

N-9 MINING AREA

BOTTOM OF POND
ELEV. 6645.0

N9-D
POND

TOP OF EMBANKMENT
ELEV. 6664.9'
MIN. WIDTH = 15.0'

EMERGENCY SPILLWAY
ELEV. 6662.0'
MIN. WIDTH = 20.0'
3:1 SIDE SLOPE

SPILLWAY OUTFLOW CHANNEL
MIN. WIDTH = 20.0'
MAX. SLOPE = 25%
3:1 SIDE SLOPES-RIPRAP

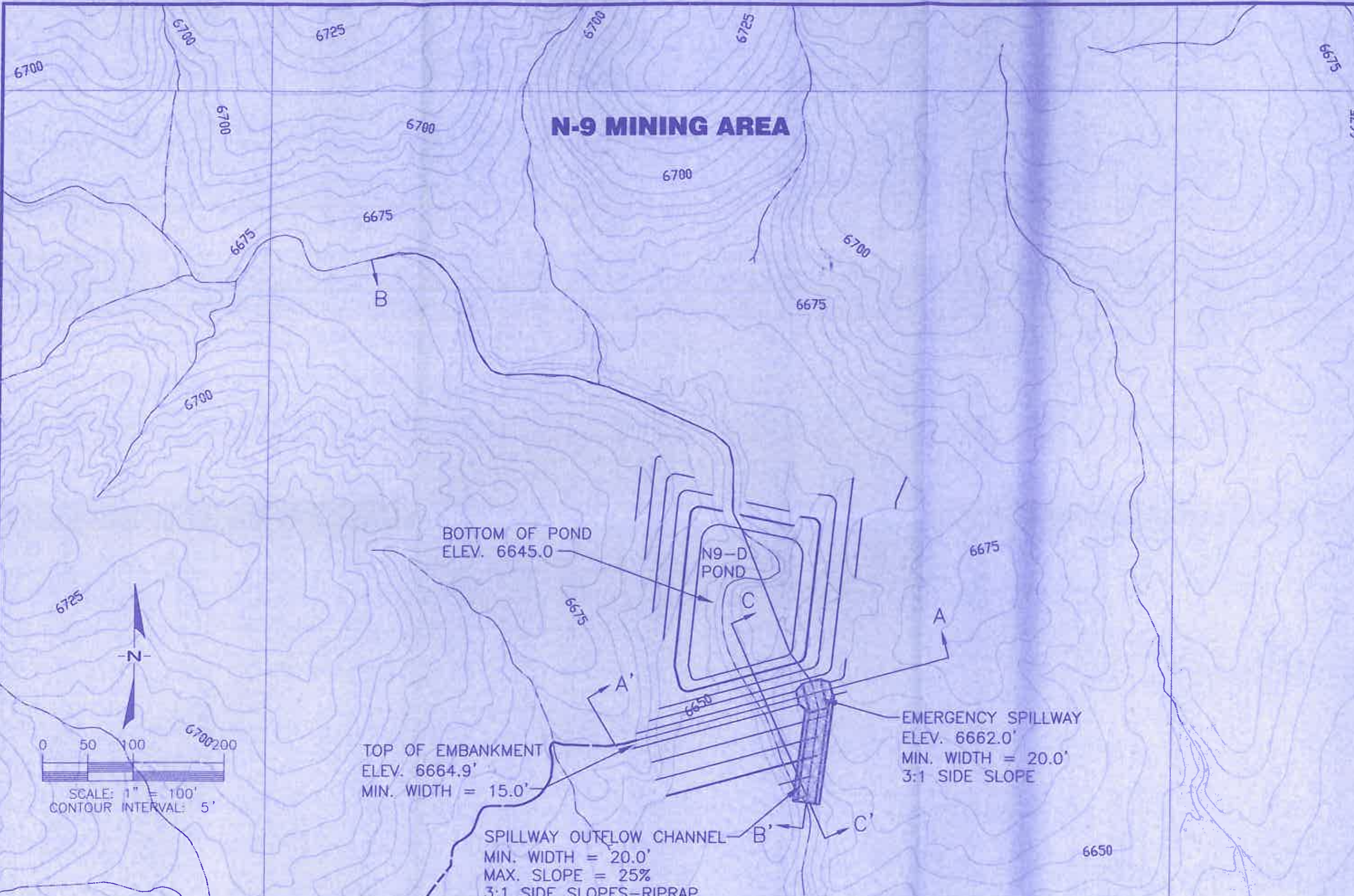
N 4,000

6700 200
0' 5'

6650

6625

N-9 MINING AREA



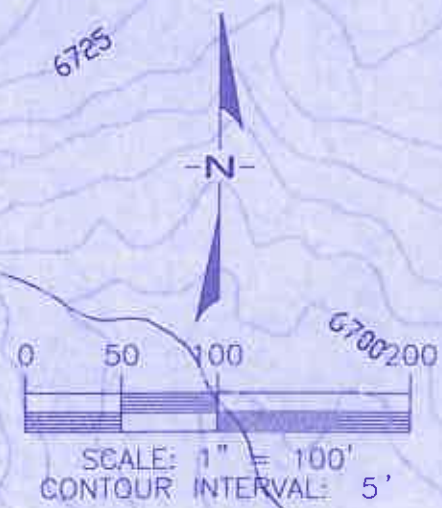
BOTTOM OF POND
ELEV. 6645.0

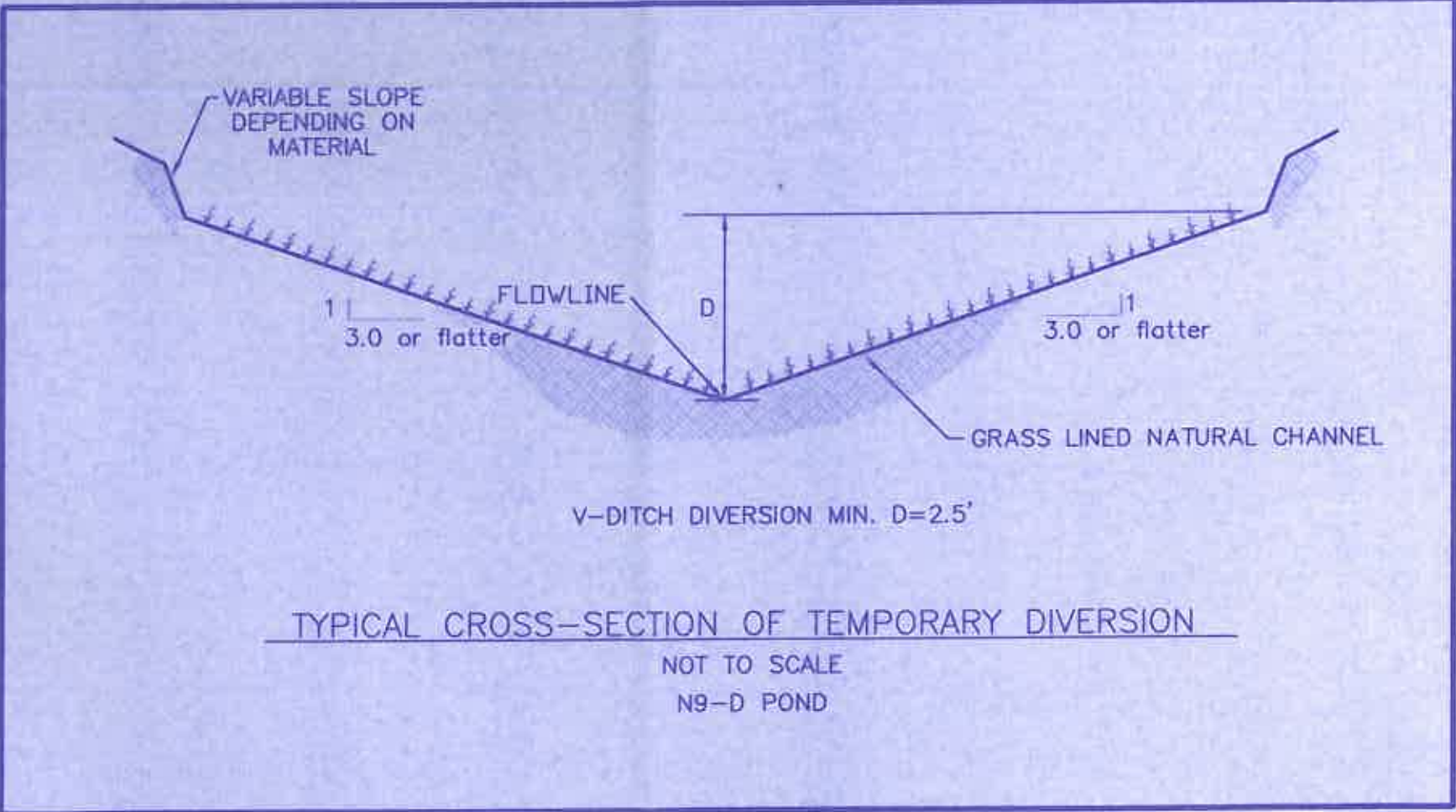
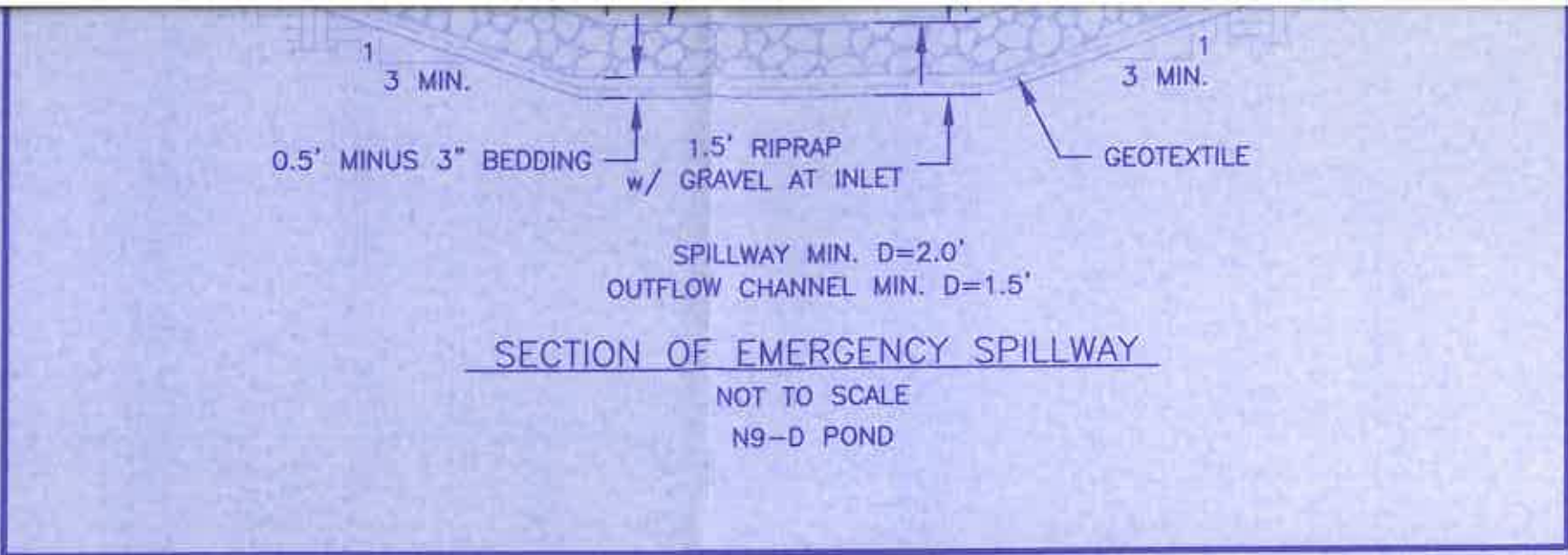
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3:1 SIDE SLOPES-RIPRAP





EMBANKMENT
ELEV. 6664.9'
WIDTH = 15.0'

B'

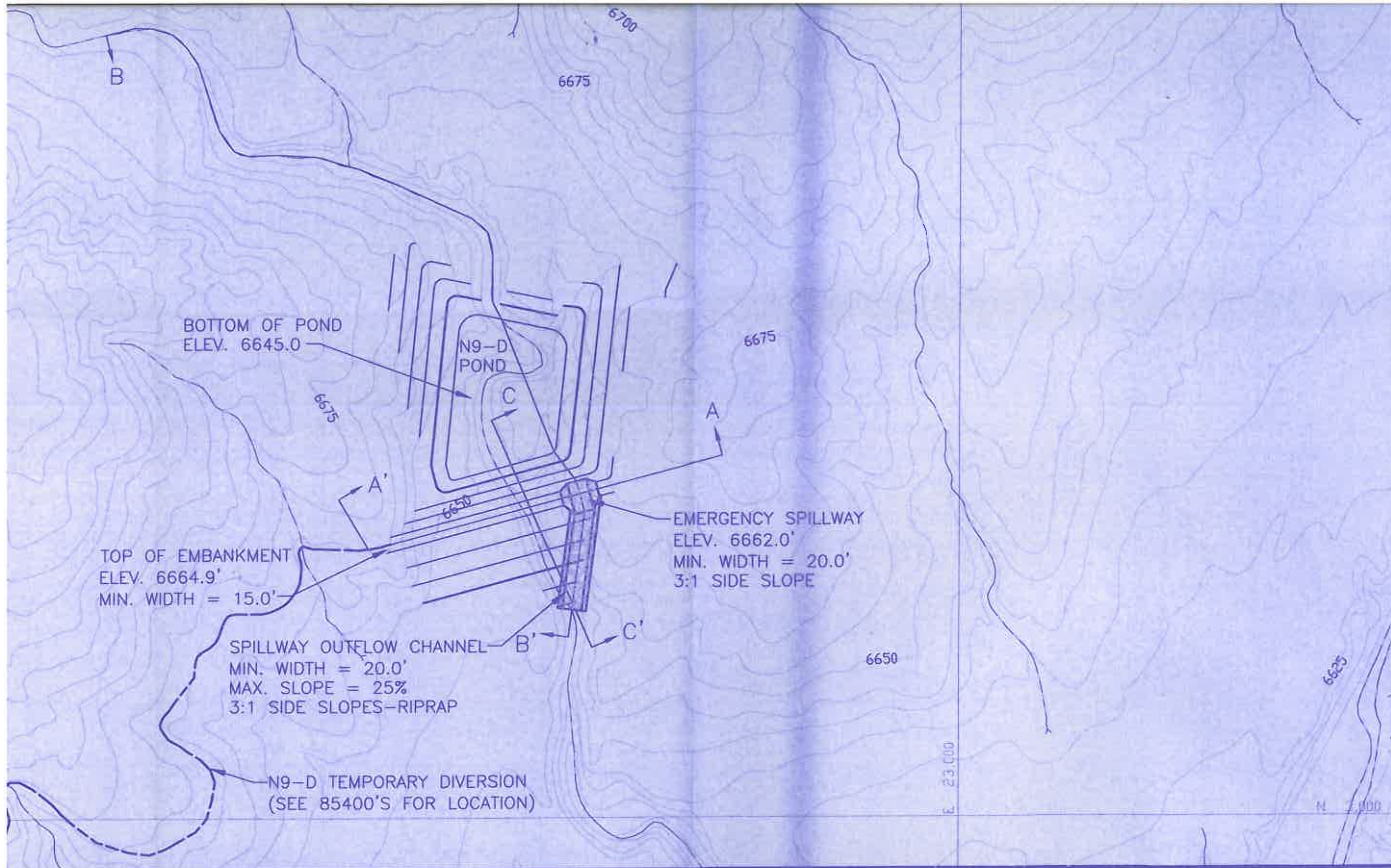
C

C'

6670

EMERGENCY SPILLWAY

TOP OF EMBANKMENT
ELEV. 6664.9'
MIN. WIDTH = 15.0'



EMERGENCY SPILLWAY
 ELEV. 6662.0'
 MIN. WIDTH = 20.0'
 3:1 SIDE SLOPE

TOP OF EMBANKMENT
 ELEV. 6664.9'
 MIN. WIDTH = 15.0'

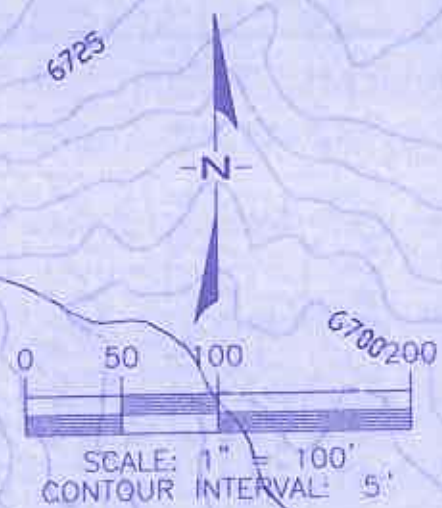
TOP OF EMBANKMENT
 ELEV. 6664.9'
 MIN. WIDTH = 15.0'

A'

B

6670

6670



BOTTOM OF POND
ELEV. 6645.0

N9-D
POND

TOP OF EMBANKMENT
ELEV. 6664.9'
MIN. WIDTH = 15.0'

EMERGENCY SPILLWAY
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3:1 SIDE SLOPE

SPILLWAY OUTFLOW CHANNEL
MIN. WIDTH = 20.0'
MAX. SLOPE = 25%
3:1 SIDE SLOPES-RIPRAP

N9-D TEMPORARY DIVERSION
(SEE 85400'S FOR LOCATION)

EMERGENCY SPILLWAY
ELEV. 6662.0'
MIN. WIDTH = 20.0'
3:1 SIDE SLOPE

TOP OF EMBANKMENT
ELEV. 6664.9'
MIN. WIDTH = 15.0'

6670

6670

6670

E. 23.000

E. 24.000

6675

6700

6725

N

6700

200

0 50 100

B

6675

6700

6675

A

A'

6650

B'

C'

C

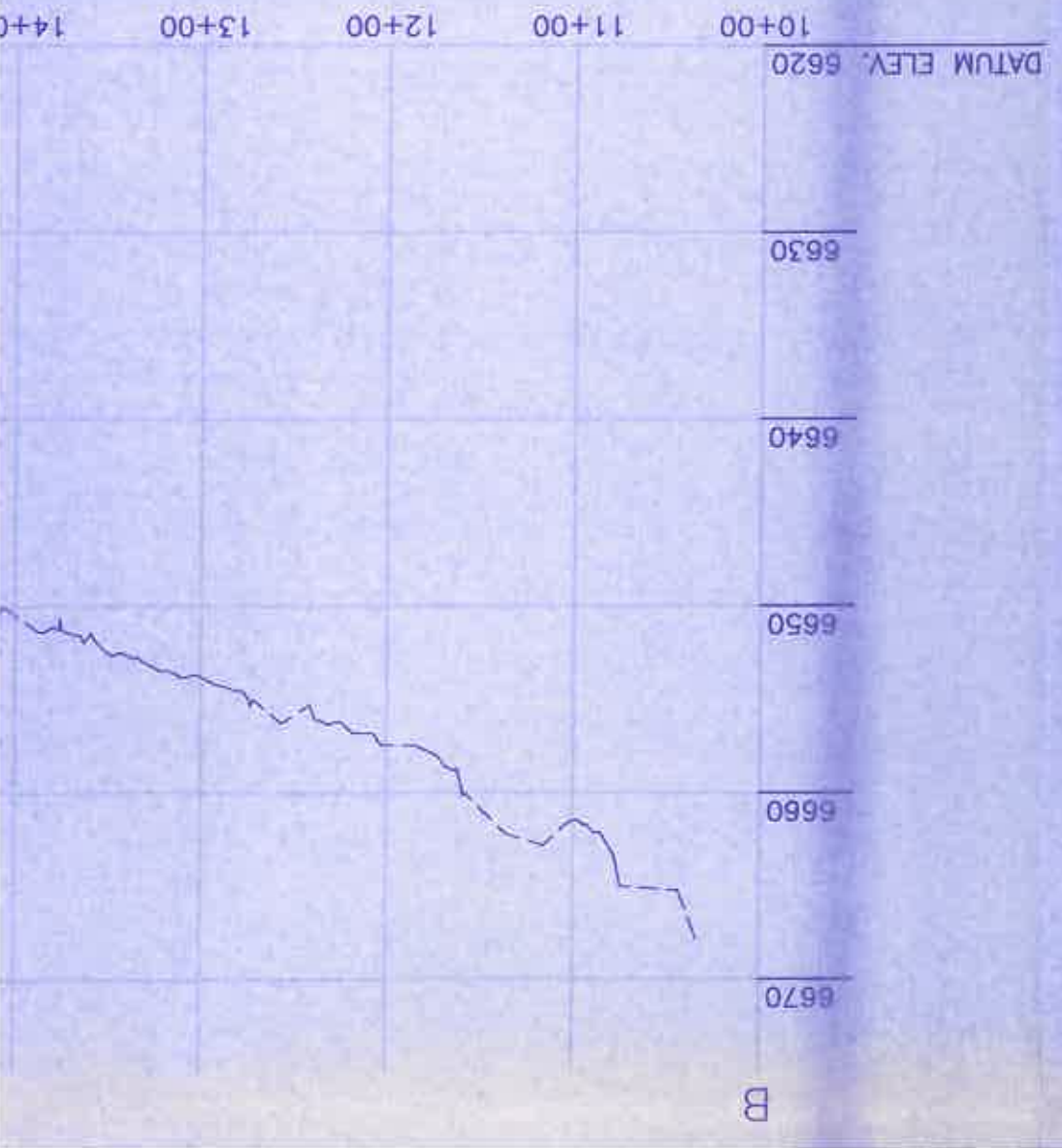
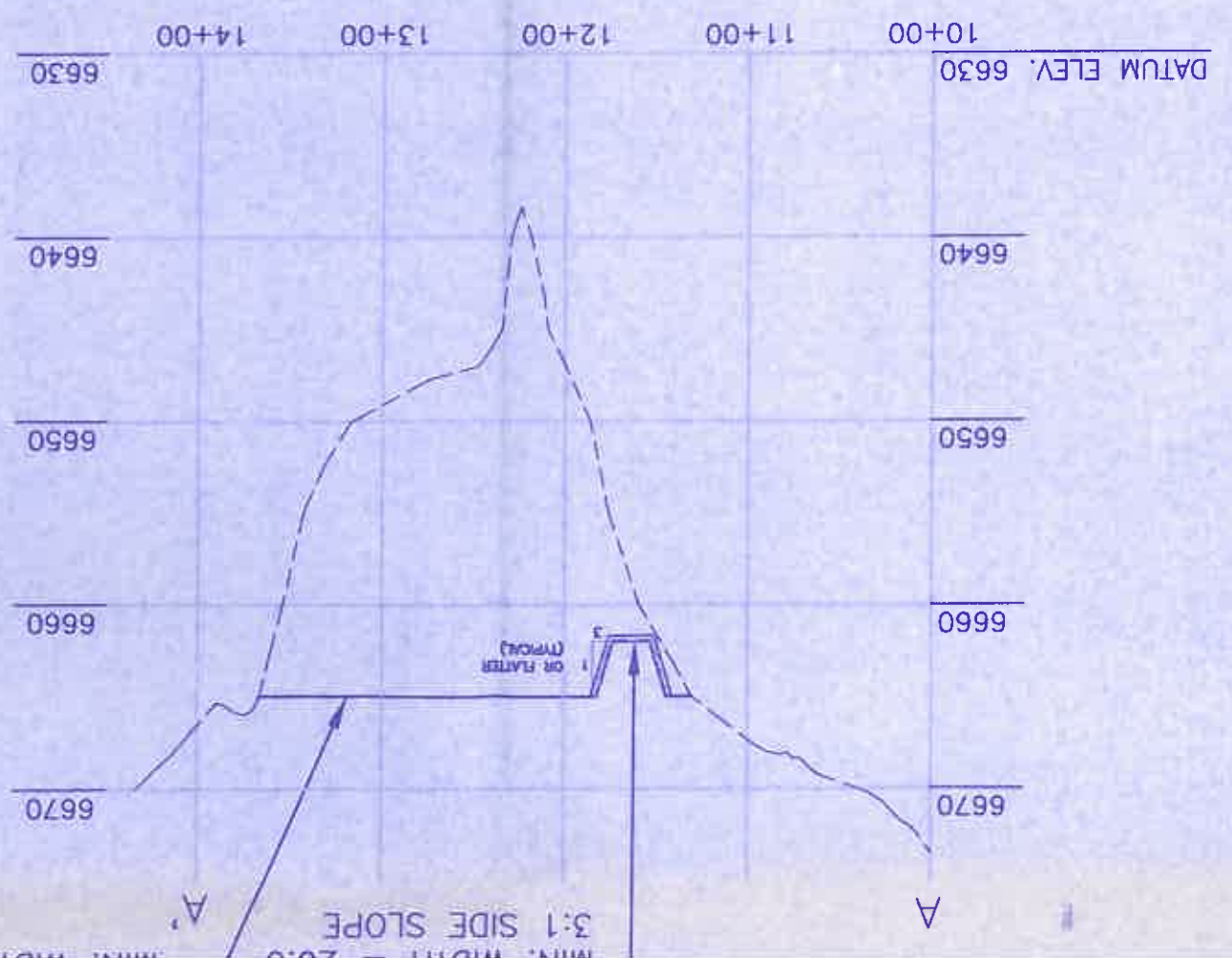
6650

B

| ELEVATION (ft-msl) | STAGE (ft) | AREA (acres) | TOTAL CAPACITY (ac-ft) | DESCRIPTION |
|--------------------|------------|--------------|------------------------|--------------------|
| 6645.0 | 0.0 | 0.39 | 0.00 | BOTTOM OF POND |
| 6650.0 | 5.0 | 0.65 | 2.61 | INCISED ELEV. |
| 6655.0 | 10.0 | 1.04 | 6.84 | |
| 6660.0 | 15.0 | 1.67 | 13.61 | |
| 6662.0 | 17.0 | 2.07 | 17.35 | EMERGENCY SPILLWAY |
| 6664.9 | 19.9 | 2.66 | 24.43 | TOP OF EMBANKMENT |

N9-D POND STAGE CAPACITY TABLE

SECTION A - A'
 SCALE: HORIZ. 1" = 100'
 VERT. 1" = 10'



SECTION B

SCALE: H

WOODSON
 ENGINEERING AND SURVEYING, INC.
 124 N. ELDEN ST.
 FLAGSTAFF, AZ 86001
 PHONE: (928) 774-4636 FAX: (928) 774-4648

NOTES:
 1) General location, see Drawing No. 85400, Sheet K-7 of
 2) See Chapter 6, Black Mesa PAP for Construction Spe
 3) See Vol. 2, Chapter 6, Attachment D, Sections 1-3 for
 Geotechnical Evaluation.
 4) Salvage topsoil in accordance with approved topsoil
 5) Reclamation of the disturbed area above the high wa
 accordance with the approved reclamation plan.
 6) Ponding area side slopes, typical 3:1 slope or flatter
 topography.

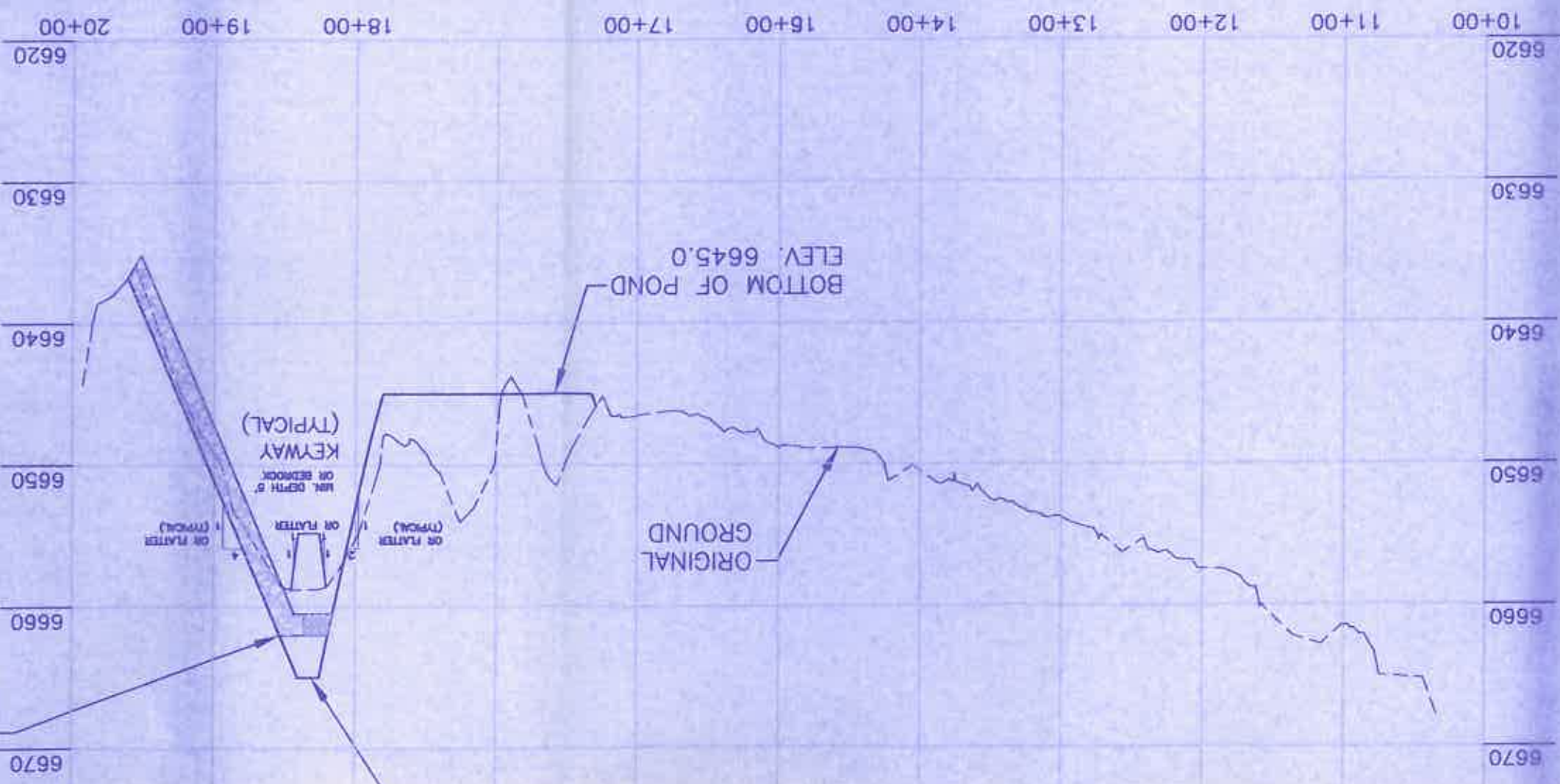
SECTION B - B'
 SCALE: HORIZ. 1" = 100'
 VERT. 1" = 10'

ARIZONA P.E. 1878
 JAMES G. SCHLEIVOGT
 Engineering Supervisor
 Peabody Energy Coal Company
 Date: DEC 23 2010



6670
6660
6650
6640
9+00
10
DATUM ELEV. 6630
BOTTOM OF POND
ELEV. 6645.0

EMERGENCY SPILLWAY
 ELEV. 6662.0'
 MIN. WIDTH = 20.0'
 3:1 SIDE SLOPE



ELEV. 6664.9'
 MIN. WIDTH = 15.0'

ENGINEER'S CERTIFICATION

- NOTES:
- 1) General location, see Drawing No. 85400, Sheet K-7 and Drawing No. 85405.
 - 2) See Chapter 6, Black Mesa PAP for Construction Specifications.
 - 3) See Vol. 2, Chapter 6, Attachment D, Sections 1-3 for description of Geotechnical Evaluation.
 - 4) Salvage topsoil in accordance with approved topsoil salvage plan.
 - 5) Reclamation of the disturbed area above the high waterline shall be in accordance with the approved reclamation plan.
 - 6) Ponding area side slopes, typical 3:1 slope or flatter and blend into natural topography.

| | |
|-------------------------|-------------------------|
| DESIGNED BY: GA | SCALE: AS NOTED |
| DRAWN BY: PEK | DRAWING DATE: 11-22-04 |
| CHECKED BY: JGS | PHOTO DATE: 05-83 |
| CONTOUR INTERVAL: 5 FT. | DWG FILE: POND N9-D.DWG |

PEABODY WESTERN COAL COMPANY
 P. O. BOX 650 KAYENTA, ARIZONA 86033

KAYENTA MINE

**PROPOSED N9-D
 SEDIMENTATION POND DESIGN**

EXHIBIT # 1

ARIZONA P.E. 18782
 Date: **DEC 23 2004**
 Peabody Western Coal Company
 Engineering Supervisor
JAMES G. SCHLEMMVOLT

Professional Engineer's Certification
 JAMES G. SCHLEMMVOLT
 18782
 State of Arizona

