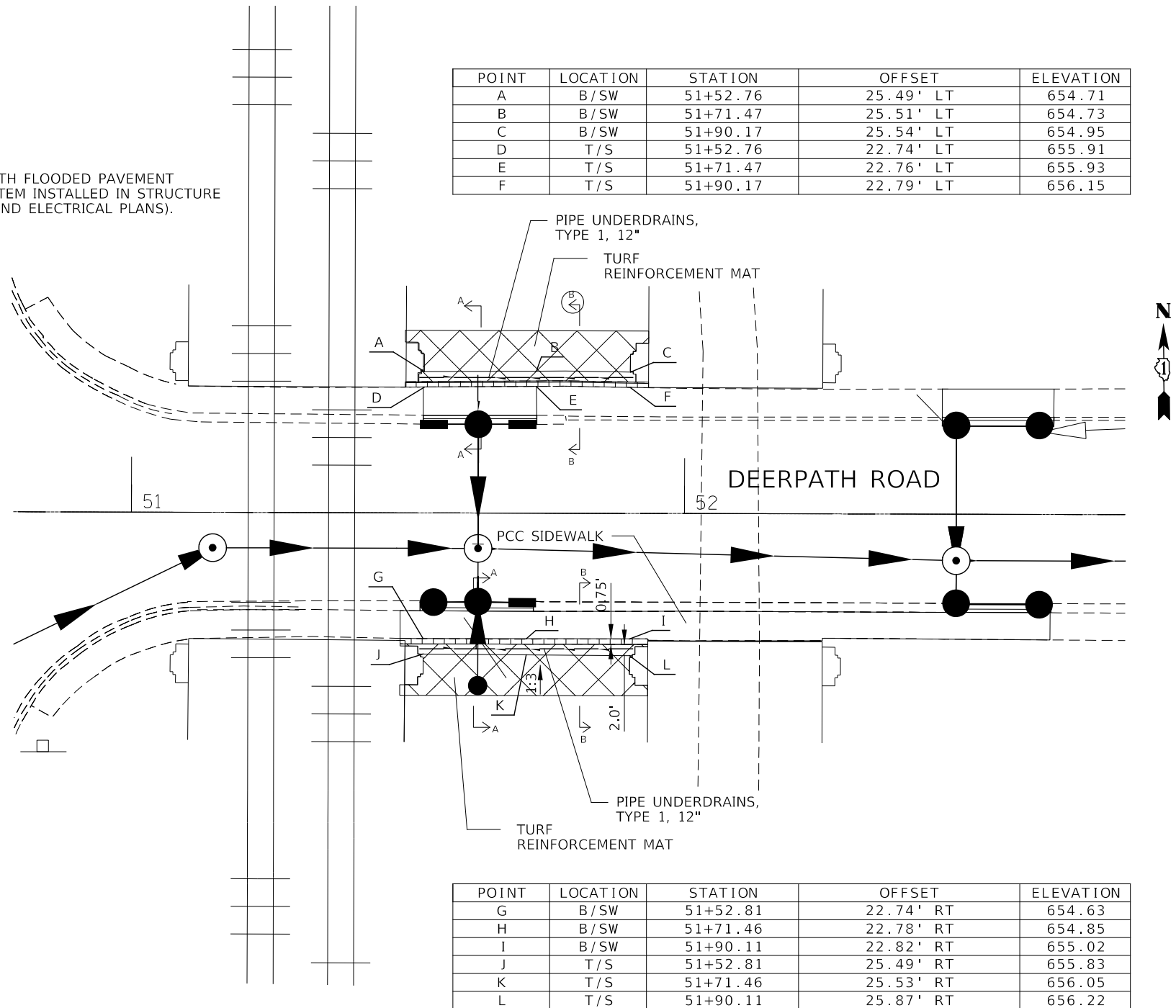
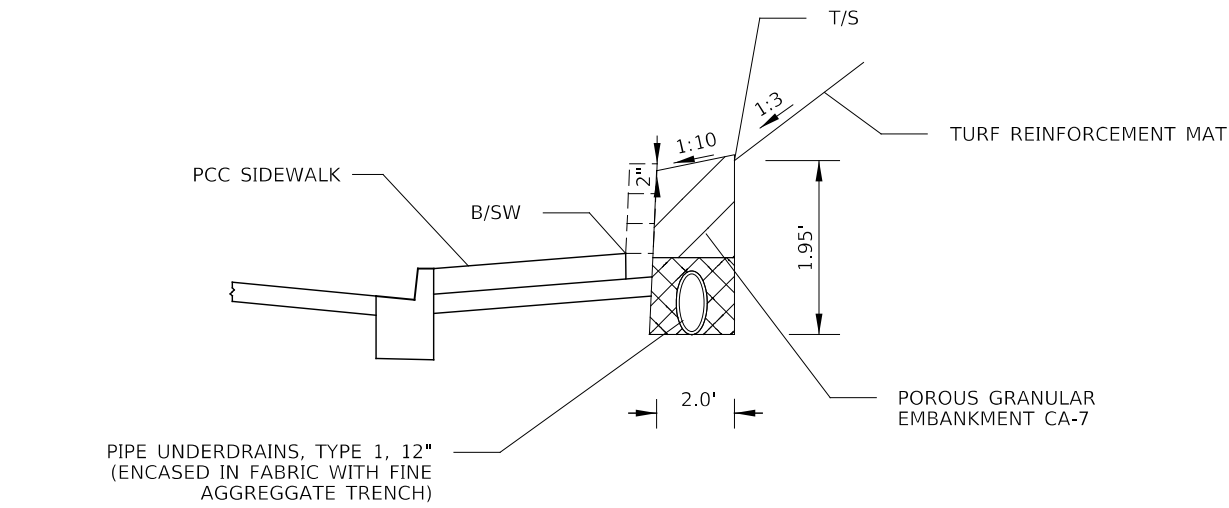
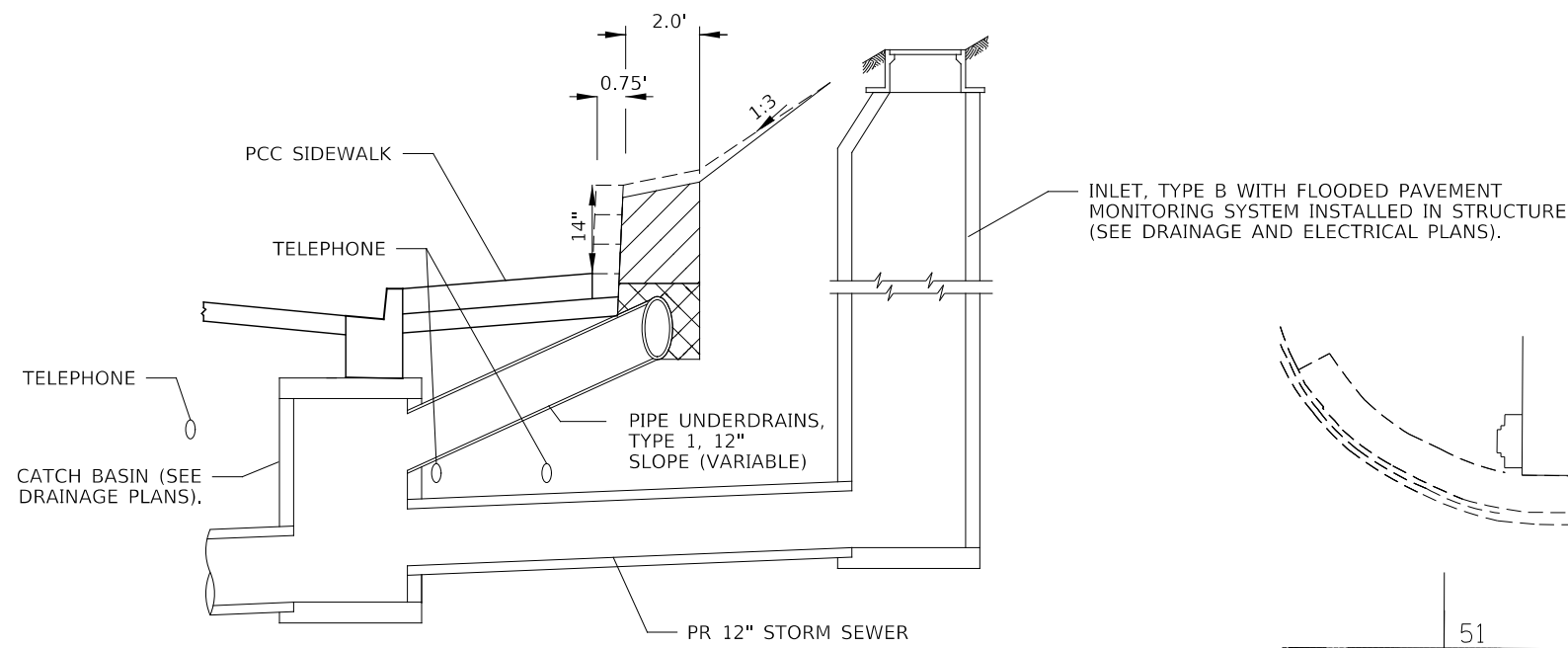
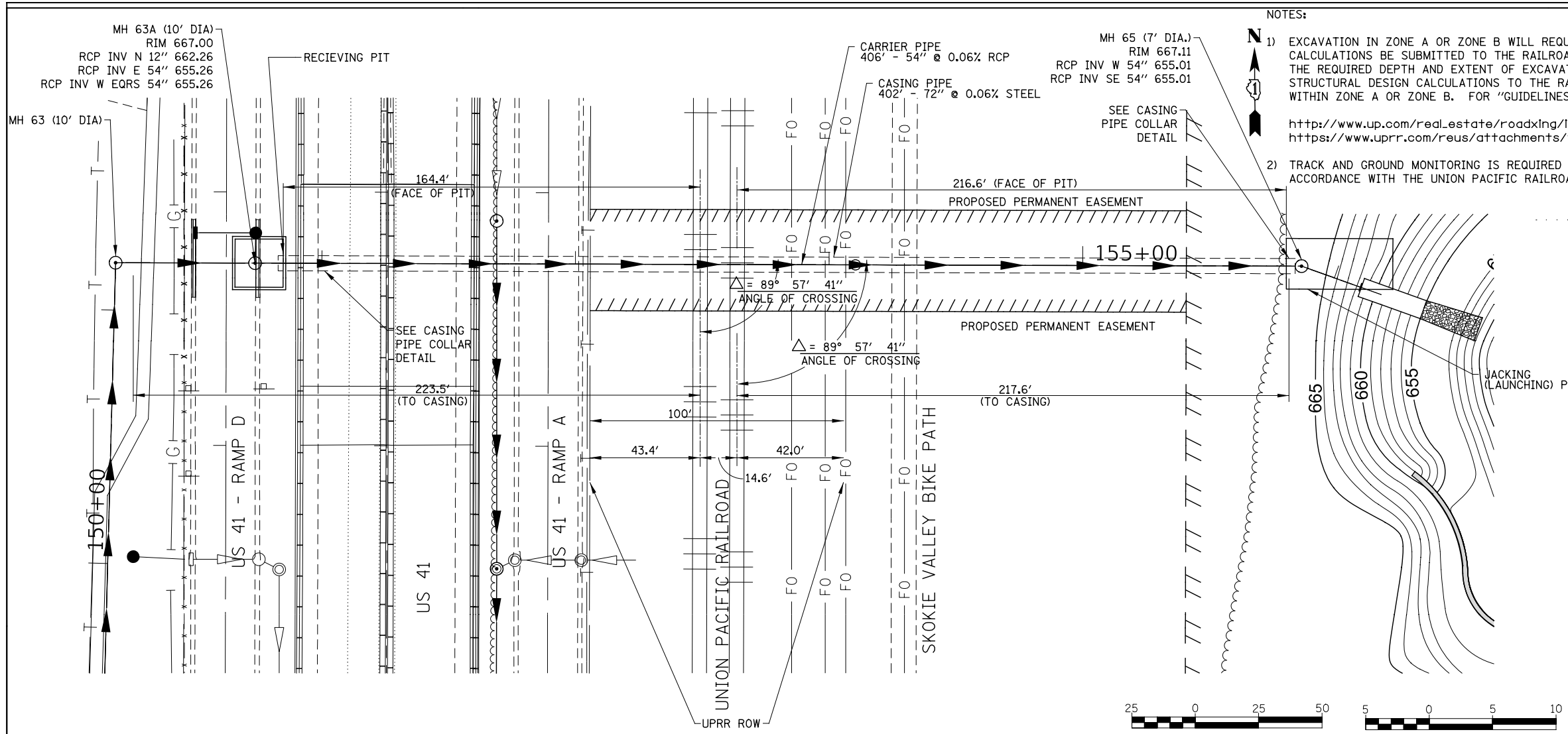


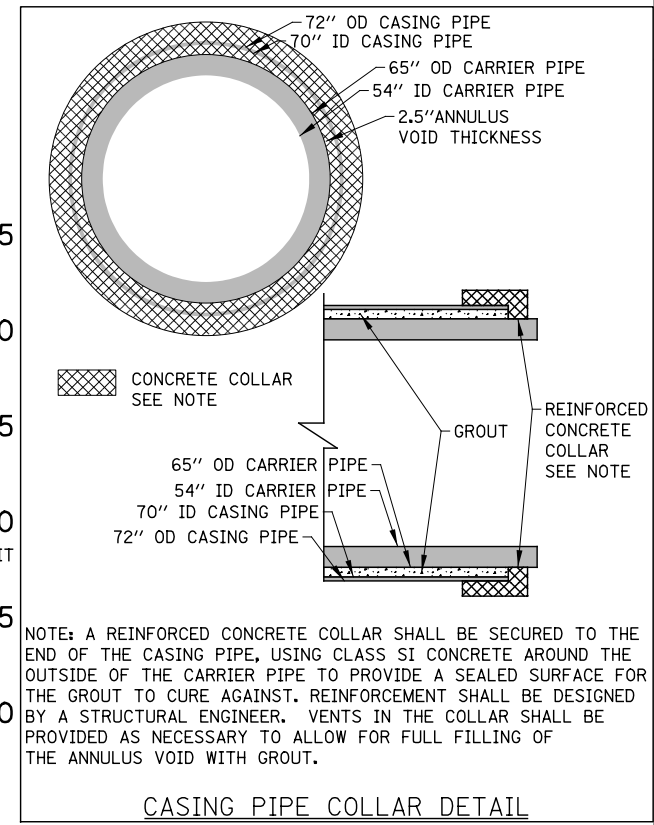
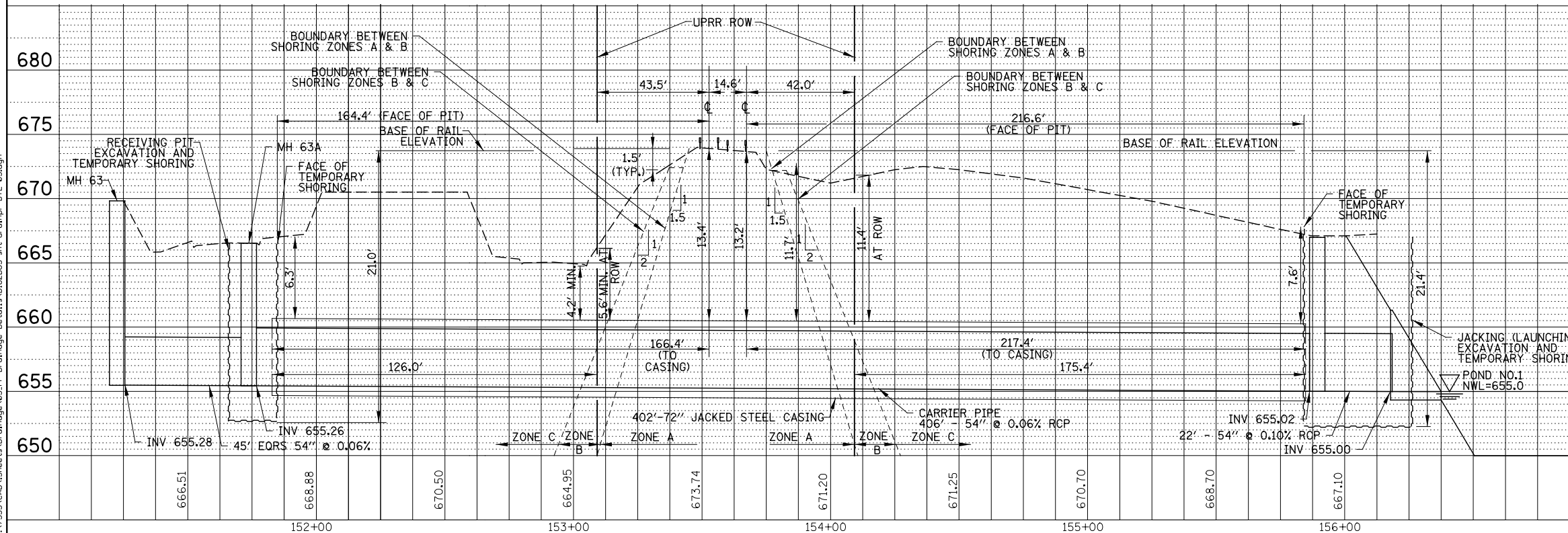
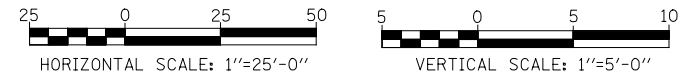
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CARRIER (STORM SEWER) PIPE INFORMATION	
INSIDE DIAMETER	54"
OUTSIDE DIAMETER	65"
WALL THICKNESS	5.5"
PIPE MATERIAL	REINFORCED PRECAST CONCRETE
CLASS	V
JOINTS	RUBBER GASKETED TONGUE AND GROOVE ASTM C 443
STANDARDS	AASHTO M170
MIN. MATERIAL YIELD STRENGTH	4,000 PSI
PROCESS OF MANUFACTURE	PRECAST
NORMAL OPERATING PRESSURE	GRAVITY/ NON-PRESSURIZED

CASING PIPE INFORMATION	
INSIDE DIAMETER	70"
OUTSIDE DIAMETER	72"
WALL THICKNESS	1"
PIPE MATERIAL	STEEL
WEIGHT	758.99 LB/FT
MIN. MATERIAL YIELD STRENGTH	35,000 PSI
JOINT TYPE	WELDED/SEAMLESS
STANDARDS APPLIED	ASTM A252 ASTM A139 ASTM A1011 ASTM A1018 AWWA C200
FUSION BONDED EPOXY THICKNESS	30 MILS
ABRASION RESISTANT OVERLAY THICKNESS	30 MILS
CATHODIC PROTECTION TYPE:	NONE
ANNULUS VOID FILL MATERIAL	GROUT

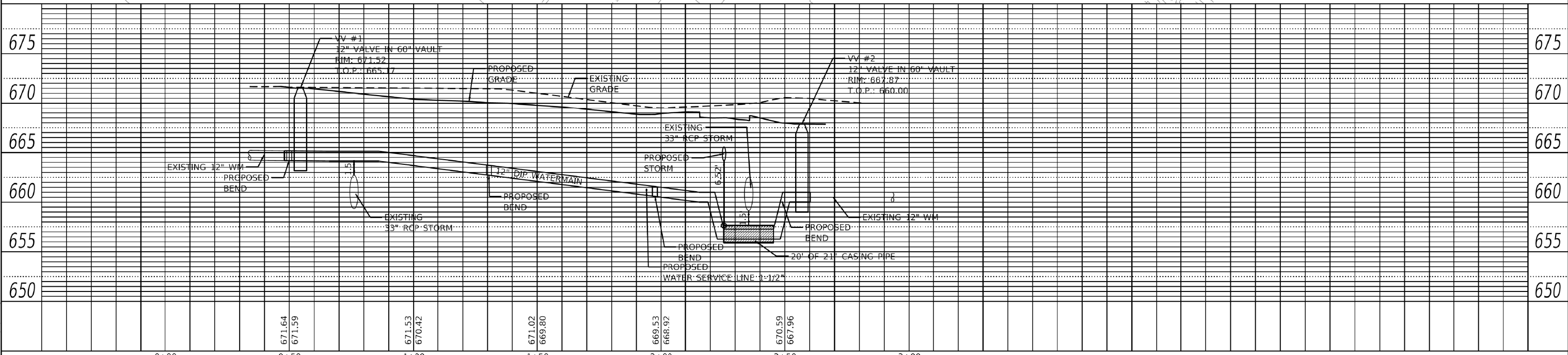
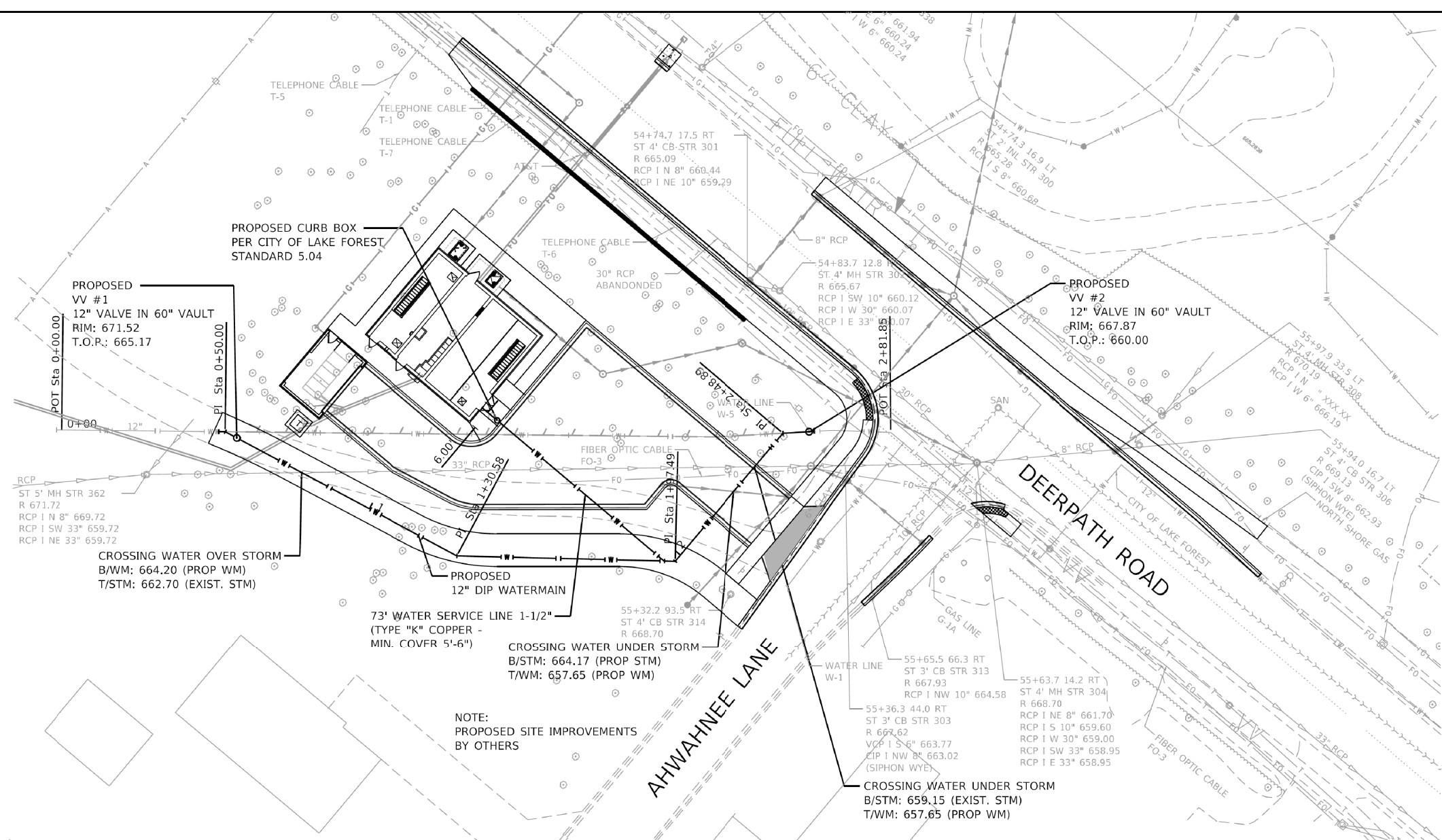
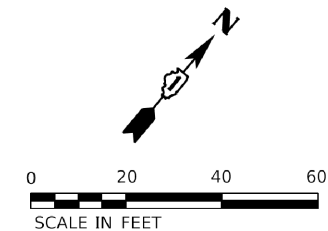


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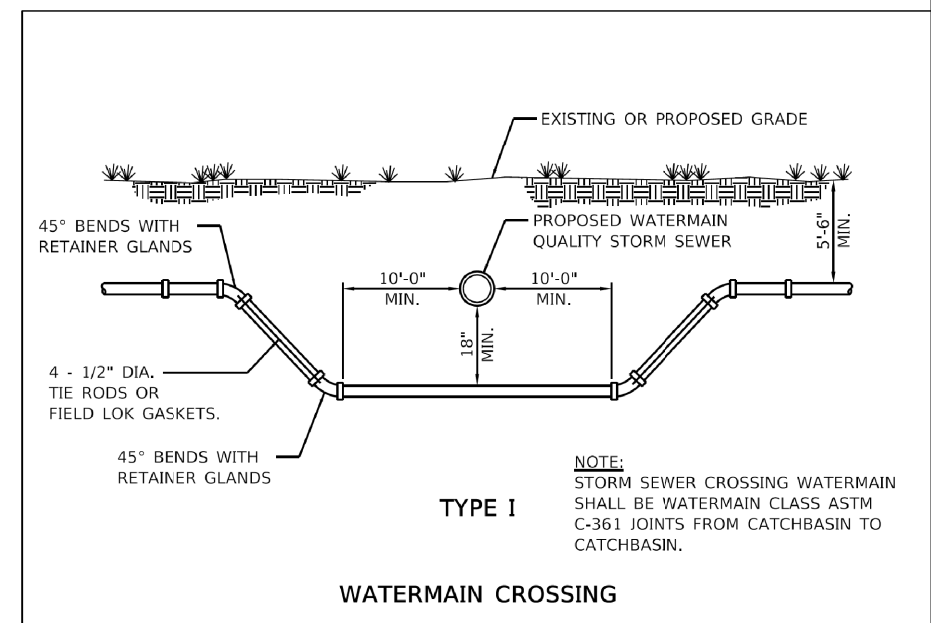
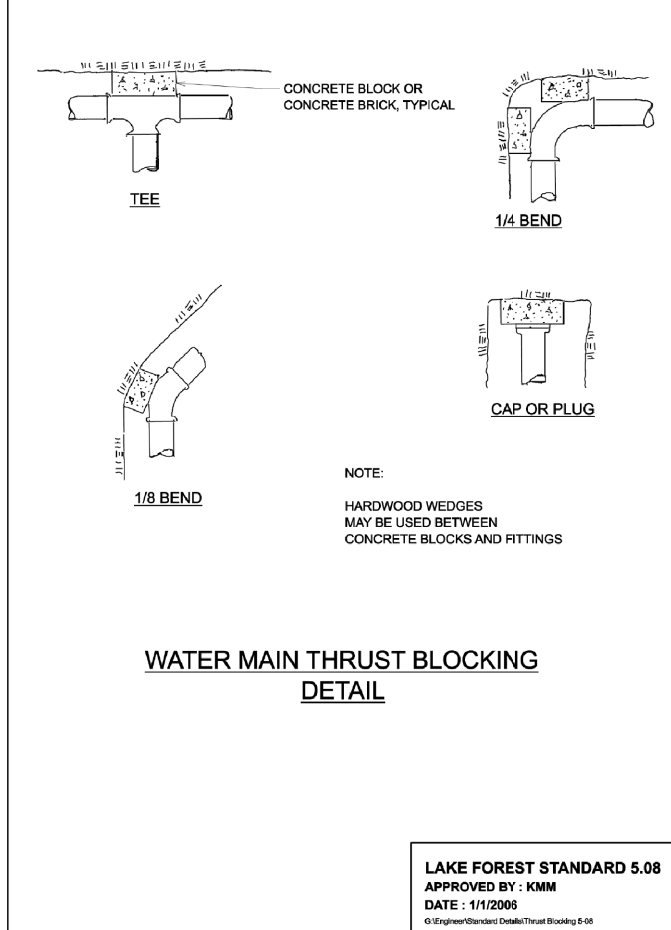
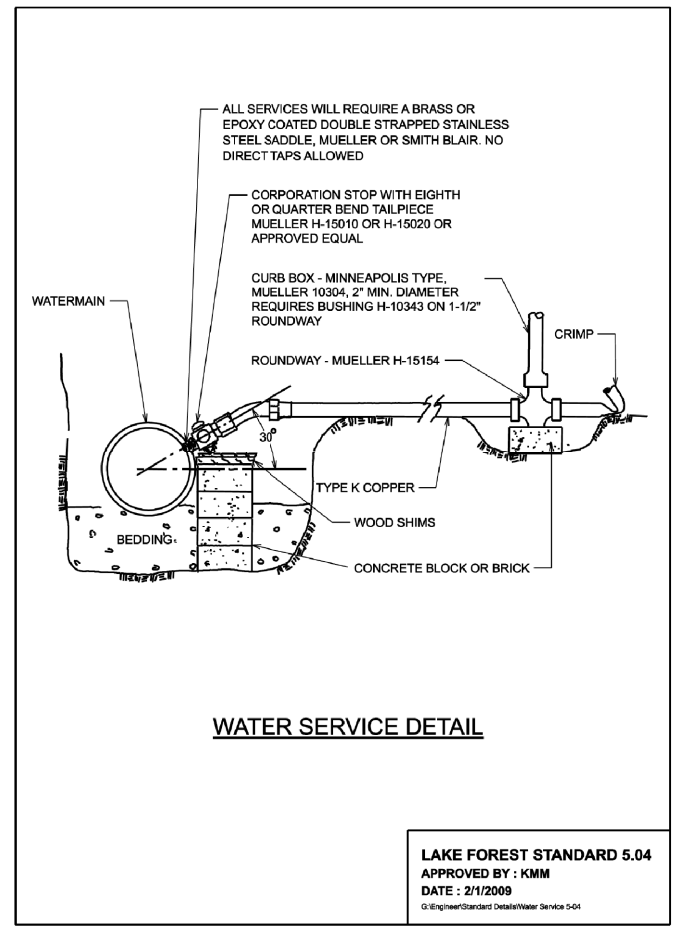
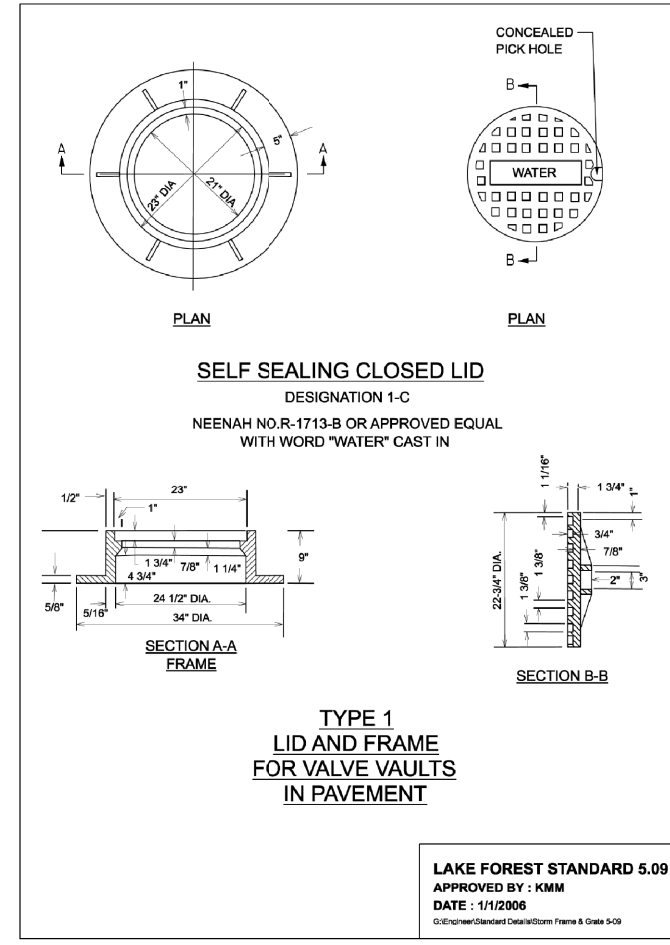
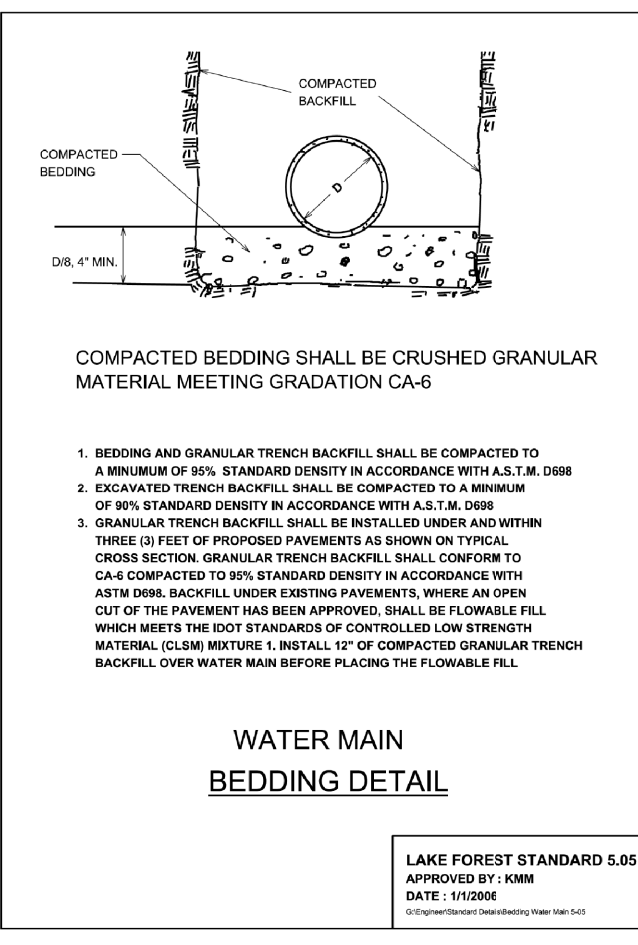
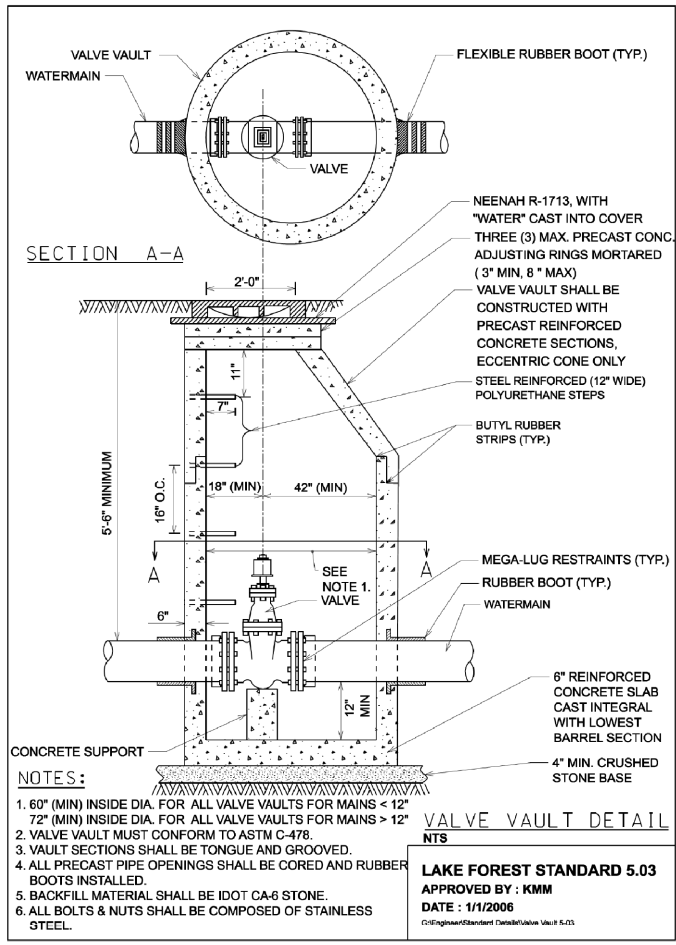
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	PLOTTED	BY
NOTE BOOK	ALIGNED	CHECKED
	NO.	FILE NAME

PROFILE	SURVEYED	DATE
	PLOTTED	BY
NOTE BOOK	GRADES	CHECKED
	NO.	STRUCTURE NOTATIONS CHD

GHA GEWALT HAMILTON ASSOCIATES, INC.
 MODEL: Default
 FILE NAME: 4664-209-sh-pnprf 1.dgn



FILE NAME = 4664-209-sh-pnprf 1.dgn	USER NAME = pswlake	DESIGNED - DIS	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DEERPETH PUMP STATION WATERMAIN RELOCATION		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
4664-209	PLOT SCALE = 1:20	DRAWN - PJS	REVISD -		VILLAGE OF LAKE FOREST				LAKE	290	103	
Default	PLOT DATE = 8/2/2019	CHECKED - DJS	REVISD -		SCALE: H: 1"=20'		SHEET 1 OF 1 SHEETS	STA. 0+00	TO STA. 3+00	CONTRACT NO.		
		DATE - 3/11/2019	REVISD -		ILLINOIS FED. AID PROJECT							



GHA GEWALT HAMILTON ASSOCIATES, INC.

FILE NAME = 4664-209-sht-detail.dgn
 USER NAME = pswlatek
 PLOT SCALE = 1:20
 PLOT DATE = 8/2/2019

DESIGNED - DJS
 DRAWN - PJS
 CHECKED - DJS
 DATE - 3/11/2019

REVISED -
 REVISED -
 REVISED -
 REVISED -

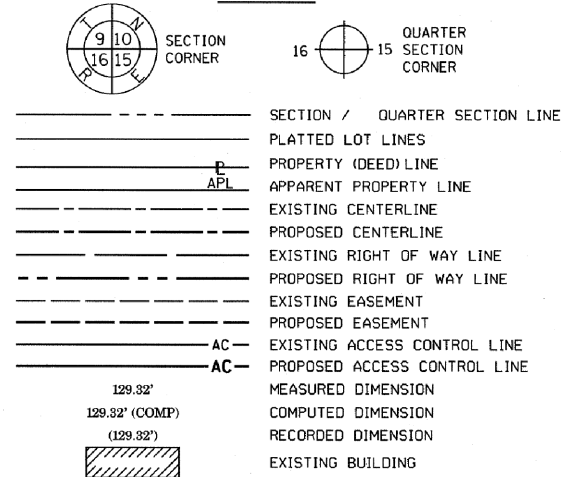
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS VILLAGE OF LAKE FOREST
 SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		LAKE	290	104
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

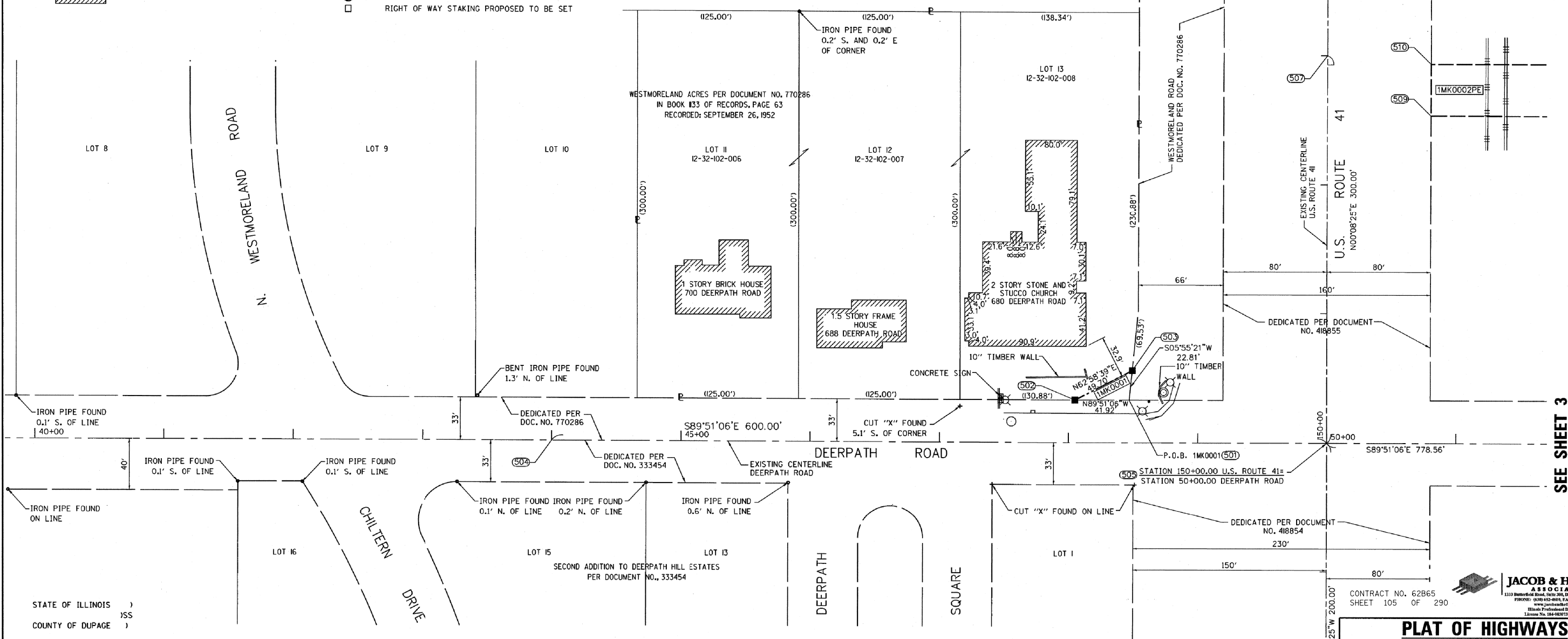
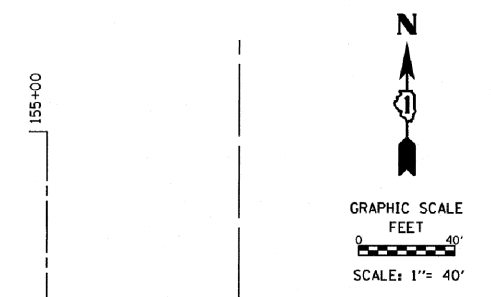
PART OF THE NW 1/4 OF SECTION 32, TWP. 44 N., R. 12 E. OF THE 3RD. P.M., IN LAKE COUNTY, ILLINOIS.

LEGEND



- IRON PIPE OR ROD FOUND
- ⊕ *MAG* NAIL SET
- + CUT CROSS FOUND OR SET
- 5 / 8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA		PARCEL INDEX NUMBER
					ACRES	SQUARE FEET	
1MK0001	2.668	0.011	N/A	2.657	N/A	N/A	12-32-102-006 12-32-102-007 12-32-102-008



STATE OF ILLINOIS)
) SS
 COUNTY OF DUPAGE)

THIS IS TO CERTIFY THAT I, TIMOTHY G. WOLFE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, (WE, JACOB AND HEFNER ASSOCIATES, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-003073,) HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 32, TOWNSHIP 44 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, LAKE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT DOWNERS GROVE, ILLINOIS THIS 20TH DAY OF APRIL 2017 A.D.

Timothy G. Wolfe
 TIMOTHY G. WOLFE
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-003535
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2018

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



NOTES: ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED. BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID". ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99996148306. AREAS SHOWN ON THIS PLAT ARE "GROUND".

REVISION DATE: 10/12/17 REVISION MADE BY: TLA

CONTRACT NO. 62B65
 SHEET 105 OF 290

JACOB & HEFNER ASSOCIATES
 1113 Westfield Road, Suite 300, Downers Grove, IL 60515
 PHONE: (630) 482-8000, FAX: (630) 482-1400
 www.jacobandhefner.com
 Illinois Professional Design Firm
 License No. 184-003073 Exp. 02/01/19

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 U.S. ROUTE 41

LIMITS: AT DEERPETH ROAD COUNTY: LAKE
 SECTION: JOB NO.: R-91-024-17
 STA. 44+00.00 TO STA. 50+00.00
 SCALE: 1"=40' SHEET 2 OF 6 SHEETS

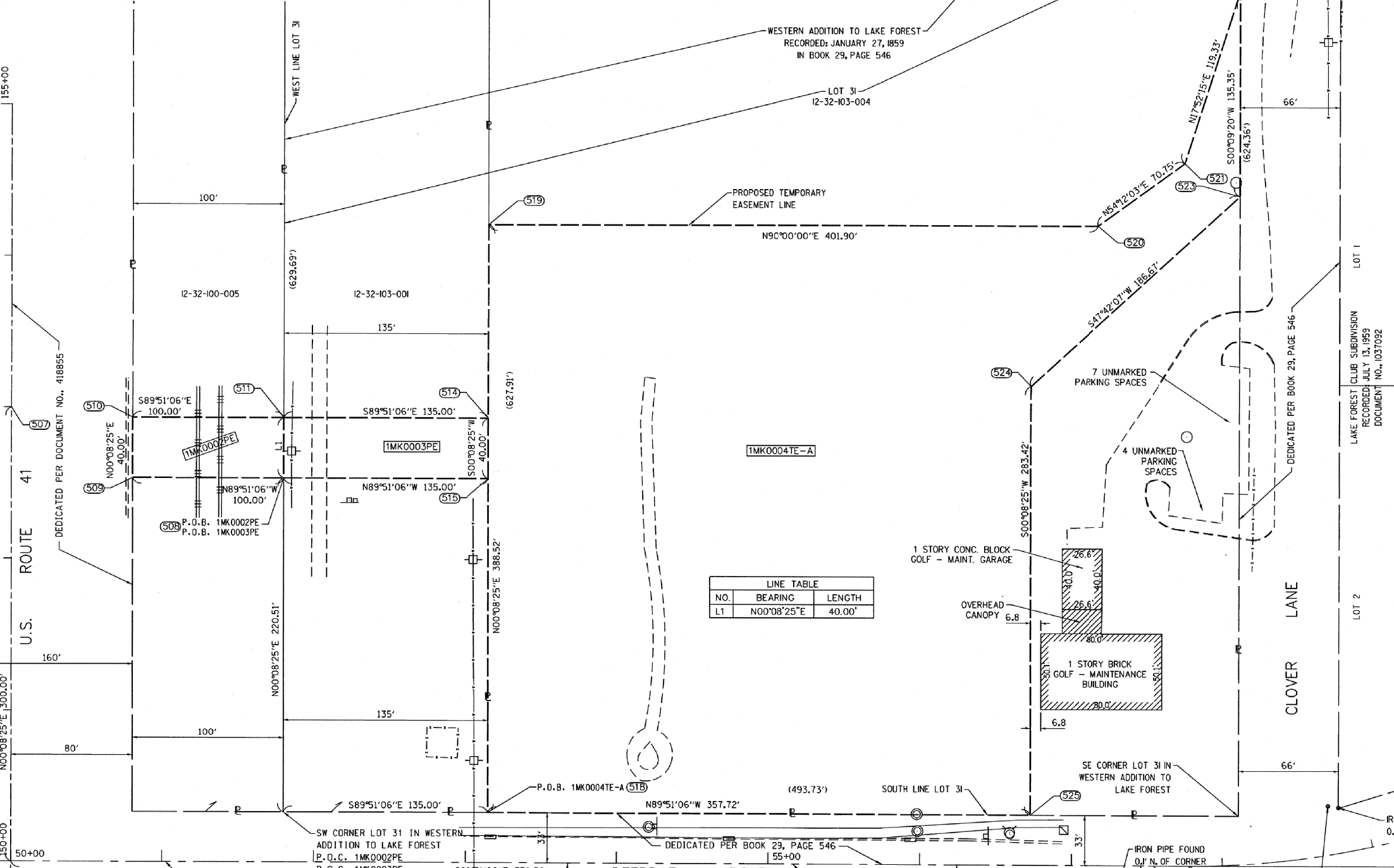
BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAMBURG, ILLINOIS 60196

SEE SHEET 3

PART OF THE NW 1/4 OF SECTION 32, TWP. 44 N., R. 12 E. OF THE 3RD. P.M., IN LAKE COUNTY, ILLINOIS.

NOTES: ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED. BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID". ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99996148306. AREAS SHOWN ON THIS PLAT ARE "GROUND".

FOR TOTAL HOLDINGS FOR PARCEL 1MK0004TE-A SEE SHEET 6



LINE TABLE		
NO.	BEARING	LENGTH
L1	N00°08'25"E	40.00'

LEGEND

SECTION CORNER: 9 10 15 16

QUARTER SECTION CORNER: 16 15

SECTION / QUARTER SECTION LINE

PLATTED LOT LINES

PROPERTY (DEED) LINE

APPLICANT (APL)

EXISTING CENTERLINE

PROPOSED CENTERLINE

EXISTING RIGHT OF WAY LINE

PROPOSED RIGHT OF WAY LINE

EXISTING EASEMENT

PROPOSED EASEMENT

EXISTING ACCESS CONTROL LINE

PROPOSED ACCESS CONTROL LINE

MEASURED DIMENSION

COMPUTED DIMENSION

RECORDED DIMENSION

EXISTING BUILDING

GRAPHIC SCALE: 1" = 40'

- IRON PIPE OR ROD FOUND
- ⊕ *MAG* NAIL SET
- + CUT CROSS FOUND OR SET
- 5 / 8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND TO IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND TO IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
) JSS
 COUNTY OF DUPAGE)

THIS IS TO CERTIFY THAT I, TIMOTHY G. WOLFE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, (WE, JACOB AND HEFNER ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-003073,) HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 32, TOWNSHIP 44 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, LAKE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT DOWNERS GROVE, ILLINOIS THIS 20TH DAY OF APRIL 2017 A.D.

Timothy G. Wolfe
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-003535
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2018

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



JACOB & HEFNER ASSOCIATES
 1313 Butterfield Road, Suite 300, Downers Grove, IL 60515
 PHONE: (630) 452-4600, FAX: (630) 452-4644
 www.jacobandhefner.com
 Illinois Professional Design Firm
 License No. 184-003073 Exp. 4/2019

SEE SHEET 2

SEE SHEET 4

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA		PARCEL INDEX NUMBER
					ACRES	SQUARE FEET	
1MK0002PE	N/A	N/A	N/A	N/A	0.092	4,000	12-32-100-005
1MK0003PE	N/A	N/A	N/A	N/A	0.124	5,400	12-32-103-001
1MK0004TE-A	131.1	N/A	N/A	131.1	3.440	149,849	12-32-103-004 12-32-103-002 12-32-103-003 12-32-201-008 12-32-200-002

DEERPATH ROAD

10' R.O.W. VACATION PER DOC. NO. 2843406

LOT 1 PATRICK J. MULLADY SUBDIVISION RECORDED: NOVEMBER 13, 1980, DOCUMENT NO., 2088486

DEERPATH ROAD CURVE DATA

R=562.50'
 L=170.22'
 CH BRC=N81°28'45"E - 169.57'
 PC=57+78.56 (526)
 PT=59+48.78 (527)

REVISION DATE: 10/12/17 REVISION MADE BY: TLA

CONTRACT NO. 62B65
 SHEET 106 OF 290
DOT USE ONLY

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 U.S. ROUTE 41

LIMITS: AT DEERPATH ROAD COUNTY: LAKE
 SECTION: JOB NO.: R-91-024-17
 STA. 50+00.00 TO STA. 59+83.76
 SCALE: 1"=40' SHEET 3 OF 6 SHEETS

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAMBURG, ILLINOIS 60196

PART OF THE E. 1/2 OF THE SW. 1/4 OF SECTION 32, TWP. 44 N., R. 12 E. OF THE 3RD. P.M., IN COUNTY, ILLINOIS.

LEGEND

SECTION CORNER: 9 10 15 16

QUARTER SECTION CORNER: 16 15

SECTION / QUARTER SECTION LINE

PLATTED LOT LINES

PROPERTY (DEED) LINE

APPL APPARENT PROPERTY LINE

EXISTING CENTERLINE

PROPOSED CENTERLINE

EXISTING RIGHT OF WAY LINE

PROPOSED RIGHT OF WAY LINE

EXISTING EASEMENT

PROPOSED EASEMENT

EXISTING ACCESS CONTROL LINE

PROPOSED ACCESS CONTROL LINE

MEASURED DIMENSION

COMPUTED DIMENSION

RECORDED DIMENSION

EXISTING BUILDING

BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.

○ IRON PIPE OR ROD FOUND ⊕ 'MAG' NAIL SET

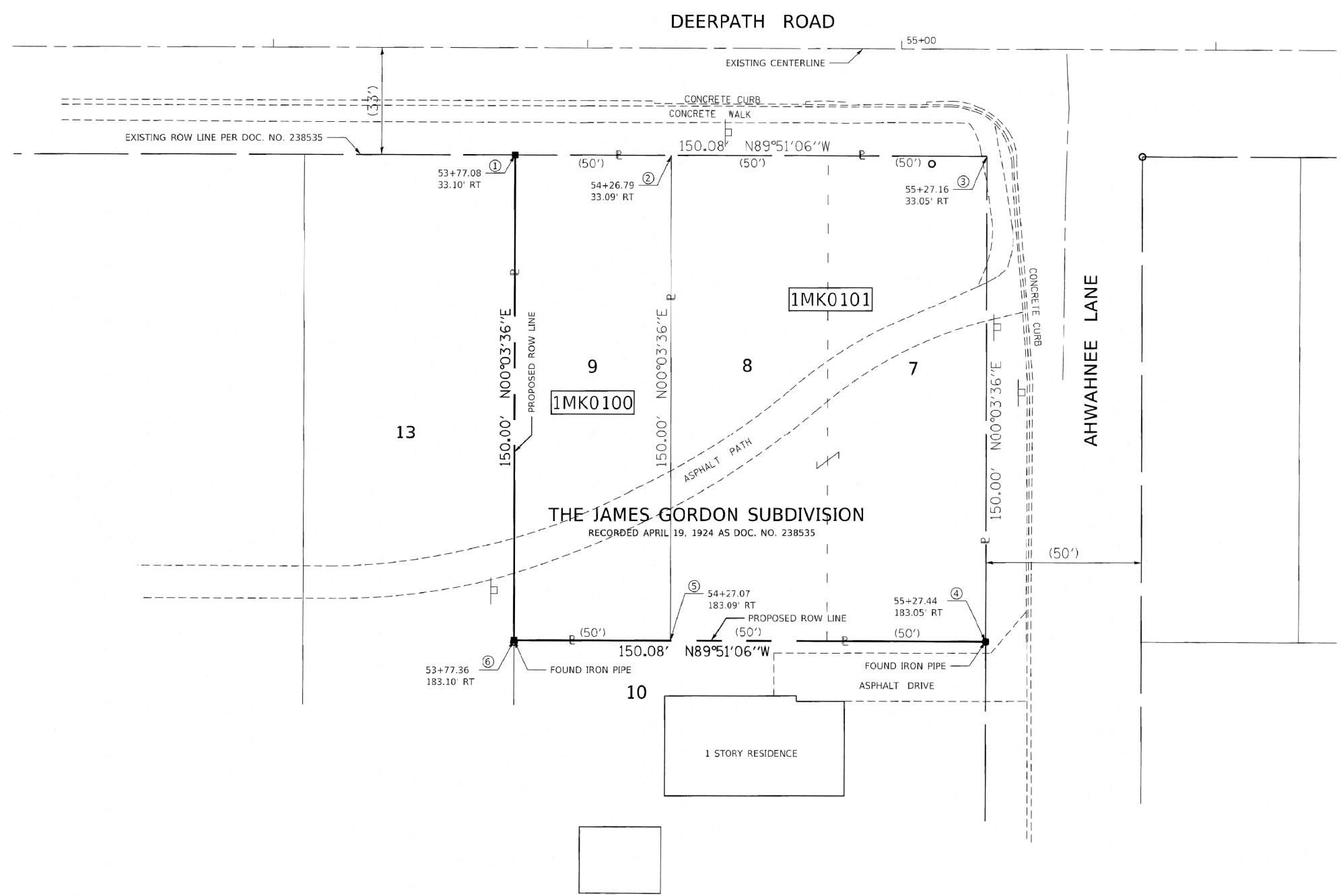
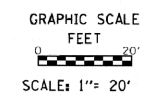
+ CUT CROSS FOUND OR SET ● 5 / 8" REBAR SET

■ STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■ M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 667101.02 (TO BE SET BY OTHERS)

□ RIGHT OF WAY STAKING PROPOSED TO BE SET



SURVEY NOTES:

- ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED.
- BEARING, DISTANCES, AND COORDINATES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".
- ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99996712.
- AREAS SHOWN ON THIS PLAT ARE "GROUND".
- FIELD SURVEY COMPLETED ON JUNE 17, 2019.

STATE OF ILLINOIS)
) SS
 COUNTY OF COOK)

THIS IS TO CERTIFY THAT I, WILLIAM W. WRIGHT, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PROPERTY DESCRIBED AND SHOWN HEREON AND THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

DATED AT SCHAUMBURG, ILLINOIS THIS 31ST DAY OF JANUARY 2020

William W. Wright

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3502
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2020.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



Illinois Department of Transportation
 Division of Highways/District 1

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DEERPAPH ROAD

CONTRACT NO. 62B65
 SHEET 107 OF 290

LIMITS: PUMP STATION 39-LAKE FOREST COUNTY: LAKE

SECTION: STA. 53+77.08 TO STA. 55+27.44 JOB NO.: R-91-024-17

SCALE: 1" = 20' SHEET 3A OF 6 SHEETS

IDOT USE ONLY

RECEIVED
 JAN 31 2020
 PLATS & LEGALS

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA		PARCEL INDEX NUMBER
					ACRES	SQUARE FEET	
1MK0100	0.171	0.171	N/A	0.000	N/A	N/A	12-32-306-003
1MK0101	0.346	0.346	N/A	0.000	N/A	N/A	12-32-306-004 12-32-306-005

PROJECT COORDINATES
 ILLINOIS STATE PLANE, EAST ZONE, NAD83 (2011)

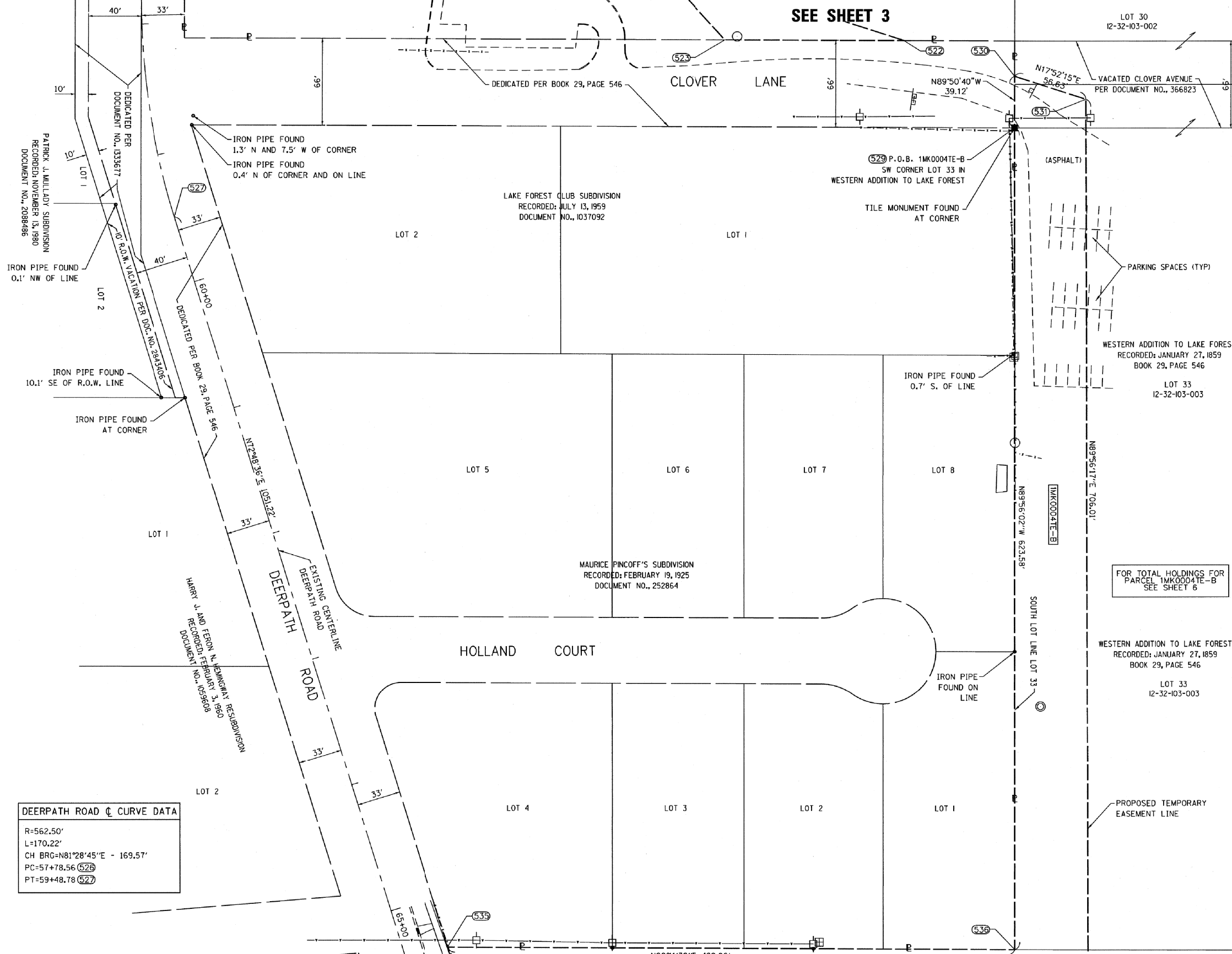
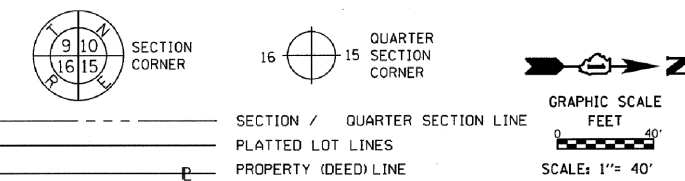
POINT NUMBER	NORTHING	EASTING
1	2032960.18	1112124.41
2	2032960.05	1112174.11
3	2032959.19	1112274.48
4	2032809.79	1112274.32
5	2032810.05	1112173.96
6	2032810.18	1112124.25

REVISION DATE: / / REVISION MADE BY:

PART OF THE NW 1/4 OF SECTION 32, TWP. 44 N., R. 12 E. OF THE 3RD. P.M., IN LAKE COUNTY, ILLINOIS.

SEE SHEET 3

LEGEND



DEERPETH ROAD C CURVE DATA
 R=562.50'
 L=170.22'
 CH BRG=N81°28'45"E - 169.57'
 PC=57+78.56 (528)
 PT=59+48.78 (527)

FOR TOTAL HOLDINGS FOR
 PARCEL 1MK0004TE-B
 SEE SHEET 6

- IRON PIPE OR ROD FOUND
- ⊕ *MAG' NAIL SET
- + CUT CROSS FOUND OR SET
- 5 / 8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
) SS
 COUNTY OF DUPAGE)

THIS IS TO CERTIFY THAT I, TIMOTHY G. WOLFE, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, (WE, JACOB AND HEFNER ASSOCIATES, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-003073,) HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 32, TOWNSHIP 44 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, LAKE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT DOWNERS GROVE, ILLINOIS THIS 20TH DAY OF APRIL 2017 A.D.

Timothy G. Wolfe
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-003535
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2018



THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 U.S. ROUTE 41

LIMITS: AT DEERPETH ROAD COUNTY: LAKE
 SECTION: JOB NO.: R-91-024-17
 STA. 60+34.51 TO STA. 65+00.00
 SCALE: 1"=40' SHEET 4 OF 6 SHEETS

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA		PARCEL INDEX NUMBER		
					ACRES	SQUARE FEET			
1MK0004TE-B	131.1	N/A	N/A	131.1	3.767	164,075	12-32-103-004	12-32-200-001	12-29-302-006
							12-32-103-002	12-32-100-004	12-29-302-002
							12-32-103-003	12-29-302-004	12-29-302-001
							12-32-201-008	12-29-302-005	
							12-32-200-002	12-29-302-003	

SEE SHEET 5

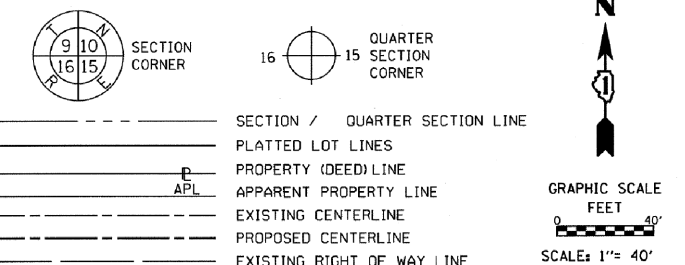
NOTES: ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED. BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID". ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99996148306. AREAS SHOWN ON THIS PLAT ARE "GROUND".

REVISION DATE: 10/12/17 REVISION MADE BY: TLA

CONTRACT NO. 62B65
 SHEET 108 OF 290
IDOT USE ONLY

PART OF THE NW 1/4 OF SECTION 32, TWP. 44 N., R. 12 E. OF THE 3RD. P.M., IN LAKE COUNTY, ILLINOIS.

LEGEND



- IRON PIPE OR ROD FOUND
- ⊕ *MAG' NAIL SET
- + CUT CROSS FOUND OR SET
- 5 / 8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
) SS
 COUNTY OF DUPAGE)

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DATED AT DOWNERS GROVE, ILLINOIS THIS 20TH DAY OF APRIL 2017 A.D.

Timothy G. Wolfe
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-003535
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2018

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

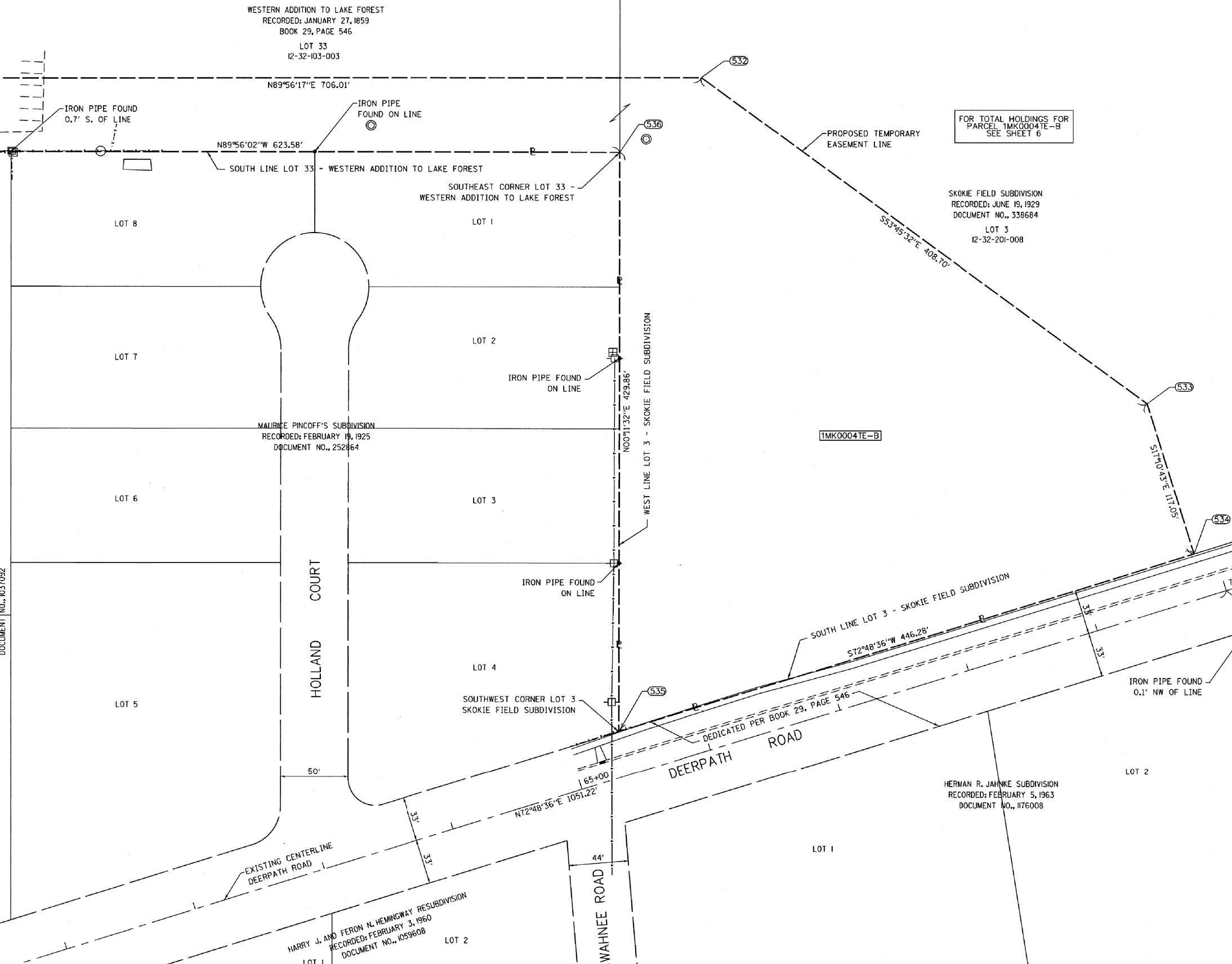


JACOB & HEFNER ASSOCIATES
 1323 Butterfield Road, Suite 700, Downers Grove, IL 60515
 PHONE: (630) 453-8860, FAX: (630) 452-4461
 www.jacobandhefner.com
 Illinois Professional Design Firm
 License No. 084-000775 Exp. 4/30/19

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 U.S. ROUTE 41

LIMITS: AT DEERPETH ROAD COUNTY: LAKE
 SECTION: JOB NO.: R-91-024-17
 STA. 62+00.00 TO STA. 69+85.24
 SCALE: 1"=40' SHEET 5 OF 6 SHEETS

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAMBURG, ILLINOIS 60196



SEE SHEET 4

LAKE FOREST CLUB SUBDIVISION
 RECORDED: JULY 13, 1959
 DOCUMENT NO., 1037092

LOT 2

WESTERN ADDITION TO LAKE FOREST
 RECORDED: JANUARY 27, 1959
 BOOK 29, PAGE 546
 LOT 33
 12-32-103-003

FOR TOTAL HOLDINGS FOR
 PARCEL 1MK0004TE-B
 SEE SHEET 6

SKOKIE FIELD SUBDIVISION
 RECORDED: JUNE 19, 1929
 DOCUMENT NO., 338684
 LOT 3
 12-32-201-008

MAURICE PINCOFF'S SUBDIVISION
 RECORDED: FEBRUARY 19, 1925
 DOCUMENT NO., 252864

1MK0004TE-B

HERMAN R. JAHNKE SUBDIVISION
 RECORDED: FEBRUARY 5, 1963
 DOCUMENT NO., 1176008

HARRY J. AND FERON N. HEMMINGWAY RESUBDIVISION
 RECORDED: FEBRUARY 3, 1960
 DOCUMENT NO., 1059608

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA		PARCEL INDEX NUMBER		
					ACRES	SQUARE FEET			
1MK0004TE-B	131.1	N/A	N/A	131.1	3.767	164,075	12-32-103-004	12-32-200-001	12-29-302-006
							12-32-103-002	12-32-100-004	12-29-302-002
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							12-32-201-008	12-29-302-005	
							12-32-200-002	12-29-302-003	

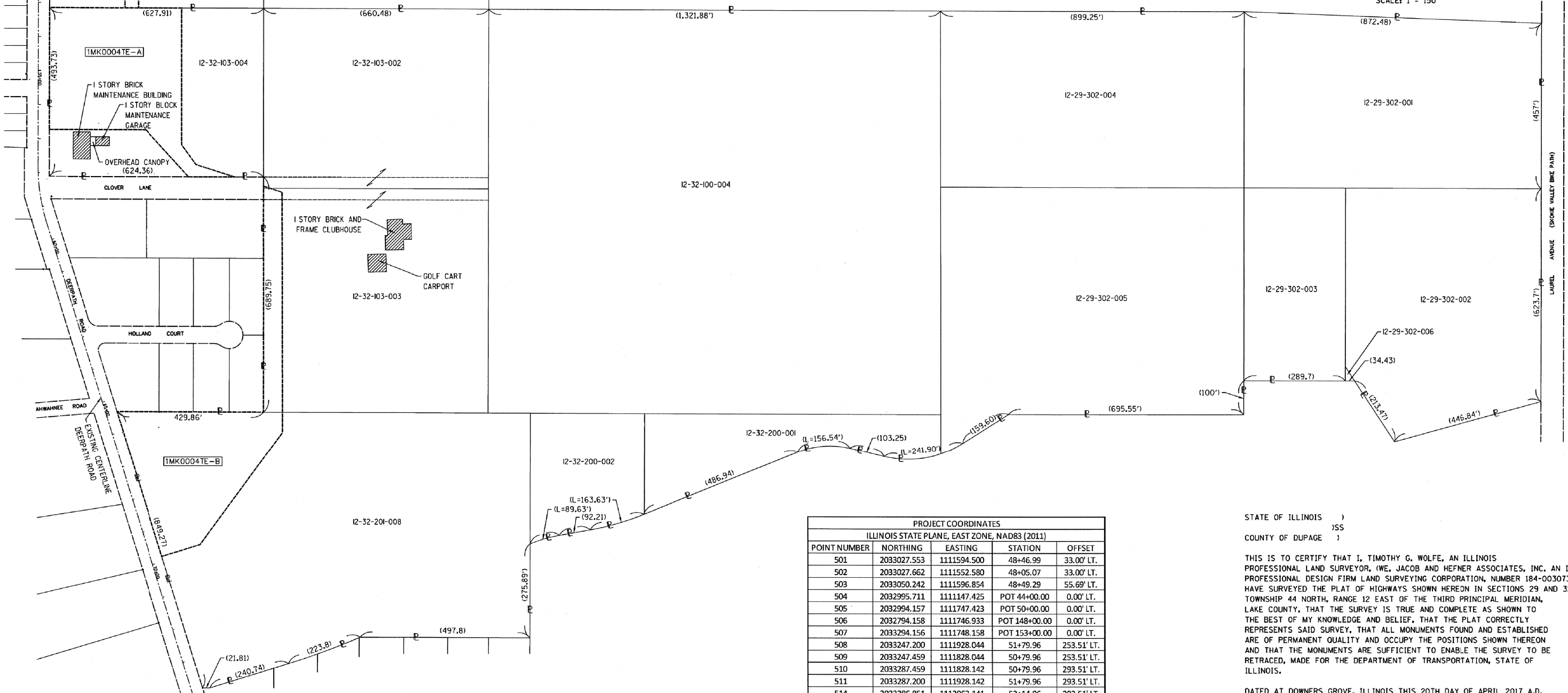
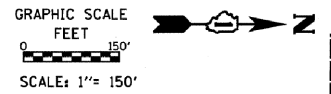
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CONTRACT NO. 62B65
 SHEET 109 OF 290
IDOT USE ONLY

REVISION DATE: 10/12/17 REVISION MADE BY: TLA

PART OF SECTIONS 29 AND 32, TWP. 44 N., R. 12 E. OF THE 3RD. P.M., IN LAKE COUNTY, ILLINOIS.

TOTAL HOLDING DIAGRAM - PARCELS 1MK0004TE-A AND 1MK0004TE-B



LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORDED DIMENSION
- EXISTING BUILDING
- IRON PIPE OR ROD FOUND
- CUT CROSS FOUND OR SET
- *MAG NAIL SET
- 5 / 8" REBAR SET
- THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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- PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

PROJECT COORDINATES				
ILLINOIS STATE PLANE, EAST ZONE, NAD83 (2011)				
POINT NUMBER	NORTHING	EASTING	STATION	OFFSET
501	2033027.553	1111594.500	48+46.99	33.00' LT.
502	2033027.662	1111552.580	48+05.07	33.00' LT.
503	2033050.242	1111596.854	48+49.29	55.69' LT.
504	2032995.711	1111147.425	POT 44+00.00	0.00' LT.
505	2032994.157	1111747.423	POT 50+00.00	0.00' LT.
506	2032794.158	1111746.933	POT 148+00.00	0.00' LT.
507	2033294.156	1111748.158	POT 153+00.00	0.00' LT.
508	2033247.200	1111928.044	51+79.96	253.51' LT.
509	2033247.459	1111828.044	50+79.96	253.51' LT.
510	2033287.459	1111828.142	50+79.96	293.51' LT.
511	2033287.200	1111928.142	51+79.96	293.51' LT.
514	2033286.851	1112063.141	53+14.96	293.51' LT.
515	2033246.851	1112063.043	53+14.96	253.51' LT.
518	2033026.342	1112062.503	53+15.00	33.00' LT.
519	2033414.857	1112063.455	53+14.94	421.52' LT.
520	2033414.857	1112465.357	57+16.84	422.56' LT.
521	2033456.242	1112522.741	57+74.12	464.09' LT.
522	2033569.815	1112559.360	59+83.76	567.56' LT.
523	2033434.463	1112558.992	59+24.45	438.25' LT.
524	2033308.835	1112420.919	56+72.68	316.42' LT.
525	2033025.415	1112420.225	56+72.72	33.00' LT.
526	2032992.141	1112525.981	PC 57+78.56	0.00' LT.
527	2033017.267	1112693.680	PT 59+48.78	0.00' LT.
528	2033327.947	1113697.942	POT 70+00.00	0.00' LT.
529	2033653.786	1112625.588	60+71.85	628.21' LT.
530	2033653.892	1112586.469	60+34.51	639.87' LT.
531	2033707.793	1112603.848	60+67.04	686.23' LT.
532	2033708.555	1113309.858	67+41.74	478.30' LT.
533	2033466.935	1113639.493	69+85.24	150.05' LT.
534	2033355.104	1113674.065	69+85.22	33.00' LT.
535	2033223.209	1113247.722	65+38.94	33.00' LT.
536	2033653.066	1113249.164	66+67.36	443.23' LT.

STATE OF ILLINOIS)
) SS
 COUNTY OF DUPAGE)

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 LICENSE EXPIRATION DATE: NOVEMBER 30, 2018

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CONTRACT NO. 62B65
 SHEET 110 OF 290

DOT USE ONLY

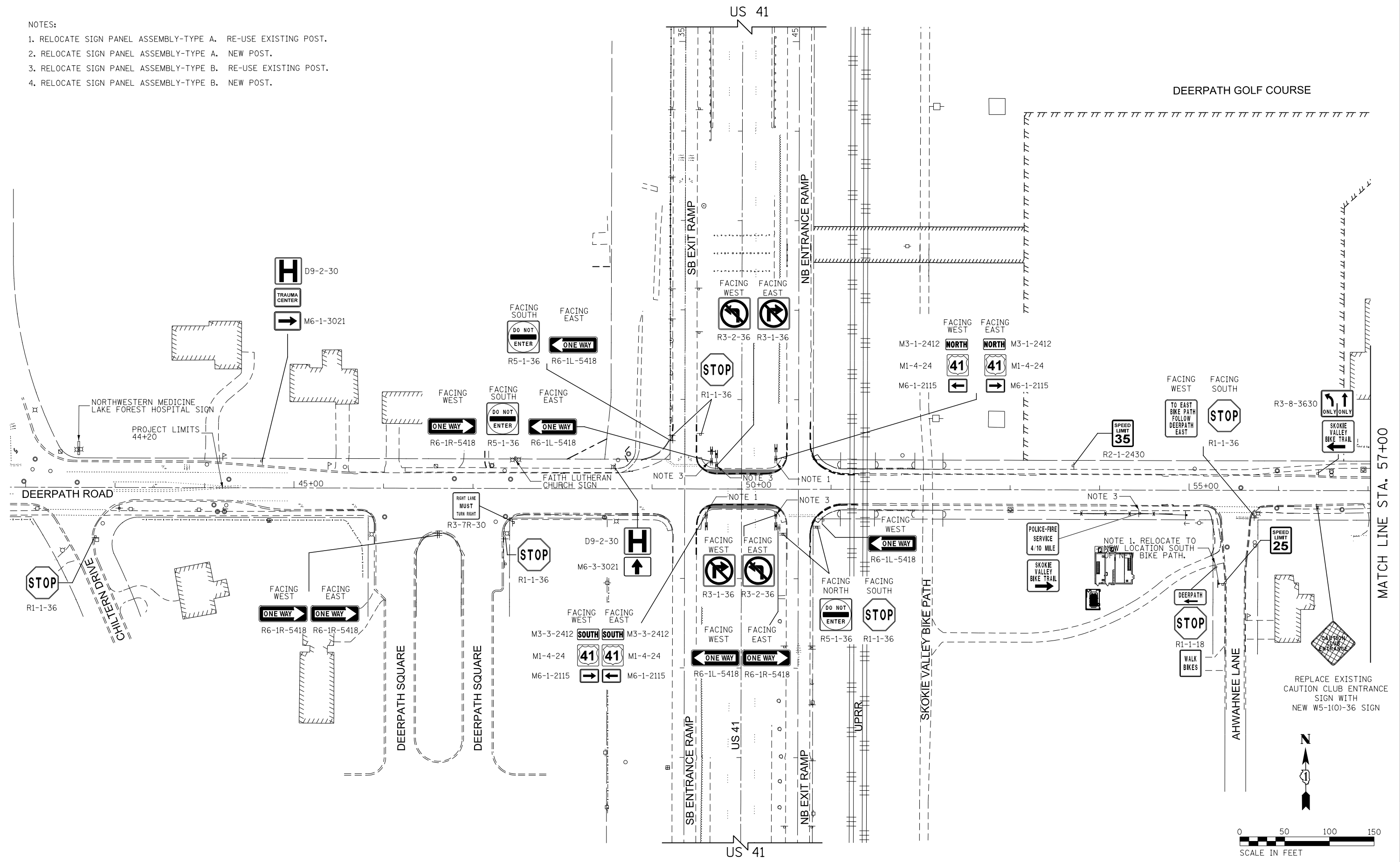
PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 U.S. ROUTE 41

LIMITS: AT DEERPATH ROAD COUNTY: LAKE
 SECTION: JOB NO.: R-91-024-17
 STA. TO STA.
 SCALE: 1"=150' SHEET 6 OF 6 SHEETS

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196

NOTES:

1. RELOCATE SIGN PANEL ASSEMBLY-TYPE A. RE-USE EXISTING POST.
2. RELOCATE SIGN PANEL ASSEMBLY-TYPE A. NEW POST.
3. RELOCATE SIGN PANEL ASSEMBLY-TYPE B. RE-USE EXISTING POST.
4. RELOCATE SIGN PANEL ASSEMBLY-TYPE B. NEW POST.



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USER NAME = c1iss	DESIGNED JSA	REVISED -
PLOT SCALE = 1:100	DRAWN MAL	REVISED -
PLOT DATE = 6/25/2020	CHECKED JWM	REVISED -
	DATE 06/26/20	REVISED -

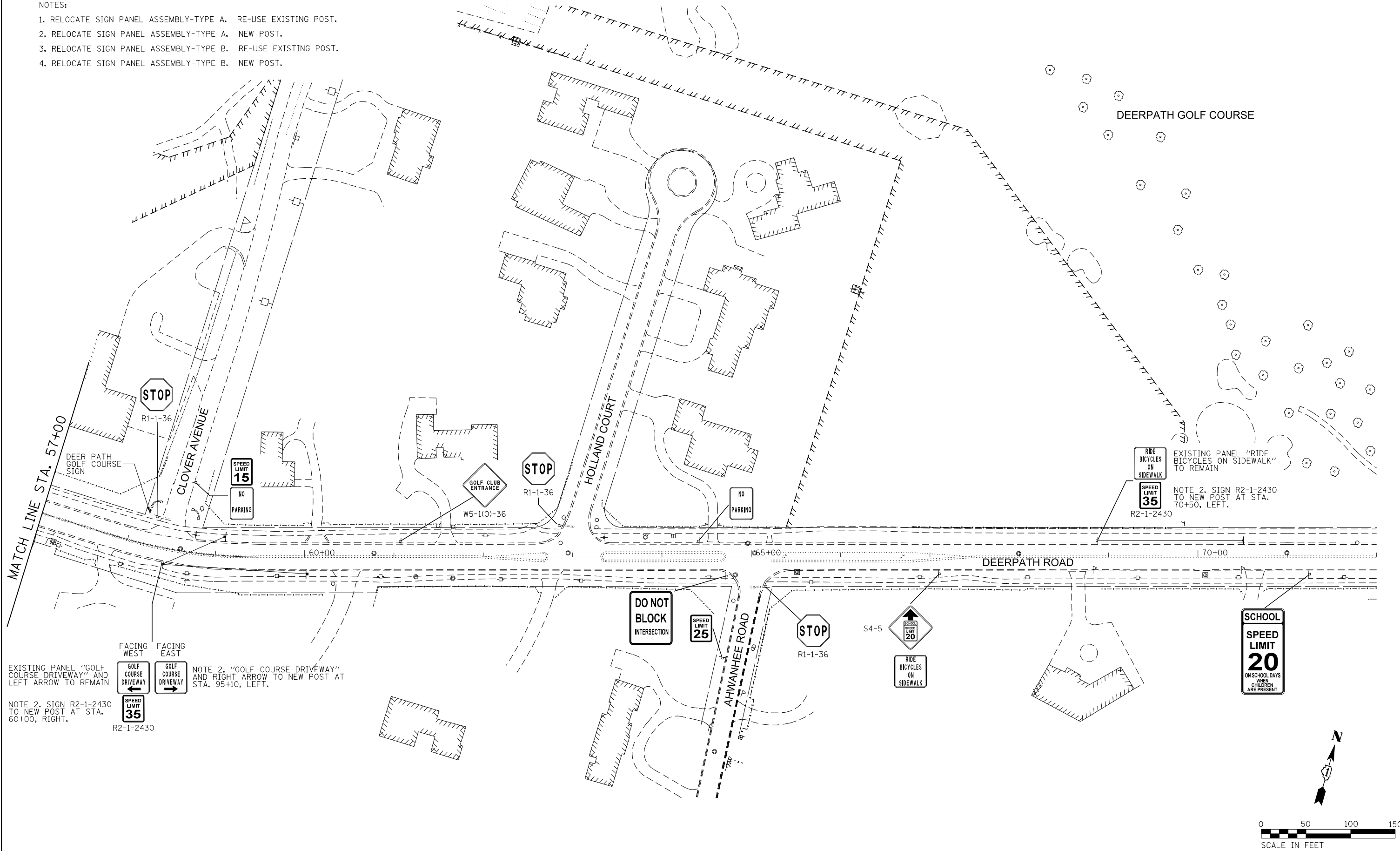
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EXISTING ROADWAY SIGNS AND PAVEMENT MARKING PLAN			
SCALE: 50	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 111
CONTRACT NO. 62B65				ILLINOIS FED. AID PROJECT

NOTES:

1. RELOCATE SIGN PANEL ASSEMBLY-TYPE A. RE-USE EXISTING POST.
2. RELOCATE SIGN PANEL ASSEMBLY-TYPE A. NEW POST.
3. RELOCATE SIGN PANEL ASSEMBLY-TYPE B. RE-USE EXISTING POST.
4. RELOCATE SIGN PANEL ASSEMBLY-TYPE B. NEW POST.



DEERPETH GOLF COURSE

MATCH LINE STA. 57+00

STOP
R1-1-36

DEER PATH GOLF COURSE SIGN

SPEED LIMIT 15
NO PARKING

GOLF CLUB ENTRANCE
W5-1(O)-36

STOP
R1-1-36

NO PARKING

RIDE BICYCLES ON SIDEWALK
SPEED LIMIT 35
R2-1-2430

EXISTING PANEL "RIDE BICYCLES ON SIDEWALK" TO REMAIN
NOTE 2. SIGN R2-1-2430 TO NEW POST AT STA. 70+50, LEFT.

FACING WEST FACING EAST
GOLF COURSE DRIVEWAY
GOLF COURSE DRIVEWAY
SPEED LIMIT 35
R2-1-2430

EXISTING PANEL "GOLF COURSE DRIVEWAY" AND LEFT ARROW TO REMAIN
NOTE 2. SIGN R2-1-2430 TO NEW POST AT STA. 60+00, RIGHT.

NOTE 2. "GOLF COURSE DRIVEWAY" AND RIGHT ARROW TO NEW POST AT STA. 95+10, LEFT.

DO NOT BLOCK INTERSECTION

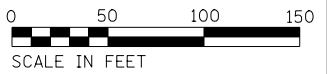
SPEED LIMIT 25

STOP
R1-1-36

S4-5

RIDE BICYCLES ON SIDEWALK

SCHOOL SPEED LIMIT 20 ON SCHOOL DAYS WHEN CHILDREN ARE PRESENT



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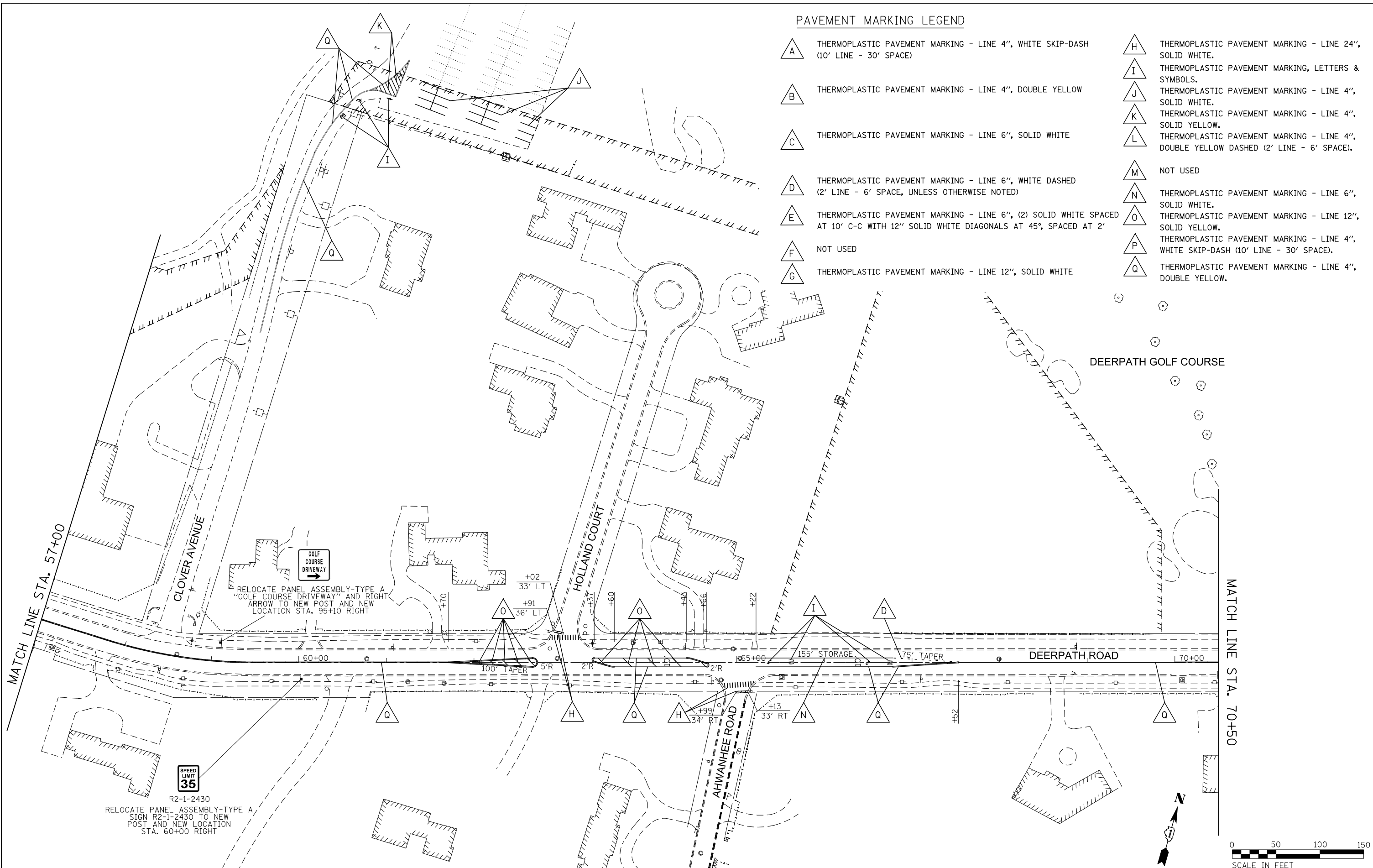
KNIGHT
Engineers & Architects

USER NAME = c1iss	DESIGNED JSA	REVISED -
PLOT SCALE = 1:100	DRAWN	REVISED -
PLOT DATE = 6/25/2020	CHECKED JWM	REVISED -
	DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING ROADWAY SIGNS AND PAVEMENT MARKING PLAN			
SCALE: 50	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 112
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



FILE NAME = L:\7355\CAD\IS\Sheet\Signs PKM\0162865-shr-5.gpr\mk_02.dgn

PAVEMENT MARKING LEGEND

- | | |
|--|--|
| <p>A THERMOPLASTIC PAVEMENT MARKING - LINE 4", WHITE SKIP-DASH (10' LINE - 30' SPACE)</p> <p>B THERMOPLASTIC PAVEMENT MARKING - LINE 4", DOUBLE YELLOW</p> <p>C THERMOPLASTIC PAVEMENT MARKING - LINE 6", SOLID WHITE</p> <p>D THERMOPLASTIC PAVEMENT MARKING - LINE 6", WHITE DASHED (2' LINE - 6' SPACE, UNLESS OTHERWISE NOTED)</p> <p>E THERMOPLASTIC PAVEMENT MARKING - LINE 6", (2) SOLID WHITE SPACED AT 10' C-C WITH 12" SOLID WHITE DIAGONALS AT 45°, SPACED AT 2'</p> <p>F NOT USED</p> <p>G THERMOPLASTIC PAVEMENT MARKING - LINE 12", SOLID WHITE</p> | <p>H THERMOPLASTIC PAVEMENT MARKING - LINE 24", SOLID WHITE.</p> <p>I THERMOPLASTIC PAVEMENT MARKING, LETTERS & SYMBOLS.</p> <p>J THERMOPLASTIC PAVEMENT MARKING - LINE 4", SOLID WHITE.</p> <p>K THERMOPLASTIC PAVEMENT MARKING - LINE 4", SOLID YELLOW.</p> <p>L THERMOPLASTIC PAVEMENT MARKING - LINE 4", DOUBLE YELLOW DASHED (2' LINE - 6' SPACE).</p> <p>M NOT USED</p> <p>N THERMOPLASTIC PAVEMENT MARKING - LINE 6", SOLID WHITE.</p> <p>O THERMOPLASTIC PAVEMENT MARKING - LINE 12", SOLID YELLOW.</p> <p>P THERMOPLASTIC PAVEMENT MARKING - LINE 4", WHITE SKIP-DASH (10' LINE - 30' SPACE).</p> <p>Q THERMOPLASTIC PAVEMENT MARKING - LINE 4", DOUBLE YELLOW.</p> |
|--|--|

R2-1-2430
RELOCATE PANEL ASSEMBLY-TYPE A
SIGN R2-1-2430 TO NEW
POST AND NEW LOCATION
STA. 60+00 RIGHT

GOLF COURSE DRIVEWAY
RELOCATE PANEL ASSEMBLY-TYPE A
"GOLF COURSE DRIVEWAY" AND RIGHT
ARROW TO NEW POST AND NEW
LOCATION STA. 95+10 RIGHT

MATCH LINE STA. 57+00

MATCH LINE STA. 70+50

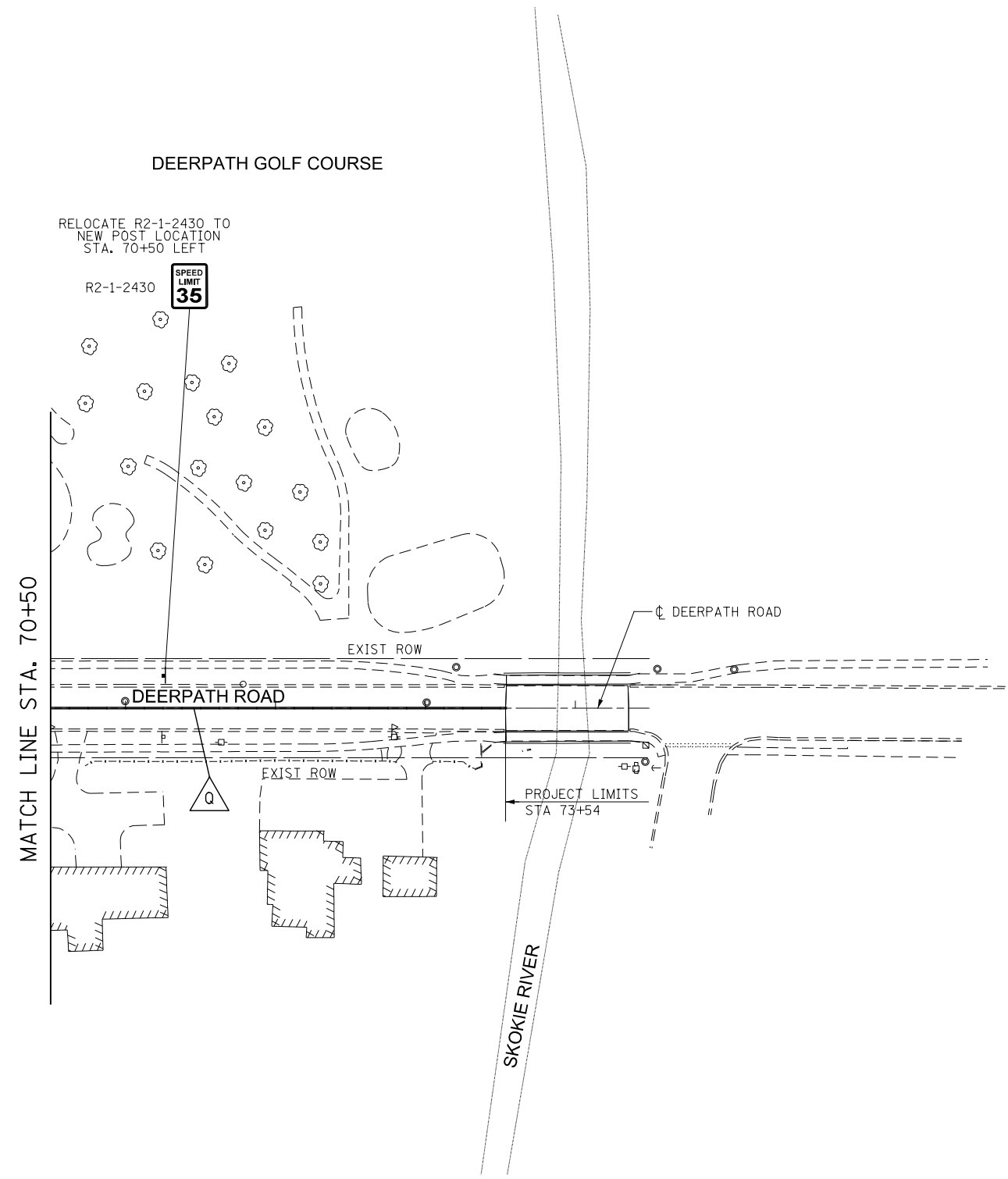
KNIGHT
Engineers & Architects

USER NAME = c1iss	DESIGNED JSA	REVISED -
PLOT SCALE = 1:100	DRAWN MAL	REVISED -
PLOT DATE = 6/25/2020	CHECKED JWM	REVISED -
	DATE 06/26/20	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

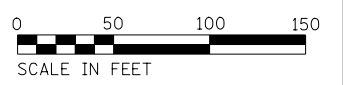
PROPOSED ROADWAY SIGNS AND PAVEMENT MARKING PLAN			
SCALE: 50	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 114
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



PAVEMENT MARKING LEGEND

- THERMOPLASTIC PAVEMENT MARKING - LINE 4", WHITE SKIP-DASH (10' LINE - 30' SPACE)
- THERMOPLASTIC PAVEMENT MARKING - LINE 4", DOUBLE YELLOW
- THERMOPLASTIC PAVEMENT MARKING - LINE 6", SOLID WHITE
- THERMOPLASTIC PAVEMENT MARKING - LINE 6", WHITE DASHED (2' LINE - 6' SPACE, UNLESS OTHERWISE NOTED)
- THERMOPLASTIC PAVEMENT MARKING - LINE 6", (2) SOLID WHITE SPACED AT 10' C-C WITH 12" SOLID WHITE DIAGONALS AT 45°, SPACED AT 2'
- NOT USED
- THERMOPLASTIC PAVEMENT MARKING - LINE 12", SOLID WHITE
- THERMOPLASTIC PAVEMENT MARKING - LINE 24", SOLID WHITE.
- THERMOPLASTIC PAVEMENT MARKING, LETTERS & SYMBOLS.
- THERMOPLASTIC PAVEMENT MARKING - LINE 4", SOLID WHITE.
- THERMOPLASTIC PAVEMENT MARKING - LINE 4", SOLID YELLOW.
- THERMOPLASTIC PAVEMENT MARKING - LINE 4", DOUBLE YELLOW DASHED (2' LINE - 6' SPACE).
- NOT USED
- THERMOPLASTIC PAVEMENT MARKING - LINE 6", SOLID WHITE.
- THERMOPLASTIC PAVEMENT MARKING - LINE 12", SOLID YELLOW.
- THERMOPLASTIC PAVEMENT MARKING - LINE 4", WHITE SKIP-DASH (10' LINE - 30' SPACE).
- THERMOPLASTIC PAVEMENT MARKING - LINE 4", DOUBLE YELLOW.



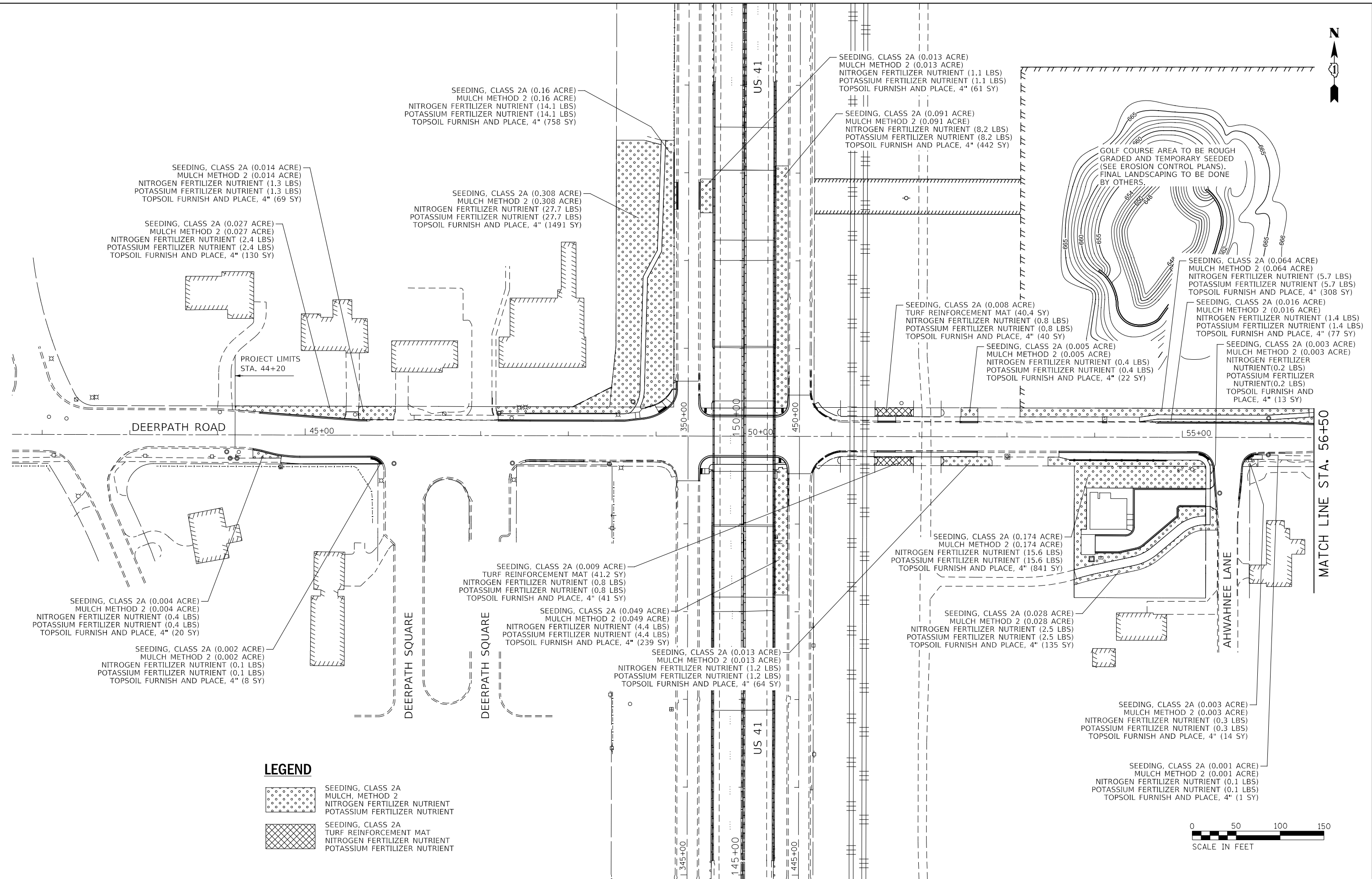
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KNIGHT Engineers & Architects	USER NAME = c1iss	DESIGNED JSA	REVISED -
	PLOT SCALE = 1:100	DRAWN MAL	REVISED -
	PLOT DATE = 6/25/2020	CHECKED JWM	REVISED -
		DATE 06/26/20	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

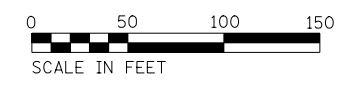
PROPOSED ROADWAY SIGNS AND PAVEMENT MARKING PLAN			
SCALE: 50	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	115
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



LEGEND

- SEEDING, CLASS 2A
MULCH, METHOD 2
NITROGEN FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT
- SEEDING, CLASS 2A
TURF REINFORCEMENT MAT
NITROGEN FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT



FILE NAME = L:\7255\CAON\Sheets\Permentent Seeding\0162865-ahf-perm seeding-01.dgn



USER NAME = c1iss	DESIGNED CEL	REVISED -
PLOT SCALE = 1:100	DRAWN CEL	REVISED -
PLOT DATE = 6/25/2020	CHECKED JWM	REVISED -
	DATE 06/26/20	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PERMANENT SEEDING PLANS

SCALE: 50 SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 116
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



SEEDING, CLASS 2A (0.017 ACRE)
 MULCH METHOD 2 (0.017 ACRE)
 NITROGEN FERTILIZER NUTRIENT (1.6 LBS)
 POTASSIUM FERTILIZER NUTRIENT (1.6 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (84 SY)

SEEDING, CLASS 2A (0.02 ACRE)
 TURF REINFORCEMENT MAT (116.1 SY)
 NITROGEN FERTILIZER NUTRIENT (2.2 LBS)
 POTASSIUM FERTILIZER NUTRIENT (2.2 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (116 SY)

SEEDING, CLASS 2A (0.03 ACRE)
 TURF REINFORCEMENT MAT (134.4 SY)
 NITROGEN FERTILIZER NUTRIENT (2.5 LBS)
 POTASSIUM FERTILIZER NUTRIENT (2.5 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (134 SY)

SEEDING, CLASS 2A (0.04 ACRE)
 TURF REINFORCEMENT MAT (210.1 SY)
 NITROGEN FERTILIZER NUTRIENT (3.9 LBS)
 POTASSIUM FERTILIZER NUTRIENT (3.9 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (210 SY)

SEEDING, CLASS 2A (0.026 ACRE)
 MULCH METHOD 2 (0.026 ACRE)
 NITROGEN FERTILIZER NUTRIENT (2.3 LBS)
 POTASSIUM FERTILIZER NUTRIENT (2.3 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (124 SY)

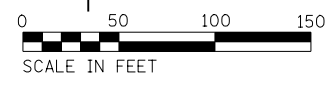
SEEDING, CLASS 2A (0.12 ACRE)
 MULCH METHOD 2 (0.12 ACRE)
 NITROGEN FERTILIZER NUTRIENT (11.2 LBS)
 POTASSIUM FERTILIZER NUTRIENT (11.2 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (602 SY)

SEEDING, CLASS 2A (0.059 ACRE)
 MULCH METHOD 2 (0.059 ACRE)
 NITROGEN FERTILIZER NUTRIENT (5.3 LBS)
 POTASSIUM FERTILIZER NUTRIENT (5.3 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (287 SY)

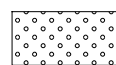
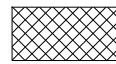
SEEDING, CLASS 2A (0.029 ACRE)
 MULCH METHOD 2 (0.029 ACRE)
 NITROGEN FERTILIZER NUTRIENT (2.6 LBS)
 POTASSIUM FERTILIZER NUTRIENT (2.6 LBS)
 TOPSOIL FURNISH AND PLACE, 4" (142 SY)

GOLF COURSE AREA TO BE ROUGH
 GRADED AND TEMPORARY SEEDED
 (SEE EROSION CONTROL PLANS).
 FINAL LANDSCAPING TO BE DONE
 BY OTHERS.

MATCH LINE STA. 56+50



LEGEND

	SEEDING, CLASS 2A MULCH, METHOD 2 NITROGEN FERTILIZER NUTRIENT POTASSIUM FERTILIZER NUTRIENT
	SEEDING, CLASS 2A TURF REINFORCEMENT MAT NITROGEN FERTILIZER NUTRIENT POTASSIUM FERTILIZER NUTRIENT

FILE NAME = L:\7355\CAD\Drawings\Permanent Seeding\0162665-ah-t-perm seeding-02.dgn



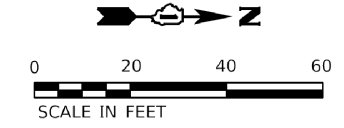
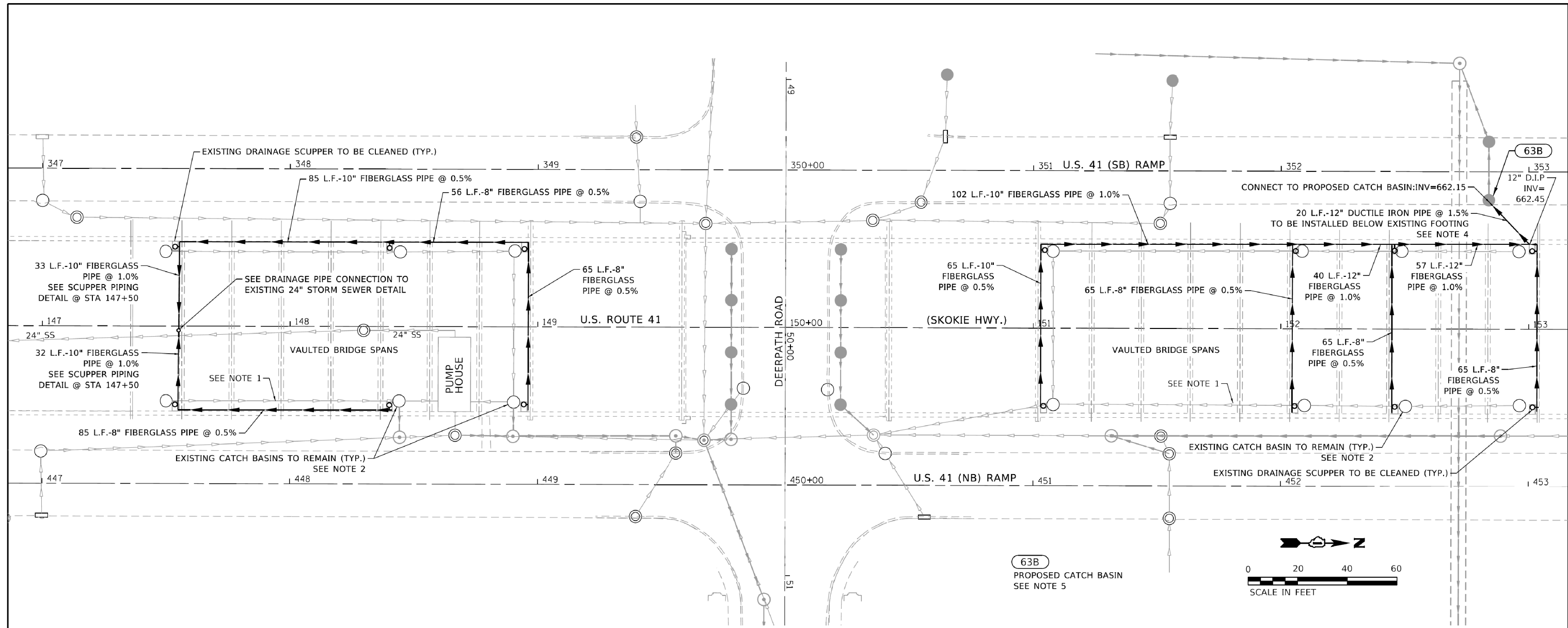
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DRAWN CEL	REVISIONS -	
PLOT SCALE = 1:100	CHECKED JWM	REVISED -
PLOT DATE = 6/25/2020	DATE 06/26/20	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PERMANENT SEEDING PLANS

SCALE: 50 SHEET 2 OF 2 SHEETS STA. TO STA.

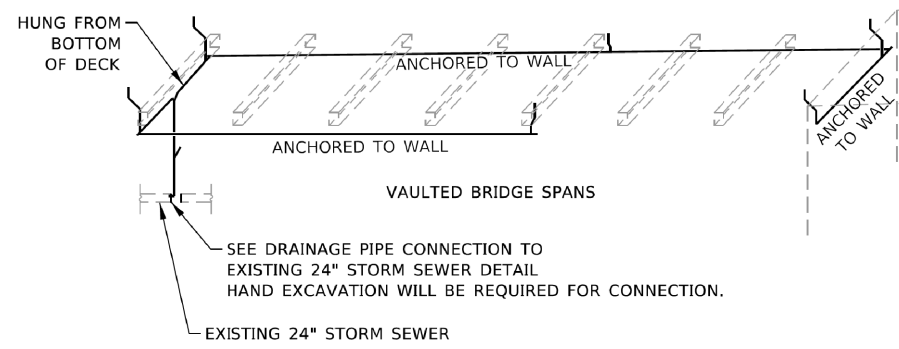
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	117
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



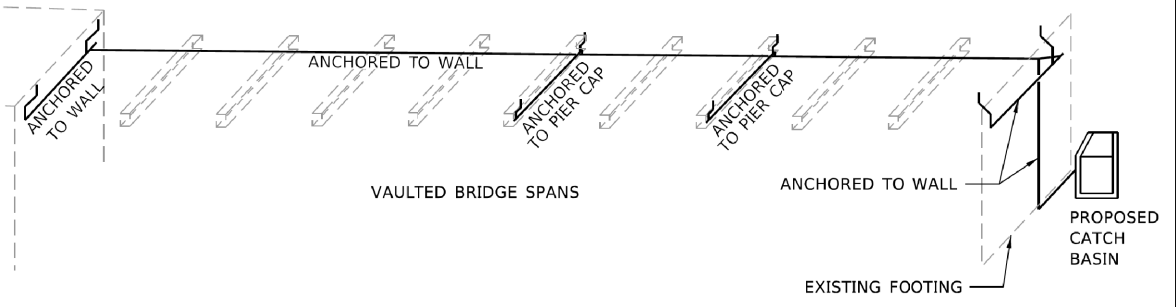
63B
PROPOSED CATCH BASIN
SEE NOTE 5

BILL OF MATERIAL

Item	Unit	Total
Drainage System	L. Sum	1
Cleaning Drainage System	L. Sum	1



- NOTE:**
- EXISTING DRAINAGE SYSTEM SHALL REMAIN IN PLACE.
 - THE EXISTING DOWNSPOUTS AND CONNECTIONS TO EXISTING STRUCTURES SHALL BE REMOVED. THE CONNECTION HOLE SHALL BE SEALED WITH HYDRAULIC CEMENT OR EQUIVALENT WATER-TIGHT MATERIAL APPROVED BY THE ENGINEER. THE COST OF DOWNSPOUT REMOVAL, LABOR AND MATERIAL TO SEAL EXISTING STRUCTURE CONNECTION HOLE SHALL BE INCLUDED IN LUMP SUM COST FOR DRAINAGE SYSTEM.
 - THE MAXIMUM SPACING OF PIPE SUPPORT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
 - HAND EXCAVATION WILL BE REQUIRED TO EXTEND PIPE UNDER FOOTING.
 - SEE DRAINAGE AND UTILITIES PLANS FOR DETAILED INFORMATION.



MODEL Default
FILE NAME: D:\62B65 St. Piping_Plan.dgn

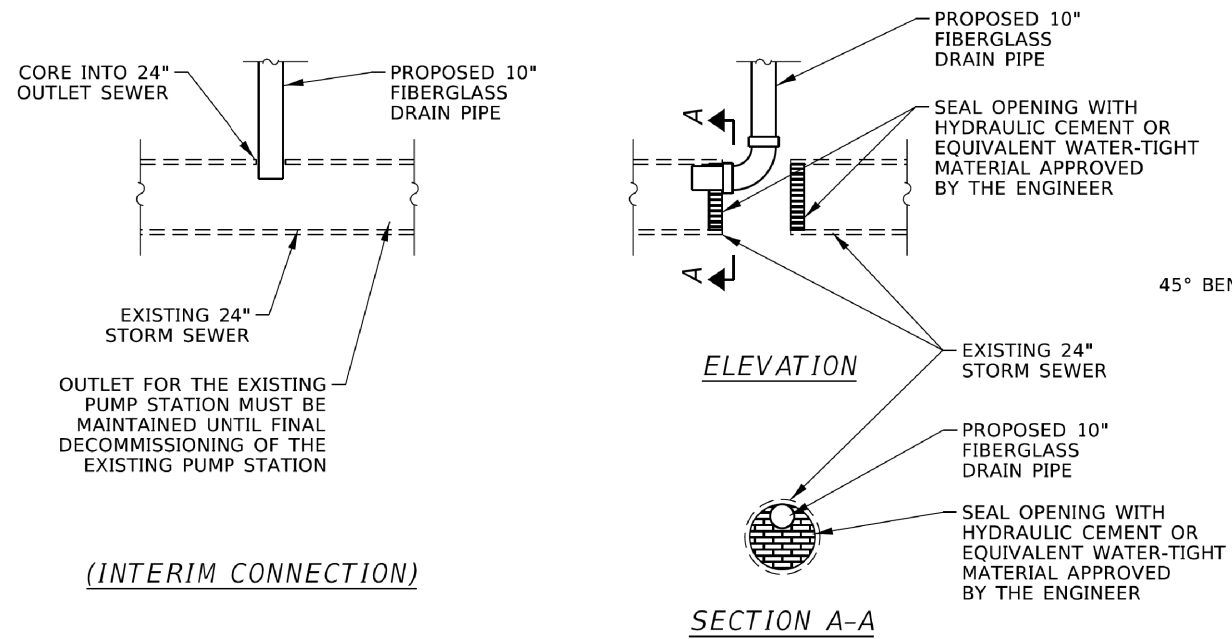
CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = USER	DESIGNED - JKP	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - DMW	REVISED -
PLOT DATE = 3/22/2019	CHECKED - SPF	REVISED -
	DATE - 11-02-2018	REVISED -

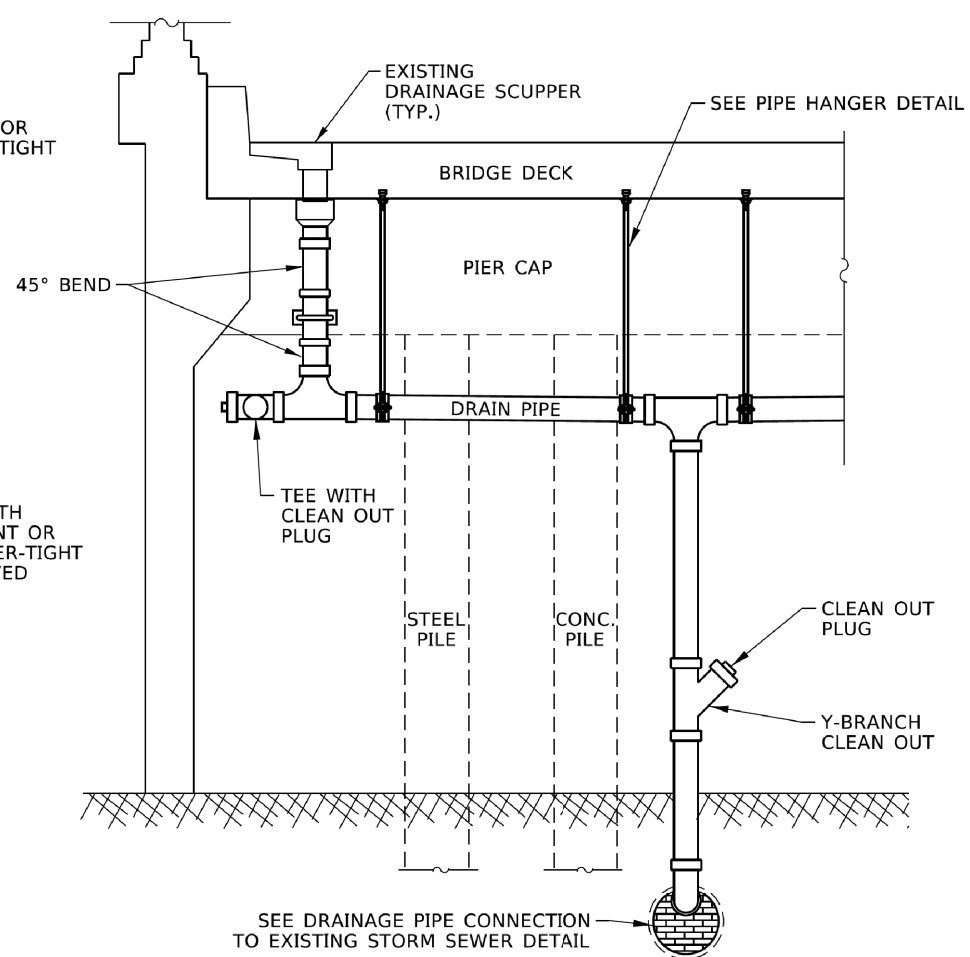
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DECK DRAINAGE SYSTEM U.S. RTE 41 OVER DEERPATH ROAD			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

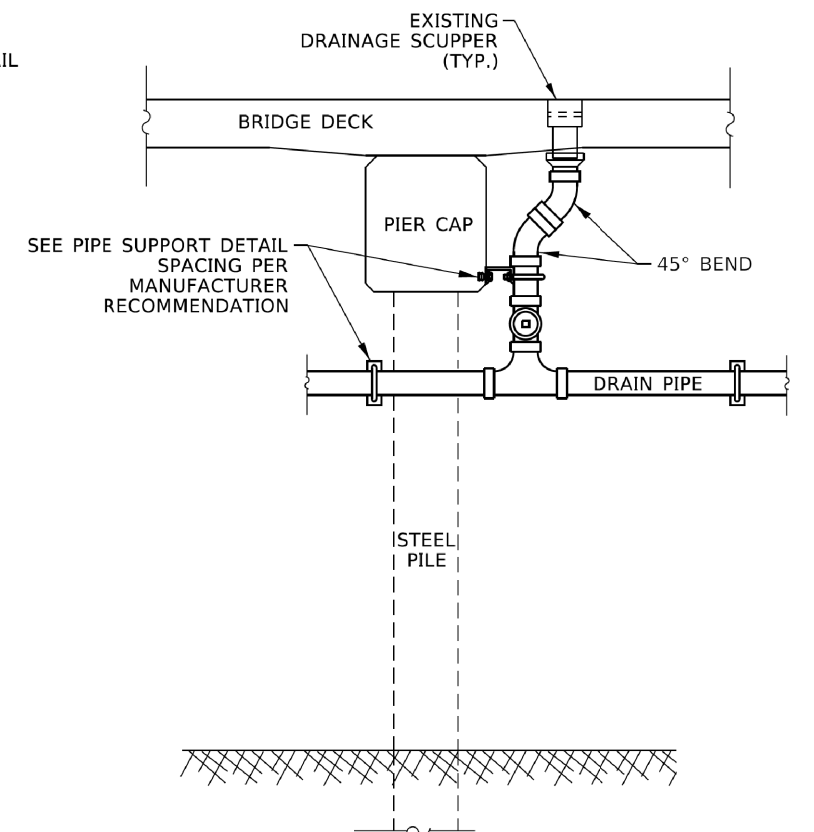
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-1	LAKE	290	118
SN 049-0033		CONTRACT NO. 62B65		
ILLINOIS FED. AID PROJECT				



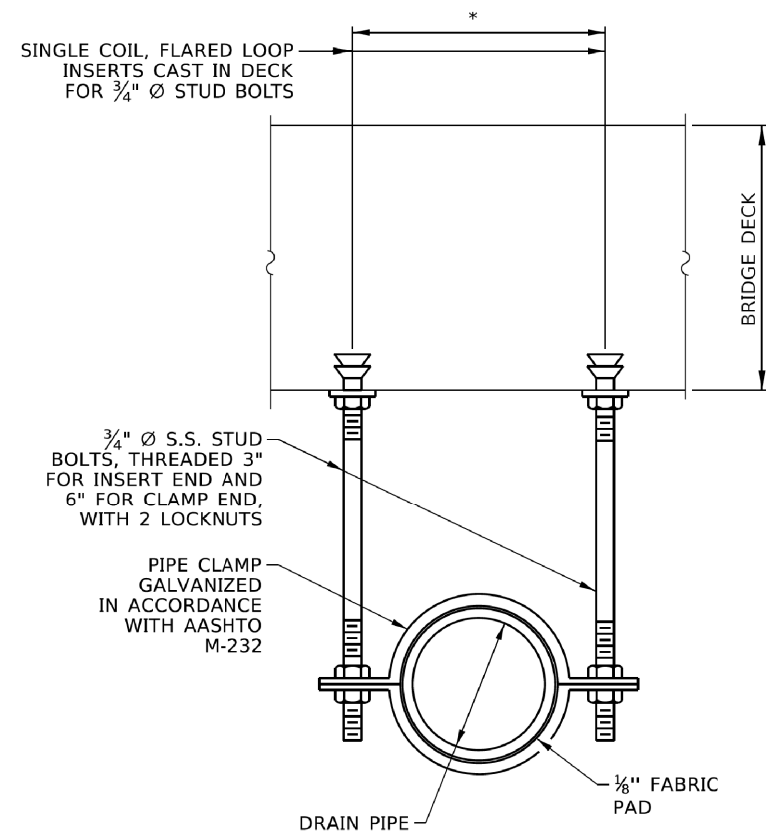
DRAINAGE PIPE CONNECTION TO EXISTING 24" STORM SEWER DETAIL



SCUPPER PIPING DETAIL @ STA 147+50 (SOUTH VAULT)

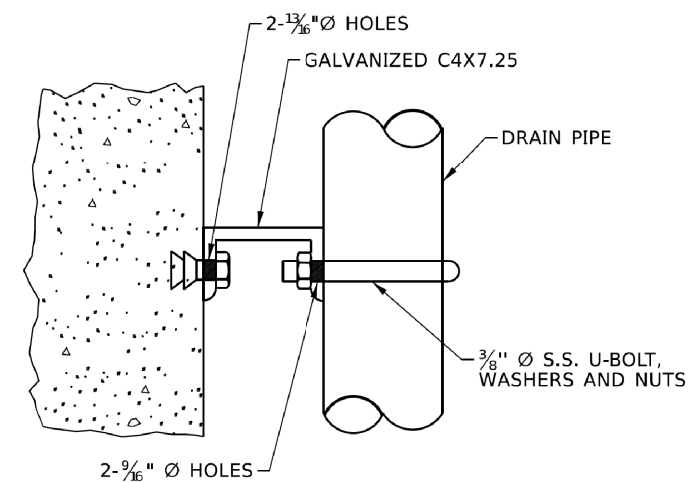


SCUPPER AND DRAIN PIPE SUPPORT DETAIL (ANCHORED TO WALL OR ANCHORED TO PIER CAP)

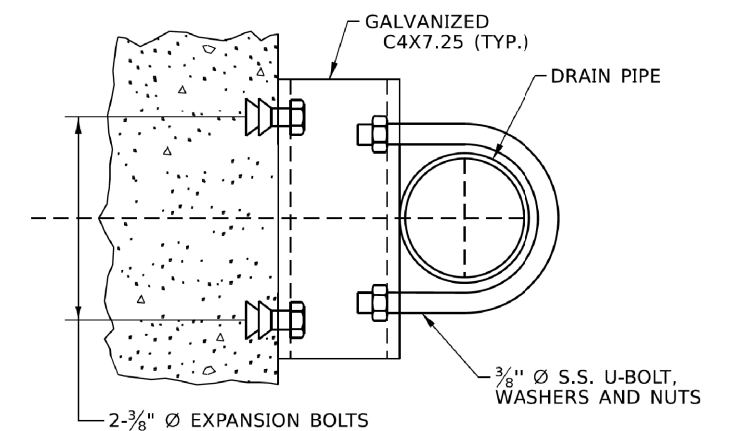


PIPE HANGER DETAIL

• DIMENSION AS REQUIRED BY PIPE CLAMP



ELEVATION



PLAN

PIPE SUPPORT DETAIL

MODEL: Default
FILE NAME: D:\6655 Stn_DrainR.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

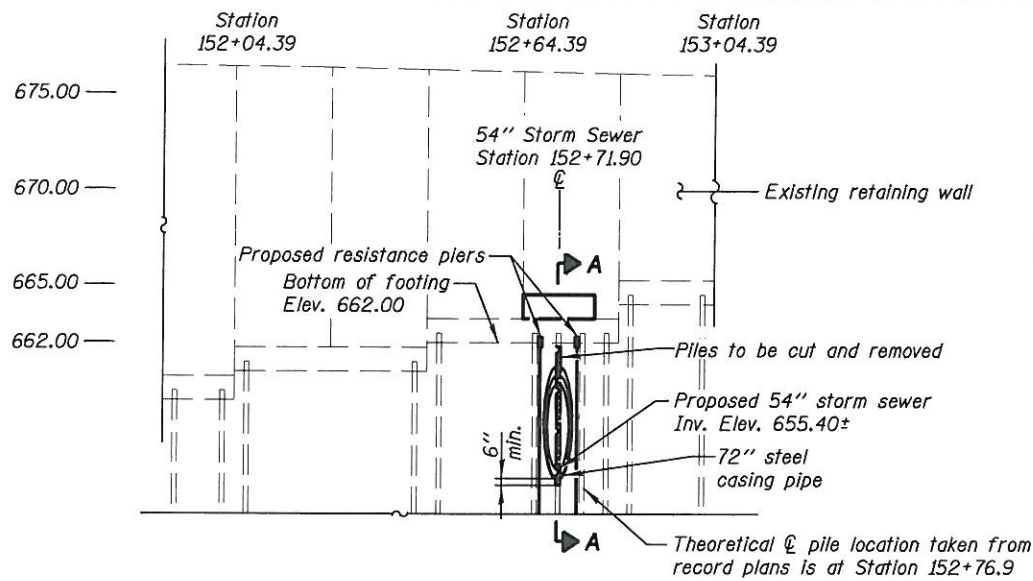
USER NAME = USER	DESIGNED - JKP	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - DMW	REVISED -
PLOT DATE = 6/19/2019	CHECKED - SPF	REVISED -
	DATE - 11-02-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

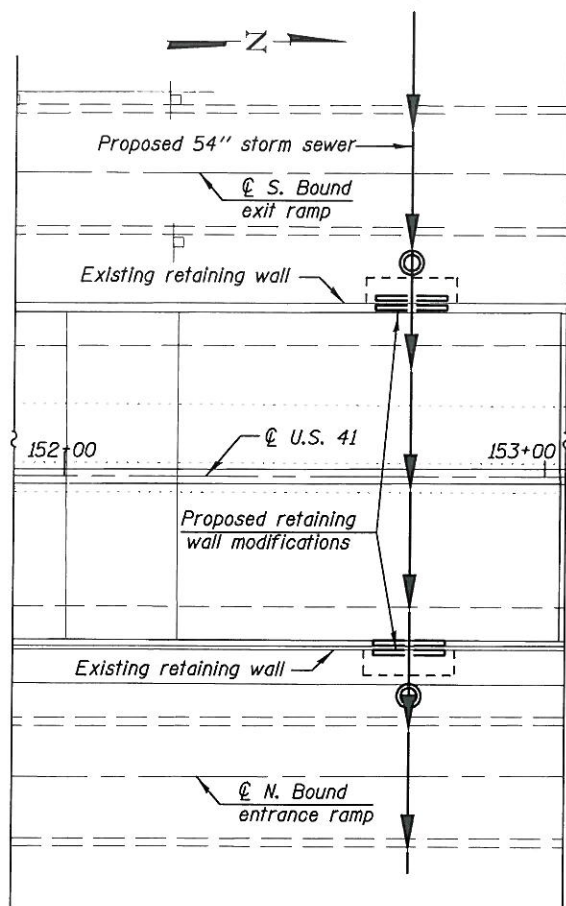
DECK DRAINAGE SYSTEM DETAILS
U.S RTE 41 OVER DEERPATH ROAD

SCALE: NA SHEET 1 OF 1 SHEETS STA. TO STA.

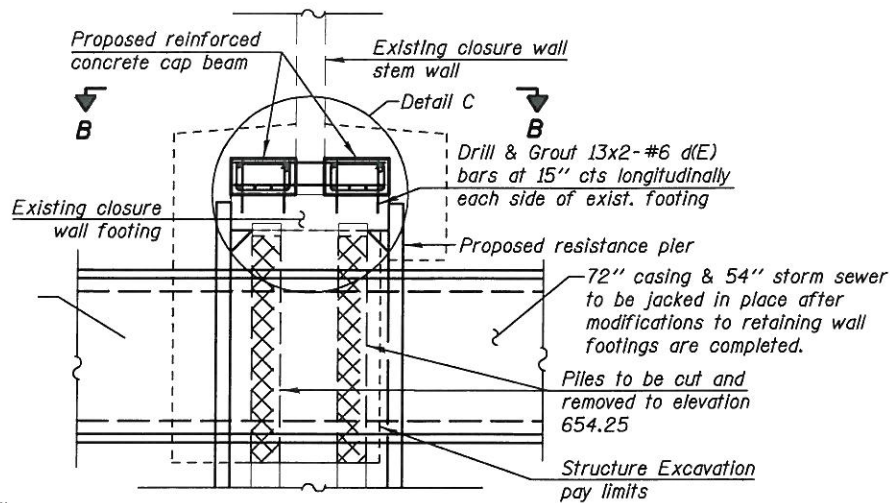
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SN 049-0033		CONTRACT NO. 62B65		
ILLINOIS FED. AID PROJECT				



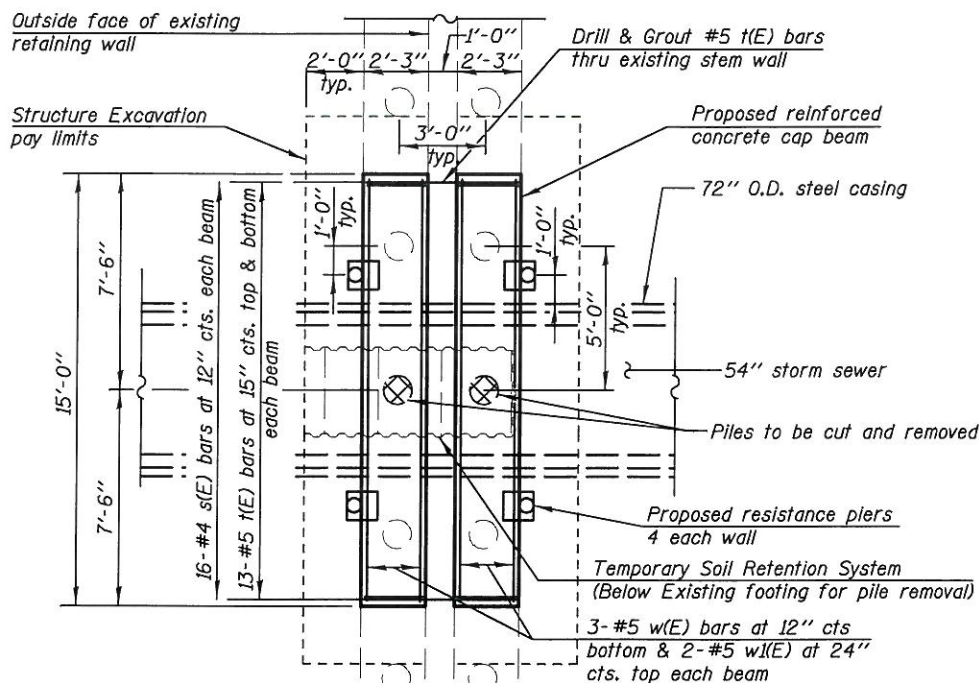
ELEVATION
Looking West at Inside of West Wall
(East Wall Similar)



PLAN



SECTION A-A



VIEW B-B

Construction Sequence:

- Excavate and expose footings and locate existing piles
- Establish storm sewer alignment
- Install piers at dimensions relative to existing piles as shown on plans
- Construct reinforced concrete transfer beams on top of footings
- Install Temporary Soil Retention System under footings and excavate to expose existing piles
- Cut and Remove piles
- Remove Temporary Soil Retention System and backfill excavated area
- Install storm sewer casing and storm sewer

FRANK J. WILLIAMS
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS
081-005037

Frank Williams

Expires 11-30-2020
Date: 6/9/2020
for drawings SB-1 thru SB-1

DESIGN SPECIFICATIONS
2002 AASHTO Standard Bridge Design Specifications,
Customary U.S. Units, 17th Edition

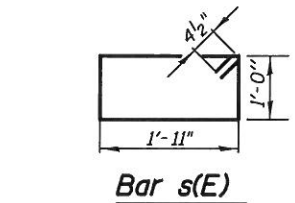
DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

Notes:

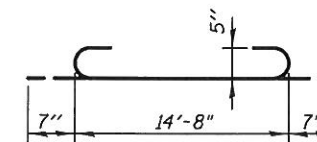
Reinforcement bars designated (E) shall be epoxy coated.
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work. However, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Drilling & Grouting of reinforcement bars shall be in accordance with article 584 and shall not be paid for separately, but shall be included in the unit bid price per Pound for Reinforcement Bars, Epoxy Coated.

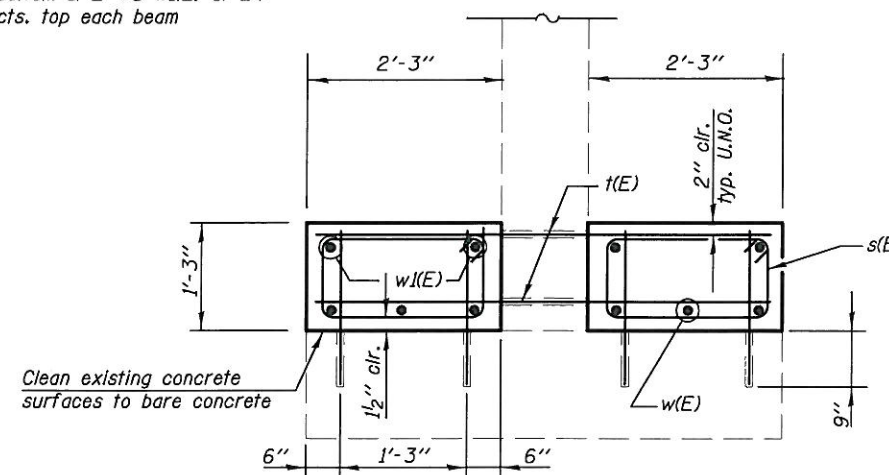
The Temporary Support System (To Be Left In Place) shall consist of resistance piers whose working load capacity shall be 10 tons per pier. Refer to special provision for further details.



Bar s(E)



BAR w(E)



DETAIL C

BILL OF MATERIAL
(TWO CLOSURE WALLS)

Bar	No.	Size	Length	Shape
d(E)	104	#6	1'-10"	—
s(E)	64	#4	6'-7"	□
t(E)	52	#5	5'-2"	—
w(E)	12	#5	15'-10"	⌋
w(I(E))	8	#5	14'-8"	—
Structure Excavation			Cu. Yd.	108.0
Concrete Structures			Cu. Yd.	7.0
Reinforcement Bars, Epoxy Coated			Pound	1170
Temporary Soil Retention System			Sq. Ft.	350.0
Concrete Sealer			Sq. Ft.	250.0
Temporary Support System (To Remain In Place)			Each	8

PLT. DATE: 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED - FJW	REVISION
CHECKED - AMD	REVISION
DRAWN - FJW	REVISION
CHECKED - AMD	REVISION

SCALE - NONE	DATE - 6/9/2020
--------------	-----------------

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE RETAINING WALL MODIFICATIONS
STRUCTURE NUMBER 049-0033

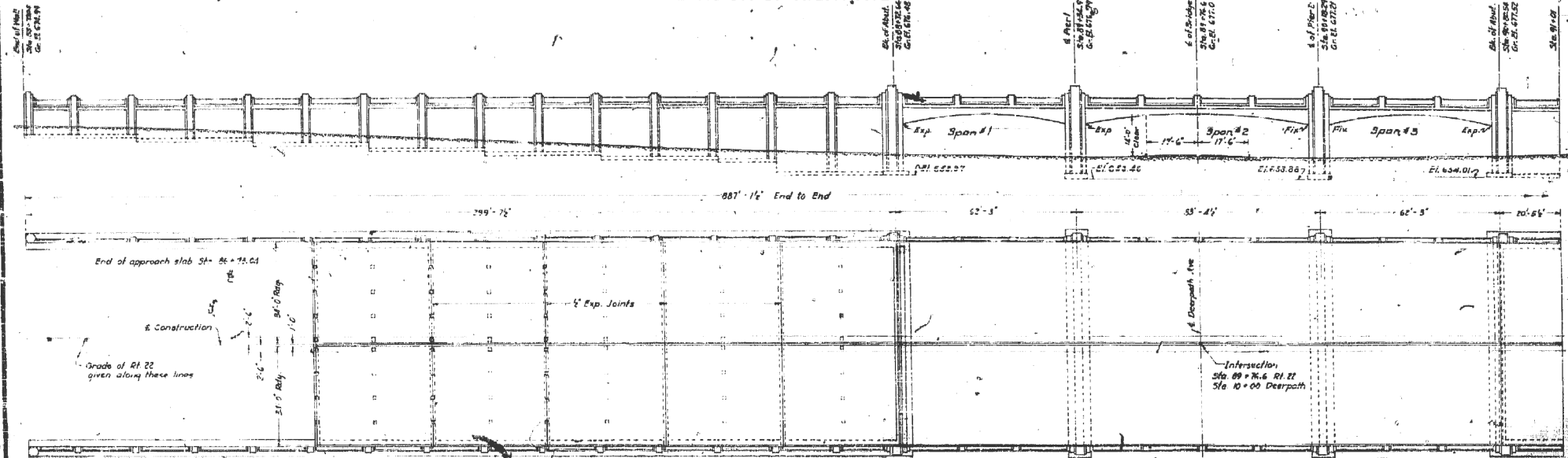
SHEET NO. SB-1 OF 1 SHEETS

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 120
				CONTRACT NO. 62B65
[ILLINOIS] FED. AID PROJECT				

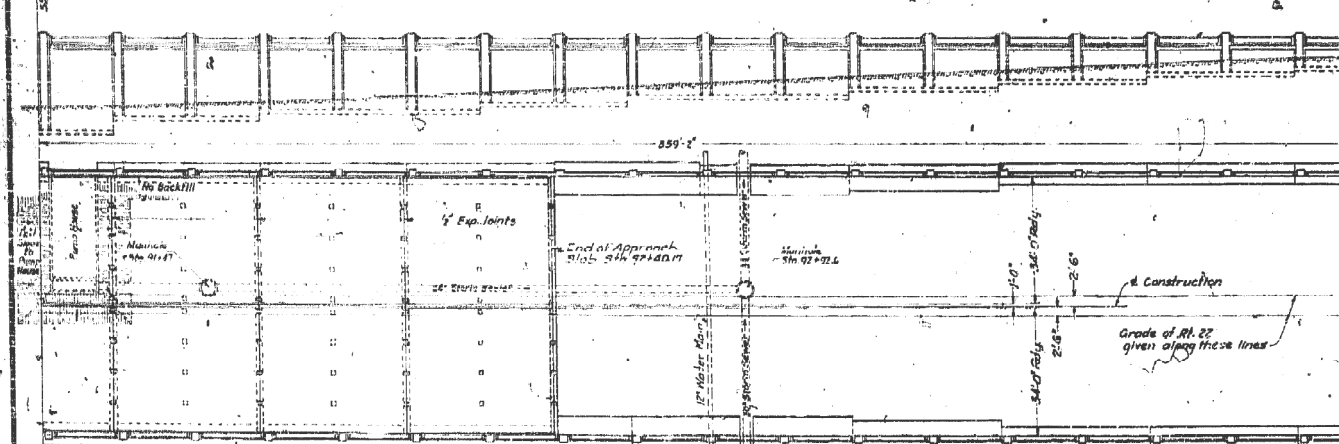
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	LAKE	21	3

B.M. 35 - Arrow on Fire Hydrant 150' Rt. Sta. 89+40 Elev. 675.35



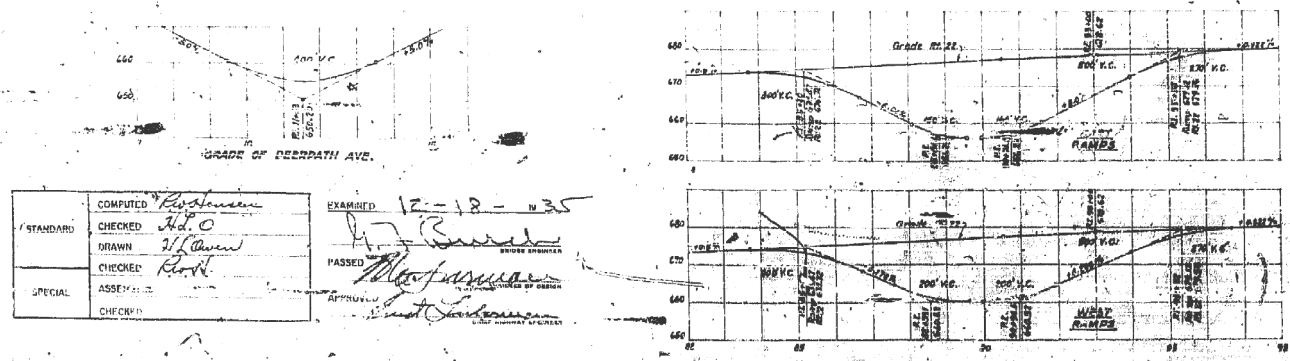
GENERAL PLAN AND ELEVATION



TOTAL BILL OF MATERIAL

Item	Super	Approach Slab	Piers	Abut.	Pump House	Retaining Walls	Totals
Handrail Concrete	Sq. Yds. 26.0					71.2	97.2
Class X Concrete	Cu. Yds. 811.6	704.1	268.8	264.9	149.6	1100.9	2699.9
Main Reinforcing Steel	Lbs. 271074	249490	80790	8990	17650	68460	649960
Structural Steel	Lbs. 71840				2060		23080
Crushed Piling	Lin. Ft. 3102		9080	2060	800	11700	17660
Concrete Piling	Lin. Ft. 3102						3102
2" Black Steel Pipe (N. Mail Gal. Lin. Ft.)					24.5		24.5
Copper Louvre Ventilator	Each				1		1
Pumping Unit Complete	Each				2		2
Hullay Steel Doors	Each				1		1
24" Square (R.C.S.A.) Lin. Ft.						10	10
Crushed Test Piles	Each					4	4
Concrete Test Piles	Each					4	4
8" Corrugated Metal Pipe Lin. Ft.						139	139
1 1/2" I.P. Conduit-Galv. Lin. Ft.						286	286
2" I.P. Conduit-Galv. Lin. Ft.						370	370
2" Galv. I.R. Conduit-5" O.D. Wire Lin. Ft.						85	85
3" I.P. Conduit-Galv. Lin. Ft.						80	80
C. A. Pull Boxes	Each					10	10
8" Perforated Corrugated Metal Pipe Lin. Ft.						698	698
Name Plates	Each					1	1
C.T. Floor Drains	Each					8	8
10" Corrugated Metal Pipe Lin. Ft.						87	87
10" Part. Corrugated Metal Pipe Lin. Ft.						152	152
T-beam Trolley	Each					1	1

Note: The contractor shall drive four wood test piles as directed by the engineer before ordering piling.



COMPUTED	RODGERSON	EXAMINED	12-18-35
CHECKED	J. O.		
DRAWN	S. J. C.		
CHECKED	R. B.		
SPECIAL	ASSEMBLY	PASSED	
CHECKED			

GRADE SEPARATION ROUTE 22
OVER DEERPATH AVENUE
S B1 ROUTE 22 SEC. 13, H-3
LAKE COUNTY
ST. 89+76.6

FOR INFORMATION ONLY

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED	-	REVISED	
CHECKED	-	REVISED	
DRAWN	-	REVISED	
CHECKED	-	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

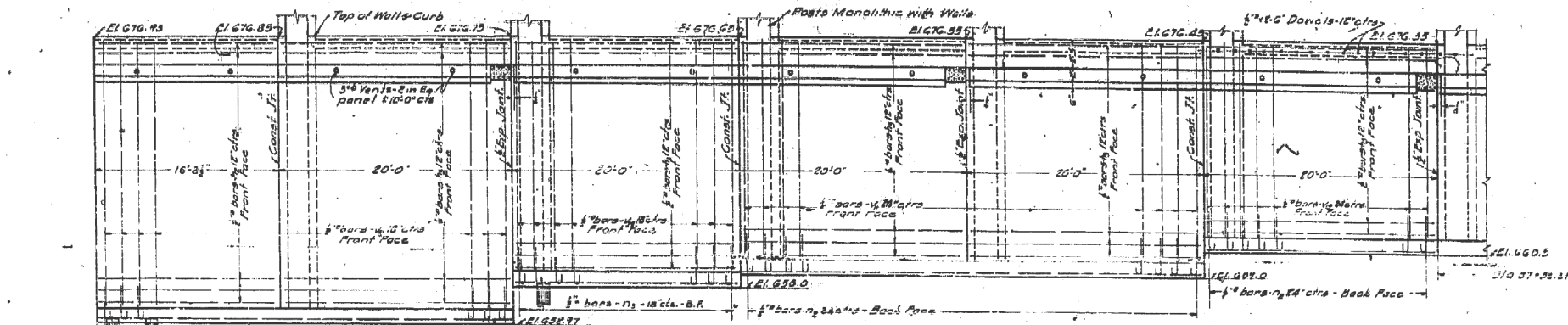
1937 RECORD PLANS
STRUCTURE NUMBER 049-0033
SHEET NO. SBX-1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	121
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				

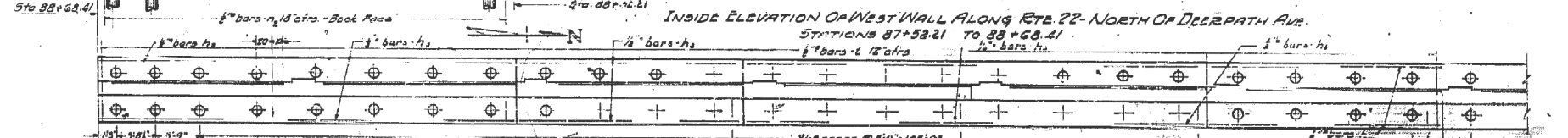
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SEC.	COUNTY	SHEET NO.
22	2	Lake	13

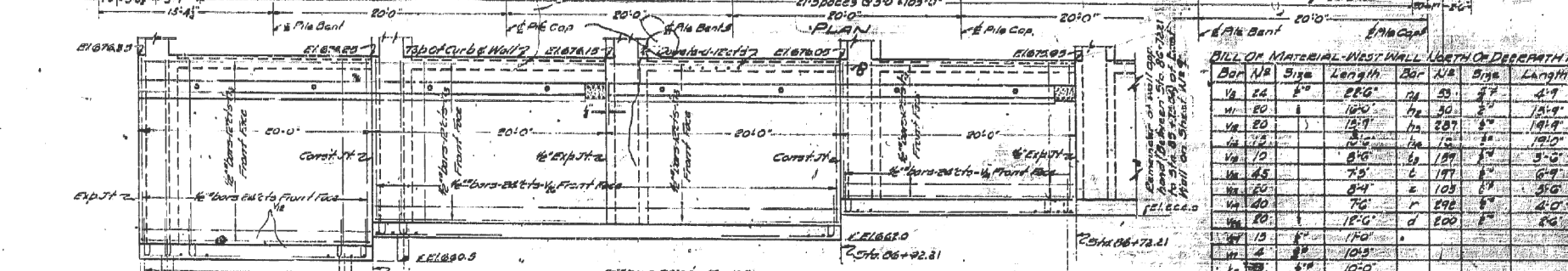
SHEET NO. 11
13 SHEETS



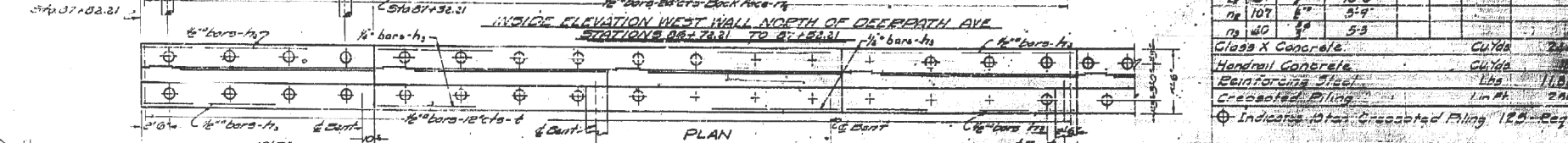
INSIDE ELEVATION OF WEST WALL ALONG E. 22-NORTH OF DEERPATH AVE.



INSIDE ELEVATION WEST WALL NORTH OF DEERPATH AVE.



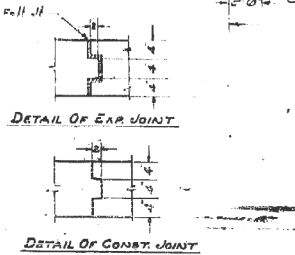
INSIDE ELEVATION WEST WALL NORTH OF DEERPATH AVE.



Bar No.	Size	Length	Bar No.	Size	Length
1	24	22'-0"	21	24	4'-9"
2	20	18'-0"	22	20	15'-9"
3	20	12'-9"	23	20	19'-9"
4	12	12'-9"	24	12	19'-0"
5	10	8'-0"	25	10	3'-0"
6	45	7'-0"	26	10	6'-9"
7	20	8'-9"	27	10	2'-0"
8	20	7'-0"	28	10	4'-0"
9	20	18'-0"	29	10	8'-0"
10	12	17'-0"	30	10	8'-0"
11	4	10'-0"	31	10	8'-0"
12	10	10'-0"	32	10	8'-0"
13	10	9'-9"	33	10	8'-0"
14	10	5'-9"	34	10	8'-0"

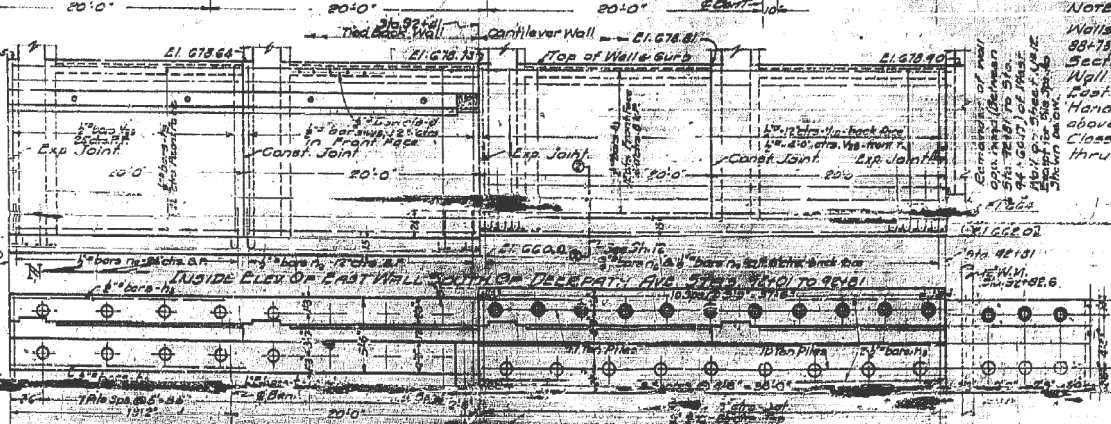
Class X Concrete
Handrail Concrete
Reinforcing Steel
Crested Piling

Indicate 10 lbs Crested Piling 12.5 Regd



COMPUTED	REVISIONS
CHECKED	HE
DRAWN	HE & Nielsen
CHECKED	Edel
SPECIAL	ASSEMBLED
	DATE

EXAMINED 12-18-35
PASSED
APPROVED



INSIDE ELEVATION OF EAST WALL SOUTH OF DEERPATH AVE.

Notes:
Walls from Sta 88+75.04 to Sta 88+75.04 shall not be backfilled.
Sections and details for West Wall are same as shown for West Wall on Sheet No. 9.
Handrail concrete shall be used above top of wall between posts.
Class X Concrete shall be used thruout.

5 B1 ROUTE 22 SEC. 21 H-B
LAKE COUNTY
STA. 89+78

FOR INFORMATION ONLY

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED -
CHECKED -
SCALE - NONE
DATE - 6/9/2020

REVISIONS
DRAWN -
CHECKED -

REVISOR
REVISOR
REVISOR
REVISOR

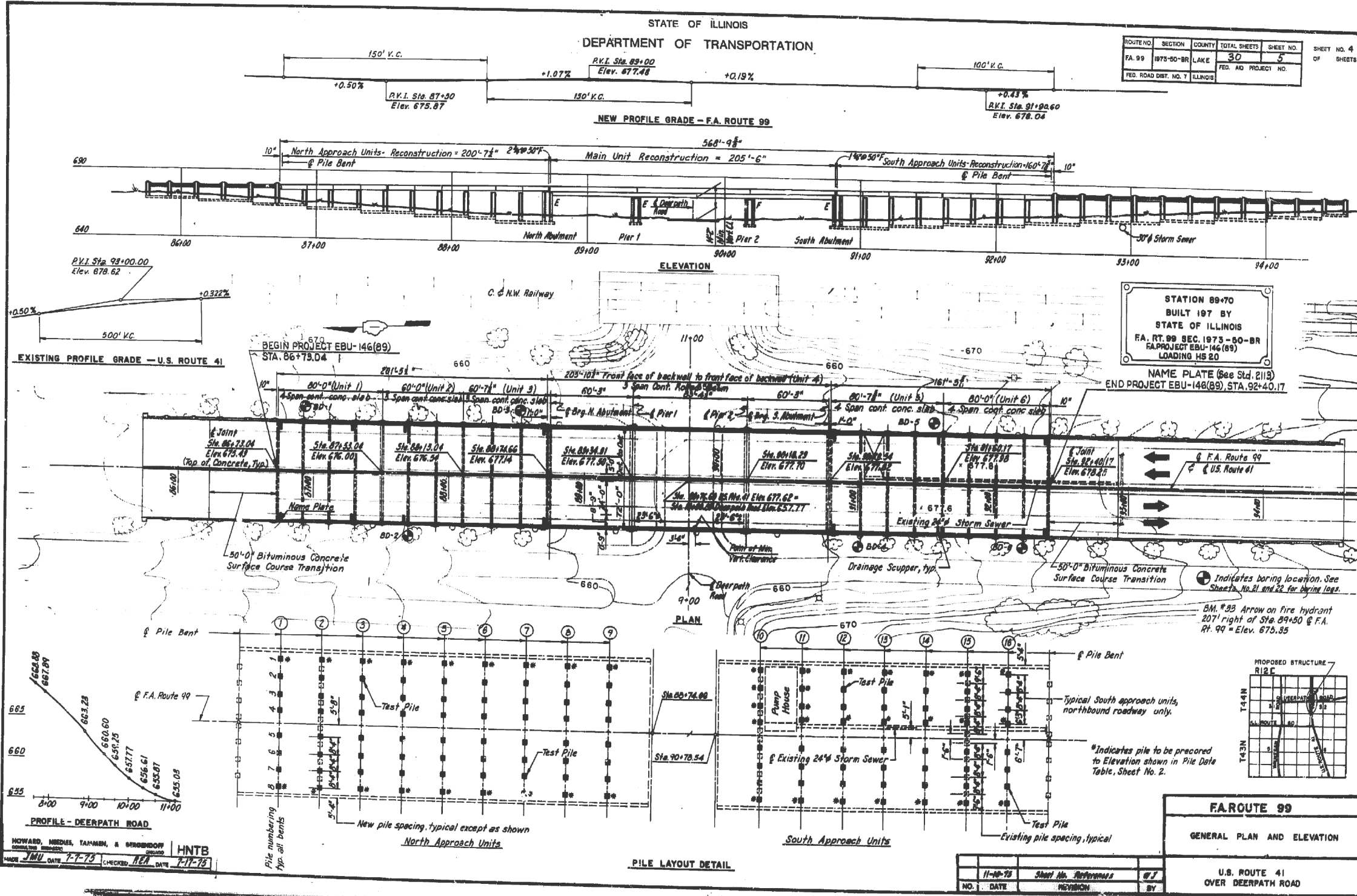
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

1937 RECORD PLANS
STRUCTURE NUMBER 049-0033
SHEET NO. SBX-2 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	122
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 99	1873-50-BR	LAKE	30	5
FED. AID PROJECT NO.			OF SHEETS	
ILLINOIS				



STATION 89+70
BUILT 197 BY
STATE OF ILLINOIS
FA. RT. 99 SEC. 1973-50-BR
FA PROJECT EBU-146(89)
LOADING HS 20

NAME PLATE (See Std. 2113)
END PROJECT EBU-146(89), STA. 92+40.17

FA. ROUTE 99	
GENERAL PLAN AND ELEVATION	
U.S. ROUTE 41 OVER DEERPATH ROAD	

FOR INFORMATION ONLY

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

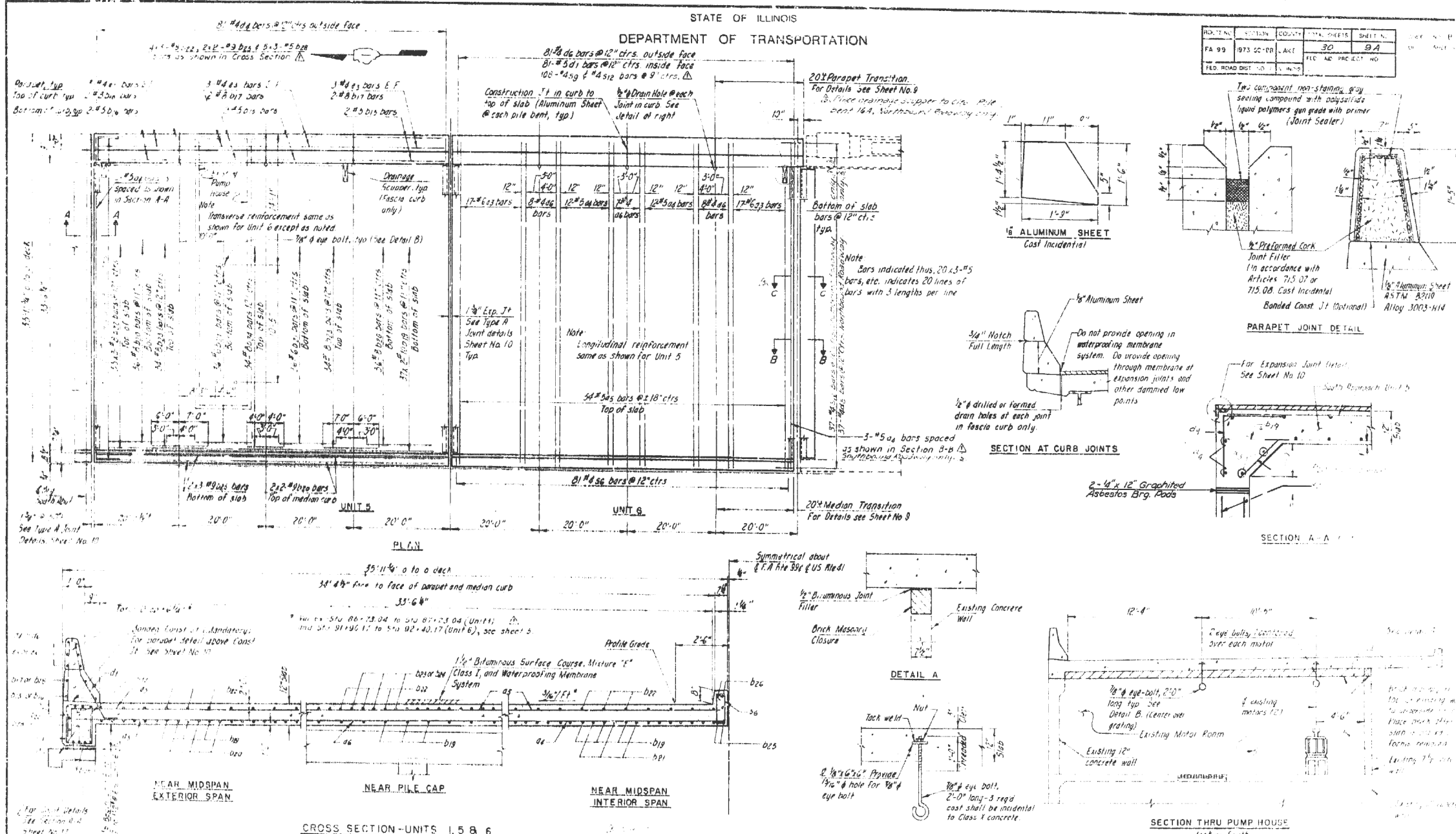
DESIGNED -	REVISOR
CHECKED -	REVISOR
DRAWN -	REVISOR
CHECKED -	REVISOR
SCALE - NONE	
DATE - 6/9/2020	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

1976 RECORD PLANS
STRUCTURE NUMBER 049-0033
SHEET NO. SBX-3 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	123
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 99	218-215-I	LAKE	30	9A
FED. ROAD DIST. NO.	LAKE			



HOWARD, NEEDLES, TAMMEN, & BERENDOFF STRUCTURAL ENGINEERS		HNTB	
MADE BY	DATE	CHECKED BY	DATE
WJ	7-21-75	RJW	8-4-75

FA ROUTE 99		
CLACK DETAILS - SOUTH APPROACH		
UNITS 5 AND 6		
U.S. ROUTE 41 OVER DEERPETH ROAD		

NO.	DATE	REVISION	BY
9-2-77		General	ANL
5-6-77		General	MM
11-1-75		General	H/T

Symmetrical about
C.F.A. (see Note 1) & US Med'l

1/2" Bituminous Joint
Filler

Brick Masonry
Closure

Existing Concrete
Wall

DETAIL A

Tack weld

Nut

2" x 6" x 1/2" Plywood

1/2" x 1/2" hole for 1/2" x 1/2" eye bolt

1/2" x 1/2" eye bolt

2'-0" long - 3' req'd
cast shall be incidental
to Class 1 concrete.

DETAIL B

For Section C-C (Northbound Roadway only) see Sheet 2.
For Details at Pile Bent Capbeam see Sheet No. 16.
Drainage Scaupers shall be centered over existing
corrugated metal downspouts. Field cut reinforcement
to clear scaupers. See Sheet No. 12 for box out and downspout connection
details and Sheet No. 18 for Drainage Scupper Details
E.F. denotes each face.

FOR INFORMATION ONLY

PLOT DATE = 6/9/2020

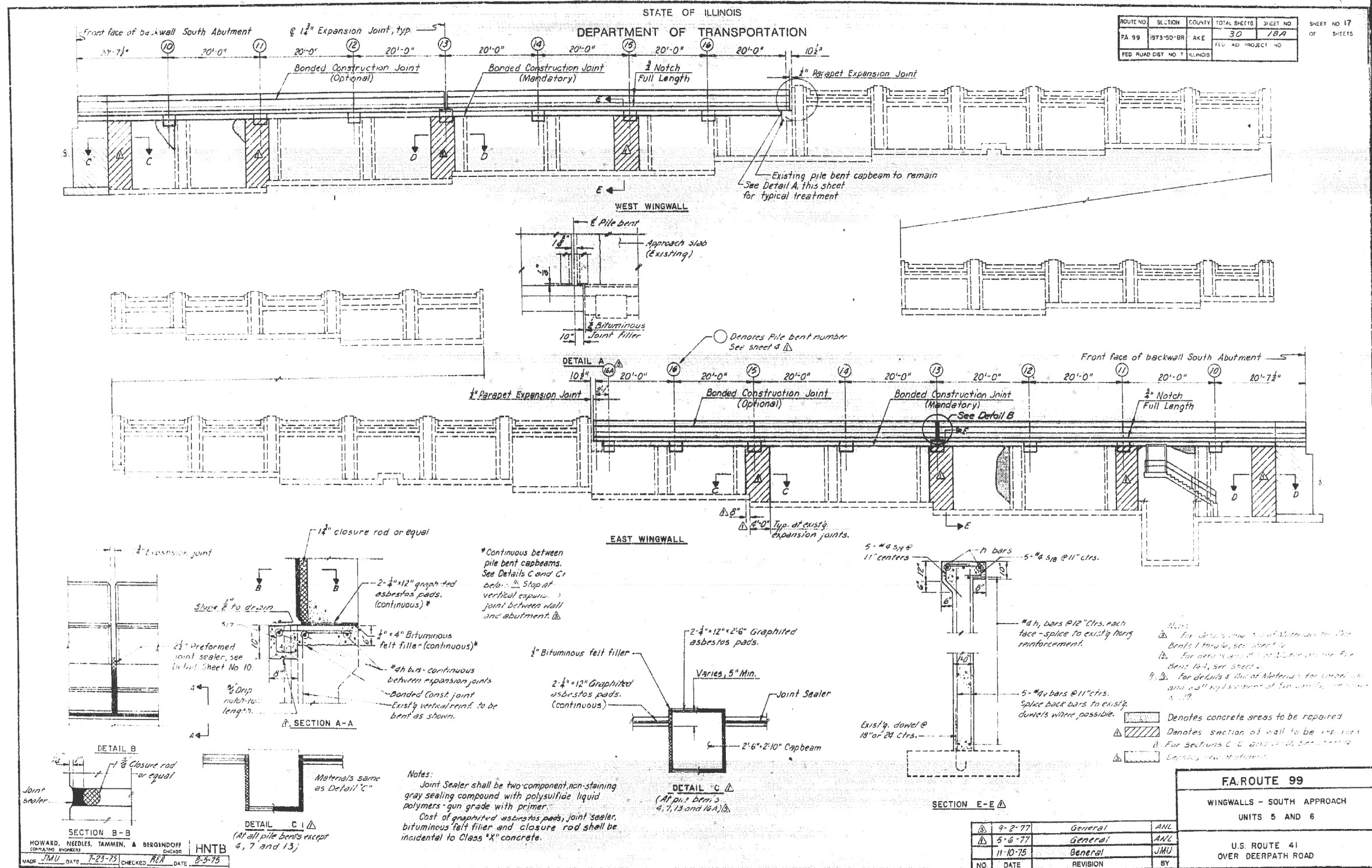
KNIGHT
Engineers & Architects

DESIGNED -	REVISD -
CHECKED -	REVISD -
DRAWN -	REVISD -
CHECKED -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

1976 RECORD PLANS
STRUCTURE NUMBER 049-0033
SHEET NO. SBX-4 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(218&215)-I	LAKE	290	124
				CONTRACT NO. 62B65
ILLINOIS FED. AID PROJECT				



FOR INFORMATION ONLY

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED -	REVISOR -
CHECKED -	REVISOR -
DRAWN -	REVISOR -
CHECKED -	REVISOR -
DATE - 6/9/2020	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

1976 RECORD PLANS
STRUCTURE NUMBER 049-0033
SHEET NO. SBX-5 OF 5 SHEETS

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 125
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				

Bench Mark: Benchmark "C" Sta. 74+42.06, 23.4' Lt
 Brass Disk on NE Corner of Bridge, Deerpath Road over Skokie River Elev. 666.74 (NAVD 88)

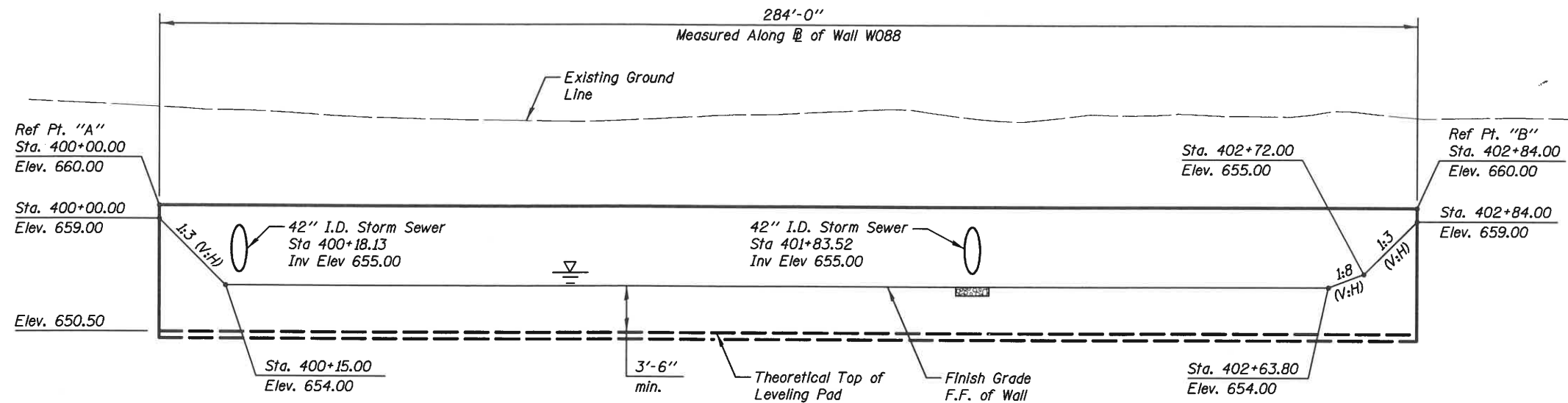
Existing Structure: None

DESIGN SPECIFICATIONS
 2017 AASHTO LRFD Bridge Design Specifications,
 Customary U.S. Units, 8th Edition

DESIGN STRESSES
PRECAST UNITS
 $f'_c = 4,500 \text{ psi}$

INDEX OF DRAWINGS

SHT NO.	TITLE
SC-1	General Plan and Elevation
SC-2	Typical Cross Section
SC-3	Soil Boring Log - 1
SC-4	Soil Boring Log - 2



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

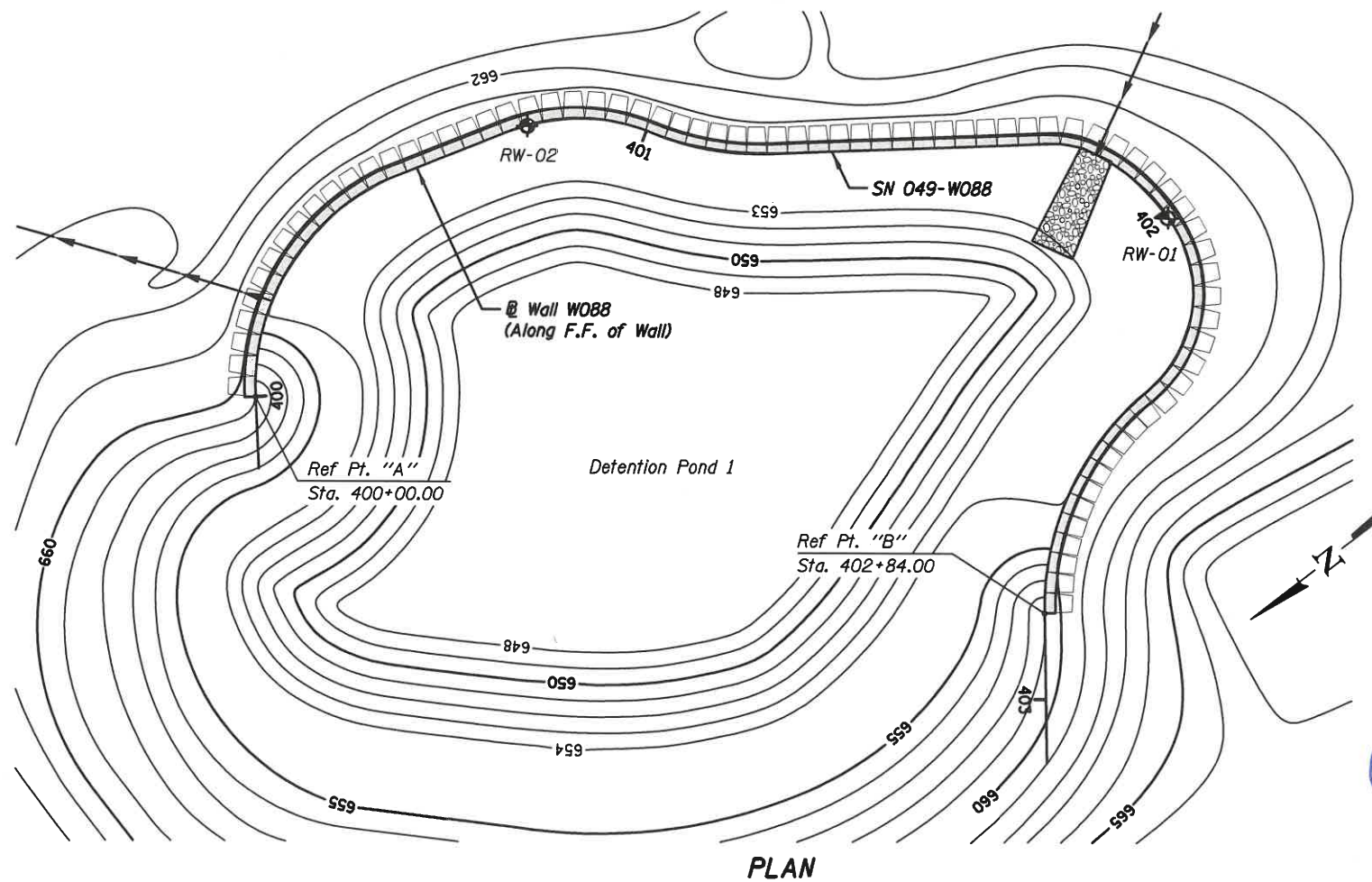
CURVE DATA

<p>@ Wall W088 Curve W088_3 $\Delta = 65^\circ 37' 32''$ (RT) $D = 134^\circ 37' 33''$ $R = 42.56'$ $T = 27.44'$ $L = 48.75'$ $E = 8.08'$ PC STA. 400+00.00 PT STA. 400+48.75 PI STA. 400+27.44</p>	<p>@ Wall W088 Curve W088_6 $\Delta = 44^\circ 34' 44''$ (RT) $D = 165^\circ 27' 51''$ $R = 34.63'$ $T = 14.19'$ $L = 26.94'$ $E = 2.80'$ PC STA. 400+73.97 PT STA. 401+00.91 PI STA. 400+88.16</p>	<p>@ Wall W088 Curve W088_7 $\Delta = 24^\circ 50' 08''$ (LT) $D = 110^\circ 15' 21''$ $R = 51.97'$ $T = 11.44'$ $L = 22.53'$ $E = 1.24'$ PC STA. 401+00.91 PT STA. 401+23.43 PI STA. 401+12.35</p>	<p>@ Wall W088 Curve W088_10 $\Delta = 24^\circ 24' 16''$ (RT) $D = 381^\circ 58' 19''$ $R = 15.00'$ $T = 3.24'$ $L = 6.39'$ $E = 0.35'$ PC STA. 401+75.02 PT STA. 401+81.41 PI STA. 401+78.26</p>
<p>@ Wall W088 Curve W088_11 $\Delta = 39^\circ 57' 08''$ (RT) $D = 168^\circ 31' 01''$ $R = 34.00'$ $T = 12.36'$ $L = 23.71'$ $E = 2.18'$ PC STA. 401+81.41 PT STA. 402+05.12 PI STA. 401+93.77</p>	<p>@ Wall W088 Curve W088_12 $\Delta = 78^\circ 04' 18''$ (RT) $D = 243^\circ 48' 43''$ $R = 23.50'$ $T = 19.05'$ $L = 32.02'$ $E = 6.75'$ PC STA. 402+05.12 PT STA. 402+37.14 PI STA. 402+24.17</p>	<p>@ Wall W088 Curve W088_13 $\Delta = 51^\circ 14' 35''$ (LT) $D = 109^\circ 28' 20''$ $R = 52.34'$ $T = 25.10'$ $L = 46.81'$ $E = 5.71'$ PC STA. 402+37.14 PT STA. 402+83.95 PI STA. 402+62.24</p>	

@ Wall W088
 (Offsets from @ Deerpath Rd. to F.F. of Wall)
 Ref Pt. "A"
 Sta. 400+00 - @ Wall W088 =
 Sta. 55+25.78, 281.38' Lt. @ Deerpath Rd.
 Ref Pt. "B"
 Sta. 402+84.00 - @ Wall W088 =
 Sta. 54+05.29, 190.95' Lt. @ Deerpath Rd.

Legend

- Soil Borings
- F.F. Front Face
- B.F. Back Face



PLAN

TRISHA E. BUTCHER
 051-006306
 LICENSED STRUCTURAL ENGINEER
 STATE OF ILLINOIS

Expires 11-30-2020

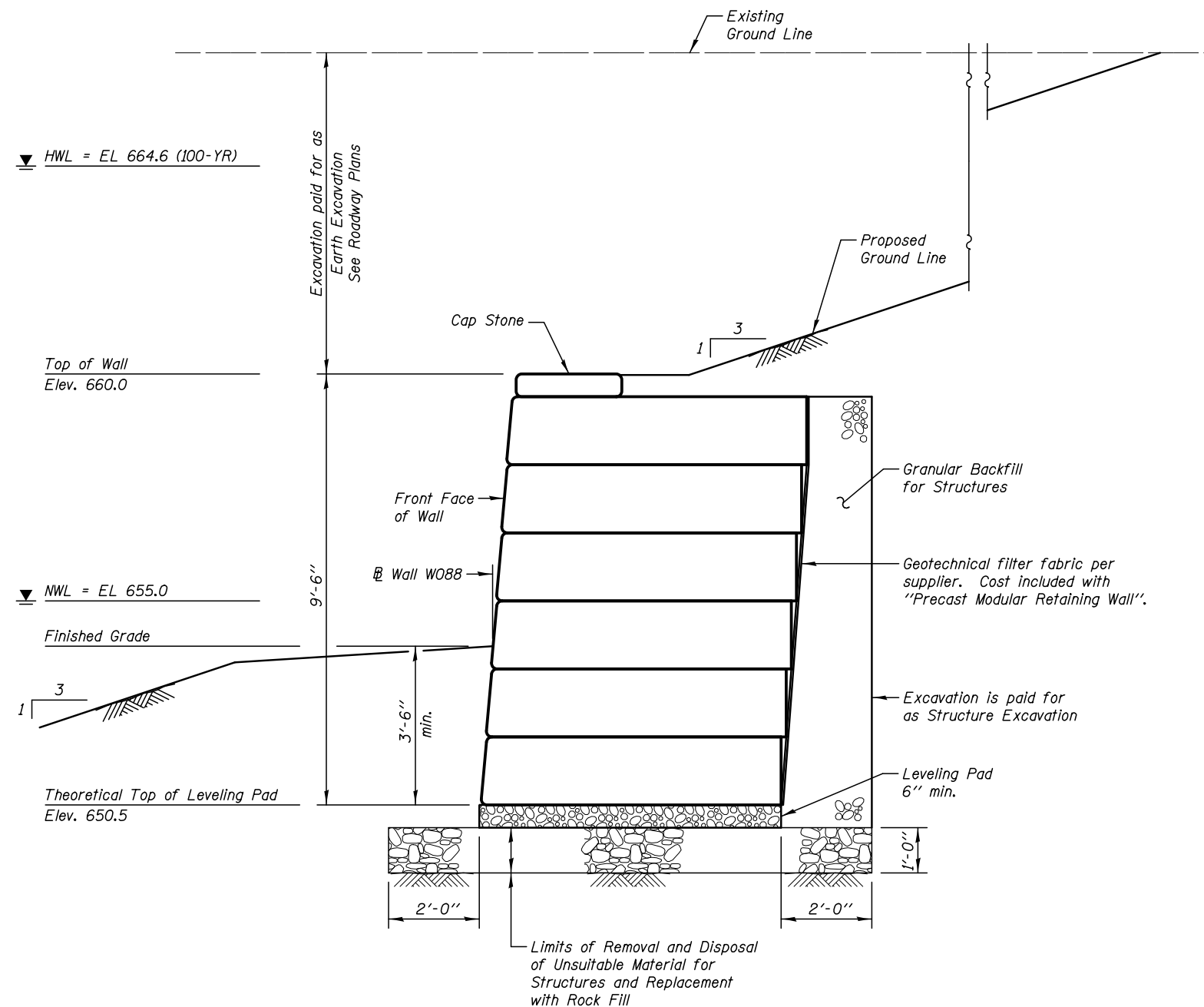
Date: 6/9/2020



GENERAL PLAN & ELEVATION
DEERPATH ROAD
 F.A.P. RTE. 346 SEC. (21&21S)-I
 LAKE COUNTY
 STA. 54+05 TO 55+25
 STRUCTURE NO. 049-W088

KNIGHT Engineers & Architects	DESIGNED - RS	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NUMBER 049-W088	F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 126
	SCALE - NONE	REVISOR			SHEET NO. SC-1 OF 4 SHEETS		CONTRACT NO. 62B65		ILLINOIS FED. AID PROJECT
DATE - 6/9/2020	CHECKED - PRD	REVISOR							

PLOT DATE = 6/9/2020

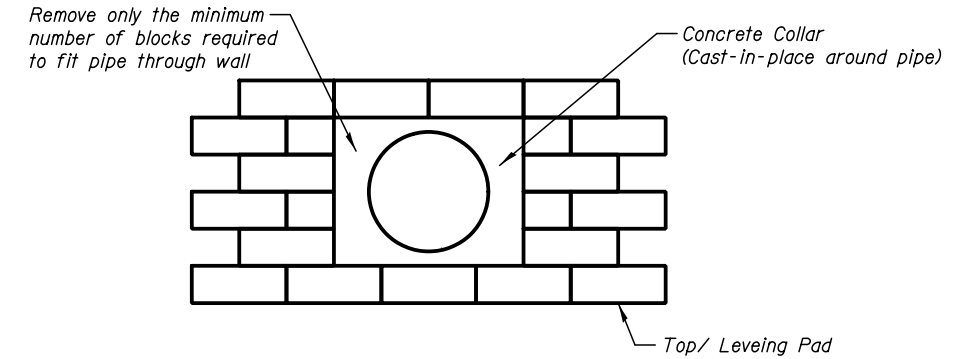


TYPICAL WALL SECTION

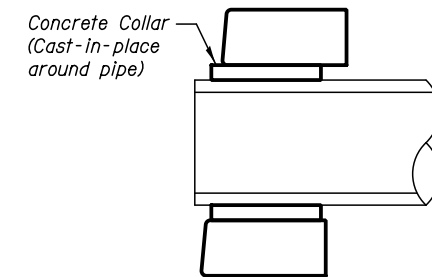
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	981.0
* Removal And Disposal Of Unsuitable Material For Structures	Cu. Yd.	101.0
Precast Modular Retaining Wall	Sq. Ft.	2752.0
Granular Backfill For Structures	Cu. Yd.	215.0
* Rock Fill	Cu. Yd.	101.0

*Quantity has been estimated based on limits shown. Should the maximum applied equivalent uniform bearing pressure under each precast concrete module of the Contractor's wall design be less than the unremediated allowable bearing pressure of the soil, 2650 psf, then these items may be omitted from the Contract, with the approval of the Engineer.



ELEVATION VIEW



**SECTION VIEW
PIPES INSTALLED
PERPENDICULAR THROUGH WALL**

NOTES

Excavation for Detention Pond 1 from Existing Ground to Elev. 660.0 will be paid for as "Earth Excavation". See Roadway Plans for additional details.

Excavation for the Precast Modular Retaining Wall below Elev. 660.0 will be paid for as "Structure Excavation" in accordance with Section 522.15 of the Standard Specifications.

The bearing value of the soil was determined by field exploration and laboratory analysis. Without remediation, the recommended factored bearing resistance of the soil is 4100 psf. Without remediation, the recommended allowable bearing pressure of the soil is 2650 psf.

The vertical surface of the precast modular block shall be of texture type "Ledgestone" and in "Natural" color and shall be approved by the Engineer.

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED - RS	REVIS
CHECKED - PRD	REVIS
SCALE - NONE	REVIS
DATE - 6/9/2020	REVIS

DESIGNED - RS	REVIS
CHECKED - PRD	REVIS
DRAWN - RS	REVIS
CHECKED - PRD	REVIS

DESIGNED - RS	REVIS
CHECKED - PRD	REVIS
DRAWN - RS	REVIS
CHECKED - PRD	REVIS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTION
STRUCTURE NUMBER 049-W088**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	127
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62B65	

SHEET NO. SC-2 OF 4 SHEETS



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 2

Date 9/14/17

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RW-01
 Station 54+49
 Offset 128.20ft Left
 Ground Surface Elev. 666.10 ft

DEPTH (ft)	SOIL TYPE	U (tsf)	M (%)
0	12.0" TOPSOIL-black		47
2	CLAY-gray-stiff to hard		
3		1.5	20
4		2.7	21
5			
6		5.7	16
7			
8		5.7	17
9			
10		3.8	16
11			
12		1.2	16
13			
14		1.9	20
15			
16		2.0	20
17			
18			
19			
20			

Surface Water Elev. n/a ft
 Stream Bed Elev. n/a ft
 Groundwater Elev.:
 First Encounter 631.6 ft
 Upon Completion 634.1 ft
 After Hrs. _____

CLAY-gray-stiff to hard (continued)

CLAYEY SAND-gray-medium dense

CLAY-gray-very stiff

Z:\PROJECTS\2018\18017\KNIGHT EA, DOT PUMP STATION 38 FAP 346 (PTB 17A, ITEM 11)18017 BORING LOGS\18017 LOG.GPJ 10/24/17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 2 of 2

Date 9/14/17

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RW-01
 Station 54+49
 Offset 128.20ft Left
 Ground Surface Elev. 666.10 ft

DEPTH (ft)	SOIL TYPE	U (tsf)	M (%)
0	CLAY-gray-very stiff (continued)		
3			
4		1.6	14
7			
8			
9		2.5	22
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Surface Water Elev. n/a ft
 Stream Bed Elev. n/a ft
 Groundwater Elev.:
 First Encounter 631.6 ft
 Upon Completion 634.1 ft
 After Hrs. _____

CLAY-gray-very stiff (continued)

End Of Boring @ -50.0'. Boring backfilled with cuttings.

Z:\PROJECTS\2018\18017\KNIGHT EA, DOT PUMP STATION 38 FAP 346 (PTB 17A, ITEM 11)18017 BORING LOGS\18017 LOG.GPJ 10/24/17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

PLOT DATE = 6/9/2020

	DESIGNED - GSI	REVISED
	CHECKED - TB	REVISED
	DRAWN - TB	REVISED
	DATE - 6/9/2020	REVISOR

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOG - 1
 STRUCTURE NUMBER 049-W088**

SHEET NO. SC-3 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	128
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 2

Date 9/14/17

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RW-02
 Station 55+35
 Offset 211.00ft Left
 Ground Surface Elev. 666.50 ft

DEPTH (ft)	SOIL TYPE	U (tsf)	M (%)	DEPTH (ft)	SOIL TYPE	U (tsf)	M (%)
0	18.0" TOPSOIL-black		49	0	CLAY to CLAY LOAM-brown & gray-stiff to hard (continued)		
2				3			
2	CLAY to CLAY LOAM-brown & gray-stiff to hard		46	4		1.3	20
2				5		B	
3				3			
4		2.1	21	3		1.5	18
5		B		6		B	
5	becoming gray @ -5.5'			6			
3				3			
5		4.6	17	4		1.8	21
8		B		6		B	
6				3			
8		6.1	18	5		1.9	22
12		B		6		B	
4				4			
5		3.1	19	8		4.4	17
8		B		10		B	
3				4			
3		1.9	15	8		4.4	17
6		B		10		B	
3				4			
4		1.6	14	6		1.8	19
6		B		8		P	
3				8			
4		1.5	18				
6		B					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 2 of 2

Date 9/14/17

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RW-02
 Station 55+35
 Offset 211.00ft Left
 Ground Surface Elev. 666.50 ft

DEPTH (ft)	SOIL TYPE	U (tsf)	M (%)	DEPTH (ft)	SOIL TYPE	U (tsf)	M (%)
0	CLAY to CLAY LOAM-brown & gray-stiff to hard (continued)			5			
3				7		2.2	20
4				9		B	
5				4			
7				5		1.6	24
9				7		B	
4				4			
5	End Of Boring @ -50.0'. Boring backfilled with cuttings.			6		1.8	19
7				8			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

PLOT DATE = 6/9/2020

	DESIGNED - GSI	REVISED
	CHECKED - TB	REVISED
	DRAWN - TB	REVISED
	CHECKED - PRD	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG - 2
 STRUCTURE NUMBER 049-W088
 SHEET NO. SC-4 OF 4 SHEETS

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 129
CONTRACT NO. 62B65				ILLINOIS FED. AID PROJECT

Bench Mark: Benchmark "C" Sta. 74+42.06, 23.4' Lt
 Brass Disk on NE Corner of Bridge, Deerpath Road over Skokie River Elev. 666.74 (NAVD 88)

Existing Structure: None

INDEX OF DRAWINGS

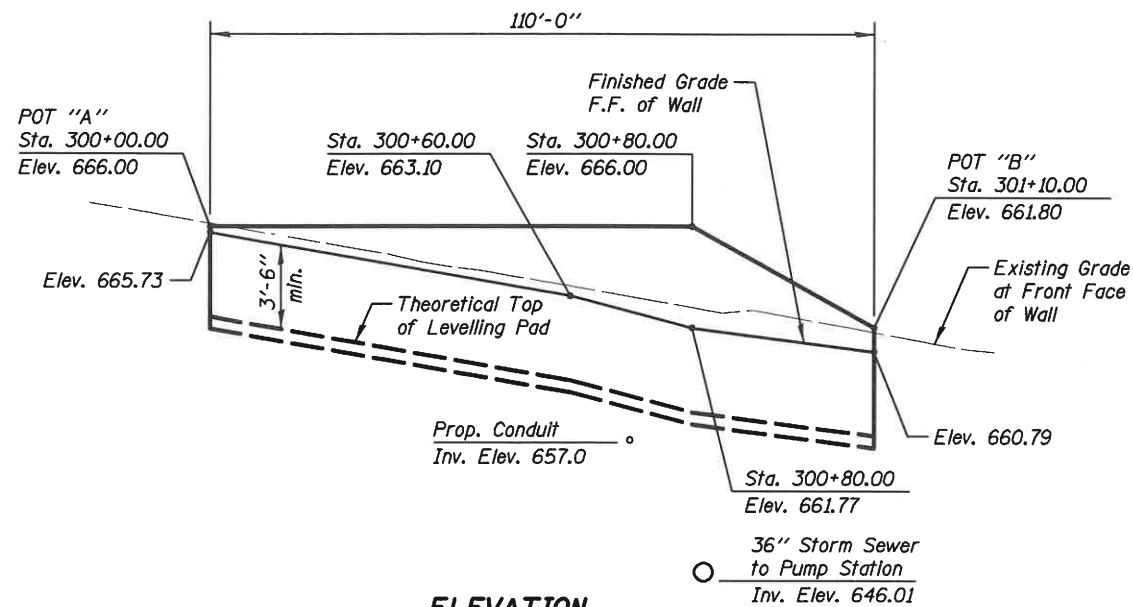
SHT NO.	TITLE
SD-1	General Plan and Elevation
SD-2	Typical Cross Section
SD-3	Soil Boring Log -1
SD-4	Soil Boring Log -2
SD-5	Soil Boring Log -3

DESIGN SPECIFICATIONS
 2017 AASHTO LRFD Bridge Design Specifications,
 Customary U.S. Units, 8th Edition

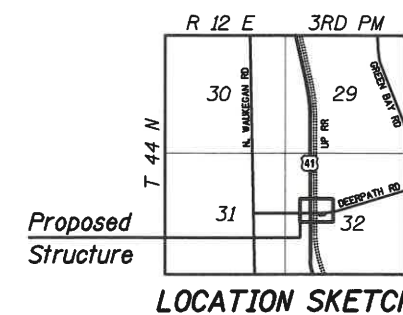
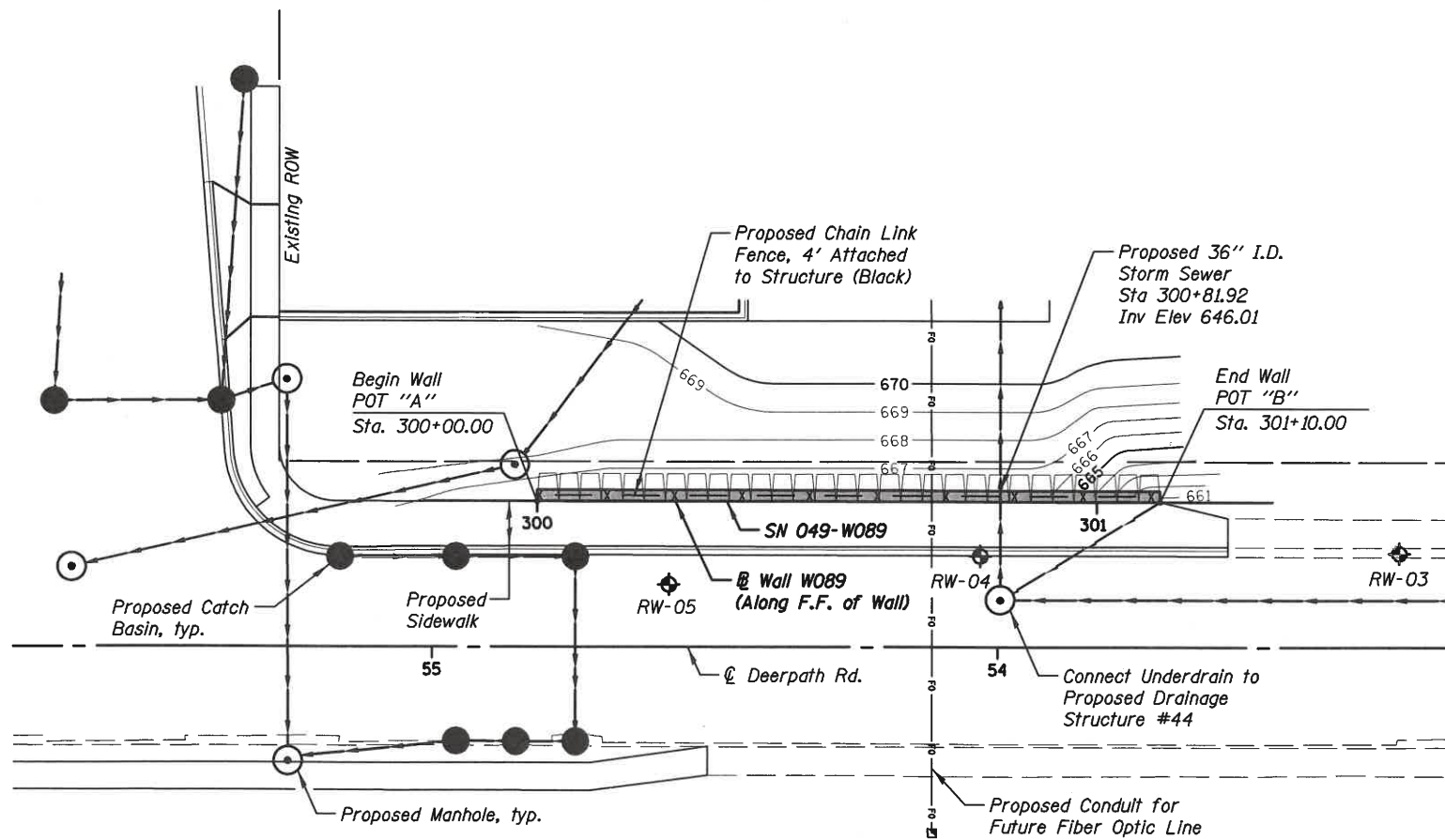
DESIGN STRESSES

PRECAST UNITS

$f'_c = 4,500$ psi



Wall W089
 (Offsets from \varnothing Deerpath Rd. to F.F. of Wall)
 POT "A"
 Sta. 300+00.00 - \varnothing Wall W089 =
 Sta. 54+81.42, 25.98' Rt. - \varnothing Deerpath Rd.
 POT "B"
 Sta. 301+10.00 - \varnothing Wall W089 =
 Sta. 53+71.42, 25.83' Rt. \varnothing Deerpath Rd.



Trisha E. Butcher
 Expires 11-30-2020

Date: 6/9/2020

for drawings SD-1 thru SD-5

Legend

- \diamond Soil Borings
- F.F. Front Face
- B.F. Back Face
- POT Point on Tangent

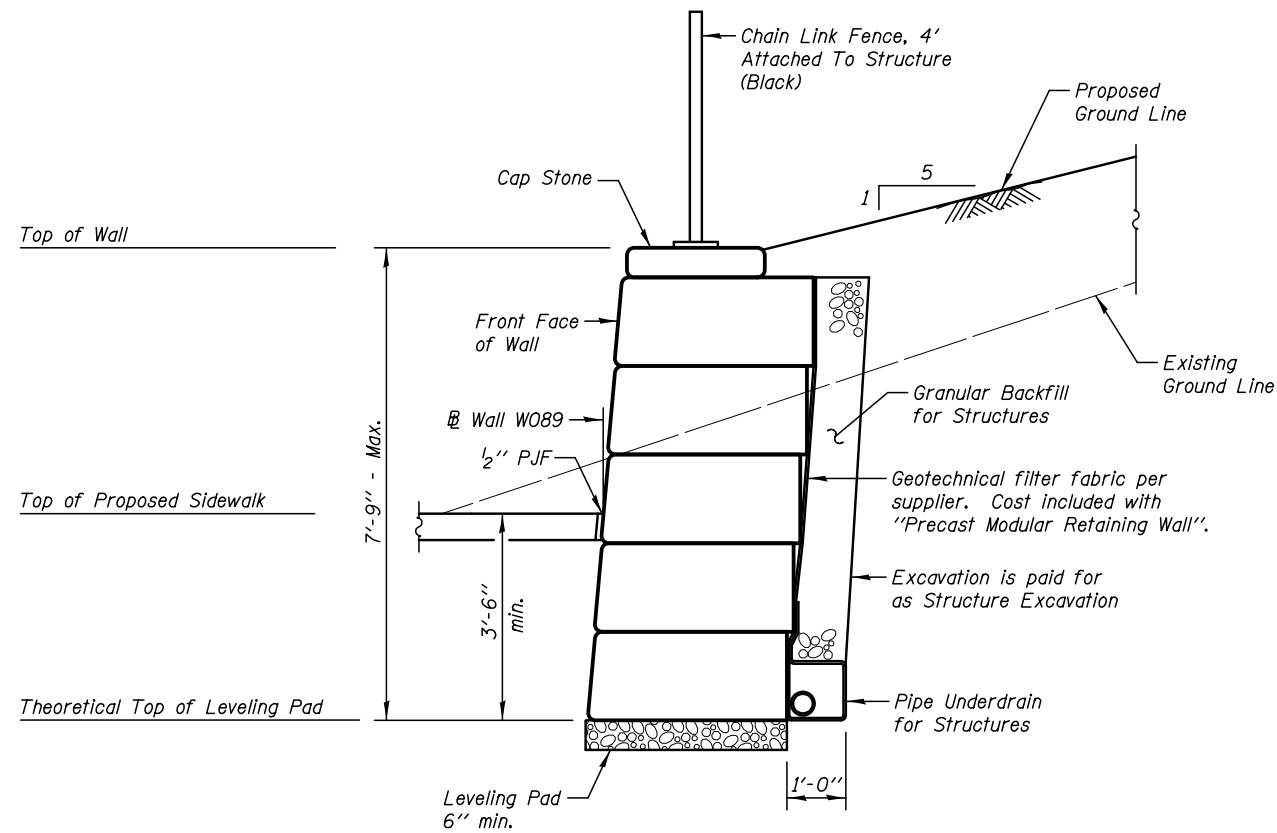
GENERAL PLAN & ELEVATION
DEERPETH ROAD
 F.A.P. RTE. 346 SEC. (21&21S)-1
 LAKE COUNTY
 STA. 53+71 TO 54+81
 STRUCTURE NO. 049-W089

PLOT DATE = 6/9/2020

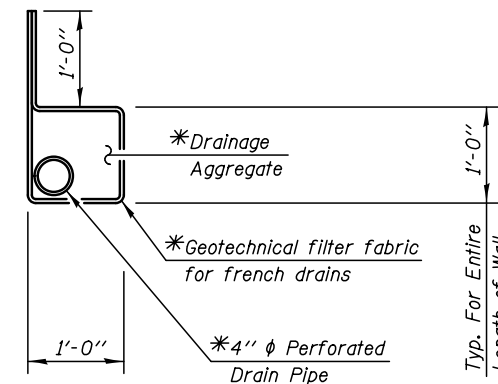
KNIGHT Engineers & Architects	DESIGNED - RS	REVISOR	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NUMBER 049-W089	F.A.P. RTE. 346	SECTION (21&21S)-1	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 130
	CHECKED - PRD	REVISOR			CONTRACT NO. 62B65 ILLINOIS FED. AID PROJECT				
SCALE - NONE	DRAWN - RS	REVISOR	SHEET NO. SD-1 OF 5 SHEETS						
DATE - 6/9/2020	CHECKED - PRD	REVISOR							

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	144.0
Precast Modular Retaining Wall	Sq. Ft.	648.0
Granular Backfill For Structures	Cu. Yd.	21.0
Pipe Underdrains For Structures 4"	Foot	143.0
Chain Link Fence, 4' Attached To Structure	Foot	110.0

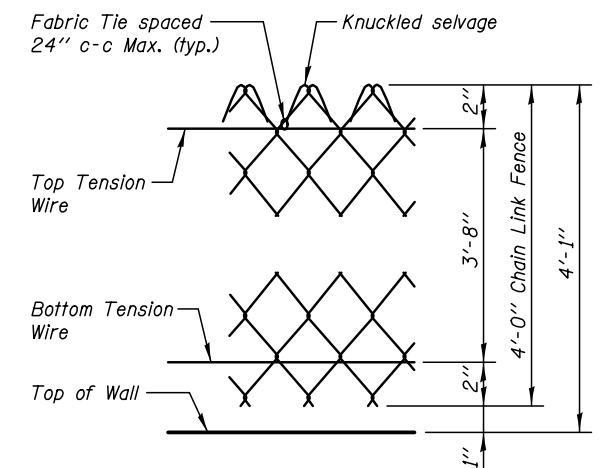


TYPICAL WALL SECTION



UNDERDRAIN DETAIL

*Cost Included with "Pipe Underdrains for Structures"



CHAIN LINK FENCE DETAIL

NOTES

The Contractor is responsible for designing and detailing the attachment of the chain link fence to the retaining wall in accordance with Article 522.10 of the Standard Specifications and said work is included in the cost of "Precast Modular Retaining Wall".

The bearing value of the soil was determined by field exploration and laboratory analysis. The recommended factored bearing resistance of the soil is 4500 psf. The recommended allowable bearing pressure of the soil is 2900 psf.

The vertical surface of the precast modular block shall be of texture type "LedgeStone" and in "Natural" color and shall be approved by the Engineer.

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED - RS	REVISOR
CHECKED - PRD	REVISION
DRAWN - RS	REVISION
CHECKED - PRD	REVISION
SCALE - NONE	
DATE - 6/9/2020	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTION
STRUCTURE NUMBER 049-W089**

SHEET NO. SD-2 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	131
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62B65	



SOIL BORING LOG

GSI Job No. 16017
Page 1 of 2
Date 3/25/19

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY TZ
SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM
COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T (%)	Surface Water Elev.				D E P T H	B L O W S	U C S Qu	M O I S T (%)
					n/a	ft						
BORING NO. RW-03 Station 53+29 Offset 16.80ft Right Ground Surface Elev. 658.40					Stream Bed Elev. n/a ft				Groundwater Elev.:			
					Dry to -10.0 ft				First Encounter n/a ft			
				Upon Completion n/a ft				After Hrs. _____				
6.0" ASPHALT, 6.0" CONCRETE	657.40											
CLAY LOAM with Gravel-brown & gray-medium dense (Fill)		14		14					3			
		12							4	1.3		22
		5							6	B		
CLAY LOAM-gray-very stiff	655.40											
		3							2			
		4	2.3	19					2	0.5		22
		6	B						3	P		
		-5							-25			
CLAY-gray-medium stiff to stiff	652.90											
		3							2			
		4	1.2	21					3	0.5		22
		5	B						4	P		
		3							6			
		4	1.2	18					11	2.6		17
		6	B						13	B		
		-10							-30			
		3										
		4	0.5	18								
		5	B									
		3							4			
		4	1.1	21					6	1.2		20
		-15	B						11	B		
		3										
		5	0.9	19								
		6	B									
		3							6			
		4	0.7	23					7	1.2		20
		-20	B						11	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 16017
Page 2 of 2
Date 3/25/19

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY TZ
SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM
COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T (%)	Surface Water Elev.				D E P T H	B L O W S	U C S Qu	M O I S T (%)
					n/a	ft						
BORING NO. RW-03 Station 53+29 Offset 16.80ft Right Ground Surface Elev. 658.40					Stream Bed Elev. n/a ft				Groundwater Elev.:			
					Dry to -10.0 ft				First Encounter n/a ft			
				Upon Completion n/a ft				After Hrs. _____				
CLAY-gray-medium stiff to stiff												
<i>(continued)</i>												
									4			
									8	0.8		19
									12	B		
									-45			
CLAY-gray-medium stiff to stiff												
<i>(continued)</i>												
									4			
									8	0.7		21
									13	B		
									-50			
End Of Boring @ -50.0'. Boring backfilled with cuttings.	608.40											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

PLOT DATE = 6/9/2020



DESIGNED - GSI	REVISED
CHECKED - TB	REVISED
DRAWN - TB	REVISED
CHECKED - PRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG - 1
STRUCTURE NUMBER 049-W089

SHEET NO. SD-3 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	132
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

GSI Job No. 16017
Page 1 of 2
Date 3/25/19

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY TZ
SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM
COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.	B L O W S	U C S Q u	M O I S T	D E P T H	Surface Water Elev.		D E P T H	B L O W S	U C S Q u	M O I S T
					ft	ft				
Station					n/a					
BORING NO. RW-04					n/a					
Station 54+03					n/a					
Offset 16.20ft Right					n/a					
Ground Surface Elev. 661.80					n/a					
6.0" ASPHALT, 6.0" CONCRETE					660.80					
	3									
	4	2.5	17							
	7	B								
CLAY LOAM-brown & gray-very stiff										
becoming gray @ -3.0'										
	5									
	8	3.0	15							
	11	B								
	5									
	7	2.9	15							
	10	B								
CLAY-gray-medium stiff to stiff										
653.80										
	4									
	5	1.2	19							
	7	B								
	3									
	4	0.5	21							
	5	B								
CLAY LOAM-gray-stiff to very stiff										
629.80										
	3									
	5	1.5	20							
	6	B								
	3									
	4	1.5	21							
	6	P								
	3									
	4	1.0	20							
	5	P								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 16017
Page 2 of 2
Date 3/25/19

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY TZ
SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM
COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.	B L O W S	U C S Q u	M O I S T	D E P T H	Surface Water Elev.		D E P T H	B L O W S	U C S Q u	M O I S T
					ft	ft				
Station					n/a					
BORING NO. RW-04					n/a					
Station 54+03					n/a					
Offset 16.20ft Right					n/a					
Ground Surface Elev. 661.80					n/a					
CLAY LOAM-gray-stiff to very stiff					619.80					
(continued)										
	2									
	3	0.5	24							
	3	P								
CLAYEY SAND & GRAVEL-gray-medium dense										
	9									
	5		9							
	7									
	3									
	4	0.6	23							
	7	B								
CLAY-gray-stiff										
614.80										
	5									
	6	1.6	20							
	9	B								
End Of Boring @ -50.0'. Boring backfilled with cuttings.										
611.80										
	5									
	11	3.8	14							
	16	B								
	5									
	9									
	13	1.5	14							
	14	B								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

KNIGHT
Engineers & Architects

DESIGNED - GSI	REVISED
CHECKED - TB	REVISED
DRAWN - TB	REVISED
DATE - 6/9/2020	REVISOR

DESIGNED - GSI	REVISED
CHECKED - TB	REVISED
DRAWN - TB	REVISED
CHECKED - PRD	REVISOR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG - 2
STRUCTURE NUMBER 049-W089
SHEET NO. SD-4 OF 5 SHEETS

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 133
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				

PLOT DATE = 6/9/2020



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 2

Date 3/26/19

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY TZ

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RW-05
 Station 54+58
 Offset 11.20ft Right
 Ground Surface Elev. 664.50 ft

D	B	U	M	Surface Water Elev.	D	B	U	M
P	L	C	O	n/a	P	L	C	O
T	O	S	I	ft	H	S	Q	S
H	W	Qu	T	ft	S	tsf	(%)	T

Stream Bed Elev. n/a ft
 Groundwater Elev.:
 First Encounter Dry to -10.0 ft
 Upon Completion n/a ft
 After Hrs. _____

6.0" ASPHALT, 6.0" CRUSHED STONE	663.50								CLAY-gray-medium stiff to stiff (continued)
CLAY LOAM with Gravel-brown & gray-hard (Fill)		4			4				
		5	4.5	16	6	1.1	21		
		7	P		9	B			
661.50					5				
CLAY LOAM-brown & gray-very stiff to hard		4			6	0.8	22		
		7	3.5	18	9	P			
		10	P		17	B			
		-5			-25				
becoming gray @ -35.5'		6			4				
		10	4.0	18	6	1.2	22		
		15	B		8	B			
		6			5				
		9	3.4	15	7	1.2	25		
		15	B		9	B			
654.00		-10			-30				
CLAY-gray-medium stiff to stiff		5			8				
		9	1.6	18	11	1.5	19		
		13	B		15	P			
		5			7				
		7	0.5	20	8	1.5	23		
		9	B		12	P			
		-15			-35				
		4			7				
		6	1.3	19	8	1.5	23		
		7	B		12	P			
		4			7				
		5	0.5	20	8	1.5	23		
		6	B		12	P			
		-20			-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 2 of 2

Date 3/26/19

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY TZ

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RW-05
 Station 54+58
 Offset 11.20ft Right
 Ground Surface Elev. 664.50 ft

D	B	U	M	Surface Water Elev.	D	B	U	M
P	L	C	O	n/a	P	L	C	O
T	O	S	I	ft	H	S	Q	S
H	W	Qu	T	ft	S	tsf	(%)	T

Stream Bed Elev. n/a ft
 Groundwater Elev.:
 First Encounter Dry to -10.0 ft
 Upon Completion n/a ft
 After Hrs. _____

CLAY-gray-medium stiff to stiff (continued)									
		8			8				
		10	1.3	23	10	1.3	23		
		17	B		17	B			
		-45			-45				
		7			7				
		8	1.0	16	8	1.0	16		
End Of Boring @ -50.0'. Boring backfilled with cuttings.	614.50	-50			12	B			
		-60			-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

PLOT DATE = 6/9/2020



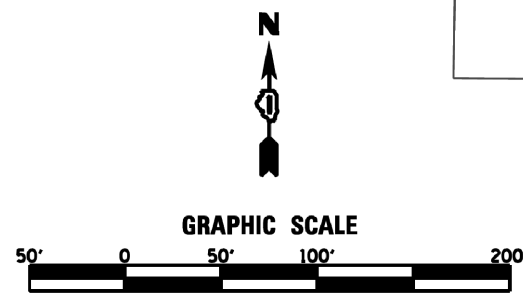
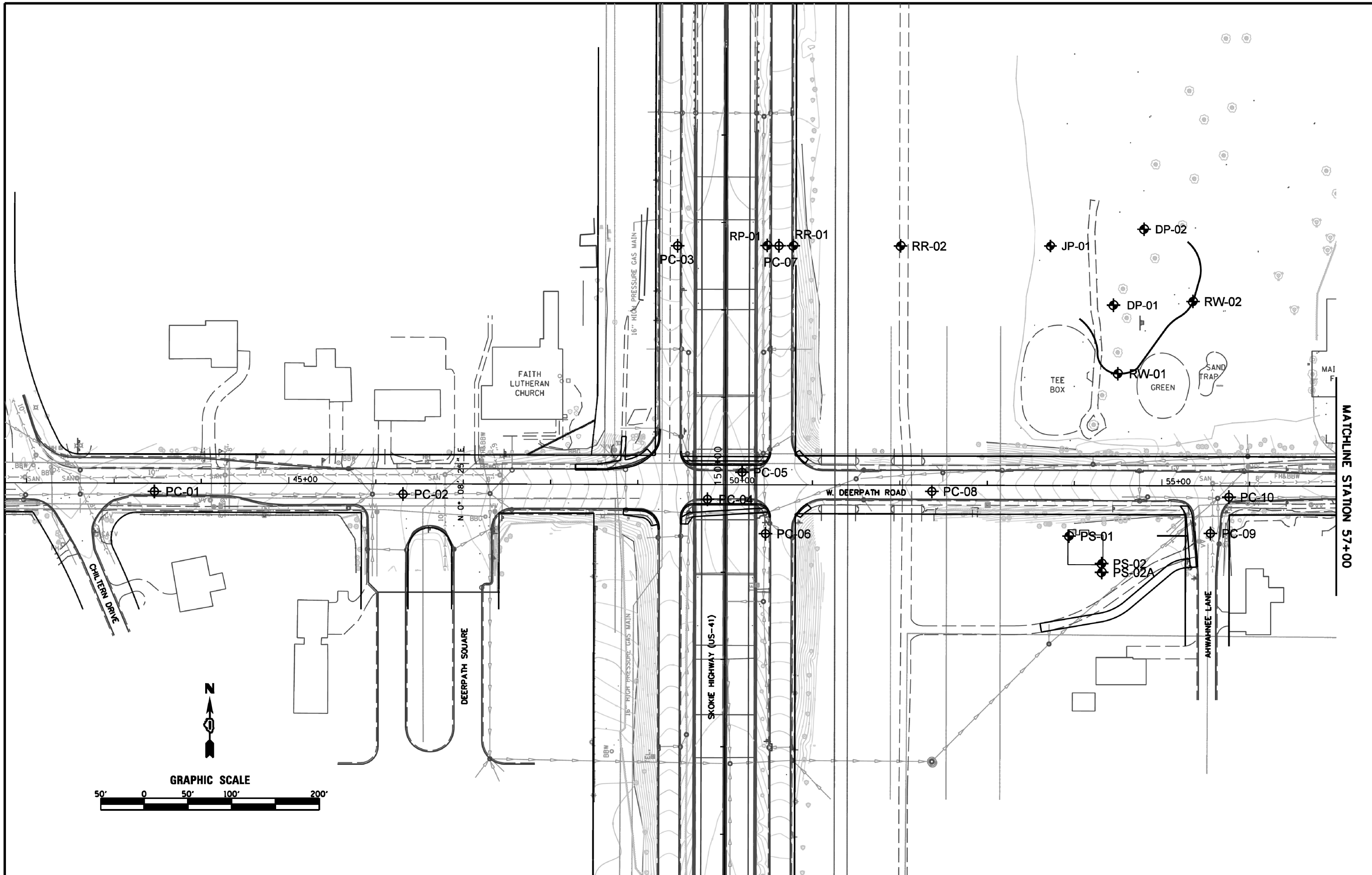
DESIGNED - GSI	REVISED
CHECKED - TB	REVISED
DRAWN - TB	REVISED
DATE - 6/9/2020	CHECKED - PRD
	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG - 3
 STRUCTURE NUMBER 049-W089

SHEET NO. SD-5 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	134
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



Geo Services, Inc.
 Geotechnical, Environmental & Civil Engineers
 805 Amherst Court, Suite 204
 Naperville, Illinois 60565
 (630) 355-2838

USER NAME * #USER*	DESIGNED - RWC	REVISED -
DRAWN - RWC	REVISIONS -	
CHECKED - AJP	REVISIONS -	
DATE - 8/1/2018	REVISIONS -	

PLLOT SCALE * #SCALE*	DATE - 8/1/2018
PLLOT DATE * #DATE*	

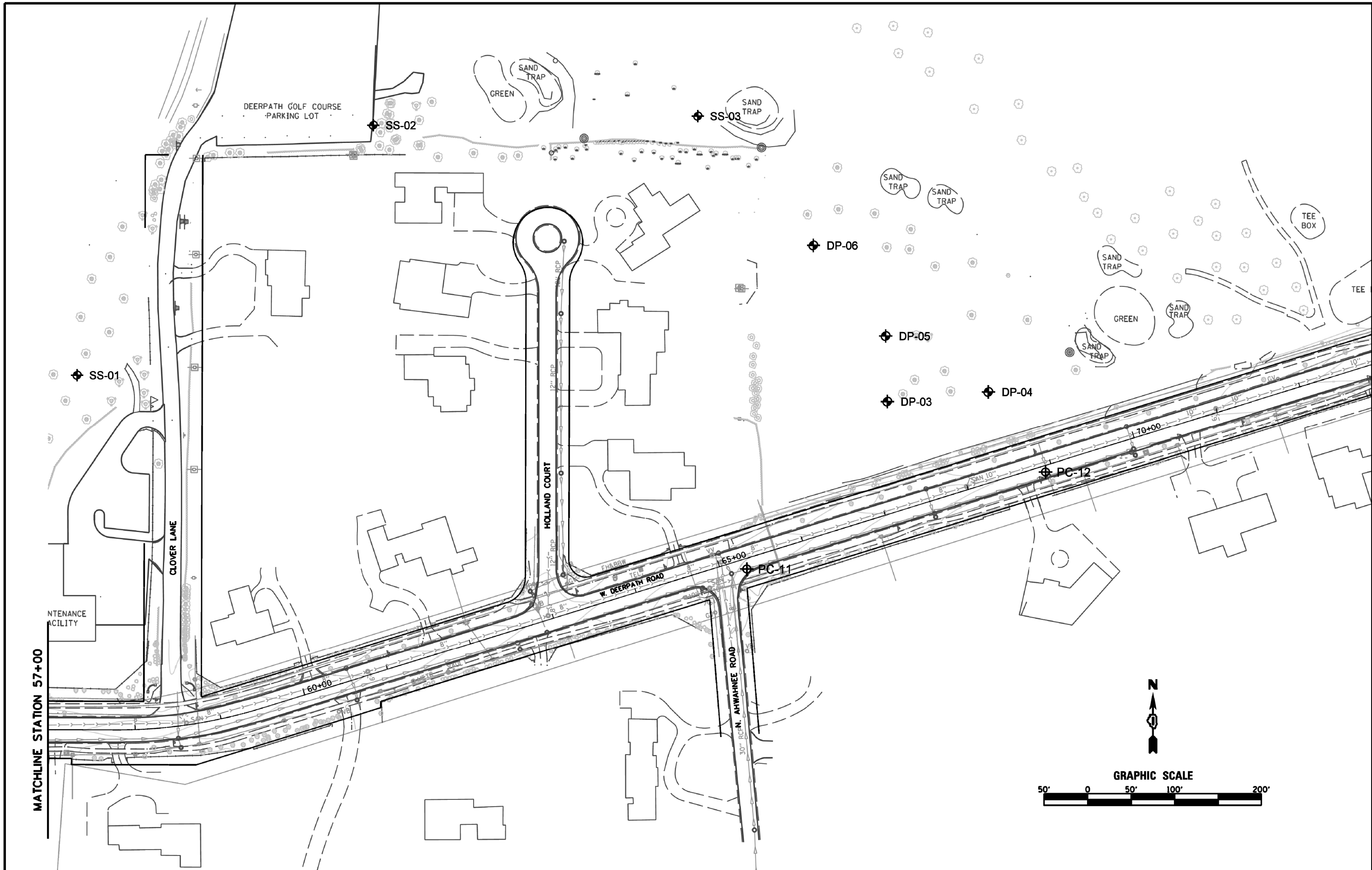
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORINGS PLAN
 PUMP STATION 38**

SCALE 1"=100' SHEET 1 OF 2 SHEETS STA. 42+00 TO STA. 57+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(1305); (21&215)-1	LAKE	290	135

DOT PROJECT No. D-91-086-16 CONTRACT NO. 62B65
 ILLINOIS FED. AID PROJECT



Geo Services, Inc.
 Geotechnical, Environmental & Civil Engineers
 805 Amherst Court, Suite 204
 Naperville, Illinois 60565
 (630) 355-2838

USER NAME * #USER*	DESIGNED - RWC	REVISED -
PLOT SCALE * #SCALE*	DRAWN - RWC	REVISED -
PLOT DATE * #DATE*	CHECKED - AJP	REVISED -
	DATE - 8/1/2018	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORINGS PLAN
 PUMP STATION 38**

SCALE 1"=100' SHEET 2 OF 2 SHEETS STA. 57+00 TO STA. 72+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(1305); (21&215)-1	LAKE	290	136
IDOT PROJECT No. D-91-086-16			CONTRACT NO. 62B65	
ILLINOIS FED. AID PROJECT				



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/15/17

ROUTE FAP 346 DESCRIPTION Detention Pond LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
Station					n/a	n/a					
BORING NO. DP-01											
Station 54+44											
Offset 206.60ft Left											
Ground Surface Elev. 666.50											
12.0" TOPSOIL-black	665.50			42			CLAY-brown & gray-stiff to hard (continued)				
CLAY-brown & gray-stiff to hard		2		23							
		2	1.5								
		2	B								
		3									
		3	2.3	20							
		3	P								
becoming gray @ -5.5'		2									
		5	4.4	17							
		7	B								
		3									
		5	1.9	17							
		8	B				End Of Boring @ -30.0'. Boring backfilled with cuttings.				
		-10			636.50	-30					
		4									
		7	4.9	17							
		9	B								
		3									
		5	3.5	19							
		-15	6	B							
		3									
		4	2.8	25							
		6	B								
		3									
		4	2.7	20							
		-20	6	B							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/15/17

ROUTE FAP 346 DESCRIPTION Detention Pond LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
Station					n/a	n/a					
BORING NO. DP-02											
Station 54+79											
Offset 293.50ft Left											
Ground Surface Elev. 667.80											
14.0" TOPSOIL-black	666.63			24			CLAY to CLAY LOAM-brown & gray-medium stiff to hard (continued)				
CLAY to CLAY LOAM-brown & gray-medium stiff to hard		2		18							
		2	0.8								
		3	B								
		2									
		4	2.6	21							
		-5	4	B							
becoming gray @ -5.5'		3									
		6	4.9	16							
		7	B								
		3									
		6	5.8	17							
		-10	9	B			End Of Boring @ -30.0'. Boring backfilled with cuttings.				
					637.80	-30					
		6									
		8	2.3	17							
		10	P								
		3									
		6	4.0	16							
		-15	8	B							
		3									
		6	2.2	19							
		7	B								
		3									
		4	2.4	19							
		-20	6	B							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME = L:\7255\CAD\Drawings\Soil Borings\0162485-sh-t-log02.dgn

KNIGHT Engineers & Architects	USER NAME = c1iss	DESIGNED	REVISED -
	PLOT SCALE = 1:100	DRAWN	REVISED -
	PLOT DATE = 6/23/2020	CHECKED JWM	REVISED -
		DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
--------	--	-------	----	--------	------	----	------

F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 137
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/11/17

ROUTE FAP 346 DESCRIPTION Detention Pond LOGGED BY NM

SECTION LOCATION NE 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEP	BLO	UCS	M O I S T	Surface Water Elev.	DEP	BLO	UCS	M O I S T
Station	H	S	Qu	T	ft	H	S	Qu	T
BORING NO. DP-03					Stream Bed Elev. n/a				
Station 67+41					Groundwater Elev.:				
Offset 124.20ft Left					First Encounter 645.5 ft				
Ground Surface Elev. 659.50 ft	(ft)	(/6")	(tsf)	(%)	Upon Completion 642.0 ft	(ft)	(/6")	(tsf)	(%)
					After Hrs.				
12.0" TOPSOIL-black					CLAY to CLAY LOAM-brown & gray-medium stiff to hard (continued)				
658.50				37					
CLAY to CLAY LOAM-brown & gray-medium stiff to hard		2				3			
		2	1.8	24		6	1.7	16	
		3	B			6	B		
		2				3			
		3	1.2	23		5	2.3	16	
		3	B			9	B		
		6				4			
		10	7.2	17		5	1.6	17	
		12	B			6	B		
becoming gray @ -8.0'									
		3				3			
		6	4.4	15	End Of Boring @ -30.0'. Boring backfilled with cuttings.	5	1.4	21	
		9	B		629.50	6	B		
		3							
		3	1.5	15					
		6	B						
		3							
		4	1.8	17					
		4	P						
		3							
		3	0.8	19					
		6	B						
		3							
		4	1.8	19					
		5	B						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/11/17

ROUTE FAP 346 DESCRIPTION Detention Pond LOGGED BY NM

SECTION LOCATION NE 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEP	BLO	UCS	M O I S T	Surface Water Elev.	DEP	BLO	UCS	M O I S T
Station	H	S	Qu	T	ft	H	S	Qu	T
BORING NO. DP-04					Stream Bed Elev. n/a				
Station 68+55					Groundwater Elev.:				
Offset 100.50ft Left					First Encounter Dry ft				
Ground Surface Elev. 658.70 ft	(ft)	(/6")	(tsf)	(%)	Upon Completion Dry ft	(ft)	(/6")	(tsf)	(%)
					After Hrs.				
10.0" TOPSOIL-black					CLAY to CLAY LOAM-brown & gray-stiff to hard (continued)				
657.87				30					
CLAY to CLAY LOAM-brown & gray-stiff to hard		2				4			
		2	1.8	21		4	1.9	17	
		3	P			7	B		
		2				4			
		4	3.3	17		4	1.3	26	
		6	B			5	B		
		2				5			
		3	3.2	16		6	2.1	18	
		6	B			9	B		
becoming gray @ -8.0'									
		3				4			
		6	5.3	15	End Of Boring @ -30.0'. Boring backfilled with cuttings.	6	2.6	18	
		10	B		628.70	8	B		
		4							
		6	3.2	16					
		7	B						
		2							
		3	1.9	18					
		6	B						
		4							
		4	1.4	17					
		7	B						
		2							
		3	1.8	17					
		5	B						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME = L:\7255\CAD\Drawings\Soil Borings\01622485-sh-t-blog64.dgn

KNIGHT Engineers & Architects	USER NAME = c11ss	DESIGNED	REVISED -
		DRAWN	REVISED -
	PLOT SCALE = 1:100	CHECKED JWM	REVISED -
	PLOT DATE = 6/23/2020	DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS			
SCALE:	SHEET	OF	SHEETS
	STA.		TO STA.

F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 138
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/8/17

ROUTE FAP 346 DESCRIPTION Detention Pond LOGGED BY NM

SECTION LOCATION NE 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	Surface Water Elev. n/a ft	Stream Bed Elev. n/a ft	Groundwater Elev.:	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)
Station							First Encounter				
BORING NO. DP-05							Upon Completion				
Station 67+61							After				
Offset 196.80ft Left											
Ground Surface Elev. 660.10 ft											
14.0" TOPSOIL-black	658.93	2		26			CLAY to CLAY LOAM-brown & gray-stiff to hard (continued)		3		
CLAY to CLAY LOAM-brown & gray-stiff to hard		2	1.1	20				5	1.9	20	
		3	B					6	B		
		3						3			
		3	2.3	18				5	3.3	21	
		3	B					8	B		
		5						4			
		2	7.3	15				5	2.7	17	
		9	B					9	B		
becoming gray @ -8.0'		4						5			
		5	3.2	16			End Of Boring @ -30.0'. Boring backfilled with bentonite to -20.0'. Set 20.0' of 2.0" PVC.	8	5.8	15	
		8	B		630.10	-30		13	B		
		3									
		4	2.7	16							
		5	B								
		3									
		4	1.7	17							
		5	B								
		4									
		5	1.9	15							
		7	B								
		7									
		7	1.5	17							
		7	P								
		-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/11/17

ROUTE FAP 346 DESCRIPTION Detention Pond LOGGED BY NM

SECTION LOCATION NE 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	Surface Water Elev. n/a ft	Stream Bed Elev. n/a ft	Groundwater Elev.:	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)
Station							First Encounter				
BORING NO. DP-06							Upon Completion				
Station 67+13							After				
Offset 321.00ft Left											
Ground Surface Elev. 661.20 ft											
14.0" TOPSOIL-black	660.03	2		20			CLAY to CLAY LOAM-brown & gray-stiff to hard (continued)		3		
CLAY to CLAY LOAM-brown & gray-stiff to hard		4	5.7	15				6	1.4	17	
		6	B					6	B		
		4						5			
		6	6.0	15				5	1.3	20	
		8	B					6	B		
		5						5			
		10	7.3	16				6	3.8	17	
		10	B					7	B		
becoming gray @ -8.0'		3						5			
		5	3.2	16			End Of Boring @ -30.0'. Boring backfilled with cuttings.	6	2.3	19	
		7	B		631.20	-30		6	B		
		3									
		4	1.9	17							
		6	B								
		2									
		4	1.8	17							
		5	B								
		5									
		5	2.2	15							
		7	B								
		3									
		4	1.4	16							
		5	B								
		-20									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2016\16017 KNIGHT EA, IDOT PUMP STATION 38 FAP 346 (PTB 178 ITEM 1)\16017 BORING LOGS\16017_LOG.GPJ 8/10/18



USER NAME = c1iss	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 1:100	CHECKED JWM	REVISED -
PLOT DATE = 6/23/2020	DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 139
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/15/17

ROUTE FAP 346 DESCRIPTION Jacking Pit LOGGED BY NM

SECTION LOCATION NE 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter ft	Upon Completion ft	After Hrs. ft	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)
	666.00			34	n/a	n/a							
		2									3		
		2	1.3	36							4	1.9	19
		2	B								5	B	
		1									3		
		1	0.8	34							5	1.9	18
		2	B								5	B	
	661.50												
		3									4		
		4	1.1	19							5	1.9	22
		4	B								6	B	
		2									3		
		3	2.9	18							6	2.0	22
		5	B								6	B	
		4											
		6	4.9	16									
		9	B										
		3											
		6	5.0	17									
		8	B										
		3											
		3	2.2	21									
		5	B										
		2											
		4	1.4	21									
		4	B										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/7/17

ROUTE FAP 346 DESCRIPTION Receiving Pit LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter ft	Upon Completion ft	After Hrs. ft	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)
	664.62				n/a	n/a							
		3											
		2	3.5	18							4	1.0	22
		4	B								8	B	
		5											
		6	3.0	17									
		8	B										
		2											
		4	1.9	20									
		5	B										
		2											
		3	2.0	19									
		5	B										
		3											
		4	0.9	20									
		5	B										
		2											
		3	2.0	19									
		5	B										
		3											
		4	0.9	20									
		5	B										
		3											
		4	1.2	18									
		7	B										
		4											
		4	1.5	22									
		6	P										
		4											
		5	0.9	21									
		8	B										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME = L:\7255\CAD\Drawings\Soil Borings\16017\16017 BORING LOGS\16017_LOG.GPJ 8/10/18



USER NAME = c1iss	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 1:100	CHECKED JWM	REVISED -
PLOT DATE = 6/23/2020	DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 140
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/7/17

ROUTE FAP 346 DESCRIPTION UP Railroad LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)
					Surface Water Elev. n/a ft				
					Stream Bed Elev. n/a ft				
BORING NO. RR-01					Groundwater Elev.:				
Station 50+77					First Encounter Dry to -10.0 ft				
Offset 273.50ft Left					Upon Completion n/a ft				
Ground Surface Elev. 665.00 ft					After Hrs. _____ ft				
14.0" ASPHALT, 10.0" GRAVEL					CLAY-gray-stiff to hard (continued)				
	29					3			
	3	4.7	17			4	1.3	22	
CLAY LOAM-brown & gray-hard	5	B				8	B		
	5					4			
	7	5.4	14			7	1.4	20	
	9	B				7	B		
	-5					-25			
CLAY-gray-stiff to hard	6				CLAYEY SAND & GRAVEL-gray-medium dense	8			
	8	4.2	18			6		9	
	12	B				11			
	3					8			
	5	3.6	14			8		14	
	9	B				8			
	-10					-30			
	3								
	5	1.5	19		CLAY-gray-hard	6			
	6	B				9	4.0	17	
	3					14	B		
	5	1.7	20			6			
	7	B				8	2.2	18	
	-15					-35			
	3								
	4	1.1	21						
	5	B							
	2					6			
	5	1.5	18		End Of Boring @ -40.0'. Boring backfilled with cuttings.	8	2.2	18	
	6	B				14	B		
	-20					-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 1/29/18

ROUTE FAP 346 DESCRIPTION UP Railroad LOGGED BY RJ

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOW (ft)	UCS (tsf)	MOIST (%)
					Surface Water Elev. n/a ft				
					Stream Bed Elev. n/a ft				
BORING NO. RR-02					Groundwater Elev.:				
Station 52+00					First Encounter 663.0 ft				
Offset 273.70ft Left					Upon Completion 650.0 ft				
Ground Surface Elev. 669.00 ft					After Hrs. _____ ft				
6.0" TOPSOIL-black	668.50				SANDY CLAY LOAM-gray-stiff (continued)	648.50			
CLAY LOAM-brown & gray-hard (Fill)		6			CLAY-gray-stiff to very stiff		4		
		8	4.5	17		5	1.5	19	
		10	P			5	B		
	666.00								
SANDY CLAY LOAM-brown & gray-medium dense (Apparent Fill)		2				3			
		3		19		4	1.8	20	
		8				5	B		
	-5					-25			
CLAY LOAM-brown & gray-stiff to hard	663.50								
		5				3			
		10	5.0	18		4	1.6	20	
		14	B			6	B		
		7				3			
		10	6.5	17		6	1.4	20	
		14	B			7	B		
	-10					-30			
becoming gray @ -10.5'		6							
		9	4.8	16					
		15	B						
		4				4			
		7	4.2	17		4	2.2	23	
		10	B			6	B		
	-15					-35			
		4							
		6	1.9	18					
		8	B						
	651.00								
SANDY CLAY LOAM-gray-stiff		2			End Of Boring @ -40.0'. Boring backfilled with cuttings.		4		
		4	1.4	11		7	1.9	21	
		7	B			10	B		
	-20					-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME = L:\7255\CAD\Drawings\Soil Borings\0162485-sh-t-b-log07.dgn

KNIGHT Engineers & Architects	USER NAME = c1iss	DESIGNED	REVISED -
	PLOT SCALE = 1:100	DRAWN	REVISED -
	PLOT DATE = 6/23/2020	CHECKED JWM	REVISED -
		DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 141
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

SOIL BORING LOG

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. Station
BORING NO. RW-01 Station 54+49 Offset 128.20ft Left Ground Surface Elev. 666.10 ft
Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 631.6 ft
Upon Completion 634.1 ft
After Hrs.

DEPTH (ft)	BLOW COUNT (blows/6")	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT (blows/6")	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)
0			47	12.0" TOPSOIL-black	0			
665.10	2			CLAY-gray-stiff to hard	0	3		
	2	1.5 P	20		4	1.6 B	14	
	3				7			
	2				3			
	3	2.7 B	21		5	1.9 B	21	
	4				7			
	5				3			
	6	5.7 B	16		5	1.9 B	22	
	10				5			
	4				4			
	7	5.7 B	17		6	2.2 B	21	
	11				7			
	3							
	6	3.8 B	16					
	9							
	2							
	4	1.2 B	16					
	5							
	3							
	4	1.9 B	20					
	6							
	3							
	4	2.0 B	20					
	6							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE FAP 346 DESCRIPTION Retaining Wall LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. Station
BORING NO. RW-01 Station 54+49 Offset 128.20ft Left Ground Surface Elev. 666.10 ft
Surface Water Elev. n/a ft
Stream Bed Elev. n/a ft
Groundwater Elev.:
First Encounter 631.6 ft
Upon Completion 634.1 ft
After Hrs.

DEPTH (ft)	BLOW COUNT (blows/6")	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT (blows/6")	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)
0				CLAY-gray-very stiff	0			
	6							
	9	2.5 B	22					
	11							
	5							
	9	1.3 B	23					
	10							
	5							
	9	1.3 B	23					
	10							

End Of Boring @ -50.0'. Boring backfilled with cuttings.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2016\16017 KNIGHT EA, IDOT PUMP STATION 38 FAP 346 (PTB 178 ITEM 1)\16017 BORING LOGS\16017_LOG.GPJ 8/10/18

Z:\PROJECTS\2016\16017 KNIGHT EA, IDOT PUMP STATION 38 FAP 346 (PTB 178 ITEM 1)\16017 BORING LOGS\16017_LOG.GPJ 8/10/18



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/11/17

ROUTE FAP 346 DESCRIPTION Storm Sewer LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. Station	DEPTH (ft)	BLOW S (ft/6")	UCS Qu (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
	667.73			28	n/a	n/a					
		5									
		4	4.5	15							
		4	P								
	665.40										
		1									
		2	0.7	32							
		2	B								
	662.90										
		6									
		12	8.8	18							
		13	B								
		3									
		5	3.6	17							
		7	B								
		2									
		3	1.9	19							
		4	B								
		2									
		4	1.8	20							
		4	B								
		2									
		4	1.3	19							
		5	B								
		3									
		4	1.8	21							
		5	B								
	648.40										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/11/17

ROUTE FAP 346 DESCRIPTION Storm Sewer LOGGED BY NM

SECTION LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	DEPTH (ft)	BLOW S (ft/6")	UCS Qu (tsf)	MOIST (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
	667.03			24	n/a	n/a					
		4									
		6	7.5	17							
		8	B								
		5									
		7	5.3	14							
		9	B								
		4									
		8	7.5	17							
		12	B								
		4									
		8	6.4	17							
		11	B								
		3									
		4	1.3	13							
		3	B								
		2									
		3	2.0	16							
		3	B								
		3									
		3	1.5	19							
		4	B								
		3									
		3	1.8	19							
		7	B								
	647.70										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME = L:\7255\CAD\ISheets\Soil Borings\0162485-sh-t-log\B.dgn



USER NAME = c1iss	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 1:100	CHECKED JWM	REVISED -
PLOT DATE = 6/23/2020	DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 144
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



GSI Job No. 16017

SOIL BORING LOG

Page 1 of 1

Date 9/11/17

ROUTE FAP 346 DESCRIPTION Storm Sewer LOGGED BY NM

SECTION _____ LOCATION NW 1/4, SEC. 32, TWP. T44N, RNG. R12E, 3rd PM

COUNTY Lake DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev. _____ n/a ft Stream Bed Elev. _____ n/a ft Groundwater Elev.: First Encounter _____ Dry ft Upon Completion _____ Dry ft After _____ Hrs. _____ ft
12.0" TOPSOIL-black	659.90			33	
SANDY CLAY LOAM-brown & gray-medium stiff		2		21	
		3	0.5 P		
657.90					
SILTY LOAM-brown & gray-stiff (A-4)		2		21	
		2	1.0 P		
		2			
655.40					
CLAY to CLAY LOAM-gray-stiff to hard		6			
		7	6.6 B	15	
		11			
		4			
		7	8.8 B	14	
		11			
		5			
		8	5.7 B	15	
		12			
		4			
		8	4.5 B	14	
		10			
		4			
		5	2.7 B	16	
		2			
		3			
End Of Boring @ -20.0'. Boring backfilled with cuttings.	640.90	4	1.2 B	18	
	-20	4			

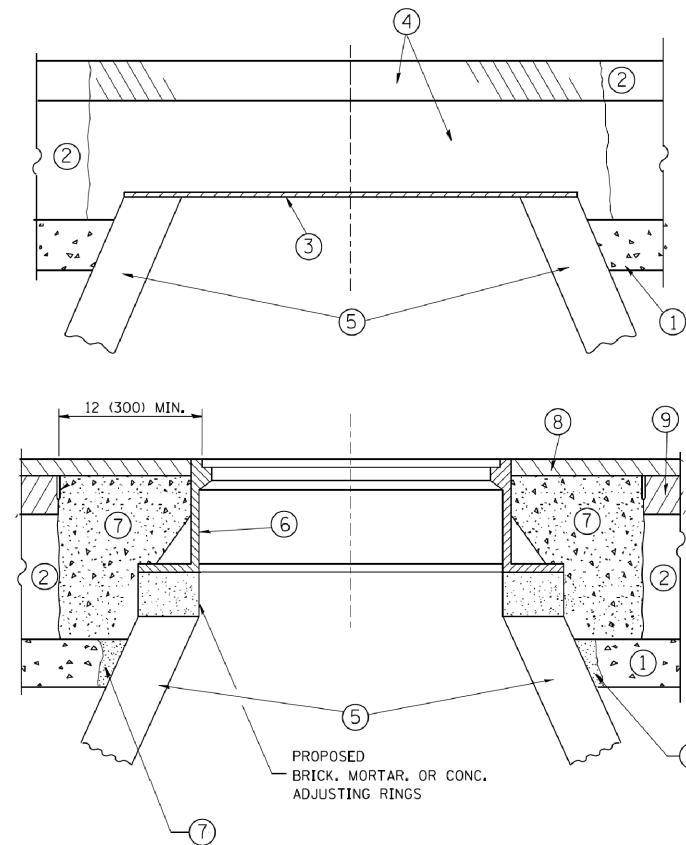
Z:\PROJECTS\2016\16017 KNIGHT EA, IDOT PUMP STATION 38 FAP 346 (PTB 178 ITEM 1)\16017 BORING LOGS\16017_LOG.GPJ 8/10/18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

FILE NAME = L:\7255\CAD\Drawings\Soil Borings\0162485-sh-t-log1.dgn

<p>Engineers & Architects</p>	USER NAME = c1iss	DESIGNED	REVISED -	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p align="center">SOIL BORING LOGS</p>		F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 145
	PLOT SCALE = 1:100	CHECKED JWM	REVISED -				CONTRACT NO. 62B65				
PLOT DATE = 6/23/2020	DATE 06/26/20	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

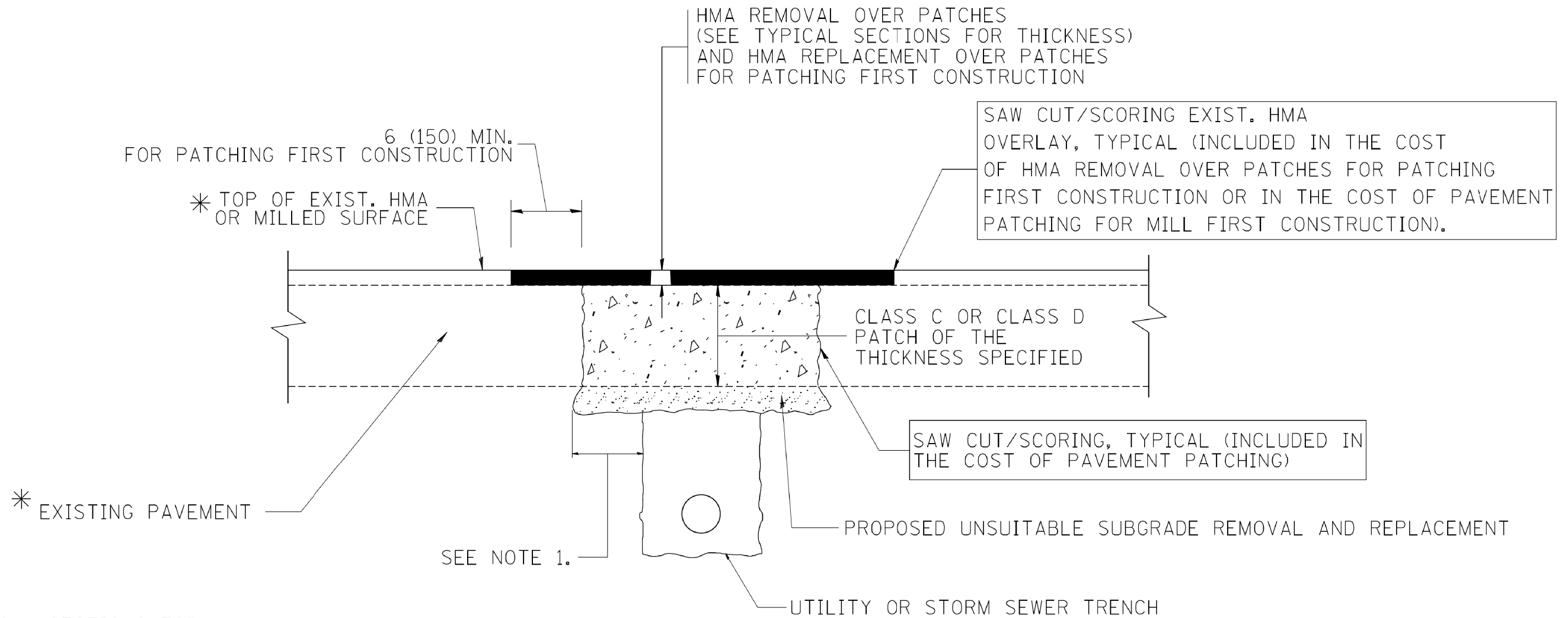
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04
es:\pwork\pwork\baured1\d0108315\bd08.dgn		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 1/648.5000' / m	CHECKED -	REVISED - R. BORO 03-09-11
	PLOT DATE = 12/6/2011	DATE - 10-25-94	REVISED - R. BORO 12-06-11

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	146
BD600-03 (BD-8)		CONTRACT NO. 62B65		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 147
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. BORO 09-04-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	BD400-04 (BD-22)		CONTRACT NO. 62B65		
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) **

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

BASIS OF PAYMENT:
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

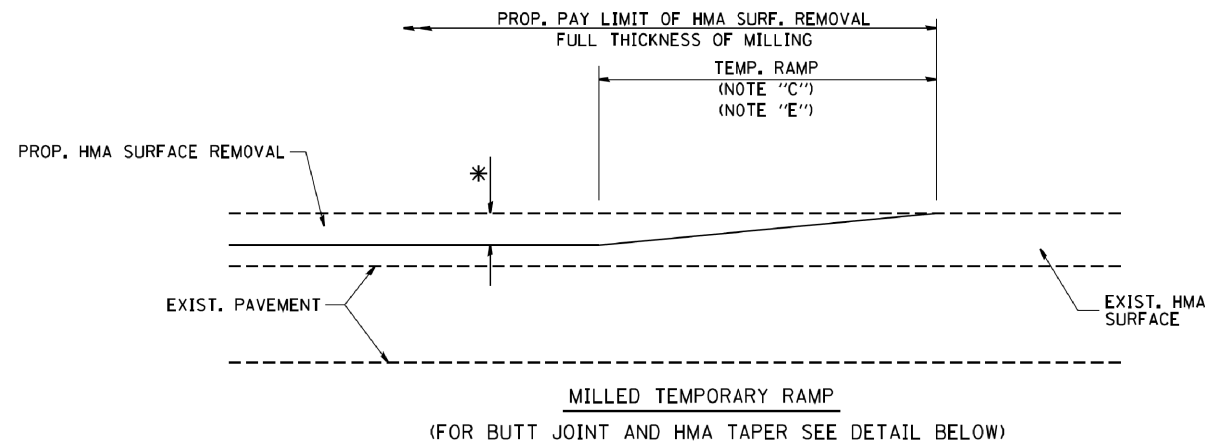
⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

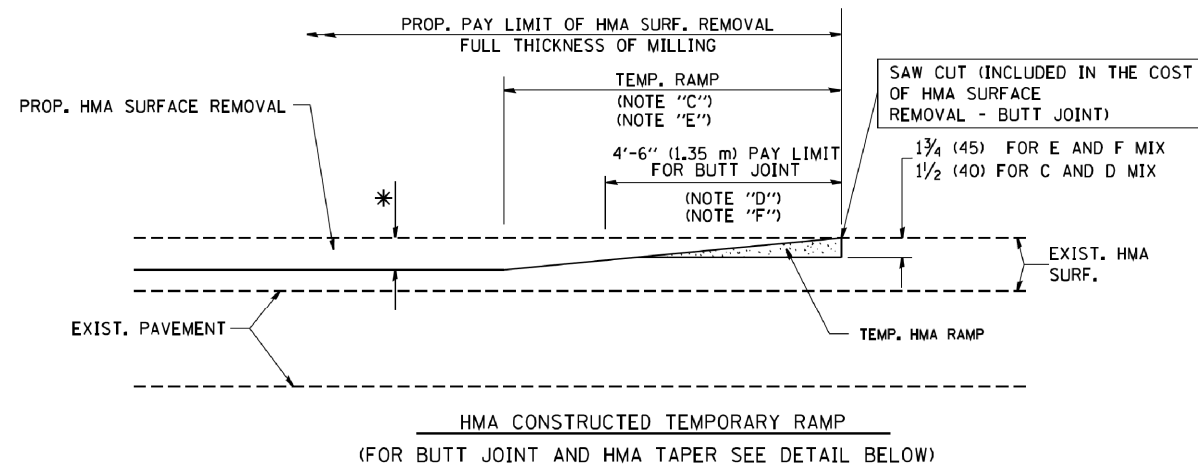
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drvakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
es:\pwork\pwork\drvakosgn\d0108315\bd24.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97		346	(21&21S)-I	LAKE	290	148			
PLOT SCALE = 50.000' / 1IN.		CHECKED -	REVISED - M. GOMEZ 01-22-01		BD600-06 (BD-24)			CONTRACT NO. 62B65				
PLOT DATE = 12/15/2009		DATE - 03-11-94	REVISED - R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

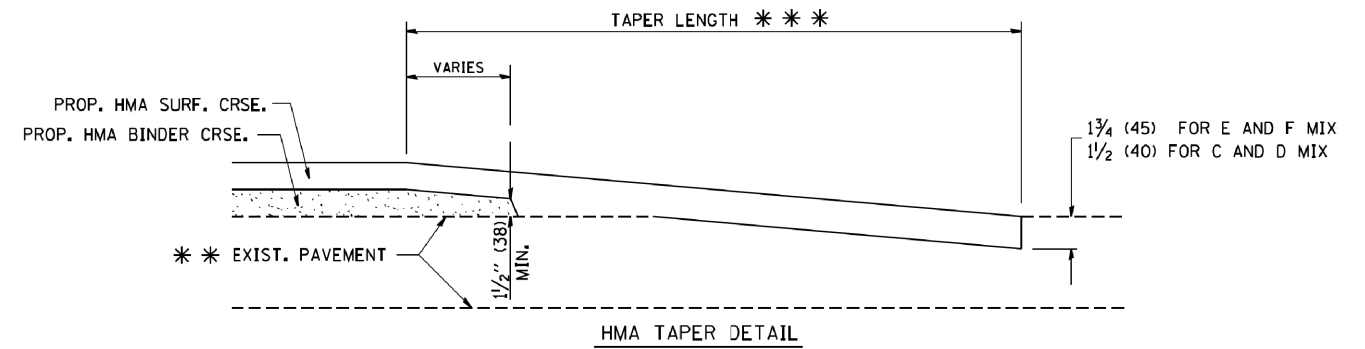
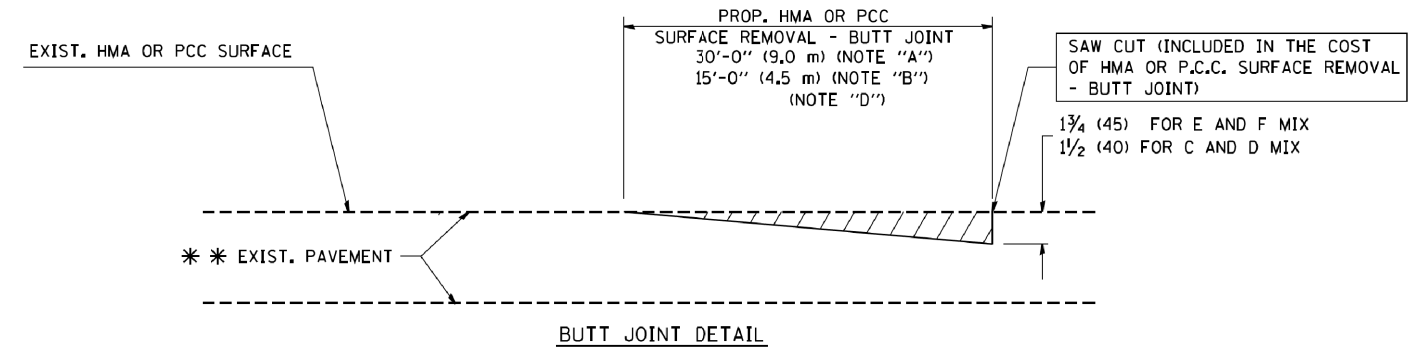


OPTION 1



OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

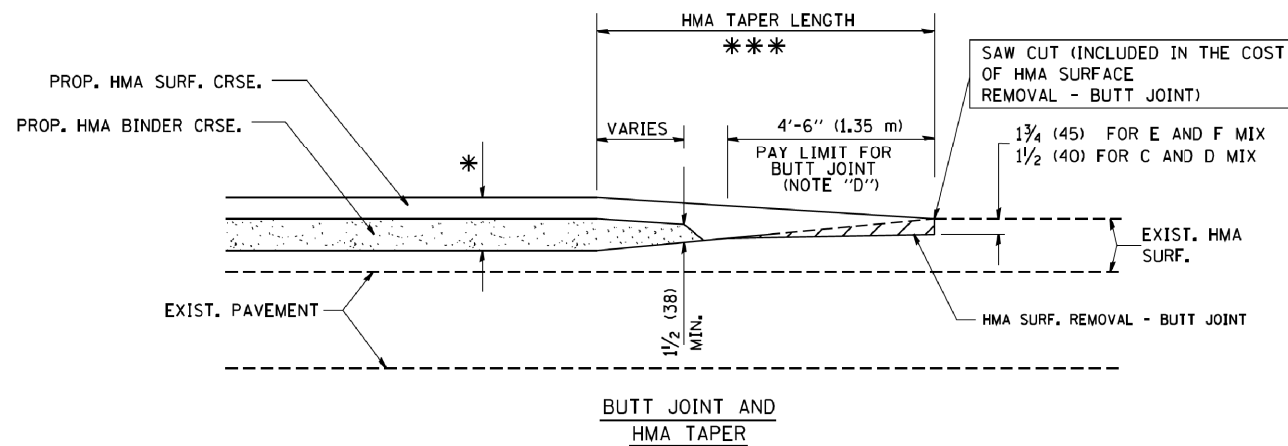
NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



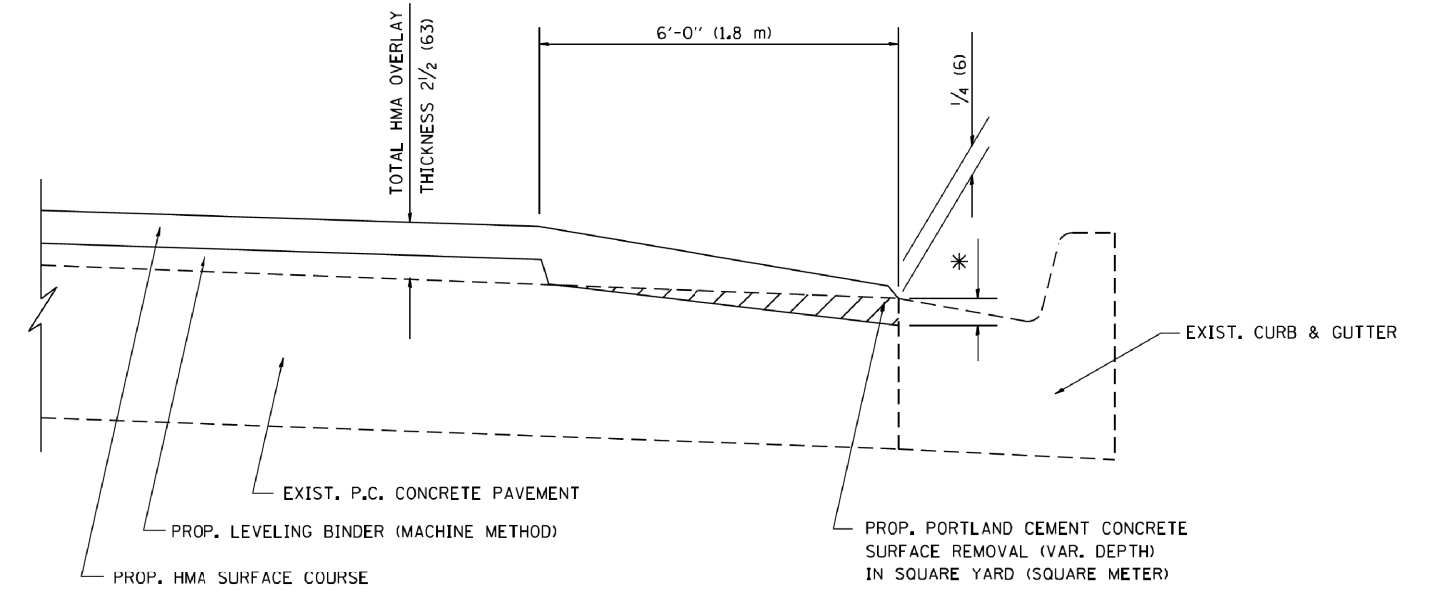
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianob	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BUTT JOINT AND HMA TAPER DETAILS	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	149
BD400-05 BD32		CONTRACT NO. 62B65		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



HMA TAPER AT
EDGE OF P.C.C. PAVEMENT

HMA SURFACE	LEVELING BINDER		* MILLING AT GUTTER FLAG
MIX	THICKNESS	THICKNESS	
C OR D	1 1/2 (38)	1 (25)	1/4 (33)
E	1 3/4 (44)	3/4 (19)	1/2 (38)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

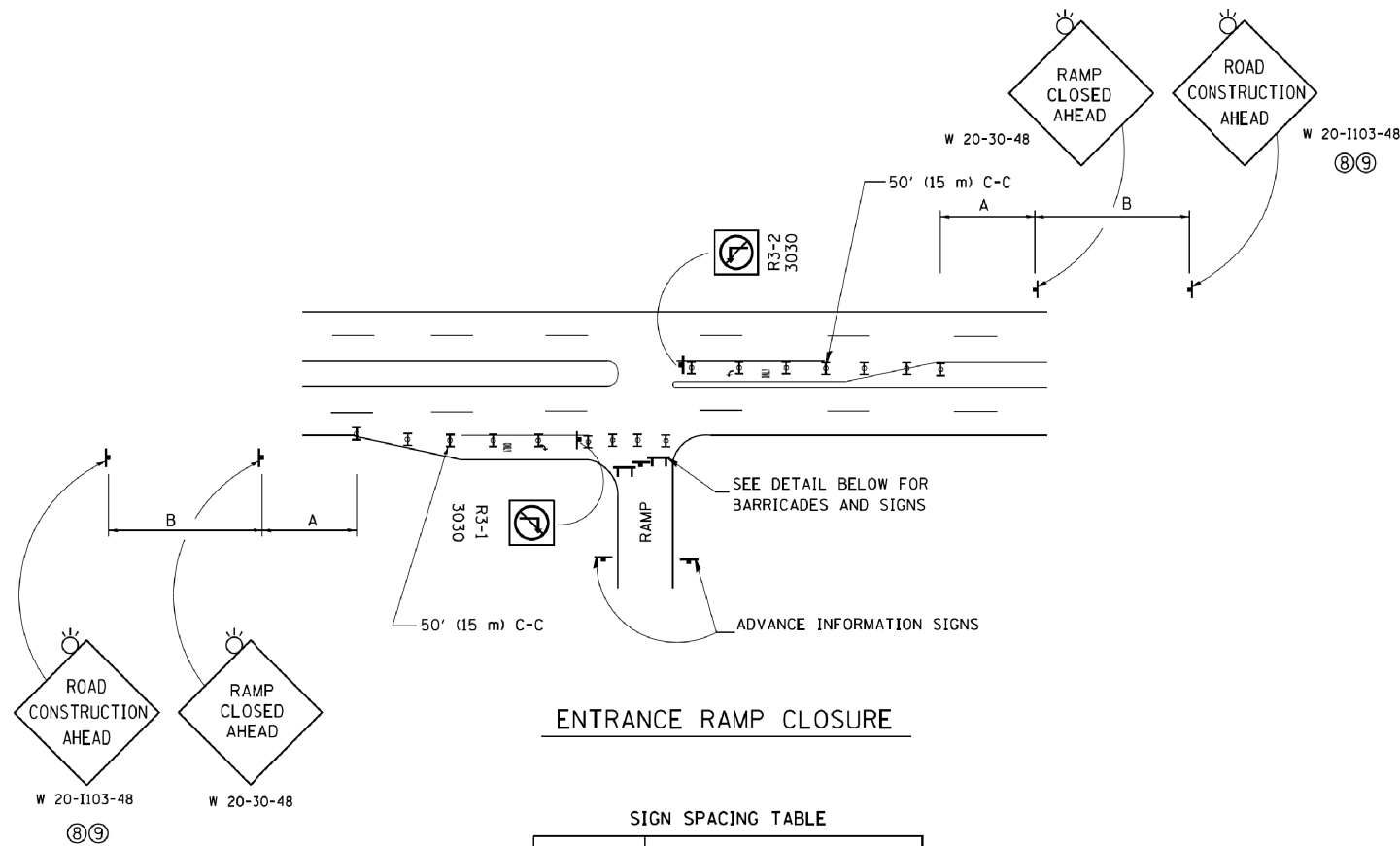
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p:\11\084EBID\INTEG\Illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\Dist		DRAWN - CADD\c\11\084EBID\	REVISED - E. GOMEZ 12-21-00
Default	PLOT SCALE = 100.0000' / 1in.	CHECKED - A. ABBAS	REVISED - R. BORO 01-01-07
	PLOT DATE = 7/7/2016	DATE - 09-10-94	REVISED - JP CHANG 07-08-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HMA TAPER AT
EDGE OF P.C.C. PAVEMENT

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	150
BD400-06 (BD33)		CONTRACT NO. 62B65		
ILLINOIS FED. AID PROJECT				

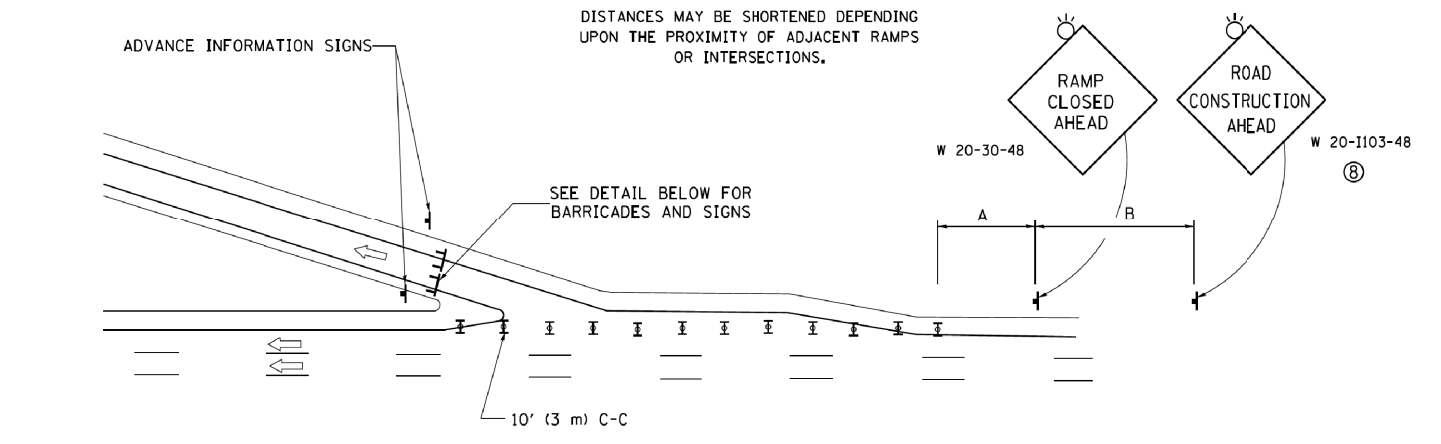


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

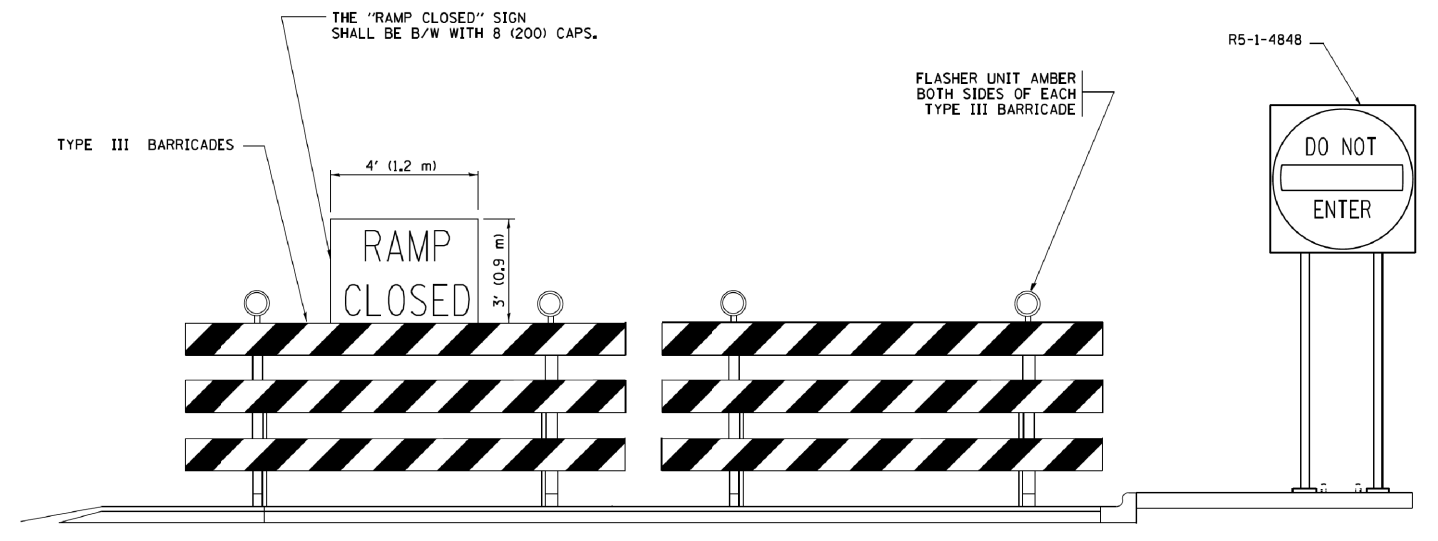
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



EXIT RAMP CLOSURE

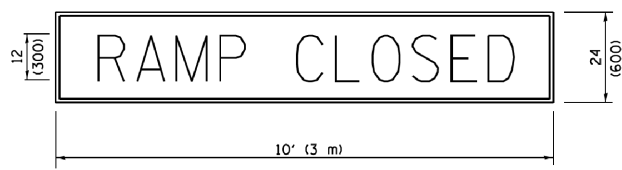
SYMBOLS

- ⊥ TYPE II BARRICADE OR DRUM
- ⊥ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



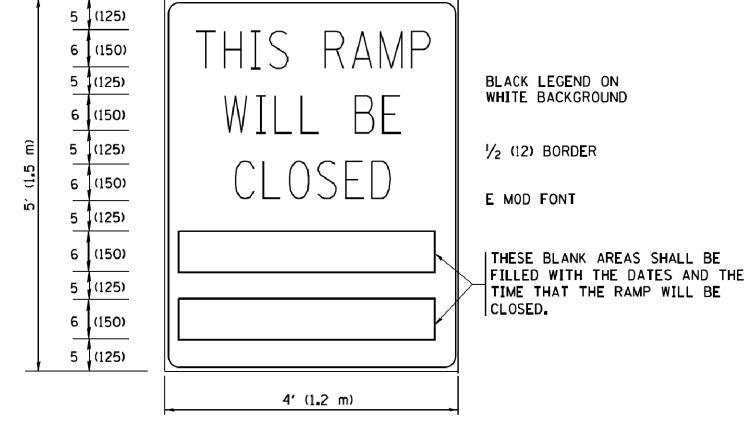
DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY
E MOD FONT
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.
THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

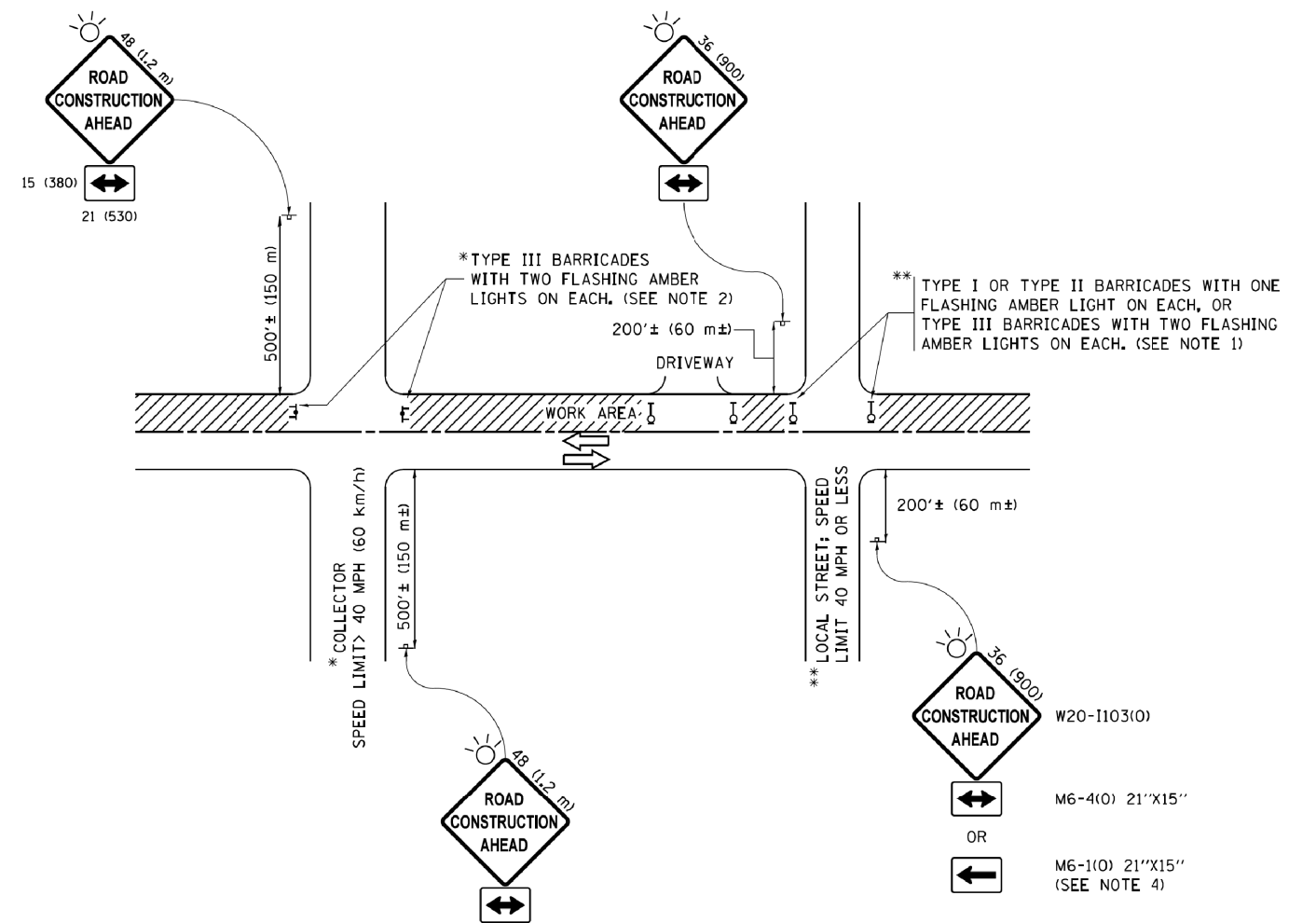
FILE NAME =	USER NAME = footejm	DESIGNED - D.W.S.	REVISED - S.P.B. 01-07
pw\110848BID\INTEG\illinois.gov\FWIDOT\Documents\IDOT Offices\District 1\Projects\Dist		DRAWN - CADData\CADsheets\to08.dgn	REVISED - S.P.B. 12-09
Default	PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - M.D. 06-13
	PLOT DATE = 11/27/2017	DATE - 02-83	REVISED - M.D. 01-18

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ENTRANCE AND EXIT RAMP
CLOSURE DETAILS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	151
TC-08		CONTRACT NO. 62B65		
ILLINOIS FED. AID PROJECT				



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

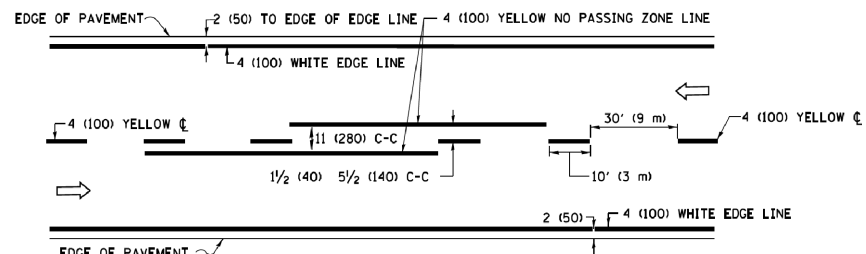
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p:\1\084E8ID\INTEG\illinois.gov\FWIDOT\Documents\IDOT Offices\District 1\Projects\Dist		DRAWN - CADData\CADsheets\td10.dgn	REVISED - T. RAMMACHER 01-06-00
Default	PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

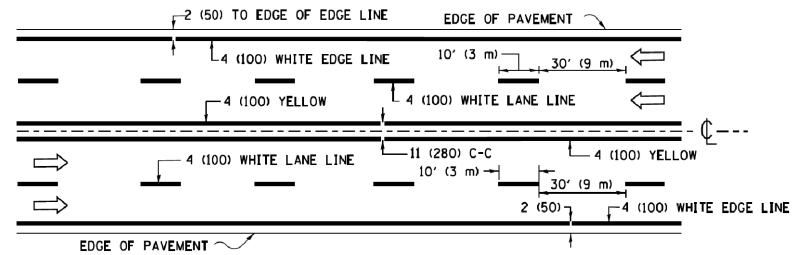
**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

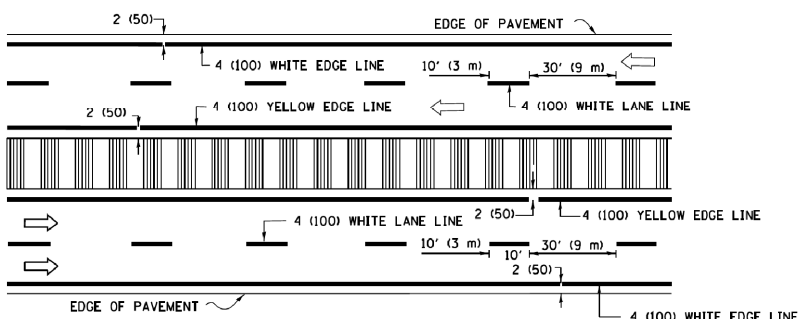
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	152
TC-10			CONTRACT NO. 62B65	
ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY

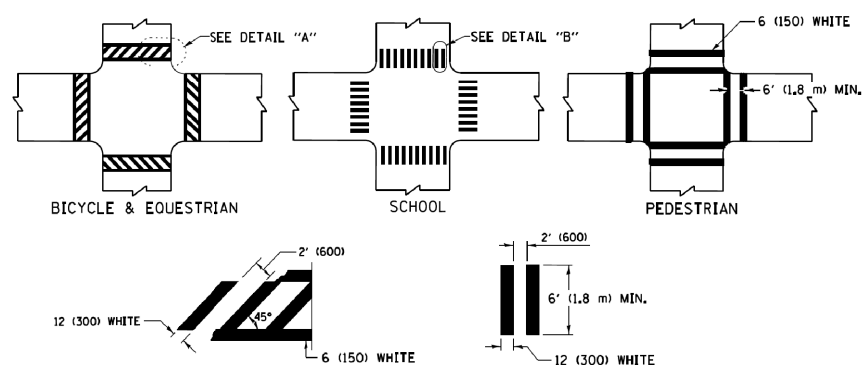


MULTI-LANE UNDIVIDED



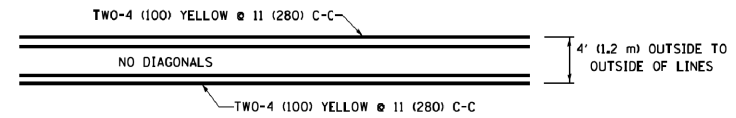
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

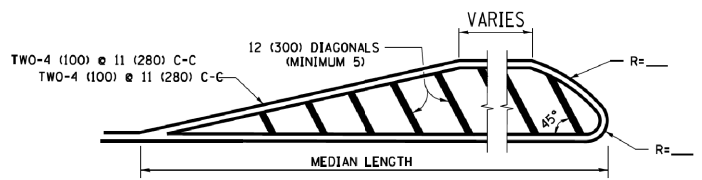


TYPICAL CROSSWALK MARKING

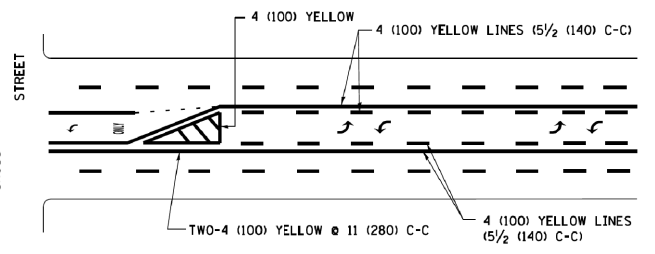
* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



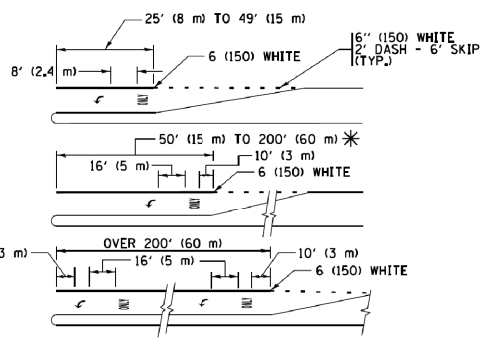
4' (1.2 m) WIDE MEDIANS ONLY



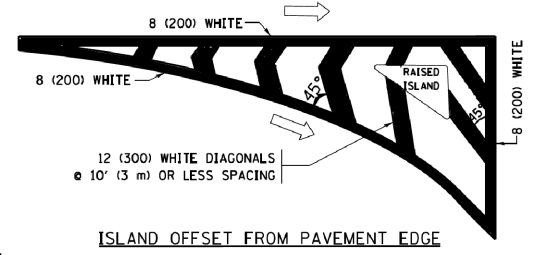
MEDIANS OVER 4' (1.2 m) WIDE



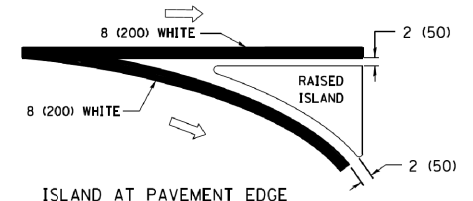
MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING



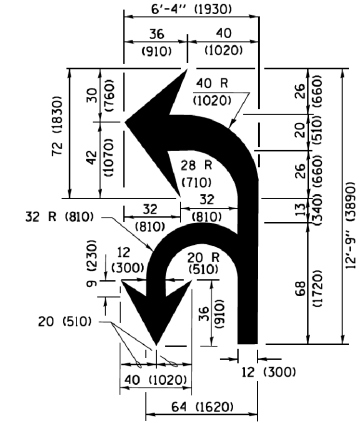
TYPICAL LEFT (OR RIGHT) TURN LANE TYPICAL TURN LANE MARKING



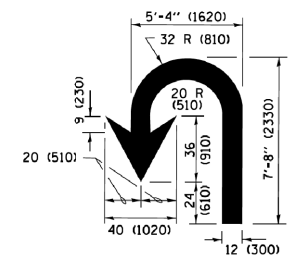
ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION

* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINES FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW TWO WAY TRAFFIC WHITE ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES "RR" IS 6' (1.8 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF "RR" IS 6' (1.8 m) "X" IS 54.0 SQ. FT. (5.0 m²) EACH
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

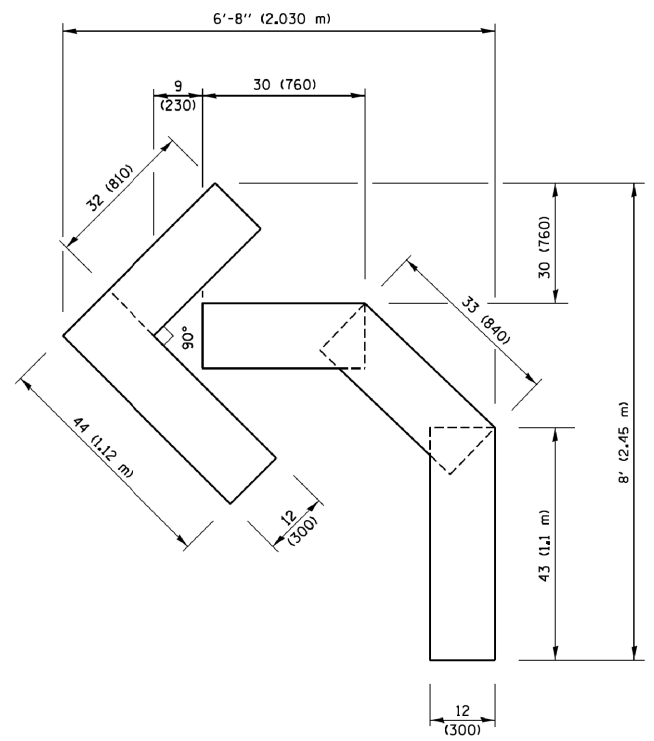
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		DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

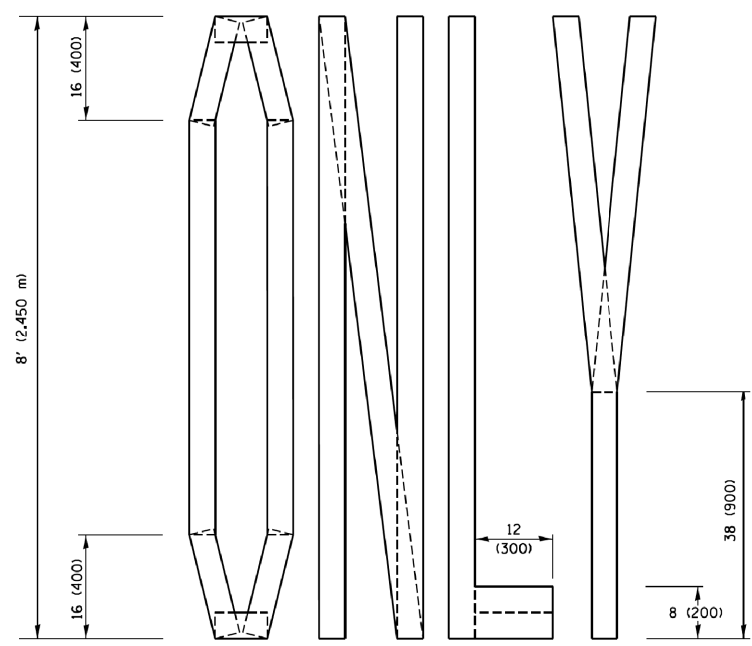
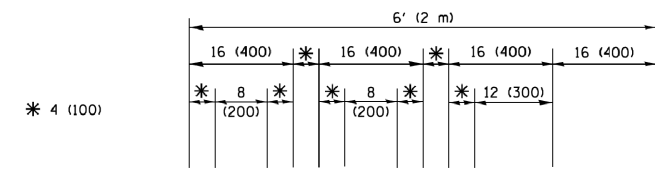
DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.
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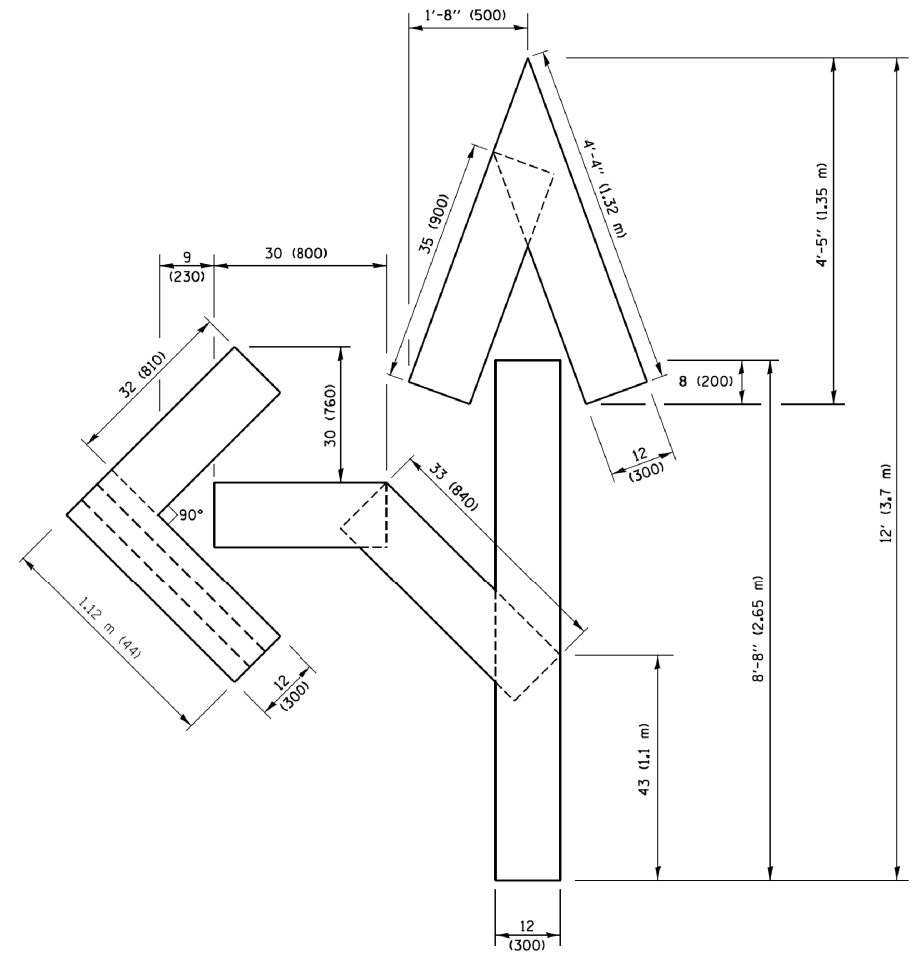
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	154
TC-13		CONTRACT NO. 62B65		
ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.41 sq. m)

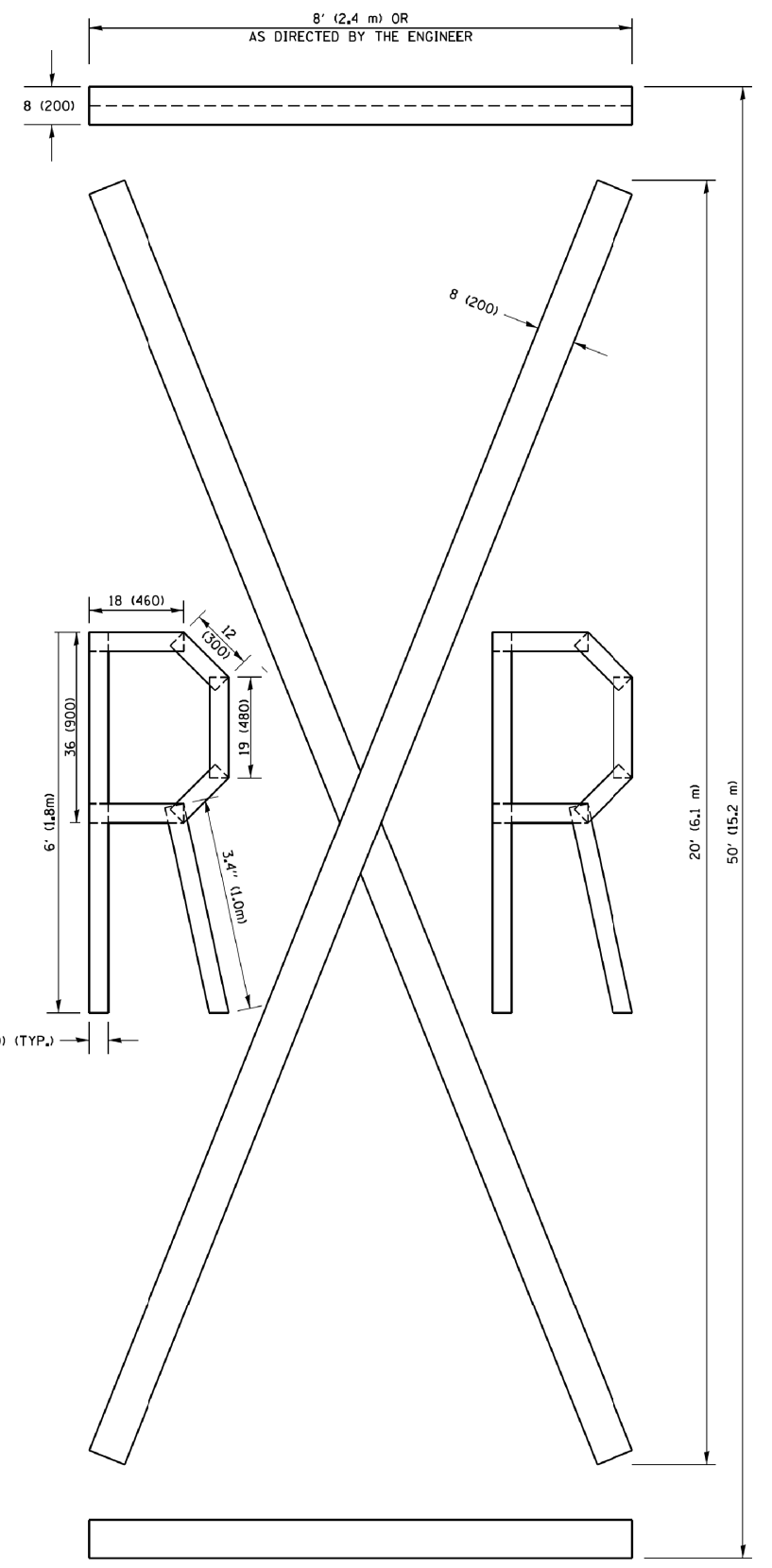


QUANTITY
 4 (100) LINE = 64.1 ft. (19.5 m)
 21.4 sq. ft. (1.99 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.1 m)
 27.5 sq. ft. (2.53 sq. m)

NOTE:
 ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



QUANTITY
 4 (100) LINE = 225.9 ft. (68.9 m)
 75.3 sq. ft. (6.99 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

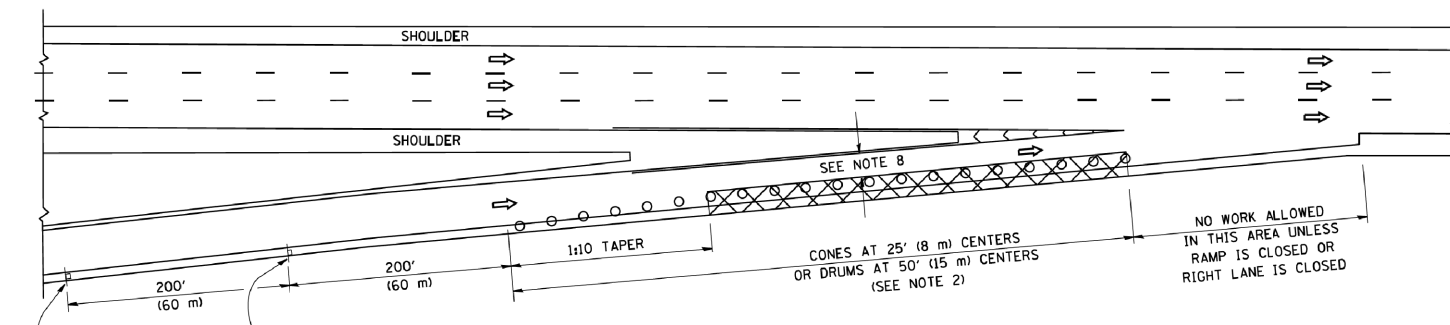
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PLOT SCALE = 50.0000' / in.		DATE -	REVISED - A. SCHUETZE 09-15-16
PLOT DATE = 9/15/2016			

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

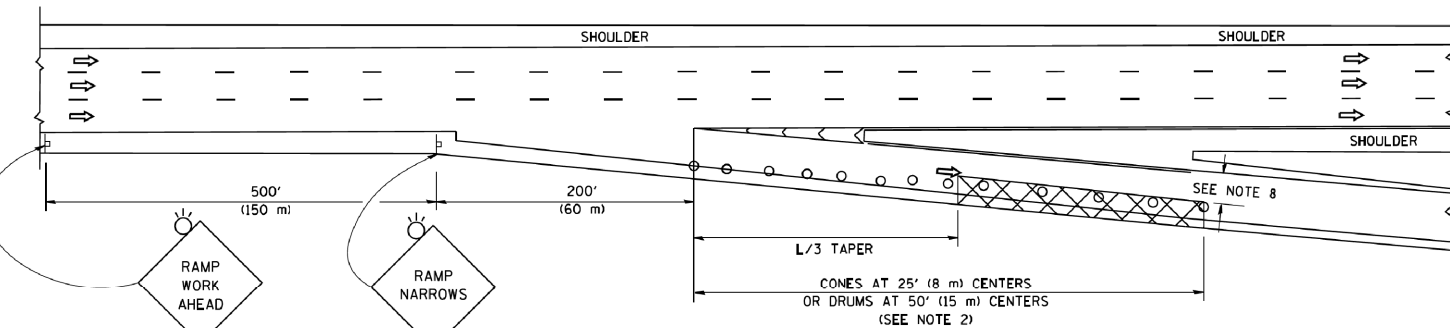
SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-16		CONTRACT NO. 62B65		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

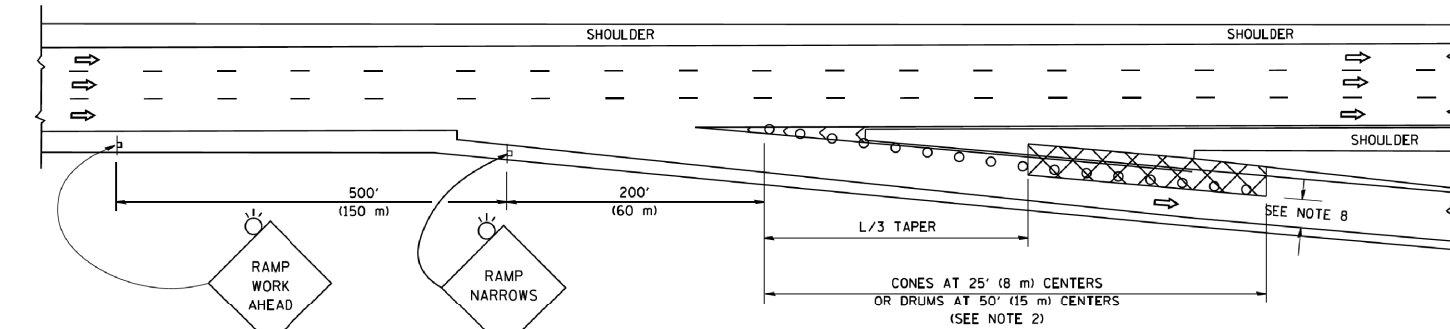
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

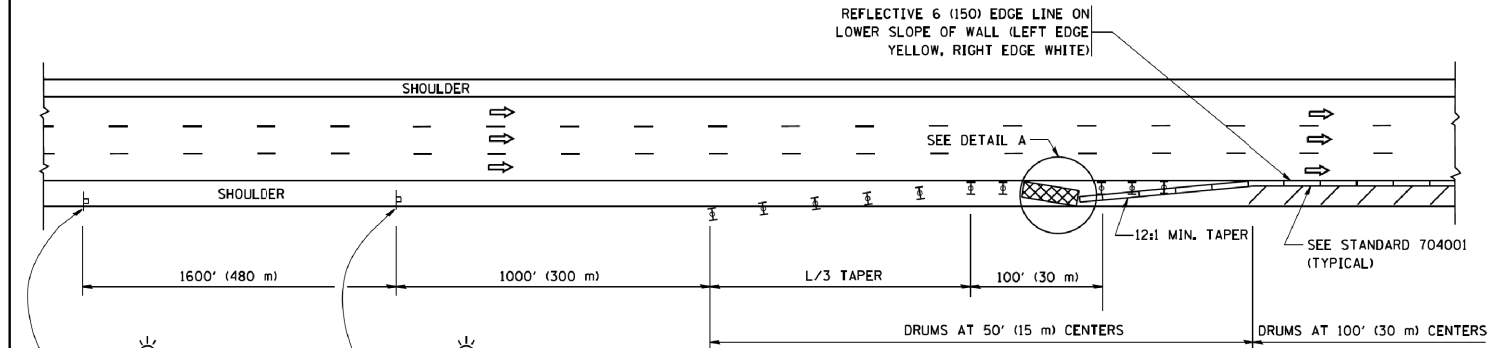
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

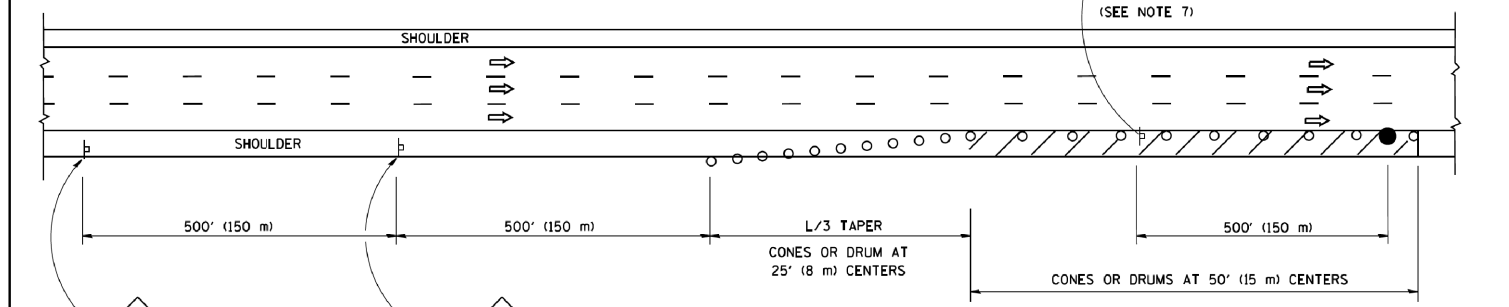
SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH L=0.65(W)(S) L=(W)(S)

W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTICLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.

SHOULDER CLOSURE DETAILS

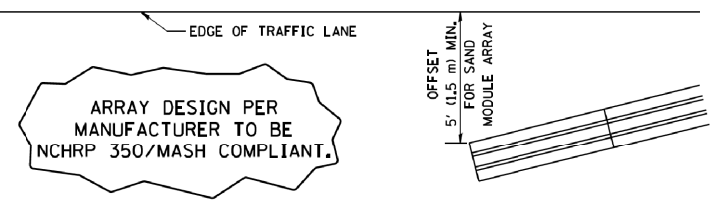


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.






DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)






ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - S.P.B. 01-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\11084E8IDINTEG\11nois.gov\FWIDOT\Documents\IDOT Offices\District 1\Projects\Dist 1\CADData\CAD\Drawings\17.dgn	DRAWN - C.W.S.	REVISED - S.P.B. 12-09	REVISED - M.D. 06-13			346	(21&215)-I	LAKE	290	156
PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED - M.D. 01-18				TC-17		CONTRACT NO. 62B65		
Default	PLOT DATE = 11/27/2017	DATE = 11-96				SCALE: NONE		SHEET 1 OF 1 SHEETS		STA. TO STA.


ROUTE MARKERS

-  FOR U.S. ROUTES
M1-40-2424
-  FOR ILLINOIS ROUTES
M1-50-2424
-  R.R., UNMARKED ROUTES
SPECIAL 24" x 18" VARIABLE
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

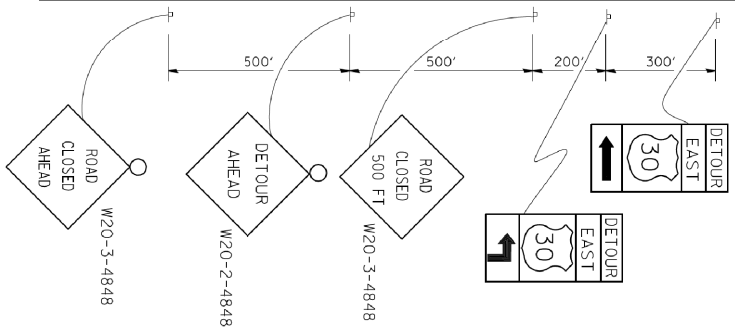
ARROWS SIGNS

-  M5-1L-2115
-  M5-1R-2115
-  M6-1-2115
-  M6-1-2115
-  M6-3-2115

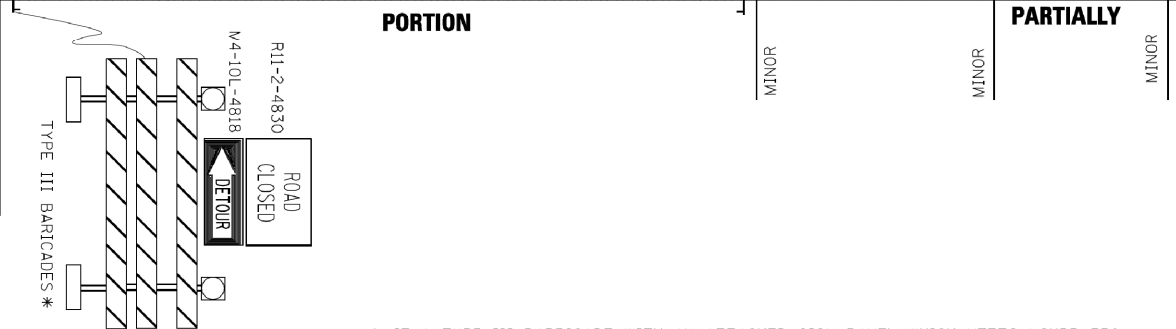
CARDINAL DIRECTION & DETOUR SIGNS

-  NORTH M3-1-2412
-  EAST M3-2-2412
-  SOUTH M3-3-2412
-  WEST M3-4-2412
-  DETOUR M4-8-2412

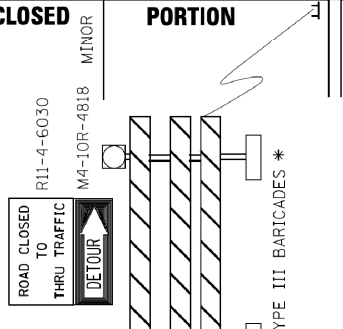
STATE ROUTE



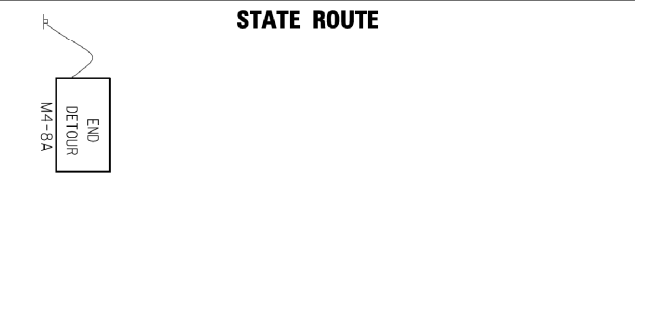
COMPLETELY CLOSED PORTION



PARTIALLY CLOSED PORTION

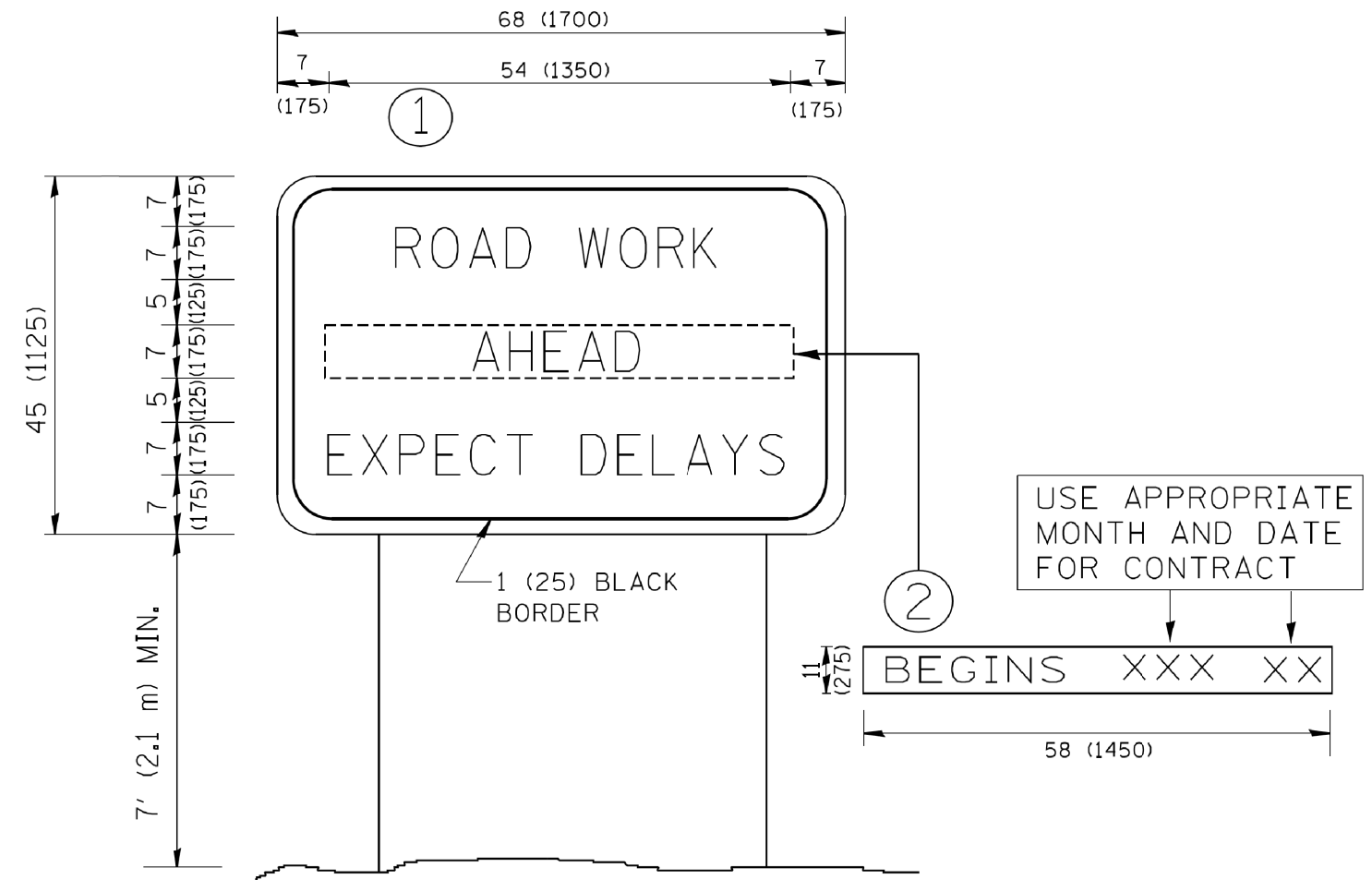


STATE ROUTE



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME = c:\pwwork\p\WIDDT\DRIVAK\OSGN\d2108315\1221.dgn	USER NAME = d-lvakosgn	DESIGNED - DRAWN -	REVISED - 10-18-02 REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETOUR SIGNING FOR CLOSING STATE HIGHWAYS			F.A. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 157
PLOT SCALE = 49.9999' / IN.	CHECKED -	REVISIED -	REVISIED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	TC-21		CONTRACT NO. 62B65		
PLOT DATE = 9/14/2009	DATE -	REVISIED -	REVISIED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

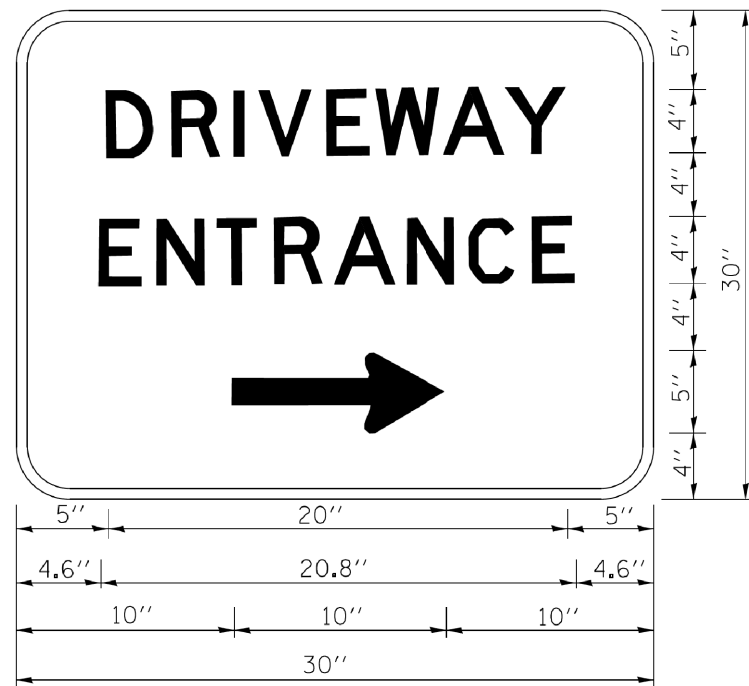
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	158
TC-22		CONTRACT NO. 62B65		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

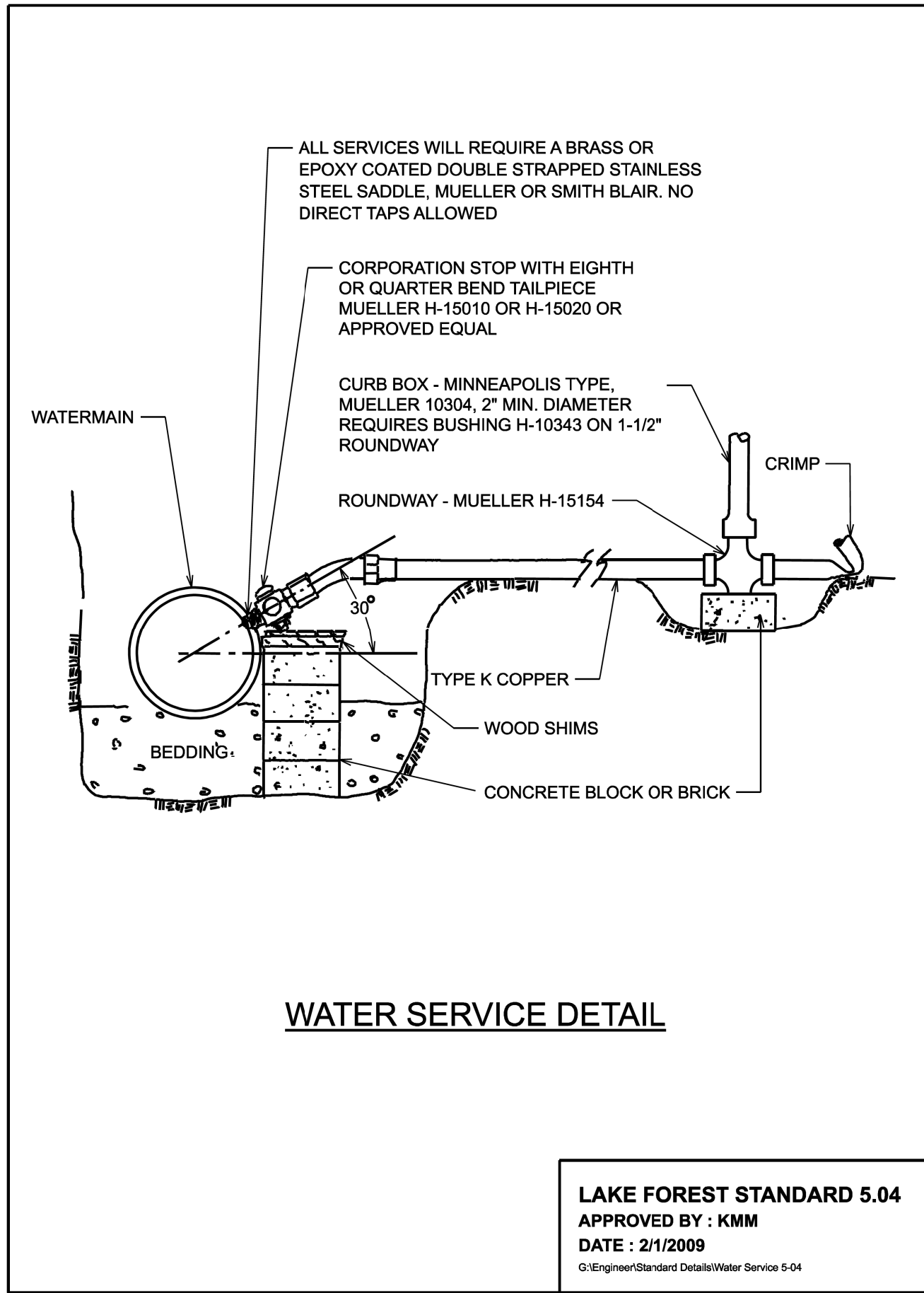
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	PLOT SCALE = 50.000' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/13/2012	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRIVEWAY ENTRANCE SIGNING

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	159
TC-26			CONTRACT NO. 62B65	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



WATER SERVICE DETAIL

LAKE FOREST STANDARD 5.04
 APPROVED BY : KMM
 DATE : 2/1/2009
 G:\Engineer\Standard Details\Water Service 5-04

FILE NAME = L:\7355\CAD\ISheets\Details\0162865-shr-detail.dwg



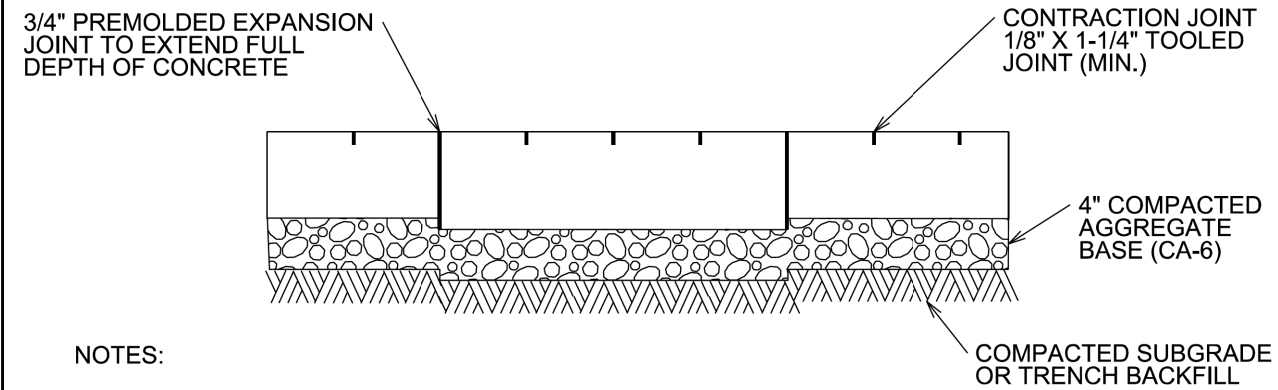
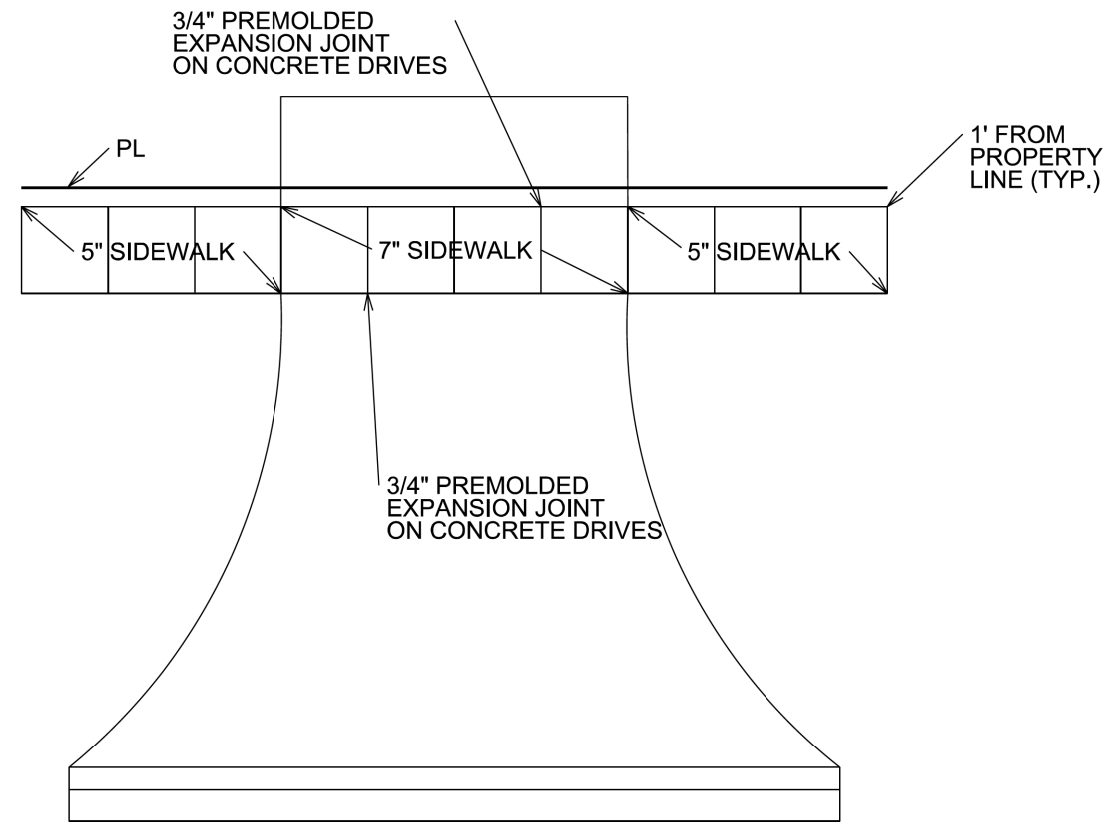
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	DRAWN	REVISED -
PLOT SCALE = 1:20	CHECKED JWM	REVISED -
PLOT DATE = 6/25/2020	DATE 06/26/20	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	160
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				

SIDEWALK DETAIL



NOTES:

1. UNLESS OTHERWISE NOTED ON PLANS, CONTRACTION JOINTS TO BE AT 5' O.C.
2. EXPANSION JOINTS TO BE 50' O.C. MAX. AND AT BACK OF CURB, CHANGE IN DIRECTION, OTHER WALK, UTILITY APPURTENANCE OR FACE OF STRUCTURE.
3. PORTLAND CEMENT CONCRETE SHALL CONFORM TO IDOT CLASS SI MIN. 3,500 PSI (6.1 BAG MIX) AT 14 DAYS, WITH 5% TO 8% AIR ENTRAINMENT. (NO FLY ASH ALLOWED)
4. 7 INCH THICK SIDEWALK AT ENTRANCE LOCATIONS SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH.

LAKE FOREST STANDARD 2.12

APPROVED BY : KMM

DATE : 2/19/2009

G:\Engineer\Standard Details\Sidewalk

FILE NAME = L:\7355\CAD\Drawings\Details\022865-shr-detail.dwg

USER NAME = c1ss	DESIGNED	REVISED -
	DRAWN	REVISED -
PLOT SCALE = 1:20	CHECKED JWM	REVISED -
PLOT DATE = 6/25/2020	DATE 06/26/20	REVISED -

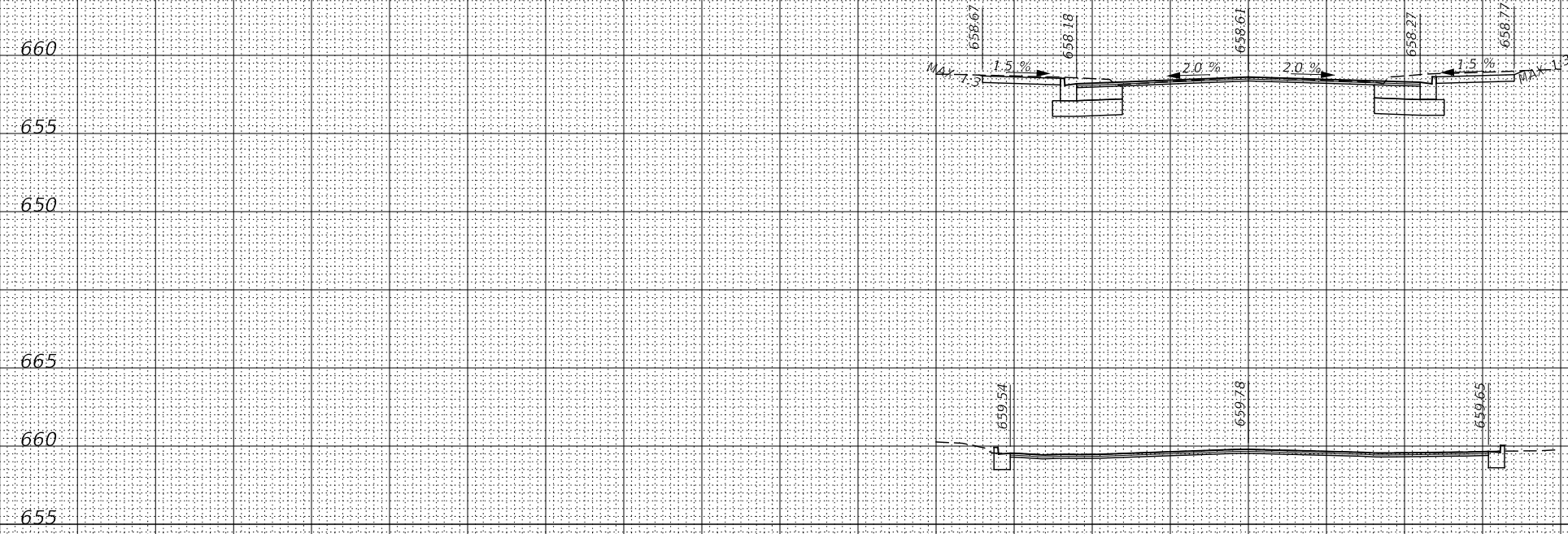
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	161
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				

150 145 140 135 130 125 120 115 110 105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150

FINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

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USER NAME =	DESIGNED	REVISIONS
celss	CEL	-
	DRAWN	CEL
	CHECKED	JWM
	DATE	09/13/2019

REVISIONS	DATE
-	
-	
-	
-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: SHEET 1 OF 3 SHEETS STA. 49+50.00 TO STA. 49+75.00

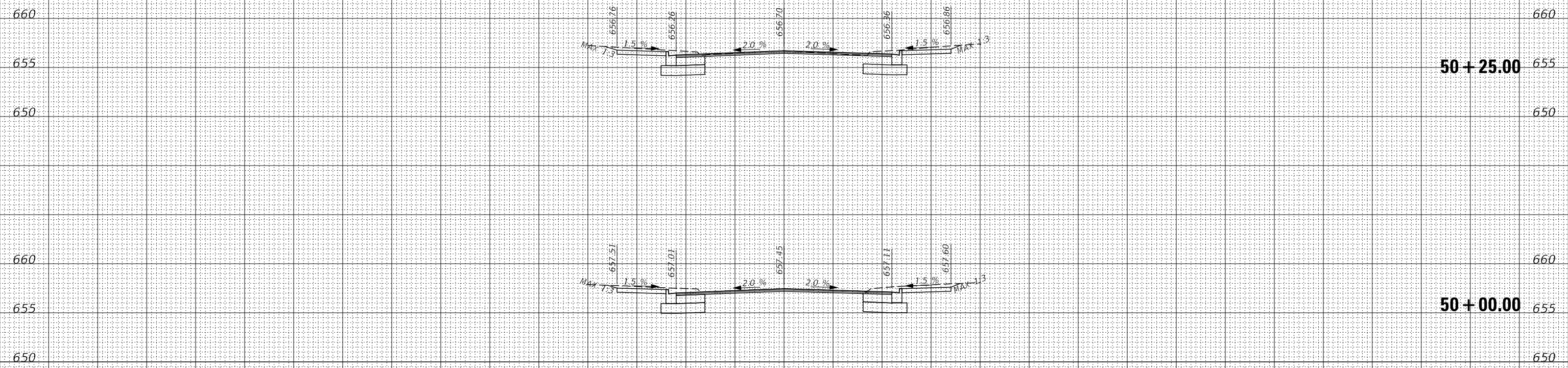
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	162
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

150 145 140 135 130 125 120 115 110 105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150

FINAL SURVEY NO.	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

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USER NAME =	DESIGNED	REVISD
CEL	CEL	-
DRAWN	CEL	REVISD
CEL	CEL	-
PLOT SCALE =	CHECKED	REVISD
1:20	JWM	-
PLOT DATE =	DATE	REVISD
6/25/2020	09/13/2019	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET 2 OF 3 SHEETS STA. 50+00.00 TO STA. 50+25.00

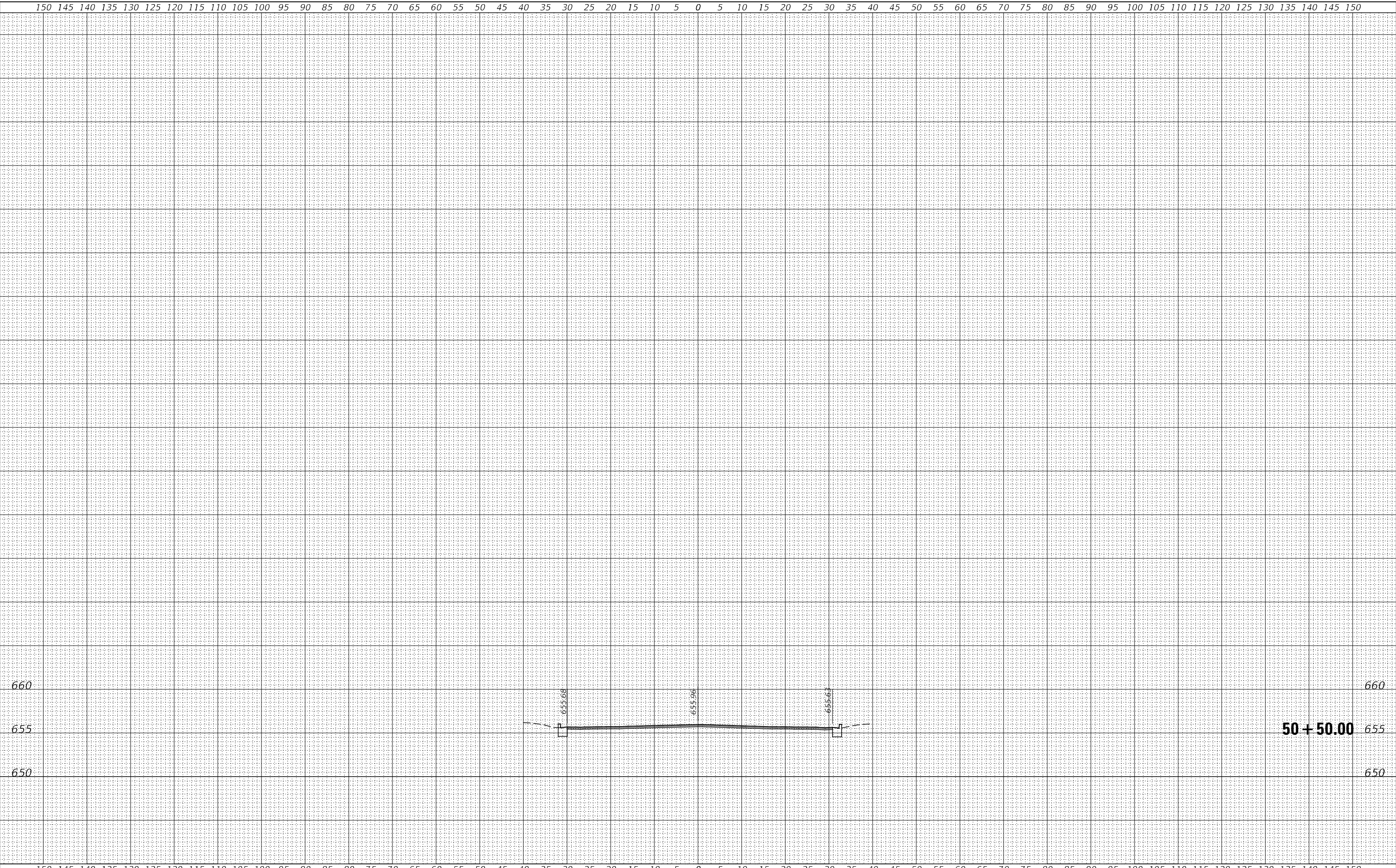
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	163
CONTRACT NO. 62B65				
ILLINOIS		FED. AID PROJECT		

150 145 140 135 130 125 120 115 110 105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150

FINAL SURVEY NO.	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
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USER NAME =	celss	DESIGNED	CEL	REVISED	-
		DRAWN	CEL	REVISED	-
PLOT SCALE =	1:20	CHECKED	JWM	REVISED	-
PLOT DATE =	6/25/2020	DATE	09/13/2019	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET 3 OF 3 SHEETS STA. 50+50.00 TO STA. 50+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	164
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

ABBREVIATIONS

AD	ACCESS DOOR	MAX	MAXIMUM
ADA	AMERICANS WITH DISABILITIES ACT	MECH	MECHANICAL
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
ALUM/AL	ALUMINUM	MO	MASONRY OPENING
		MTD	MOUNTED
B/	BOTTOM OF	MTL	METAL
BD	BOARD	MTG	MOUNTING
BM	BEAM	MAS	MASONRY
BOT	BOTTOM	MFR	MANUFACTURER(S)
		NA, N/A	NOT APPLICABLE
CIP	CAST IN PLACE	NIC	NOT IN CONTRACT
CJ	CONTROL JOINT	NOM	NOMINAL
C/L, CL, C	CENTER LINE		
CMU	CONCRETE MASONRY UNIT	OC	ON CENTER
COL	COLUMN	OD	OUTSIDE DIAMETER
CONC	CONCRETE	OH	OPPOSITE HAND
CONSTR	CONSTRUCTION	OPNG	OPENING
CONT	CONTINUOUS	OPP	OPPOSITE
CTR	CENTER		
		PC	PRECAST CONCRETE
DET	DETAIL	PLWD	PLYWOOD
DIA	DIAMETER	PPL	PEOPLE (PERSONS)
DN	DOWN	PT	PRESSURE TREATED
DS	DOWNSPOUT	PTD	PAINTED/PAINT
DWG(S)	DRAWING(S)	PVC	POLYVINYL CHLORIDE
		R	RISER(S)
EA	EACH	RAD, R	RADIUS
ELEC	ELECTRICAL	REINF	REINFORCE (ED, ING, MENT)
EL, ELEV	ELEVATION	REQD	REQUIRED
EMB	EMBEDDED	RM(S)	ROOM(S)
EQ	EQUAL	RO	ROUGH OPENING
EQUIP	EQUIPMENT	RTU	ROOF TOP UNIT
EXIST	EXISTING		
EXP	EXPOSED	SCHED	SCHEDULE
EXT	EXTERIOR	SHT	SHEET
		SIM	SIMILAR
F/	FACE OF	SQ	SQUARE
FD	FLOOR DRAIN	SS, STL	STAINLESS STEEL
FE	FIRE EXTINGUISHER	STD	STANDARD
FF	FINISH FLOOR	STL	STEEL
FIN	FINISHED	STRUCT	STRUCTURAL
FL, FLR	FLOOR	SUSP	SUSPENDED
FND	FOUNDATION		
FT	FEET (FOOT)	T	TREAD(S)
		T/	TOP OF
GA	GAUGE	T&G	TONGUE & GROOVE WOOD DECK
GALV	GALVANIZE(ED)	THK	THICK/THICKNESS
GC	GENERAL CONTRACTOR	TOS	TOP OF SLAB
GL	GLASS	TYP	TYPICAL
		UL	UNDERWRITERS LABORATORIES INC
H	HIGH	UNO	UNLESS NOTED OTHERWISE
HM	HOLLOW METAL		
HR	HOUR	VB	VINYL BASE
HT	HEIGHT	VER	VERIFY
HORIZ	HORIZONTAL	VERT	VERTICAL
		VIF	VERIFY IN FIELD
IAC	ILLINOIS ACCESSIBILITY CODE	VTR	VENT THROUGH ROOF
IN	INCH(ES)	VTW	VENT THROUGH WALL
INFO	INFORMATION		
INSUL	INSULATION	W	WIDTH, WIDE
INT	INTERIOR	WIN	WINDOW
		W/	WITH
L	LONG	WO	WITHOUT
LVR	LOUVER VENT RELIEF		

GENERAL ARCHITECTURAL NOTES

- ALL MATERIAL CALLOUTS AND NOTES ARE TYPICAL, UNLESS NOTED OTHERWISE.
- THE USE OF THE WORD 'PROVIDE' MEANS PROVIDE AND INSTALL.
- ELEVATION TARGETS ARE BASED ON ESTABLISHING THE T/ FIRST/GROUND FINISH FLOOR AS ELEVATION 0'-0".
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF ALL APPLICABLE CODES. THE REQUIREMENTS OF THESE CODES SHALL TAKE PRECEDENCE OVER ANY DESIGN SHOWN WITHIN THESE DRAWINGS AND DESCRIBED WITHIN THE SPECIFICATIONS.
- THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES INVOLVED IN COMPLETION OF THE SCOPE IDENTIFIED IN THE DRAWINGS AND SPECIFICATIONS.
- ALL MEASUREMENTS AND DIMENSIONS WITHIN THE DRAWINGS SHALL BE FIELD VERIFIED.
- EACH SUB-CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF ALL OTHER TRADES AND MAKING ANY NECESSARY MODIFICATIONS TO THIS WORK AS REQUIRED FOR A COMPLETE AND OPERATIONAL ASSEMBLY OR SYSTEM AT NO ADDITIONAL COST, INCLUDING ALL OFFSETS.

MATERIAL LEGEND

	BACKFILL		ROOM DESIGNATION
	UNDISTURBED EARTH		DOOR TAG
	CONCRETE		WALL TAG
	CONCRETE MASONRY UNIT		FACE OF BUILDING LINE
	BRICK		COLUMN LINE
	DRAINAGE FILL		WALL / BLDG. SECTION
	STRUCTURAL STEEL		DETAIL
	RIGID INSULATION		ELEVATION
	WOOD NAILER / BLOCKING		
	PLYWOOD OR WHEAT BOARD AS SPECIFIED		
	STEEL MEMBER		
	ACOUSTICAL INSULATION		
	GYPSUM BOARD		

SYMBOLS

	ROOM DESIGNATION
	DOOR TAG
	WALL TAG
	FACE OF BUILDING LINE
	COLUMN LINE
	WALL / BLDG. SECTION
	DETAIL
	ELEVATION

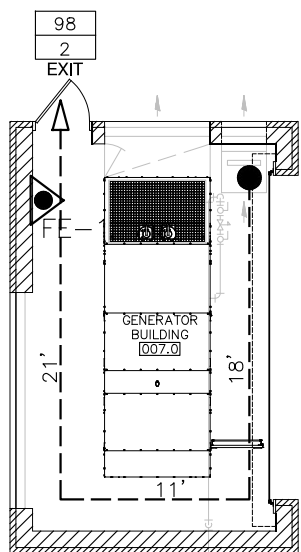
LIFE SAFETY LEGEND

	DIRECTION OF EGRESS
	PATH OF EGRESS
	DISTANCE OF EGRESS
	ORIGIN OF EGRESS / COMMON PATH
	1 HR FIRE RATED PARTITION
	2 HR FIRE RATED PARTITION
	ROOM NAME
	ROOM NUMBER
	OCCUPANCY (CAPACITY)
	OCCUPANCY (ACTUAL)
	FIRE EXTINGUISHER

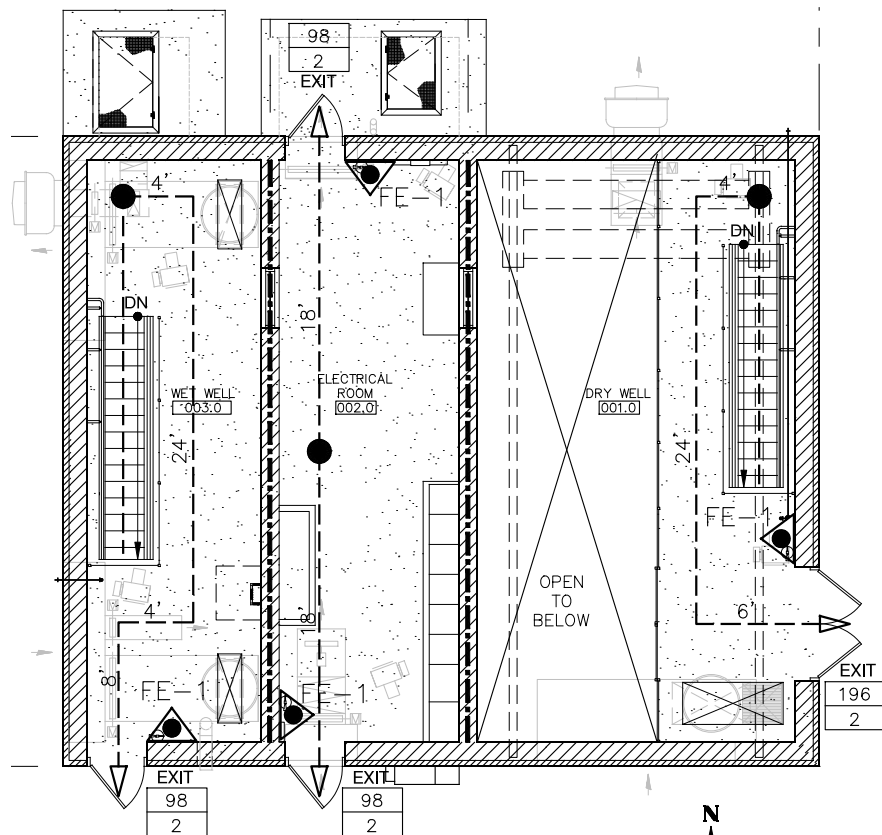
BUILDING CODE DATA

USE GROUP: U
CONSTRUCTION TYPE: 2B

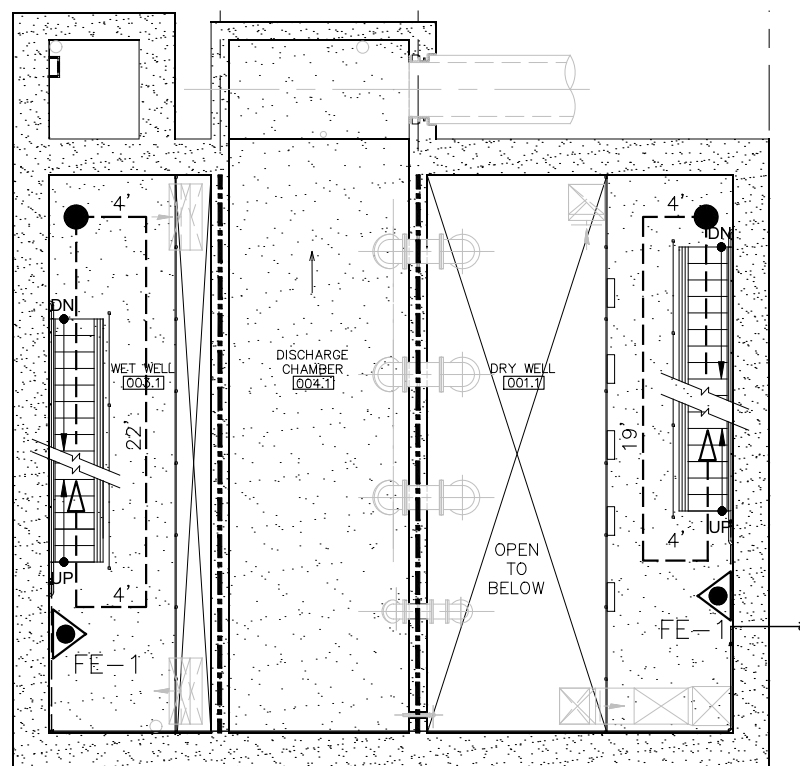
NOTE:
1. PROVIDE PANIC HARDWARE @ ALL EXTERIOR DOORS AND AT ALL ELECTRICAL ROOM DOORS.



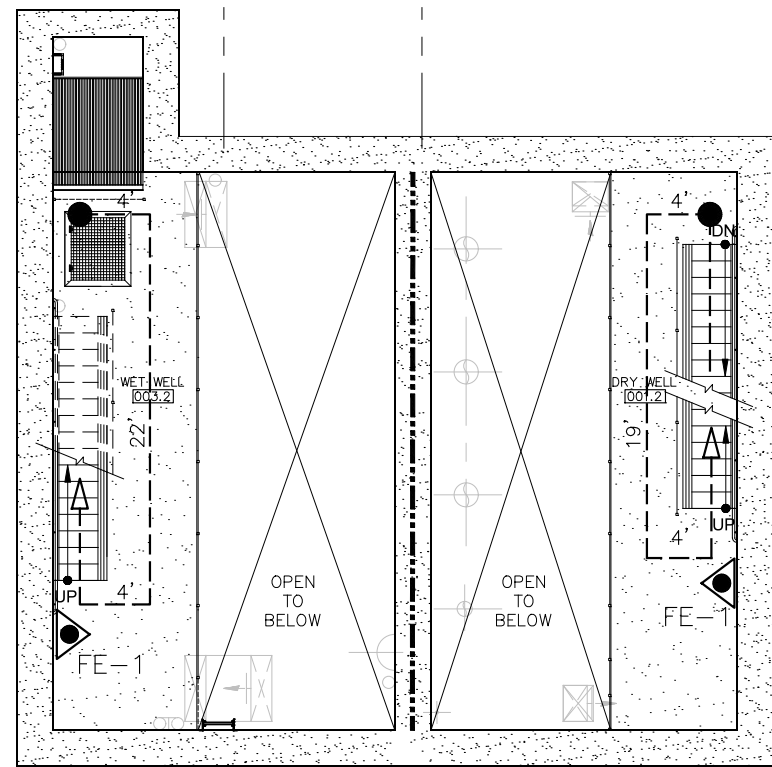
5 LIFE SAFETY - GENERATOR BUILDING
SCALE: 3/16" = 1'-0"



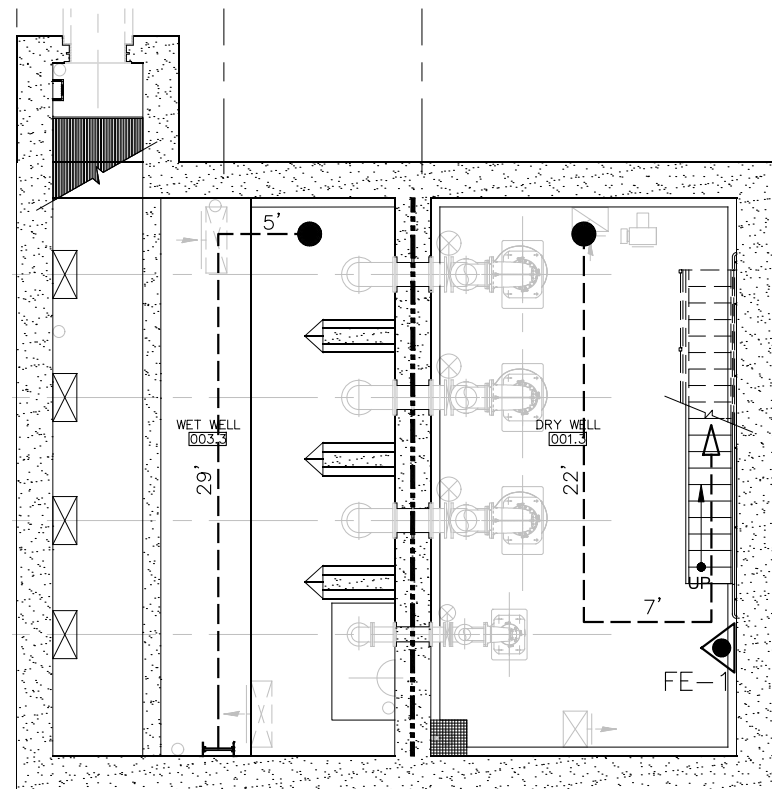
1 LIFE SAFETY - GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"



2 LIFE SAFETY - INTERMEDIATE FLOOR PLAN (-1)
SCALE: 3/16" = 1'-0"

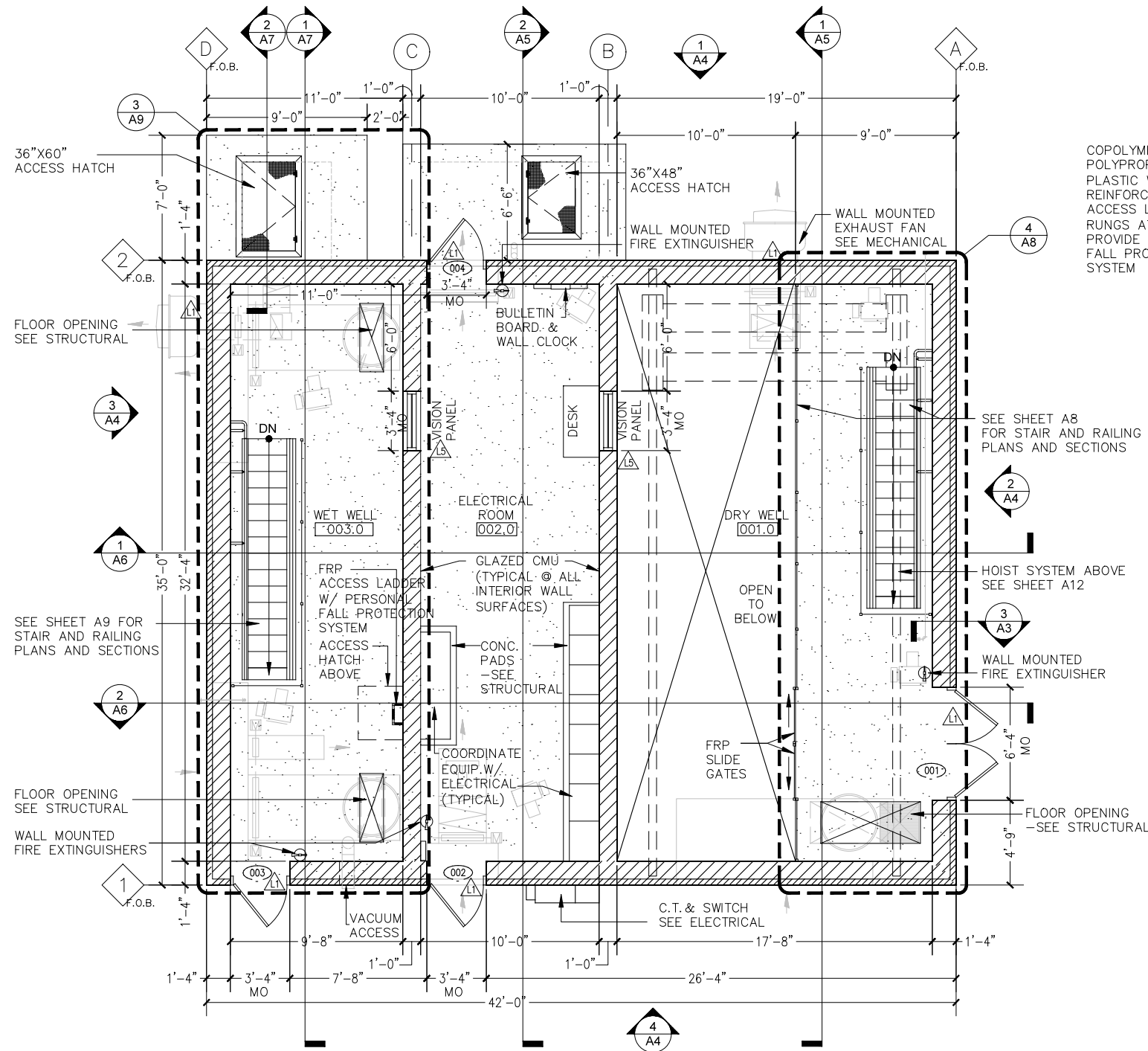


3 LIFE SAFETY - INTERMEDIATE FLOOR PLAN (-2)
SCALE: 3/16" = 1'-0"

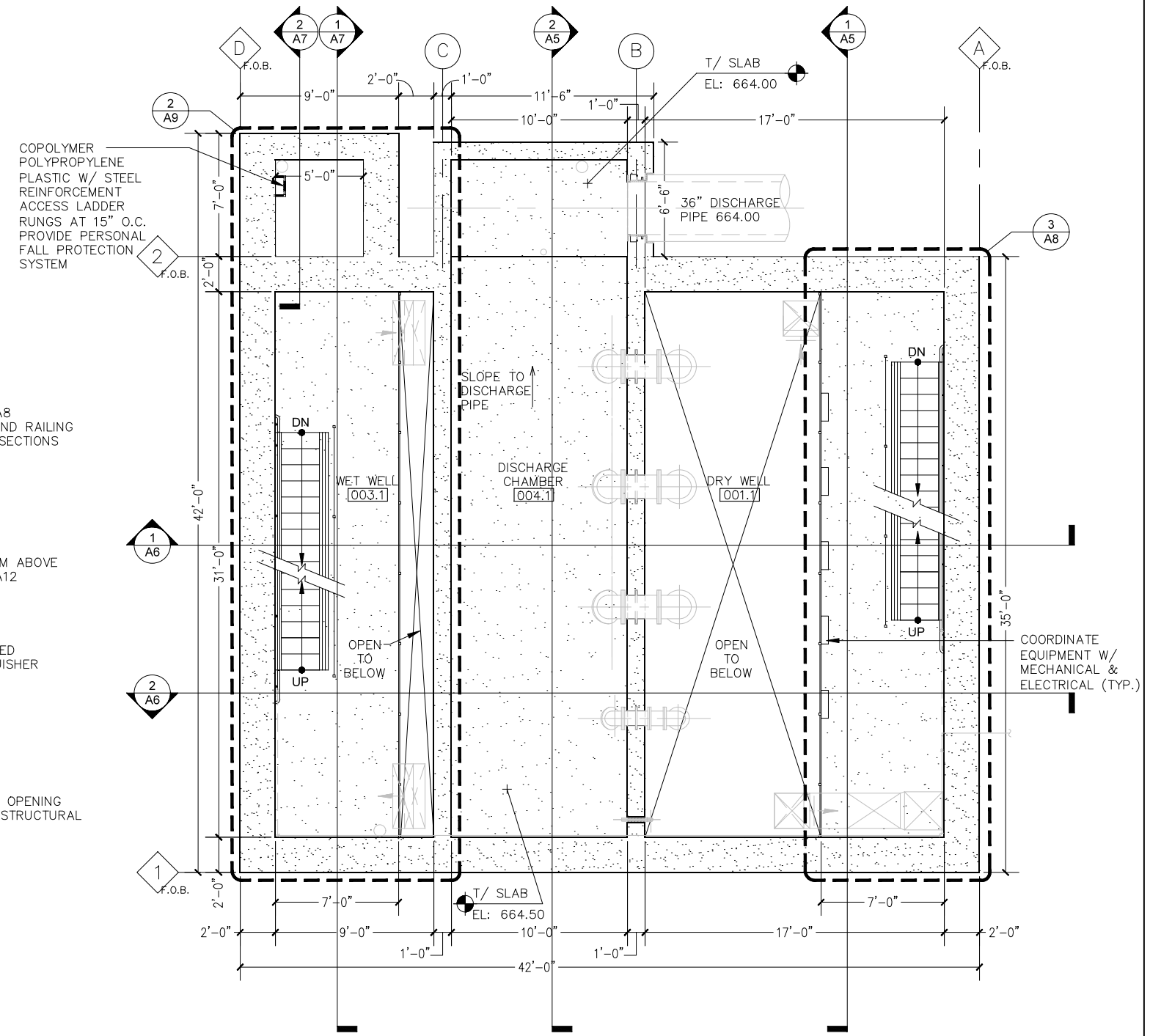


4 LIFE SAFETY - WELL LEVEL FLOOR PLAN (-3)
SCALE: 3/16" = 1'-0"



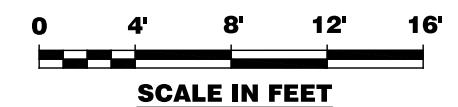


1 GROUND FLOOR PLAN — EL: 671.50
SCALE: 1/4" = 1'-0"



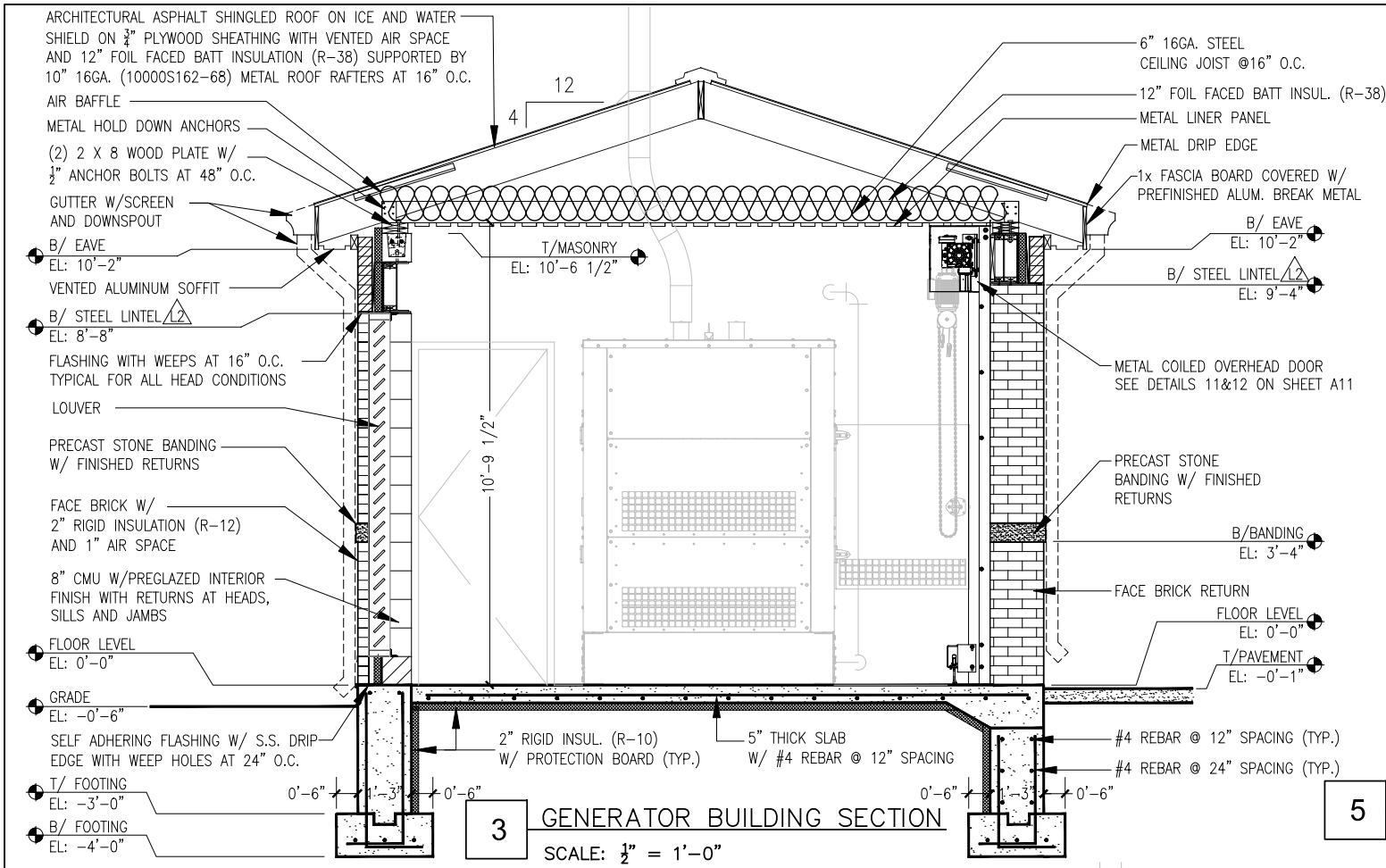
2 INTERMEDIATE FLOOR PLAN (-1) — EL: 661.58
SCALE: 1/4" = 1'-0" — DISCHARGE EL: 664.00 HP

NOTES:
SEE SHEET A3 FOR CLERESTORY WINDOW AND LOUVER LOCATIONS AND DIMENSIONS
SEE ELECTRICAL FOR LIGHT FIXTURE LOCATIONS

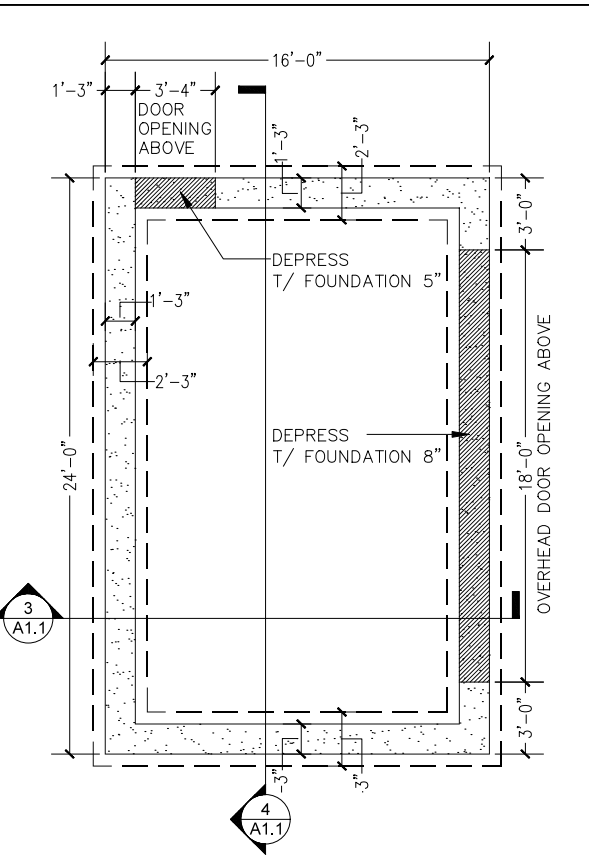


A1

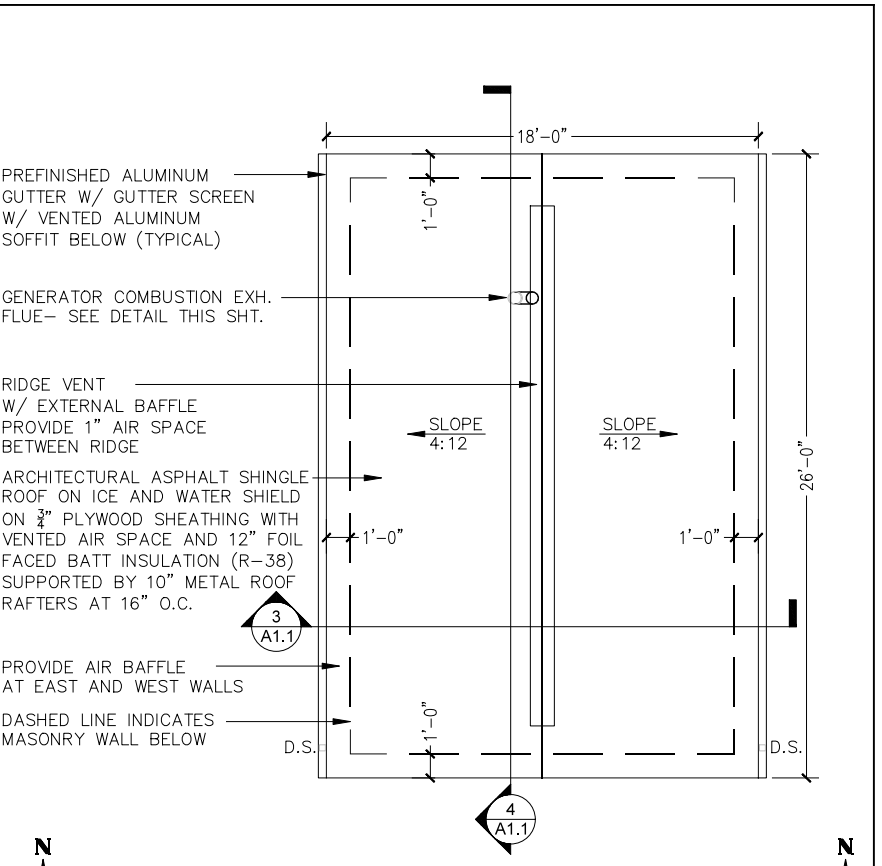
KNIGHT Engineers & Architects	DESIGNED JGC	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GROUND & INTERMEDIATE FLOOR PLANS PUMP STATION 38	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED RMK	REVISED —			P 346	(21&21S)-I	LAKE	190	166
SCALE —	DRAWN JGC	REVISED —			CONTRACT NO. 62B65				
DATE 06-26-2020	CHECKED RMK	REVISED —			ILLINOIS FED. AID PROJECT				



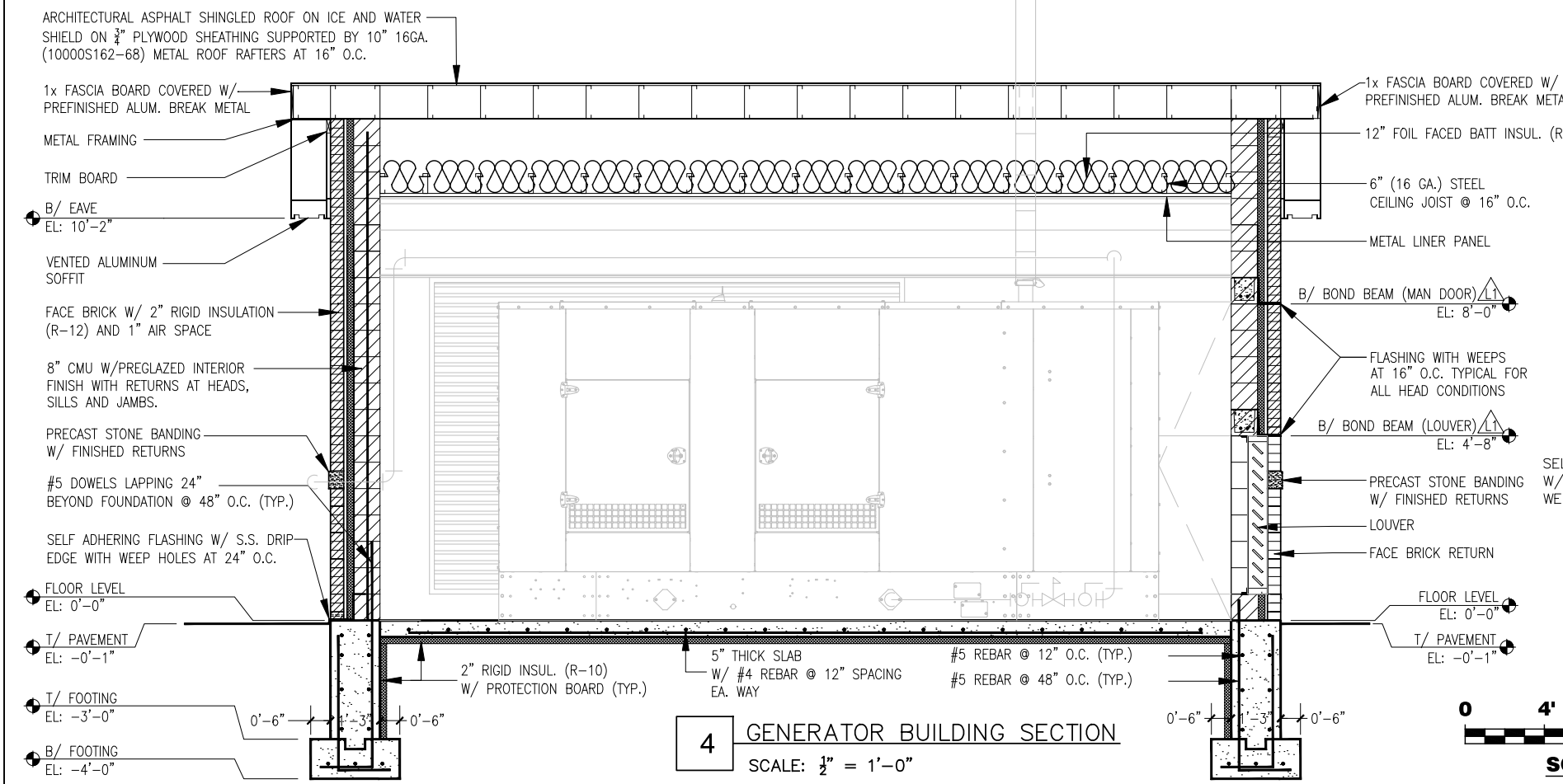
3 GENERATOR BUILDING SECTION
SCALE: 1/2" = 1'-0"



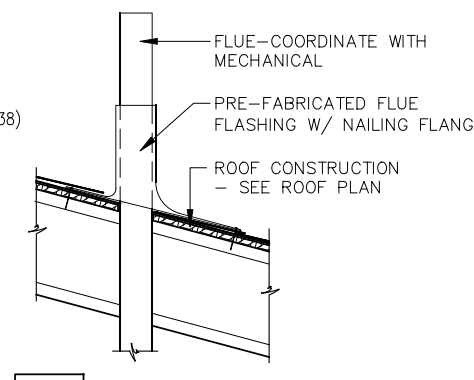
5 GENERATOR BUILDING FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



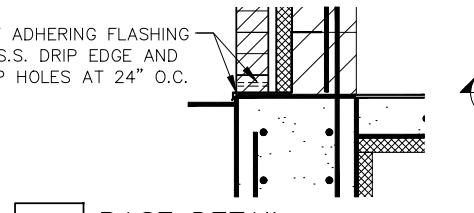
2 GENERATOR BUILDING ROOF PLAN
SCALE: 1/4" = 1'-0"



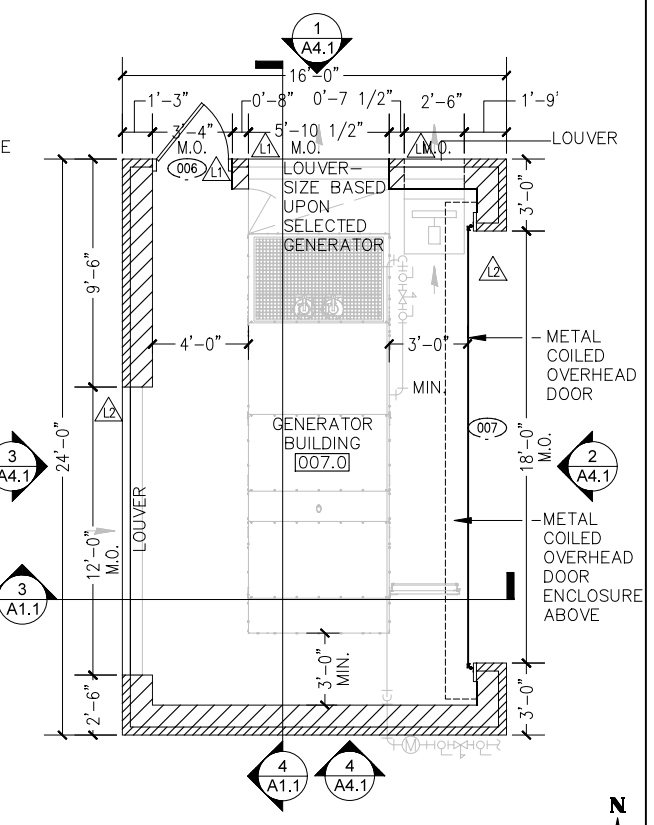
4 GENERATOR BUILDING SECTION
SCALE: 1/2" = 1'-0"



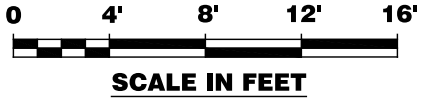
7 FLUE FLASHING DETAIL
SCALE: 1" = 1'-0"



6 BASE DETAIL
SCALE: 1" = 1'-0"



1 GENERATOR BUILDING PLAN - EL: 671.50
SCALE: 1/4" = 1'-0"

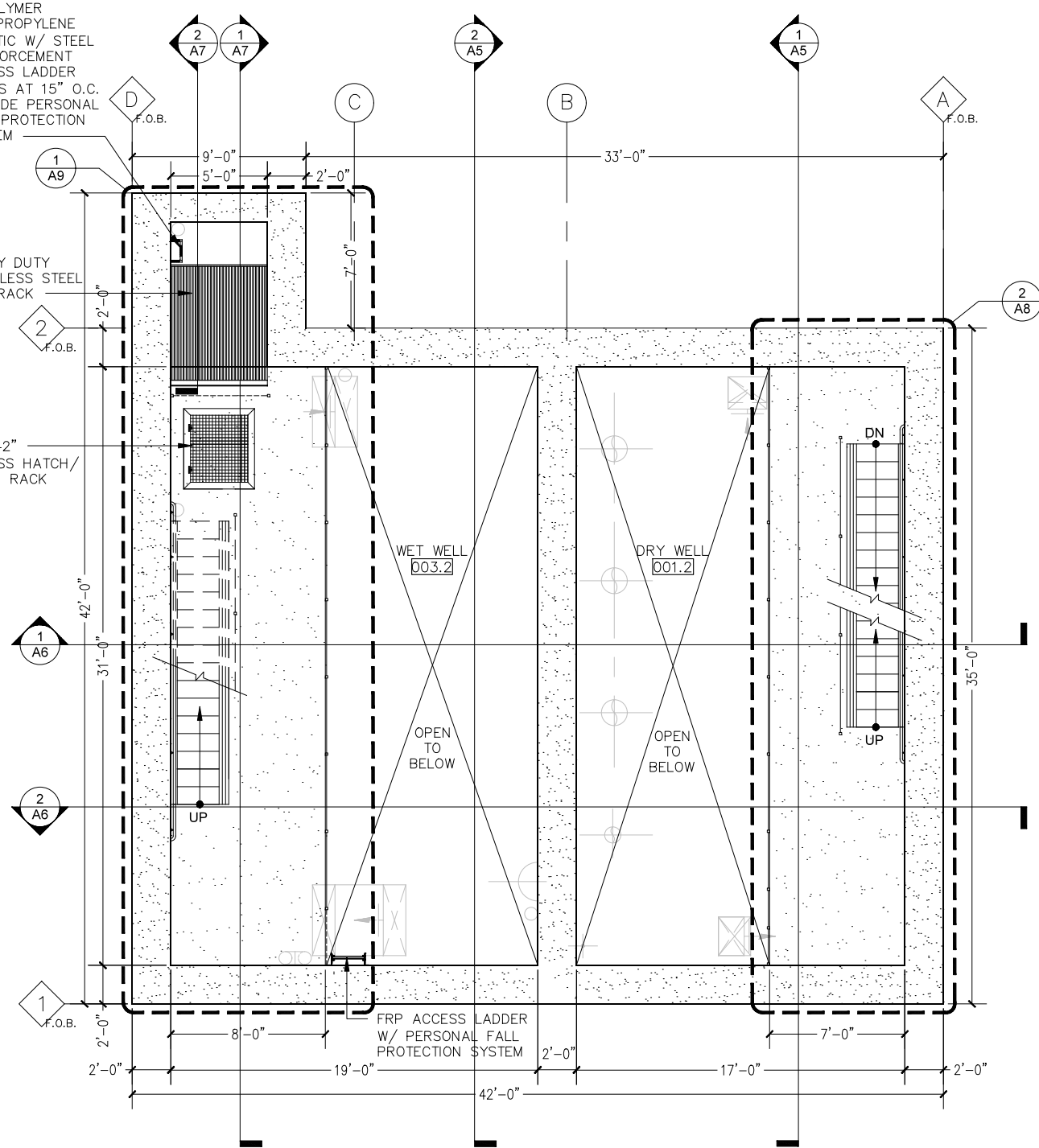


COPOLYMER
POLYPROPYLENE
PLASTIC W/ STEEL
REINFORCEMENT
ACCESS LADDER
RUNGS AT 15" O.C.
PROVIDE PERSONAL
FALL PROTECTION
SYSTEM

HEAVY DUTY
STAINLESS STEEL
BAR RACK

36"x42"
ACCESS HATCH/
DRAIN RACK

FRP ACCESS LADDER
W/ PERSONAL FALL
PROTECTION SYSTEM



1 INTERMEDIATE FLOOR PLAN (-2) - EL: 651.66
SCALE: 1/4" = 1'-0"



42" INFLOW PIPE
(645.75)
COPOLYMER
POLYPROPYLENE
PLASTIC W/ STEEL
REINFORCEMENT
ACCESS LADDER
RUNGS AT 15" O.C.
PROVIDE PERSONAL
FALL PROTECTION
SYSTEM

OPEN TO BELOW
SEE STRUCTURAL
FOR OPENING
DIMENSIONS
(TYPICAL)

OPEN TO BELOW

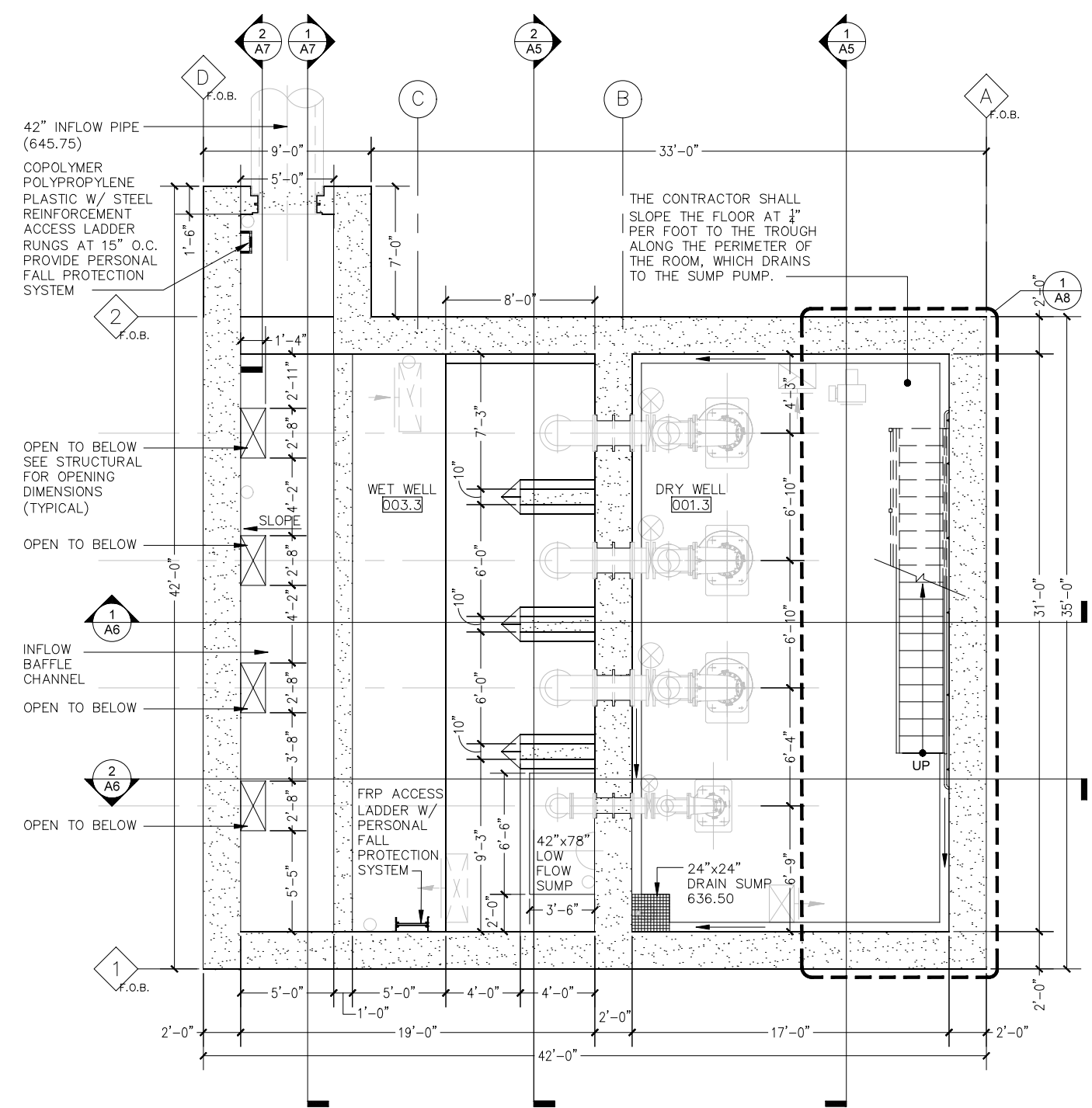
INFLOW
BAFFLE
CHANNEL

OPEN TO BELOW

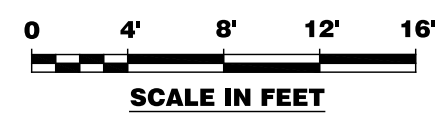
FRP ACCESS
LADDER W/
PERSONAL
FALL
PROTECTION
SYSTEM

42"x78"
LOW
FLOW
SUMP

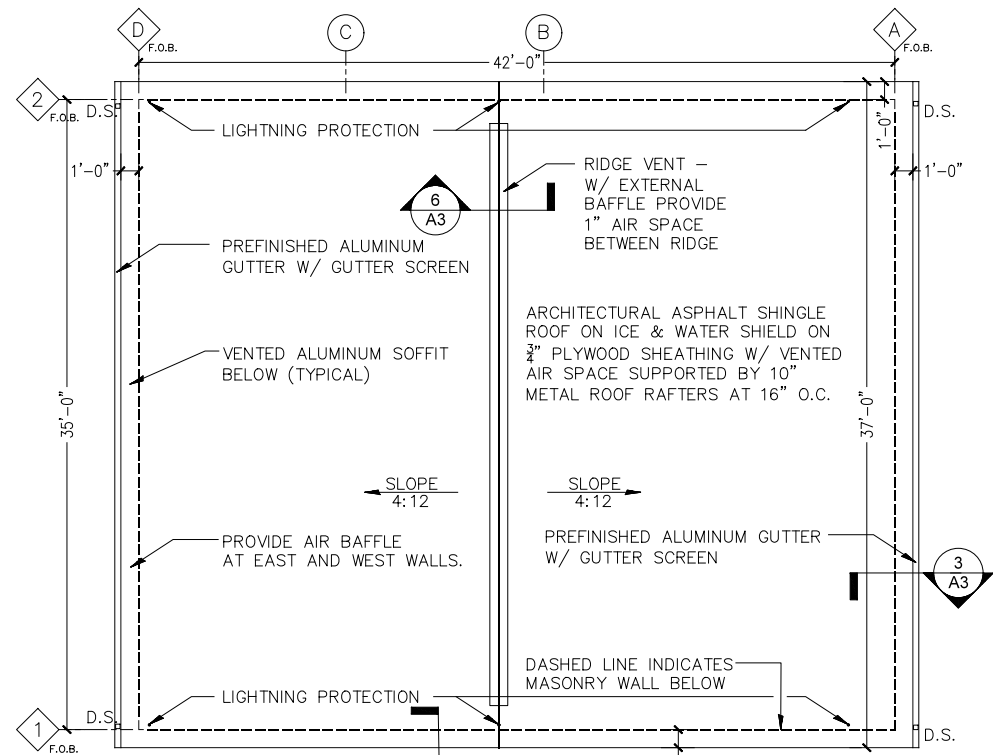
THE CONTRACTOR SHALL
SLOPE THE FLOOR AT 1/4"
PER FOOT TO THE TROUGH
ALONG THE PERIMETER OF
THE ROOM, WHICH DRAINS
TO THE SUMP PUMP.



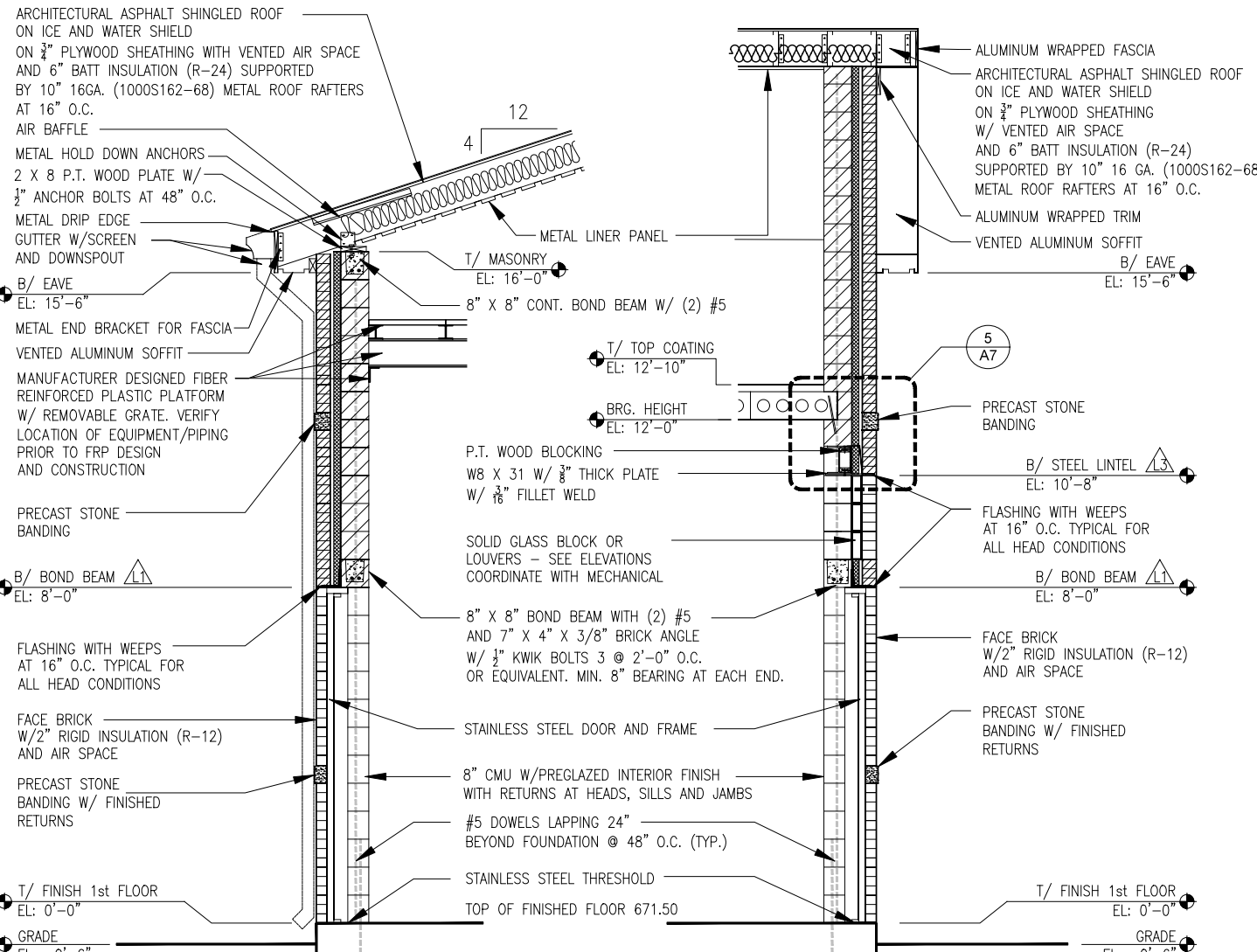
2 WELL LEVEL FLOOR PLAN (-3) - DRY EL: 641.00
- WET EL: 639.50
SCALE: 1/4" = 1'-0"



A2

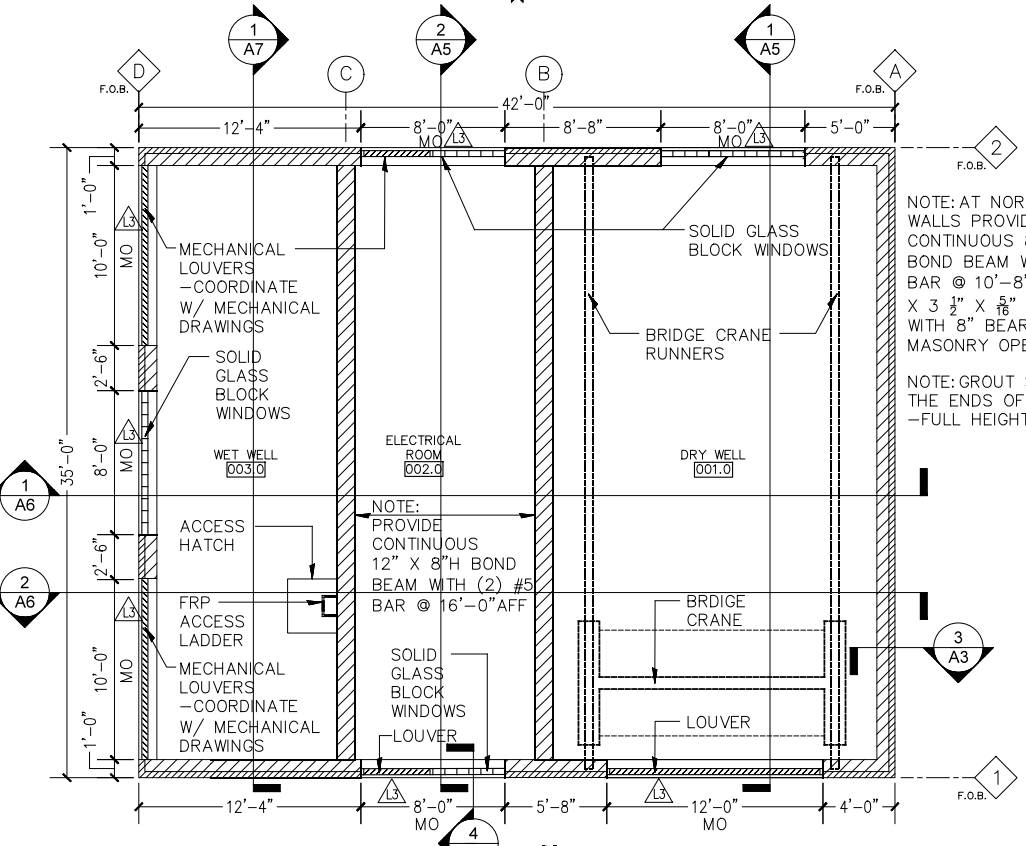


1 ROOF PLAN
SCALE: 3/16" = 1'-0"

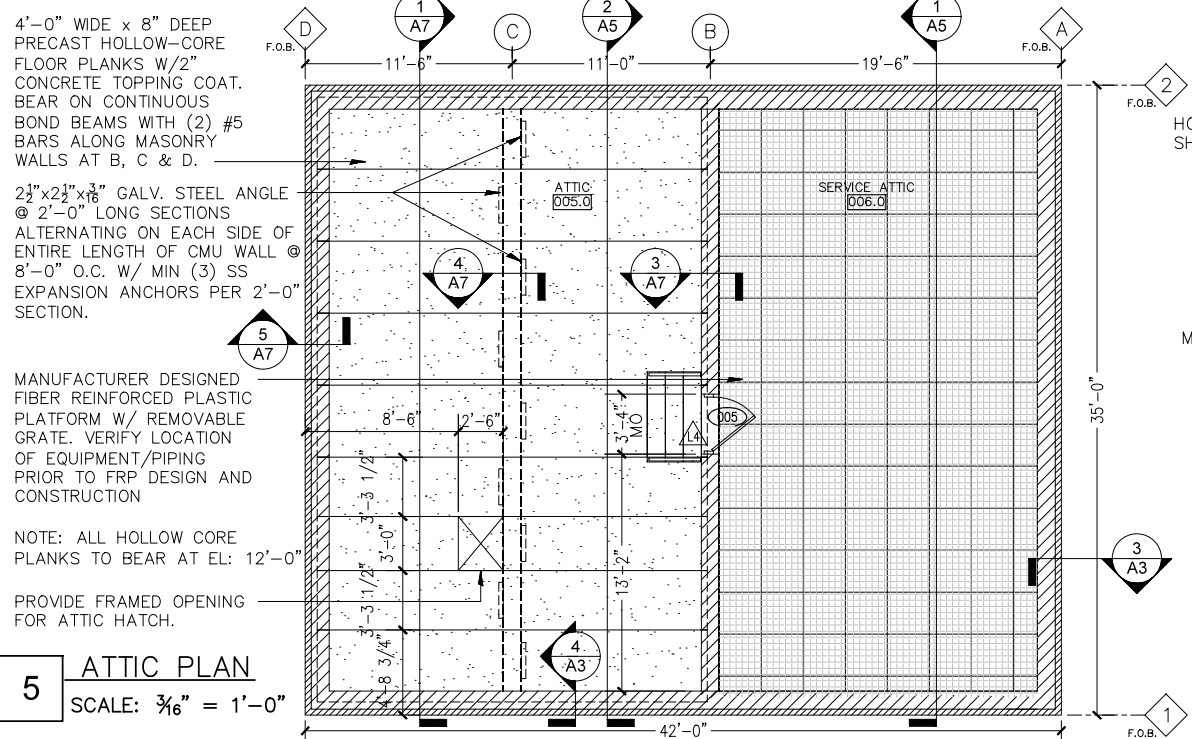


3 WALL SECTION
SCALE: 1/2" = 1'-0"

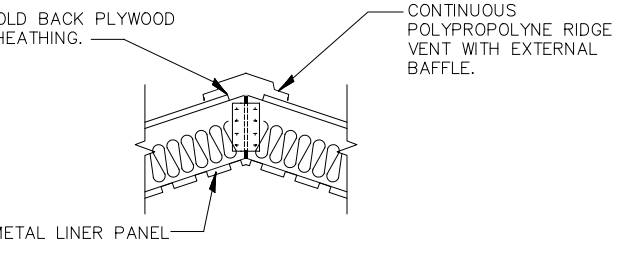
4 WALL SECTION
SCALE: 1/2" = 1'-0"



2 CLERESTORY PLAN
SCALE: 3/16" = 1'-0"



5 ATTIC PLAN
SCALE: 3/16" = 1'-0"



6 RIDGE DETAIL
SCALE: 3/4" = 1'-0"

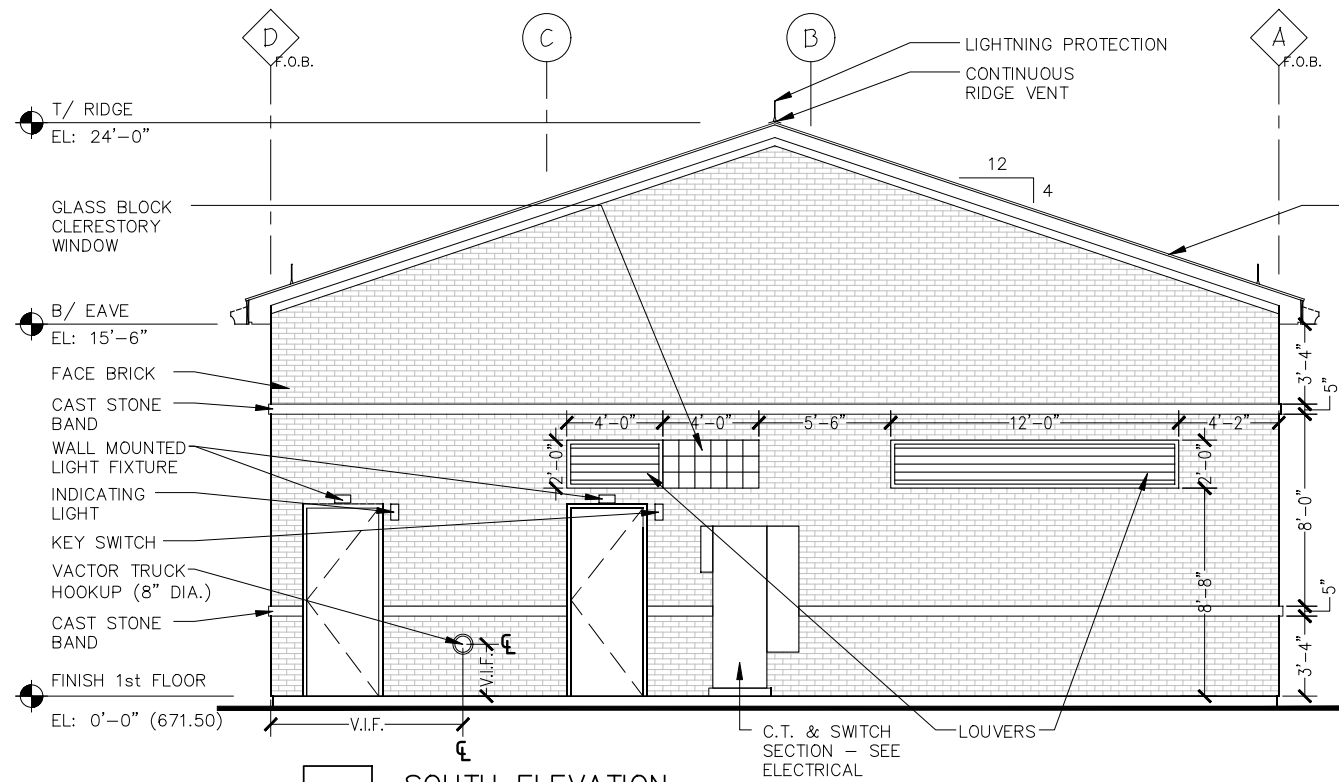


KNIGHT Engineers & Architects	DESIGNED JGC	REVISED Const. Rev. 2 - 11-01-13
	CHECKED RMK	REVISED -
	DRAWN JGC	REVISED -
	CHECKED RMK	REVISED -
SCALE -		
DATE 06-26-2020		

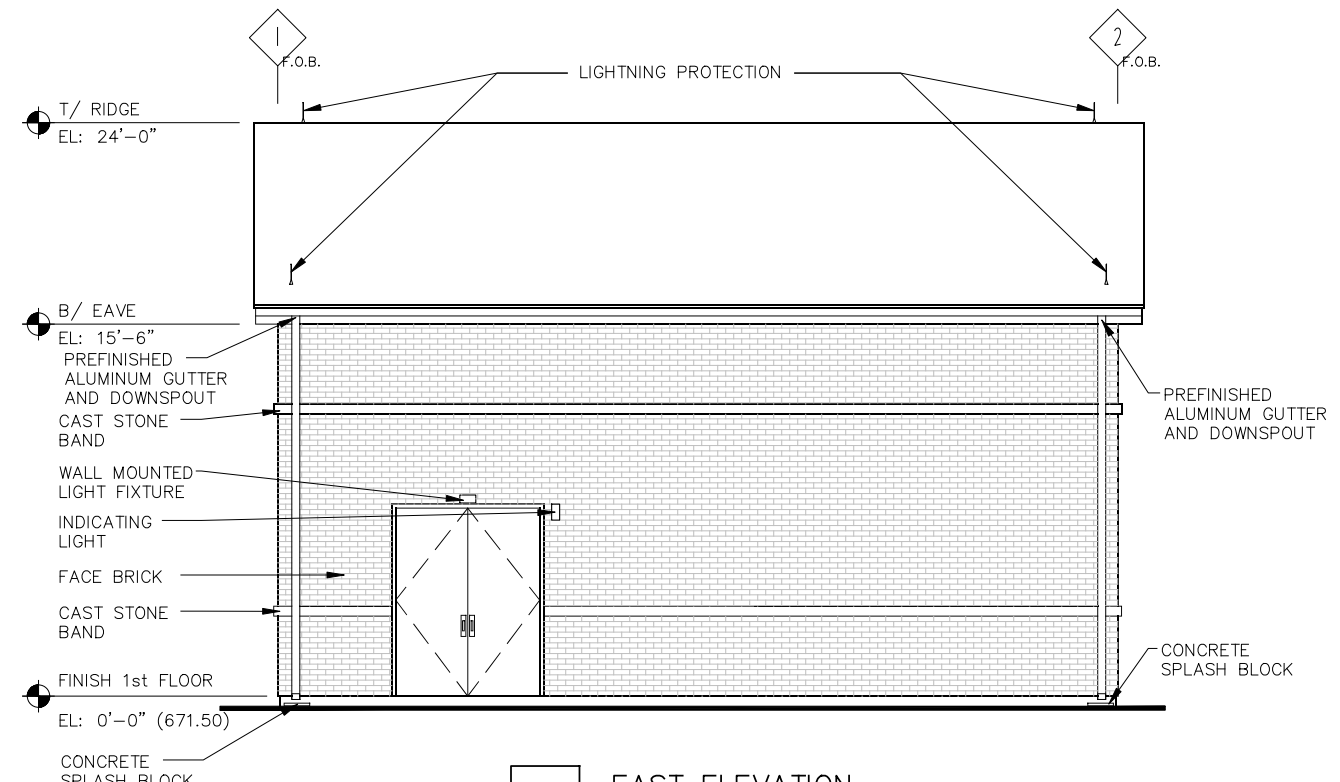
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROOF, ATTIC, CLERESTORY PLANS & WALL SECTIONS
PUMP STATION 38
SHEET NO. A3

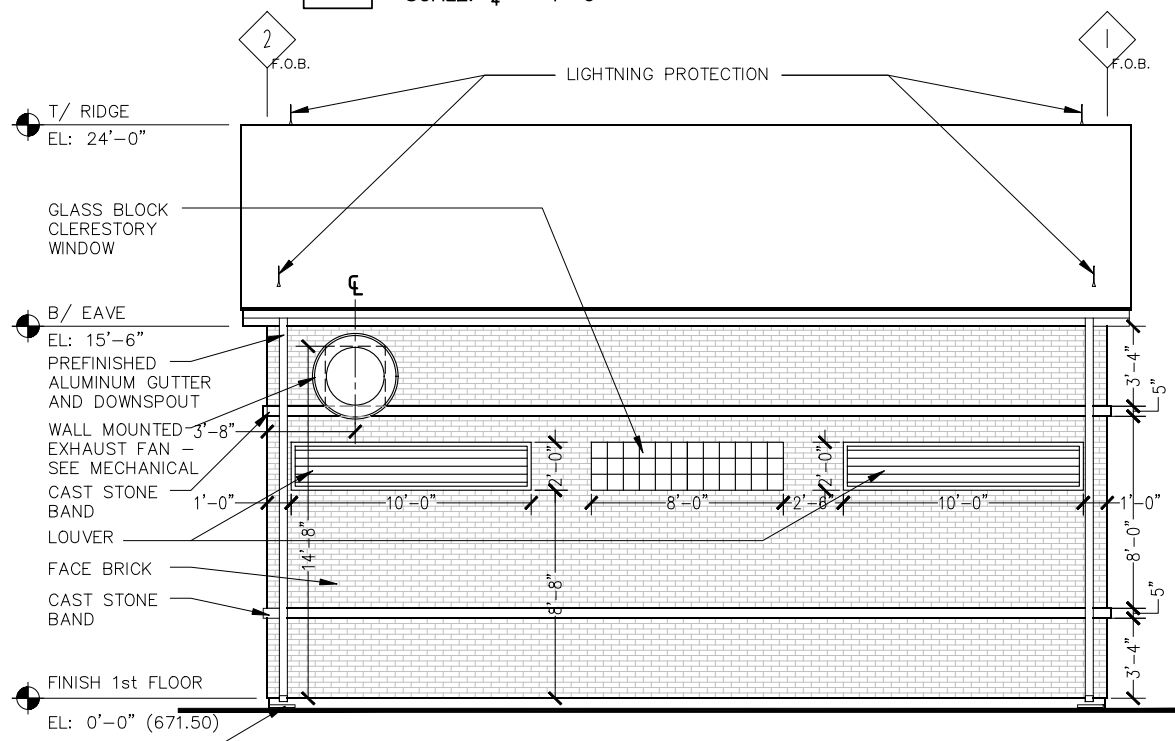
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P346 U1245	(21&21S)-I	LAKE	190	169
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



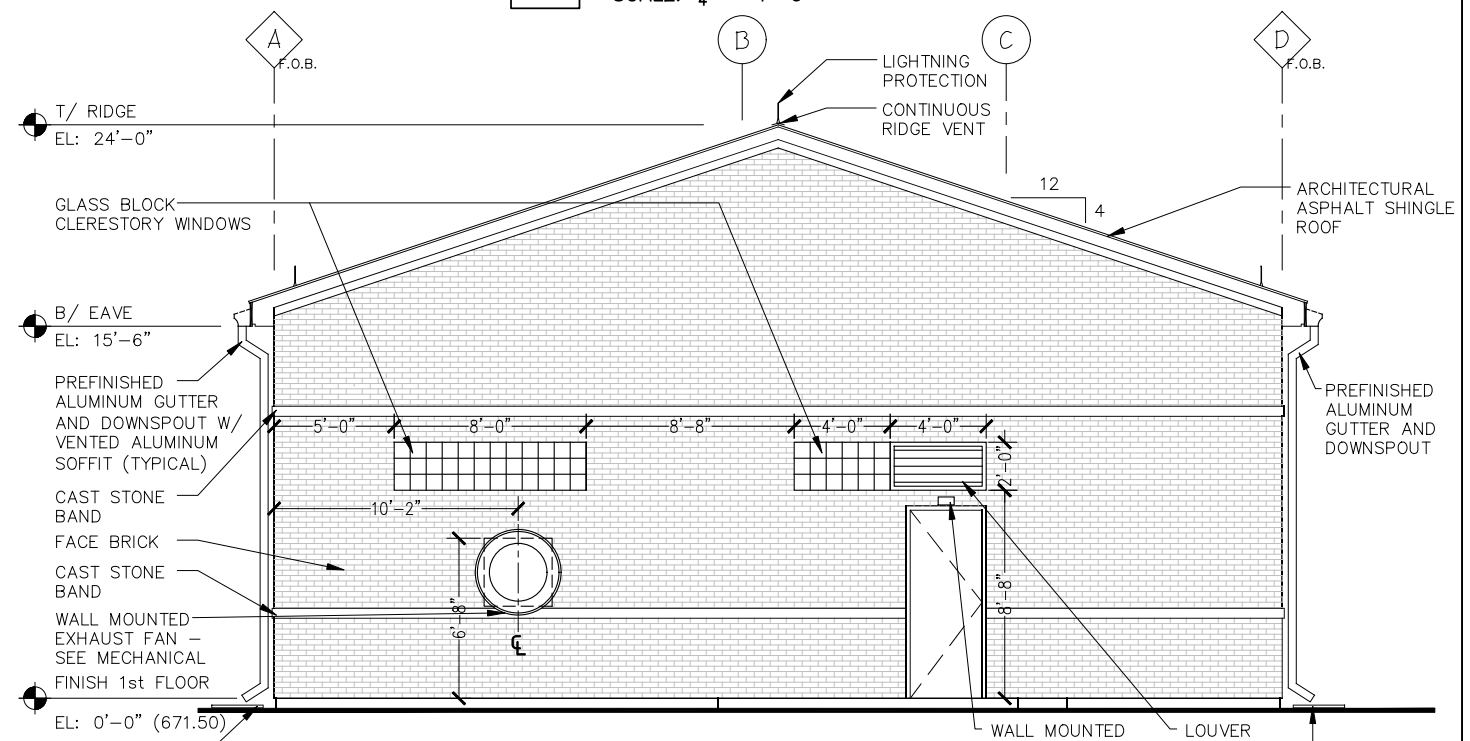
4 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



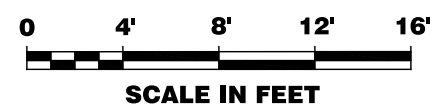
3 WEST ELEVATION
SCALE: 1/4" = 1'-0"



1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

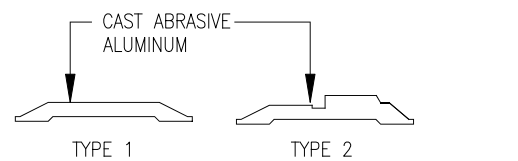
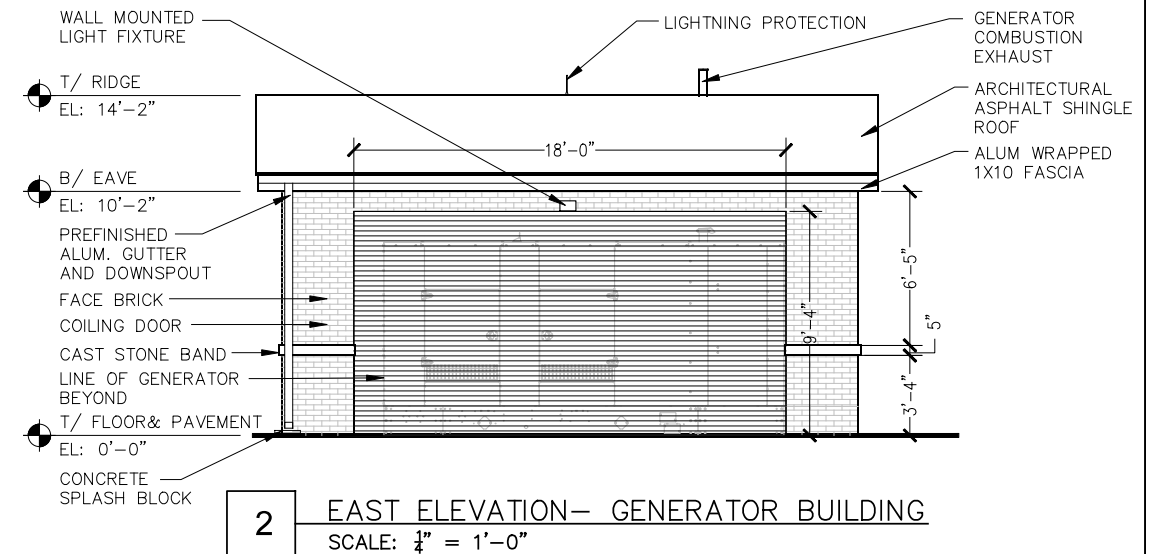
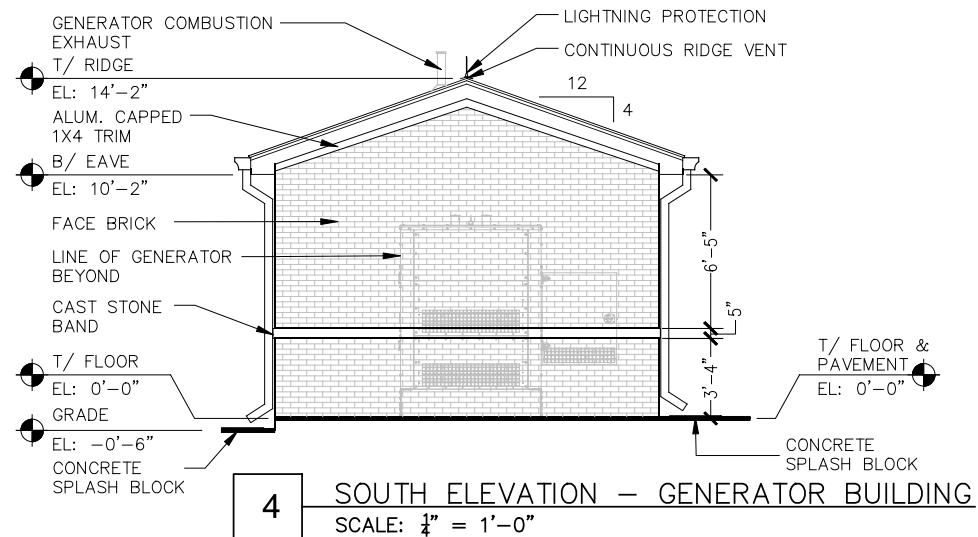
NOTE:
COORDINATE ALL MECHANICAL LOUVER
DIMENSIONS W/ MECHANICAL PLANS.
DECORATIVE LOUVERS WILL NOT ALWAYS
MATCH FUNCTIONAL LOUVERS. CONFIRM THAT
FREE AREA REQUIREMENTS ARE BEING MET.

NOTE:
COORDINATE ALL LOUVER
DIMENSIONS W/ MECHANICAL
PLANS. CONFIRM THAT FREE
AREA REQUIREMENTS ARE
BEING MET.

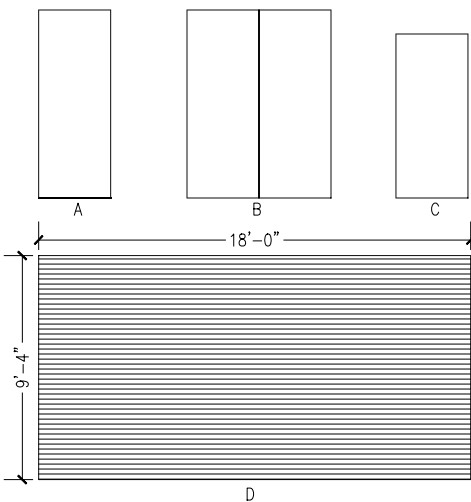
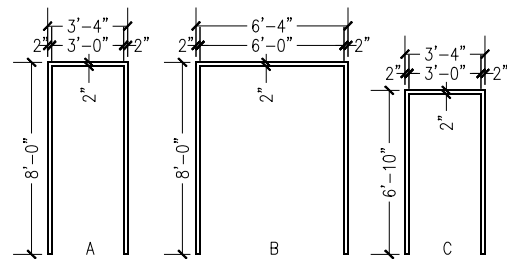


A4

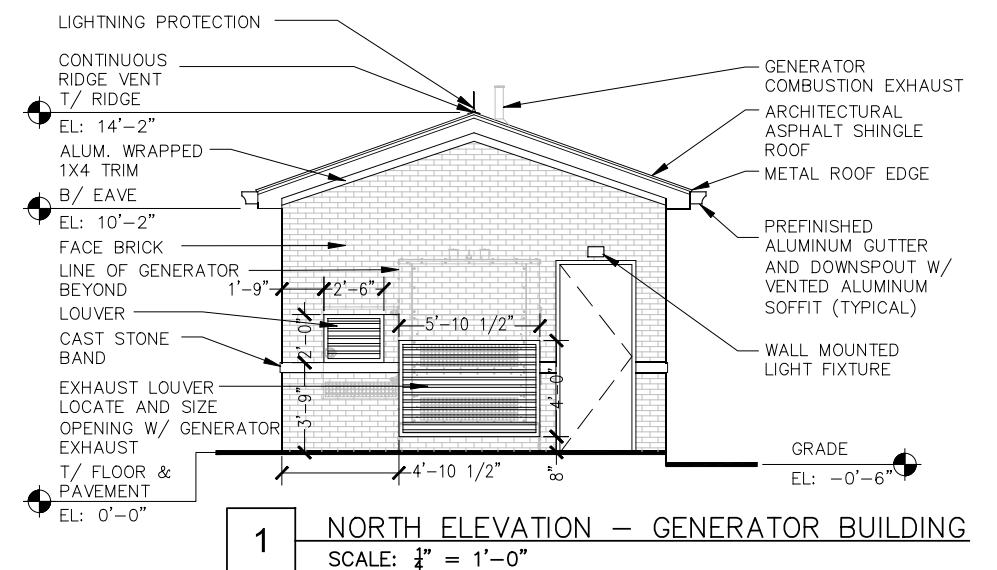
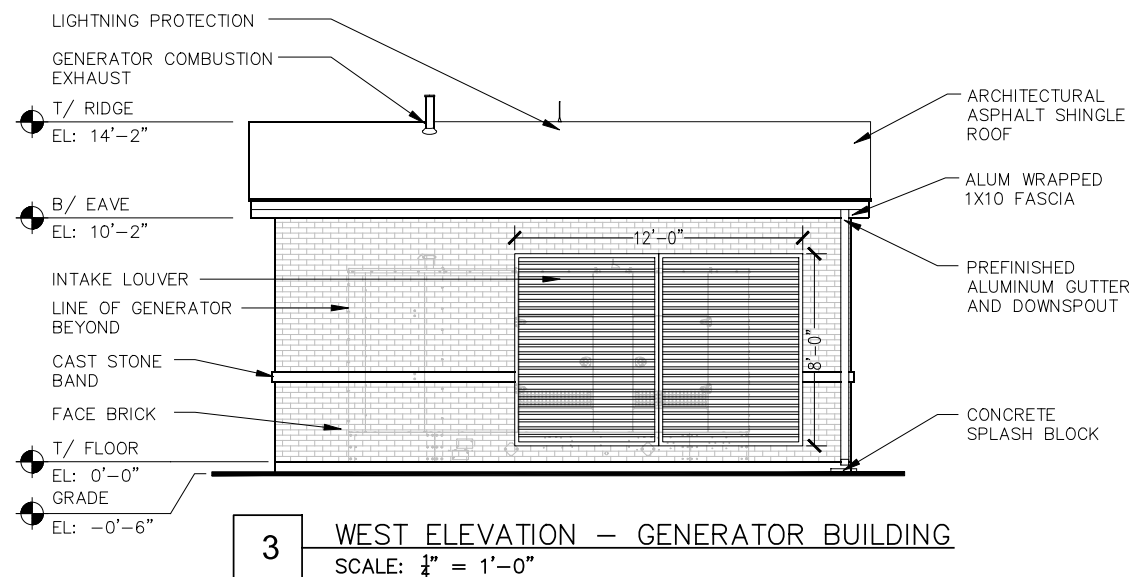
KNIGHT Engineers & Architects	DESIGNED JGC	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXTERIOR ELEVATIONS PUMP STATION 38	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED RMK	REVISED --			P348	(21&21S)-I	LAKE	190	170
	SCALE --	REVISED --			U1245	CONTRACT NO. 62B65		ILLINOIS FED. AID PROJECT	
DATE 06-26-2020	CHECKED RMK	REVISED --		SHEET NO.					



6 THRESHOLD TYPES
NOT TO SCALE



5 DOOR AND FRAME TYPES
NOT TO SCALE

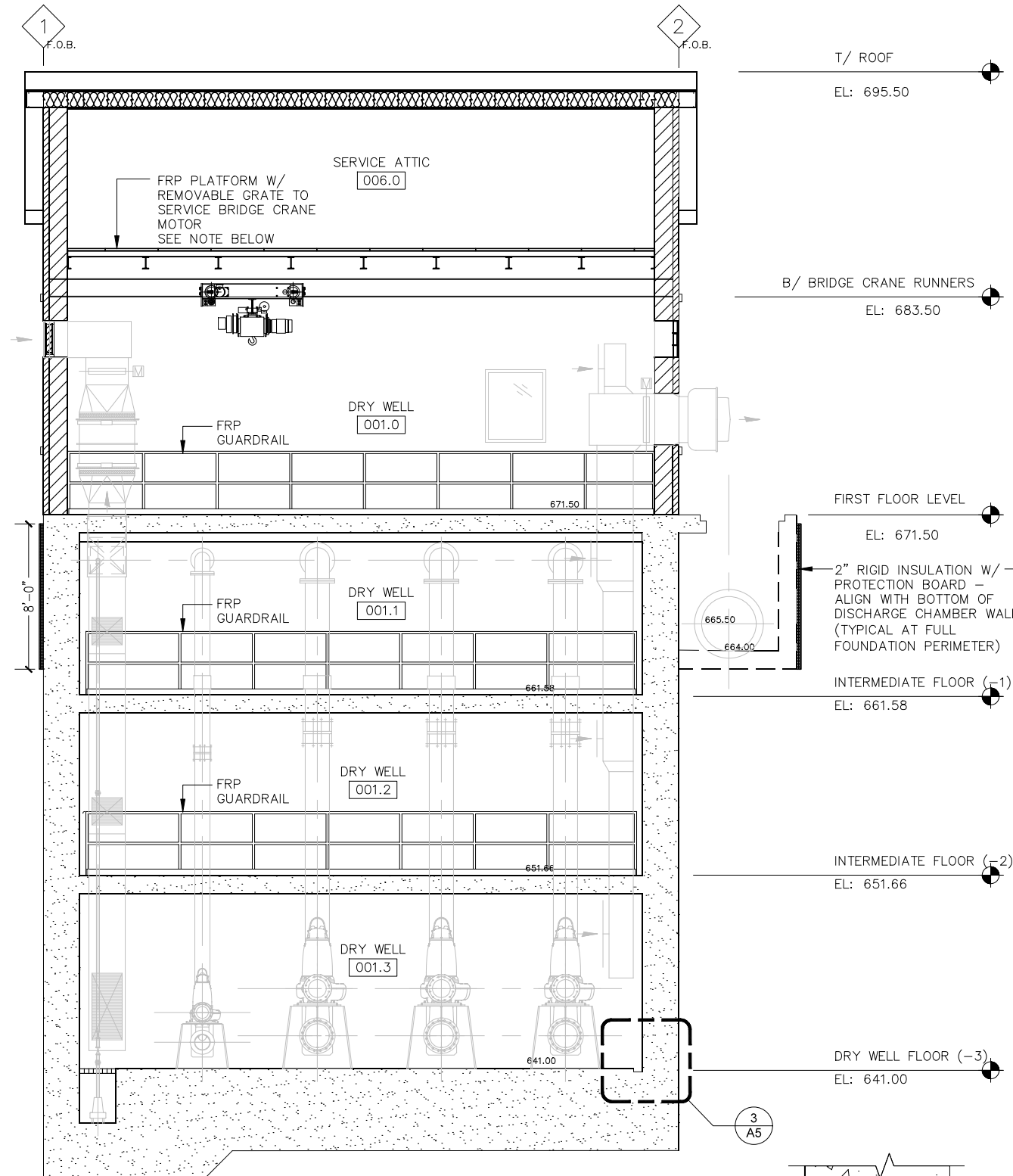


ROOM FINISH SCHEDULE										
ROOM NO.	ROOM NAME	BASE		FLOOR		WALLS		CEILING		REMARKS
		MATERIALS	FINISH	MATERIALS	FINISH	MATERIALS	FINISH	MATERIALS	FINISH	
001.0	DRY WELL	N/A	-	CONC	PT-1	CMU	GLAZED	EXP.	-	EXP. CONST.
002.0	ELECTRICAL ROOM	N/A	-	CONC	PT-1	CMU	GLAZED	CONC	-	
003.0	WET WELL	N/A	-	CONC	PT-1	CMU	GLAZED	CONC	-	
001.1	DRY WELL	N/A	-	CONC	PT-1	CONC	SEALED	CONC	-	
004.1	DISCHARGE CHAMBER	N/A	-	CONC	PT-1	CONC	SEALED	CONC	-	
003.1	WET WELL	N/A	-	CONC	PT-1	CONC	SEALED	CONC	-	
001.2	DRY WELL	N/A	-	CONC	PT-1	CONC	SEALED	CONC	-	
003.2	WET WELL	N/A	-	CONC	PT-1	CONC	SEALED	CONC	-	
001.3	DRY WELL	N/A	-	CONC	PT-1	CONC	SEALED	CONC	-	
003.3	WET WELL	N/A	-	CONC	PT-1	CONC	SEALED	CONC	-	
005.0	ATTIC	N/A	-	CONC	PT-1	CONC	SEALED	LNR. PNL	-	PRE-FINISHED
006.0	SERVICE ATTIC	N/A	-	FRP	-	CONC	SEALED	LNR. PNL	-	PRE-FINISHED
007.0	GENERATOR BUILDING	N/A	-	CONC	PT-1	CONC	SEALED	LNR. PNL	-	

DOOR SCHEDULE									
DOOR NO.	DOOR SIZE	ELEVATION	THRESHOLD TYPE	DETAILS		UL LABEL	MATERIAL	HARDWARE ITEM	REMARKS
				HEAD	JAMB				
001	2 @ 3'-0" X 7'-10" X 1 1/2"	B	1	4/A11	9/A11	--	ST STEEL	D2	180 DEG HINGES
002	3'-0" X 7'-10" X 1 1/2"	A	2	4/A11	9/A11	--	ST STEEL	D1	
003	3'-0" X 7'-10" X 1 1/2"	A	2	4/A11	9/A11	--	ST STEEL	D1	
004	3'-0" X 7'-10" X 1 1/2"	A	2	4/A11	9/A11	--	ST STEEL	D1	
005	3'-0" X 6'-8" X 1 1/2"	C	2	5/A11	10/A11	--	ST STEEL	D3	
006	3'-0" X 7'-10" X 1 1/2"	A	2	4/A11	9/A11	--	ST STEEL	D1	
007	18'-0" X 9'-4"	D	-	11/A11	12/A11	--	ST STEEL	--	COILED

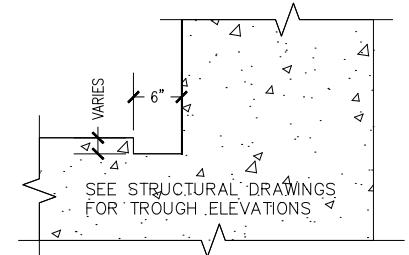


A4.1

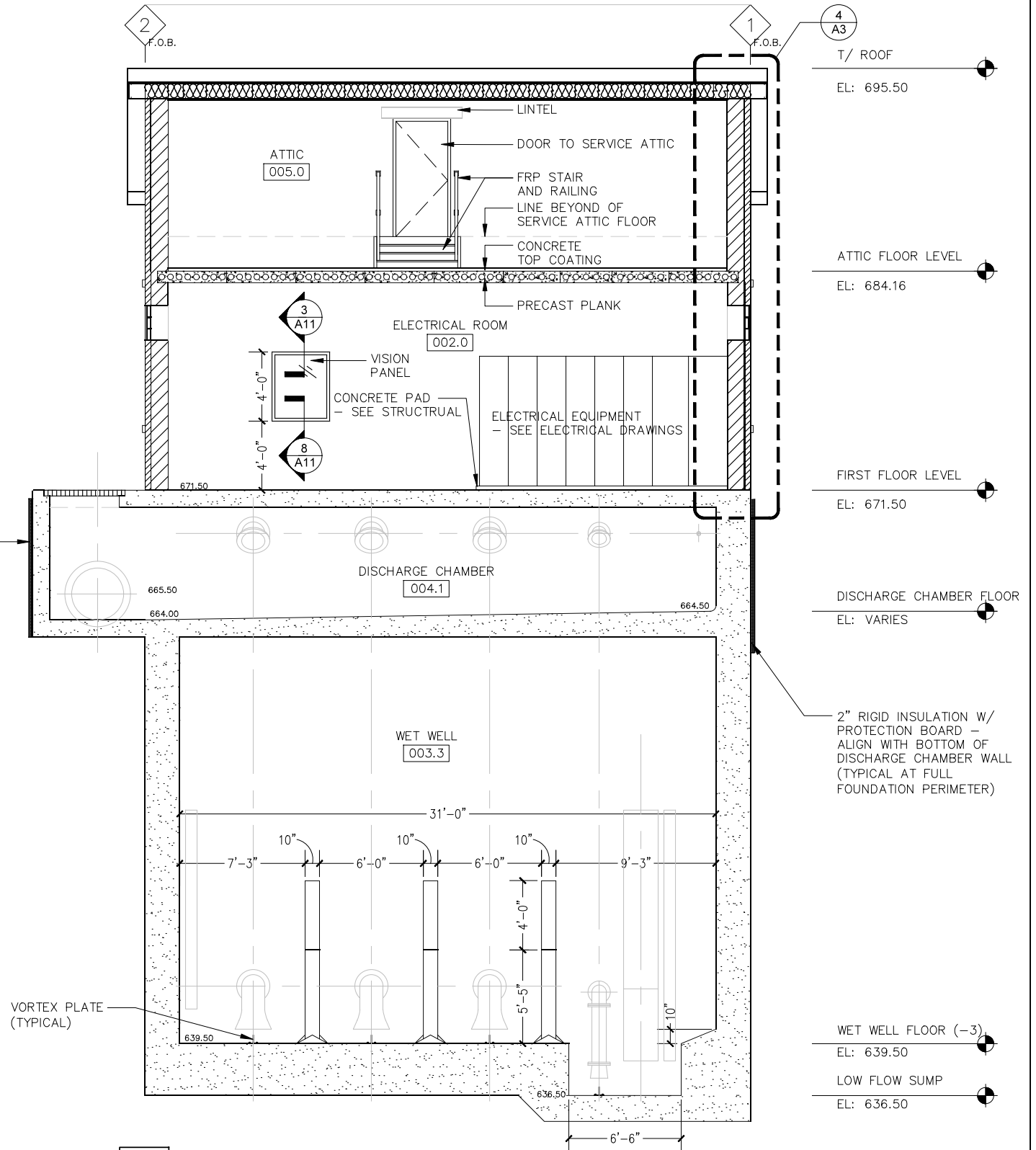


1 BUILDING SECTION
SCALE: 1/4" = 1'-0"

NOTE:
MANUFACTURER DESIGNED FRP PLATFORM SYSTEM, LADDER,
STAIRS, RAILINGS, AND GUARDRAILS. CONTRACTOR TO
VERIFY/COORDINATE LOCATION OF EQUIPMENT/PIPING PRIOR
TO FRP DESIGN AND CONSTRUCTION

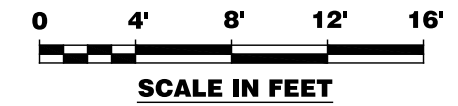


3 TROUGH DETAIL
SCALE: 1" = 1'-0"

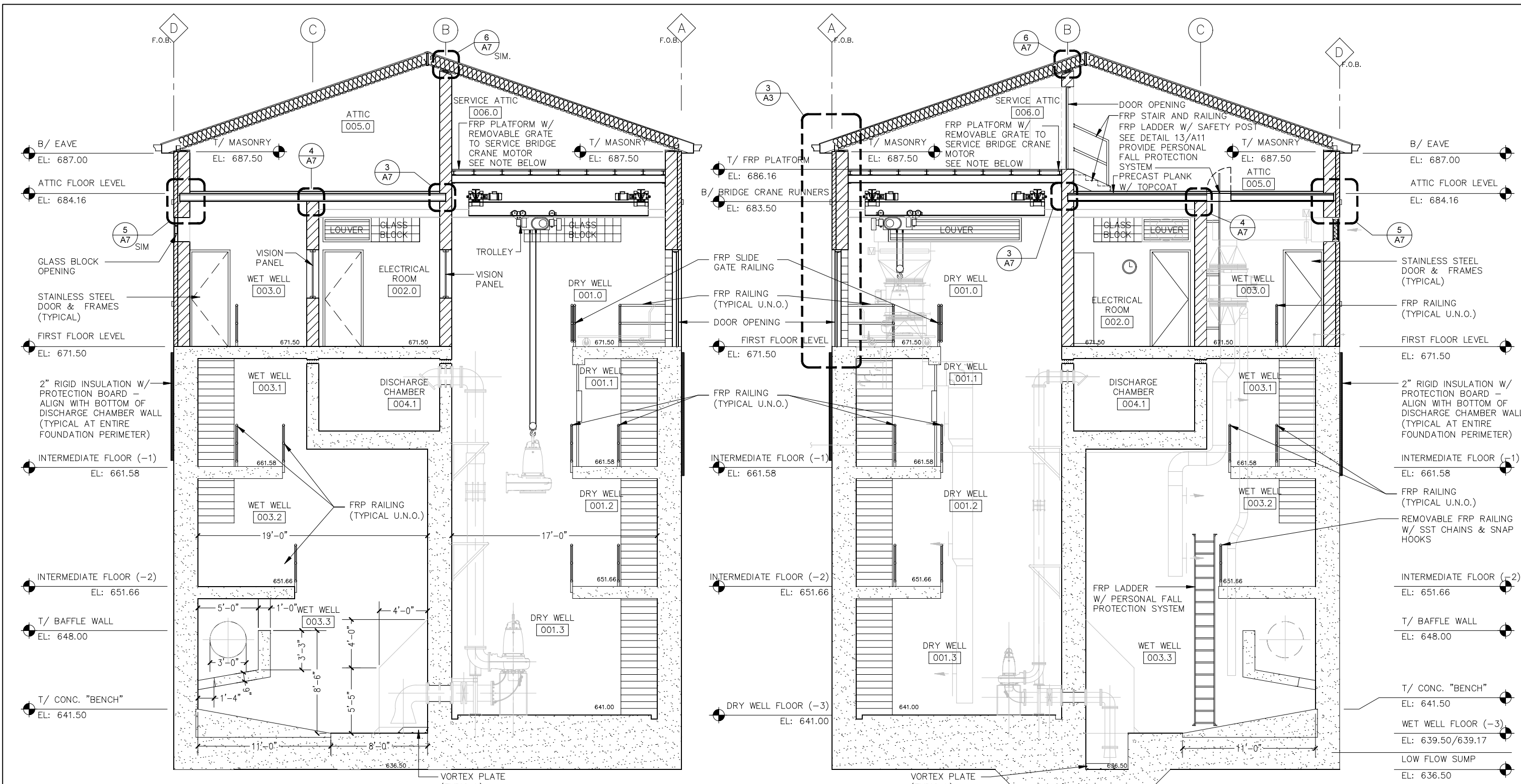


2 BUILDING SECTION
SCALE: 1/4" = 1'-0"

NOTE:
SEE STRUCTURAL DRAWINGS FOR ALL
POURED IN PLACE CONCRETE /
REINFORCING WORK BELOW GRADE..



A5



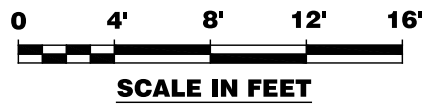
1 BUILDING SECTION
SCALE: 1/4" = 1'-0"

NOTE:
SEE STRUCTURAL DRAWINGS FOR ALL
POURED IN PLACE CONCRETE /
REINFORCING WORK BELOW GRADE..

NOTE:
MANUFACTURER DESIGNED FRP PLATFORM SYSTEM, LADDER,
STAIRS, RAILINGS, AND GUARDRAILS. CONTRACTOR TO
VERIFY/COORDINATE LOCATION OF EQUIPMENT/PIPING PRIOR
TO FRP DESIGN AND CONSTRUCTION

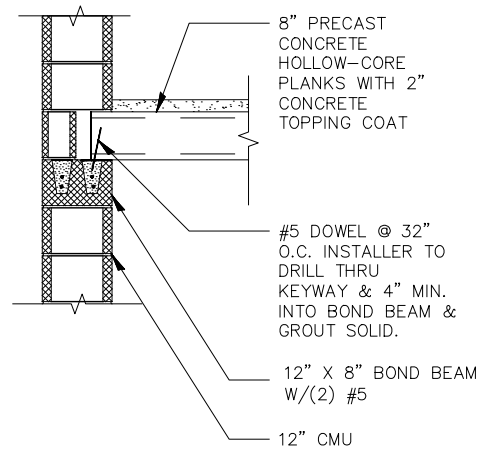
2 BUILDING SECTION
SCALE: 1/4" = 1'-0"

NOTE:
SEE STRUCTURAL DRAWINGS FOR ALL
POURED IN PLACE CONCRETE /
REINFORCING WORK BELOW GRADE.

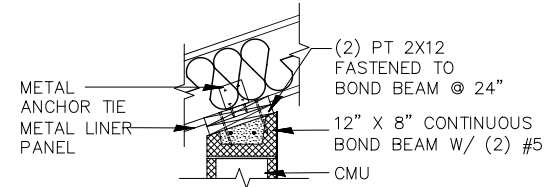


A6

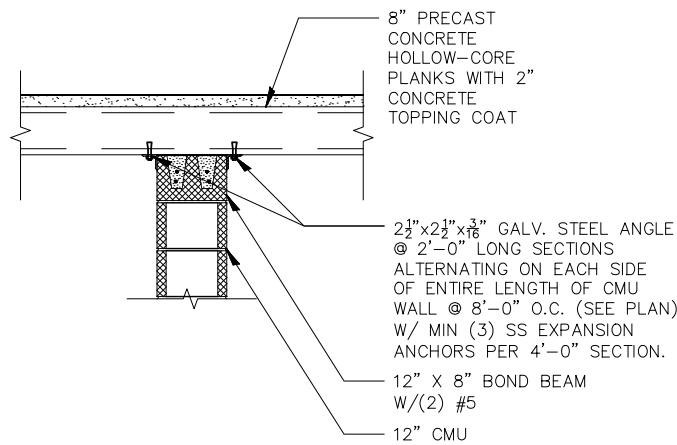
KNIGHT Engineers & Architects	DESIGNED JGC	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUILDING SECTIONS PUMP STATION 38	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE --	CHECKED RMK			REVISED --	P3346	(21&21S)-1	LAKE	190
DATE 06-26-2020	DRAWN JGC	REVISED --			CONTRACT NO. 62B65		ILLINOIS FED. AID PROJECT		
	CHECKED RMK	REVISED --			SHEET NO.				



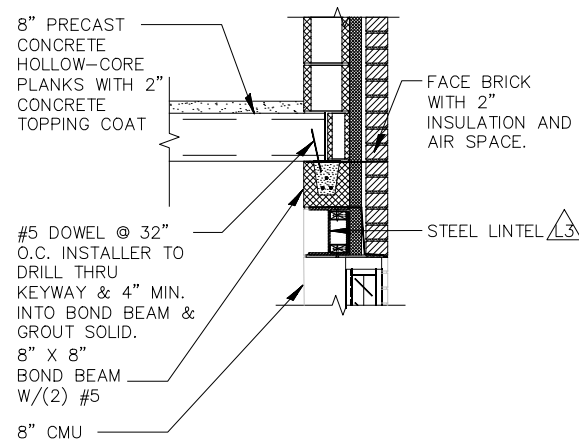
3 BUILDING SECTION
SCALE: 3/4" = 1'-0"



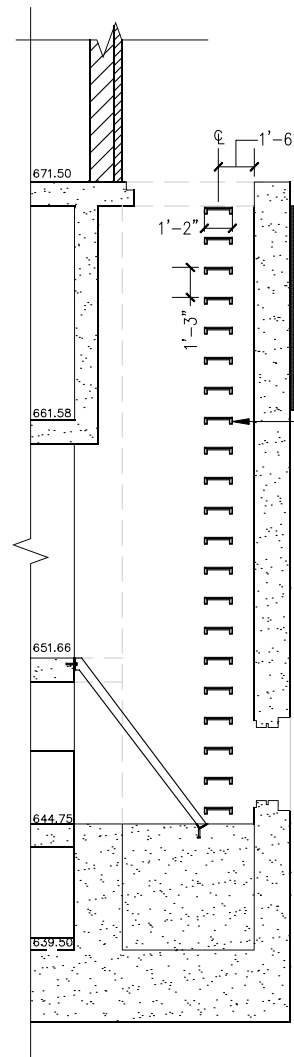
6 DETAIL
SCALE: 3/4" = 1'-0"



4 BUILDING SECTION
SCALE: 3/4" = 1'-0"



5 BUILDING SECTION
SCALE: 3/4" = 1'-0"

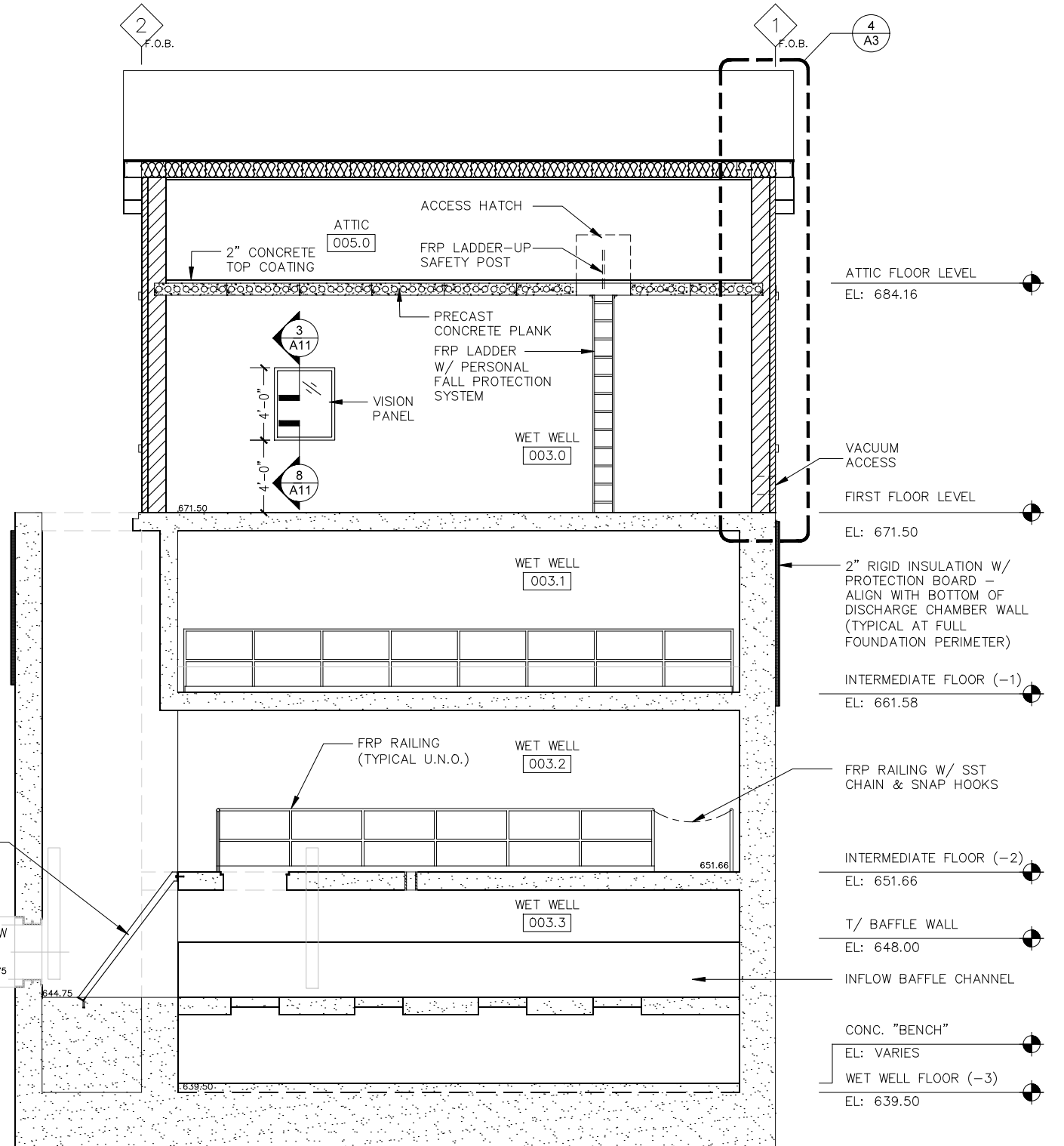


2 SECTION @ SHAFT
SCALE: 1/4" = 1'-0"

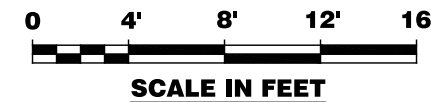
COPOLYMER POLYPROPYLENE PLASTIC W/ STEEL REINFORCEMENT ACCESS LADDER RUNGS AT 15" O.C PROVIDE PERSONAL FALL PROTECTION SYSTEM
HEAVY DUTY STAINLESS STEEL BAR RACK

NOTE:
SEE STRUCTURAL DRAWINGS FOR ALL POURED IN PLACE CONCRETE / REINFORCING WORK BELOW GRADE..

NOTE:
MANUFACTURER DESIGNED FRP PLATFORM SYSTEM, LADDER, STAIRS, RAILINGS, AND GUARDRAILS. CONTRACTOR TO VERIFY/COORDINATE LOCATION OF EQUIPMENT/PIPING PRIOR TO FRP DESIGN AND CONSTRUCTION



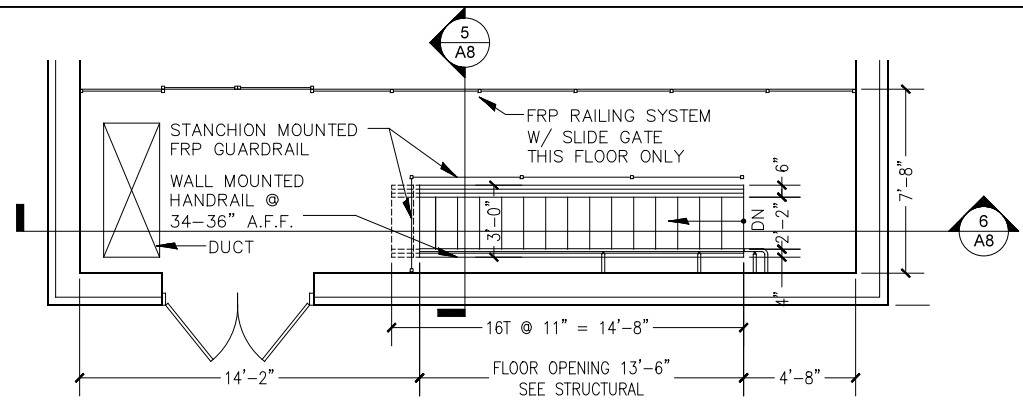
1 BUILDING SECTION
SCALE: 1/4" = 1'-0"



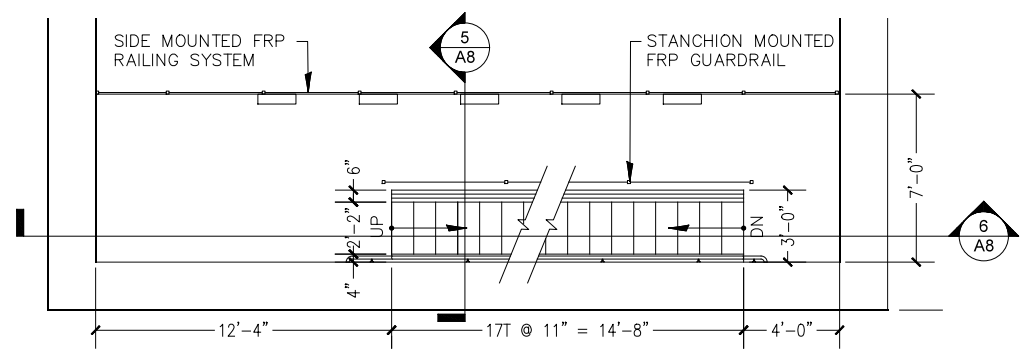
SCALE IN FEET

A7

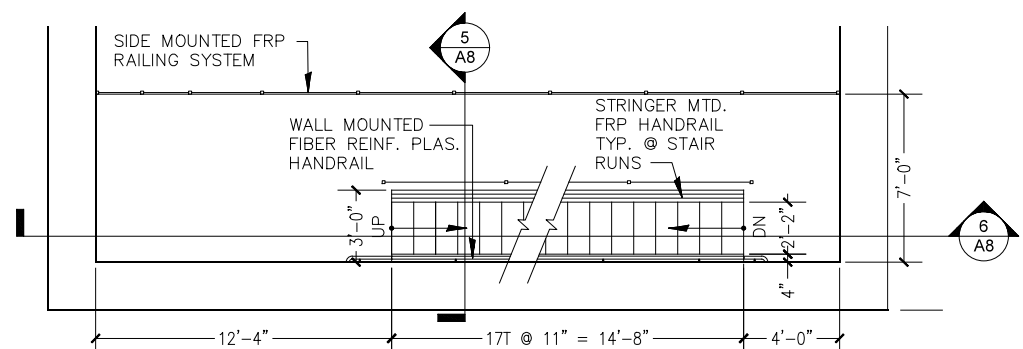
KNIGHT Engineers & Architects	DESIGNED JGC	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUILDING SECTIONS PUMP STATION 38	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED RMK	REVISED --			P346	(21&21S)-I	LAKE	190	174
SCALE --	DRAWN JGC	REVISED --			CONTRACT NO. 62B65		ILLINOIS FED. AID PROJECT		
DATE 06-26-2020	CHECKED RMK	REVISED --							



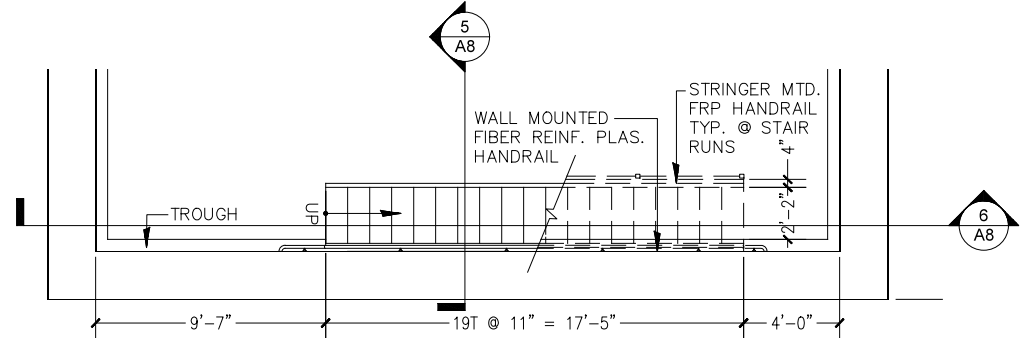
4 GROUND FLOOR PLAN – DRY EL: 671.50
SCALE: 1/4" = 1'-0"



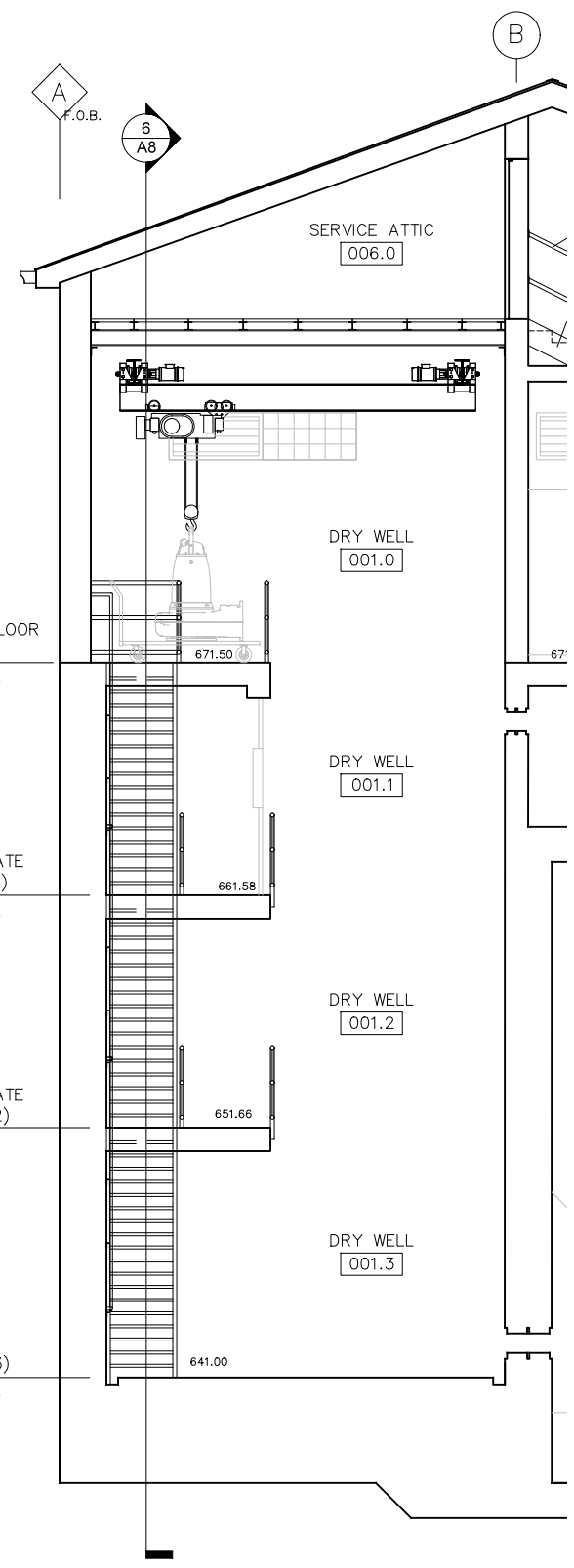
3 INTERMEDIATE FLOOR PLAN (-1) – DRY EL: 661.58
SCALE: 1/4" = 1'-0"



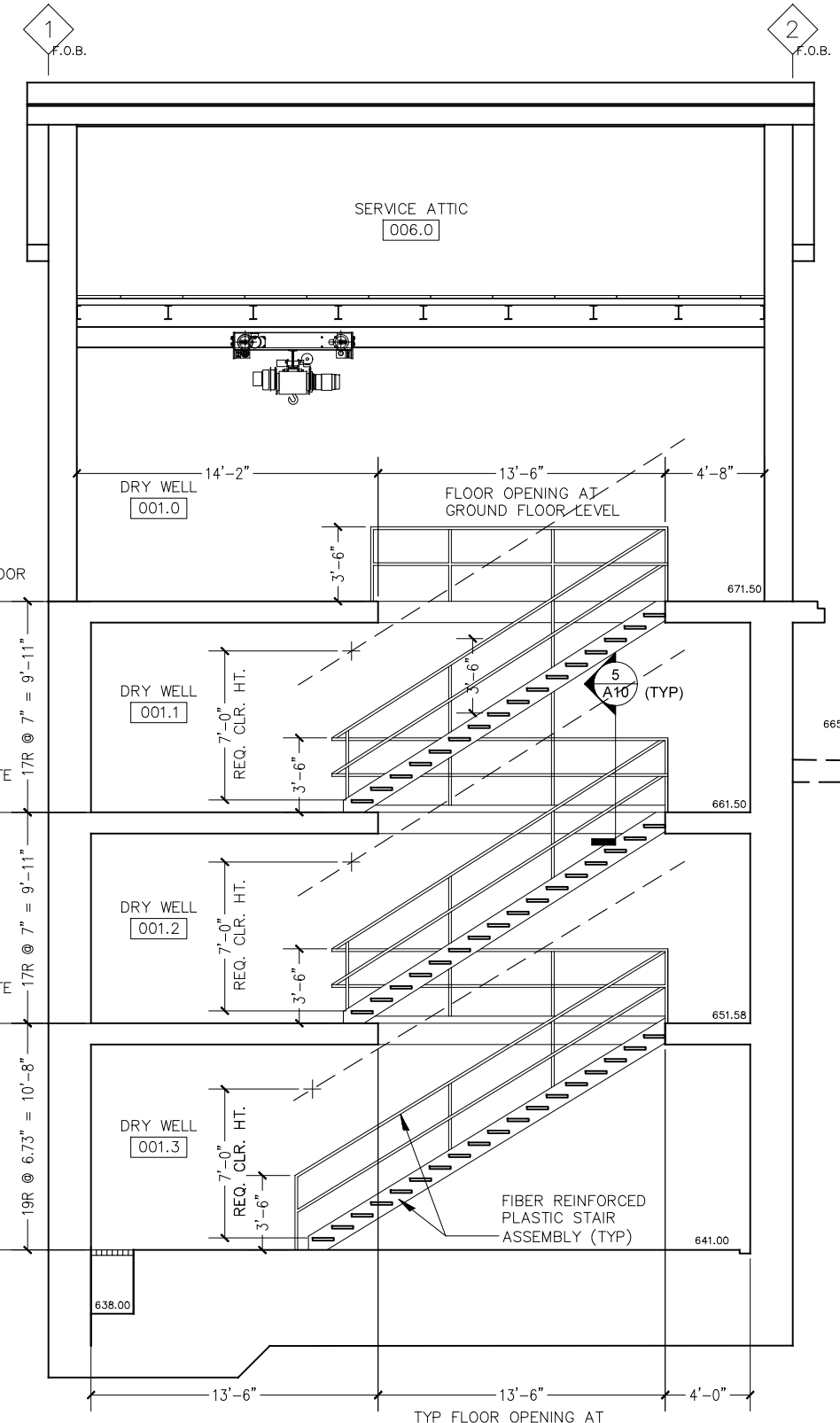
2 INTERMEDIATE FLOOR PLAN (-2) – DRY EL: 651.66
SCALE: 1/4" = 1'-0"



1 WELL LEVEL FLOOR PLAN (-3) – DRY EL: 641.00
SCALE: 1/4" = 1'-0"



5 STAIR SECTION
SCALE: 1/4" = 1'-0"



6 STAIR SECTION
SCALE: 1/4" = 1'-0"

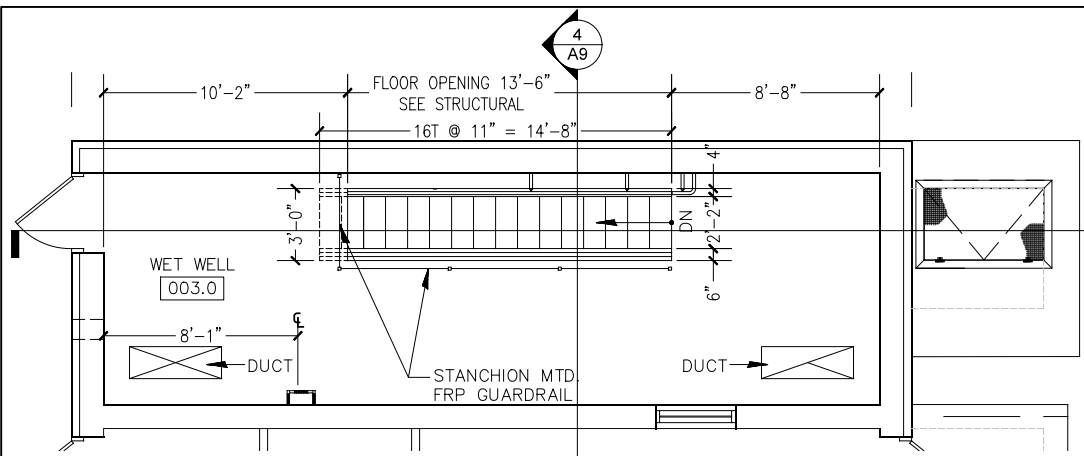
NOTES:
STAIR DESIGN SHALL FOLLOW 2018 IBC CODE REQUIREMENTS AND MEET OSHA STANDARDS
ALL FRP HANDRAILS & TREADS TO BE SAFETY YELLOW U.N.O.

NOTE:
VERIFY ALL FLOOR OPENING DIMENSIONS WITH STRUCTURAL DRAWINGS.

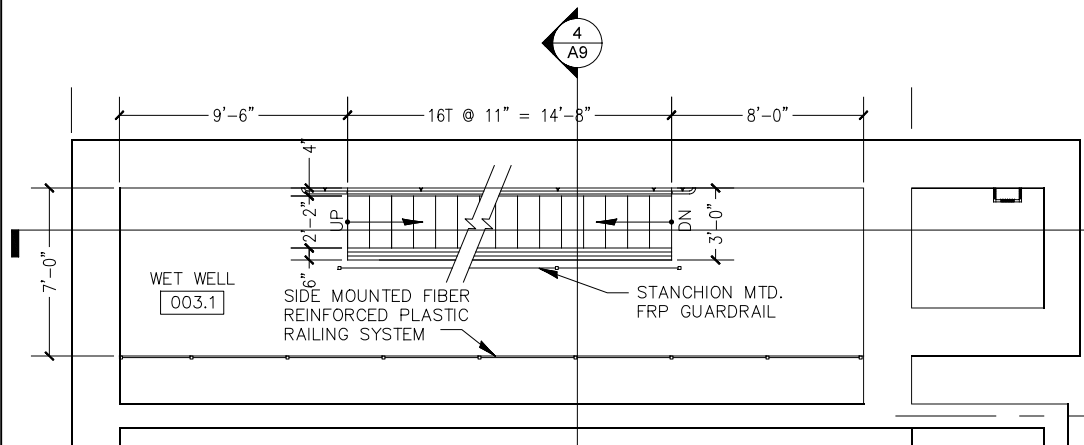


DESIGNED	JGC	REVISED	—
CHECKED	RMK	REVISED	—
DRAWN	JGC	REVISED	—
DATE	06-26-2020	REVISED	—
CHECKED	RMK		

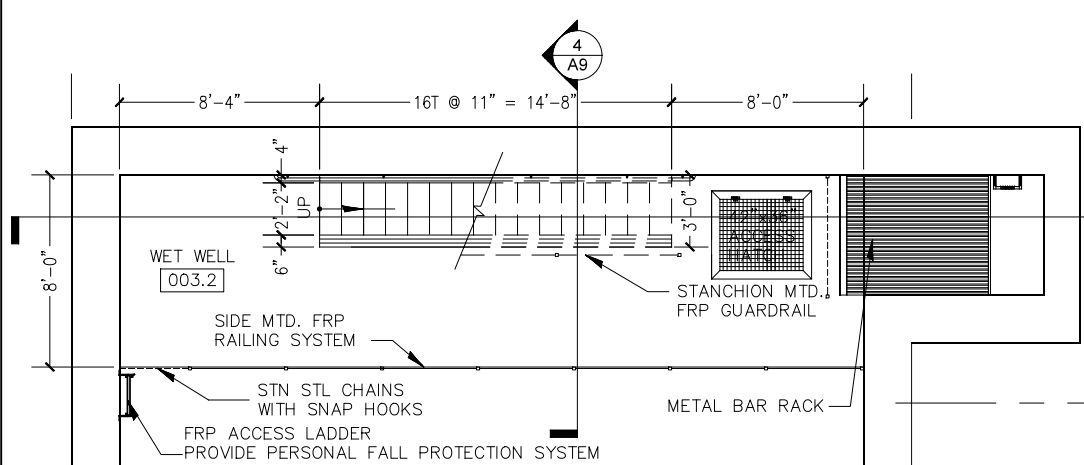
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P346 U1245	(21&21S)-I	LAKE	190	175
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



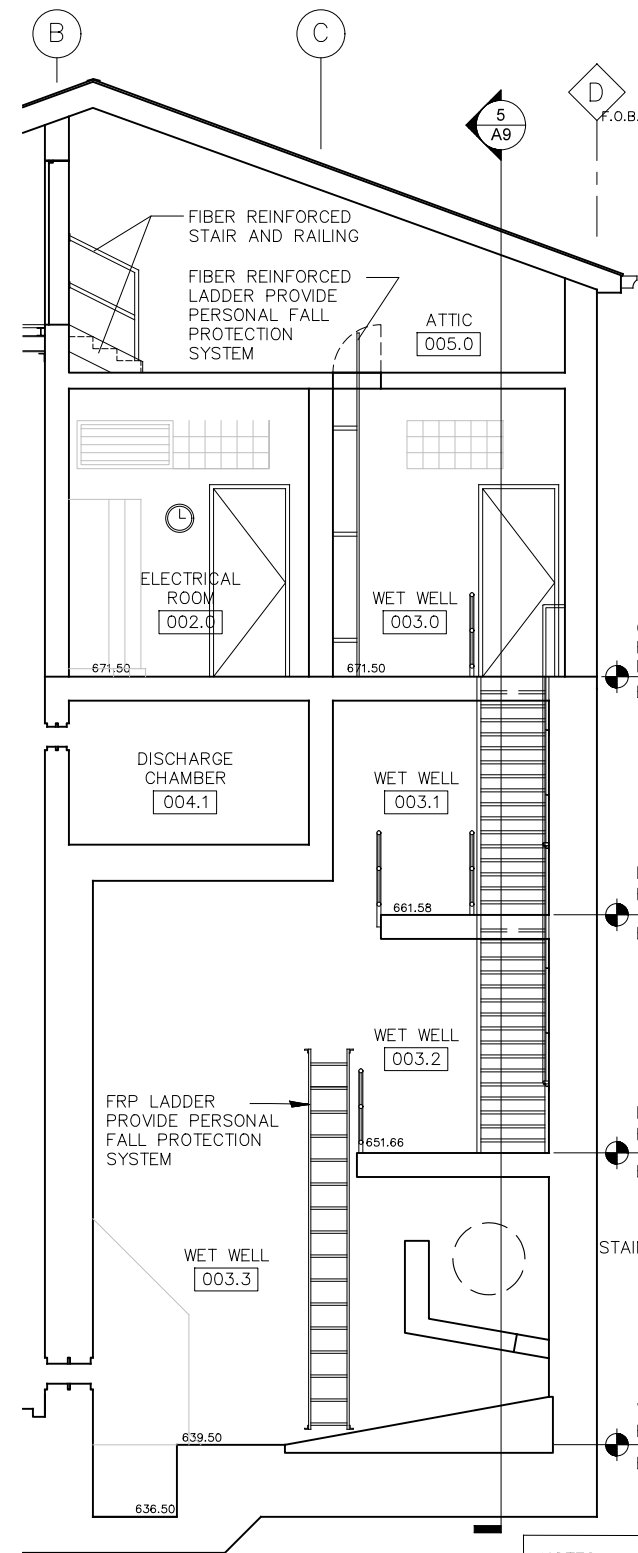
3 GROUND FLOOR PLAN (-1) - WET EL: 671.50
SCALE: 3/4" = 1'-0"



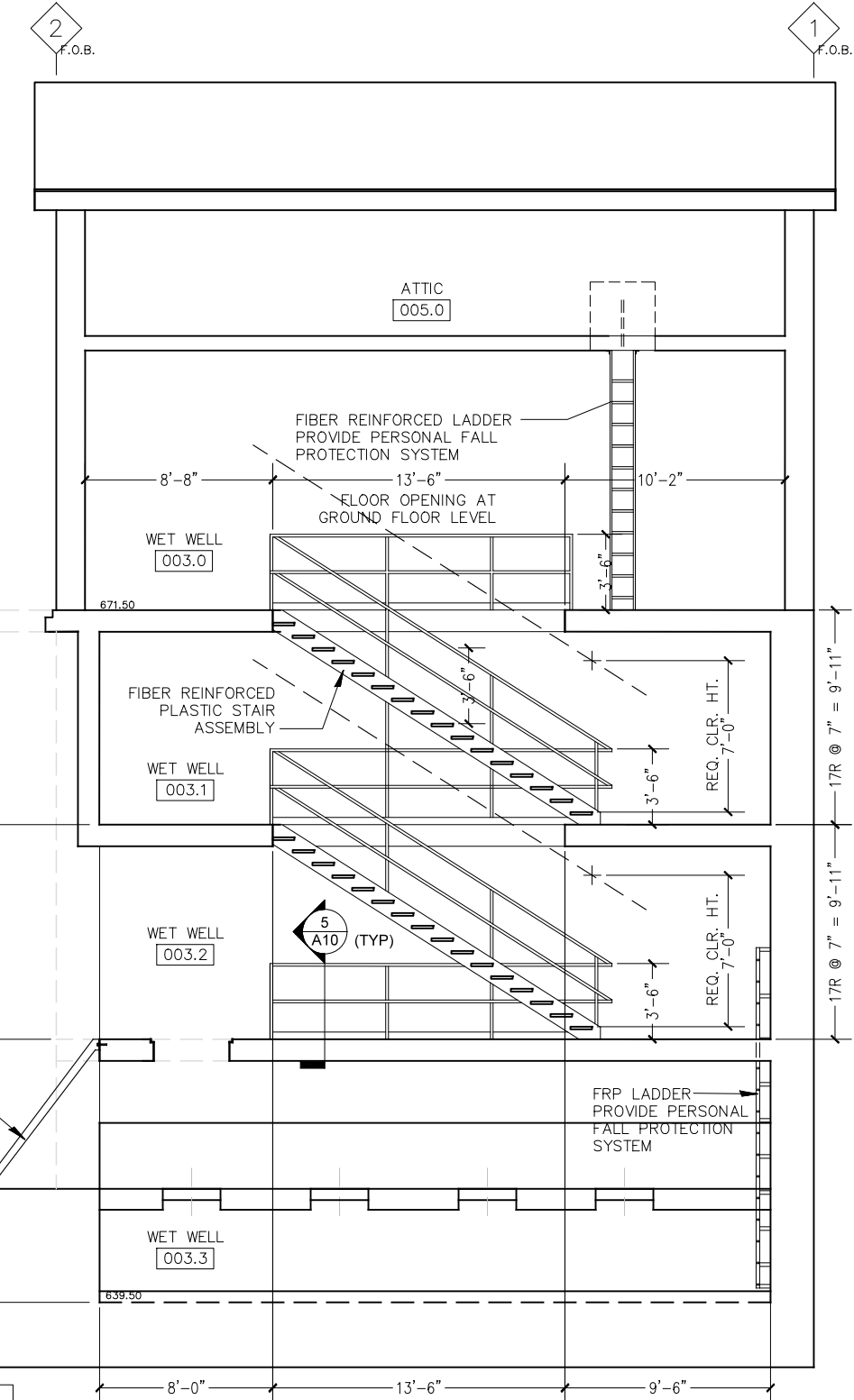
2 INTERMEDIATE FLOOR PLAN (-1) - WET EL: 661.58
SCALE: 3/4" = 1'-0"



1 INTERMEDIATE FLOOR PLAN (-2) - WET EL: 651.66
SCALE: 3/4" = 1'-0"



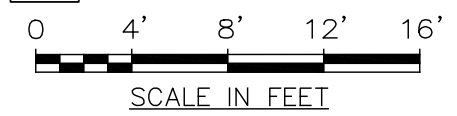
4 STAIR SECTION
SCALE: 3/4" = 1'-0"



5 STAIR SECTION
SCALE: 3/4" = 1'-0"

NOTES:
STAIR DESIGN SHALL FOLLOW 2018 IBC CODE REQUIREMENTS AND MEET OSHA STANDARDS
ALL FRP HANDRAILS & TREADS TO BE SAFETY YELLOW U.N.O.

NOTE:
VERIFY ALL FLOOR OPENING DIMENSIONS WITH STRUCTURAL DRAWINGS.

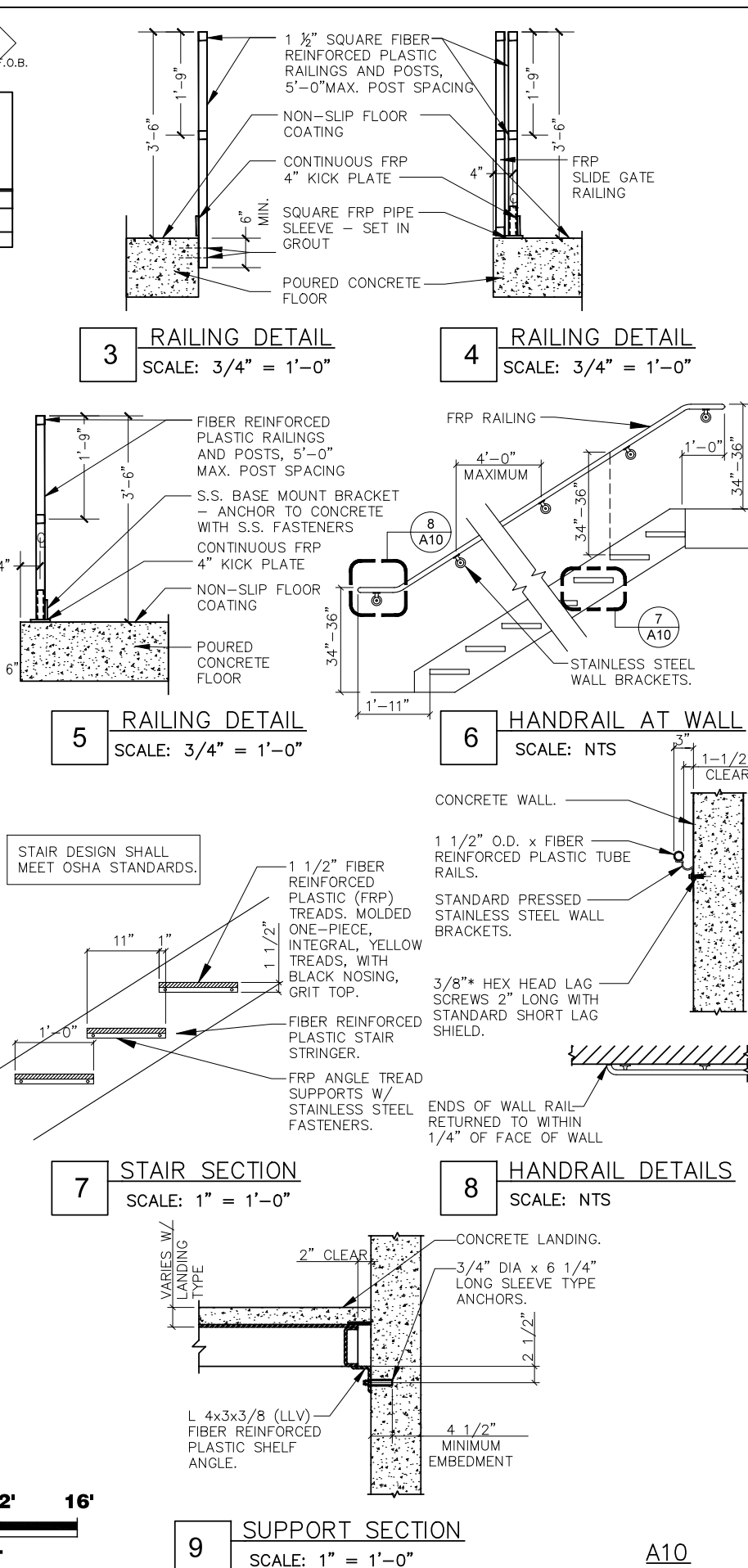
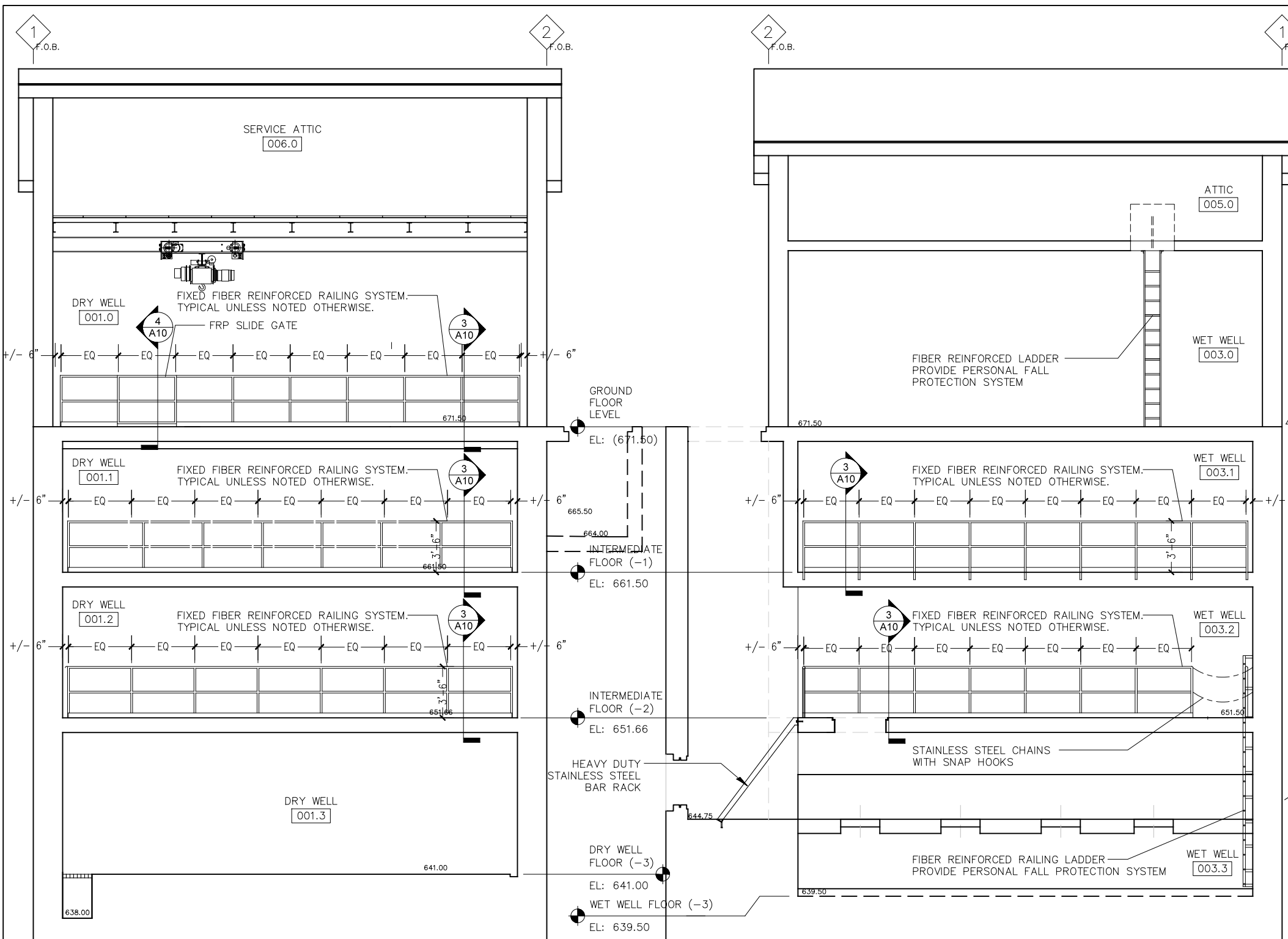


KNIGHT Engineers & Architects	DESIGNED	JGC	REVISED	Const. Rev. 2 - 11-01-13	
	CHECKED	RMK	REVISED	-	
	DRAWN	JGC	REVISED	-	
	DATE	06-26-2020	CHECKED	RMK	REVISED

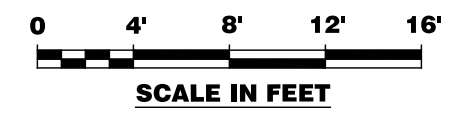
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL STAIR PLANS, SECTIONS & DETAILS
PUMP STATION 38
SHEET NO. A9

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P346 U1245	(21&21S)-I	LAKE	190	176
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



NOTES:
STAIR DESIGN SHALL FOLLOW 2018 IBC CODE REQUIREMENTS AND MEET OSHA STANDARDS
ALL FRP HANDRAILS & TREADS TO BE SAFETY YELLOW U.N.O.



KNIGHT
Engineers & Architects

DESIGNED	JGC	REVISED	—
CHECKED	RMK	REVISED	—
DRAWN	JGC	REVISED	—
CHECKED	RMK	REVISED	—

SCALE	—
DATE	06-26-2020

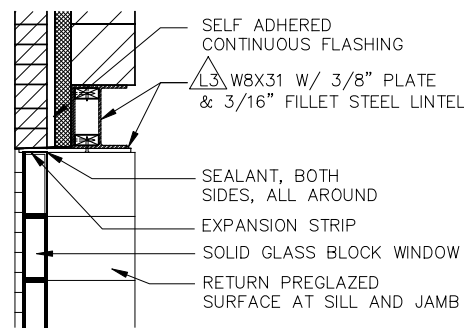
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL STAIR PLANS, SECTIONS & DETAILS
PUMP STATION 38

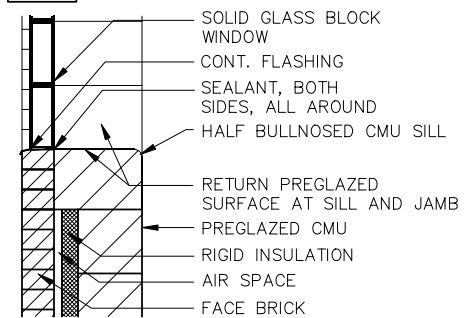
SHEET NO. A10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P346 U1245	(21&21S)-I	LAKE	190	177
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

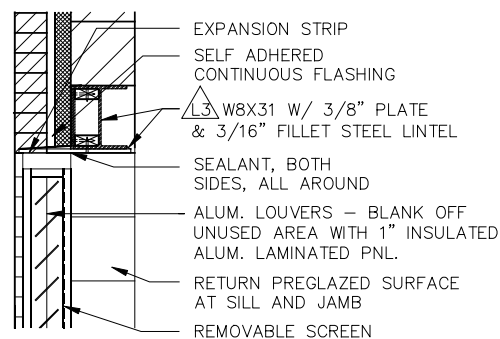
A10



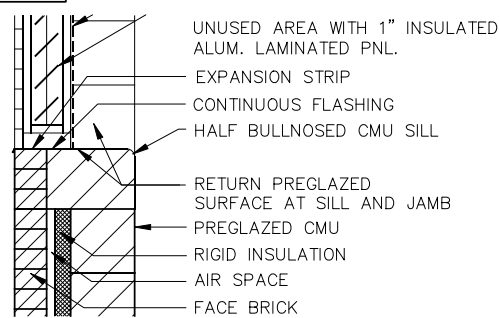
1 HEAD DETAIL
SCALE: 1" = 1'-0"



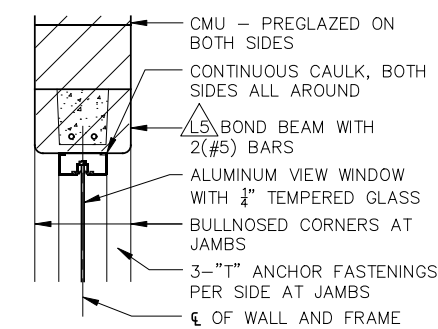
6 SILL DETAIL
SCALE: 1" = 1'-0"



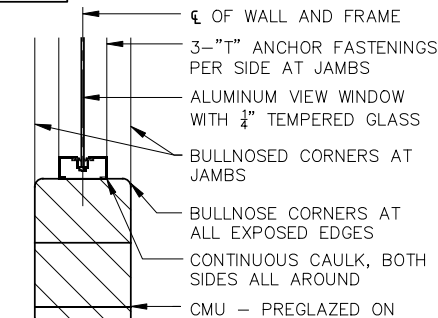
2 HEAD DETAIL
SCALE: 1" = 1'-0"



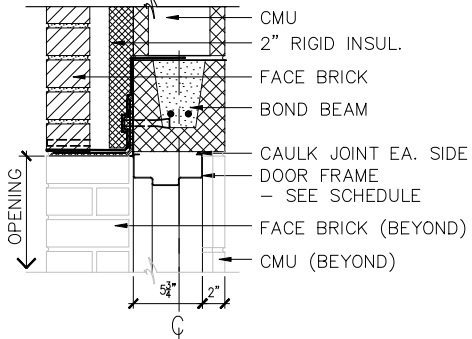
7 SILL DETAIL
SCALE: 1" = 1'-0"



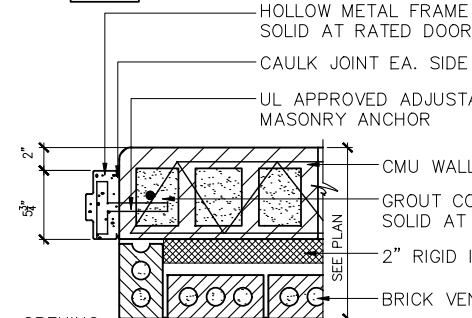
3 HEAD DETAIL
SCALE: 1" = 1'-0"



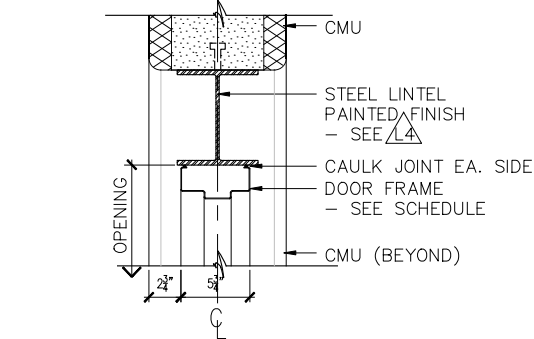
8 SILL DETAIL
SCALE: 1" = 1'-0"



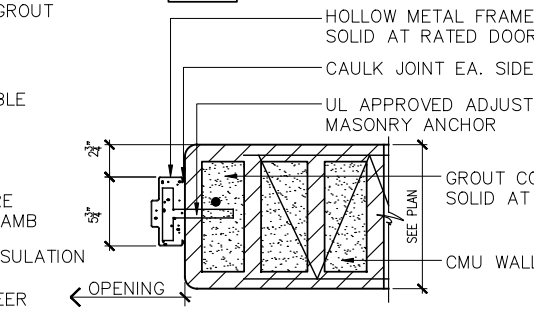
4 HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



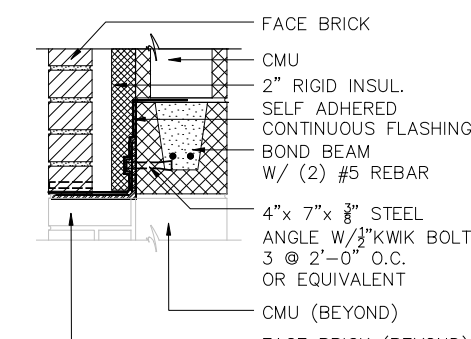
9 JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



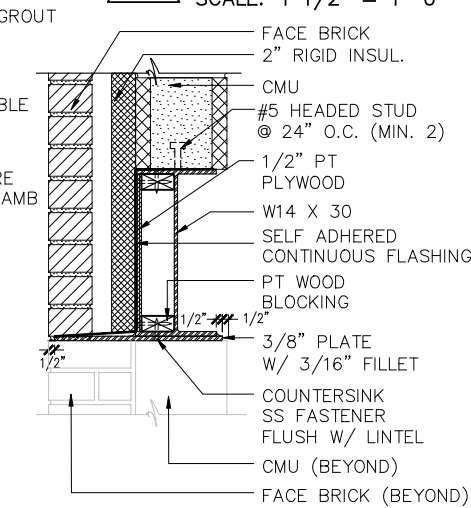
5 HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



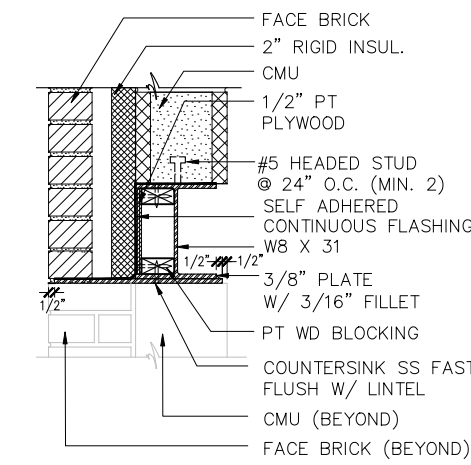
10 JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



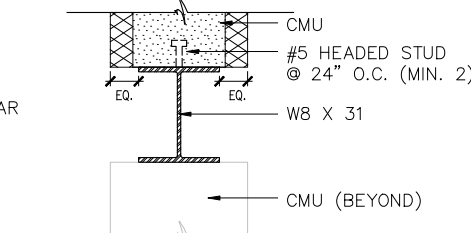
L1 LINTEL DETAIL
SCALE: 1 1/2" = 1'-0"



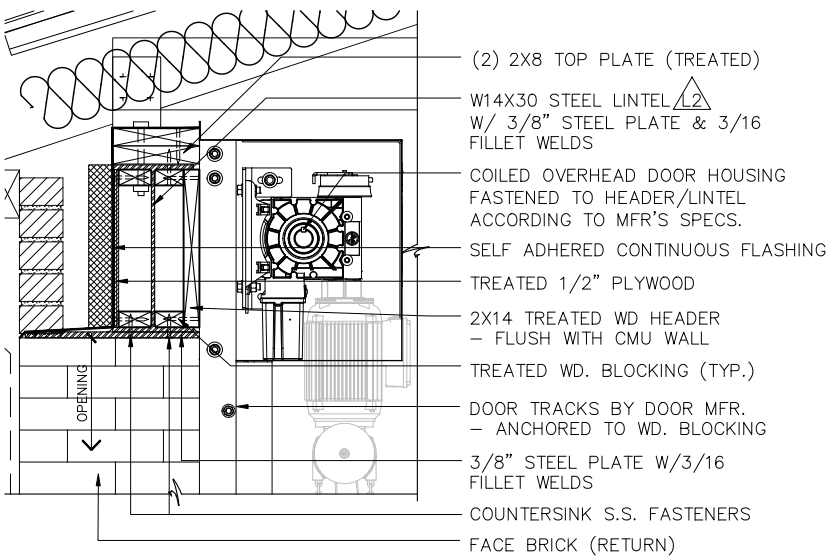
L2 LINTEL DETAIL
SCALE: 1 1/2" = 1'-0"



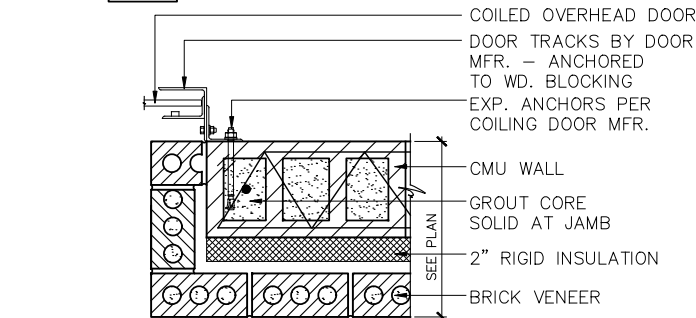
L3 LINTEL DETAIL
SCALE: 1 1/2" = 1'-0"



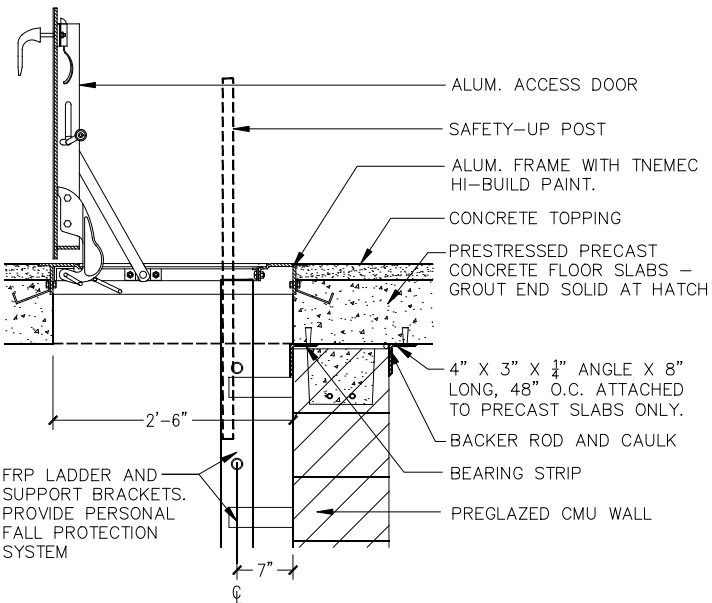
L4 LINTEL DETAIL
SCALE: 1 1/2" = 1'-0"



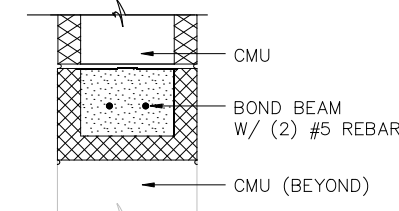
11 HEAD DETAIL
SCALE: 1-1/2" = 1'-0"



12 JAMB DETAIL
SCALE: 1-1/2" = 1'-0"



13 ACCESS HATCH DETAIL
SCALE: 1" = 1'-0"



L5 LINTEL DETAIL
SCALE: 1 1/2" = 1'-0"

KNIGHT Engineers & Architects	DESIGNED	JGC	REVISED	-
	CHECKED	RMK	REVISED	-
	DRAWN	JGC	REVISED	-
	CHECKED	RMK	REVISED	-

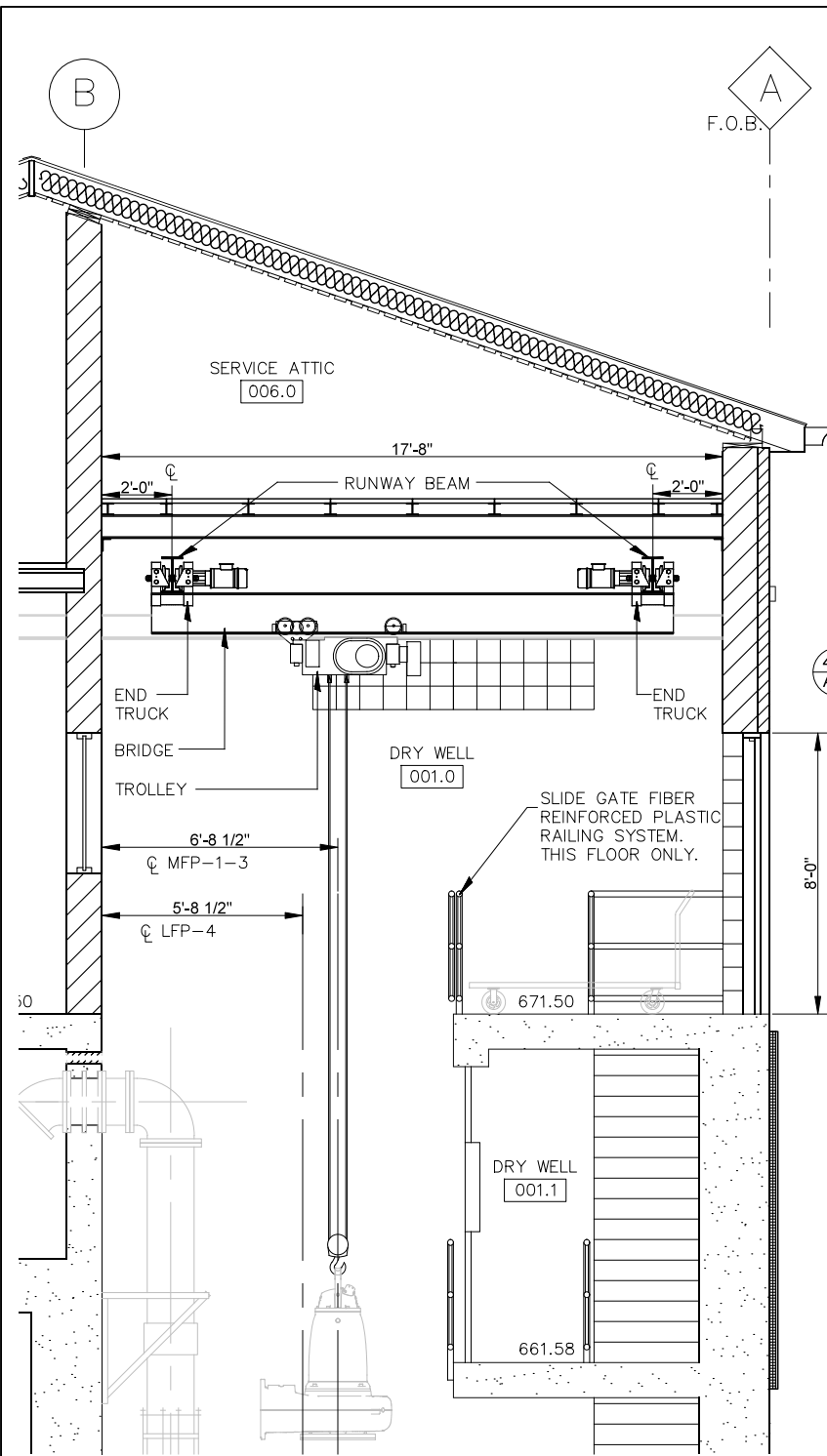
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DATE	06-26-2020

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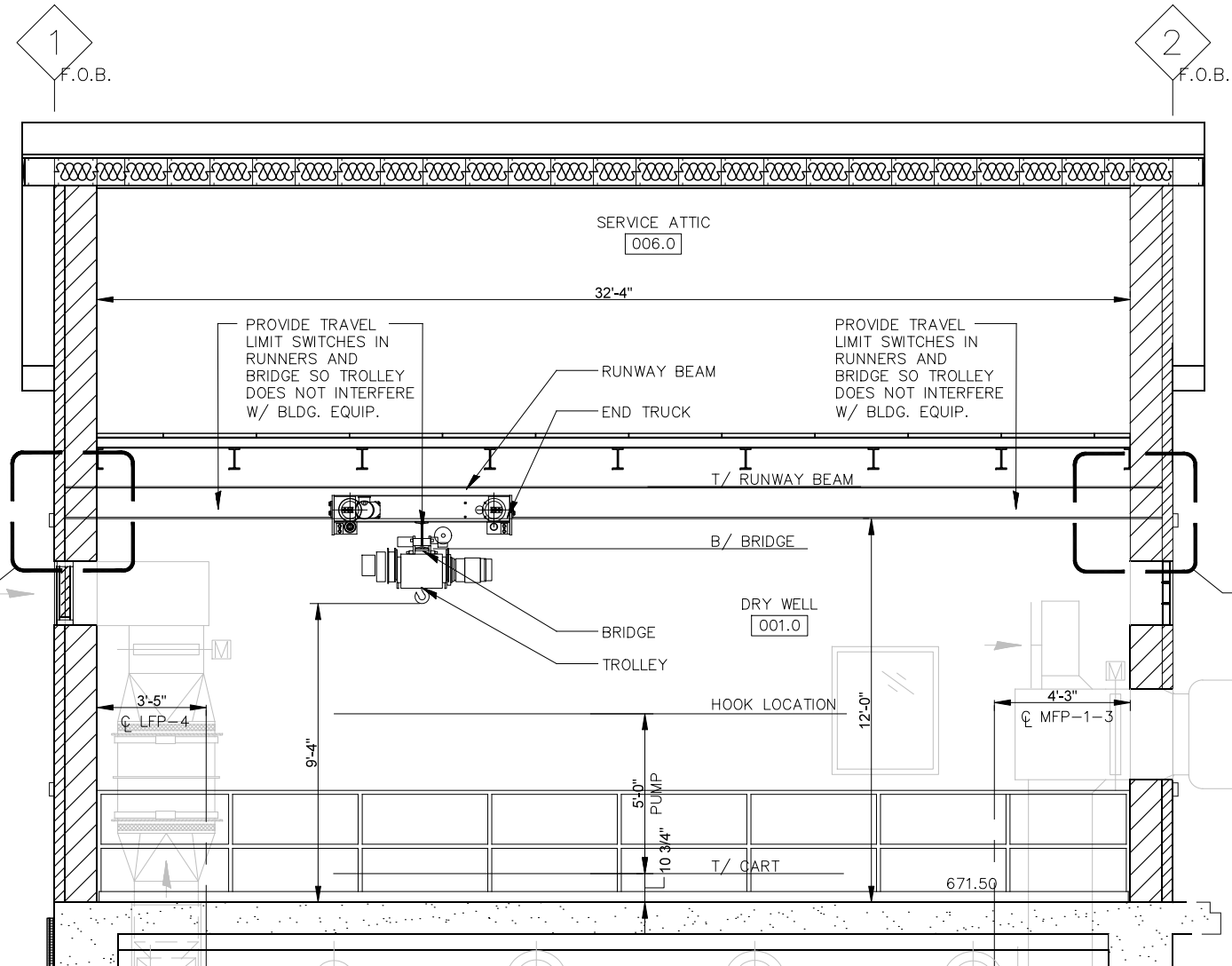
DOOR AND ROOM FINISH SCHEDULE & DETAILS
PUMP STATION 38

SHEET NO. A11

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P346 U1245	(21&21S)-I	LAKE	190	178
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

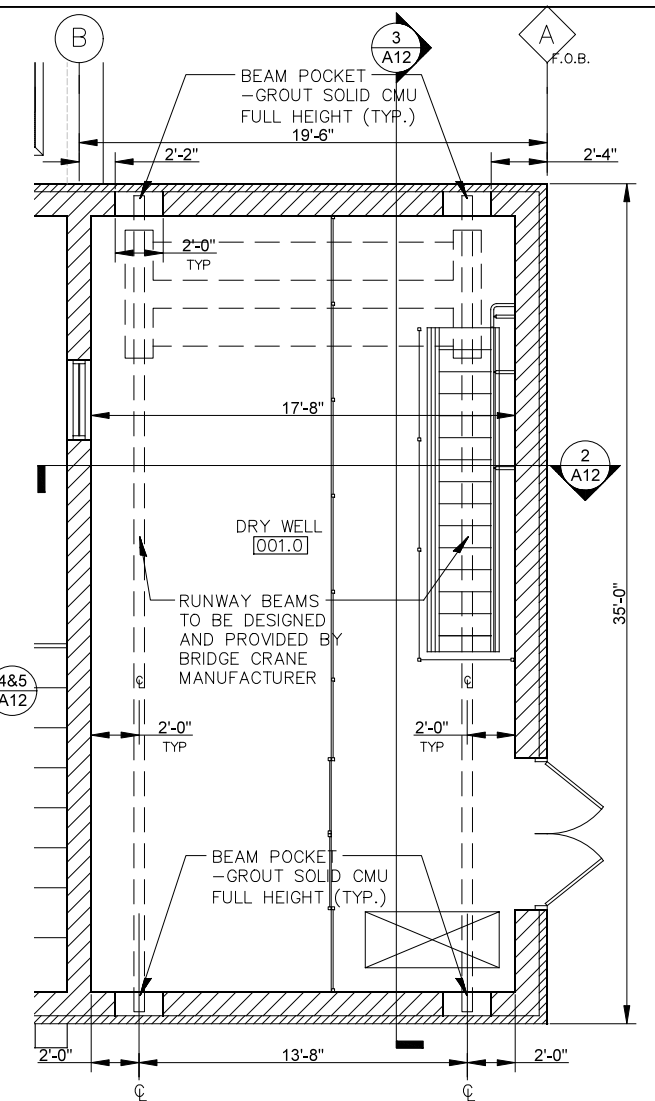


2 SECTION
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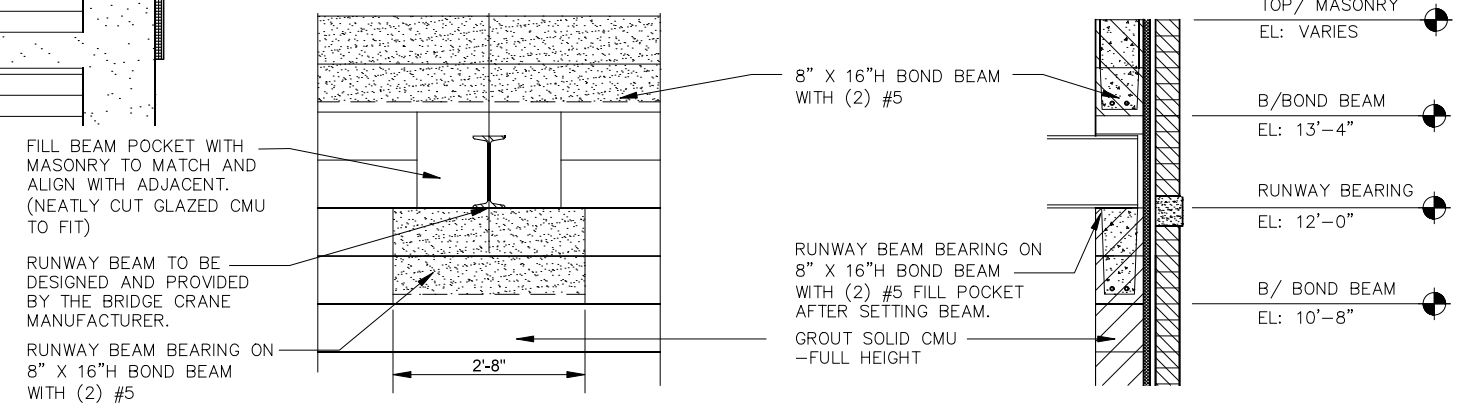


3 SECTION
SCALE: 1/2" = 1'-0"

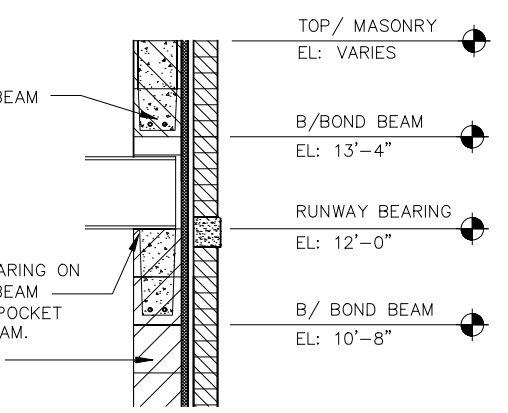
NOTE:
ALL STRUCTURAL STEEL TO BE DESIGNED AND FURNISHED BY BRIDGE CRANE MANUFACTURER.



1 BRIDGE CRANE PLAN
SCALE: 1/4" = 1'-0"



4 ELEVATION OF RUNWAY BEARING POCKET
SCALE: 3/4" = 1'-0"



5 DETAIL
SCALE: 3/4" = 1'-0"

	HOIST	TROLLEY	BRIDGE
TYPE UNIT	SINGLE REEVED	FIXED AXLE	FIXED AXLE
CAPACITY TONS	2 TON	2 TON	2 TON
FULL LOAD SPEED FPM	14 FPM	30 FPM	65 FPM
MOTOR H.P. & R.P.M.	2 HP	0.5 HP	0.5 HP (X2)
MOTOR RATING & INSULATION	30 MIN. CLASS 'F'	30 MIN. CLASS 'F'	30 MIN. CLASS 'F'
MOTOR TYPE	TENN	TENN	TENN
CONTROL	SINGLE SPEED	SINGLE SPEED	SINGLE SPEED
MAXIMUM WHEEL LOAD	-	-	3000# PER PAIR OF WHEELS
CURRENT: 480-3-60			RUNWAY RAIL OR BEAM: UNKNOWN

NOTE:
BRIDGE CRANE TO BE SPARK RESISTANT COMPLYING WITH CLASS 1, DIVISION 2, GROUP D ELECTRICAL REQUIREMENTS.

A12

GENERAL STRUCTURAL NOTES

A. GENERAL

- Contractor shall visit and become familiar with the project site and local conditions and verify all data pertaining to the site and its relationship to this work.
- Contractor shall coordinate and verify all dimensions and elevations with architectural, mechanical, electrical and civil drawings. Where discrepancies occur, it is the contractor's responsibility to notify the architect prior to construction. Contractor shall verify the location of anchor bolts, plates, cast-in-place angles, location and sizes of openings, embedments and other miscellaneous items prior to placement of concrete.
- All sections, details and notes shown on the drawings are intended to be typical and shall be construed to apply at any similar situation elsewhere on the job, except where a different detail is shown. Prepare working drawings to show the application of typical sections and details for similar situations.

B. DESIGN CODES

- International Building Code (IBC), 2003.
- ACI 350-06

C. CONSTRUCTION CODES

- Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Adopted April 1, 2016 and Supplemental Specifications and Recurring Special Provisions, Adopted January 1, 2020.

D. DESIGN LOADS

- Design Live Loads

1st Floor	300 psf
Dry Well Base Slab	300 psf
Other Floors	100 psf
Stairs	100 psf
Roof	20 psf
- Roof Snow Load

Flat Roof Snow Load	20 psf
Snow Exposure Factor	1.0
Snow Load Importance Factor	1.0
Thermal Factor	1.1
- Ground Snow Load 30 psf
- Wind Load

Basic Wind Speed	90 mph
Wind Importance Factor	1.0
Wind Exposure	B
Main Wind Force Resisting System	17 psf
- Earth Pressure

Equivalent Fluid Pressure	
Above Water Table	65 psf
Below Water Table	95 psf
Environmental Durability Factor, S_d	1.69
- Seismic Design Data

Seismic Importance Factor	1.0
Seismic Use Group	1
S_s	0.147%g
S_1	0.054%g
Site Class	D
Site Coefficient, F_a	1.6
Site Coefficient, F_v	2.4
Spectral Response Coefficient, S_{DS}	0.157
Spectral Response Coefficient, S_{D1}	0.087
Design Category	B
Basic Seismic Force Resisting System	Bearing Wall System
Design Base Shear	5.9 K
Seismic Response Coeff. C_s	0.103
Response Modification Factor	2
Analysis Procedure	Simplified Design Procedure

E. FOUNDATIONS

- The soils and foundation engineering report is for informational purposes only and shall not be considered part of the contract documents, furthermore, no warranty is made by the owner with regard to the completeness and accuracy of the subsurface investigation data, soil test data or statements and interpretations given in the Geotechnical Report prepared by Geo Services, Inc. on October 18, 2018.
- Water levels indicated on the boring logs may be subject to seasonal and/or annual variations. A dewatering system of sufficient capacity shall be installed and operated to maintain the construction area free of water at all times.
- The bearing value of the soil was determined by field exploration and laboratory analysis. The foundation design is based on a net allowable bearing pressure of 4500 psf.
- All footing excavations shall be inspected, prior to concrete placement, by a soils engineer to verify suitable bearing material of capacity as specified.
- Notify the Engineer when additional excavation is required to reach suitable bearing material.
- The soils engineer shall certify in writing that all foundations were placed on soil with the bearing value as specified.
- Within the excavation area of the foundations, all vegetation, topsoil, previously placed fill and unsuitable soils shall be removed. All footings shall bear on virgin soil or properly placed and compacted engineered fill.
- Do not place backfill against substructure walls until floor slabs supporting top and bottom of the walls have attained a compressive strength of 3000 psi as indicated by cylinder testing. Place backfill evenly against each side of substructures to produce equal and opposite lateral pressures, the difference in elevation not to exceed 1-FT.

F. CONCRETE

- Concrete work shall be in accordance with the Illinois Department of Transportation Standard Specifications Section 503.
- All cast-in-place concrete shall be $f'c = 4000$ psi at 14 days as shown in the drawings and in accordance with the Illinois Department of Transportation Standard Specifications, unless noted otherwise.
- Concrete mix design shall be in accordance with the "Code Requirements for Environmental Engineering Concrete Structures and Commentary" ACI 350-06.
- Reinforcement bars shall be $f_y = 60000$ psi, unless noted otherwise.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bars noted thus, 3x2-#5 indicates 3 lines of bars with 2 lengths per line.
- Reinforcement bar bending dimensions are out to out. Reinforcement bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures" ACI 315, latest edition.
- Reinforcement bar splices shall be in accordance with the following table unless shown otherwise on the drawings.

CLASS "B" SPLICE		
$f'c = 4000$ psi		
Size	Top Bars	Other Bars
#4	3'-3"	2'-6"
#5	4'-1"	3'-2"
#6	5'-4"	4'-8"
#7	7'-9"	6'-10"
#8	8'-10"	7'-10"
#9	9'-11"	8'-10"
#10	11'-2"	9'-11"

Note:
Top bars are horizontal bars with more than 12" of concrete cast below the bar.

- Unless otherwise shown on the drawings, rebar clearances for cast-in-place concrete shall be as follows:

Cast against earth	3"
Exposed to earth or weather	2"
All other locations	2"
- All exposed concrete edges shall have a $\frac{3}{4}$ " x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.
- Dowel holes shall be drilled $\frac{1}{4}$ " larger than the diameter of the dowels. Depth of embedment shall be as shown on the drawings.

G. CONSTRUCTION

- Contractor shall follow written dimensions only and not scale dimensions from the contract plans for construction purposes.
- No construction joints except those shown on the plans will be allowed unless approved by the Engineer.
- It shall be the Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 1-800-892-0123 and the department.

ABBREVIATIONS

B.F.	back face
☉	centerline
cts.	centers
cl.	clearance
∅	diameter
E.F.	each face
elev.	elevation
exist.	existing
F.F.	front face
I.F.	inside face
jt.	joint
max.	maximum
min.	minimum
no.	number
O.F.	outside face
P/JF	preformed joint filler
prop.	proposed
typ.	typical
req'd.	required
spa.	spaces

SYMBOLS

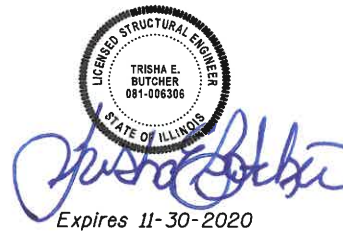
- waterstop

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SA-03	Structural Plan - EL 651.66
SA-04	Structural Plan - EL 661.58
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SA-06	Structural Plan - EL 671.50
SA-07	Structural Sections - Section A-A
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SA-14	Reinforcement Details - Key Plan
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SA-36	Structural Details
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SA-38	Pump Support Details - Low Flow Pump
SA-39	Soil Boring Log - 1
SA-40	Soil Boring Log - 2

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	2540.0
Concrete Structures	Cu. Yd.	783.0
Reinforcement Bars, Epoxy Coated	Pound	151430
Bar Splicers	Each	55
Temporary Soil Retention System	Sq. Ft.	8300.0
Concrete Sealer	Sq. Ft.	1820.0
Welded Wire Fabric 6X6	Sq. Yd.	95.0
Sheet Waterproofing Membrane System	Sq. Yd.	720.0
Dewatering	L Sum	1



Date: 6/9/2020

for drawings SA-01 thru SA-40

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED - TB	REVISIONS
CHECKED - LAS	REVISIONS
DRAWN - TB	REVISIONS
DATE - 6/9/2020	REVISIONS

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DEPARTMENT OF TRANSPORTATION

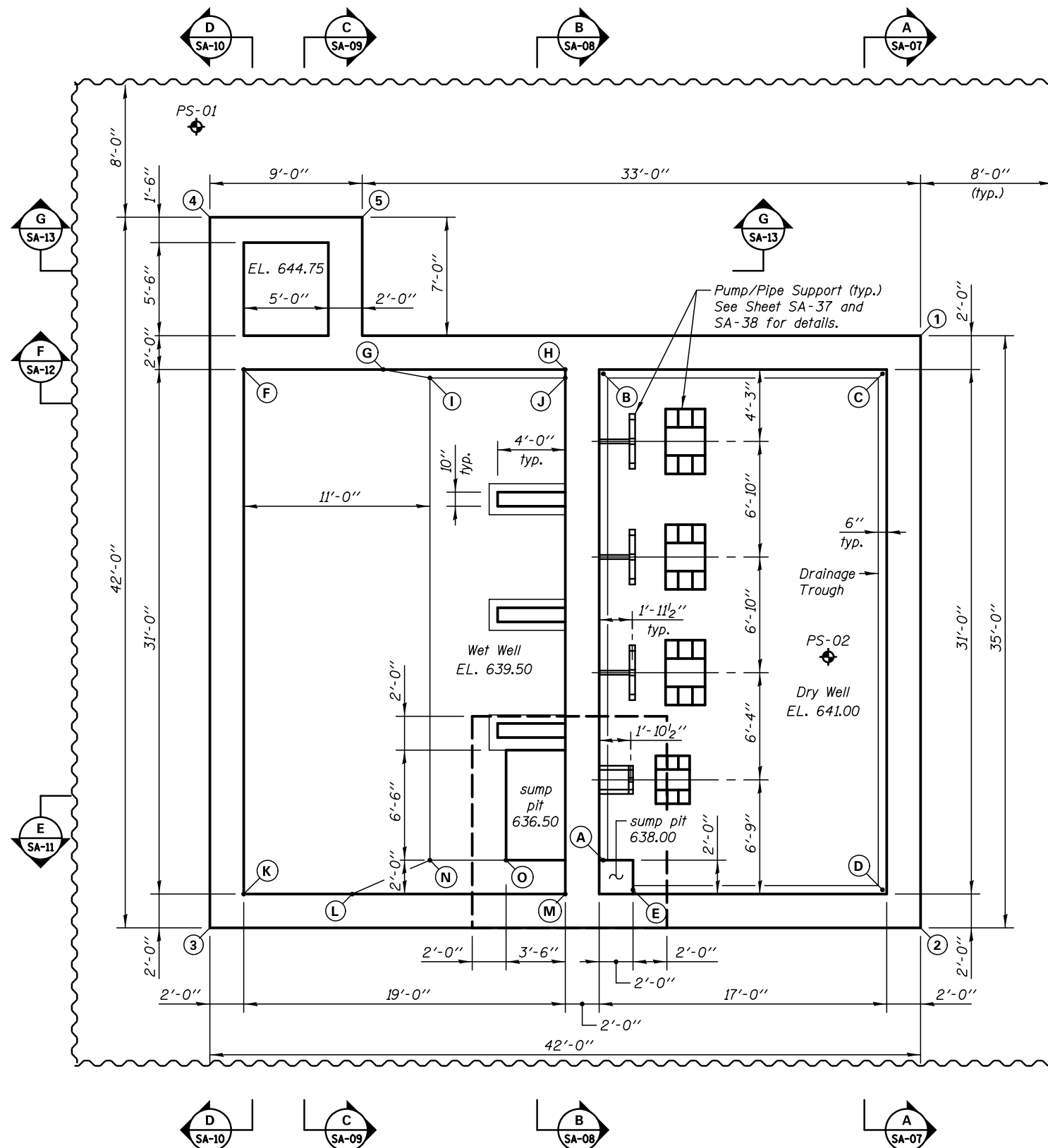
GENERAL NOTES
PUMP STATION 38

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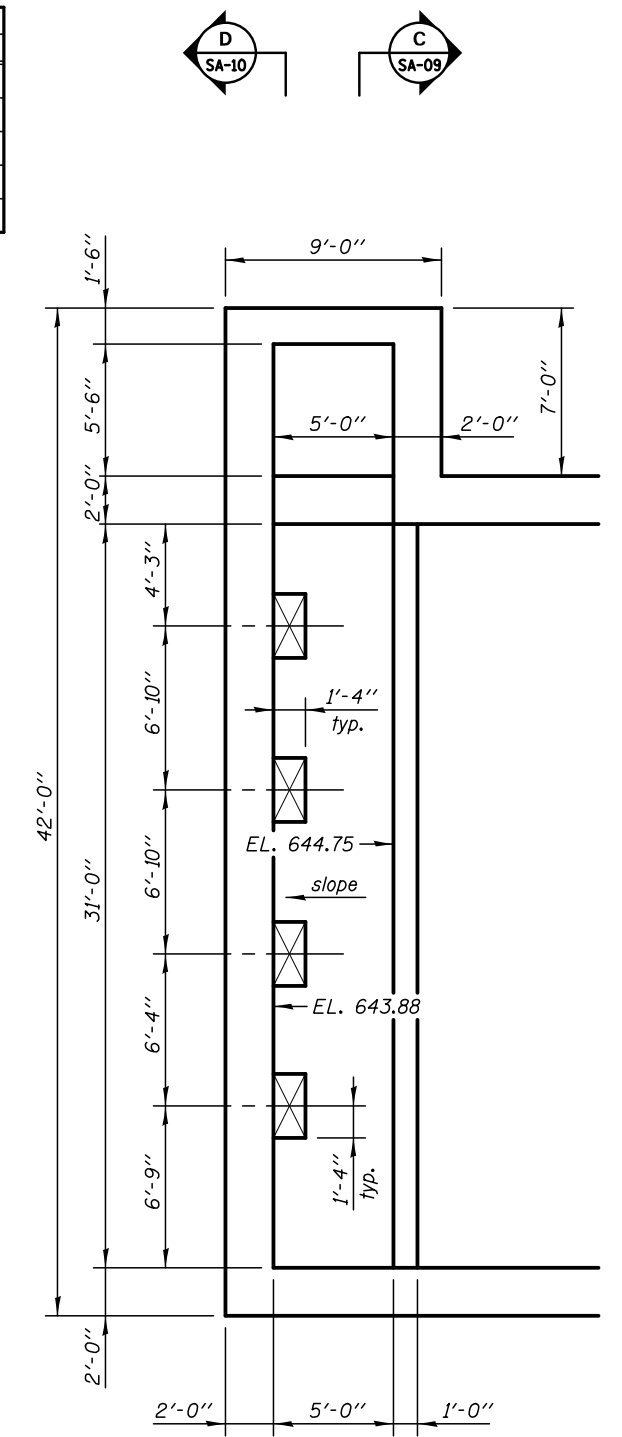
F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 180
ILLINOIS FED. AID PROJECT				CONTRACT NO. 62B65

BUILDING LOCATION

Point	Coordinates	
	North	East
①	2032923.03	1112184.23
②	2032888.03	1112184.14
③	2032888.13	1112142.14
④	2032930.13	1112142.25
⑤	2032930.11	1112151.25



PLAN - EL 641.00 / 639.50



PARTIAL PLAN - INFLOW BAFFLE

FLOOR SPOT ELEVATIONS

Point	Elevation
F	641.50
G	640.00
H	640.00
I	639.50
J	639.50
K	641.50
L	640.33
M	640.33
N	639.50
O	639.50

DRAINAGE TROUGH ELEVATIONS

Point	Elevation
A	640.50
B	640.67
C	640.75
D	640.58
E	640.50

Legend

◆ Soil Borings

Notes:

See Sheet SA-03 for additional Temporary Soil Retention System details.

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED - TB
CHECKED - LAS
SCALE - NONE
DATE - 6/9/2020

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DESIGNED - TB
CHECKED - LAS

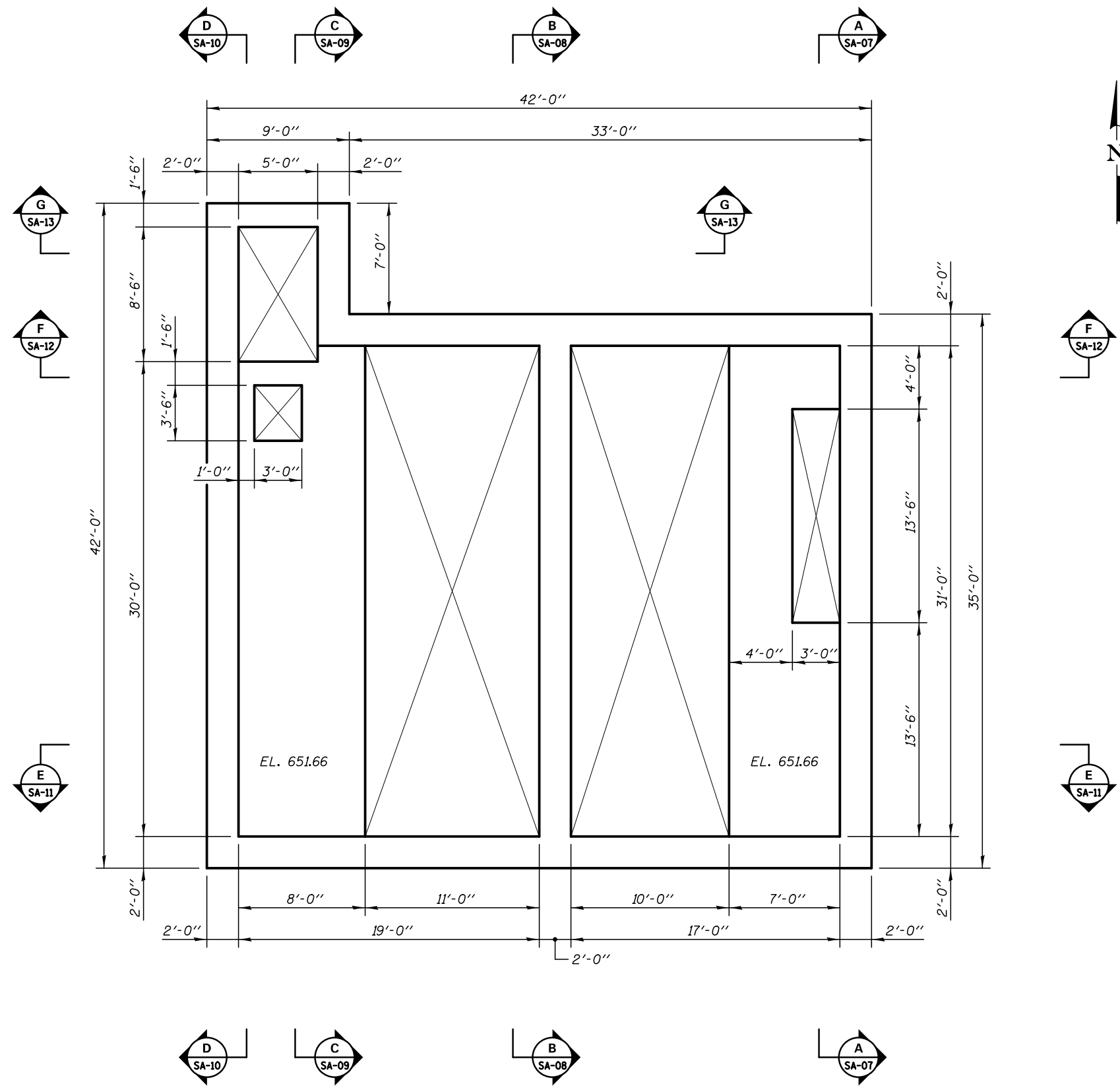
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL PLAN - EL 641.00 / 639.50
PUMP STATION 38**

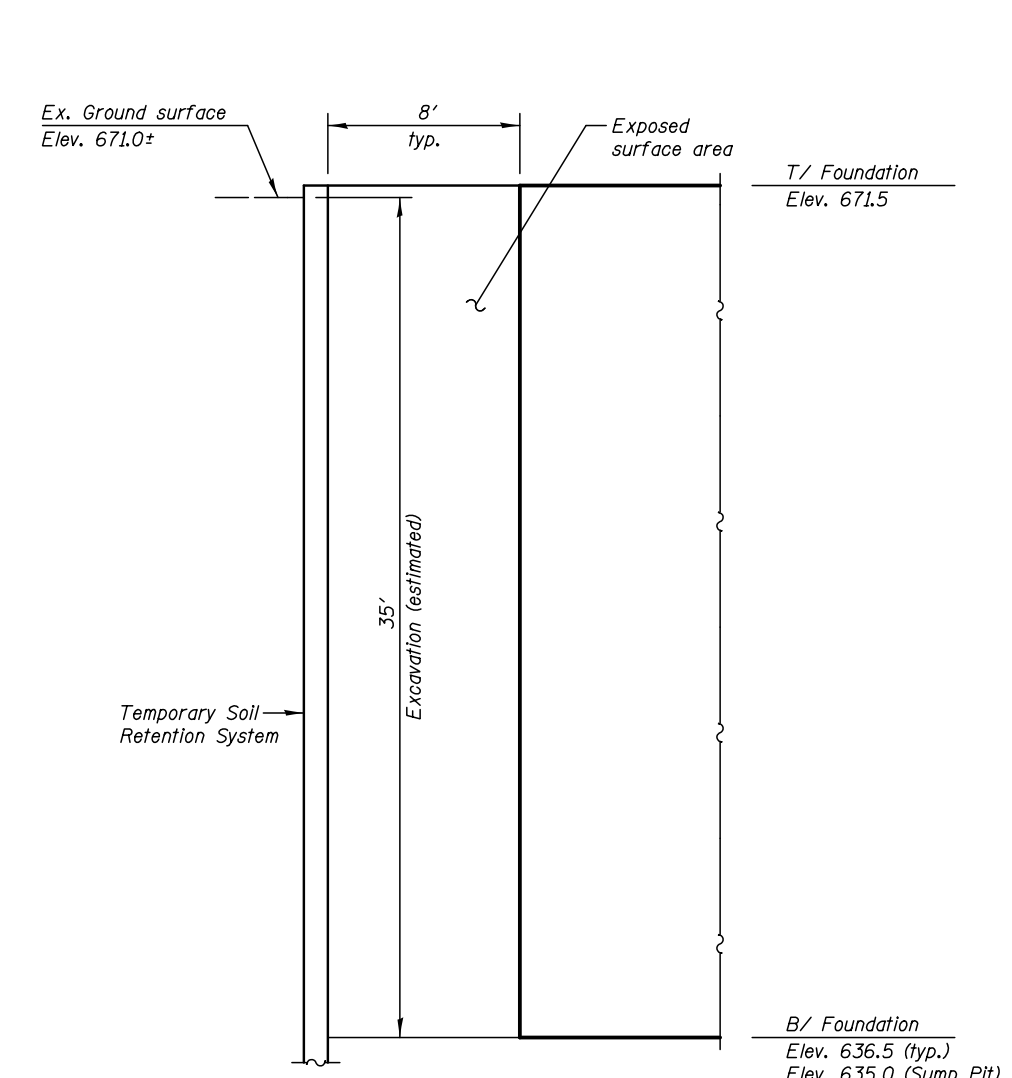
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	181
CONTRACT NO. 62B65				

ILLINOIS FED. AID PROJECT



PLAN - EL 651.66



**TEMPORARY SOIL RETENTION SYSTEM
TYPICAL SECTION AND PARTIAL ELEVATION VIEW**

Notes:
 A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
 See Sheet SA-02 for additional Temporary Soil Retention System dimensions.
 Structure Excavation will be paid for in accordance with Article 502.12 of the Standard Specification.

PLOT DATE = 6/9/2020

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 Engineers & Architects

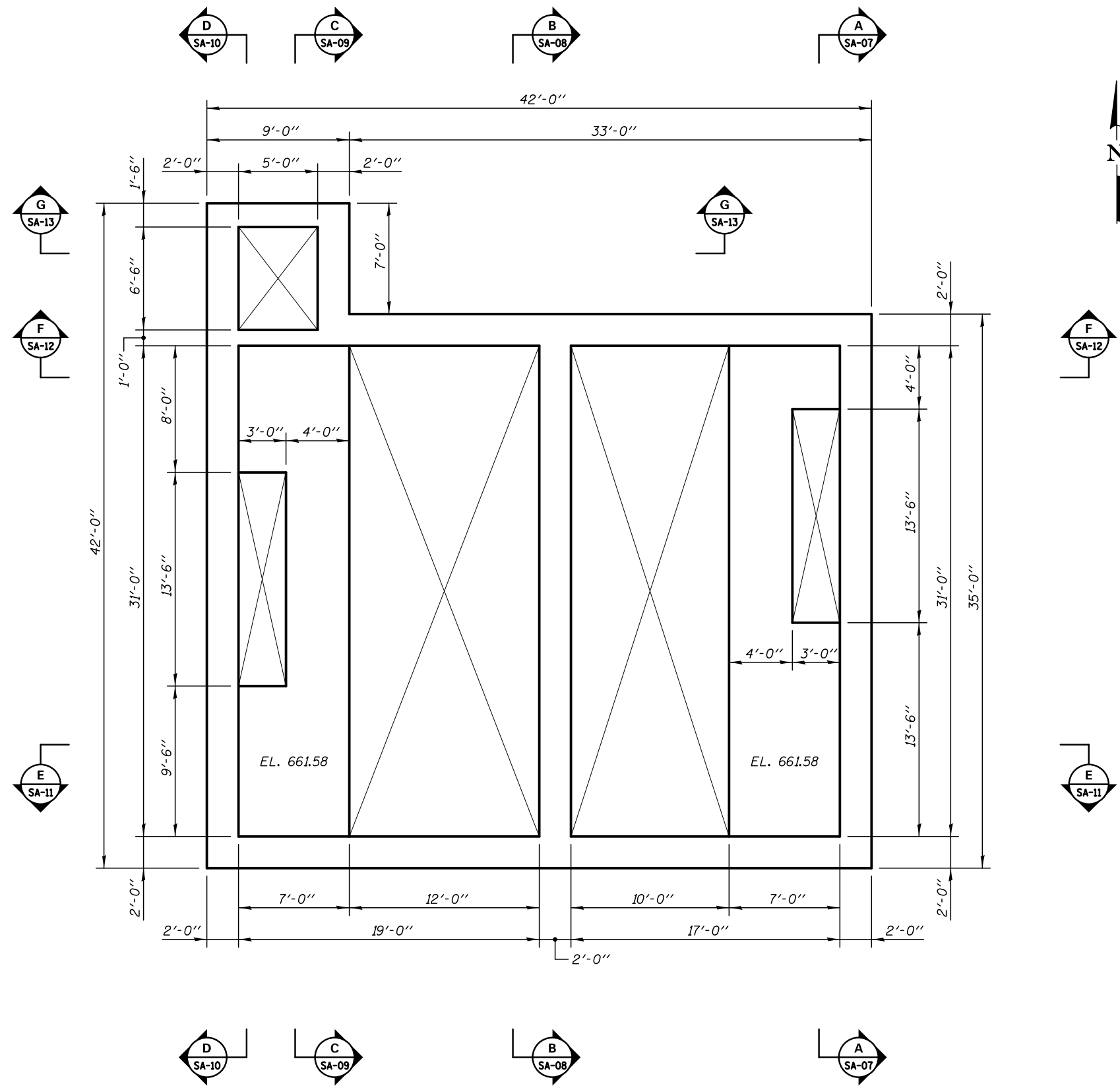
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DATE -	6/9/2020	REVISIONS	

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DRAWN -	TB	REVISIONS	
CHECKED -	LAS	REVISIONS	

**STATE OF ILLINOIS
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**STRUCTURAL PLAN - EL 651.66
 PUMP STATION 38**
 SHEET NO. SA-03 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	182
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



PLAN - EL 661.58

PLOT DATE = 6/9/2020

KNIGHT
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SCALE - NONE
DATE - 6/9/2020

DESIGNED - TB
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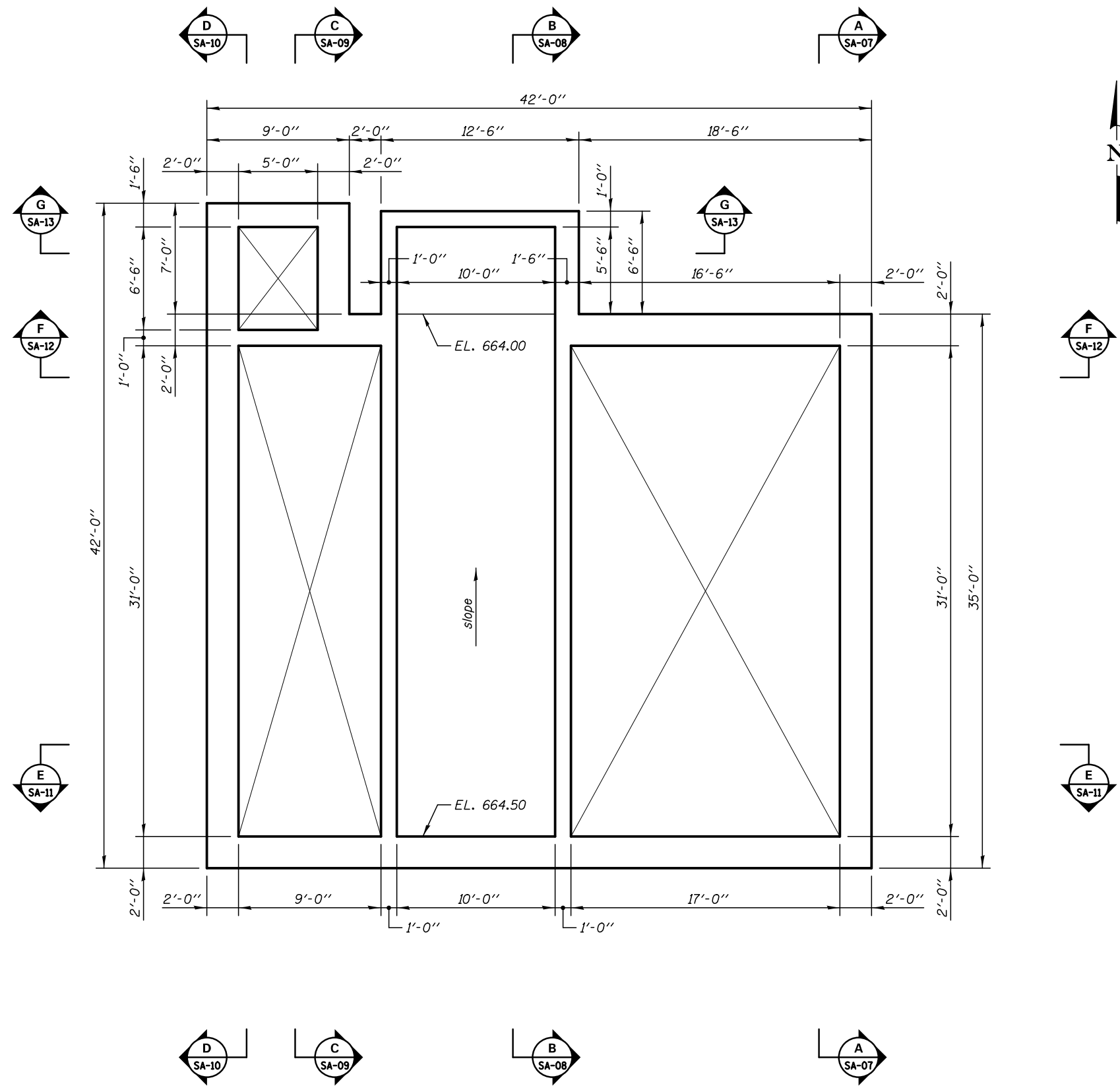
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**STRUCTURAL PLAN - EL 661.58
PUMP STATION 38**

SHEET NO. SA-04 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	183
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



PLAN - EL 664.50

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

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DATE	-	6/9/2020

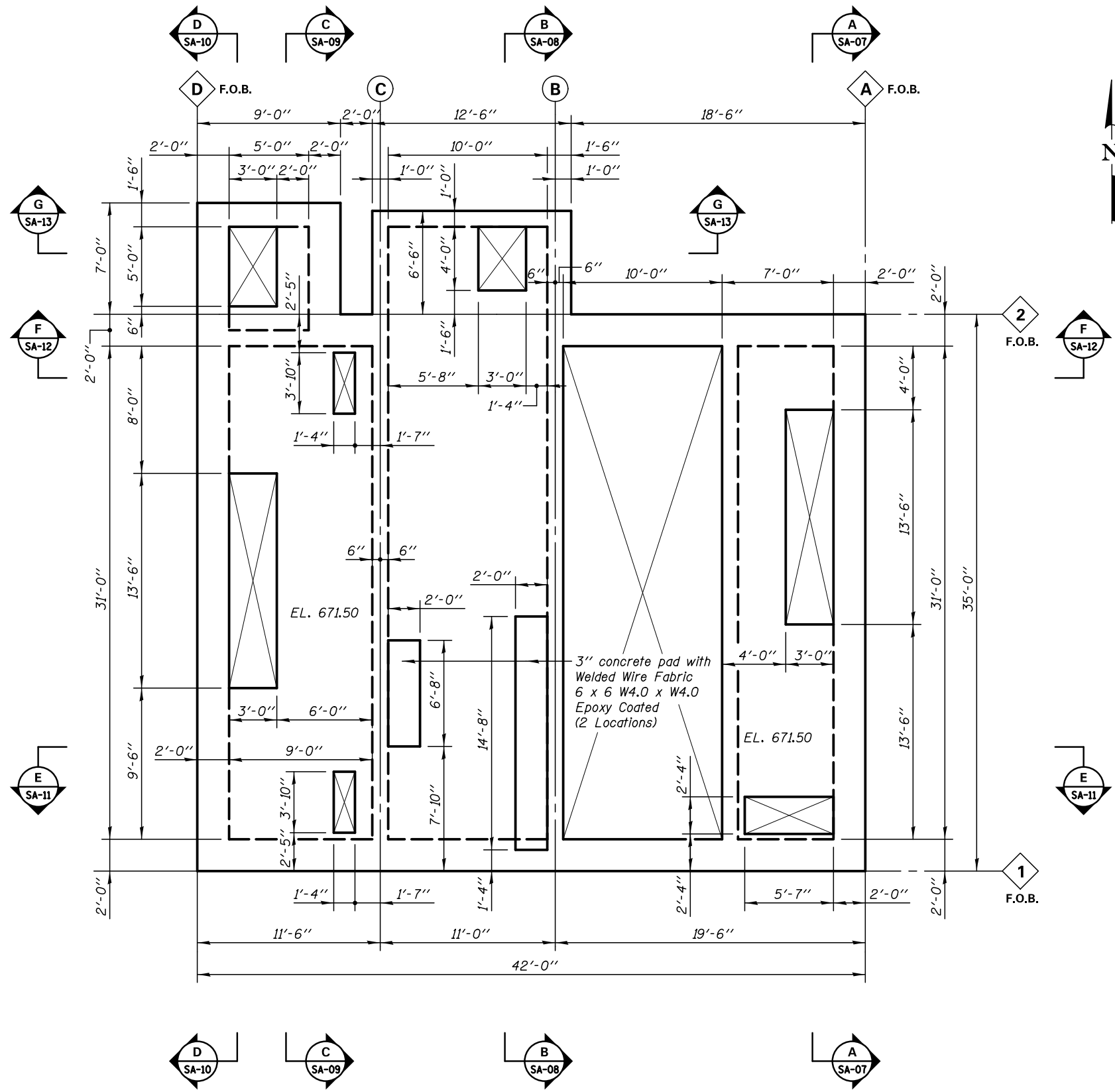
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**STRUCTURAL PLAN - EL 664.50
PUMP STATION 38**
SHEET NO. SA-05 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	184
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



PLAN - EL 671.50

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE	NONE
DATE	6/9/2020

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CHECKED	LAS
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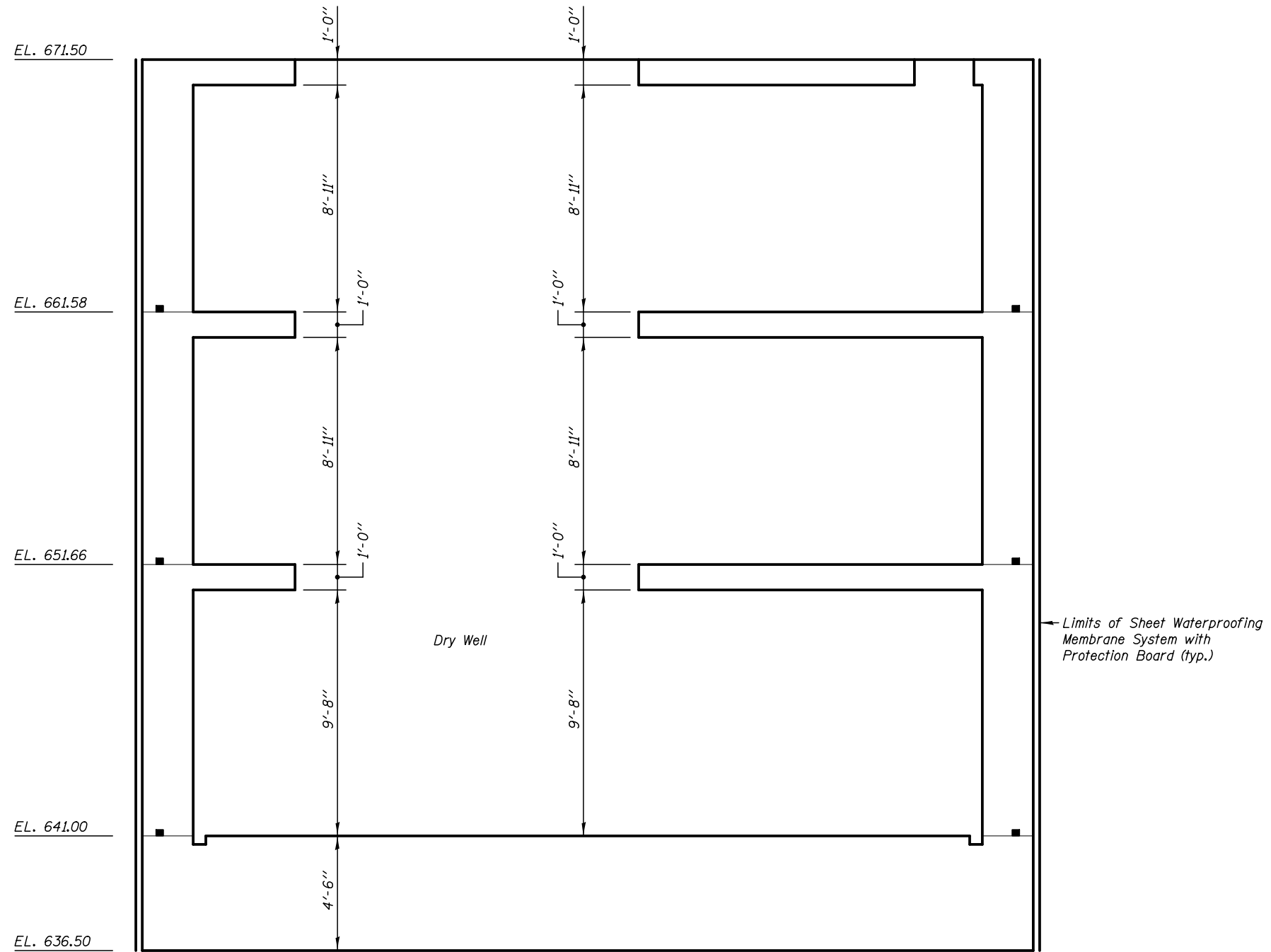
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STRUCTURAL PLAN - EL 671.50
PUMP STATION 38

SHEET NO. SA-06 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	185
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



SECTION A-A

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED	-	TB
CHECKED	-	LAS
SCALE	-	NONE
DATE	-	6/9/2020

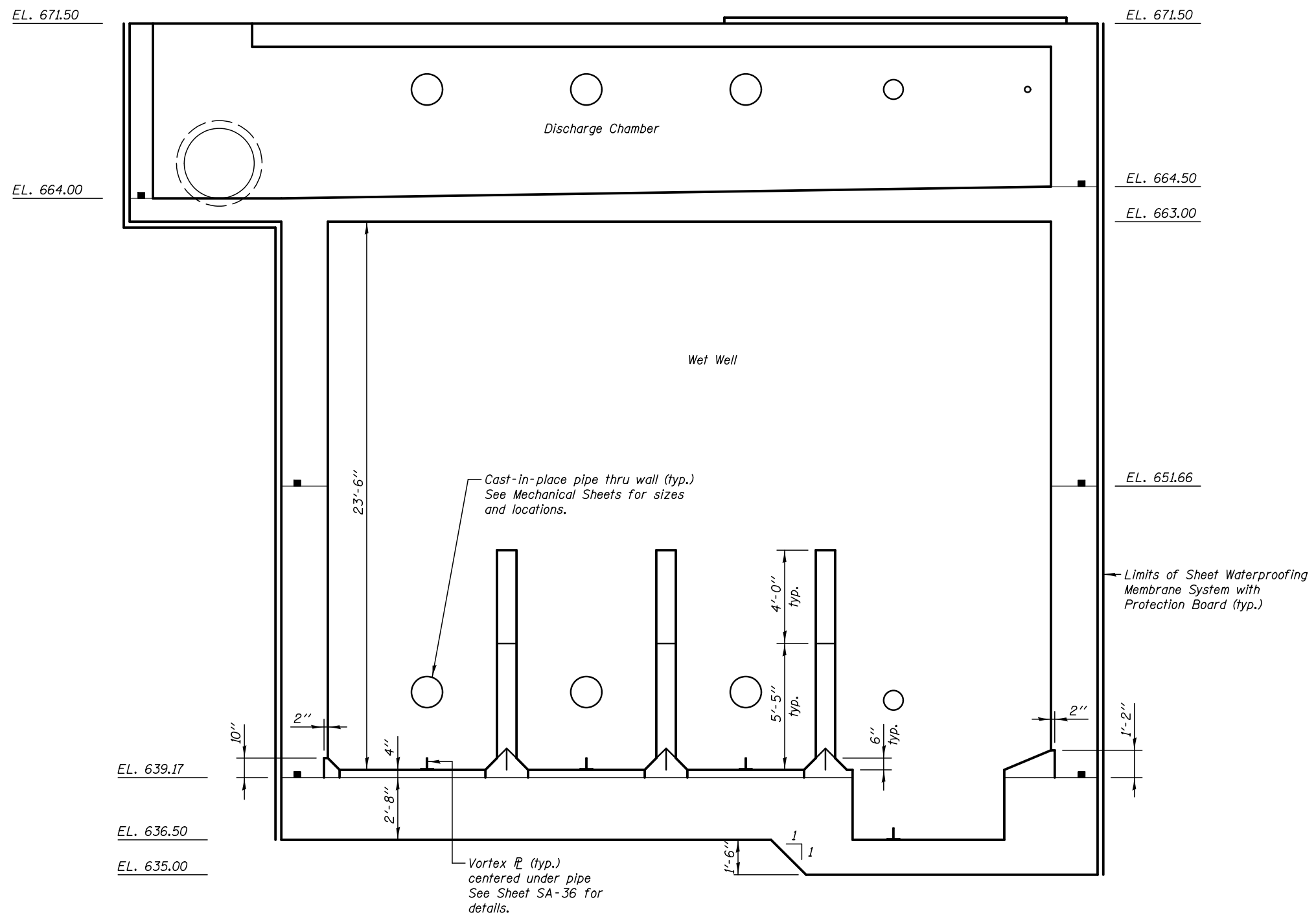
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REVISED	

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STRUCTURAL SECTIONS - SECTION A-A
PUMP STATION 38
SHEET NO. SA-07 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	186
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



SECTION B-B

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE	- NONE
DATE	- 6/9/2020

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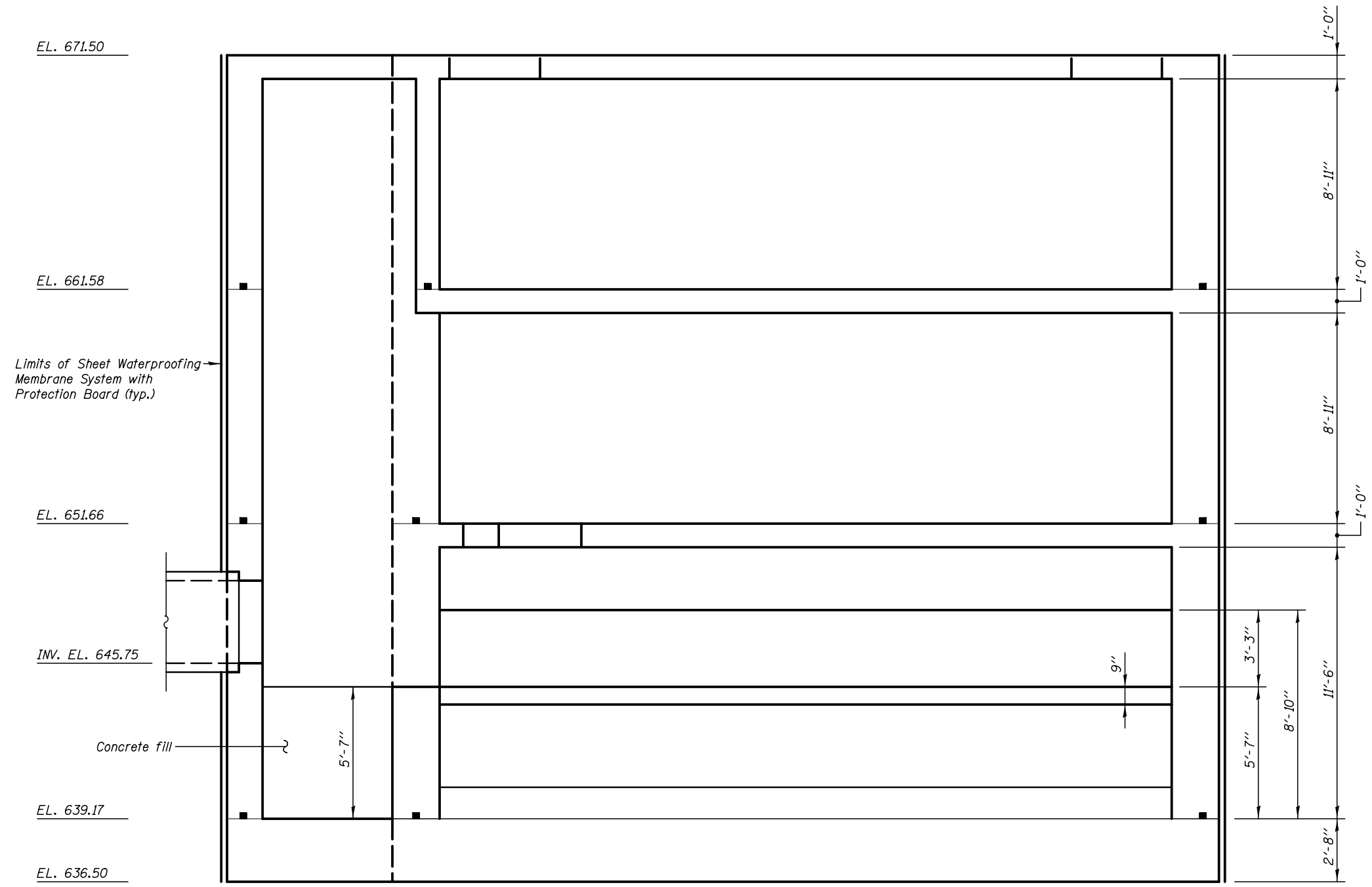
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**STRUCTURAL SECTIONS - SECTION B-B
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SHEET NO. SA-08 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	187
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



SECTION C-C

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED - TB	REVISIONS
CHECKED - LAS	REVISIONS
DRAWN - TB	REVISIONS
CHECKED - LAS	REVISIONS
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DATE - 6/9/2020	

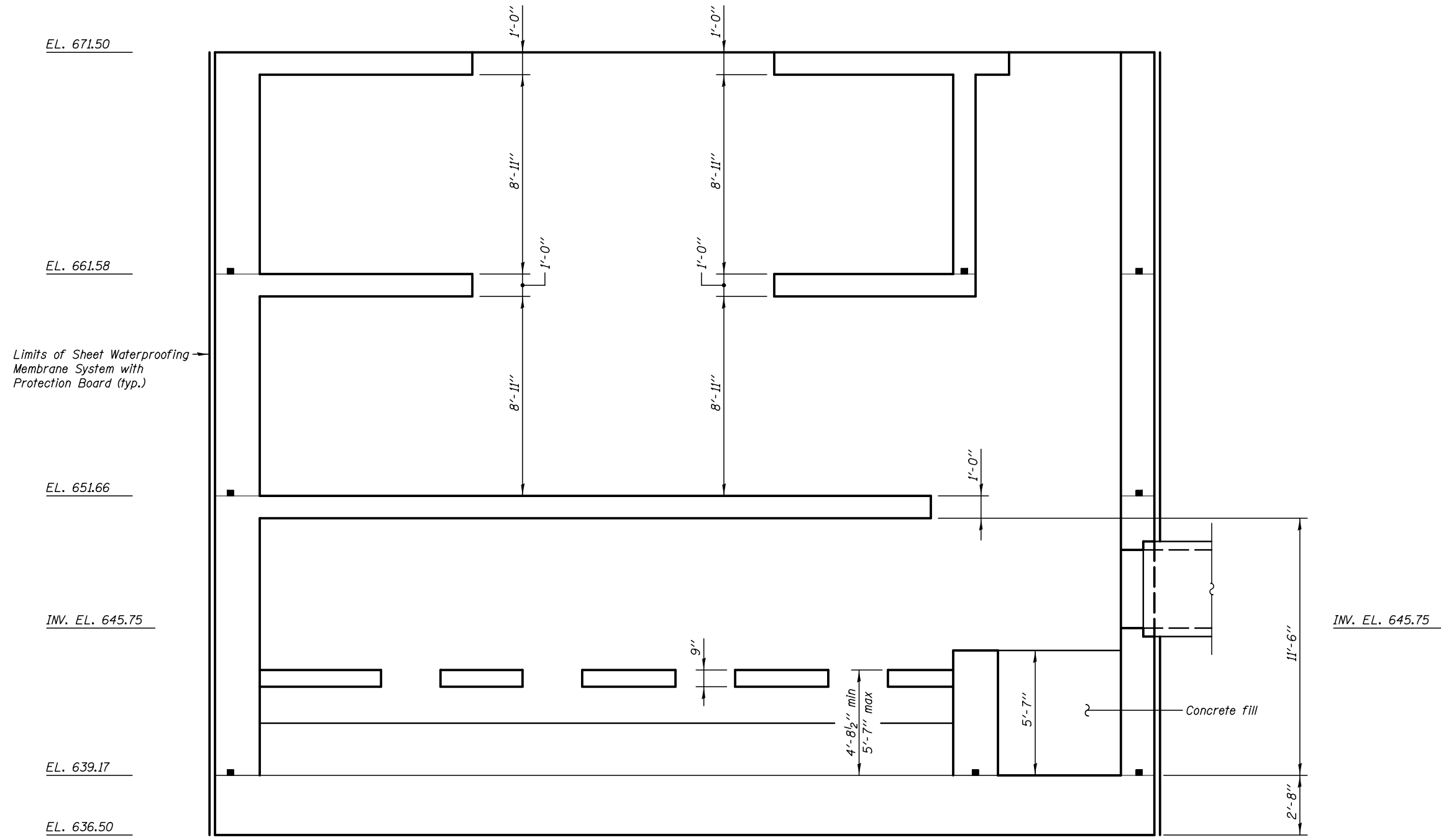
**STATE OF ILLINOIS
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**STRUCTURAL SECTIONS - SECTION C-C
PUMP STATION 38**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	188
CONTRACT NO. 62B65				

SHEET NO. SA-09 OF 40 SHEETS

ILLINOIS FED. AID PROJECT



SECTION D-D

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE	- NONE
DATE	- 6/9/2020

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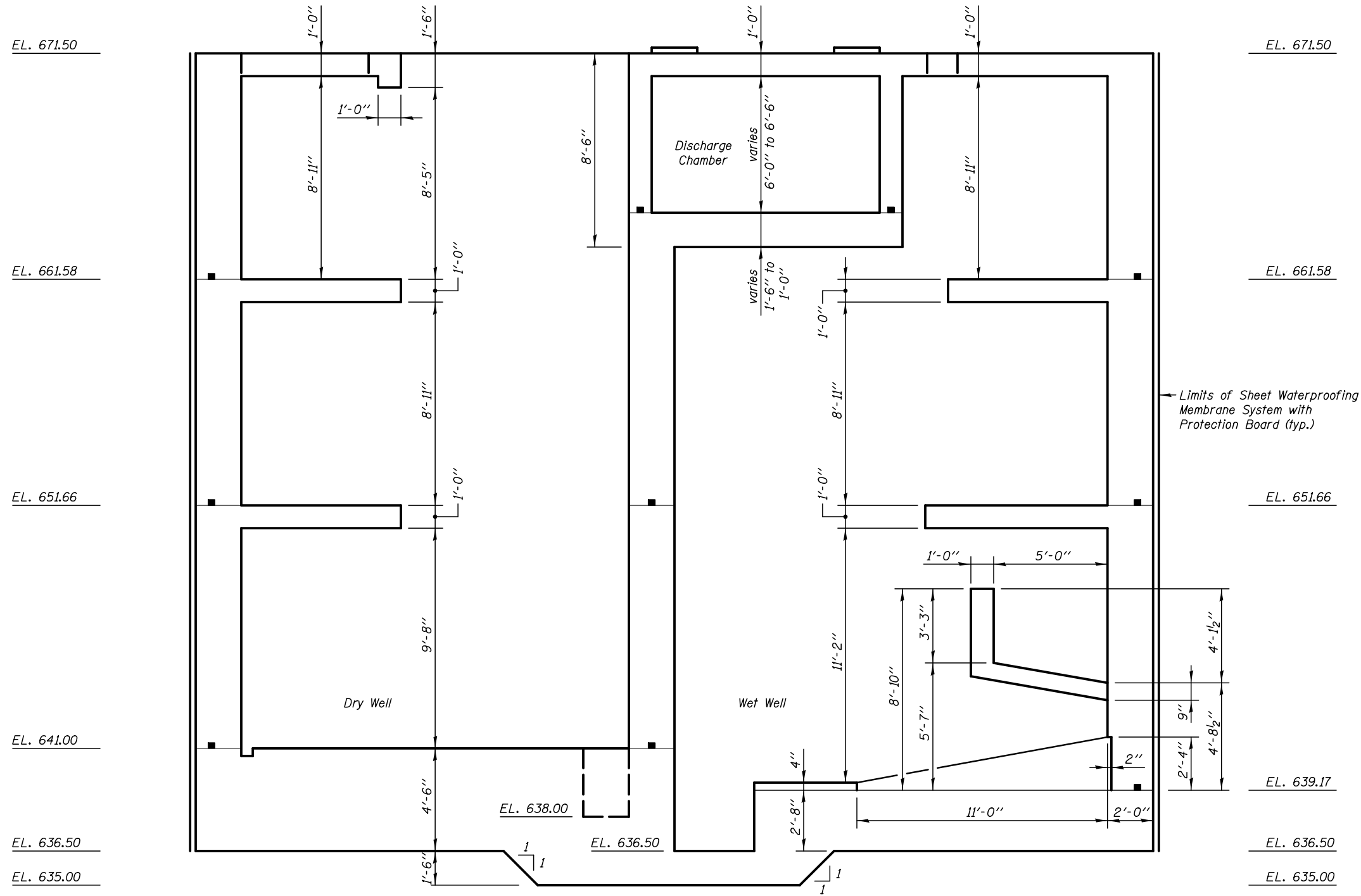
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**STRUCTURAL SECTIONS - SECTION D-D
PUMP STATION 38**

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	189
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



SECTION E-E

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE - NONE
DATE - 6/9/2020

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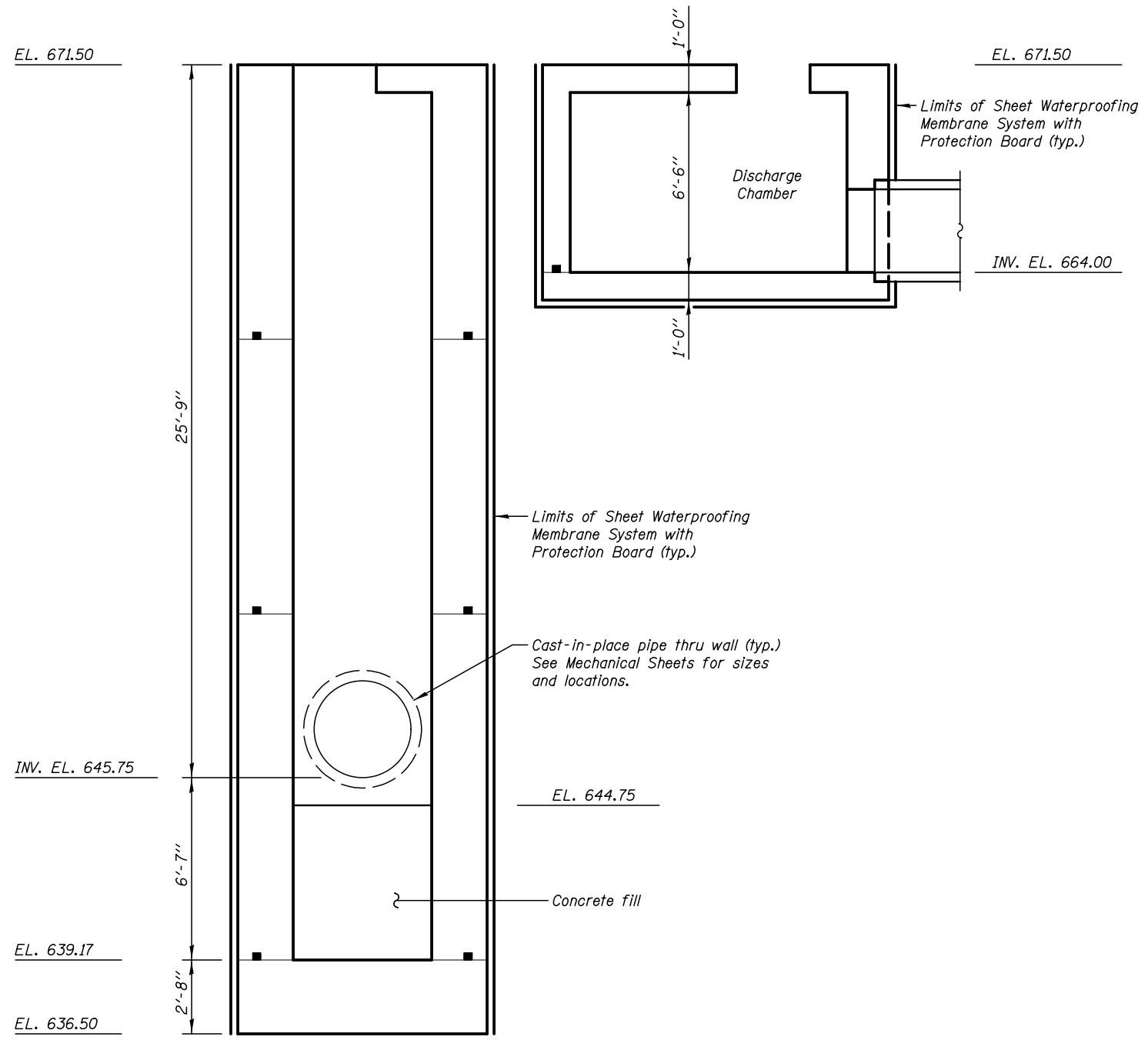
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL SECTIONS - SECTION E-E
PUMP STATION 38**

SHEET NO. SA-11 OF 40 SHEETS

F.A.P. RTE. 346	SECTION (21&215)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 190
CONTRACT NO. 62B65				ILLINOIS FED. AID PROJECT



SECTION G-G

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE	- NONE
DATE	- 6/9/2020

DESIGNED	- TB
CHECKED	- LAS
DRAWN	- TB
CHECKED	- LAS

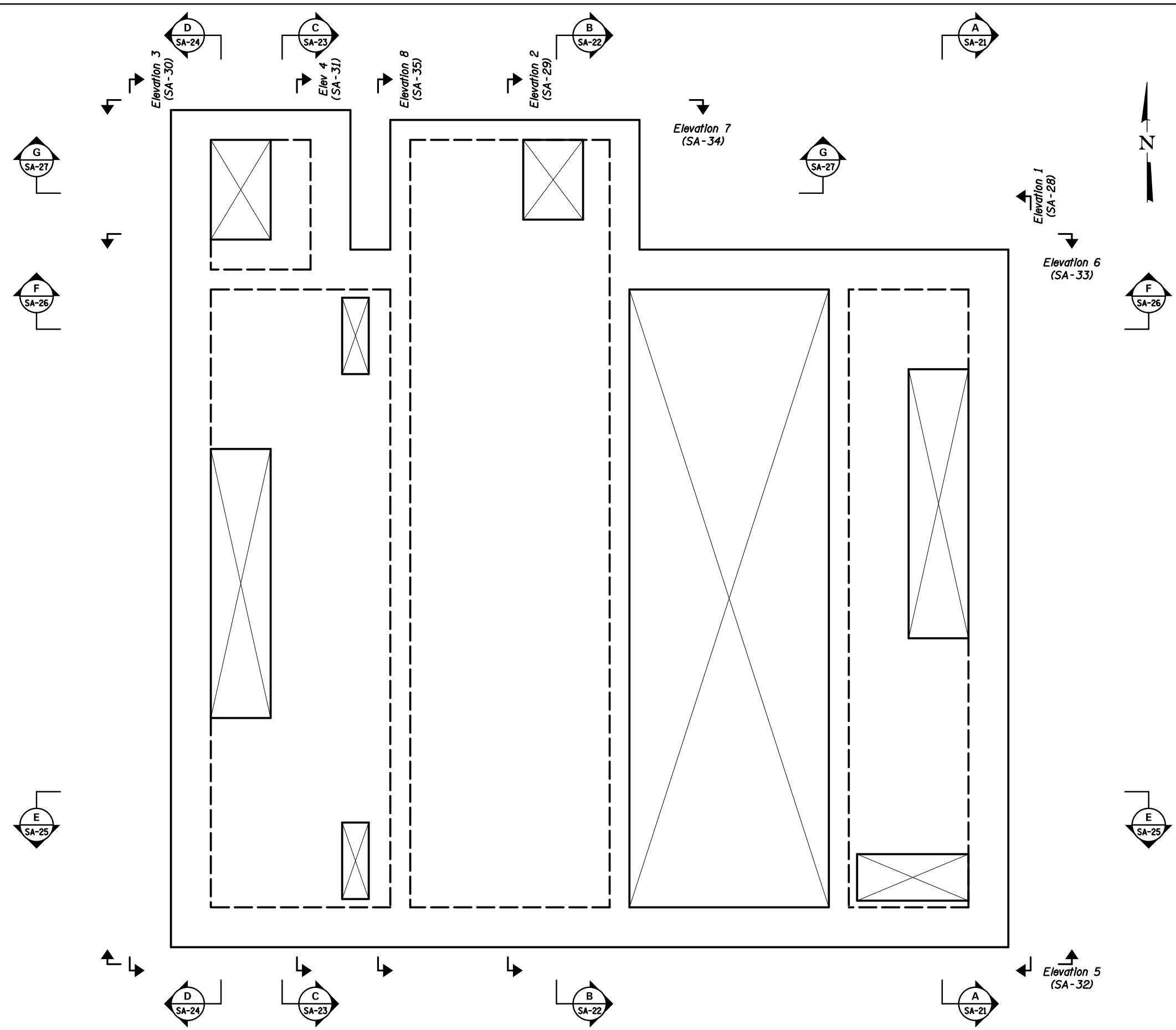
REVISED	
REVISED	
REVISED	
REVISED	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL SECTIONS - SECTION G-G
PUMP STATION 38**

SHEET NO. SA-13 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	192
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				



REINFORCEMENT KEY PLAN

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE	- NONE
DATE	- 6/9/2020

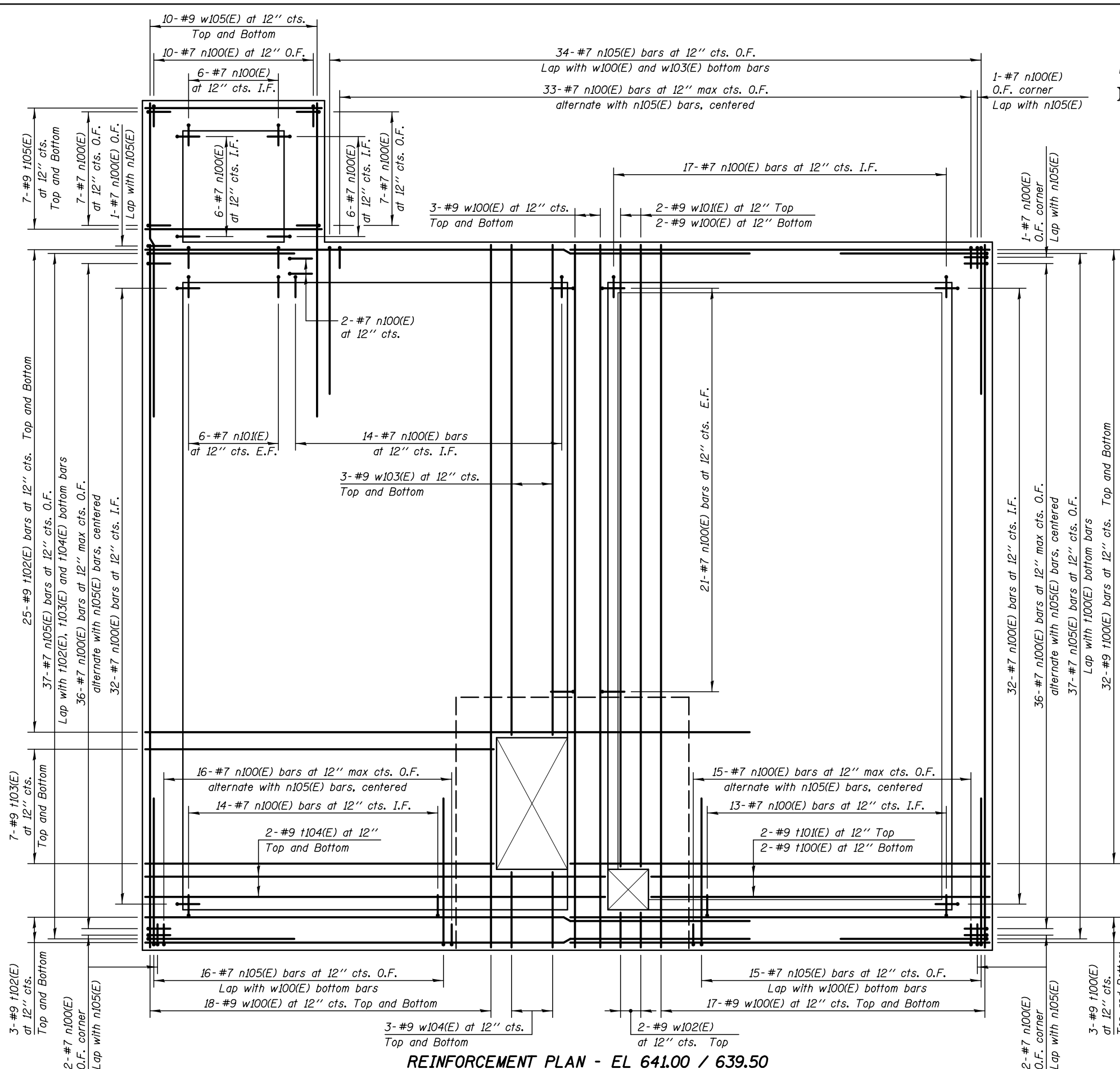
DESIGNED	- TB	REVISED	
CHECKED	- LAS	REVISED	
DRAWN	- TB	REVISED	
CHECKED	- LAS	REVISED	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

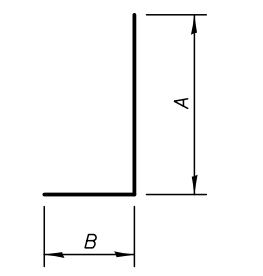
**REINFORCEMENT DETAILS - KEY PLAN
PUMP STATION 38**
SHEET NO. SA-14 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	193
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				

PLOT DATE = 6/9/2020



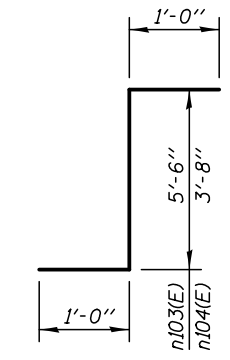
REINFORCEMENT PLAN - EL 641.00 / 639.50



A & B DIMENSIONS

BAR	A	B
n100(E)	22'-3"	1'-2"
n101(E)	7'-9"	1'-2"
n102(E)	24'-0"	1'-2"
n105(E)	12'-6"	7'-3"

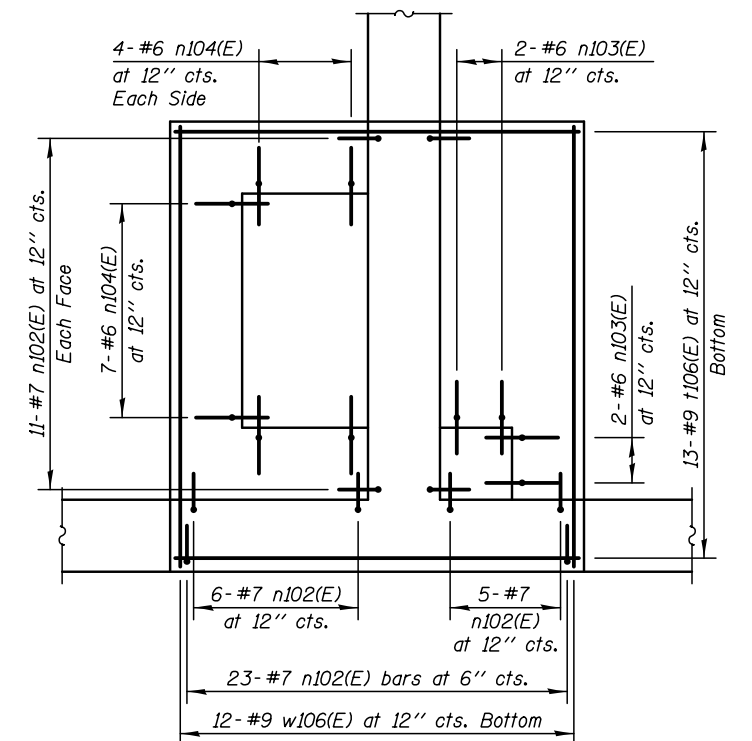
BARS n100(E), n101(E), n102(E) & n105(E)



BARS n103(E) & n104(E)

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
n100(E)	351	#7	23'-5"	┌┐
n101(E)	12	#7	8'-11"	┌┐
n102(E)	56	#7	25'-2"	┌┐
n103(E)	4	#6	7'-6"	┌┐
n104(E)	15	#6	5'-8"	┌┐
n105(E)	139	#7	19'-9"	┌┐
t100(E)	72	#9	20'-8"	
t101(E)	2	#9	16'-8"	
t102(E)	56	#9	31'-0"	
t103(E)	14	#9	17'-2"	
t104(E)	4	#9	22'-8"	
t105(E)	14	#9	8'-8"	
t106(E)	13	#9	11'-2"	
w100(E)	78	#9	34'-8"	
w101(E)	2	#9	30'-8"	
w102(E)	2	#9	1'-8"	
w103(E)	6	#9	24'-2"	
w104(E)	6	#9	3'-8"	
w105(E)	20	#9	17'-0"	
w106(E)	12	#9	12'-2"	
Reinforcement Bars, Epoxy Coated			Pound	50430



REINFORCEMENT PARTIAL PLAN - EL 636.50

KNIGHT
Engineers & Architects

SCALE - NONE
DATE - 6/9/2020

DESIGNED - TB
CHECKED - LAS
DRAWN - TB
CHECKED - LAS

REVISED
REVISED
REVISED
REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REINFORCEMENT DETAILS - FLOOR SLAB EL 641.00 / 639.50
PUMP STATION 38**

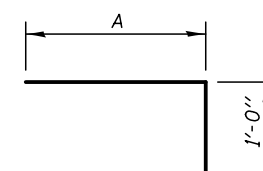
SHEET NO. SA-15 OF 40 SHEETS

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 194
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

BILL OF MATERIAL

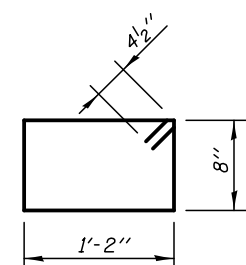
BAR	NO.	SIZE	LENGTH	SHAPE
a300(E)	10	#6	16'-2"	L
a301(E)	10	#6	15'-2"	L
a302(E)	6	#6	25'-6"	L
a303(E)	6	#6	24'-6"	L
a304(E)	4	#6	6'-8"	L
a305(E)	4	#6	5'-8"	L
a306(E)	8	#6	32'-8"	L
a307(E)	8	#6	31'-8"	L
a308(E)	4	#6	27'-8"	L
a309(E)	4	#6	26'-8"	L
a310(E)	4	#6	9'-0"	L
a311(E)	4	#6	8'-0"	L
a312(E)	12	#6	3'-0"	L
b300(E)	29	#6	9'-8"	L
b301(E)	29	#6	8'-8"	L
b302(E)	44	#6	3'-8"	L
b303(E)	37	#6	10'-8"	L
b304(E)	37	#6	9'-8"	L
b305(E)	2	#6	2'-8"	L
s300(E)	4	#4	4'-5"	□
Reinforcement Bars, Epoxy Coated			Pound	4450

A DIMENSIONS

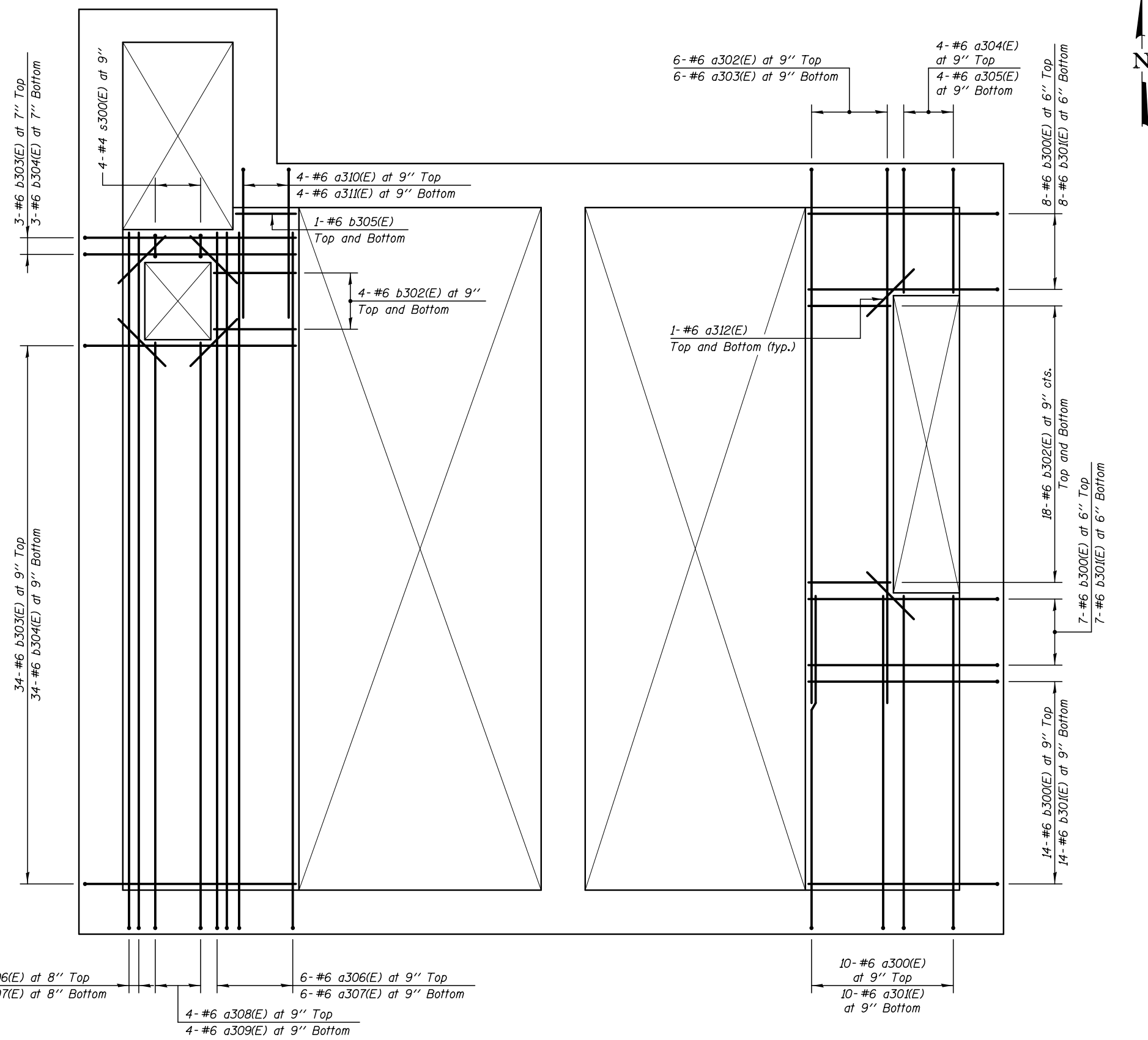


BAR	A
a300(E)	15'-2"
a302(E)	24'-6"
a304(E)	5'-8"
a306(E)	31'-8"
a308(E)	26'-8"
a310(E)	8'-0"
b300(E)	8'-8"
b303(E)	9'-8"

BARS a300(E), a302(E), a304(E), a306(E), a308(E), a310(E), b300(E) & b303(E)



BAR s300(E)



REINFORCEMENT PLAN - EL 651.66

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED	-	TB
CHECKED	-	LAS
SCALE	-	NONE
DATE	-	6/9/2020

REVISIONS	
REVISIONS	
REVISIONS	
REVISIONS	

DESIGNED	-	TB
CHECKED	-	LAS
DRAWN	-	TB
CHECKED	-	LAS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REINFORCEMENT DETAILS - FLOOR SLAB EL 651.66
PUMP STATION 38**

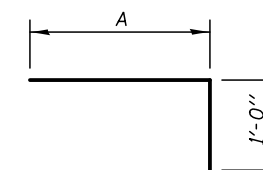
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	196
				CONTRACT NO. 62B65
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

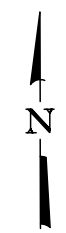
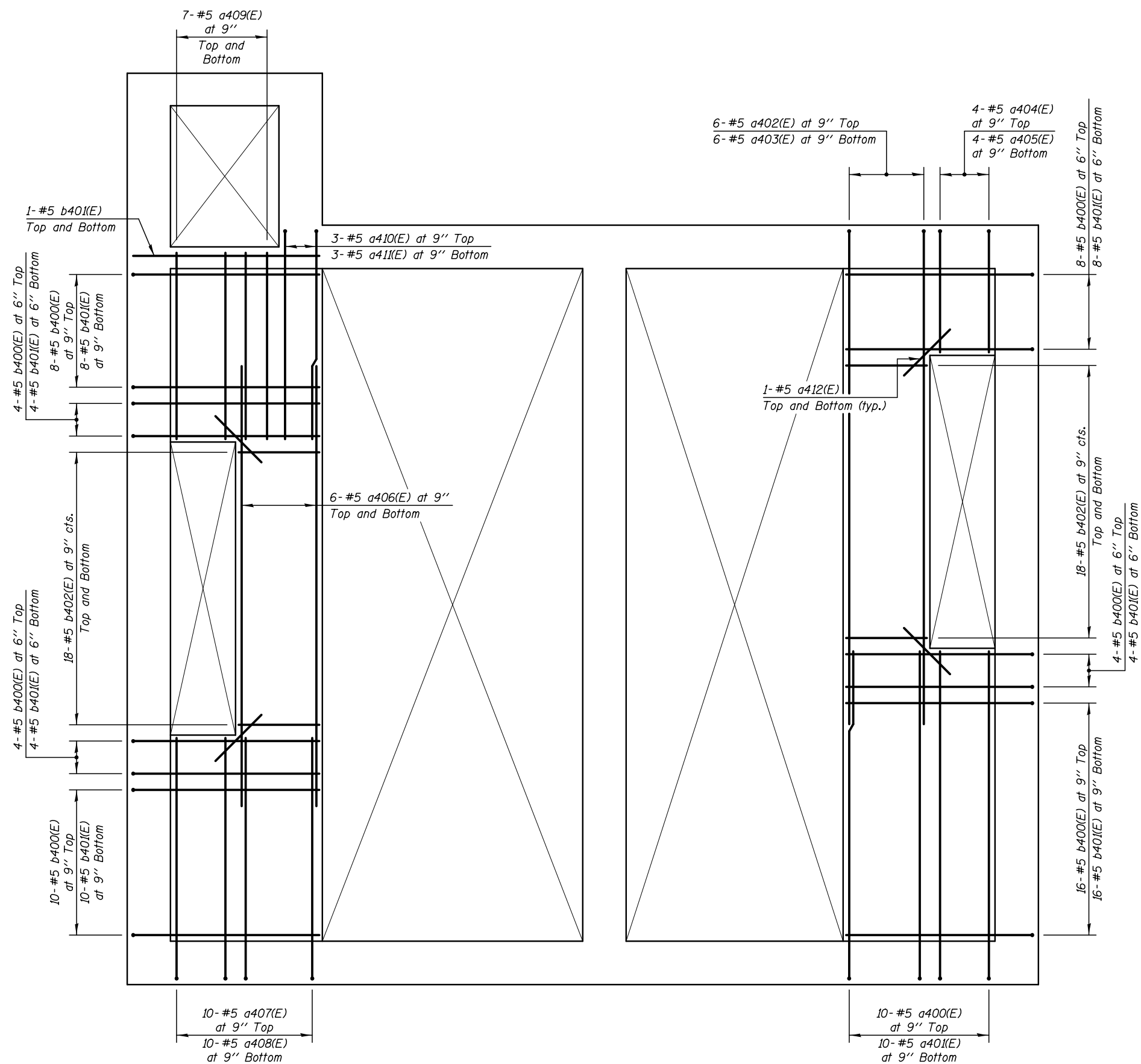
BAR	NO.	SIZE	LENGTH	SHAPE
a400(E)	10	#5	16'-2"	L
a401(E)	10	#5	15'-2"	L
a402(E)	6	#5	24'-0"	L
a403(E)	6	#5	23'-0"	L
a404(E)	4	#5	6'-8"	L
a405(E)	4	#5	5'-8"	L
a406(E)	12	#5	20'-6"	L
a407(E)	10	#5	12'-2"	L
a408(E)	10	#5	11'-2"	L
a409(E)	14	#5	8'-8"	L
a410(E)	3	#5	10'-8"	L
a411(E)	3	#5	9'-8"	L
a412(E)	8	#5	3'-0"	L
b400(E)	54	#5	9'-8"	L
b401(E)	56	#5	8'-8"	L
b402(E)	72	#5	3'-8"	L
Reinforcement Bars, Epoxy Coated			Pound	2720

A DIMENSIONS

BAR	A
a400(E)	15'-2"
a402(E)	23'-0"
a404(E)	5'-8"
a407(E)	11'-2"
a410(E)	9'-8"
b400(E)	8'-8"



BARS a400(E), a402(E), a404(E), a407(E), a410(E) & b400(E)



REINFORCEMENT PLAN - EL 661.58

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

DESIGNED	-	TB
CHECKED	-	LAS
SCALE	-	NONE
DATE	-	6/9/2020

REVISIONS	
CHECKED	- LAS
DRAWN	- TB
CHECKED	- LAS

REVISIONS	
REVISIONS	
REVISIONS	
REVISIONS	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REINFORCEMENT DETAILS - FLOOR SLAB EL 661.58
PUMP STATION 38

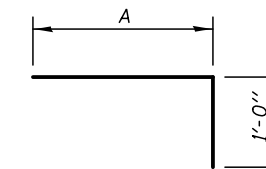
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	197
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	

SHEET NO. SA-18 OF 40 SHEETS

BILL OF MATERIAL

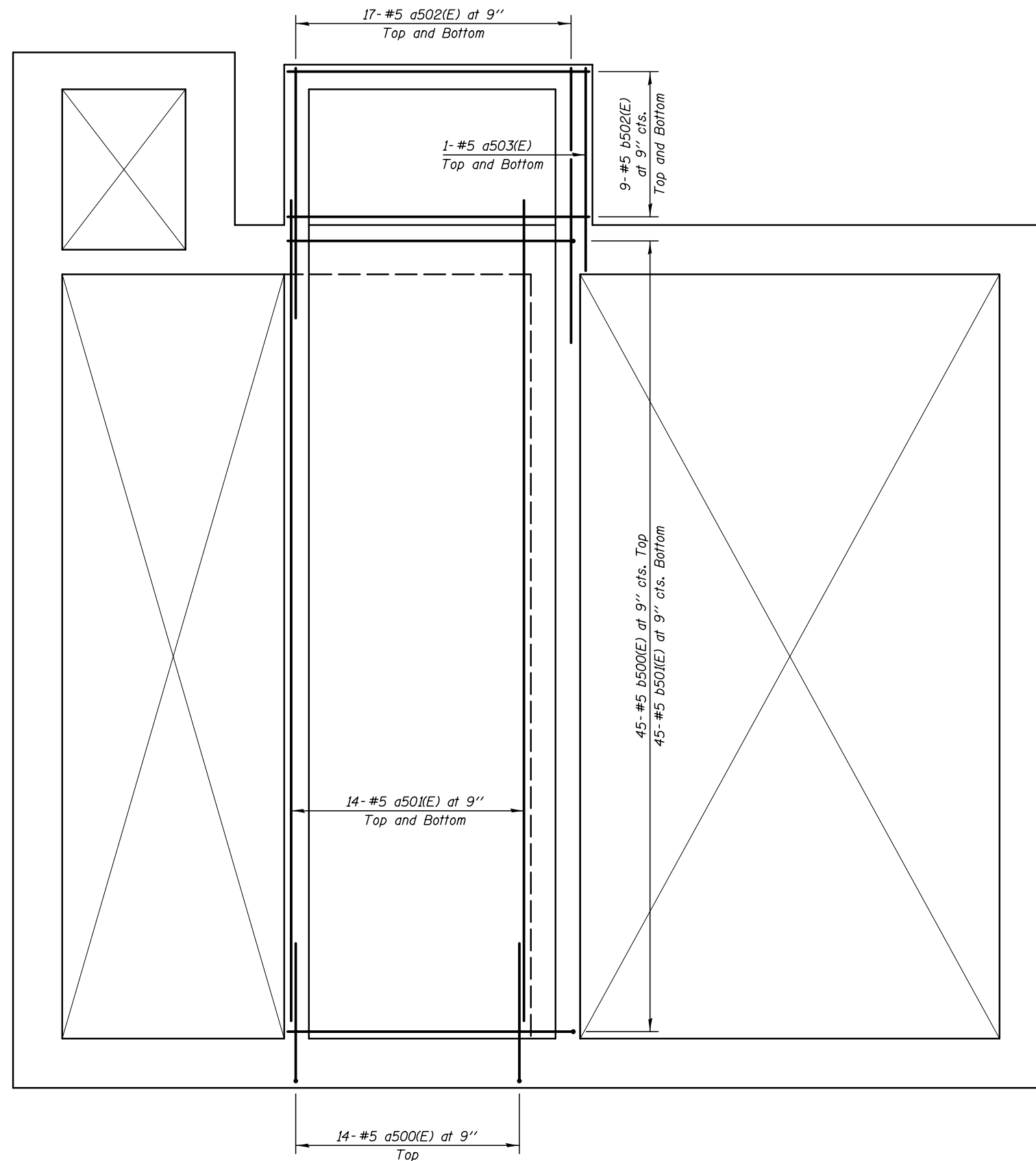
BAR	NO.	SIZE	LENGTH	SHAPE
a500(E)	14	#5	7'-0"	└─┘
a501(E)	28	#5	33'-0"	▬
a502(E)	34	#5	11'-6"	▬
a503(E)	2	#5	8'-2"	▬
b500(E)	45	#5	12'-8"	└─┘
b501(E)	45	#5	11'-8"	▬
b502(E)	18	#5	12'-2"	▬
Reinforcement Bars, Epoxy Coated			Pound	2870

A DIMENSIONS



BAR	A
a500(E)	6'-0"
b500(E)	11'-8"

BARS a500(E) & b500(E)



REINFORCEMENT PLAN - EL 664.50

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE	- NONE
DATE	- 6/9/2020

DESIGNED	- TB
CHECKED	- LAS
DRAWN	- TB
CHECKED	- LAS

REVISED	
REVISED	
REVISED	
REVISED	

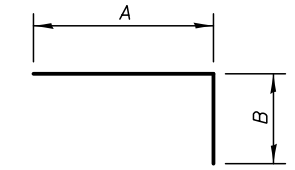
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REINFORCEMENT DETAILS - FLOOR SLAB EL 664.50
PUMP STATION 38**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&21S)-I	LAKE	290	198
CONTRACT NO. 62B65				

SHEET NO. SA-19 OF 40 SHEETS

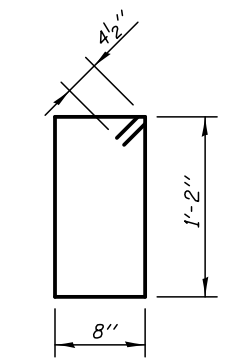
ILLINOIS FED. AID PROJECT



A & B DIMENSIONS

BAR	A	B
a600(E)	20'-3"	1'-0"
a602(E)	23'-0"	1'-0"
a604(E)	5'-8"	1'-0"
a607(E)	15'-2"	1'-0"
a609(E)	11'-2"	1'-0"
a613(E)	16'-2"	1'-0"
a616(E)	9'-8"	1'-0"
a618(E)	16'-8"	1'-0"
b600(E)	8'-8"	1'-4"
b603(E)	8'-3"	1'-0"
b605(E)	17'-8"	1'-0"
b607(E)	12'-9"	1'-0"
b610(E)	6'-4"	1'-0"

BARS a600(E), a602(E), a604(E), a607(E), a609(E), a613(E), a616(E), a618(E), b600(E), b603(E), b605(E), b607(E) & b610(E)

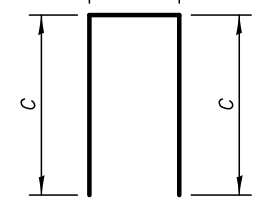


BAR s600(E)

BILL OF MATERIAL

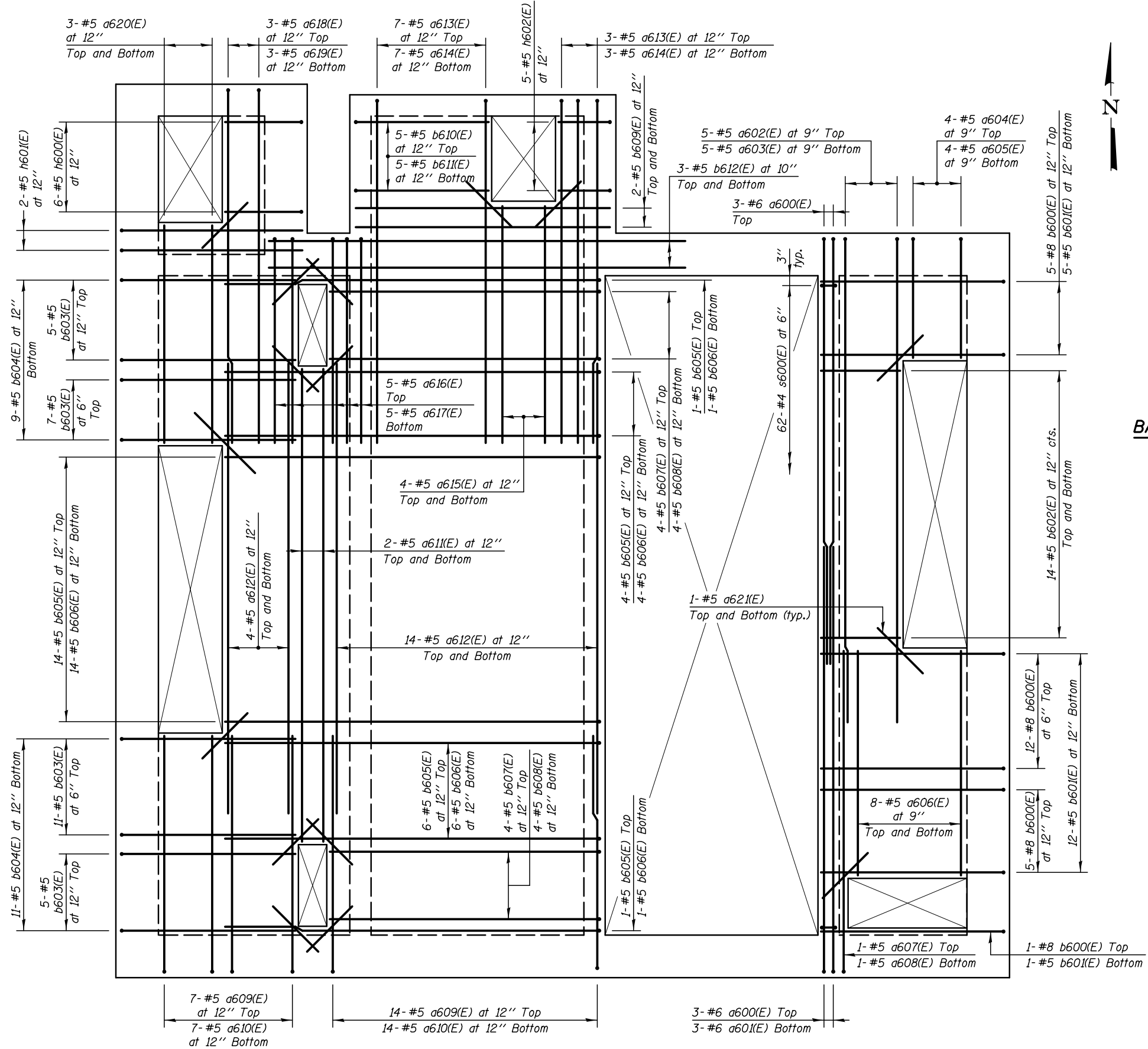
BAR	NO.	SIZE	LENGTH	SHAPE
a600(E)	6	#6	21'-3"	L
a601(E)	3	#6	34'-8"	L
a602(E)	5	#5	24'-0"	L
a603(E)	5	#5	23'-0"	L
a604(E)	4	#5	6'-8"	L
a605(E)	4	#5	5'-8"	L
a606(E)	16	#5	10'-6"	L
a607(E)	1	#5	16'-2"	L
a608(E)	1	#5	15'-2"	L
a609(E)	21	#5	12'-2"	L
a610(E)	21	#5	11'-2"	L
a611(E)	4	#5	22'-2"	L
a612(E)	36	#5	20'-6"	L
a613(E)	10	#5	17'-2"	L
a614(E)	10	#5	16'-2"	L
a615(E)	8	#5	11'-2"	L
a616(E)	5	#5	10'-8"	L
a617(E)	5	#5	9'-8"	L
a618(E)	3	#5	17'-8"	L
a619(E)	3	#5	16'-8"	L
a620(E)	6	#5	10'-2"	L
a621(E)	32	#5	3'-0"	L
b600(E)	23	#8	10'-0"	L
b601(E)	18	#5	8'-8"	L
b602(E)	28	#5	3'-8"	L
b603(E)	28	#5	9'-3"	L
b604(E)	20	#5	8'-3"	L
b605(E)	26	#5	18'-8"	L
b606(E)	26	#5	17'-8"	L
b607(E)	8	#5	13'-9"	L
b608(E)	8	#5	12'-9"	L
b609(E)	4	#5	12'-2"	L
b610(E)	5	#5	7'-4"	L
b611(E)	5	#5	6'-4"	L
b612(E)	6	#5	21'-0"	L
h600(E)	6	#5	8'-0"	L
h601(E)	2	#5	18'-0"	L
h602(E)	5	#5	5'-8"	L
s600(E)	62	#4	4'-5"	L
Reinforcement Bars, Epoxy Coated			Pound	6130

C DIMENSION



BAR	C
h600(E)	3'-8"
h601(E)	8'-8"
h602(E)	2'-6"

BARS h600(E), h601(E) & h602(E)



REINFORCEMENT PLAN - EL 671.50

Notes:
Bars indicated thus 5x2- #5 etc. indicates 5 lines of bars with 2 lengths per line.

PLOT DATE = 6/9/2020



DESIGNED - TB	REVISIONS
CHECKED - LAS	REVISIONS
DRAWN - TB	REVISIONS
CHECKED - LAS	REVISIONS

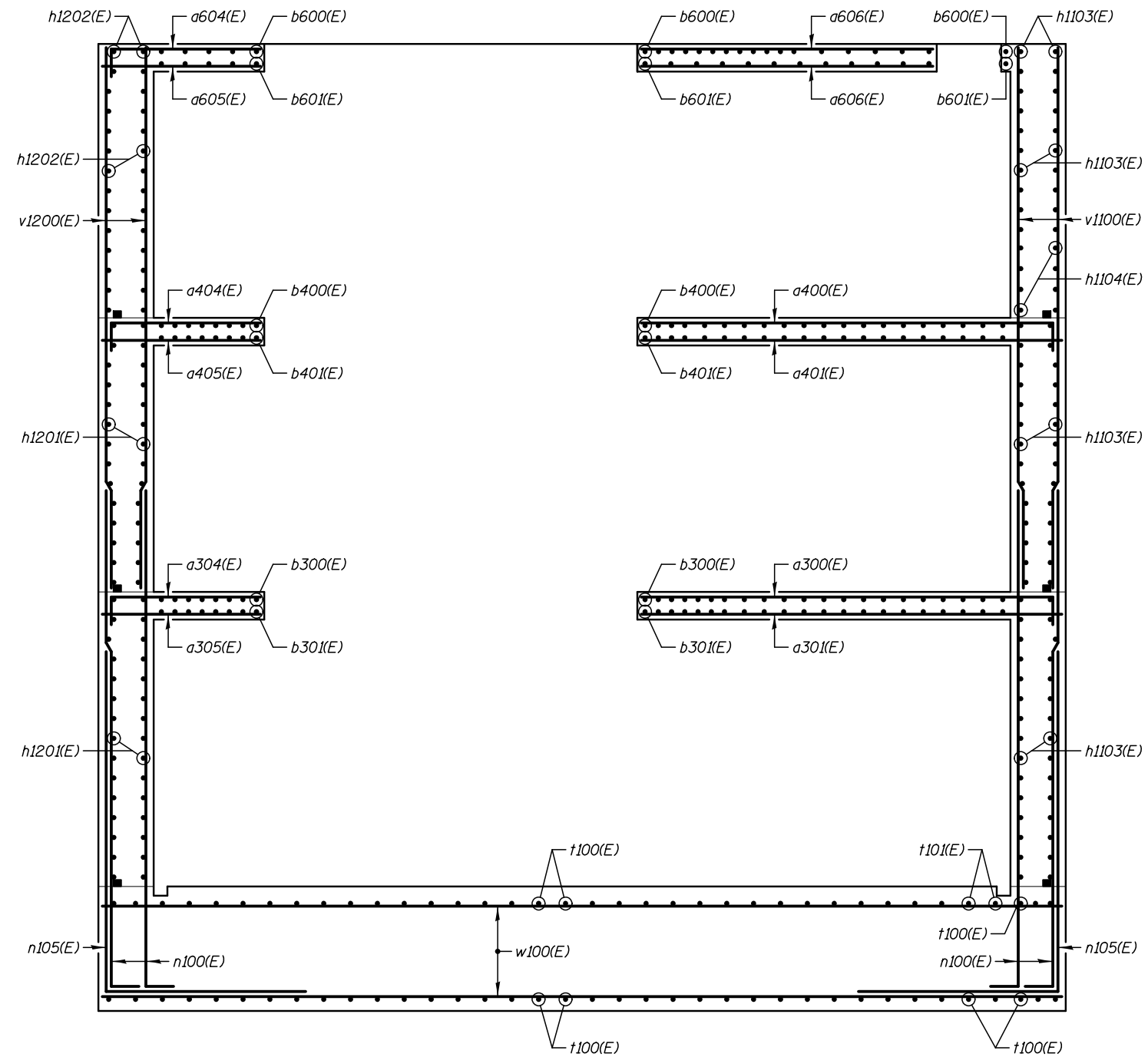
SCALE - NONE	DATE - 6/9/2020
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REINFORCEMENT DETAILS - FLOOR SLAB EL 671.50
PUMP STATION 38**

SHEET NO. SA-20 OF 40 SHEETS

F.A.P. RTE. 346	SECTION (21&21S)-I	COUNTY LAKE	TOTAL SHEETS 290	SHEET NO. 199
CONTRACT NO. 62B65			ILLINOIS FED. AID PROJECT	



SECTION A-A

PLOT DATE = 6/9/2020

KNIGHT
Engineers & Architects

SCALE	- NONE
DATE	- 6/9/2020

DESIGNED	- TB
CHECKED	- LAS
DRAWN	- TB
CHECKED	- LAS

REVISED	
REVISED	
REVISED	
REVISED	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REINFORCEMENT DETAILS - SECTION A-A
PUMP STATION 38**

SHEET NO. SA-21 OF 40 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
346	(21&215)-I	LAKE	290	200
CONTRACT NO. 62B65				
ILLINOIS FED. AID PROJECT				