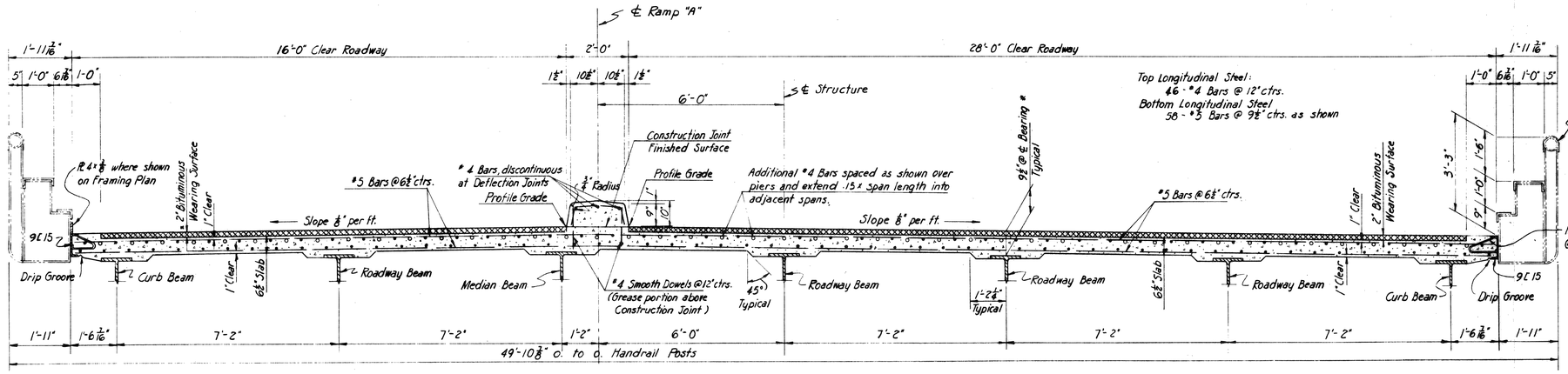
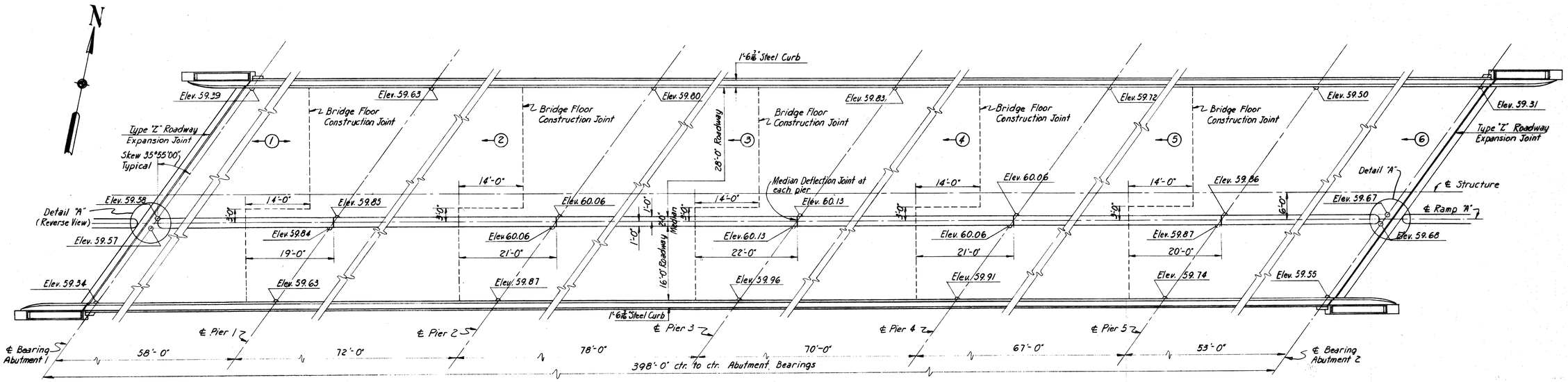
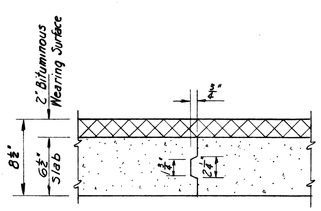



* The depth of concrete over the tops of beams shall be varied as necessary to insure uniform floor thickness between haunches and conformity of final surface of floor with required elevations after deflection under full dead load.

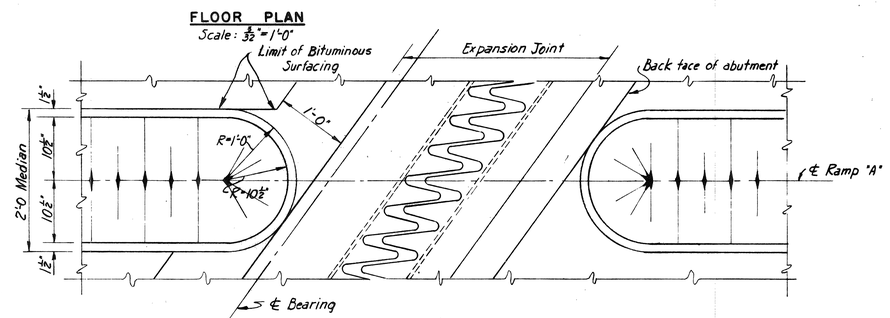
**CROSS SECTION**
Scale: ½" = 1'-0"




**FLOOR PLAN**
Scale: 3/32" = 1'-0"




**CONSTRUCTION JOINT**
Scale: 1½" = 1'-0"




**DETAIL "A"**
Scale: 1" = 1'-0"

Notes:
Elevations shown on Floor Plan are to top of finished roadway.
Numbers in circles indicate concrete pouring sequence and direction of pouring
For details of Cross-Section not shown, see Standard Drawings Nos. 6 and 20.

DRAWING 18.03.04

| | BY | DATE | No. | REVISION | BY | DATE |
|---|---|---|---|---|---|---|
| MADE | R.K. | 4-13-54 | | | | |
| TRACED | | | 2 | As-Built | HBH | 1-31-56 |
| CHECKED | CGP | 4-22-59 | 1 | Corr. Elev. | CVA | 4-13-95 |
| IN CHARGE OF | I.D.S.K. | | | | | |

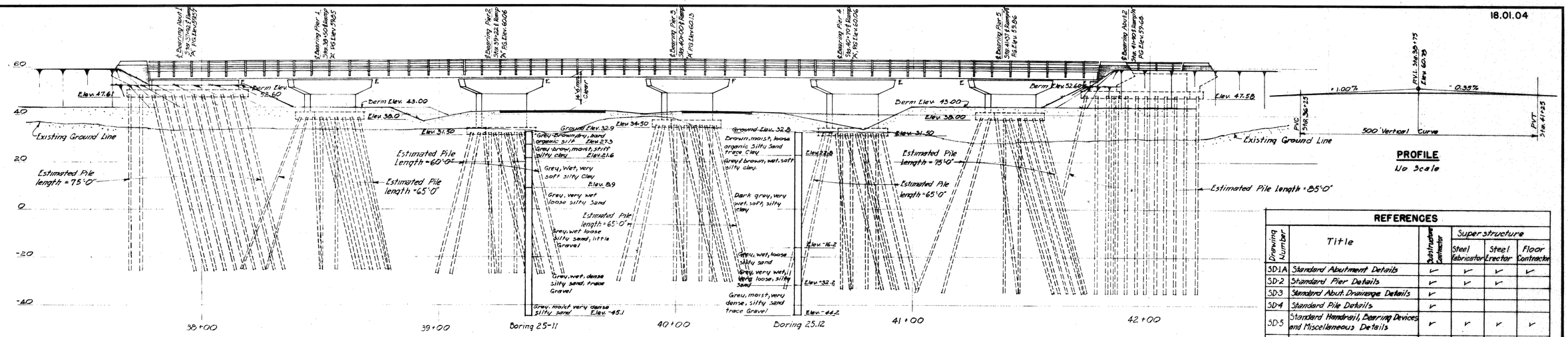
MAINE TURNPIKE AUTHORITY
**MAINE TURNPIKE**
**SECTION 2 — PORTLAND TO AUGUSTA**

STRUCTURE NO. 18 — TURNPIKE UNDER
FALMOUTH SPUR INTERCHANGE
STA. 2573 + 80
CROSS SECTION AND FLOOR PLAN

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK — KANSAS CITY

SCALE: As Noted
CONTRACT NO. ____
SHEET NO. 104 OF 382

18.01.04



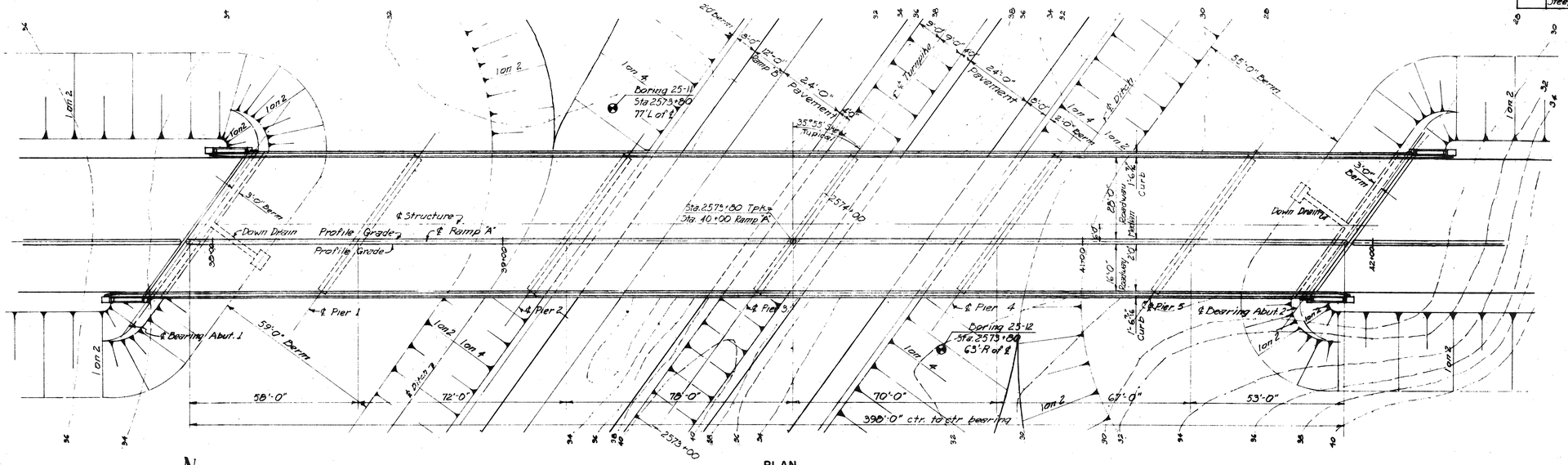

## PROFILE

No Scale

## ELEVATION

Scale: 1" = 20'-0"

| REFERENCES | | | | | |
|---|---|---|---|---|---|
| Drawing Number | Title | Substructure Contractor | Superstructure: Steel Fabricator | Superstructure: Steel Erector | Superstructure: Floor Contractor |
| SD-1A | Standard Abutment Details | ✓ | ✓ | ✓ | ✓ |
| SD-2 | Standard Pier Details | ✓ | ✓ | ✓ | |
| SD-3 | Standard Abut. Drainage Details | ✓ | | | |
| SD-4 | Standard Pile Details | ✓ | | | |
| SD-5 | Standard Handrail, Bearing Devices and Miscellaneous Details | ✓ | ✓ | ✓ | ✓ |
| SD-6 | Standard Diaphragm Details | | ✓ | ✓ | ✓ |
| SD-10 | Standard Type "A" Splices for 36" W Beams | | ✓ | ✓ | |
| SD-12A | Type "Z" Expansion Joint Expanding length over 100' | ✓ | ✓ | ✓ | ✓ |
| SD-20 | Standard Bridge Floor Cross Sections Steel Curb, 30'-0" Roadway | ✓ | ✓ | ✓ | ✓ |

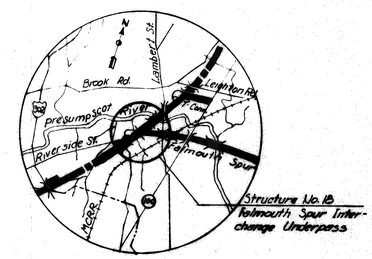



## PLAN

Scale: 1" = 20'-0"

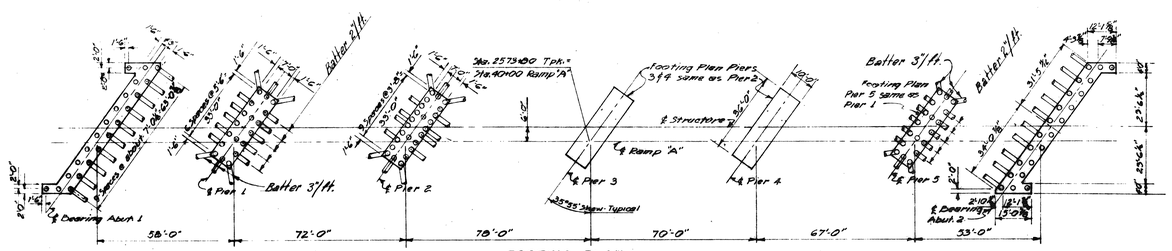
## GENERAL NOTES

Design Specifications: AASHO (1953) with minor modifications.
Design Live Load: H20-S16
Max. Pile Load: Abutments 29.3 Tons per pile
Piers 1 & 5 39.0 Tons per pile
Piers 2, 3 & 4 40.0 Tons per pile




## LOCATION SKETCH

Scale: 1" = 1 mile




## FOOTING PLAN

Scale: 1" = 30'-0"

Notes:
All piles to be cast-in-place concrete piles.
All pile batters are 3/ft. except as shown.
Abutment dimensions similar by rotation.
Abutment Drainage is the same as shown on Standard Drawing No. 3 except for the apron. For Apron detail see sheet 18.02.04.

DRAWING NO. 18.01.04

| | BY | DATE | No. | REVISION | BY | DATE |
|---|---|---|---|---|---|---|
| MADE | W.E.G | 4-22-54 | | | | |
| TRACED | | | | | | |
| CHECKED | DHL | 4-23-54 | 1 | As-Built | HBH | 12-15-56 |
| IN CHARGE OF | I.D.S.M | | | | | |

MAINE TURNPIKE AUTHORITY

# MAINE TURNPIKE

## SECTION 2 — PORTLAND TO AUGUSTA

STRUCTURE NO. 18 TURNPIKE UNDER

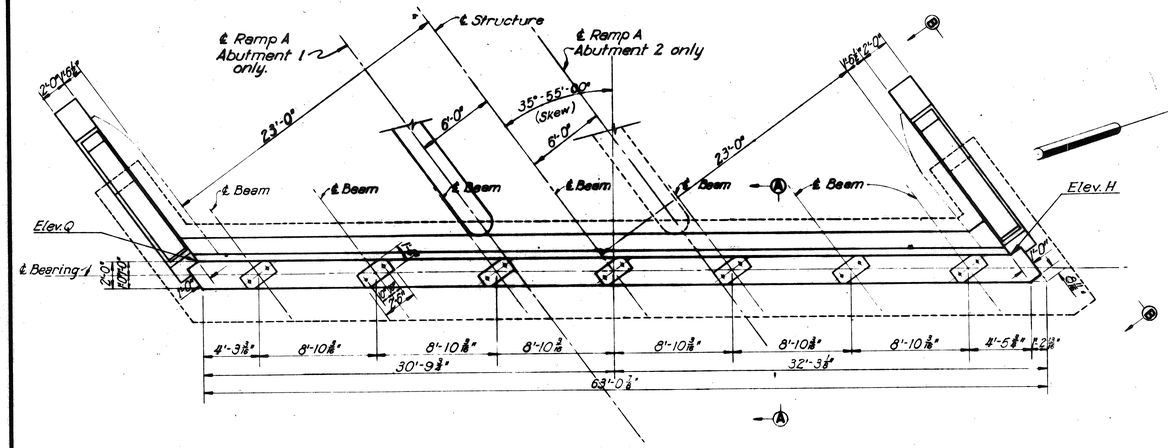
FALMOUTH SPUR INTERCHANGE

STA. 2573+80.00

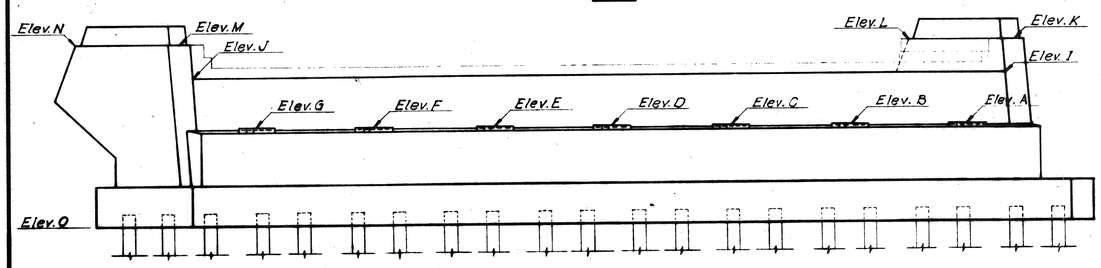
GENERAL PLAN AND ELEVATION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As Shown
CONTRACT NO.
SHEET NO. 102 OF 388

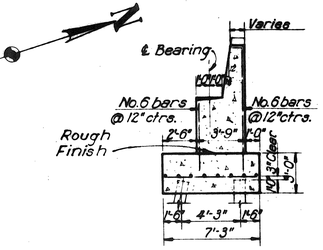



PLAN



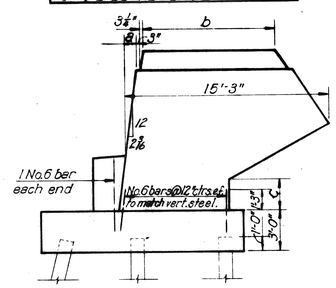

FRONT ELEVATION

Note:
All piles are cast-in-place concrete.
All pile batters are 3" per ft.

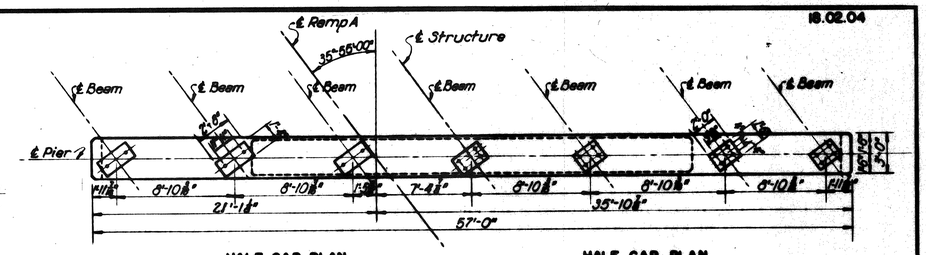



SECTION A-A

| WINGWALL DIMENSIONS | | | | |
|---|---|---|---|---|
| | Abutment 1 | | Abutment 2 | |
| | No. W.W. | So. W.W. | No. W.W. | So. W.W. |
| a | 1'-1 1/8" | 1'-1 1/8" | 1'-1 1/8" | 1'-1 1/8" |
| b | 9'-10 1/4" | 9'-10 1/4" | 9'-10 1/8" | 9'-10 1/8" |
| c | 2'-2 5/8" | 2'-1 1/8" | 2'-2 3/8" | 2'-3" |

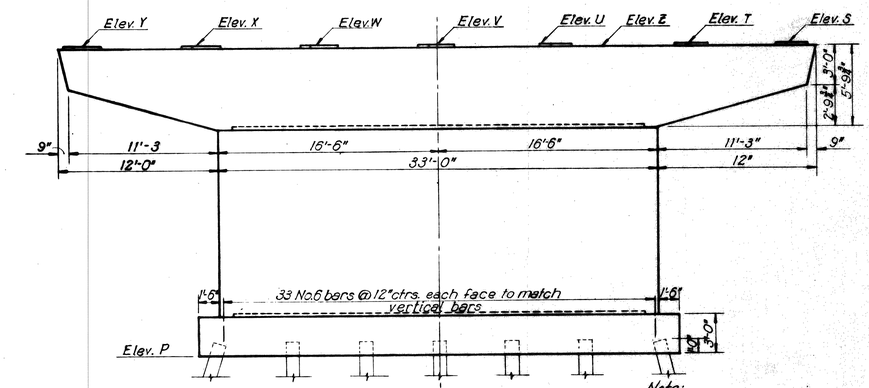



ELEVATION B-B



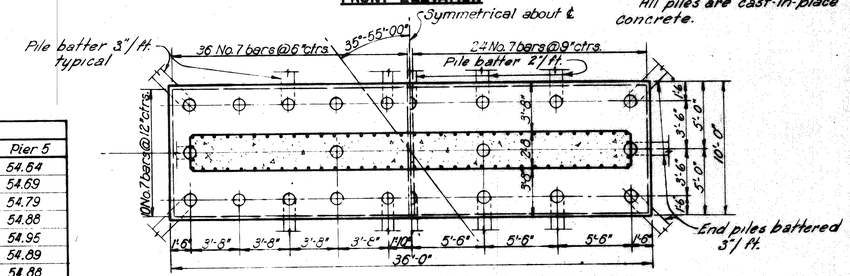

HALF CAP PLAN PIERS 1, 2, 4 AND 5

HALF CAP PLAN PIER 3




FRONT ELEVATION

Note:
All piles are cast-in-place concrete.

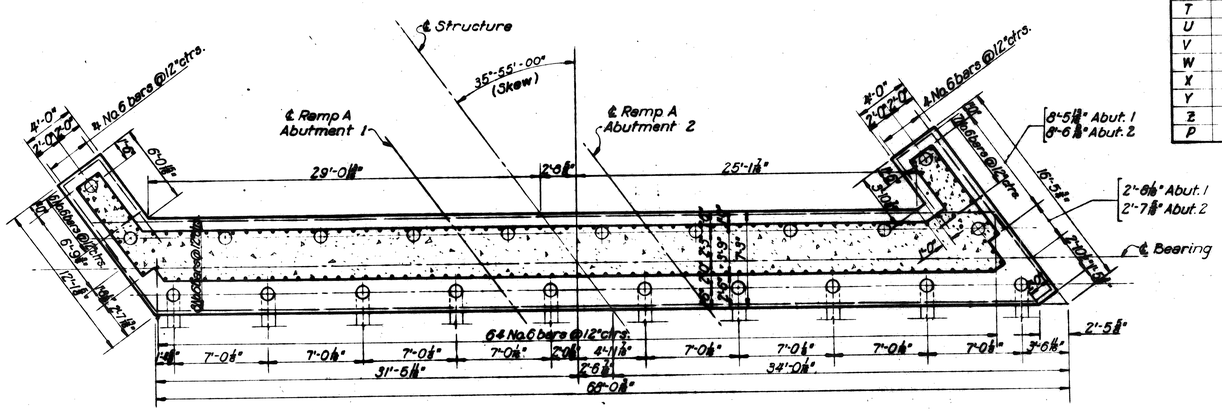



HALF PLAN PIERS 2, 3 AND 4

HALF PLAN PIERS 1 AND 5

FOOTING PLAN

| PIER ELEVATIONS | | | | | |
|---|---|---|---|---|---|
| Elev. | Pier 1 | Pier 2 | Pier 3 | Pier 4 | Pier 5 |
| S | 54.73 | 54.89 | 55.22 | 54.86 | 54.64 |
| T | 54.76 | 54.91 | 55.26 | 54.90 | 54.69 |
| U | 54.82 | 54.98 | 55.36 | 54.98 | 54.79 |
| V | 54.87 | 55.05 | 55.43 | 55.07 | 54.88 |
| W | 54.90 | 55.09 | 55.48 | 55.13 | 54.95 |
| X | 54.81 | 55.00 | 55.41 | 55.07 | 54.89 |
| Y | 54.73 | 54.96 | 55.35 | 55.05 | 54.88 |
| Z | 54.71 | 54.87 | 55.20 | 54.84 | 54.62 |
| P | 38.00 | 31.50 | 34.50 | 31.50 | 38.00 |

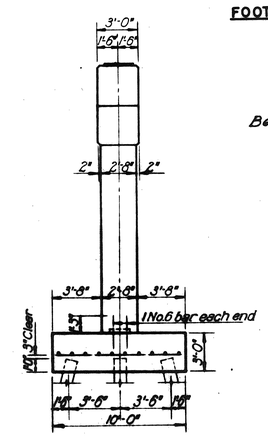



FOOTING PLAN

| ABUTMENT ELEVATIONS | | |
|---|---|---|
| Elev. | Abutment 1 | Abutment 2 |
| A | 54.82 | 54.98 |
| B | 54.84 | 55.04 |
| C | 54.89 | 55.09 |
| D | 54.94 | 55.03 |
| E | 54.96 | 54.93 |
| F | 54.86 | 54.84 |
| G | 54.77 | 54.75 |
| H | 54.69 | 54.90 |
| I | 58.64 | 58.81 |
| J | 58.57 | 58.56 |
| K | 61.13 | 61.30 |
| L | 61.08 | 61.25 |
| M | 61.07 | 61.06 |
| N | 61.00 | 61.02 |
| O | 47.61 | 47.58 |
| Q | 54.69 | 54.66 |

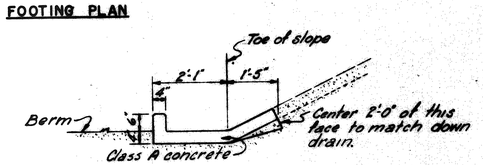
ABUTMENTS

Abutment 1 shown; Abutment 2 similar by rotation except as noted.




END ELEVATION

PIERS




DRAINAGE APRON

For details not shown see Standard Drawing No. 3.
Scale 1/4" = 1'-0"

| DRAWING 18.02.04 | | | | | | |
|---|---|---|---|---|---|---|
| | BY | DATE | | | | |
| MADE | L.I.B. | 4-16-54 | | | | |
| TRACED | | | 2 | As-Built | HBH | 12-15-54 |
| CHECKED | D.H.L. | 4-21-54 | 1 | Dimension and Elev. Changes | HBH | 5-10-55 |
| IN CHARGE OF | I.D.S.K. | | No. | REVISION | BY | DATE |

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2 — PORTLAND TO AUGUSTA

STRUCTURE NO. 18 — TURNPIKE UNDER

FALMOUTH SPUR INTERCHANGE

STA. 2573+80.00

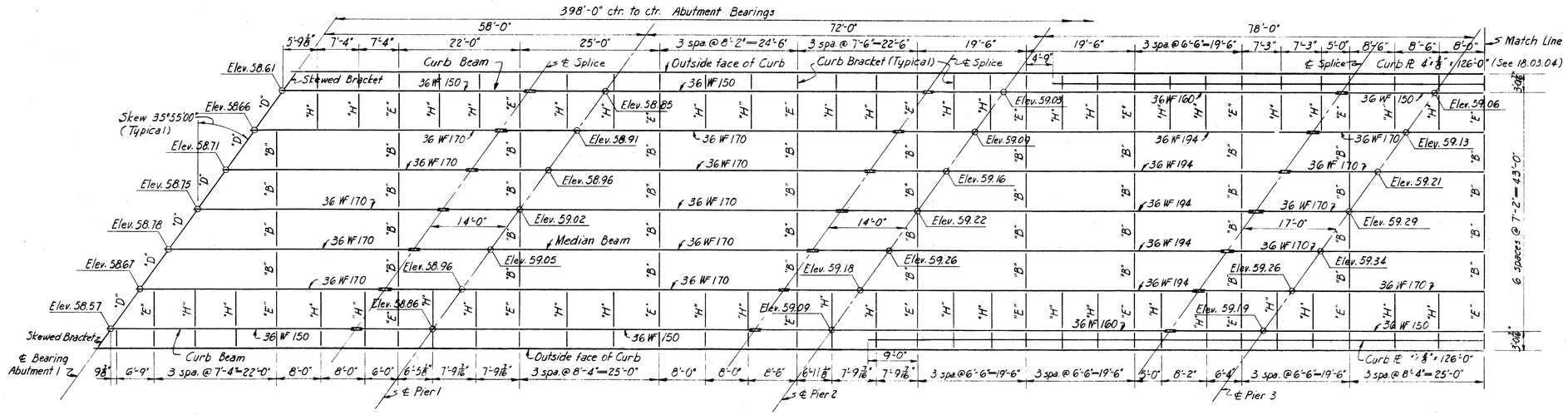
ABUTMENTS AND PIERS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK — KANSAS CITY

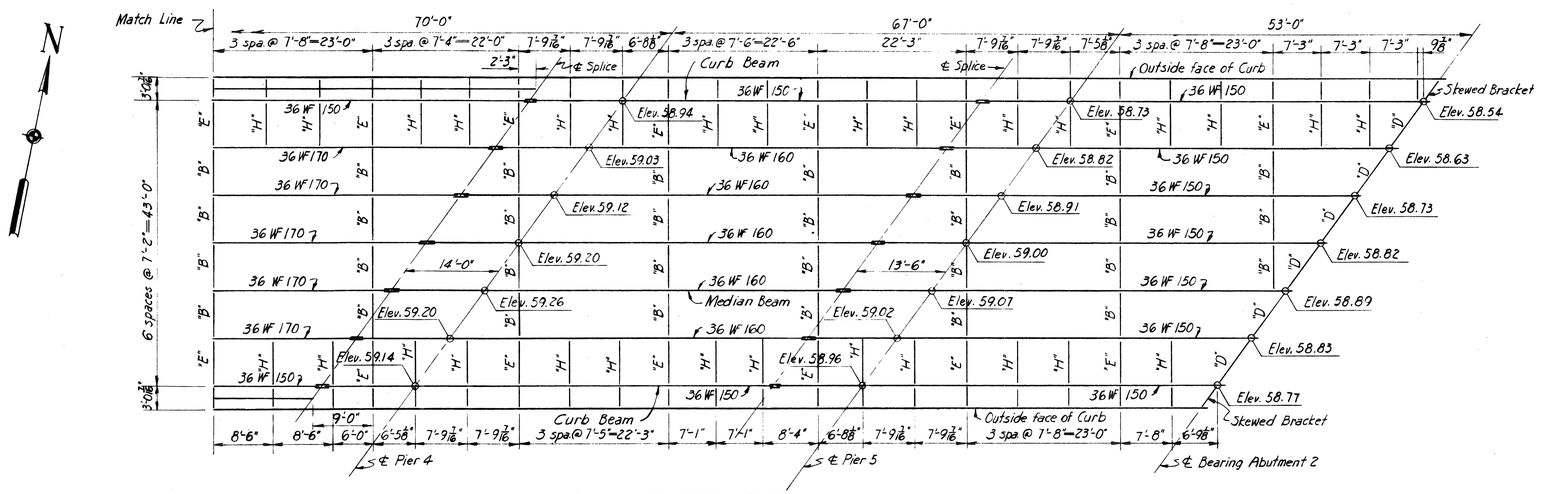
SCALE: 1/8" = 1'-0"

CONTRACT NO. ____

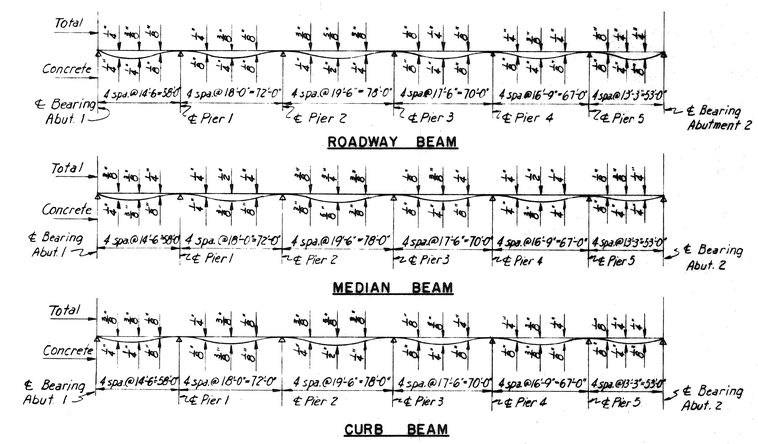
SHEET NO. 103 OF 382



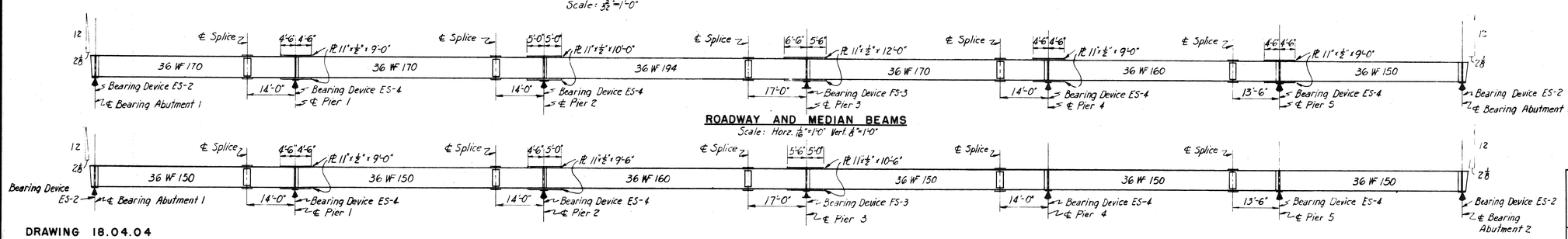

Notes:
Elevations shown are to top of beam flange.
Diaphragms are marked thus "B" "D" and "E". Curb Brackets are marked thus "H". For details see Std. Dwg. No. 20




**FRAMING PLAN**
Scale: $\frac{3}{32}$"=1'-0"




**DEAD LOAD DEFLECTION DIAGRAM**
(No Scale)




**ROADWAY AND MEDIAN BEAMS**
Scale: Horz. $\frac{1}{16}$"=1'-0" Vert. $\frac{1}{8}$"=1'-0"

**CURB BEAM**
Scale: Horiz. $\frac{1}{16}$"=1'0" Vert. $\frac{1}{8}$"=1'-0"

Notes:
All bearing stiffeners at points of support are 2 Ls 7" x 4" x $\frac{1}{2}$"
Bevel at ends of beams is with respect to beam axis.

DRAWING 18.04.04

| | BY | DATE | | | | |
|---|---|---|---|---|---|---|
| MADE | R.K. | 4-14-53 | | | | |
| TRACED | | | | | | |
| CHECKED | C.G.P. | 4-22-54 | 1 | As-Built | HBH | 1/24/56 |
| IN CHARGE OF | I.D.S.K. | | No. | REVISION | BY | DATE |

MAINE TURNPIKE AUTHORITY
# MAINE TURNPIKE
## SECTION 2 — PORTLAND TO AUGUSTA

STRUCTURE NO. 18 TURNPIKE UNDER
FALMOUTH SPUR INTERCHANGE
STA. 2573 + 80
FRAMING PLAN AND BEAM DETAILS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As noted
CONTRACT NO.
SHEET NO. 105 OF 382