Bench Mark: Set "X" on northwest corner of handhole along east edge of SB I-90/94 20 feet north of Madison Street. Elev. 596.13.

Existing Structure: Existing Retaining Wall 21. Constructed in 1957 under F.A.I. Route 90/94, Section 0202.6-1P. Cast-in-place concrete retaining wall on metal shell piles and spread footing that measures 180'-0" from Washington Boulevard SE Wingwall south to Madison Street. Maximum height from top of wall to bottom of footing measures 15'-9½". The south portion of the existing retaining wall is to be removed and replaced with an MSE wall. The top part of the north portion of the wall is to be removed and replaced with a concrete parapet and anchorage slab.

Traffic on NB Washington Exit Ramp will be detoured during construction.

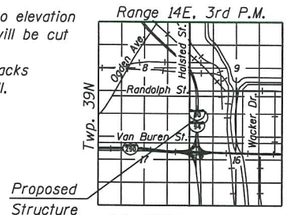
No Salvage.

Notes:

1.) Wall offsets are measured from the ℄ of NB Washington Exit Ramp to the front face of the existing wall or precast panels.
2.) F.F. denotes Front Face.
3.) B.F. denotes Back Face.
4.) Repairs to front face of existing wall are to be made according to the Wall Condition Report.
5.) Stainless Steel Trellises to be installed on the front face of the wall. For limits, see Elevation View. For details, see Typical Cross Section and SS Cable Wall Mount Unit Detail on Sheet 2 of 2.
6.) Proposed drainage information shown is conceptual and will be determined during final design
7.) Construction and expansion joints are only located in the parapet and anchorage slab

SCOPE OF WORK:

1.) Remove existing railing, cladding, and wall to elevation specified in Elevation View. Existing piles will be cut to 1' below top of leveling pad and buried.
2.) Repair spalls, delaminated concrete, and cracks on the front face of remaining existing wall.
3.) Construct MSE wall.
4.) Replace top portion of existing wall with parapet on top of anchorage slab.



LOCATION SKETCH

HIGHWAY CLASSIFICATION

NB Washington Exit Ramp
Functional Class: Interstate
ADT: 3,500 (2012); 4,000 (2040)
ADTT: 0 (2012); 0 (2040)
DHV: 430 (2040)
Design Speed: 30 m.p.h.
Posted Speed: 30 m.p.h.
One-Way Traffic
Directional Distribution: 100%

NB Lake Exit Ramp
Functional Class: Interstate
ADT: 8,200 (2012); 9,000 (2040)
ADTT: 312 (2012); 342 (2040)
DHV: 740 (2040)
Design Speed: 30 m.p.h.
Posted Speed: 30 m.p.h.
One-Way Traffic
Directional Distribution: 100%

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition (Portion of Existing Wall to Remain)

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

EXISTING UNITS

fc = 1,200 psi
fs = 20,000 psi (Reinforcement)

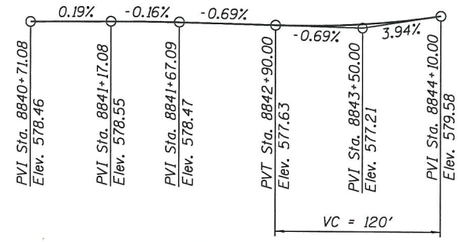
PRECAST UNITS

f'c = 4,500 psi

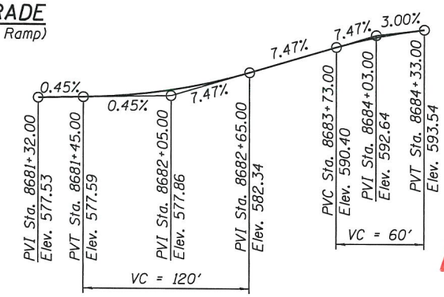
APPROVED

OCT 17 2019

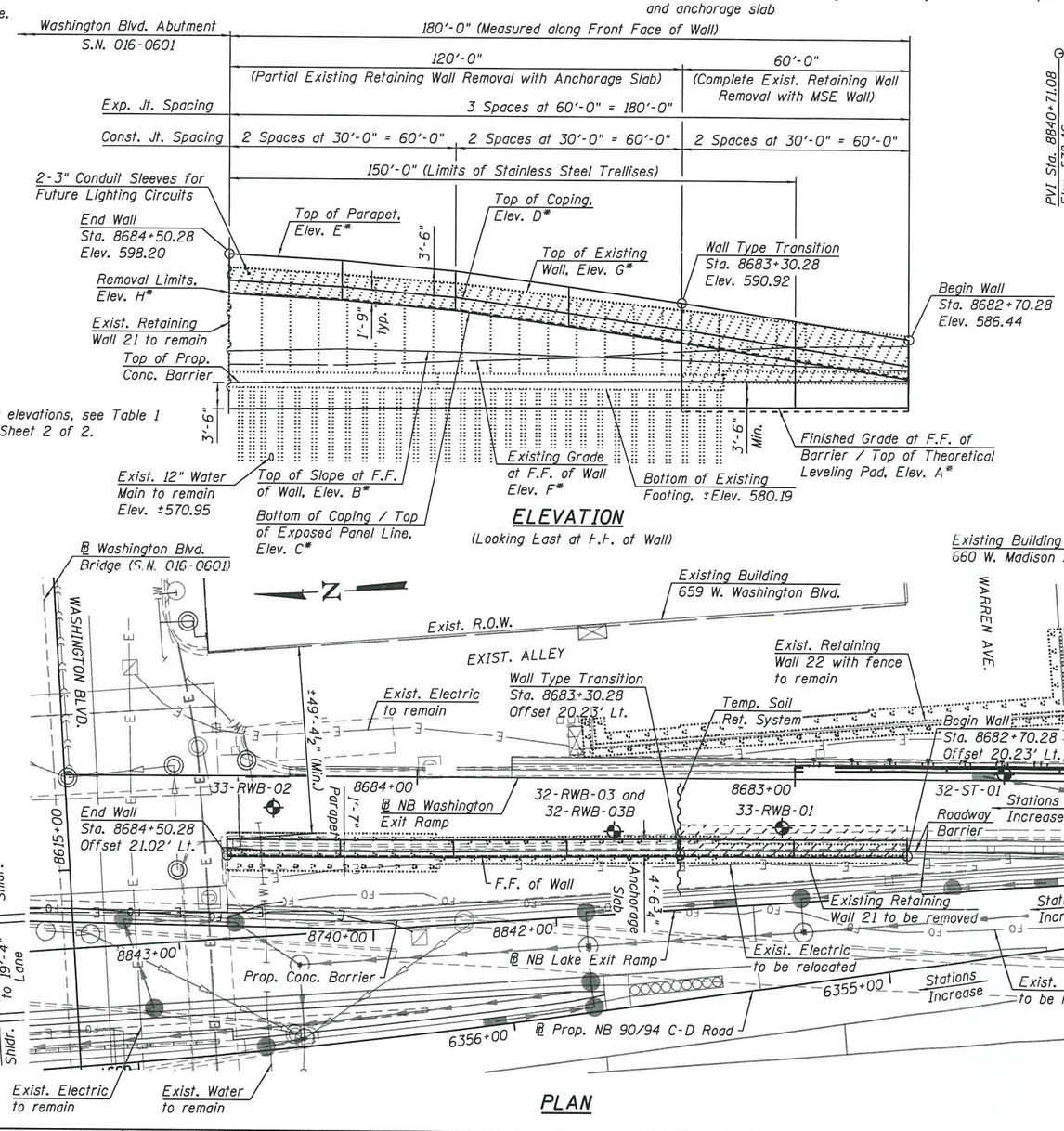
AS A BASIS FOR PREPARATION OF DETAILED PLANS



PROFILE GRADE
(℄ NB Lake Exit Ramp)



PROFILE GRADE
(℄ NB Washington Exit Ramp)



ELEVATION
(Looking East at F.F. of Wall)

PLAN

LEGEND:

Combined Sewer		Soil Boring	
Electric	E	Existing Catch Basin	
Ex. Storm Sewer		Proposed Catch Basin	
Prop. Storm Sewer		Existing Manhole	
Ex. Water	W	Proposed Manhole	
Ex. Fiber Optic	FO	Proposed Inlet	
Limits of Soil Reinforcement		Concrete Removal	

GENERAL PLAN
RETAINING WALL 33 ALONG NB WASHINGTON EXIT RAMP
F.A.I. RTE. 90/94 (KENNEDY EXPRESSWAY)
SECTION 2015-019R
COOK COUNTY
STATION 8682+70.28 TO STATION 8684+50.28
STRUCTURE NO. 016-1822

TranSystems

USER NAME = tjallen	DESIGNED - WJC	REVISED -	
	CHECKED - MDS/JNP	REVISED -	
PLOT SCALE = 36.0000 ' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 10/2/2019	CHECKED - MDS/JNP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2015-019R	COOK	2	1
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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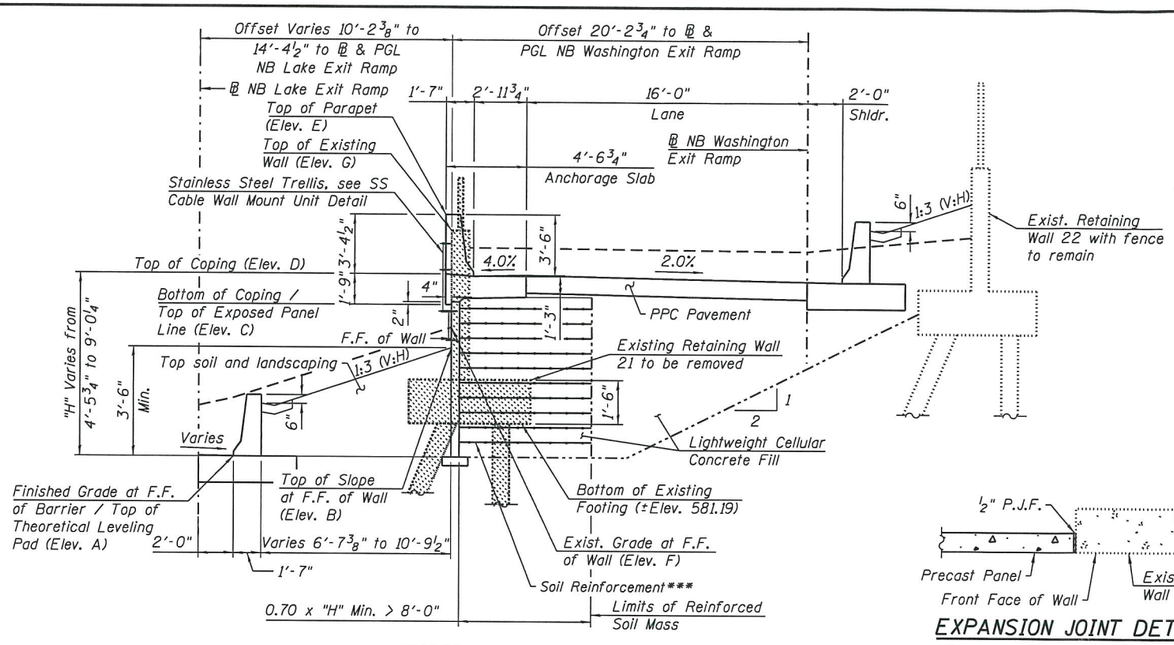


*** The M.S.E. Wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.83 kips/ft of wall.

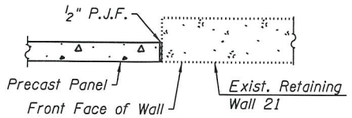
TYPICAL CROSS SECTION

(Sta. 8682+70.28 to Sta. 8683+30.28)
(Looking Upstation)

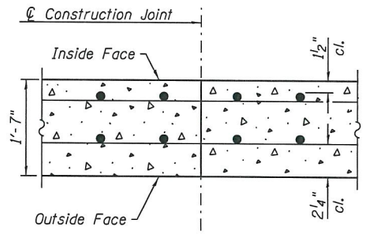
TABLE 1 - WALL ELEVATIONS

	Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D	Elevation E	Elevation F	Elevation G	Elevation H	Wall Type
	8682+70.28	20.23' Lt.	578.45	583.20	581.31	583.06	586.44	586.15	587.44	-	MSE Wall
	8683+00.28	20.23' Lt.	578.44	583.89	583.55	585.30	588.68	585.91	589.15	-	
*	8683+30.28	20.23' Lt.	578.40	584.54	585.79	587.54	590.92	585.20	590.70	-	
**	8683+30.28	20.23' Lt.	578.40	584.54	585.79	587.54	590.92	585.20	590.70	585.92	Exist. Wall with Anchorage Slab
	8683+60.28	20.51' Lt.	578.19	584.94	588.02	589.77	593.14	584.30	592.35	588.14	
	8683+90.28	20.87' Lt.	577.99	585.31	590.13	591.88	595.26	583.78	594.11	590.26	
	8684+20.28	20.97' Lt.	577.77	585.53	591.65	593.40	596.78	583.22	595.19	591.78	
	8684+50.28	21.02' Lt.	577.51	585.08	593.07	594.82	598.20	583.22	596.06	593.20	

Elevation A- Finished Grade at F.F. of Barrier / Top of Theoretical Leveling Pad
Elevation B- Top of Slope at F.F. of Wall
Elevation C- Bottom of Coping / Top of Exposed Panel Line
Elevation D- Top of Coping
Elevation E- Top of Parapet
Elevation F- Existing Grade at F.F. of Wall
Elevation G- Top of Existing Wall
Elevation H- Removal Limits
* Elevations just to the right of joint
** Elevations just to the left of joint

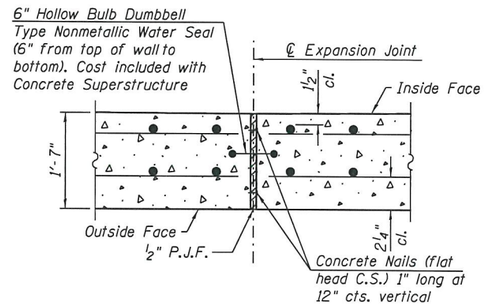


EXPANSION JOINT DETAIL AT WALL TYPE TRANSITION



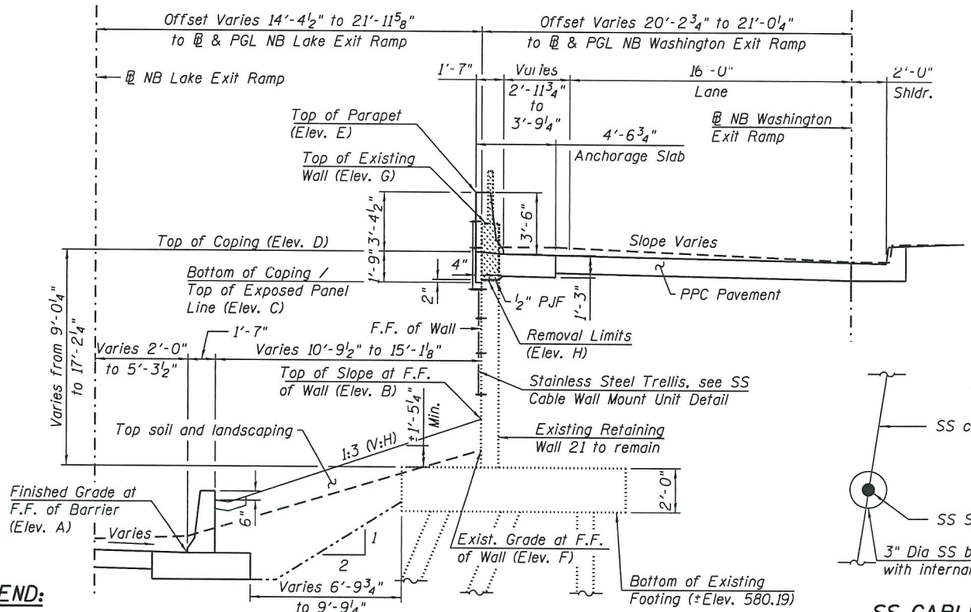
CONSTRUCTION JOINT DETAILS

(NTS)



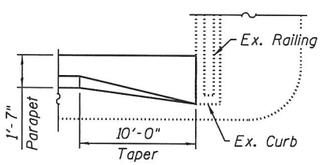
EXPANSION JOINT DETAILS

(NTS)

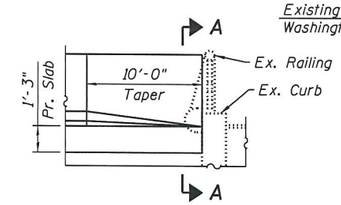


TYPICAL CROSS SECTION

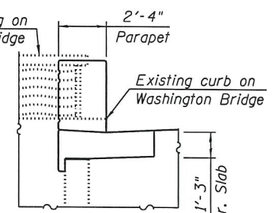
(Sta. 8683+30.28 to Sta. 8684+50.28)
(Looking Upstation)



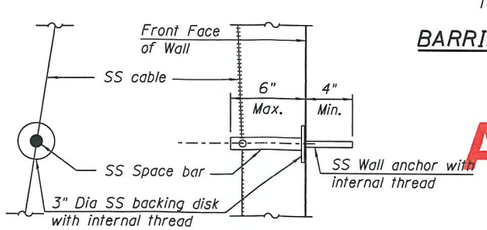
BARRIER TRANSITION



TRANSITION ELEVATION



SECTION A-A



SS CABLE WALL MOUNT UNIT DETAIL

Note: Type, size and location of SS Wall Anchor shall be determined in final design.

LEGEND:

B.F. - denotes Back Face.
F.F. - denotes Front Face.
- Concrete Removal

APPROVED
OCT 17 2019
AS A BASIS FOR PREPARATION OF DETAILED PLANS

CROSS SECTION AND DETAILS
RETAINING WALL 33 ALONG NB WASHINGTON EXIT RAMP
F.A.I. RTE. 90/94 (KENNEDY EXPRESSWAY)
SECTION 2015-019R
COOK COUNTY
STATION 8682+70.28 TO STATION 8684+50.28
STRUCTURE NO. 016-1822

TranSystems

USER NAME = tjellen	DESIGNED - WJC	REVISED -
	CHECKED - MDS/JNP	REVISED -
PLOT SCALE = 0.17 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 10/2/2019	CHECKED - MDS/JNP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2015-019R	COOK	2	2
		CONTRACT NO. 62A76		
	ILLINOIS FED. AID PROJECT			

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