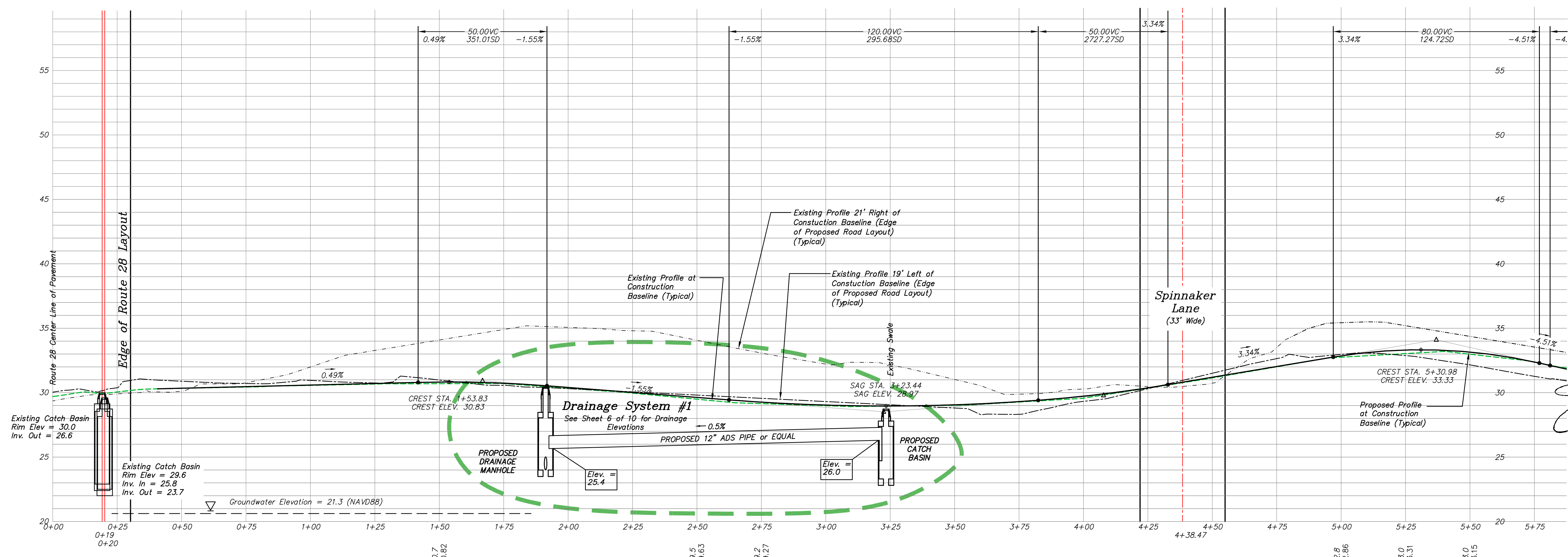
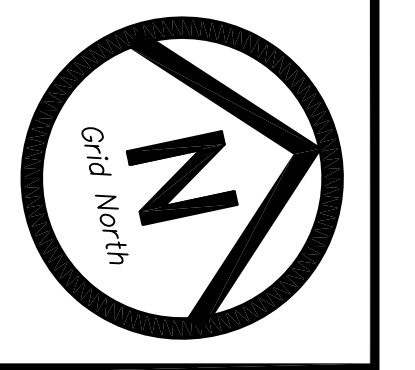


Plan
Horizontal Scale: 1" = 20'

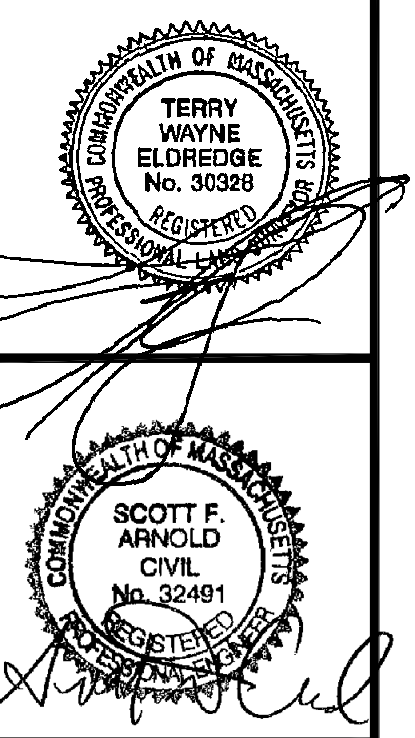


Drawing No: 4000 270 Base Plan 2013.dwg

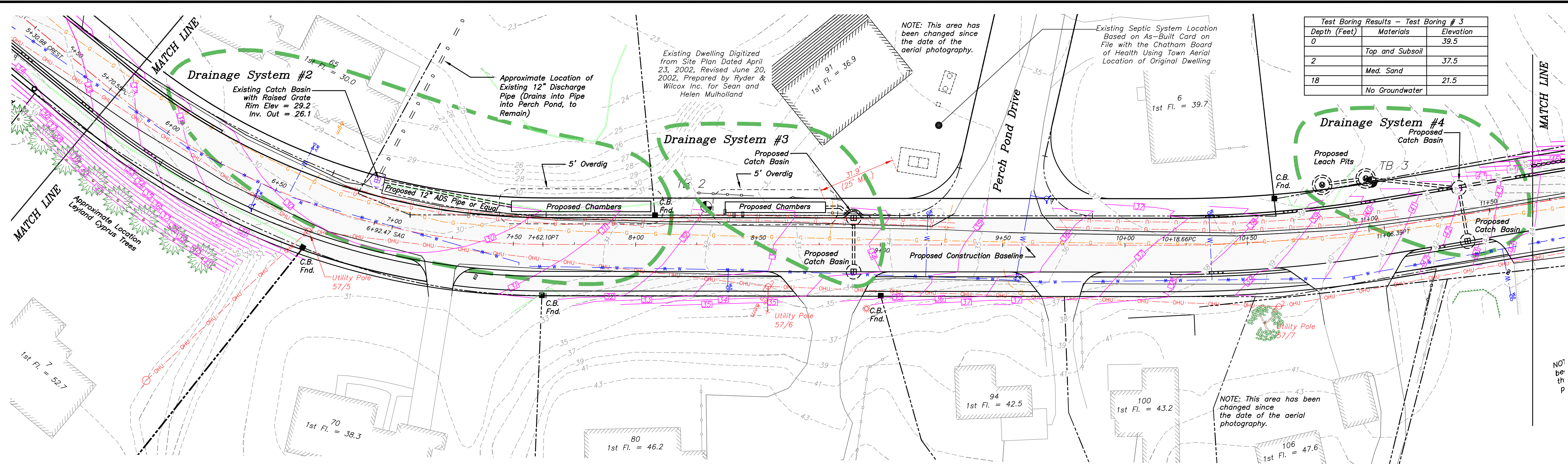


Sidewalk Plan & Profile

TOWN OF CHATHAM
Old Queen Anne Road, Chatham, Massachusetts
ELDRIDGE SURVEYING, LLC
& ENGINEERING, LLC
1038 Main Street, Chatham, MA: (508) 945-3965; Fax: (508) 945-5885



Date: 02-28-2014
Scale: as noted
Project No.: C-4000-27.0
Sheet No.: SW-1 of 10



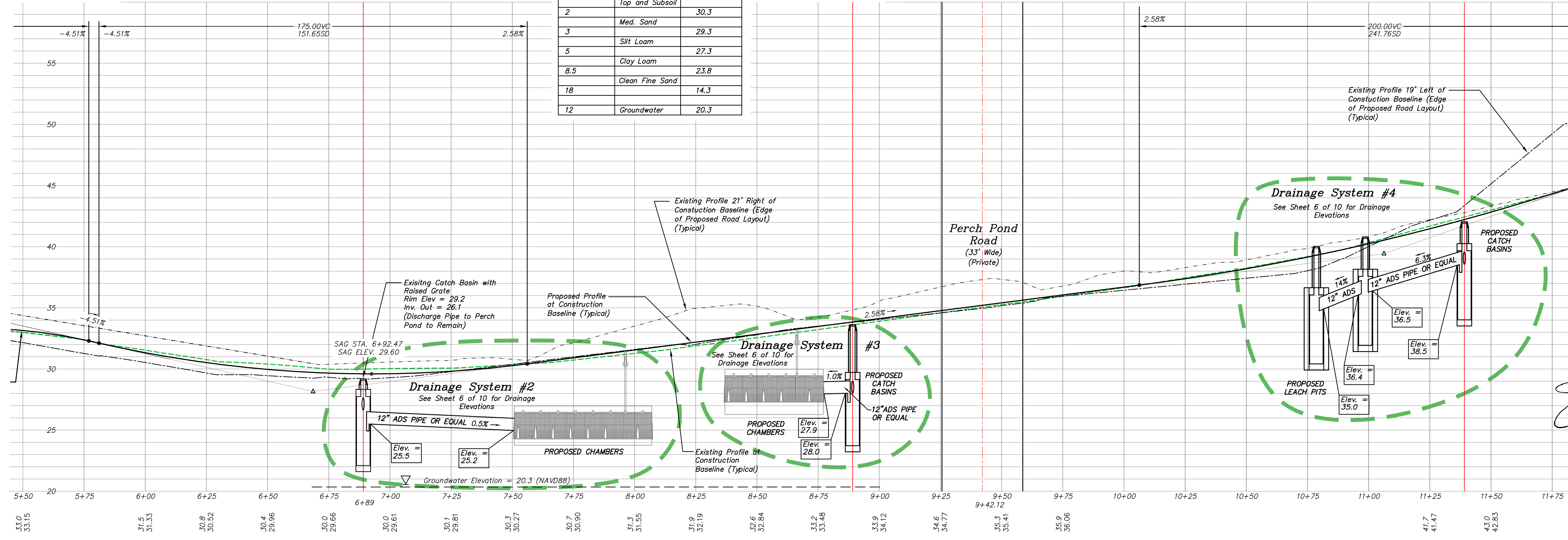
Test Boring Results - Test Boring # 3

Depth (Feet)	Materials	Elevation
0	Top and Subsoil	39.5
2	Med. Sand	37.5
18	No Groundwater	21.5

Test Boring Results - Test Boring # 2

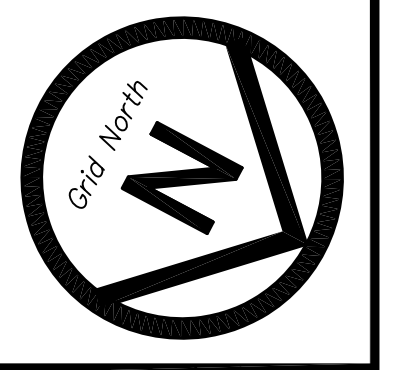
Depth (Feet)	Materials	Elevation
0	Top and Subsoil	32.3
2	Med. Sand	30.3
3	Silt Loam	29.3
5	Clay Loam	27.3
8.5	Clean Fine Sand	23.8
18	Groundwater	20.3
12	Groundwater	20.3

Plan
Horizontal Scale: 1" = 20'



Profile
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 4'

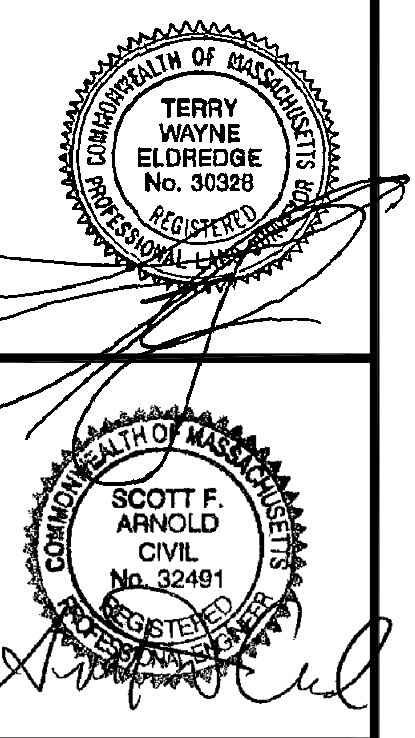
© Copyright 2014 by Eldredge Surveying & Engineering, LLC



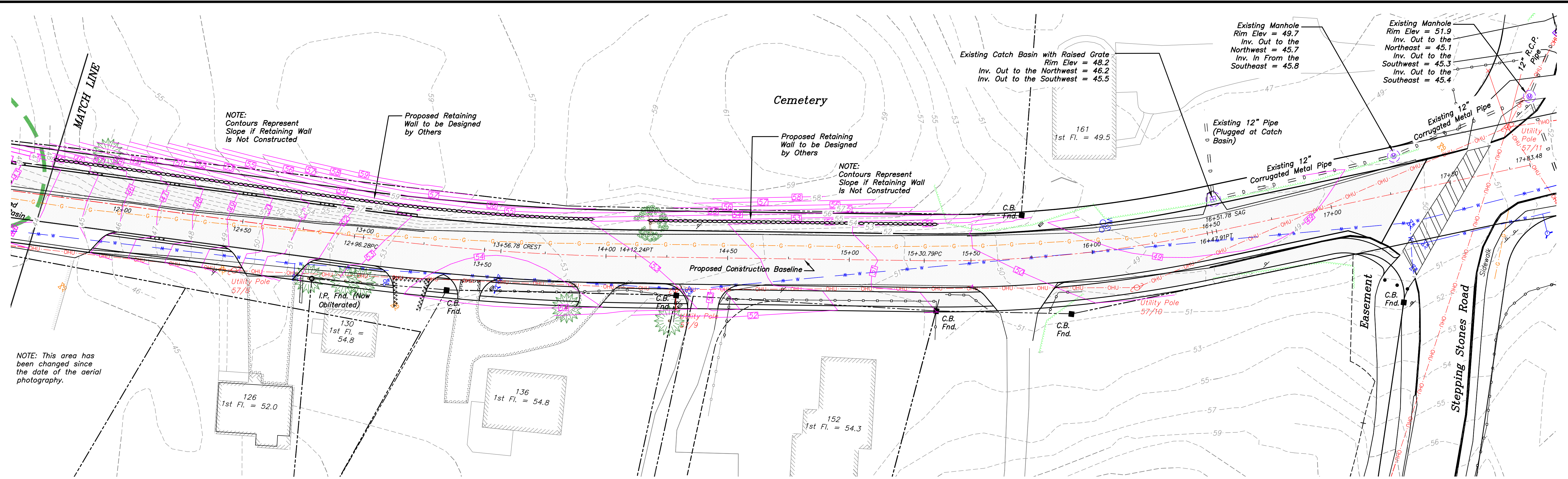
Sidewalk Plan & Profile

TOWN OF CHATHAM
Old Queen Anne Road, Chatham, Massachusetts

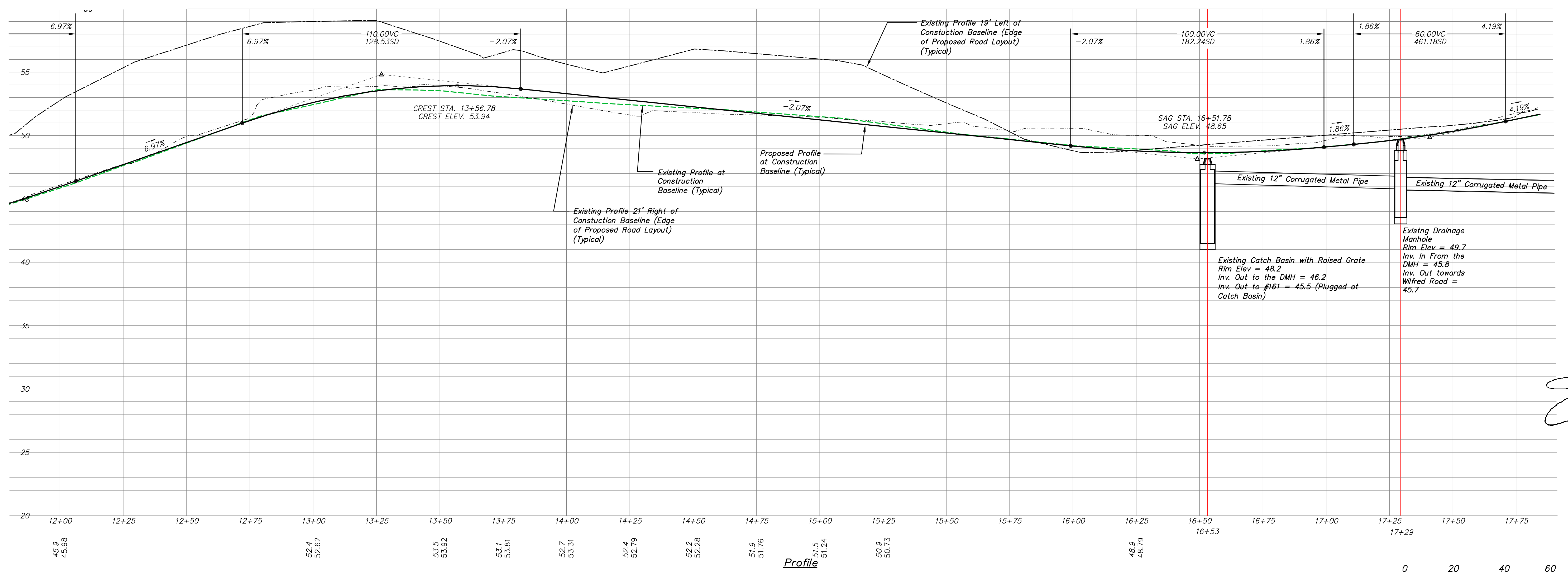
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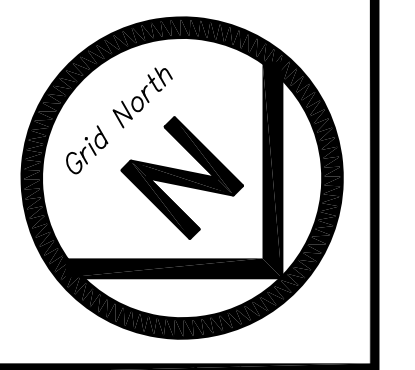
Date: 02-28-2014
Scale: as noted
Project No.: C-4000-27.0
Sheet No.: SW-2 of 10



Plan
Horizontal Scale: 1" = 20'



Profile
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 4'

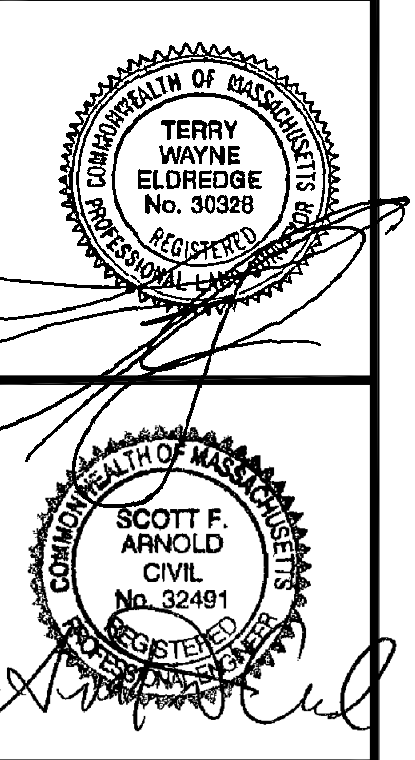


Sidewalk Plan & Profile

Rev. #	Date	Description of Revision

TOWN OF CHATHAM
Old Queen Anne Road, Chatham, Massachusetts

ELDRIDGE SURVEYING, LLC & ENGINEERING, LLC
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Date: 02-28-2014
Scale: as noted
Project No.: C-4000-27.0
Sheet No.: SW-3 of 10

Construction Notes:

A: General

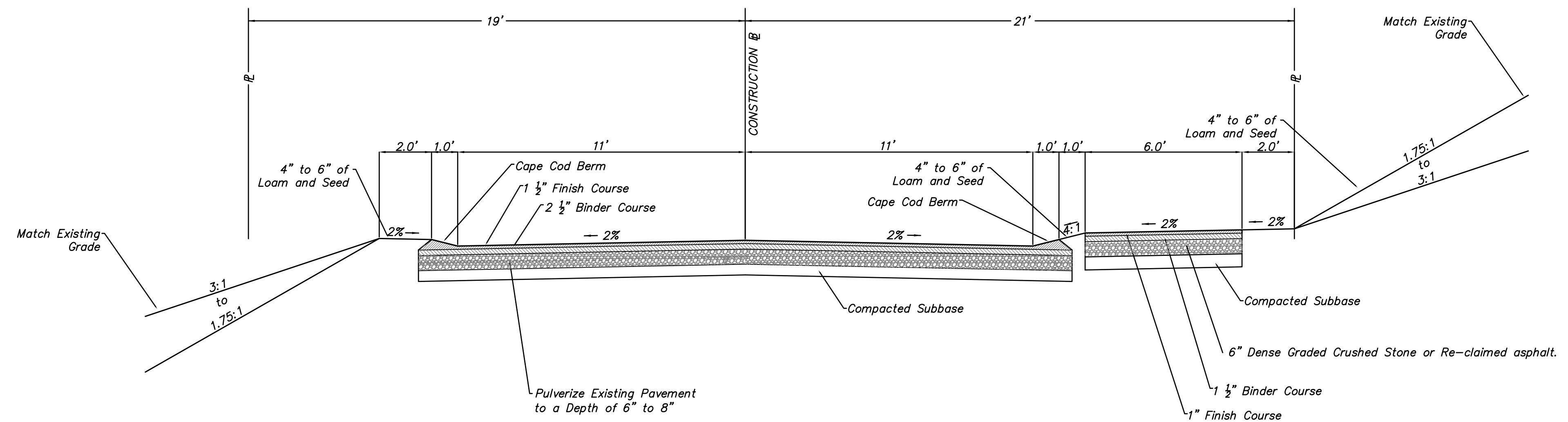
- 1.) The contractor shall be responsible for contacting Dig-Safe at 1-(888) 344-7233 in accordance with MGL c. 82 s. 40 prior to commencement of any excavation at the site. Locations of existing underground utilities shown on plans are approximate only. Utilities other than those indicated hereon may also exist.
- 2.) Construction material shall be as specified on plans and shall be in full accordance with requirements of the Town of Chatham Department of Public Works (DPW).
- 3.) Construction methods shall be in accordance with the requirements of the Chatham Department of Public Works, manufacturer's recommendations and accepted best practice.
- 4.) Roadways, walkways, utilities, drains, and other facilities within the roadway layout shall be staked for construction by or under the supervision of a Professional Land Surveyor licensed to practice in the Commonwealth of Massachusetts.
- 5.) The contractor shall be responsible for obtaining all construction inspections required by the Chatham DPW during the course of construction of the road improvements. The Contractor shall also contact the DPW to schedule a pre-construction meeting prior to the start of construction.
- 6.) The contractor shall install all erosion and sediment control devices prior to commencement of construction and shall maintain the devices until completion of construction and stabilization of all disturbed areas.
- 7.) The contractor shall be responsible for dust control at the construction site and shall sweep access routes at the end of each day if soils have been spilled from vehicles or carried from the site on vehicle tires.
- 8.) The contractor shall comply with all federal, state and municipal occupational health and safety regulations applicable to the construction site. The contractor shall secure the site at the end of each workday as necessary to assure the safety of children who may enter the site.

B: Roadways

- 1.) Calcium chloride for dust control is prohibited. Water shall be used for dust control.

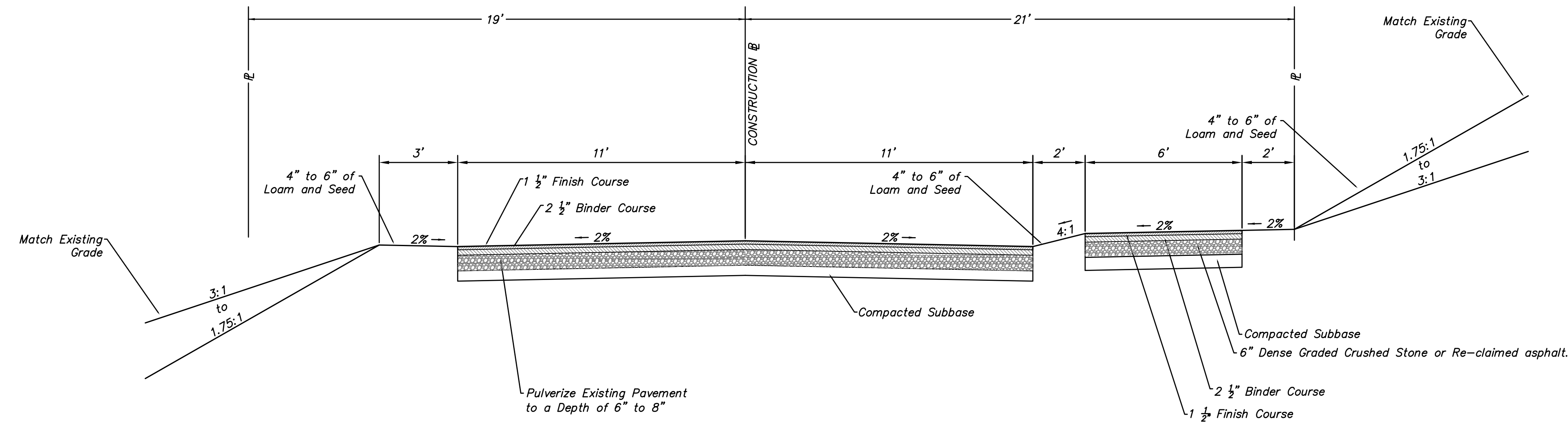
C: Drainage

- 1.) The contractor shall coordinate the inspections by the design engineer of the completed excavations for all stormwater infiltration facilities. All unsuitable materials shall be removed as directed by the design engineer and replaced with approved clean sand.
- 2.) The contractor shall review drainage structure requirements with the design engineer prior to ordering materials.
- 3.) It is the responsibility of the contractor to place proposed structures in the required location as shown on the plans approved by the Chatham DPW.
- 4.) The contractor shall be responsible for proper compaction of fill placed around the leaching facilities and in all trenches to prevent settling of finished structures. Lift heights shall not exceed 8 in. and all fill shall be clean and free of contaminants.



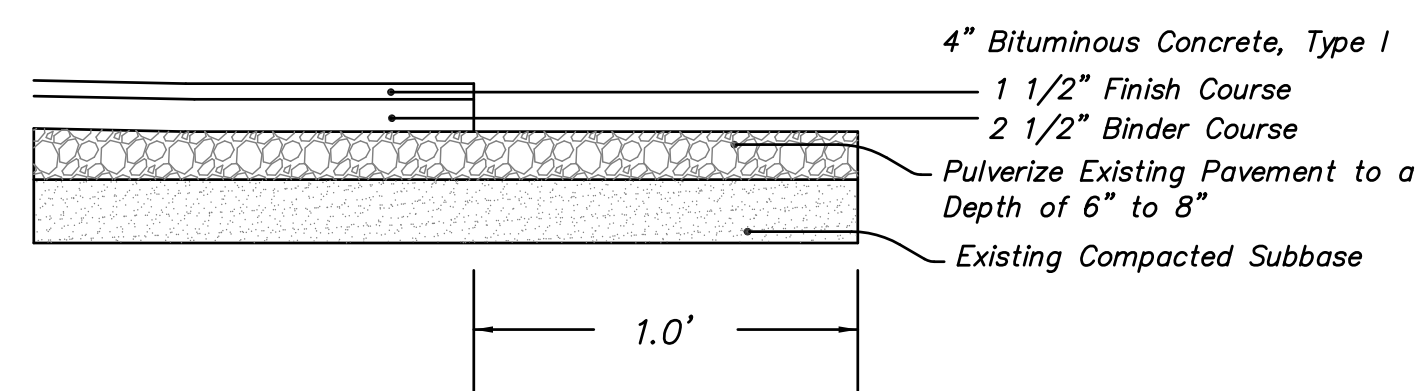
TYPICAL ROADWAY CROSS-SECTION WITH BERMS DETAIL

Not to Scale



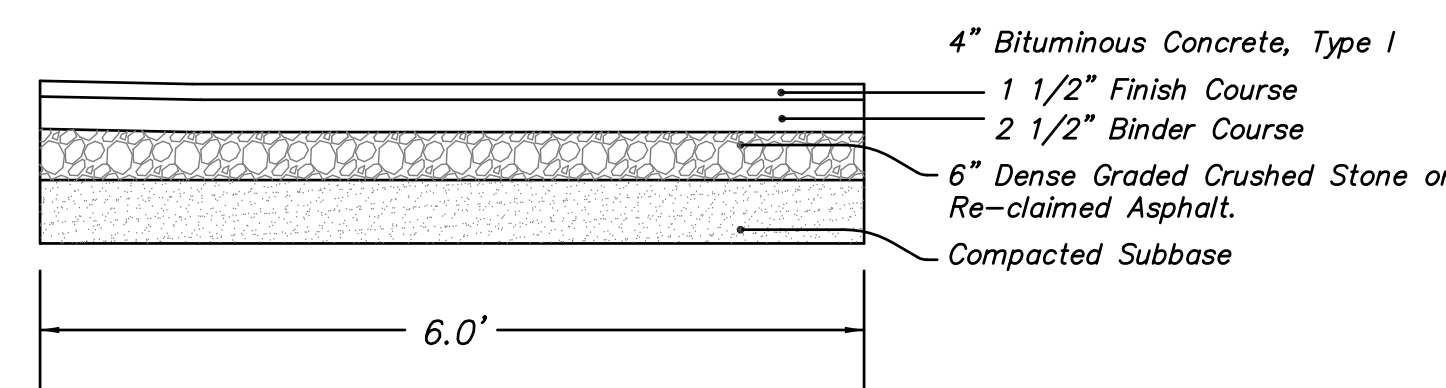
TYPICAL ROADWAY CROSS-SECTION WITHOUT BERMS DETAIL

Scale: 1" = 3'



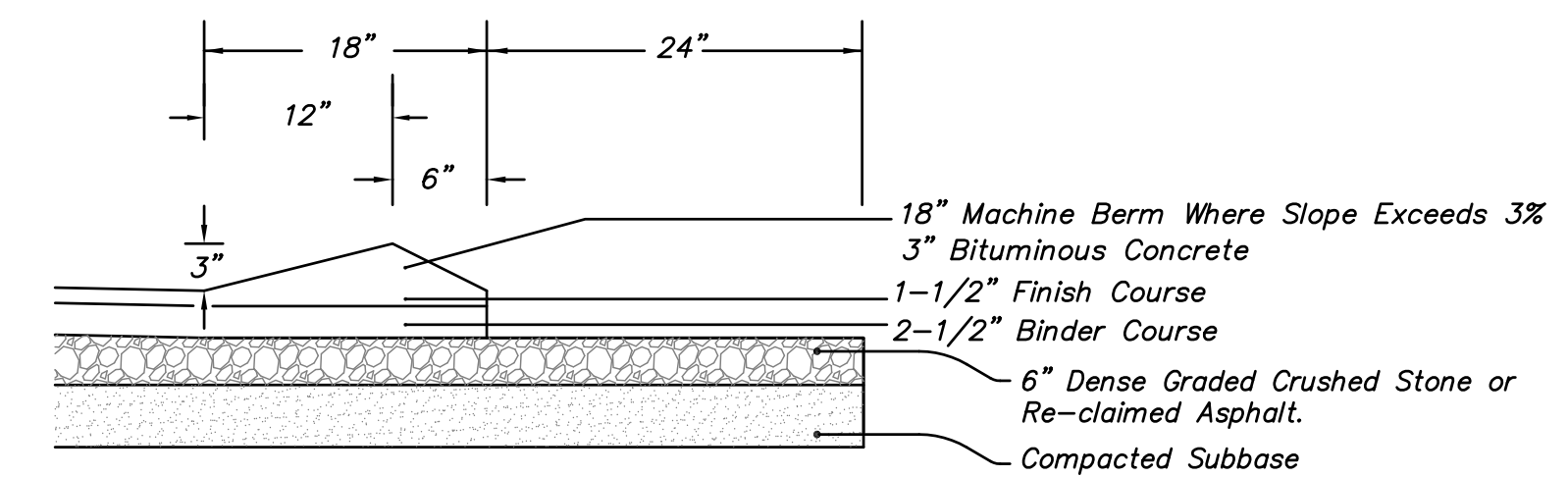
PAVING DETAIL

Not to Scale



SIDEWALK DETAIL

Not to Scale



BERM DETAIL

Typical Cross-Sections

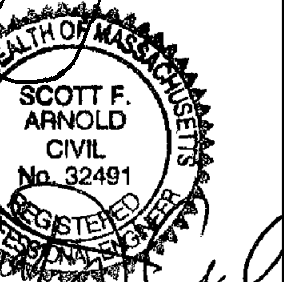
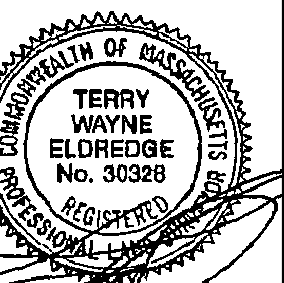
Rev. #	Description of Revision	Date

TOWN OF CHATHAM

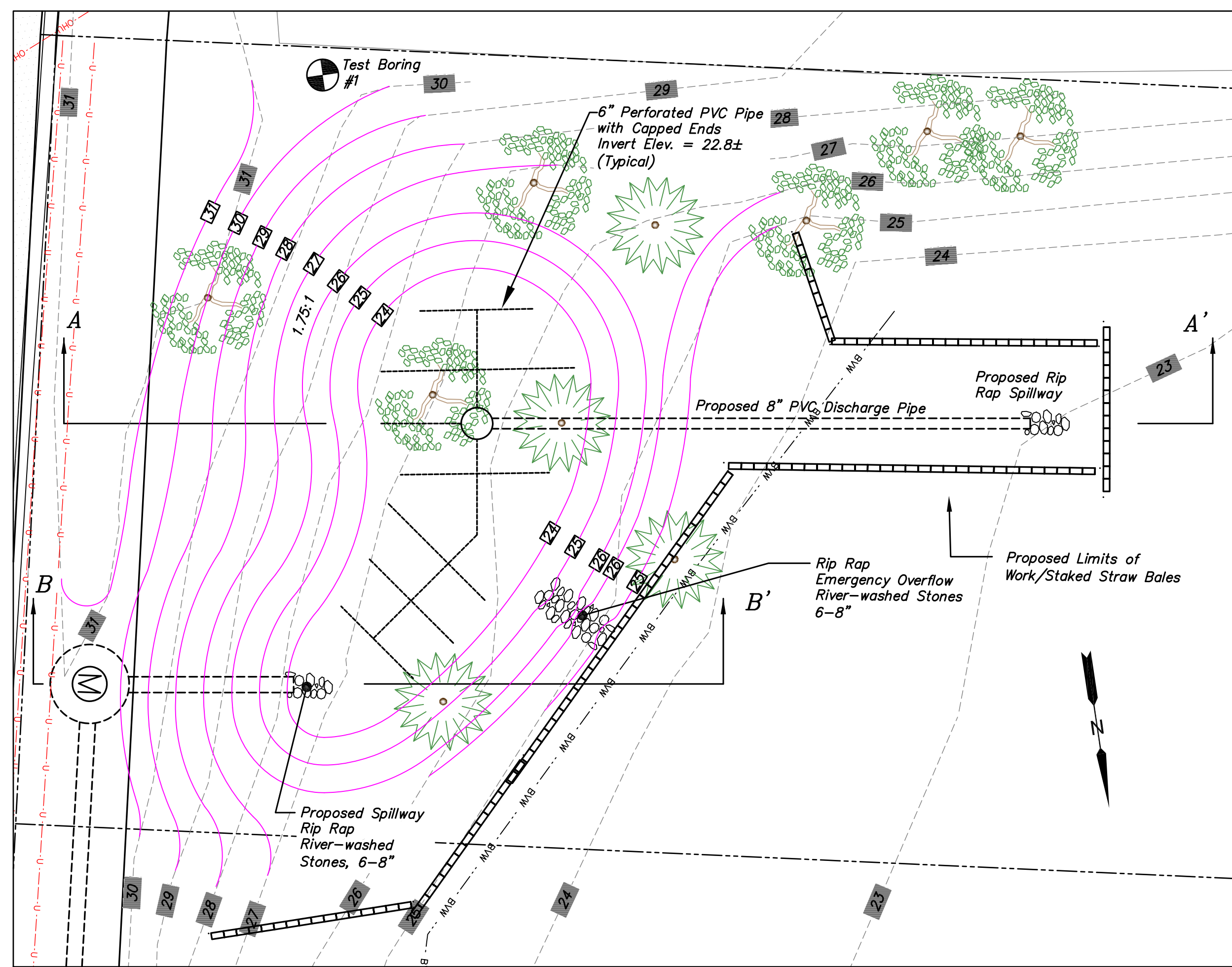
Old Queen Anne Road, Chatham, Massachusetts

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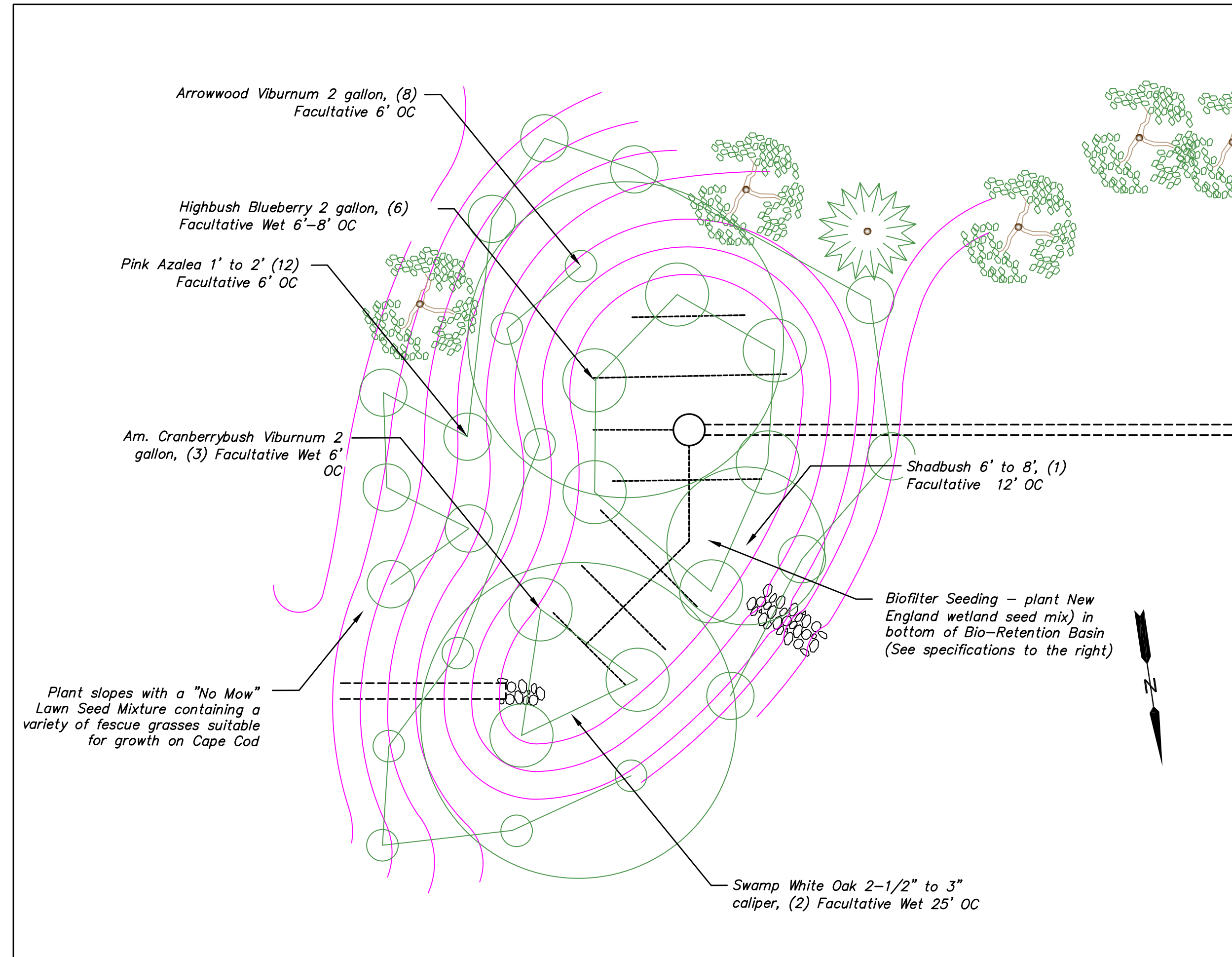


Date: 02-28-2014
 Scale: as noted
 Project No.: C-4000-27.0
 Sheet No.: SW-4 of 10



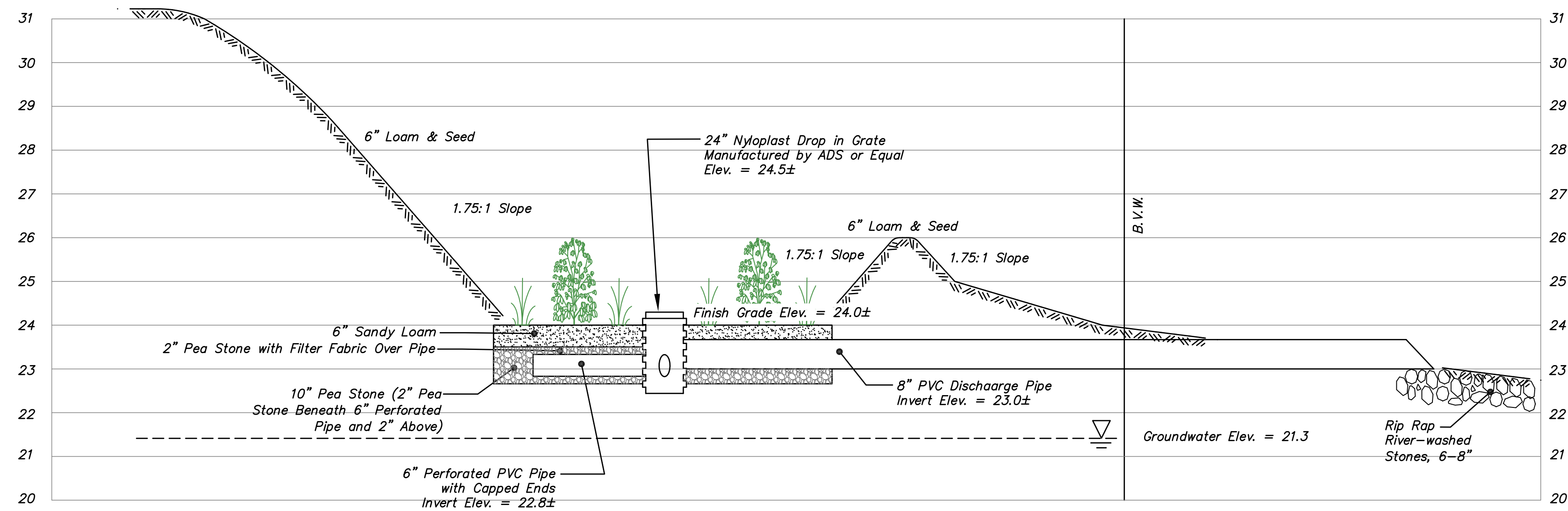
Bio-Retention Basin Plan View

Horizontal Scale: 1" = 6'



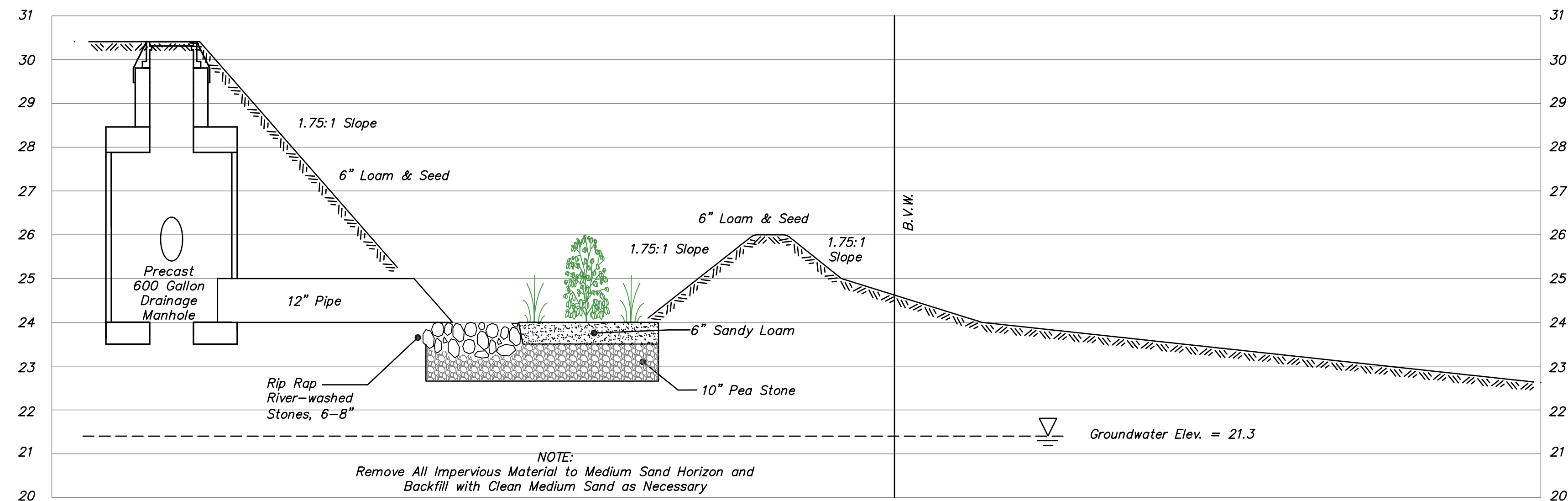
Bio-Retention Basin Planting Detail

Horizontal Scale: 1" = 6'



Bio-Retention Basin Cross Section A-A'

Horizontal Scale: 1" = 4'
Vertical Scale: 1" = 2'



Bio-Retention Basin Cross Section B-B'

Horizontal Scale: 1" = 4'
Vertical Scale: 1" = 2'

New England wetland seed mix contains a wide variety of native seeds that are suitable for most wetland restoration sites that are not permanently flooded. All species are best suited to moist ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The mix is well suited for detention basin borders and the bottom of detention basins not generally under standing water. The seeds will not germinate under inundated conditions. If planted during the fall months, the seed mix will germinate the following spring. During the first season of growth, several species will produce seeds while other species will produce seeds after the second growing season. Not all species will grow in all wetland situations. This mix is comprised of the wetland species most likely to grow in created/restored wetlands and should produce more than 75% ground cover in two full growing seasons.

The wetland seeds in this mix can be sown by hand, with a hand-held spreader, or hydro-seeded on large or hard to reach sites. Lightly rake to insure good seed-to-soil contact. Seeding can take place on frozen soil, as the freezing and thawing weather of late fall and late winter will work the seed into the soil. If spring conditions are drier than usual watering may be required. If sowing during the summer months supplemental watering will likely be required until germination. A light mulch of clean, weed free straw is recommended. APPLICATION RATE: 1 LB/2500 sq. ft.

SPECIES: Fox Sedge, (*Carex vulpinoidea*), Lurid Sedge, (*Carex lurida*), Blunt Broom Sedge, (*Carex scoparia*), Sensitive Fern, (*Onoclea sensibilis*), Blue Vervain, (*Verbena hastata*), Hop Sedge, (*Carex lupulina*), Green Bulrush, (*Scirpus atrovirens*), Nodding Bur Marigold, (*Bidens cer-nua*), Bristly Sedge, (*Carex comosa*), Fringed Sedge, (*Carex crinita*), American Mannagrass, (*Glyceria grandis*), Wool Grass, (*Scirpus cyperinus*), Soft Rush, (*Juncus effusus*), Spotted Joe Pye Weed, (*Eupatorium maculatum*), Boneset, (*Eupatorium perfoliatum*), Mud Plantain, (*Alisma subcordatum*), New England Aster, (*Aster novae-angliae*), Rattlesnake Grass, (*Glyceria canadensis*), Purplestem aster (*Aster puniceus*), Soft Stem Bulrush, (*Scirpus validus*), Blueflag (*Iris versicolor*), Swamp Milkweed, (*Asclepias incarnata*), Monkey Flower, (*Mimulus ringens*). The functionality of each mix will remain unchanged, although mix composition may vary during the year.

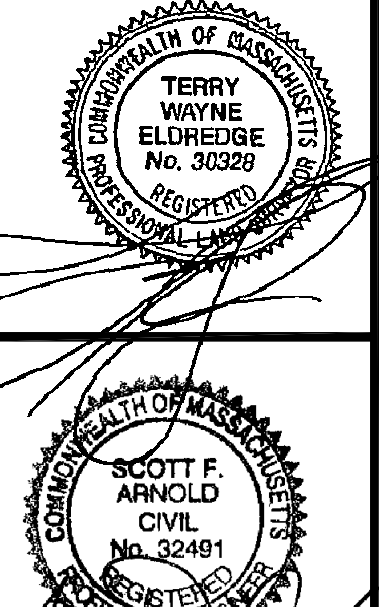
Test Boring Results - Test Boring # 1		
Depth (Feet)	Materials	Elevation
0		30.8
5	Fill	25.8
15	Medium Sand	15.8
17	Clay	13.8
18	Medium Sand	12.8
9.5	Groundwater	21.3

Bio-Retention Basin Detail

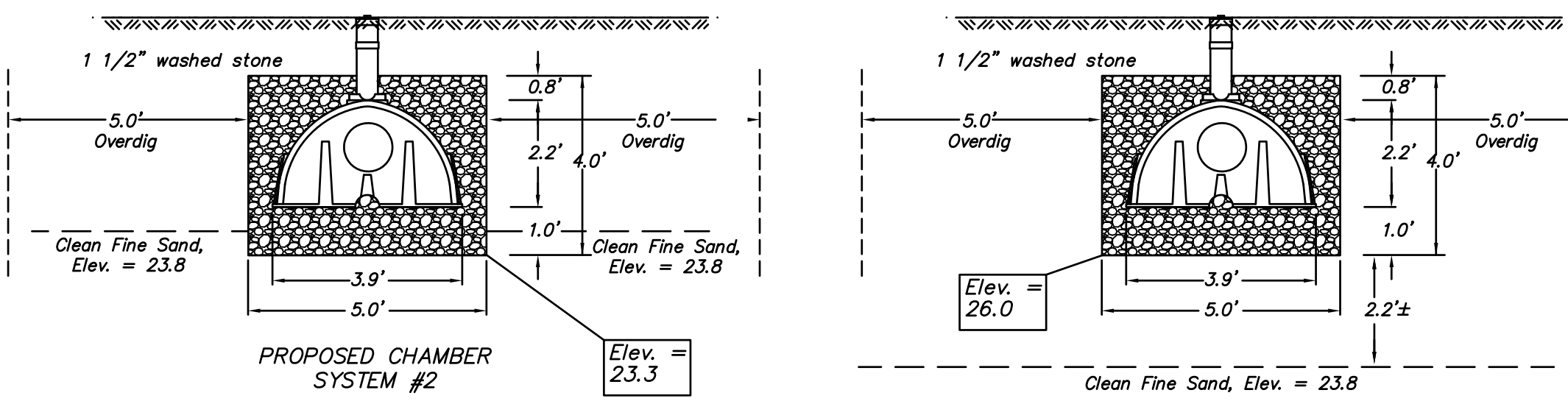
TOWN OF CHATHAM
Old Queen Anne Road, Chatham, Massachusetts

ELDRIDGE SURVEYING & ENGINEERING, LLC

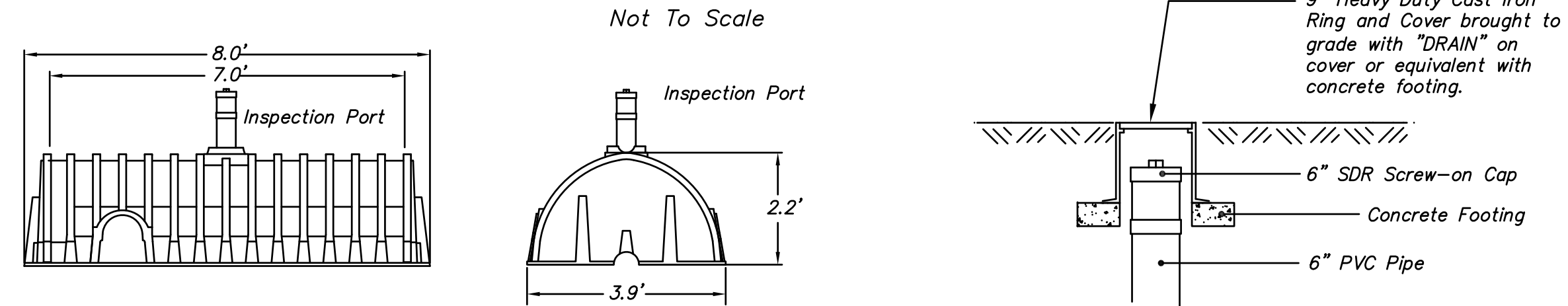
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Date: 02-28-2014
Scale: as noted
Project No.: C-4000-27.0
Sheet No.: SW-5 of 10

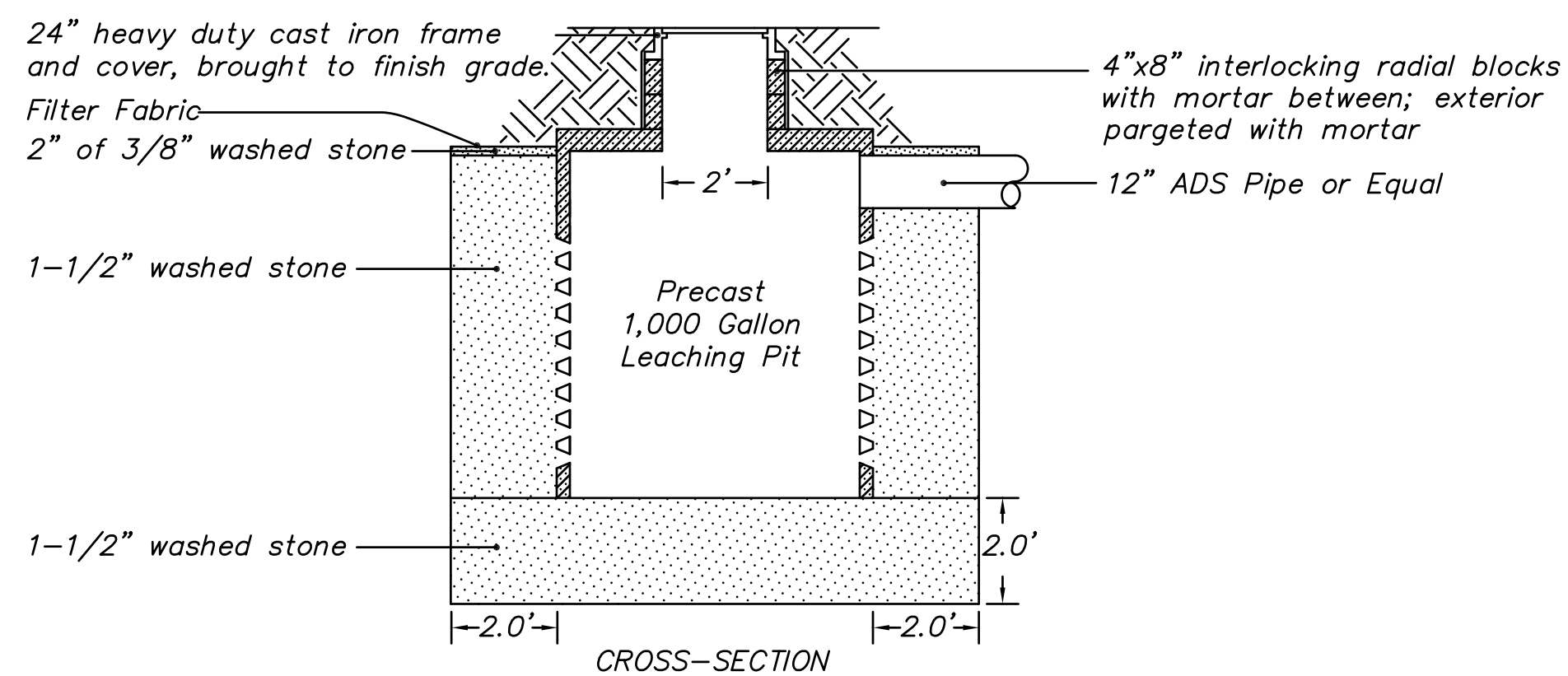


Chamber Cross-Sections

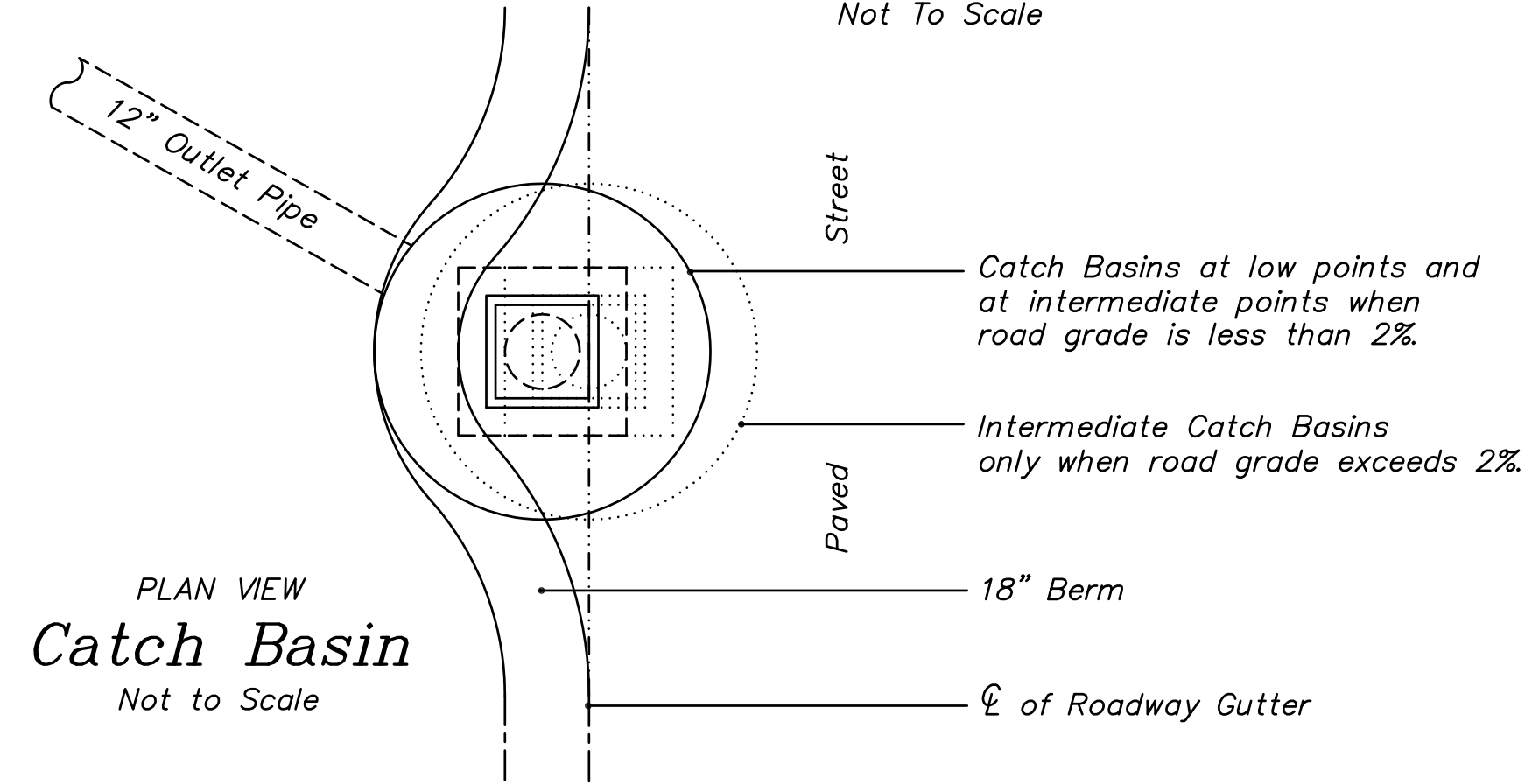


Typical Detail of Chamber Unit

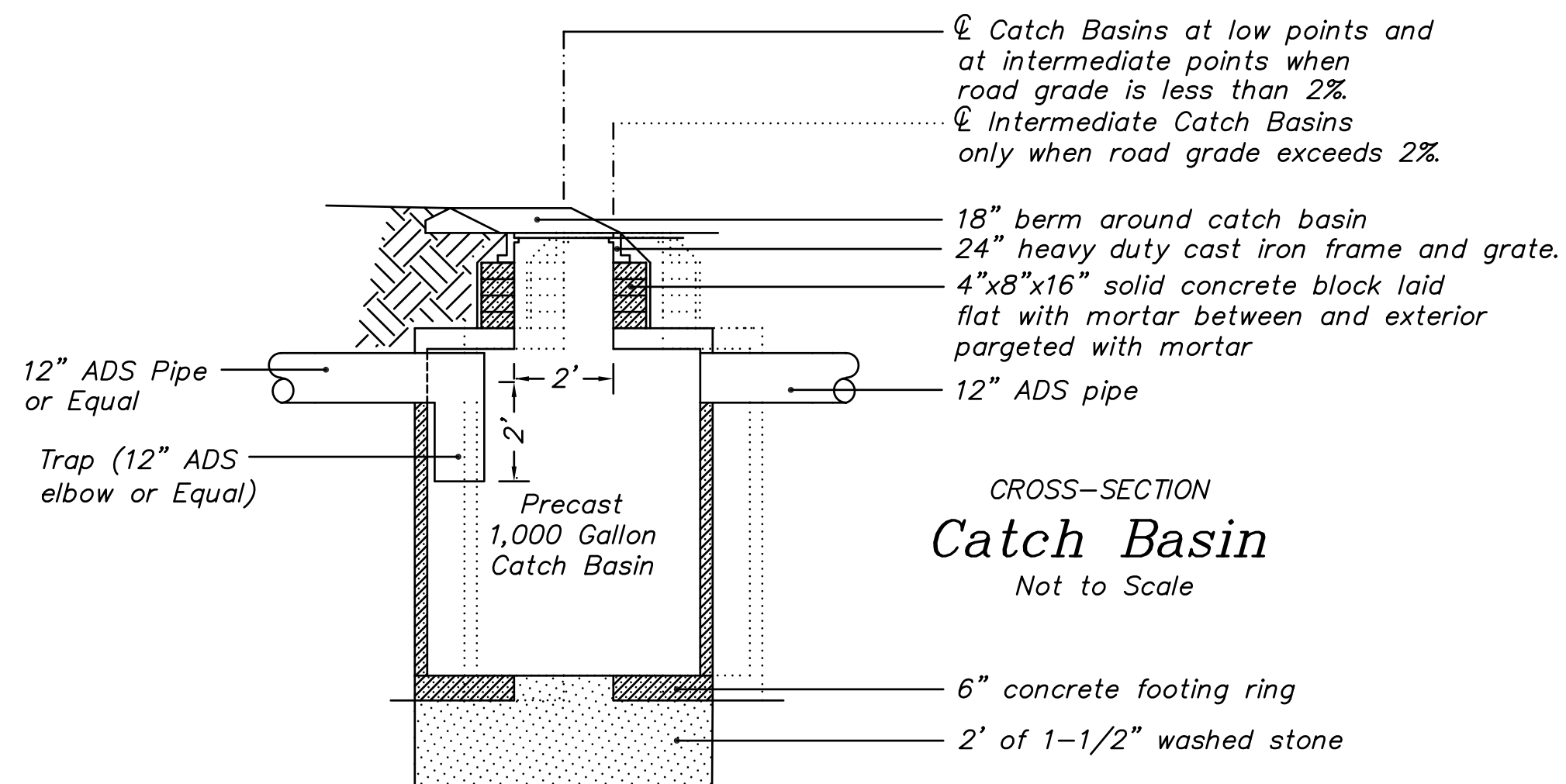
Typical Detail of Chamber Unit Inspection Port



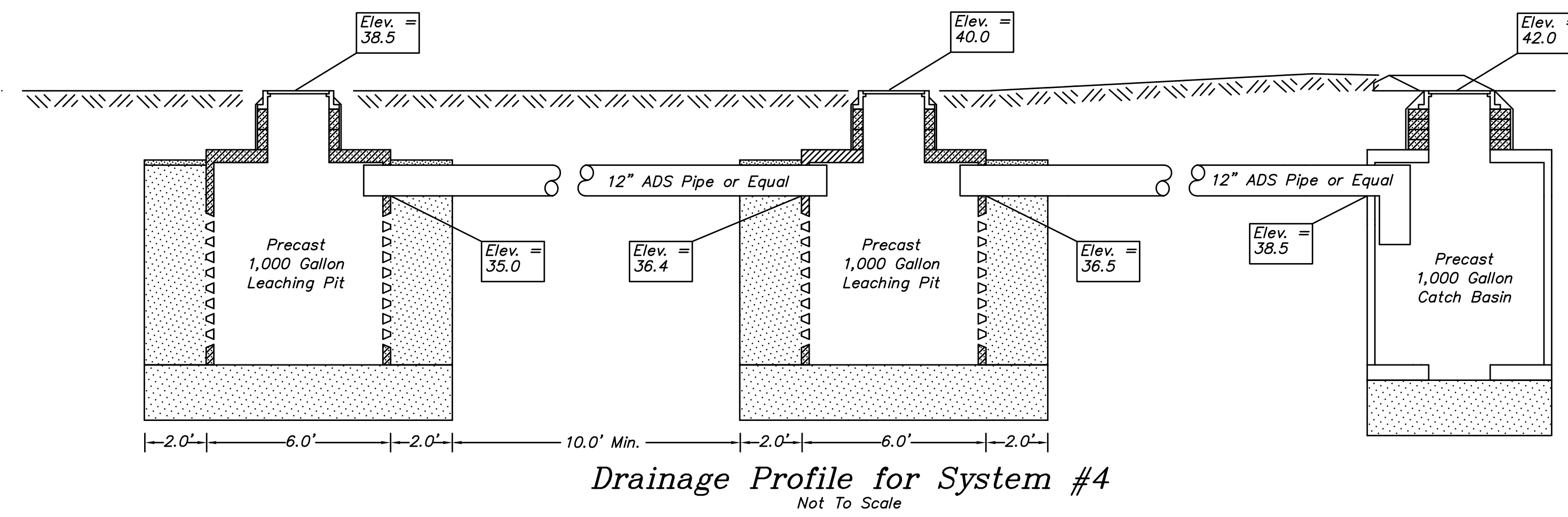
Typical Detail of 6' Leaching Pit



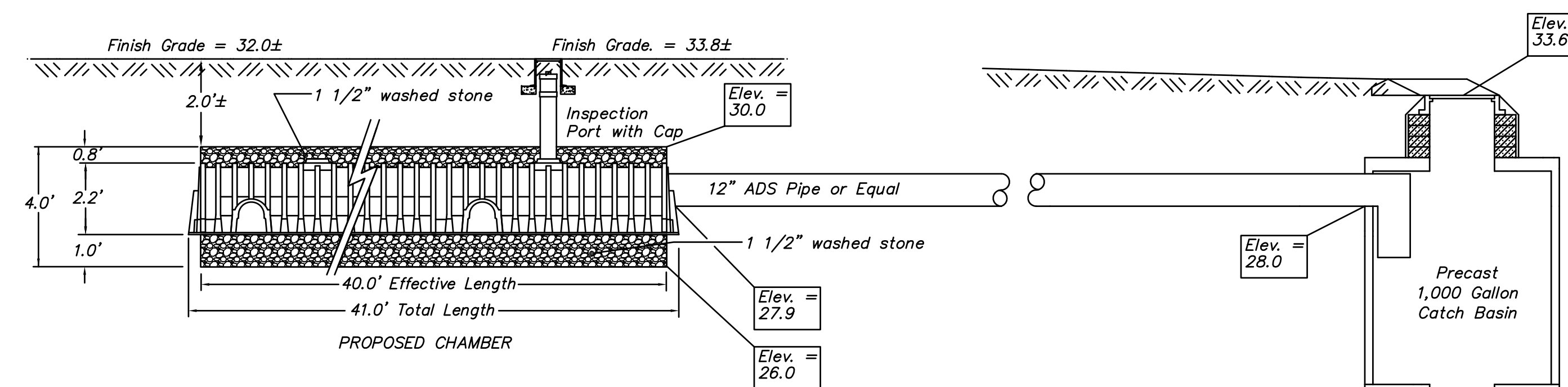
Plan View Catch Basin



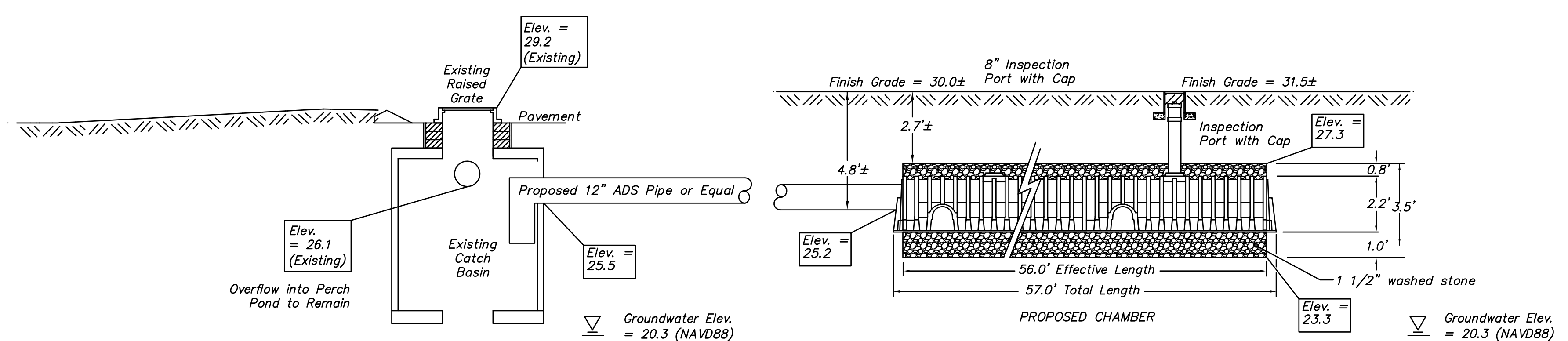
Cross-Section Catch Basin



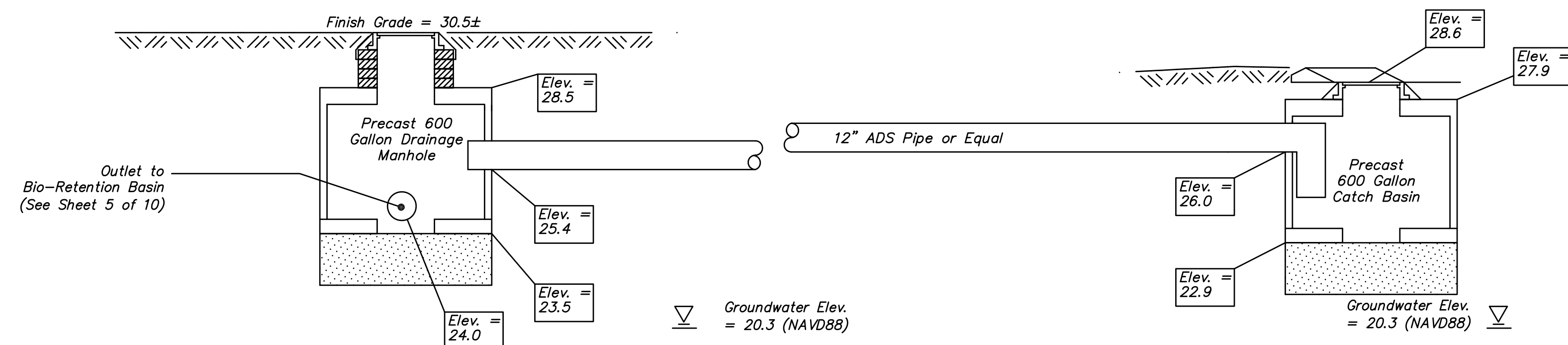
Drainage Profile for System #4



Drainage Profile for System #3



Drainage Profile for System #2



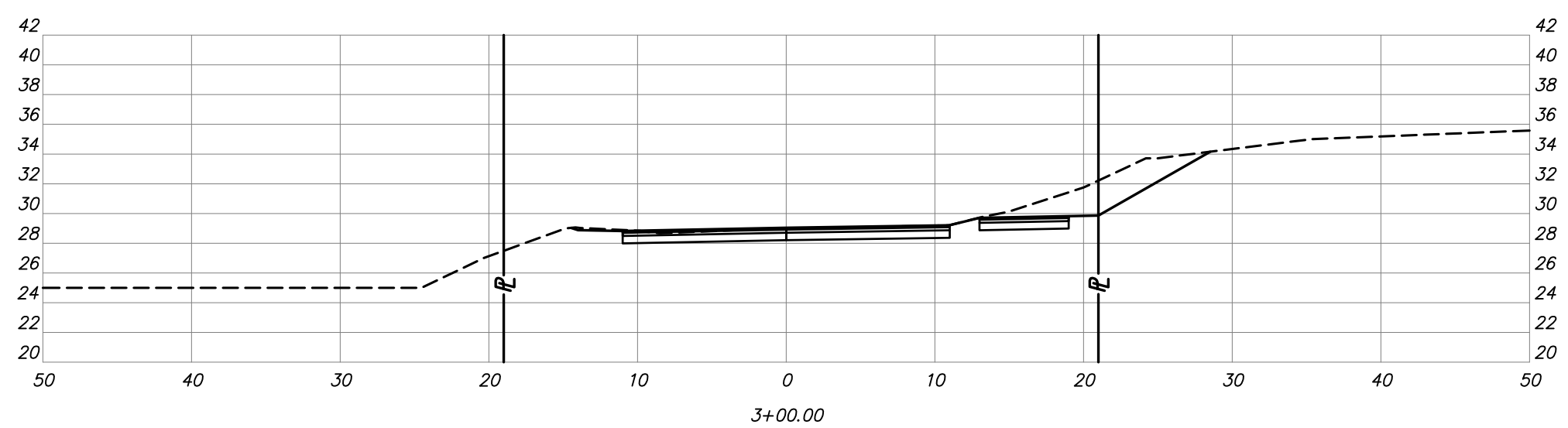
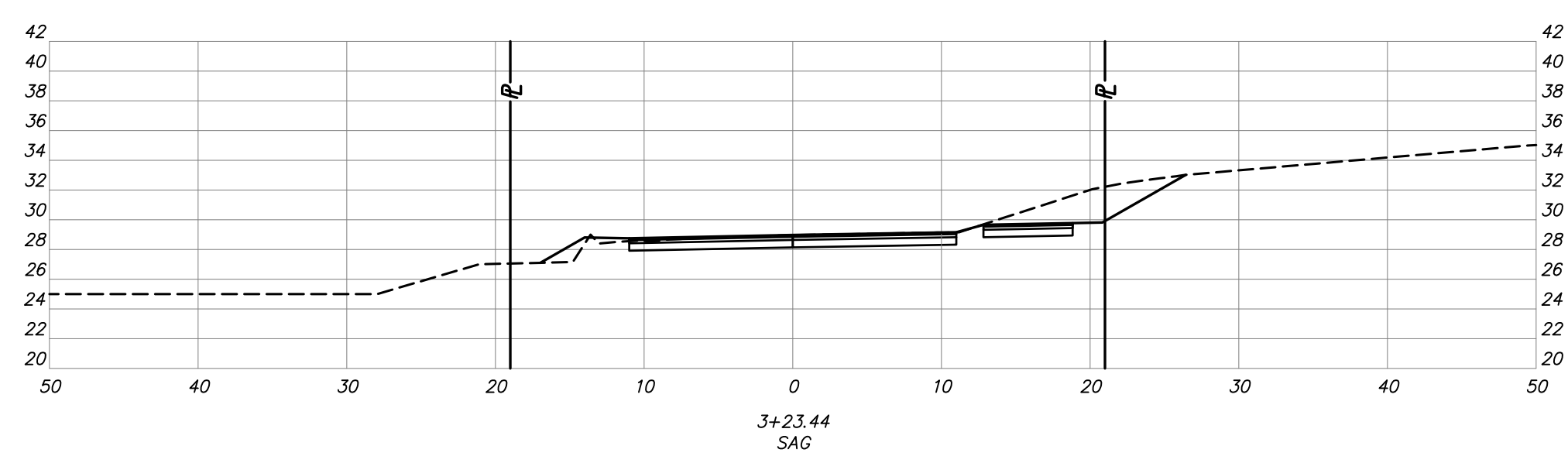
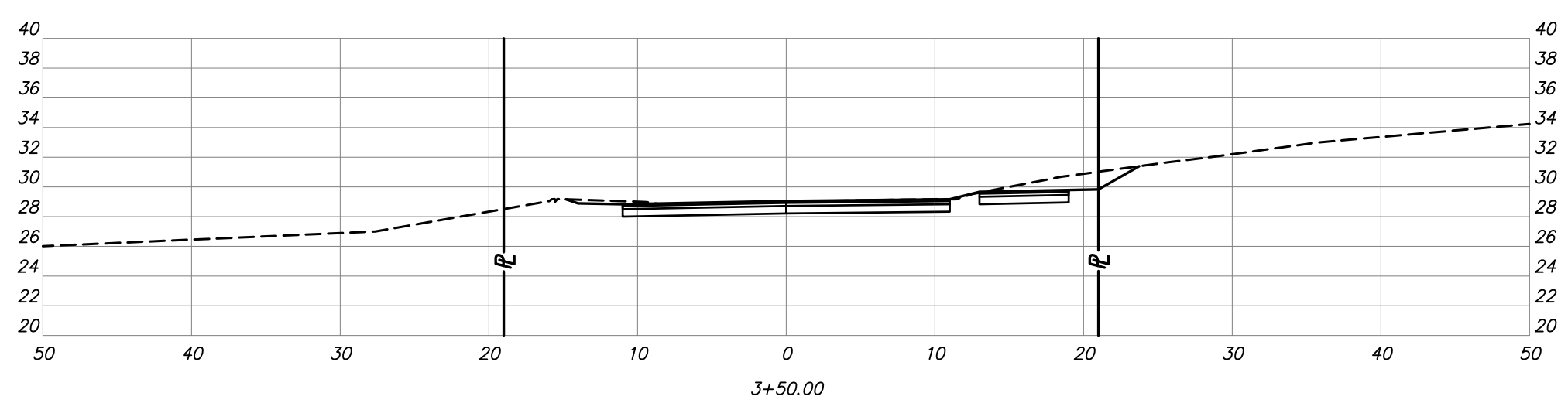
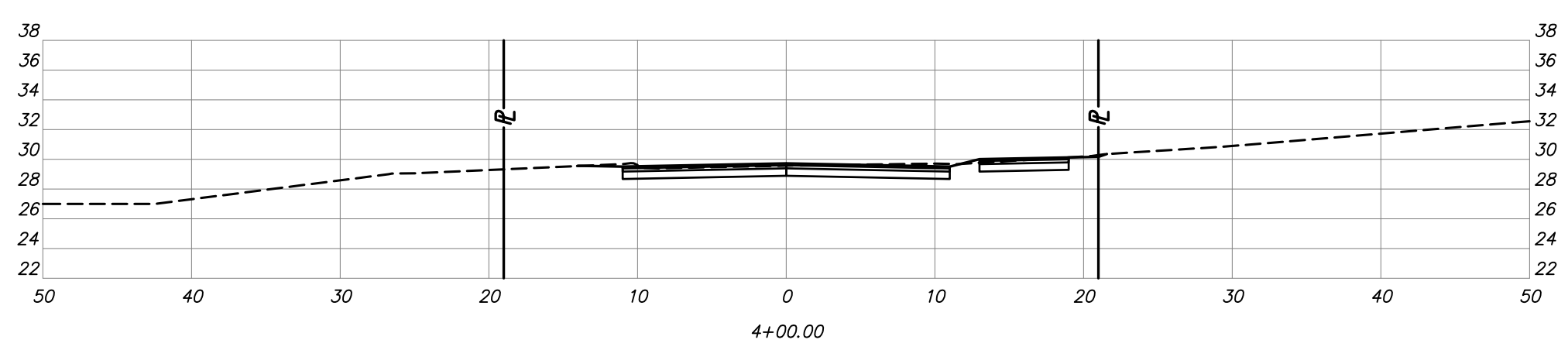
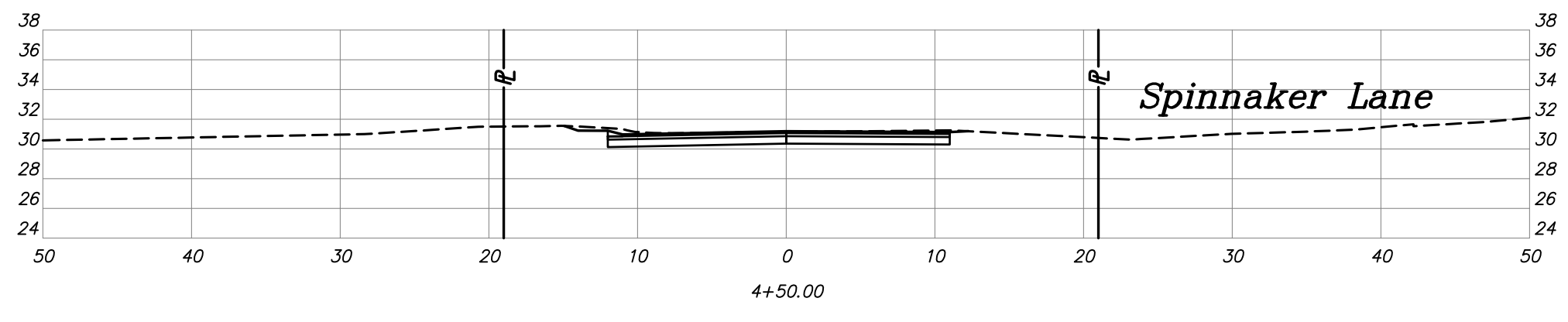
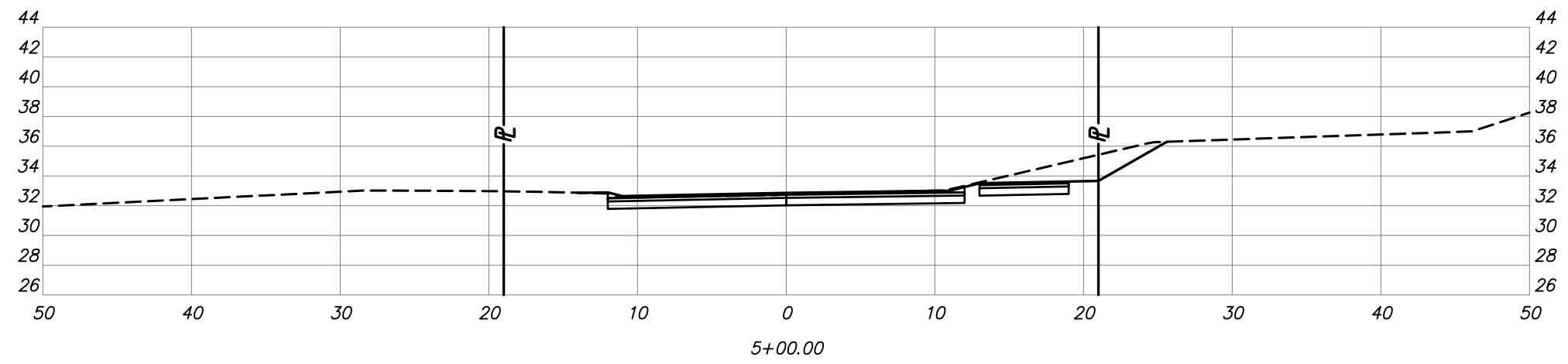
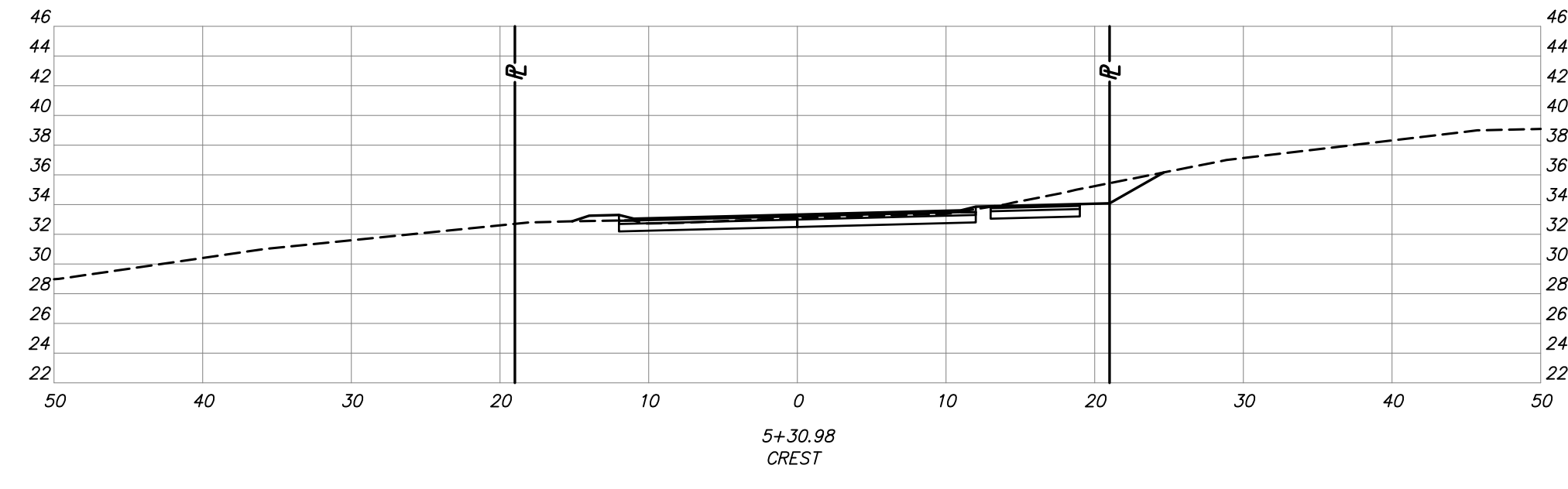
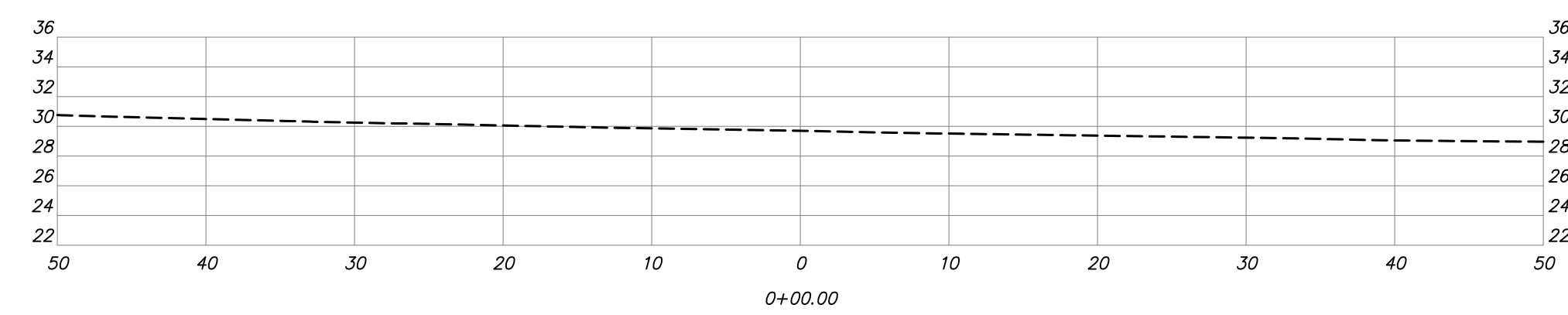
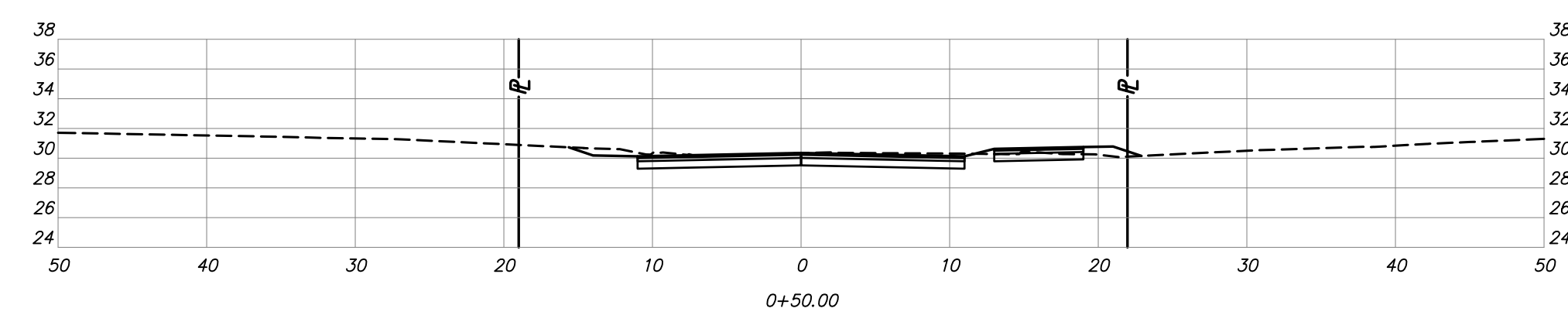
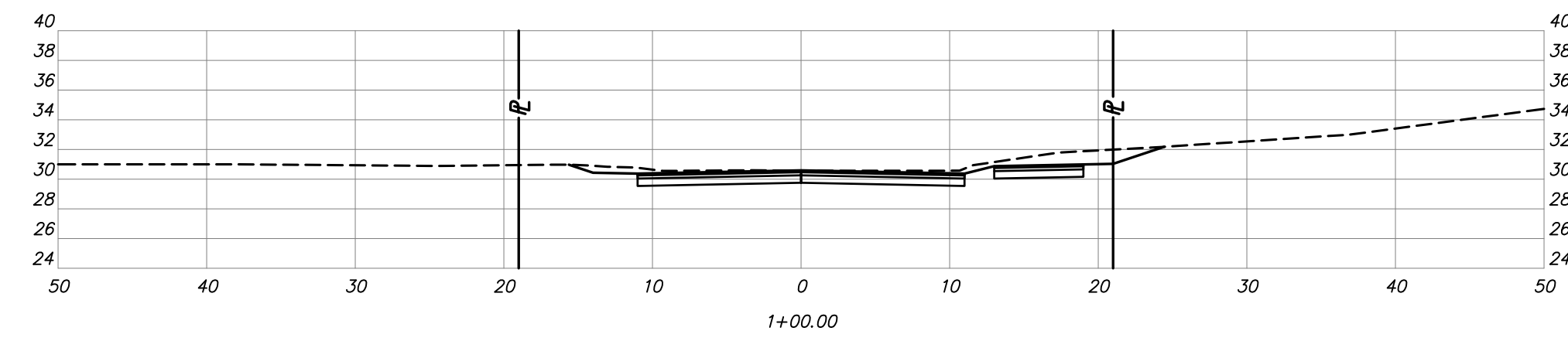
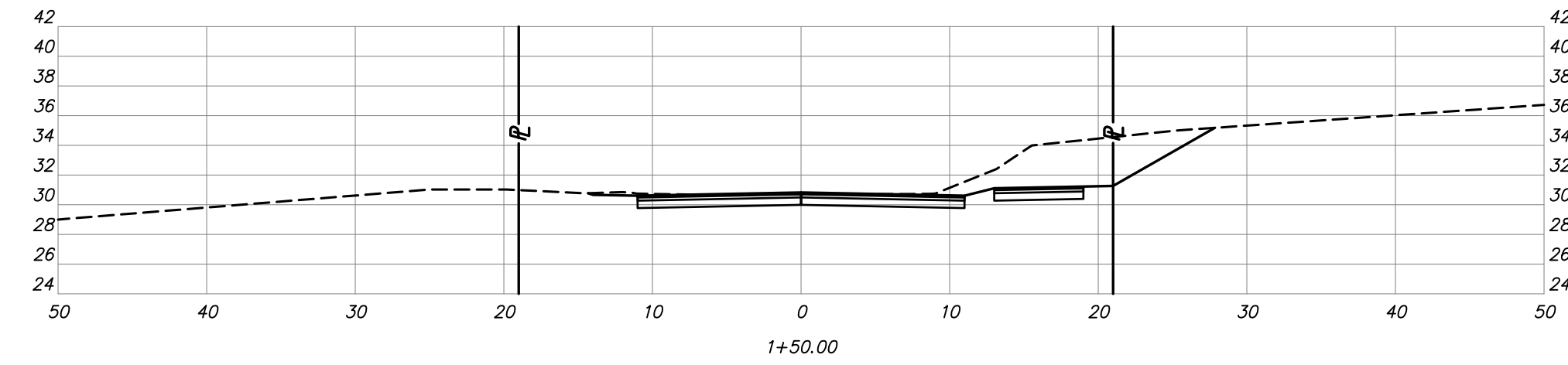
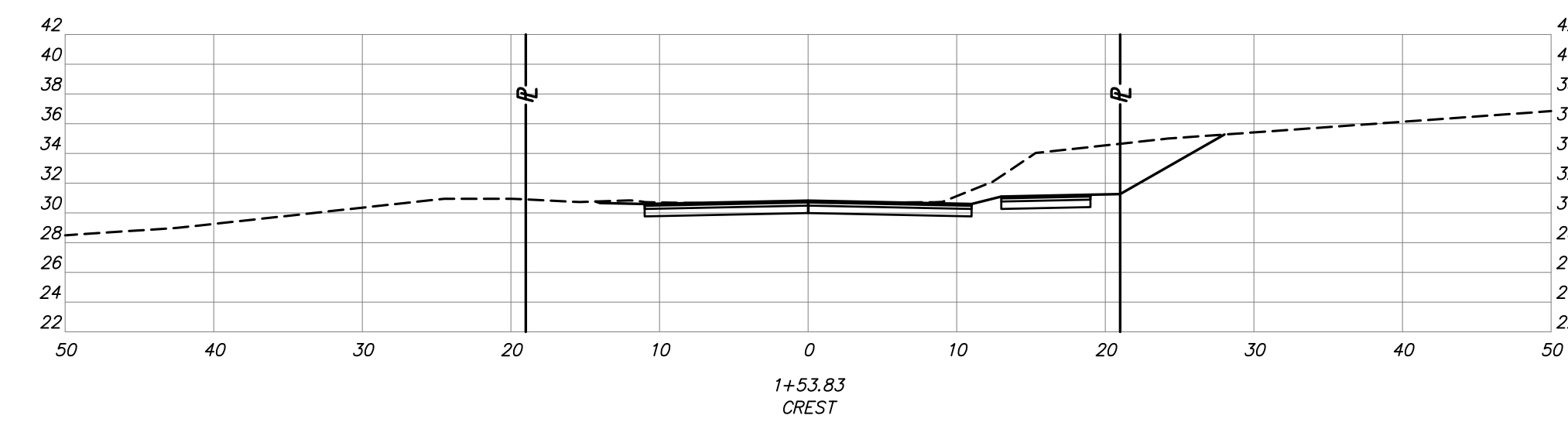
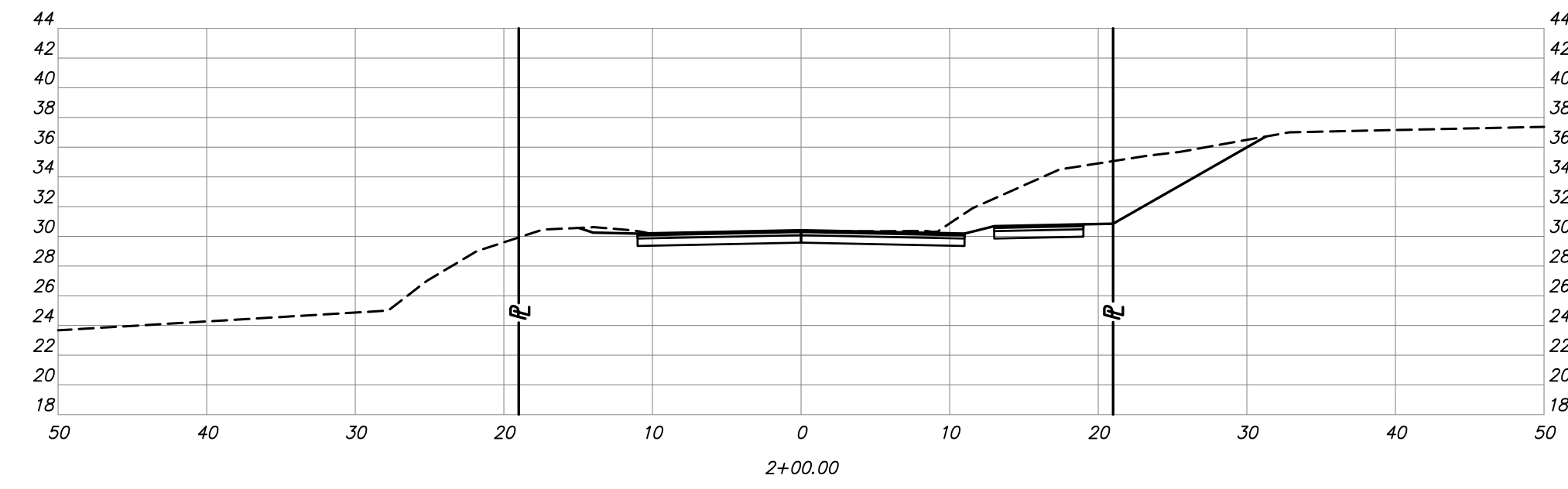
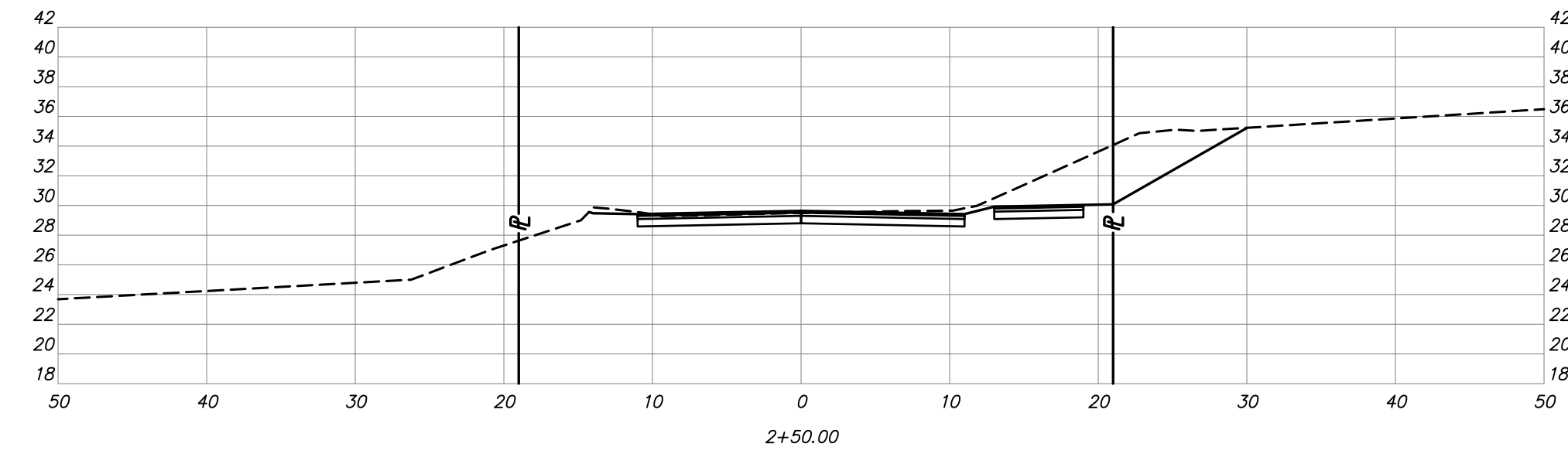
Drainage Profile for System #1

Drainage Profiles & Typical Details

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Old Queen Anne Road, Chatham, Massachusetts

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Project No.: C-4000-27.0
Sheet No.: SW-6 of 10



Cross-Section
 Horizontal Scale: 1" = 10'
 Vertical Scale: 1" = 10'

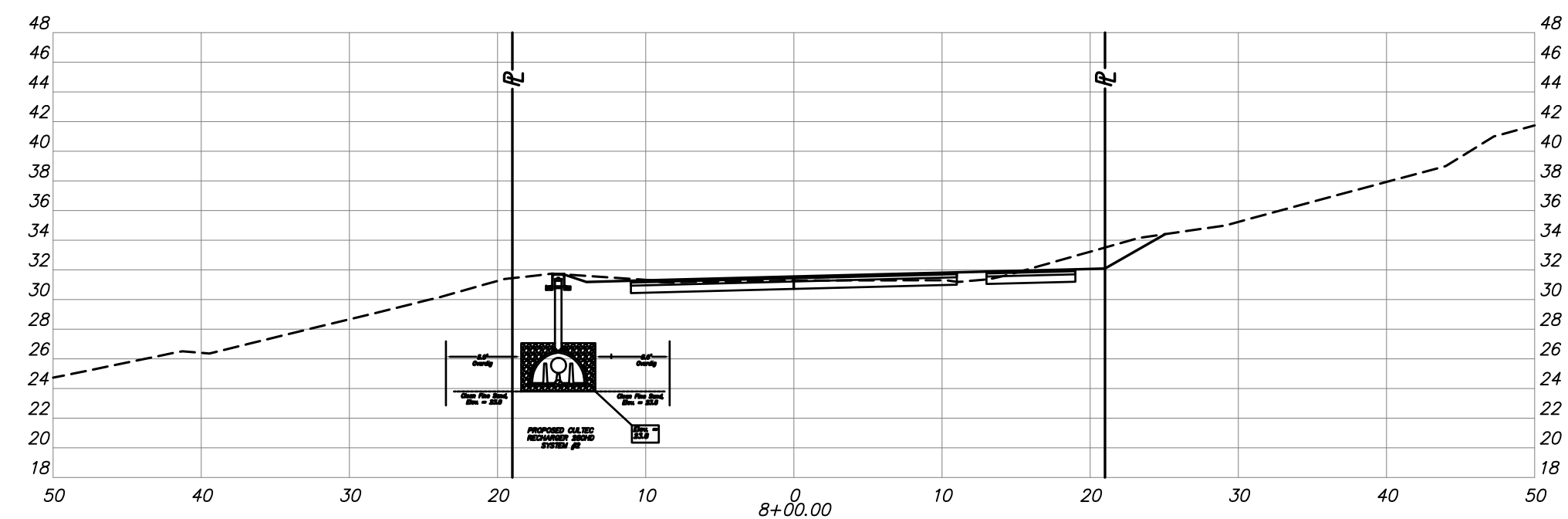
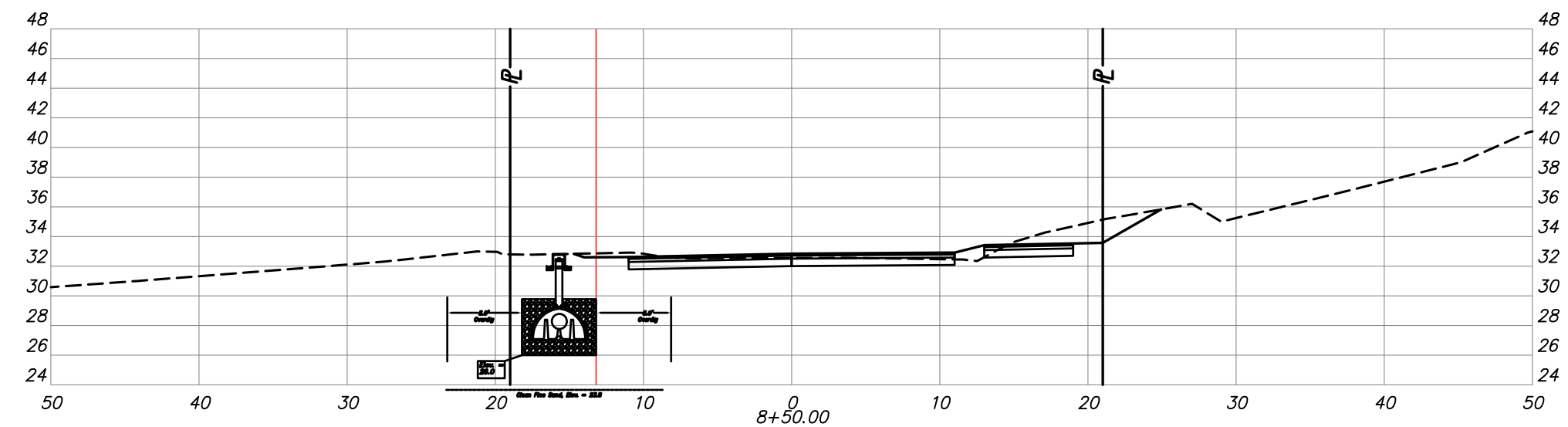
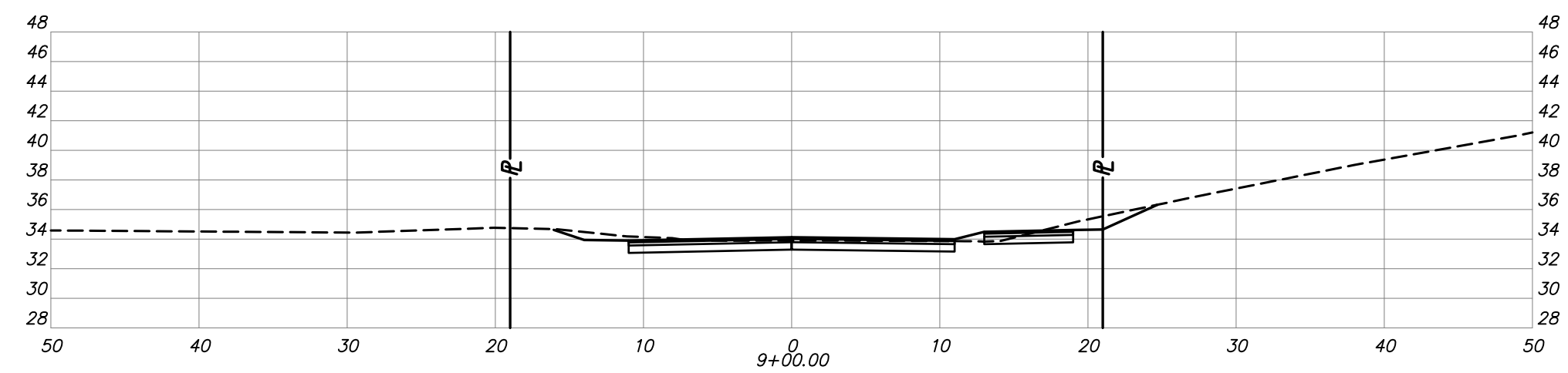
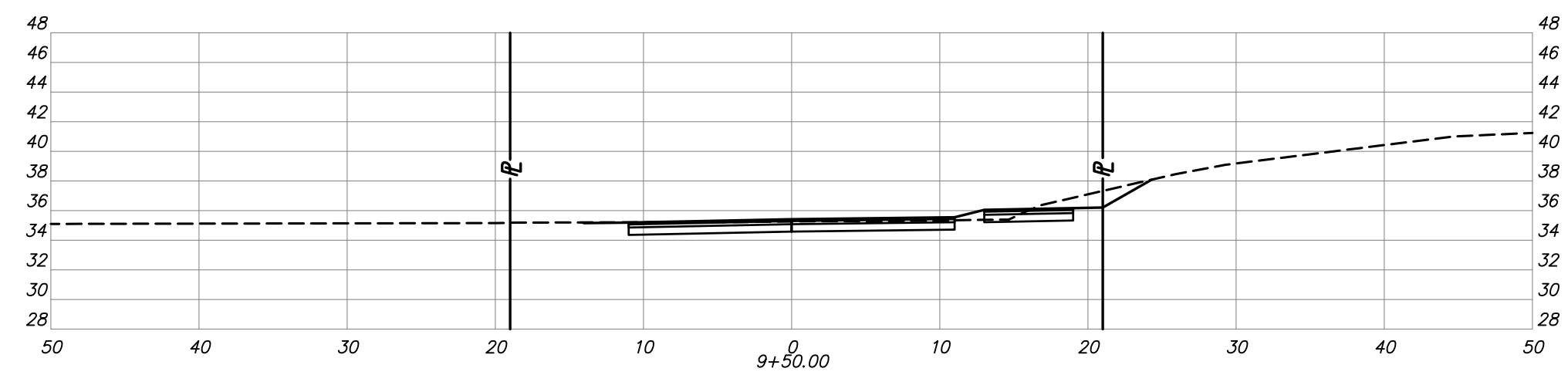
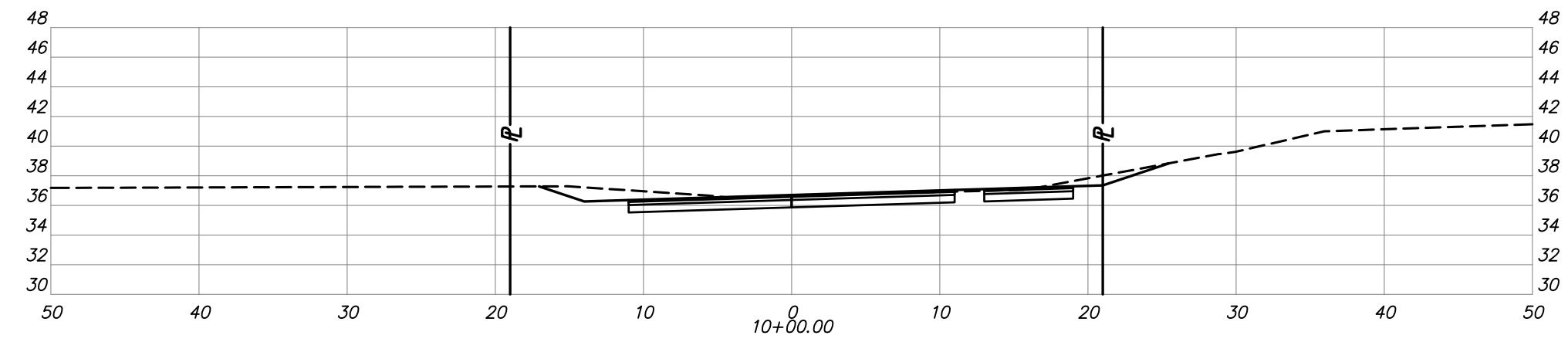
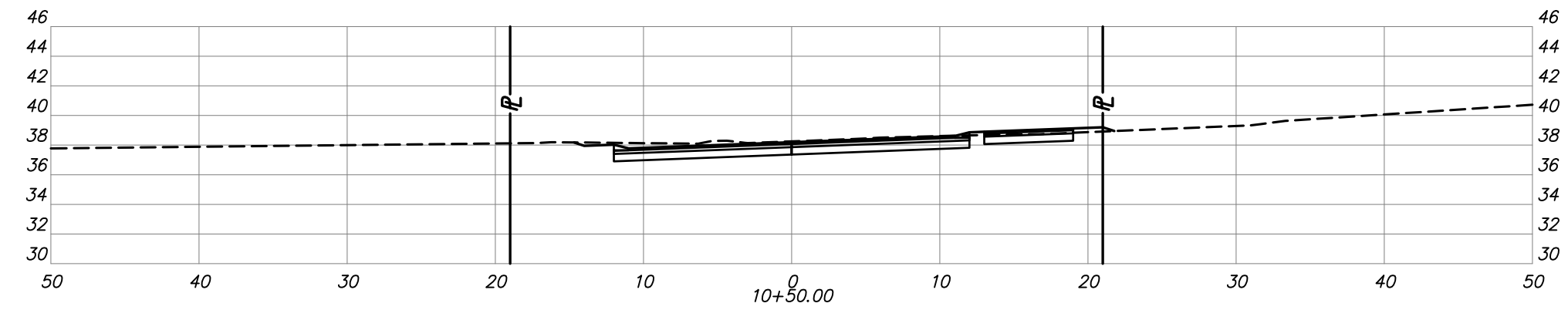
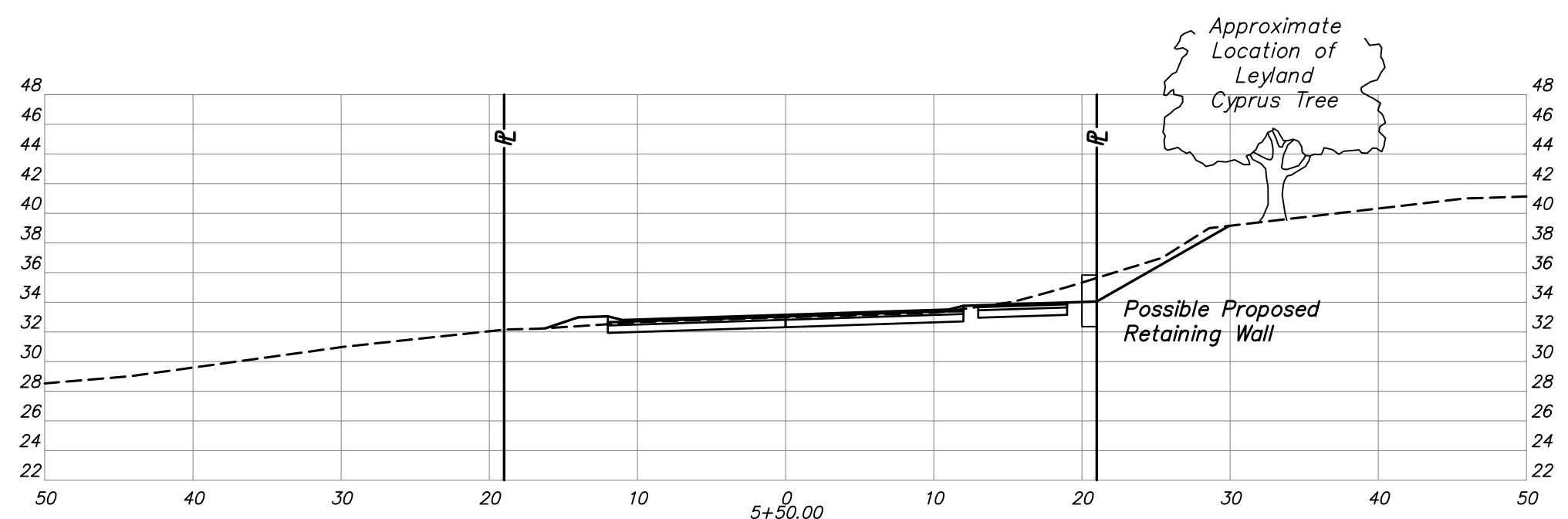
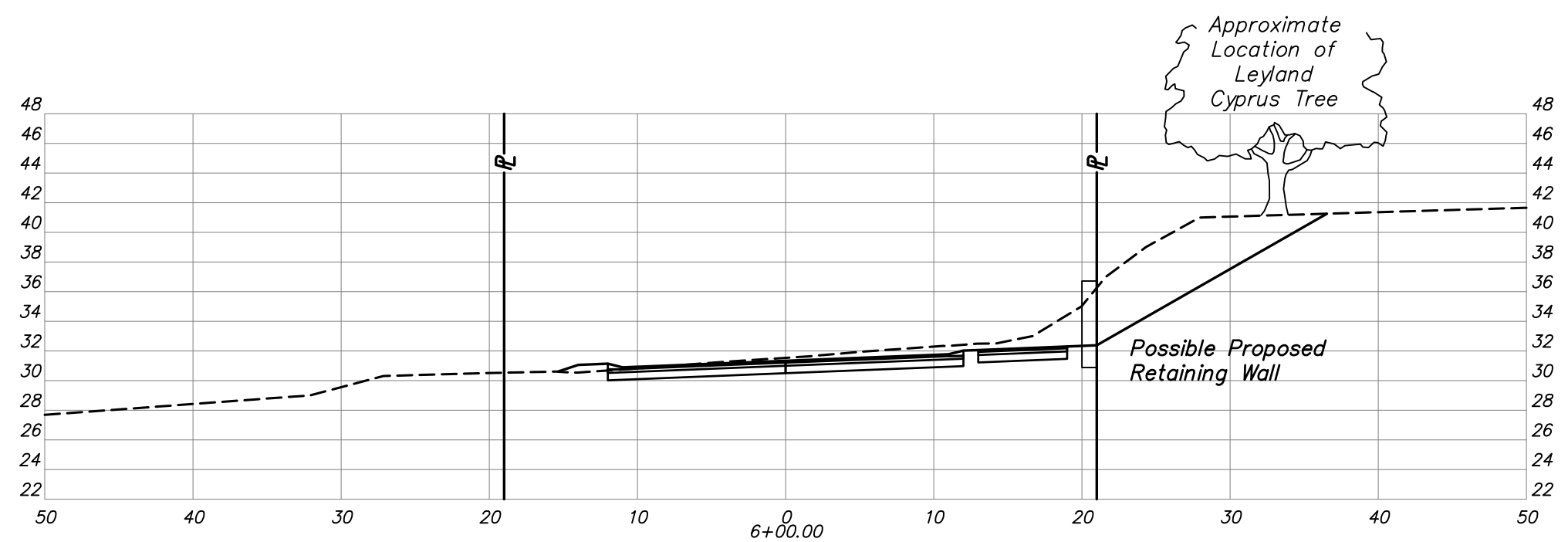
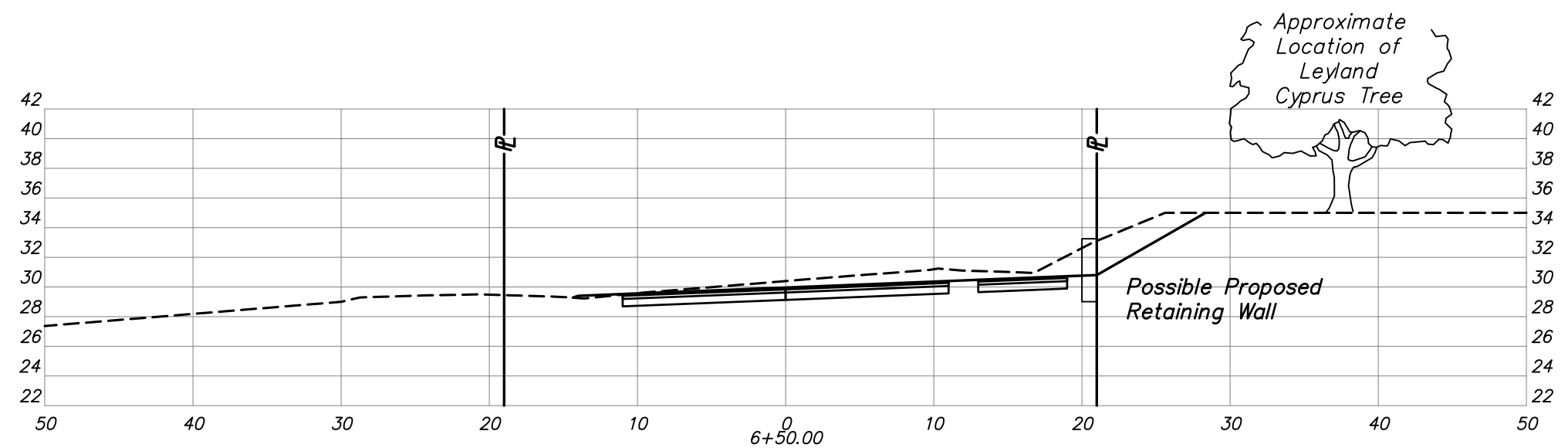
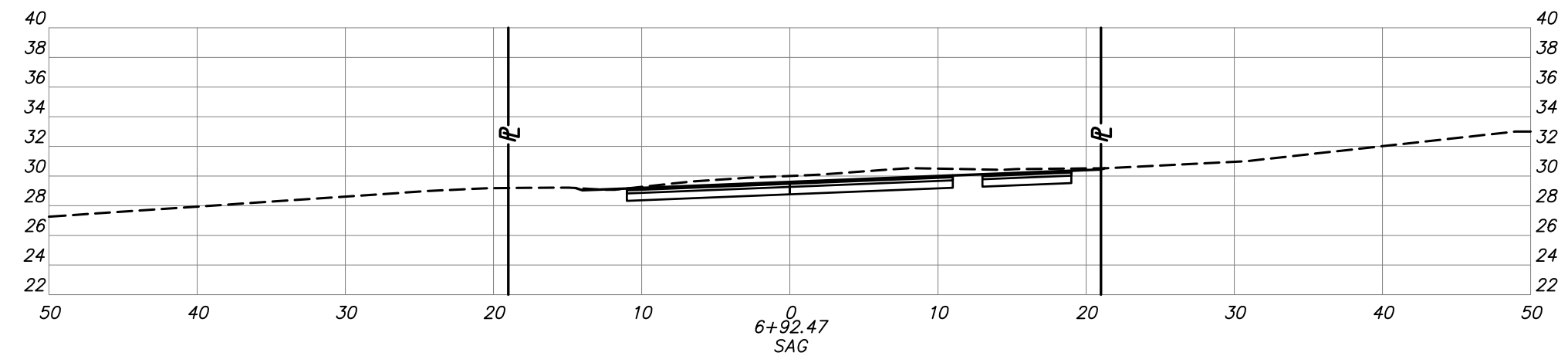
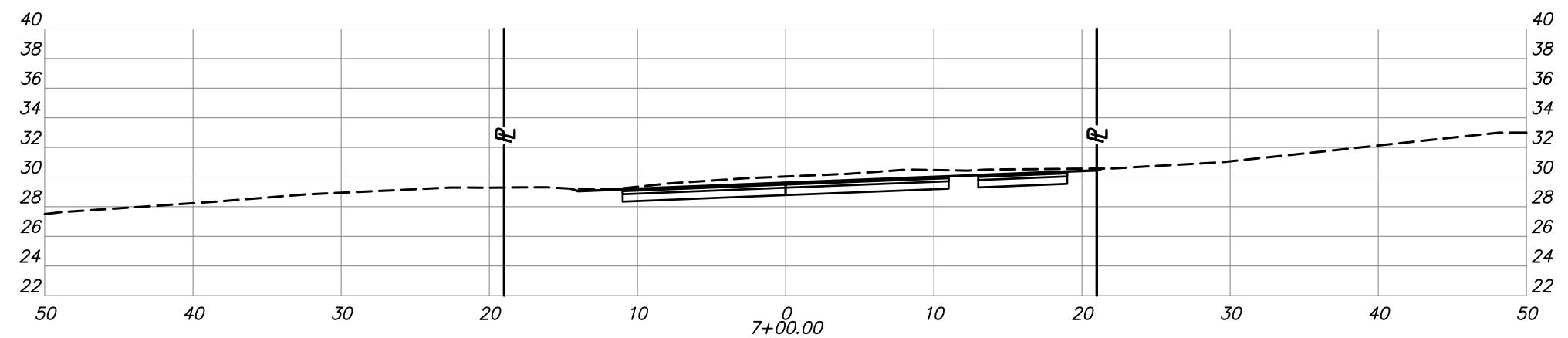
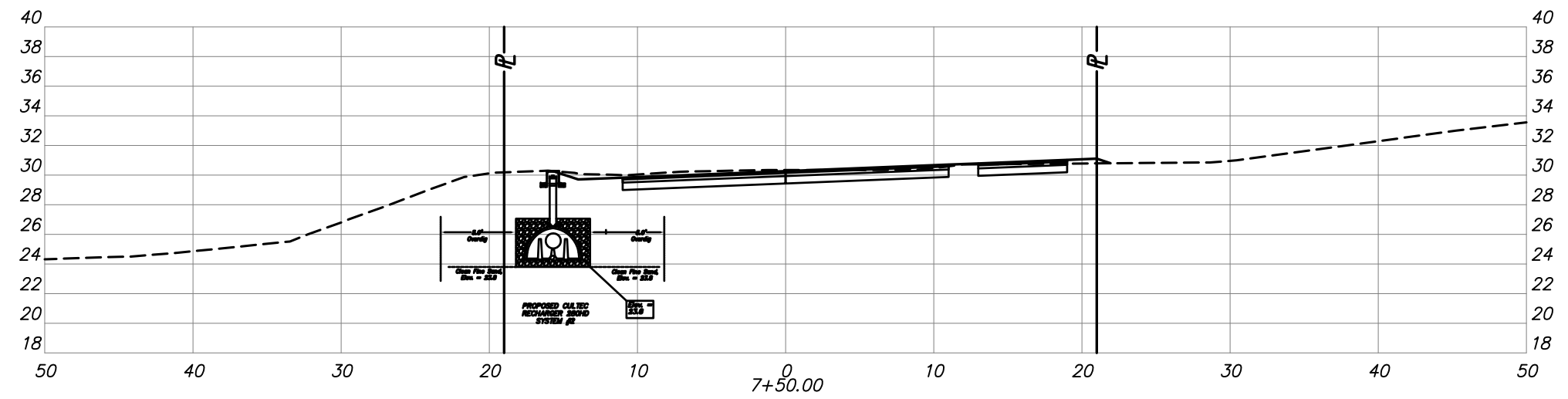
Cross-Sections

Rev. #	Description of Revision	Date

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Date: 02-28-2014
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 Sheet No.: 7 of 10



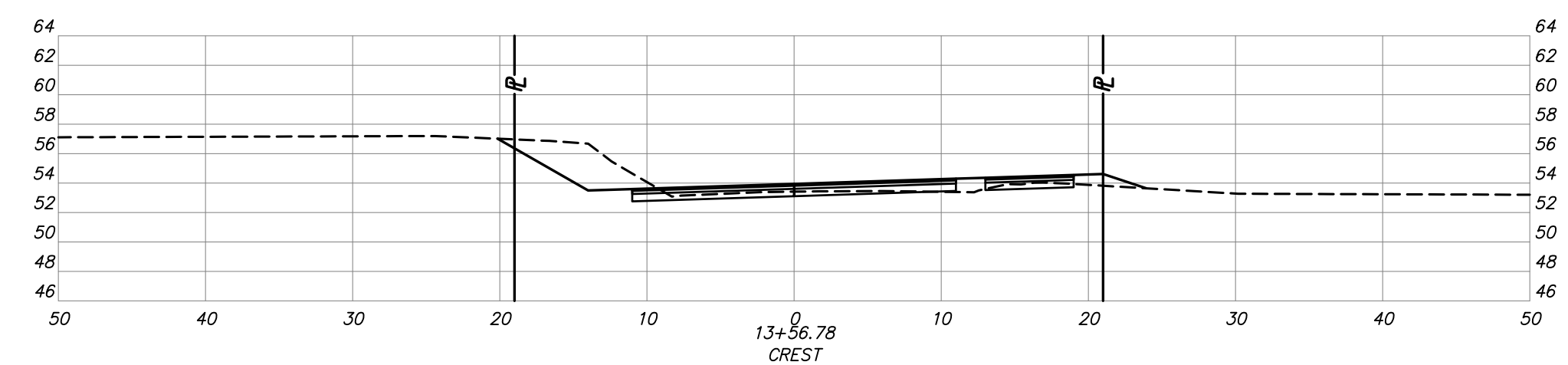
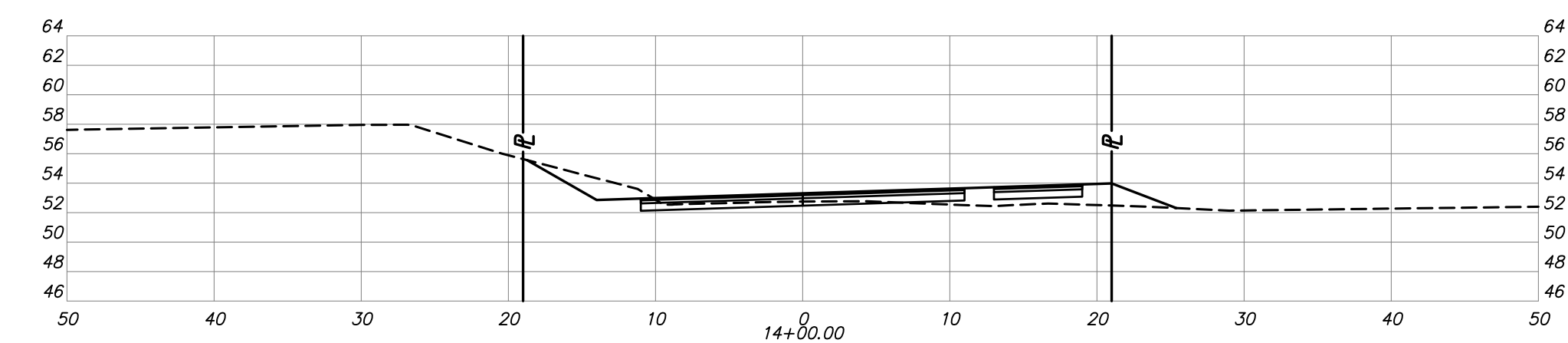
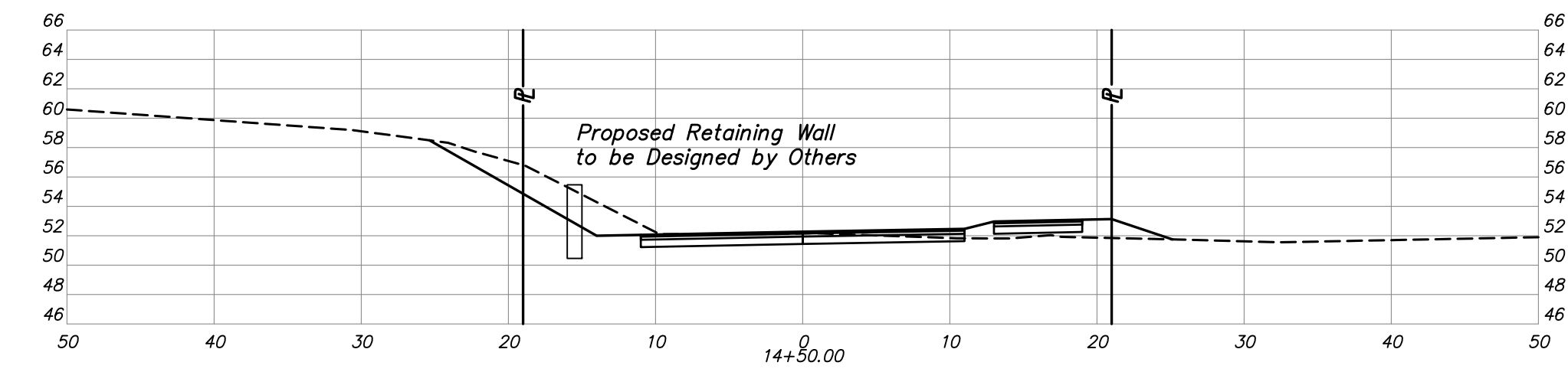
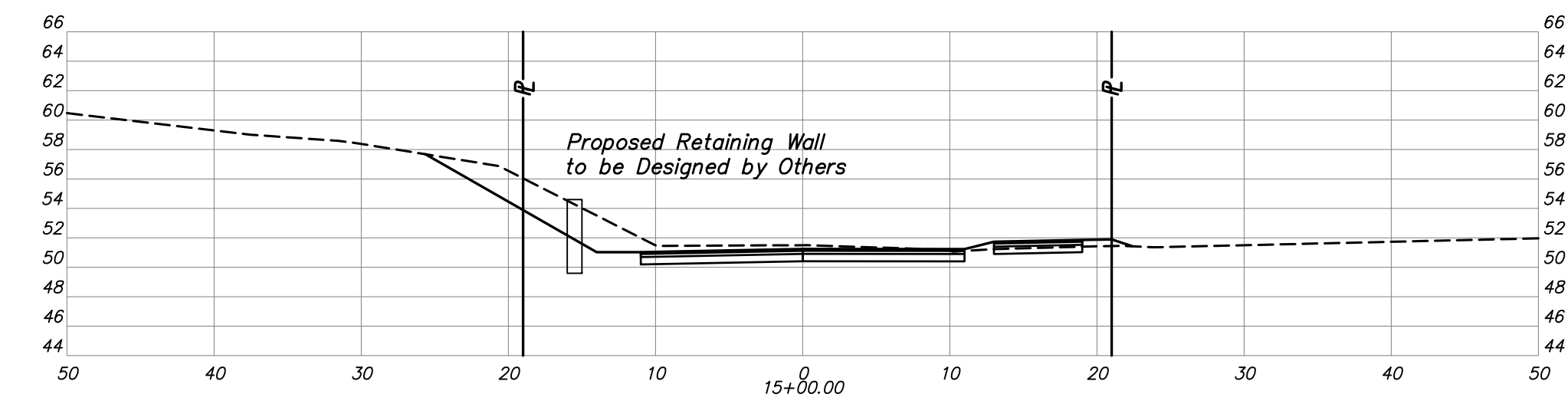
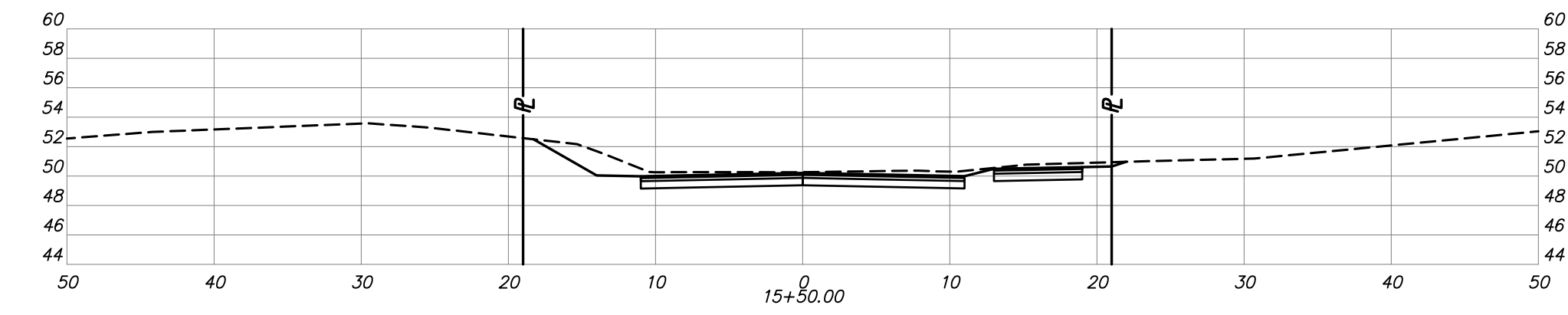
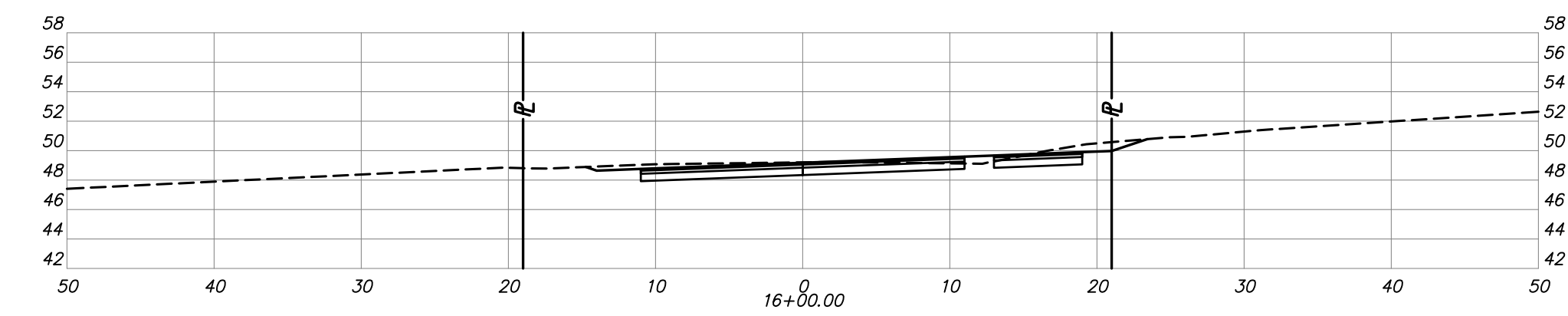
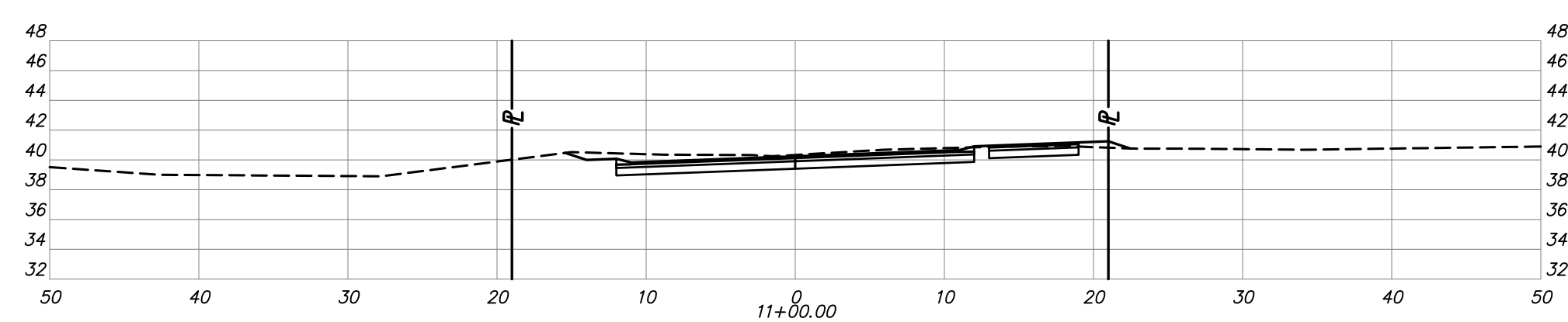
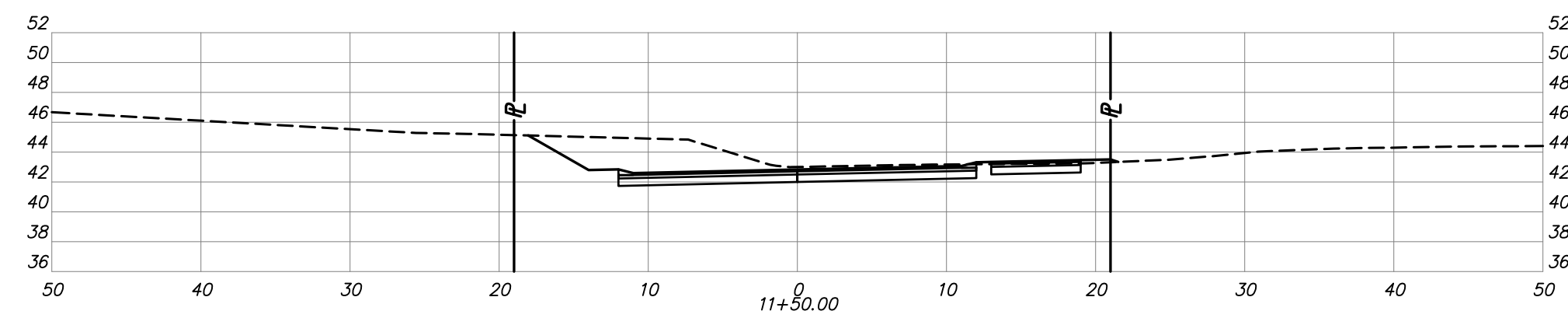
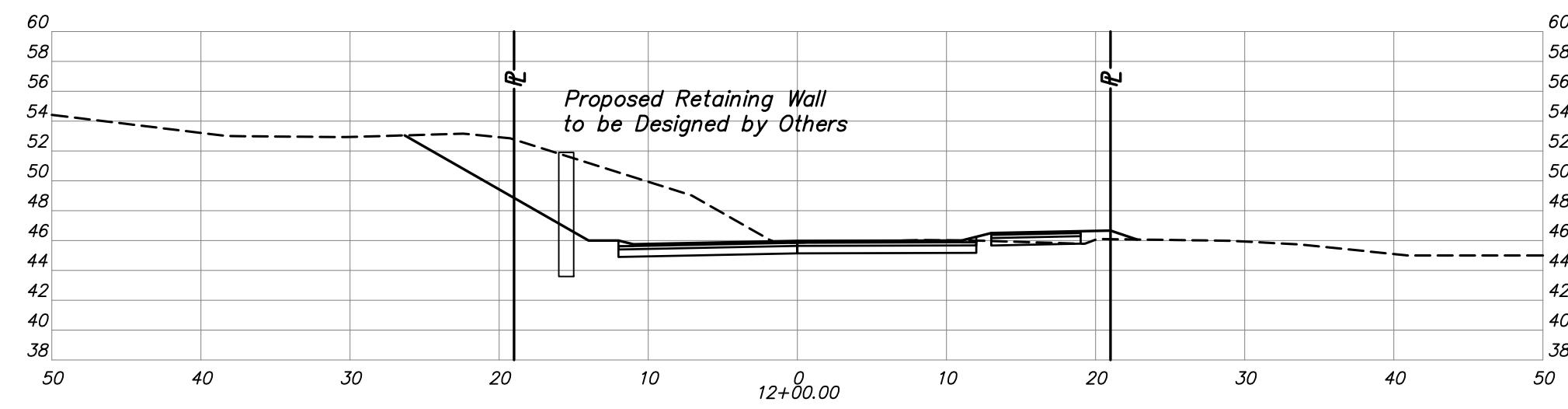
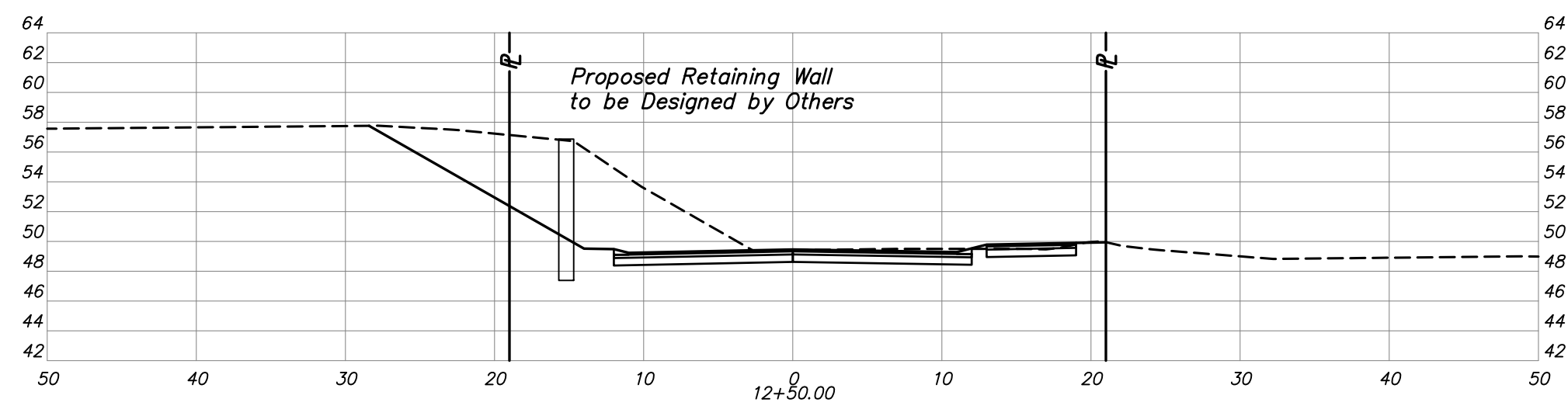
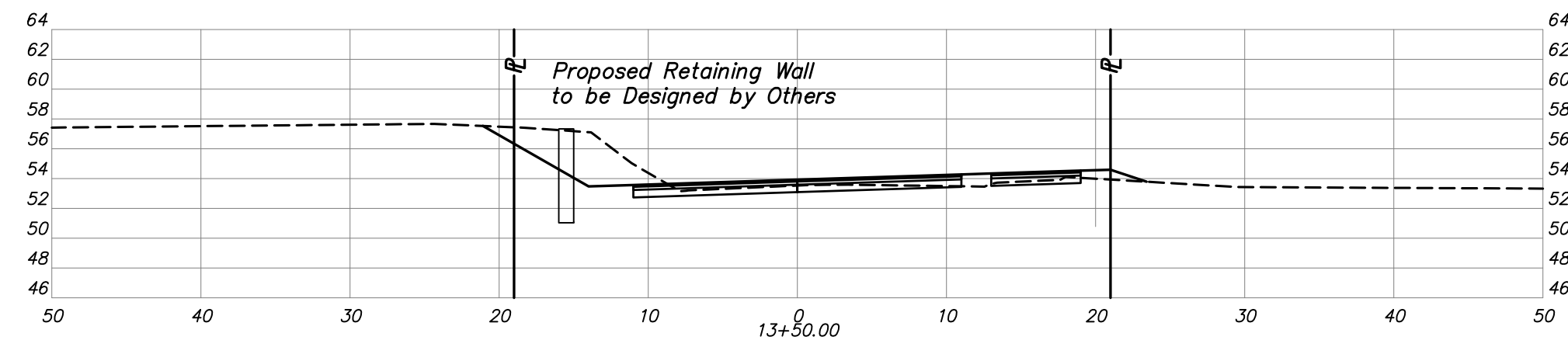
Cross-Section
 Horizontal Scale: 1" = 10'
 Vertical Scale: 1" = 10'

Cross-Sections

Rev. #	Description of Revision	Date

TOWN OF CHATHAM
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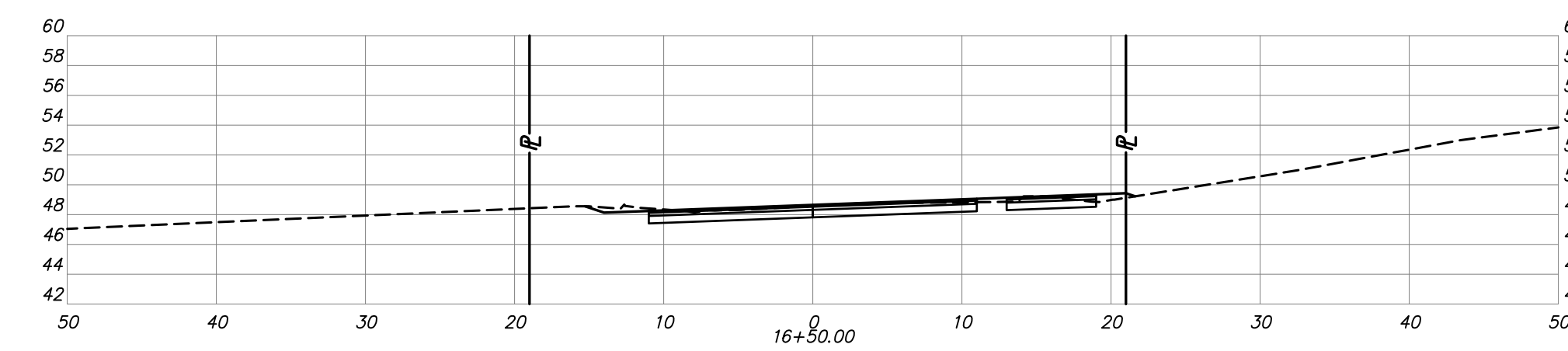
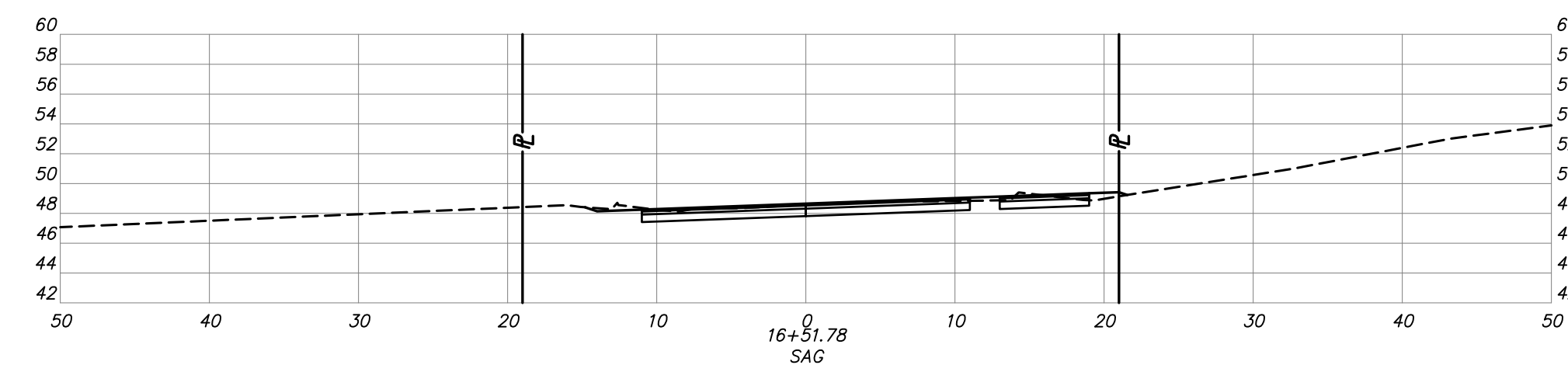
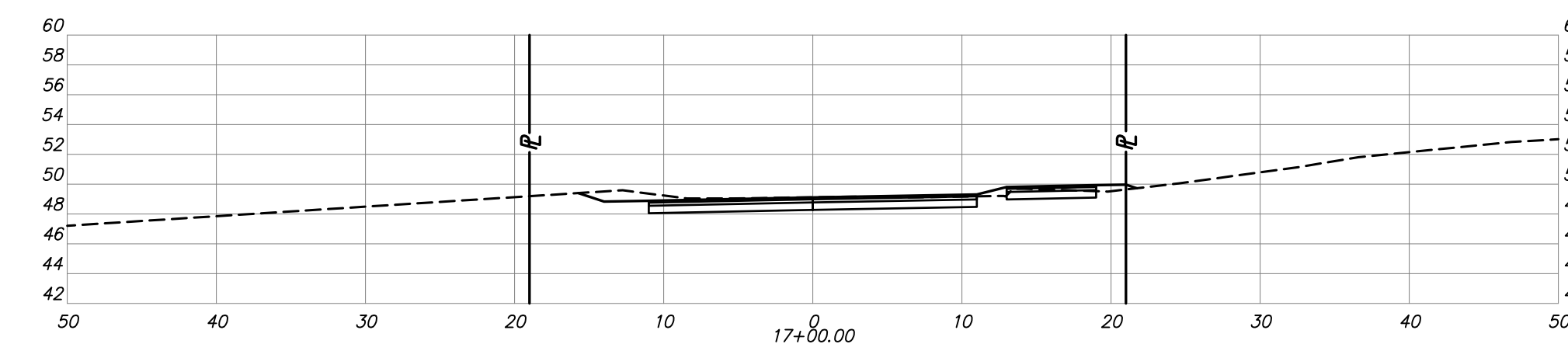
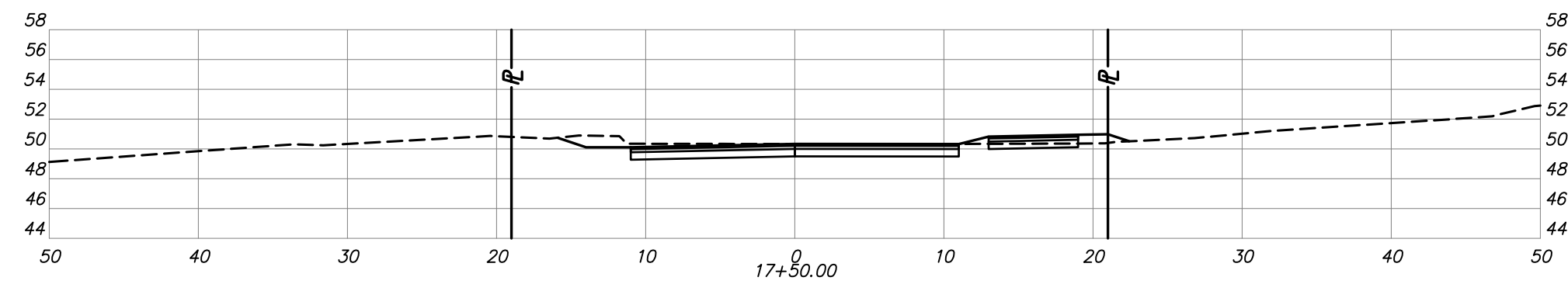
Cross-Section
 Horizontal Scale: 1" = 10'
 Vertical Scale: 1" = 10'

Cross-Sections

Rev. #	Description of Revision	Date

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 Old Queen Anne Road, Chatham, Massachusetts
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Date: 02-28-2014
 Scale: as noted
 Project No.: C-4000-27.0
 Sheet No.: 9 of 10



Cross-Section
 Horizontal Scale: 1" = 10'
 Vertical Scale: 1" = 10'

Cross-Sections

Rev. #	Description of Revision	Date

TOWN OF CHATHAM
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