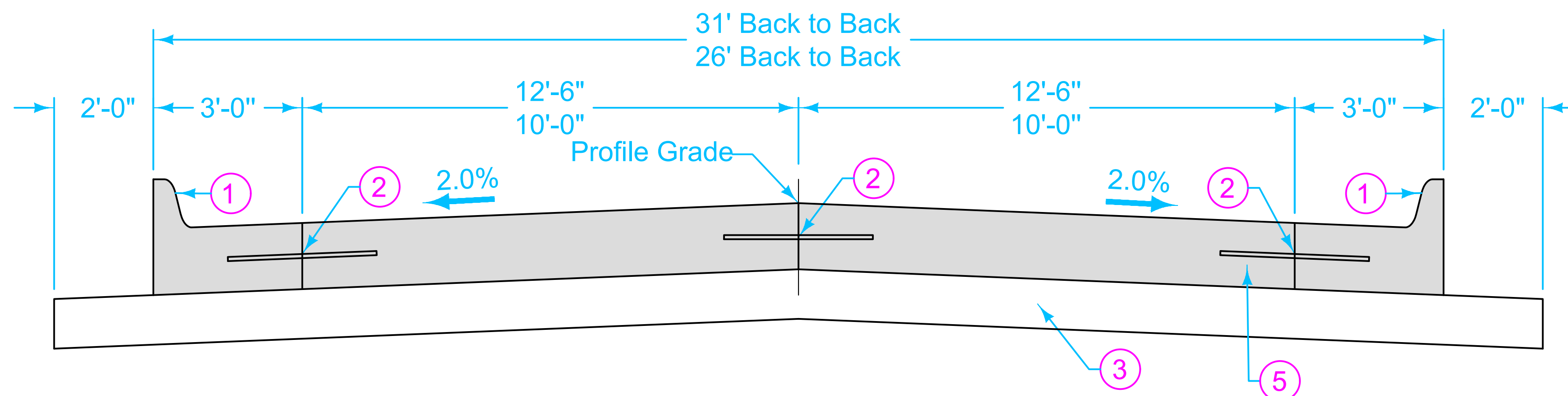
SHEET NO.  
**11**



QUARTER POINT JOINTING



THIRD POINT JOINTING



GUTTERLINE JOINTING

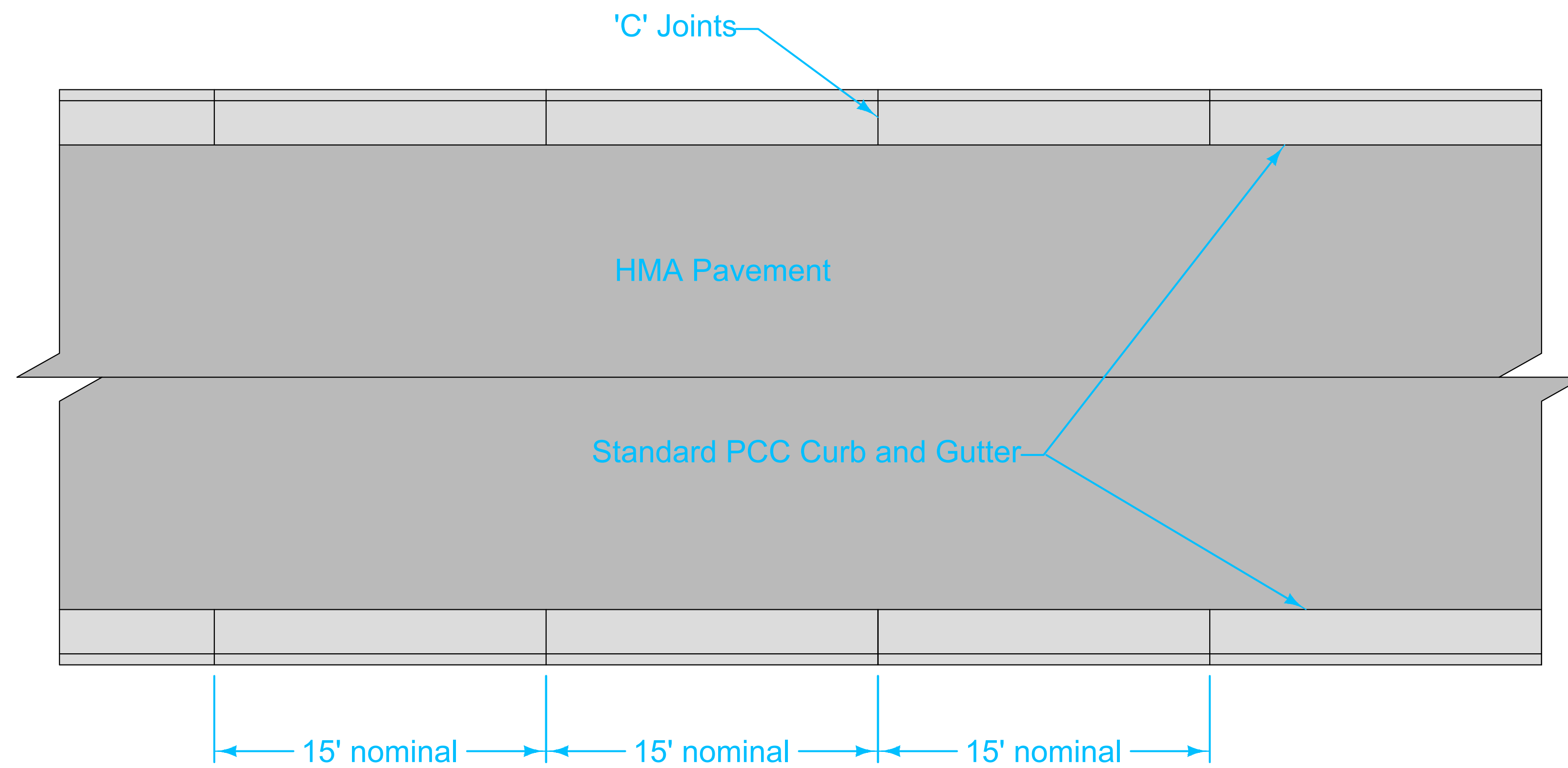
- ① 6 inch standard curb.
- ② BT, KT, or L joint depending on pavement thickness and construction staging.
- ③ Subbase or subgrade as specified.
- ④ Unless otherwise specified in the contract documents.
- ⑤ No dowels within 24" of the back of curb. With gutterline joint, place first dowel 6 inches from the joint. See Figure 7010.101, Sheet 8.

TRANSVERSE JOINT REQUIREMENTS ④		
Pavement Thickness	Transverse Joint Type	Transverse Joint Spacing
6"	C	12'
7"	C	15'
8"	CD ⑤	15'
9"	CD ⑤	15'
≥10"	CD ⑤	20'

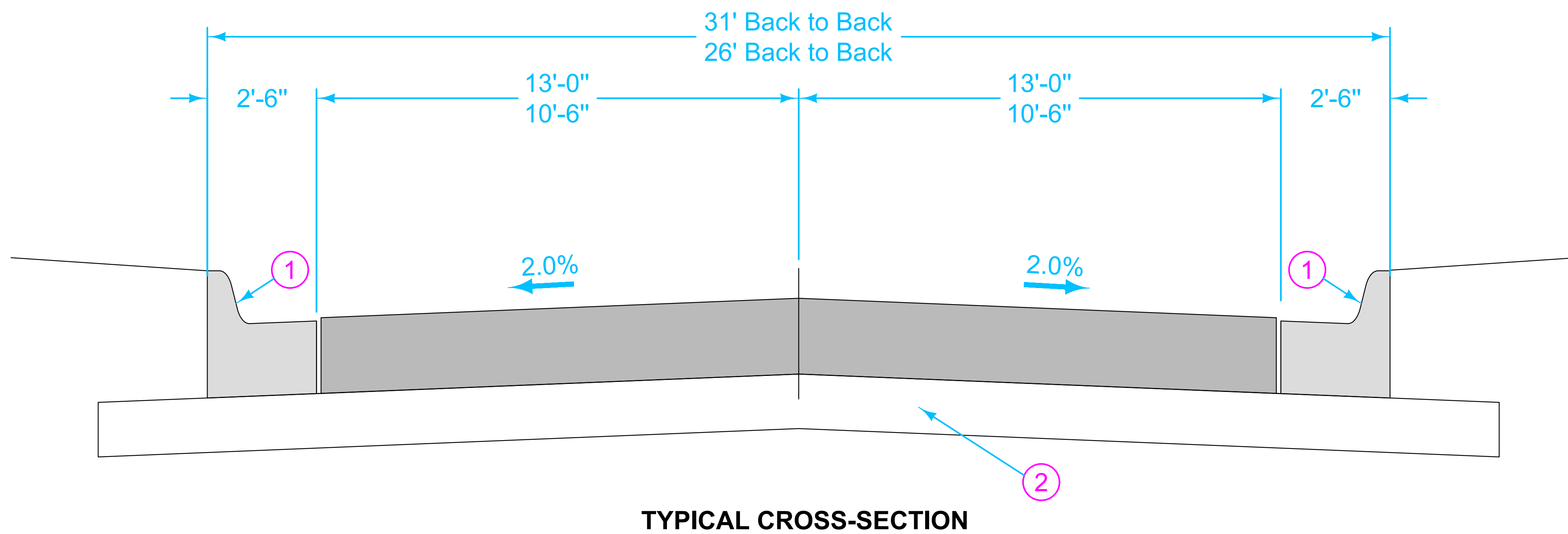
	REVISION	
	1	10-16-12
	<b>7010.901</b>	
SHEET 1 of 1		
<b>PCC PAVEMENT JOINTING</b>		



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- ① 6 inch standard curb and gutter.
- ② Subbase or subgrade as specified.



	REVISION	
	New	10-19-10
<b>7020.901</b>		
SHEET 2 of 2		
<b>HMA PAVEMENT</b>		

**10** HMA Detail  
Not to Scale

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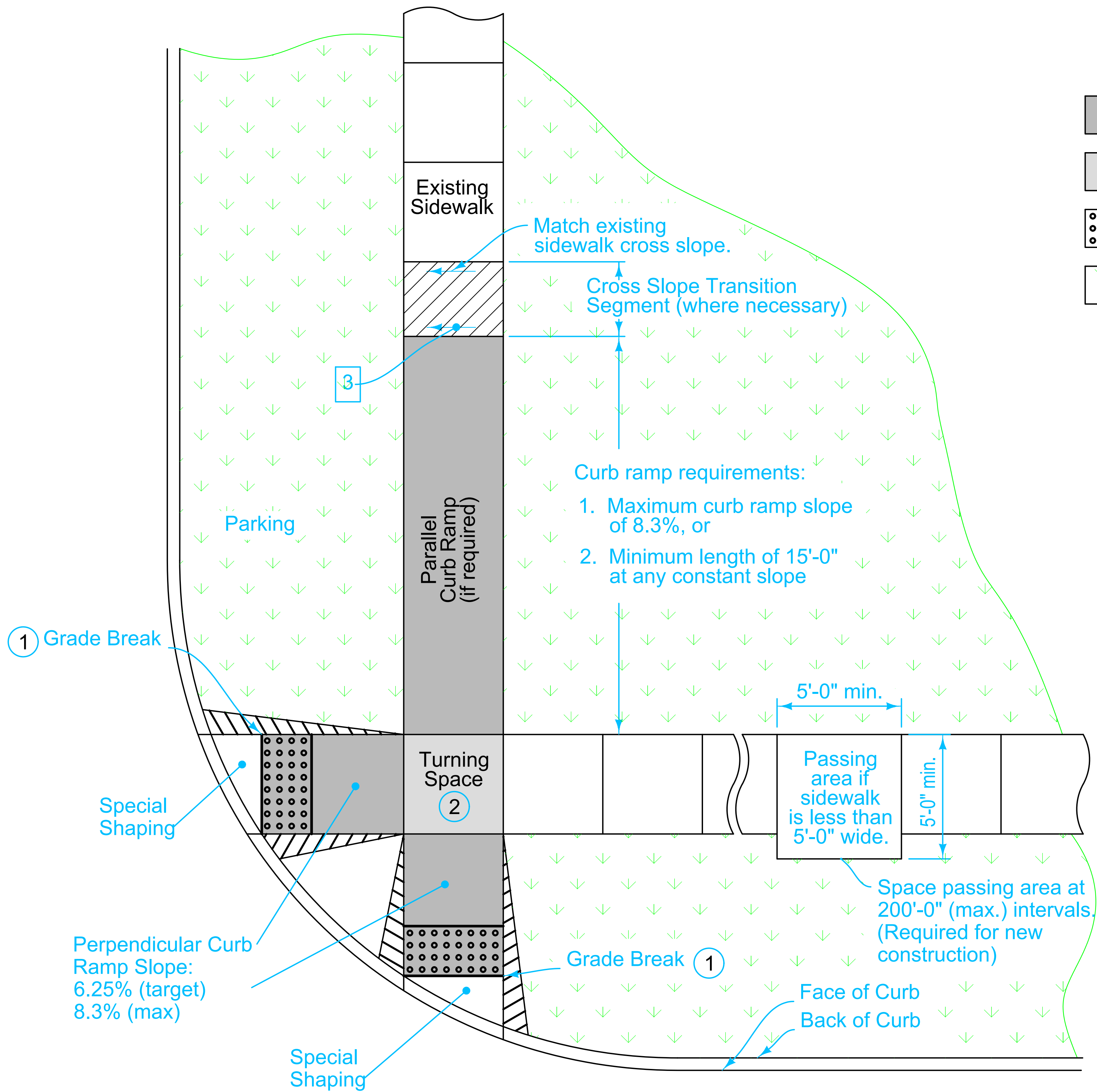
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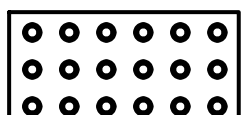
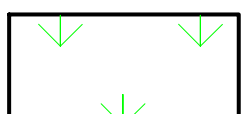
**Waterway Access**

MASON CITY, IA 50401

SHEET NAME  
 ASPHALT  
 DETAILS

SHEET NO.  
**13**



- Key**
-  Curb Ramp
  -  Turning Space
  -  Detectable Warning
  -  Grass

- 1 Match pedestrian street crossing slope, or flatter.
- 2 Minimum 4 feet by 4 feet. Target cross slope of 1.5% with a maximum cross slope of 2.0%.
- 3 Target cross slope of 1.5% with a maximum cross slope of 2.0%.

**11 Sidewalk Detail**  
Not to Scale

	REVISION	
	3	10-20-15
	<b>7030.204</b>	
SHEET <u>1</u> of <u>1</u>		
<b>GENERAL FEATURES OF AN ACCESSIBLE SIDEWALK</b>		



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MASON CITY, IA 50401

SHEET NAME  
 SIDEWALK DETAILS

SHEET NO.  
**14**