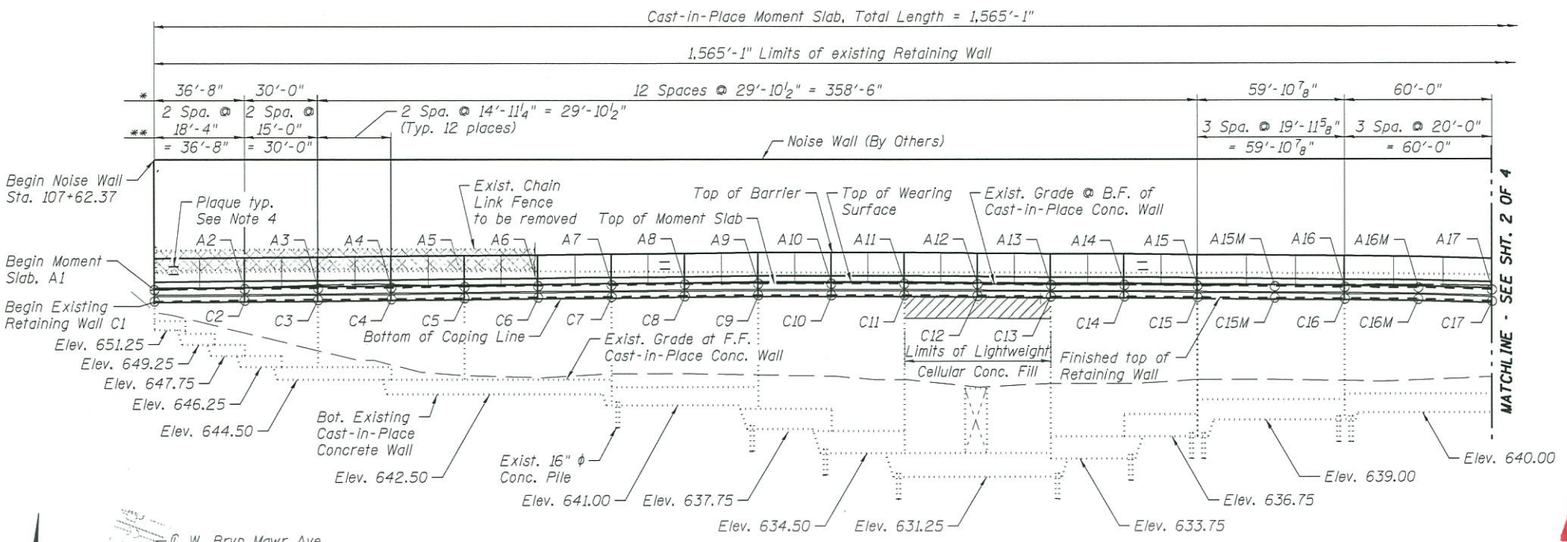
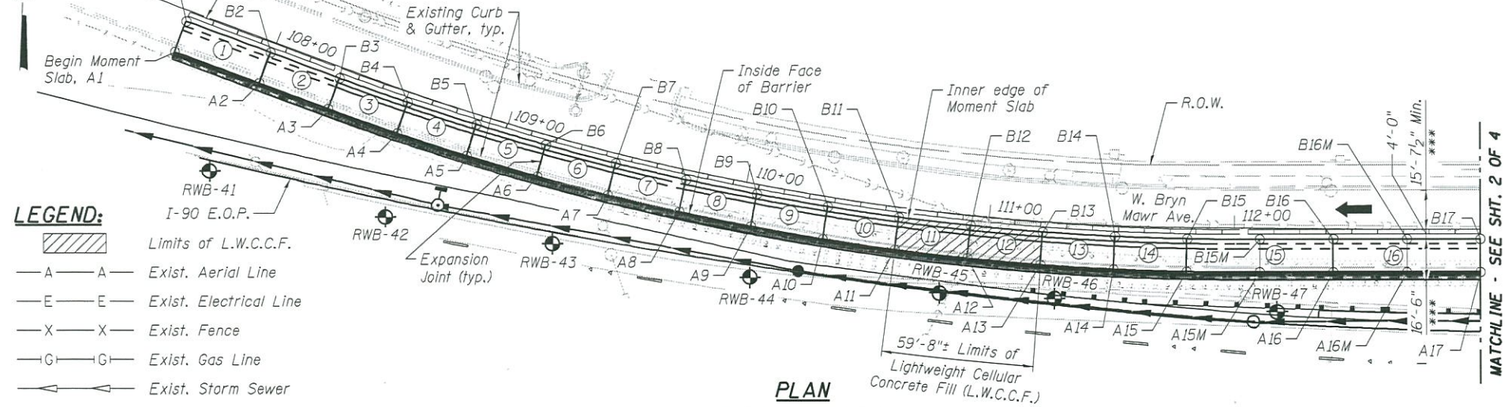
Bench Mark: TBM #17 (ELEV. 637.45)-"x" cut SW bolt of light pole (FH8) on North side of WB I-90, 3rd pole West of CTA bridge West of Harlem Ave.

Existing Structure: Existing structure, constructed in 1959, is a T-type cast-in-place retaining wall on a combination of spread footing and cast-in-place concrete piles. The retaining wall is approximately 1,565 feet long with a max. exposed height of 15'-7". A chain link fence is mounted on top of the wall. Existing wall to remain. Top portion of wall will be removed and a Moment Slab and associated noise wall will be constructed in separate contracts. One lane minimum of traffic will be maintained in one direction (one-way street west) during construction using Bryn Mawr lane closures when required.

Salvage - None



ELEVATION
(Looking North)



PLAN
(@ Top of Moment Slab)

LEGEND:

- Limits of L.W.C.C.F.
- Exist. Aerial Line
- Exist. Electrical Line
- Exist. Fence
- Exist. Gas Line
- Exist. Storm Sewer
- Exist. Telephone Line
- Exist. Water Line
- Prop. Storm Sewer
- Exist. Light Pole
- Prop. Manhole
- Prop. Inlet
- Exist. Catch Basin (to remain)
- Moment Slab Segment Number
- Temporary Travel Lane
- Soil Boring Location

NOTES:

1. Horizontal dimensions measured along front face (I-90 side) of Existing Retaining Wall U.N.O.
2. Stations & offsets are given to front face (I-90 side) of Existing Retaining Wall relative to ℄ W. Bryn Mawr Ave.
3. Stations, offsets & elevations for control points are provided on Sheet 4.
4. Provide Plaque on inside face (W. Bryn Mawr Ave. side) of Barrier, at every 200' (or less).

*Expansion Joint Spacing in Barrier and Moment Slab (along front face (I-90 side) of Existing Retaining Wall)
**Construction Joint Spacing in Barrier
***Subject to refinement during final design
****Exact T.C.B. offset pending District review of Maintenance of Traffic concept for Frontage Road - Moment Slab construction

CURVE DATA

(℄ W. Bryn Mawr Ave.)

PI STA. = 110+17.55
Δ = 18° 37' 53" (LT)
D = 5° 40' 05"
R = 1,010.88'
T = 165.82'
L = 328.71'
E = 13.51'
P.C. STA. = 108+51.73
P.T. STA. = 111+80.45

LOADING

Allow 35 psf wind load for Structure Mounted Noise Wall (see Special Provision)
Maximum Dead Load not to exceed 55 psf of wall face area.
Traffic Impact per AASHTO LRFD Bridge Specifications
Approx. Noise Wall Height = 15'-0"

HIGHWAY CLASSIFICATION

F.A.I Rte. - Higgins Road (S.R. 72)
Functional Class: Major Collector
ADT: 19,800 (2013)
ADTT: 1,200 (2013)
Speed: 30 m.p.h (posted)

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, 7th Edition (2014) with 2015 Interim Revisions

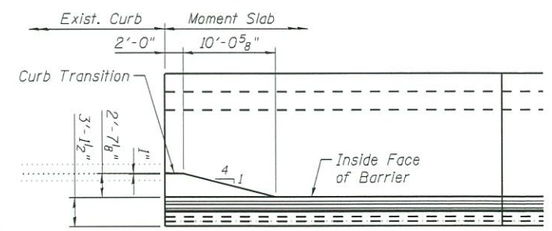
DESIGN STRESSES

New Construction
f'c = 4,000 psi (Superstructure Concrete)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
Existing Construction
fc = 800 psi
fs = 20,000 psi (Reinforcement)

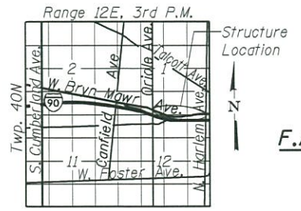
PLAQUE __
MOMENT SLAB AREA
DO NOT OPEN-CUT
ROADWAY FROM
PLAQUE 1 TO PLAQUE 9

PLAQUE

APPROVED
JUN 23 2016
AS A BASIS FOR
PREPARATION OF DETAILED PLANS



CURB TRANSITION II
(Moment Slab Segment 1)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION I
W. BRYN MAWR AVENUE
F.A.P. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 107+62.37 TO STA. 123+20.25
STRUCTURE NO. 016-2295

MODEL: $MODELNAME$
D1580015-sht-NW4.0_TSL01.03_GP&E.dgn

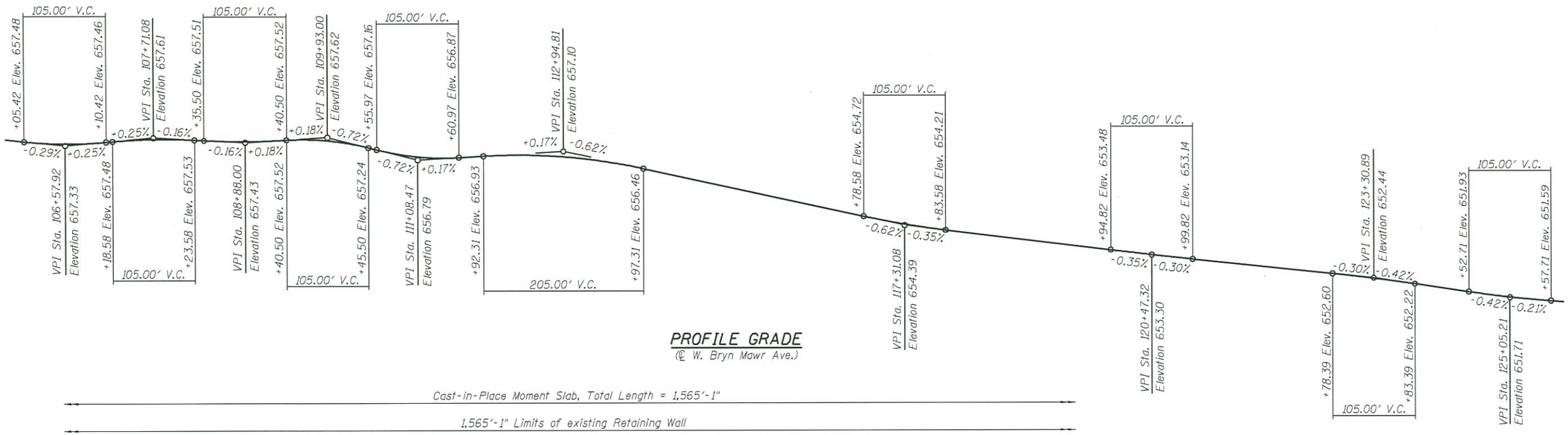
RME Rubinos & Mesia Engineers Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2432

USER NAME = PHodina	DESIGNED - EW	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EW	REVISED -	
PLOT DATE = 3/28/2016	CHECKED - PAH	REVISED -	

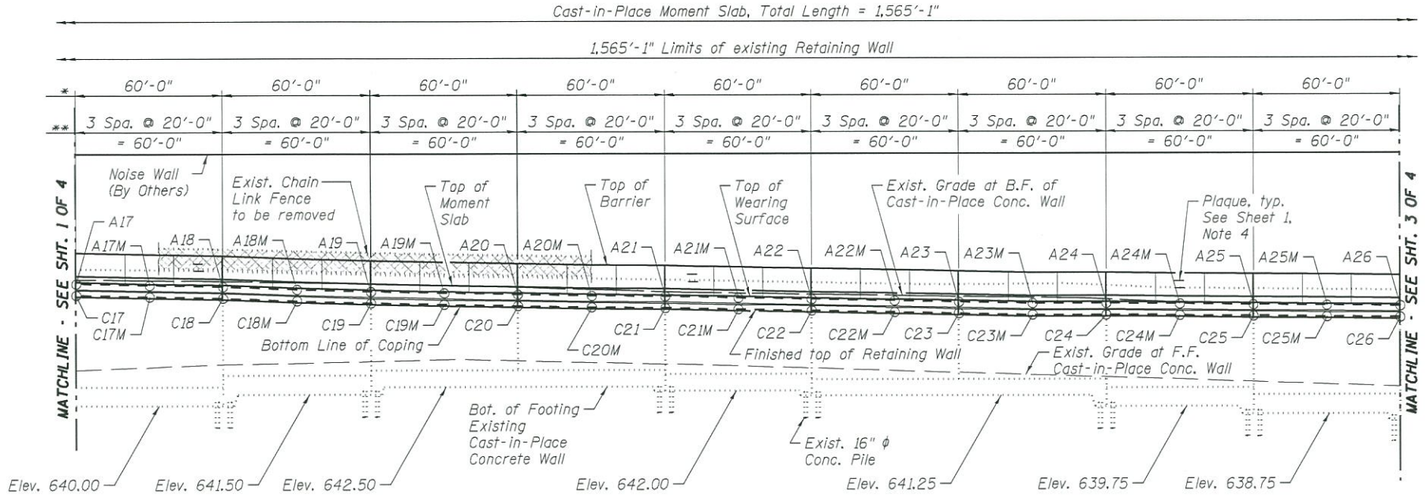
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION 1
EX WB-E MOMENT SLAB
SHEET NO. 1 OF 4 SHEETS

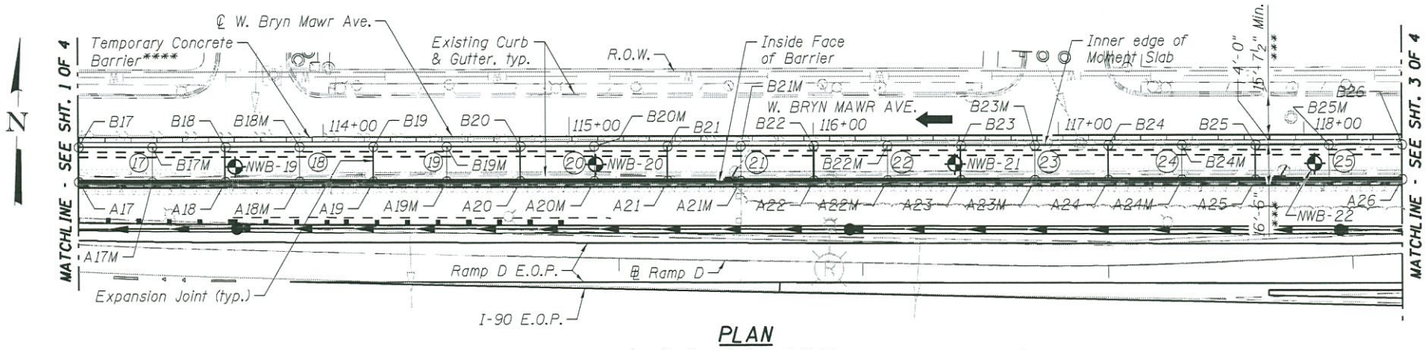
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90		COOK	4	1
		ILLINOIS FED. AID PROJECT		



PROFILE GRADE
(℄ W. Bryn Mawr Ave.)



ELEVATION
(Looking North)



PLAN
(@ Top of Moment Slab)

APPROVED

JUN 23 2016

AS A BASIS FOR PREPARATION OF DETAILED PLANS

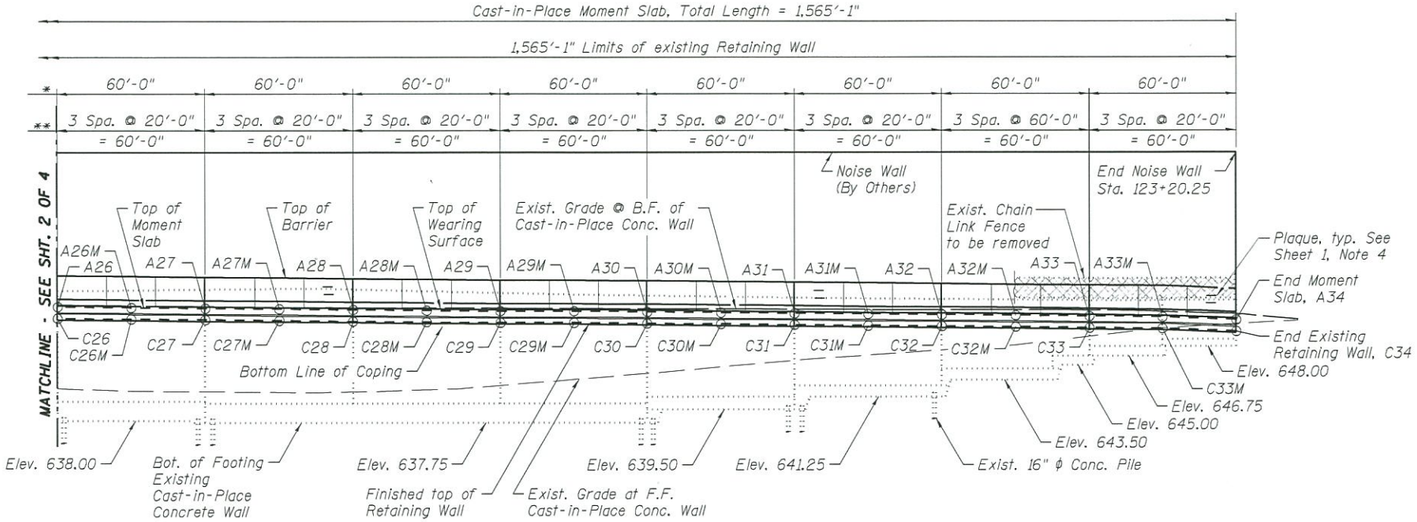
NOTES:

1. Horizontal dimensions measured along front face (I-90 side) of Existing Retaining Wall U.N.O.
2. Stations, offsets & elevations for control points are provided on Sheet 4.

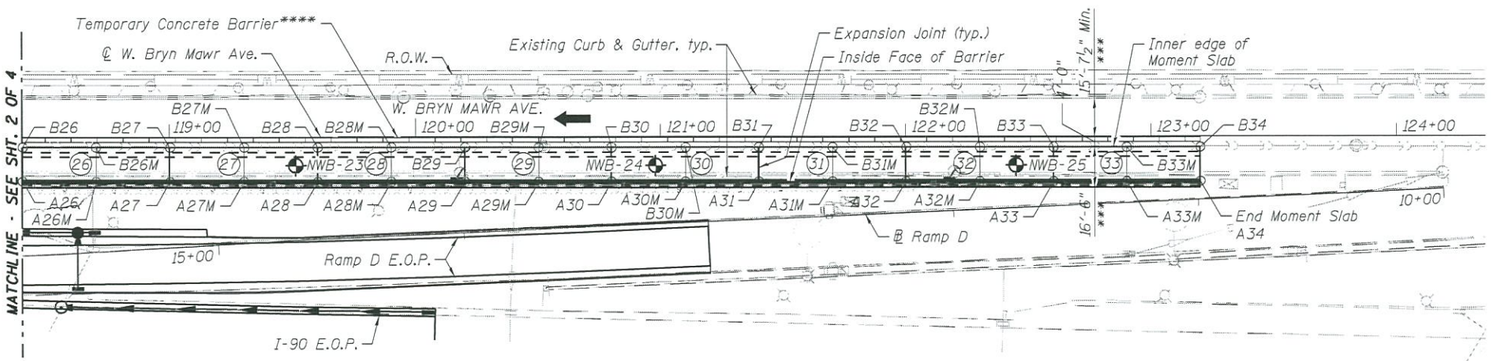
GENERAL PLAN AND ELEVATION II
W. BRYN MAWR AVENUE
F.A.P. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 107+62.37 TO STA. 123+20.25
STRUCTURE NO. 016-2295

MODEL: $MODELNAME$
D158015-sht-NW4.0_TSL01_03_GP&E.dgn

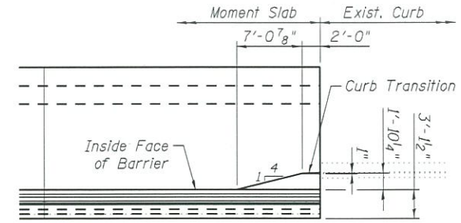
RME Rubinos & Mesia Engineers Inc. 200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482	USER NAME = PHodina	DESIGNED - EM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION 2 EX WB-E MOMENT SLAB	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - PAH	REVISED -			I-90		COOK	4	2
	PLOT SCALE =	DRAWN - BV	REVISED -							
	PLOT DATE = 3/28/2016	CHECKED - PAH	REVISED -		SHEET NO. 2 OF 4 SHEETS		ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking North)



PLAN
(@ Top of Moment Slab)



CURB TRANSITION II
(Moment Slab Segment 33)

NOTES:

1. Horizontal dimensions measured along front face (I-90 side) of Existing Retaining Wall U.N.O.
2. Stations, offsets & elevations for control points are provided on Sheet 4.

APPROVED

JUN 23 2016

AS A BASIS FOR PREPARATION OF DETAILED PLANS

GENERAL PLAN AND ELEVATION III
W. BRYN MAWR AVENUE
F.A.P. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 107+62.37 TO STA. 123+20.25
STRUCTURE NO. 016-2295

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-24-82

USER NAME = PHodina	DESIGNED - EM	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 3/28/2016	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION 3
EX WB-E MOMENT SLAB
SHEET NO. 3 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90		COOK	4	3
		ILLINOIS FED. AID PROJECT		

MODEL: $MODELNAME$
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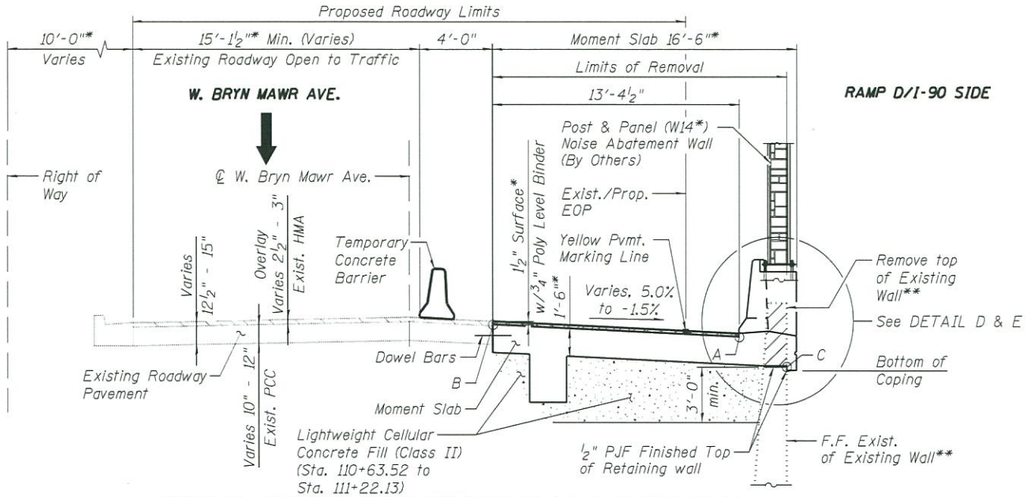
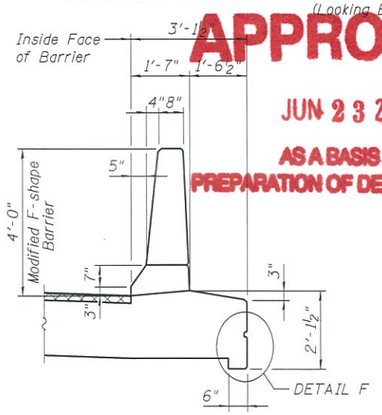


TYPICAL SECTION THRU MOMENT SLAB & NOISE WALL



DETAIL D

(Looking East)

DETAIL F

APPROVED
JUN 23 2016
AS A BASIS FOR PREPARATION OF DETAILED PLANS

A Stations, offsets and elevations for Inside Face of Barrier are provided w.r.t. this point, see Plan & Elevation views.

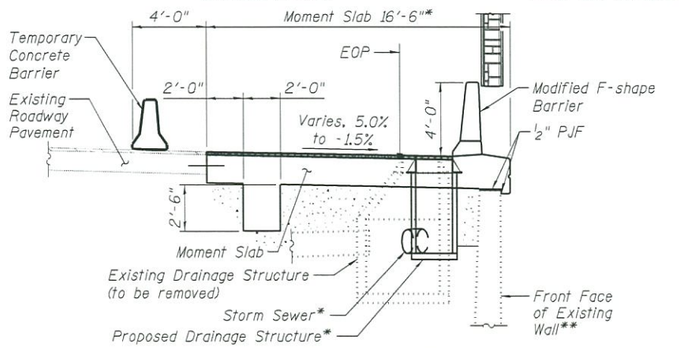
B Stations and offsets for inner edge of Moment Slab are provided w.r.t this point, see Plan view.

C Stations and elevations for finished top of Retaining Wall are provided w.r.t. this point, see Elevation view.

LEGEND

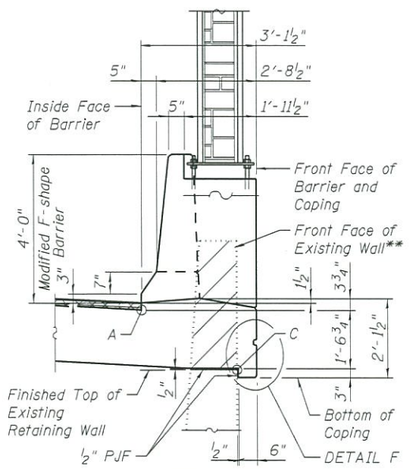
Temporary Travel Lanes

Existing Structure Removal



MOMENT SLAB SECTION

(Looking East @ Catch Basin Location)



DETAIL E

(Looking East @ Noise Wall Post)

GEOMETRIC CONTROL POINTS STATIONS, OFFSETS & ELEVATIONS

INSIDE FACE OF BARRIER (A)

Location	Station	Offset (' RT)	Elevation
A1	107+63.60	17.99	656.71
A2	107+99.03	17.80	656.81
A3	108+29.03	17.64	656.90
A4	108+58.30	17.52	656.99
A5	108+87.66	17.50	657.08
A6	109+16.96	16.96	657.17
A7	109+46.27	16.89	657.26
A8	109+75.59	16.95	657.35
A9	110+04.90	17.12	657.44
A10	110+34.21	17.29	657.53
A11	110+63.52	17.46	657.51
A12	110+92.83	17.63	657.42
A13	111+22.13	17.79	657.33
A14	111+51.43	17.94	657.24
A15	111+80.71	17.83	657.15
A15M	112+10.34	17.55	657.06
A16	112+40.30	17.44	656.97
A16M	112+70.25	17.46	656.85
A17	113+00.25	17.47	656.62
A17M	113+30.25	17.48	656.39
A18	113+60.25	17.50	656.16
A18M	113+90.25	17.51	655.83
A19	114+20.25	17.53	655.50
A19M	114+50.25	17.54	655.31
A20	114+80.25	17.56	655.12
A20M	115+10.25	17.57	654.93
A21	115+40.25	17.57	654.74
A21M	115+70.25	17.57	654.55
A22	116+00.25	17.57	654.36
A22M	116+30.25	17.56	654.17
A23	116+60.25	17.56	653.98
A23M	116+90.25	17.56	653.83
A24	117+20.25	17.55	653.74
A24M	117+50.25	17.55	653.65
A25	117+80.25	17.55	653.56
A25M	118+10.25	17.55	653.47
A26	118+40.25	17.54	653.37
A26M	118+70.25	17.54	653.28
A27	119+00.25	17.54	653.19
A27M	119+30.25	17.54	653.10
A28	119+60.25	17.53	653.01
A28M	119+90.25	17.53	652.92
A29	120+20.25	17.53	652.83
A29M	120+50.25	17.54	652.73
A30	120+80.25	17.55	652.64
A30M	121+10.25	17.55	652.55
A31	121+40.25	17.56	652.46
A31M	121+70.25	17.57	652.37
A32	122+00.25	17.58	652.28
A32M	122+30.25	17.59	652.18
A33	122+60.25	17.60	652.09
A33M	122+90.25	17.56	652.00
A34	123+20.25	17.56	651.73

INNER EDGE OF MOMENT SLAB (B)

Location	Station	Offset (' RT)	Elevation
B1	107+63.60	4.61	657.38
B2	107+99.03	4.42	657.35
B3	108+29.03	4.27	657.30
B4	108+58.30	4.14	657.26
B5	108+87.66	4.13	657.35
B6	109+16.96	3.92	657.43
B7	109+46.27	3.58	657.53
B8	109+75.59	3.51	657.49
B9	110+04.90	3.58	657.35
B10	110+34.21	3.75	657.33
B11	110+63.52	3.92	657.30
B12	110+92.83	4.09	657.22
B13	111+22.13	4.25	657.13
B14	111+51.43	4.41	657.04
B15	111+80.71	4.56	656.95
B15M	112+10.34	4.46	656.87
B16	112+40.30	4.17	656.91
B16M	112+70.25	4.07	656.86
B17	113+00.25	4.08	656.73
B17M	113+30.25	4.10	656.66
B18	113+60.25	4.11	656.50
B18M	113+90.25	4.12	656.30
B19	114+20.25	4.14	656.04
B19M	114+50.25	4.15	655.85
B20	114+80.25	4.17	655.66
B20M	115+10.25	4.18	655.47
B21	115+40.25	4.19	655.28
B21M	115+70.25	4.20	655.09
B22	116+00.25	4.19	654.90
B22M	116+30.25	4.19	654.71
B23	116+60.25	4.19	654.52
B23M	116+90.25	4.19	654.37
B24	117+20.25	4.18	654.28
B24M	117+50.25	4.18	654.18
B25	117+80.25	4.18	654.09
B25M	118+10.25	4.17	653.93
B26	118+40.25	4.17	653.78
B26M	118+70.25	4.17	653.68
B27	119+00.25	4.17	653.59
B27M	119+30.25	4.16	653.50
B28	119+60.25	4.16	653.41
B28M	119+90.25	4.16	653.32
B29	120+20.25	4.16	653.23
B29M	120+50.25	4.15	653.14
B30	120+80.25	4.16	653.04
B30M	121+10.25	4.17	652.95
B31	121+40.25	4.18	652.86
B31M	121+70.25	4.19	652.77
B32	122+00.25	4.20	652.68
B32M	122+30.25	4.21	652.59
B33	122+60.25	4.22	652.50
B33M	122+90.25	4.23	652.40
B34	123+20.25	4.19	652.13

FINISHED TOP OF RETAINING WALL (C)

Location	Station	Offset (' RT)	Elevation
C1	107+63.60	20.61	655.10
C2	107+99.03	20.42	655.21
C3	108+29.03	20.27	655.30
C4	108+58.30	20.14	655.39
C5	108+87.66	20.13	655.48
C6	109+16.96	19.92	655.57
C7	109+46.27	19.58	655.66
C8	109+75.59	19.51	655.75
C9	110+04.90	19.58	655.84
C10	110+34.21	19.75	655.93
C11	110+63.52	19.92	655.90
C12	110+92.83	20.09	655.81
C13	111+22.13	20.25	655.73
C14	111+51.43	20.41	655.64
C15	111+80.71	20.56	655.55
C15M	112+10.34	20.46	655.46
C16	112+40.30	20.18	655.37
C16M	112+70.25	20.07	655.25
C17	113+00.25	20.08	655.02
C17M	113+30.25	20.10	654.79
C18	113+60.25	20.11	654.56
C18M	113+90.25	20.12	654.23
C19	114+20.25	20.14	653.90
C19M	114+50.25	20.15	653.71
C20	114+80.25	20.17	653.52
C20M	115+10.25	20.18	653.33
C21	115+40.25	20.19	653.14
C21M	115+70.25	20.20	652.95
C22	116+00.25	20.19	652.76
C22M	116+30.25	20.19	652.57
C23	116+60.25	20.19	652.38
C23M	116+90.25	20.19	652.23
C24	117+20.25	20.18	652.14
C24M	117+50.25	20.18	652.04
C25	117+80.25	20.18	651.95
C25M	118+10.25	20.17	651.86
C26	118+40.25	20.17	651.77
C26M	118+70.25	20.17	651.68
C27	119+00.25	20.17	651.59
C27M	119+30.25	20.16	651.50
C28	119+60.25	20.16	651.40
C28M	119+90.25	20.16	651.31
C29	120+20.25	20.16	651.22
C29M	120+50.25	20.15	651.13
C30	120+80.25	20.16	651.04
C30M	121+10.25	20.17	650.95
C31	121+40.25	20.18	650.86
C31M	121+70.25	20.19	650.76
C32	122+00.25	20.20	650.67
C32M	122+30.25	20.21	650.58
C33	122+60.25	20.22	650.49
C33M	122+90.25	20.23	650.40
C34	123+20.25	20.19	650.13

Notes:

* Subject to refinement during final design

** Remove top portion of existing Retaining Wall to the elevations shown on this sheet.

1. Stations and offsets are provided with respect to (w.r.t.) ℄ W Bryn Mawr Ave.
2. See TYPICAL SECTION THRU MOMENT SLAB & NOISE WALL for location of Geometric Control Points.
3. Spacing and layout of noise wall post anchors to be determined during final design.

SECTIONS AND DETAILS
W. BRYN MAWR AVENUE
F.A.P. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 107+62.37 TO STA. 123+20.25
STRUCTURE NO. 016-2295

MODEL: $MODELNAME$
D158015-sht-NW4.0_TSL04.Details.dgn

RME Rubinos & Mesia Engineers Inc.
200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EW	REVISED -	
	CHECKED - PAH	REVISED -	
PLOT SCALE =	DRAWN - EV	REVISED -	
PLOT DATE = 3/28/2016	CHECKED - PAH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTIONS AND DETAILS
EX WB-E MOMENT SLAB
SHEET NO. 4 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90		COOK	4	4
		ILLINOIS FED. AID PROJECT		