Bench Mark: Set "X" on east barrier wall of I-90 at ℄ of Adams Street. Elev. 581.17.

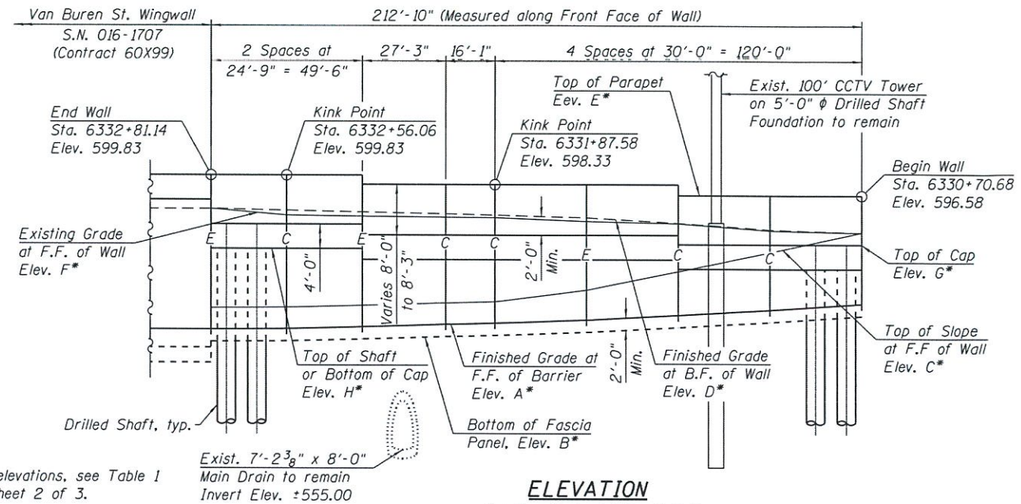
Existing Structure: None.

Ramp WN and Ramp EN will be closed to traffic and detoured during construction.

No Salvage.

Notes:

1.) Wall offsets are measured from the ℄ of Proposed NB C-D Road to the front face of cast-in-place fascia panels.
2.) C denotes Construction Joint.
3.) E denotes Expansion Joint.
4.) F.F. denotes Front Face.
5.) B.F. denotes Back Face.
6.) Wall to be built along straight chords between beginning station, kink points, and end station.
7.) Shaft diameter, spacing and tip elevation to be determined during final design.
8.) Proposed drainage information shown is conceptual and will be determined during final design.
9.) There shall be a minimum clear distance of 2' between the proposed drilled shafts and the existing main drain.



* For elevations, see Table 1 on Sheet 2 of 3.

ELEVATION

(Looking East at F.F. of Wall. Proposed Concrete Barrier not shown for clarity.)

LEGEND:

Ex. Chain Link Fence	—x—x—	Soil Boring	
Combined Sewer		Existing Catch Basin	
Electric	—E—	Proposed Catch Basin	
Ex. Storm Sewer		Existing Manhole	
Prop. Storm Sewer		Proposed Manhole	
Ex. ITS Cable		Proposed Inlet	
Ex. Gas Line	—G—	Limits of Excavation and LCCF	
Ex. Fiber Optic	—FO—		
Ex. Water	—W—		

SEQUENCE OF CONSTRUCTION

1.) Install TSRS along Van Buren Street.
2.) Excavate the area down to proposed groundline at F.F. of the wall.
3.) Install TSRS and excavate to install junction chamber.
4.) Construct junction chamber and backfill excavation.
5.) Drill shafts and construct retaining wall.
6.) Backfill with lightweight cellular concrete fill.

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AS A BASIS FOR PREPARATION OF DETAILED PLANS

CURVE DATA

(NB C-D Road)
Prop. Curve P-NCD-NX-5
P.I. Sta. = 6336+57.47
Δ = 35° 13' 41" (RT)
D = 4° 12' 24"
R = 1,362.00'
T = 432.42'
L = 837.42'
E = 67.00'
e = 4.20%
T.R. = 41'
S.E. Run = 87'
P.C. Sta. = 6332+25.05
P.T. Sta. = 6340+62.48

(NB C-D Road)
Prop. Curve P-NCD-NX-4
P.I. Sta. = 6328+76.78
Δ = 59° 05' 41" (RT)
D = 14° 08' 50"
R = 405.00'
T = 229.58'
L = 417.72'
E = 60.54'
e = 5.40%
T.R. = 36'
S.E. Run = 98'
P.C. Sta. = 6326+47.20
P.T. Sta. = 6330+64.91

HIGHWAY CLASSIFICATION

NB C-D Road
Functional Class: Interstate
ADT: NA (2012); 17,000 (2040)
ADTT: NA (2012); 440 (2040)
DHV: 1,680 (2040)
Design Speed: 30 m.p.h.
Posted Speed: 30 m.p.h.
One-Way Traffic
Directional Distribution: 100%

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications 8th Edition

DESIGN STRESSES

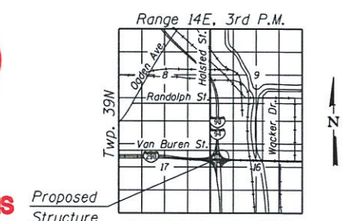
FIELD UNITS

f'c = 7,000 psi (Drilled Shafts)**
f'c = 3,500 psi (All other concrete)
fy = 60,000 psi (Reinforcement)

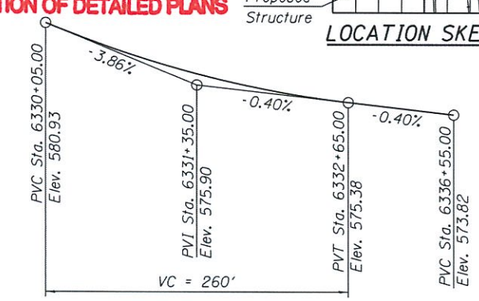
** Final concrete strength will be determined during final design

WALL DEFLECTION CRITERIA:

Maximum total lateral wall deflection at top of wall: 1% of retained height.

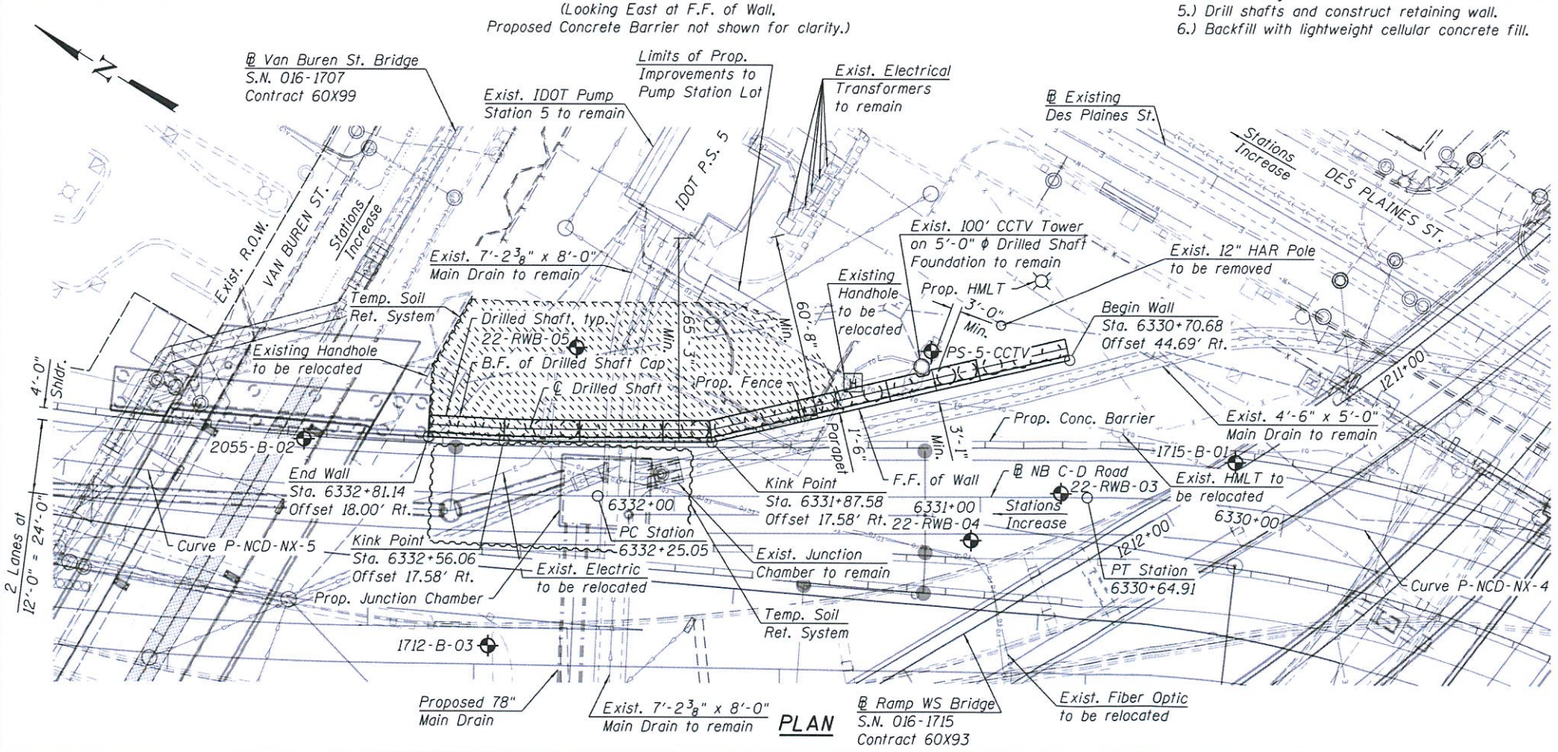


LOCATION SKETCH



PROFILE GRADE

(℄ NB C-D Road)



PLAN

GENERAL PLAN
RETAINING WALL 22B ALONG NB C-D ROAD
F.A.I. RTE. 90/94 (KENNEDY EXPRESSWAY)
SECTION 2014-005R&B
COOK COUNTY
STATION 6330+70.68 TO STATION 6332+81.14
STRUCTURE NO. 016-1839

TranSystems

USER NAME = wjcolletti	DESIGNED - WJC	REVISED -
	CHECKED - JM/MDS	REVISED -
PLOT SCALE = 48.00 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 4/18/2018	CHECKED - JM/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2014-005R&B	COOK	3	1
		CONTRACT NO. 60X79		
		ILLINOIS FED. AID PROJECT		

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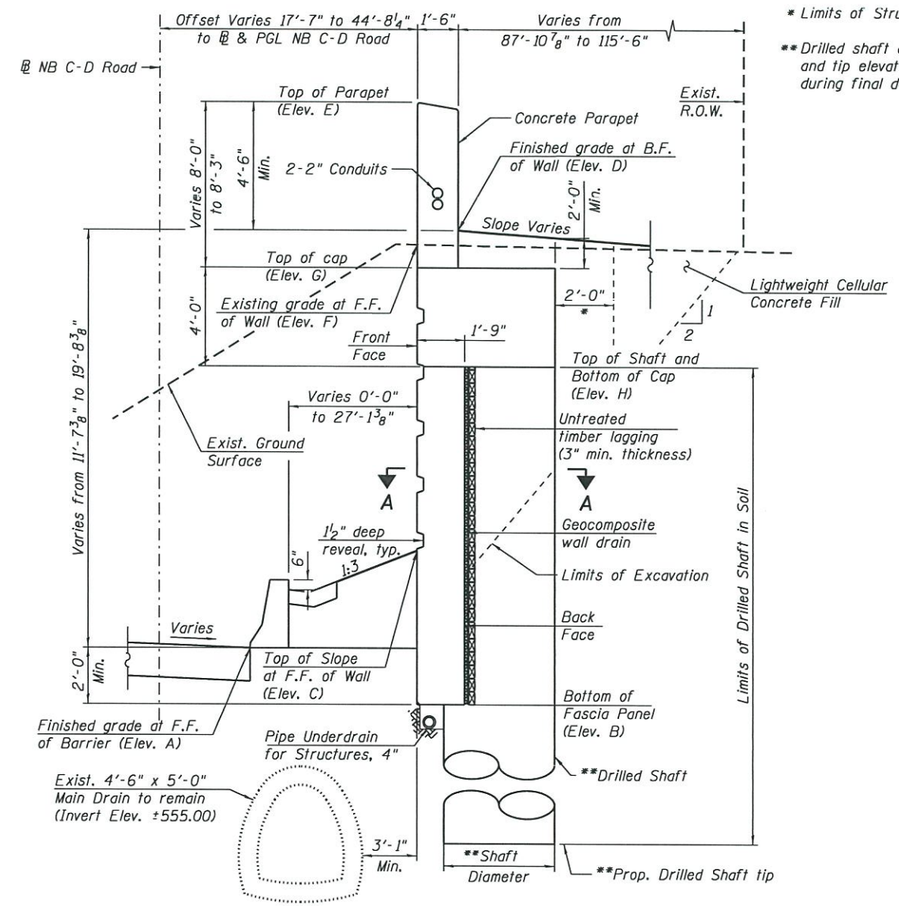
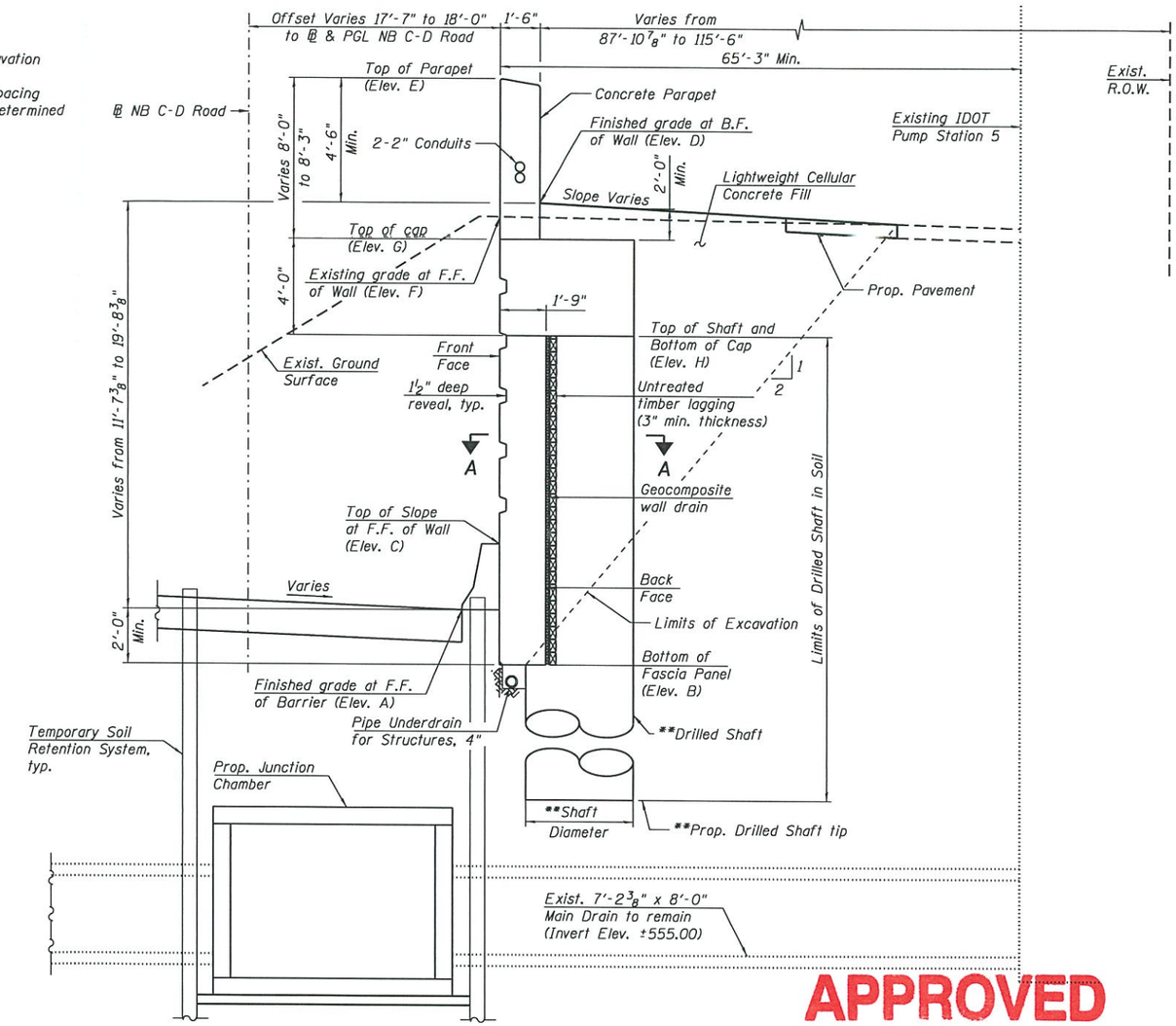


* Limits of Structure Excavation

** Drilled shaft diameter, spacing and tip elevation to be determined during final design.

TYPICAL CROSS SECTION

(Sta. 6330+70.68 to Sta. 6331+87.58)
(Looking Upstation)



TYPICAL CROSS SECTION

(Sta. 6331+87.58 to Sta. 6332+81.14)
(Looking Upstation)

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APR 24 2018

AS A BASIS FOR PREPARATION OF DETAILED PLANS

TABLE 1 - WALL ELEVATIONS

	Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D	Elevation E	Elevation F	Elevation G	Elevation H
	6330+70.68	44.69' Rt.	578.91	576.91	590.57	590.52	596.58	590.49	588.58	584.58
	6330+99.90	37.92' Rt.	577.90	575.90	587.30	591.02	596.58	590.87	588.58	584.58
*	6331+29.13	31.14' Rt.	577.01	575.01	584.15	592.05	596.58	591.98	588.58	584.58
**	6331+29.13	31.14' Rt.	577.01	575.01	584.15	592.05	598.33	591.98	590.08	586.08
	6331+58.35	24.36' Rt.	576.23	574.23	581.11	592.95	598.33	592.34	590.08	586.08
	6331+87.58	17.58' Rt.	575.69	573.69	579.19	593.35	598.33	592.95	590.08	586.08
	6332+03.66	17.58' Rt.	575.48	573.48	578.98	593.55	598.33	592.99	590.08	586.08
*	6332+30.99	17.58' Rt.	575.07	573.07	578.57	593.84	598.33	593.13	590.08	586.08
**	6332+30.99	17.58' Rt.	575.07	573.07	578.57	593.84	599.83	593.13	591.83	587.83
	6332+56.06	17.58' Rt.	574.75	572.75	578.25	594.11	599.83	593.30	591.83	587.83
	6332+81.14	18.00' Rt.	574.65	572.65	578.15	594.35	599.83	594.35	591.83	587.83

Elevation A- Finished Grade at Front Face of Barrier
Elevation B- Bottom of Fascia Panel
Elevation C- Top of Slope at Front Face of Wall
Elevation D- Finished Grade at Back Face of Wall
Elevation E- Top of Parapet
Elevation F- Existing Grade at Front Face of Wall
Elevation G- Top of Cap
Elevation H- Top of Shaft / Bottom of Cap
* Elevations just to the right of joint
** Elevations just to the left of joint

LEGEND:

B.F. - denotes Back Face.
E.F. - denotes Each Face.
F.F. - denotes Front Face.

CROSS SECTIONS
RETAINING WALL 22B ALONG NB C-D ROAD
F.A.I. RTE. 90/94 (KENNEDY EXPRESSWAY)
SECTION 2014-005R&B
COOK COUNTY
STATION 6330+70.68 TO STATION 6332+81.14
STRUCTURE NO. 016-1839

TranSystems

USER NAME = wjcolletti	DESIGNED - WJC	REVISED -
	CHECKED - JM/MDS	REVISED -
PLOT SCALE = 0.17 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 4/18/2018	CHECKED - JM/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2014-005R&B	COOK	3	2
		CONTRACT NO. 60X79		
	ILLINOIS	FED. AID PROJECT		

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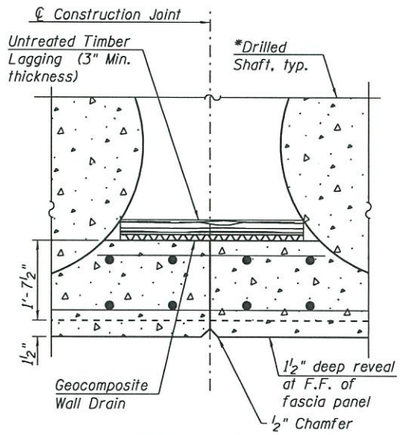
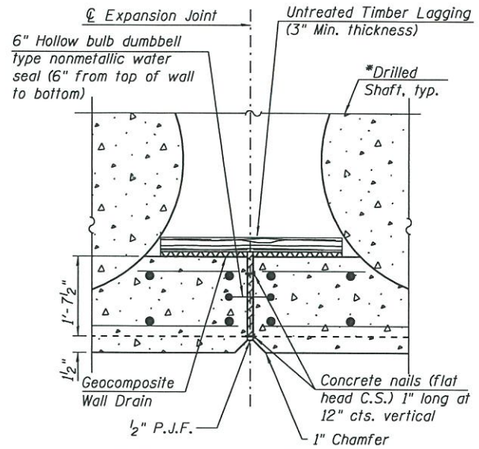
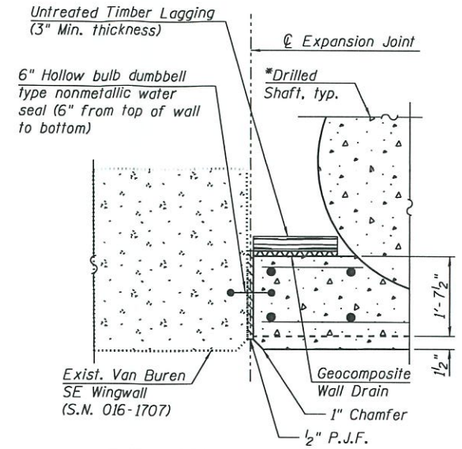


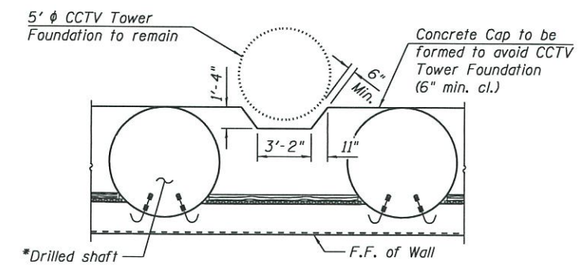
CONSTRUCTION JOINT DETAILS



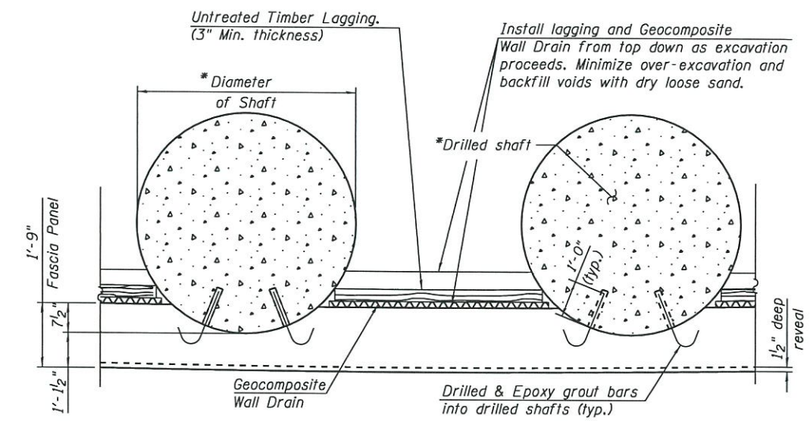
EXPANSION JOINT DETAILS



EXPANSION JOINT DETAILS

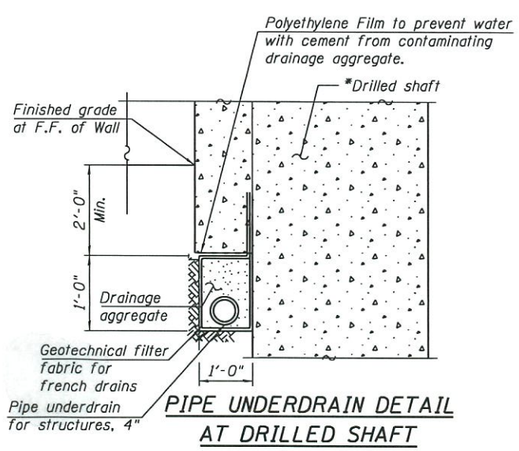


DETAIL AT CCTV TOWER

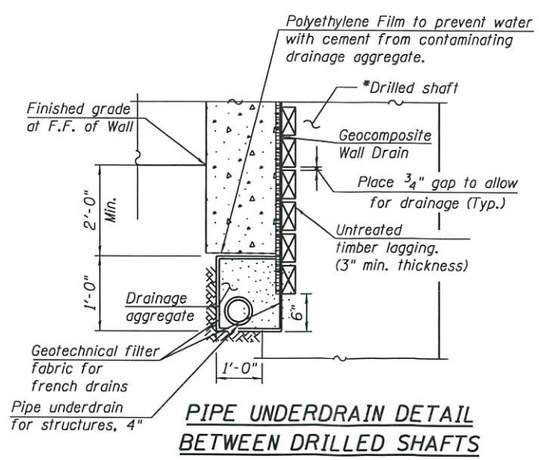


SECTION A-A

(Shaft Reinforcement not shown for clarity)



PIPE UNDERDRAIN DETAIL AT DRILLED SHAFT



PIPE UNDERDRAIN DETAIL BETWEEN DRILLED SHAFTS

* Drilled shaft diameter, spacing and tip elevation to be determined during final design.

LEGEND:

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E.F. - denotes Each Face.
F.F. - denotes Front Face.

APPROVED

APR 24 2018

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STATE OF ILLINOIS
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SHEET NO. 3 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2014-005R&B	COOK	3	3
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