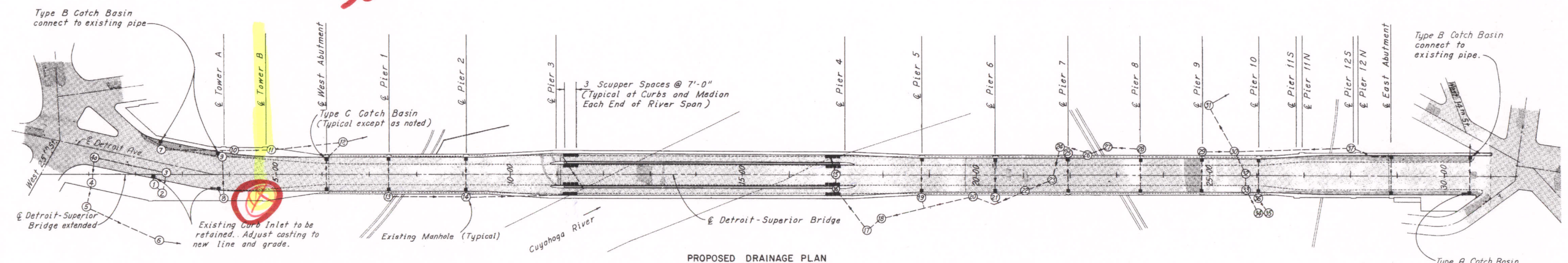


EXISTING CONDITIONS

**TOWER B
SOUTH**



PROPOSED DRAINAGE PLAN

OUTLET ELEVATIONS OF EXISTING SEWER SYSTEM MANHOLES TO BE UTILIZED				LOCATION OF EXISTING SEWER SYSTEM MANHOLES TO BE UTILIZED		
Manhole No.	Outlet Flow Line Elevation	Manhole No.	Outlet Flow Line Elevation	Manhole No.	Centerline Station	Offset
1	647.55	20	575.08	1	2+56	20'S
2	647.26	21	575.96	7	2+69	52'N
3	645.77	22	575.38	8	4+00	50'S
4a	*	23	573.52	9	4+00	37'N
4	631.97	24	575.62	12	6+54	62'N
5	630.49	25	577.77	13	7+40	44'S
6	628.61	26	575.83	14	9+06	45'S
7	660.40	27	576.19	15	16+94	1'N
8	645.79	28	580.57	16	16+94	30'S
9	648.92	29	583.81	19	18+85	49'S
10	644.95	30	574.69	21	20+40	49'S
11	637.44	31	573.94	25	21+96	49'N
12	624.91	32	581.83	28	23+52	51'N
13	592.85	33	582.95	29	24+82	47'N
14	585.17	34	583.84	36	26+03	46'S
15	572.41	35	586.87			
16	572.55	36	589.66			
17	574.21	37	590.53			
18	574.50					
19	*					

*To be obtained from county after cleanout.

Notes:
Stations and offsets refer to extended ϵ of bridge.
At the abutments the existing transverse underground conduit will be extended to the new downspouts.
Sewer conduit shall be run from new Pier downspouts into the nearest existing sewer manhole as indicated, except at Pier 3 and the northerly side of Pier 4 where 12" ϕ conduit shall outlet into the Cuyahoga River.
N=North Side of ϵ Bridge
S=South Side of ϵ Bridge

CUY-6-1456
1800930

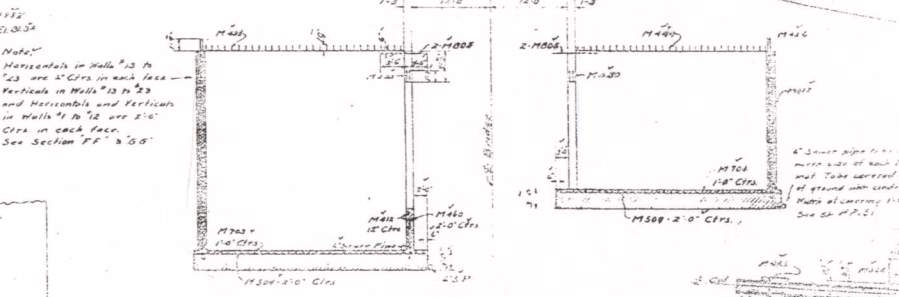
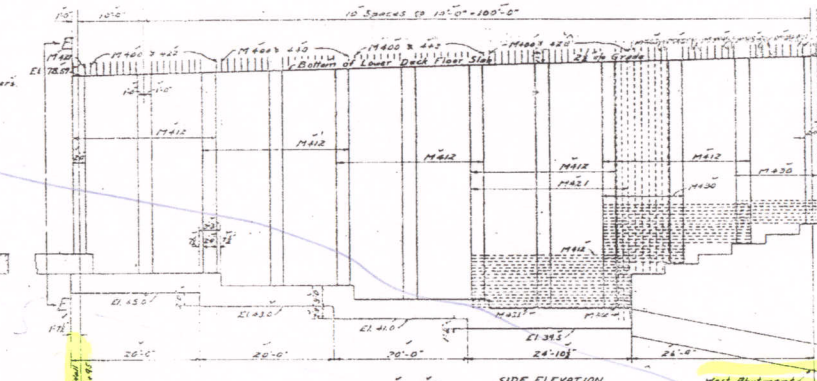
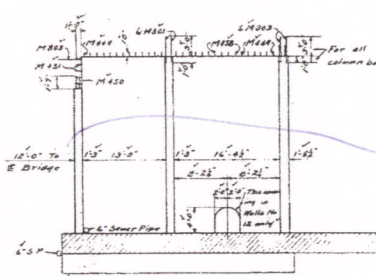
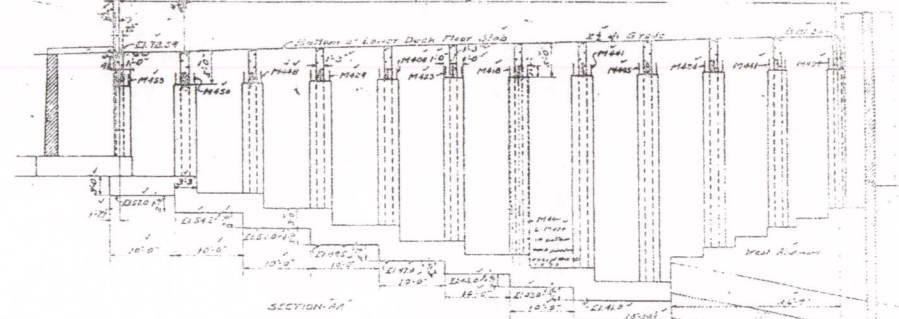
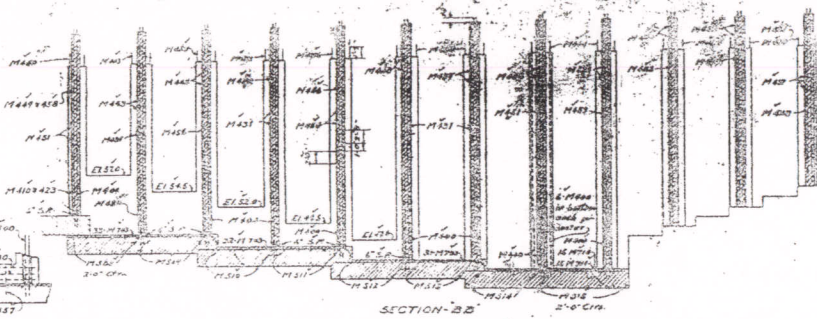
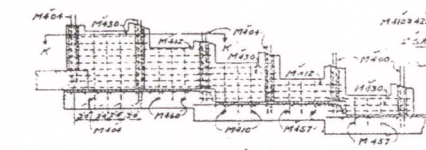
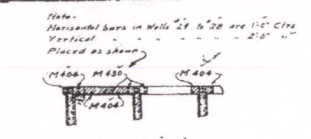
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

DRAINAGE DETAILS

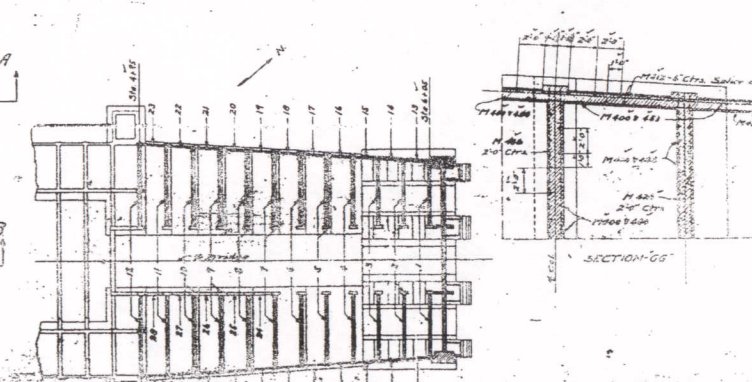
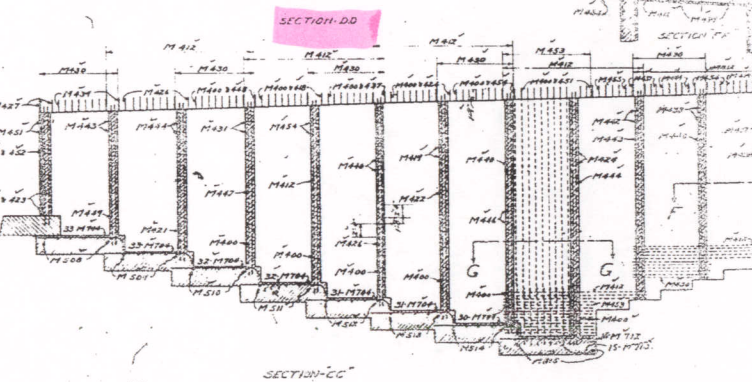
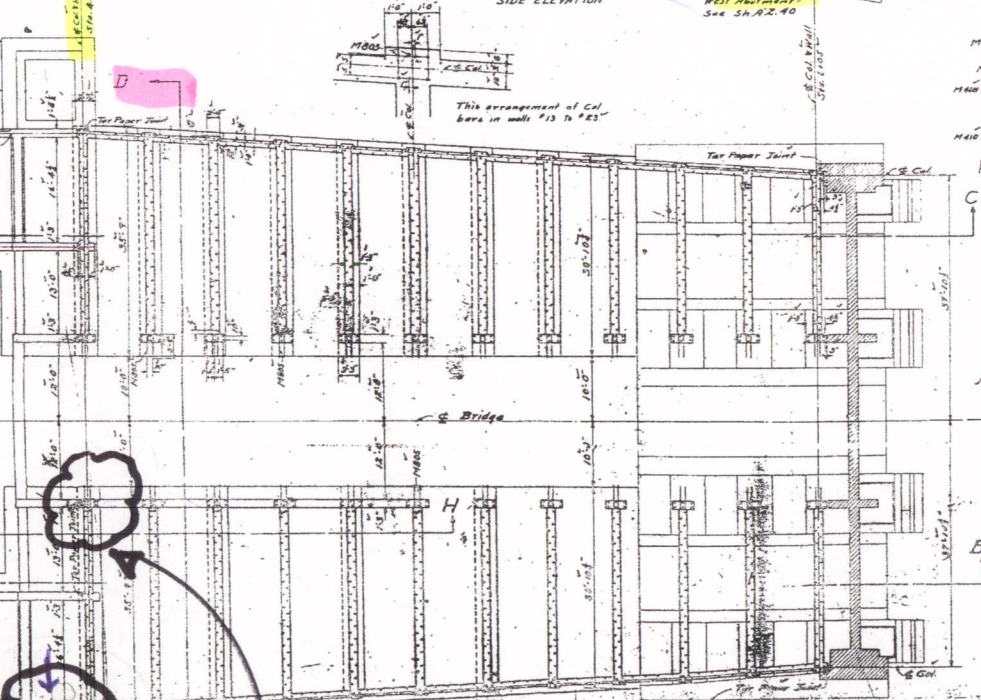
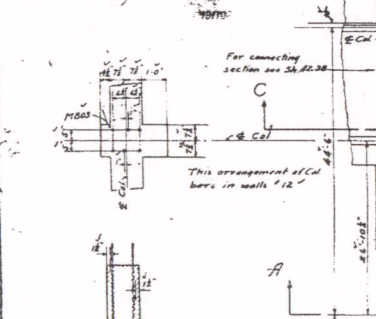
REHABILITATION OF
DETROIT-SUPERIOR BRIDGE
(U.S. 6, 20, 42, & S.R. 3 OVER CUYAHOGA RIVER)
BR. NO. CUY-6-1506

CLEVELAND	CUYAHOGA COUNTY	OHIO
DRAWN CHD	TRACED	CHECKED [initials]
DATE 3-9-68	DATE 7-19-68	DATE 9-7-68

REVIEWED [initials] REVISOR [initials]
SHEET 104



Feb 25 6
 Pure Design
 Frank K. ...
 Joe Kennedy
 W. ...



Section Showing Arrangement of Bars in Vertical Wall.
 Note - Horizontal bars placed on outside of clear space between bar and form.
 Vertical bars in walls 12" x 12" (except pilasters) extend 18" above bottom of Lower Deck Floor Slab. In walls 12" x 24" extend 18" above bottom of Lower Deck Floor Slab except Col. bars.
 For Col. bars see Section E.C.
 Lapped short vertical bars (Pile 400 & 420) 1' in foundation mat if splices other than indicated are made for convenience of erection, bars must lap 40 times thickness of bar & expose of extra material borne by contractor.
 For list of bars see SA A.2-11

Filling between surfaces of expansion joints consists of 2" layer of paper with 2" layer of concrete between.

COUNTY OF CLAY
 DISTRICT OF ...
 Most Approach - District Engineer ...
 Date March 22, 1916

CW-6-1456
 1800 930

DD
 IM Act BB
 IM Act CC
 142



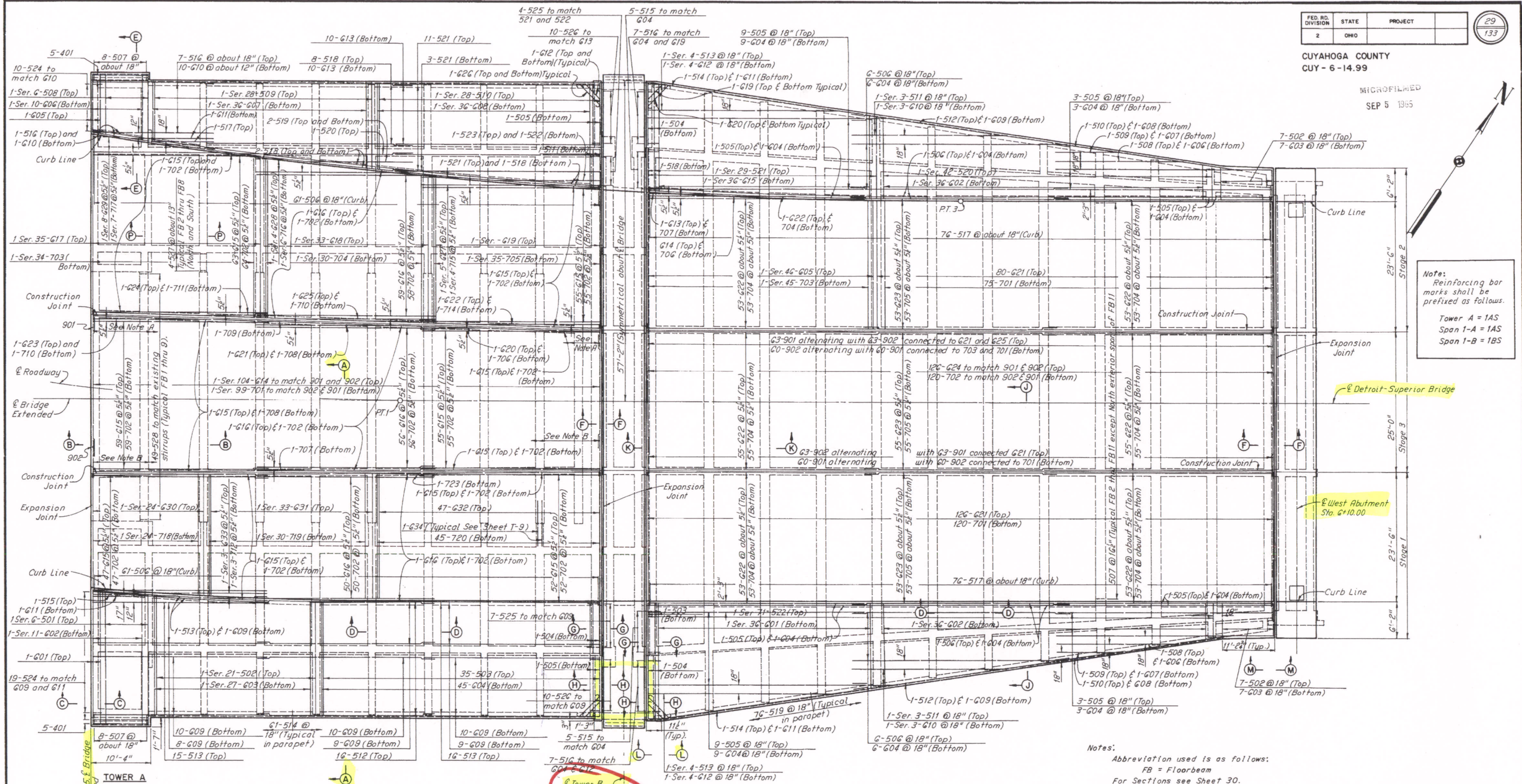
DISPLACEMENT @ UPPER Deck Floor
Above Crane Monitor Image (AA)
Tower B - South
STATION 4+95 (ORIGINAL PLANS)

WM-6-1956

SFM 1800930

CUYAHOGA COUNTY
CUY-6-14.99

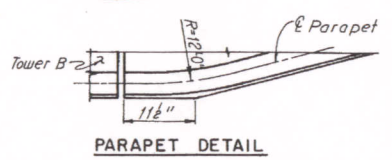
MICROFILMED
SEP 5 1965



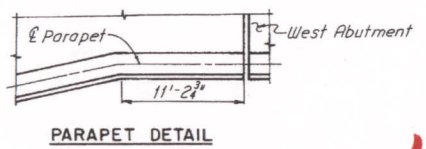
Note:
Reinforcing bar marks shall be prefixed as follows.
Tower A = 1AS
Span I-A = 1AS
Span I-B = 1BS

Note A:
52-902 alternating with 52-901 connected to 617, 618 and 619, top and 50-901 alternating with 49-902 connected to 703, 704 and 705 bottom.

Note B:
52-901 alternating with 52-902 connected to 630, 631 and 632 top and 50-902 alternating with 49-901 connected to 718, 719 and 720, bottom.



(Only Bottom Reinforcing Bars are shown in Deck Area)
(Railing and Parapet not shown)

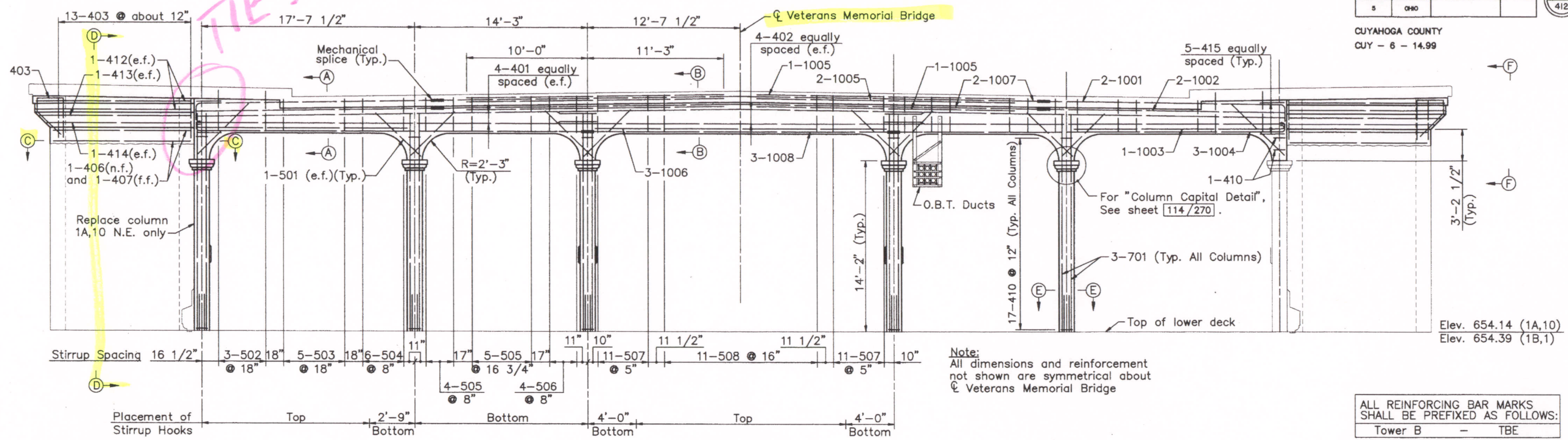


Notes:
Abbreviation used is as follows:
FB = Floorbeam
For Sections see Sheet 30.
For Tower B details see Sheet 49.
For West Abutment details see Sheet 59.
For additional Parapet and Railing details see Sheet 109.
For additional notes see Sheet 30.

CUY-6-1456
1860 930

HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS KANSAS CITY CLEVELAND NEW YORK			
DECK PLAN			
SPANS I-A AND I-B			
REHABILITATION OF DETROIT-SUPERIOR BRIDGE (U.S. 6, 20, 42, & S.R. 3 OVER CUYAHOGA RIVER)			
BR. NO. CUY-6-1506			
CLEVELAND	CUYAHOGA COUNTY	OHIO	
DRAWN LJB	TRACED	CHECKED CAB	REVIEWED WJF
DATE 1-3-64	DATE	DATE 4-2-66	DATE 8-25-66
			SHEET 29

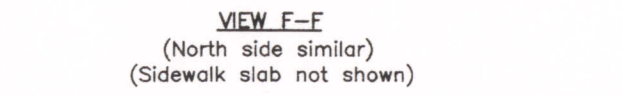
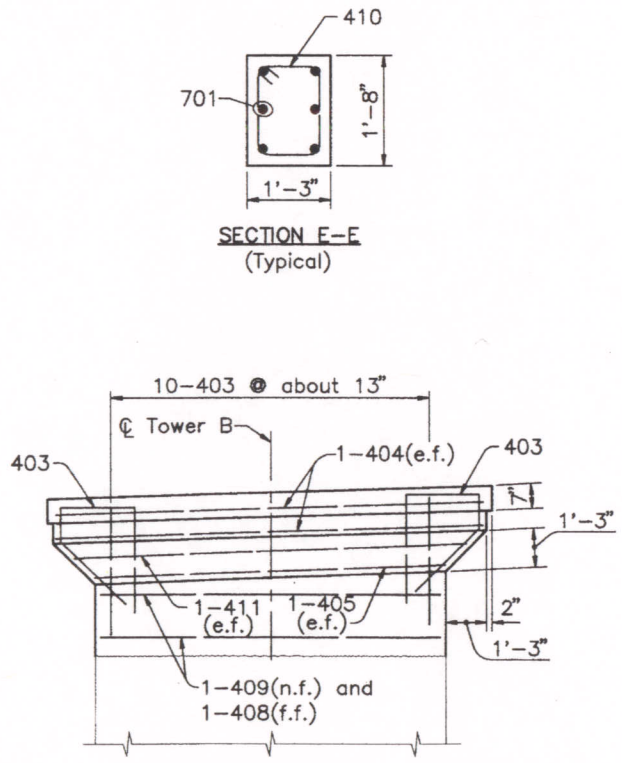
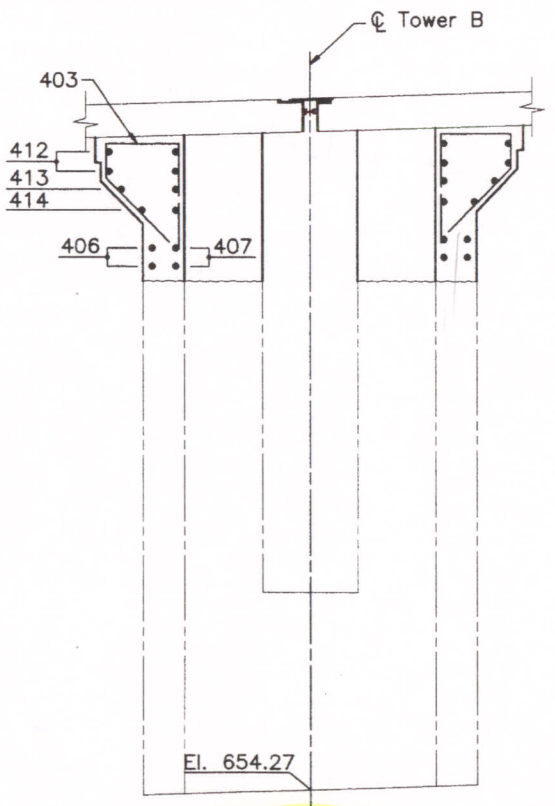
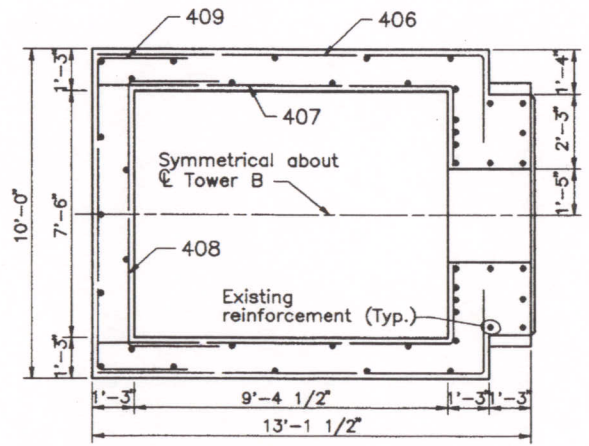
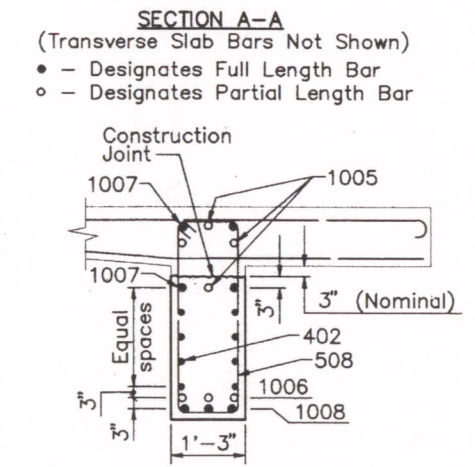
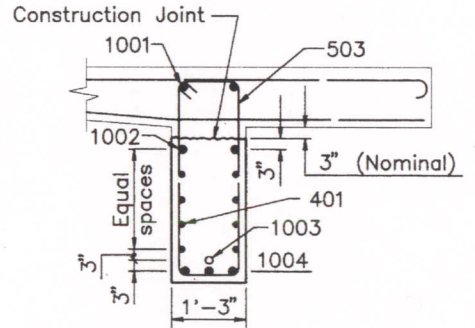
CUYAHOGA COUNTY
CUY - 6 - 14.99



ALL REINFORCING BAR MARKS SHALL BE PREFIXED AS FOLLOWS:
Tower B - TBE

MINIMUM SPLICE LENGTH	
BAR #	LENGTH
# 4	2'-3"

NOTES:
FOR DETAIL AT REPLACEMENT JACK ARCH LOCATIONS, SEE SHEET 118/270.
FOR REMOVAL DETAILS, SEE SHEETS 47/270.
FOR UTILITY SUPPORT DETAILS, SEE SHEETS 232/270 AND 233/270.
FOR LOWER DECK RAILING DETAILS, SEE SHEET 111/270.
n.f. DENOTES NEAR FACE
f.f. DENOTES FAR FACE
e.f. DENOTES EACH FACE



CUY-G-1456
1800930

COUNTY BRIDGE NO. 84

HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

HNTB

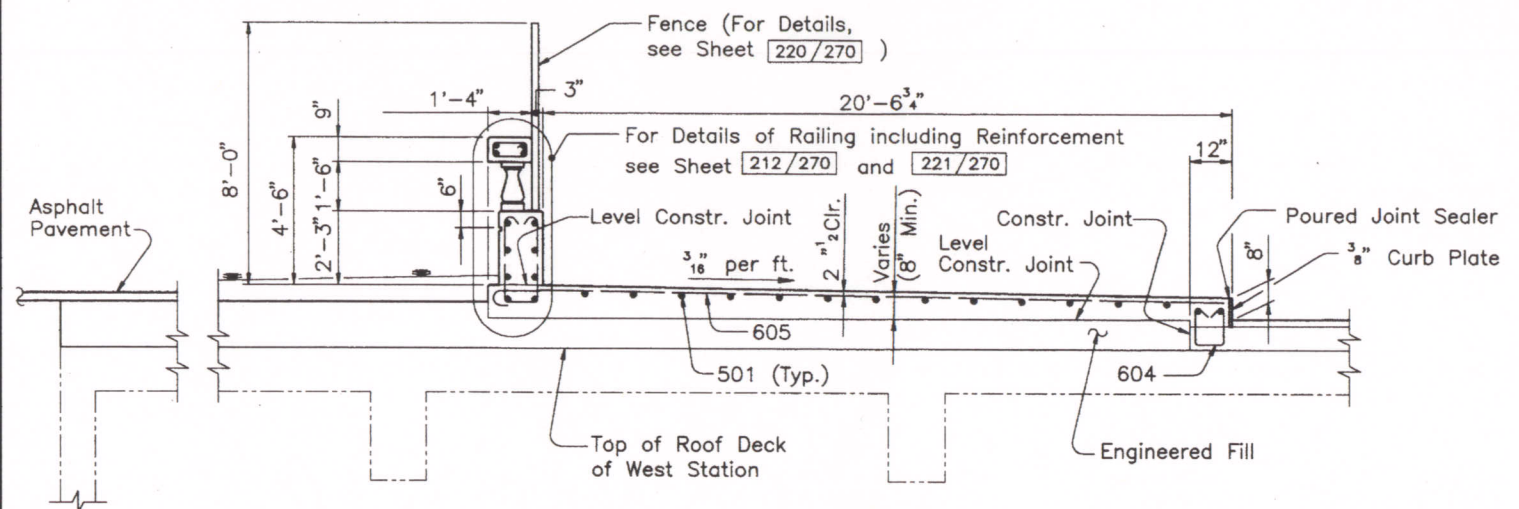
REPLACEMENT DETAILS
TOWER B
BR. NO. CUY - 6 - 1499
REHABILITATION OF
VETERANS MEMORIAL BRIDGE
(U.S. 6, 20, 42 & S.R. 3 OVER CUYAHOGA RIVER)
CLEVELAND CUYAHOGA COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED
R.S.Y.	R.S.Y.	A.D.Y.	C.A.B.
DATE	DATE	DATE	DATE
6/18/93	8/18/93	3/18/94	3/31/94

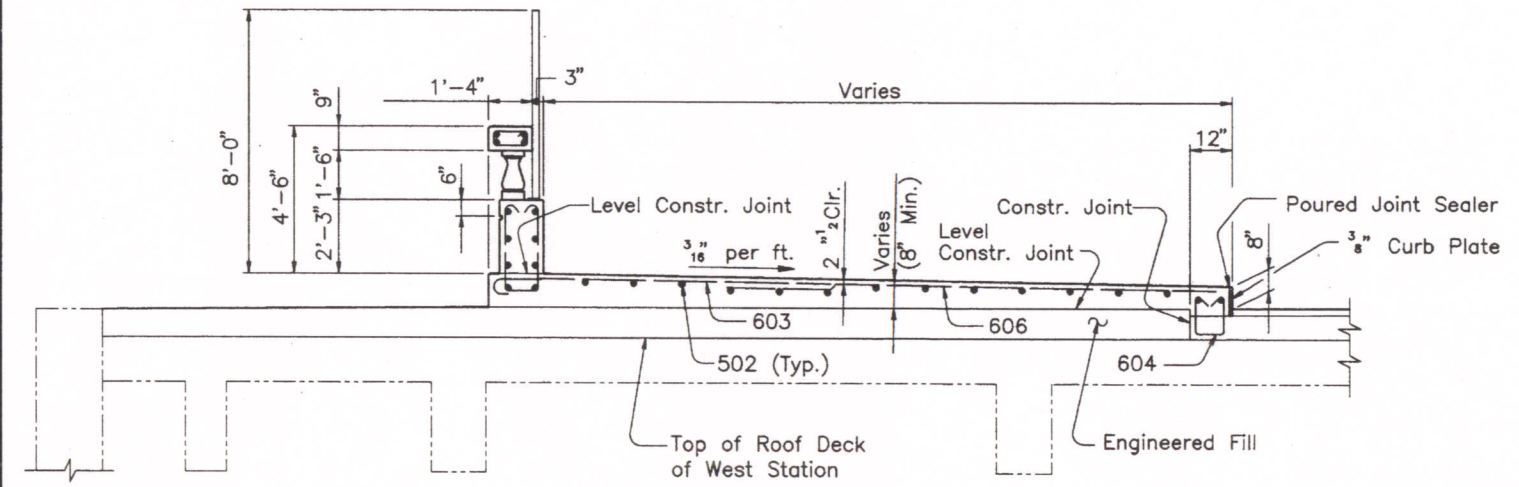
SHEET 75 / 270

V11646\CONCRETE\UDFB6

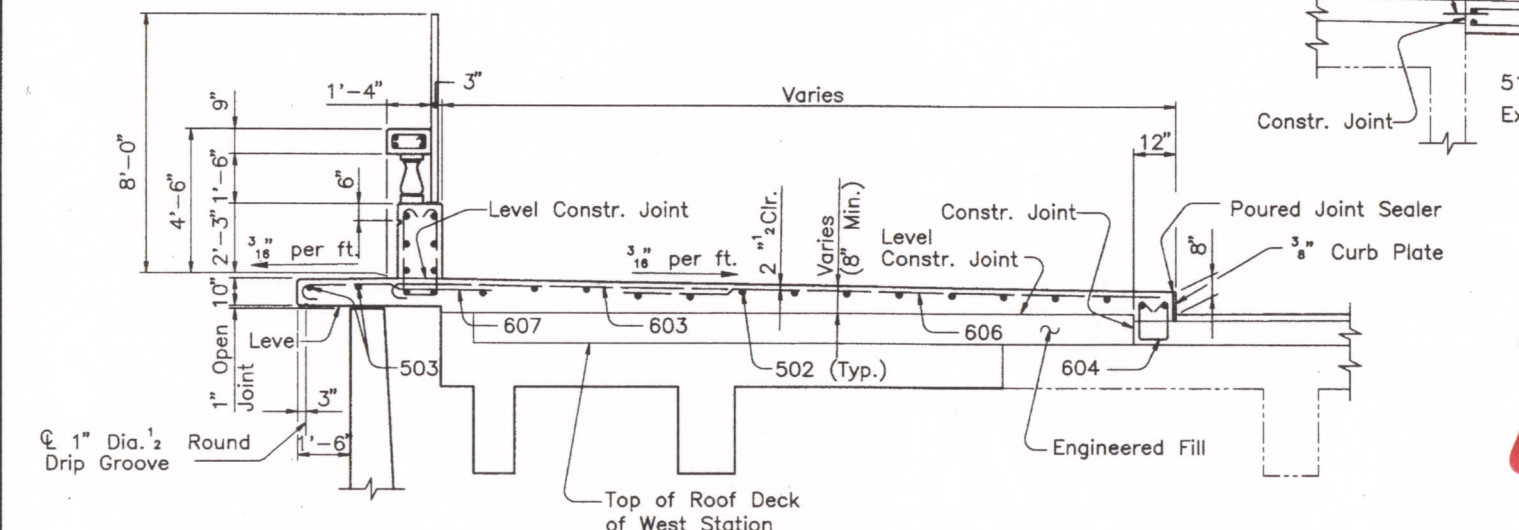
CUYAHOGA COUNTY
CUY - 6 - 14.99



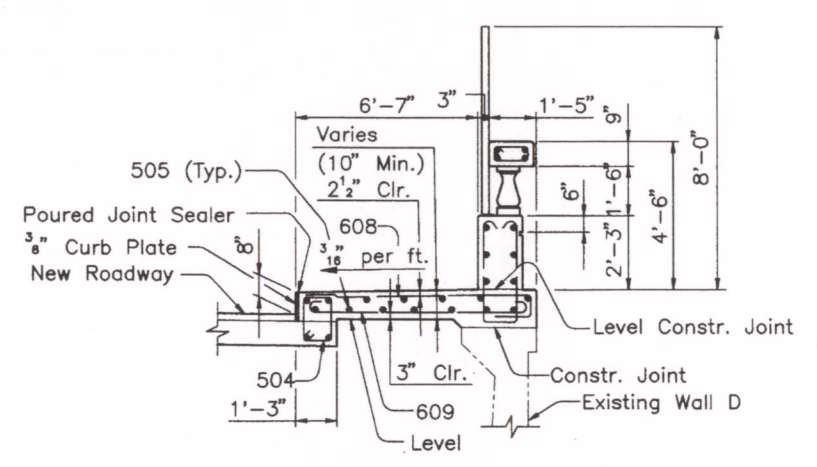
SECTION A-A



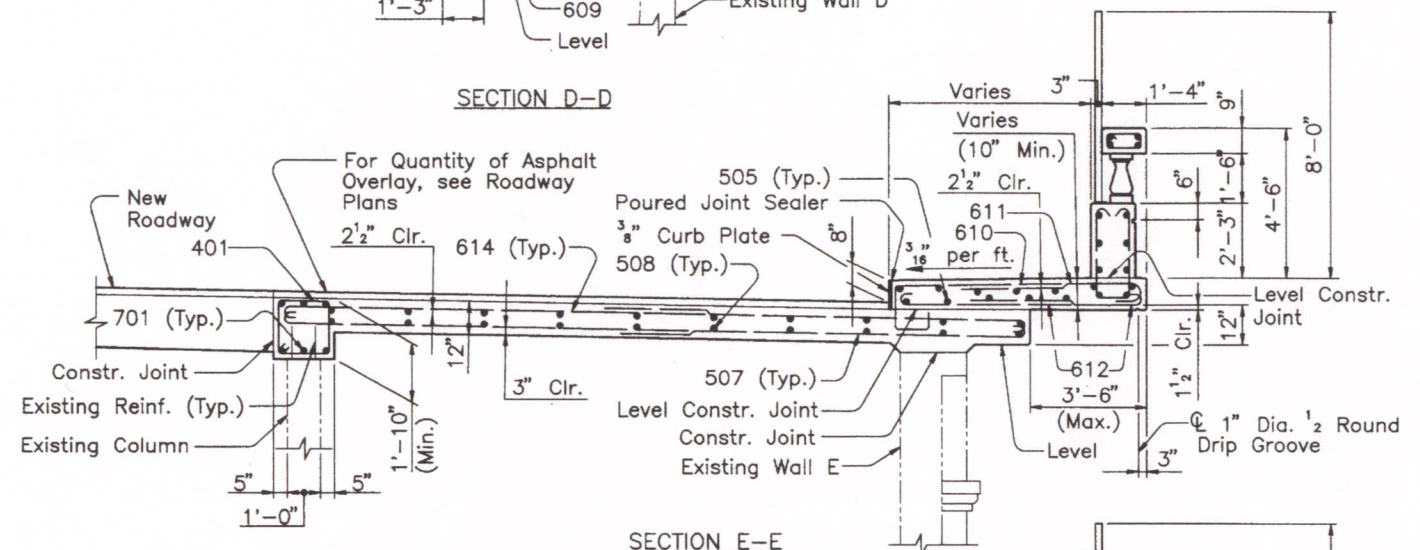
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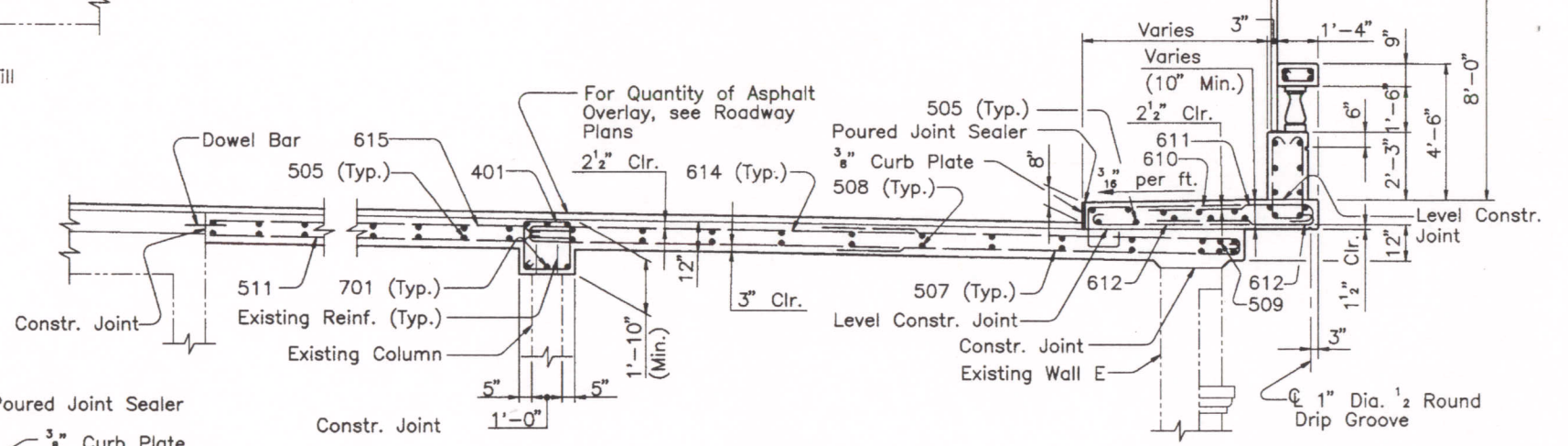
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

CUY-G-1456
1800930

ALL REINFORCING BAR MARKS
SHALL BE PREFIXED AS FOLLOWS:
WEST SIDE STATION - WSES

Notes:
For location of Sections A-A thru F-F,
see Sheet 71/270.

BAR	LENGTH
# 4	1'-9"
# 5	2'-0"
# 6	3'-0"
# 7	4'-8"

COUNTY BRIDGE NO. 84

HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

HNTB

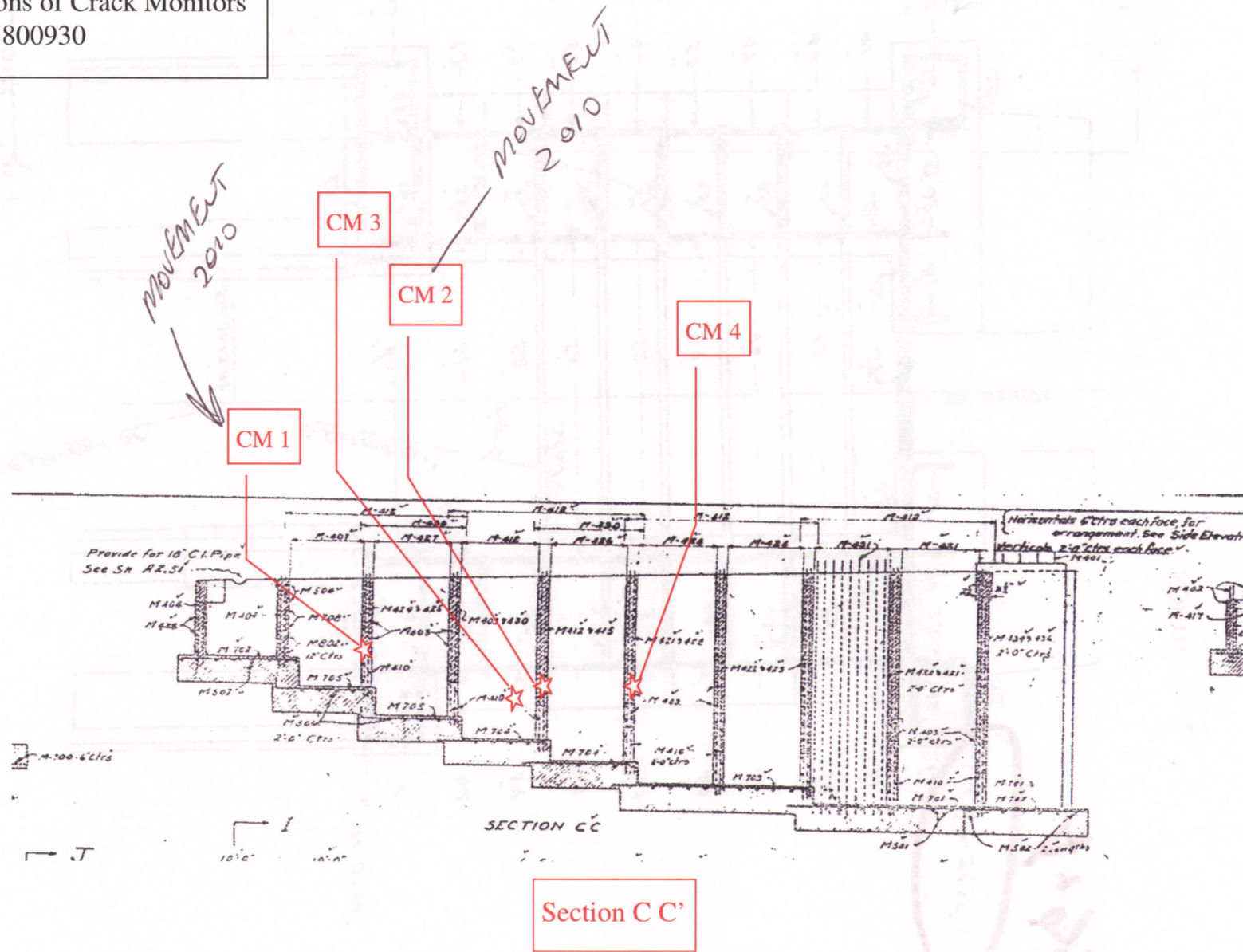
WEST SIDE STATION - SIDEWALK
AND ROADWAY SLAB DETAILS
BR. NO. CUY - 6 - 1499
REHABILITATION OF
VETERANS MEMORIAL BRIDGE
(U.S. 6, 20, 42 & S.R. 3 OVER CUYAHOGA RIVER)
CLEVELAND CUYAHOGA COUNTY OHIO

DATE	DATE	DATE	DATE
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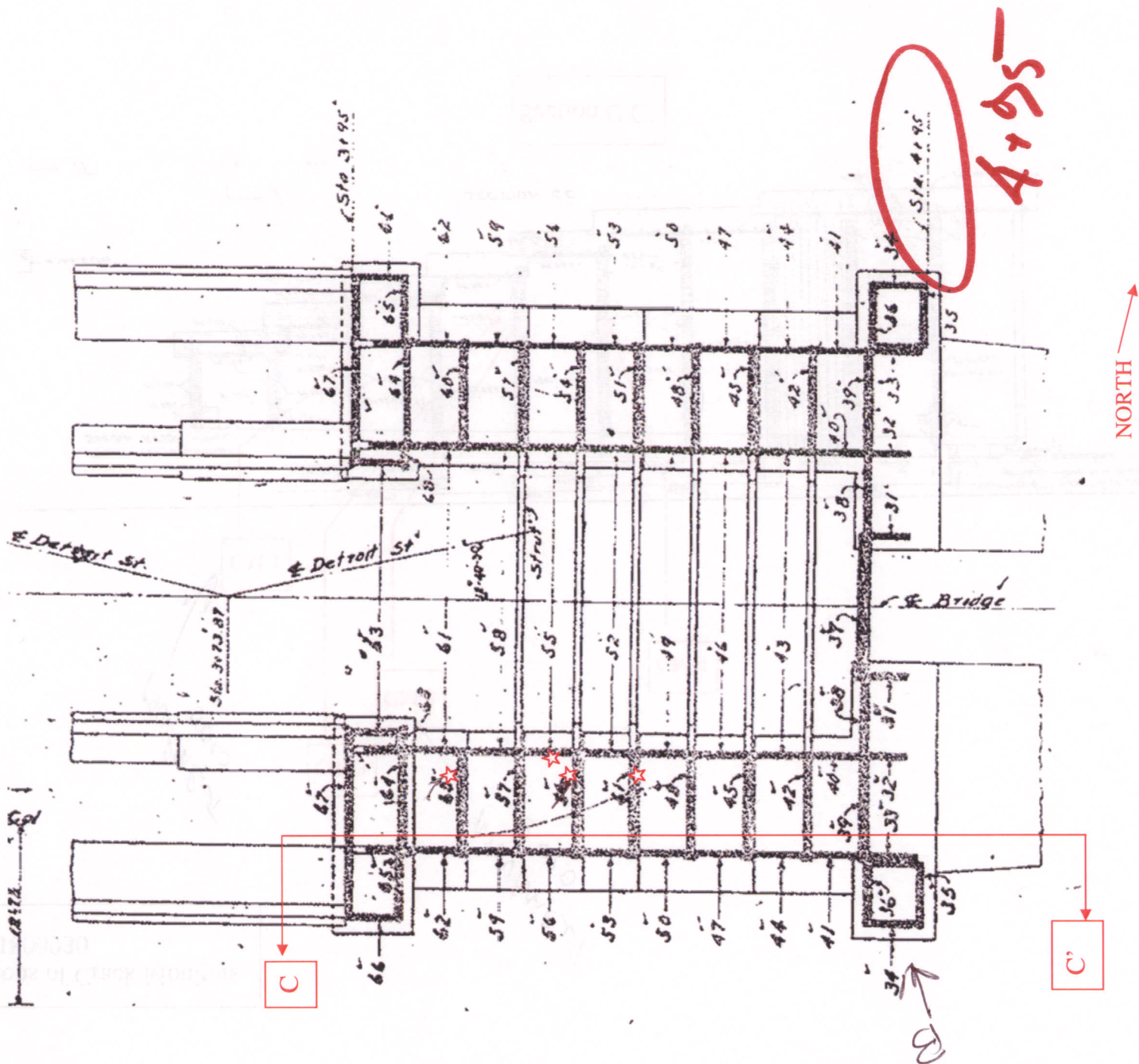
SHEET 72 / 270

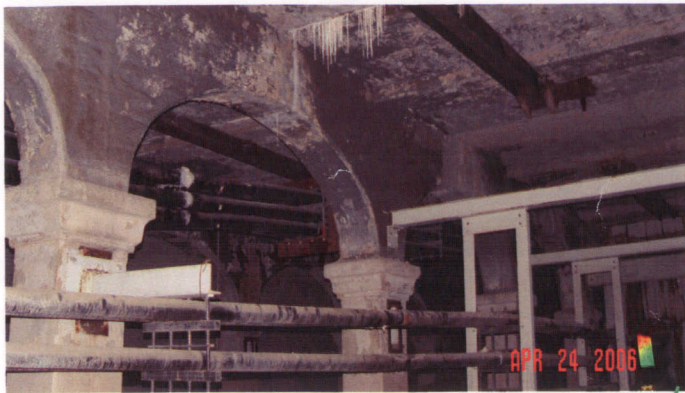
\\11646\CONCRETE\WSTDI.DWG

Locations of Crack Monitors
SFN 1800930



West Approach under lower deck floor slab (SFN 1800930).
Crack Monitors installed on 05/17/07. Inspection completed on 08/29/07.



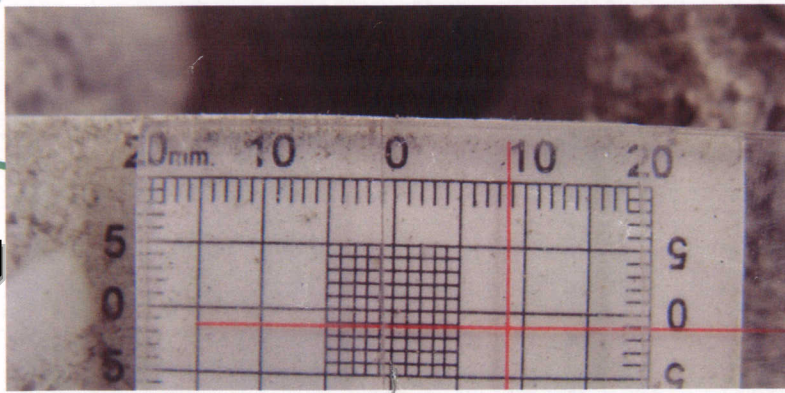
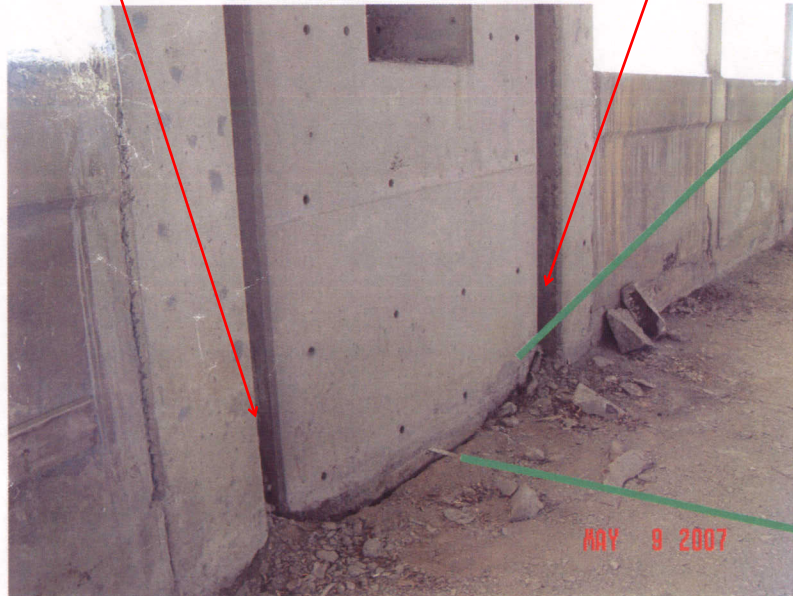
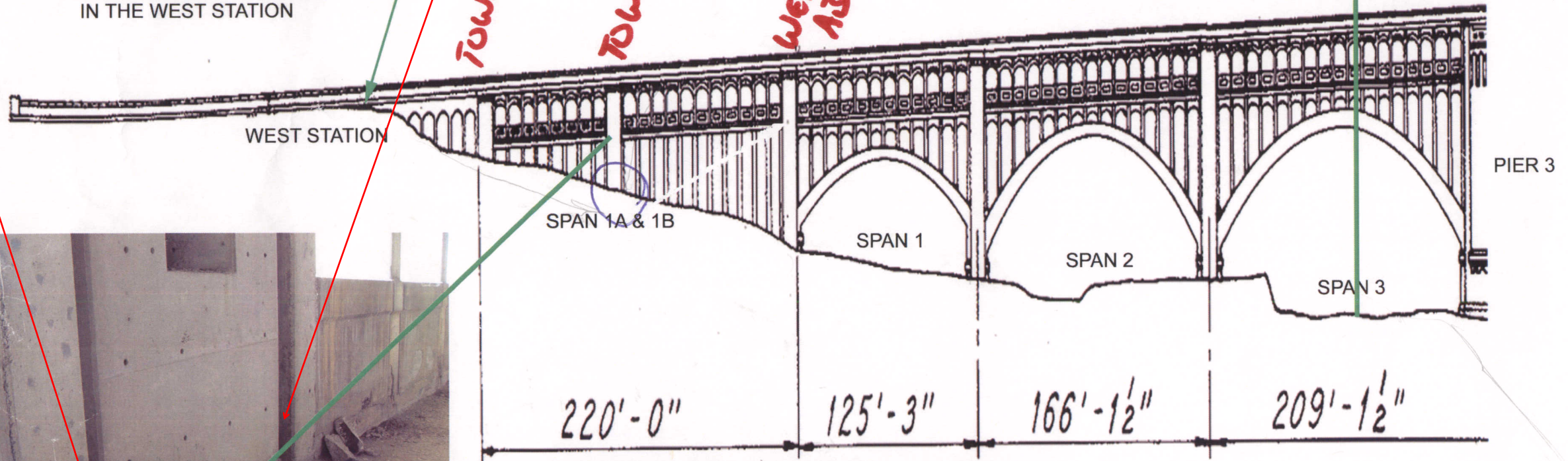


TYPICAL FLOOR STALACTITES IN THE WEST STATION

CUY-6-1456
SFN-1800930



TOWER A
TOWER B
WEST ABUT.



2006 12007 9 Mi

2010
30 mi

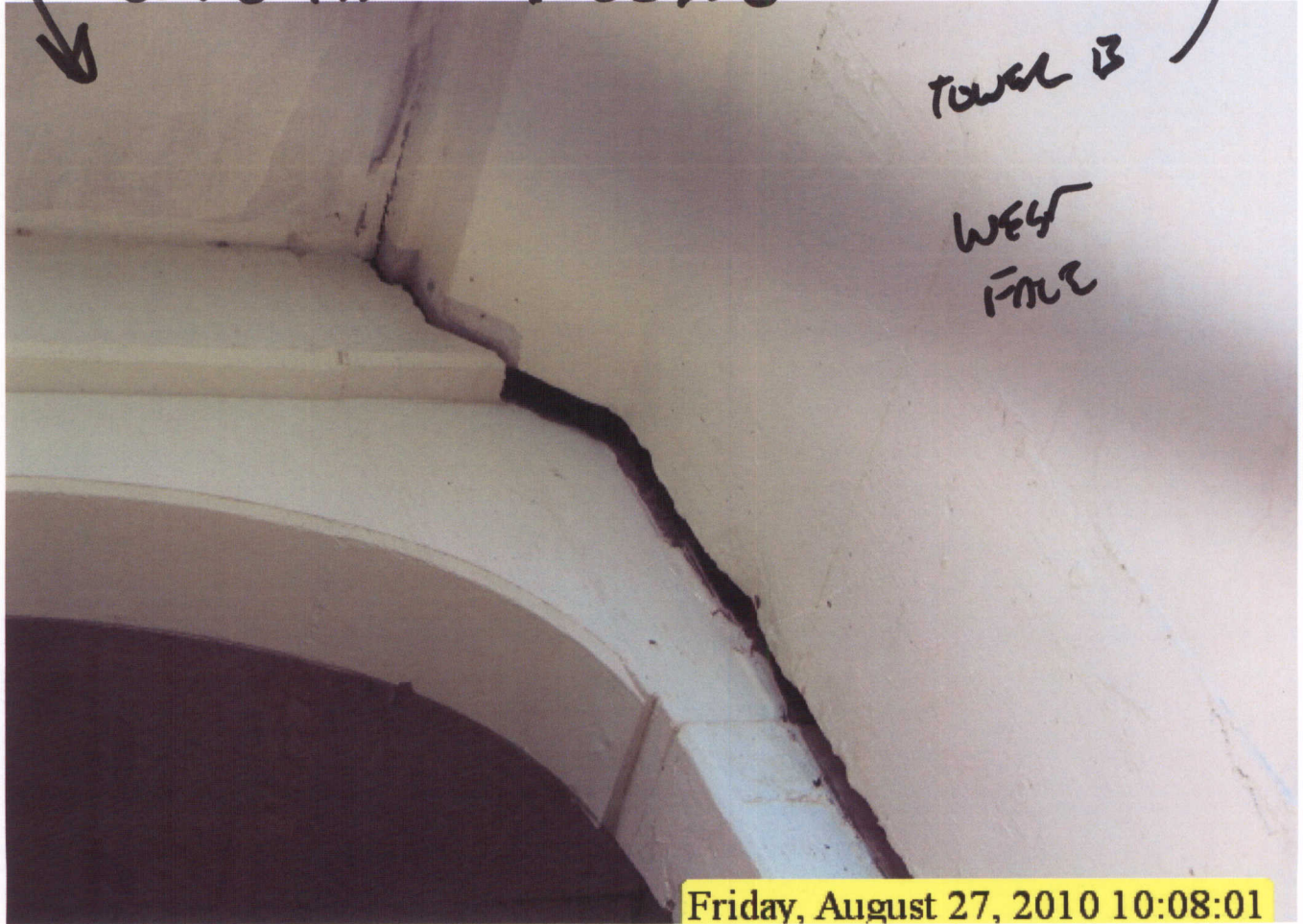
2007 INSPECTION

~~2007~~



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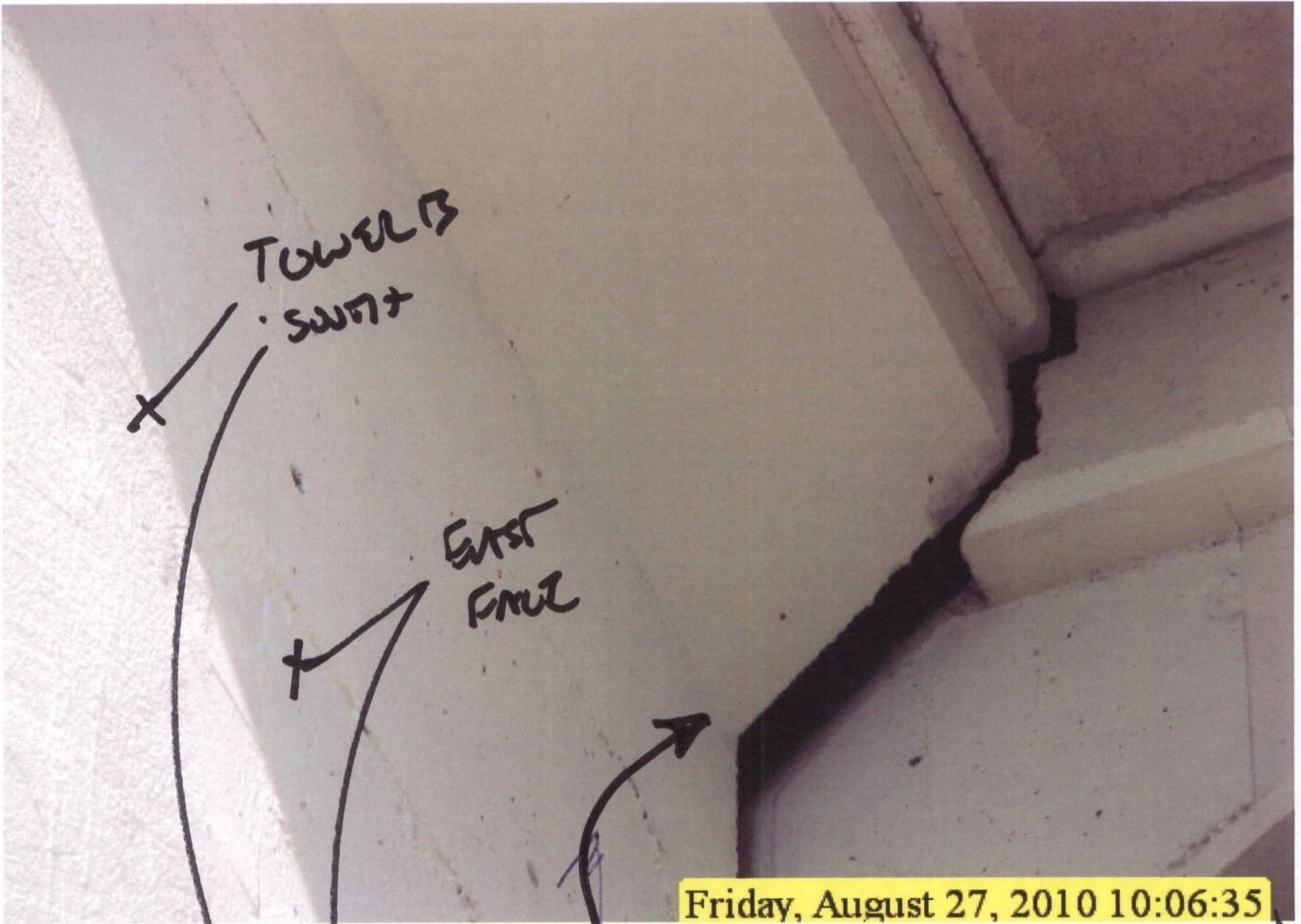
CUY-6-1456 1800930



TOWER B

WEST
FACE

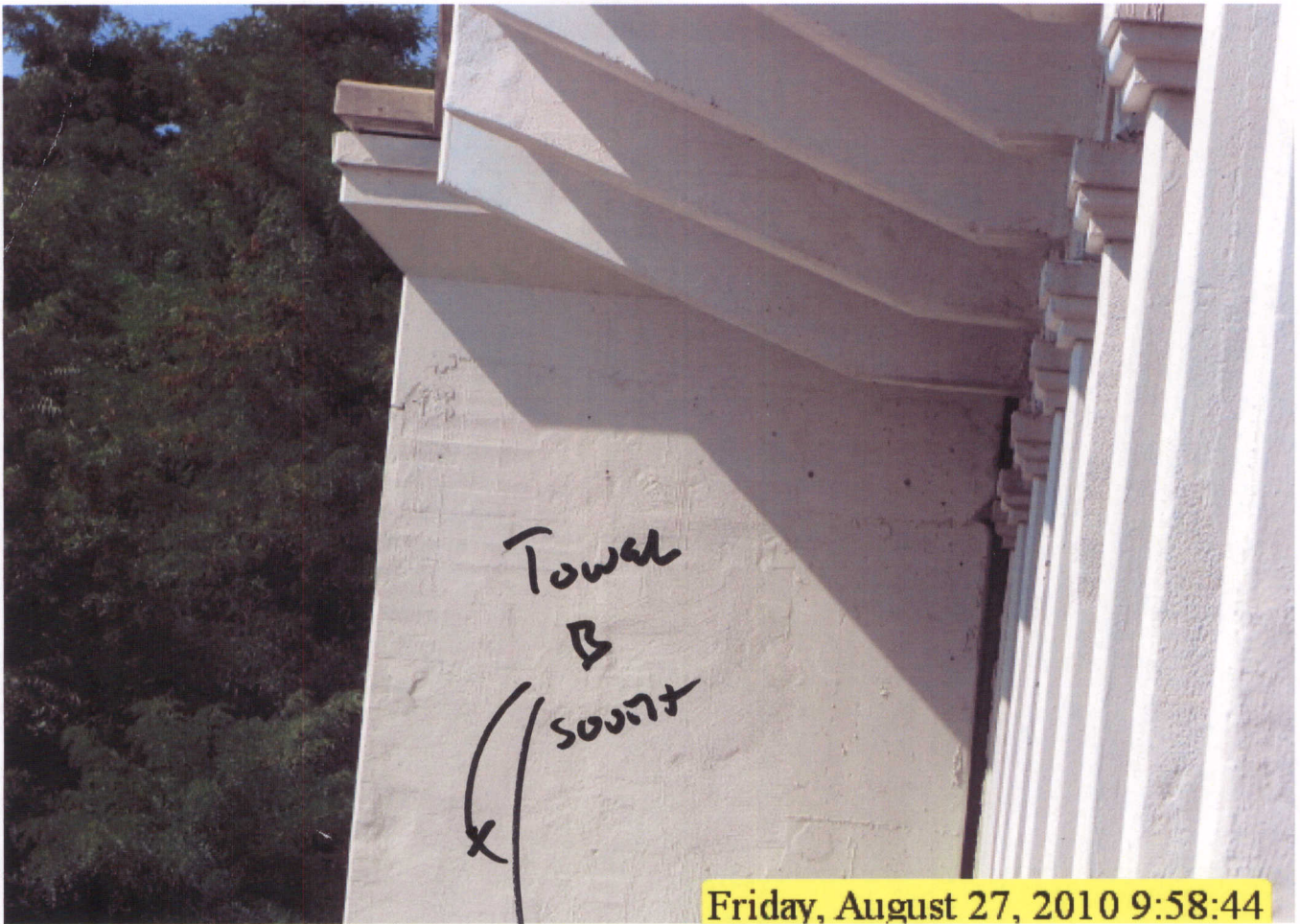
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CU4-6-1956

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1800 930



Friday, August 27, 2010 9:58:51

CM-6-1456

SFN 1800930

East
End

MAY 9 2007

TOWER B 2007 INSPECTION
SOUTH