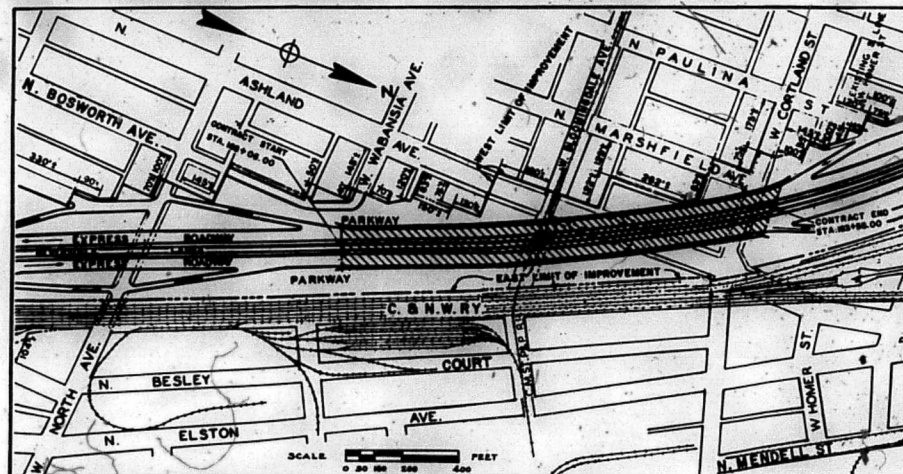


STATE OF ILLINOIS
 CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY

PRELIMINARY PLANS FOR
 FURNISHING & FABRICATING STRUCTURAL STEEL
 FOR
 F.A.I. 2 SECTION 0505.3 - IHF PROJECT I-02-2(68)
 GRADE SEPARATION
 WABANSIA AVENUE TO CORTLAND STREET



NET LENGTH OF IMPROVEMENT - 1,549 FEET
 NET LENGTH OF IMPROVEMENT - 0.293 MILES

PREPARED FOR
 THE CITY OF CHICAGO
 BY
ALFRED BENESCH AND ASSOCIATES
 CONSULTING ENGINEERS
 PLANS APPROVED
 BY THE STATE DIVISION OF HIGHWAYS

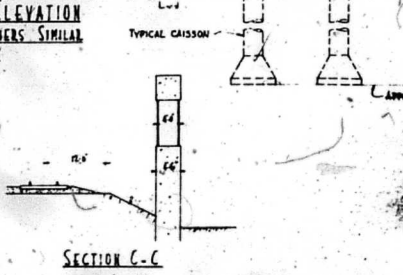
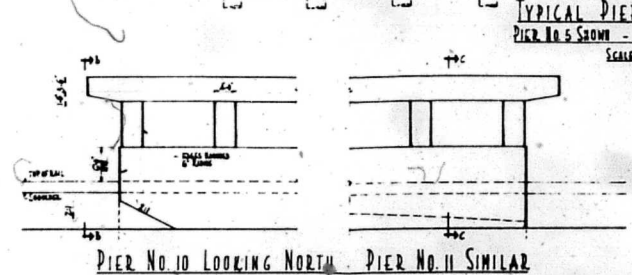
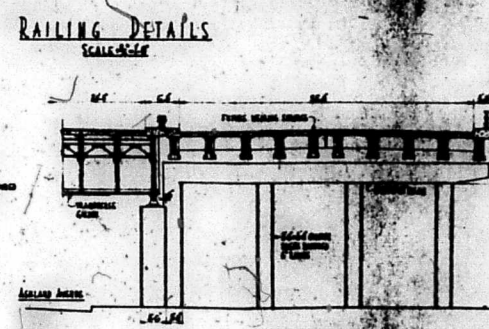
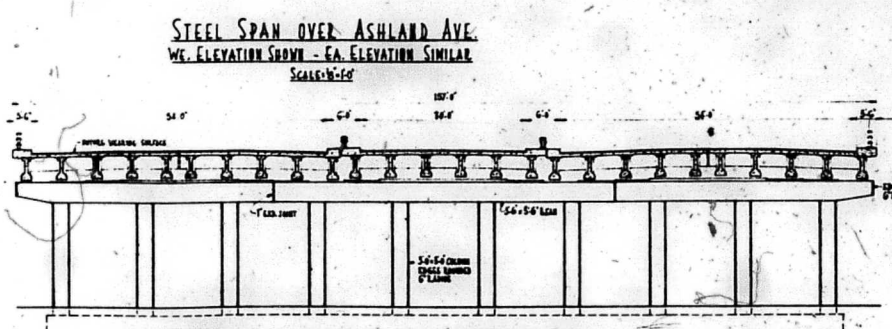
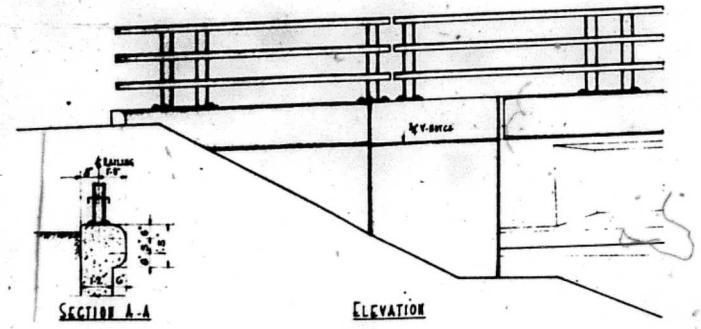
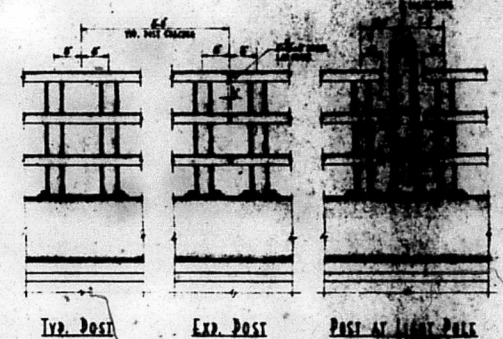
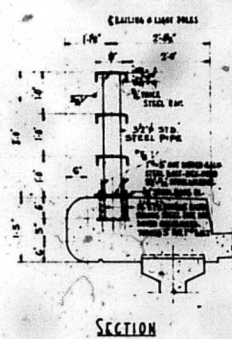
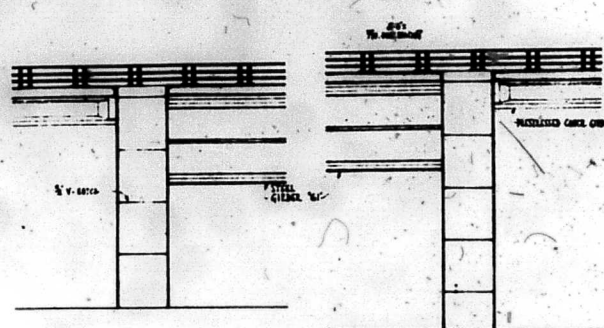
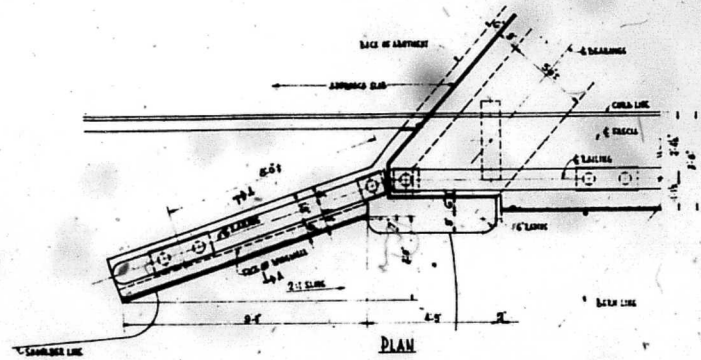
SEE SHEET NO. 5 FOR
 SUMMARY OF QUANTITIES

CITY OF CHICAGO DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING DATE <u>OCTOBER 3, 1957</u>	
APPROVED <i>C. P. Reib</i>	CHIEF ENGINEER AND SUPERVISOR OF DESIGN
APPROVED <i>H. S. [Signature]</i>	ASST. CHIEF ENGINEER
APPROVED <i>[Signature]</i>	CHIEF ENGINEER
APPROVED <i>[Signature]</i>	COMMISSIONER
THE DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	
APPROVED _____	CHIEF ENGINEER
APPROVED _____	DATE _____
DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
APPROVED _____	DATE _____
_____ DIVISION ENGINEER	_____ DATE

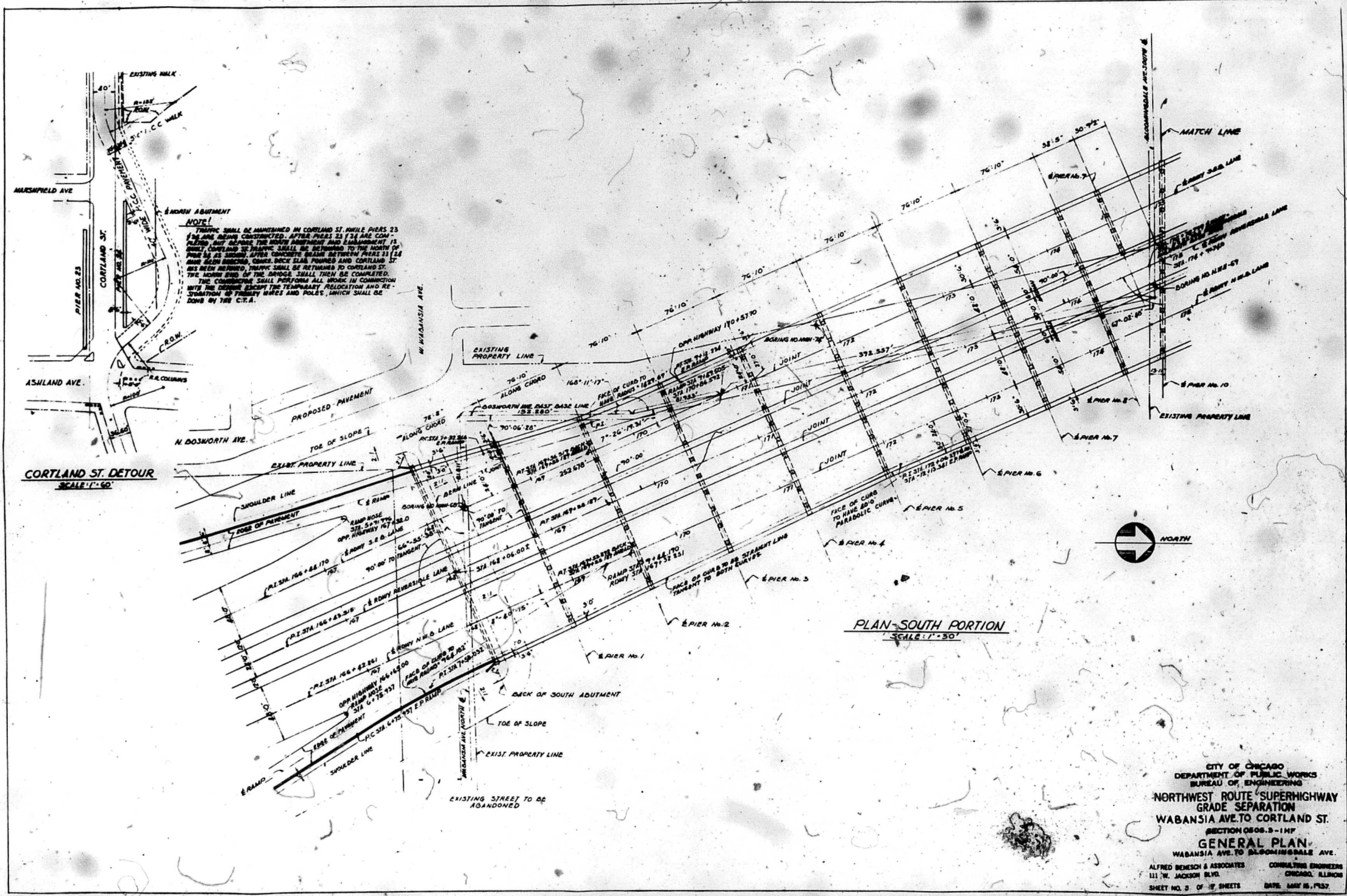
PROPOSED BRIDGE FOR NORTHWEST ROUTE SUPERHIGHWAY
 BETWEEN
 WABANSIA AVENUE AND CORTLAND STREET



VIEW LOOKING EAST



CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 NORTHWEST ROUTE SUPERHIGHWAY
 GRADE SEPARATION
 WABANSIA AVE TO CORTLAND ST.
 SECTION 0805.3-11P
 ARCHITECTURAL DETAILS
 ALFRED BENSCH & ASSOCIATES CONSULTING ENGINEERS
 111 W. JACKSON BLDG. CHICAGO, ILLINOIS
 SHEET NO. 2 OF 7 SHEETS DATE: MAY 16, 1937



NOTE!
 TRAFFIC SHALL BE MAINTAINED IN CORTLAND ST. WHILE PIERS 23
 AND ARE BEING CONSTRUCTED. AFTER PIERS 23 AND 24 ARE COM-
 PLETED, BUT BEFORE THE NORTH ABUTMENT AND EMPIREMENT IS
 BUILT, CORTLAND ST. TRAFFIC SHALL BE RETURNED TO THE NORTH OF
 PIERS 23 AND 24. AFTER CONCRETE BEAMS BETWEEN PIERS 23 AND
 24 HAVE BEEN INSTALLED, CURBS, BACK SLAB FORMS AND CORTLAND ST.
 HAS BEEN RETURNED, TRAFFIC SHALL BE RETURNED TO CORTLAND ST.
 THE NORTH END OF THE BRIDGE SHALL THEN BE COMPLETED.
 THE CONTRACTOR SHALL PERFORM ALL WORK IN CONNECTION
 WITH THE DESIGN EXCEPT THE TEMPORARY RELOCATION AND RE-
 STATIONING OF TRIMMED MARKS AND POLES, WHICH SHALL BE
 DONE BY THE C.T.A.

CORTLAND ST. DETOUR
 SCALE: 1"=50'

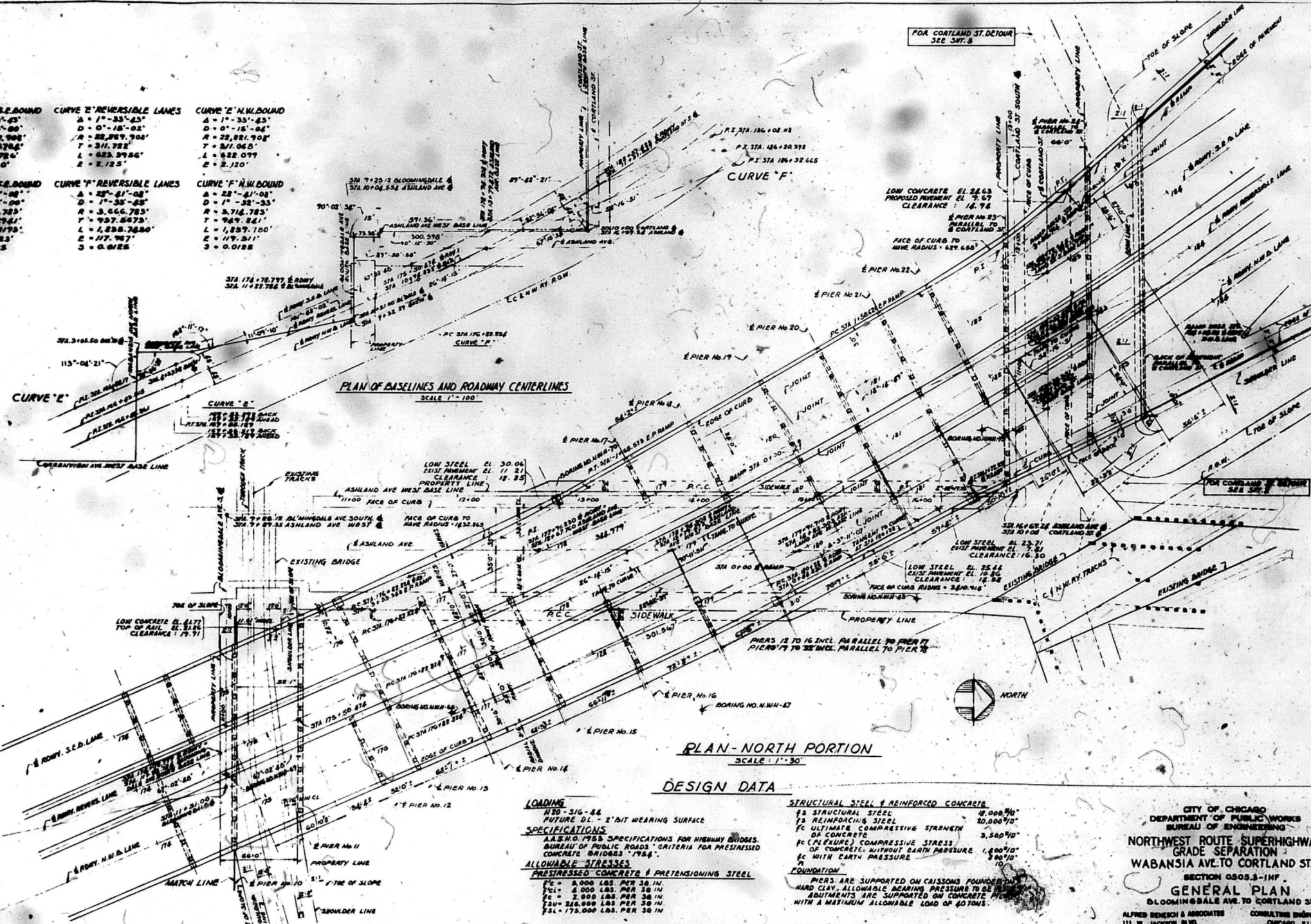
PLAN - SOUTH PORTION
 SCALE: 1"=30'



CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 NORTHWEST ROUTE SUPERHIGHWAY
 GRADE SEPARATION
 WABANSIA AVE. TO CORTLAND ST.
 SECTION 0505.3-11F
GENERAL PLAN
 WABANSIA AVE. TO BLOOMINGDALE AVE.
 ALFRED BENESH & ASSOCIATES CONSULTING ENGINEERS
 111 W. JACKSON BLDG. CHICAGO, ILLINOIS
 SHEET NO. 5 OF 19 SHEETS DATE: MAY 16, 1957

CURVE "E" S.E. BOUND	CURVE "E" REVERSIBLE LANES	CURVE "E" N.W. BOUND
A = 1°-33'-43"	A = 1°-33'-43"	A = 1°-33'-43"
D = 0°-18'-00"	D = 0°-18'-02"	D = 0°-18'-04"
R = 22,977.908'	R = 22,979.908'	R = 22,981.908'
T = 372.3764'	T = 371.782'	T = 371.065'
L = 624.784'	L = 623.9784'	L = 622.077'
E = 2.1290'	E = 2.125'	E = 2.120'

CURVE "F" S.E. BOUND	CURVE "F" REVERSIBLE LANES	CURVE "F" N.W. BOUND
A = 22°-41'-08"	A = 22°-41'-08"	A = 22°-41'-08"
D = 7°-35'-00"	D = 7°-35'-02"	D = 7°-35'-04"
R = 3,667.783'	R = 3,666.783'	R = 3,674.783'
T = 924.8941'	T = 927.8473'	T = 949.841'
L = 1,487,719.0'	L = 1,488,748.0'	L = 1,487,100'
E = 116.623'	E = 117.987'	E = 119.511'
S = 0.0125	S = 0.0125	S = 0.0125



LOADING
 HS20-SIG-44
 FUTURE DL - 2' BIT WEARING SURFACE

SPECIFICATIONS
 A.S.H.O. 1958 SPECIFICATIONS FOR HIGHWAY BRIDGES.
 BUREAU OF PUBLIC ROADS' CRITERIA FOR PRESTRESSED
 CONCRETE BRIDGES '1954'.

ALLOWABLE STRESSES
PRESTRESSED CONCRETE & PRETENSIONING STEEL
 FC = 5,000 LBS. PER SQ. IN.
 FT = 4,000 LBS. PER SQ. IN.
 FS = 2,000 LBS. PER SQ. IN.
 FSU = 216,000 LBS. PER SQ. IN.
 FSL = 175,000 LBS. PER SQ. IN.

STRUCTURAL STEEL & REINFORCED CONCRETE
 FS STRUCTURAL STEEL 4,000 PSI
 FS REINFORCING STEEL 40,000 PSI
 FC ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE 3,500 PSI
 FC (TENSURE) COMPRESSIVE STRESS OF CONCRETE WITHOUT EARTH PRESSURE 1,800 PSI
 FC WITH EARTH PRESSURE 1,000 PSI

FOUNDATION
 PIERS ARE SUPPORTED ON CAISSONS FOUND ON HARD CLAY, ALLOWABLE BEARING PRESSURE TO BE DETERMINED BY TESTS.
 ABUTMENTS ARE SUPPORTED ON CONCRETE PIERS WITH A MAXIMUM ALLOWABLE LOAD OF 40 TONS.

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 NORTHWEST ROUTE SUPERHIGHWAY
 GRADE SEPARATION
 WABANSIA AVE. TO CORTLAND ST.
 SECTION 0805.3-1NF
GENERAL PLAN
 BLOOMINGDALE AVE. TO CORTLAND ST.
 ALFRED BENSCH & ASSOCIATES
 111 W. JACKSON BLVD.
 CHICAGO, ILLINOIS
 SHEET NO. 4 OF 7 SHEETS
 DATE: MAY 16, 1957

STEEL STRINGER SCHEDULE

SPAN	1	2	3	4	5	6	7	8
TYPE	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
DEPTH	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
WEIGHT	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
SPACING	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
REMARKS								

STEEL GIRDER SCHEDULE

SPAN	1	2	3	4	5	6	7	8
TYPE	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
DEPTH	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
WEIGHT	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
SPACING	21-1	21-2	21-3	21-4	21-5	21-6	21-7	21-8
REMARKS								

NOTE: ALL FRAMES OF GIRDERS 61 OR 62 SHALL BE FABRICATED FROM STRUCTURAL STEEL CONFORMING TO ASTM A-375

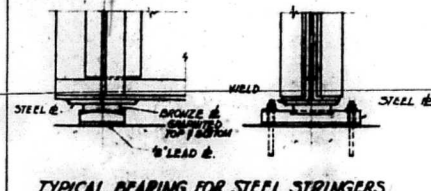
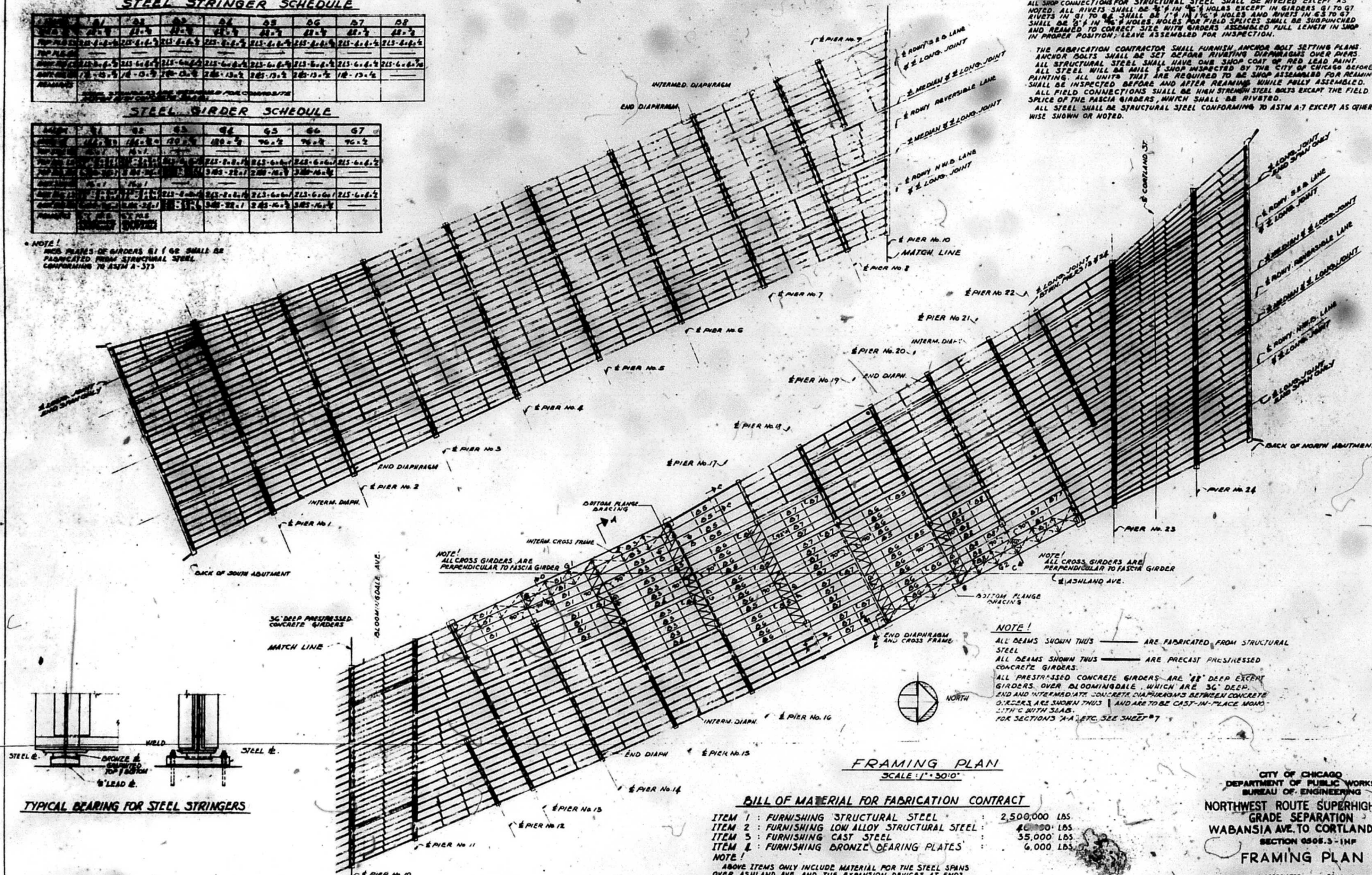
GENERAL NOTES FOR FABRICATION

ALL SHOP CONNECTIONS FOR STRUCTURAL STEEL SHALL BE RIVETED EXCEPT AS NOTED. ALL RIVETS SHALL BE 3/4" IN DIA. UNLESS NOTED OTHERWISE. ALL RIVETS IN 91 TO 92 SHALL BE 1" IN DIA. HOLES AND RIVETS IN 63 TO 67 SHALL BE 3/4" IN DIA. HOLES UNLESS NOTED OTHERWISE. ALL FIELD SPICES SHALL BE SUBRIVETED AND REAMED TO CORRECT SIZE WITH GIRDERS ASSEMBLED FULL LENGTH IN SHOP IN PROPER POSITION; LEAVE ASSEMBLED FOR INSPECTION.

THE FABRICATION CONTRACTOR SHALL FURNISH ANCHOR BOLT SETTING PLANS. ANCHOR BOLTS SHALL BE SET BEFORE RIVETING DIAPHRAGMS OVER PIERS. ALL STRUCTURAL STEEL SHALL HAVE ONE SHOP COAT OF RED LEAD PAINT. ALL STEEL WILL BE PAINTED SHOP INSPECTED BY THE CITY OF CHICAGO BEFORE PAINTING. ALL UNITS THAT ARE REQUIRED TO BE SHOP ASSEMBLED FOR REMAINING SHALL BE INSPECTED BEFORE AND AFTER REAMING WHILE FULLY ASSEMBLED.

ALL FIELD CONNECTIONS SHALL BE HEAVY STRONG STEEL BOLTS EXCEPT THE FIELD SPICE OF THE FASCIA GIRDERS, WHICH SHALL BE RIVETED.

ALL STEEL SHALL BE STRUCTURAL STEEL CONFORMING TO ASTM A-7 EXCEPT AS OTHERWISE SHOWN OR NOTED.

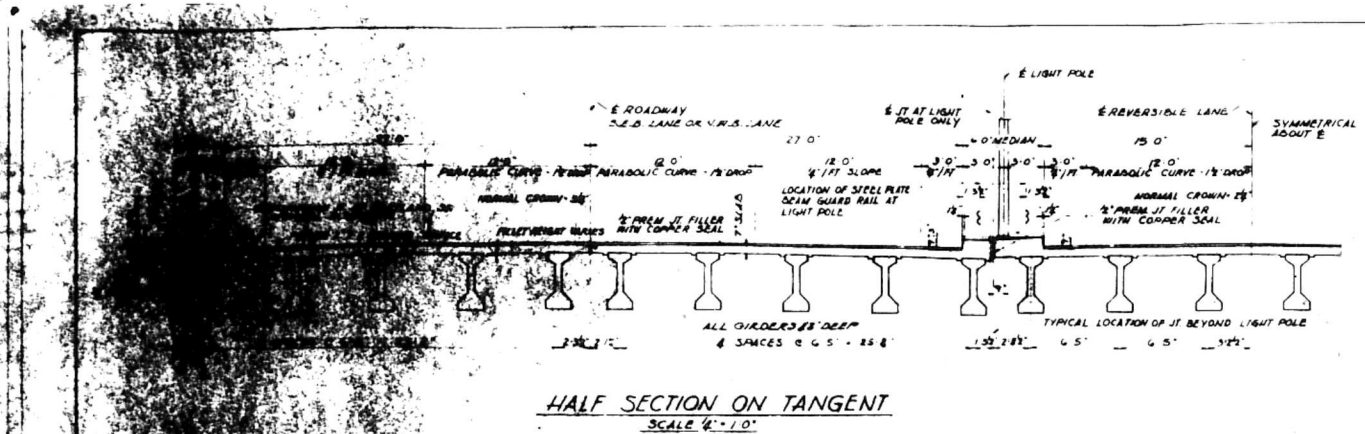


FRAMING PLAN
SCALE: 1" = 30'-0"

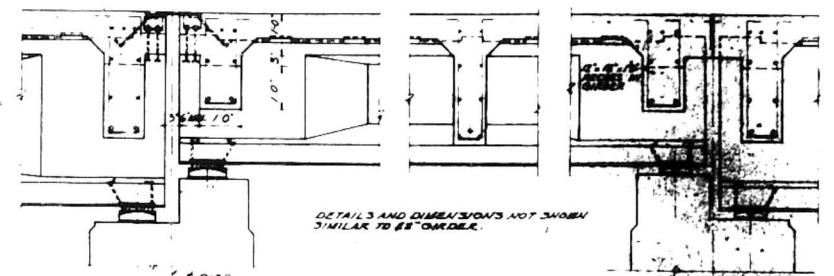
BILL OF MATERIAL FOR FABRICATION CONTRACT

ITEM 1: FURNISHING STRUCTURAL STEEL	2,500,000 LBS.
ITEM 2: FURNISHING LOW ALLOY STRUCTURAL STEEL	40,000 LBS.
ITEM 3: FURNISHING CAST STEEL	35,000 LBS.
ITEM 4: FURNISHING BRONZE BEARING PLATES	6,000 LBS.
NOTE: ABOVE ITEMS ONLY INCLUDE MATERIAL FOR THE STEEL SPANS OVER ASHLAND AVE. AND THE EXPANSION DEVICES AT ENDS OF THE STEEL SPANS. LOW ALLOY STEEL IS ONLY USED IN THE PLATES FOR THE EXPANSION DEVICES.	

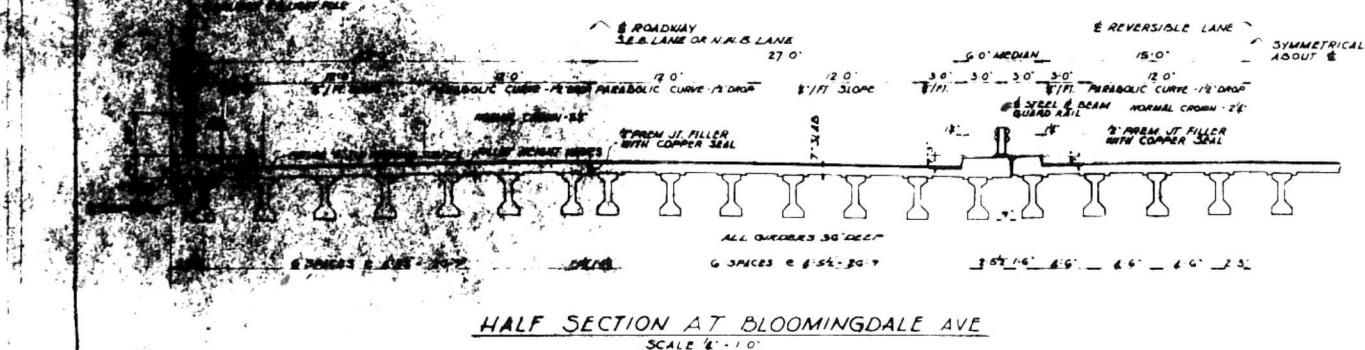
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1MP
FRAMING PLAN
ALFRED BENECH & ASSOCIATES
111 W. JACKSON BLVD.
CHICAGO, ILLINOIS
SHEET NO. 5 OF 7 SHEETS
DATE: MAY 16, 1937
CONSULTING ENGINEERS



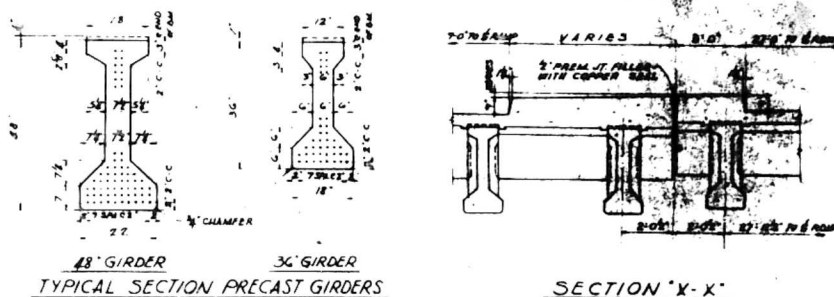
HALF SECTION ON TANGENT
SCALE 1/4" = 1'-0"



EXPANSION BEARING INTERMEDIATE DIAPHRAGM FIXED BEARING
LONGITUDINAL SECTION OF 36" GIRDER
DETAILS AND DIMENSIONS NOT SHOWN
SIMILAR TO 48" GIRDER.

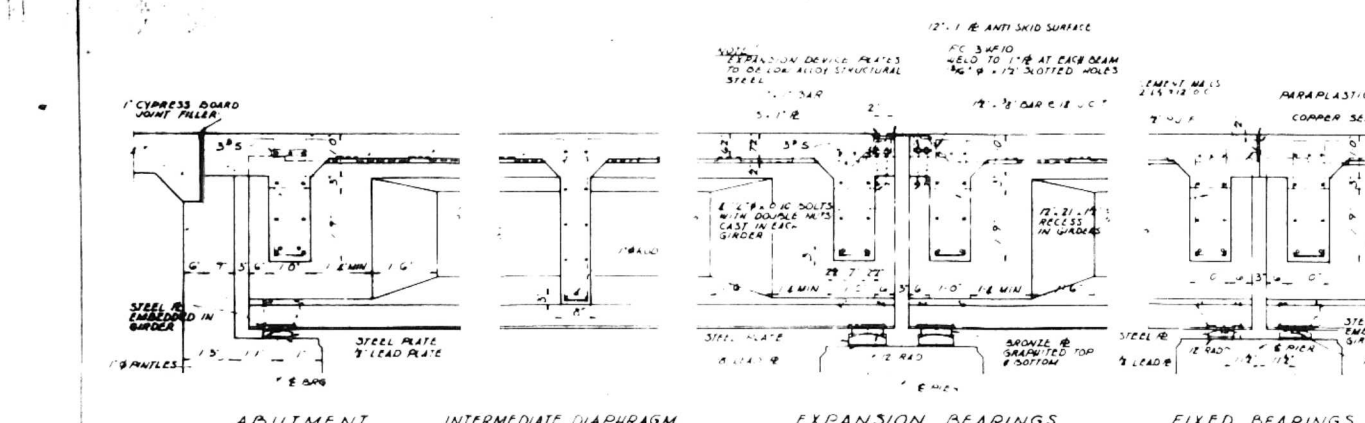


HALF SECTION AT BLOOMINGDALE AVE
SCALE 1/4" = 1'-0"

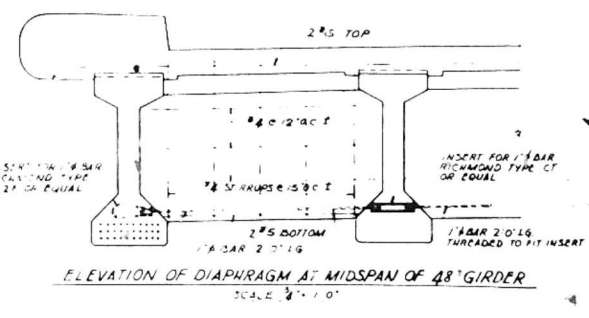


48" GIRDER 36" GIRDER
TYPICAL SECTION PRECAST GIRDERS
SCALE 1/2" = 1'-0"

SECTION X-X'
SCALE 1/2" = 1'-0"

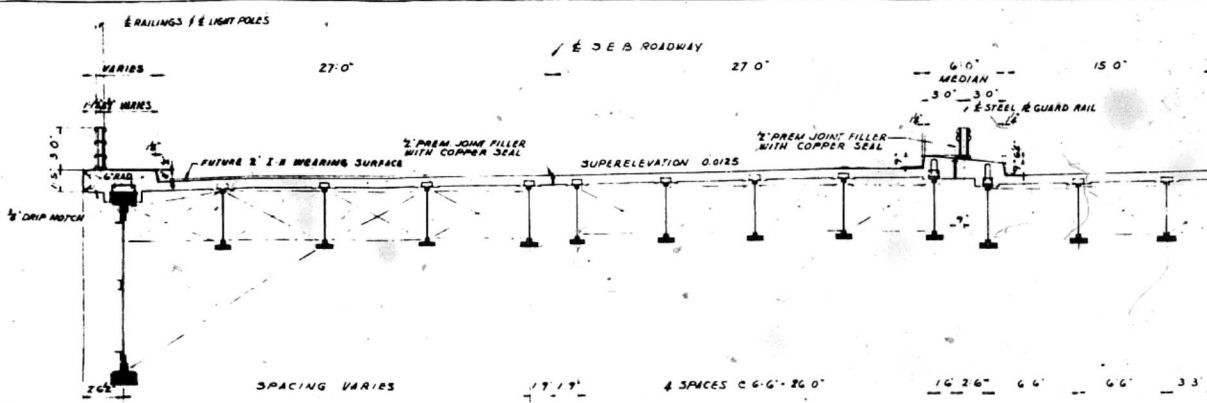


ABUTMENT INTERMEDIATE DIAPHRAGM EXPANSION BEARINGS FIXED BEARINGS
LONGITUDINAL SECTION
48" GIRDERS
SCALE 1/4" = 1'-0"

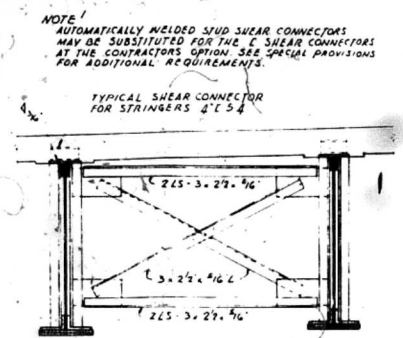


ELEVATION OF DIAPHRAGM AT MIDSPAN OF 48" GIRDER
SCALE 1/4" = 1'-0"

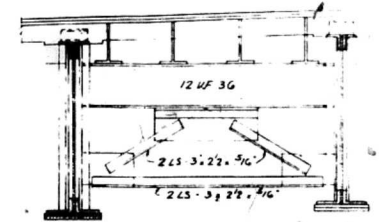
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE TO CORTLAND ST.
SECTION 0505-5-1HF
PRESTRESSED CONCRETE GIRDER
DETAILS
ALFRED BENESH & ASSOCIATES CONSULTING ENGINEERS
111 W JACKSON BLVD CHICAGO, ILLINOIS
SHEET NO. 6 OF 9 SHEETS DATE MAY 16 1957



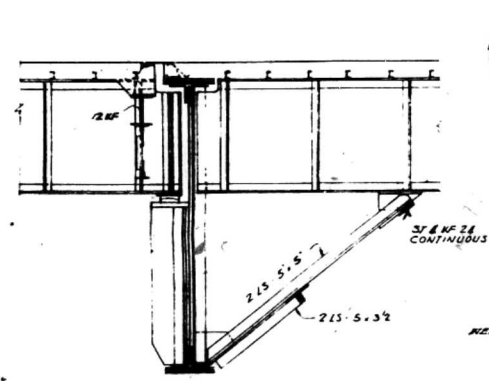
SECTION "A"
SCALE 1/4" = 1'-0"



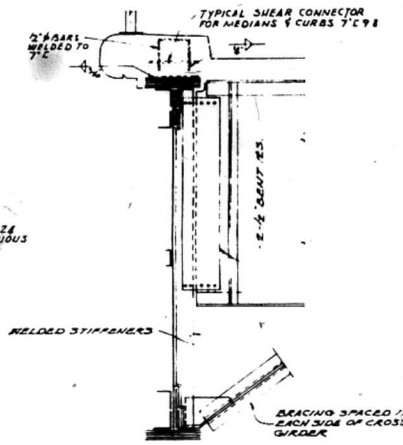
TYPICAL INTERMEDIATE CROSS FRAME
SCALE 3/4" = 1'-0"



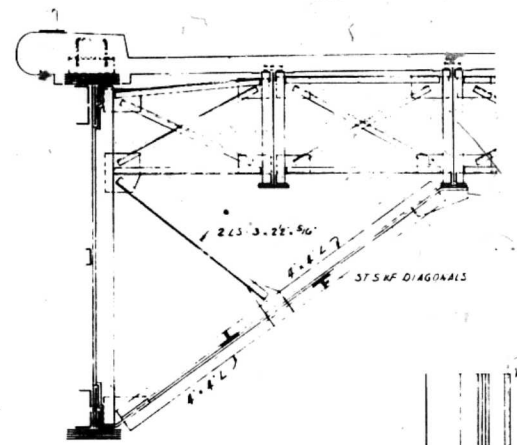
TYPICAL END DIAPHRAGM AND CROSS FRAME
SCALE 3/4" = 1'-0"



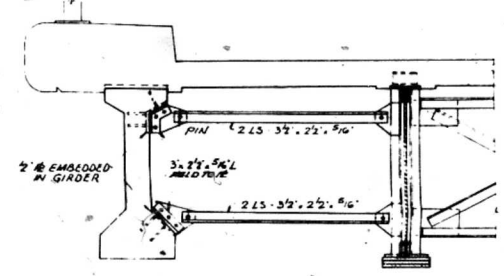
SECTION "B-B"
SCALE 1/2" = 1'-0"



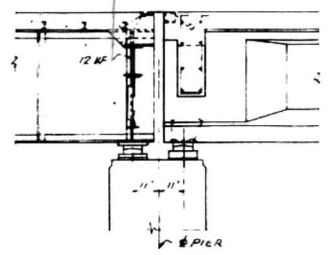
SECTION "C"
SCALE 1/2" = 1'-0"



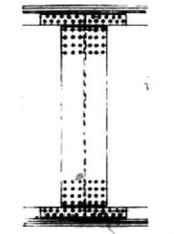
SECTION "D-D"
SCALE 1/2" = 1'-0"



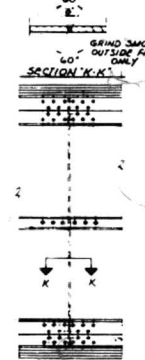
SECTION "E-E"
SCALE 1/2" = 1'-0"



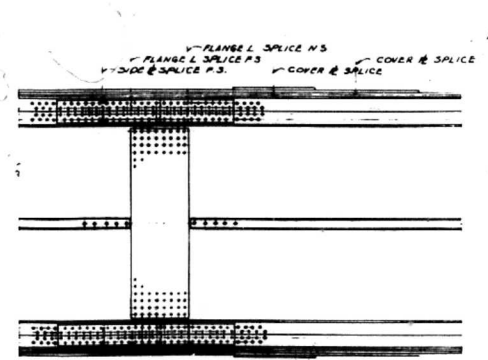
SECTION "F-F"
SCALE 1/2" = 1'-0"



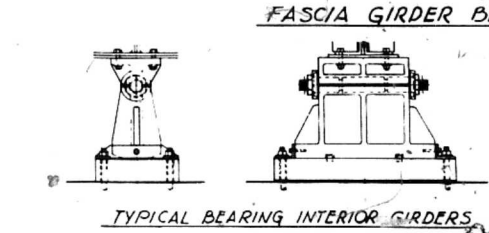
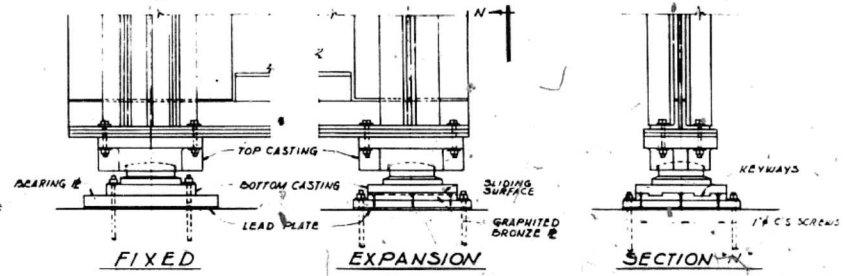
WEB SPICE
TYPICAL INTERIOR GIRDER DETAILS



SHOP WEB SPICE



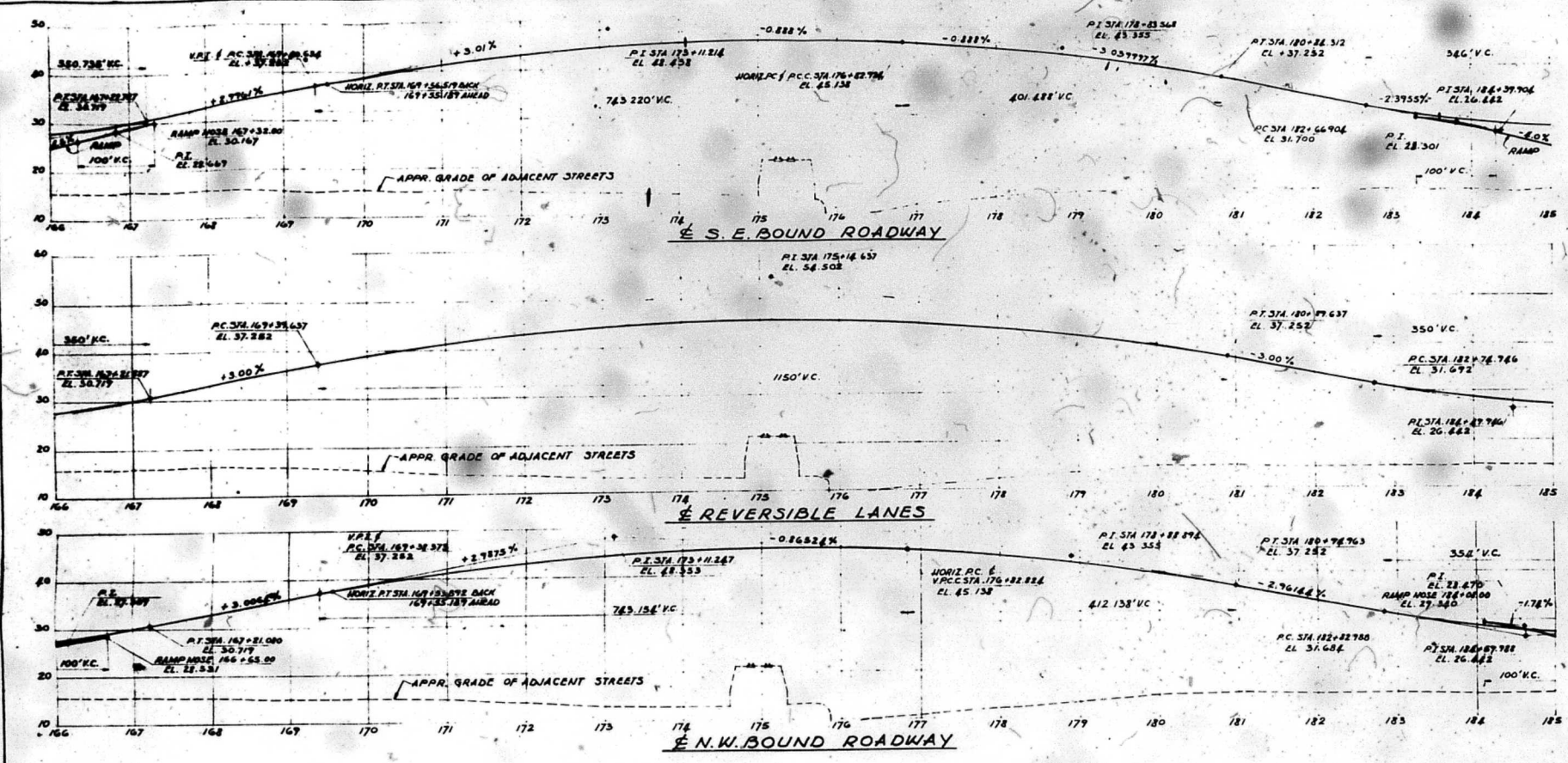
FIELD SPICE
TYPICAL FASCIA GIRDER DETAILS



TYPICAL BEARING INTERIOR GIRDER

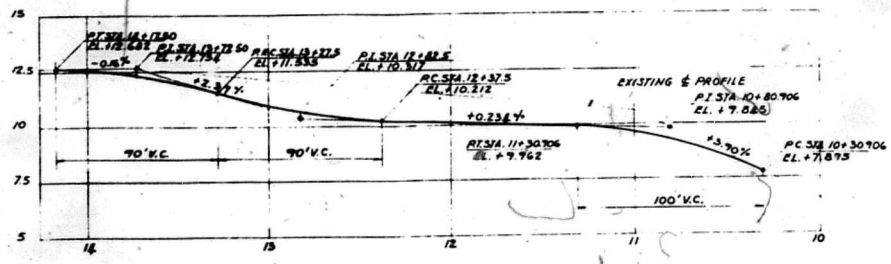
NOTE: FOR MATERIAL REQUIREMENTS SEE SPECIAL PROVISIONS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1HF
STRUCTURAL STEEL DETAILS
ALFRED BENECH & ASSOCIATES
111 W. JACKSON BLVD.
CHICAGO, ILLINOIS
CONSULTING ENGINEERS
DATE MAY 1964
SHEET NO 7 OF 9 SHEETS

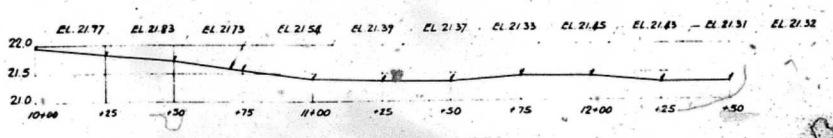


PROPOSED PROFILES OF NORTHWEST ROUTE SUPERHIGHWAY

SCALES: 1" = 60' HORIZ.
 1" = 10' VERT.



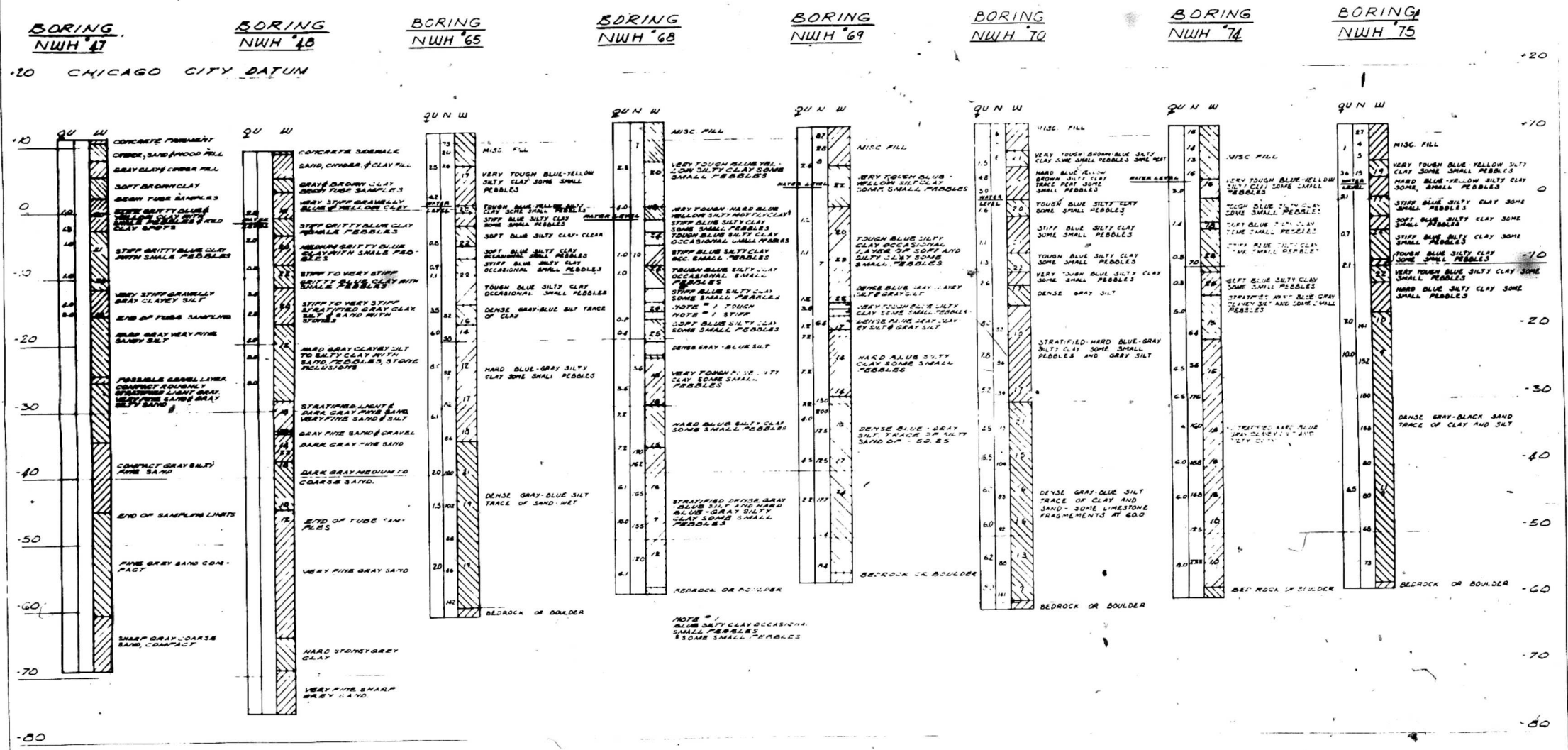
PROPOSED PROFILE OF CORTLAND ST.
 SCALES: 1" = 30' HORIZ.
 1" = 2.5' VERT.



EXISTING TRACK PROFILE
 SCALES: 1" = 20' HORIZ.
 1" = 1' VERT.

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 NORTHWEST ROUTE SUPERHIGHWAY
 GRADE SEPARATION
 WABANSIA AVE. TO CORTLAND ST.
 SECTION 0505.3-1HF
PROFILES
 ALFRED BENECH & ASSOCIATES CONSULTING ENGINEERS
 111 W. JACKSON BLVD. CHICAGO, ILLINOIS
 SHEET NO. 3 OF 7 SHEETS DATE: MAY 16, 1957

SOIL TEST BORINGS



NOTE:
 FIGURES IN COLUMNS MARKED "N" INDICATE NUMBERS OF BLOWN
 REQUIRED TO DRIVE SAMPLING PIPE ONE FOOT USING "SOIL" WIRE
 PENETRATION TEST
 FIGURES IN COLUMNS MARKED "Q" INDICATE UNCONFINED COMPRESSIVE
 STRENGTH IN TONS PER SQ. FT.
 FIGURES IN COLUMNS MARKED "W" INDICATE WATER CONTENT IN
 PERCENT OF DRY WEIGHT
 BORING DATA ARE SHOWN ONLY AS A GUIDE FOR BARRAGE DESTINATION
 SOIL CONDITIONS WHICH SHOULD BE CONFIRMED BY THE USER
 FOR LOCATION OF BORINGS SEE SHEET 3 & 4

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 NORTHWEST ROUTE SUPERHIGHWAY
 GRADE SEPARATION
 WABANSIA AVE. TO CORTLAND ST.
 SECTION 0505.3-1MP
SOIL TEST BORINGS
 ALFRED BENECH & ASSOCIATES CONSULTING ENGINEERS
 111 N. JACKSON BLVD. CHICAGO, ILLINOIS
 SHEET NO. 4 OF 4 SHEETS DATE MAY 16, 1957