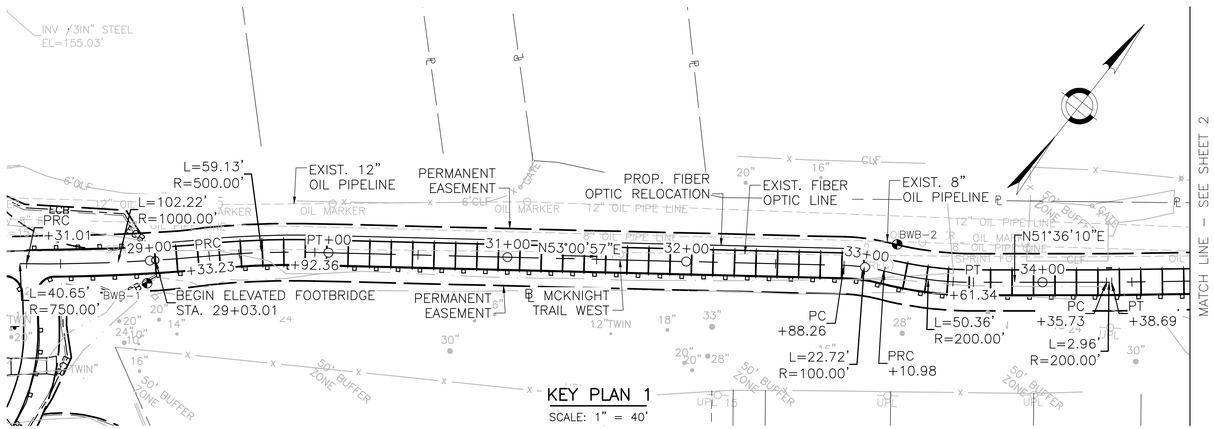
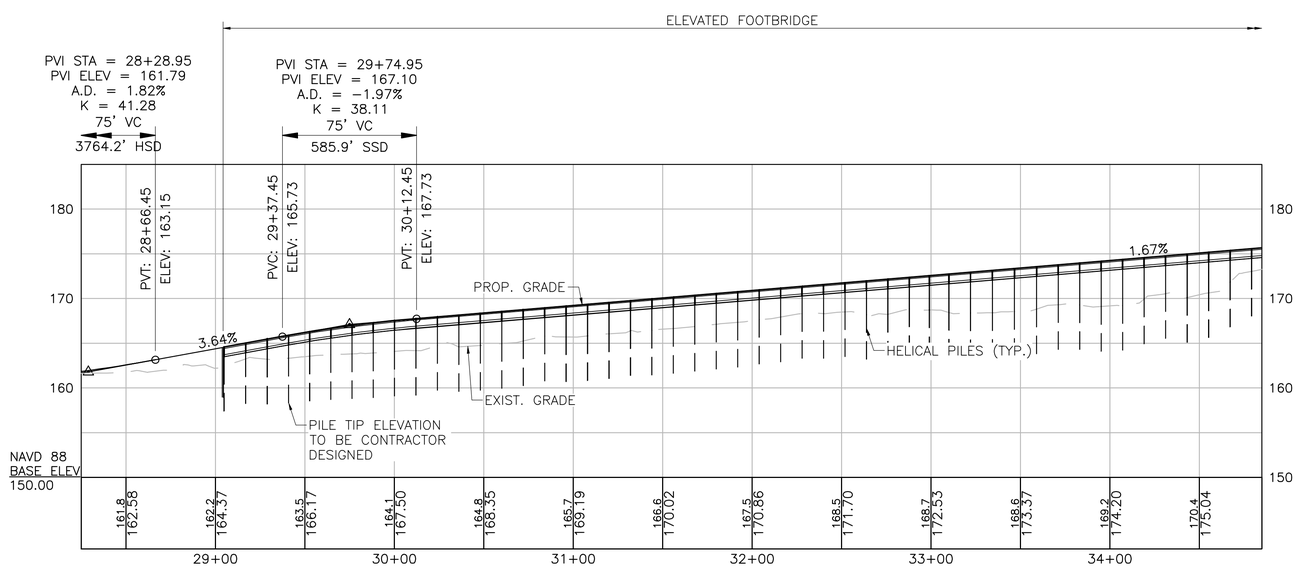


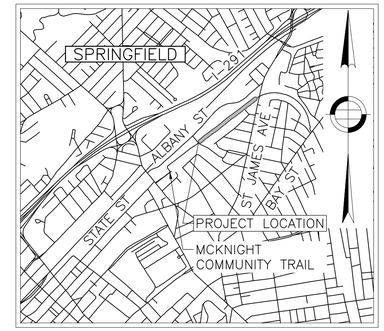
KEY PLAN 1

SCALE: 1" = 40'



MCKNIGHT TRAIL WEST PROFILE 1
AT ELEVATED FOOTBRIDGE

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1/8" = 1'–0"



LOCUS

SCALE: 1" = 2000'

DESIGN:

IN ACCORDANCE WITH THE 2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR H–10 LOADING.

NOTES:

1. APPROVAL DOES NOT INCLUDE STRUCTURAL ANALYSIS.
2. DIMENSIONS OF STRUCTURAL MEMBERS ARE APPROXIMATE, AND WILL BE FINALIZED DURING THE FINAL DESIGN PHASE.
3. SEE GEOTECHNICAL REPORT, DATED AUGUST, 2019
4. NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

TRAFFIC DATA	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR		
AVERAGE DAILY TRAFFIC – PRESENT		
AVERAGE DAILY TRAFFIC – DESIGN YEAR		
DESIGN HOURLY VOLUME		
DIRECTIONAL DISTRIBUTION		
TRUCK PERCENTAGE – AVERAGE DAY		
TRUCK PERCENTAGE – PEAK HOUR		
DESIGN SPEED		
DIRECTIONAL DESIGN HOURLY VOLUME		

SEISMIC DESIGN CRITERIA	
DESIGN RETURN PERIOD:	1000 YRS
DESIGN SPECTRA	
As	0.148
SDs	0.325
SD1	0.133
SITE CLASS	E
SEISMIC DESIGN CATEGORY (SDC)	A

HYDRAULIC DESIGN DATA	
DRAINAGE AREA (SQ. MILES)	
DESIGN FLOOD DISCHARGE (C.F.S.)	
DESIGN FLOOD FREQUENCY (YEARS)	
DESIGN FLOOD VELOCITY (F.P.S.)	
DESIGN FLOOD ELEVATION (FEET, NAVD)	
BASE (100–YEAR) FLOOD DATA	
BASE FLOOD DISCHARGE (C.F.S.)	
BASE FLOOD ELEVATION (FEET, NAVD)	
DESIGN AND CHECK SCOUR DATA	
DESIGN SCOUR FLOOD EVENT RETURN FREQUENCY (YEARS)	
DESIGN FLOOD ABUTMENT SCOUR DEPTH (FEET)	
DESIGN FLOOD PIER SCOUR DEPTH (FEET)	
CHECK SCOUR FLOOD EVENT RETURN FREQUENCY (YEARS)	
CHECK FLOOD ABUTMENT SCOUR DEPTH (FEET)	
CHECK FLOOD PIER SCOUR DEPTH (FEET)	
FLOOD OF RECORD	
DISCHARGE (C.F.S.)	
FREQUENCY (IF KNOWN, YEARS)	
MAXIMUM ELEVATION (FEET, NAVD)	
DATE (MM/YYYY)	
HISTORY OF ICE FLOES	
EVIDENCE OF SCOUR AND EROSION	

PROJECT INFORMATION
PROJECT FILE NO.: 608157
PROJECT DESCRIPTION: PROPOSED ELEVATED FOOTBRIDGE
BRIDGE DESIGN LOADING: H–10
SURVEY: ELECTRONIC SURVEY BY GREEN INTERNATIONAL AFFILIATES, INC.
ELEVATION REFERENCE: NAVD OF 1988
BENCH MARK: #3–128 N: 2870262.0873 E: 364719.5814 EL. 170.30 #17 N: 2870633.4473 E: 365221.1096 EL. 185.39 MAGNAIL IN TREE N: 2870909.0033 E: 365641.9696 EL. 194.73

BETA GROUP, INC.
315 NORWOOD PARK SOUTH
NORWOOD, MA

massDOT Massachusetts Department of Transportation Highway Division

SKETCH PLANS OF

PROPOSED ELEVATED FOOTBRIDGE

SPRINGFIELD

MCKNIGHT COMMUNITY TRAIL
OVER WETLANDS

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

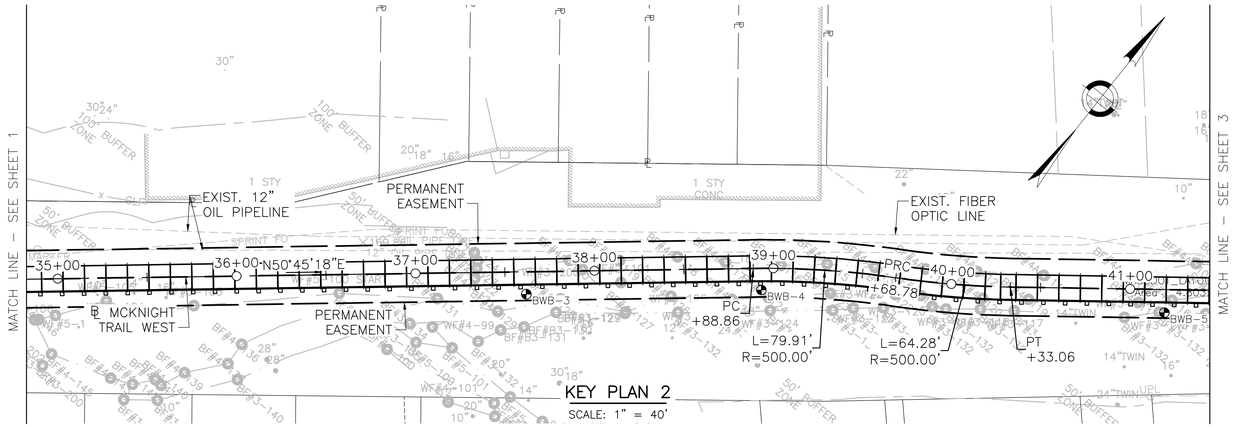
APPROVED BY	DATE
STRUCTURAL ELEMENTS:	
TITLE:	
HIGHWAY ELEMENTS:	
TITLE:	

608157_BR1.DWG Plotted on 7-Jul-2021 9:38 AM
First Sketch Plan Submittal (SP1) DD-Month-YYYY

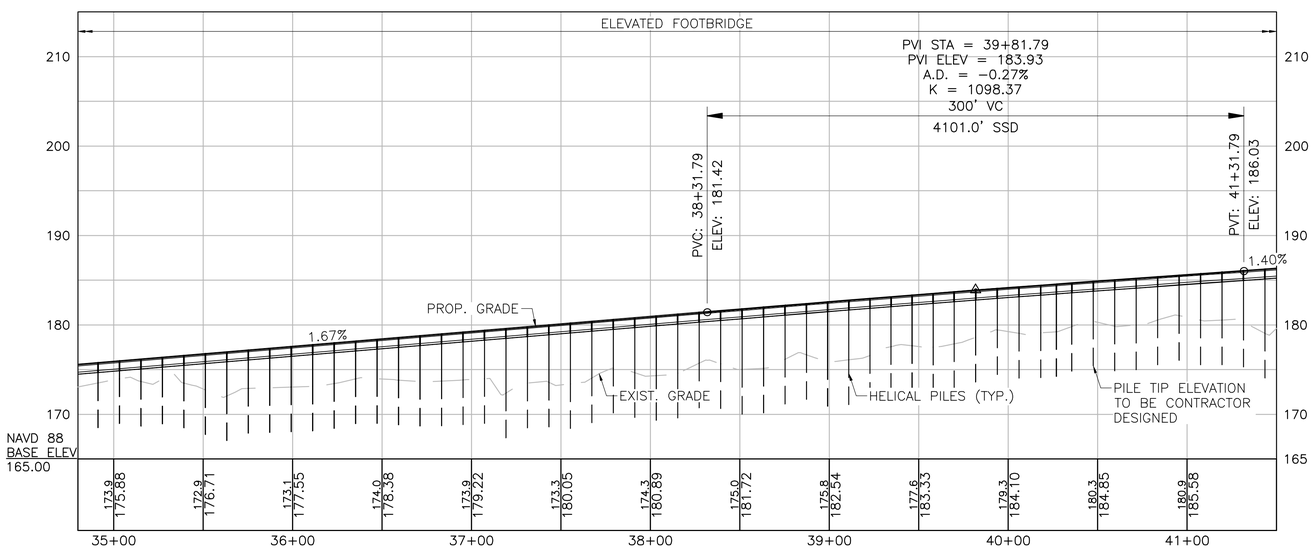
SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	2	9
PROJECT FILE NO.	608157		

KEY PLAN & PROFILE



KEY PLAN 2
SCALE: 1" = 40'



MCKNIGHT TRAIL WEST PROFILE 2
AT ELEVATED FOOTBRIDGE

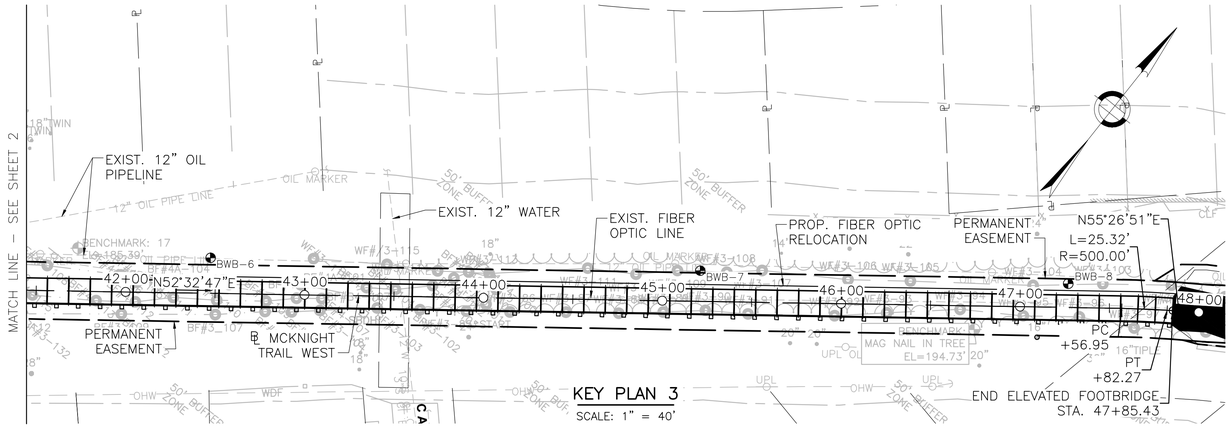
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: $\frac{1}{8}$" = 1'–0"

608157_BR2.DWG Plotted on 7-Jul-2021 9:40 AM
DD-Month-YYYY
First Sketch Plan Submittal (SP1)

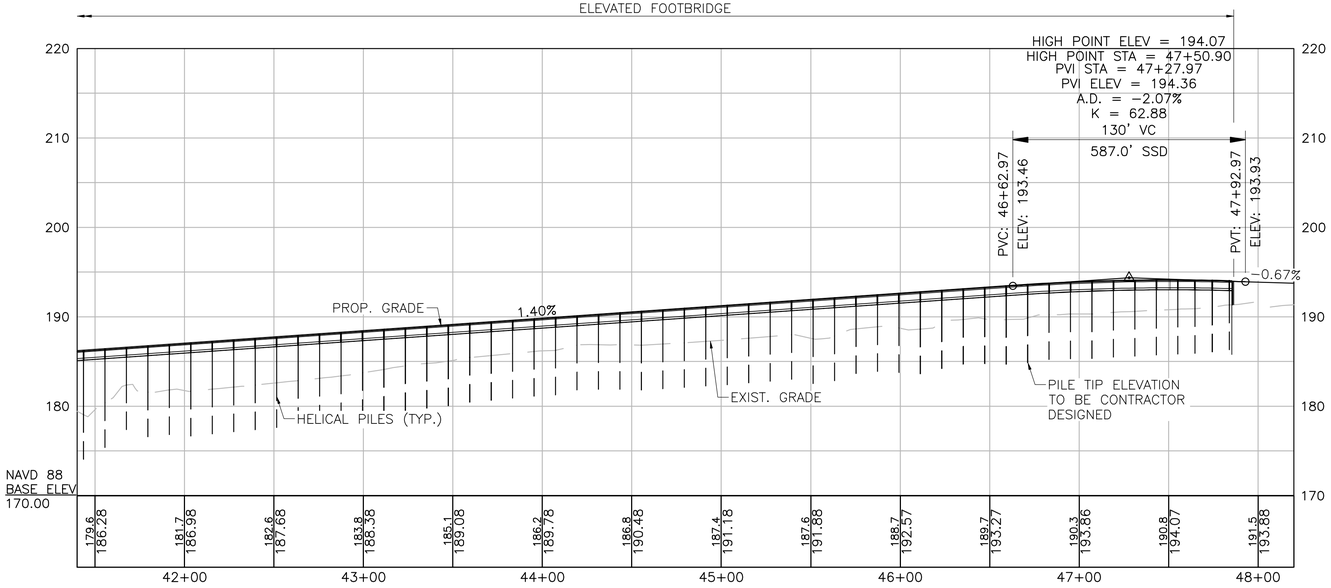
SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	3	9
PROJECT FILE NO.	608157		

KEY PLAN & PROFILE



KEY PLAN 3
SCALE: 1" = 40'



MCKNIGHT TRAIL WEST PROFILE 3
AT ELEVATED FOOTBRIDGE

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: $\frac{1}{8}$" = 1'-0"

608157_BR3.DWG Plotted on 7-Jul-2021 9:41 AM
First Sketch Plan Submittal (SP1) DD-Month-YYYY

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	4	9
PROJECT FILE NO.	608157		

BORING LOGS

BORING BWB-1

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~162.5
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 46.0
LOGGED BY: H. Ghye
DATE START/END: 3/9/2020 - 3/10/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Zac Nader
RIG TYPE: Track Mounted Diedrich D-25

BORING
BWB-1

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Driven casing and washed with rotary boiling
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D.: NA / NA
WATER LEVEL DEPTHS (ft): ▽ 2.3 - 3/10/2020 7:15 am ▼ 3.7 - 3/10/2020 8:09 am ▼ 3.5 - 3/10/2020 8:16 am Before resuming drilling.

ABBREVIATIONS:
Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Core in ≥ 4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer
S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength; Qt = Pocket Torvane Shear Strength; Qv = Field Vane Shear Strength; Pi = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured; Blows per 6 in. - 140-lb hammer falling 30 inches to drive a 2-inch O.D. split spoon sampler.

Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
	S1	0 to 2	24/18	2-3-3-7		TOPSOIL	S1: Moist, loose, black, FINE - COARSE AND ORGANIC SILT, trace fine - coarse Gravel. Roots present (Topsoil).
	S2	2 to 4	24/20	5-5-5-9		SILT	S2: Moist, loose to medium dense, grayish brown, INORGANIC SILT, some fine Sand, trace Gravel.
	S3	4 to 6	24/18	8-8-7-7			S3: Moist, medium dense, grayish brown, INORGANIC SILT, some fine Sand.
	S4	6 to 8	24/20	5-5-7-6			S4: Wet, medium dense, brownish gray, INORGANIC SILT, some fine Sand, trace Clay, trace fine - medium Gravel.
	S5	8 to 10	24/18	4-3-3-3			S5: Wet, loose, gray, INORGANIC SILT, some fine Sand, trace fine Gravel.
	S6	10 to 12	24/20	1-2-3-4			S6: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine Sand, trace fine - medium Gravel.
	S7	12 to 14	24/22	3-3-3-3			S7: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine - medium Gravel.
	S8	14 to 16	24/24	1-2-2-3			S8: Similar to S7.
	S9	16 to 18	24/24	1-2-2-3			S9: Similar to S7 and S8.
	S10	19 to 21	24/22	1-2-1-2			S10: Wet, soft, gray, CLAY, some inorganic Silt, trace fine - medium Gravel.
	S11	24 to 26	24/22	1-2-1-2			S11: Similar to S10.
	S12	29 to 31	24	1-2-2-3			S12: Wet, soft to medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
	S13	34 to 36	24/24	1-2-3-4			S13: Wet, medium stiff, gray, CLAY, trace inorganic Silt, trace fine Gravel.
	S14	39 to 41	24/24	2-4-3-3		SILT & FINE SAND	S14: Wet, loose, gray, INORGANIC SILT, some fine Sand, some Clay, trace fine Gravel.
	S15	44 to 46	24/18	4-4-5-6			S15: Wet, stiff, gray, INORGANIC SILT, some Clay, trace fine - medium Gravel.
					PILE TIP EL. TO BE DESIGNED BY CONTRACTOR		Bottom of borehole at 46' Backfilled with soil cuttings.

NOTES: Stopped drilling for the day at ~ 41 ft (3/9/2020; 14:30). Resumed drilling (3/10/2020; 07:15).
PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

NAVD88 — 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00, 125.00, 120.00, 115.00, 110.00, 105.00

BORING BWB–1
SCALE: 3/16" = 1'–0"

BORING BWB-2

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~168.5
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 61.0
LOGGED BY: H. Ghye
DATE START/END: 3/9/2020 - 3/9/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Zac Nader
RIG TYPE: Track Mounted Diedrich D-25

BORING
BWB-2

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Driven casing and washed with rotary boiling
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D.: NA / NA
WATER LEVEL DEPTHS (ft): ▽ 9.3 - 3/10/2020 8:09 am ▼ 7.7 - 3/9/2020 7:45 am

ABBREVIATIONS:
Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Core in ≥ 4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer
S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength; Qt = Pocket Torvane Shear Strength; Qv = Field Vane Shear Strength; Pi = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured; Blows per 6 in. - 140-lb hammer falling 30 inches to drive a 2-inch O.D. split spoon sampler.

Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
	S1	0 to 2	24/20	1-2-3-3		TOPSOIL	S1 (0"-6"): Moist, medium stiff, black, ORGANIC SILT, trace fine Sand. Roots and wood present (Topsoil).
						SAND	S1 (6"-24"): Moist, loose, light brown, FINE SAND, some inorganic Silt.
	S2	4 to 6	24/18	2-3-4-6		SILT	S2 (0"-12"): Moist, loose, light brown, FINE - COARSE SAND, some inorganic Silt, trace fine - coarse Gravel.
							S2 (12"-24"): Moist, loose, grayish brown, INORGANIC SILT, trace fine Sand.
	S3	6 to 8	24/16	6-4-4-7			S3: Moist, loose, brown, INORGANIC SILT, some fine - coarse Sand, trace fine - coarse Gravel.
	S4	8 to 10	24/18	2-3-3-4			S4: Wet, loose, brownish gray, INORGANIC SILT, trace fine Sand.
	S5	10 to 12	24/22	3-3-3-5			S5: Wet, loose, brownish gray, INORGANIC SILT, trace fine Sand, trace coarse Gravel.
	S6	12 to 14	24/18	4-4-5-7			S6: Wet, loose, brownish gray, INORGANIC SILT, trace fine Sand.
	S7	14 to 16	24/16	2-3-3-4			S7: Similar to S6.
	S8	16 to 18	24/16	3-4-3-4			S8: Similar to S7 and S6.
	S9	18 to 20	24/20	1-3-2-3		CLAY	S9: Wet, medium stiff, gray, CLAY.
	S10	20 to 22	24/22	1-2-2-3			S10: Similar to S9.
	S11	22 to 24	24/20	WOH-2-3-3			S11: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine - medium Gravel.
	S12	24 to 26	24/22	1-2-2-3			S12: Wet, soft to medium stiff, gray, CLAY, some inorganic Silt, trace fine Sand, trace Gravel.
	S13	26 to 28	24/22	2-3-3-4			S13: Wet, medium stiff, gray, CLAY, trace inorganic Silt, trace fine Gravel.
	S14	29 to 31	24/20	1-2-2-3			S14: Similar to S12.
	S15	34 to 36	24/22	2-2-2-3			S15: Similar to S12 and S14.
	S16	39 to 41	24/22	2-4-5-4			S16: Wet, stiff, gray, CLAY, some inorganic Silt, trace fine - medium Gravel.
	S17	44 to 46	24/18	7-7-8-10		SILT & FINE SAND	S17: Wet, medium dense, gray, INORGANIC SILT, some fine Sand, trace fine - medium Gravel.
	S18	49 to 51	24/18	2-3-3-4			S18: Wet, loose, gray, INORGANIC SILT AND FINE SAND, trace fine Gravel.
	S19	54 to 56	24/18	3-7-8-8		SILT & FINE SAND	S19: Wet, medium dense, gray, INORGANIC SILT AND FINE SAND, trace Clay.
	S20	59 to 61	24/18	7-8-9-9			S20: Wet, medium dense, gray, FINE SAND, some inorganic Silt, trace fine Gravel.
					PILE TIP EL. TO BE DESIGNED BY CONTRACTOR		Bottom of borehole at 61' Backfilled with soil cuttings.

NOTES: Stopped drilling for the day at ~ 14 ft (3/9/2020; 14:05). Resumed drilling (3/9/2020; 07:50).
PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

NAVD88 — 170.00, 165.00, 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00, 125.00, 120.00, 115.00, 110.00, 105.00, 100.00, 95.00, 90.00, 85.00, 80.00

BORING BWB–2
SCALE: 3/16" = 1'–0"

BORING BWB-3

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~175.5
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 71.0
LOGGED BY: H. Ghye
DATE START/END: 3/10/2020 - 3/10/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Justin Stevens
RIG TYPE: Track Mounted Diedrich D-25

BORING
BWB-3

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Driven casing and washed with rotary boiling
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D.: NA / NA
WATER LEVEL DEPTHS (ft): Not Measured

ABBREVIATIONS:
Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Core in ≥ 4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer
S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; DP = Direct Push Sample; HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength; Qt = Pocket Torvane Shear Strength; Qv = Field Vane Shear Strength; Pi = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured; Blows per 6 in. - 140-lb hammer falling 30 inches to drive a 2-inch O.D. split spoon sampler.

Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
	S1	0 to 2	24/22	2-5-5-6		TOPSOIL	S1 (0"-12"): Moist, medium dense, black, FINE - COARSE SAND, some organic Silt, trace Gravel. Roots and glass present (Topsoil).
	S2	2 to 4	24/20	4-5-7-9		SILT & SAND	S1 (12"-24"): Moist, medium dense, brown, FINE - COARSE SAND, some inorganic Silt, trace fine Gravel.
	S3	4 to 6	24/16	8-8-7-7			S2: Wet, medium dense, brown to blackish brown, FINE - COARSE SAND AND FINE - MEDIUM GRAVEL, some inorganic Silt.
	S4	6 to 8	24/16	5-7-8-9			S3 (0"-12"): Wet, medium dense, brown, FINE - COARSE SAND, some inorganic Silt, some fine - medium Gravel. S3 (12"-24"): Wet, medium dense, grayish brown, INORGANIC SILT, some fine Sand, trace fine - coarse Gravel.
	S5	8 to 10	24/18	4-8-6-6			S4: Wet, medium dense, brown, FINE - COARSE SAND AND INORGANIC SILT, trace fine - medium Gravel.
	S6	10 to 12	24/20	5-6-8-8			S5: Wet, medium dense, grayish brown, FINE SAND, some inorganic Silt, trace fine Gravel.
	S7	14 to 16	24/22	1-2-2-2		CLAY	S6 (0"-12"): Wet, medium dense, brown, FINE SAND, some inorganic Silt, trace fine - medium Gravel. S6 (12"-24"): Wet, medium dense, grayish brown, INORGANIC SILT, some fine Sand, trace fine Gravel.
	S8	19 to 21	24/22	1-2-2-2			S7: Wet, soft to medium stiff gray, CLAY, some inorganic Silt, trace fine - medium Gravel.
	S9	24 to 26	24/24	3-2-3-3			S8: Similar to S7.
	S10	29 to 31	24/22	1-2-2-2			S9: Similar to S7 and S8.
	S11	34 to 36	24/22	1-2-3-3			S10: Similar to S7 through S9.
	S12	39 to 41	24/18	3-4-6-5		SILT & SAND	S11: Wet , medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
	S13	44 to 46	24/18	2-3-3-4			S12: Wet, medium dense, gray, INORGANIC SILT, some fine Sand, trace Clay, trace fine Gravel.
	S14	49 to 51	24/16	7-8-10-12			S13:Similar to S12 but loose.
					PILE TIP EL. TO BE DESIGNED BY CONTRACTOR		S14: Wet, medium dense, gray, FINE SAND, some inorganic Silt, trace fine - medium Gravel.
	S15	59 to 61	24/16	6-9-11-13			S15: Wet, medium dense, gray, FINE SAND, some inorganic Silt, trace Clay, trace fine - medium Gravel.
	S16	69 to 71	24/16	6-6-10-15			S16: Similar to S15.
							Bottom of borehole at 71' Backfilled with soil cuttings and all-purpose gravel.

NOTES: No GW level was measured due to malfunction in the water level indicator on this day.
PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

NAVD88 — 175.00, 170.00, 165.00, 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00, 125.00, 120.00, 115.00, 110.00, 105.00, 100.00, 95.00, 90.00, 85.00

BORING BWB–3
SCALE: 3/16" = 1'–0"

BORING BWB-4

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~178
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 51.0
LOGGED BY: H. Ghye
DATE START/END: 3/13/2020 - 3/13/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Zac Nader
RIG TYPE: Track Mounted Diedrich D-25

BORING
BWB-4

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Driven casing and washed with rotary boiling
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D.: NA / NA
WATER LEVEL DEPTHS (ft): Not Measured

ABBREVIATIONS:
Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Core in ≥ 4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer
S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength; Qt = Pocket Torvane Shear Strength; Qv = Field Vane Shear Strength; Pi = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured; Blows per 6 in. - 140-lb hammer falling 30 inches to drive a 2-inch O.D. split spoon sampler.

Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
	S1	0 to 2	24/14	5-7-9-10		TOPSOIL	S1 (0"-12"): Wet, soft, black, ORGANIC SILT AND FINE TO COARSE SAND, some fine to medium coarse gravel. Roots present (Topsoil).
	S2	2 to 4	24/22	10-10-8-9		SILT & SAND	S1 (12"-24"): Wet, medium dense, brown, FINE - COARSE SAND, some fine - medium Gravel, some inorganic Silt. S2: Similar to S1 (12"-24")
	S3	4 to 6	24/16	4-5-6-5			S3: Wet, medium dense, brownish gray, INRGANIC SILT, some fine Sand, trace fine - medium Gravel.
	S4	6 to 8	24/18	4-6-8-10			S4: Similar to S3.
	S5	8 to 10	24/16	3-3-4-4			S5: Wet, loose, brownish gray, FINE - COARSE SAND, some inorganic Silt, trace fine - medium Gravel.
	S6	10 to 12	24/18	3-5-6-6			S6 (0"-18"): Similar to S5. S6 (18"-24"): Wet, medium dense, brownish gray, INORGANIC SILT, some fine Sand.
	S7	14 to 16	24/18	2-2-2-3		CLAY	S7: Wet, medium stiff, gray, CLAY, some inorganic Silt.
	S8	19 to 21	24/22	1-2-2-2			S8: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
	S9	24 to 26	24/24	1-2-2-3			S9: Similar to S8.
	S10	29 to 31	24/24	2-2-2-2			S10: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
	S11	34 to 36	24/24	1-2-3-4			S11: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
	S12	39 to 41	24/18	4-6-6-6		SILT & SAND	S12: Wet, medium dense, gray, INORGANIC SILT, some fine Sand, some fine Gravel.
	S13	44 to 46	24/18	6-6-7-11			S13: Similar to S12.
	S14	49 to 51	24/12	8-12-12-15			S14: Wet, medium dense, gray, FINE - COARSE SAND, some inorganic Silt, trace fine Gravel.
					PILE TIP EL. TO BE DESIGNED BY CONTRACTOR		Bottom of borehole at 51' Backfilled with soil cuttings.

NOTES: No GW level was measured due to malfunction in the water level indicator on this day.
PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

NAVD88 — 175.00, 170.00, 165.00, 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00, 125.00, 120.00

BORING BWB–4
SCALE: 3/16" = 1'–0"

608157_BR4.DWG Plotted on 7-Jul-2021 9:41 AM
DD-Month-YYYY
First Sketch Plan Submittal (SP1)

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	5	9
PROJECT FILE NO.	608157		

BORING LOGS

NAVD88: 180.00, 175.00, 170.00, 165.00, 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00, 125.00

BORING BWB-5

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~180.5
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 36.0
LOGGED BY: H. Ghiye
DATE START/END: 3/12/2020 - 3/13/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Zac Nader
RIG TYPE: Track Mounted Diedrich D-25

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
DRILLING METHOD: Driven casing and washed with rotary tooling.
WATER LEVEL DEPTHS (ft): ▼1.0 3/13/2020 7:45 am ▼0.0 3/13/2020 10:00 am

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
S1	0 to 2	24/20	1-2-7-10		TOPSOIL	S1 (0"-18"): Moist, loose, black, ORGANIC SILT AND FINE - COARSE SAND, some fine to coarse gravel. Roots and organic fibers present (Topsoil).
S2	2 to 4	24/22	8-10-12-12		SAND &SILT	S1 (18"-24"): Moist, loose, brown, fine - coarse SAND, some inorganic Silt, trace fine - medium Gravel. S2: Similar to S1 (18"-24") but wet and medium dense.
S3	4 to 6	24/16	5-9-14-15		SAND &SILT	S3: Wet, medium dense brown, FINE - COARSE SAND, trace inorganic Silt, some fine - coarse Gravel.
S4	6 to 8	24/22	9-13-14-14		SAND &SILT	S4: Wet, medium dense brown, FINE - COARSE SAND, trace inorganic Silt, some fine - medium Gravel.
S5	8 to 10	24/16	8-11-12-11		SAND &SILT	S5: Wet, medium dense, brown, FINE SAND AND INORGANIC SILT, trace fine Gravel.
S6	10 to 12	24/18	4-6-8-8		SAND &SILT	S6: Wet, medium dense, grayish brown, INORGANIC SILT, some fine Sand, trace fine Gravel.
S7	14 to 16	24/22	2-2-3-4		CLAY	S7: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine - medium Gravel.
S8	19 to 21	24/29	2-2-3-2		CLAY	S8: Similar to S7.
S9	24 to 26	24/22	2-2-3-3		CLAY	S9 (0"-6"): Wet, loose gray, FINE TO COARSE GRAVEL, some fine - coarse Sand, some Clay. S9 (6"-24"): Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
S10	29 to 31	24/22	1-2-2-3		CLAY	S10: Wet, medium stiff, CLAY, some inorganic Silt, some fine - medium Gravel.
S11	34 to 36	24/20	2-4-3-4	Could not advance the boring more than 36 feet due to ~15 ft of sand blowing in at the bottom of the hole and into the drilling rods.	SAND, SILT & GRAVEL	S11 (0"-6"): Wet, loose, gray, FINE - COARSE GRAVEL AND FINE - COARSE SAND, some inorganic Silt. S11 (6"-24"): Wet, loose, gray, INORGANIC SILT, some fine Sand, trace fine Gravel.
						Bottom of borehole at 36' Backfilled with soil cuttings.

PILE TIP EL. TO BE DESIGNED BY CONTRACTOR

NOTES: Stopped drilling for the day at ~ 16 ft (3/12/2020; 14:15). Resumed drilling (3/13/2020; 07:45).

PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

BORING BWB-5
SCALE: $\frac{3}{16}$" = 1'-0"

NAVD88: 185.00, 180.00, 175.00, 170.00, 165.00, 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00, 125.00

BORING BWB-6

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~184
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 41.0
LOGGED BY: H. Ghiye
DATE START/END: 3/12/2020 - 3/12/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Zac Nader
RIG TYPE: Track Mounted Diedrich D-25

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
DRILLING METHOD: Driven casing and washed with rotary tooling.
WATER LEVEL DEPTHS (ft): ▼4.3 3/12/2020 10:33 am ▼0.6 3/12/2020 10:41 am

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Layer Name	Soil and Rock Description
S1	0 to 2	24/16	9-7-8-10	TOPSOIL	S1 (0"-12"): Wet, medium dense, black, ORGANIC SILT AND FINE - COARSE SAND, some fine - coarse Gravel. Roots and organic Fibers present (Topsoil).
S2	2 to 4	24/20	5-9-10-11	SAND & SILT	S1: (12"-24"): Moist, medium dense, brown, FINE - COARSE SAND, some inorganic Silt, some fine - medium coarse gravel. S2: Similar to S1 (12"-24").
S3	4 to 6	24/18	5-7-10-16	SAND & SILT	S3: Wet, medium dense, brown, FINE - COARSE SAND, some fine - coarse Gravel, trace inorganic Silt.
S4	6 to 8	24/22	11-15-17-14	SAND & SILT	S4 (0"-12"): Similar to S3. S4 (12"-24"): Wet, dense, grayish brown, INORGANIC SILT AND FINE SAND, trace fine - medium Gravel.
S5	8 to 10	24/18	9-10-10-8	SAND & SILT	S5: Wet, medium dense, orange-brown, INORGANIC SILT, some fine Sand, trace fine - medium Gravel.
S6	10 to 12	24/20	4-5-6-7	SAND & SILT	S6 (0"-18"): Similar to S5 but some fine - medium coarse Gravel. S6 (18"-24"): Wet, medium dense, gray, INORGANIC SILT, trace fine Sand, trace Clay.
S7	14 to 16	24/22	1-2-3-3	CLAY	S7: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
S8	19 to 21	24/18	2-4-4-4	CLAY	S8: Wet, medium stiff to stiff, gray, CLAY, some fine Sand, trace fine Gravel.
S9	24 to 26	24/24	2-2-3-3	CLAY	S9: Wet, medium stiff, gray, CLAY, some inorganic Silt, trace fine Gravel.
S10	29 to 31	24/24	1-2-2-2	CLAY	S10: Similar to S9.
S11	34 to 36	24/16	5-6-7-7	SAND & SILT	S11 (0"-6"): Wet, stiff, gray, CLAY, some inorganic Silt, trace fine Gravel. S11 (6"-24"): Wet, medium dense, gray, INORGANIC SILT, some fine Sand, trace fine Gravel.
S12	39 to 41	24/16	5-6-7-7	SAND & SILT	S12: Wet, medium dense, gray, FINE SAND, some inorganic Silt, trace fine Gravel.
					Bottom of borehole at 41' Backfilled with soil cuttings.

PILE TIP EL. TO BE DESIGNED BY CONTRACTOR

NOTES:

PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

BORING BWB-6
SCALE: $\frac{3}{16}$" = 1'-0"

NAVD88: 190.00, 185.00, 180.00, 175.00, 170.00, 165.00, 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00

BORING BWB-7

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~187.5
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 41.0
LOGGED BY: H. Ghiye
DATE START/END: 3/11/2020 - 3/11/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Zac Nader
RIG TYPE: Track Mounted Diedrich D-25

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
DRILLING METHOD: Driven casing and washed with rotary tooling.
WATER LEVEL DEPTHS (ft): ▼6.1 3/11/2020 2:17 pm ▼0.8 3/11/2020 2:27 pm

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Layer Name	Soil and Rock Description
S1	0 to 2	24/18	1-4-5-6	TOPSOIL	S1 (0"-12"): Moist, stiff, black, ORGANIC SILT AND SAND, trace fine - coarse gravel. Roots, fibers and wood chips present (Topsoil).
S2	2 to 4	24/22	1-4-7-7	SAND & SILT	S1 (12"-24"): Moist, loose, blackish brown, FINE - COARSE SAND, some inorganic Silt, some fine - medium coarse gravel. S2: Wet, medium dense, brown, FINE - COARSE SAND, some fine - medium Gravel, trace inorganic Silt.
S3	4 to 6	24/18	5-7-3-5	SAND & SILT	S3: Similar to S2.
S4	6 to 8	24/20	5-6-4-4	SAND & SILT	S4: Wet, medium dense, brown, FINE - COARSE SAND, trace fine Gravel, trace inorganic Silt.
S5	8 to 10	24/10	1-2-5-6	SAND & SILT	S5: Wet, loose, brown, FINE - COARSE SAND, trace inorganic Silt, trace fine Gravel.
S6	10 to 12	24/22	1-4-5-7	SAND & SILT	S6: Similar to S5.
S7	14 to 16	24/20	4-5-7-7	SAND & SILT	S7: Wet, stiff, gray, INORGANIC SILT, some Clay, trace fine Gravel.
S8	19 to 21	24/22	2-3-4-5	CLAY	S8: Wet, medium stiff, gray, CLAY, some inorganic Silt.
S9	24 to 26	24/18	1-2-5-6	CLAY	S9: Similar to S8.
S10	29 to 31	24/18	4-6-7-9	SAND & SILT	S10: Wet, medium dense, interbedded gray FINE SAND, some brown inorganic Silt, trace fine Gravel.
S11	34 to 36	24/16	5-7-7-8	SAND & SILT	S11: Wet, medium dense, brownish gray, INORGANIC SILT AND FINE SAND, trace fine Gravel.
S12	39 to 41	24/14	6-6-9-8	SAND & SILT	S12: Wet, medium dense, gray, FINE SAND AND INORGANIC SILT, trace fine - coarse gravel.
					Bottom of borehole at 41' Backfilled with soil cuttings.

PILE TIP EL. TO BE DESIGNED BY CONTRACTOR

NOTES:

PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

BORING BWB-7
SCALE: $\frac{3}{16}$" = 1'-0"

NAVD88: 190.00, 185.00, 180.00, 175.00, 170.00, 165.00, 160.00, 155.00, 150.00, 145.00, 140.00, 135.00, 130.00, 125.00, 110.00, 105.00, 100.00, 95.00, 90.00

BORING BWB-8

BORING INFORMATION
LOCATION: Springfield, MA
GROUND SURFACE EL. (ft): ~191
VERTICAL DATUM: NAVD 88
TOTAL DEPTH (ft): 76.0
LOGGED BY: H. Ghiye
DATE START/END: 3/10/2020 - 3/11/2020
DRILLING COMPANY: Northern Drill Service, Inc.
DRILLER NAME: Zac Nader
RIG TYPE: Track Mounted Diedrich D-25

DRILLING INFORMATION
HAMMER TYPE: Automatic
AUGER I.D./O.D.: NA / NA
CASING I.D./O.D.: 4 inch/ 4.5 inch
DRILL ROD O.D.: 2.625 inch
CORE BARREL TYPE:
CORE BARREL I.D./O.D. NA / NA
DRILLING METHOD: Driven casing and washed with rotary tooling.
WATER LEVEL DEPTHS (ft): ▽2.5 3/11/2020 7:45 am ▼5.5 3/11/2020 10:58 am ▼1.6 3/11/2020 11:08 am

ABBREVIATIONS: Pen. = Penetration Length; Rec. = Recovery Length; RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%; WOR = Weight of Rods; WOH = Weight of Hammer; S = Split Spoon Sample; C = Core Sample; U = Undisturbed Sample; SC = Sonic Core; DP = Direct Push Sample; HSA = Hollow-Stem Auger; Qp = Pocket Penetrometer Strength; Sv = Pocket Torvane Shear Strength; LL = Liquid Limit; PI = Plasticity Index; PID = Photoionization Detector; I.D./O.D. = Inside Diameter/Outside Diameter; NA, NM = Not Applicable, Not Measured; Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Sample No.	Depth (ft)	Pen./Rec. (in)	Blows per 6 in. or RQD	Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
S1	0 to 2	24/10	5-6-7-8		TOPSOIL	S1: Moist, medium dense, black, FINE- COARSE SAND, some organic Silt, trace fine - coarse Gravel. Roots, wood chips and hay (Topsoil).
S2	2 to 4	24/16	5-8-7-9		SAND	S2: Moist, medium dense, brown, FINE - COARSE SAND, trace inorganic Silt, trace fine - coarse Gravel.
S3	4 to 6	24/18	8-9-6-5		SAND	S3: Wet, medium dense, brown, FINE - COARSE SAND, trace inorganic Silt, trace fine - medium Gravel.
S4	6 to 8	24/21	2-1-4-5		SAND	S4: Similar to S3 but loose.
S5	8 to 10	24/16	3-4-4-6		SAND	S5: Similar to S3.
S6	10 to 12	24/14	3-3-4-5		SAND	S6: Similar to S4.
S7	12 to 14	24/18	1-2-5-6		SAND	S7: Wet, loose, brown, FINE - COARSE SAND, trace inorganic Silt, trace fine - medium Gravel. Most of Sand is coarse.
S8	14 to 16	24/6	2-2-5-7		SAND	S8: Wet, loose, brown, FINE - COARSE SAND, trace inorganic Silt.
S9	16 to 18	24/20	5-5-7-7		SAND	S9: Similar to S3. Some sand is black.
S10	18 to 20	24/6	2-3-6-7		SAND	S10: Wet, loose, brown, FINE - COARSE SAND, trace inorganic Silt, trace fine - medium Gravel.
S11	20 to 22	24/18	1-3-7-7	Sand started blowing in at the bottom of the hole at this depth. Switched to standard sampling and kept water head.	SAND	S11: Wet, loose to medium dense, brown, FINE - COARSE SAND, some inorganic Silt, trace fine - medium Gravel.
S12	24 to 26	24/20	4-6-8-10		SAND / SAND & SILT	S12 (0"-12"): Similar to S11. S12 (12"-24"): Wet, medium dense, grayish brown, INORGANIC SILT, some fine Sand, trace Clay.
S13	29 to 31	24/20	4-7-7-10		SAND & SILT	S13: Wet, medium dense, brownish gray, FINE SAND AND INORGANIC SILT, trace Clay.
S14	34 to 36	24/16	6-6-7-8		SAND & SILT	S14: Wet, medium dense, brownish gray, FINE SAND AND INORGANIC SILT.
S15	39 to 41	24/18	3-6-13-15		SAND & SILT	S15 (0"-12"): Similar to S14. S15 (12"-24"): Wet, medium dense, grayish brown, INORGANIC SILT, some fine Sand.
S16	44 to 46	24/18	7-10-13-17		SAND & SILT	S16: Similar to S14 with trace fine Gravel.
S17	49 to 51	24/18	3-6-7-7		SAND & SILT	S17 (0"-12"): Similar to S16. S17 (12"-24"): Wet, medium dense, brownish gray, INORGANIC SILT, trace to some fine Sand.
S18	54 to 56	24/20	5-7-10-14		SAND & SILT	S18 (0"-12"): Wet, very stiff, gray, INORGANIC SILT, some Clay, some fine - medium Gravel. S18 (12"- 24"): Wet, medium dense, gray, INORGANIC SILT, trace fine Sand.
S19	64 to 66	24/20	9-11-15-19		SAND & SILT	S19: Wet, medioum dense, grayish brown, FINE - COARSE SAND, some inorganic Silt, some fine - medium Gravel, trace Clay.
S20	74 to 76	24/22	9-11-15-21		SAND & SILT	S20: Wet, medium dense, gray and brown, INORGANIC SILT, some fine Sand, some fine - medium Gravel, trace Clay.
						Bottom of borehole at 76' Backfilled with soil cuttings.

PILE TIP EL. TO BE DESIGNED BY CONTRACTOR

NOTES: Stopped drilling for the day at ~ 31 ft (3/10/2020; 14:30). Resumed drilling (3/11/2020; 08:30).

PROJECT NAME: McKnight Community Trail
CITY/STATE: Springfield, Massachusetts
GEI PROJECT NUMBER: 1904391
GEI Consultants

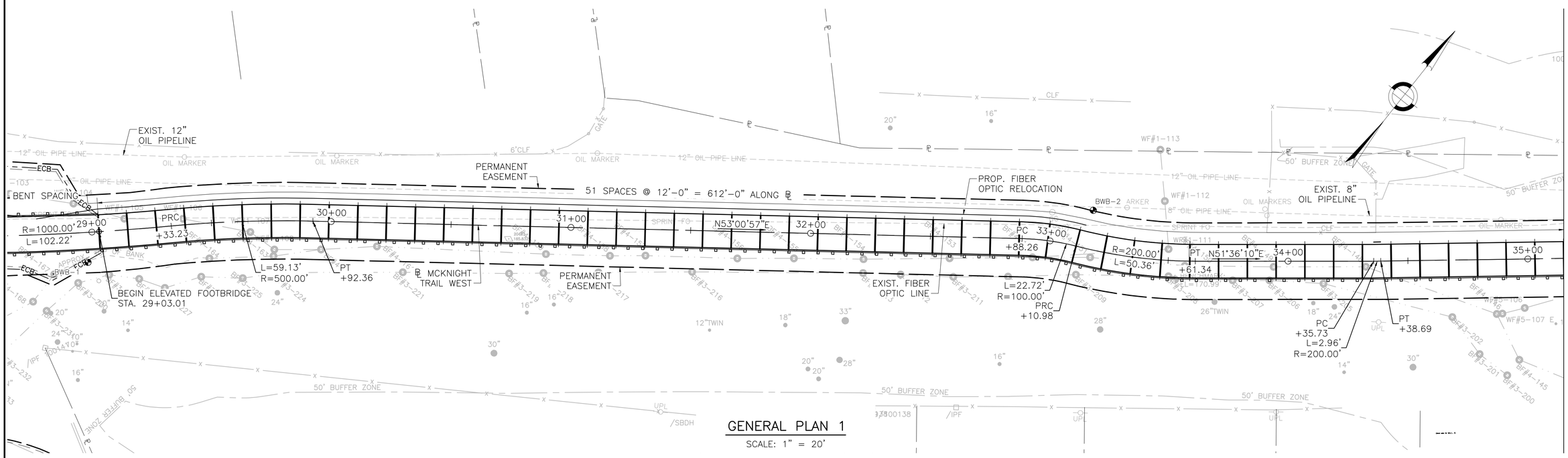
BORING BWB-8
SCALE: $\frac{3}{16}$" = 1'-0"

Plotted on 7-Jul-2021 9:41 AM
608157_BR5.DWG
DD-Month-YYYY
First Sketch Plan Submittal (SP1)

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

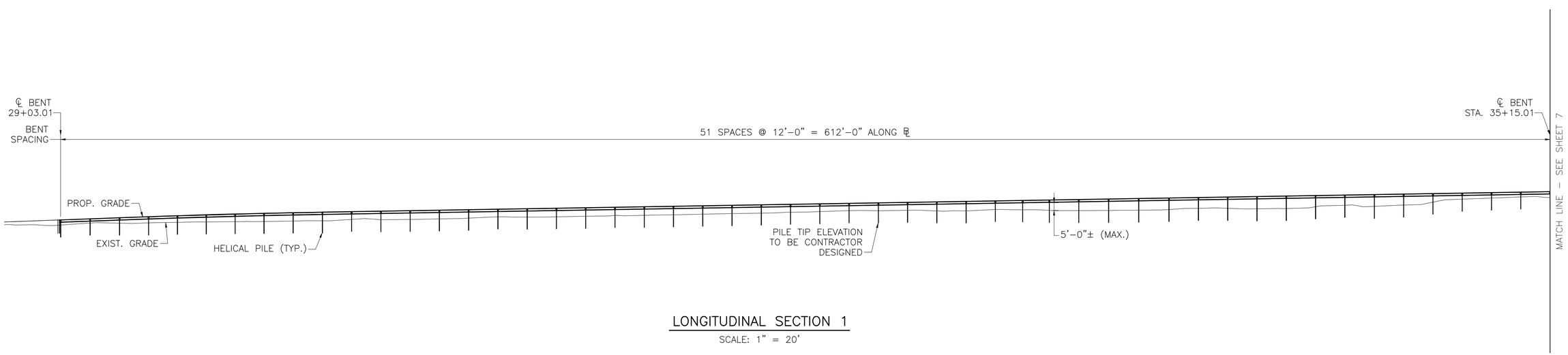
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	6	9
PROJECT FILE NO.	608157		

PLAN & ELEVATION



GENERAL PLAN 1

SCALE: 1" = 20'



LONGITUDINAL SECTION 1

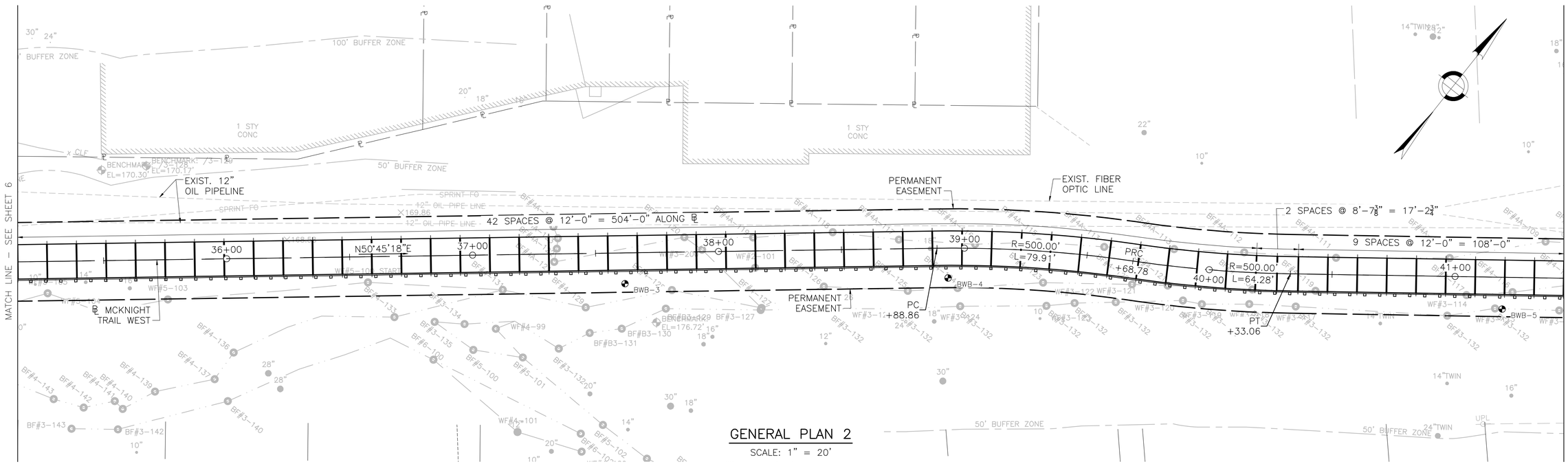
SCALE: 1" = 20'

608157_BR6.DWG Plotted on 7-Jul-2021 9:42 AM
First Sketch Plan Submittal (SP1) DD-Month-YYYY

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

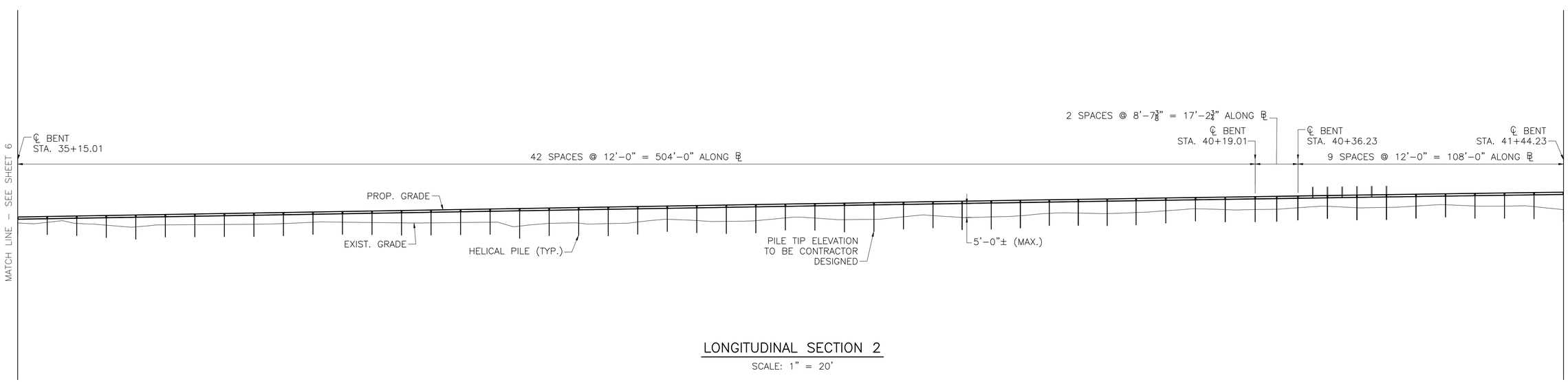
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	7	9
PROJECT FILE NO.	608157		

PLAN & ELEVATION



GENERAL PLAN 2

SCALE: 1" = 20'



LONGITUDINAL SECTION 2

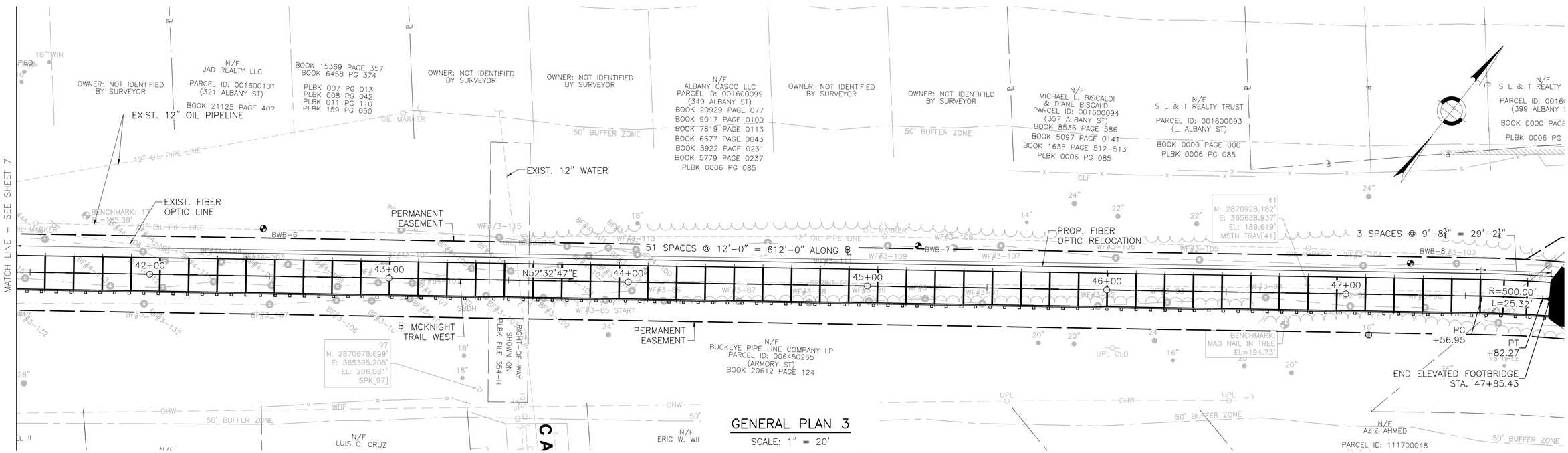
SCALE: 1" = 20'

608157_BR7.DWG Plotted on 7-Jul-2021 9:44 AM
DD-Month-YYYY
First Sketch Plan Submittal (SP1)

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

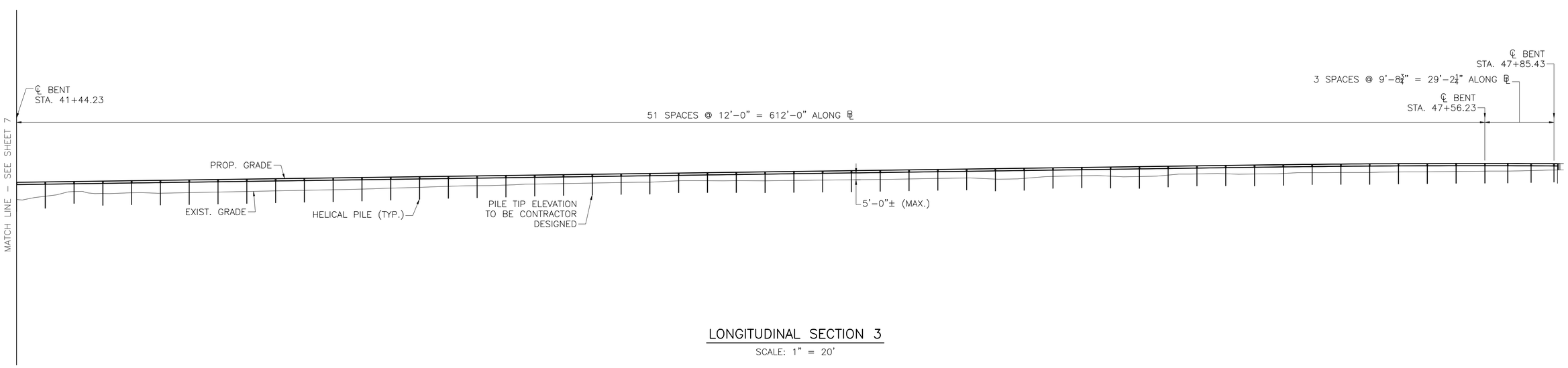
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	8	9
PROJECT FILE NO.	608157		

PLAN & ELEVATION



GENERAL PLAN 3

SCALE: 1" = 20'



LONGITUDINAL SECTION 3

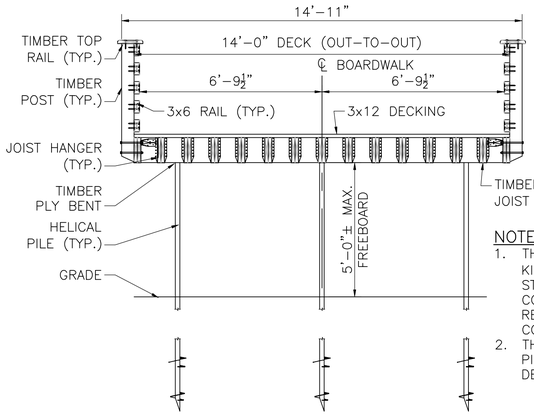
SCALE: 1" = 20'

608157_BR8.DWG Plotted on 7-Jul-2021 9:45 AM
DD-Month-YYYY
First Sketch Plan Submittal (SP1)

SPRINGFIELD
MCKNIGHT COMMUNITY TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	9	9
PROJECT FILE NO.	608157		

DETAILS



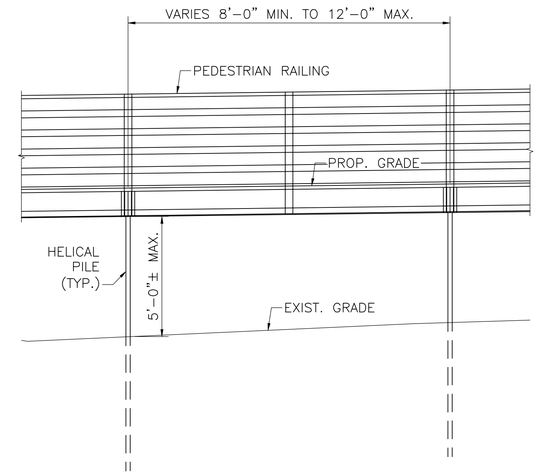
Provide the following:
Type of decking
Size and species of timber posts
Species of timber rail
Size and species of timber floor joists
Size of timber ply bent

NOTE:

1. THE FACTORED AXIAL DESIGN LOAD PER PILE IS 17.0 KIPS AND −3.7 KIPS (UPLIFT) AS PER AASHTO LRFD STRENGTH I LOAD COMBINATION AND STRENGTH III LOAD COMBINATION, RESPECTIVELY. THE STRUCTURAL RESISTANCE PER PILE WILL BE DETERMINED BY THE CONTRACTOR.
2. THE FACTORED GEOTECHNICAL DESIGN CAPACITY PER PILE AND THE ESTIMATED PILE TIP ELEVATION WILL BE DETERMINED BY THE CONTRACTOR.

TRANSVERSE SECTION

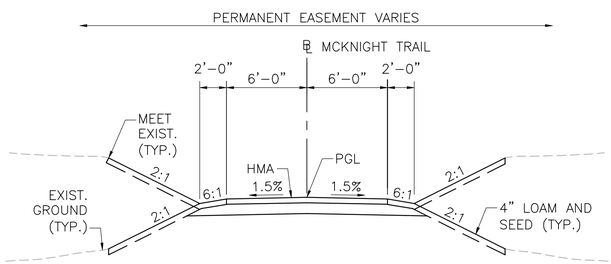
SCALE: $\frac{3}{8}$" = 1'-0"



CLEARANCE DIAGRAM

SCALE: $\frac{3}{8}$" = 1'-0"

Provide a section view at the proposed ends of the boardwalk.



APPROACH SECTION

SCALE: $\frac{3}{16}$" = 1'-0"

608157_BR9.DWG Plotted on 7-Jul-2021 9:46 AM
DD-Month-YYYY
First Sketch Plan Submittal (SP1)