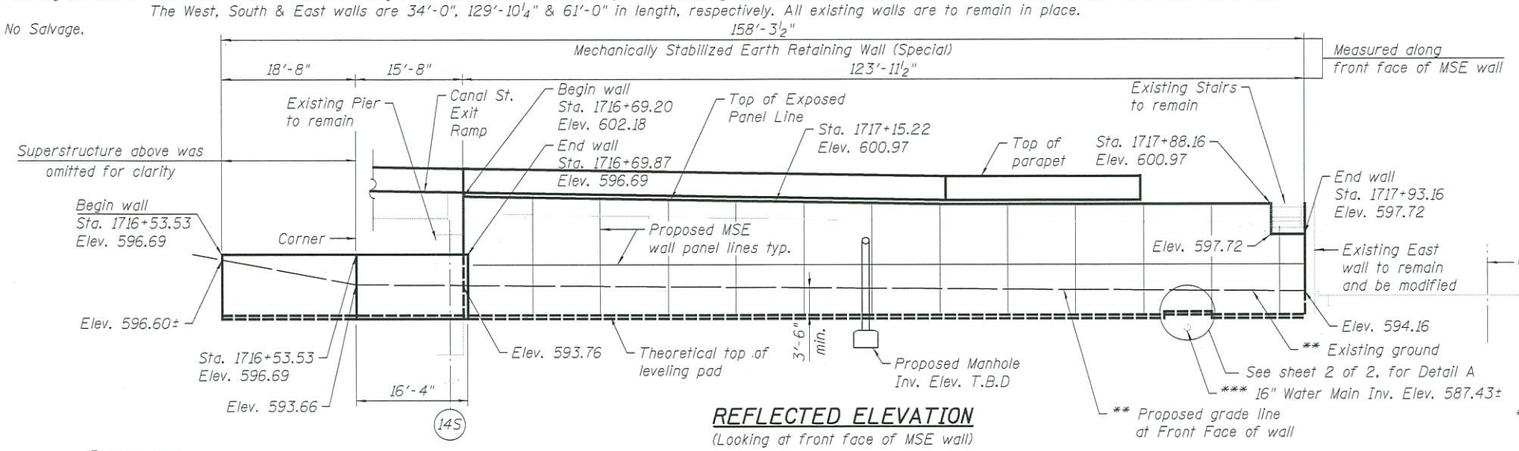
Bench Mark: Square cut at center of door entrance to 707 W. Harrison St: South side of Harrison St. ±90' west of west line of Des Plaines. Elevation 597.47.
A + cut in the SE anchor bolt at the 11th street light N. of Roosevelt on the W. side of Halsted. Elev. = 594.06.
Traffic Control: Canal Street Exit Ramp will be closed during construction of the proposed wall. Ramp traffic will be detoured via local roads.
Existing Structure: The West, South & East retaining walls were built in 1953 are part of existing concrete ramp structure that carries Canal St. exit ramp from EB I-290.
The West, South & East walls are 34'-0", 129'-10¼" & 61'-0" in length, respectively. All existing walls are to remain in place.
No Salvage.



REFLECTED ELEVATION

(Looking at front face of MSE wall)

TABLE

Station	Existing ground and Proposed Grade at F.F. of Wall
1717+93.16	594.16
1717+88.16	594.16
1717+70.00	595.04
1717+50.00	593.78
1717+30.00	593.48
1717+10.00	593.26
1716+90.00	593.80
1716+69.20	593.76

** See Table for Station and Elevation of Existing ground and Proposed grade line at Front Face of wall

*** Elevation taken from record drawings provided by Department of Water Management. Field verify as necessary.

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AS A BASIS FOR PREPARATION OF DETAILED PLANS

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2015 and 2016 interims

DESIGN STRESSES

FIELD UNITS (New Construction)

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

PRECAST UNITS

f'c = 4,500 psi (Precast Panels)
fy = 60,000 psi (Reinforcement)

LIGHTWEIGHT CELLULAR CONCRETE FILL

Class III
Maximum Cast Density 42±2 pcf
f'c = 120 psi

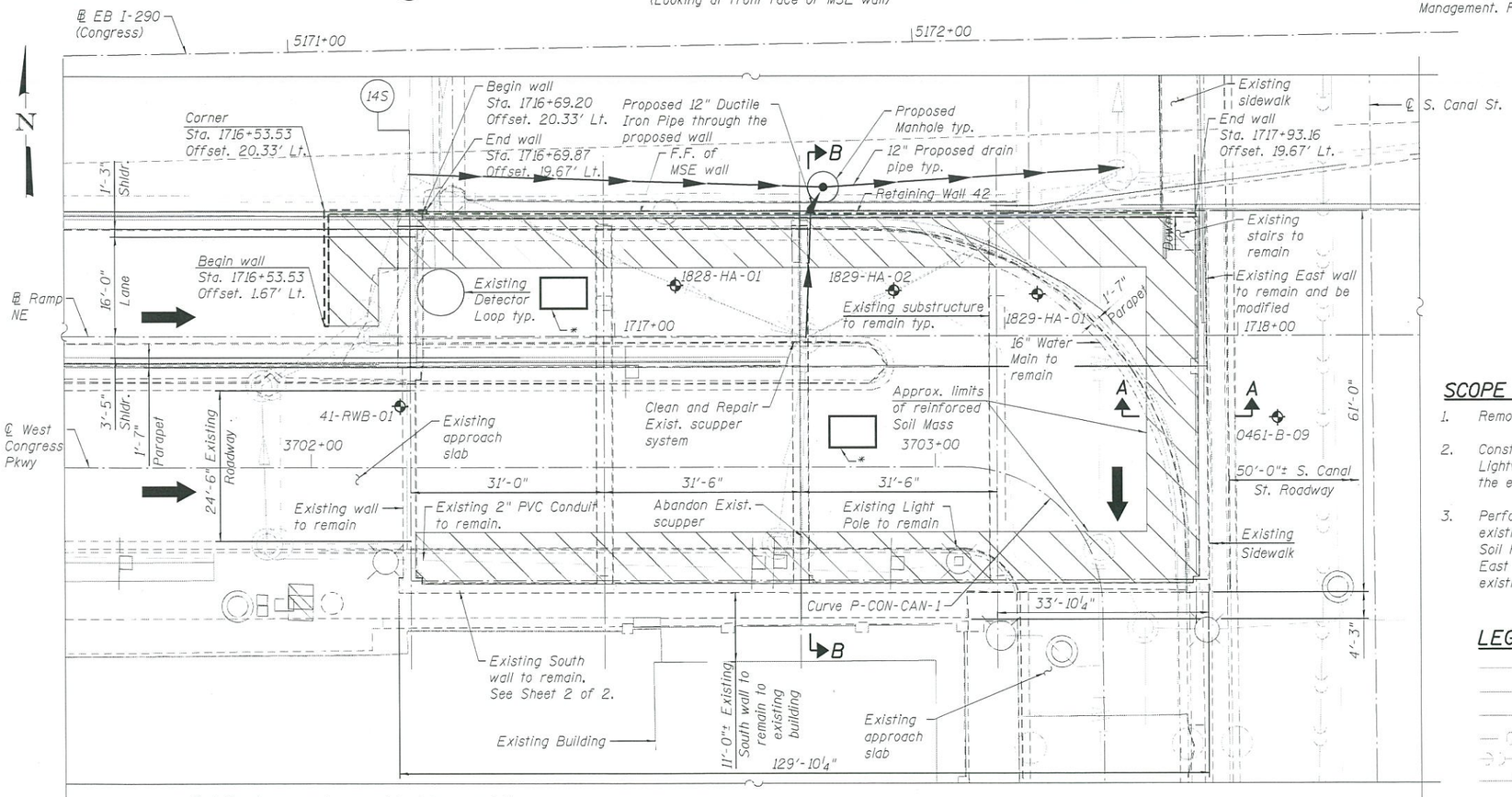
FIELD UNITS (Exist. Construction)

f'c = 3,500 psi
fy = 60,000 psi (Deck Reinforcement)
fy = 40,000 psi (Pier Reinforcement)
fy = 33,000 psi (ASTM A7)

HIGHWAY CLASSIFICATION

EB I-290 (Congress)
Functional Class: Interstate
ADT: 35,900 (2012); 37,000 (2040)
ADTT: 539 (2012); 555 (2040)
DHV: 2,820 (2040)
Design Speed: 50 m.p.h.
Posted Speed: 45 m.p.h.
One-Way Traffic
Directional Distribution: NA

S. Canal St.
Functional Class: Major Collector
ADT: N/A (2015); N/A (2040)
ADTT: N/A (2015); N/A (2040)
DHV: N/A (2040)
Design Speed: 30 m.p.h.
Posted Speed: 30 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50



* Optional proposed access hole between existing beams to facilitate the construction of the proposed wall. Location and number to be determined during construction.

PLAN

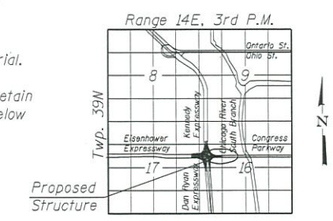
Note:
Station and offsets are referenced to the Baseline of Ramp NE. Offsets are measured to the front face of the wall.

Notes:

1. See Sheet 2 of 2 for section Detail A, Section A-A, Section B-B and profile sketches.
2. The existing detector loop/conduit/cables on the ramp from EB I-290 to Canal Street are to be abandoned.

SCOPE OF WORK

1. Remove approximately 3'-0" of unsuitable material.
2. Construct a new MSE Wall (S.N. 016-1829) to retain Lightweight Cellular Concrete Fill in the area below the existing concrete ramp structure.
3. Perform concrete repair and crack sealing on existing South and East retaining walls. Attach Soil Reinforcement to the existing South and East retaining walls that are part of the existing concrete ramp structure.



LOCATION SKETCH

LEGEND:

—W—	Water Line
—E—	Electric
—T—	Telephone line
—CTV—	Television line
	Combined Sewer
	Storm Sewer
◆	Soil Boring Location
F.F.	Front Face
T.B.D	To Be Determined

GENERAL PLAN
RETAINING WALL 42
F.A.I. ROUTE 90/94/290
SECTION 2014-001R&B
COOK COUNTY
STATION 1716+69.20 TO 1717+93.16
STRUCTURE NO. 016-1829

016-1829-CIRCLE100-SHT-PB-ST-TSL-001.dgn

PARSONS BRINCKERHOFF	USER NAME = alkhatib	DESIGNED - HA	REVISED -
		CHECKED - MS	REVISED -
	PLOT SCALE = N.T.S.	DRAWN - DCP	REVISED -
	PLOT DATE = 12/20/2016	CHECKED - JIG	REVISED -

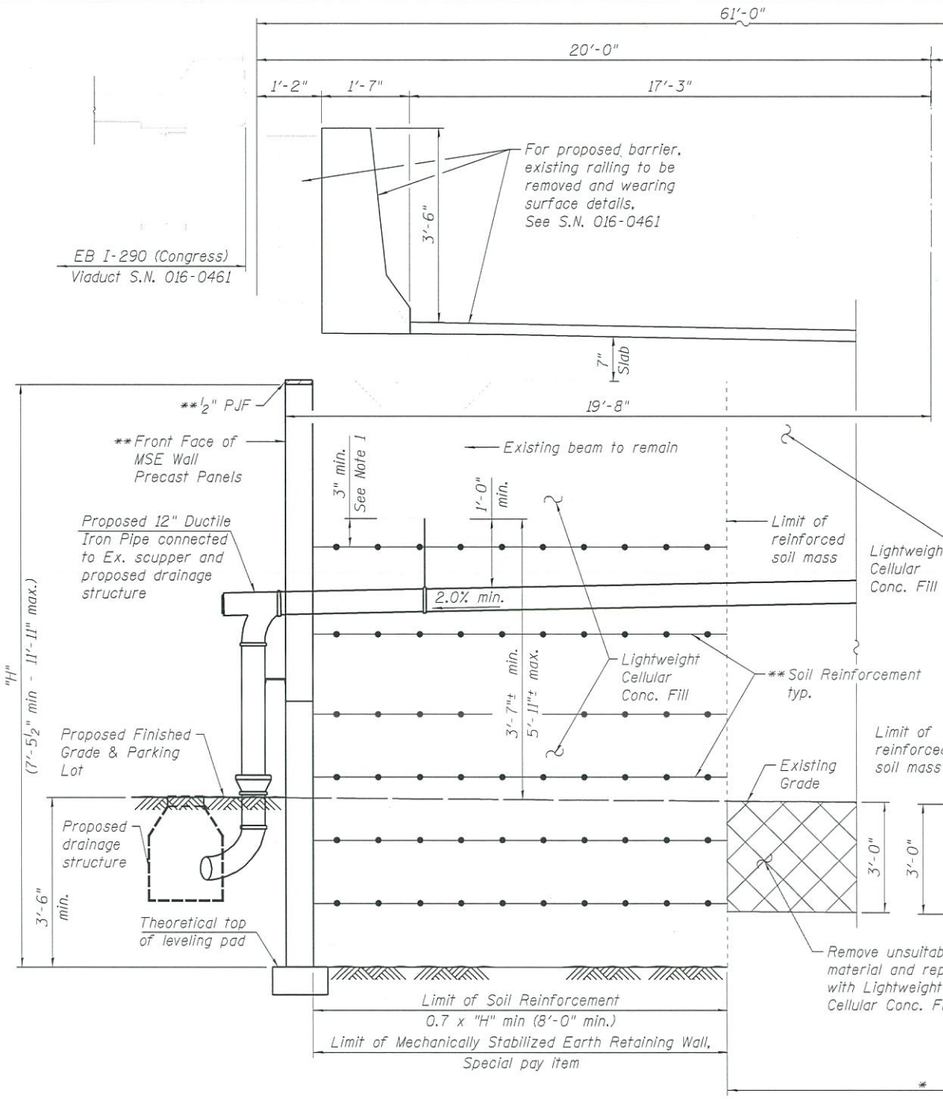
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

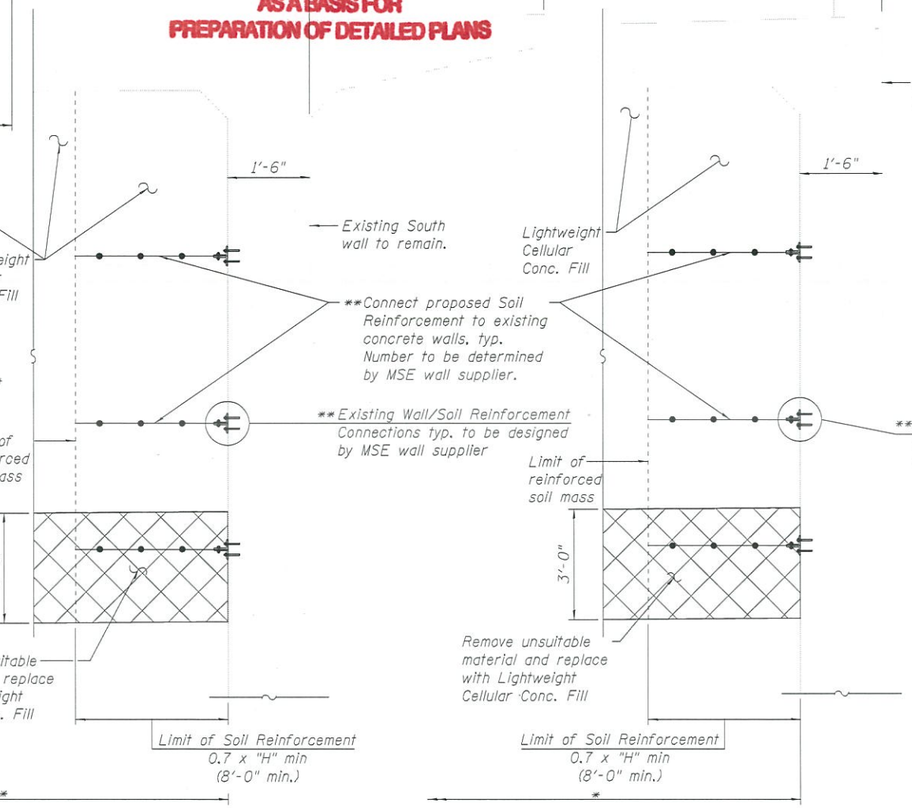
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-001R&B	COOK	2	1

CONTRACT NO. 60X75

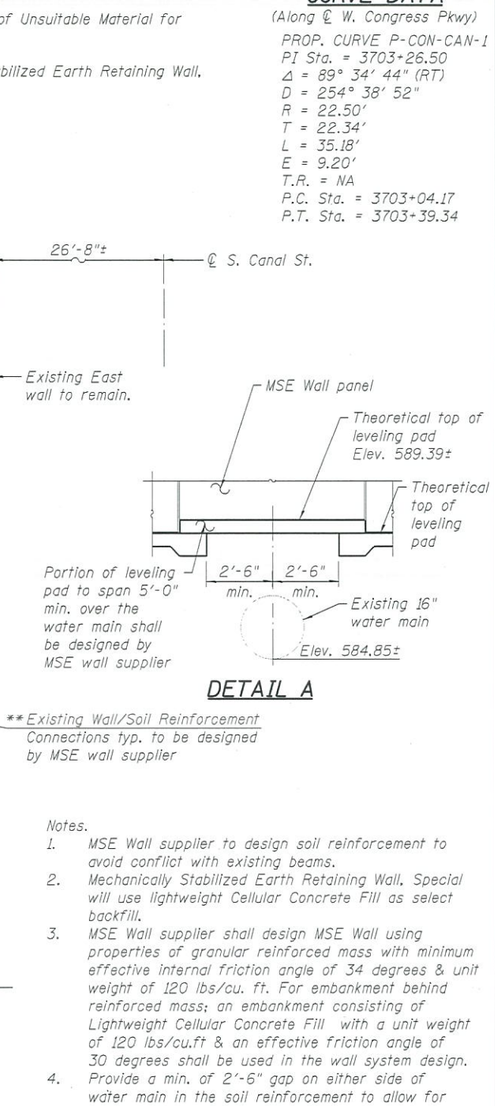
ILLINOIS FED. AID PROJECT



SECTION B-B
(Looking East)



SECTION A-A



DETAIL A

CURVE DATA

(Along ℄ W. Congress Pkwy)

PROP. CURVE P-CON-CAN-1
PI Sta. = 3703+26.50
Δ = 89° 34' 44" (RT)
D = 254° 38' 52"
R = 22.50'
T = 22.34'
L = 35.18'
E = 9.20'
T.R. = NA
P.C. Sta. = 3703+04.17
P.T. Sta. = 3703+39.34

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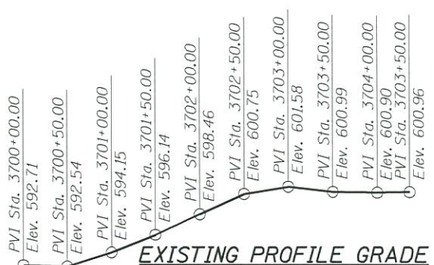
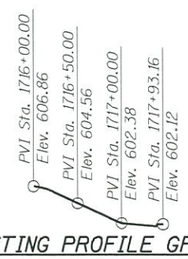
Notes.

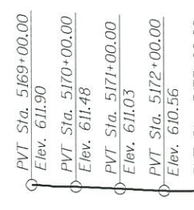
1. MSE Wall supplier to design soil reinforcement to avoid conflict with existing beams.
2. Mechanically Stabilized Earth Retaining Wall. Special will use lightweight Cellular Concrete Fill as select backfill.
3. MSE Wall supplier shall design MSE Wall using properties of granular reinforced mass with minimum effective internal friction angle of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind reinforced mass; an embankment consisting of Lightweight Cellular Concrete Fill with a unit weight of 120 lbs/cu.ft & an effective friction angle of 30 degrees shall be used in the wall system design.
4. Provide a min. of 2'-6" gap on either side of water main in the soil reinforcement to allow for any future maintenance/replacement of water main, see detail A.
5. For location of Section A-A & Detail A, see sheet 1 of 2.



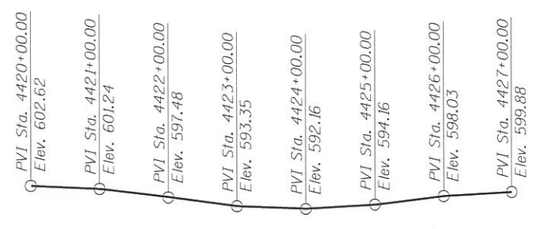
EXISTING PROFILE GRADE
(Along ℄ W. Congress Pkwy)



EXISTING PROFILE GRADE
(Along ℄ Ramp NE)



EXISTING PROFILE GRADE
(Along ℄ EB I-290 (Congress))



EXISTING PROFILE GRADE
(Along ℄ S. Canal St.)

DETAILS
RETAINING WALL 42
F.A.I. ROUTE 90/94/290
SECTION 2014-001R&B
COOK COUNTY
STATION 1716+69.20 TO 1717+93.16
STRUCTURE NO. 016-1829

016-1829-CIRCLE100-SHT-PB-ST-TSL-002.dgn

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-001R&B	COOK	2	2
		CONTRACT NO. 60X75		
		ILLINOIS FED. AID PROJECT		