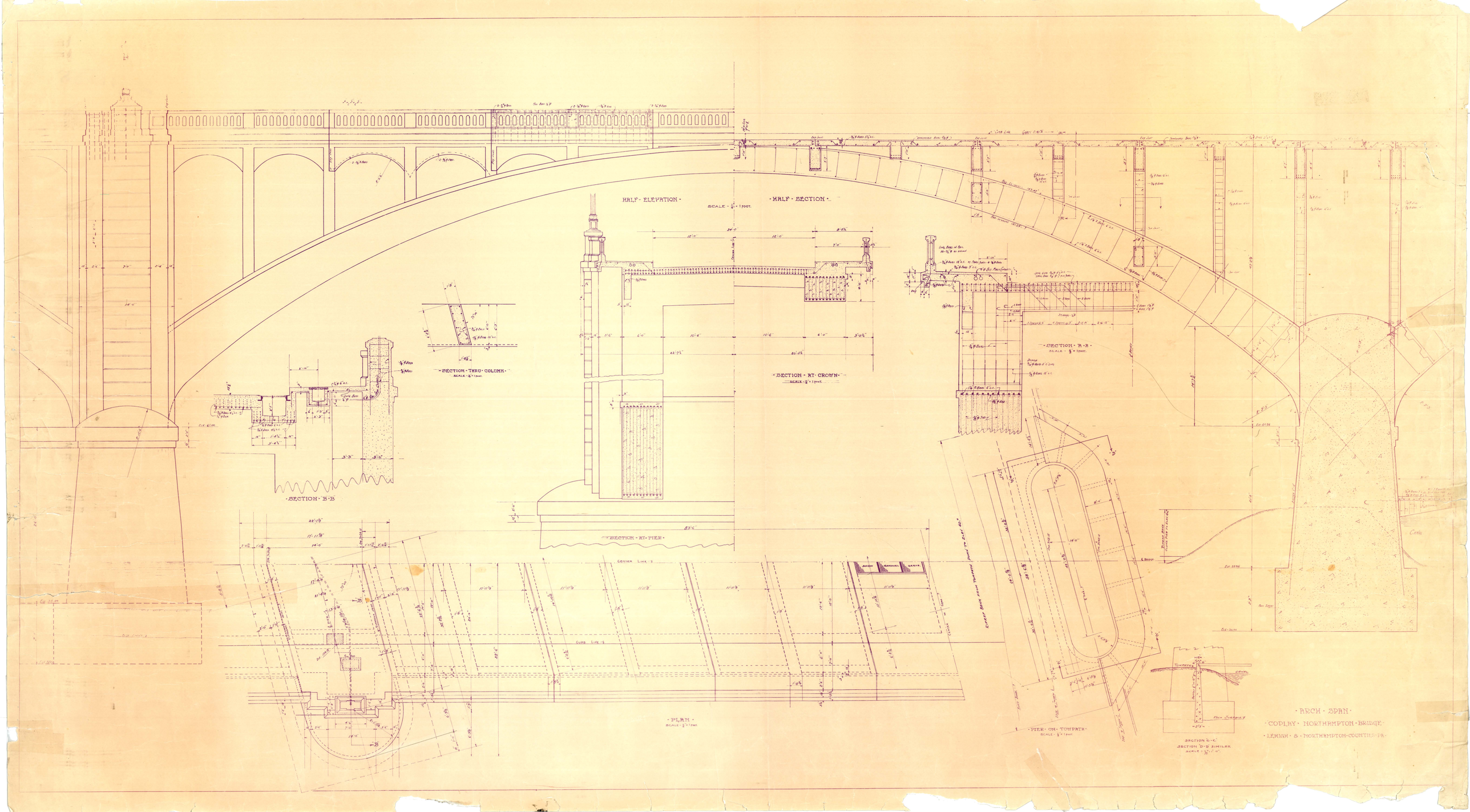
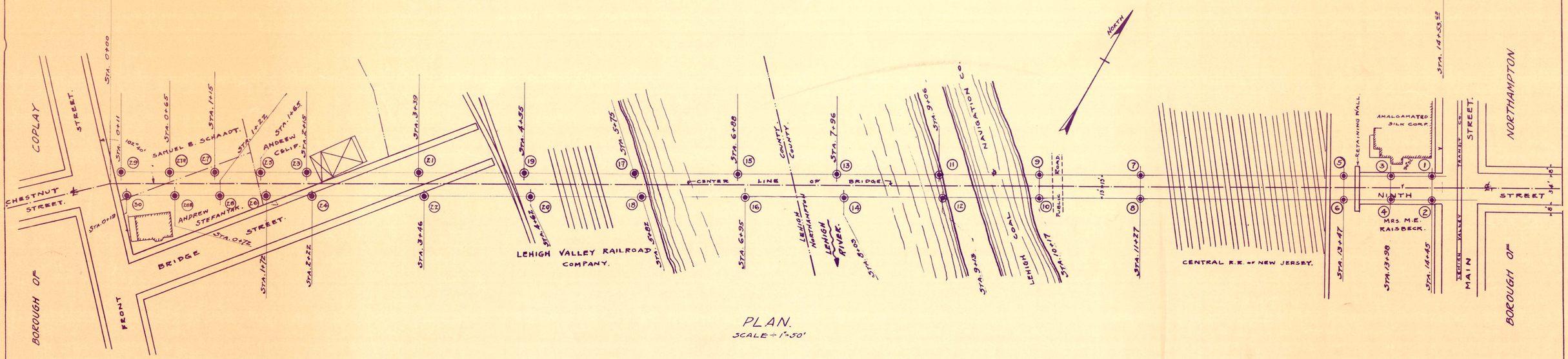
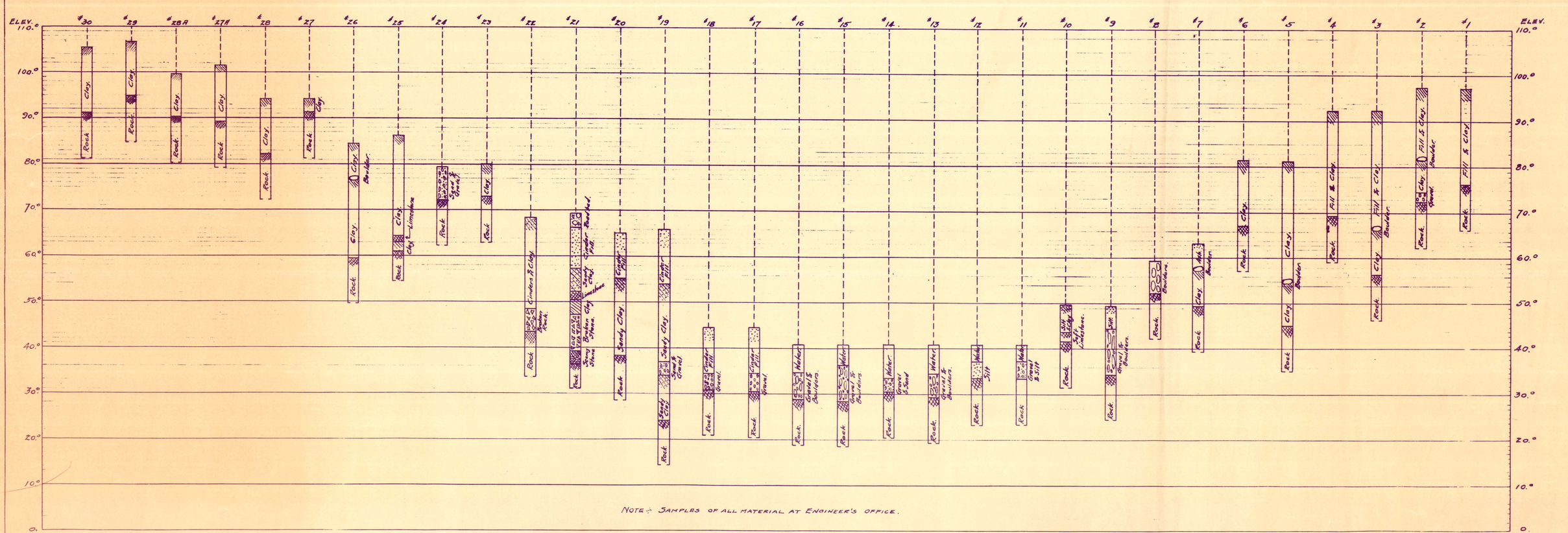

HALF - ELEVATION -
SCALE - 1/8" = 1 FOOT.
- HALF - SECTION -
- SECTION - THRU - COLUMN -
SCALE - 3/4" = 1 FOOT.
- SECTION - B-B
- SECTION - AT - CROWN -
SCALE - 3/4" = 1 FOOT.
- SECTION - AT - PIER -
- SECTION - A-A -
SCALE - 1/8" = 1 FOOT.
- PLAN -
SCALE - 1/8" = 1 FOOT.
- PIER - ON - TOWPATH -
SCALE - 1/8" = 1 FOOT.
SECTION C-C
SECTION D-D SIMILAR
SCALE - 1/8" = 1'-0"
- ARCH - SPAN -
- COPLAY - NORTHAMPTON - BRIDGE -
- LEHIGH - & - NORTHAMPTON - COUNTIES - PA -



PROFILE ALONG ℄ BRIDGE.
SCALE ÷ 1" = 50'



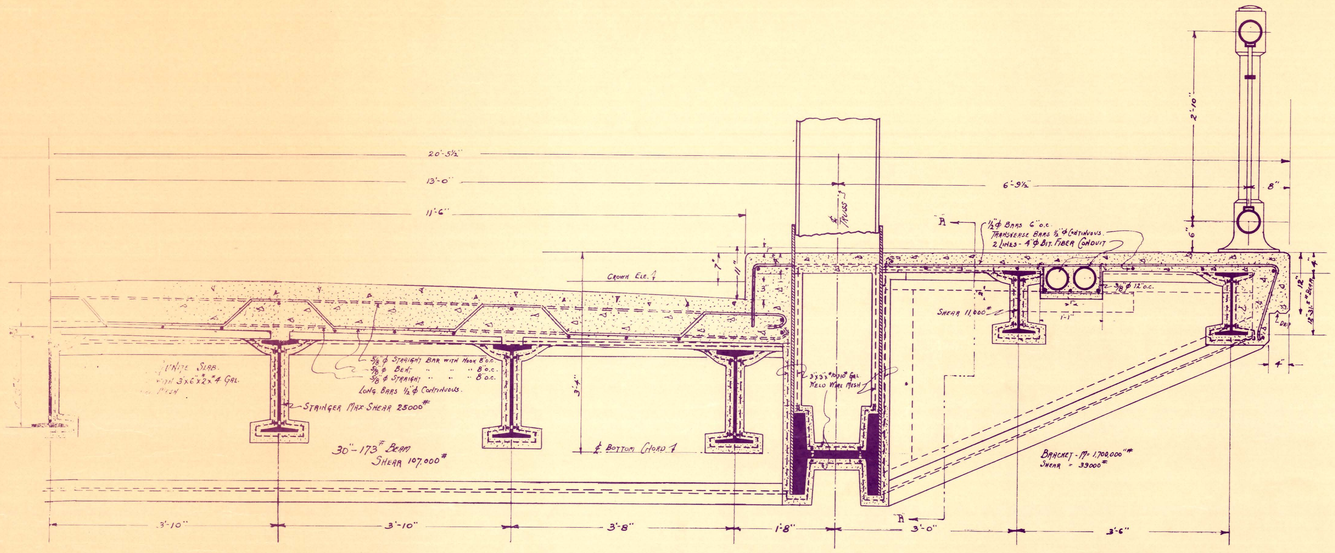
PLAN.
SCALE ÷ 1" = 50'



NOTE ÷ SAMPLES OF ALL MATERIAL AT ENGINEER'S OFFICE.

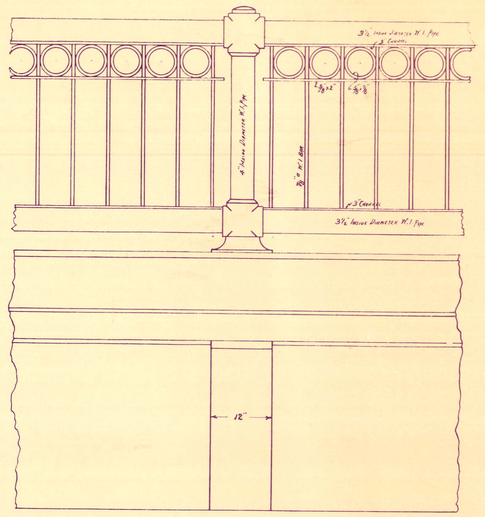
BORINGS.
SCALE {VERT. ÷ 1" = 10'
HOR. ÷ NO SCALE.

· COPLAY · NORTHAMPTON · BRIDGE ·
· LEHIGH · & · NORTHAMPTON · COUNTIES · PENNA ·



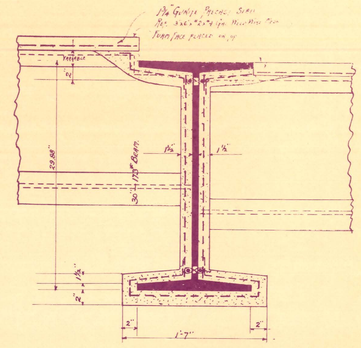
SECTION · OF · ROADWAY · & · SIDEWALK ·

SCALE - 1" = 1 FOOT.

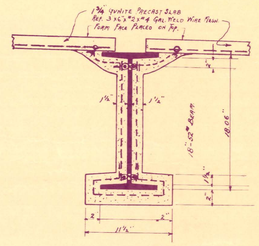


ELEVATION · OF · SIDEWALK · RAIL ·

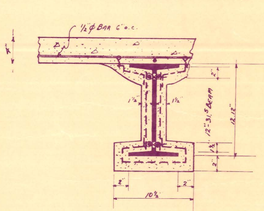
SCALE - 1" = 1 FOOT.



· SECTION · OF · FLOORBEAM ·

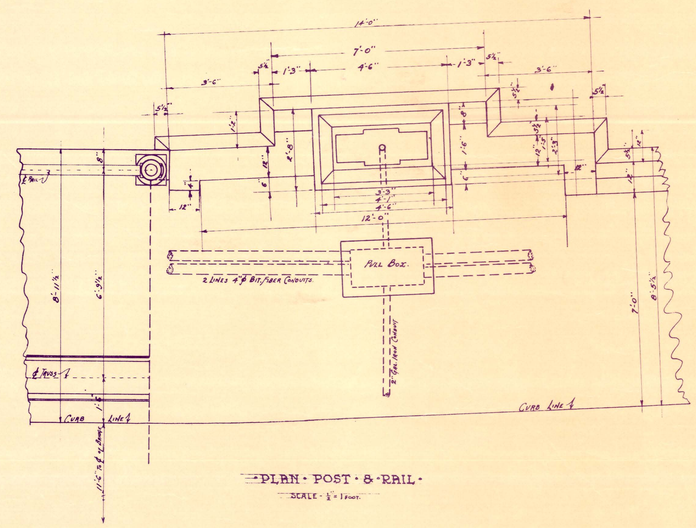


· SECTION · OF · ROADWAY · STRINGER ·



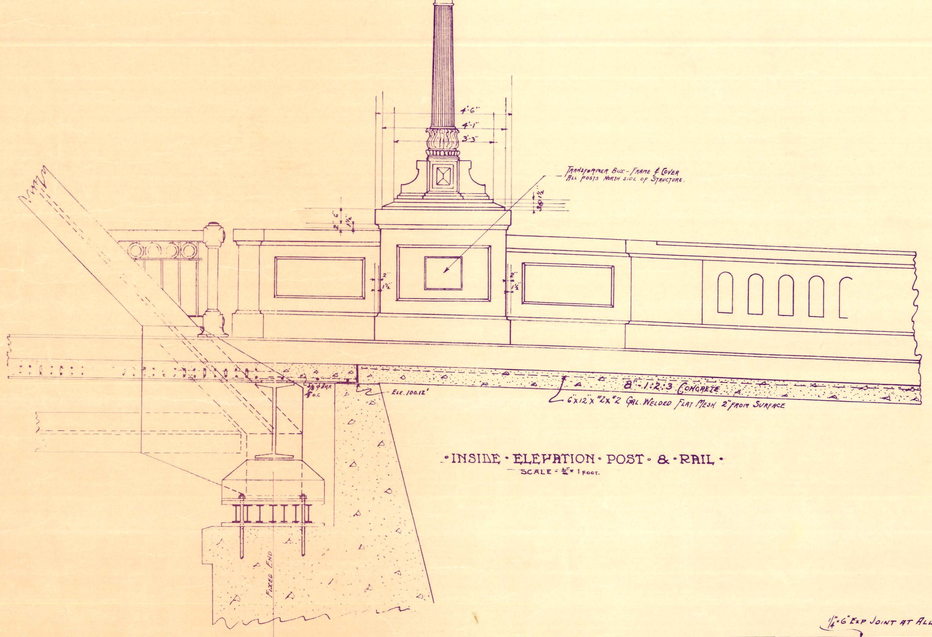
· SECTION · OF · SIDEWALK · STRINGER ·

SCALE - 1½" = 1 FOOT.



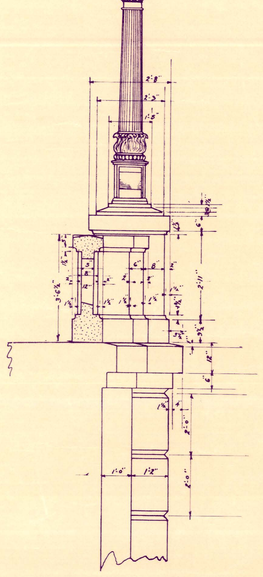
· PLAN · POST · & · RAIL ·

SCALE - ½" = 1 FOOT.



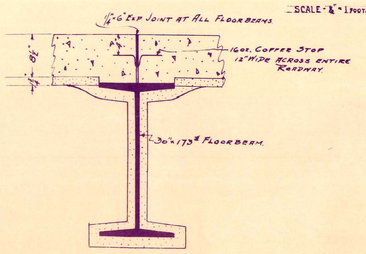
· INSIDE · ELEVATION · POST · & · RAIL ·

SCALE - ½" = 1 FOOT.



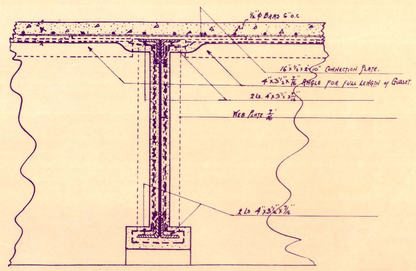
· SECTION · OF · RAIL · & · POST ·

SCALE - ½" = 1 FOOT.



· SECTION · THRU · ROADWAY · SHOWING ·
· JOINT · OPEN · ALL · FLOORBEAMS ·

· SCALE - 1" = 1 FOOT ·

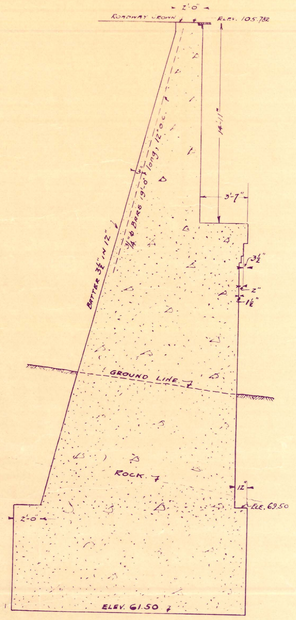


· BRACKET · SECTION · A - A ·

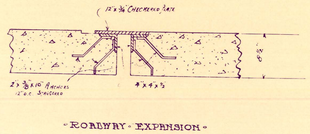
SCALE - 1" = 1 FOOT.

· DETAILS · THRU · TRUSS · SPAN ·
· OPEN ·
· CENTRAL · RAILROAD · COMPANY · OF · NEW · JERSEY ·
· COPLAY · NORTHAMPTON · BRIDGE ·
· LEHIGH · & · NORTHAMPTON · COUNTIES · PENNSYLVANIA ·

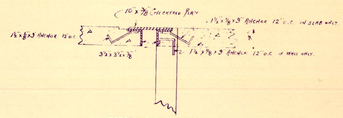
SCALES AS NOTED



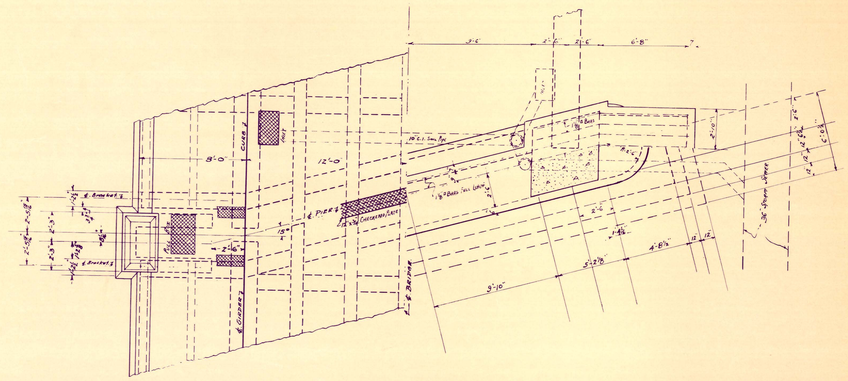
- SECTION · A-A · RIGHT · ANGLE · TO · FACE · WEST · ABUTMENT -
SCALE 1/4" = 1 FOOT.



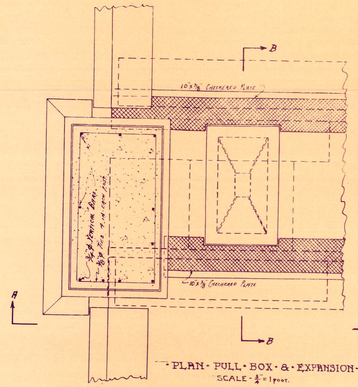
- ROADWAY · EXPANSION -
SCALE · 1" = 1 FOOT.



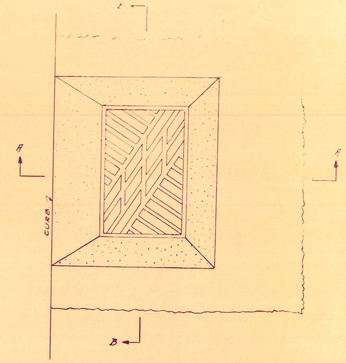
- SIDEWALK · EXPANSION -
SCALE · 1" = 1 FOOT.



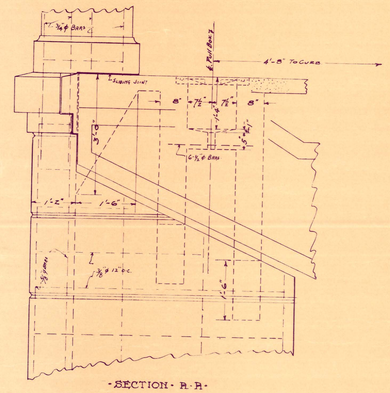
- PLAN · OF · PIERS · STATIONS · 3+41.22 · & · 4+56.22 -
- SCALE · 1/4" = 1 FOOT.



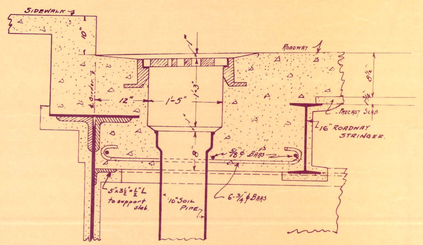
- PLAN · PULL · BOX · & · EXPANSION · JOINTS -
SCALE · 1/2" = 1 FOOT.



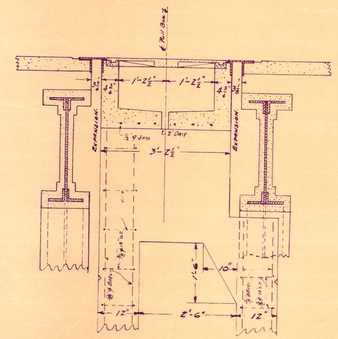
- PLAN · OF · INLET -
- SCALE · 1" = 1 FOOT.



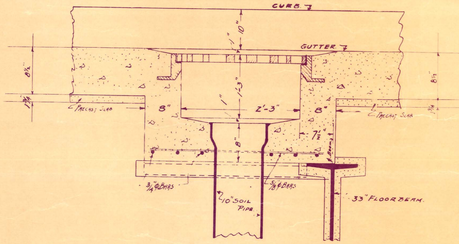
- SECTION · B-B -



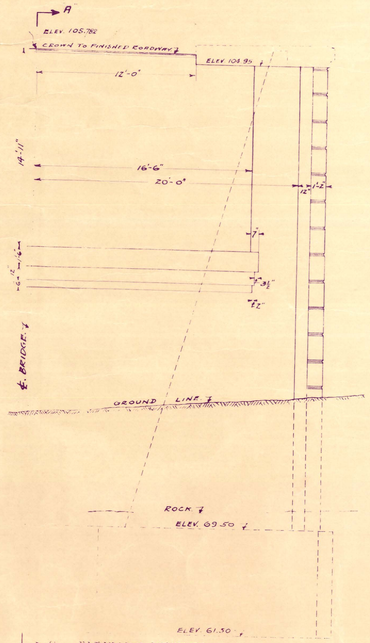
- SECTION · A-A · INLET -



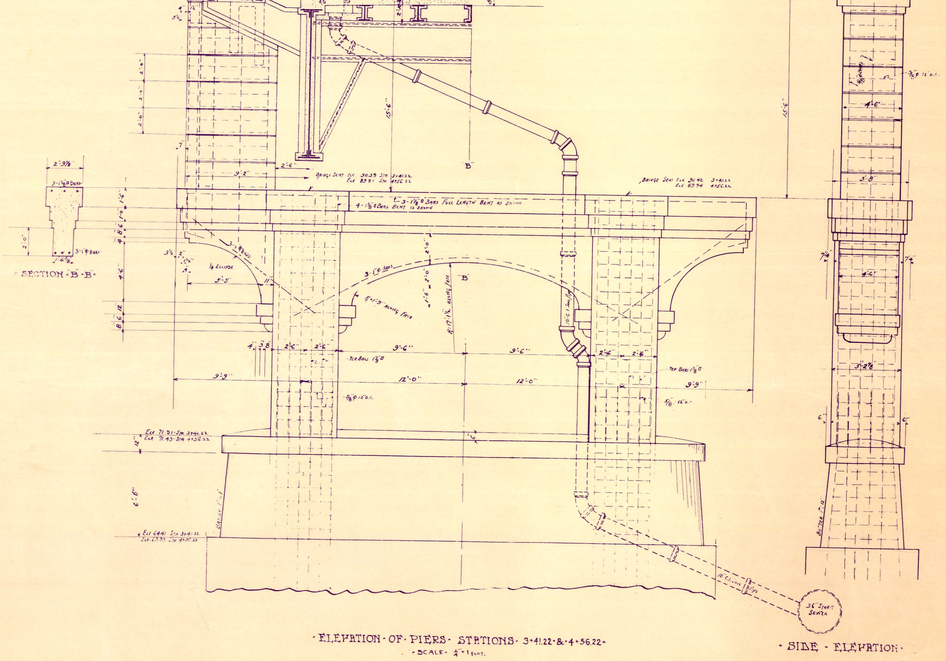
- SECTION · B-B -



- SECTION · B-B · INLET -



- ELEVATION · WEST · ABUTMENT · RIGHT · ANGLES · TO · ℄ -
SCALE · 1/4" = 1 FOOT.



- ELEVATION · OF · PIERS · STATIONS · 3+41.22 · & · 4+56.22 -
- SCALE · 1/4" = 1 FOOT.

- SIDE · ELEVATION -

- DETAILS · NECK · GIRDER · SPANS -
- COPLAY · NORTHAMPTON · BRIDGE -
- LEHIGH · & · NORTHAMPTON · COUNTIES · PENNA -

- WEST · APPROACH · NORTH · ELEVATION -

- PLAN · WEST · ABUTMENT -

- ELEVATION · WEST · ABUTMENT -

- SECTION · A-A · WEST · ABUTMENT -

- PLAN -

- WEST APPROACH · SOUTH · ELEVATION -

- ELEVATION · WALL · PILASTER · POST & RAILING -
SCALE - 1" = 1 FOOT.

- SECTION · A-A -
SCALE - 1" = 1 FOOT.

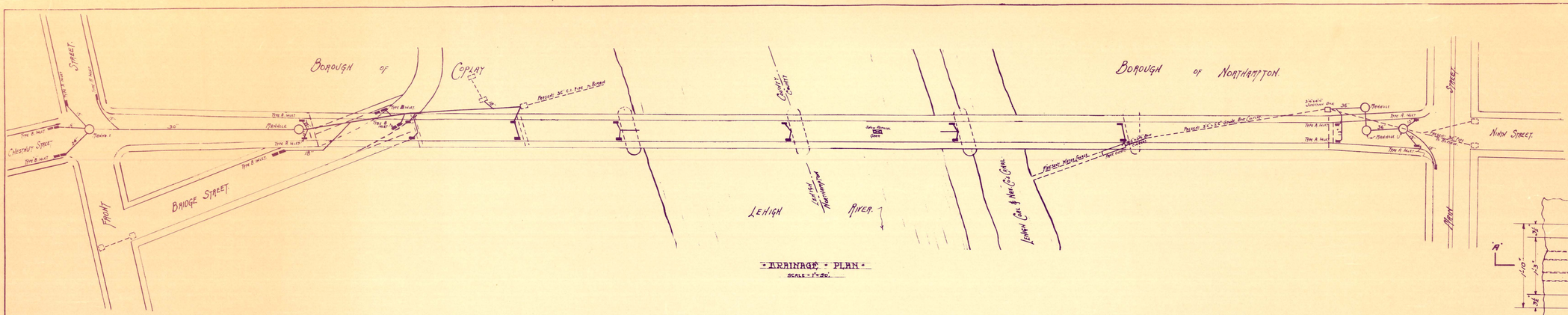
- SECTION · B-B -
SCALE - 1" = 1 FOOT.

- APPROACH · CONDUITS -

- DETAIL · OF · SCORING -

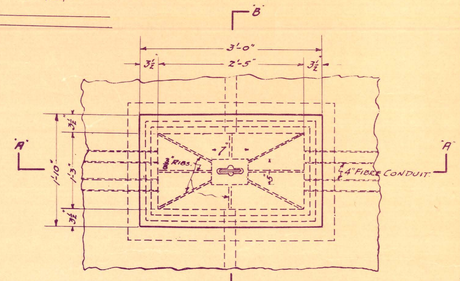
- SECTION · C-C · EXPANSION · JOINTS · RETAINING · WALLS -

- EAST · APPROACH -
- COPLAY · NORTHAMPTON · BRIDGE -
- LEHIGH · & · NORTHAMPTON · COUNTIES · PENNSYLVANIA -

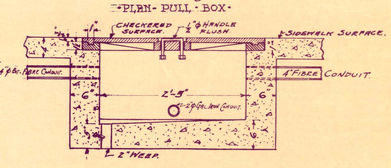


DRAINAGE PLAN
SCALE 1" = 30'.

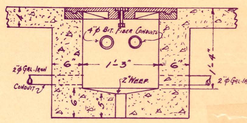
PROFILE
SCALES 1" = 30 FEET.



PLAN - PULL - BOX

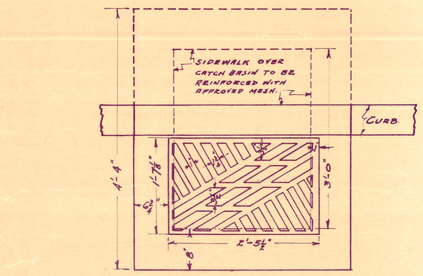


SECTION A-A

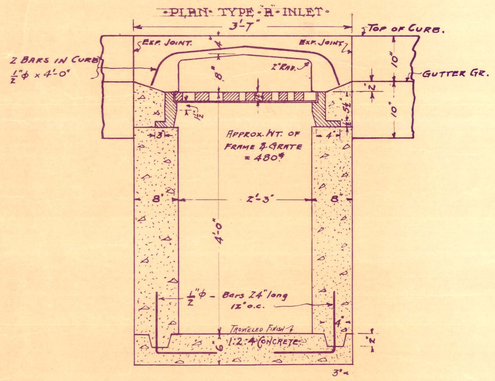


SECTION B-B

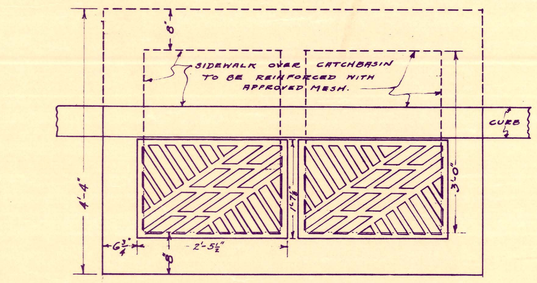
FRAME & COVER - CAST IRON
36" REQD. RE-SMOOTH
SCALE - 1" = 1'



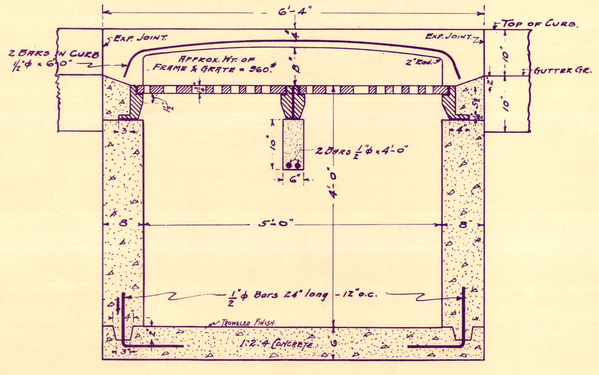
PLAN - TYPE A - INLET



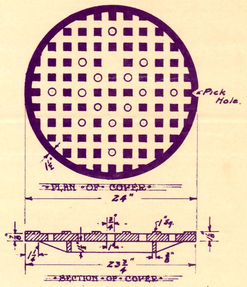
SECTION - TYPE A - INLET
SCALE - 1" = 1 foot.



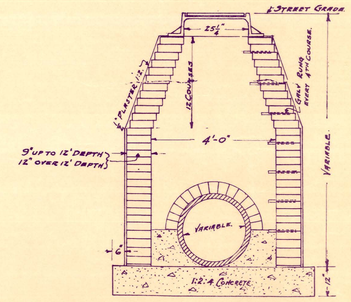
PLAN - TYPE B - INLET



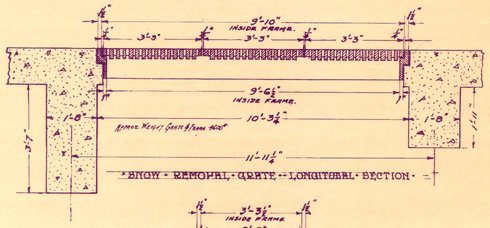
SECTION - TYPE B - INLET
SCALE - 1" = 1 foot.

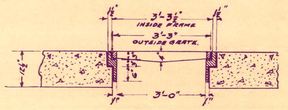


MANHOLE - COVER & FRAME
SCALE - 1½" = 1 foot.

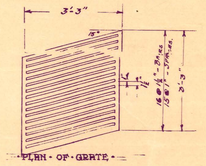


SECTION OF MANHOLE
SCALE - 1" = 1 foot.





Transverse - Section



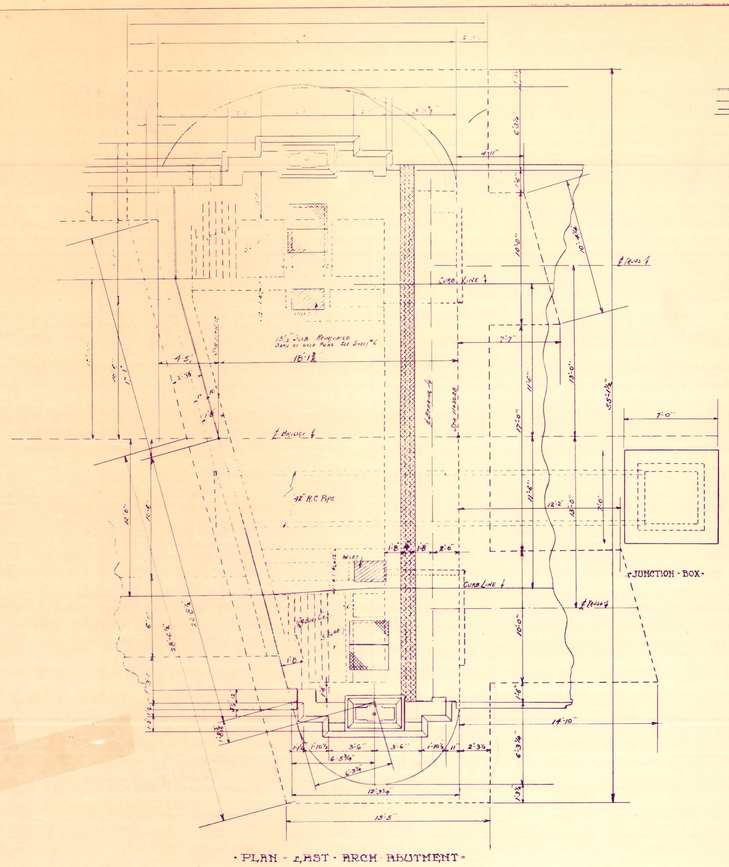
Plan - of - Grate
One Frame - Three Grates Reqd.
Material - Cast Steel
SCALE - 1" = 1 foot.

Sewers & Appurtenances.

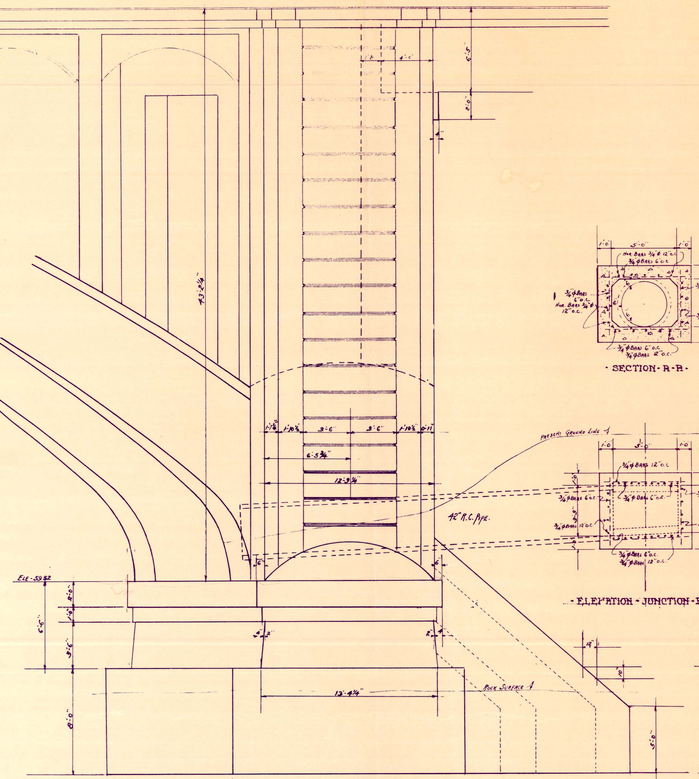
Coplay - Northampton Bridge.

Lehigh & Northampton Counties - Pennsylvania.

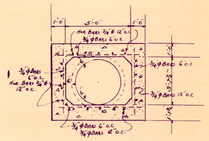
Scales as noted.



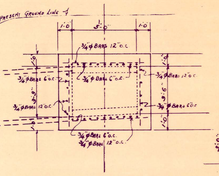
- PLAN - EAST - ARCH ABUTMENT -
Scale - ½" = 1 foot



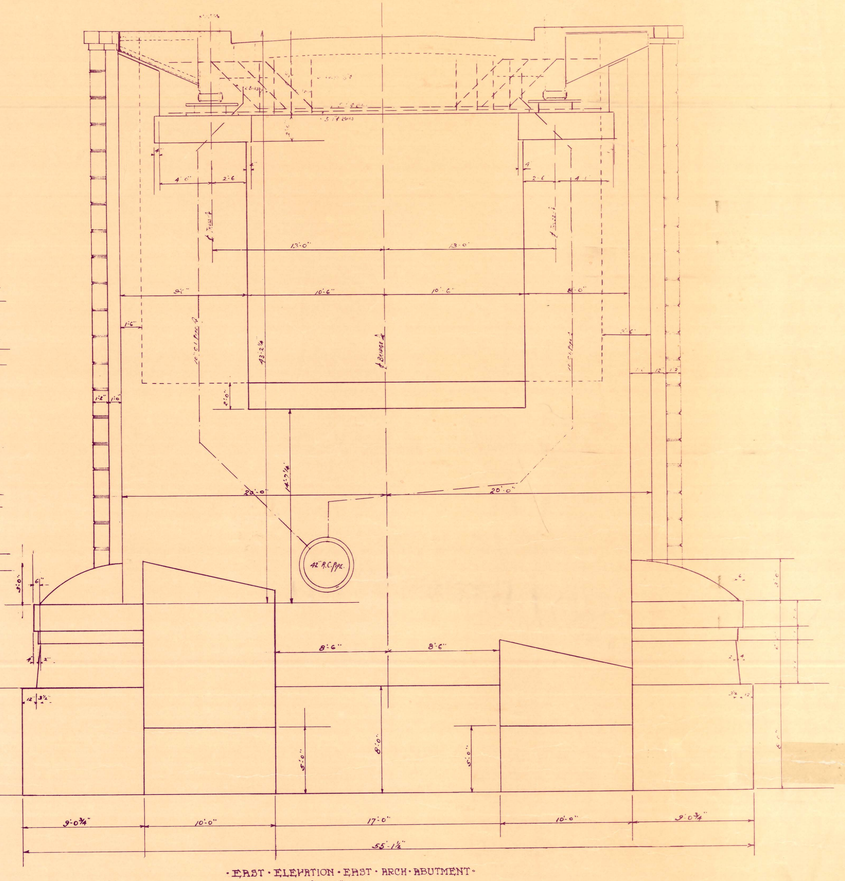
- SOUTH - ELEVATION - EAST - ARCH - ABUTMENT -
Scale - ½" = 1 foot



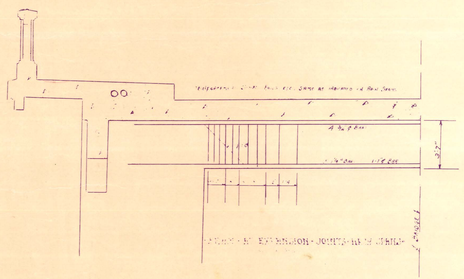
- SECTION - R - R -



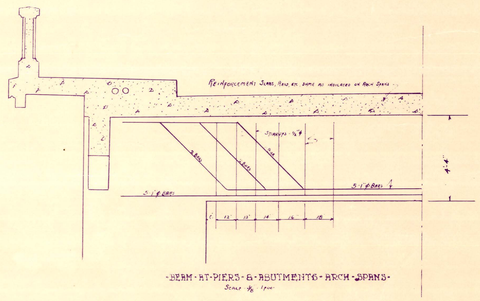
- ELEVATION - JUNCTION - BOX -



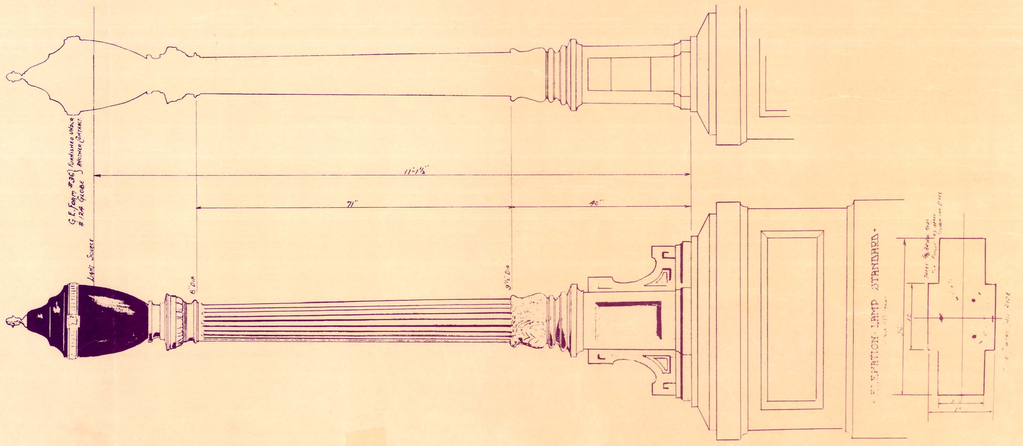
- EAST - ELEVATION - EAST - ARCH - ABUTMENT -
Scale - ½" = 1 foot

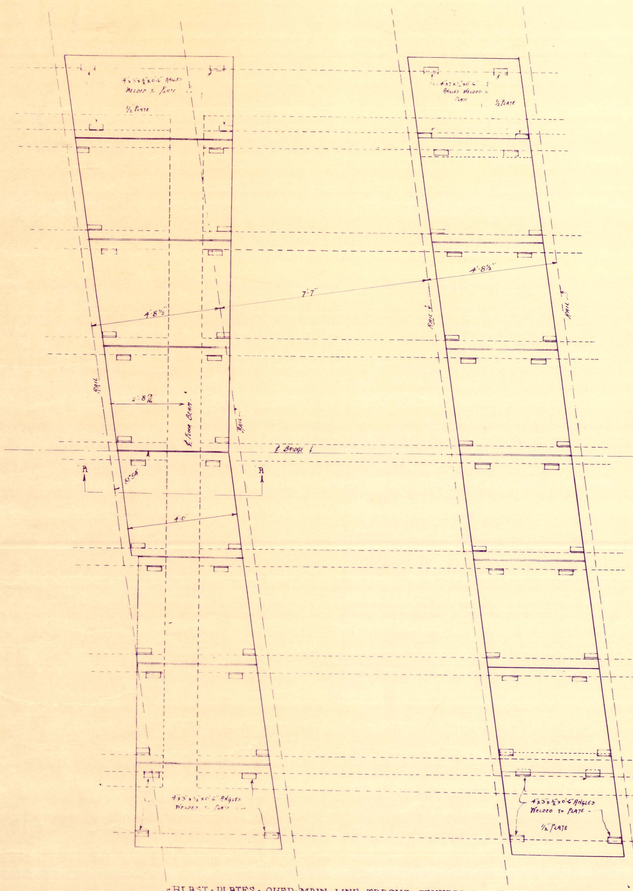


- SECTION - OF EXPANSION - JOINTS - IN - WING -

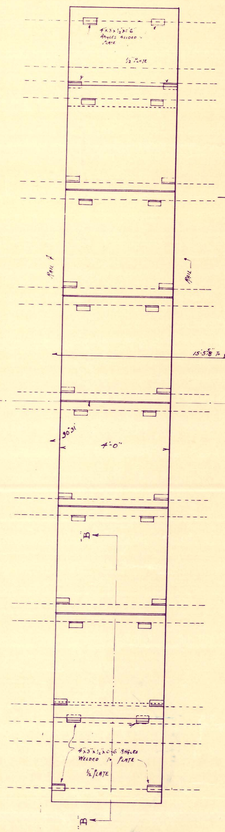


- BEAM - AT - PIERS - & - ABUTMENTS - ARCH - SPANS -
Scale ½" = 1 foot



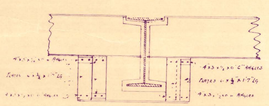


·BLAST·PLATES·OVER·MAIN·LINE·TRACKS·CENTRAL·RAILROAD·OF·NEW·JERSEY·
SCALE·½"=1 FOOT.

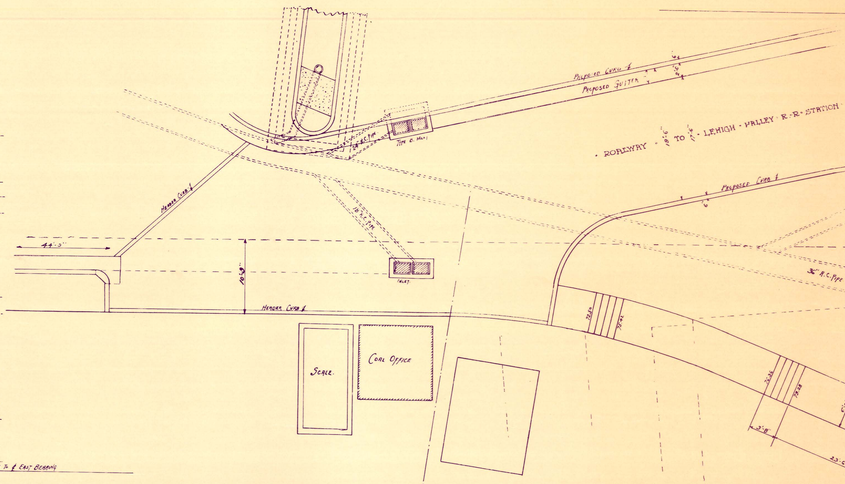


·BLAST·PLATES·OVER·LADDER·TRACK·
·CENTRAL·R·R·OF·NEW·JERSEY·
SCALE·½"=1 FOOT.

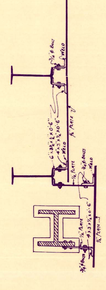
Note: Designing and erection of blast plates to be included under Item 28 of proposal. All of above dimensions must be checked in field before fabrication.



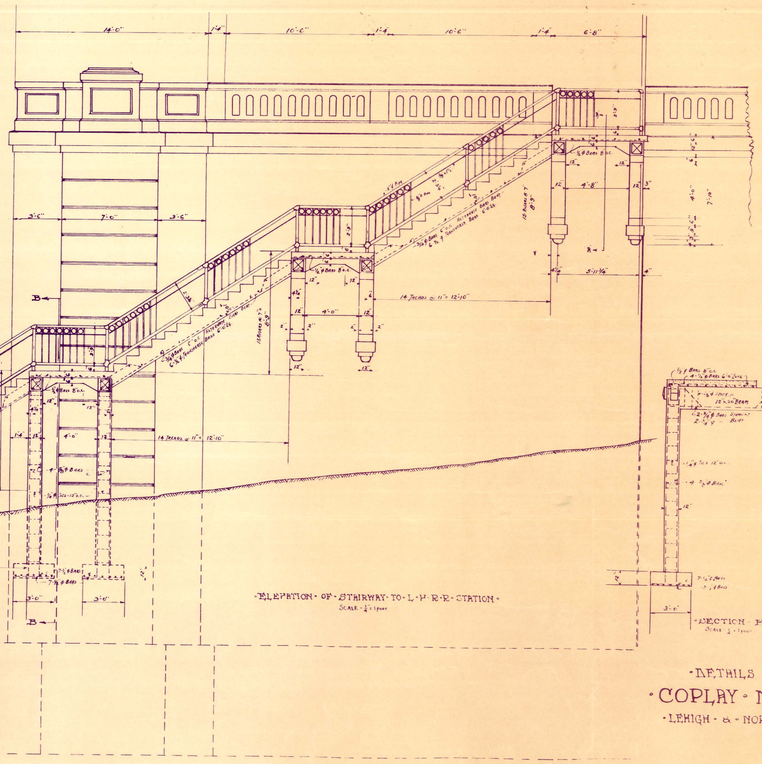
·SECTION·A·A·



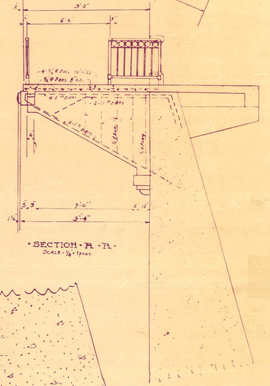
·PLAN·ROADWAY·WALKWAY·&·STAIRWAY·TO·L·V·R·R·STATION·
SCALE·1/8 FOOT.



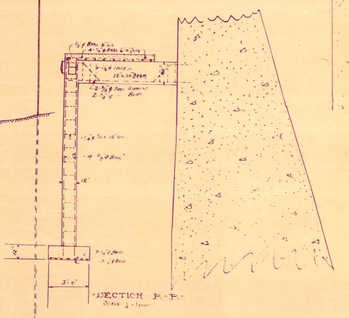
·SECTION·B·B·



·ELEVATION·OF·STAIRWAY·TO·L·V·R·R·STATION·
SCALE·½"=1 FOOT.



·SECTION·B·B·
SCALE·½"=1 FOOT.



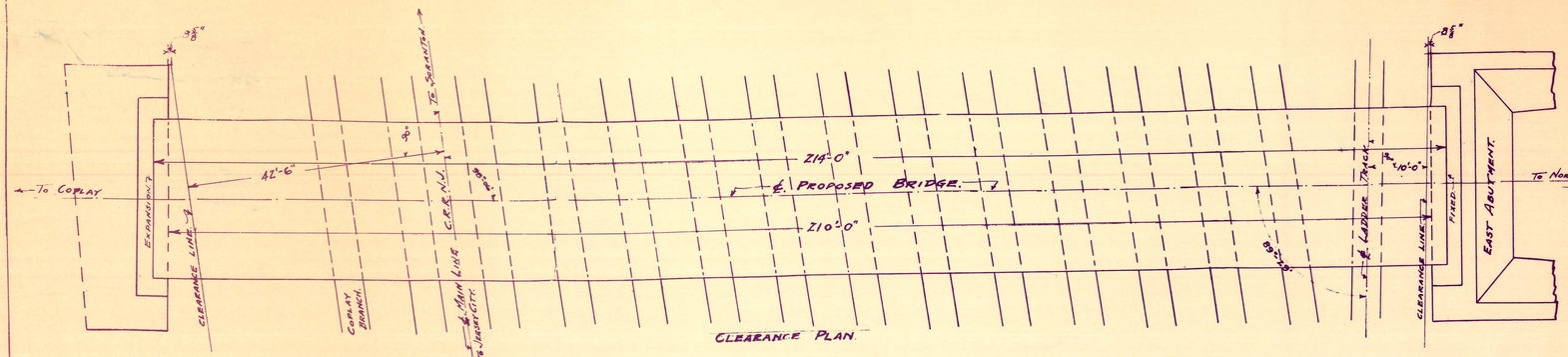
·SECTION·A·A·
SCALE·½"=1 FOOT.

·DETAILS·BLAST·PLATES·ETC.·

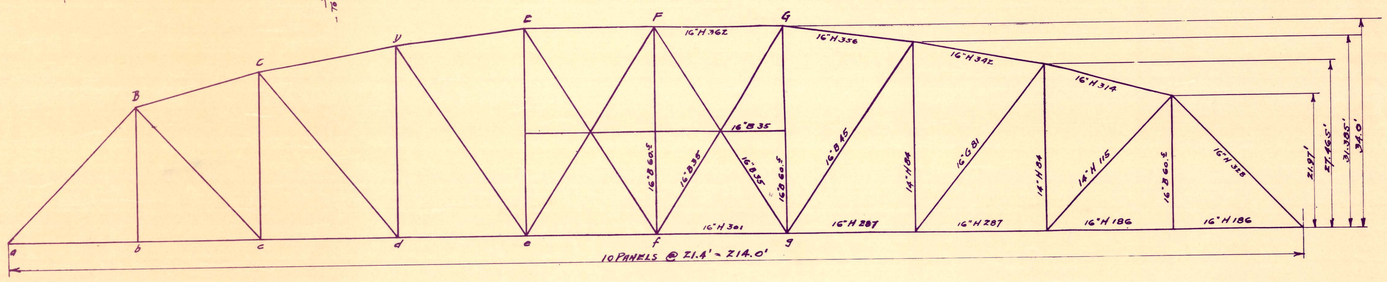
·COPLAY·NORTHAMPTON·BRIDGE·

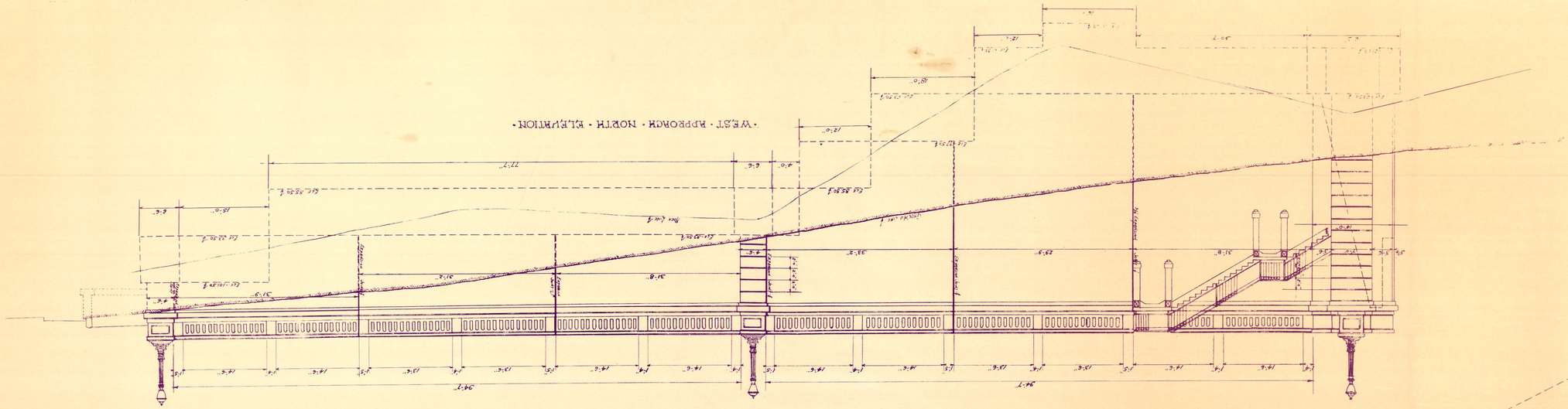
·LEHIGH·&·NORTHAMPTON·COUNTIES·PENNA·

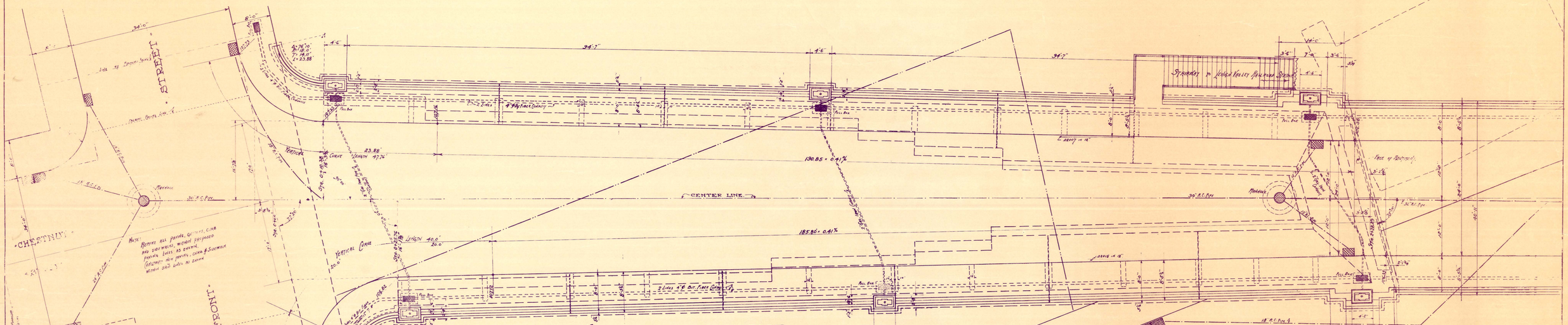
SCALES AS NOTED.

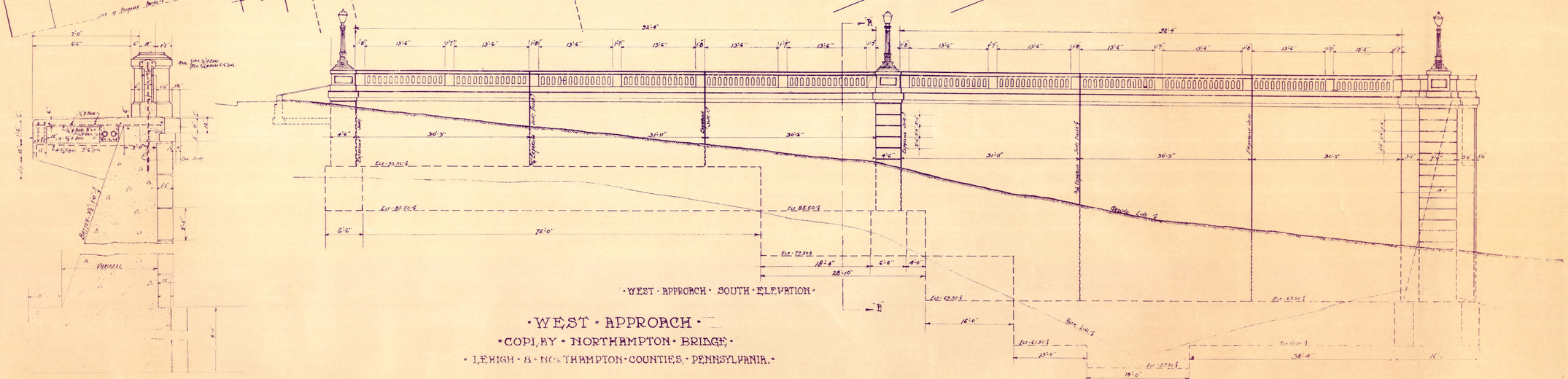


CLEARANCE PLAN.


A
B
C
D
E
F
G
a
b
c
d
e
f
g
16'H 362
16'H 336
16'H 342
16'H 314
16'H 301
16'H 287
16'H 287
16'H 186
16'H 186
16'-8 3/8"
16'-8 3/8"
16'-8 5/8"
16'-8 5/8"
16'-8 5







· WEST · APPROACH ·

· COPLAY · NORTHAMPTON · BRIDGE ·

· LEHIGH · & · NORTHAMPTON · COUNTIES, · PENNSYLVANIA. ·

SCALE · 1/8" = 1 FOOT · EXCEPT AS NOTED

- DECK - GIRDER - SPANS -

- LEHIGH - VALLEY - RAILROAD -

- ELEVATION -

- LEHIGH - VALLEY - RAILROAD - COMPANY -

- PLAN -

Scale - 1/8" = 1 foot

Dead Load - Weight of all material comprising the superior structure
Live Load - Cranage: Standard 100 # Per square foot
Impact Per Cranage - 20 %
Live Load - Floor system - 20 Per square foot
Floor Beams - 150 Per square foot
Live Load Stresses - 2b
Impact - Per Cranage - 20 %
Wind Stresses - Per Sq. foot on Surface - 50 #
Wind Stress Per Lin. Ft. - 100 #
Stresses - Per Sq. foot on Surface - 30 #
Per Lin. Ft. - 150 #
Wind Stress Per Ft. - 1.5 x 2.5 = 3.75 #
Stresses Live & Dead Load - 18000 lbs. per sq. in.
Wind Stress Per Ft. - 22500 lbs. per sq. in.
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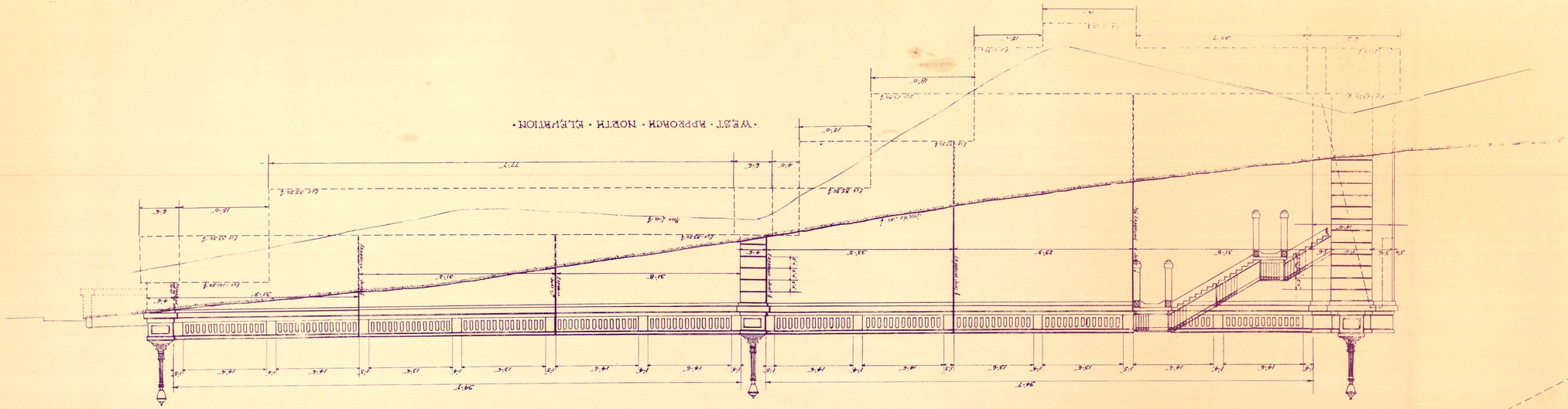
Stresses	Area	Max. Moment	Max. Shear
2 - 15"x15"x1/2"	33.44"	4 ft.	26.00"
4 Plates 36"x1/2"	72.00	4 ft.	36.00
1 Plate 36"x1/2"	72.00	4 ft.	6 ft.
Per Ft. Run			720.0"

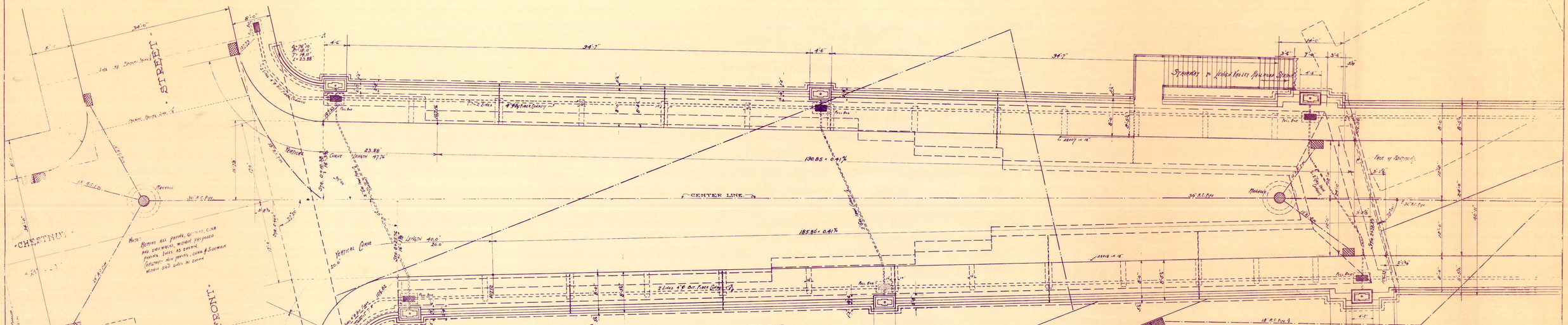
Per Lin. Ft. 28 Per Panel

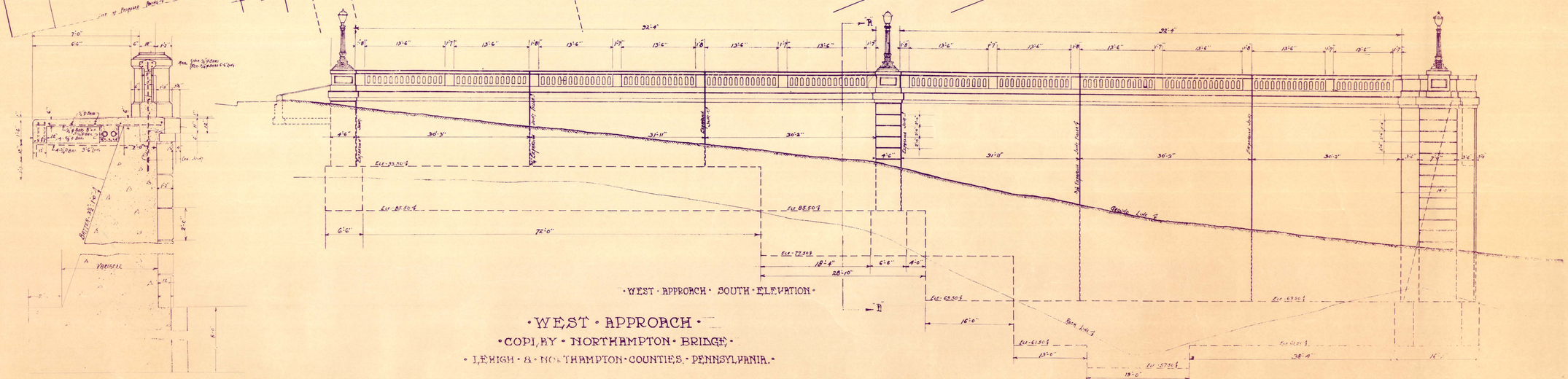
Per Lin. Span 24'-0"

Per Sq. Ft. Elevation 22'-0"

- ENGINEERS - CONTRACTORS - BRIDGE -







· WEST · APPROACH ·

· COPLAY · NORTHAMPTON · BRIDGE ·

· LEHIGH · & · NORTHAMPTON · COUNTIES, · PENNSYLVANIA. ·

SCALE · 1/8" = 1 FOOT · EXCEPT AS NOTED