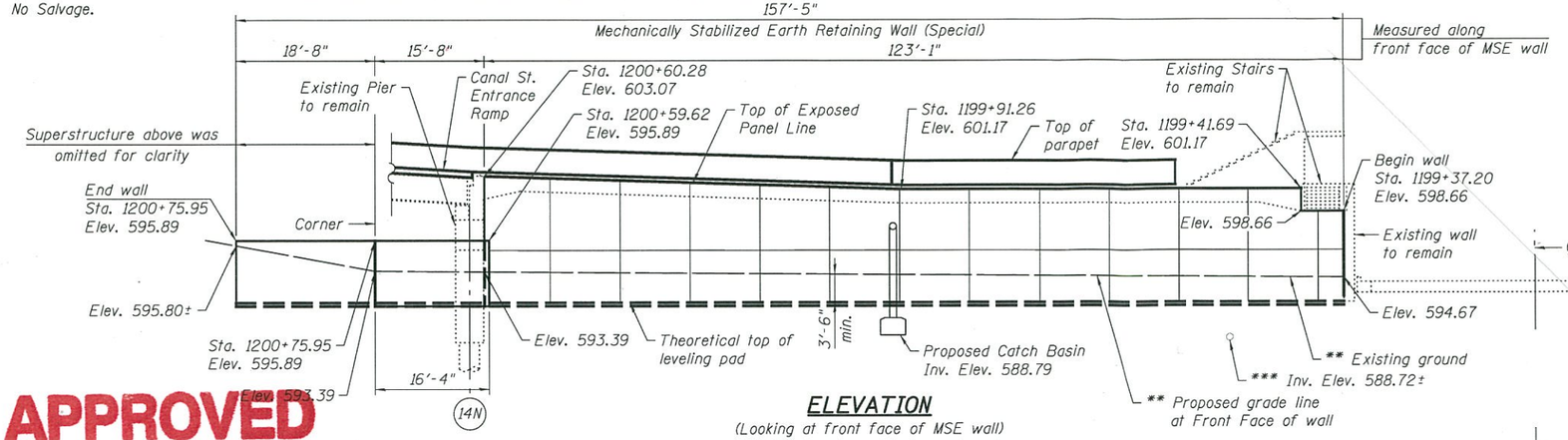
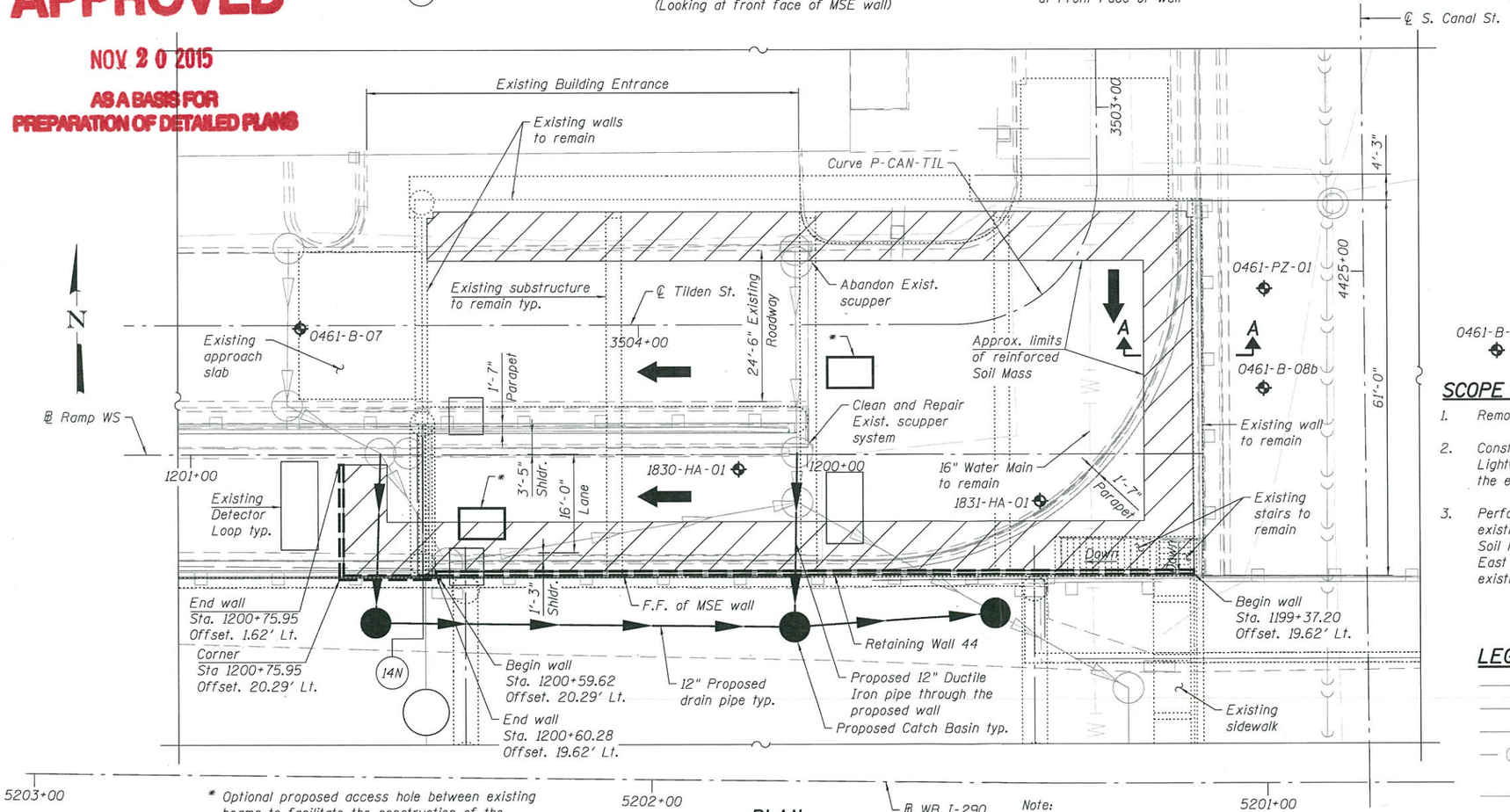
Bench Mark: Square cut at center of door entrance to 707 W. Harrison St; South side of Harrison St. ±90' west of west line of Des Plaines. Elevation 597.47.
A + cut in the SE anchor bolt at the 11th street light N. of Roosevelt on the W. side of Halsted. Elev. = 594.06.
Traffic Control: Canal Street Entrance Ramp will be closed during construction of the proposed wall. Ramp traffic will be detoured via local roads.
Existing Structure: The North & East retaining walls were built in 1953 are part of existing concrete ramp structure that carries Canal St. entrance ramp to WB I-290.
The North & East walls are 128'-4¼" & 61'-0" in length, respectively. Both walls are to remain in place.

No Salvage.



ELEVATION
(Looking at front face of MSE wall)

APPROVED
NOV 20 2015
AS A BASIS FOR PREPARATION OF DETAILED PLANS



* 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 WS. Offsets are measured to the front face of the wall.

TABLE

Station	Existing ground and Proposed Grade at F.F. of Wall
1199+37.20	594.67
1199+41.69	594.55
1199+60.00	594.60
1199+80.00	594.07
1200+00.00	594.01
1200+20.00	594.07
1200+40.00	594.15
1200+60.20	593.39

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

*** Elevation to be verified with Department of Water Management during final design.

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications
7th Edition with 2015 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

WB I-290 (Congress)
Functional Class: Interstate
ADT: 42,300 (2012); 44,000 (2040)
ADTT: 541 (2012); 563 (2040)
DHV: 3,200 (2040)
Design Speed: 45 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

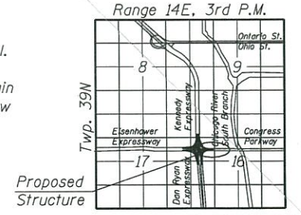
Notes:

1. See Sheet 2 of 2 for section thru MSE wall, and profile sketches.
2. The cabinet for traffic surveillance loops on the Canal Street entrance ramps near STA 1200+60.00, is attached to the existing structure at the Canal Street entrance ramp. ITS infrastructure will be relocated, as necessary, to avoid conflict with the proposed MSE wall.

0461-B-08a

SCOPE OF WORK

1. Remove approximately 3'-0" of unsuitable material.
2. Construct a new MSE Wall (S.N. 016-1831) to retain Lightweight Cellular Concrete Fill in the area below the existing concrete ramp structure.
3. Perform concrete repair and crack sealing on existing North and East retaining walls. Attach Soil Reinforcement to the existing North 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

GENERAL PLAN
RETAINING WALL 44
F.A.I. ROUTE 90/94/290
SECTION 2014-004R&B
COOK COUNTY
STATION 1199+37.20 TO 1200+60.20
STRUCTURE NO. 016-1831

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		CHECKED - MS	REVISED -		
	PLOT SCALE = NONE	DRAWN - DCP	REVISED -		
	PLOT DATE = 10/19/2015	CHECKED - JIG	REVISED -		SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-004R&B	COOK	2	1
		CONTRACT NO. 60X78		
	ILLINOIS FED. AID PROJECT			

APPROVED

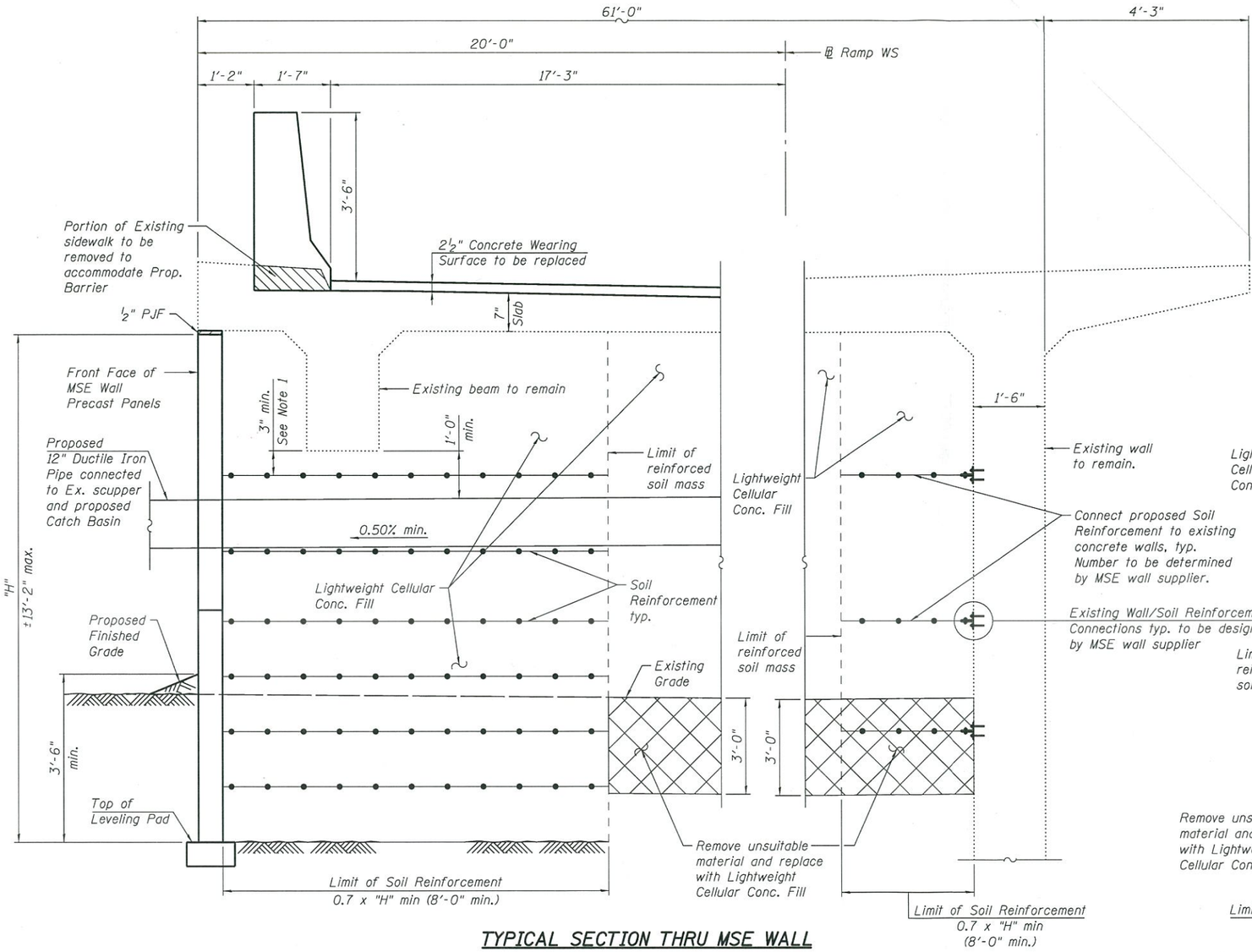
NOV 20 2015

AS A BASIS FOR PREPARATION OF DETAILED PLANS

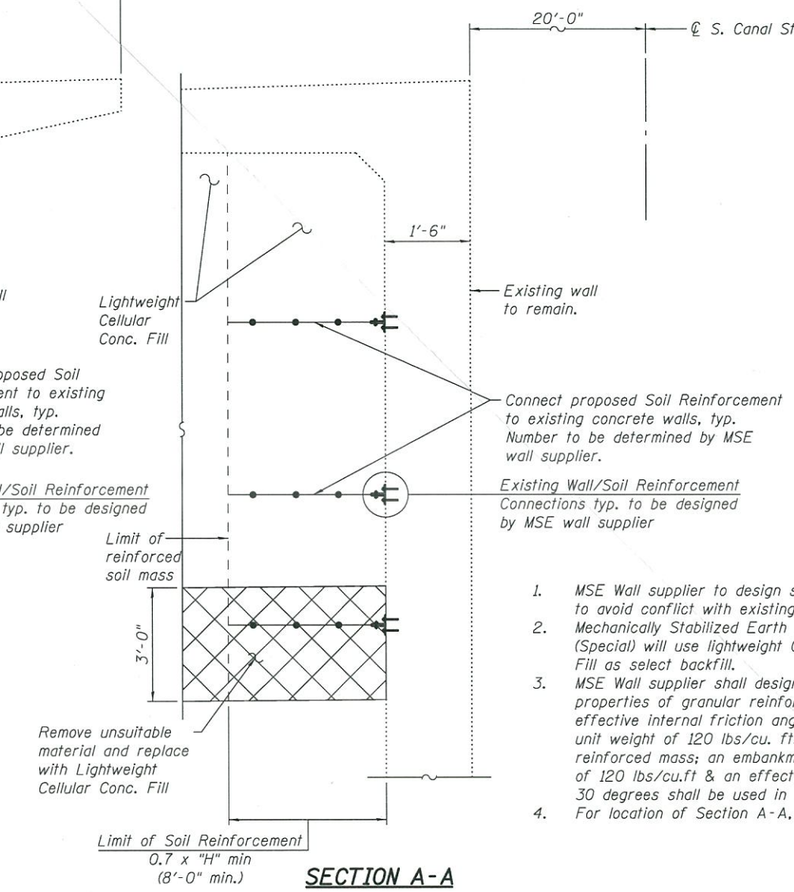
CURVE DATA

(Along ℄ Tilden St.)

PROP. CURVE P-CAN-TIL
PI Sta. = 3503+35.28
Δ = 90° 25' 16.26" (Rt.)
D = 246° 26' 00.46"
R = 23.25'
T = 23.42'
L = 36.69'
E = 9.75'
T.R. = NA
P.C. Sta. = 3503+11.86
P.T. Sta. = 3503+48.55

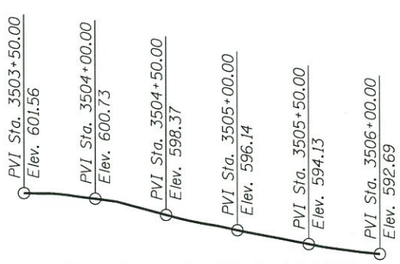


TYPICAL SECTION THRU MSE WALL

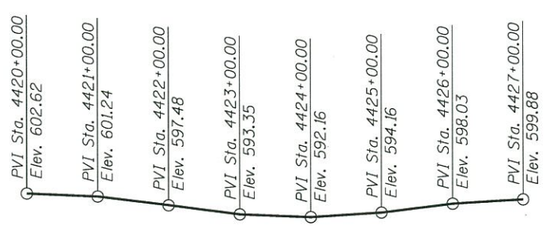


SECTION A-A

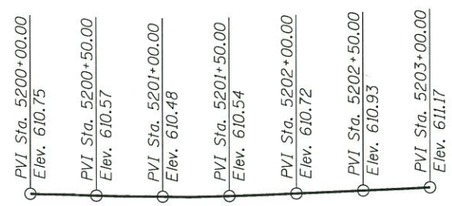
1. MSE Wall supplier to design soil reinforcement to avoid conflict with existing beams.
2. Mechanically Stabilized Earth Retaining Wall (Special) will use lightweight Cellular Concrete Fill as select backfill.
3. MSE Wall supplier shall design MSE Wall using properties of granular reinforced mass with minimum effective internal friction angle of 34 degrees & unit weight of 120 lbs/cu. ft. For embankment behind reinforced mass; an embankment 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. For location of Section A-A, See sheet 1 of 2.



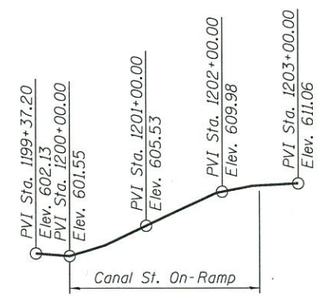
EXISTING PROFILE GRADE
(Along ℄ Tilden St.)



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



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



EXISTING PROFILE GRADE
(Along ℄ Ramp WS)

DETAILS
RETAINING WALL 44
F.A.I. ROUTE 90/94/290
SECTION 2014-004R&B
COOK COUNTY
STATION 1199+37.20 TO 1200+60.20
STRUCTURE NO. 016-1831

PARSONS BRINCKERHOFF	FILE NAME = pateld	DESIGNED - HA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - MS	REVISED -			90/94/290	2014-004R&B	COOK	2	2
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	PLOT DATE = 10/19/2015	CHECKED - JIG	REVISED -		SHEET NO. 2 OF 2 SHEETS			ILLINOIS FED. AID PROJECT		

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