

CITY OF RIVERSIDE CALIFORNIA
 IVY STREET OVERCROSSING
 AT THE A. T. & S. F. RAILWAY
 1962

*KEEP
 SAVE
 DO NOT DESTROY*

MAYOR
 E. V. BALES

COUNCIL MEMBERS

JOHN HAROLD BACKSTRAND DR. CHARLES H. JOHNSON
 JOHN B. BERGIN MRS. NANCY O'NEILL
 WILLIAM H. BONNETT O. G. SANSONE

U. L. VORIS

CITY MANAGER
 H. K. HUNTER

DIRECTOR OF PUBLIC WORKS
 AND CITY ENGINEER
 JAMES F. MARTINEK

ASST. CITY ENGINEER
 ALFRED R. THEAL

CITY ATTORNEY
 LELAND J. THOMPSON

*FILE IN PLAN FILE
 R-418*

ATCHISON, TOPEKA & SANTA FE RAILWAY CO.
 APPROVED BY

CHIEF ENGINEER

BRIDGE ENGINEER

MOFFATT & NICHOL, ENGINEERS
 LONG BEACH, CALIFORNIA

DESIGN APPROVED: *H. K. Hunter*
 Bridge Engineer, A.T. & S.F. RY.
 Coast Lines

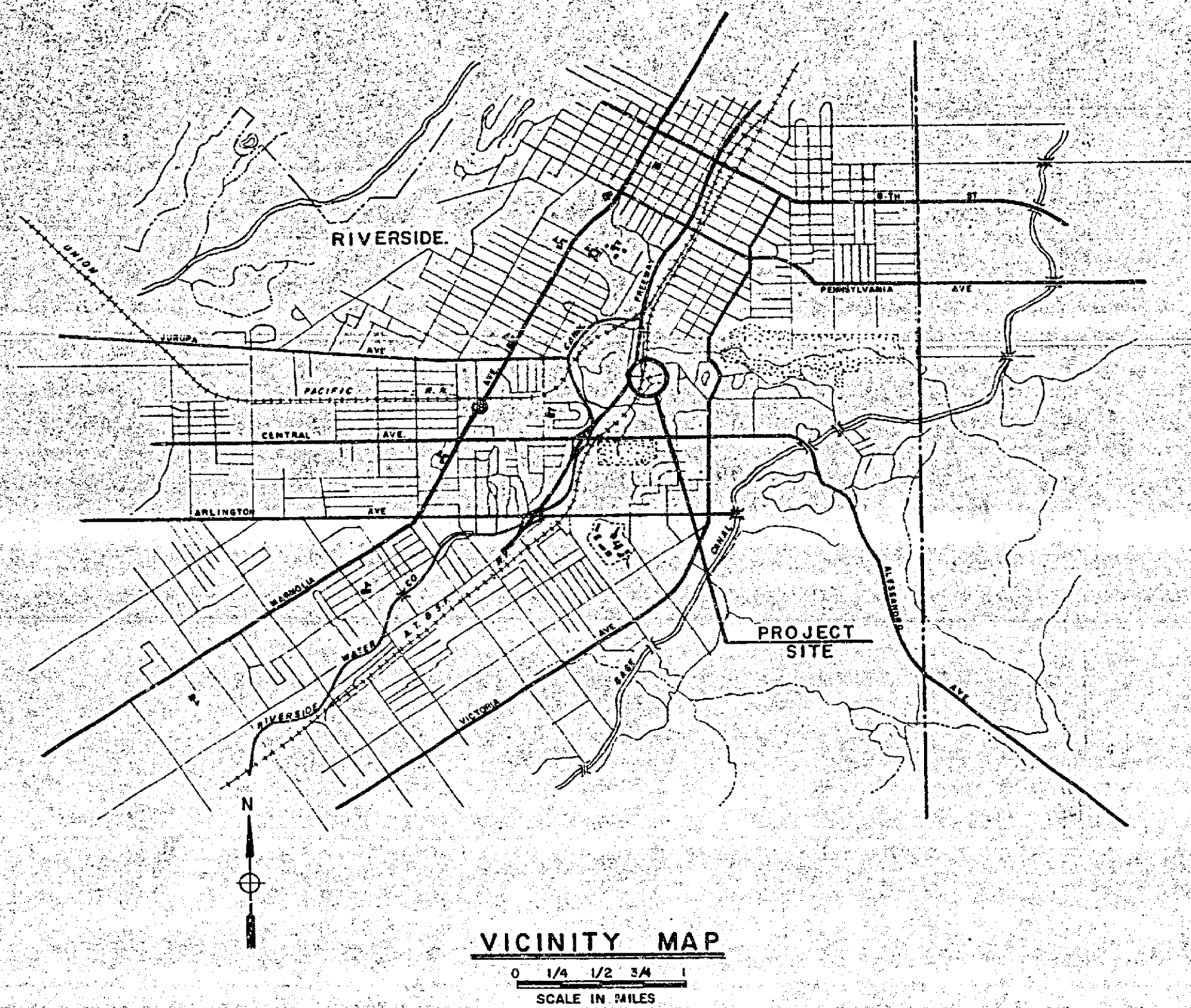
REVISIONS		MOFFATT & NICHOL, ENGINEERS LONG BEACH, CALIFORNIA	
MARK	DATE	DESCRIPTION	CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS
			IVY STREET OVERCROSSING AT THE A. T. & S. F. RAILWAY TITLE SHEET
DESIGNED BY	CHECKED BY	APPROVED BY	
DRAWN BY		DIRECTOR OF PUBLIC WORKS	
RECOMMENDED BY	ASSISTANT CITY ENGINEER	DATE	SHEET 1 OF 10

JOB NO. L-846

CITY OF RIVERSIDE FILE NO. R-418

DRAWING LIST

DRAWING NO.	TITLE
1 OF 10	TITLE SHEET
2 OF 10	VICINITY MAP & DRAWING LIST
3 OF 10	ROADWAY PLAN AND DETAILS
4 OF 10	PLAN, ELEVATION & TYPICAL SECTION
5 OF 10	FOUNDATION PLAN & MISC. DETAILS
6 OF 10	ABUTMENT NO. 1
7 OF 10	ABUTMENT NO. 4
8 OF 10	PIERS
9 OF 10	DECK DETAILS
10 OF 10	RAILING & BEARING DETAILS



STANDARD DRAWINGS (BOUND WITH SPECIAL PROVISIONS)

STANDARD DRAWING NO.	TITLE
200	CURB AND GUTTER
301	DRIVEWAYS ACROSS CURB SIDEWALK
405 (10F2)	STORM WATER CATCH BASIN TYPE 3
405 (20F2)	STORM WATER CATCH BASIN TYPE 3
606	TRAFFIC SIGNAL PULL BOX
612	ELECTRICAL SERVICE DETAILS - SIGNALS & LIGHTING
623 A	LIGHTING STANDARD
629	TYPICAL LUMINAIRE MOUNTINGS
631	TYPICAL FOUNDATION FOR CONCRETE STANDARDS
NONE	DETOUR PLAN

DESIGN APPROVED:
J. H. Ferriss HD 7799 Calif.
Bridge Engineer, A.T. & S.F. RR.
Coast Lines

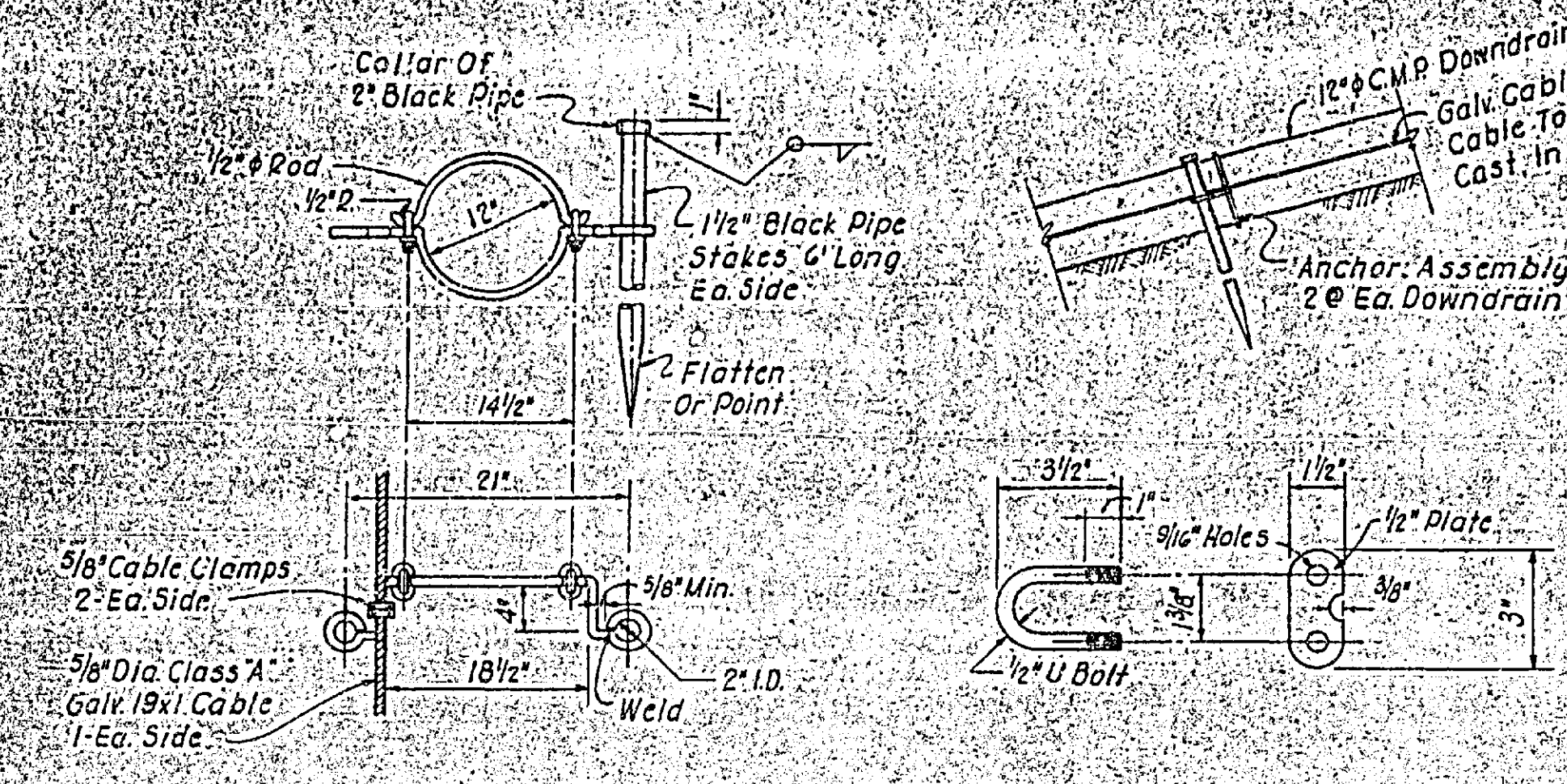
NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

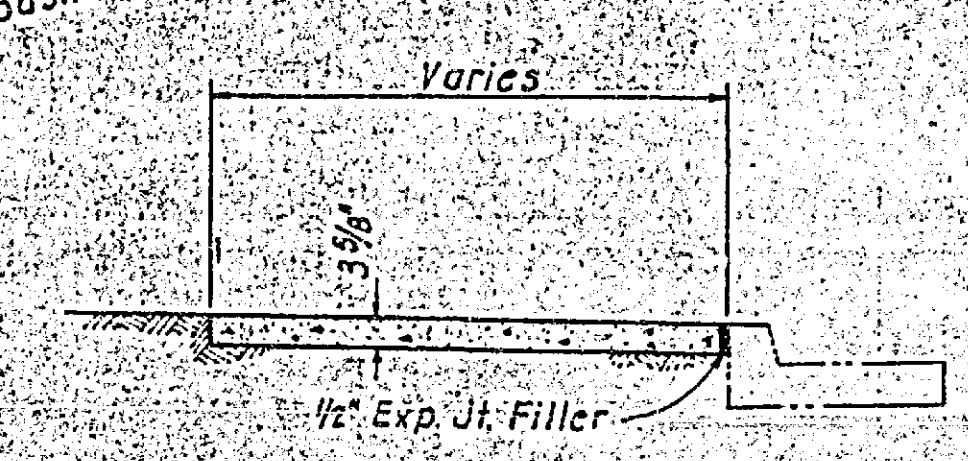
DESIGNED BY: J. H. Ferriss CHECKED BY: _____
DRAWN BY: _____ IN CHARGE: _____

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
VICINITY MAP & DRAWING LIST

SCALE	DATE
NONE	9-19-62

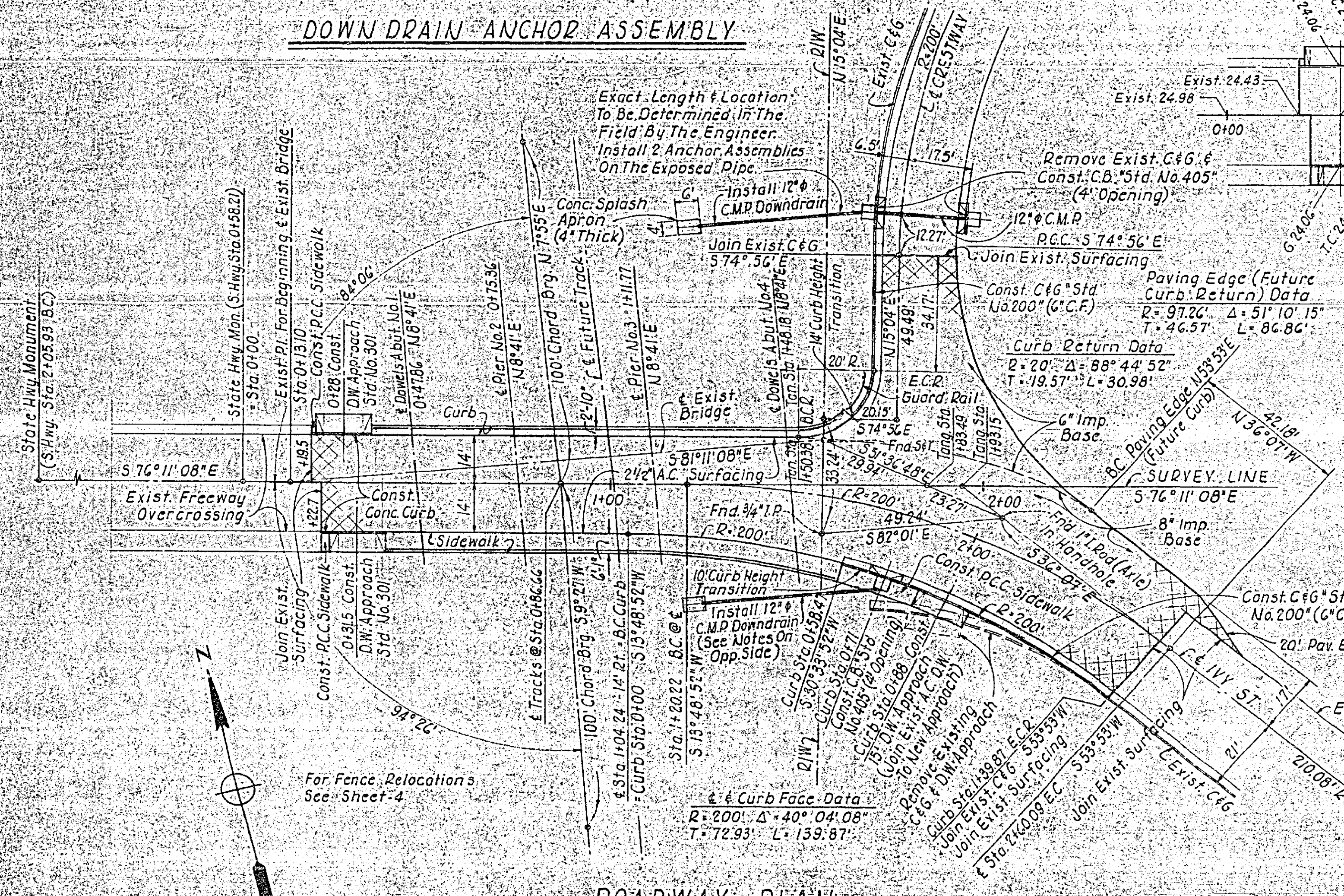


DOWN DRAIN ANCHOR ASSEMBLY

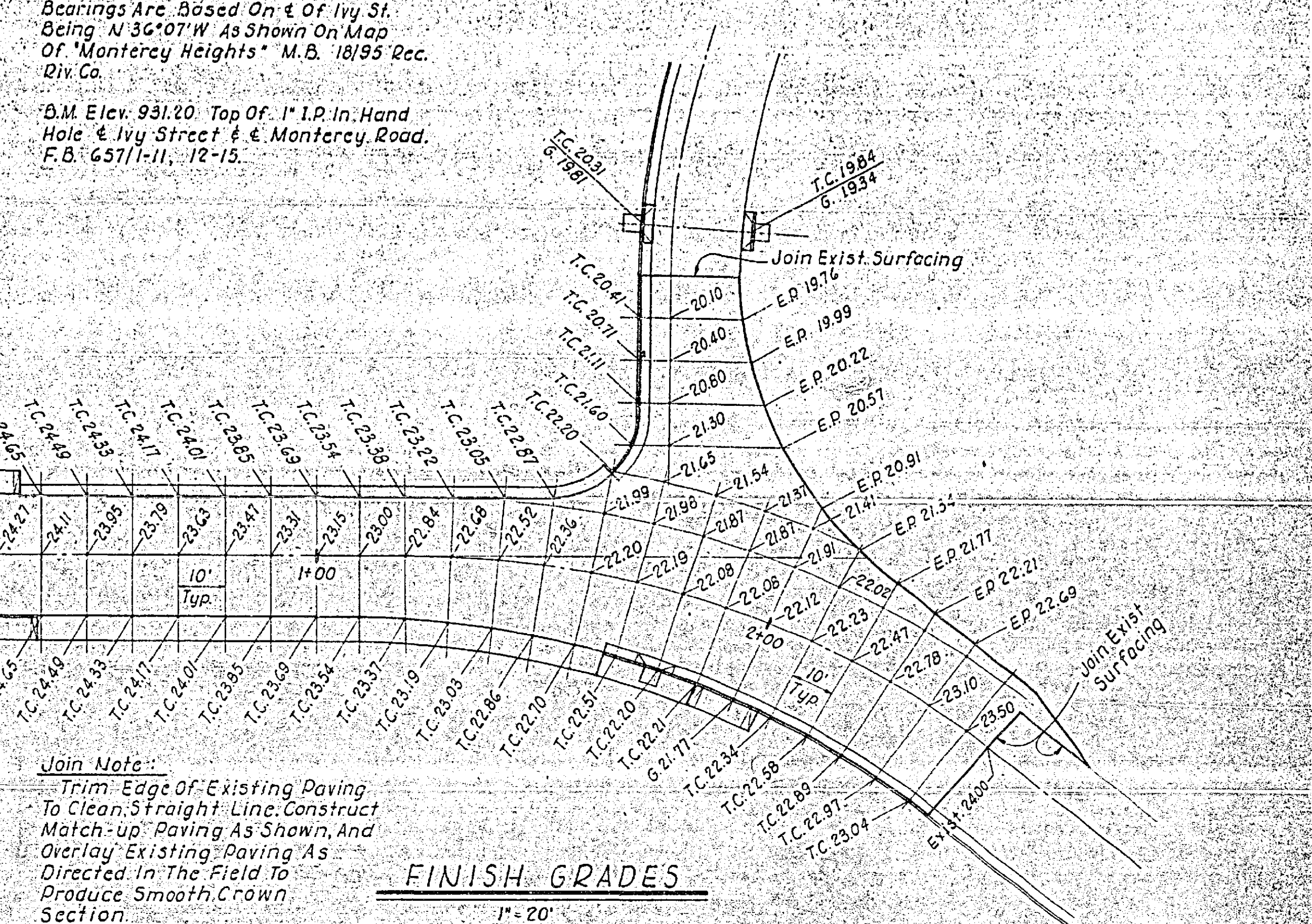


P.C.C. SIDEWALK

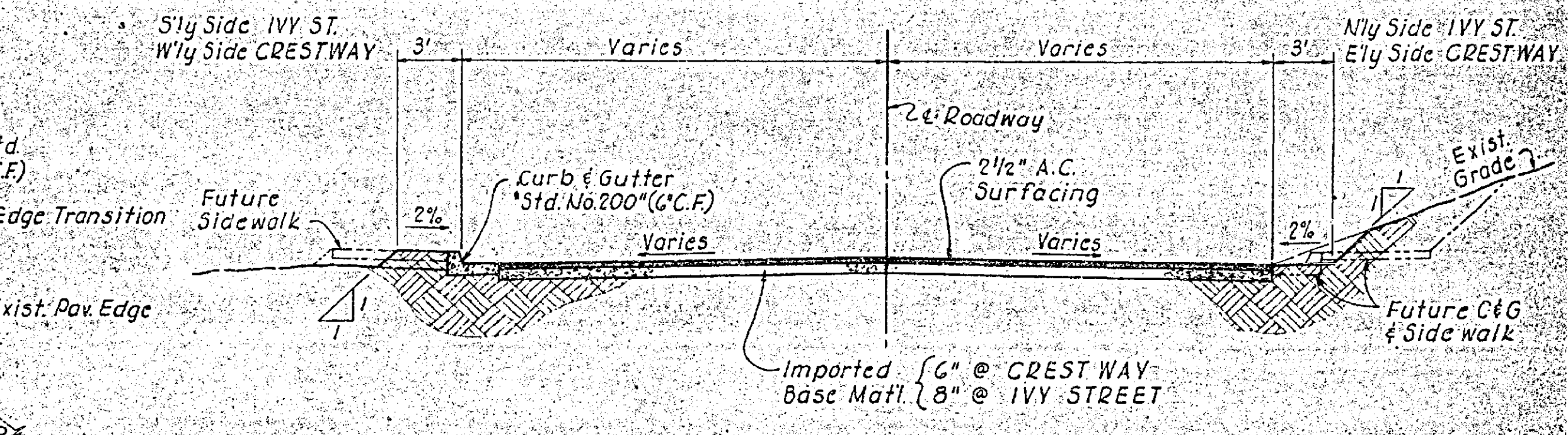
Bearings Are Based On ϵ Of Ivy St. Being $N 36^{\circ}07'W$ As Shown On Map Of Monterey Heights M.B. 18195 Rec. Div. Co.
 B.M. Elev. 931.20 Top Of 1" I.P. In Hand Hole ϵ Ivy Street ϵ Monterey Road. F.B. 65711-11, 12-15.



ROADWAY PLAN



FINISH GRADES



TYPICAL ROADWAY SECTION

Not To Scale

DESIGN APPROVED
 J. M. Ferras - RE 7799 Calif.
 Professional Engineer, A.T.S.P. E.L.
 Civil Engineer

NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA

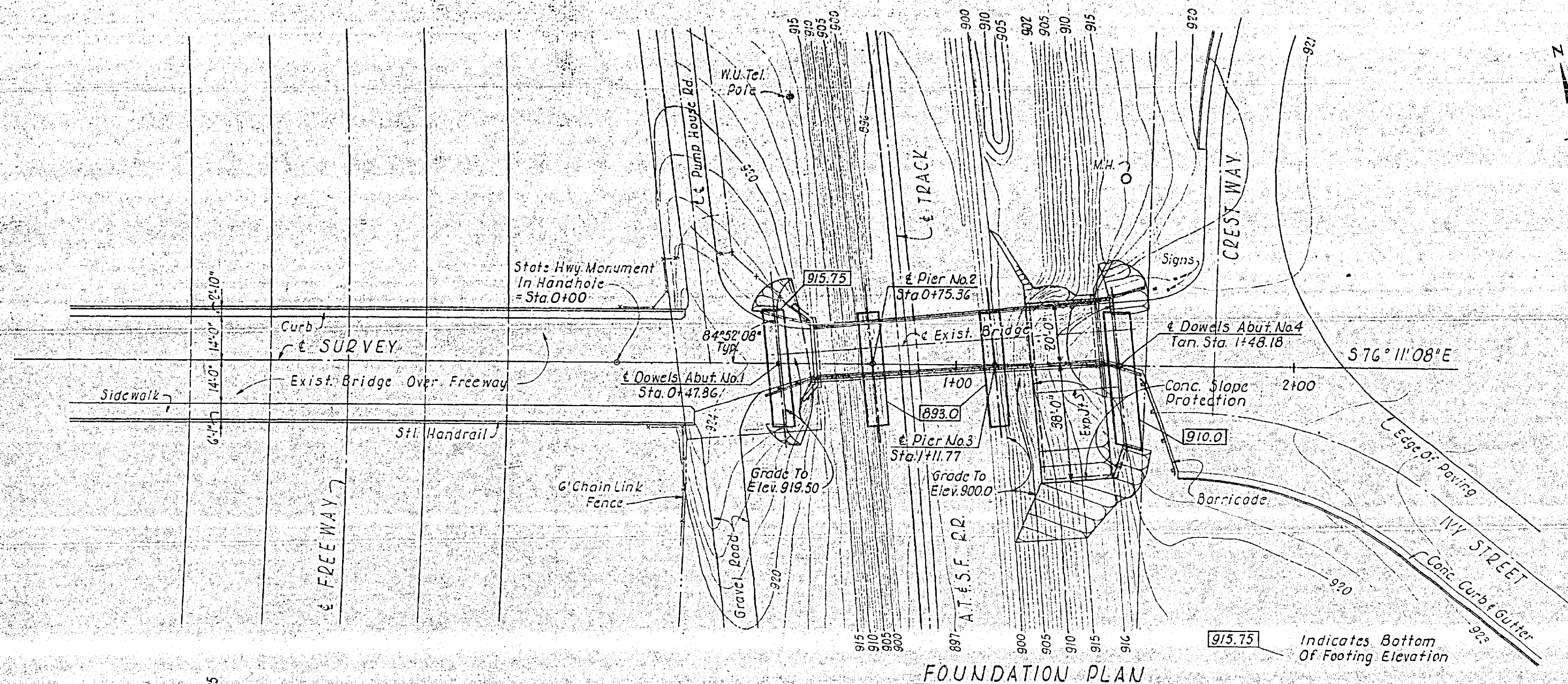
DESIGNED BY: *Limbrick*
 DRAWN BY: *Mallion*

CHECKED BY: *Limbrick*
 IN CHARGE: *Limbrick*

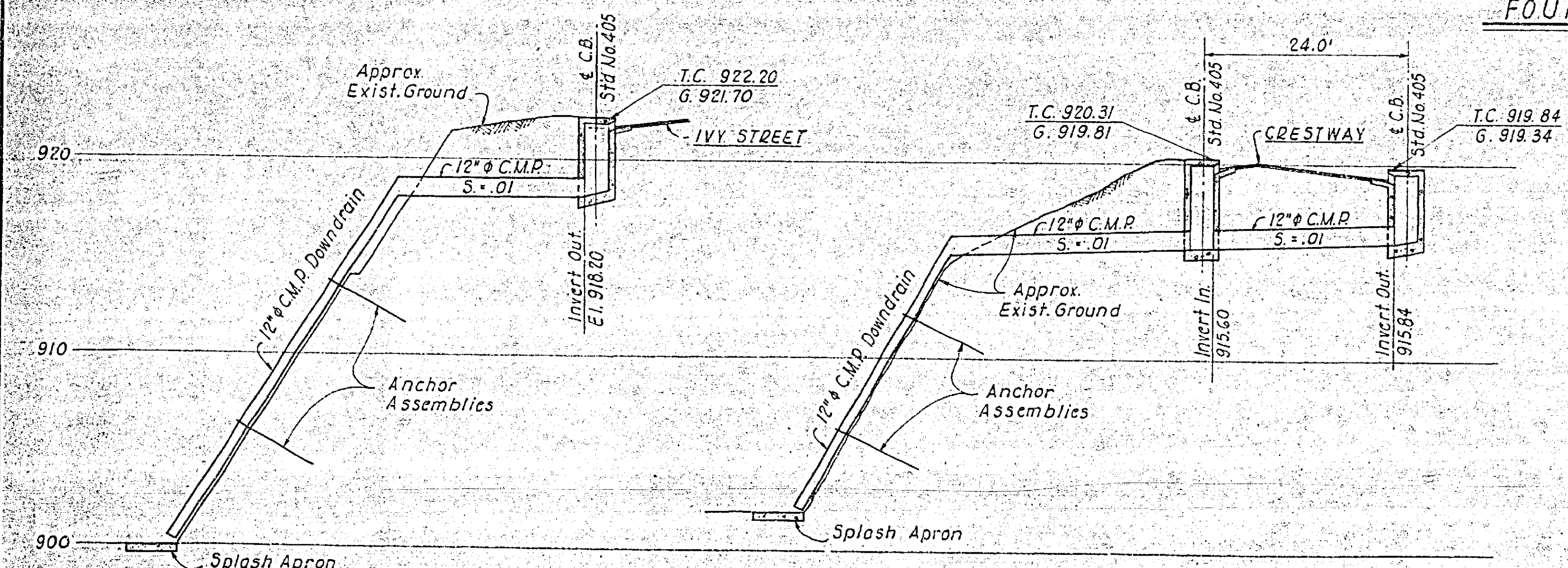
DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY
 ROADWAY PLAN AND DETAILS

SCALE	DATE
AS NOTED	9-19-62
PROJECT NO.	L-846
SHEET	3
OF	10

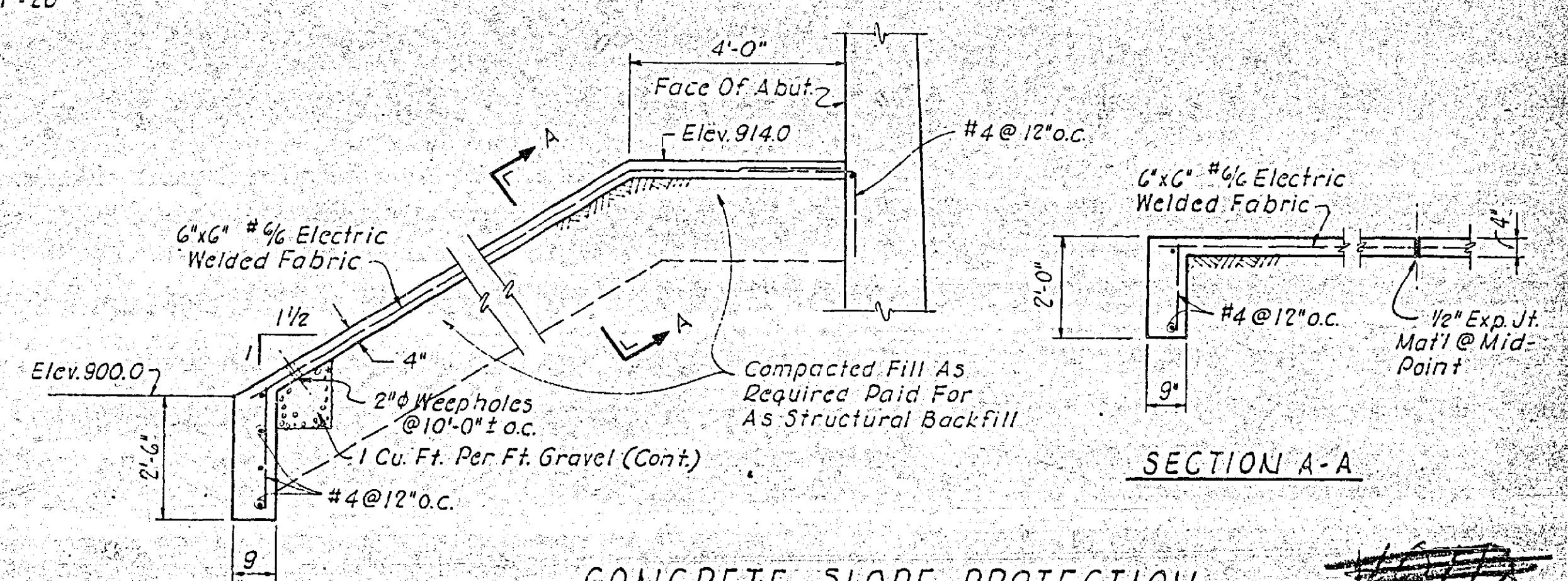
CITY OF RIVERSIDE FILE NO. R-110



FOUNDATION PLAN
1" = 20'



STORM DRAIN PROFILES
Horiz. 1" = 10'
Vert. 1" = 4'



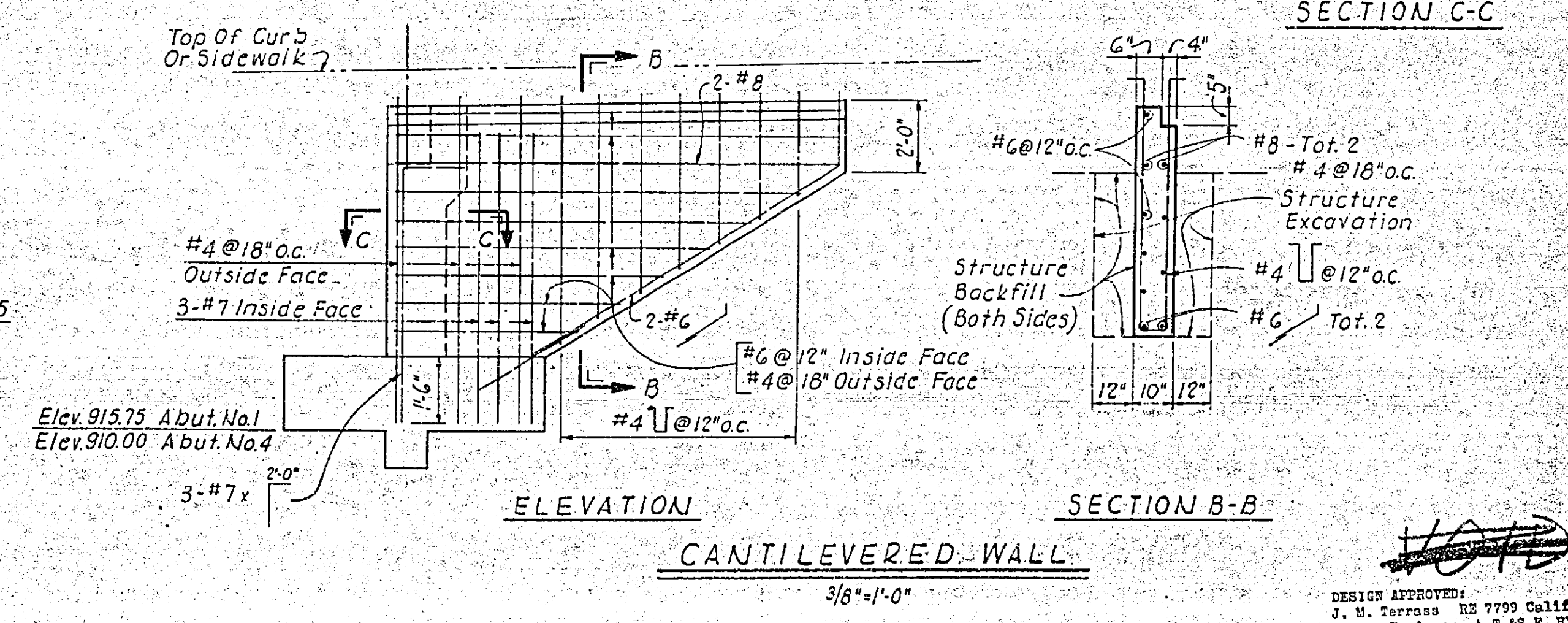
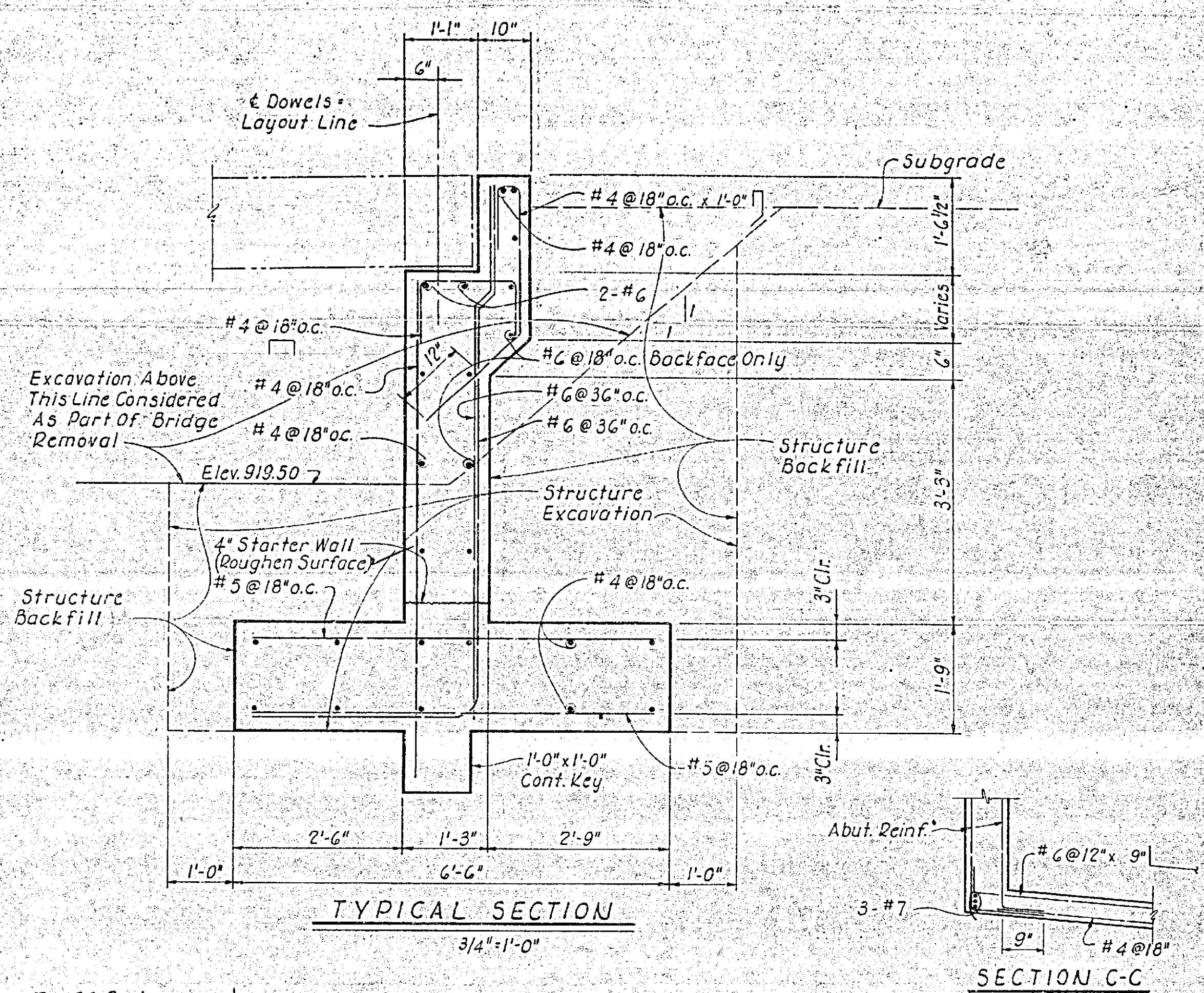
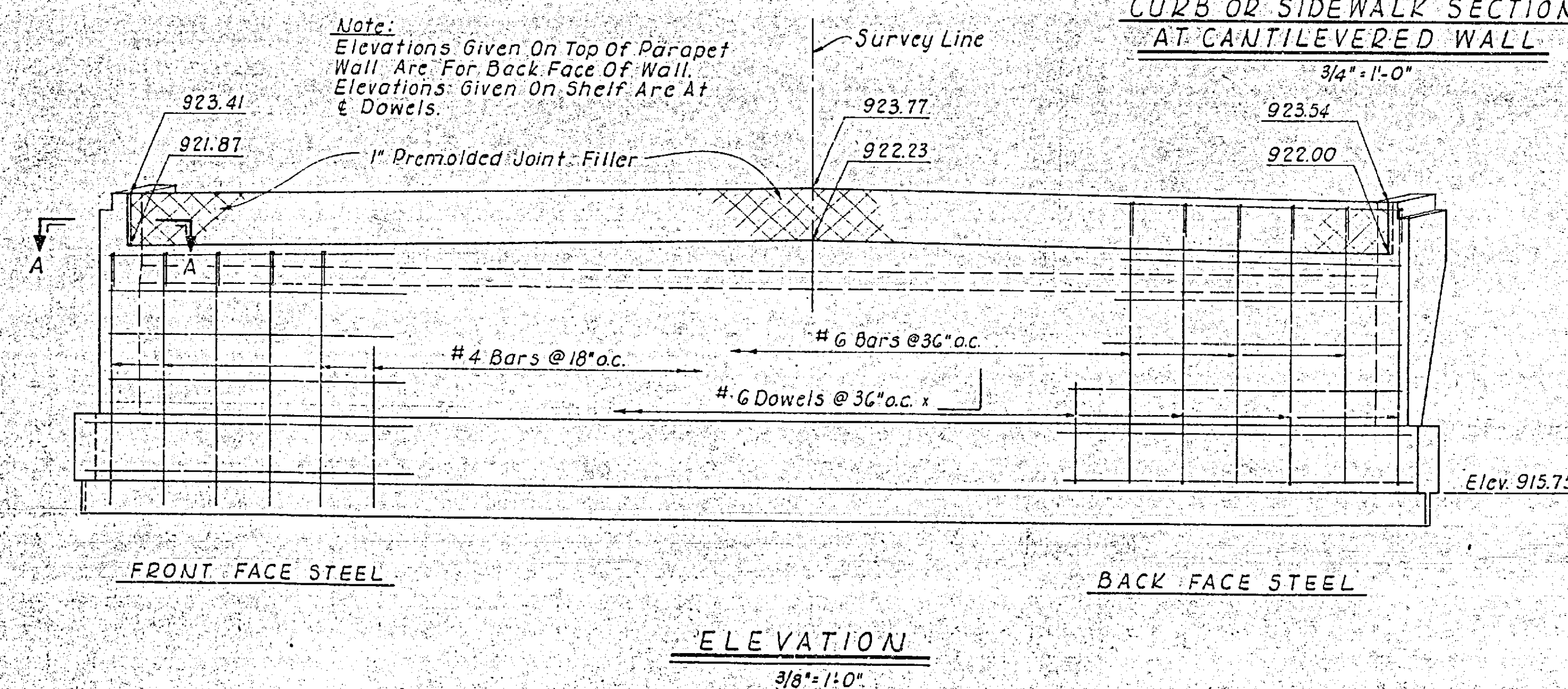
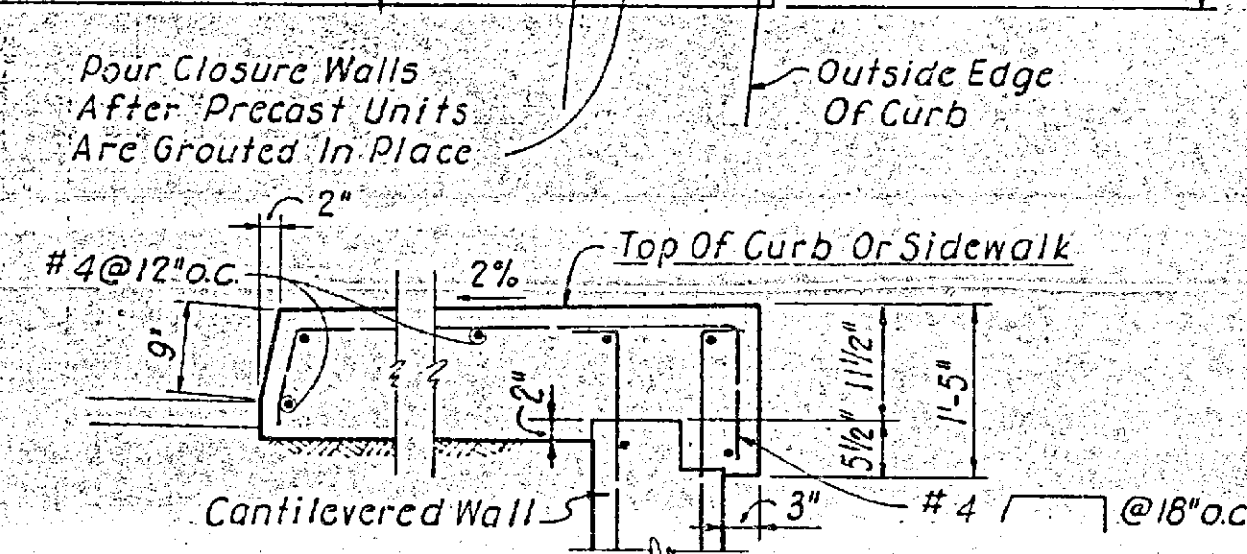
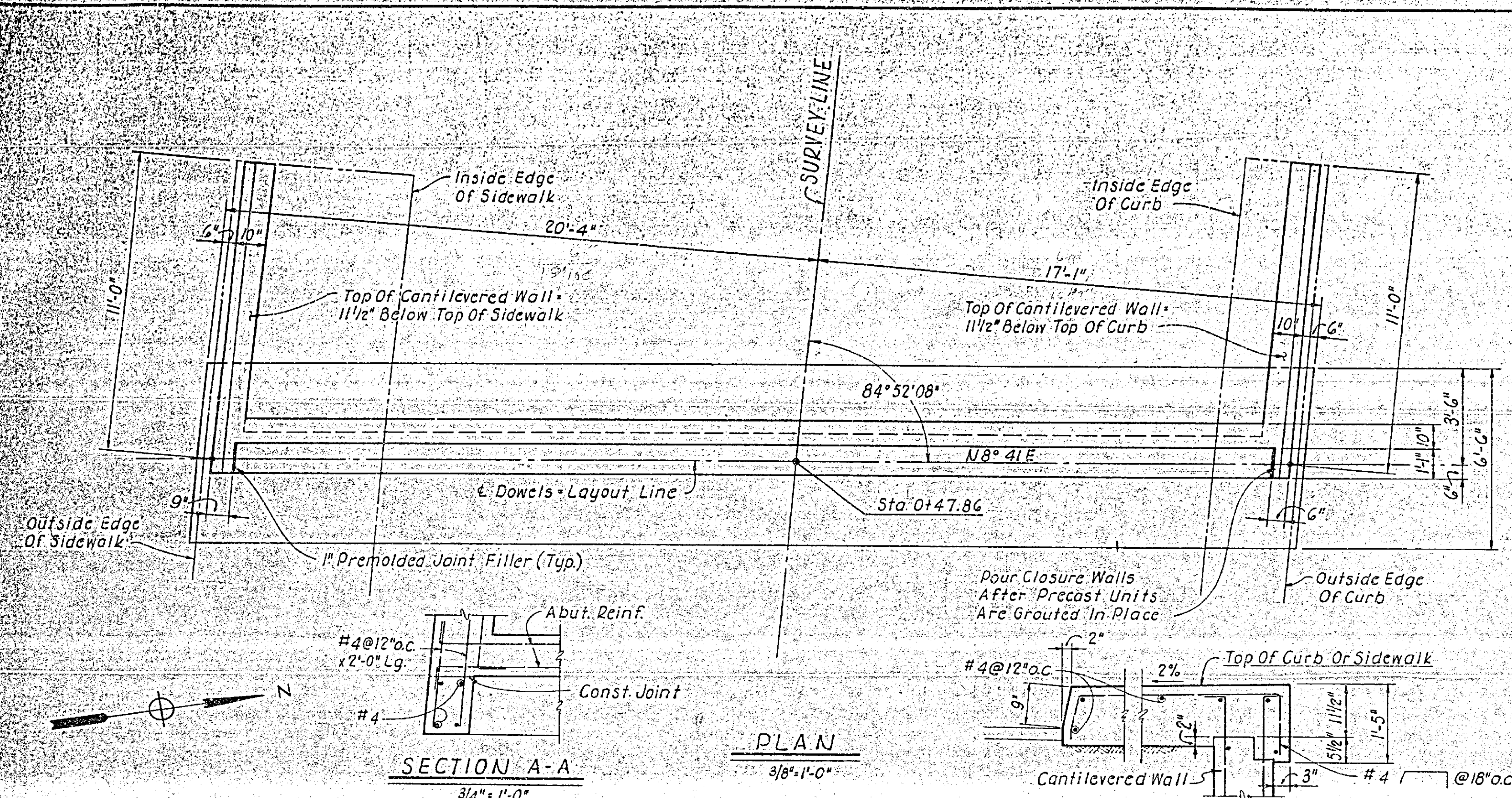
CONCRETE SLOPE PROTECTION
1/2" = 1'-0"

SECTION A-A

DESIGN APPROVED:
J. M. Ferraro, Bridge Engineer, A.S.T.C.E., P.E.
Coast Lines

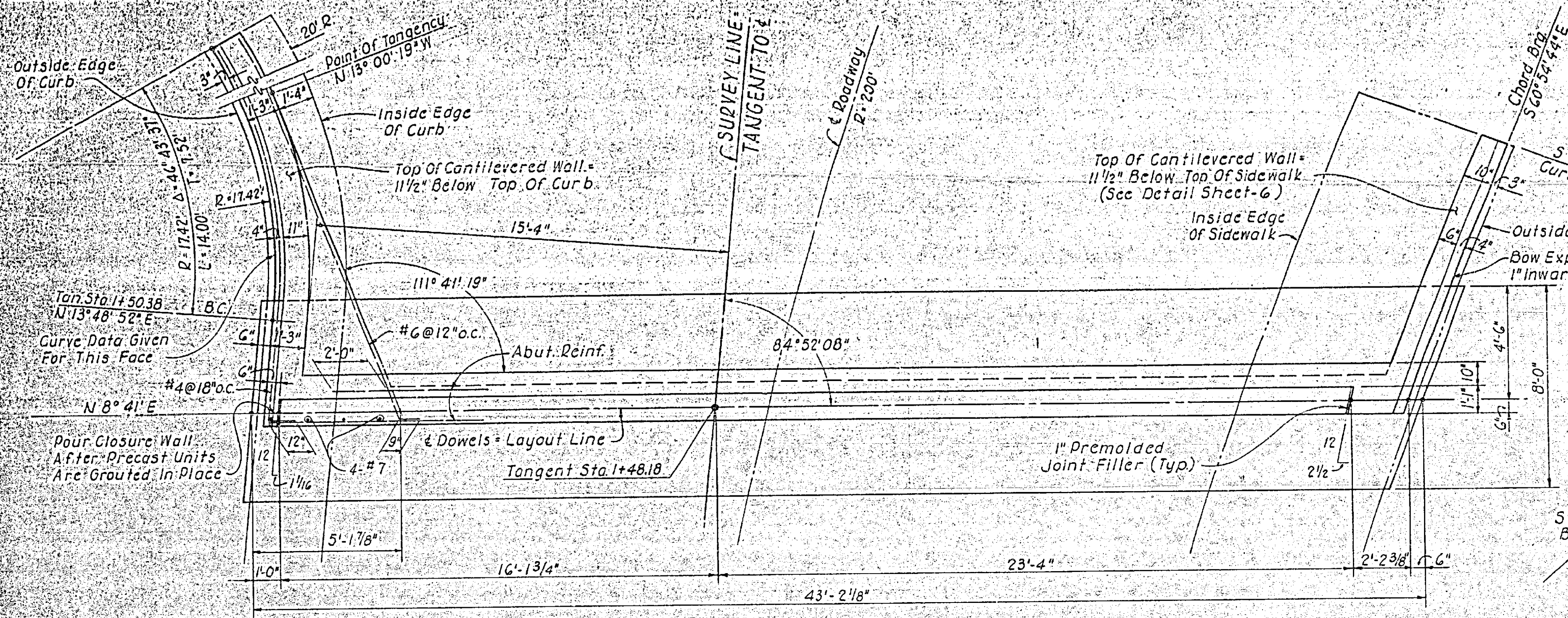
NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY FOUNDATION PLAN & MISC. DETAILS	
DESIGNED BY: <i>Limbrick</i> DRAWN BY: <i>Mallion</i>	CHECKED BY: <i>Limbrick</i> IN CHARGE: <i>Limbrick</i>	SCALE: 1" = 20' DATE: 9-19-62 JOB NO.: L-846 SHEET: 5 OF: 10	CITY OF RIVERSIDE FILE NO. R-416

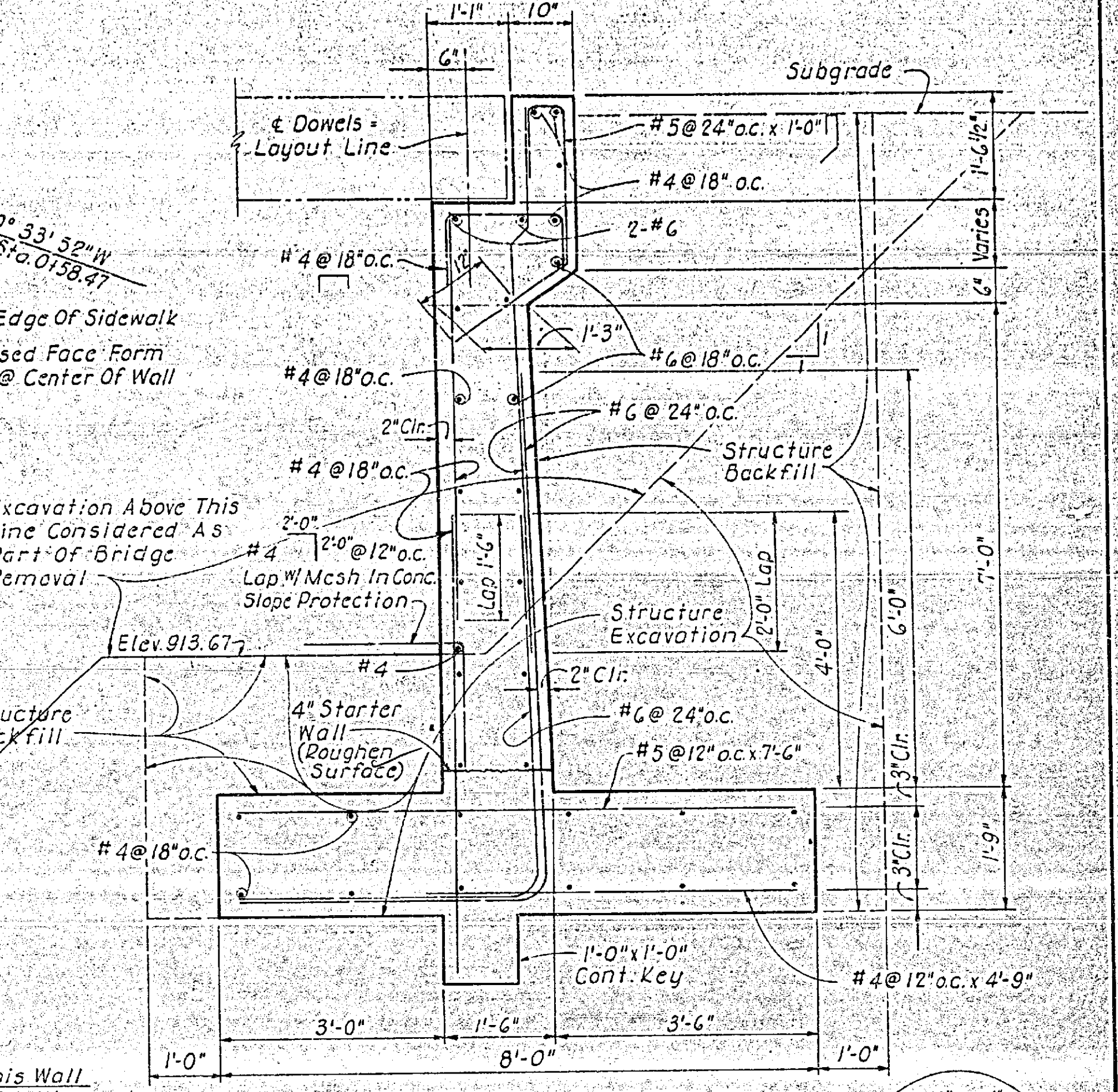


DESIGN APPROVED:
J. H. Ferriss RE 7759 Calif.
Bridge Engineer, A.T.&S.F. Ry.
Const Lines

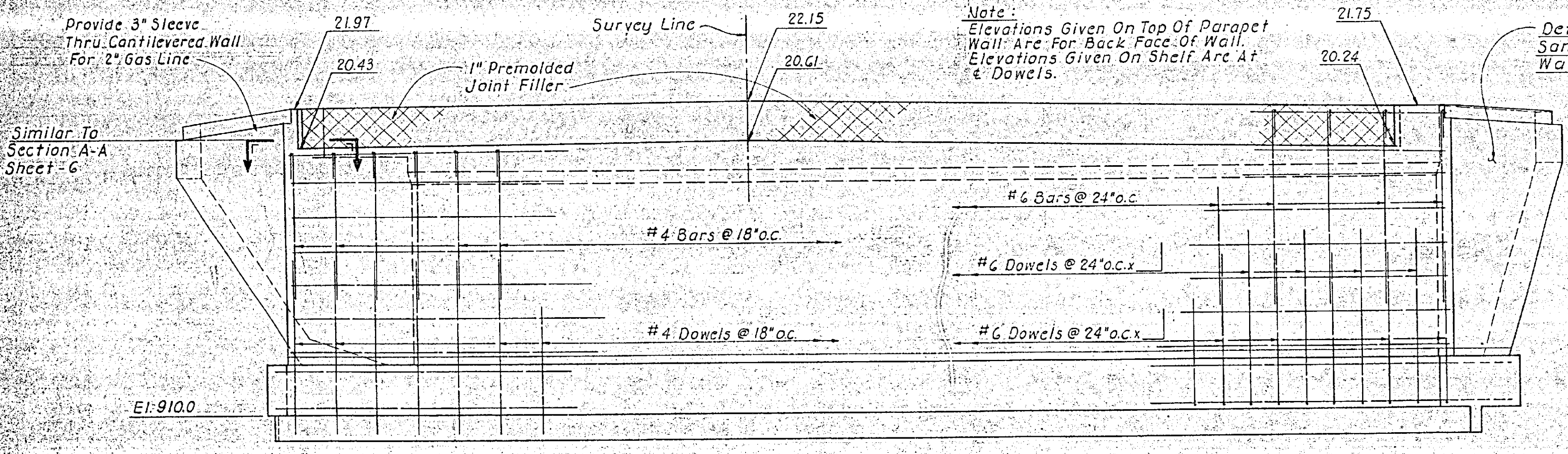
MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY ABUTMENT NO. 1		SCALE AS NOTED 9-75% 9-10-62 SHEET L-846 6 OF 10
DESIGNED BY <i>Neill</i>	CHECKED BY <i>Limbrick</i>	DRAWN BY <i>Mallion</i>	IN CHARGE <i>Limbrick</i>	CITY OF RIVERSIDE FILE NO. R-417



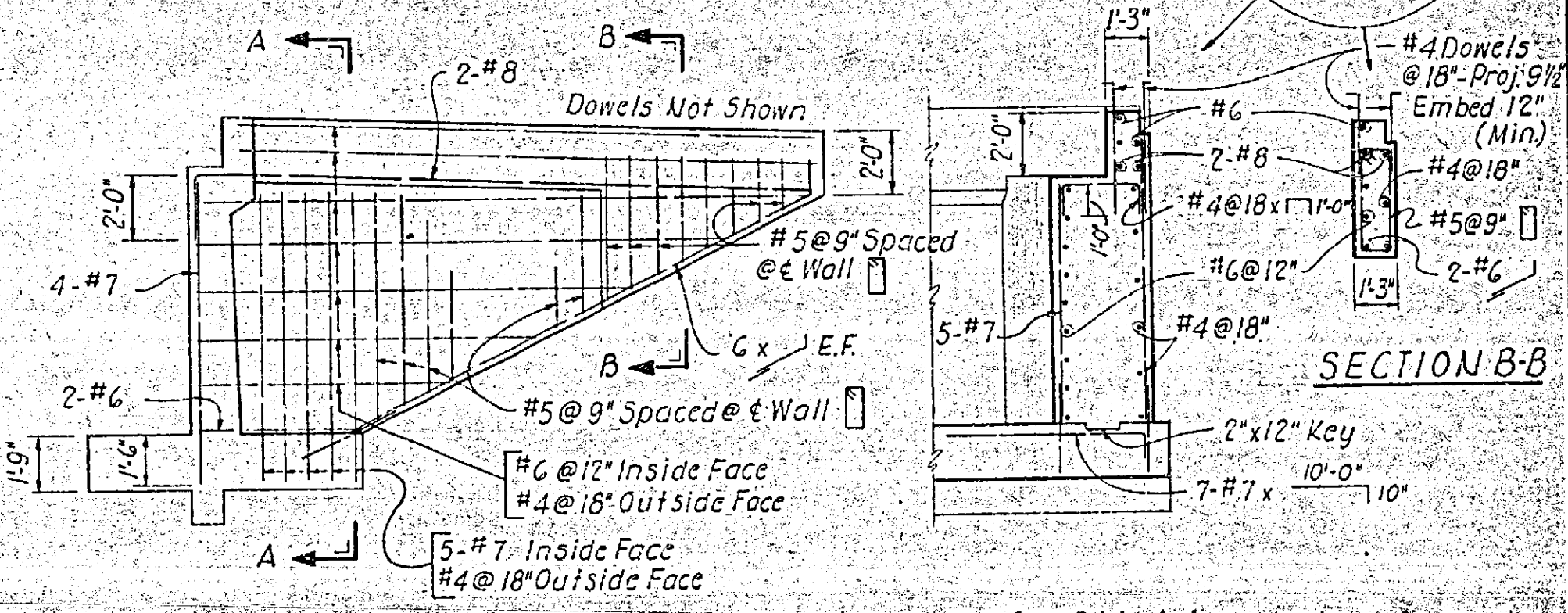
PLAN
3/8" = 1'-0"



TYPICAL SECTION
3/4" = 1'-0"



ELEVATION
3/8" = 1'-0"



DEVELOPED ELEVATION
SECTION A-A
SECTION B-B
1/4" = 1'-0"

NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

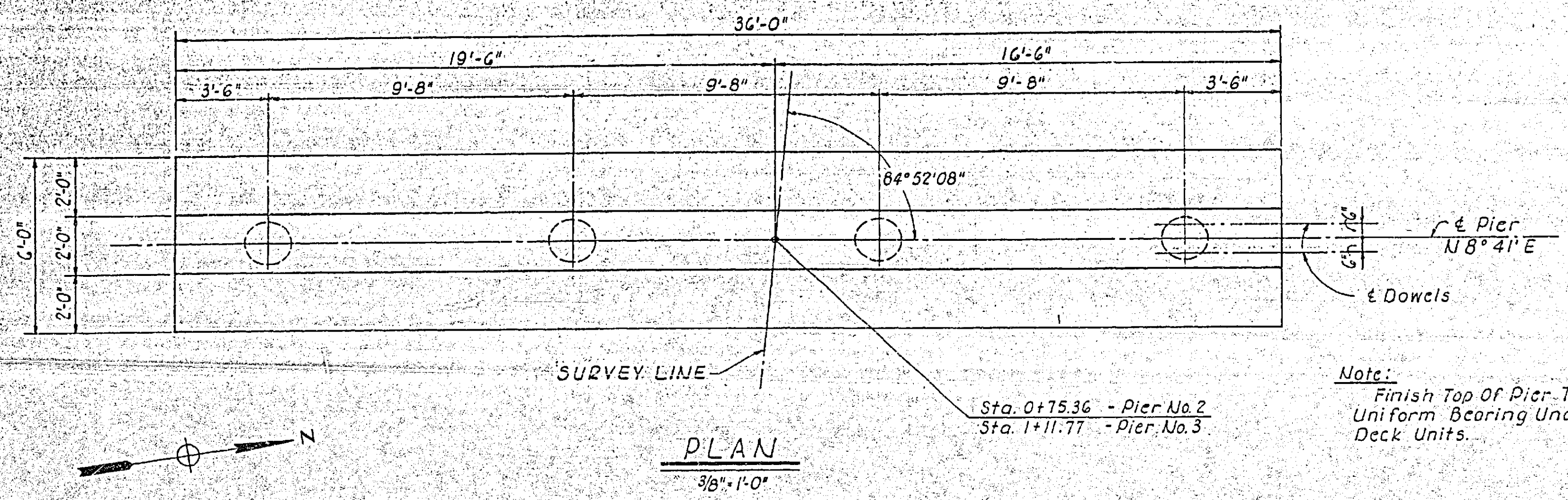
DESIGNED BY: Neill
DRAWN BY: Mallion

CHECKED BY: Limbrick
IN CHARGE: Limbrick

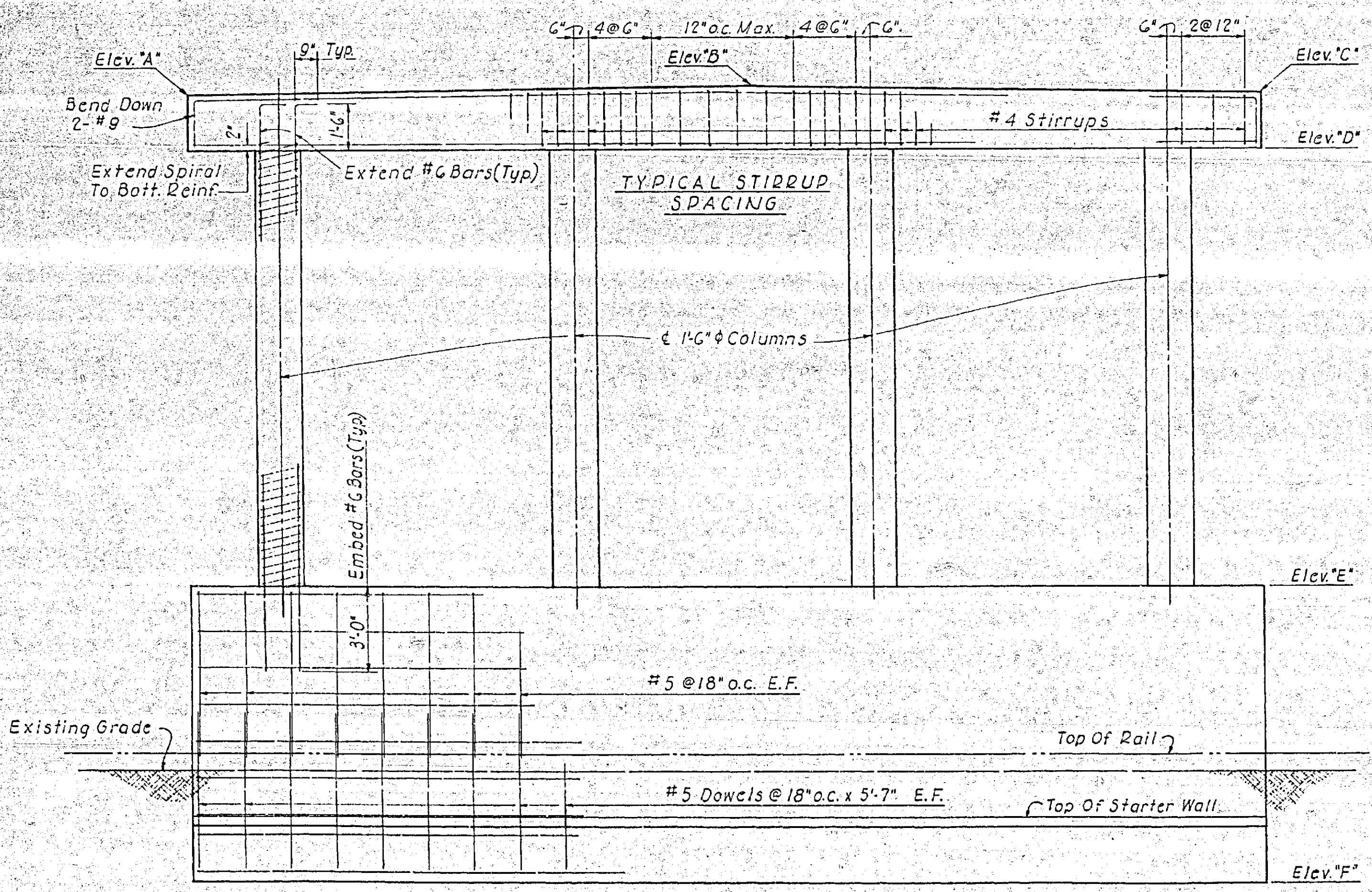
DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
ABUTMENT NO. 4

DESIGN APPROVED:
J. M. Ferrans, P.E. 7799 Calif.
Bridge Engineer, A.T. & S.F. RR.
Coast Lines

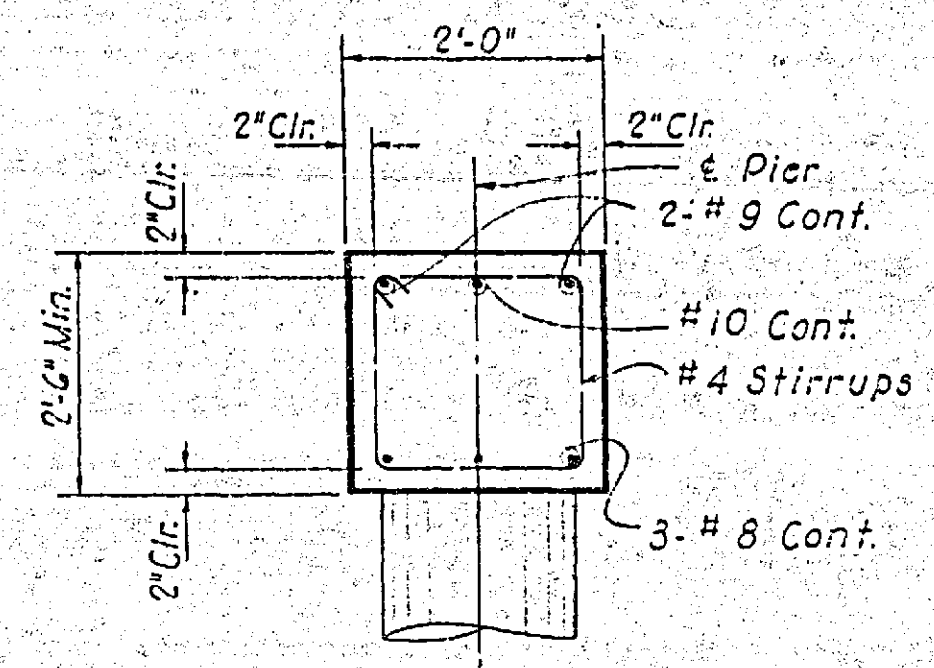
AS NOTED 9-19-62
JOB NO. L-848
SHEET 7
OF 10



PLAN
3/8" = 1'-0"

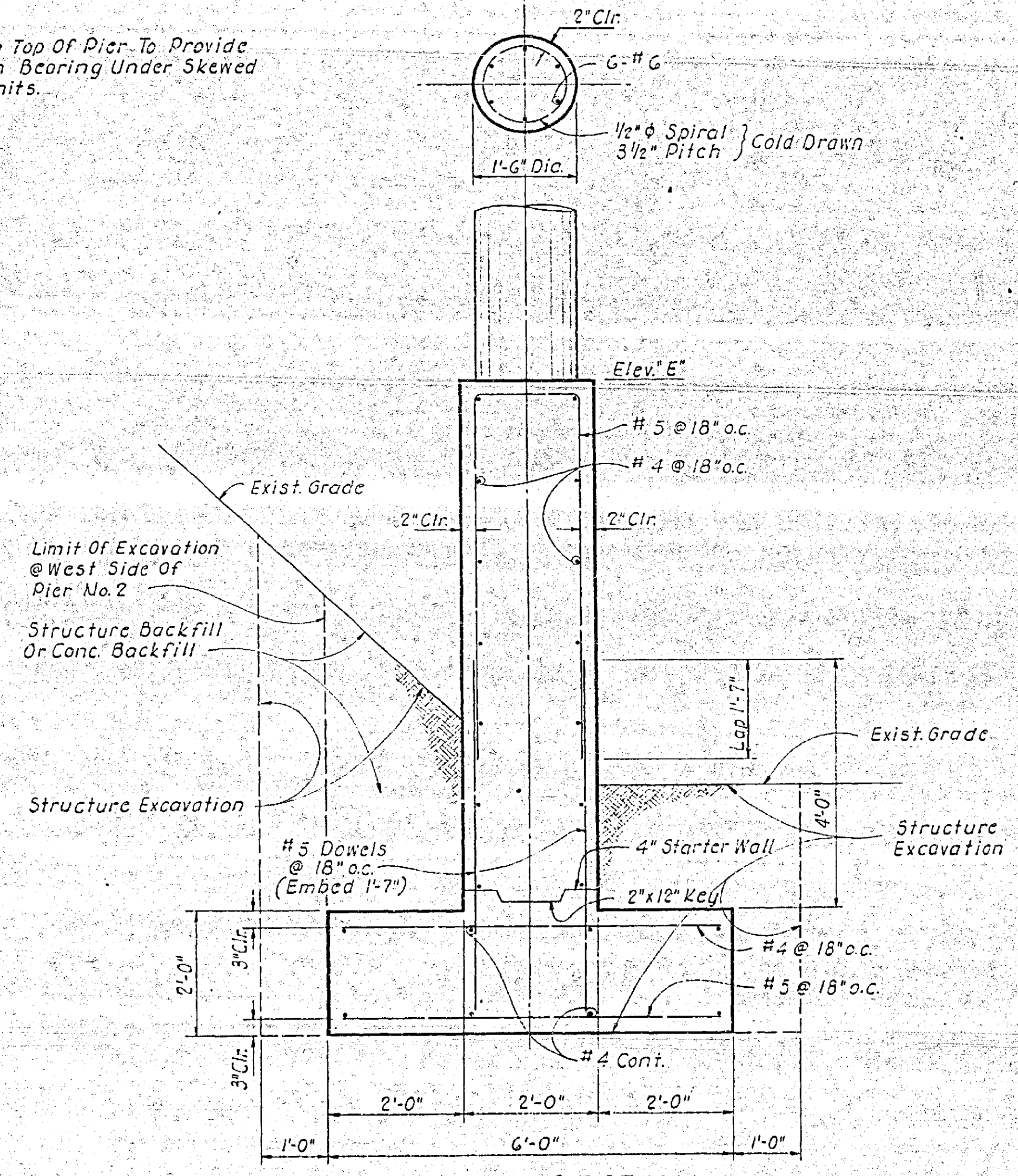


ELEVATION
3/8" = 1'-0"



Pier	Elevation					
	"A"	"B"	"C"	"D"	"E"	"F"
2	921.47	921.78	921.57	918.97	903.0	893.0
3	920.92	921.22	921.01	918.42	903.0	893.0

Note:
Finish Top Of Pier To Provide Uniform Bearing Under Skewed Deck Units.



TYPICAL SECTION
3/4" = 1'-0"

DESIGN APPROVED:
J. M. Corrao, R.E. 7799 Calif.
Bridge Engineer, A.P.S.P., D.C.
Coast Lines

NO.	REVISION	BY	DATE

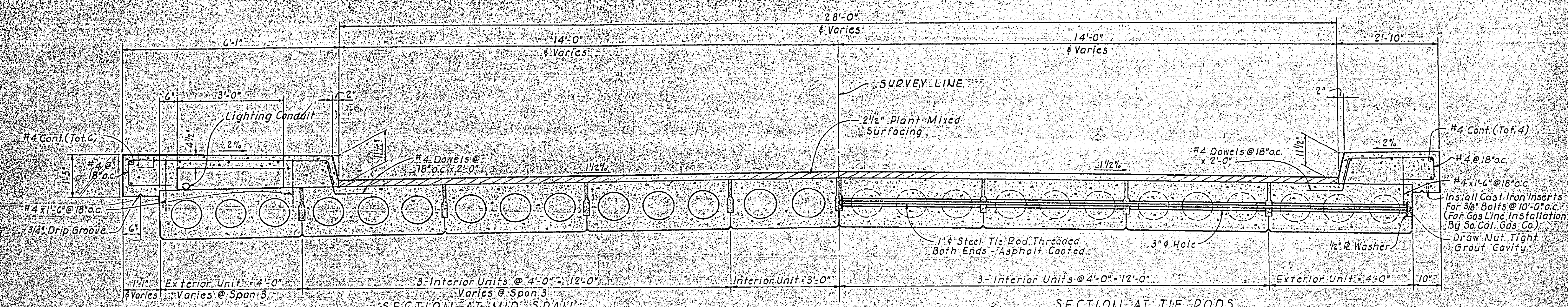
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

DESIGNED BY: Neill
DRAWN BY: Mallon

CHECKED BY: Limbrick
IN CHARGE: Limbrick

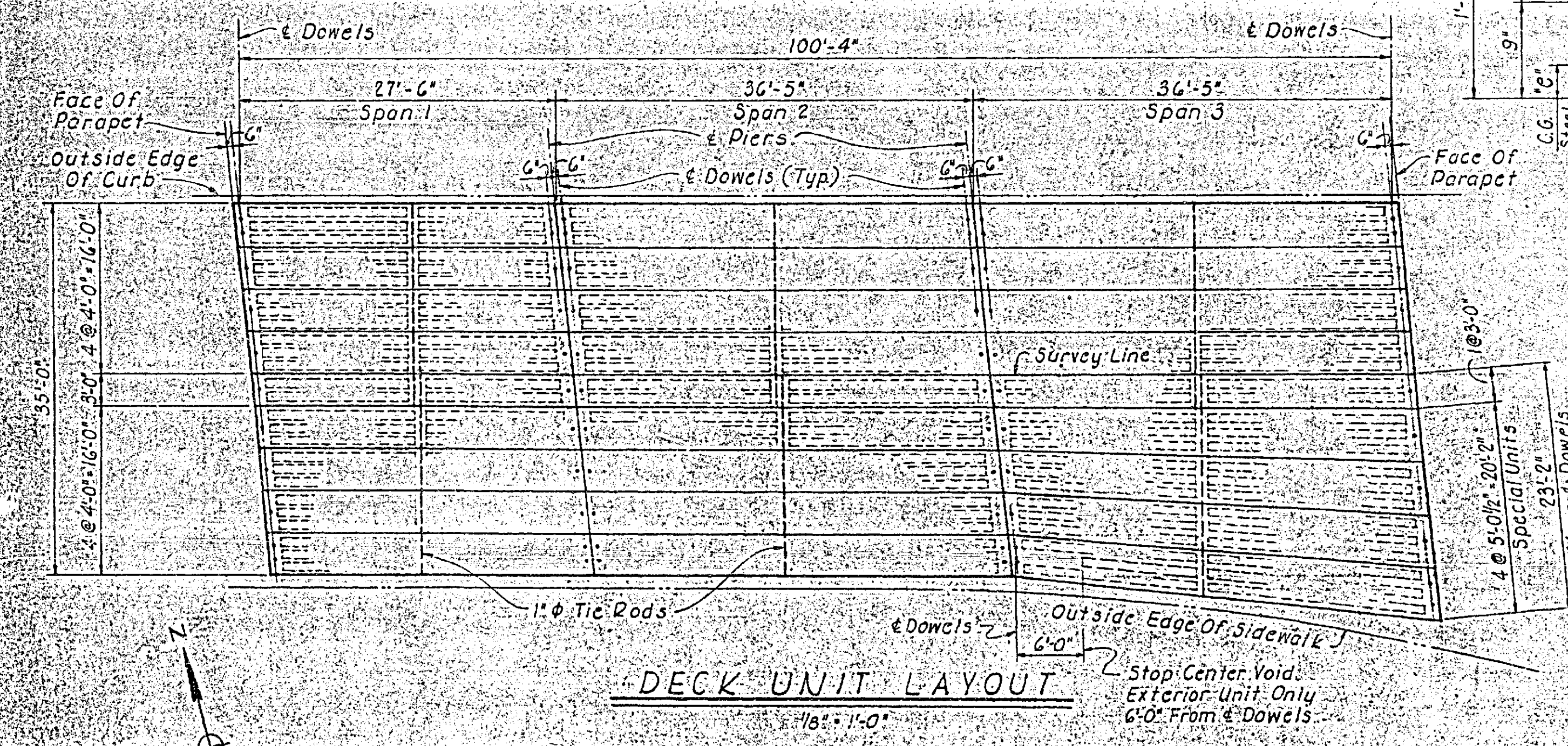
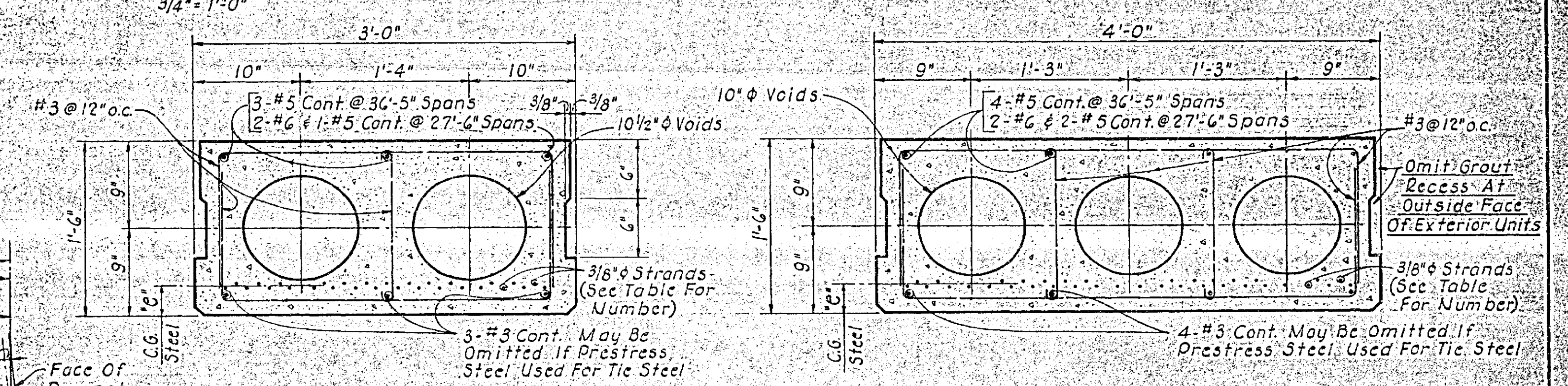
DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
PIERS

SCALE AS NOTED	DATE 9-19-62
JOB NO. L-848	SHEET 8
OF 10	



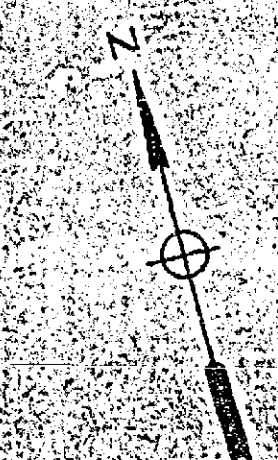
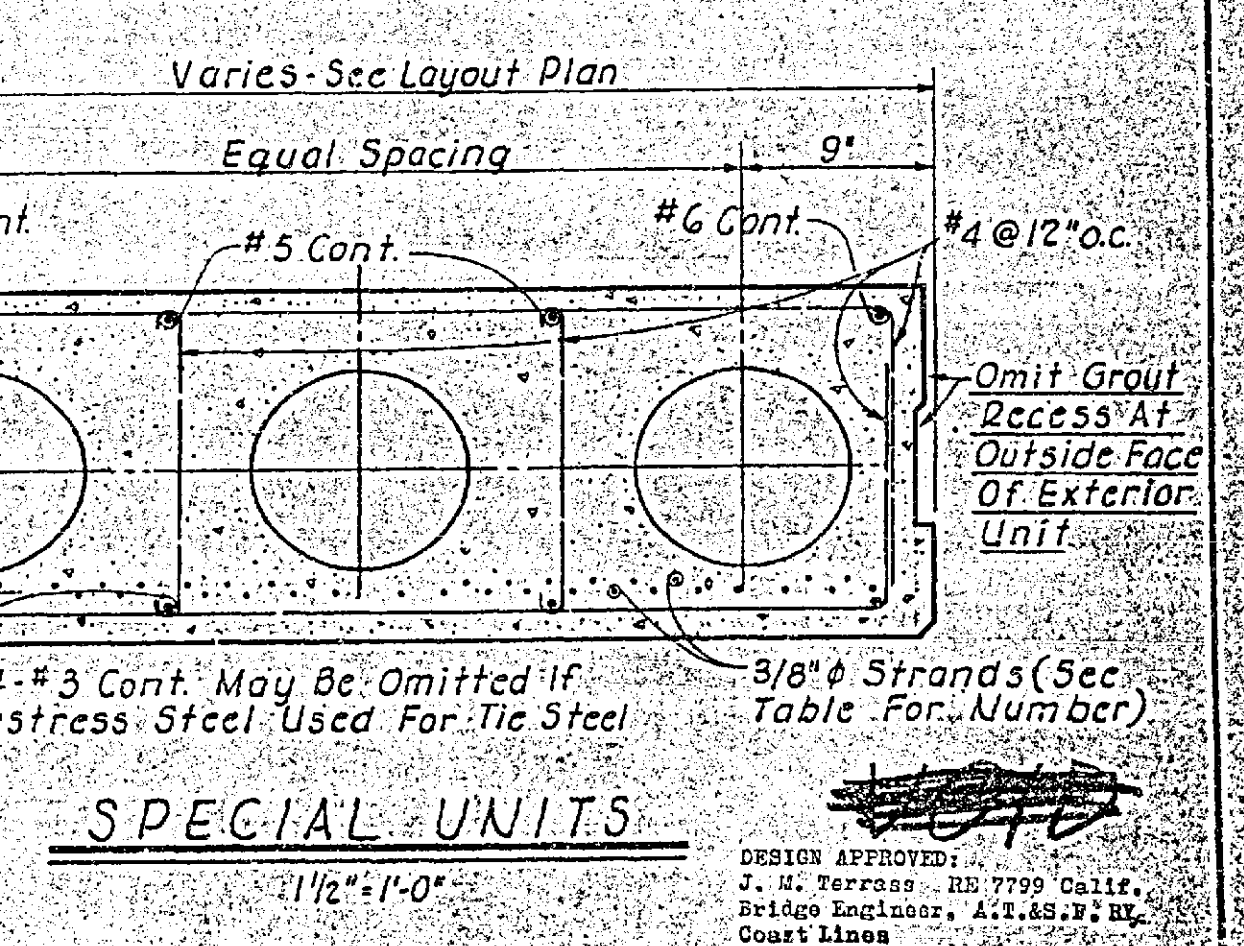
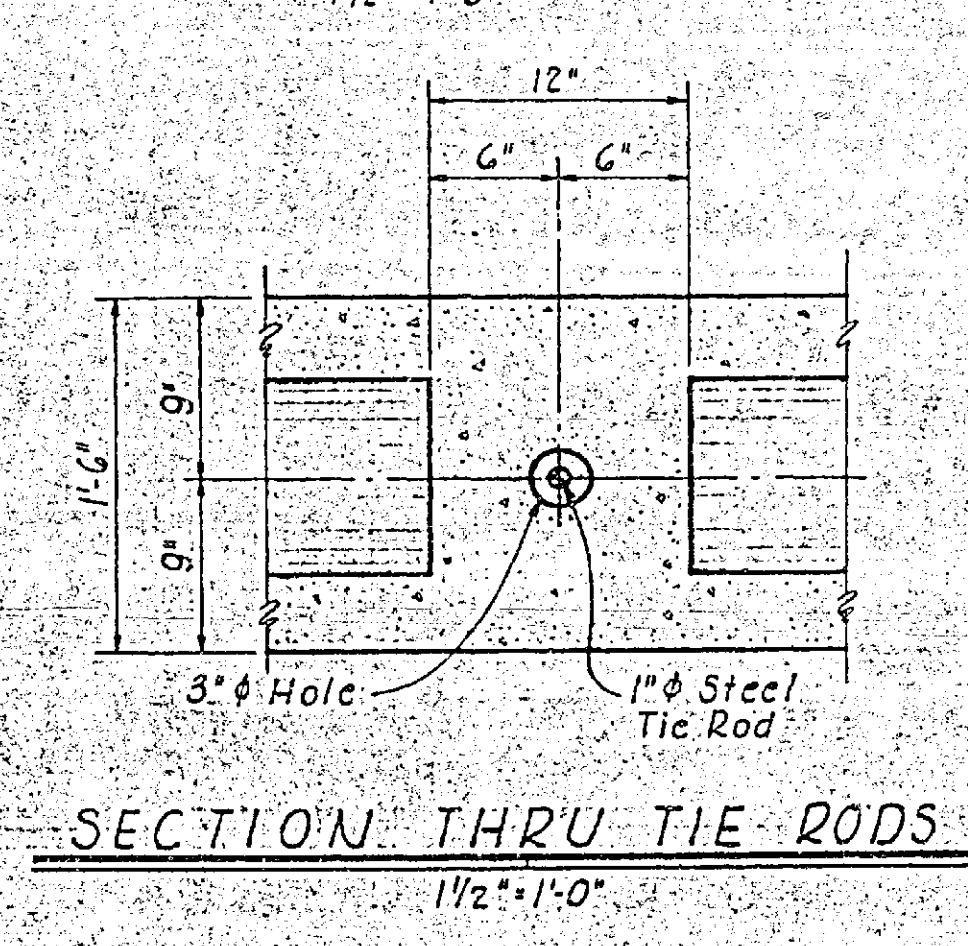
	27'-6" Span			36'-5" Span			36'-5" Span Special Units	
	4' Wide Interior	4' Wide Exterior	3' Wide Interior	4' Wide Interior	4' Wide Exterior	3' Wide Interior	Interior	Exterior
Number Of 3/8" ϕ Prestress Strands	19	22	17	35	40	30	44	54
Working Force	228k	264k	204k	420k	480k	360k	528k	648k
Distance From Bottom Of Unit To C.G. Of Strands	2.2"	2.53"	2.62"	3.5"	3.7"	3.75"	3.83"	4.4"

TYPICAL BRIDGE SECTION

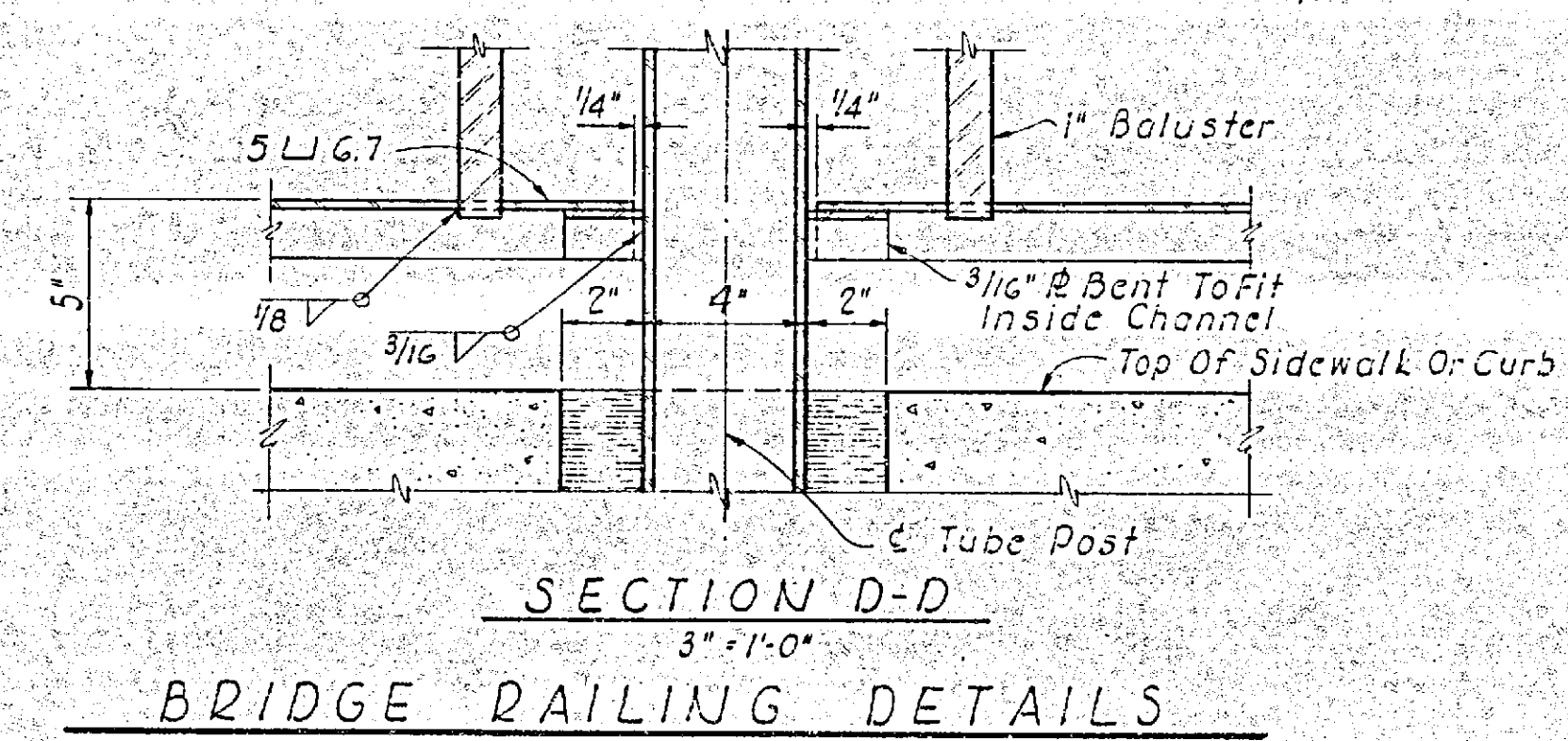
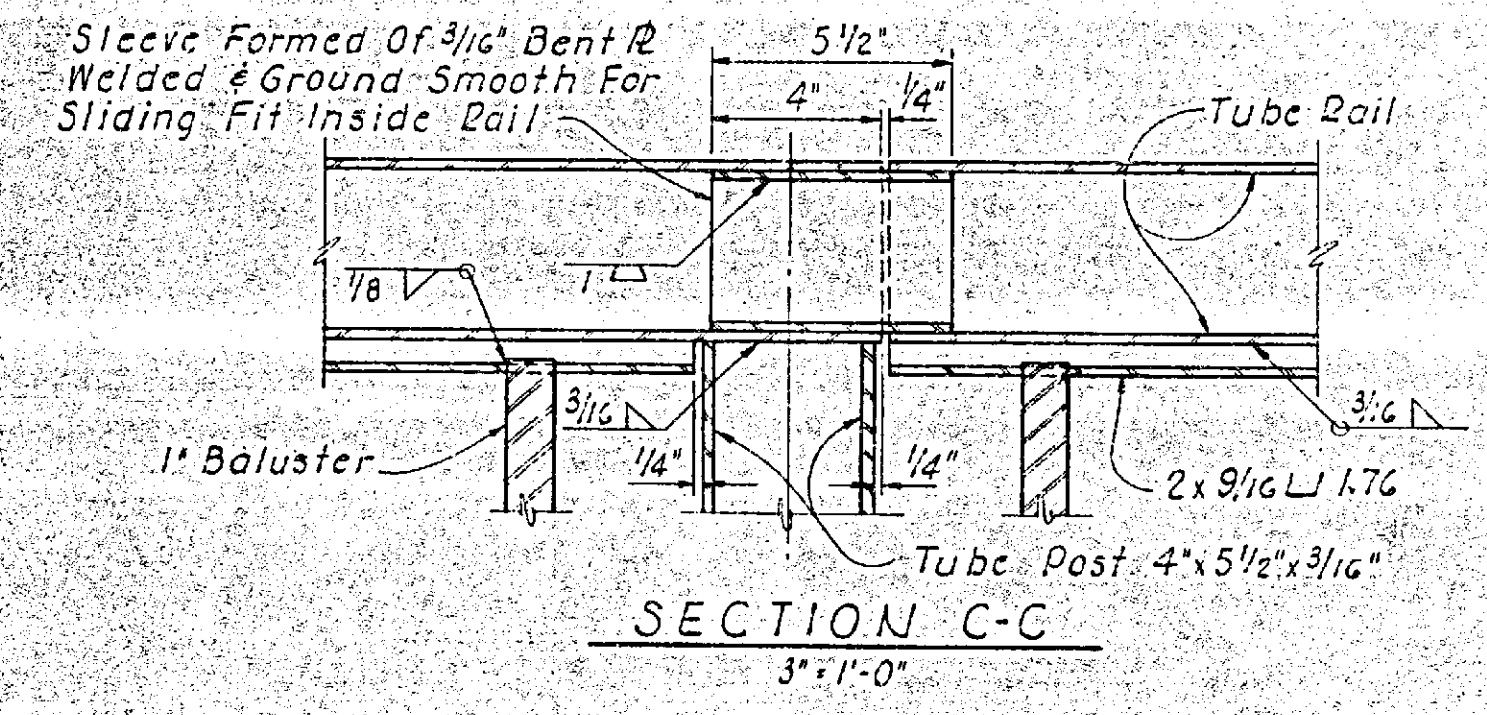
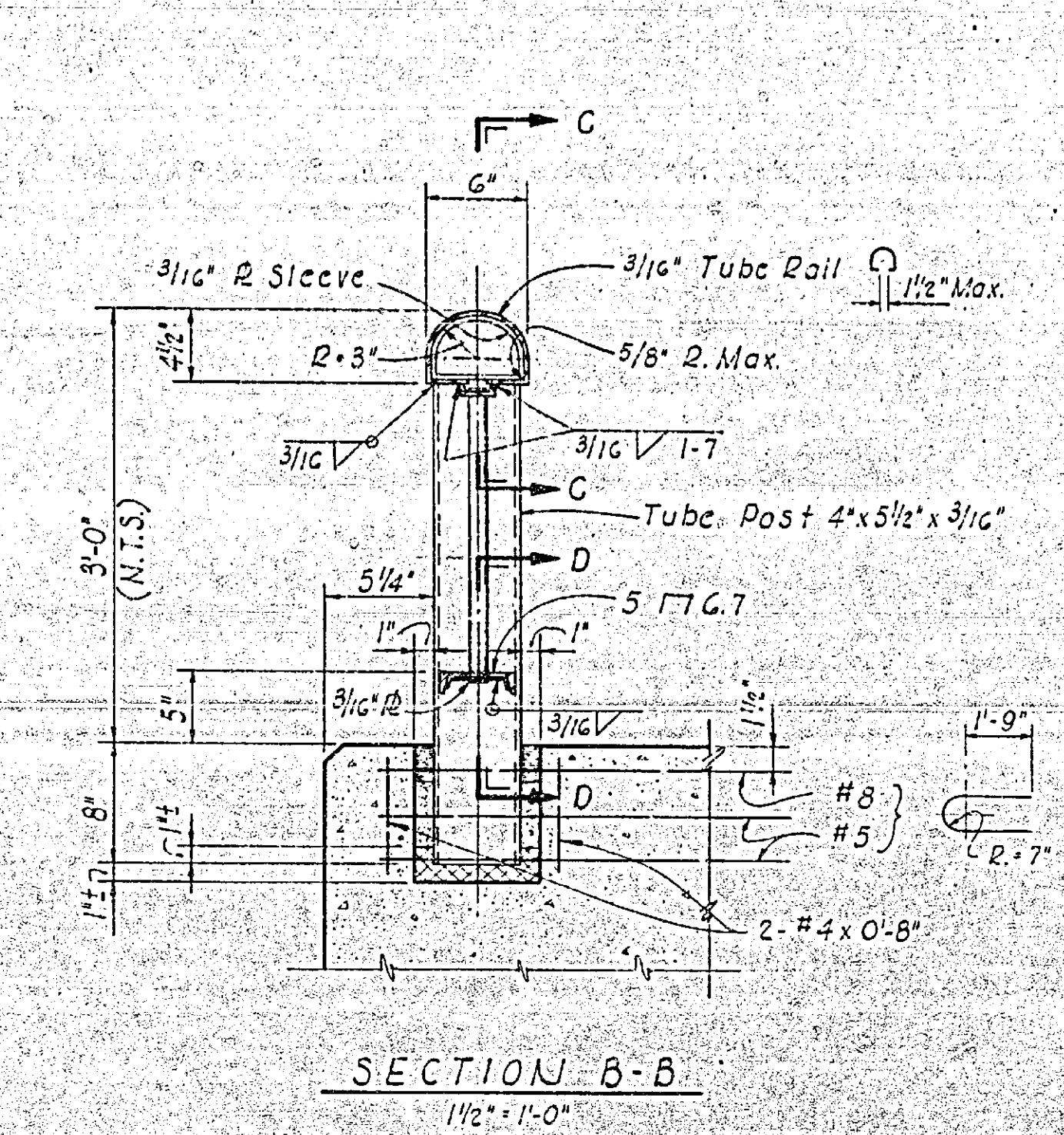
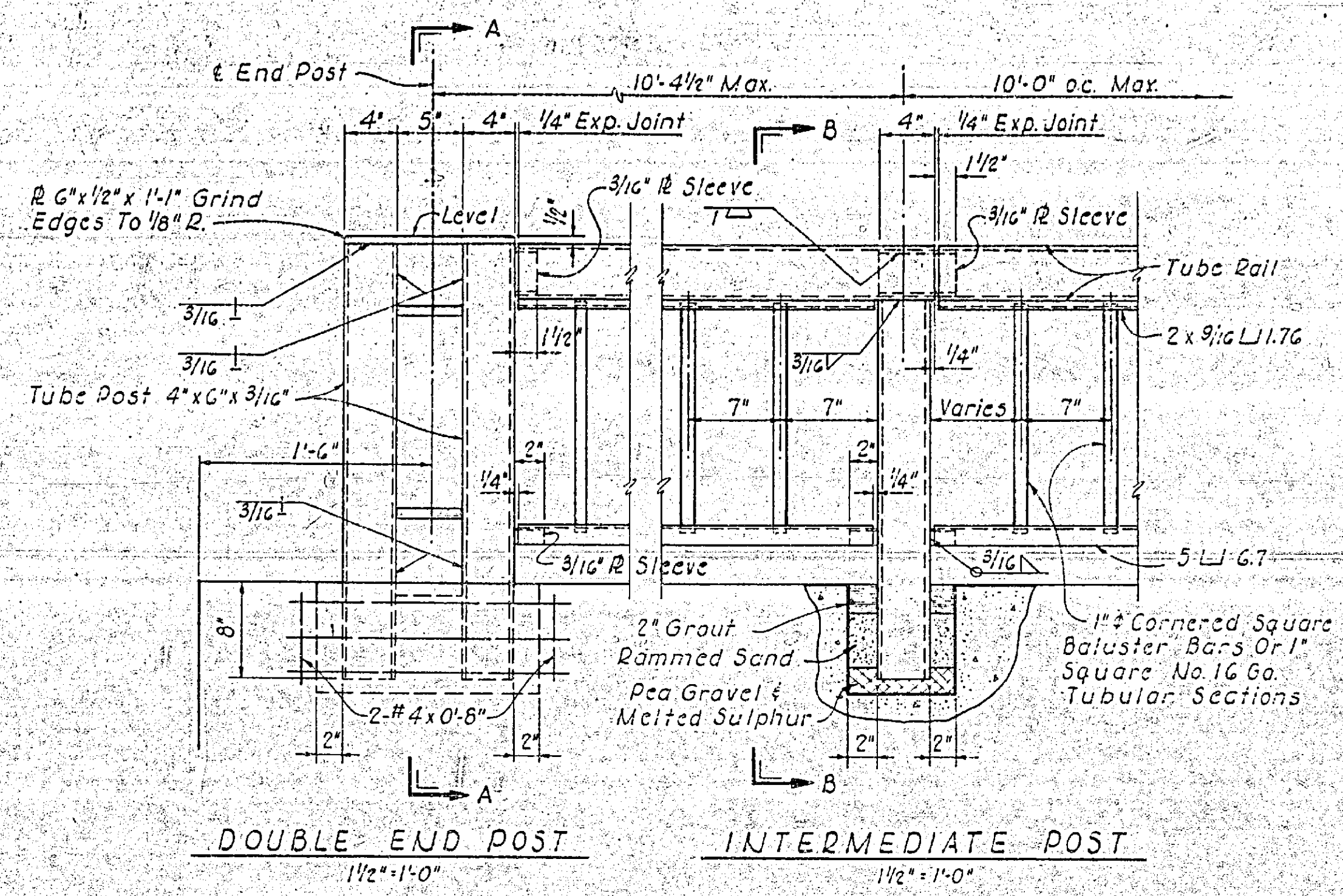
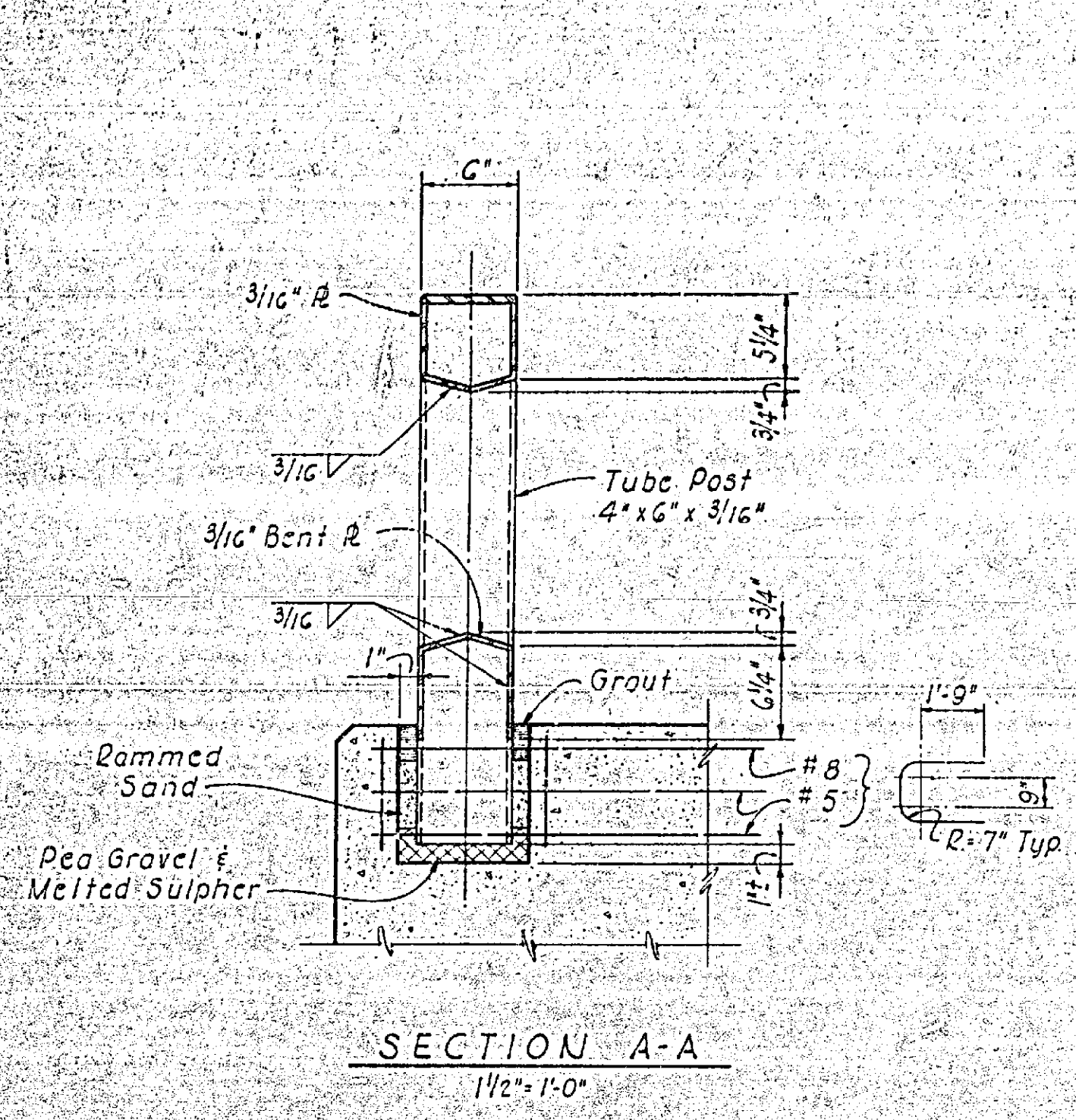


TYPICAL 3'-0 UNIT

TYPICAL 4'-0 UNIT

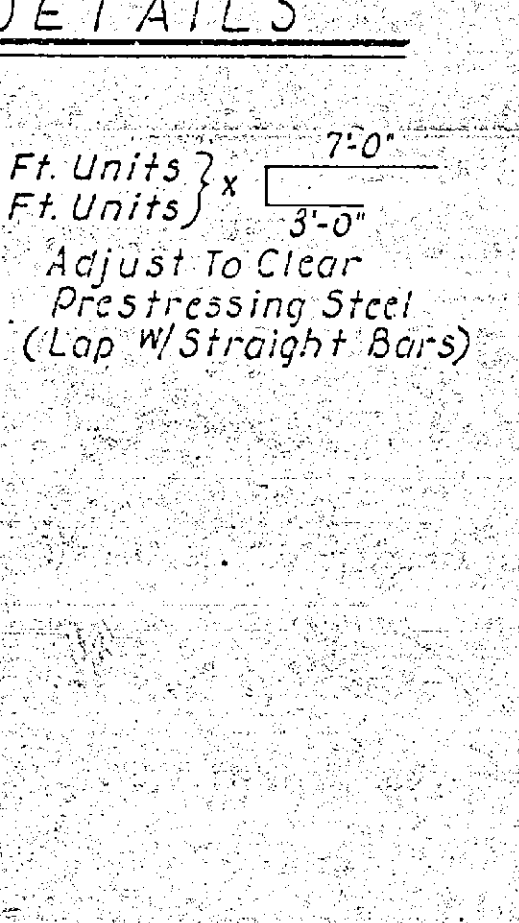
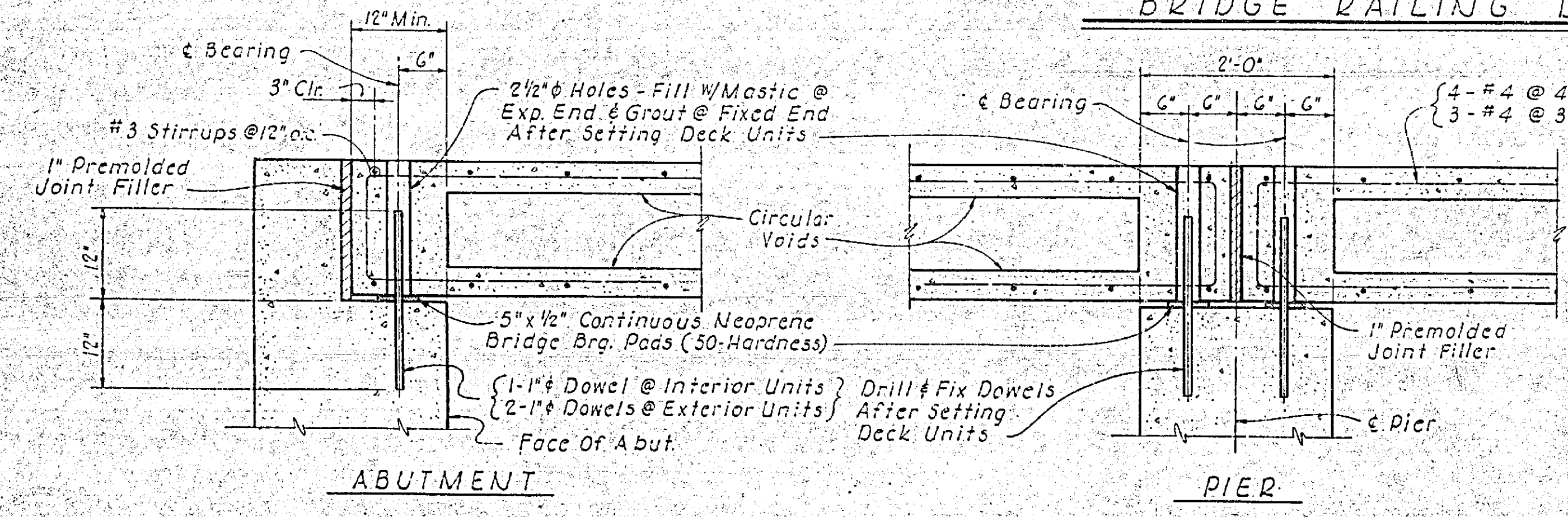


MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY DECK DETAILS		SCALE: AS NOTED DATE: 9-19-62 JOB NO.: L-846 SHEET: 5 OF: 10
DESIGNED BY: Neill DRAWN BY: Mallion	CHECKED BY: Limbrick IN CHARGE: Limbrick	DESIGN APPROVED: J. H. Terras - RD 7799 Calif. Bridge Engineer, A.E. 49, P.E. Coast Lines		CITY OF RIVERSIDE FILE NO. R-



RAILING NOTES

Space Posts To Clear Expansion Joints By 9" Min. To ϵ Of Posts.
 Exact Post Hole Locations Are To Be Determined From Approved Railing Shop Plans.
 Railing Shall Conform To Horizontal & Vertical Alignment. Post & Balusters Shall Be Vertical With A Maximum Deviation Not To Exceed That Represented By A Rise Of 1/4" In One Panel.
 Railing To Be Galvanized After Fabrication. For Further Requirements See Specifications.



MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA
 IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY
 RAILING & BEARING DETAILS

SCALE AS NOTED
 DATE 9-19-62
 JOB NO. L-246
 SHEET 10 OF 10

CITY OF RIVERSIDE CALIFORNIA
 IVY STREET OVERCROSSING
 AT THE A. T. & S. F. RAILWAY
 1962

MAYOR

E. V. BALES

COUNCIL MEMBERS

JOHN HAROLD BACKSTRAND

DR. CHARLES H. JOHNSON

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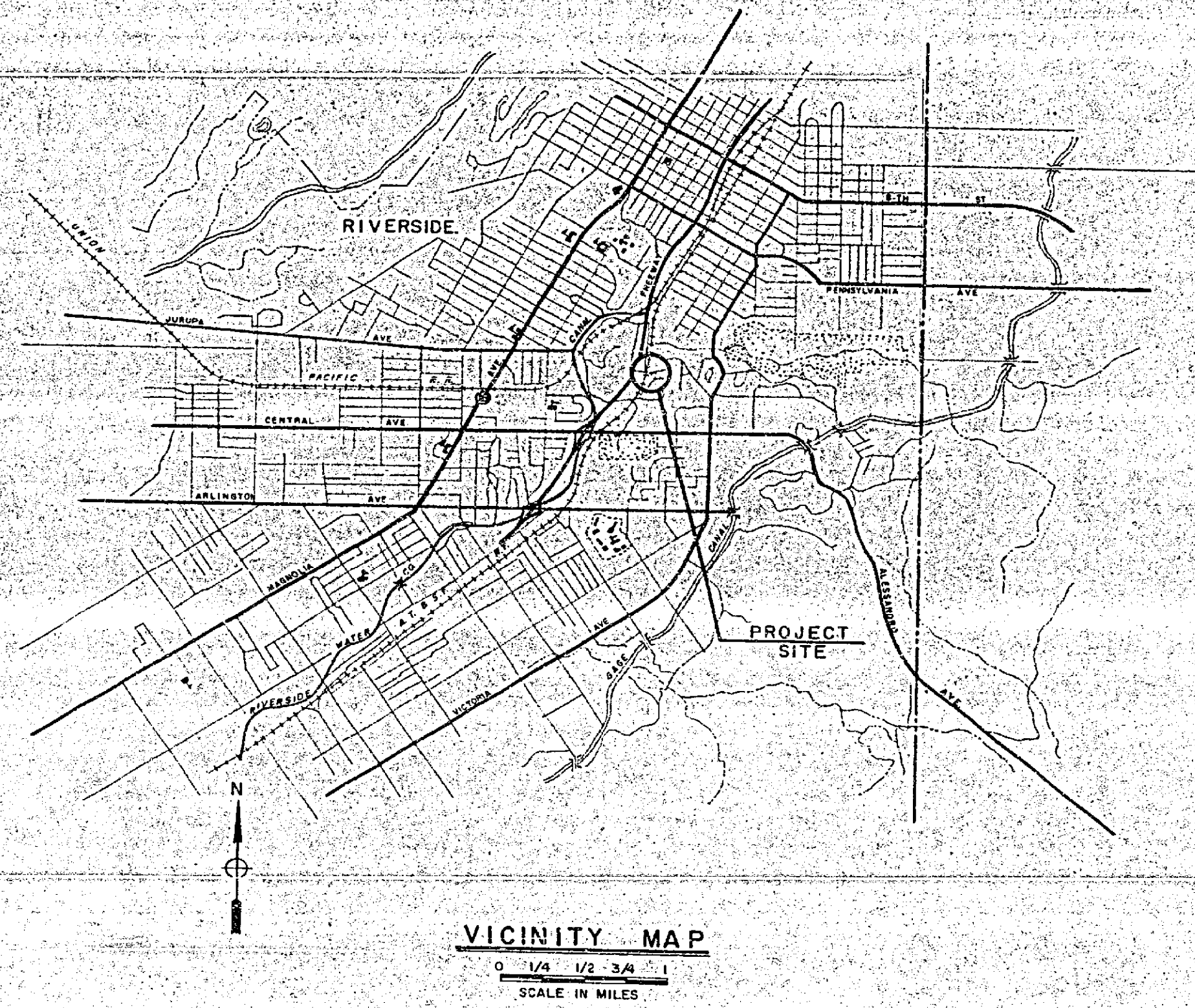
MOFFATT & NICHOL, ENGINEERS
 LONG BEACH, CALIFORNIA

REVISIONS			MOFFATT & NICHOL, ENGINEERS LONG BEACH, CALIFORNIA
MARK	DATE	DESCRIPTION	CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS
			IVY STREET OVERCROSSING AT THE A. T. & S. F. RAILWAY TITLE SHEET
DESIGNED BY	CHECKED BY	APPROVED BY	
DRAWN BY		<i>J. F. Martinek</i>	DIRECTOR OF PUBLIC WORKS
RECOMMENDED BY	<i>A. R. Theal</i>	DATE	1-21-62
	ASSISTANT CITY ENGINEER		

JOB NO. L-846

CITY OF RIVERSIDE FILE NO. R-418

DRAWING LIST



DRAWING NO.	TITLE
1 OF 10	TITLE SHEET
2 OF 10	VICINITY MAP & DRAWING LIST
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STANDARD DRAWINGS (BOUND WITH SPECIAL PROVISIONS)

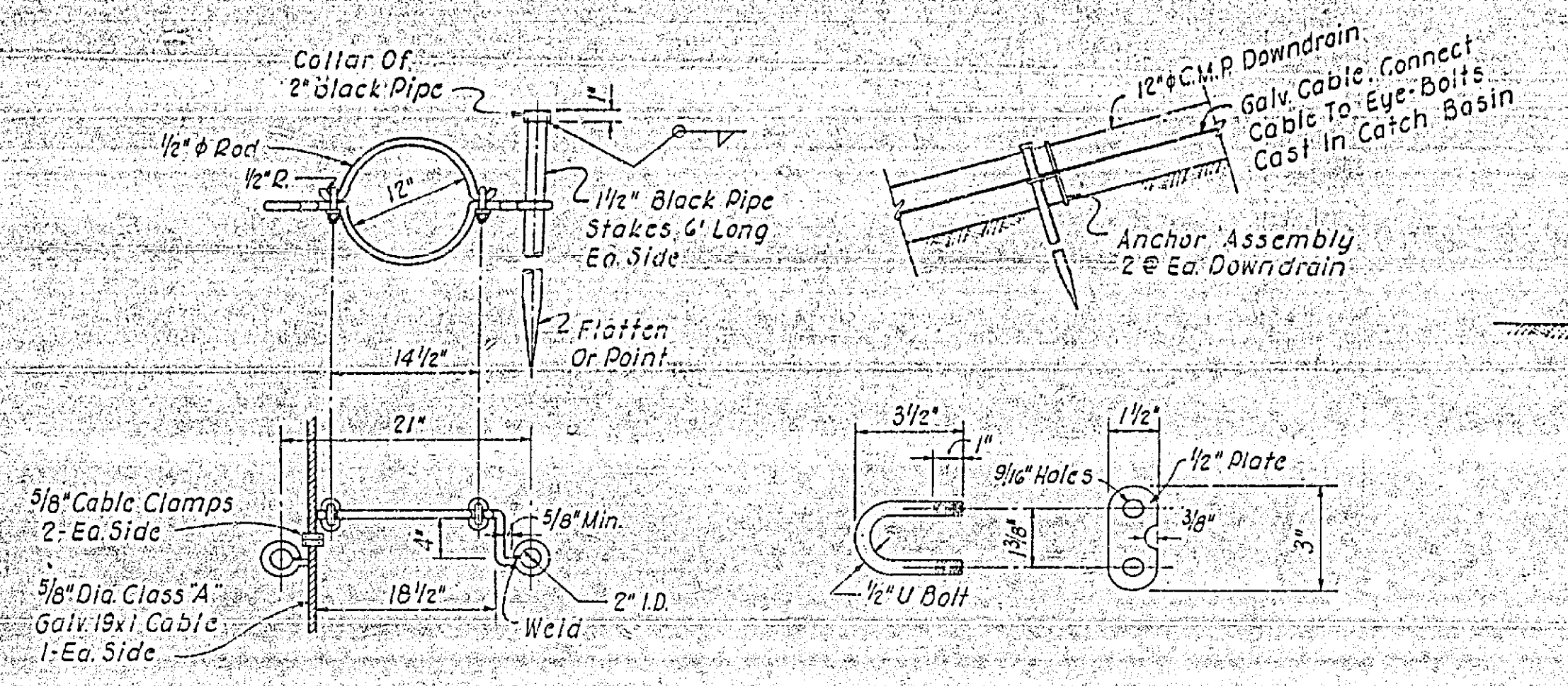
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405 (1OF2)	STORM WATER CATCH BASIN TYPE 3
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NONE	DETOUR PLAN

NO.	REVISION	BY	DATE

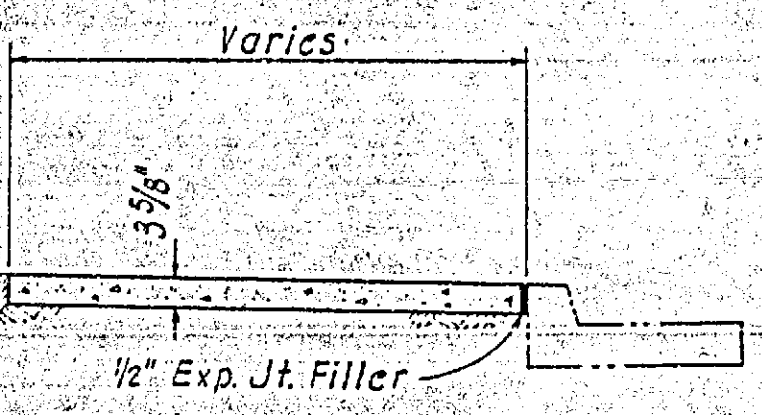
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A. T. & S. F. RAILWAY
VICINITY MAP & DRAWING LIST

SCALE	DATE
NONE	9-19-62
JOB NO.	L-846
SHEET	2
OF	10

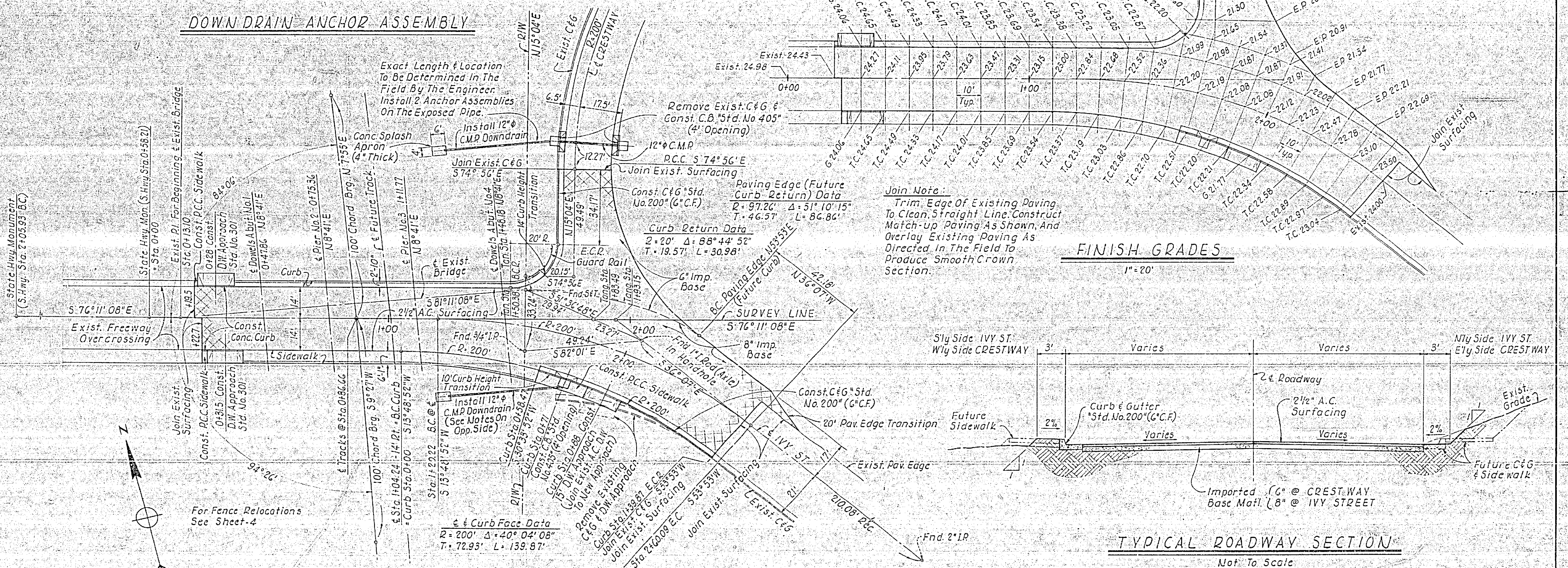


DOWN DRAIN ANCHOR ASSEMBLY



P.C.C. SIDEWALK

Bearings Are Based On ϵ Of Ivy St. Being $N 36^{\circ} 07' W$ As Shown On Map Of 'Monterey Heights' M.B. 18/95 Rec. Riv. Co.
 B.M. Elev. 931.20 Top Of 1" I.P. In Hand Hole ϵ Ivy Street ϵ Monterey Road. F.B. 657/1-11, '12-15.



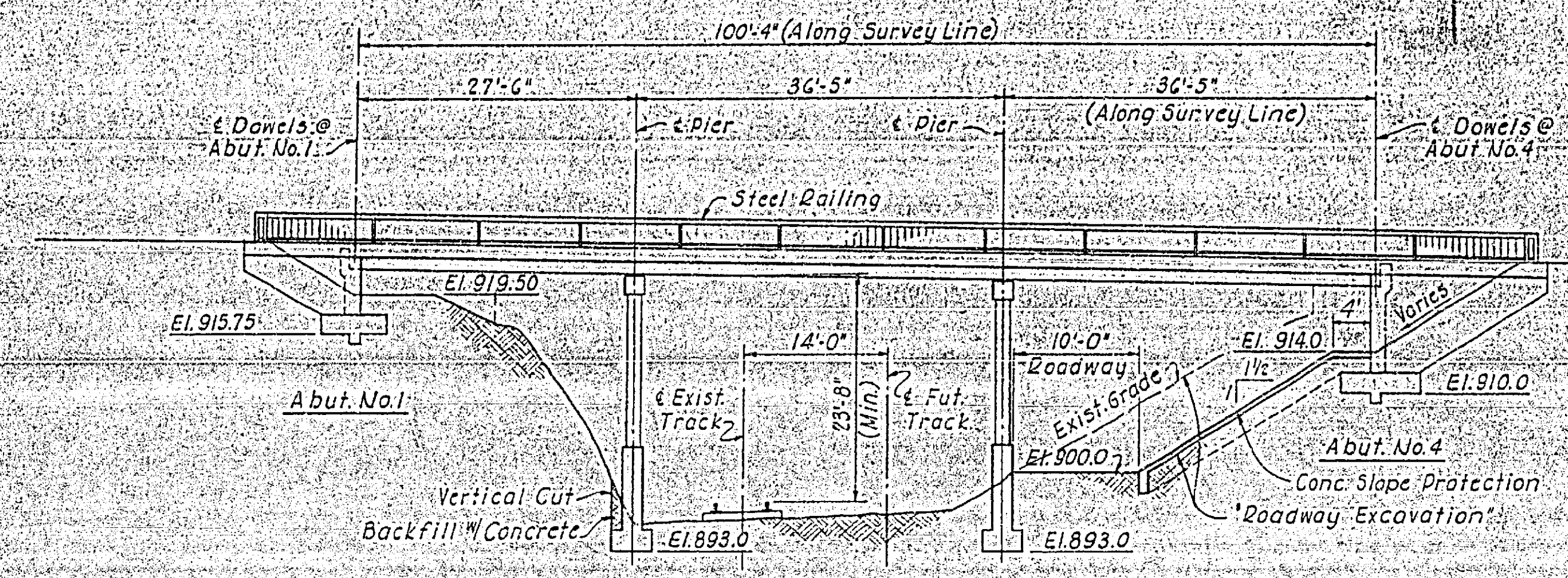
ROADWAY PLAN
1" = 20'

FINISH GRADES
1" = 20'

TYPICAL ROADWAY SECTION
Not To Scale

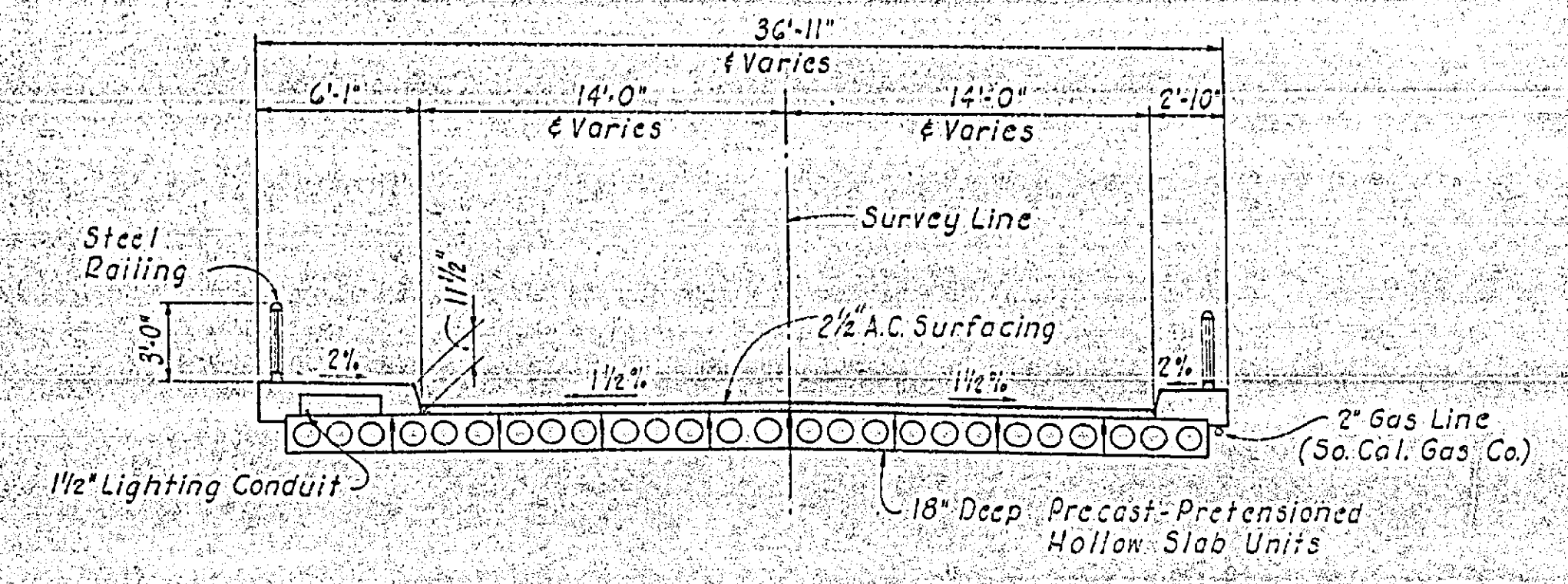
VOID

MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY ROADWAY PLAN AND DETAILS	
DESIGNED BY	Limbrick	CHECKED BY	Limbrick
DRAWN BY	Mallion	IN CHARGE	Limbrick
NO.	REVISION	BY	DATE



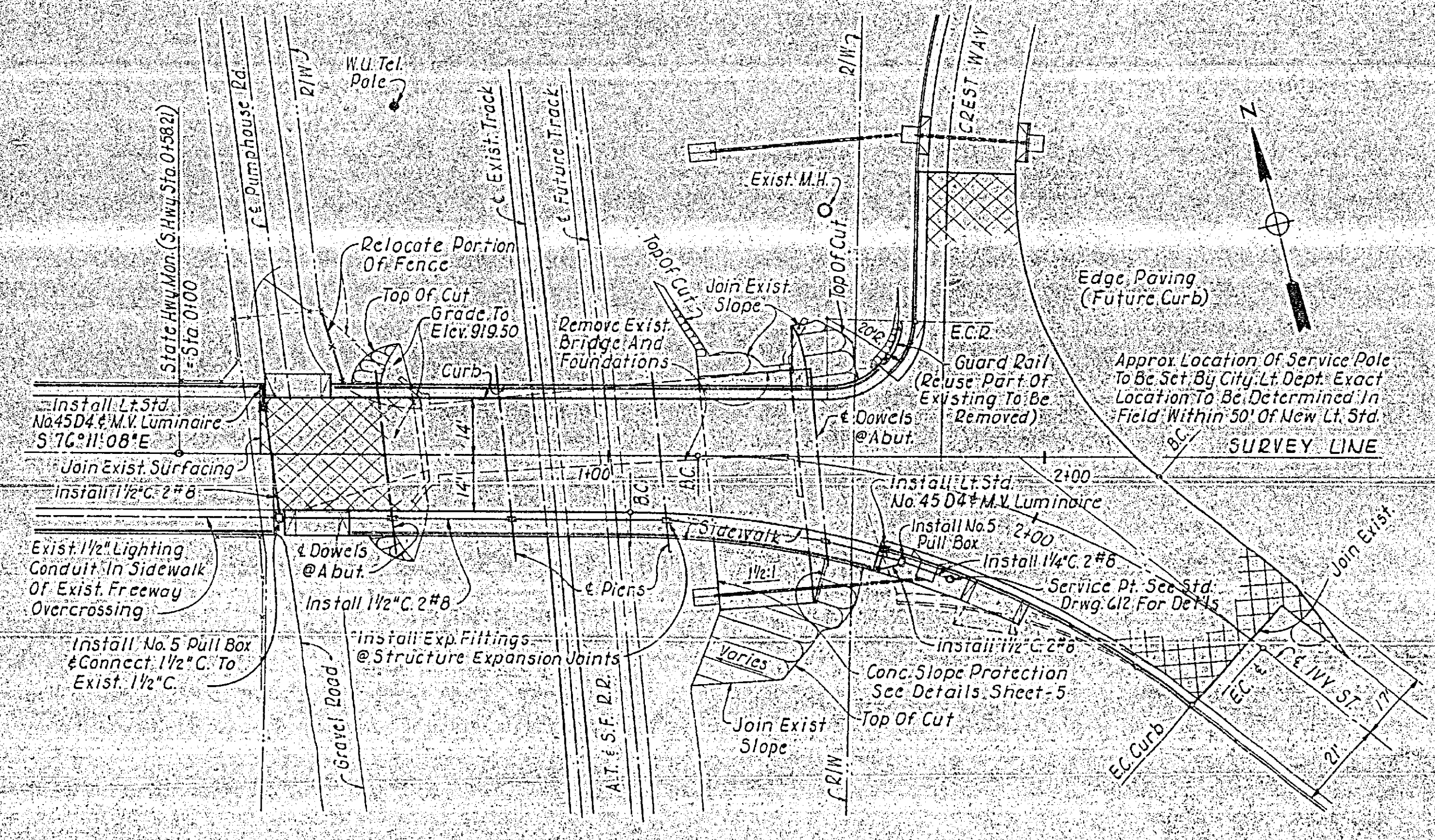
ELEVATION

1" = 10"



SECTION THRU BRIDGE

1" = 5"



PLAN

1" = 20"

GENERAL NOTES

Specifications:
 Design: A.A.S.H.O. Dated 1957, With Revisions And As Supplemented By State Of California, Department Of Public Works, Bridge Planning And Design Manual.
 Live Loading: H 20 - S 16' 44"
Unit Stresses:
 Reinforced Concrete: (Except For Prestressed Concrete)
 $f_c = 3000$ p.s.i. @ 28 Days
 $f_t = 1200$ p.s.i.
 $n = 10$
 Reinforcing Steel:
 $f_s = 20,000$ p.s.i. Intermediate Grade
Reinforcement:
 Embedment Is Clear To Outside Of Bar And Is 2" To Main Reinforcement Except As Noted. Backing For Hooks Is Four Diameters, Except As Noted. Where Reinforcing Bars Are Spliced They Shall Have A 20 Diameter Lap Unless Otherwise Called For On The Plan.
Grout:
 Shall Be As Called For On The Specifications.

PRESTRESSING NOTES

Concrete: $f_c = 5500$ p.s.i. @ 28 Days
 $f_{ti} = 4500$ p.s.i. @ Time Of Pretensioning
Working Force: (See Table On Sheet-9)
 The Total Force Per Unit Remaining After All Losses, Including Those Due To Creep And Shrinkage Of Concrete And Steel Have Occurred.
 The Loss In Stress In The Prestressing Steel Due To Shrinkage And Creep Have Been Assumed To Be 37,500 p.s.i.
 In Addition To Losses Mentioned Above, Provision Shall Be Made For Losses Due To Friction, Anchorage Takeup, And Any Other Losses Peculiar To The System Of Prestressing Used.
Prestress Steel: Ultimate Tensile Strength 250,000 p.s.i.
 Minimum Spacing Center To Center Of Strands Shall Be 1 1/2" Or 1/2 Times The Maximum Size Coarse Aggregate.
 Minimum Cover At Exposed Surfaces Shall Be 2 Inches.

NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA

DESIGNED BY: Limbrick
 DRAWN BY: Mallon

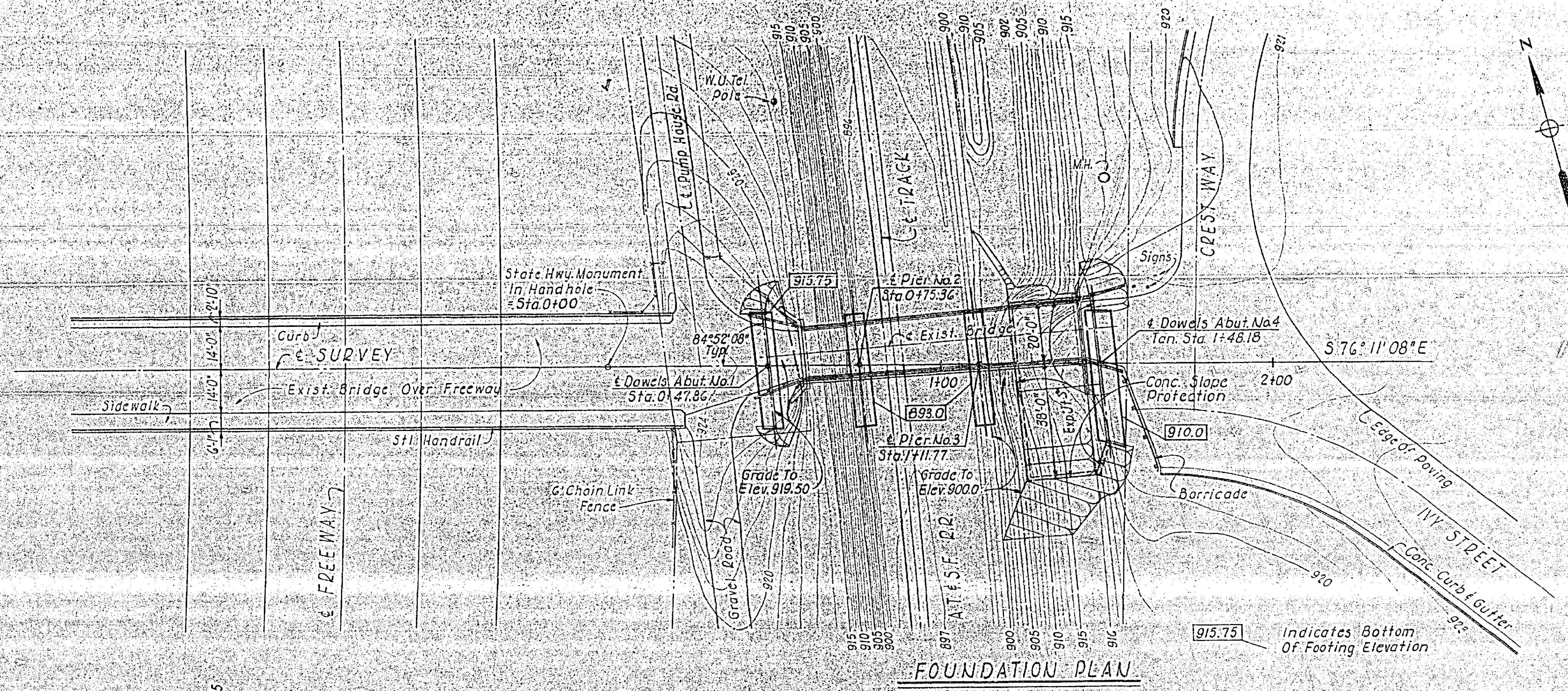
CHECKED BY: Limbrick
 IN CHARGE: Limbrick

DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA

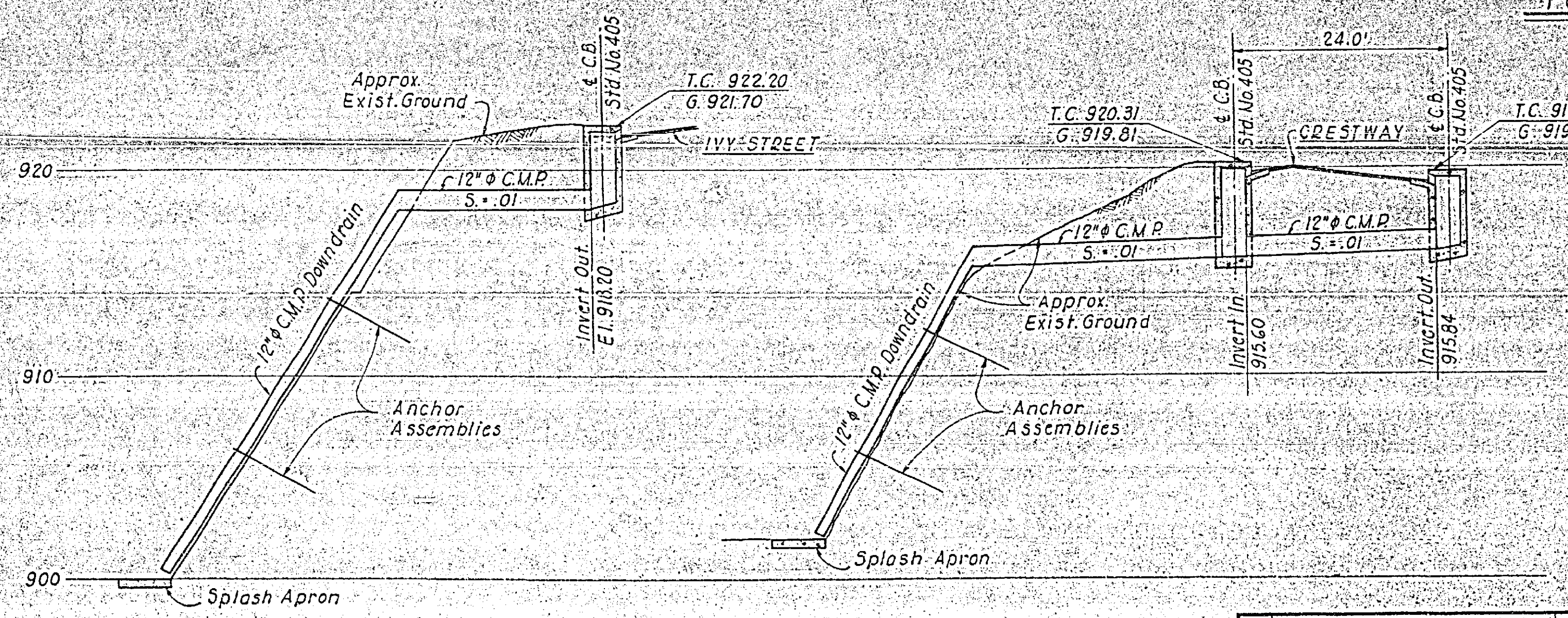
IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY

PLAN, ELEVATION & TYPICAL SECTION

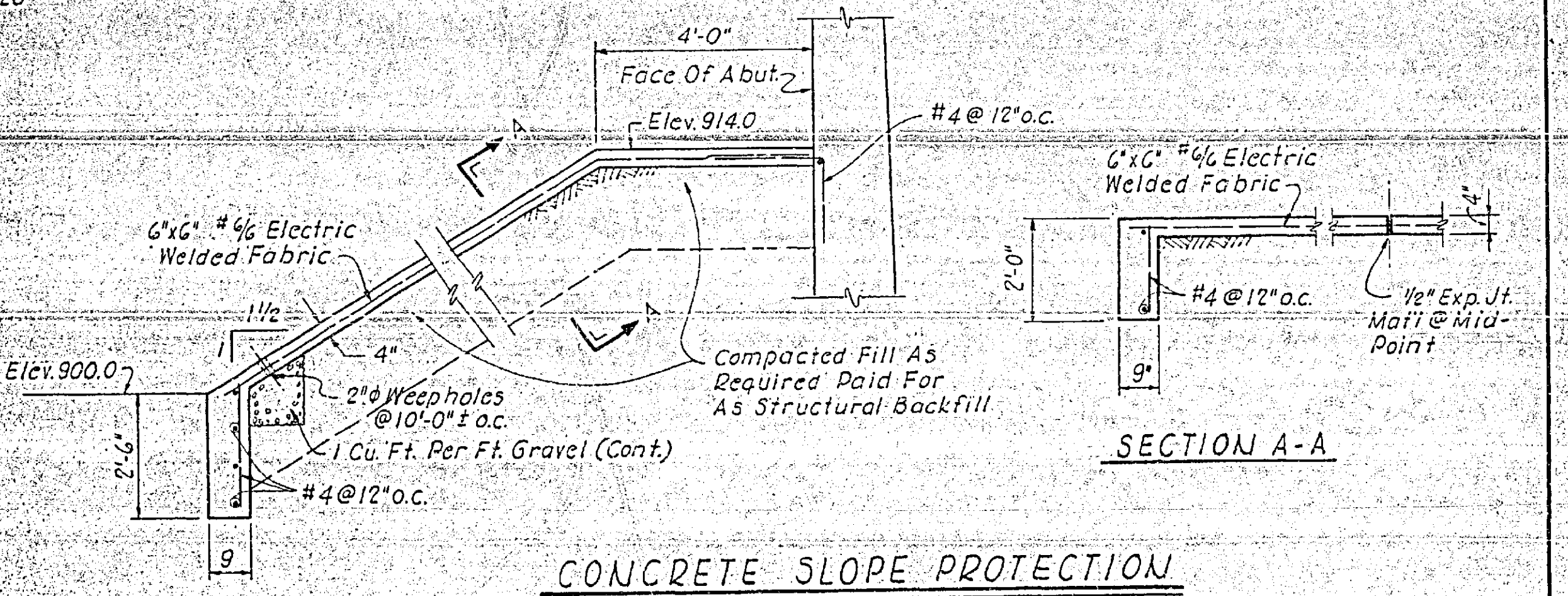
SCALE	DATE
AS NOTED	9-19-62
JOB NO.	L-846
SHEET	4
OF 10	



FOUNDATION PLAN
1" = 20'



STORM DRAIN PROFILES
Horiz. 1" = 10'
Vert. 1" = 4'



CONCRETE SLOPE PROTECTION
1/2" = 1'-0"

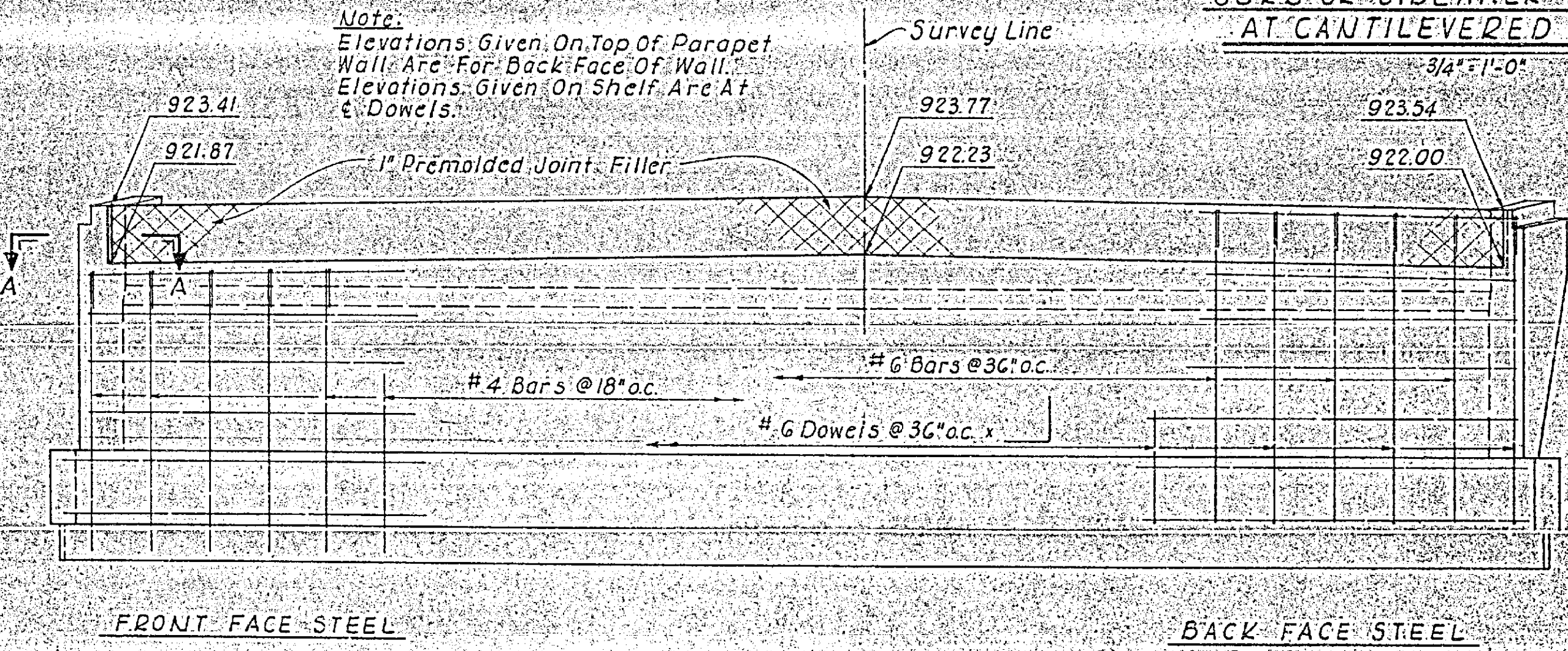
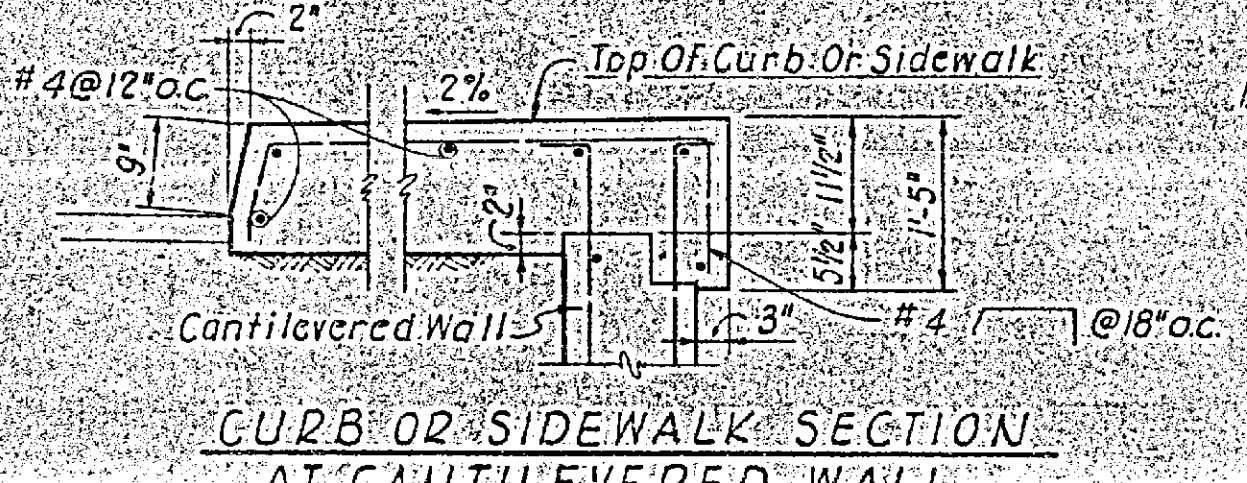
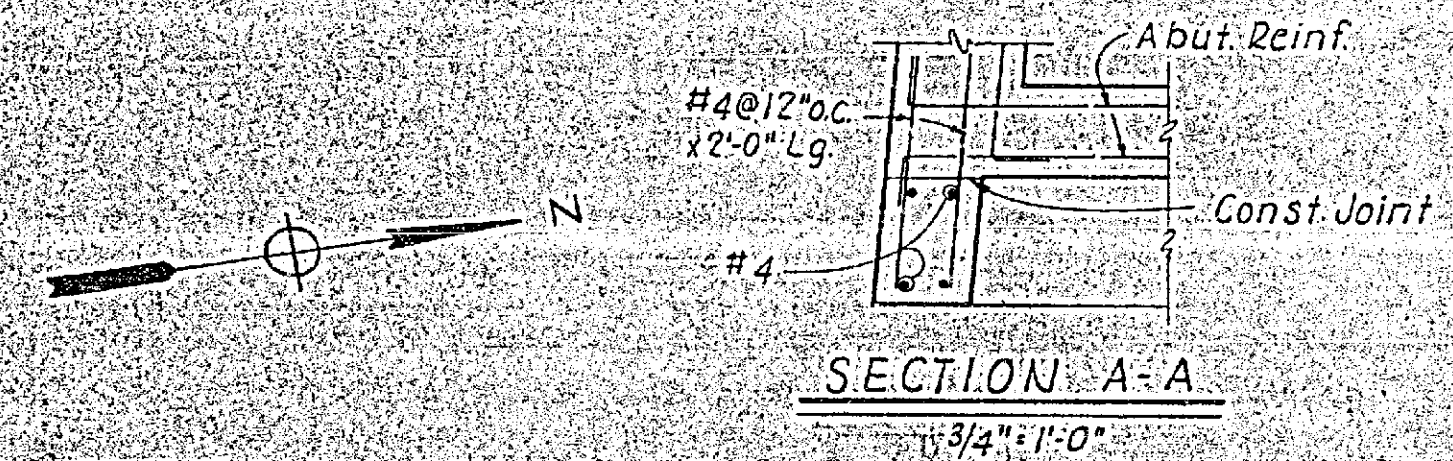
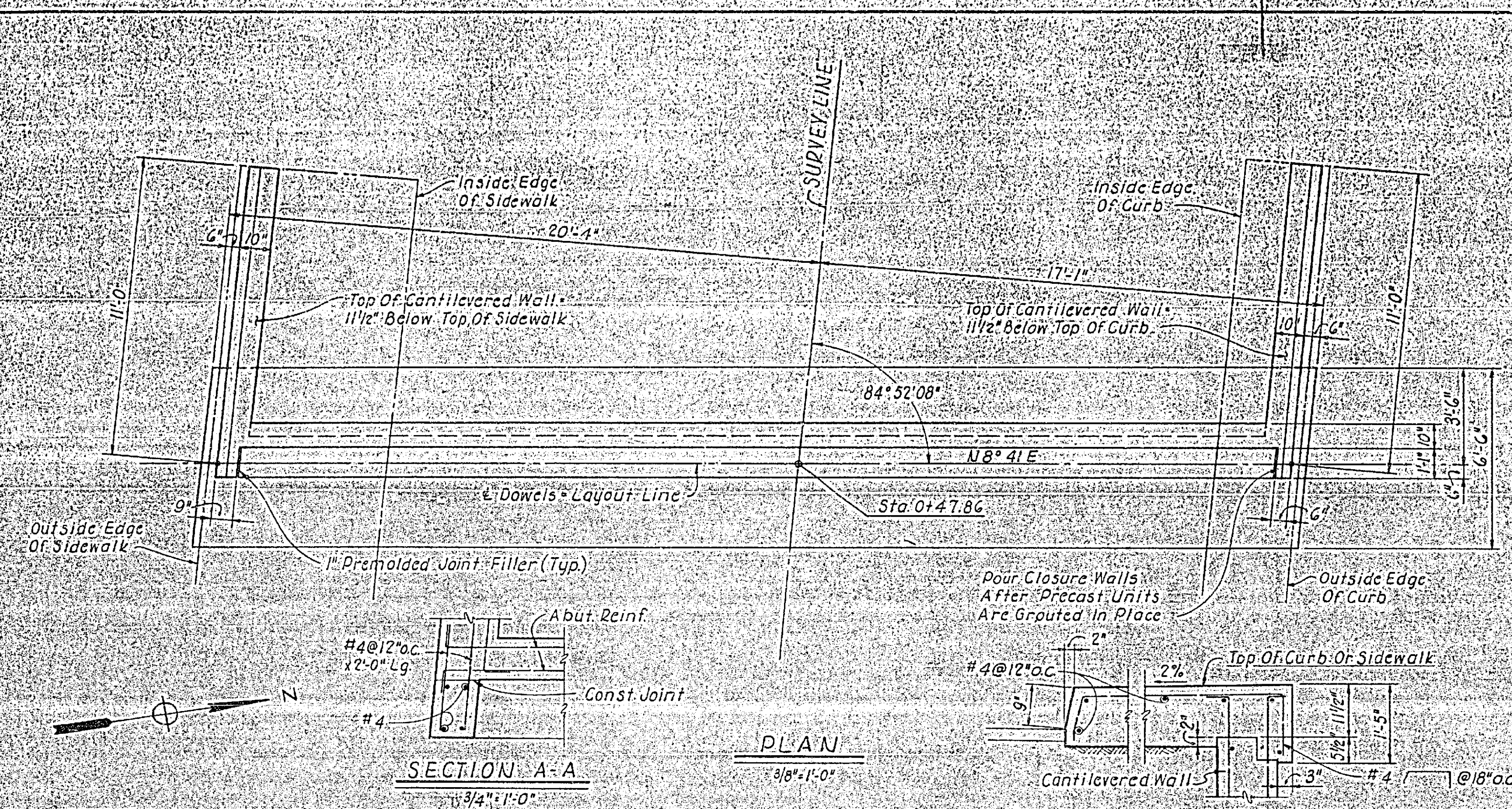
NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

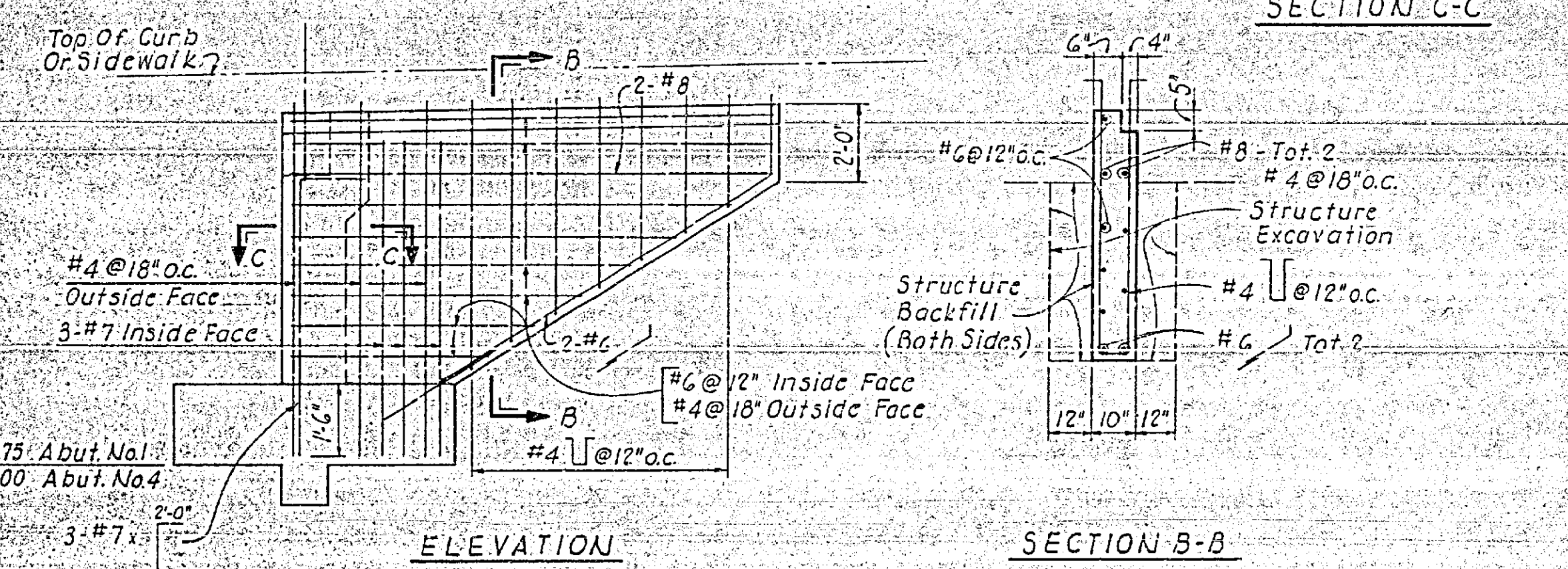
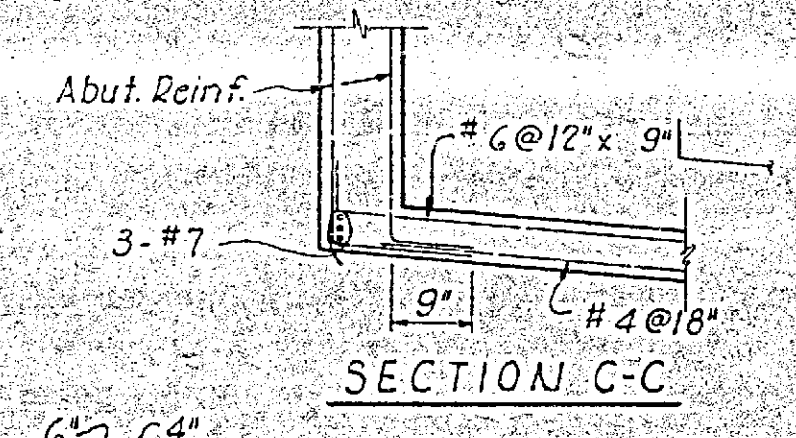
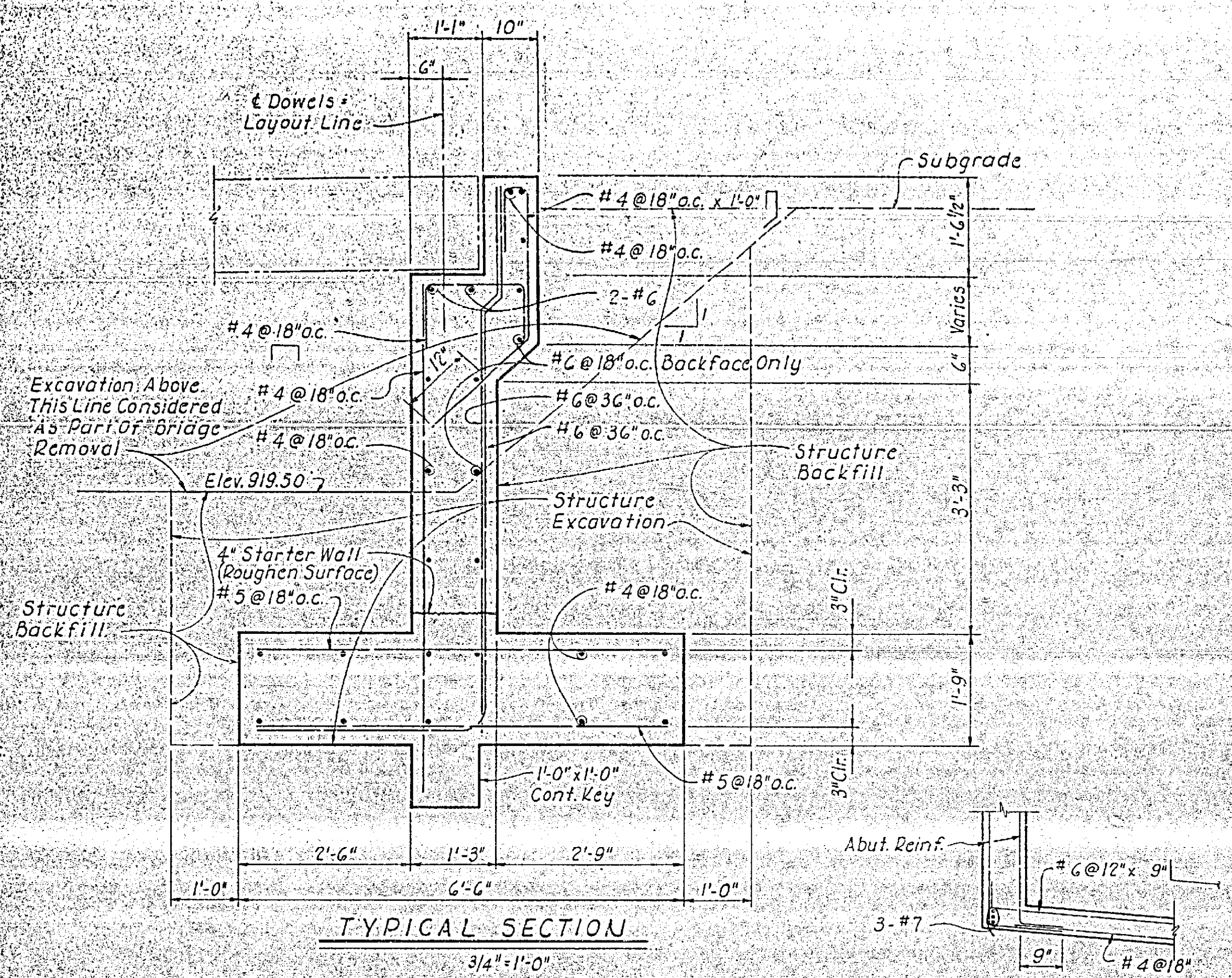
DESIGNED BY *Limbrick* CHECKED BY *Limbrick*
DRAWN BY *Mallion* IN CHARGE *Limbrick*

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
FOUNDATION PLAN & MISC. DETAILS

SCALE 1" = 20' DATE 9-19-62
JOB NO. L-846 SHEET 5 OF 10



ELEVATION
3/8" = 1'-0"

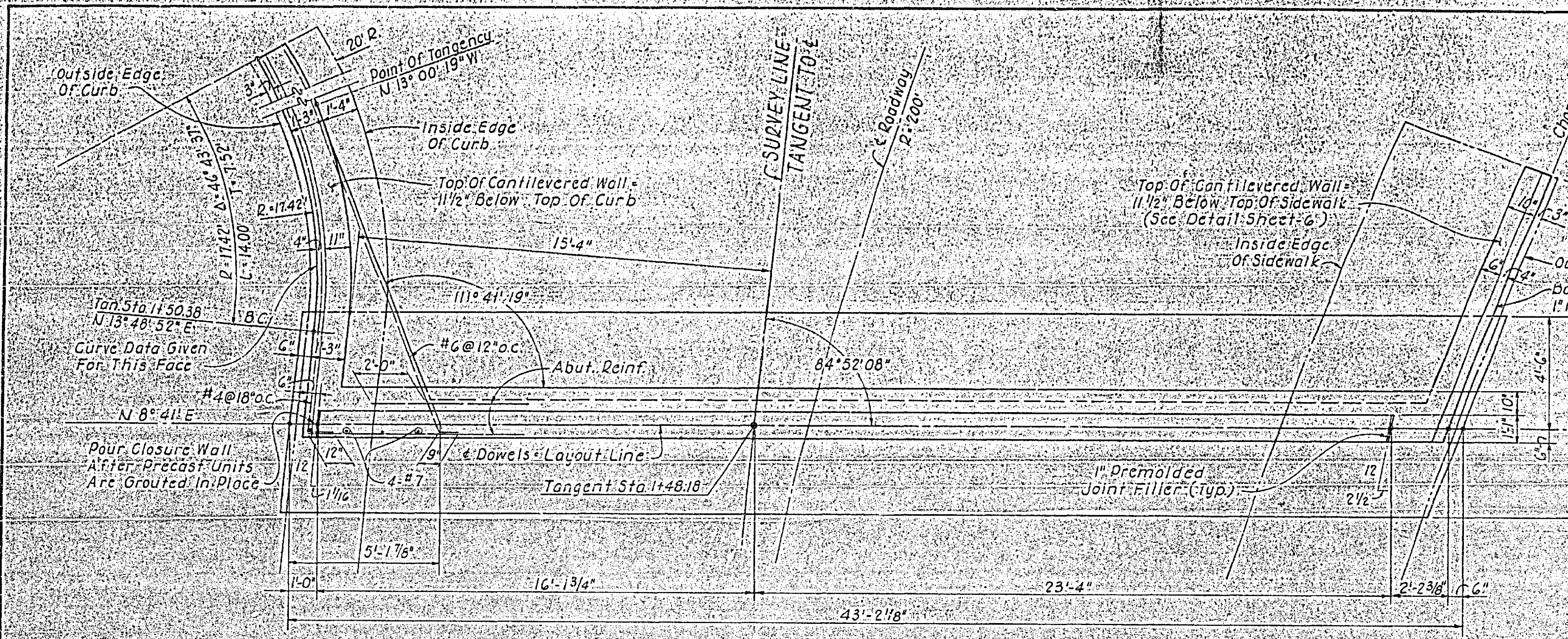


NO.	REVISION	DATE

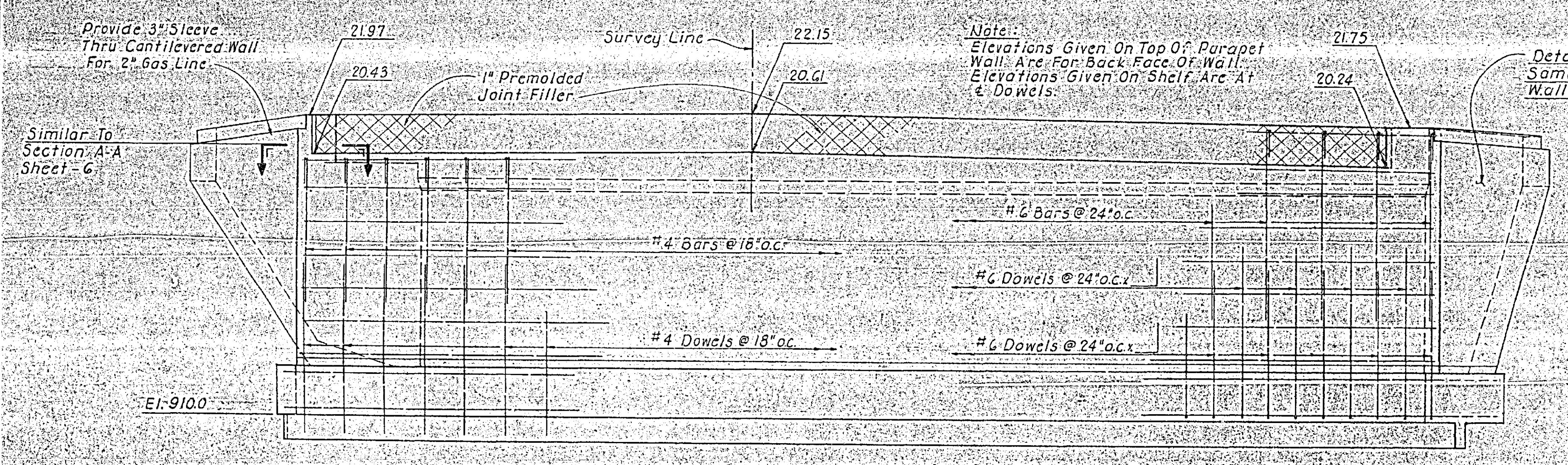
MOFFATT NICHOL ENGINEERS
LONG BEACH, CALIFORNIA
DESIGNED BY: Neill
DRAWN BY: Mallon
CHECKED BY: Limbrick
IN CHARGE: Limbrick

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A. T. & S. F. RAILWAY
ABUTMENT NO. 1

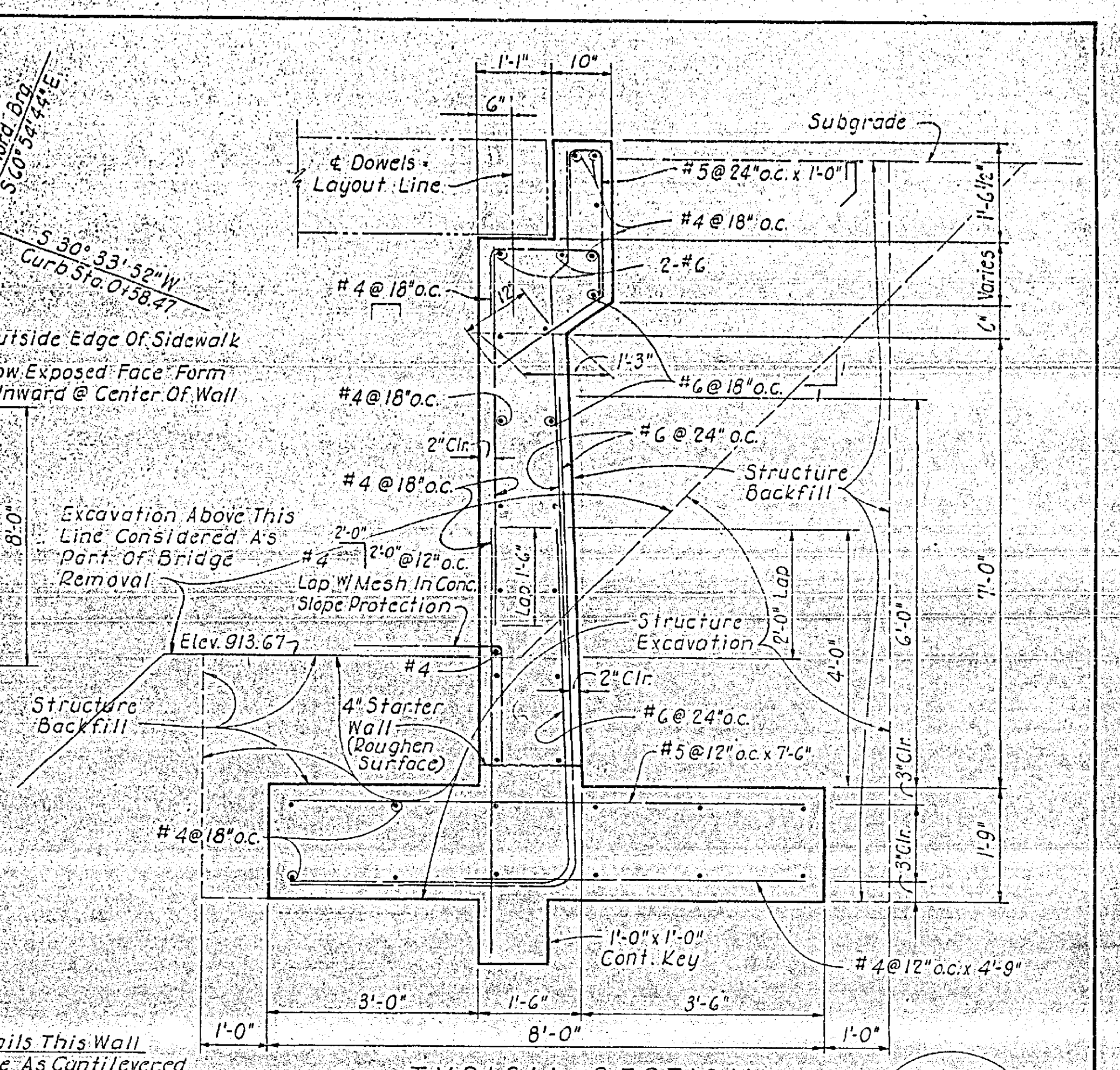
SCALE AS NOTED 9-18-42
JOB NO. L-846
SHEET 6 OF 10
CITY OF RIVERSIDE FILE NO. R-418



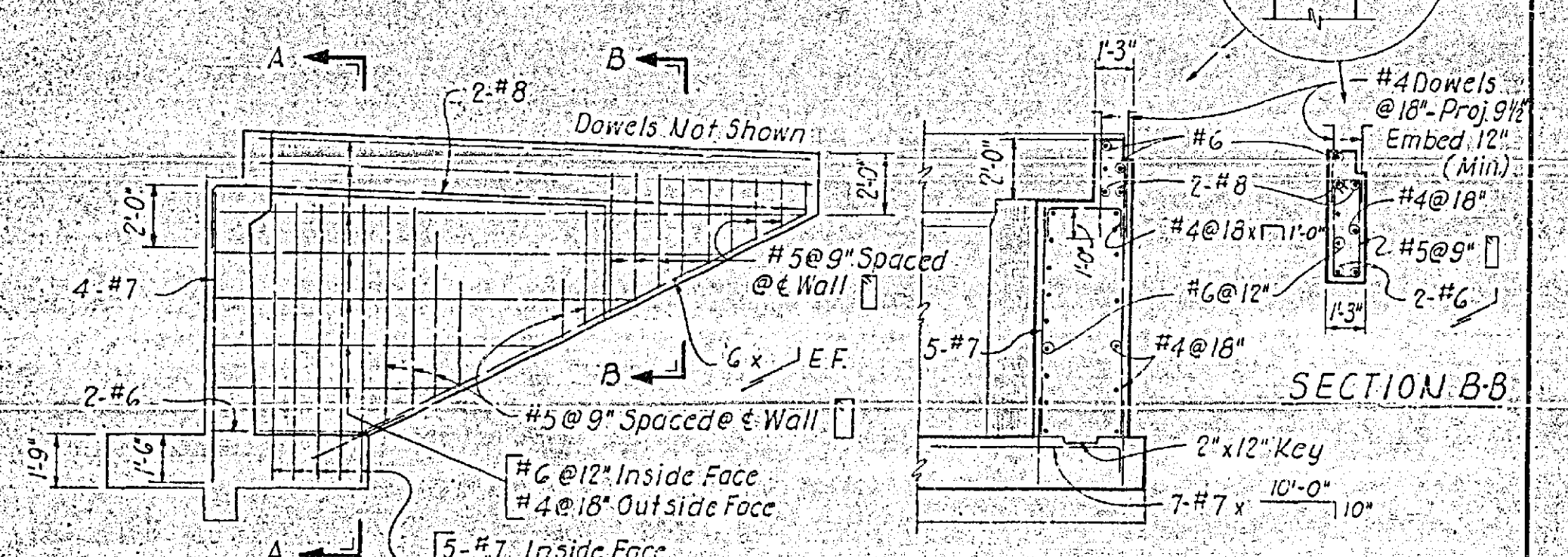
PLAN
3/8" = 1'-0"



FRONT FACE STEEL
ELEVATION
3/8" = 1'-0"

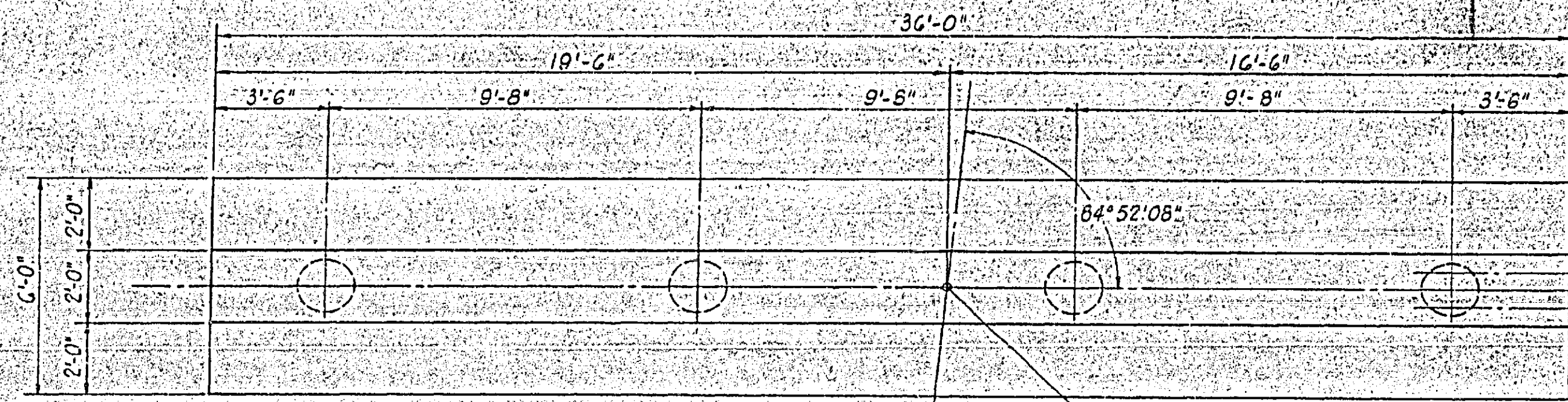


TYPICAL SECTION
3/4" = 1'-0"



DEVELOPED ELEVATION
SECTION A-A
NORTH EAST CANTILEVERED WALL
1/4" = 1'-0"

MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA DESIGNED BY <i>Neill</i> CHECKED BY <i>Limbrick</i> DRAWN BY <i>Malton</i> IN CHARGE <i>Limbrick</i>		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A. T. & S. F. RAILWAY ABUTMENT NO. 4	SCALE AS NOTED DATE 9-19-62 JOB NO. L-848 SHEET 7 OF 10 CITY OF RIVERSIDE FILE NO. R-418
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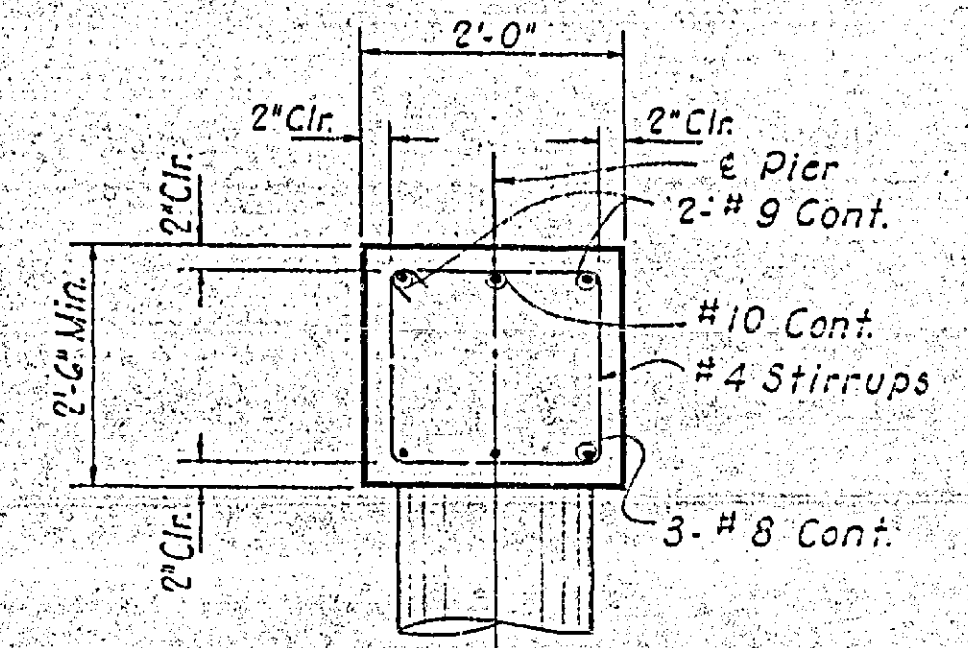


PLAN

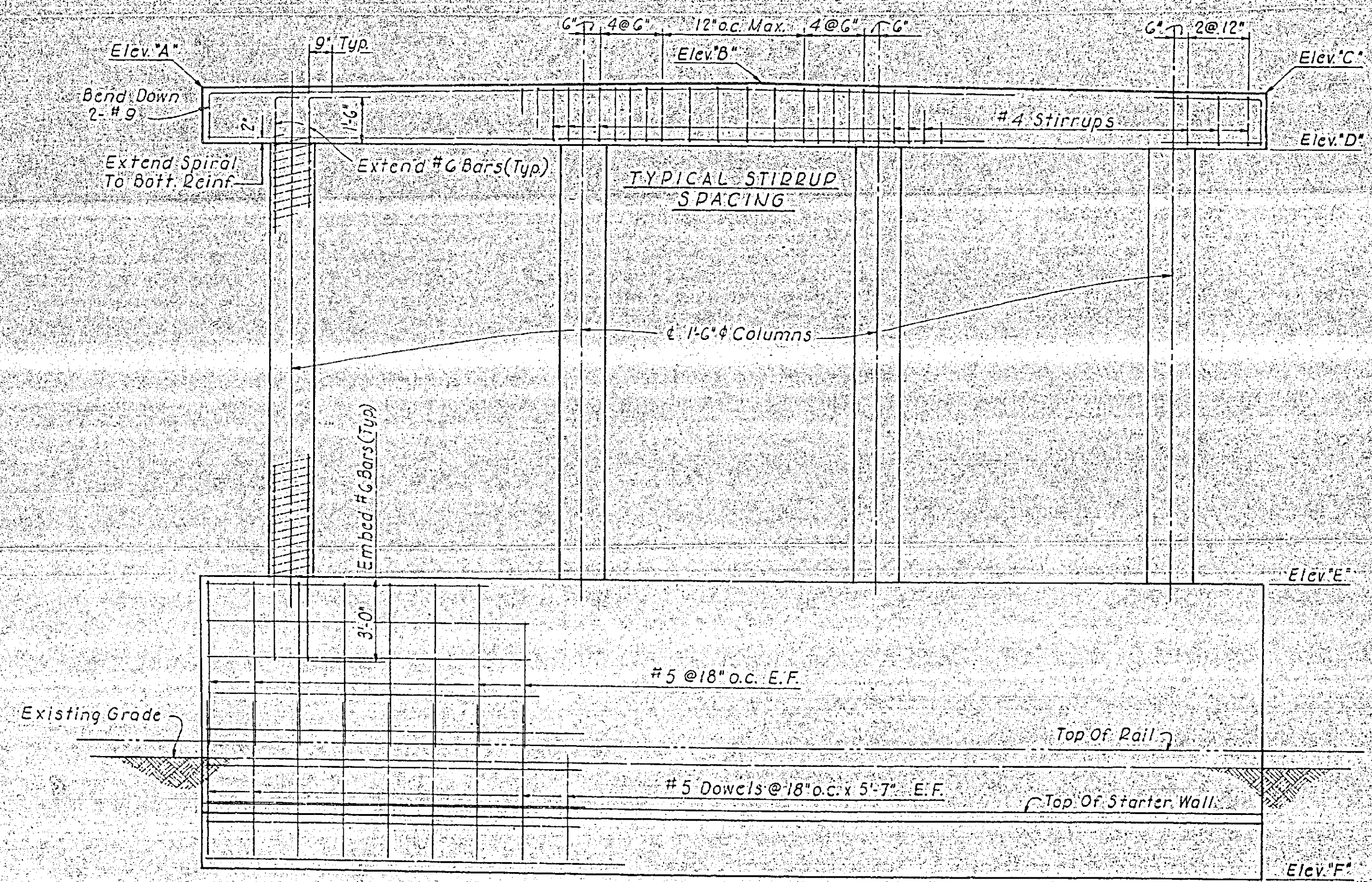
3/8" = 1'-0"

Sta. 0+15.36 - Pier No. 2
Sta. 1+11.77 - Pier No. 3

Note: Finish Top Of Pier To Provide Uniform Bearing Under Skewed Deck Units.

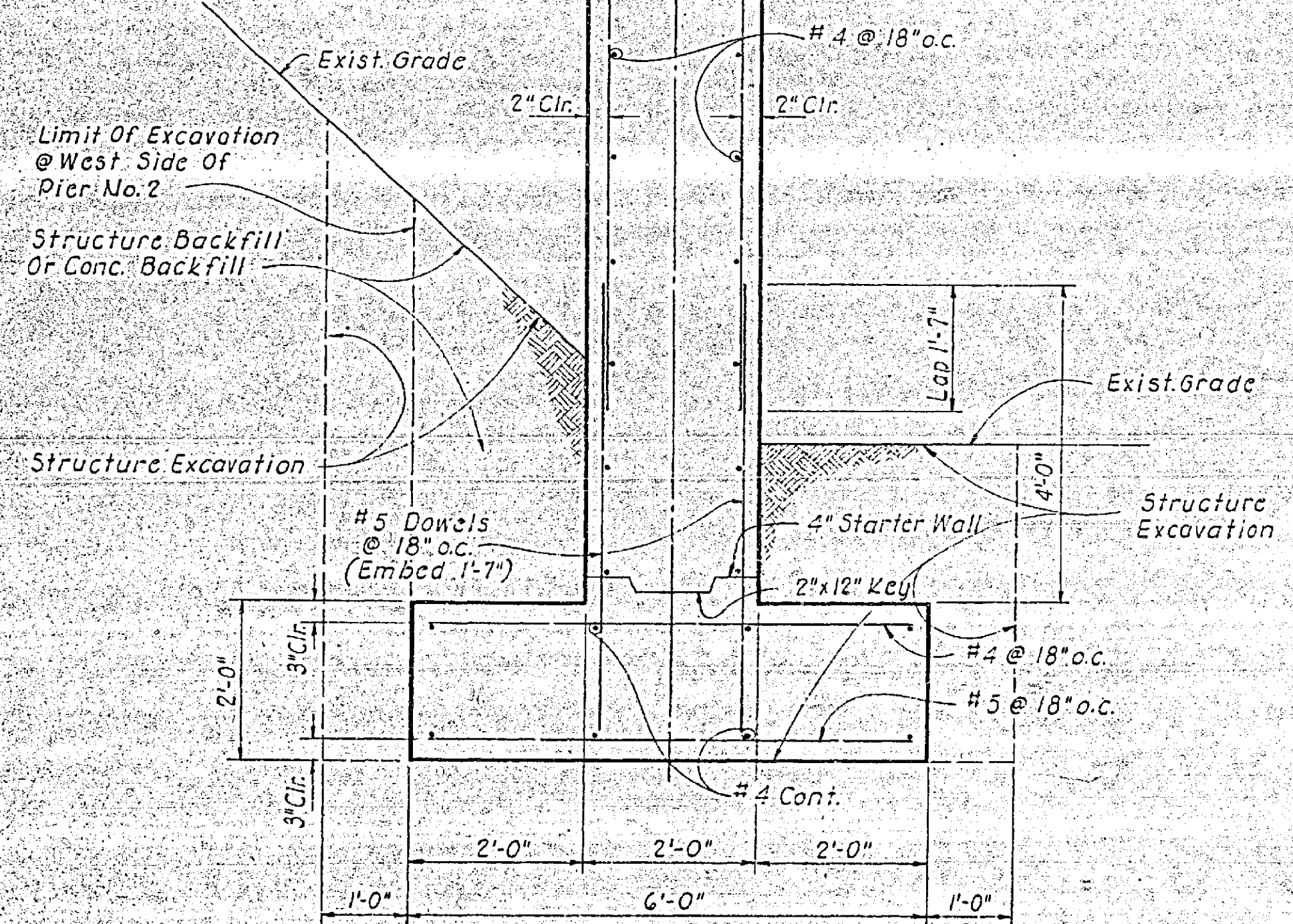


Dier	Elevation					
	"A"	"B"	"C"	"D"	"E"	"F"
2	921.47	921.78	921.57	918.97	903.0	893.0
3	920.92	921.22	921.01	918.42	903.0	893.0



ELEVATION

3/8" = 1'-0"



TYPICAL SECTION

3/4" = 1'-0"

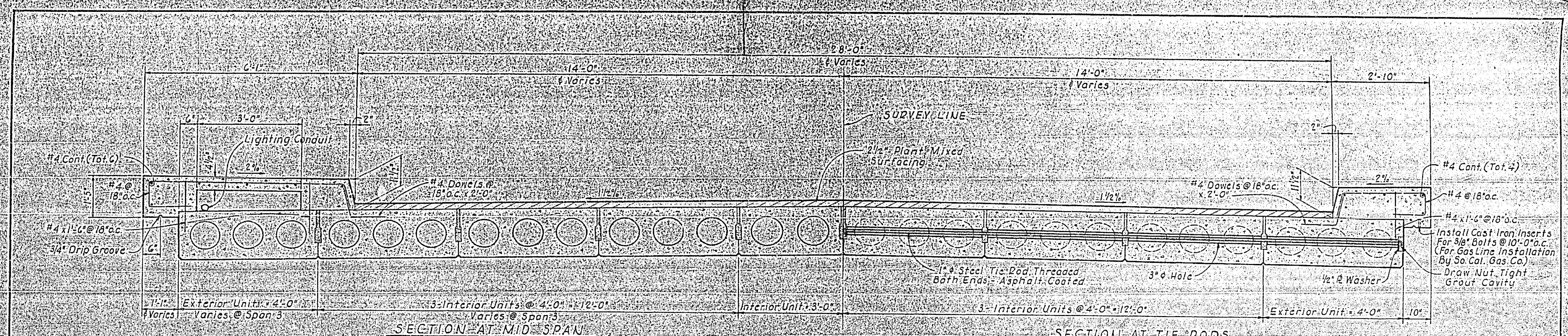
NO.	REVISION	BY	DATE



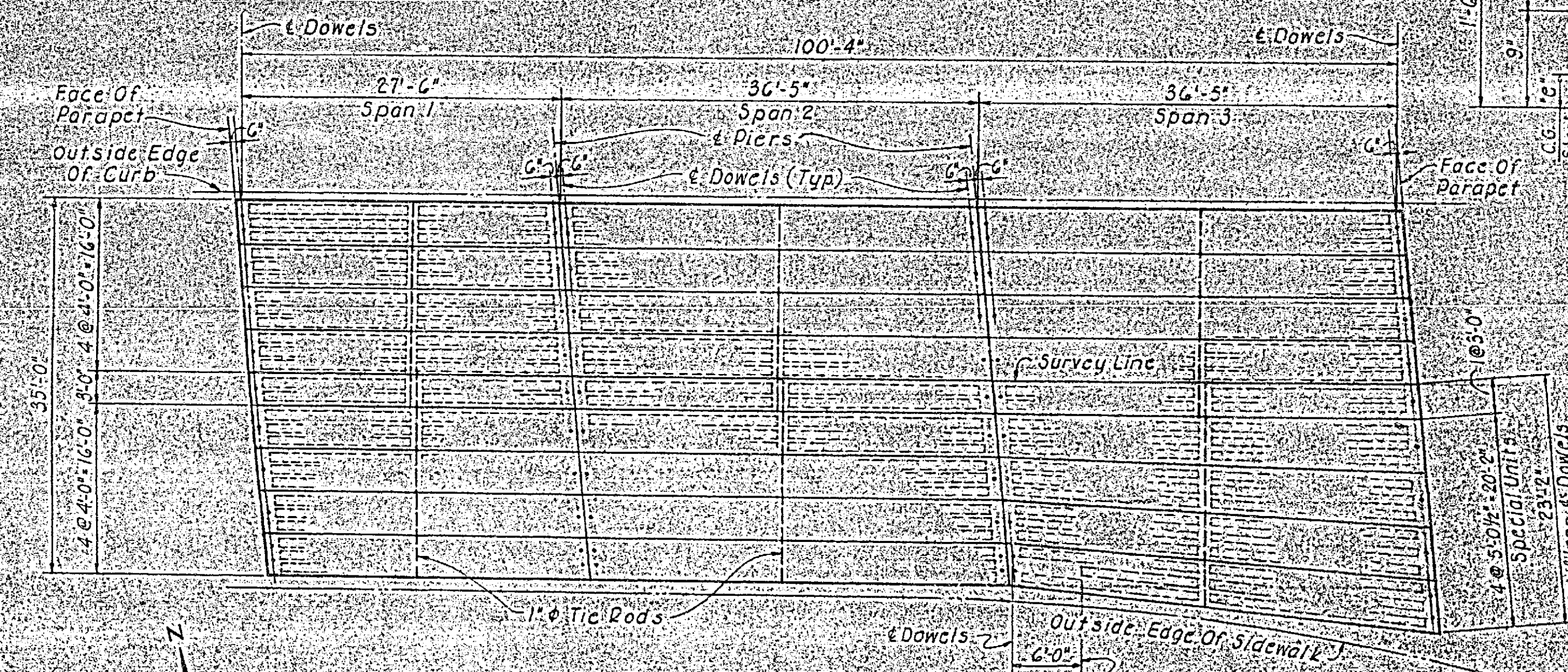
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA
DESIGNED BY: Neill
DRAWN BY: Mallon
CHECKED BY: Limbrick
IN CHARGE: Limbrick

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
PIERS

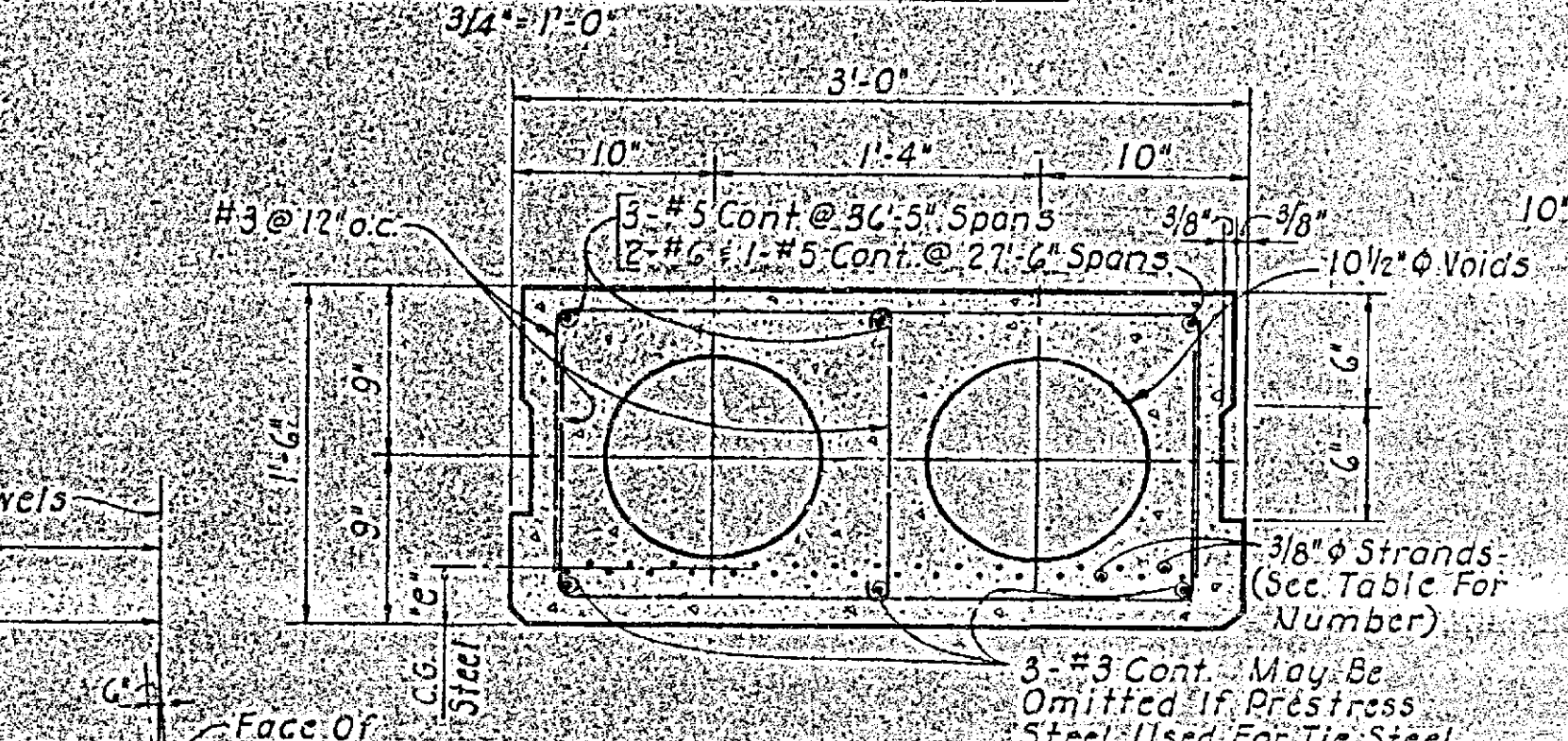
SCALE	DATE
AS NOTED	9-19-62
JOB NO.	L-846
SHEET	8
OF	10



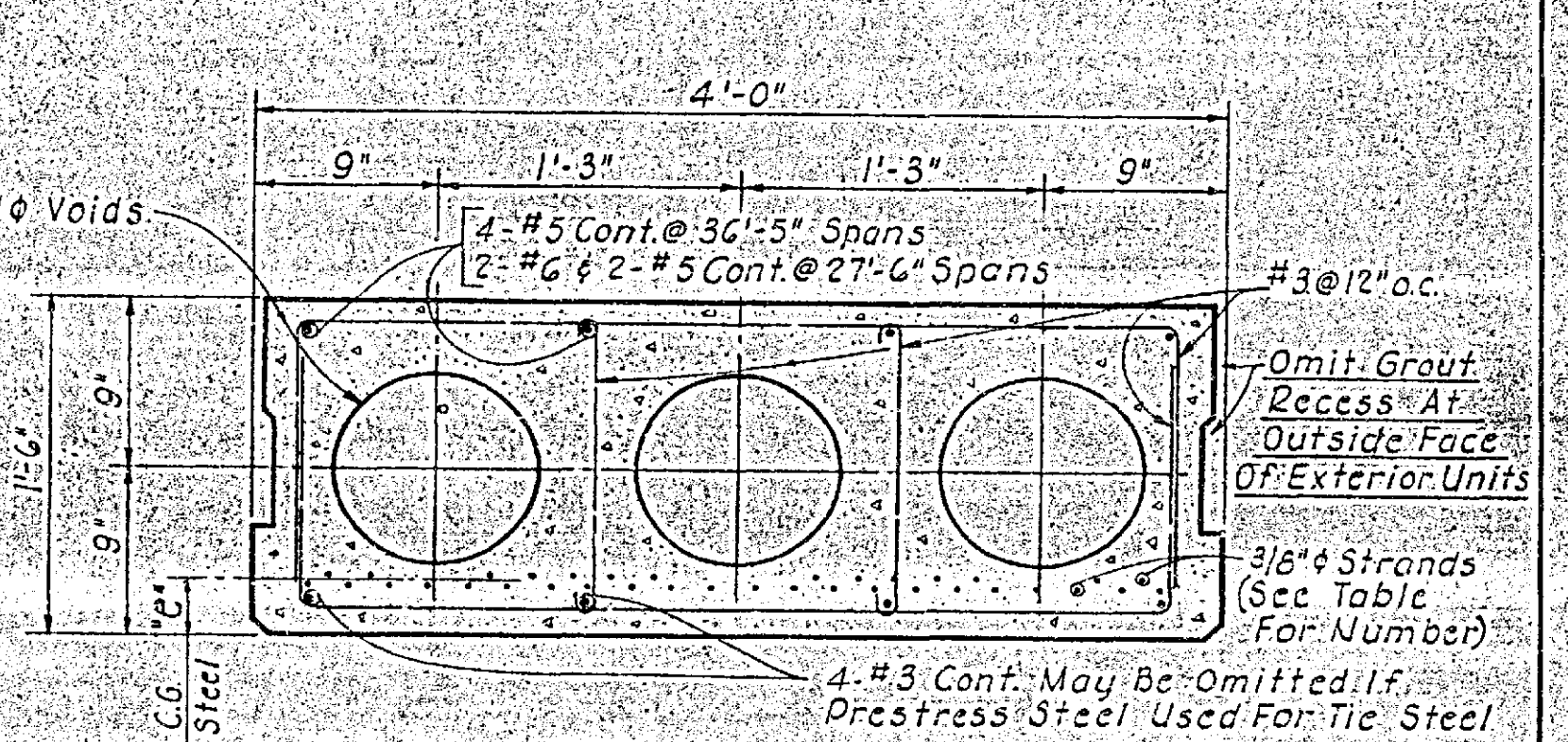
	27'-6" Span			36'-5" Span			36'-5" Span Special Units	
	4' Wide Interior	4' Wide Exterior	3' Wide Interior	4' Wide Interior	4' Wide Exterior	3' Wide Interior	Interior	Exterior
Number Of 3/8" ϕ Prestress Strands	19	22	17	35	40	30	44	54
P Working Force	228k	264k	204k	420k	480k	360k	578k	648k
ϕ Distance From Bottom Of Unit To ϕ Of Strands	2.2"	2.53"	2.62"	3.5"	3.7"	3.75"	3.83"	4.4"



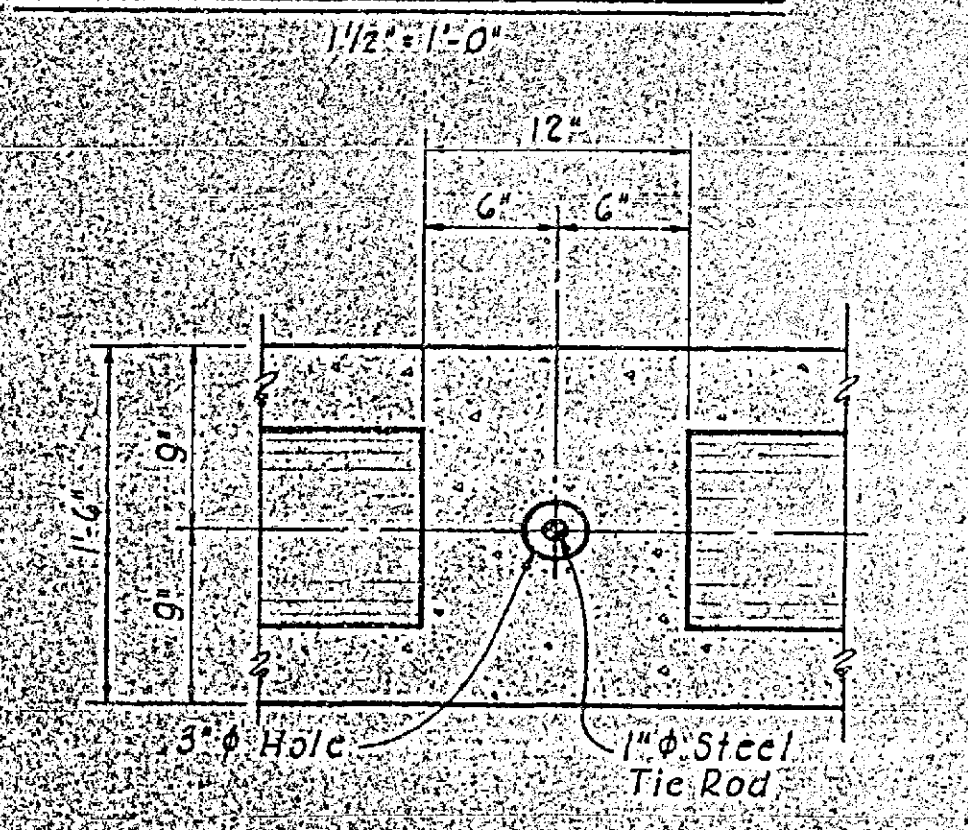
TYPICAL BRIDGE SECTION



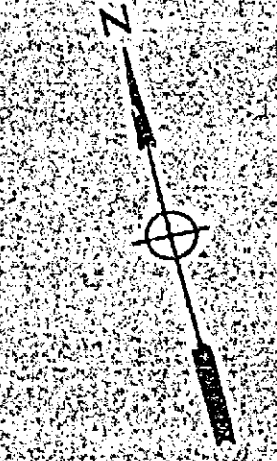
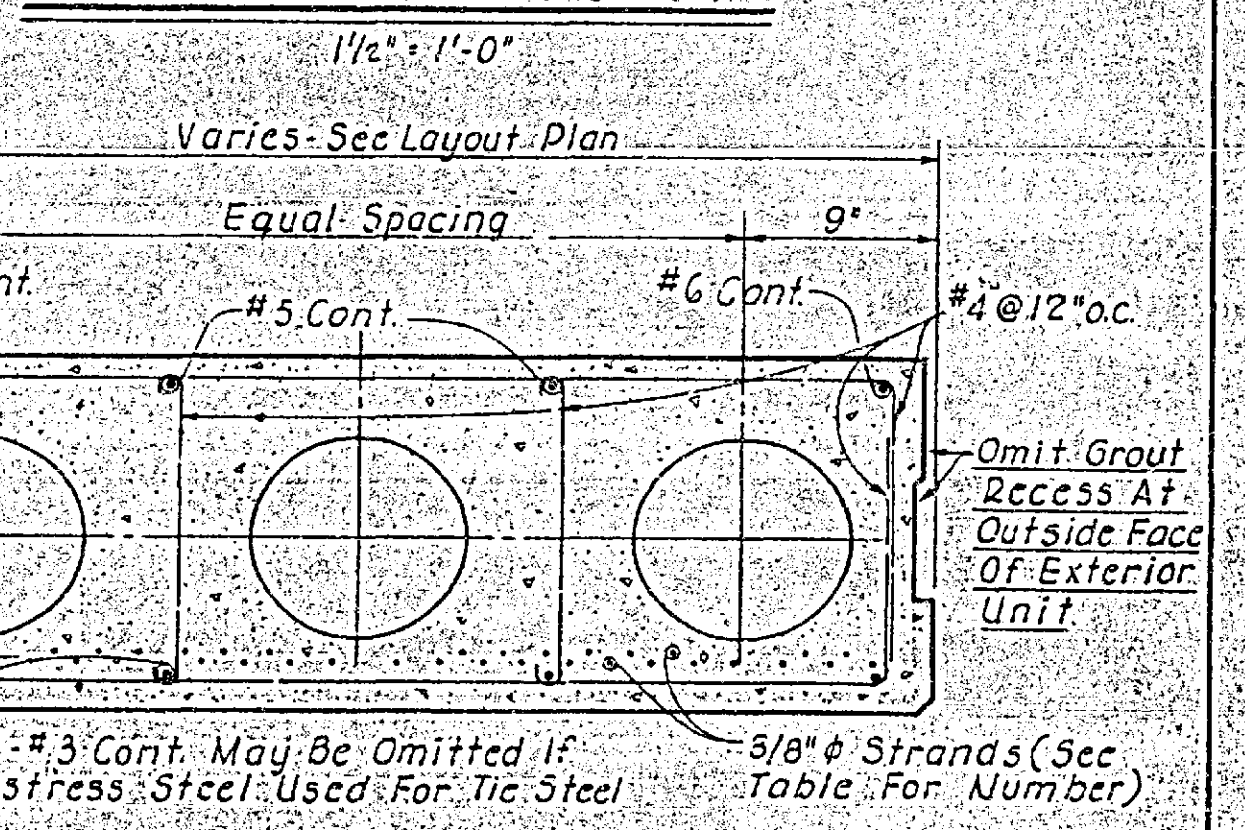
SECTION AT TIE RODS



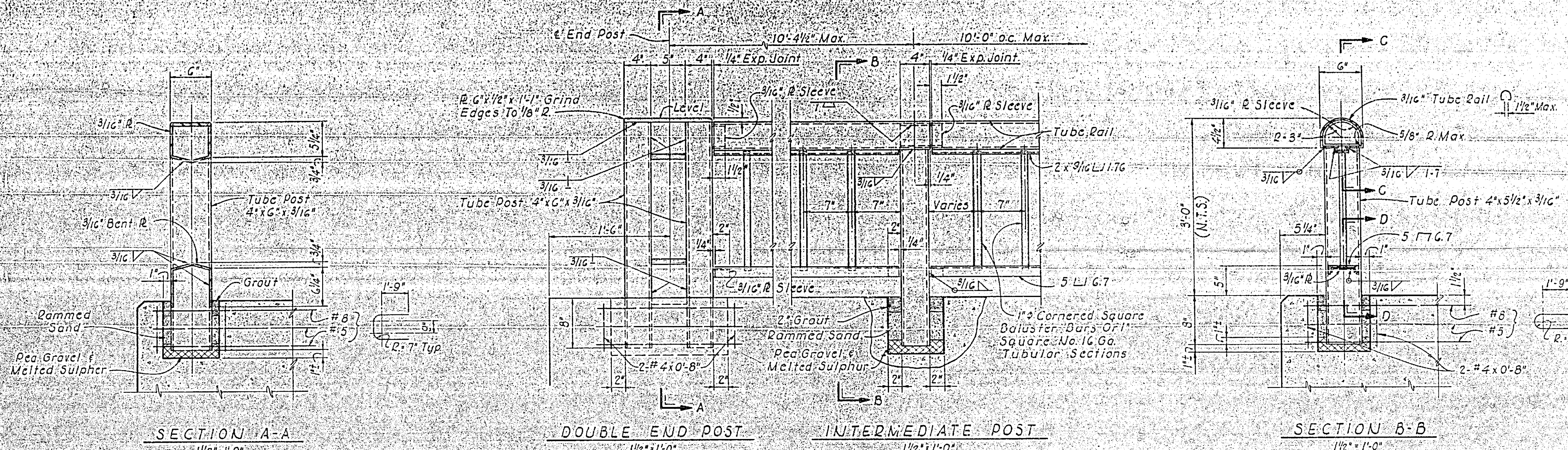
TYPICAL 3'-0" UNIT



TYPICAL 4'-0" UNIT



MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY DECK DETAILS		SCALE AS NOTED DATE 9-19-62 JOB NO. L-846 SHEET 9 OF 10
DRAWN BY Neill CHECKED BY Limbrick IN CHARGE Limbrick	CITY OF RIVERSIDE FILE NO. R-418			

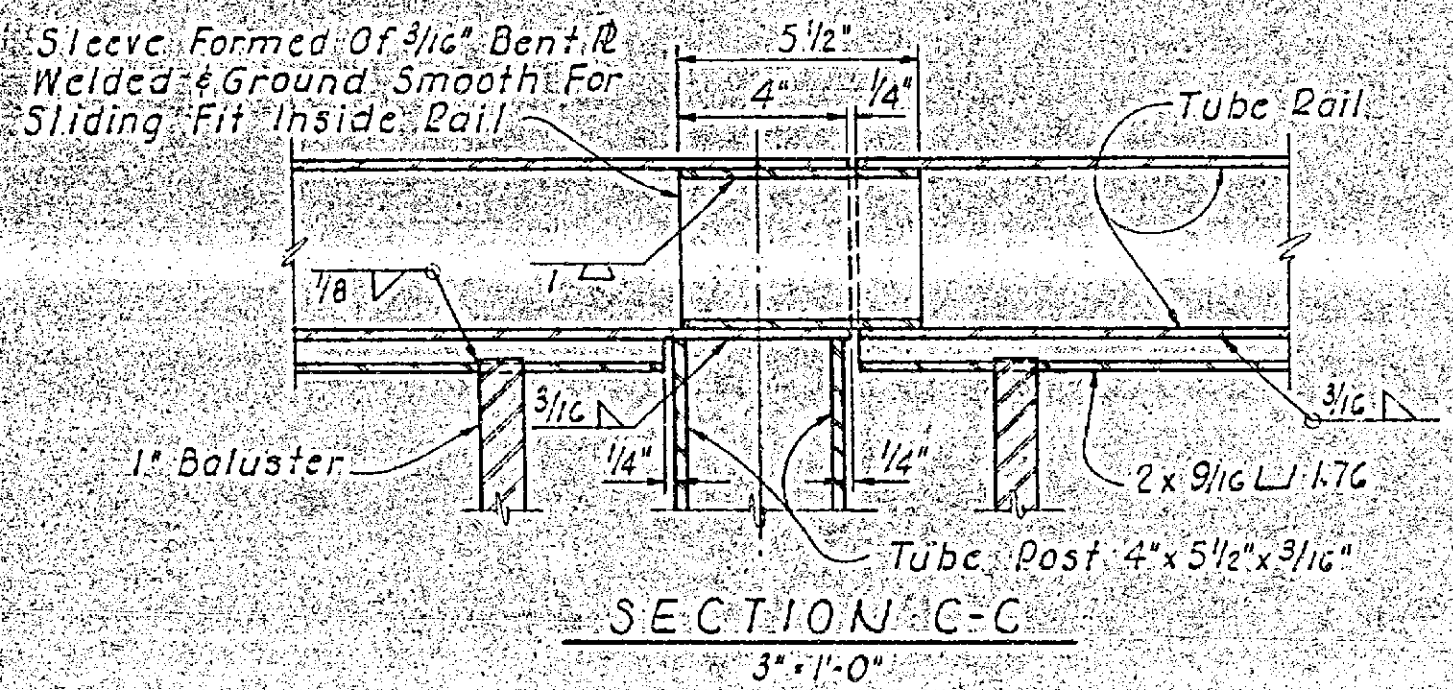


SECTION A-A
1 1/2\"/>

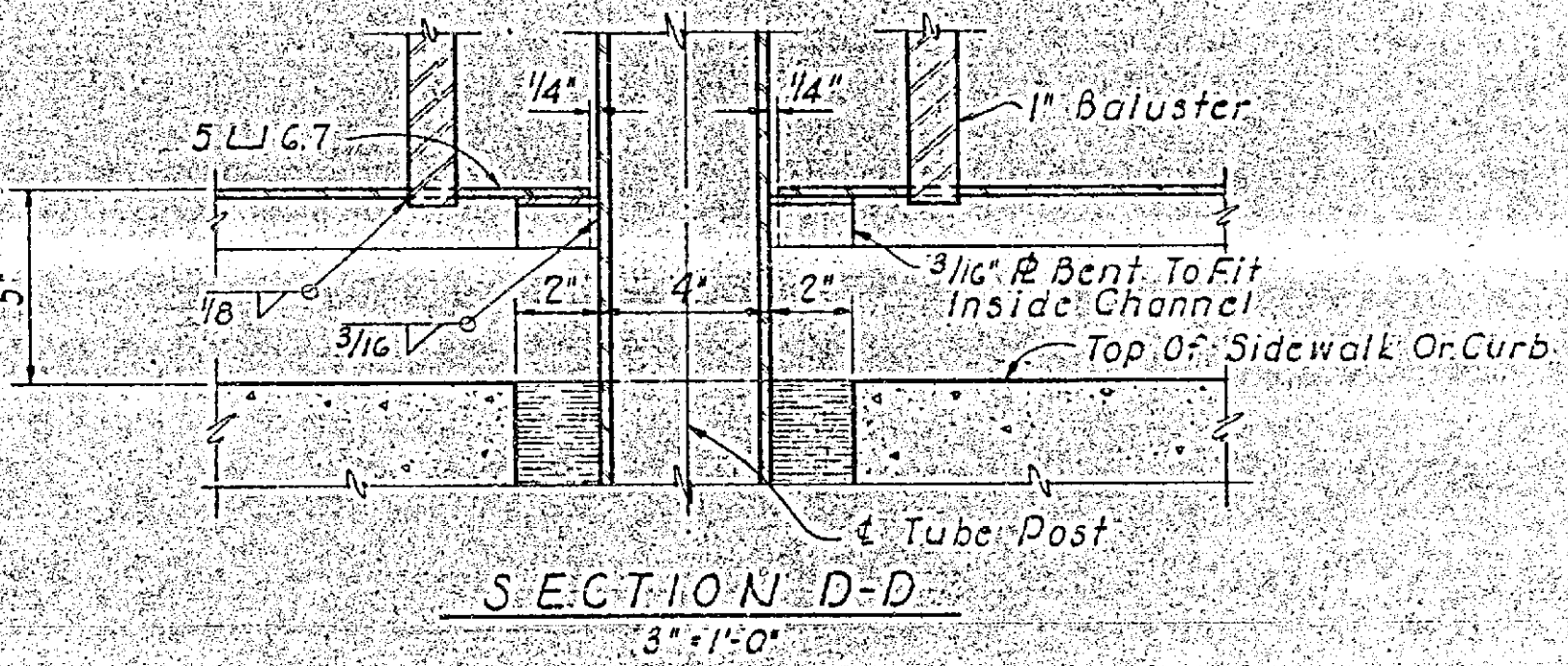
DOUBLE END POST
1 1/2\"/>

INTERMEDIATE POST
1 1/2\"/>

SECTION B-B
1 1/2\"/>



SECTION C-C
3\"/>



SECTION D-D
3\"/>

BRIDGE RAILING DETAILS

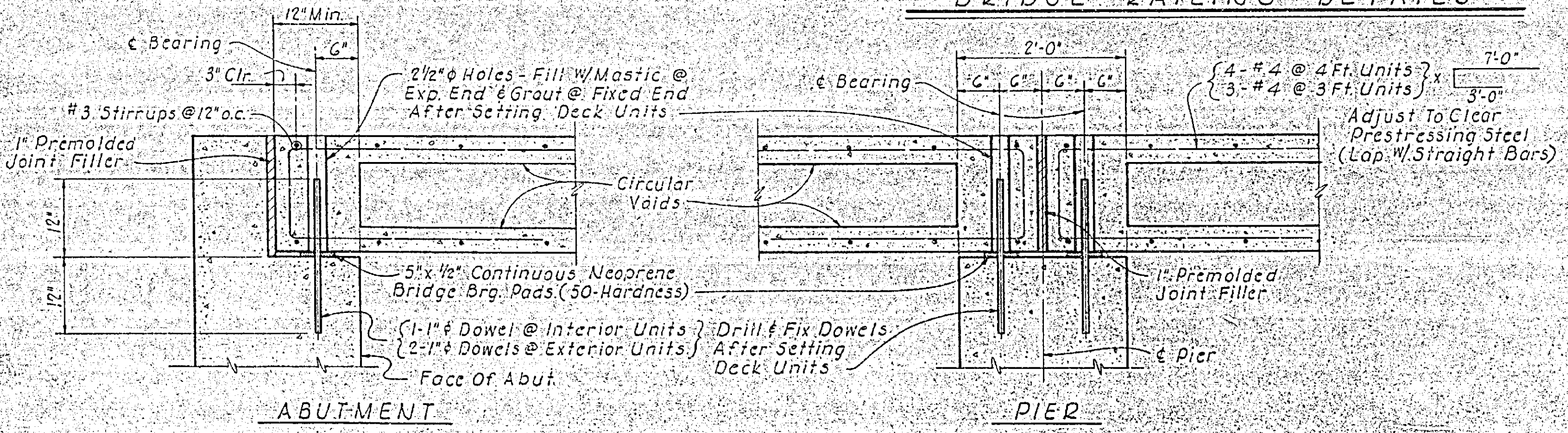
RAILING NOTES

Space Posts To Clear Expansion Joints By 9\"/>

Exact Post Hole Locations Are To Be Determined From Approved Railing Shop Plans

Railing Shall Conform To Horizontal & Vertical Alignment. Post & Balusters Shall Be Vertical With A Maximum Deviation Not To Exceed That Represented By A Rise Of 1/4\"/>

Railing To Be Galvanized After Fabrication For Further Requirements See Specifications.



ABUTMENT

PIER

TYPICAL BEARING DETAILS

1\"/>

NO.	REVISION	BY	DATE

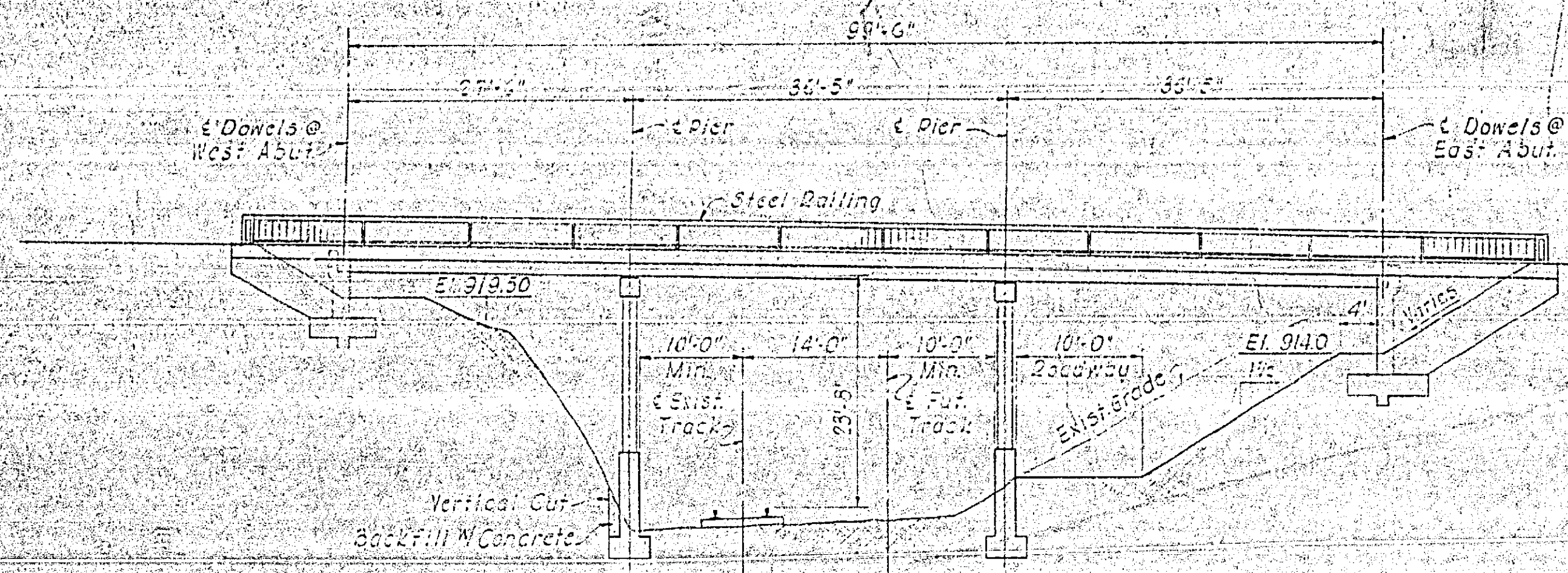
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

DESIGNED BY: *[Signature]*
DRAWN BY: *Mallion*

CHECKED BY: *Limbrick*
IN CHARGE: *Limbrick*

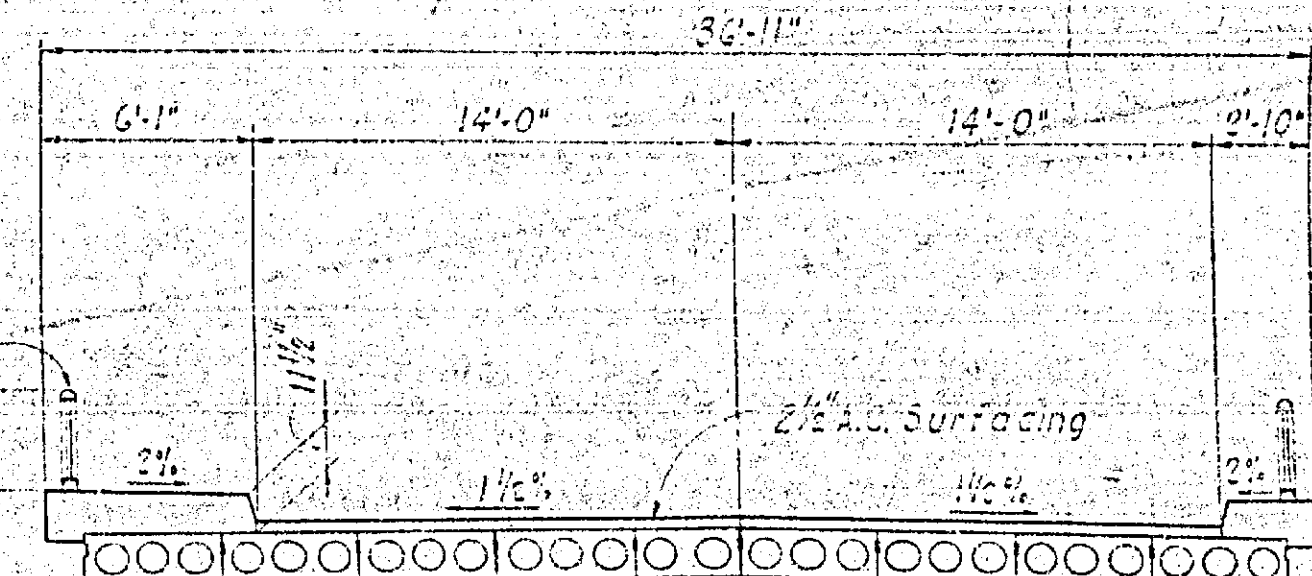
DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A. T. & S. F. RAILWAY
RAILING & BEARING DETAILS

SCALE AS NOTED	DATE 9-19-62
JOB NO. L-846	SHEET 10
OF 10	



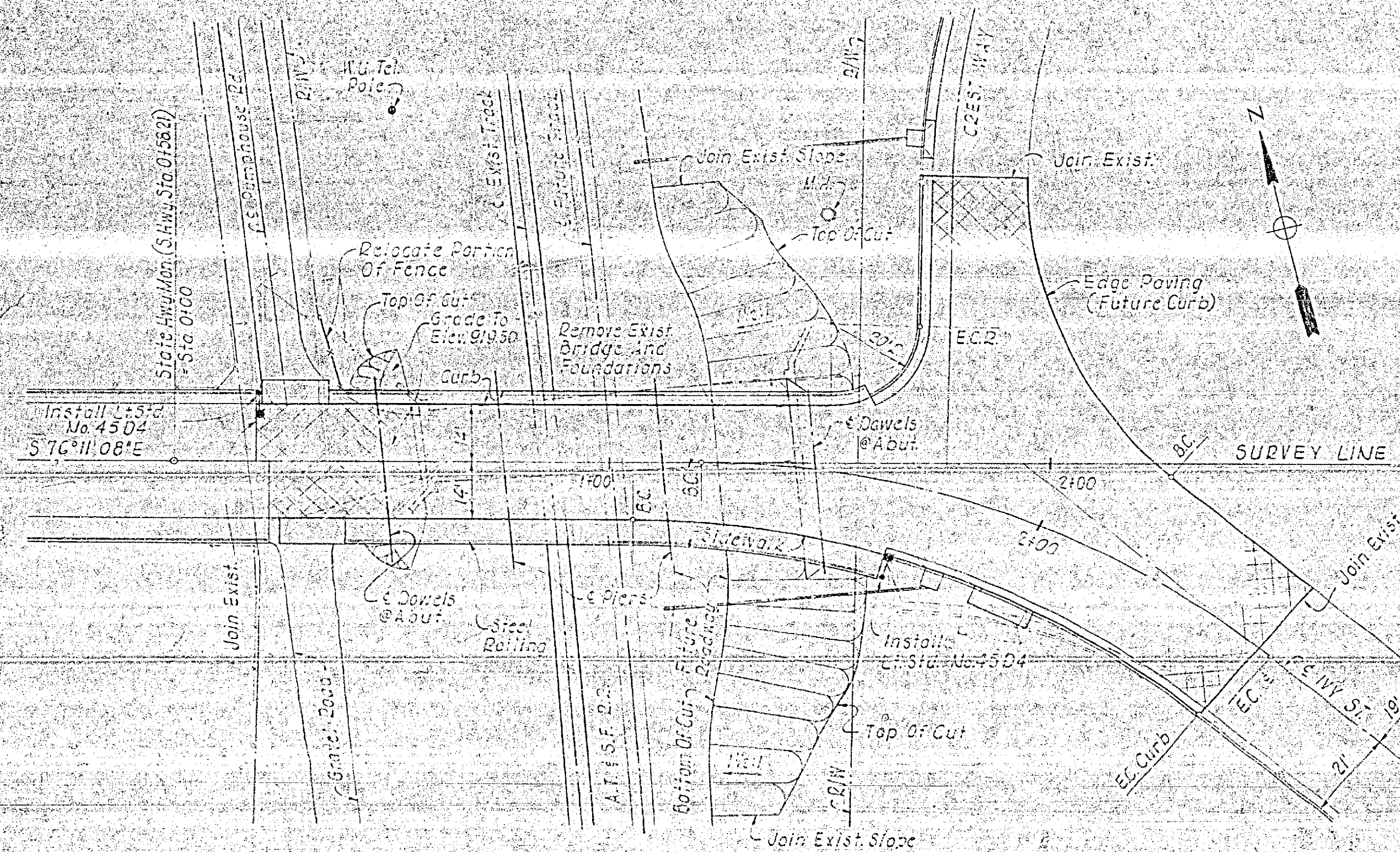
ELEVATION

1"=10'



SECTION THRU BRIDGE

1"=5'



PLAN

1"=20'

GENERAL NOTES

Specifications:

Design: A.A.S.H.O. Dated 1957 With Revisions And As Supplemented By State Of California Department Of Public Works Bridge Planning And Design Manual

Live Loading: H 20 - S 16-44

Unit Stresses:

Reinforced Concrete: (Except For Prestressed Concrete)
 $f_c = 3000$ psi. @ 28 Days
 $f_c = 1200$ psi.
 $n = 10$

Reinforcing Steel:
 $f_s = 20,000$ psi. Intermediate Grade

Reinforcement:

Embedment Is Clear To Outside Of Bar And Is 2" To Main Reinforcement Except As Noted. Backing For Hooks Is Four Diameters Except As Noted. Where Reinforcing Bars Are Spliced They Shall Have A 20 Diameter Lap Unless Otherwise Called For On The Plan.

Grout:

Shall Be As Called For On The Specifications.

PRESTRESSING NOTES

Concrete: $f_c = 5000$ psi. @ 28 Days
 $f_{ci} = 3000$ psi. @ Time Of Prestressing

P Working Force: (See Table On Sheet)

The Total Force Per Unit Remaining After All Losses, Including Those Due To Creep And Shrinkage Of Concrete And Steel Have Occurred.

The Loss In Stress In The Prestressing Steel Due To Shrinkage And Creep Shall Be Assumed To Be 30,000 psi.

In Addition To Losses Mentioned Above, Provision Shall Be Made For Losses Due To Friction, Anchorage Takeup, And Any Other Losses Peculiar To The System Of Prestressing Used.

Prestress Steel: Ultimate Tensile Strength 250,000 p.s.i.

VOID

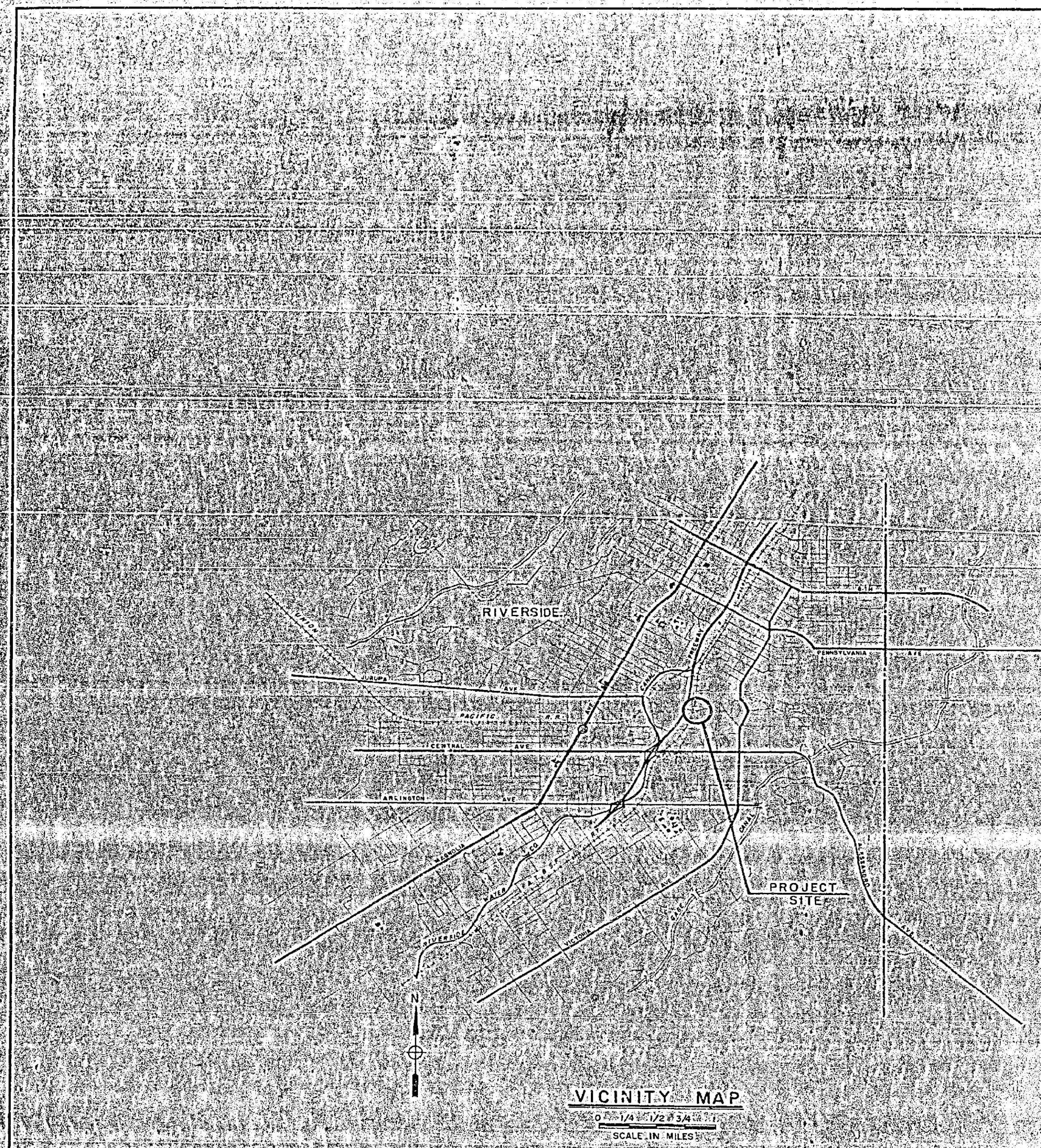
NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY
 PLAN, ELEVATION & TYPICAL SECTION

SCALE	DATE
AS NOTED	
JOB NO.	L-846
SHEET	
OF	

CITY OF RIVERSIDE FILE NO. R-418



DRAWING LIST

DRAWING NO.	TITLE
1 OF 10	TITLE SHEET
2 OF 10	VICINITY MAP & DRAWING LIST
3 OF 10	ROADWAY PLAN AND DETAILS
4 OF 10	PLAN, ELEVATION & TYPICAL SECTION
5 OF 10	FOUNDATION PLAN & MISC. DETAILS
6 OF 10	ABUTMENT NO. 1
7 OF 10	ABUTMENT NO. 4
8 OF 10	PIERS
9 OF 10	DECK DETAILS
10 OF 10	RAILING & BEARING DETAILS

STANDARD DRAWINGS (BOUND WITH SPECIAL PROVISIONS)

STANDARD DRAWING NO.	TITLE
200	CURB AND GUTTER
301	DRIVEWAYS ACROSS CURB SIDEWALK
405 (10F2)	STORM WATER CATCH BASIN TYPE 3
405 (20F2)	STORM WATER CATCH BASIN TYPE 3
606	TRAFFIC SIGNAL PULL BOX
612	ELECTRICAL SERVICE DETAILS - SIGNALS & LIGHTING
623 A	LIGHTING STANDARD
629	TYPICAL LUMINAIRE MOUNTINGS
631	TYPICAL FOUNDATION FOR CONCRETE STANDARDS
NONE	DETOUR PLAN

VOID

NO.	REVISION	BY	DATE

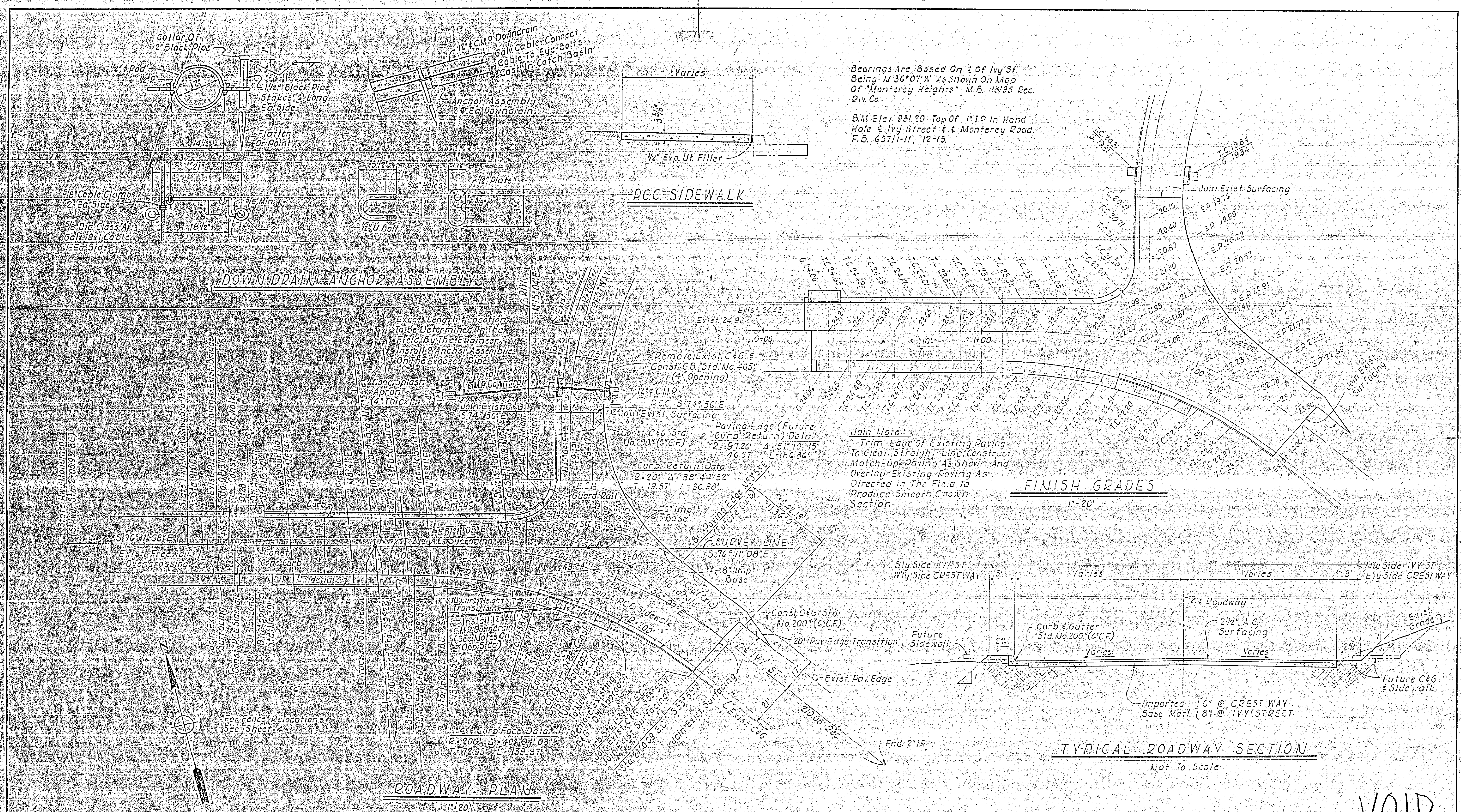
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

DESIGNED BY	CHECKED BY
DRAWN BY	IN CHARGE

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A. T. & S. F. RAILWAY
VICINITY MAP & DRAWING LIST

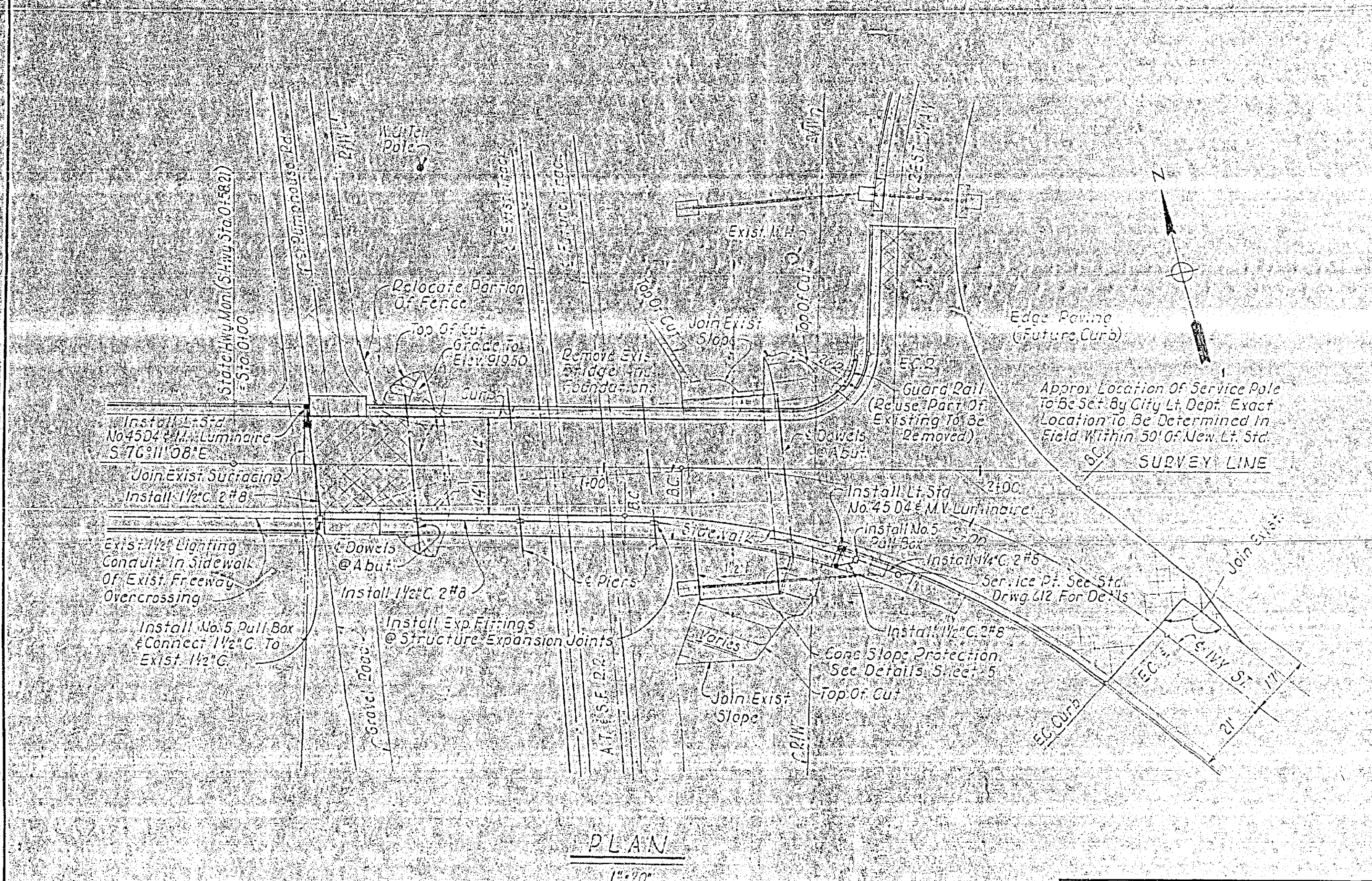
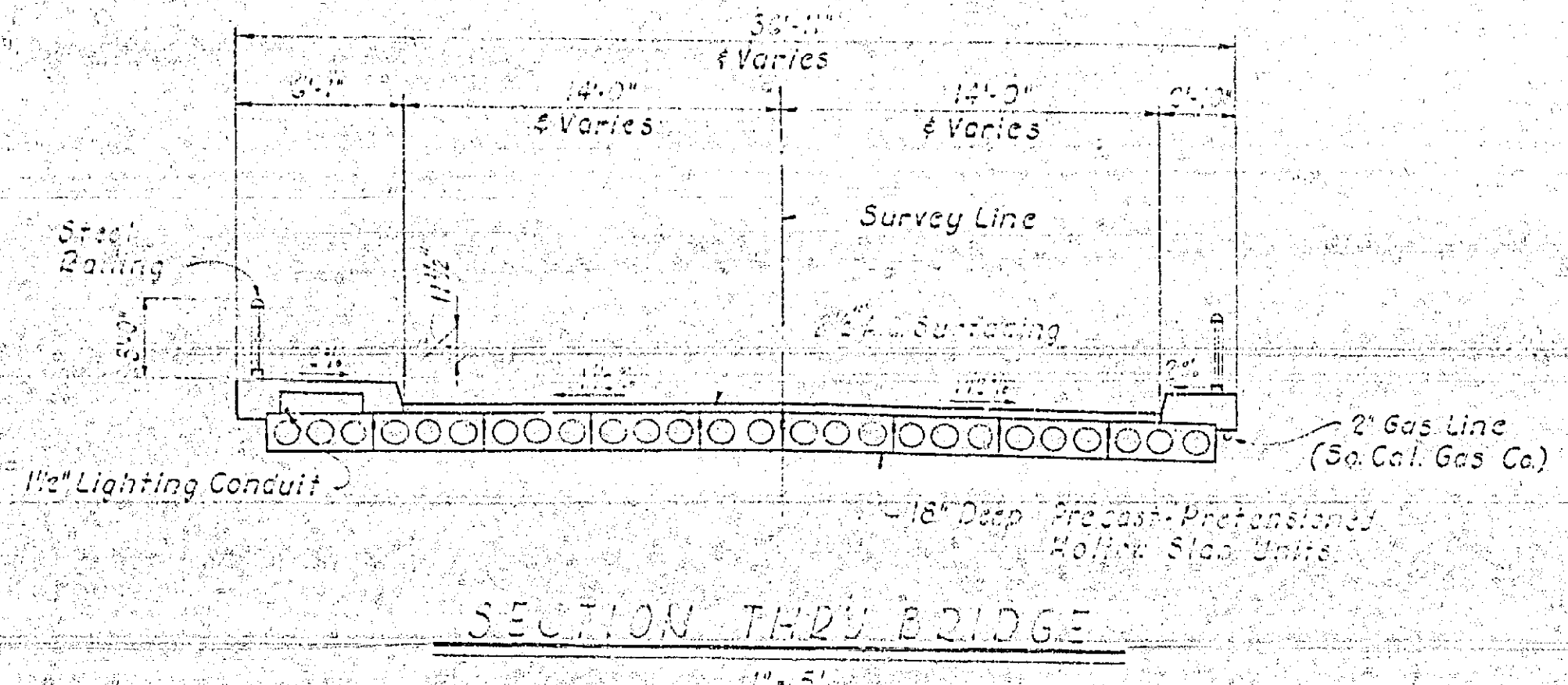
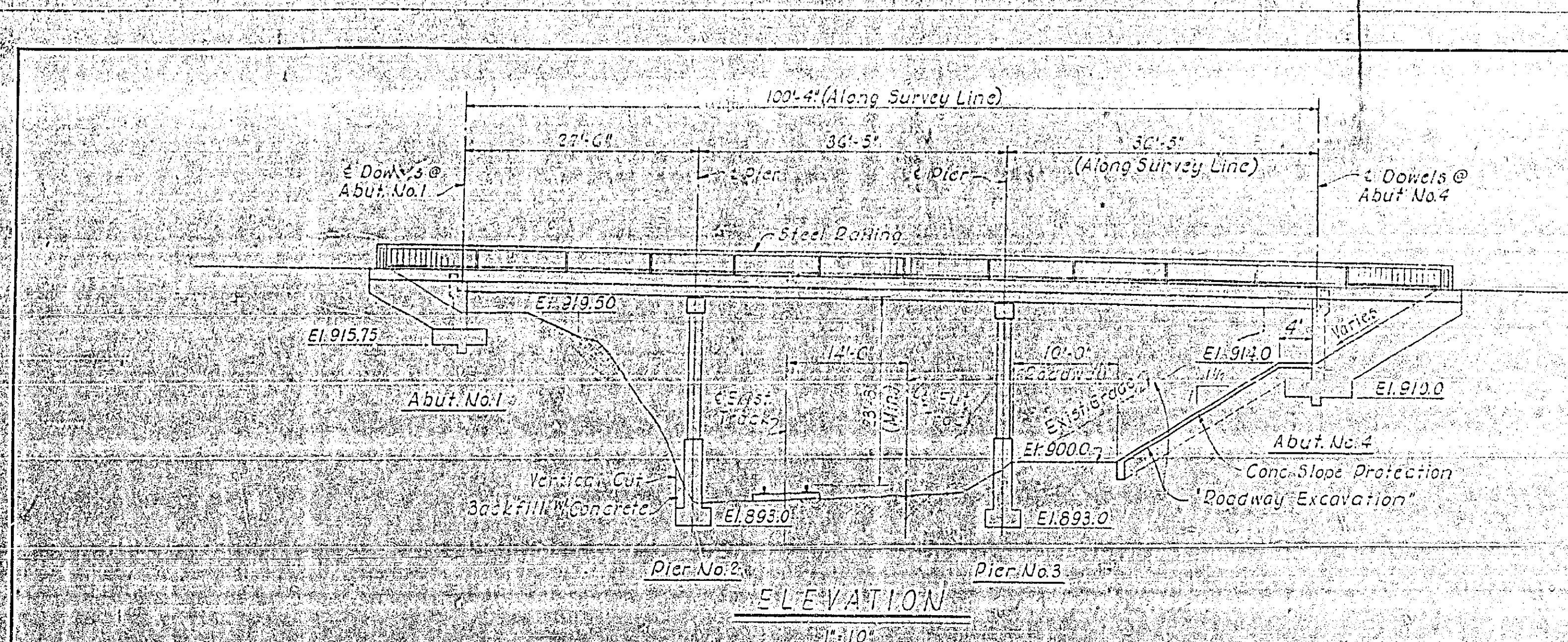
SCALE	DATE
NONE	
JOB NO.	L-846
SHEET	2
OF	10

CITY OF RIVERSIDE FILE NO. R-



MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY ROADWAY PLAN AND DETAILS		SCALE AS NOTED DATE JOB NO. L-846 SHEET 3 OF 10
DESIGNED BY	Limbrick	CHECKED BY	Limbrick	
DRAWN BY	Mallon	IN CHARGE	Limbrick	

VOID



GENERAL NOTES

Specifications:
 Design: A.A.S.H.O. Dated 1957 With Revisions And As Supplemented By State Of California Department Of Public Works, Bridge Planning And Design Manual.
 Live Loading: H 20 - S16-44
 Unit Stresses:
 Reinforced Concrete (Except For Prestressed Concrete)
 f_c = 3000 p.s.i. @ 28 Days
 f_c = 1800 p.s.i. @ 7 Days
 n = 10
 Reinforcing Steel:
 f_s = 20,000 p.s.i. Intermediate Grade

Reinforcement:
 Embedment Is Clear To Outside Of Bar And Is 2" To Main Reinforcement Except As Noted. Backing For Hooks Is Four Diameters, Except As Noted. Where Reinforcing Bars Are Spliced They Shall Have A 20 Diameter Lap Unless Otherwise Called For On The Plan.

Grout:
 Shall be As Called For On The Specifications.

PRESTRESSING NOTES

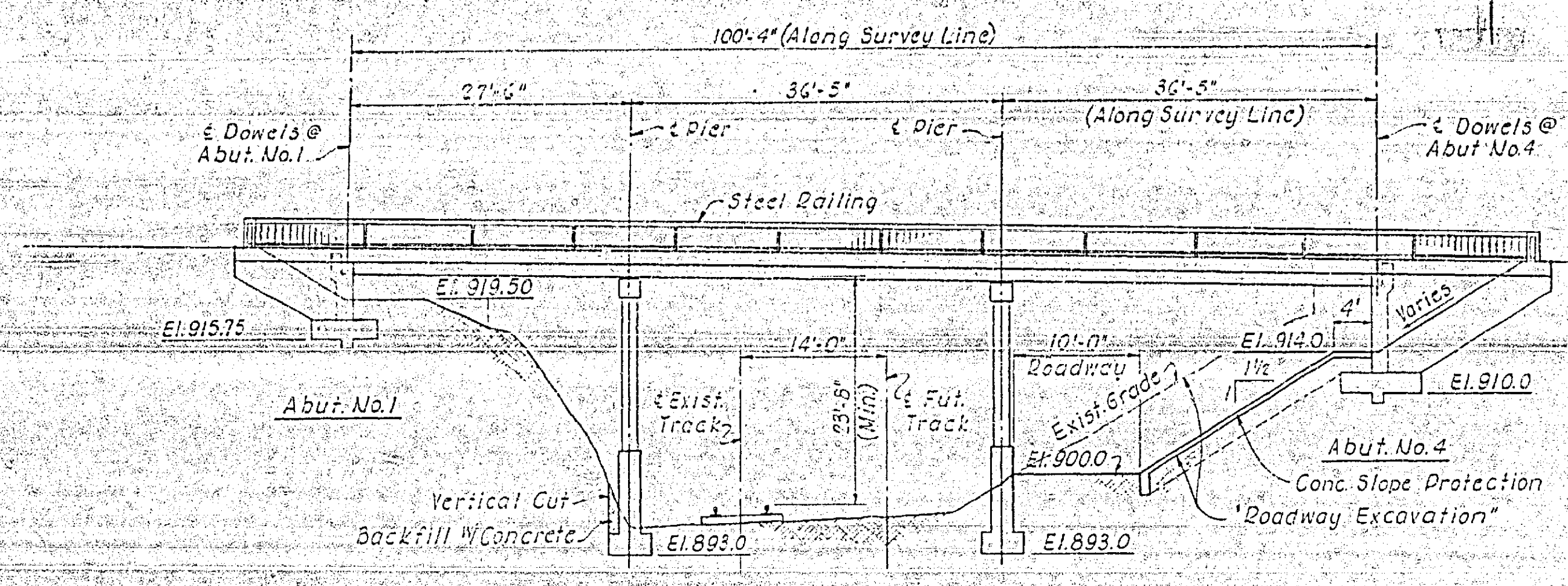
Concrete: f_c = 3500 p.s.i. @ 28 Days
 f_c = 4500 p.s.i. @ Time Of Prestressing

Prestressing Force: (See Table On Sheet-9)
 The Total Force Per Unit Remaining After All Losses, Including Those Due To Creep And Shrinkage Of Concrete And Steel, Have Occurred.
 The Loss In Stress In The Prestressing Steel Due To Shrinkage And Creep Have Been Assumed To Be 37,500 p.s.i.
 In Addition To Losses Mentioned Above, Provision Shall Be Made For Losses Due To Friction, Anchorage Takeup, And Any Other Losses Peculiar To The System Of Prestressing Used.

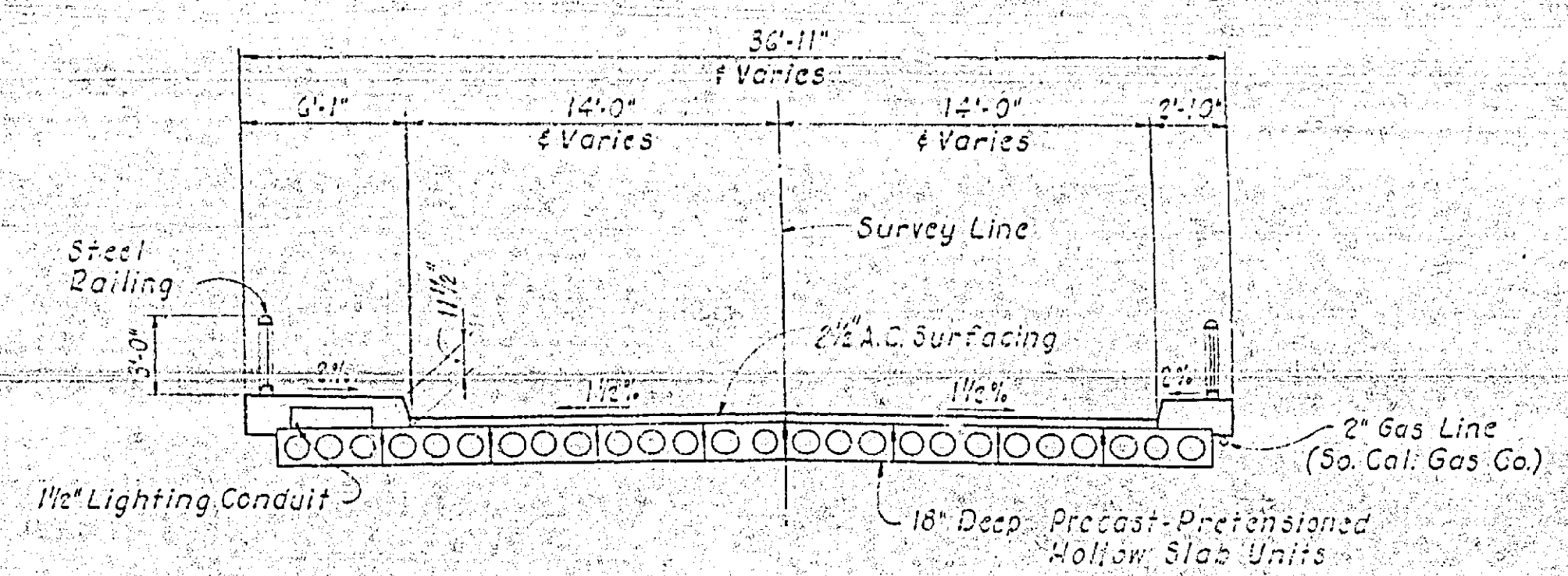
Prestress Steel: Ultimate Tensile Strength 250,000 p.s.i.
 Minimum Spacing Center To Center Of Strands Shall Be 1 1/2" Or 1 1/2 Times The Maximum Size Coarse Aggregate.
 Minimum Cover At Exposed Surfaces Shall Be 2 Inches.

VOID

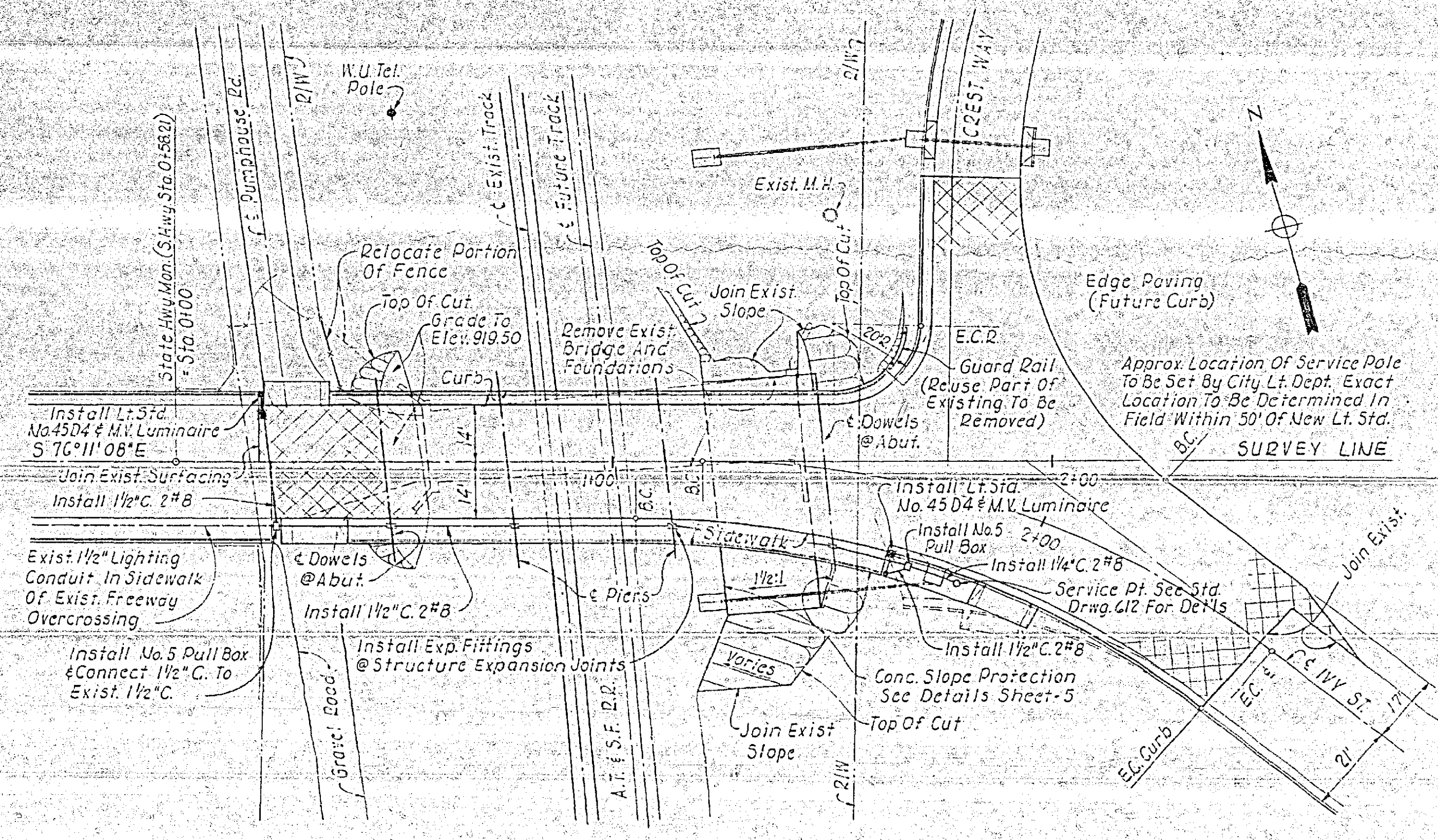
MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY PLAN, ELEVATION & TYPICAL SECTION		SCALE AS NOTED DATE JOB NO. L-846 SHEET 4 OF 10
DESIGNED BY	Checked by	IN CHARGE		
DRAWN BY				



ELEVATION
1" = 10'



SECTION THRU BRIDGE
1" = 5'



PLAN
1" = 20'

GENERAL NOTES

Specifications:
 Design: A.A.S.H.O. Dated 1957 With Revisions And As Supplemented By State Of California, Department Of Public Works, Bridge Planning And Design Manual.
 Live Loading: H 20 - S 16 - 44
Unit Stresses:
 Reinforced Concrete (Except For Prestressed Concrete)
 fc = 3000 p.s.i. @ 28 Days
 fc = 1200 p.s.i.
 n = 10
 Reinforcing Steel:
 fs = 20,000 p.s.i. Intermediate Grade
Reinforcement:
 Embedment Is Clear To Outside Of Bar And Is 2" To Main Reinforcement Except As Noted. Backing For Hooks Is Four Diameters, Except As Noted. Where Reinforcing Bars Are Spliced They Shall Have A 20 Diameter Lap Unless Otherwise Called For On The Plan.
Grout:
 Shall Be As Called For On The Specifications.

PRESTRESSING NOTES

Concrete:
 fc = 5500 p.s.i. @ 28 Days
 ftl = 4500 p.s.i. @ Time Of Prestressing
Working Force: (See Table On Sheet-9)
 The Total Force Per Unit Remaining After All Losses, Including Those Due To Creep And Shrinkage Of Concrete And Steel Have Occurred.
 The Loss In Stress In The Prestressing Steel, Due To Shrinkage And Creep Have Been Assumed To Be 37,500 p.s.i.
 In Addition To Losses Mentioned Above, Provision Shall Be Made For Losses Due To Friction, Anchorage Takeup, And Any Other Losses Peculiar To The System Of Prestressing Used.
Prestress Steel: Ultimate Tensile Strength 250,000 p.s.i.
 Minimum Spacing Center To Center Of Strands Shall Be 1 1/2" Or 1/2 Times The Maximum Size Coarse Aggregate.
 Minimum Cover At Exposed Surfaces Shall Be 2 Inches.

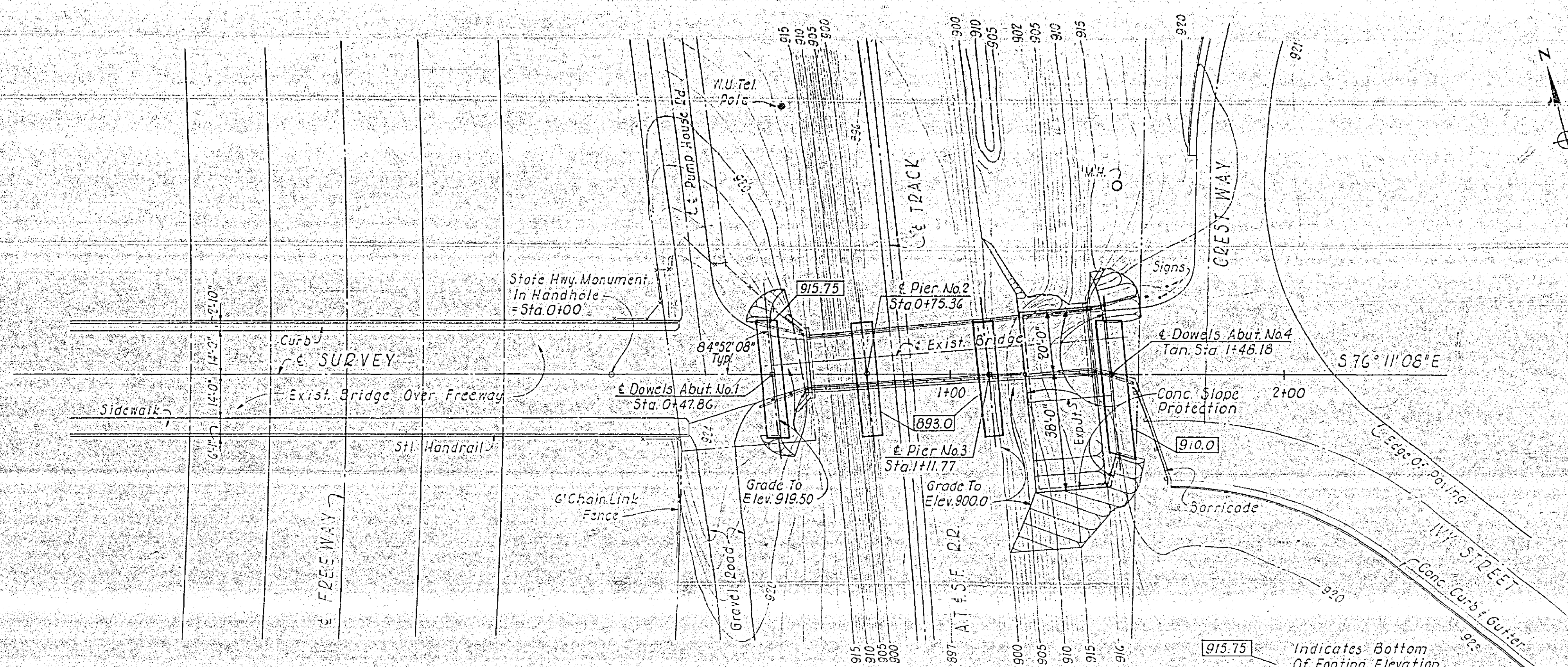
VOID

NO.	REVISION	BY	DATE

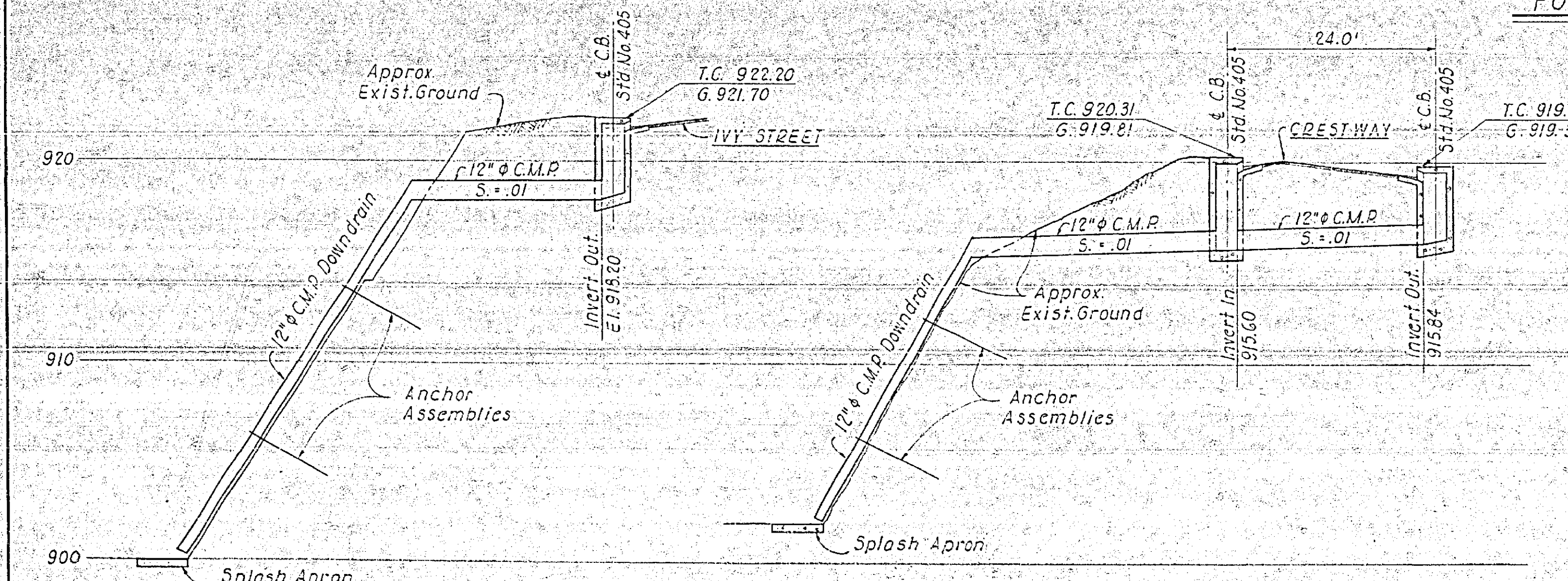
MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA
 DESIGNED BY *Lumbrick* CHECKED BY *Lumbrick*
 DRAWN BY *Mallon* IN CHARGE *Lumbrick*

DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY
PLAN, ELEVATION & TYPICAL SECTION

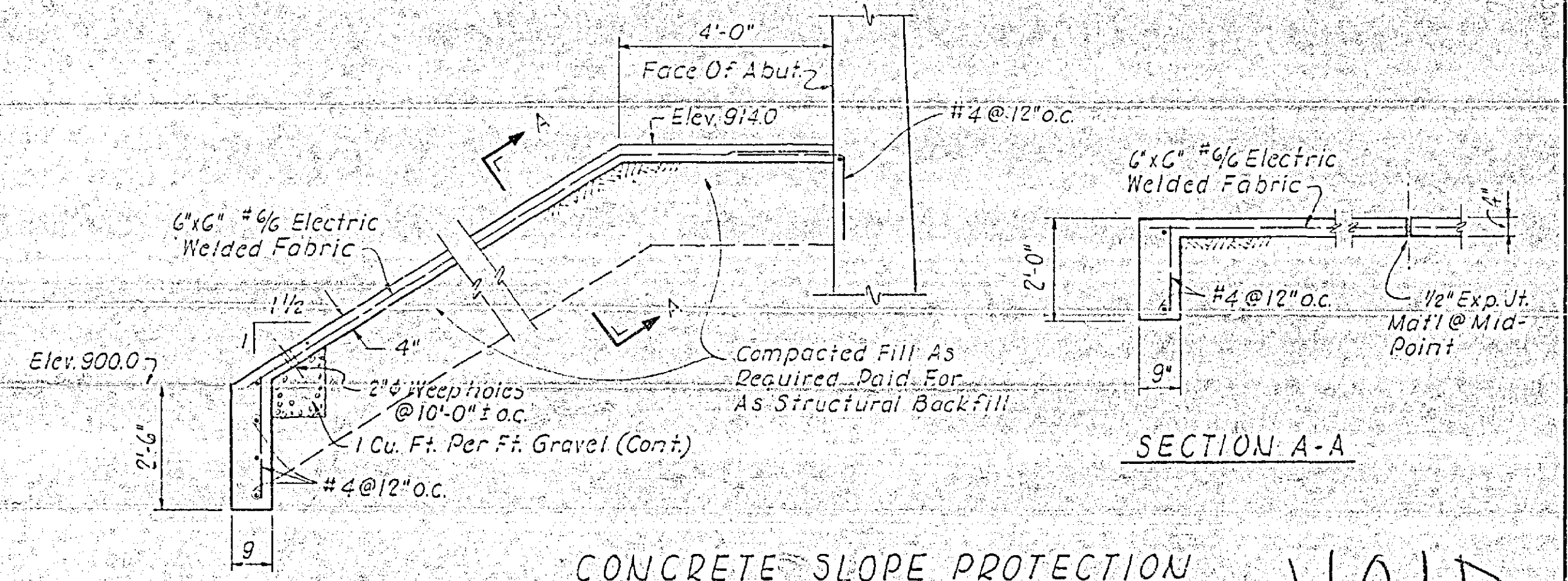
SCALE	DATE
AS NOTED	
JOB NO.	L-846
SHEET	4
OF 10	



FOUNDATION PLAN
1" = 20'



STORM DRAIN PROFILES
Horiz. 1" = 10'
Vert. 1" = 4'



CONCRETE SLOPE PROTECTION
1/2" = 1'-0"

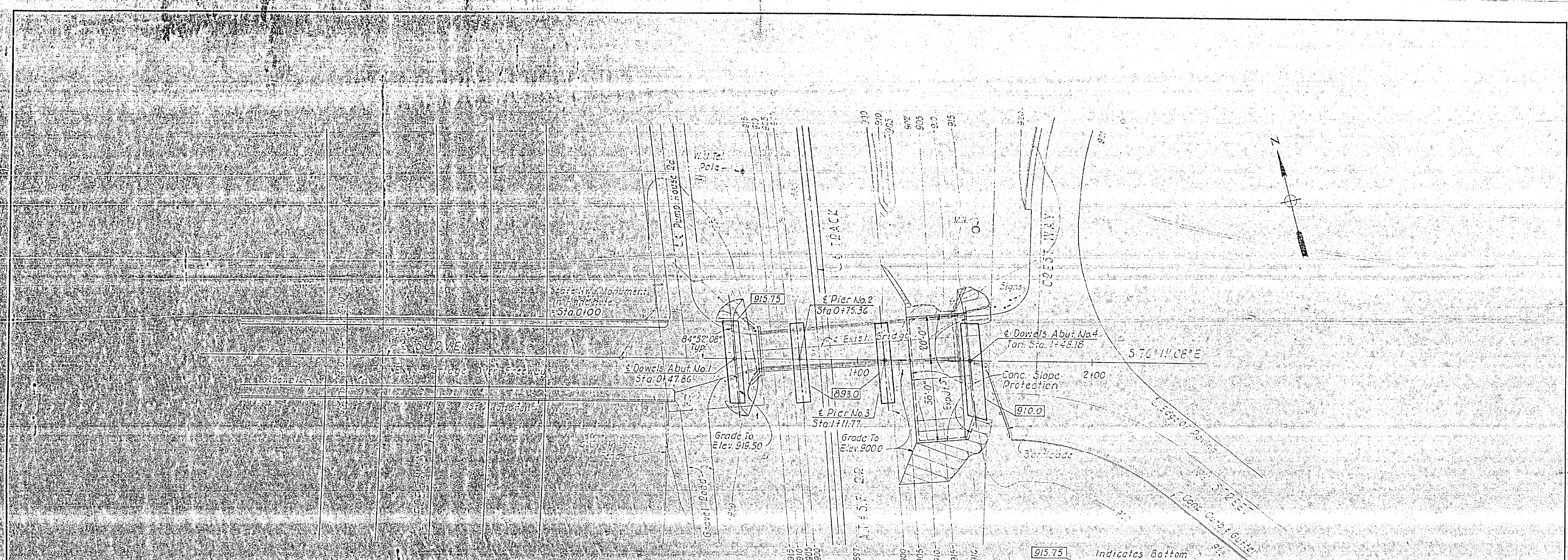
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NO.	REVISION	BY	DATE

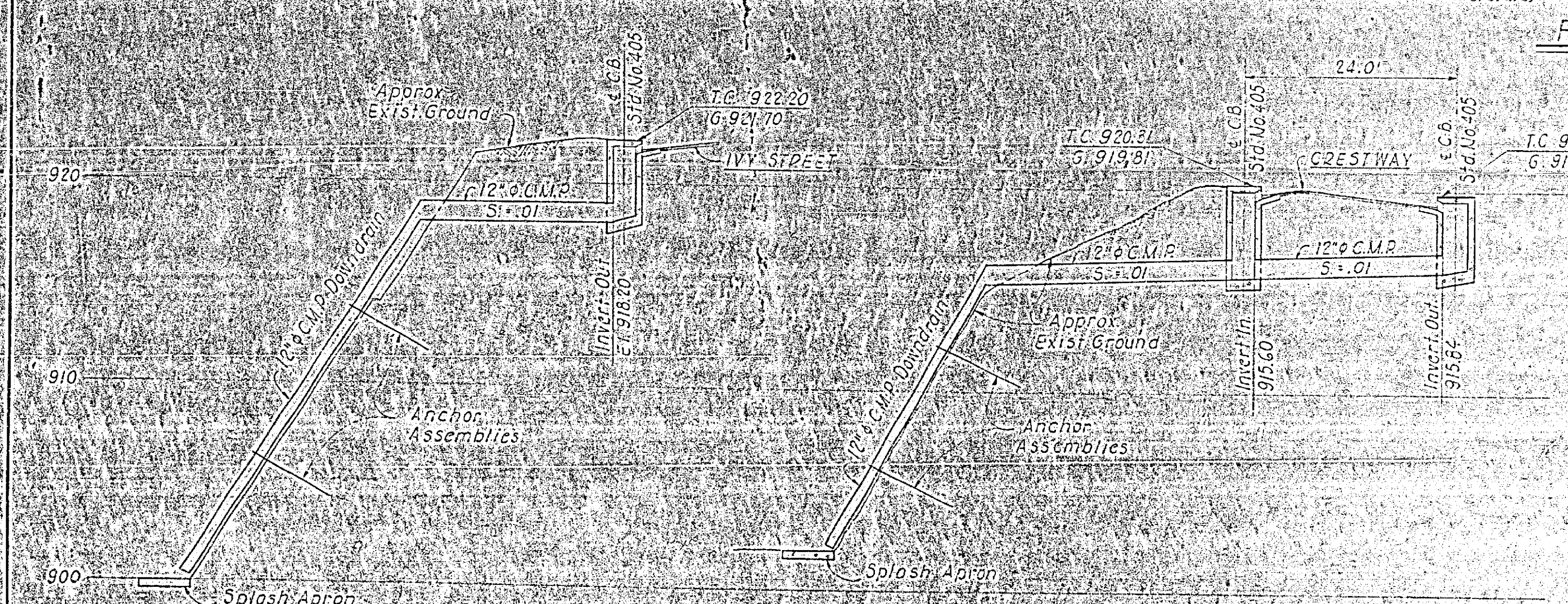
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA
DESIGNED BY: Mallion
CHECKED BY: Limbrick

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A. T. & S. F. RAILWAY
FOUNDATION PLAN & MISC. DETAILS

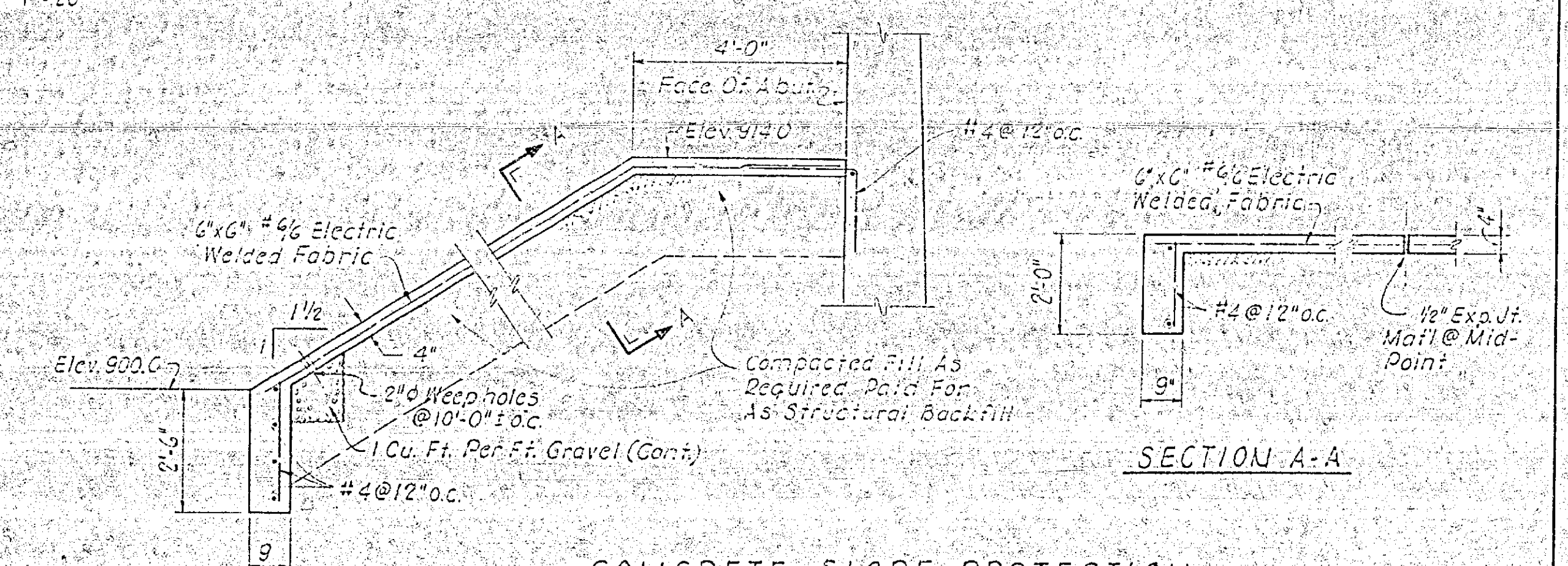
SCALE 1" = 20'	DATE
JOB NO. L-846	SHEET 5
OF 10	



FOUNDATION PLAN
1" = 20'



STORM DRAIN PROFILES
Horiz. 1" = 10'
Vert. 1" = 4'



CONCRETE SLOPE PROTECTION
1/2" = 1'-0"

NO.	REVISION	BY	DATE

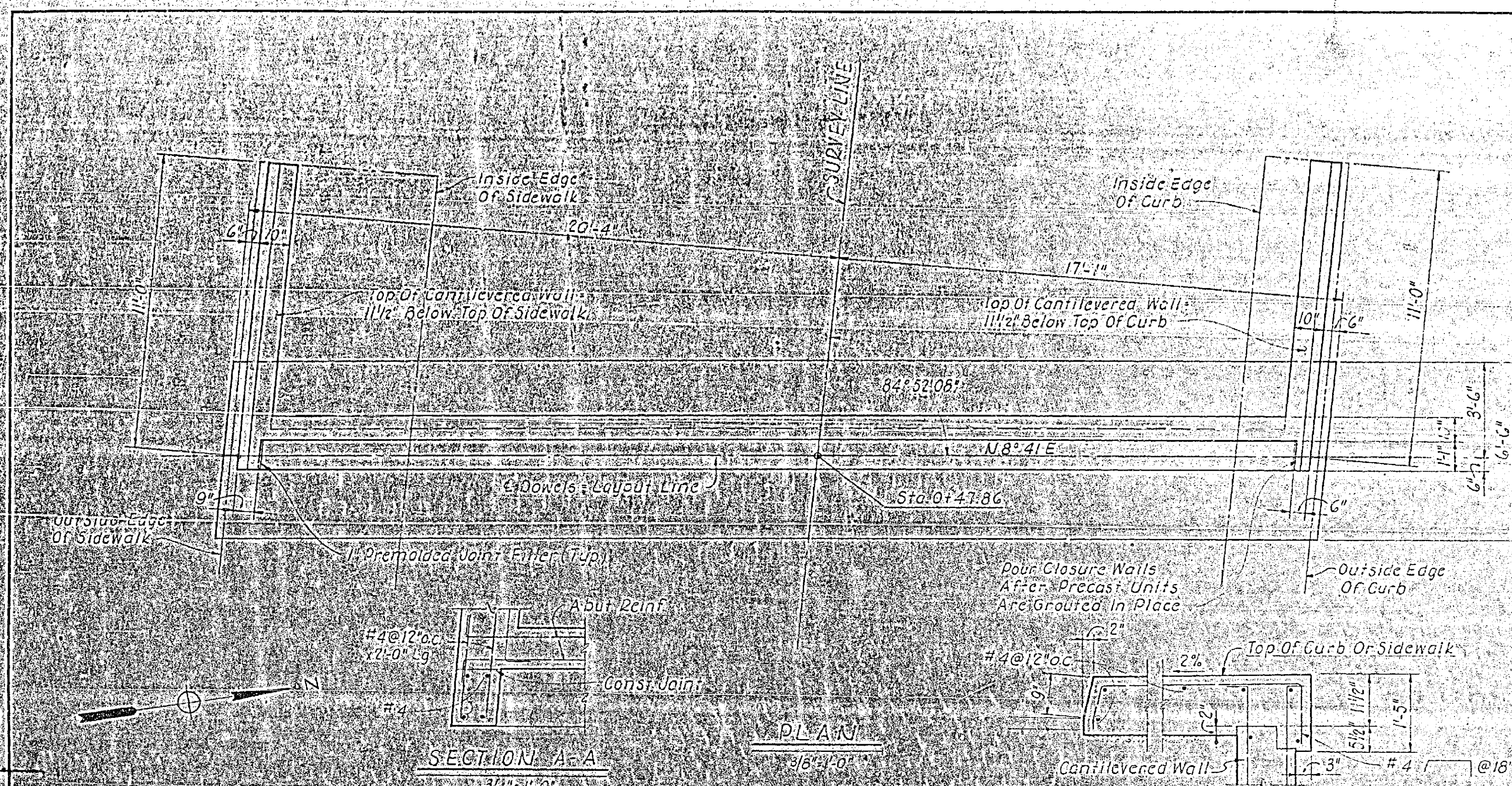
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA
DESIGNED BY: *Mellion*
CHECKED BY: *Limbrick*
IN CHARGE: *Limbrick*

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A. T. & S. F. RAILWAY
FOUNDATION PLAN & MISC. DETAILS

SCALE 1" = 20'	DATE
JOB NO. L-846	SHEET 5
OF 10	

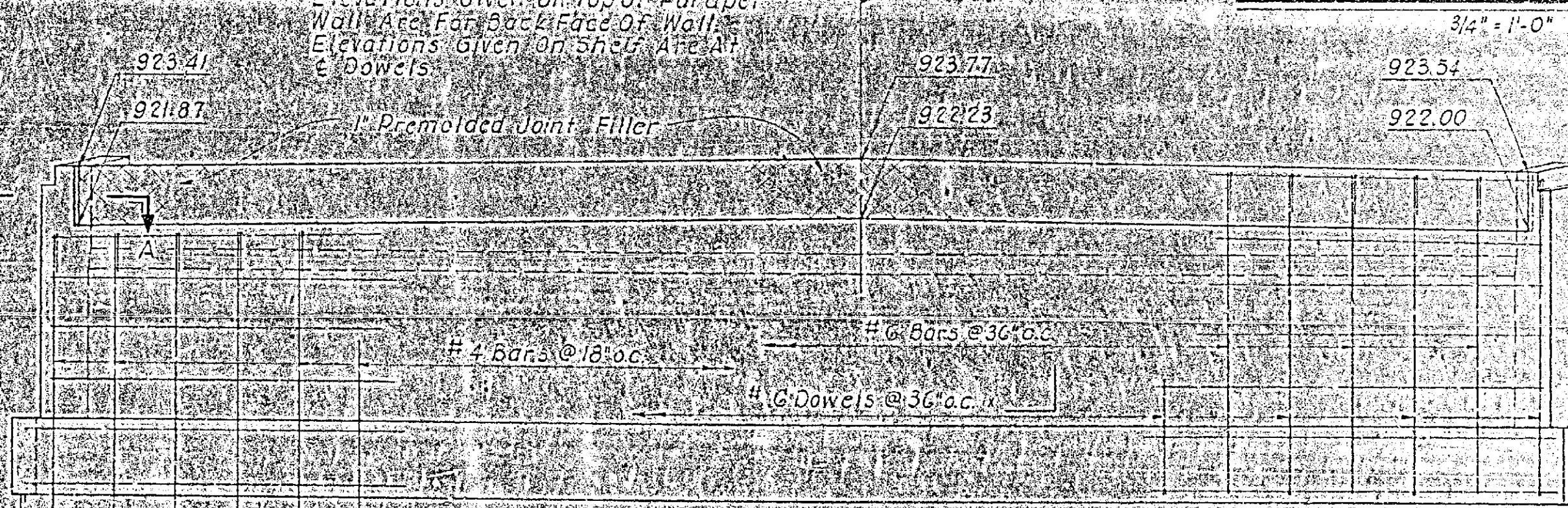
CITY OF RIVERSIDE FILE NO. R-

VOID



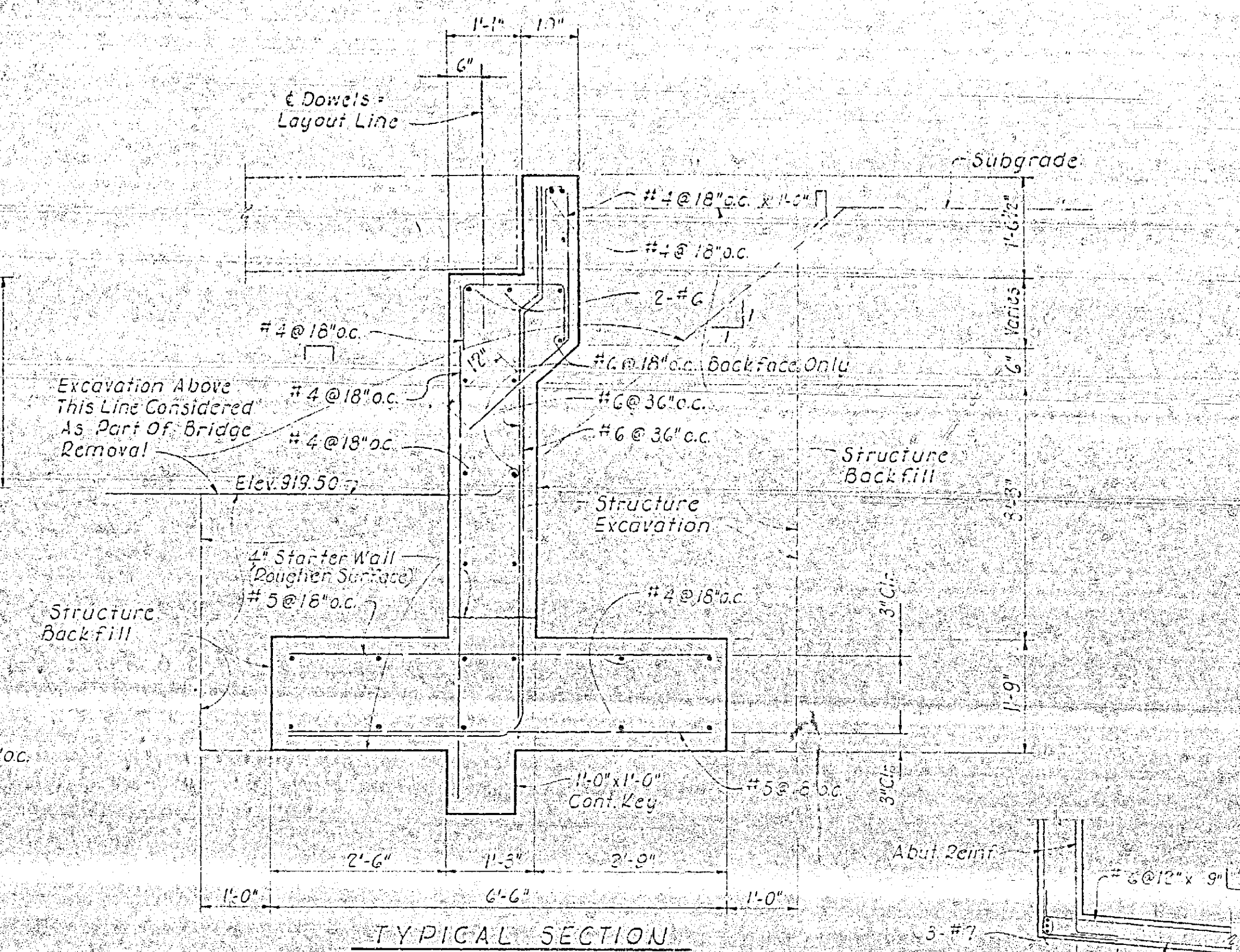
SECTION A-A
3/8" x 1'-0"

CURB OR SIDEWALK SECTION
AT CANTILEVERED WALL
3/4" x 1'-0"

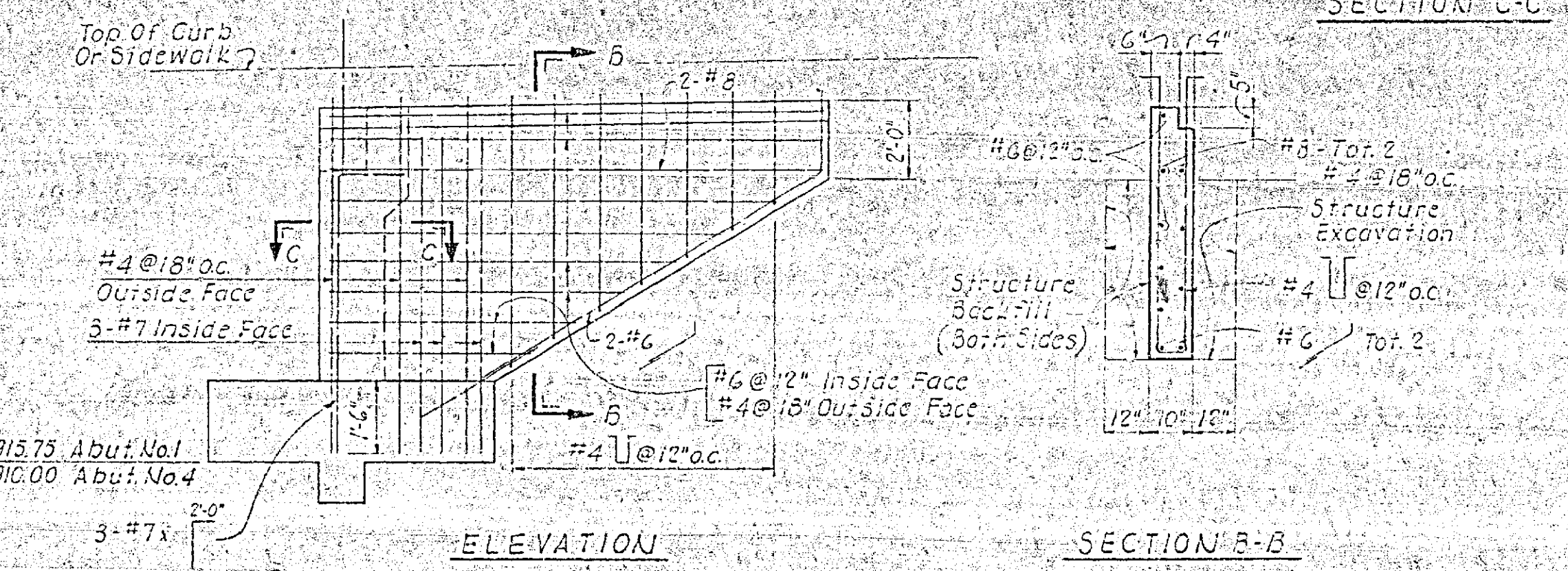


FRONT FACE STEEL
ELEVATION
3/8" x 1'-0"

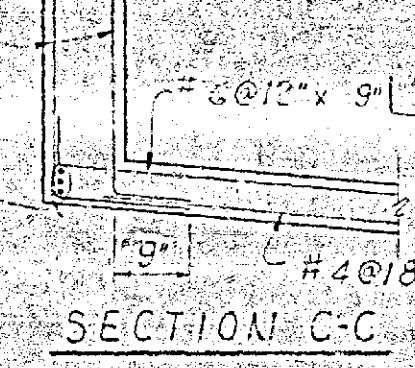
BACK FACE STEEL
ELEVATION
3/8" x 1'-0"



TYPICAL SECTION
3/4" x 1'-0"



ELEVATION
CANTILEVERED WALL
3/8" x 1'-0"



SECTION C-C

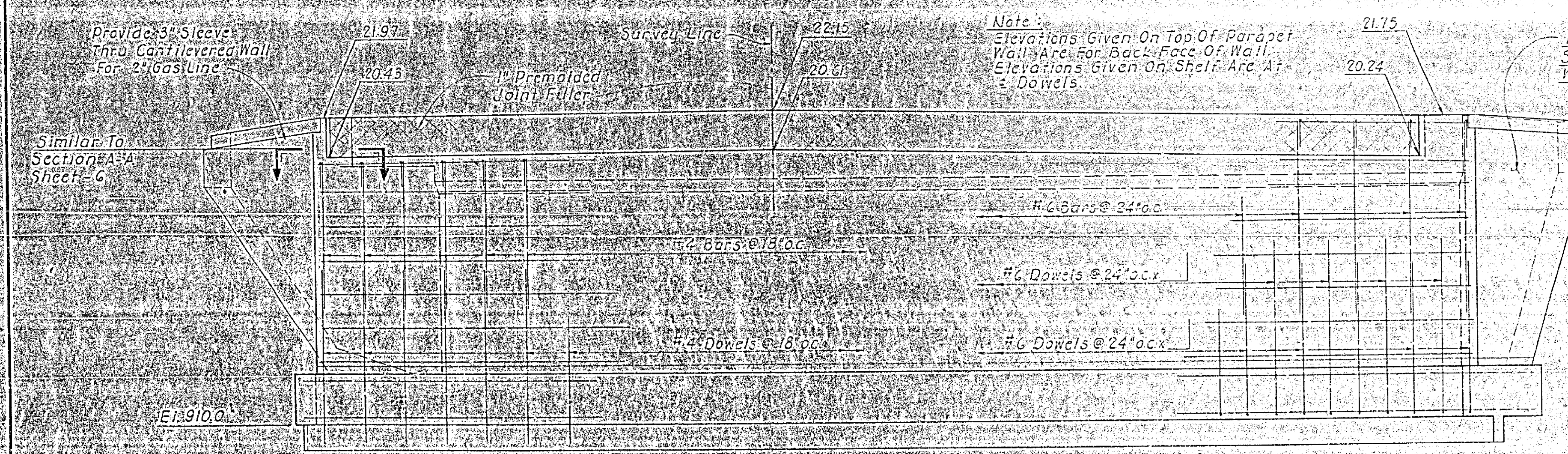
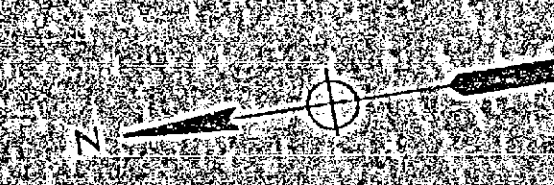
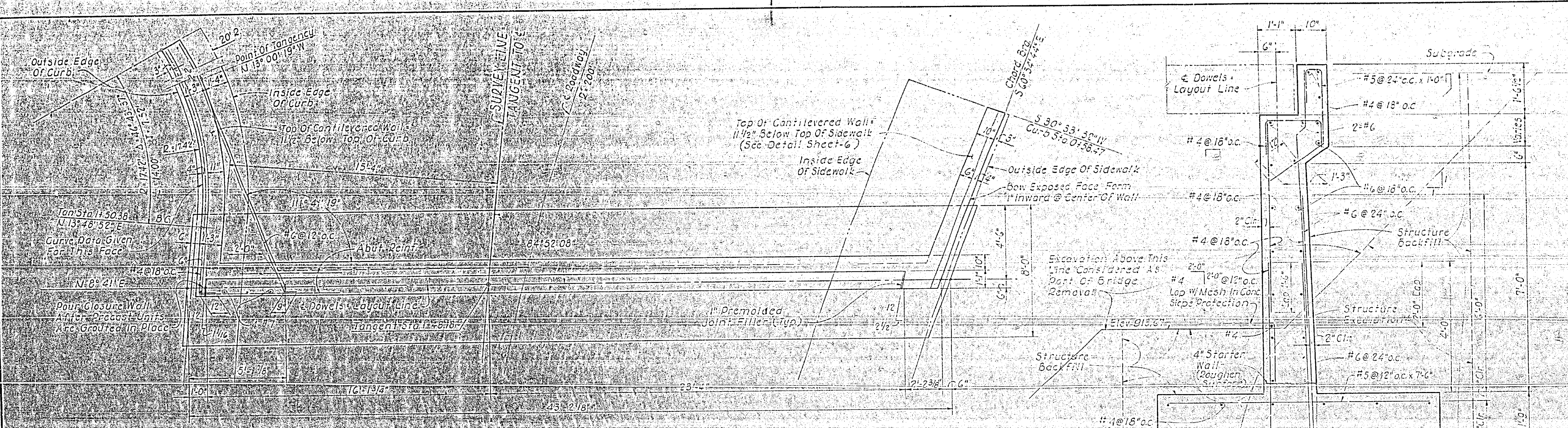
VOID

NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA
DESIGNED BY *Neill* CHECKED BY *Limbrick*
DRAWN BY *Mallion* IN CHARGE *Limbrick*

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
ABUTMENT NO. 1

SCALE AS NOTED	DATE
JOB NO. L-846	SHEET 6
OF 10	



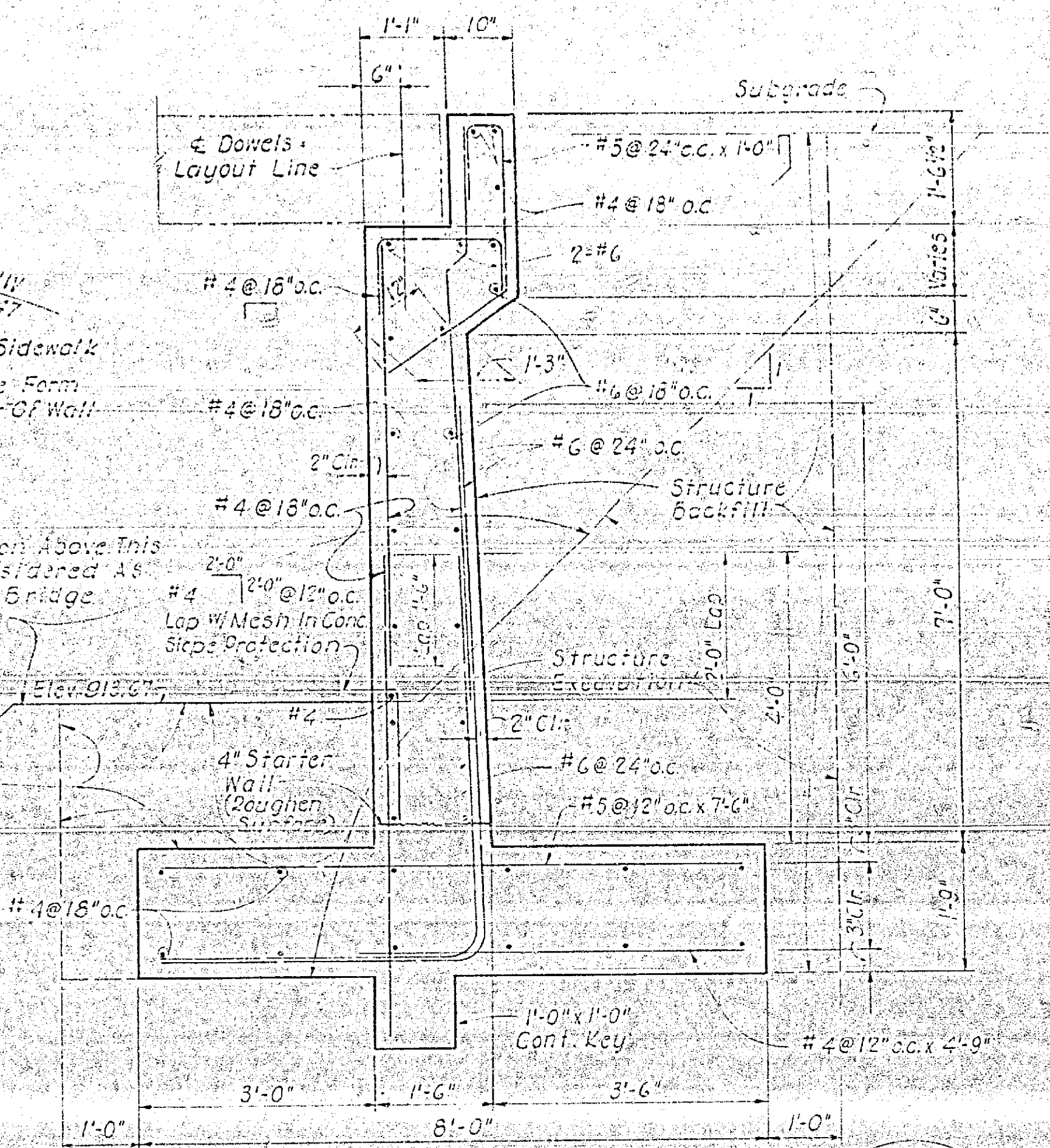
FRONT FACE STEEL

BACK FACE STEEL

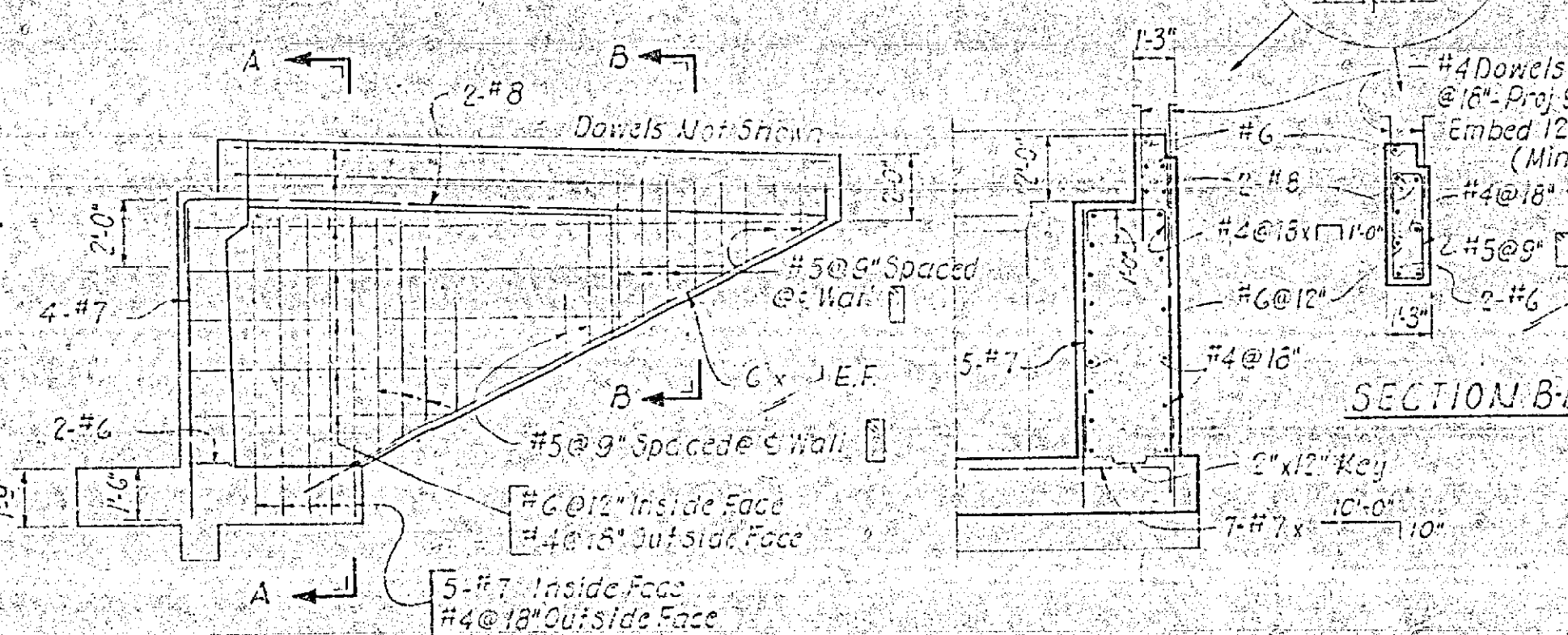
ELEVATION
3/6" = 1'-0"

Note:
Elevations Given On Top Of Parapet
Wall Are For Back Face Of Wall.
Elevations Given On Shelf Are At
Dowels.

Details This Wall
Same As Cantilevered
Walls On Abut. No. 1



TYPICAL SECTION
3/4" = 1'-0"



DEVELOPED ELEVATION

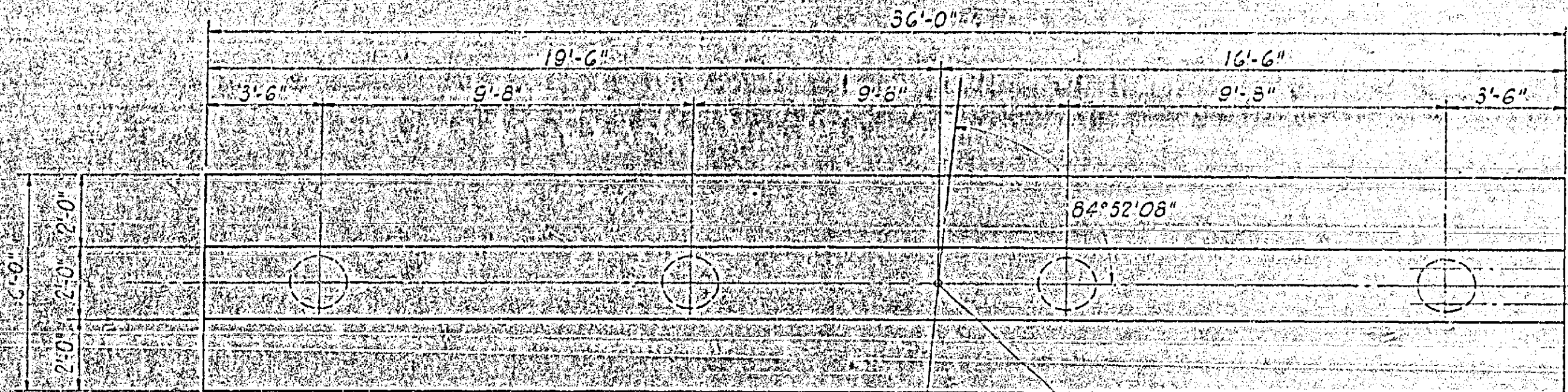
SECTION A-A

NORTH EAST CANTILEVERED WALL
1/4" = 1'-0"

VOID

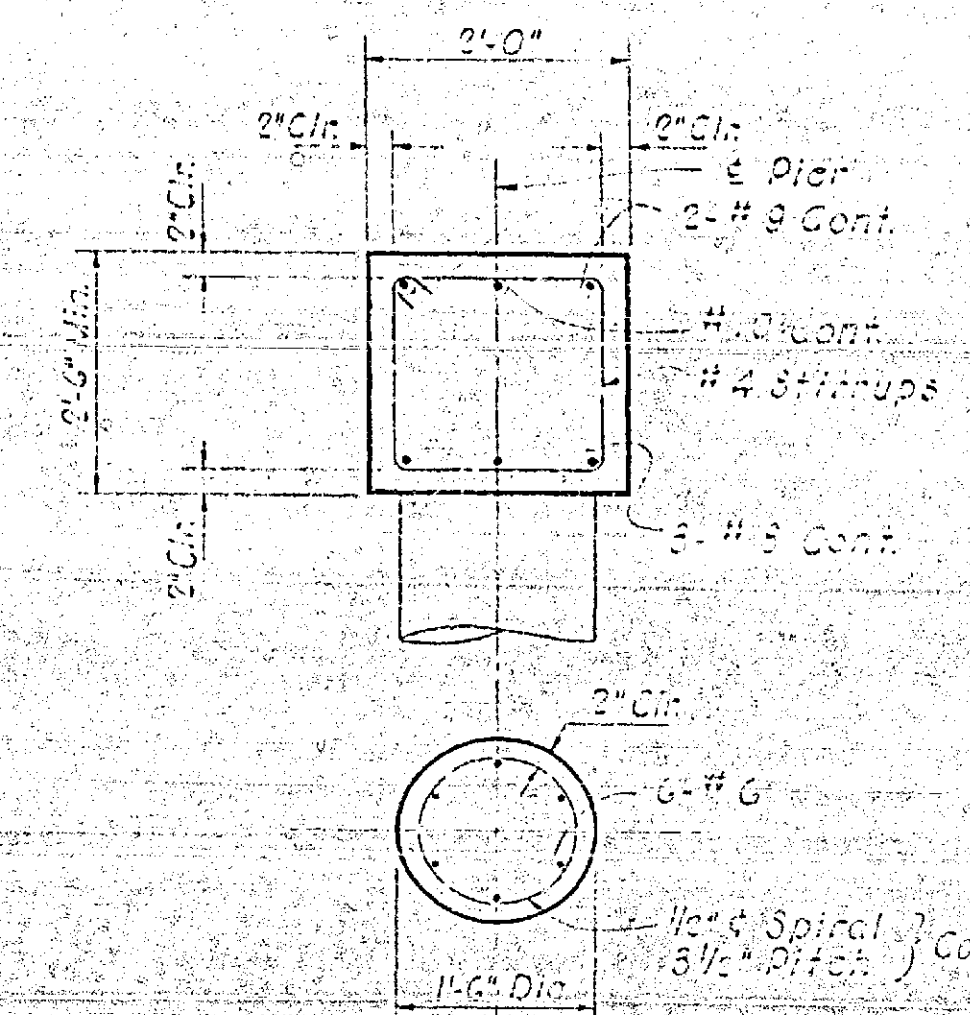
MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA			DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A. T. & S. F. RAILWAY ABUTMENT NO. 4		SCALE AS NOTED	DATE
DESIGNED BY Neill	CHECKED BY Limbrick	DRAWN BY Mallion	IN CHARGE Limbrick	JOB NO. L-846		SHEET 7
NO.			REVISION		BY DATE	

CITY OF RIVERSIDE FILE NO. R-

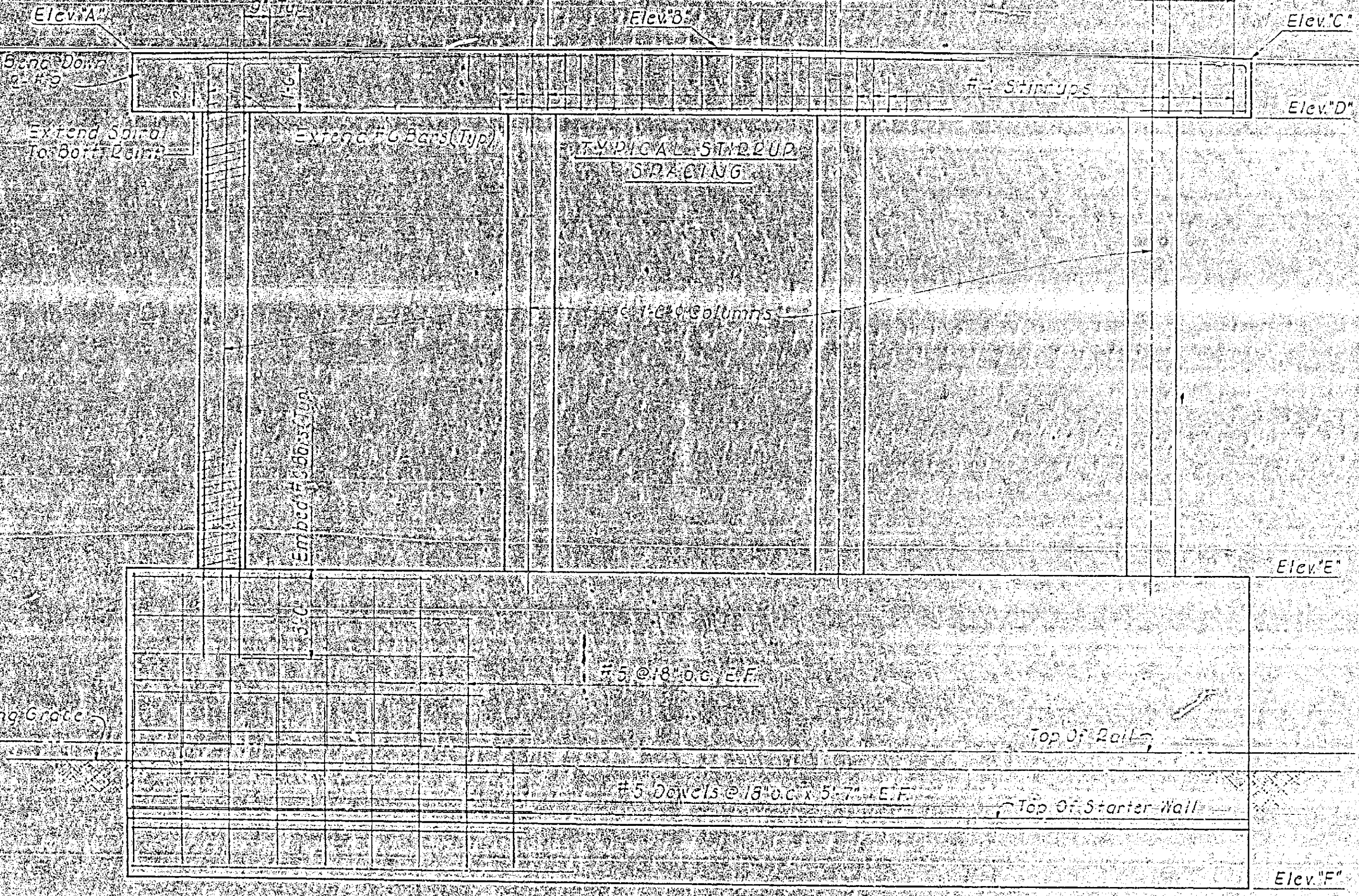


Sta. 0+75.36 - Pier No. 2
Sta. 1+11.77 - Pier No. 3

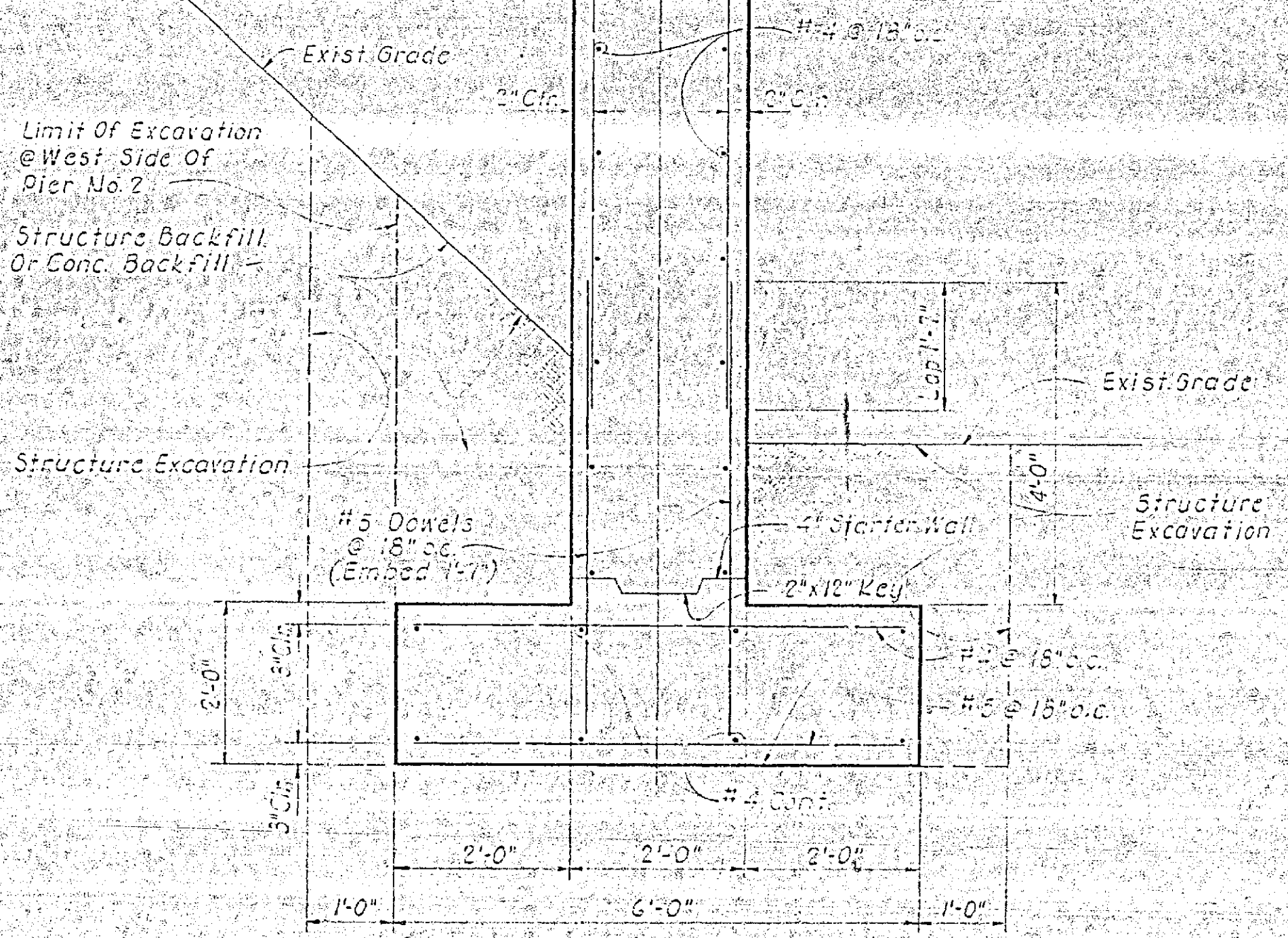
Note:
Finish Top Of Pier To Provide
Uniform Bearing Under Skewed
Deck Units.



Pier	Elevation					
	A	B	C	D	E	F
2	921.47	921.78	921.57	918.27	903.0	893.0
3	920.92	921.22	921.01	913.12	903.0	893.0



ELEVATION
3/8" = 1'-0"



TYPICAL SECTION
3/4" = 1'-0"

VOID

NO.	REVISION	BY	DATE

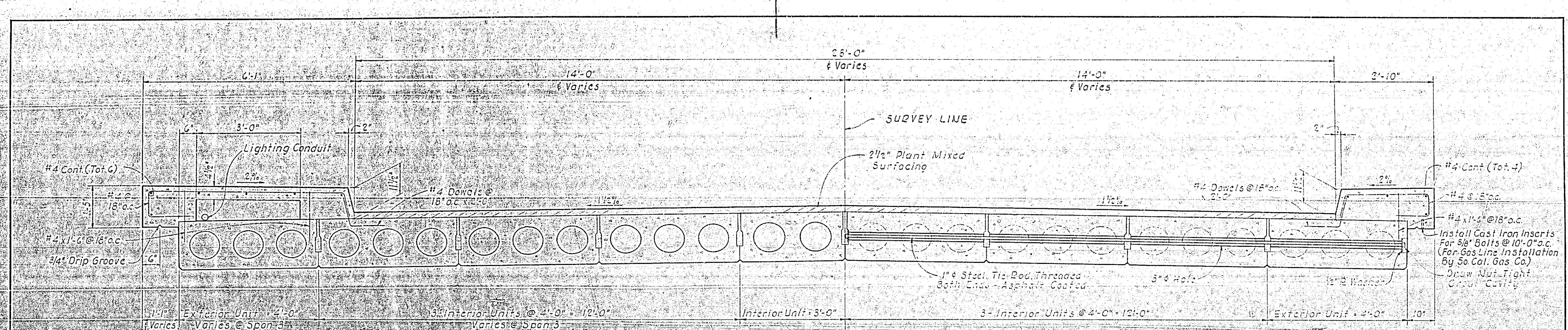
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

DESIGNED BY *Neill* CHECKED BY *Limbrick*
DRAWN BY *Mallon* IN CHARGE *Limbrick*

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
PIERS

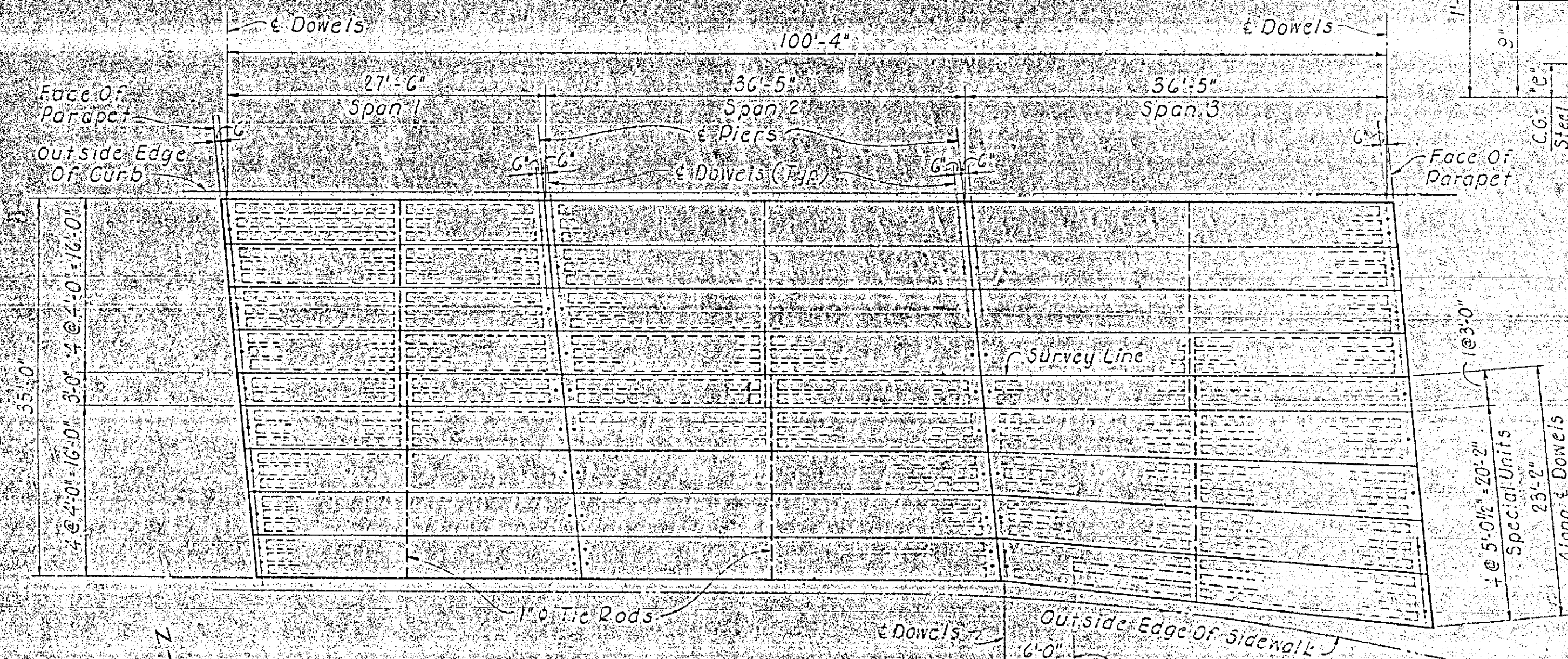
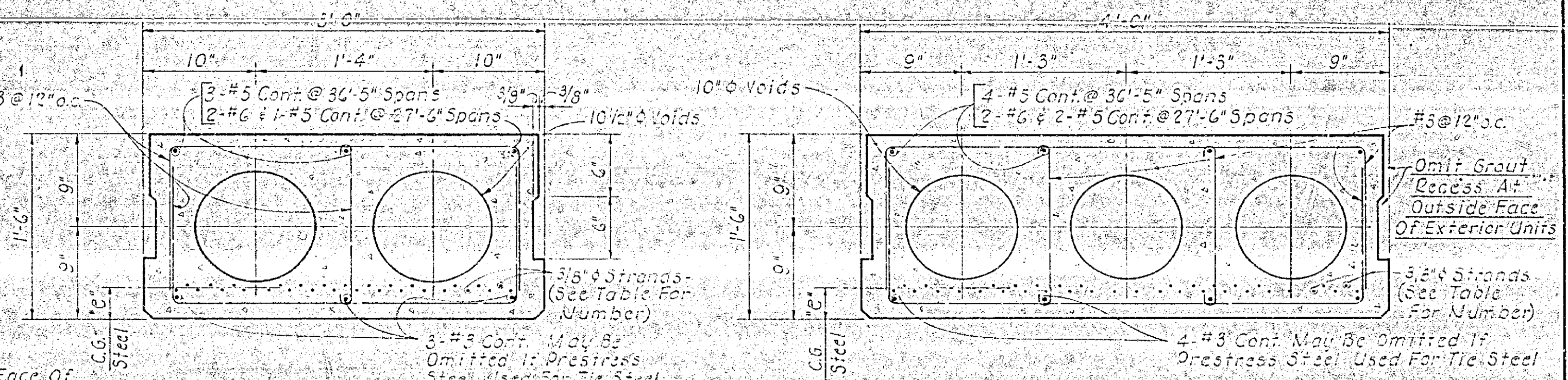
SCALE	DATE
AS NOTED	
JOB NO.	

CITY OF RIVERSIDE FILE NO. R-



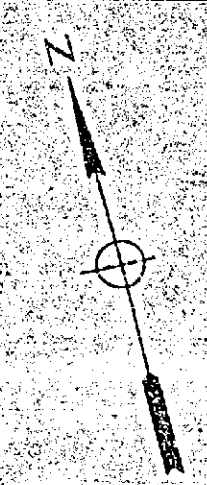
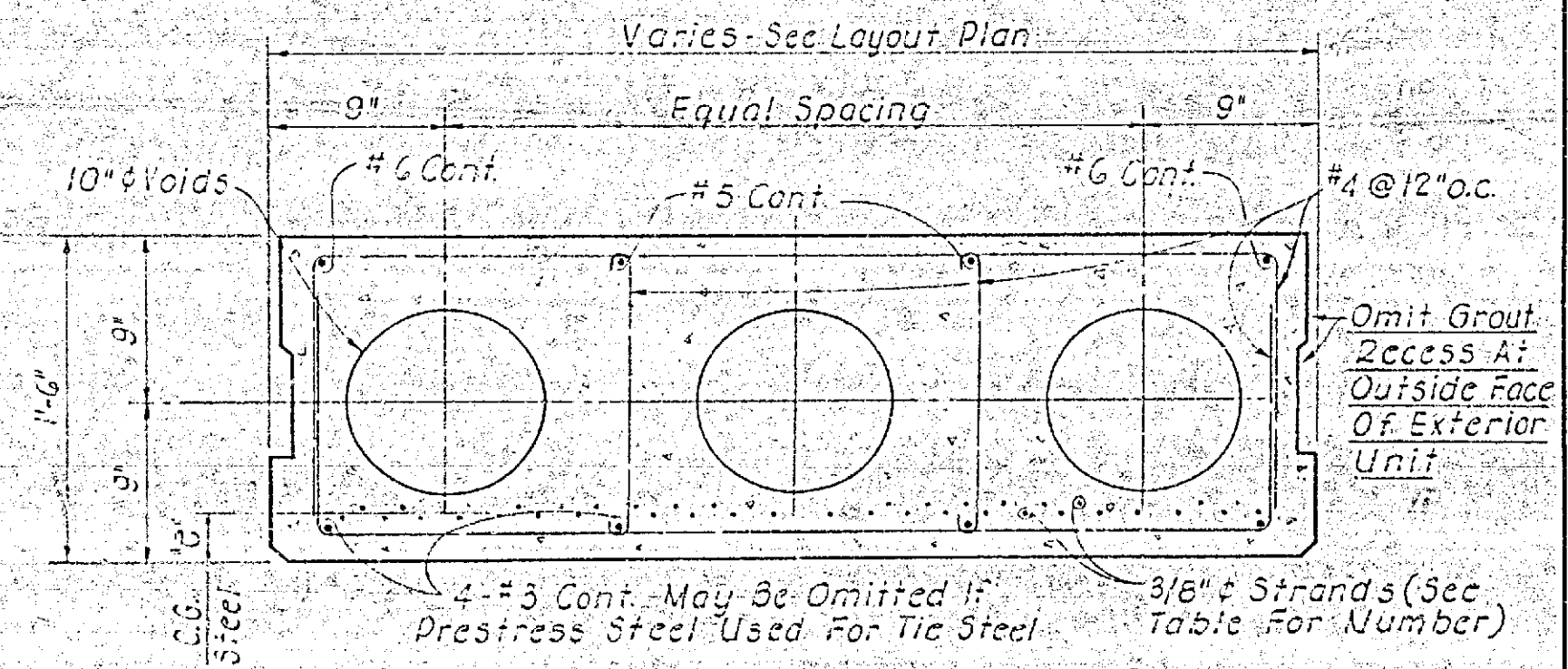
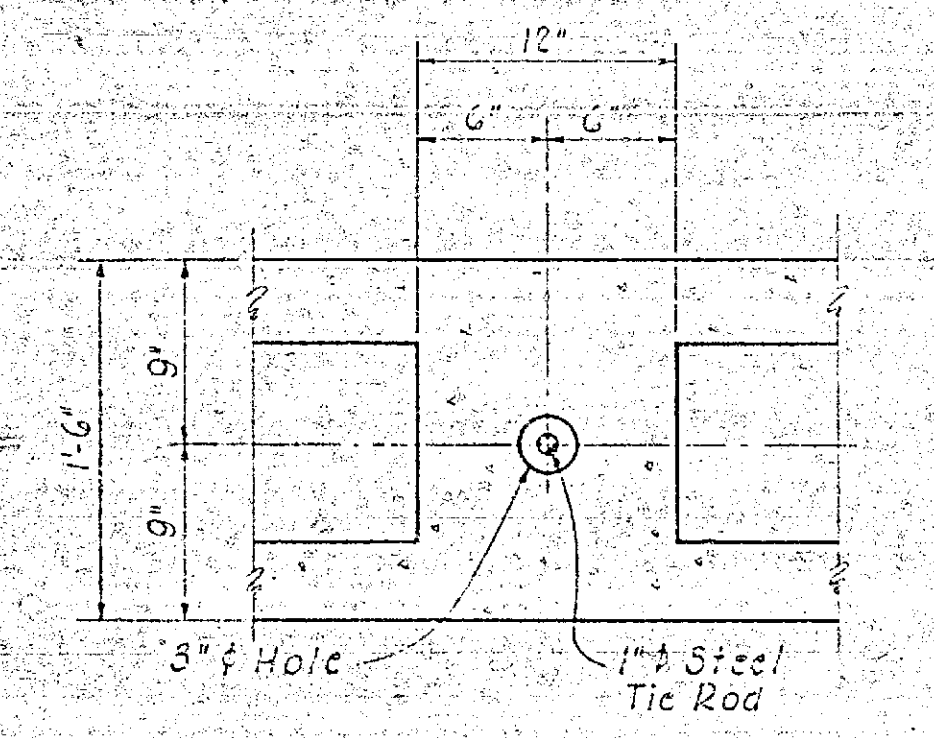
	27'-6" Span			36'-5" Span			36'-5" Span Special Units	
	4'-0" Wide Interior	2'-0" Wide Exterior	3'-0" Wide Interior	4'-0" Wide Interior	4'-0" Wide Exterior	3'-0" Wide Interior	Interior	Exterior
Number Of 3/8" Prestress Strands	19	22	17	35	40	50	44	54
P. Working Force	228	264	204	420	480	360	528	648
1" Distance From Bottom Of Unit To C.G. Of Strands	2.2"	2.53"	2.66"	3.5"	3.7"	3.75"	3.83"	4.4"

TYPICAL BRIDGE SECTION



TYPICAL 3'-0" UNIT

TYPICAL 4'-0" UNIT



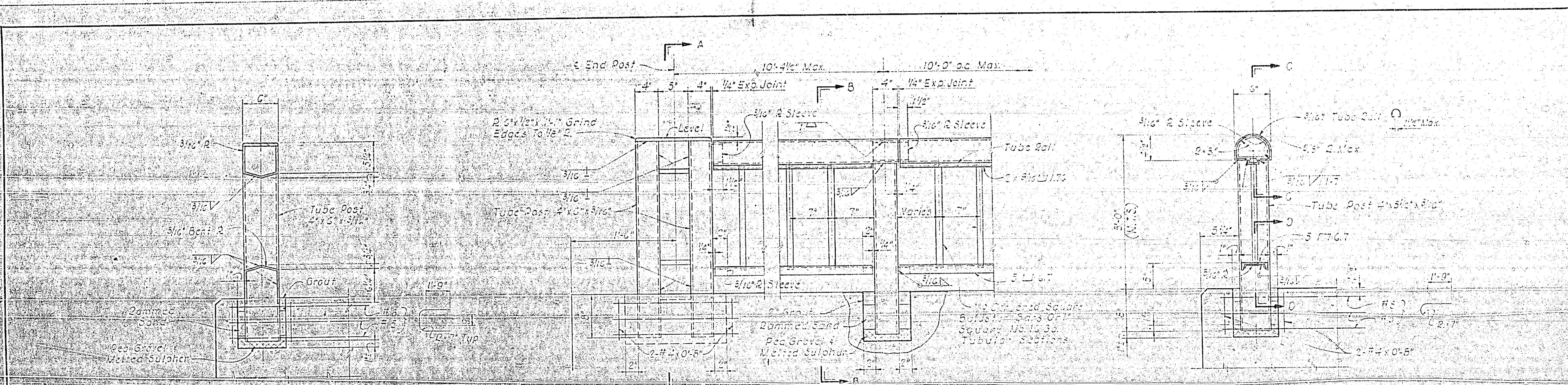
NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

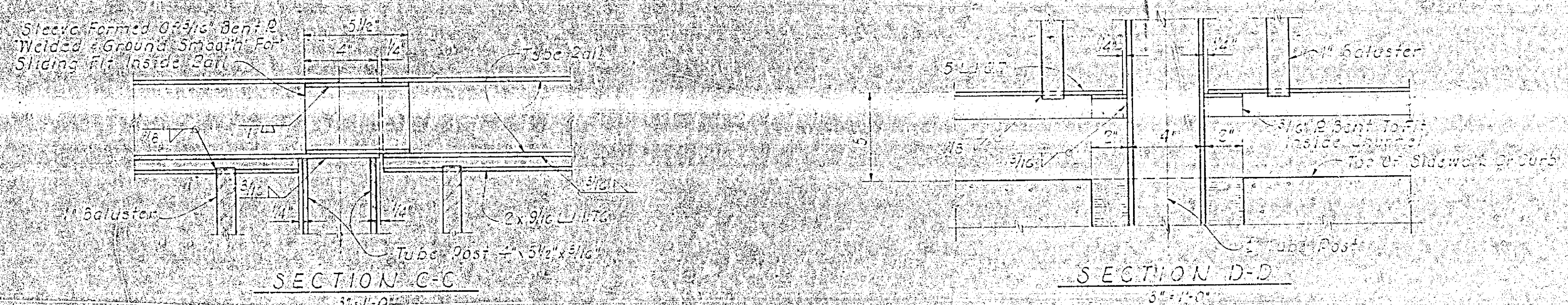
DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A. T. & S. F. RAILWAY
DECK DETAILS

SCALE	DATE
AS NOTED	

CITY OF RIVERSIDE FILE NO. R-



SECTION A-A 1 1/2' x 0' DOUBLE END POST 1 1/2' x 1 1/2' INTERMEDIATE POST 1 1/2' x 1 1/2' SECTION B-B 1 1/2' x 1 1/2'



SECTION C-C 3' x 1' SECTION D-D 3' x 1'

BRIDGE RAILING DETAILS

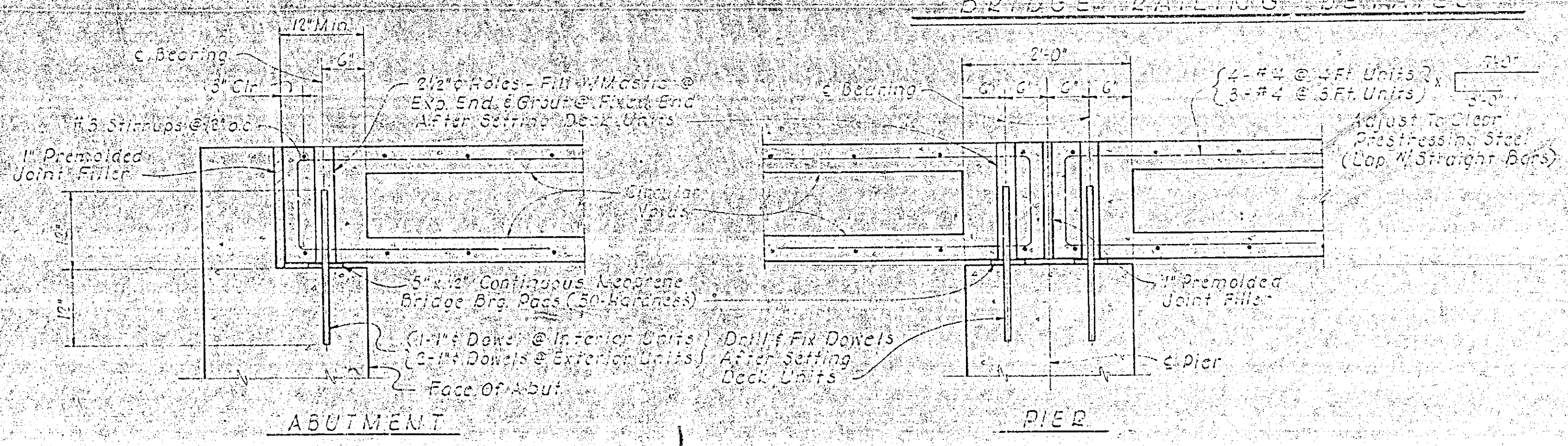
RAILING NOTES

Space Posts To Clear Expansion Joints By 9\"/>

Exact Post Hole Locations Are To Be Determined From Approved Railing Shop Plans

Railing Shall Conform To Horizontal & Vertical Alignment. Post & Balusters Shall Be Vertical With A Maximum Deviation Not To Exceed That Represented By A Rise Of 1/4\"/>

Railing To Be As Utilized After Fabrication. For Further Requirements See Specifications



TYPICAL BEARINGS DETAILS 1' x 1'

NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA

DESIGNED BY _____ CHECKED BY *Limbrick*
 DRAWN BY *Mallion* IN CHARGE *Limbrick*

DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA
 IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY
 RAILING & BEARING DETAILS

SCALE AS NOTED	DATE
JOB NO. L-846	
SHEET 10	
OF 10	

CITY OF RIVERSIDE FILE NO. R-

VOID

CITY OF RIVERSIDE CALIFORNIA
 IVY STREET OVERCROSSING
 AT THE A. T. & S. F. RAILWAY
 1963

MAYOR

E. V. DALES

COUNCIL MEMBERS

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 JOHN B. BERGIN CHARLES R. MUNSON
 BRUCE B. BETZ JOSEPH L. RENCK

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CITY MANAGER

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DIRECTOR OF PUBLIC WORKS
 AND CITY ENGINEER

JAMES F. MARTINEK


ASST. CITY ENGINEER

ALFRED R. THEAL

CITY ATTORNEY

LELAND J. THOMPSON

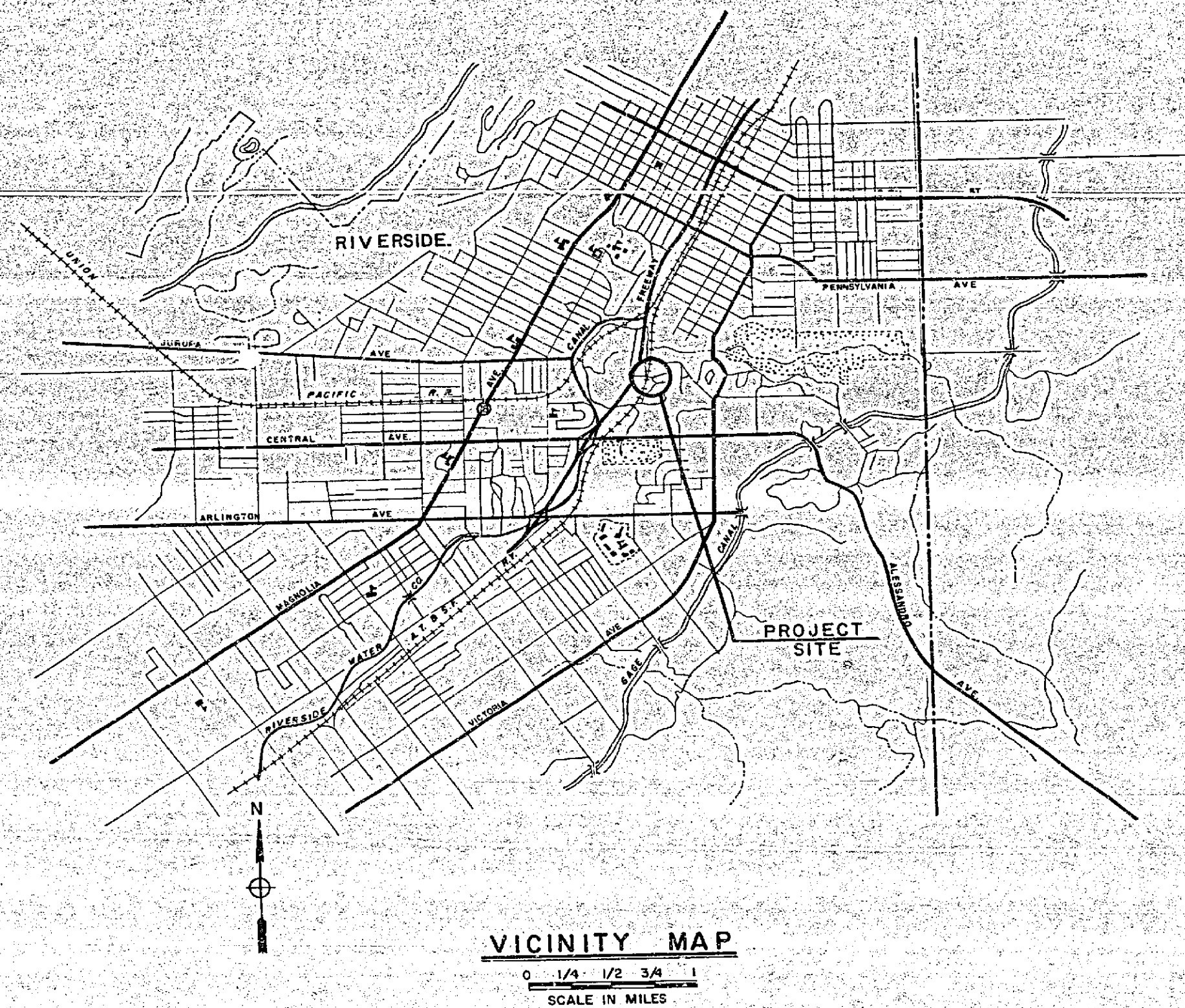
MOFFATT & NICHOL, ENGINEERS
 LONG BEACH, CALIFORNIA

REVISIONS			MOFFATT & NICHOL, ENGINEERS LONG BEACH, CALIFORNIA
MARK	DATE	DESCRIPTION	CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS
			IVY STREET OVERCROSSING AT THE A. T. & S. F. RAILWAY TITLE SHEET
DESIGNED BY	CHECKED BY	APPROVED BY	 DIRECTOR OF PUBLIC WORKS
DRAWN BY	DATE	DATE	
RECOMMENDED BY			CITY OF RIVERSIDE FILE NO. R-418

JOB NO. L-846

CITY OF RIVERSIDE FILE NO. R-418

DRAWING LIST



DRAWING NO.	TITLE
1 OF 10	TITLE SHEET
2 OF 10	VICINITY MAP & DRAWING LIST
3 OF 10	ROADWAY PLAN AND DETAILS
4 OF 10	PLAN, ELEVATION & TYPICAL SECTION
5 OF 10	FOUNDATION PLAN & MISC. DETAILS
6 OF 10	ABUTMENT NO. 1
7 OF 10	ABUTMENT NO. 4
8 OF 10	PIERS
9 OF 10	DECK DETAILS
10 OF 10	RAILING & BEARING DETAILS

STANDARD DRAWINGS (BOUND WITH SPECIAL PROVISIONS)

STANDARD DRAWING NO.	TITLE
200	CURB AND GUTTER
301	DRIVEWAYS ACROSS CURB SIDEWALK
405 (1 OF 2)	STORM WATER CATCH BASIN TYPE 3
405 (2 OF 2)	STORM WATER CATCH BASIN TYPE 3
606	TRAFFIC SIGNAL PULL BOX
612	ELECTRICAL SERVICE DETAILS - SIGNALS & LIGHTING
623 A	LIGHTING STANDARD
629	TYPICAL LUMINAIRE MOUNTINGS
631	TYPICAL FOUNDATION FOR CONCRETE STANDARDS
NONE	DETOUR PLAN

NO.	REVISION	BY	DATE

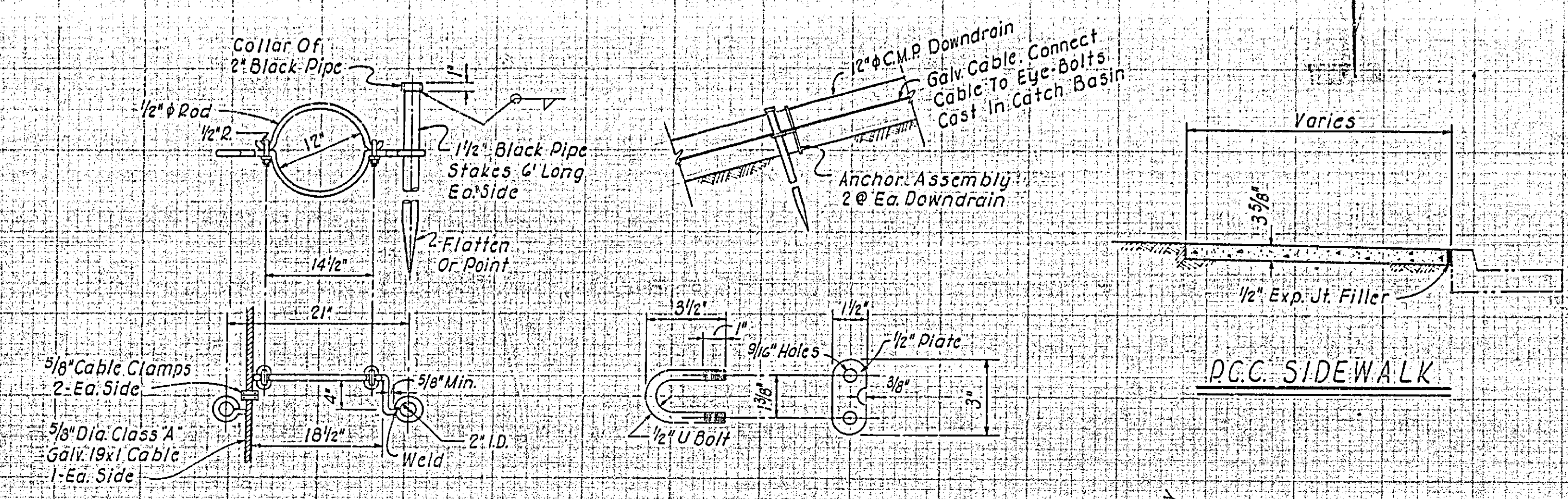
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

DESIGNED BY _____ CHECKED BY _____
DRAWN BY _____ IN CHARGE _____

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
VICINITY MAP & DRAWING LIST

SCALE	DATE
NONE	9-19-62
JOB NO.	L-846
SHEET	2
OF	10

DIETRICH-POST CLEARPRINT 35004

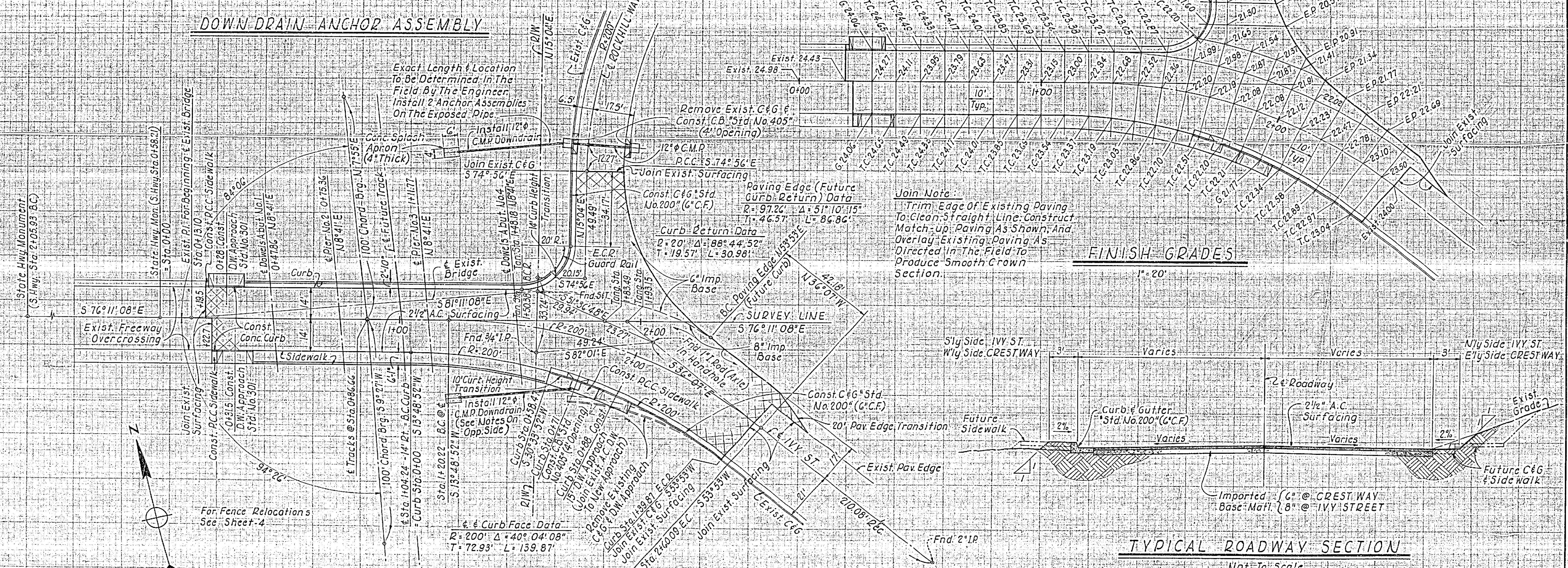


Bearings Are Based On \pm Of Ivy St. Being $N 36^{\circ}07'W$ As Shown On Map Of Monterey Heights - M.B. - 18/95 Rec. Riv. Co.

B.M. Elev. 931.20 Top Of 1" I.P. In Hand Hole \pm Ivy Street \pm Monterey Road. F.B. 657/1-11, 12-15.

DOWN DRAIN ANCHOR ASSEMBLY

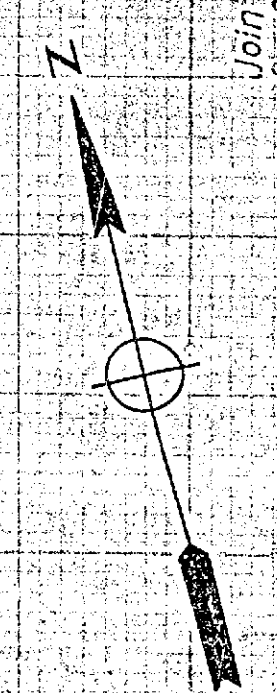
P.C.C. SIDEWALK



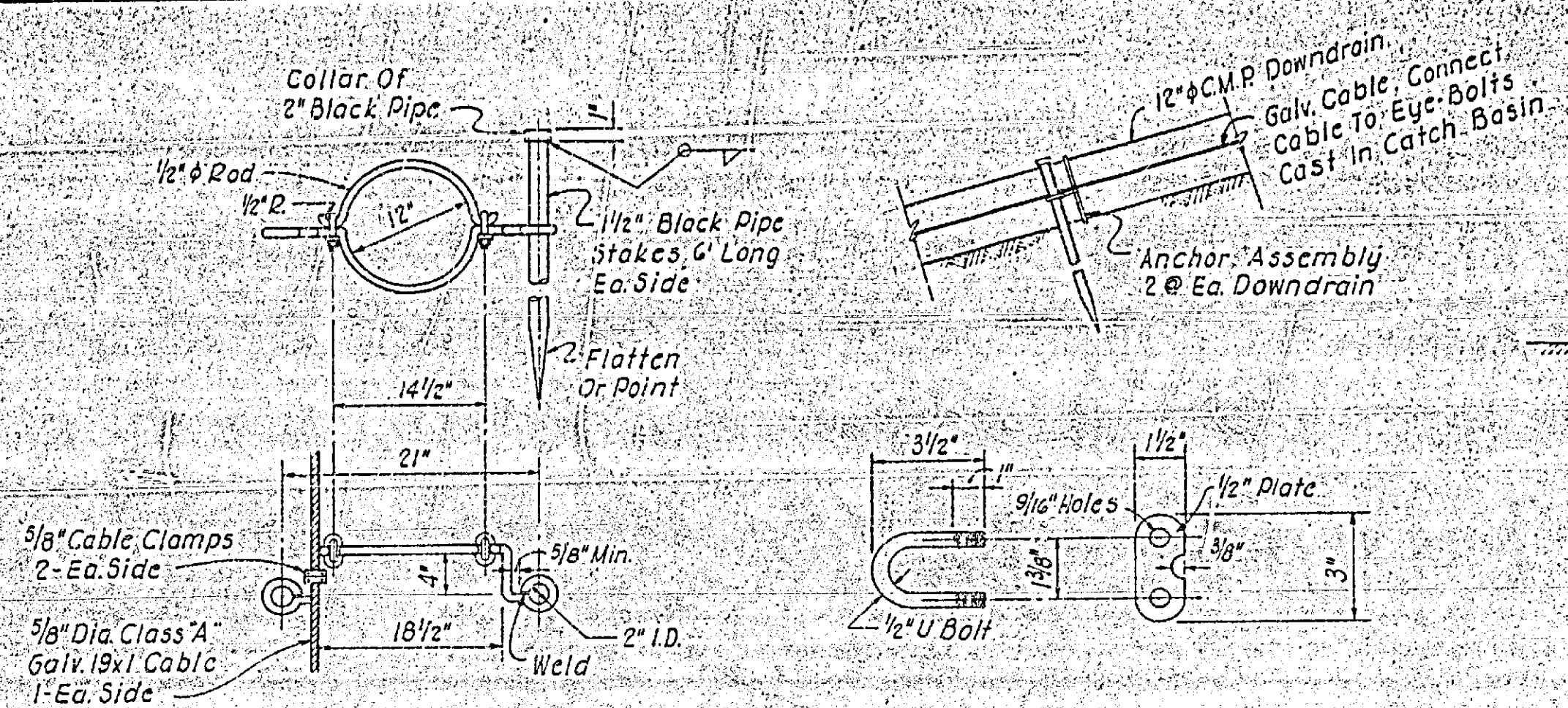
FINISH GRADES

TYPICAL ROADWAY SECTION

ROADWAY PLAN



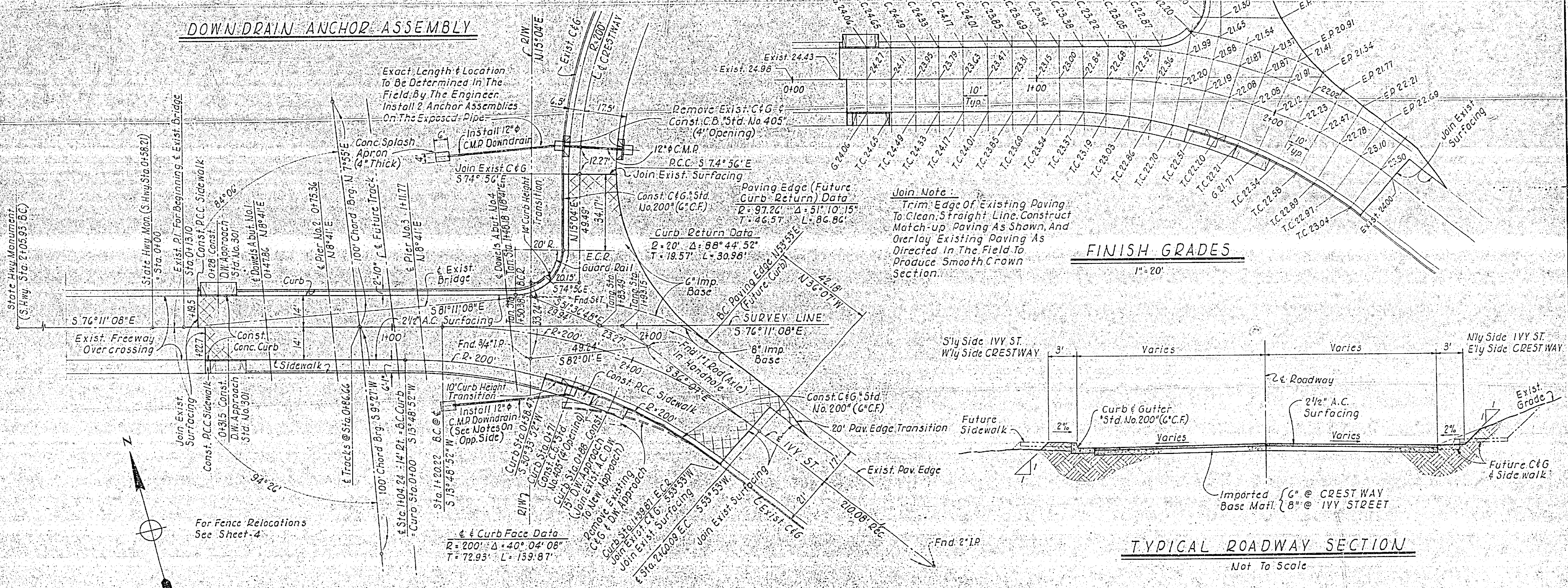
MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY ROADWAY PLAN AND DETAILS		SCALE: AS NOTED DATE: 9-19-62 JOB NO.: L-846 SHEET: 3 OF 10
DESIGNED BY: Limbrick DRAWN BY: Mallion	CHECKED BY: Limbrick IN CHARGE: Limbrick	CITY OF RIVERSIDE FILE NO. R-418		



DOWN DRAIN ANCHOR ASSEMBLY

R.C.C. SIDEWALK

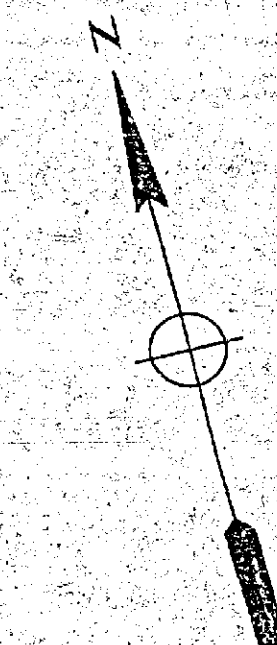
Bearings Are Based On ϵ Of Ivy St. Being N 36° 07' W As Shown On Map Of Monterey Heights M.B. 18/95 Rec. Div. Co.
 B.M. Elev. 931.20 Top Of 1" I.P. In Hand Hole ϵ Ivy Street ϵ Monterey Road. F.B. 657/1-11, 12-15.



ROADWAY PLAN

FINISH GRADES

TYPICAL ROADWAY SECTION



For Fence Relocations See Sheet-4

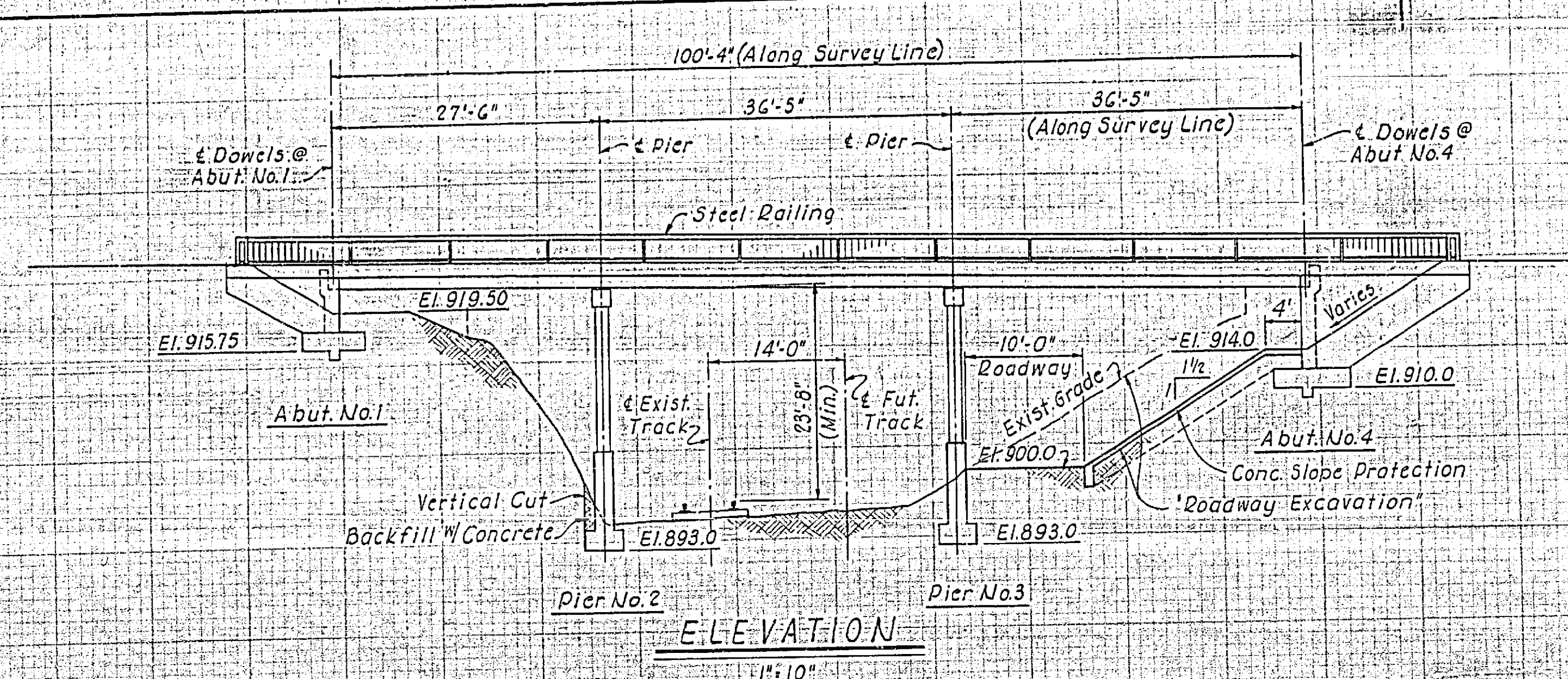
NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA

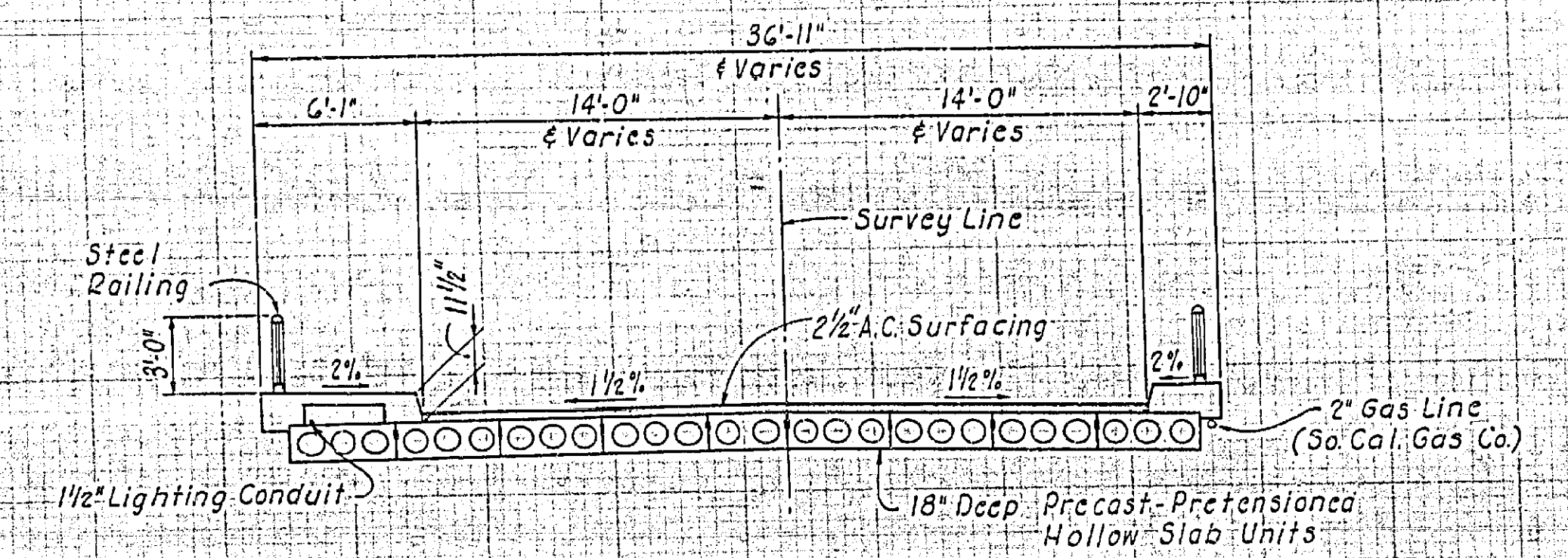
DESIGNED BY: *Limbrick* CHECKED BY: *Limbrick*
 DRAWN BY: *Mallion* IN CHARGE: *Limbrick*

DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY
ROADWAY PLAN AND DETAILS

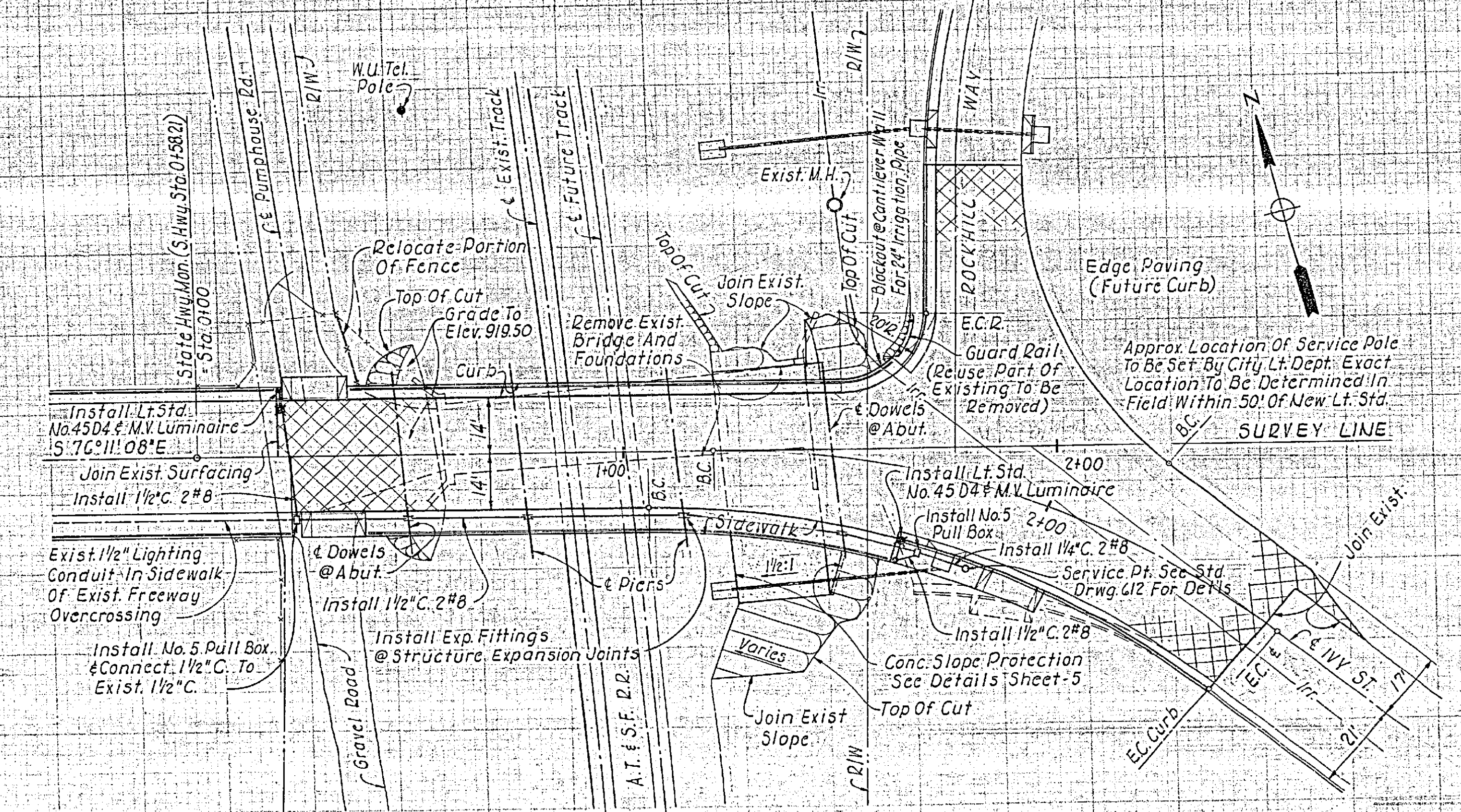
SCALE AS NOTED	DATE 9-19-62
JOB NO. L-846	SHEET 3
OF 10	



ELEVATION
1" = 10'



SECTION THROUGH BRIDGE
1" = 5'



PLAN
1" = 20'

GENERAL NOTES

Specifications:
 Design: A.A.S.H.O. Dated 1957 With Revisions And As Supplemented By State Of California, Department Of Public Works, Bridge Planning And Design Manual.
 Live Loading: H-20-S16-44
Unit Stresses:
 Reinforced Concrete: (Except For Prestressed Concrete)
 $f_c = 3000$ p.s.i. @ 28 Days
 $f_c = 1200$ p.s.i.
 $n = 10$
 Reinforcing Steel:
 $f_s = 20,000$ p.s.i. Intermediate Grade
Reinforcement:
 Embedment Is Clear To Outside Of Bar And Is 2" To Main Reinforcement Except As Noted. Backing For Hook's Is Four Diameters Except As Noted. Where Reinforcing Bars Are Spliced They Shall Have A 20 Diameter Lap Unless Otherwise Called For On The Plan.
Grout:
 Shall Be As Called For On The Specifications.

PRESTRESSING NOTES

Concrete:
 $f_c = 5500$ p.s.i. @ 28 Days
 $f_{ti} = 4300$ p.s.i. @ Time Of Prestressing
Working Force: (See Table On Sheet-9)
 The Total Force Per Unit Remaining After All Losses, Including Those Due To Creep And Shrinkage Of Concrete And Steel Have Occurred.
 The Loss In Stress In The Prestressing Steel Due To Shrinkage And Creep Have Been Assumed To Be 37,500 p.s.i.
 In Addition To Losses Mentioned Above, Provision Shall Be Made For Losses Due To Friction, Anchorage Takeup, And Any Other Losses Peculiar To The System Of Prestressing Used.
Prestress Steel: Ultimate Tensile Strength 250,000 p.s.i.
 Minimum Spacing Center To Center Of Strands Shall Be 1 1/2" Or 1 1/2 Times The Maximum Size Coarse Aggregate.
 Minimum Cover At Exposed Surfaces Shall Be 2 Inches.

NO.	REVISION	BY	DATE

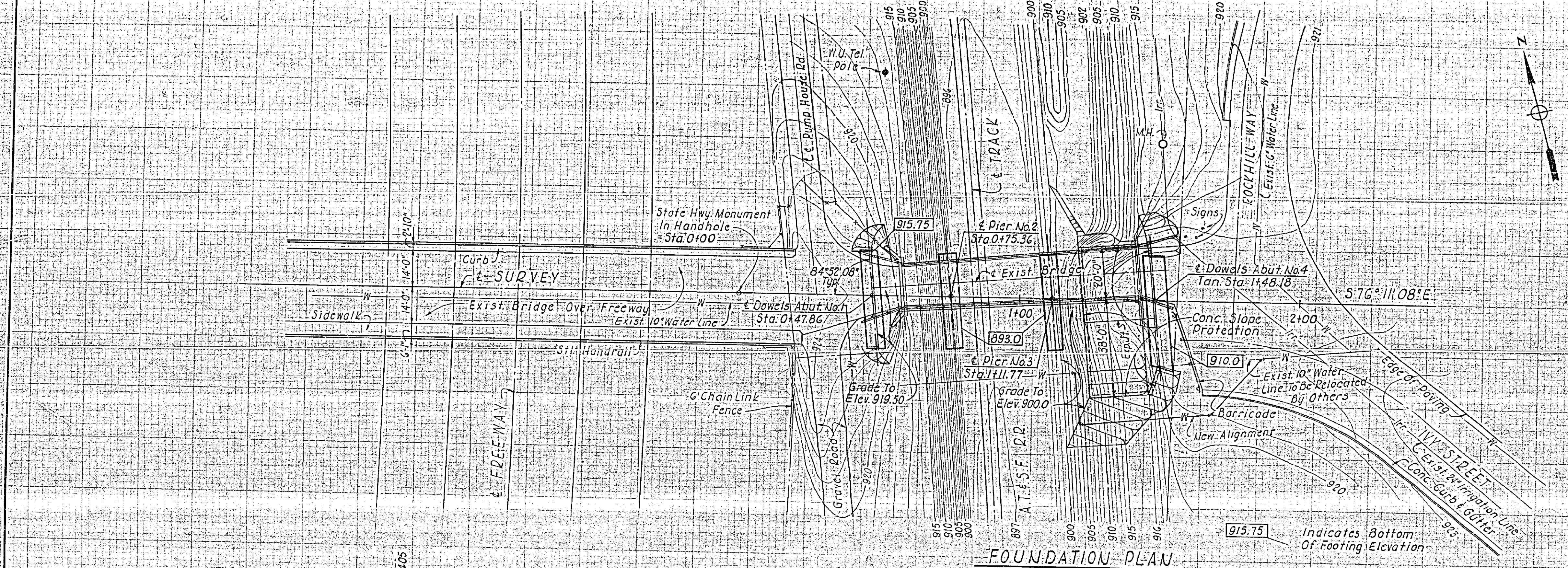
MOFFATT & NICHOL ENGINEERS
 LONG BEACH, CALIFORNIA

DESIGNED BY: *Limbrick* CHECKED BY: *Limbrick*
 DRAWN BY: *Mallon* IN CHARGE: *Limbrick*

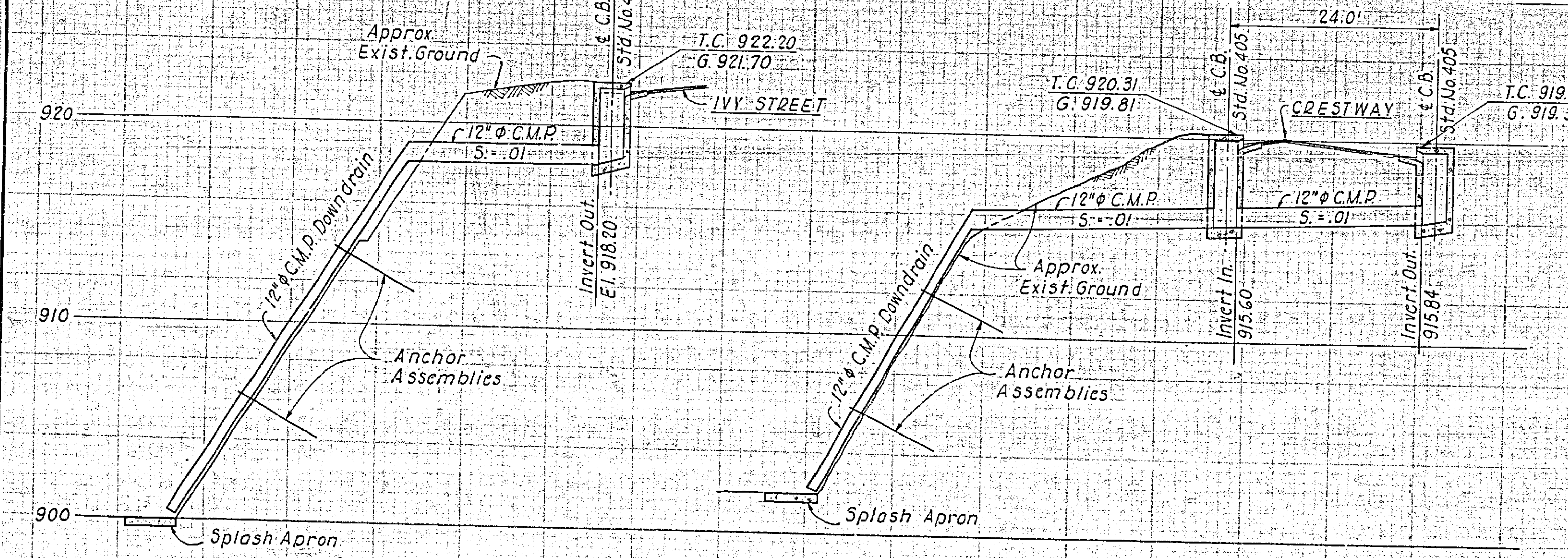
DEPARTMENT OF PUBLIC WORKS
 CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
 AT THE A.T. & S.F. RAILWAY
PLAN, ELEVATION & TYPICAL SECTION

SCALE: AS NOTED DATE: 5/19/62
 JOB NO: L-846
 SHEET: 4
 OF 10

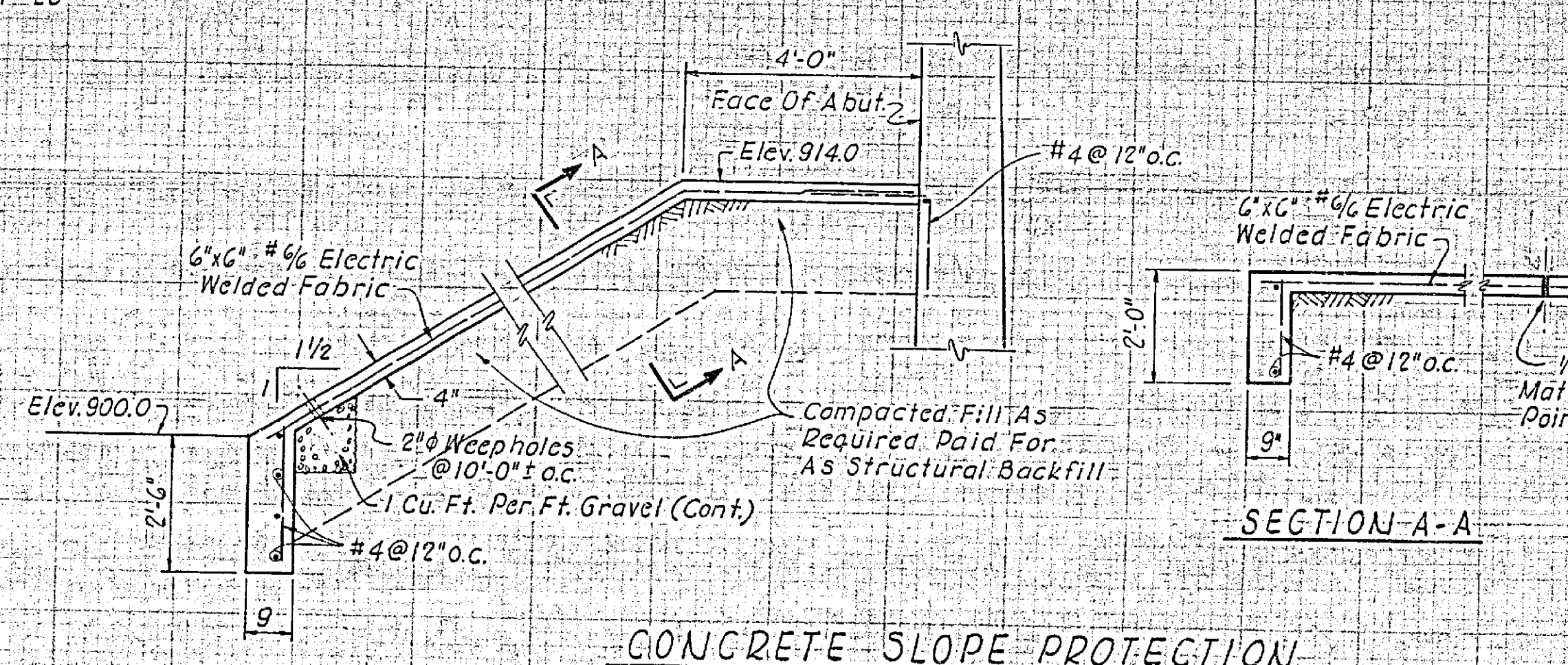
CITY OF RIVERSIDE FILE NO. ER-418



FOUNDATION PLAN
1" = 20'



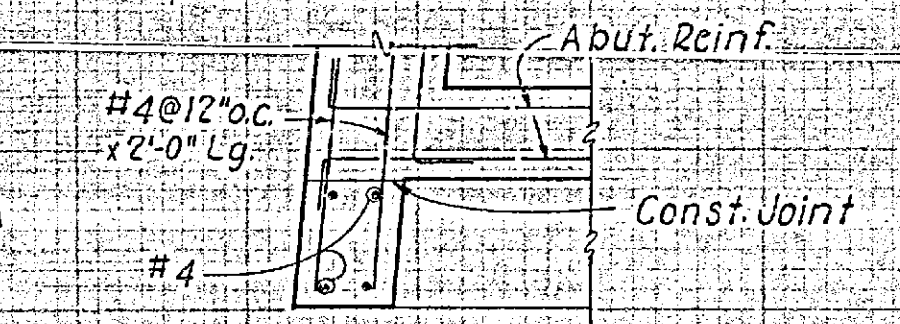
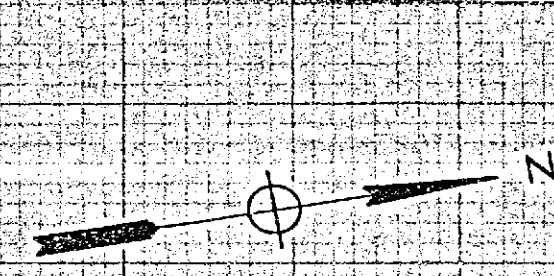
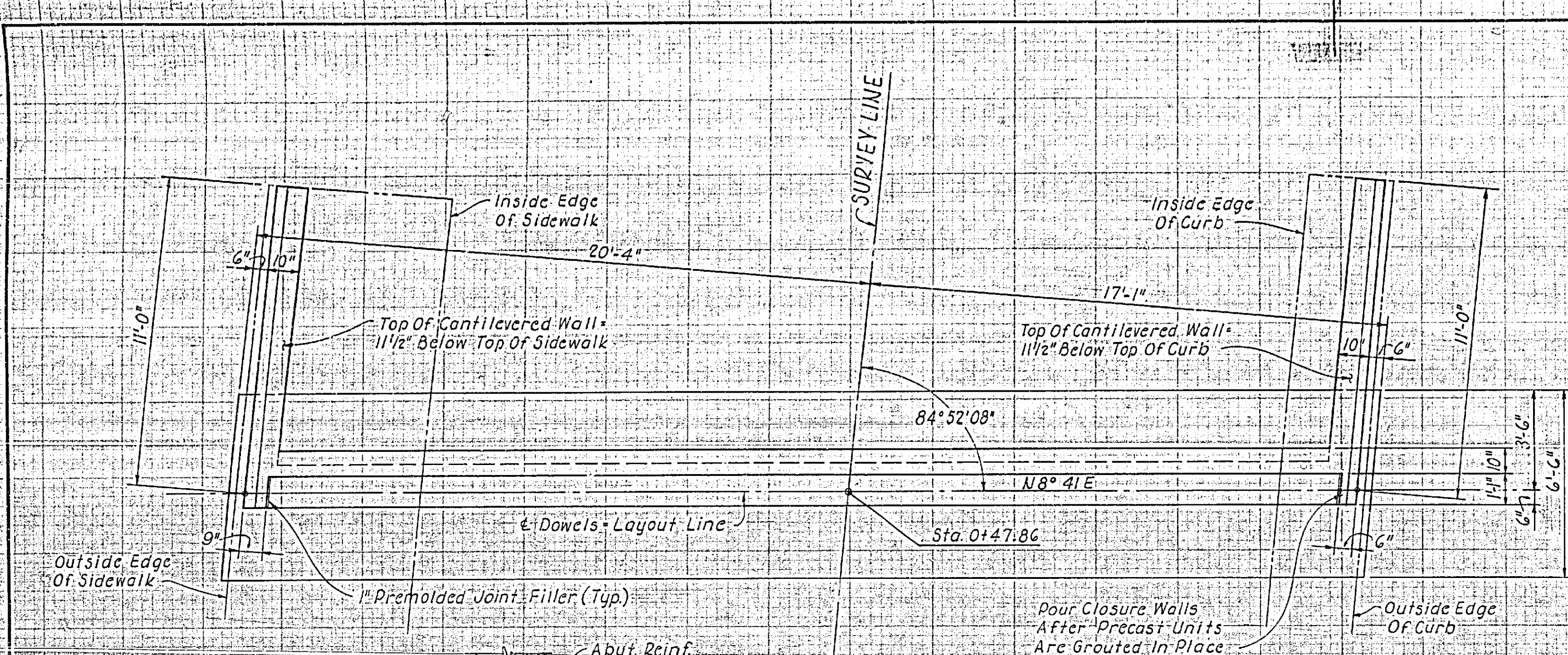
STORM DRAIN PROFILES
Horiz. 1" = 10'
Vert. 1" = 4'



CONCRETE SLOPE PROTECTION
1/2" = 1'-0"

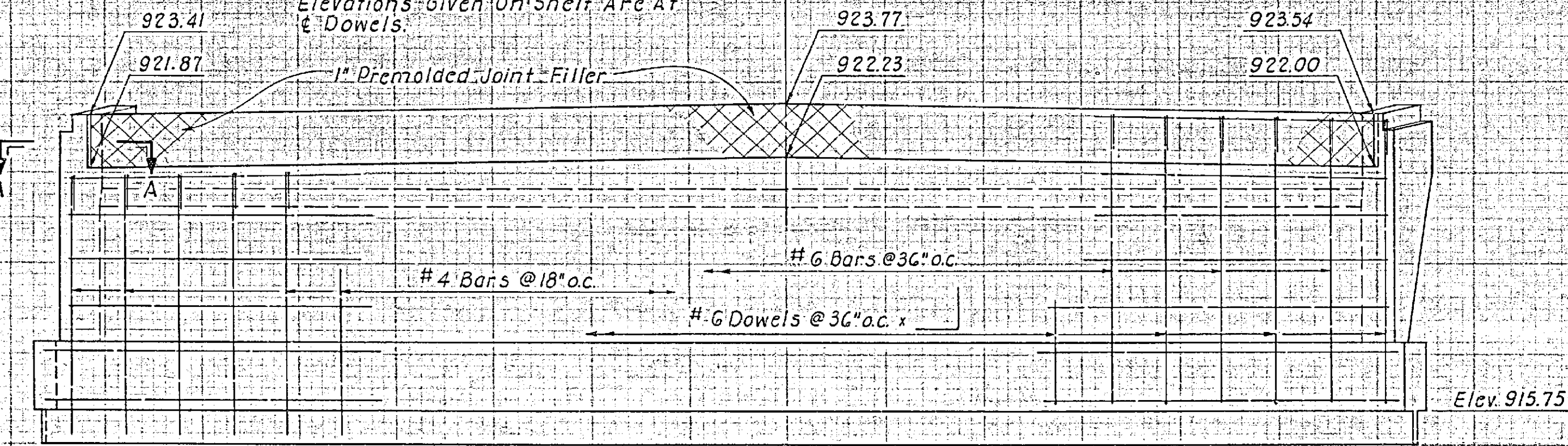
SECTION A-A

MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY FOUNDATION PLAN & MISC. DETAILS		SCALE 1" = 20' DATE 9-19-62 SHEET L-846 OF 110
DESIGNED BY <i>Limbrick</i>	CHECKED BY <i>Limbrick</i>	DRAWN BY <i>Mallion</i>	IN CHARGE <i>Limbrick</i>	

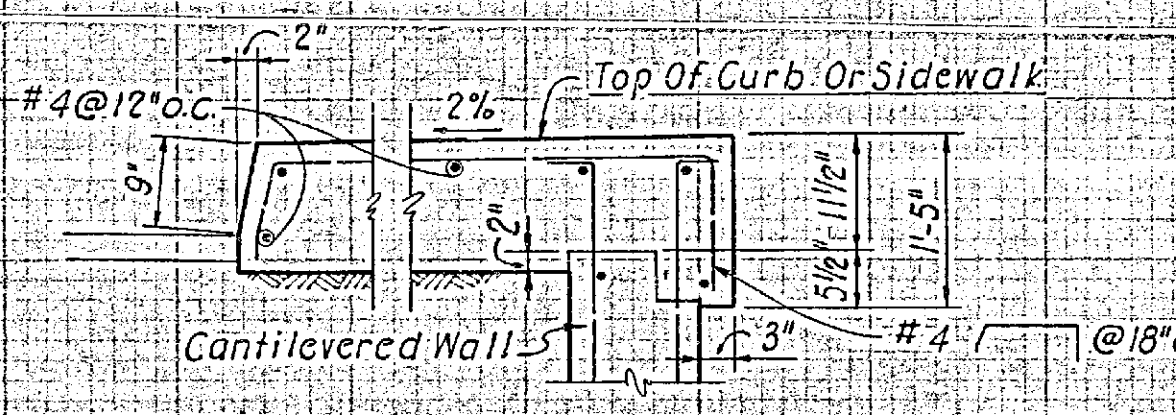


SECTION A-A
3/4" = 1'-0"

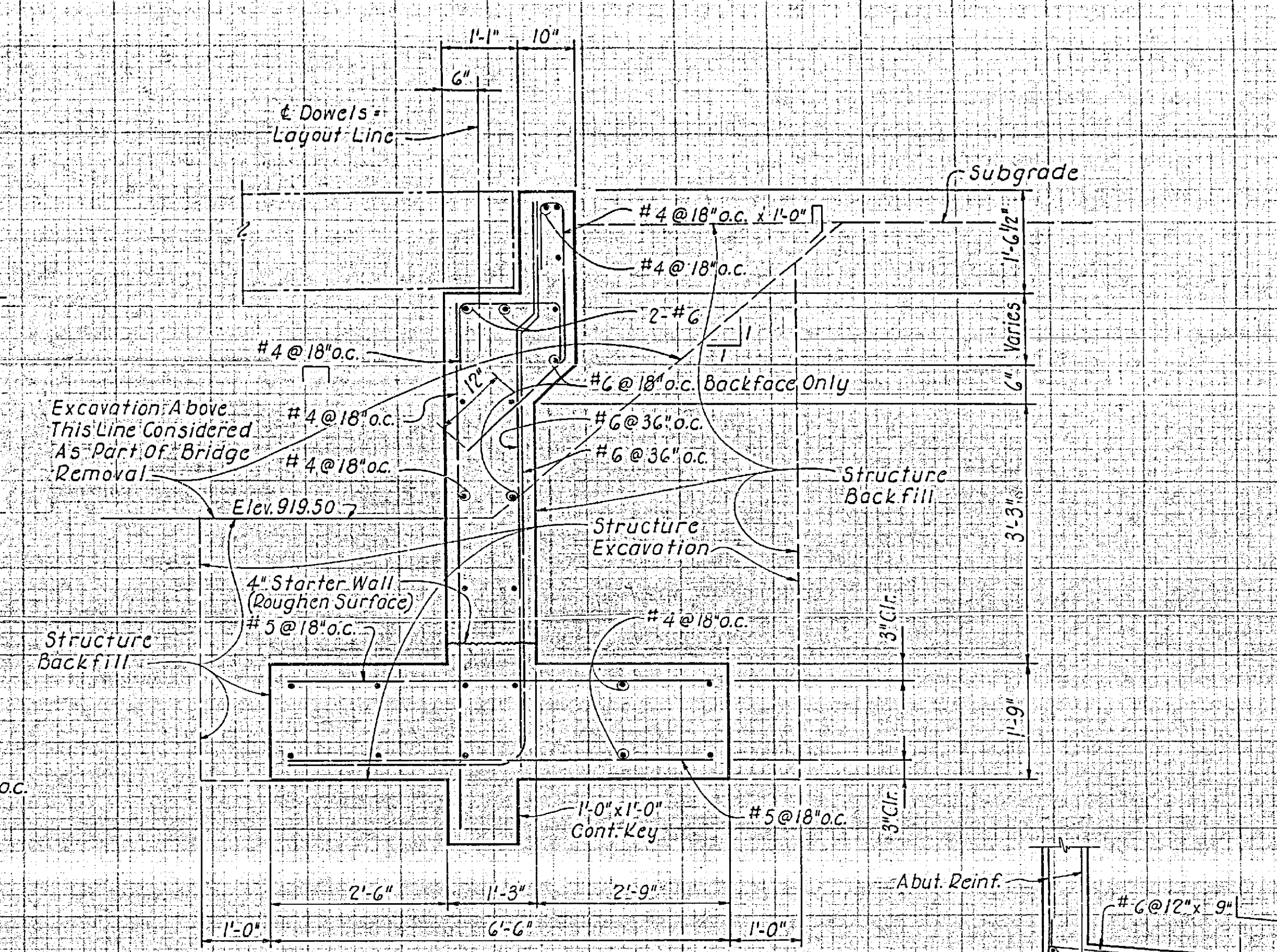
Note:
Elevations Given On Top Of Parapet Wall Are For Back Face Of Wall.
Elevations Given On Shelf Are At Dowels.



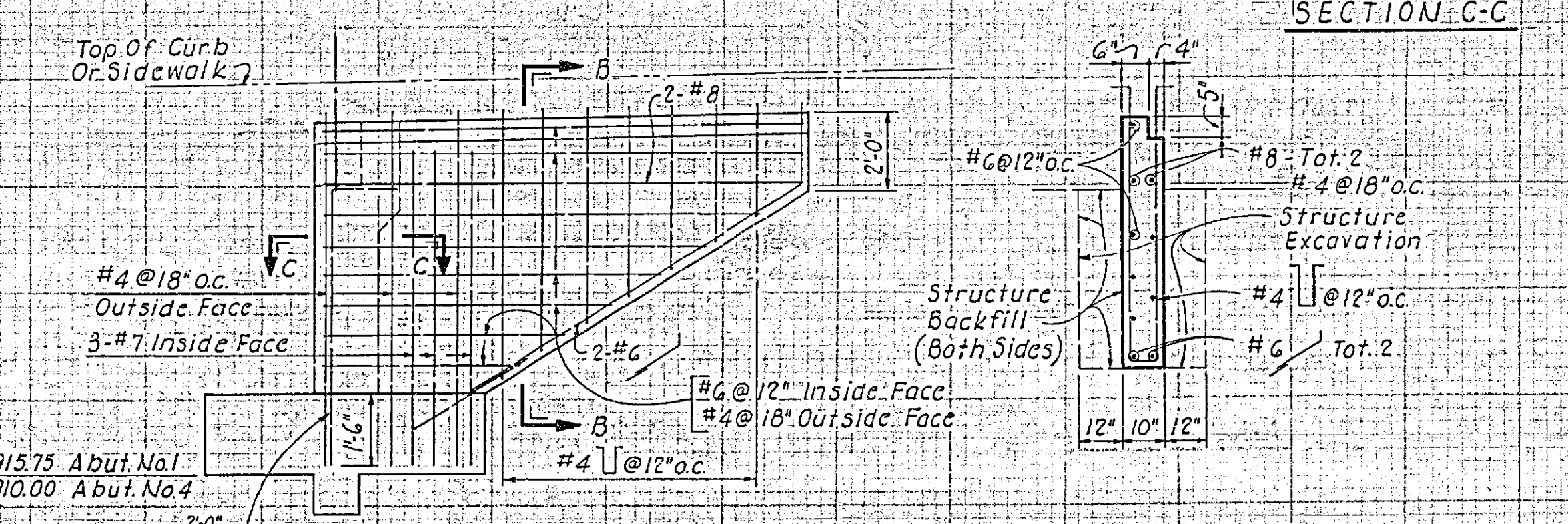
ELEVATION
3/8" = 1'-0"



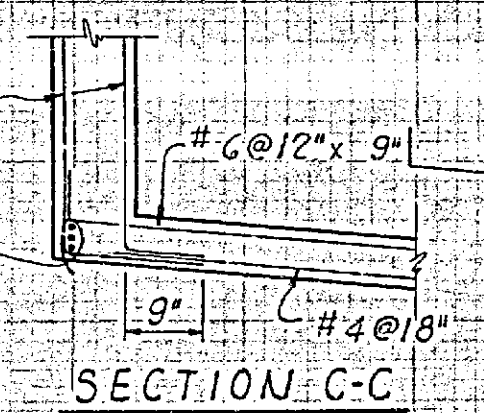
CURB OR SIDEWALK SECTION AT CANTILEVERED WALL
3/4" = 1'-0"



TYPICAL SECTION
3/4" = 1'-0"



ELEVATION
CANTILEVERED WALL
3/8" = 1'-0"



SECTION C-C

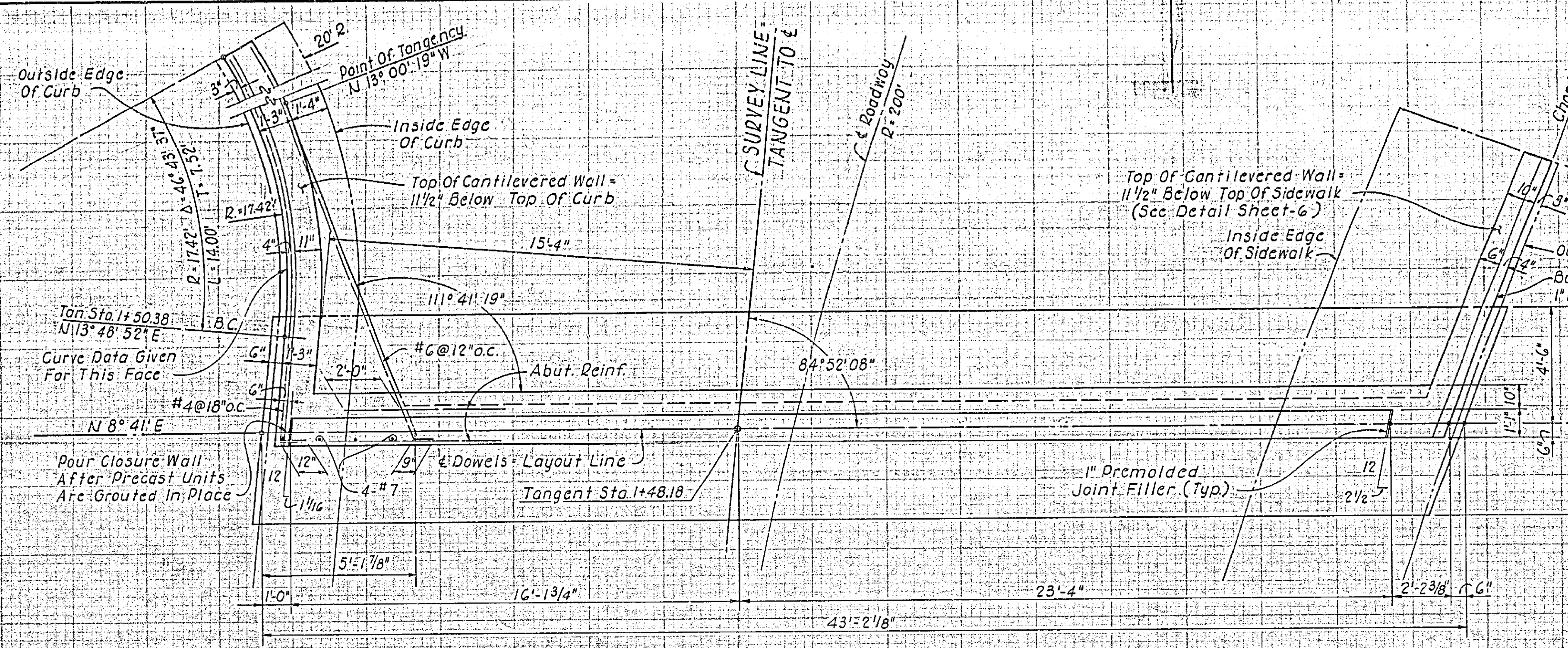
NO.	REVISION	BY	DATE

MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

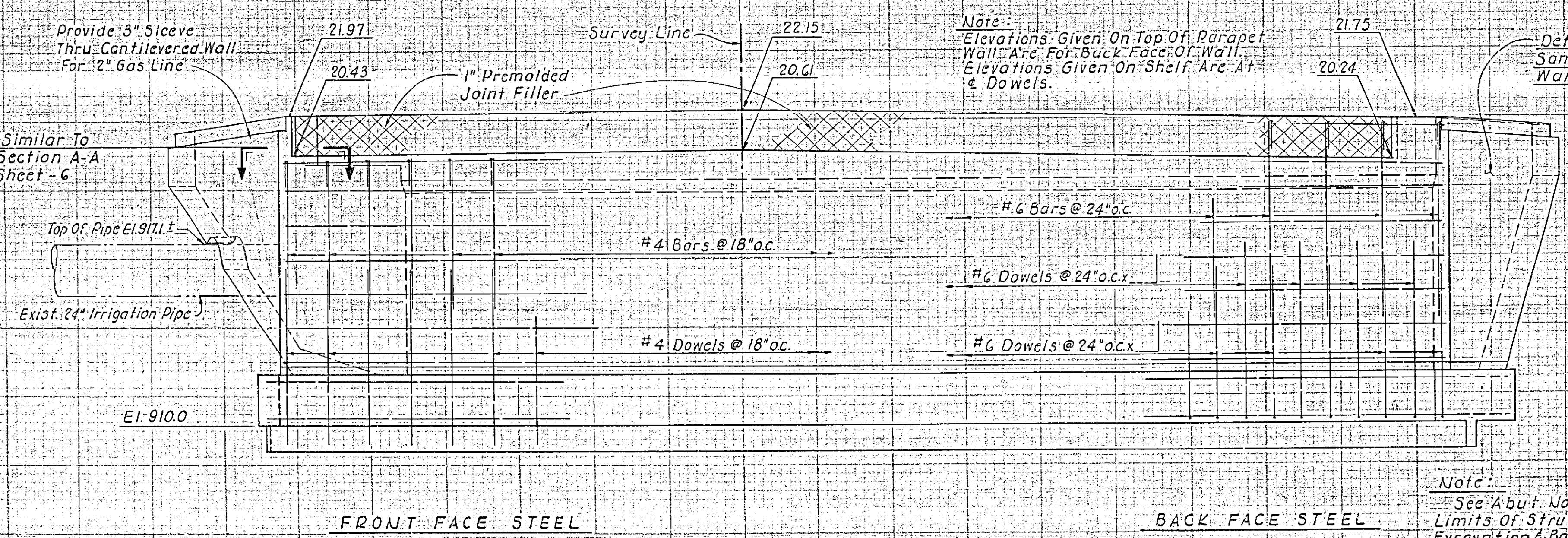
DESIGNED BY: *Neill* CHECKED BY: *Limbrick*
DRAWN BY: *Mallion* IN CHARGE: *Limbrick*

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
ABUTMENT NO. 1

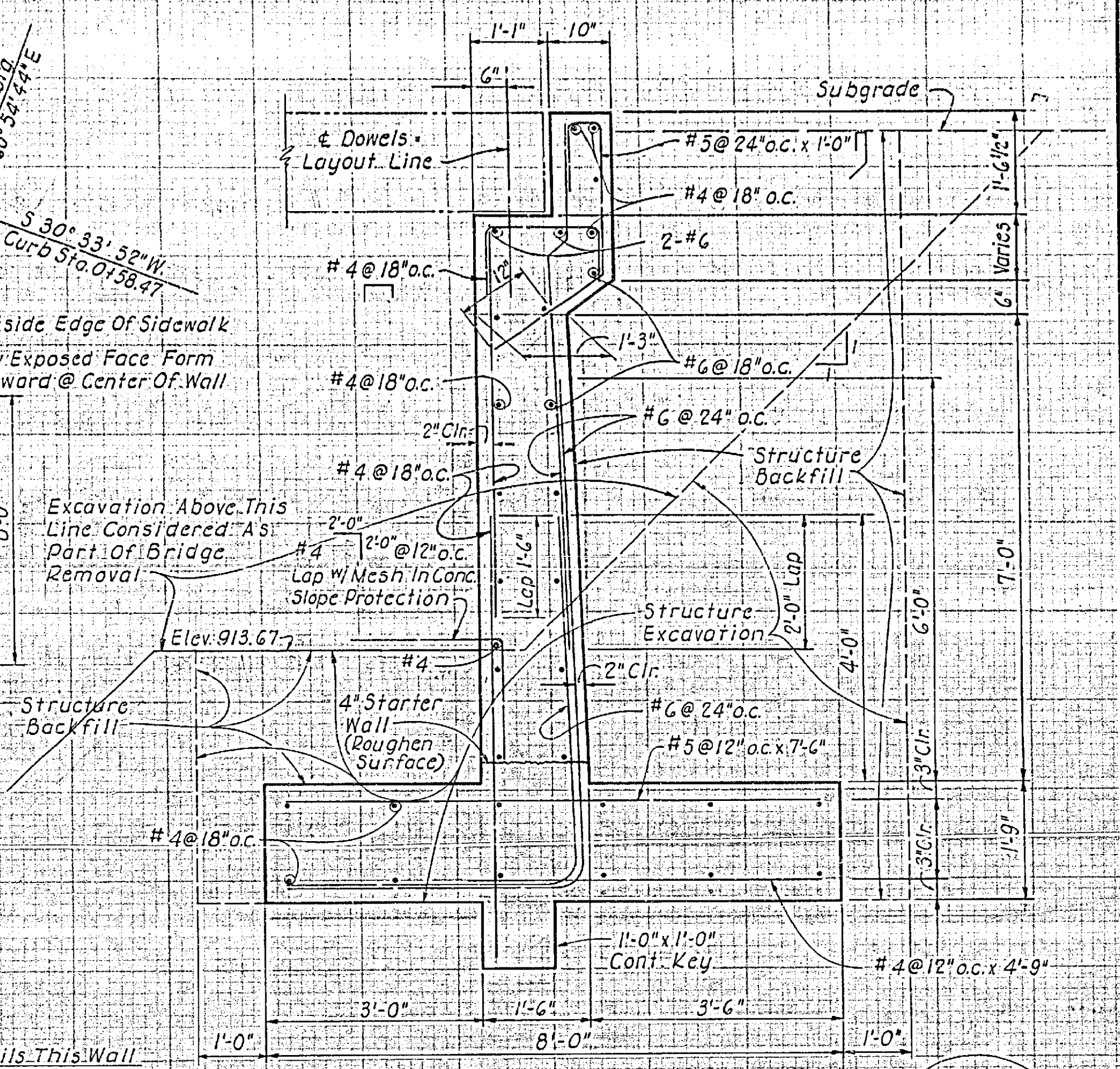
SCALE AS NOTED 9-15-62
SHEET 6 OF 10
CITY OF RIVERSIDE FILE NO. R-418



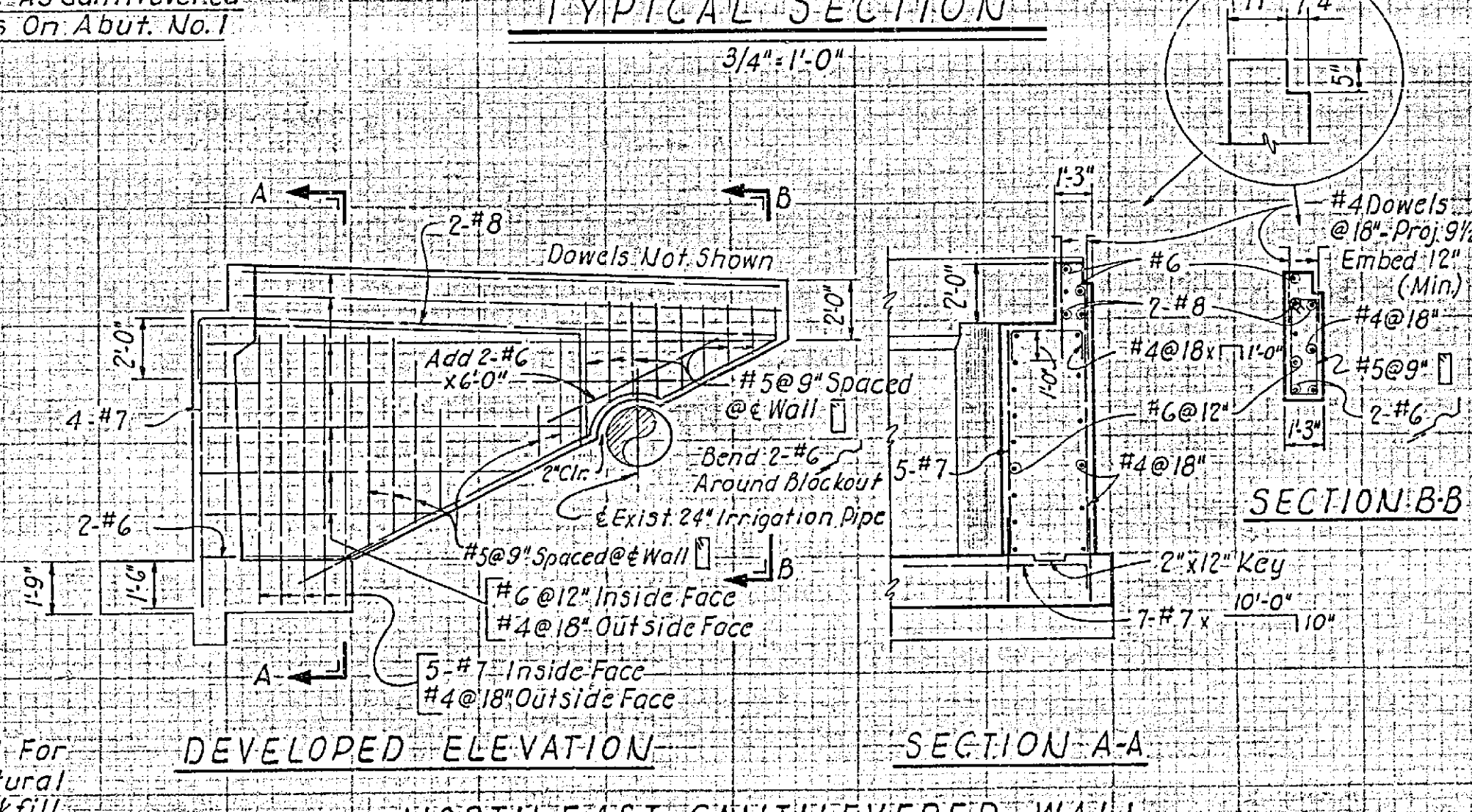
PLAN
3/8" = 1'-0"



ELEVATION
3/8" = 1'-0"



TYPICAL SECTION
3/4" = 1'-0"



DEVELOPED ELEVATION
SECTION A-A
1/4" = 1'-0"

Note:
Elevations Given On Top Of Parapet Wall Are For Back Face Of Wall. Elevations Given On Sills Are At # DOWELS.

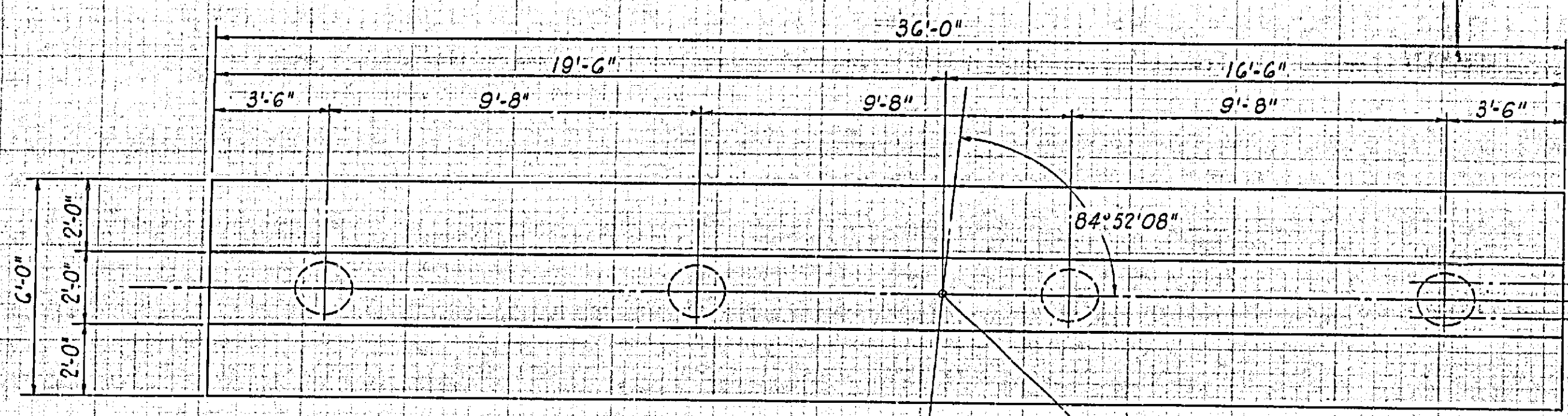
Details This Wall
Same As Cantilevered Walls On Abut. No. 1

Note:
See Abut. No. 1 For Limits Of Structural Excavation & Backfill Pay Quantities For Cantilevered Walls.

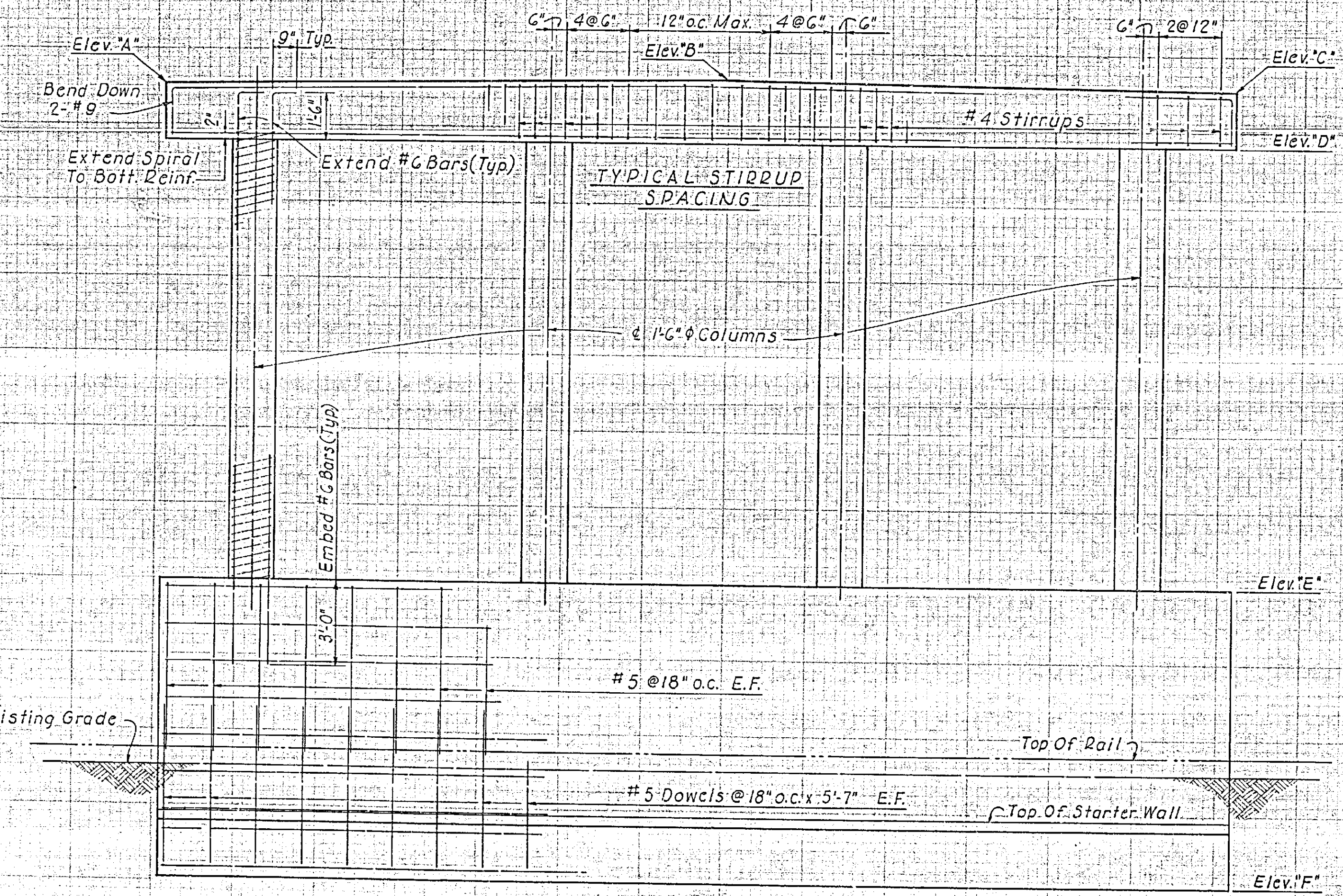
MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA				DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A.T. & S.F. RAILWAY ABUTMENT NO. 4		SCALE AS NOTED 9-18-62 JOB NO. L-846 SHEET 7 OF 10
DESIGNED BY	NEILL	CHECKED BY	LIMBRICK			
DRAWN BY	MALLION	IN CHARGE	LIMBRICK			

DIETRICHPOST CLEARPRINT 100048

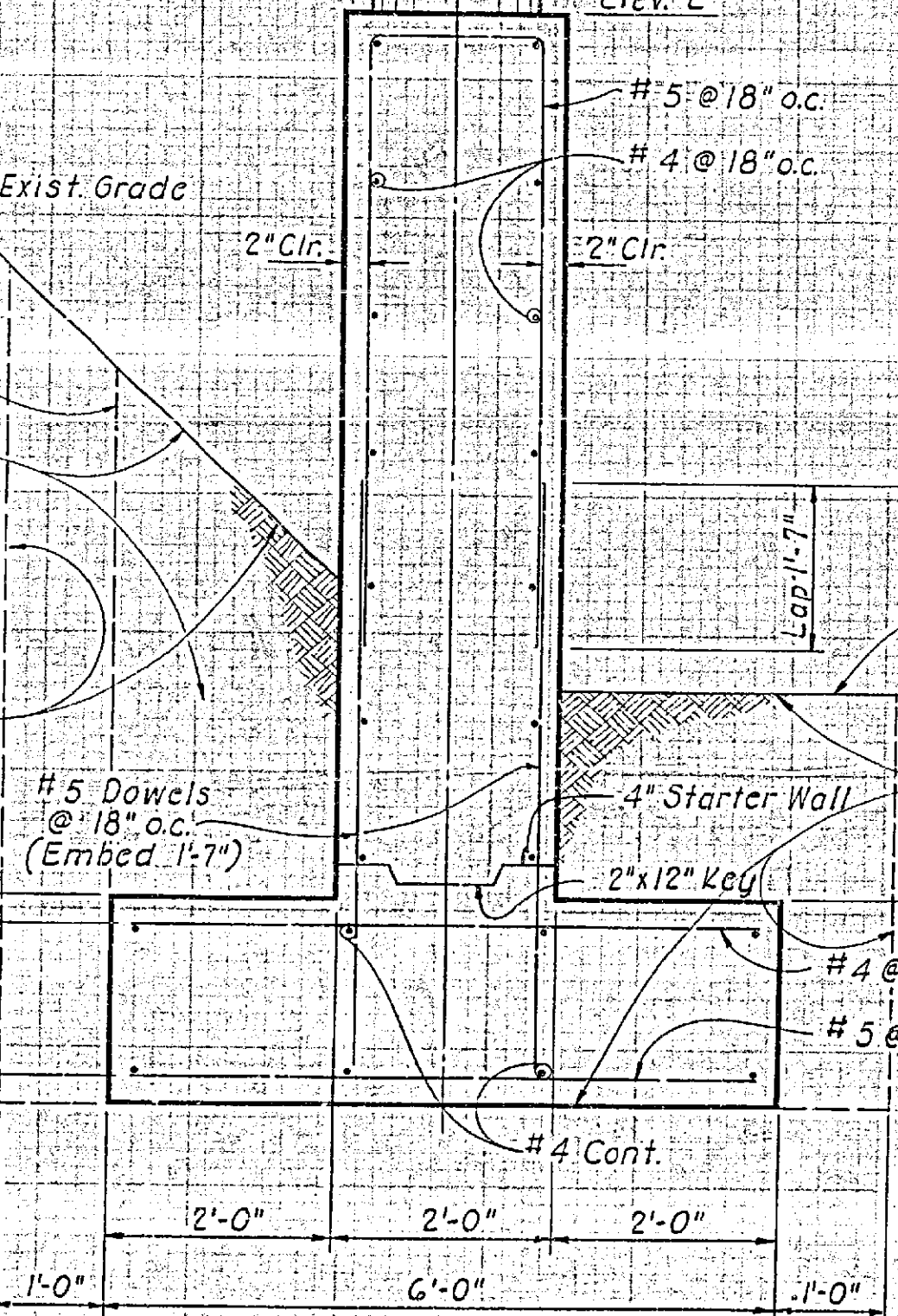
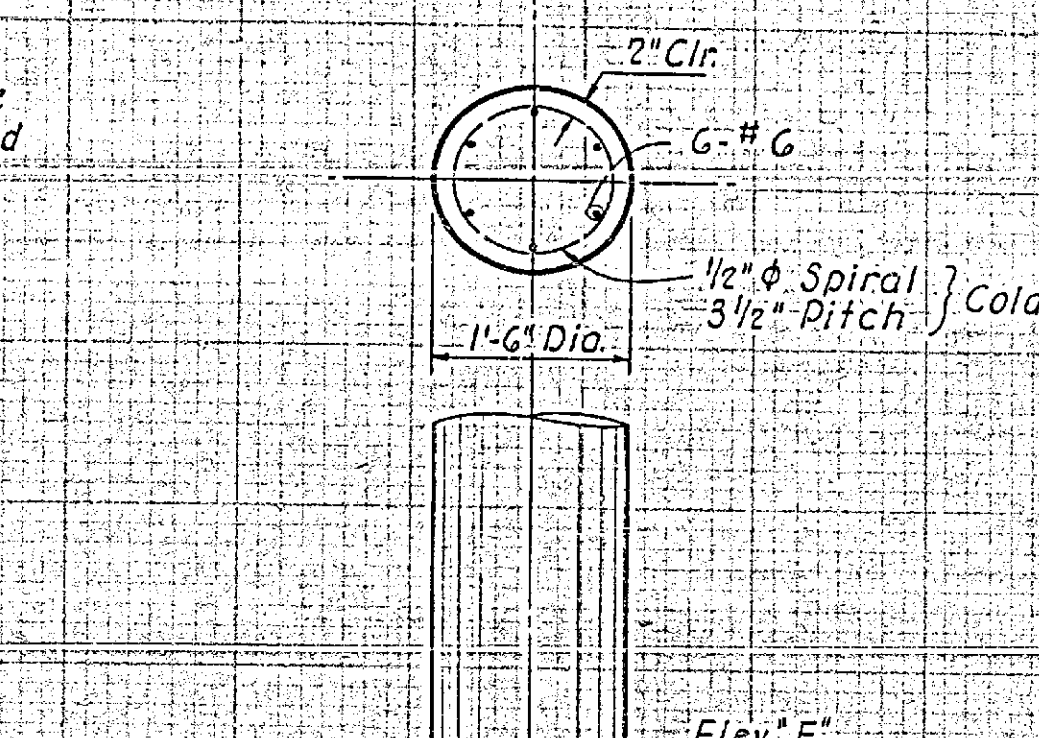
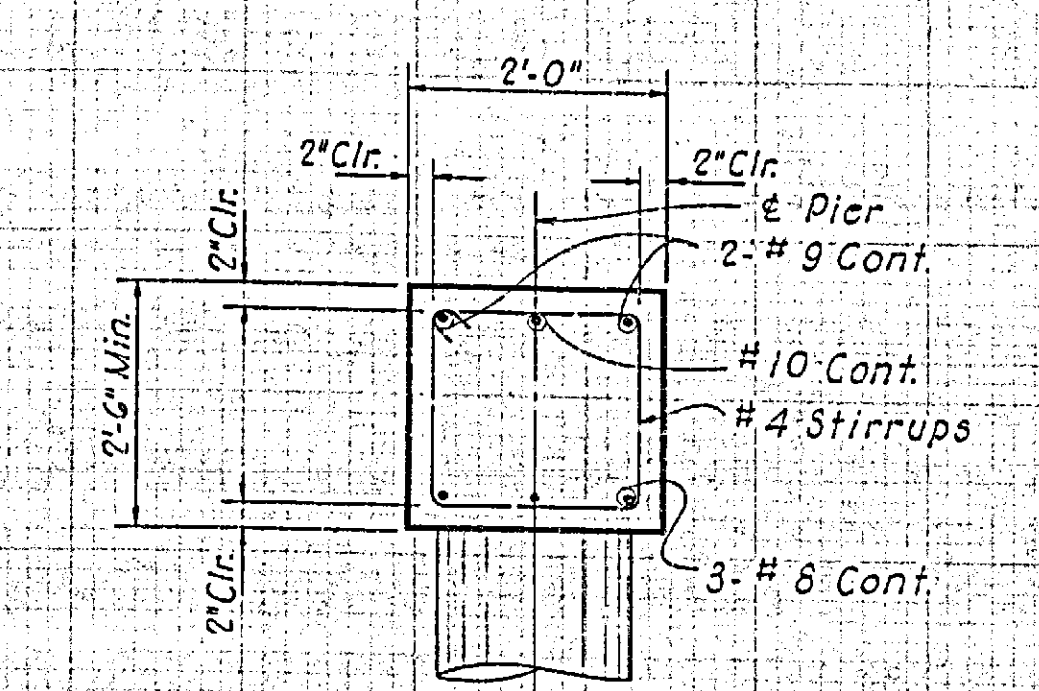
CITY OF RIVERSIDE FILE NO. R-418



PLAN
38'-1"0"



ELEVATION
38'-1"0"



TYPICAL SECTION
3/4" = 1'-0"

Pier	"A"	"B"	"C"	"D"	"E"	"F"
2	921.47	921.78	921.57	918.97	903.0	893.0
3	920.92	921.22	921.01	918.42	903.0	893.0

Note:
Finish Top Of Pier To Provide
Uniform Bearing Under Skewed
Deck Units.

Limit Of Excavation
@ West Side Of
Pier No. 2
Structure Backfill
Or Conc. Backfill
Structure Excavation

Exist. Grade
Structure Excavation

NO.	REVISION	BY	DATE

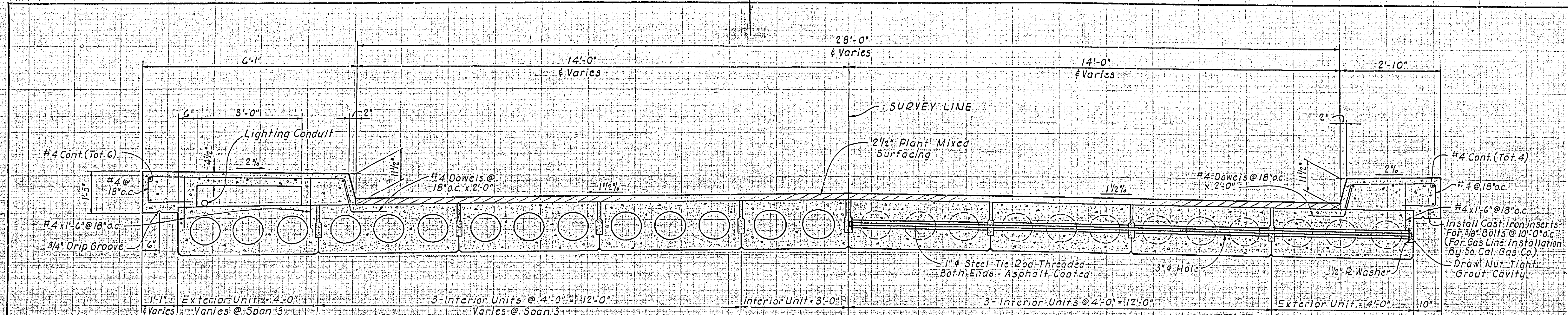
MOFFATT & NICHOL ENGINEERS
LONG BEACH, CALIFORNIA

DESIGNED BY: *Neill*
DRAWN BY: *Mallion*

CHECKED BY: *Limbrick*
IN CHARGE: *Limbrick*

DEPARTMENT OF PUBLIC WORKS
CITY OF RIVERSIDE, CALIFORNIA
IVY STREET OVERCROSSING
AT THE A.T. & S.F. RAILWAY
PIERS

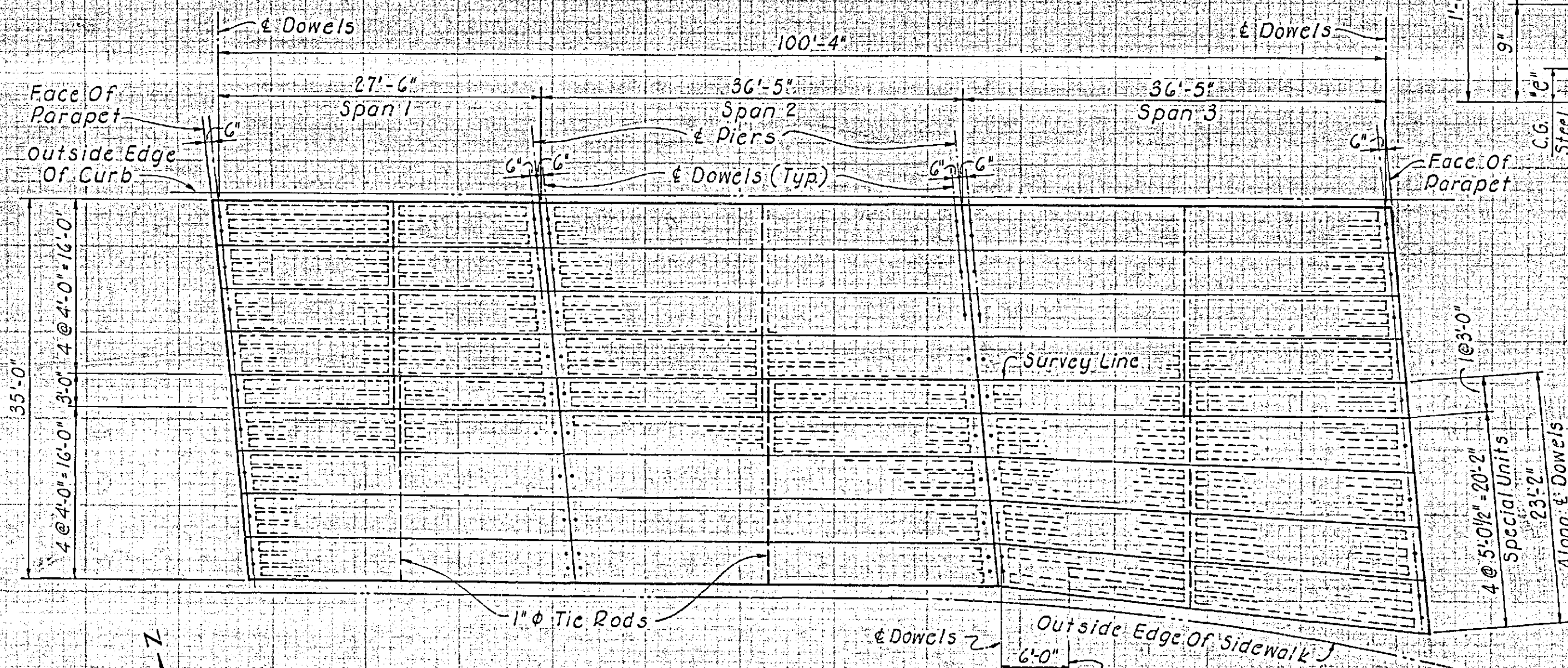
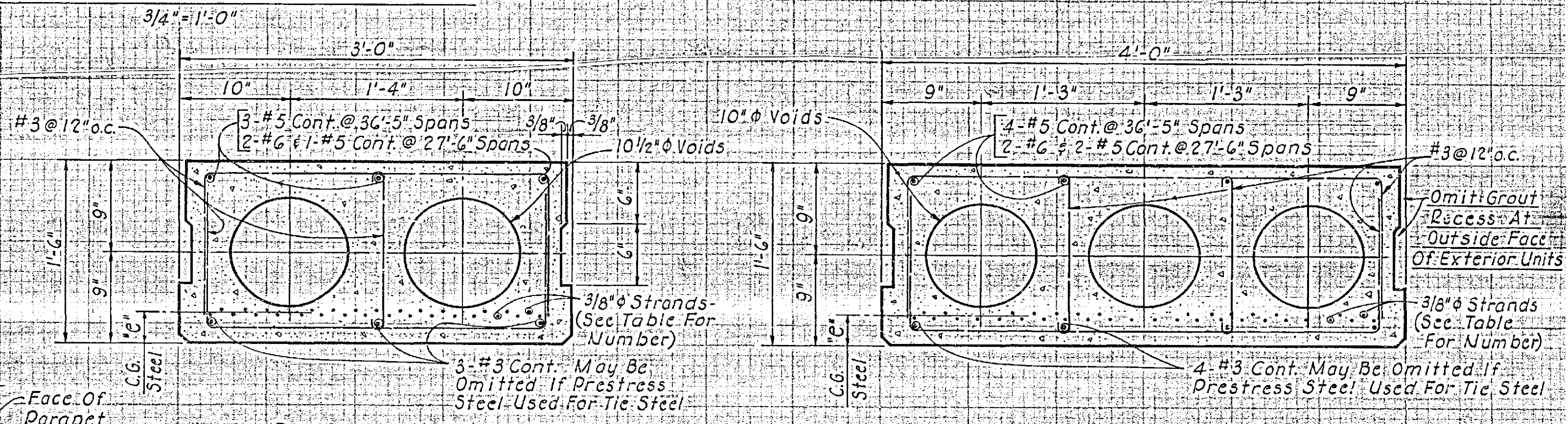
SCALE	AS NOTED	DATE	9-19-67
JOB NO.	L-846		
SHEET	8		
OF	10		



SECTION AT MID SPAN

	27'-6" Span			36'-5" Span			36'-5" Span Special Units	
	4' Wide Interior	4' Wide Exterior	3' Wide Interior	4' Wide Interior	4' Wide Exterior	3' Wide Interior	Interior	Exterior
Number Of 3/8" Precast Strands	19	22	17	35	40	30	44	54
Working Force	228k	264k	204k	420k	480k	360k	528k	648k
Distance From Bottom Of Unit To C.G. Of Strands	2.2"	2.53"	2.62"	3.5"	3.7"	3.75"	3.83"	4.4"

TYPICAL BRIDGE SECTION

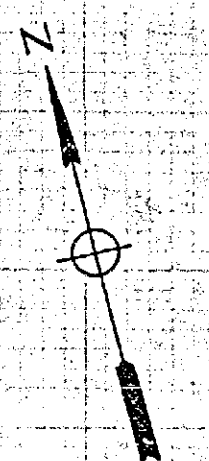


TYPICAL 3'-0" UNIT

TYPICAL 4'-0" UNIT

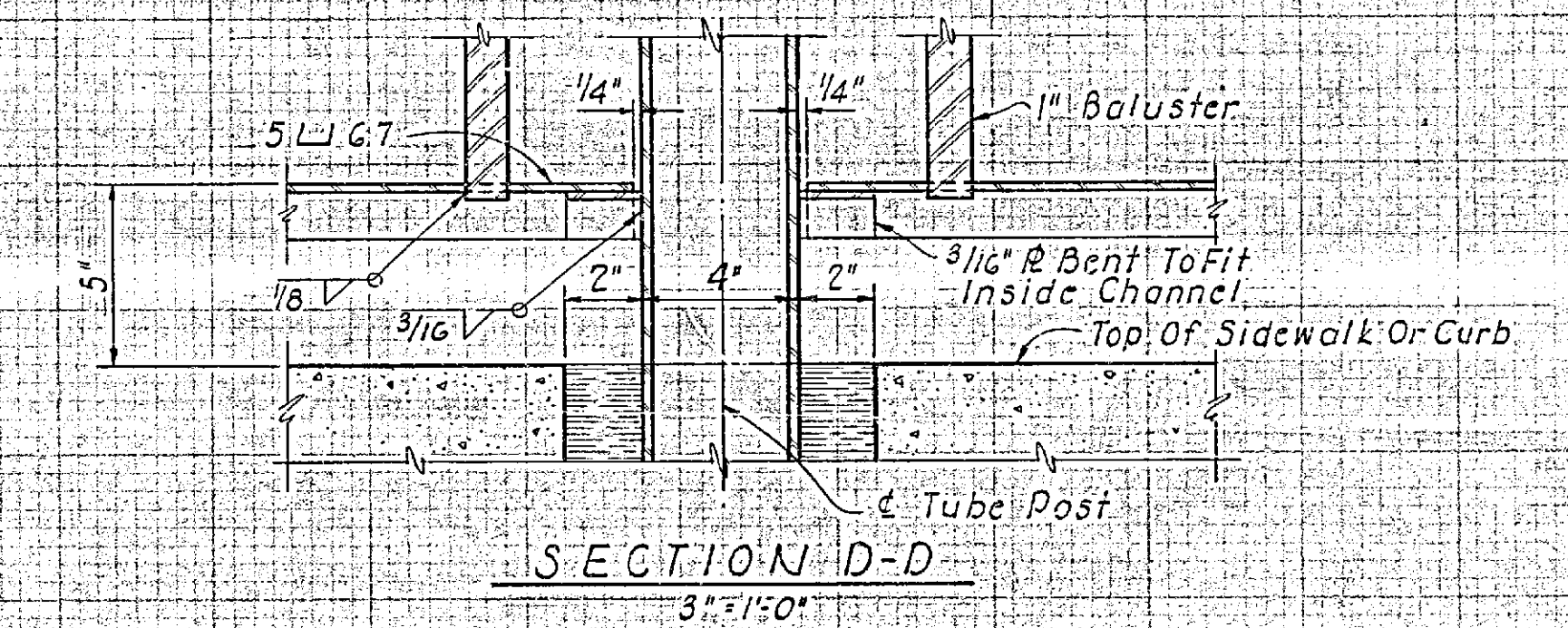
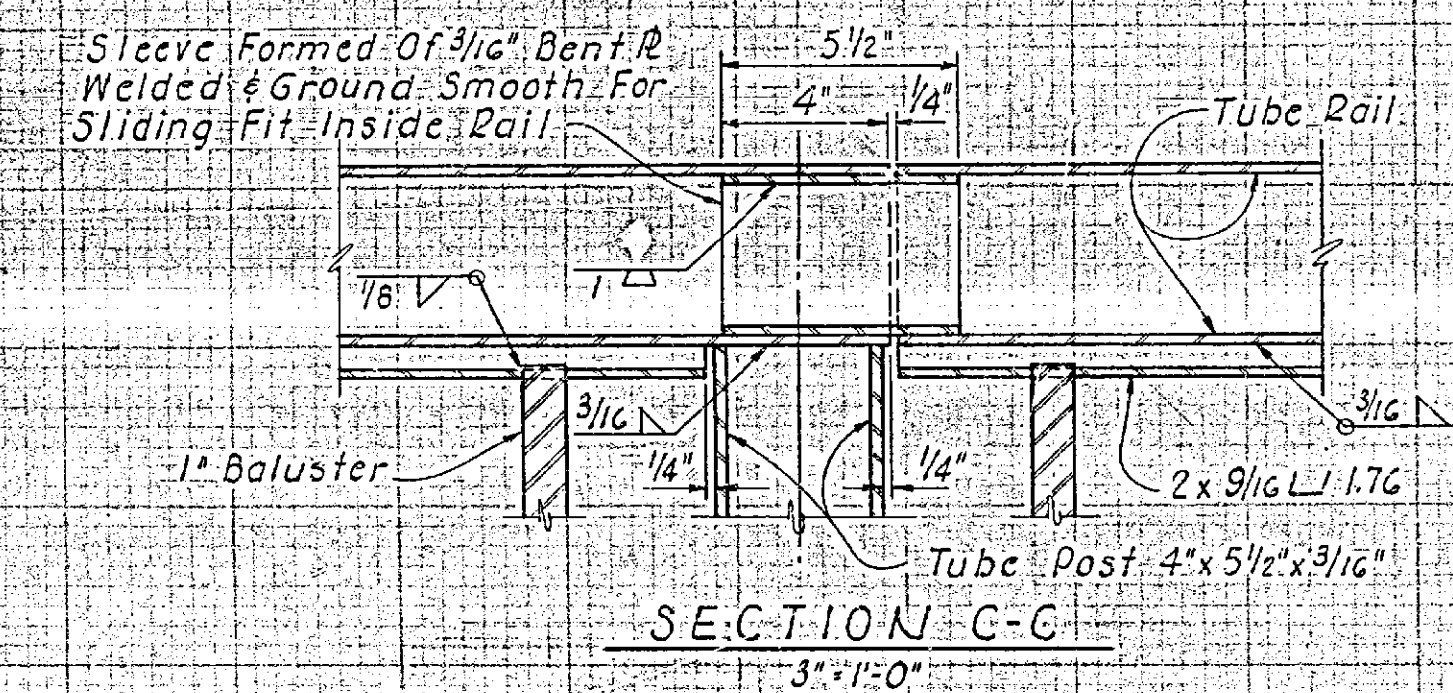
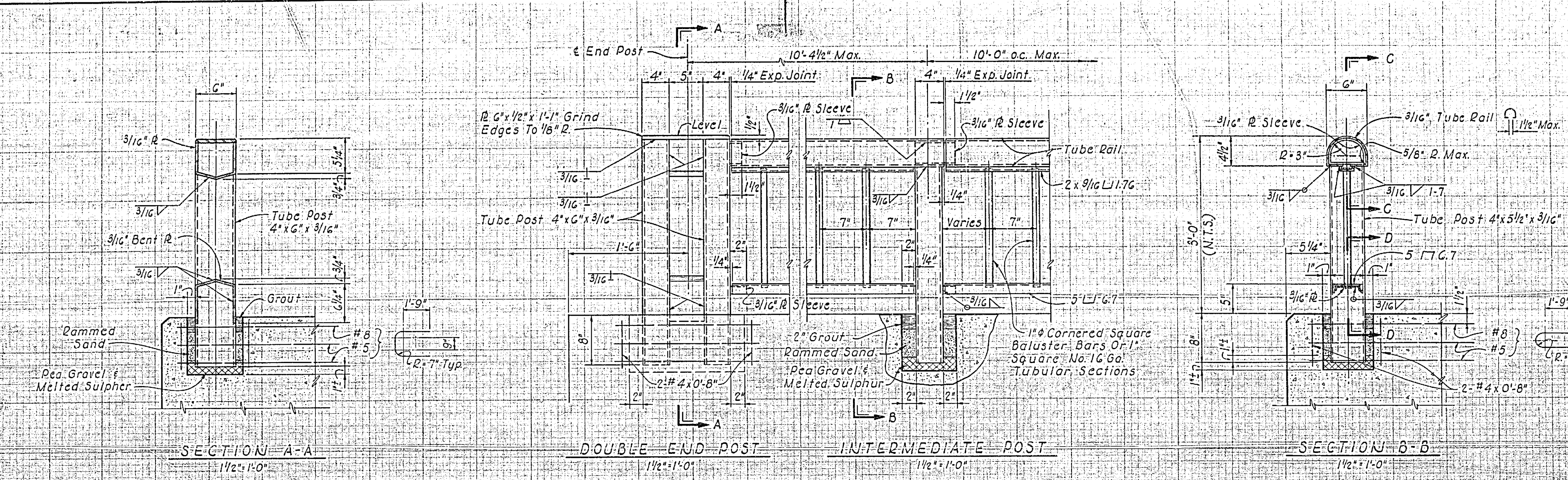
SECTION THRU TIE RODS

SPECIAL UNITS



MOFFATT & NICHOL ENGINEERS				DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA			
LONG BEACH, CALIFORNIA				IVY STREET OVERCROSSING			
DESIGNED BY: Neill				CHECKED BY: Limbrick			
DRAWN BY: Mallion				IN CHARGE: Limbrick			
						SCALE: AS NOTED	DATE: 9-19-62
						SHEET: L-846	NO. 10
						CITY OF RIVERSIDE	FILE NO. R-418

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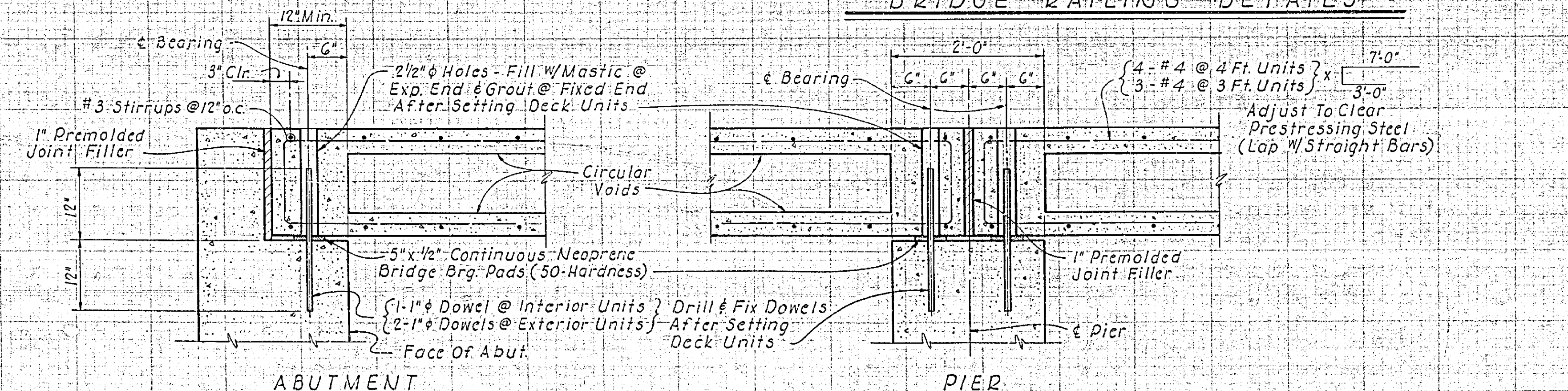
RAILING NOTES

Space Posts To Clear Expansion Joints By 9" Min. To End Posts

Exact Post Hole Locations Are To Be Determined From Approved Railing Shop Plans

Railing Shall Conform To Horizontal & Vertical Alignment. Post & Balusters Shall Be Vertical With A Maximum Deviation Not To Exceed That Represented By A Rise Of 1/4" In One Panel.

Railing To Be Galvanized After Fabrication For Further Requirements See Specifications.



TYPICAL BEARING DETAILS
1'-1'-0"

MOFFATT & NICHOL ENGINEERS LONG BEACH, CALIFORNIA		DEPARTMENT OF PUBLIC WORKS CITY OF RIVERSIDE, CALIFORNIA IVY STREET OVERCROSSING AT THE A. T. & S. F. RAILWAY RAILING & BEARING DETAILS
DESIGNED BY: <i>Mallon</i> DRAWN BY: <i>Mallon</i>	CHECKED BY: <i>Limbrick</i> IN CHARGE: <i>Limbrick</i>	SCALE: AS NOTED DATE: 9-19-62 JOB NO: L-846 SHEET: 10 OF 10