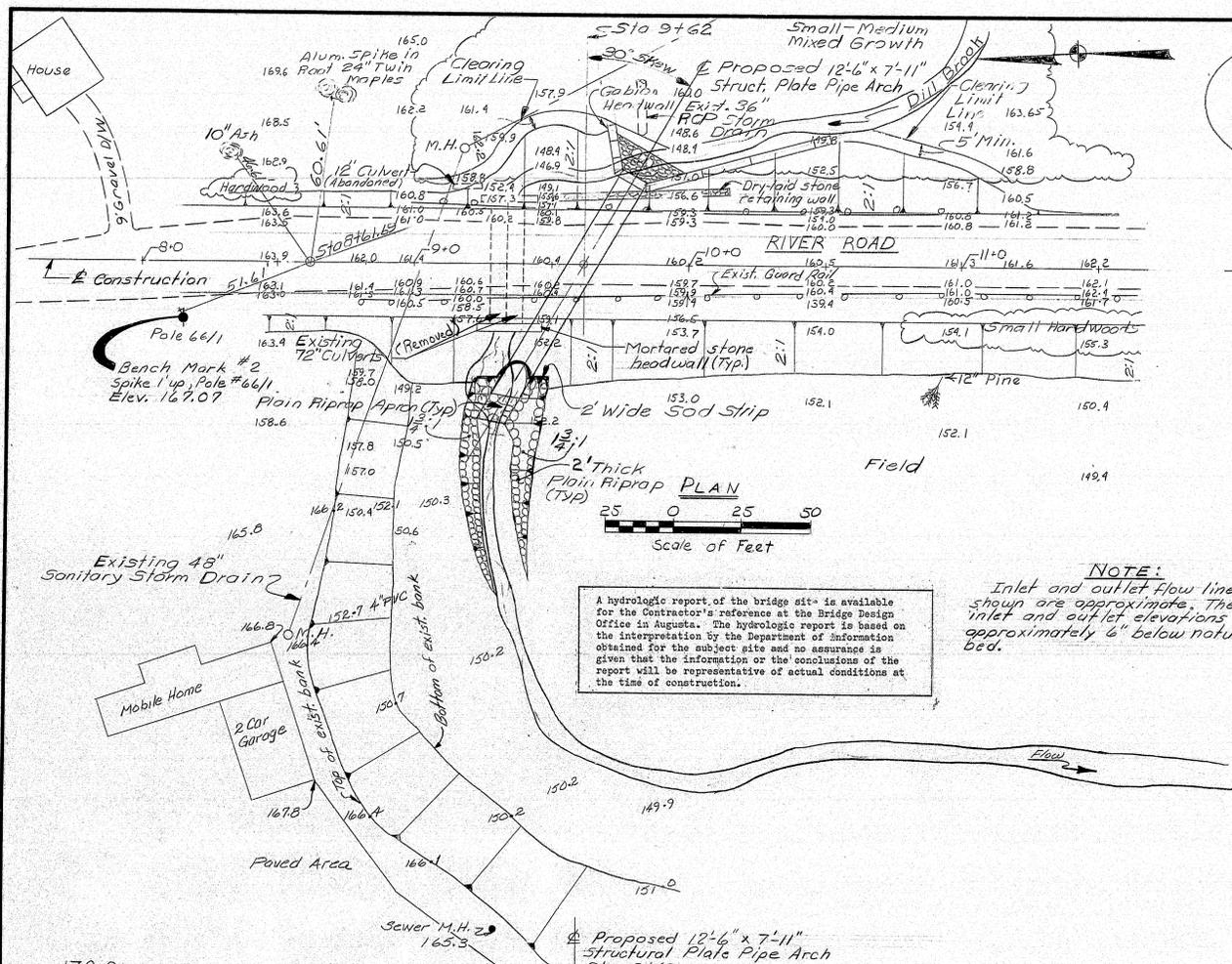
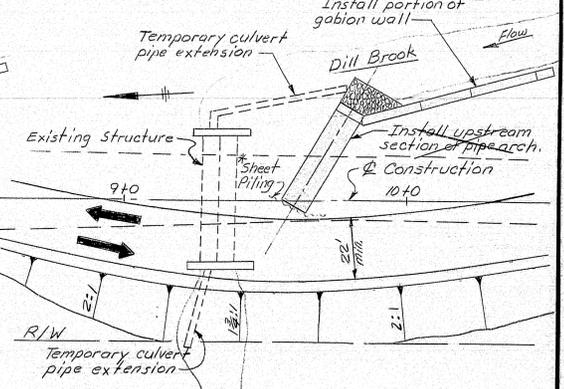
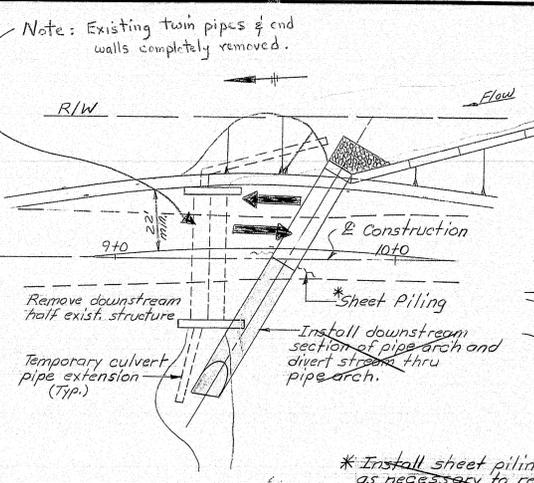


F.W. & RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	M-0008(4)	5	50



A hydrologic report of the bridge site is available for the Contractor's reference at the Bridge Design Office in Augusta. The hydrologic report is based on the interpretation by the Department of Information obtained for the subject site and no assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

NOTE:
Inlet and outlet flow line elevations shown are approximate. The actual inlet and outlet elevations shall be approximately 6" below natural stream bed.



STAGE II

STAGE I

* Install sheet piling and shoring as necessary to retain embankments to allow maintenance of traffic. Payment for sheet piling and shoring will be incidental to contract items.

STAGE III

Direct traffic back onto downstream side, remove remaining part of existing structure and complete construction of gabion retaining wall, etc.

MAINTENANCE OF TRAFFIC

The Contractor shall maintain two 11 foot lanes of traffic during the construction of the new structural plate pipe arch. A 2 foot shoulder shall be maintained where the roadway is adjacent to an area being excavated. Guard rail shall be installed where side slopes are steeper than 3:1 or adjacent to an excavation. Minimum curve radius for the detour shall be 200 feet and the profile grade shall not exceed 10%. Other methods of maintaining traffic may be used, subject to the approval of the Engineer. Payment will be in accordance with Section 104 of the Standard Specifications.

Note: Roadway closed to traffic from 8/16/86 to 8/17/86 while pipe arch installed along with new section of 12" H₂O main.

HYDROLOGIC DATA

Drainage Area = 3.22 Square Miles
 Design Discharge (Q₅₀) = 575 cfs.
 Check Discharge (Q₁₀₀) = 675 cfs.
 Ordinary High Water (Q₁) = 185 cfs.
 Headwater Elev. (Q₅₀) = 154.7
 Headwater Elev. (Q₁₀₀) = 155.5
 Discharge Velocity @ (Q₅₀) = 11.3 fps
 Discharge Velocity @ (Q₁₀₀) = 10.1 fps

TRAFFIC DATA

AADT1985 = 2630
 AADT2005 = 3160
 DHV = 379

LOADING

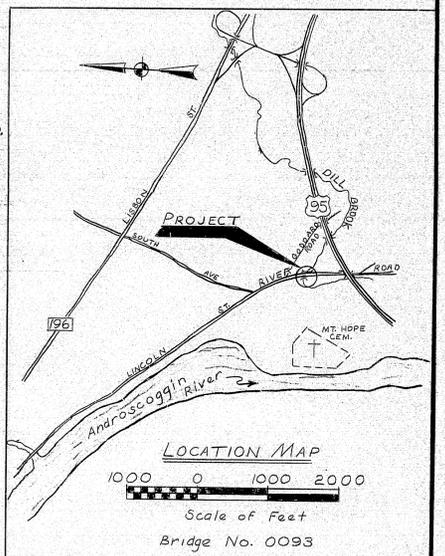
HS25

CONSTRUCTION NOTES

- All utility facilities shall be adjusted by the respective utilities unless noted.
- For easements, construction limits and right-of-way lines refer to Right of Way Map.
- For roadway and embankment grading see highway plans.

UTILITIES

Central Maine Power Company
 New England Telephone
 Northern Utilities



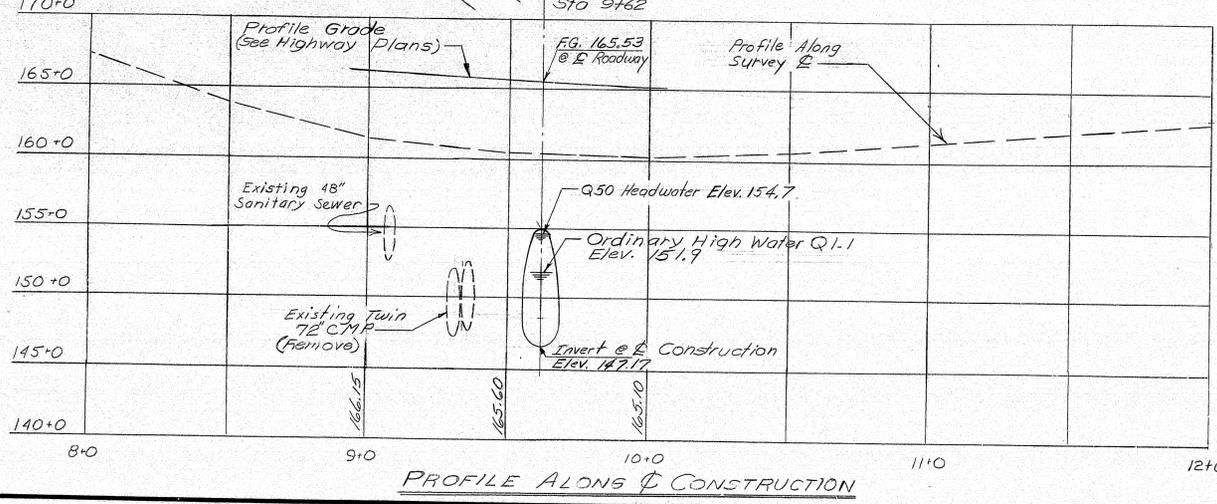
99-83

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

Hart Bridge
 over
 Dill Brook
 in the city of
 Lewiston
 Androscoggin County
 General Plan

SHEET 1 OF 3 AUGUSTA, MAINE Sept. 1985

Revised as built - R.M. 1/14/88



PROFILE ALONG CONSTRUCTION

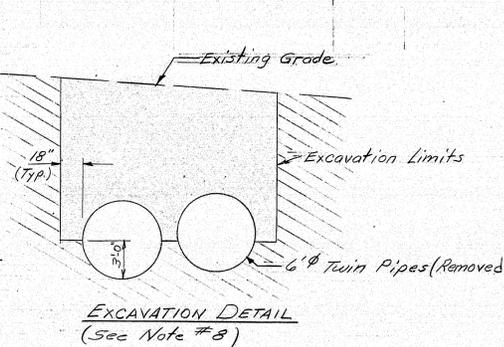
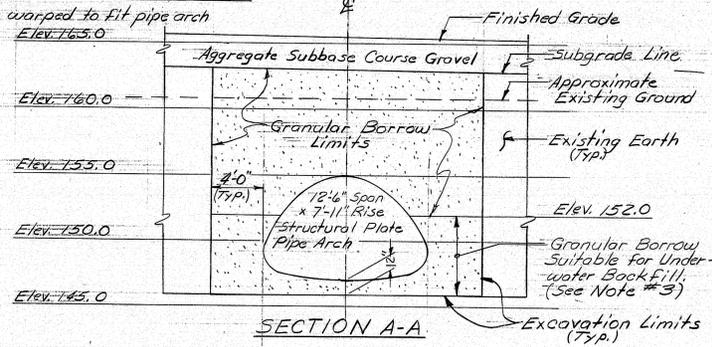
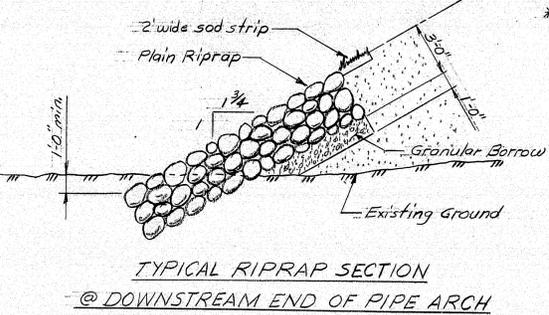
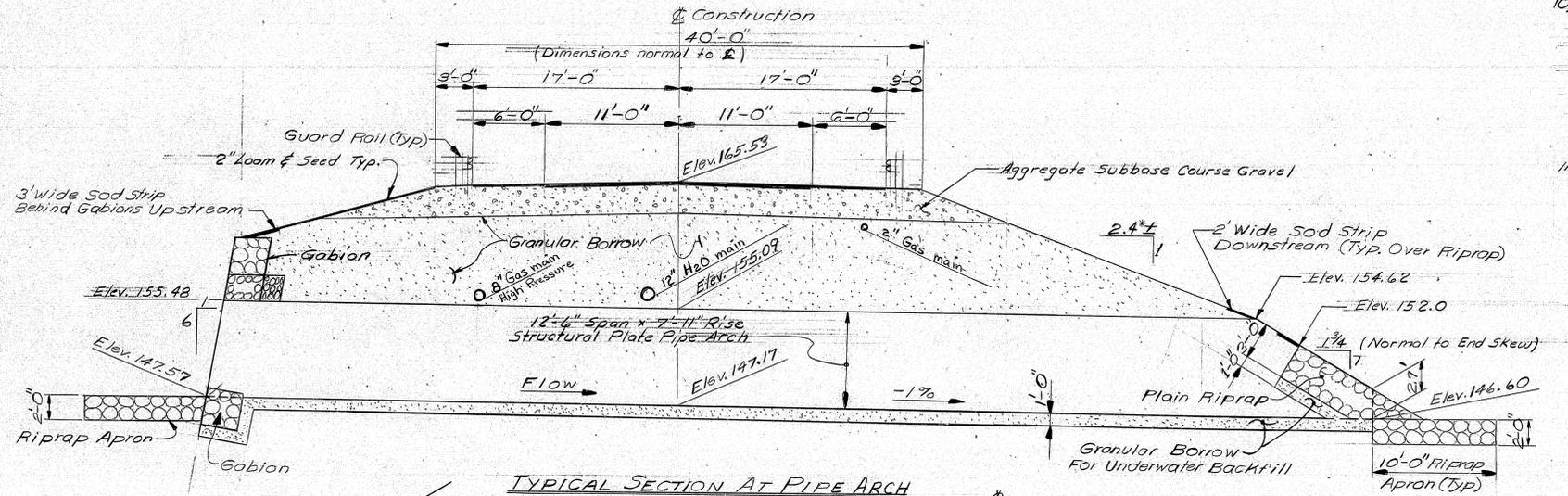
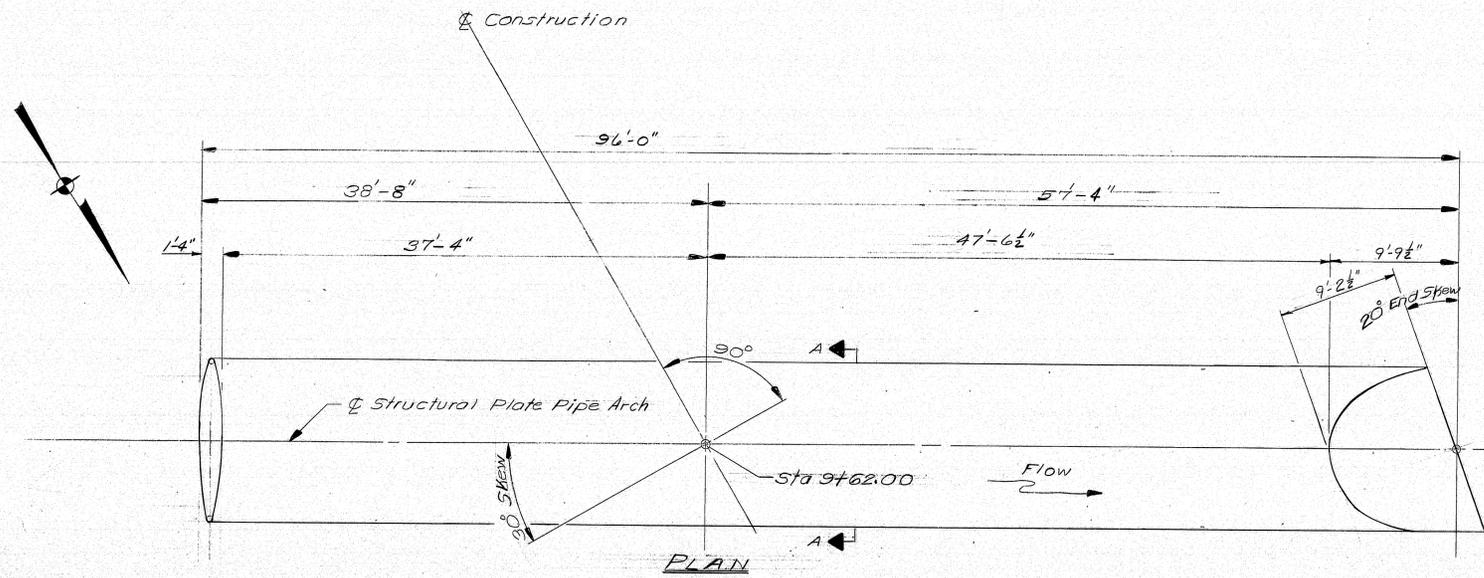
Preliminary Plotted by J.T.F. 9-12-85
 PROJECT DESIGN ENGINEER: BENJAMIN LITTLE
 CHECKED: J.A.F.
 REVISIONS: J.A.F.
 FIELD CHANGES: J.A.F.

BRIDGING 44-132-457(1)

F.R.N.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	11-0008(4)	6	50

STRUCTURAL PLATE PIPE ARCH NOTES

- 1) One 150 inch span x 95 inch rise Structural Plate Pipe Arch required. Top plates shall be 0.168 inch, bottom and corner plates shall be 0.218 inch.
- 2) The downstream end shall be cut on a 1 1/2:1 bevel normal to the end skew shown on the details. Upstream end shall be cut on a 1:1 bevel.
- 3) Granular Borrow shall meet the requirements of Subsection 703.19, Material for Underwater Backfill below Elev. 152.0.
- 4) Riprap adjacent to the pipe arch shall be carefully placed so as not to damage the pipe and so that the finished slope will match the end of the pipe arch. Any extra labor, material or equipment used will be considered incidental to Item 610.05, Plain Riprap.
- 5) Place a 2 foot wide strip of sod along the top of the riprap and over the pipe arch on the downstream side.
- 6) Granular Borrow may be omitted under the Pipe Arch if the existing material is suitable as determined by the Engineer.
- 7) Granular Borrow shall be deposited evenly on both sides of the Pipe Arch, see Section 509 of the Standard Specification.
- 8) Payment for removal of exist. twin 6" pipes will be made under Item 203.20 - Common Excavation. See detail this sheet for excav. limits. Void left by pipes shall be backfilled as directed by the Engineer.
- 9) All excavation required within the Excavation Limits for installation of Structural Plate Pipe Arch shall be paid for under Item 206.0a1 - Structural Earth Excavation.
- 10) The Pipe Arch may be assembled other than in the final position and lifted into place. Dewatering will be required, the Pipe Arch shall be placed under dry conditions and no separate payment will be made for dewatering. The bedding material shall be placed uniformly and the Pipe Arch moved back and forth longitudinally to shape and compact it prior to placing the pipe in its final position. The Contractor shall obtain the Engineer's approval prior to placing the bedding material and the Pipe Arch.
- 11) At the Contractors option, the Structural Plate Pipe Arch may be assembled and installed in two sections to facilitate maintenance of traffic.



99-84

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HART'S BRIDGE
OVER
DILL BROOK
IN THE CITY OF
LEWISTON
ANDROSCOGGIN COUNTY
STRUCTURAL PLATE PIPE ARCH DETAILS
SHEET 2 OF 3 AUGUSTA, MAINE October 1985

Revised as built ~ R. Morrows 11/1/88

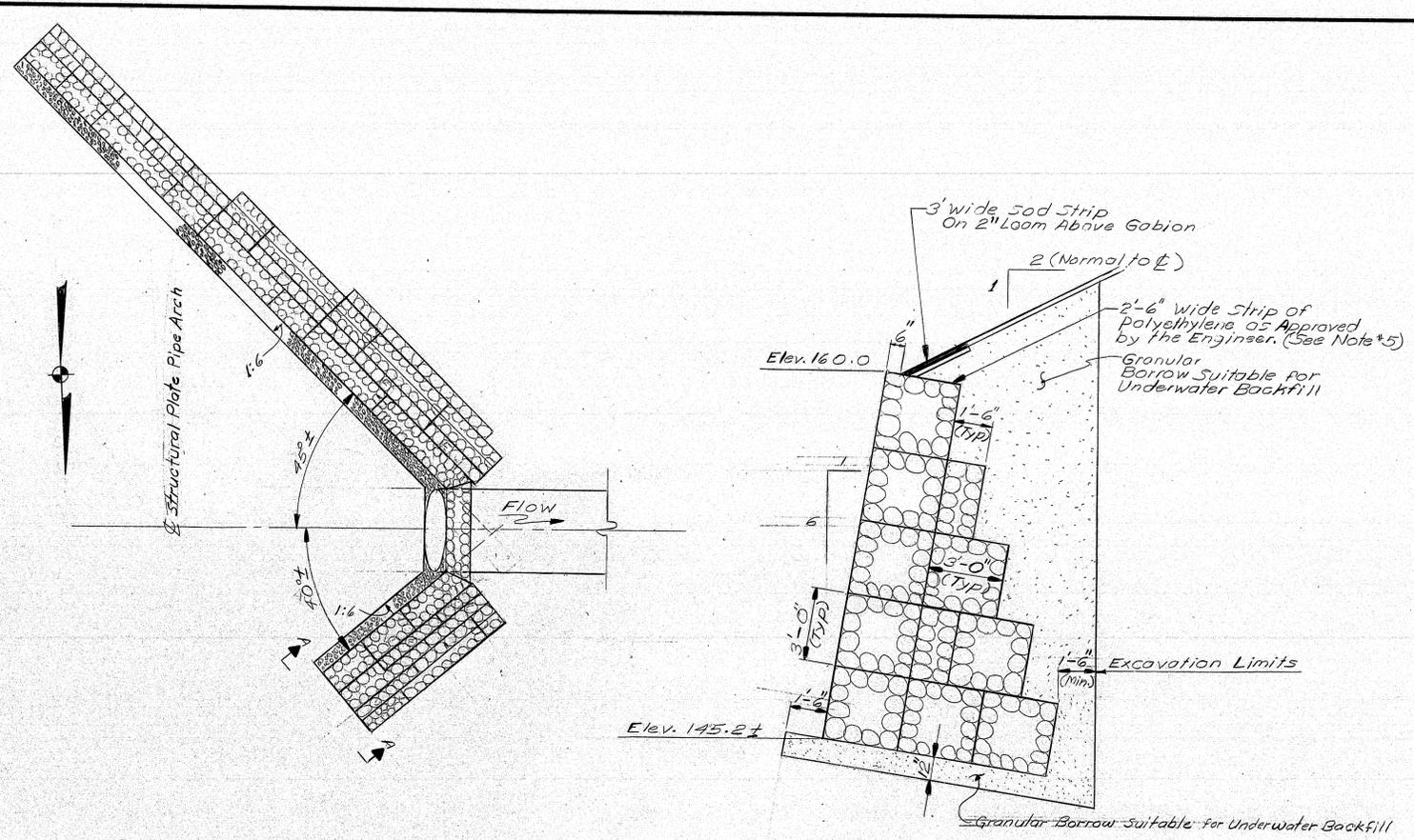
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	10-28-85
CHECKED	JAF
REVISIONS	
FIELD CHANGES	



F.R.W. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	M-0009(4)	7	50

GABION NOTES

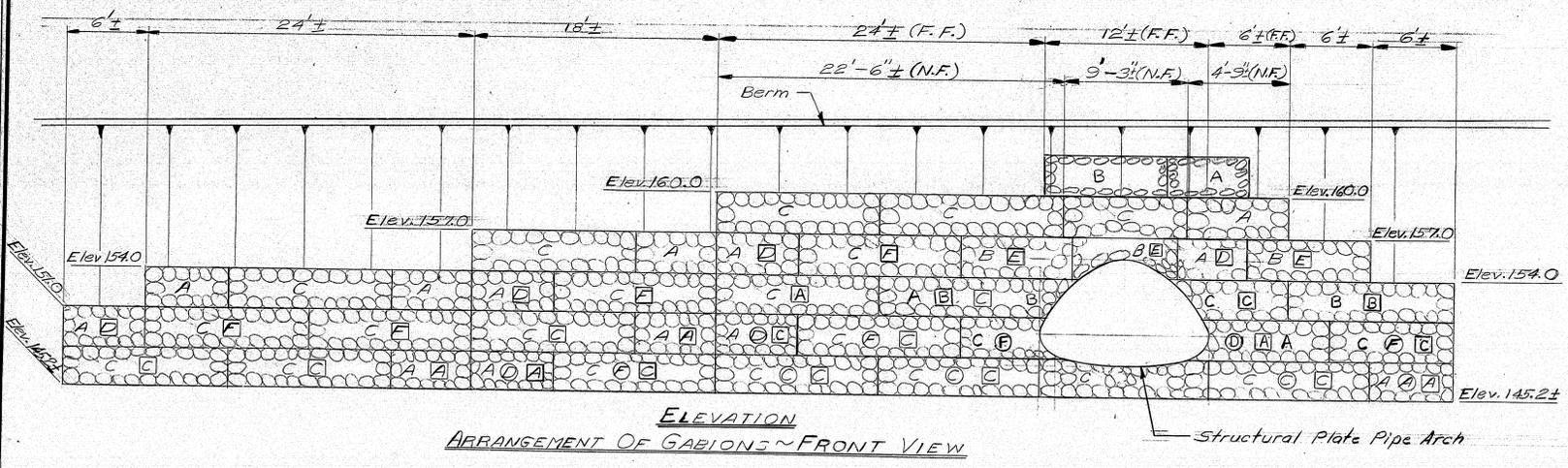
- 1) All excavation required within a horizontal limit 18 inches outside the near lines of the bases of the gabion baskets shall be paid for under Item 206.081 Str. Earth Excav. Abuts. - Ret. Walls etc.
- 2) Payment for modifying gabions around end of Struct. Plate Pipe Arch shall be incidental to Item 601.20, Gabions. Gabions shall be modified and fitted around structure as approved by the Engineer.
- 3) Place a 3' wide sod strip along the top of the Gabions
- 4) Granular Borrow shall meet the requirements for Subsection 703.19 Material for Underwater Backfill.
- 5) No separate payment will be made for the polyethylene covering. The cost will be considered incidental to Item 601.20, Gabions.



PLAN VIEW OF GABION WINGWALLS

VIEW A-A - TYPICAL GABION ARRANGEMENT

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	BEW U.T.F.	12-29-88
CHECKED	JAF	1-86
REVISIONS		
FIELD CHANGES		



ELEVATION ARRANGEMENT OF GABIONS - FRONT VIEW

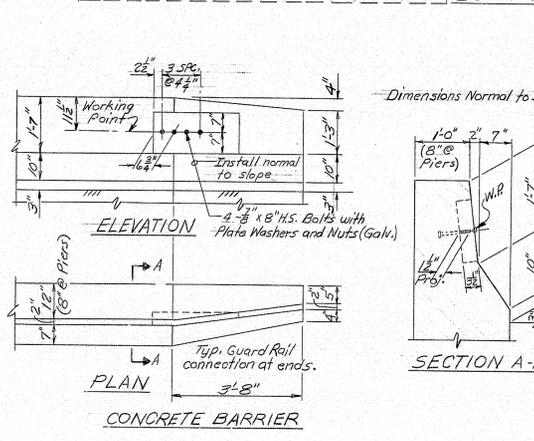
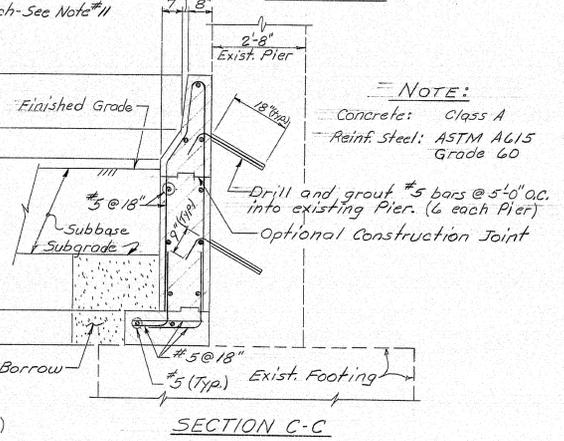
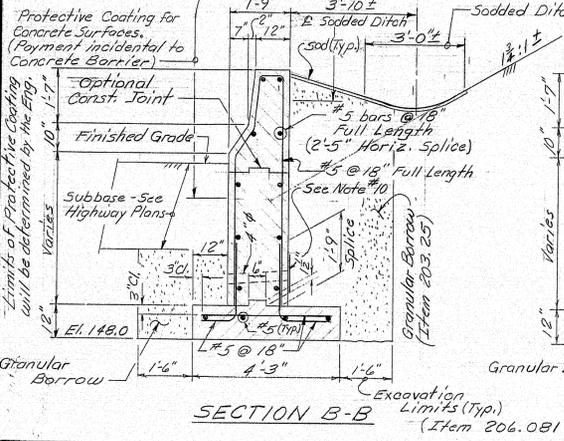
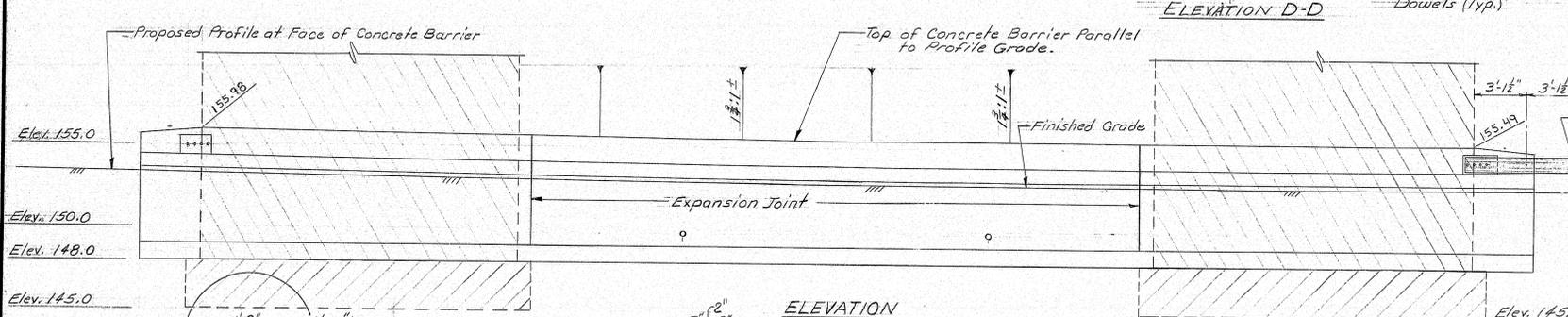
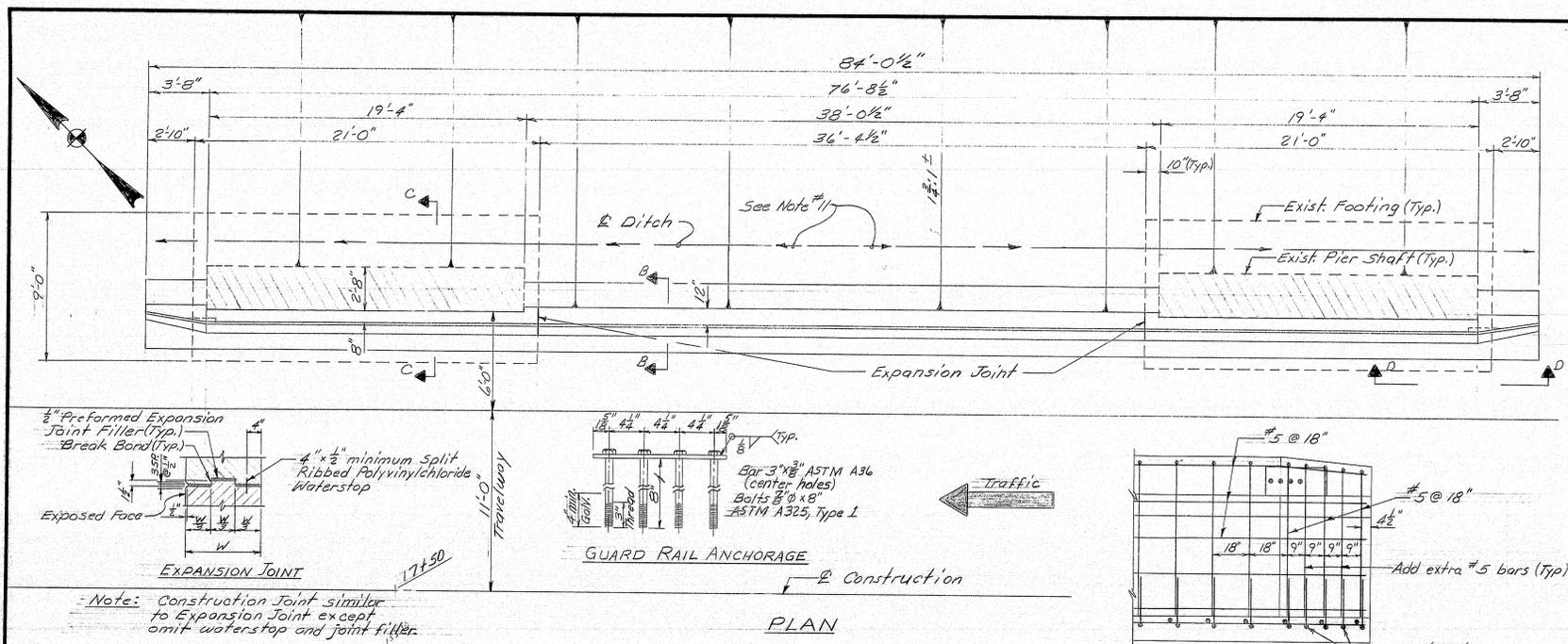
Letter Code	Sizes	Quantities
A	3'-0" x 3'-0" x 6'-0"	21
B	3'-0" x 3'-0" x 9'-0"	7
C	3'-0" x 3'-0" x 12'-0"	37
D	3'-0" x 1'-6" x 6'-0"	6
E	3'-0" x 1'-6" x 9'-0"	5
F	3'-0" x 1'-6" x 12'-0"	7

Letter Code for Gabions:
 A = Near Face
 @ = Interior
 □ = Far Face

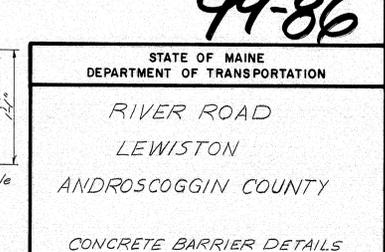
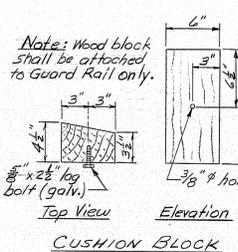
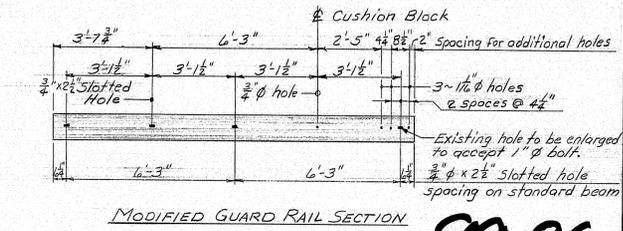
99-85

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HART'S BRIDGE
 OVER
 DILL BROOK
 IN THE CITY OF
 LEWISTON
 ANDROSCOGGIN COUNTY
 GABION DETAILS
 SHEET 3 OF 3 AUGUSTA, MAINE October 1988
 Revised as built ~ R. Morriss 1/14/88

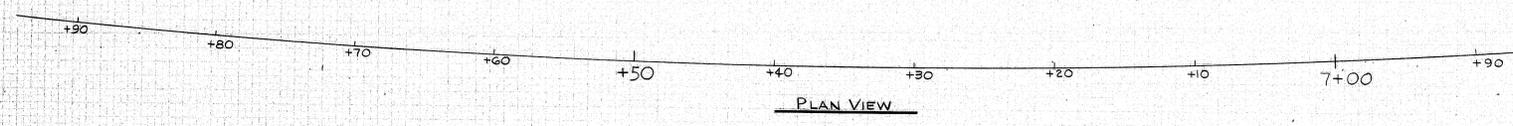
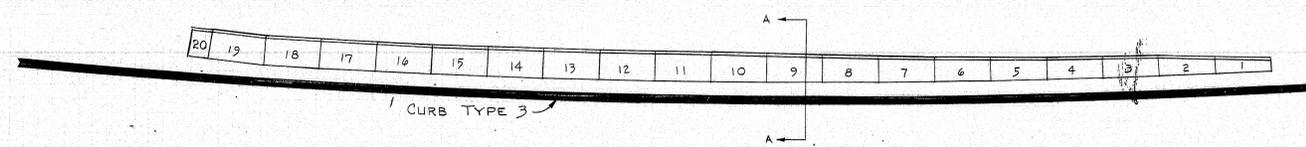
F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	M-0008(4)	8	50



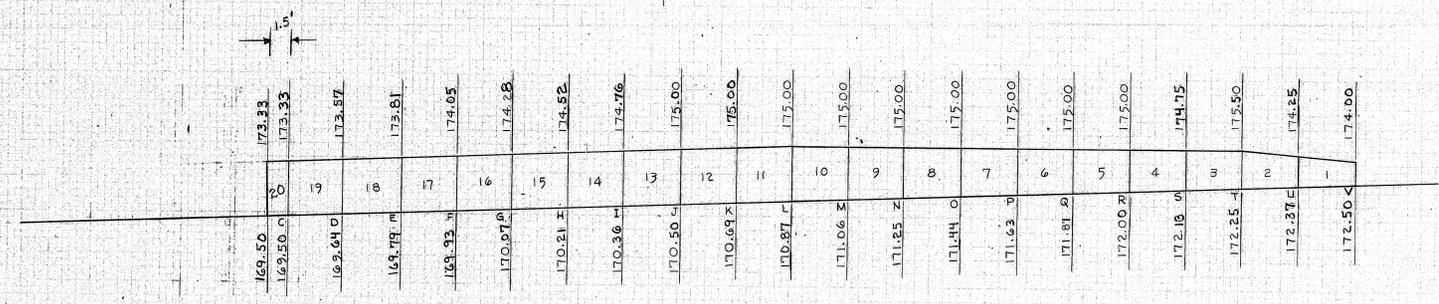
- NOTES**
1. Reinforcing steel shall have 2" min. concrete cover unless otherwise noted.
 2. After installation of Guard Rail is complete, upset the thread on the anchor bolts in three places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
 3. Additional holes in the Modified Guard Rail Sections may be made by drilling, punching or any other method that produces a neat, clean hole of the required size. Burning of holes will not be allowed.
 4. Cushion Block material shall be as specified for wood posts in Subsection 710.07(a). Payment for Cushion Blocks and Log Bolts shall be incidental to the Guard Rail Pay Items.
 5. Payment for the high strength bolts, nuts and washers will be considered incidental to Item 526.32.
 6. Chamfer all exposed edges of concrete a consistent dimension between 1/2 inch and 3/4 inch inclusive.
 7. Payment for Concrete Barrier reinforcing will be incidental to Item 526.32.
 8. Payment will be made under Item 526.32, Permanent Concrete Barrier Type III, for construction of Concrete Barrier.
 9. Modification of Beam Guard Rail and additional posts will be incidental to Guard Rail Items.
 10. Place #4 drains thru Concrete Barrier, exact locations to be determined by the Engineer in the field. All inlets to the #4 drains shall be covered with a 2'-0" x 2'-0" blanket of Filter Fabric. A coat of asphalt roofing cement shall be applied to the concrete in the area of the fabric prior to installing the Filter Fabric. Payment for work and materials will be incidental to Item 526.32.
 11. Construct sodded ditch behind Concrete Barrier and slope to drain so that no ponding will occur behind barrier. Payment will be made under Item 616.08 - Sodding.
 12. Backfill evenly each side of Concrete Barrier up to subgrade line.



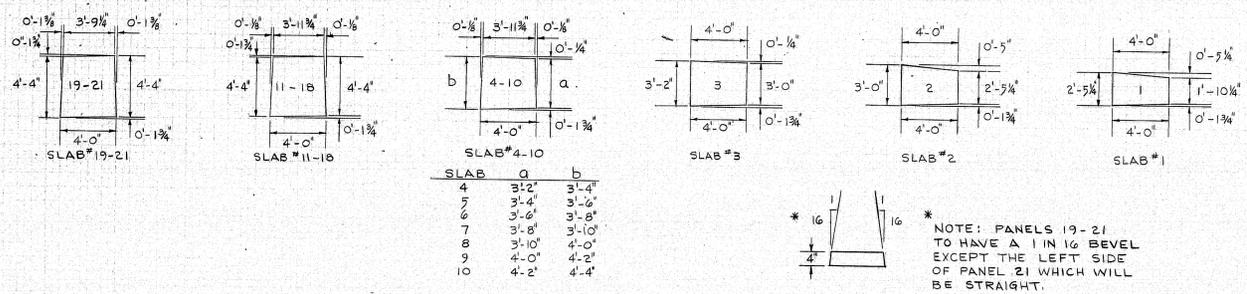
PROJECT DESIGN ENGINEER	BY	DATE
DESIGN DETAIL	BEV	7/86
CHECKED	LAJ	
REVISIONS		
FIELD CHANGES		
PLANS		
Limits of Protective Coating will be determined by the E.T.P.		
BRUNING 44-132-45710-1		



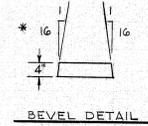
PLAN VIEW



ELEVATION VIEW



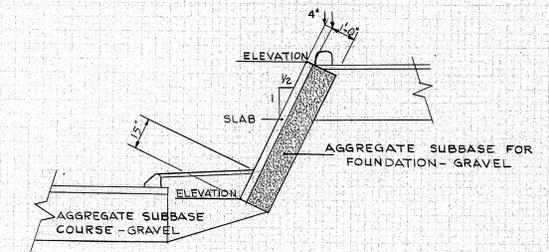
SLAB	a	b
4	3'-2"	3'-4"
5	3'-4"	3'-2"
6	3'-6"	3'-8"
7	3'-8"	3'-10"
8	3'-10"	4'-0"
9	4'-0"	4'-2"
10	4'-2"	4'-4"



NOTE: PANELS 19-21 TO HAVE A 1 IN 16 BEVEL EXCEPT THE LEFT SIDE OF PANEL 21 WHICH WILL BE STRAIGHT.

POINT	STATION	OFFSET
A	7+78.00	20.34 RT.
B	7+74.02	19.28 RT.
C	7+69.95	18.64 RT.
D	7+65.84	18.44 RT.
E	7+61.73	18.44 RT.
F	7+57.61	18.44 RT.
G	7+53.49	18.44 RT.
H	7+49.38	18.44 RT.
I	7+45.26	18.44 RT.
J	7+41.14	18.44 RT.
K	7+37.02	18.44 RT.
L	7+32.91	18.44 RT.
M	7+28.79	18.44 RT.
N	7+24.67	18.44 RT.
O	7+20.56	18.44 RT.
P	7+16.44	18.44 RT.
Q	7+12.32	18.44 RT.
R	7+08.21	18.44 RT.
S	7+04.09	18.44 RT.
T	6+99.97	18.44 RT.
U	6+95.86	18.44 RT.
V	6+91.74	18.44 RT.

* Note: Installed 4' high x 75' long chain link fence along top of concrete slab wall.



SECTION A-A

NOTE: ALL SLABS TO BE PRECAST TO THE DIMENSIONS SHOWN AND REINFORCED WITH WELDED STEEL WIRE FABRIC IN ACCORDANCE WITH THE STANDARD DETAILS FOR CONCRETE SIDEWALK SLAB.

99-87

SLAB RETAINING WALL

LEWISTON

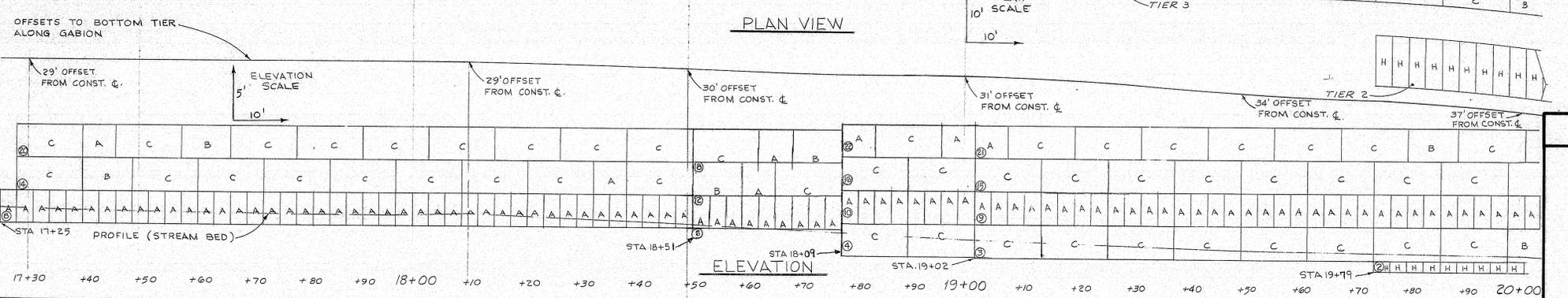
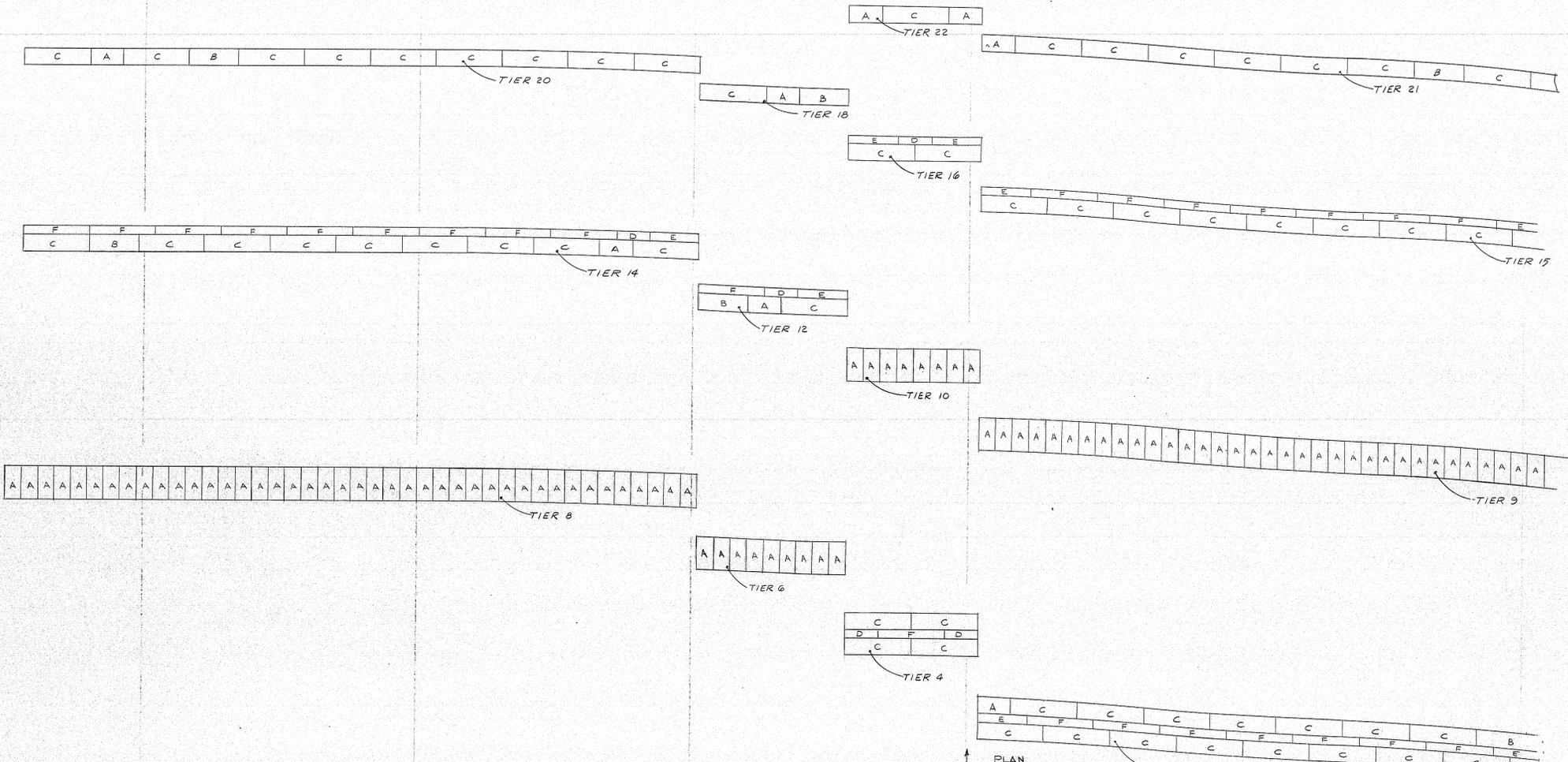
M-0008 (4)

Revised as built ~ R. Morcross 1/14/88

F.R.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	M-0008(4)	10	50

LETTER CODE	LENGTH	WIDTH	HEIGHT	NO. OF CELLS
A	6'	3'	3'	2
B	6'	3'	3'	4
C	12'	3'	3'	2
D	6'	3'	1 1/2"	4
E	9'	3'	1 1/2"	3
F	12'	3'	1 1/2"	4
G	6'	3'	1"	2
H	9'	3'	1"	3
I	12'	3'	1"	4

TIER	ELEVATION
1	138.00'
2	138.00'
3	139.00'
4	139.00'
5	140.00'
6	141.50'
7	141.00'
8	141.50'
9	142.00'
10	142.50'
11	143.00'
12	143.50'
13	144.00'
14	144.50'
15	145.00'
16	145.50'
17	146.00'
18	146.50'
19	147.00'
20	147.50'
21	148.00'
22	148.50'
23	149.00'



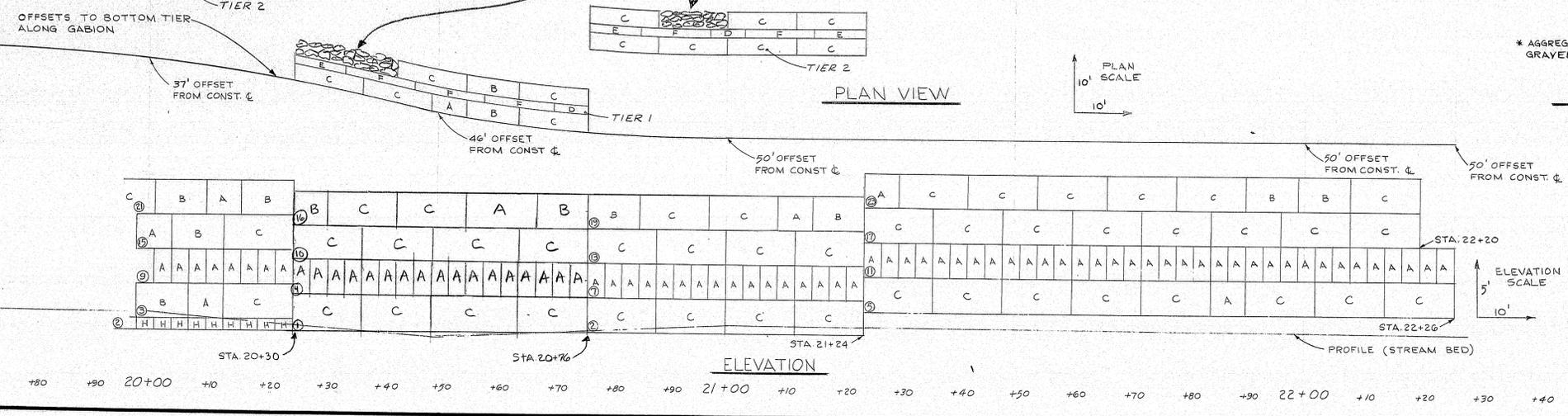
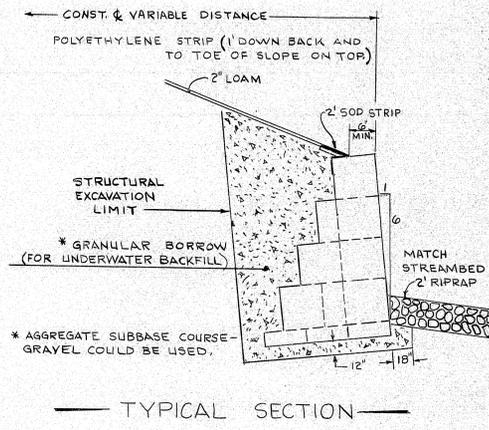
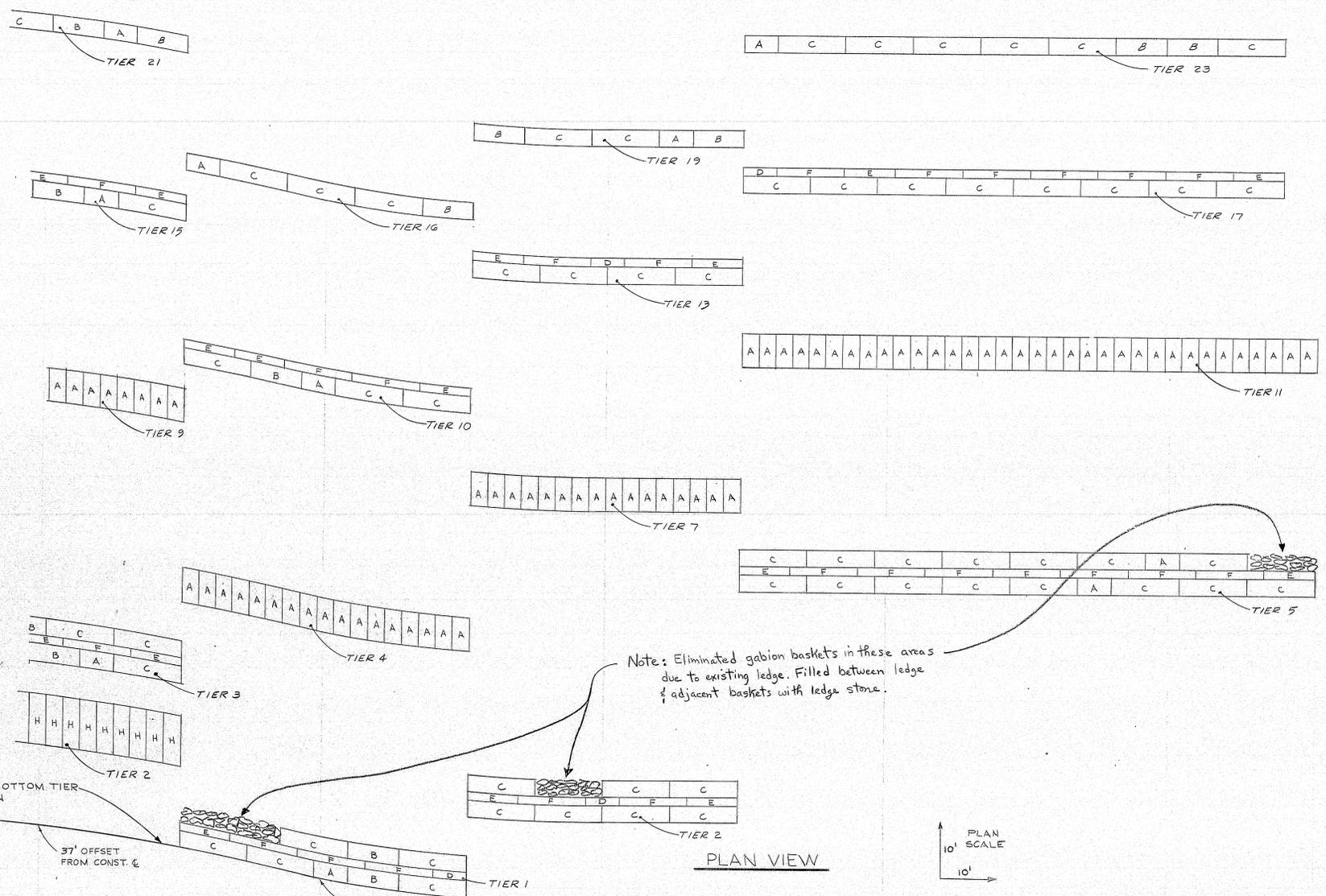
PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

99-88

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

GABION
STA. 17+25 TO 22+20 RIGHT
SHEET NO. 1

SHEET 1 OF 2 AUGUSTA, MAINE
Revised as built - R. M. ... - 1/14/88



PROJECT DESIGN ENGINEER	DATE
BY	
DESIGN DETAILER	
REVISIONS	
FIELD CHANGES	

PLANS

99-89

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

GABION

STA. 17+25 TO 22+20 RIGHT

SHEET NO. 2

SHEET 2 OF 2 AUGUSTA, MAINE

Revised as built - R. Motaroz 1/14/88