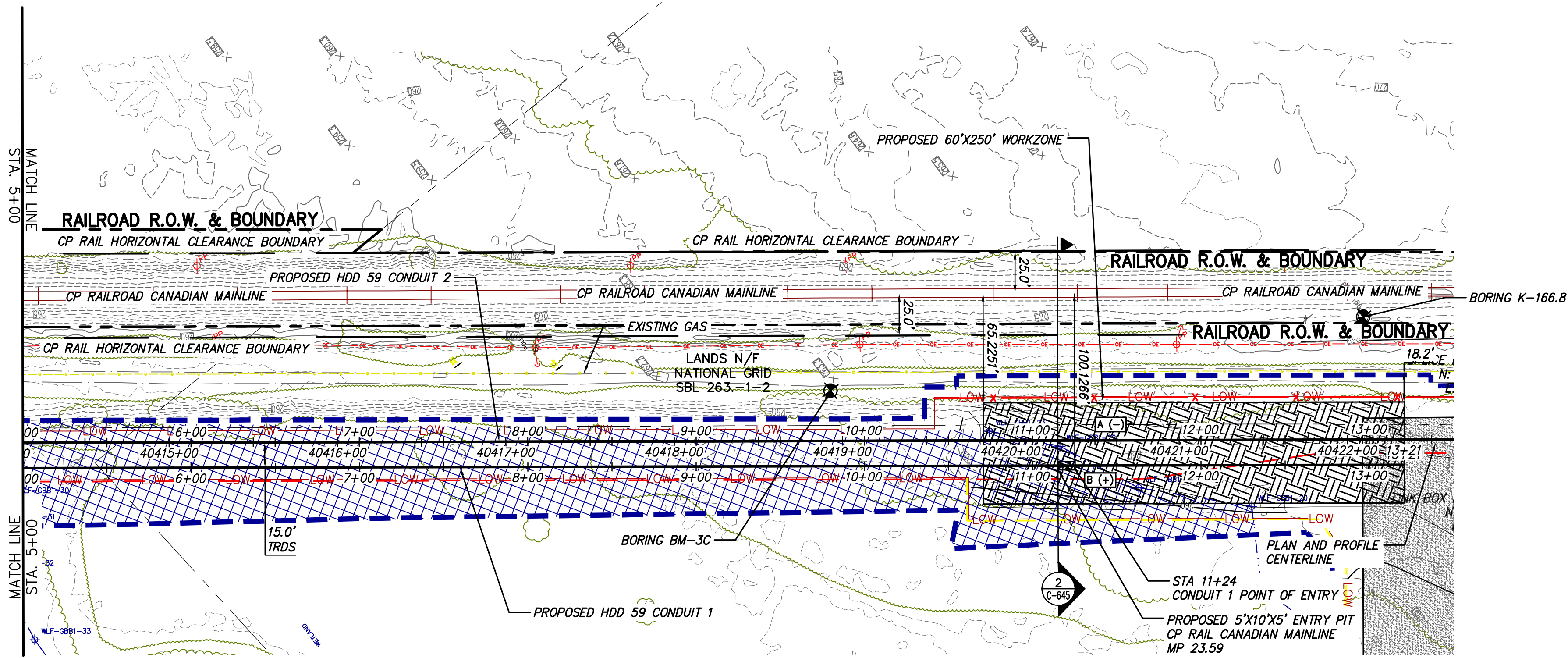
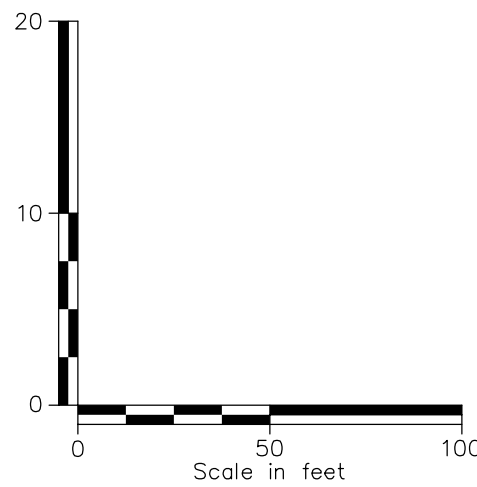
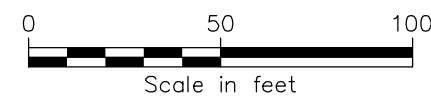
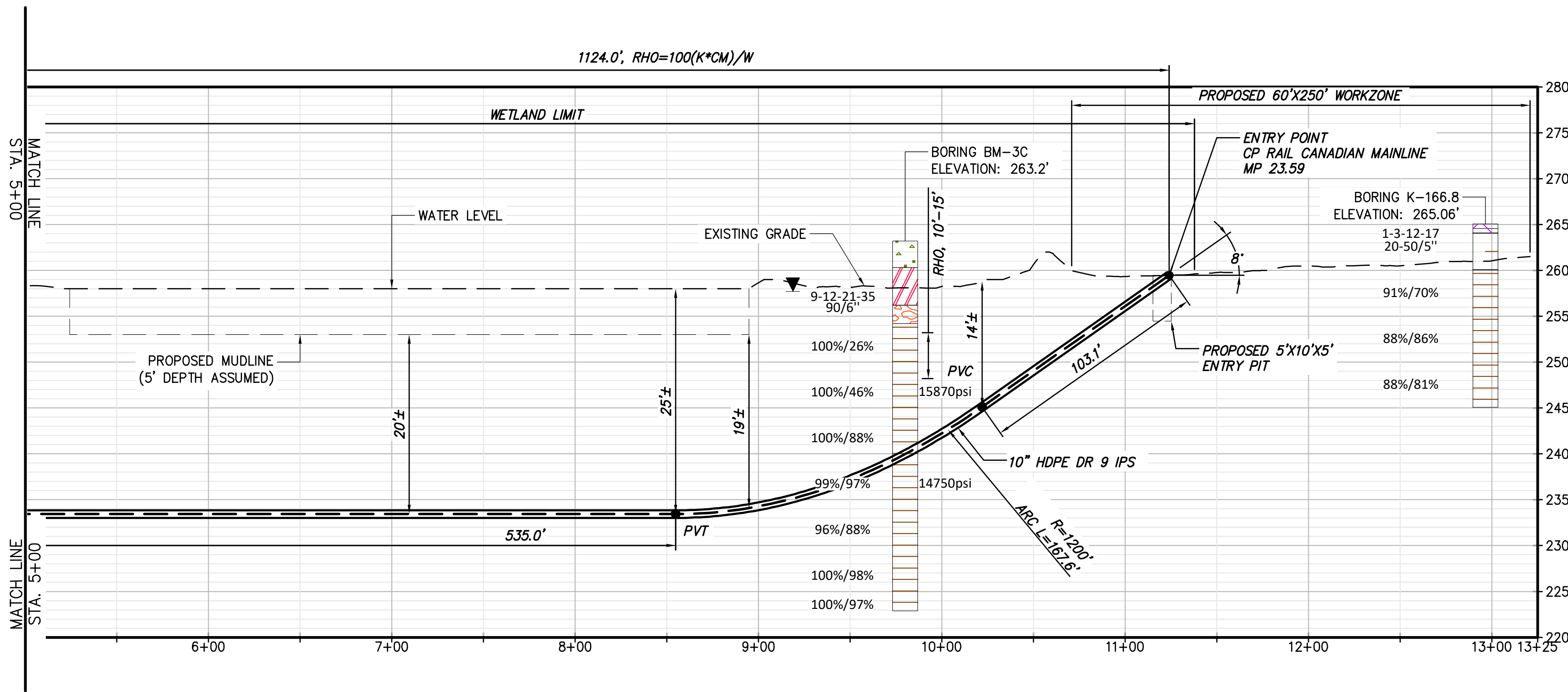


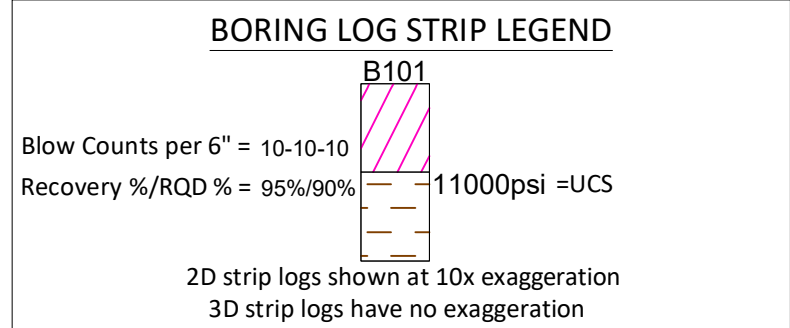
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PROPOSED HDD 59 PLAN VIEW
CONDUIT 1



PROPOSED HDD 59 PROFILE
CONDUIT 1



Legend		
ASPHALT	Asphalt	Asphalt
Bedrock	Bedrock	Bedrock
Boulder	Boulder	Boulder
CH	Fat CLAY	Fat CLAY
CH-MH	SILTY Fat CLAY	SILTY Fat CLAY
CL	Lean CLAY	Lean CLAY
CL-ML	SILTY CLAY	SILTY CLAY
CONCRETE	Concrete	Concrete
FILL	Fill	Fill
GC	CLAYEY GRAVEL	CLAYEY GRAVEL
GC-GM	SILTY CLAYEY GRAVEL	SILTY CLAYEY GRAVEL
GM	SILTY GRAVEL	SILTY GRAVEL
GP	Poorly Graded GRAVEL	Poorly Graded GRAVEL
GP-GC	Poorly Graded Gravel with CLAY	Poorly Graded Gravel with CLAY
GP-GM	Poorly Graded GRAVEL with SILT	Poorly Graded GRAVEL with SILT
GW	Well Graded GRAVEL	Well Graded GRAVEL
GW-GC	Well Graded GRAVEL with CLAY	Well Graded GRAVEL with CLAY
GW-GM	Well Graded GRAVEL with SILT	Well Graded GRAVEL with SILT
Limestone	Limestone	Limestone
MH	Elastic SILT	Elastic SILT
ML	SILT	SILT
DH	ORGANIC Fat CLAY	ORGANIC Fat CLAY
DL	ORGANIC Lean CLAY	ORGANIC Lean CLAY
DL/DH	ORGANIC SOIL	ORGANIC SOIL
PT	PEAT	PEAT
Rock	Rock	Rock
Sandstone	Sandstone	Sandstone
SC	CLAYEY SAND	CLAYEY SAND
SC-SM	SILT, CLAYEY SAND	SILT, CLAYEY SAND
SHALE	Shale	Shale
SILTSTONE	Siltstone	Siltstone
SM	SILTY SAND	SILTY SAND
SP	Poorly Graded SAND	Poorly Graded SAND
SP-SC	Poorly Graded SAND with CLAY	Poorly Graded SAND with CLAY
SP-SM	Poorly Graded SAND with SILT	Poorly Graded SAND with SILT
SW	Well graded SAND	Well graded SAND
SW-SC	Well Graded SAND with CLAY	Well Graded SAND with CLAY
SW-SM	Well Graded SAND with SILT	Well Graded SAND with SILT
Topsail	Topsail	Topsail
USGS 601	Gravel or Conglomerate 1	Gravel or Conglomerate 1
USGS 654	Subgraywacke	Subgraywacke
USGS 670	Interbedded Sandstone and Shale	Interbedded Sandstone and Shale
USGS 702	Quartzite	Quartzite
USGS 705	Schist	Schist
USGS 705	Schist	Schist
USGS 708	Gneiss	Gneiss
USGS 708	Gneiss	Gneiss
USGS 718	Granite 1	Granite 1
Void	Void	Void
Water	Water	Water
Weathered Rock	Undefined	Undefined
Water Table	Water Table during drilling	Water Table during drilling
Delayed Water Table	Water Table after drilling	Water Table after drilling



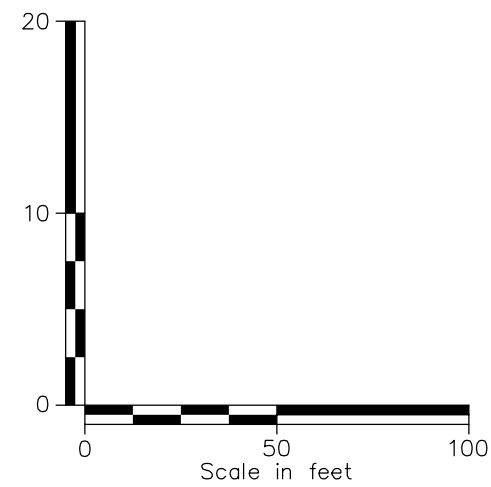
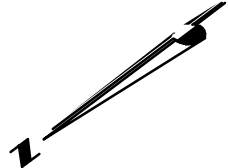
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0	08/03/2023	ISSUED FOR CONSTRUCTION SUBMISSION	SPB	JEO
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59, CONDUIT 1

DRAWN BY: CJL DESIGNED BY: CJL APPROVED BY: JEO SCALE AS NOTED DATE 8/03/2023

KIEWIT PROJECT NO. 21162
CHA PROJECT NO. 066076
DRAWING NO. C-305.1



BORING LOG STRIP LEGEND



B101

11000psi = UCS

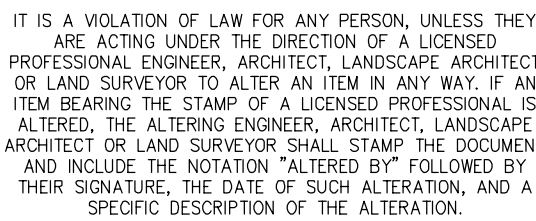
Blow Counts per 6" = 10-10-10

Recovery %/RQD % = 95%/90%

2D strip logs shown at 10x exaggeration
3D strip logs have no exaggeration

Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean CLAY
	CL-ML	SILTY CLAY
	CDNCRETE	Concrete
	Fill	Fill
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
	GM	SILTY GRAVEL
	GP	Poorly Graded GRAVEL
	GP-GC	Poorly Graded Gravel with CLAY
	GP-GM	Poorly Graded GRAVEL with SILT
	GW	Well Graded GRAVEL
	GW-GC	Well Graded GRAVEL with CLAY
	GW-GM	Well Graded GRAVEL with SILT
	Limestone	Limestone
	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
	SP	Poorly Graded SAND
	SP-SC	Poorly Graded SAND with CLAY
	SP-SM	Poorly Graded SAND with SILT
	SW	Well graded SAND
	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
	Topsoil	Topsoil
	USGS 601	Gravel or Conglomerate !
	USGS 654	Subgyroscopic
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite I
	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table	Water Table during drilling
	Delayed Water Table	Water Table after drilling

B

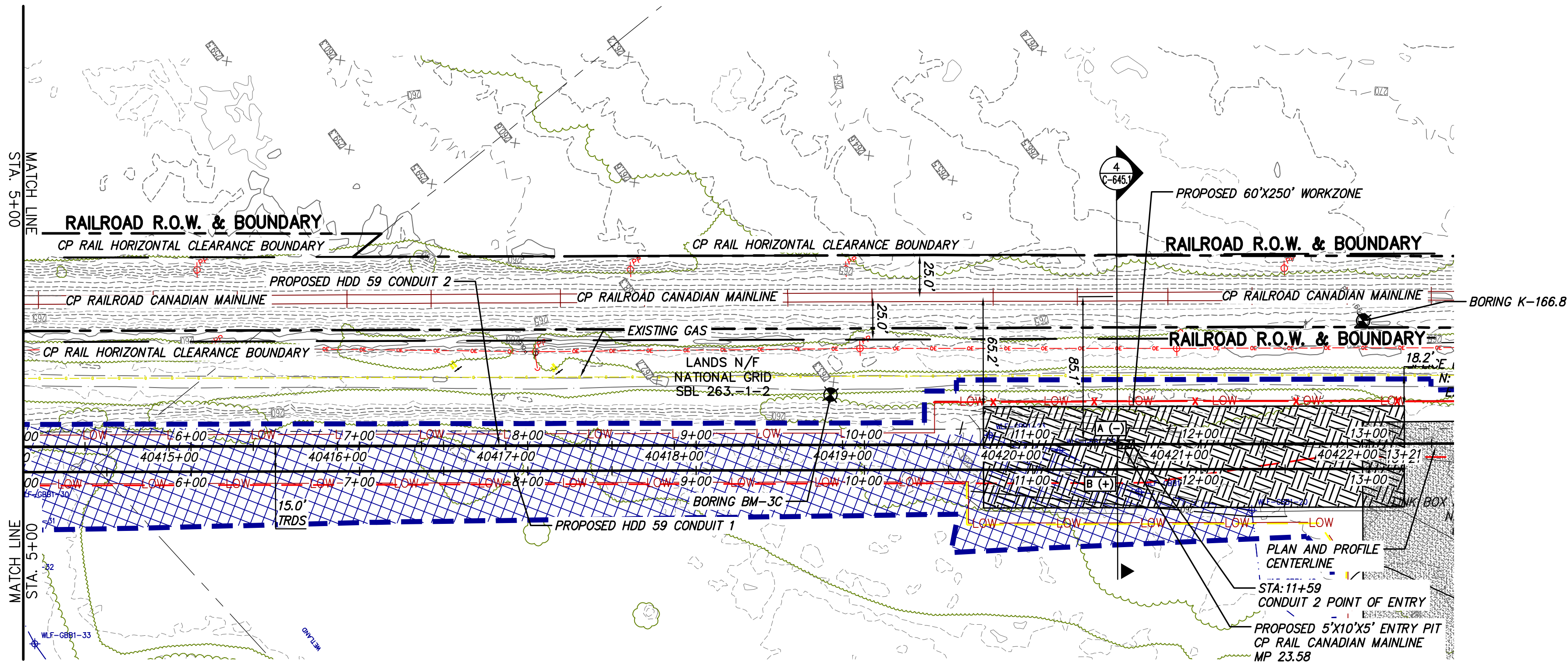
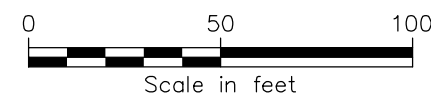


0	08/03/2023	ISSUED FOR CONSTRUCTION SUBMISSION	SPB	JEO
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

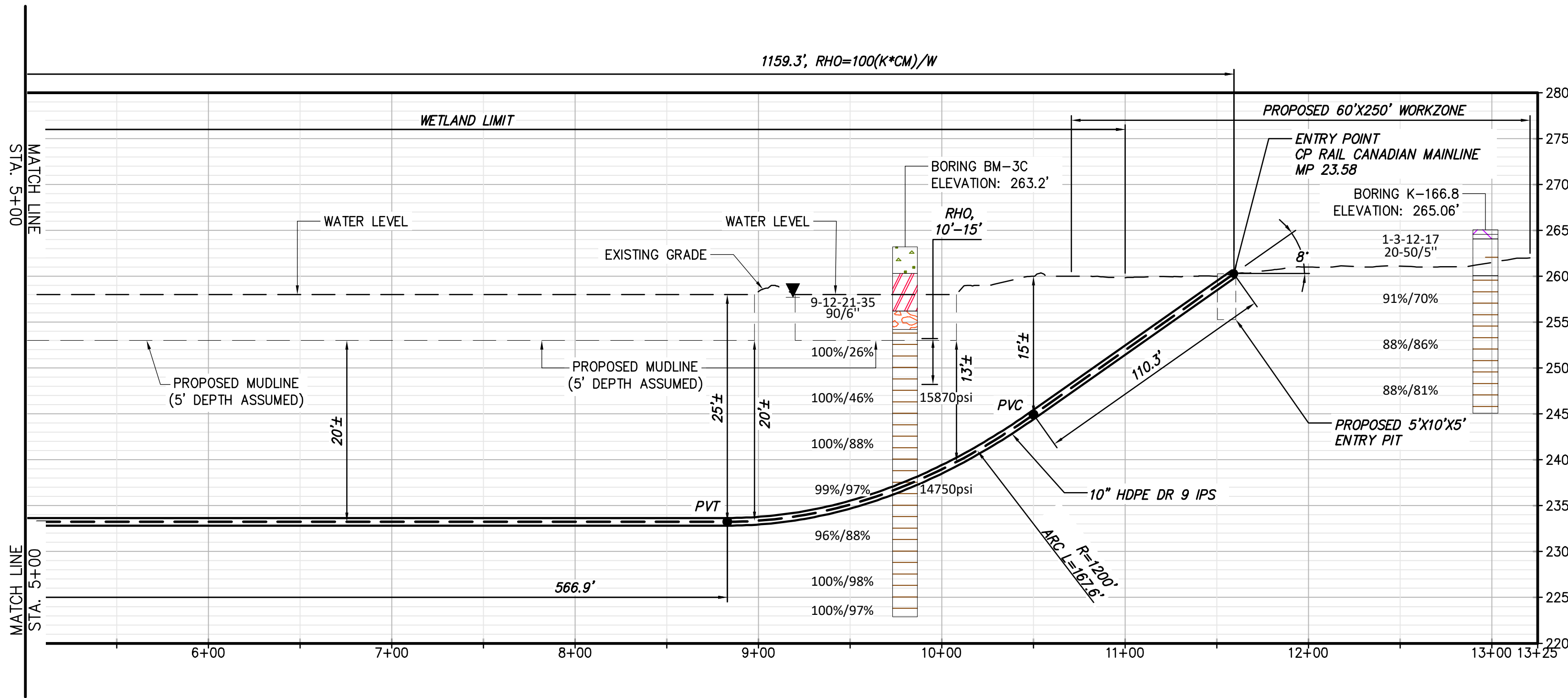
C-305A

DRAWN BY: CJL	DESIGNED BY: CJL	APPROVED BY: JEO	SCALE	AS NOTED	DATE	8/03/2017
			REV. NO.	X	SH. NO.	

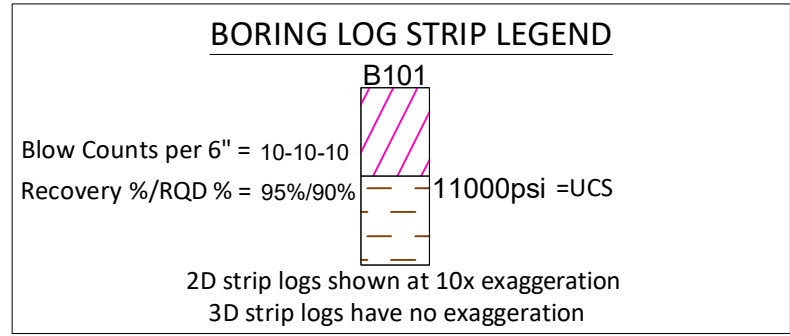
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PROPOSED HDD 59 PLAN VIEW
CONDUIT 2



PROPOSED HDD 59 PROFILE
CONDUIT 2



Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean CLAY
	CL-ML	SILTY CLAY
	CONCRETE	Concrete
	FILL	FILL
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
	GM	SILTY GRAVEL
	GP	Poorly Graded GRAVEL
	GP-GC	Poorly Graded Gravel with CLAY
	GP-GM	Poorly Graded GRAVEL with SILT
	GW	Well Graded GRAVEL
	GW-GC	Well Graded GRAVEL with CLAY
	GW-GM	Well Graded GRAVEL with SILT
	Limestone	Limestone
	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
	SP	Poorly Graded SAND
	SP-SC	Poorly Graded SAND with CLAY
	SP-SM	Poorly Graded SAND with SILT
	SW	Well graded SAND
	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
	Topsail	Topsail
	USGS 601	Gravel or Conglomerate 1
	USGS 654	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table during drilling	Water Table during drilling
	Water Table after drilling	Water Table after drilling



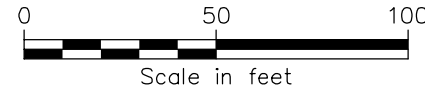
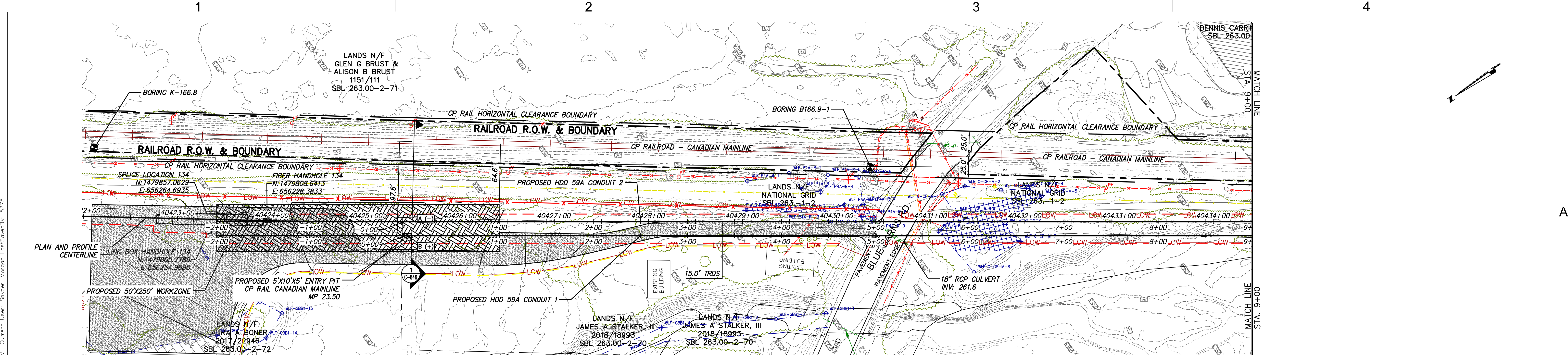
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0	08/03/2023	ISSUED FOR CONSTRUCTION SUBMISSION	SPB	JEO
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

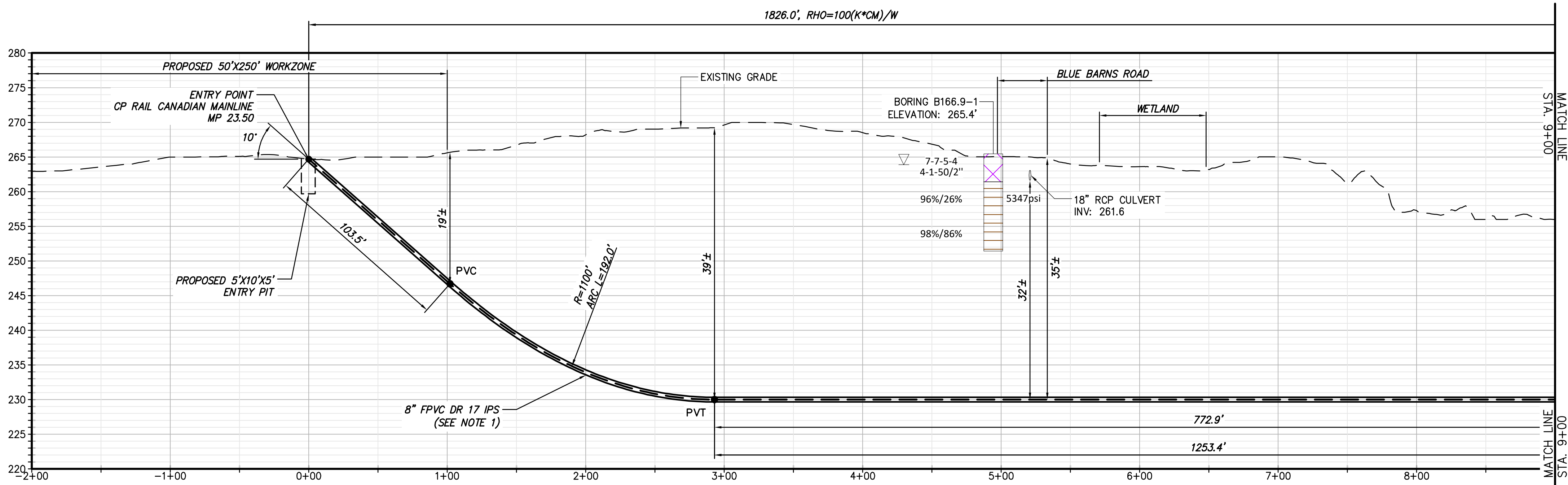
CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59, CONDUIT 2

DRAWN BY: CJL DESIGNED BY: CJL APPROVED BY: JEO SCALE AS NOTED DATE 8/03/2023

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	066076
DRAWING NO.	C-305A.1
DATE	8/03/2023

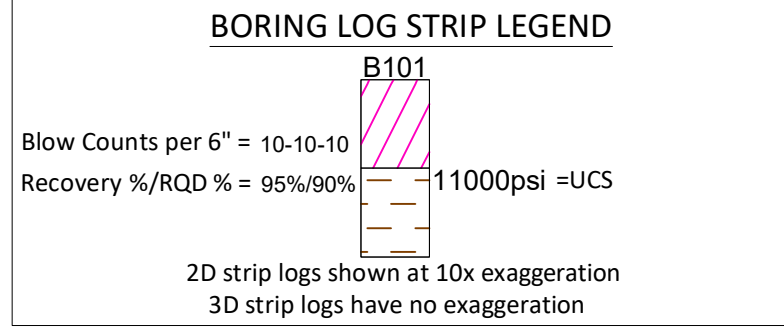


PROPOSED HDD 59A PLAN VIEW
CONDUIT 1



PROPOSED HDD 59A PROFILE
CONDUIT 1

- NOTES:**
- BORES WILL REQUIRE 8-INCH FPVC, DR 17, IPS, CONDUIT AND 3-INCH HDPE, DR 7, IPS, COMMUNICATION CONDUIT WHEN BUNDLED FOR PULLBACK.
 - BALLASTING WITH WATER WILL LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES.
 - ROLLER WILL ALSO LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES IN ADDITION TO BALLAST.
 - THE COMMUNICATION CONDUIT OF HDD #59A NEEDS TO BE SPECIFIED AS PE GRADE 4710 HDPE DUE TO THE ELEVATED STRESSES ENCOUNTERED IN THE BORE AID ANALYSIS IN ADDITION TO BALLASTING AND ROLLER CONSIDERATIONS.



Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean CLAY
	CL-ML	SILTY CLAY
	CONCRETE	Concrete
	FILL	Fill
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
	GM	SILTY GRAVEL
	GP	Poorly Graded GRAVEL
	GP-GC	Poorly Graded Gravel with CLAY
	GP-GM	Poorly Graded GRAVEL with SILT
	GW	Well Graded GRAVEL
	GW-GC	Well Graded GRAVEL with CLAY
	GW-GM	Well Graded GRAVEL with SILT
	Limestone	Limestone
	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
	SP	Poorly Graded SAND
	SP-SC	Poorly Graded SAND with CLAY
	SP-SM	Poorly Graded SAND with SILT
	SW	Well graded SAND
	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
	Topsoil	Topsoil
	USGS 601	Gravel or Conglomerate 1
	USGS 654	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table during drilling	Water Table during drilling
	Water Table after drilling	Water Table after drilling



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0	08/03/2023	ISSUED FOR CONSTRUCTION SUBMISSION	SPB	JEO
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59A, CONDUIT 1

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	086076
DRAWING NO.	C-306
DATE	8/03/2023
SH.NO.	1

DRAWN BY: KDL DESIGNED BY: SPB APPROVED BY: JEO SCALE AS NOTED REV. NO.

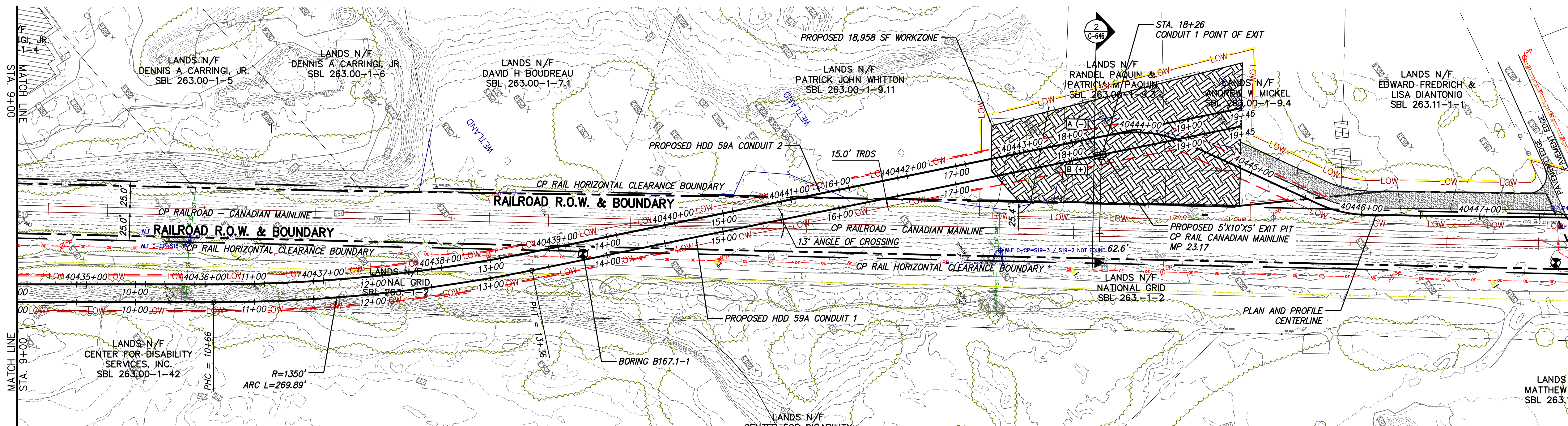
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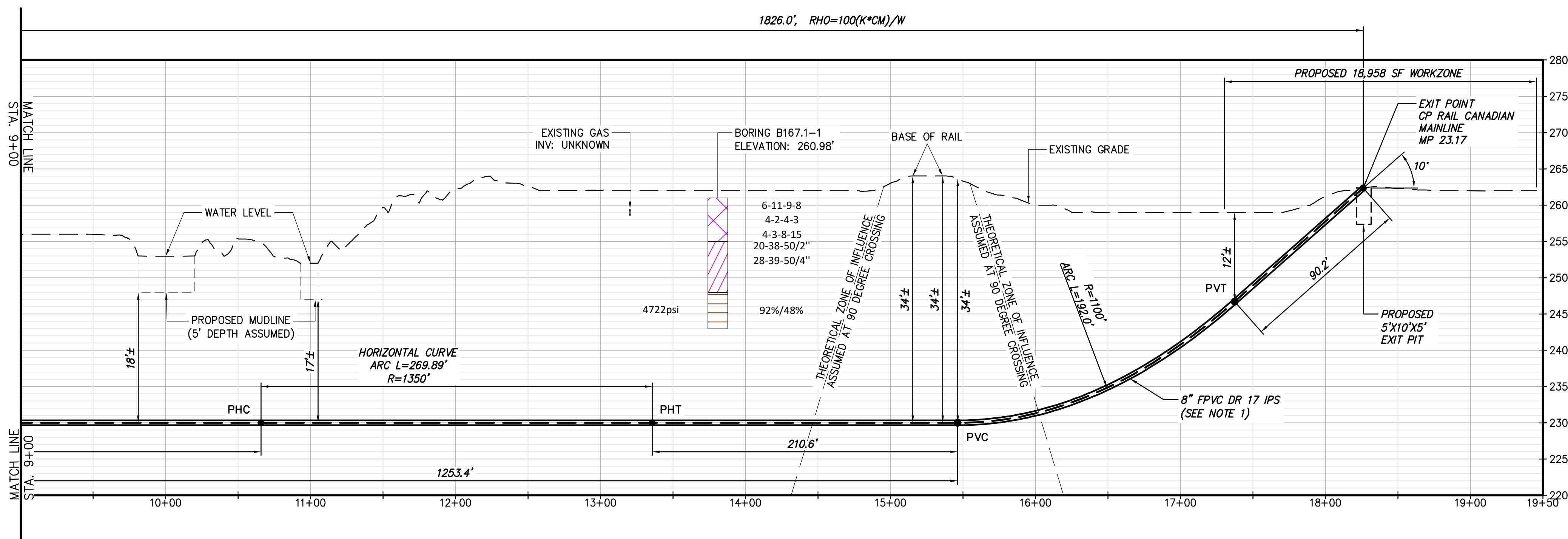
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3

4



PROPOSED HDD 59A PLAN VIEW
CONDUIT 1



PROPOSED HDD 59A PROFILE
CONDUIT 1

- NOTES:**
- BORES WILL REQUIRE 8-INCH FPVC, DR 17, IPS, CONDUIT AND 3-INCH HDPE, DR 7, IPS, COMMUNICATION CONDUIT WHEN BUNDLED FOR PULLBACK.
 - BALLASTING WITH WATER WILL LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES.
 - ROLLER WILL ALSO LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES IN ADDITION TO BALLAST.
 - THE COMMUNICATION CONDUIT OF HDD #59A NEEDS TO BE SPECIFIED AS PE GRADE 4710 HDPE DUE TO THE ELEVATED STRESSES ENCOUNTERED IN THE BORE AID ANALYSIS IN ADDITION TO BALLASTING AND ROLLER CONSIDERATIONS.

BORING LOG STRIP LEGEND	
Blow Counts per 6" = 10-10-10	
Recovery %/RQD % = 95%/90%	
11000psi = UCS	
2D strip logs shown at 10x exaggeration	
3D strip logs have no exaggeration	

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean CLAY
CL-ML	SILTY CLAY
CONCRETE	Concrete
FILL	Fill
GC	CLAYEY GRAVEL
GC-GM	SILTY CLAYEY GRAVEL
GM	SILTY GRAVEL
GP	Poorly Graded GRAVEL
GP-GC	Poorly Graded Gravel with CLAY
GP-GM	Poorly Graded GRAVEL with SILT
GW	Well Graded GRAVEL
GW-GC	Well Graded GRAVEL with CLAY
GW-GM	Well Graded GRAVEL with SILT
Limestone	Limestone
MH	Elastic SILT
ML	SILT
OH	ORGANIC Fat CLAY
OL	ORGANIC Lean CLAY
OL/OH	ORGANIC SOIL
PT	PEAT
Rock	Rock
Sandstone	Sandstone
SC	CLAYEY SAND
SC-SM	SILT, CLAYEY SAND
SHALE	Shale
SILTSTONE	Siltstone
SM	SILTY SAND
SP	Poorly Graded SAND
SP-SC	Poorly Graded SAND with CLAY
SP-SM	Poorly Graded SAND with SILT
SW	Well graded SAND
SW-SC	Well Graded SAND with CLAY
SW-SM	Well Graded SAND with SILT
Topsail	Topsail
USGS 601	Gravel or Conglomerate 1
USGS 654	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



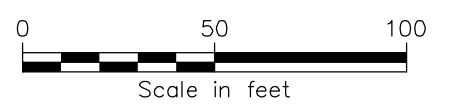
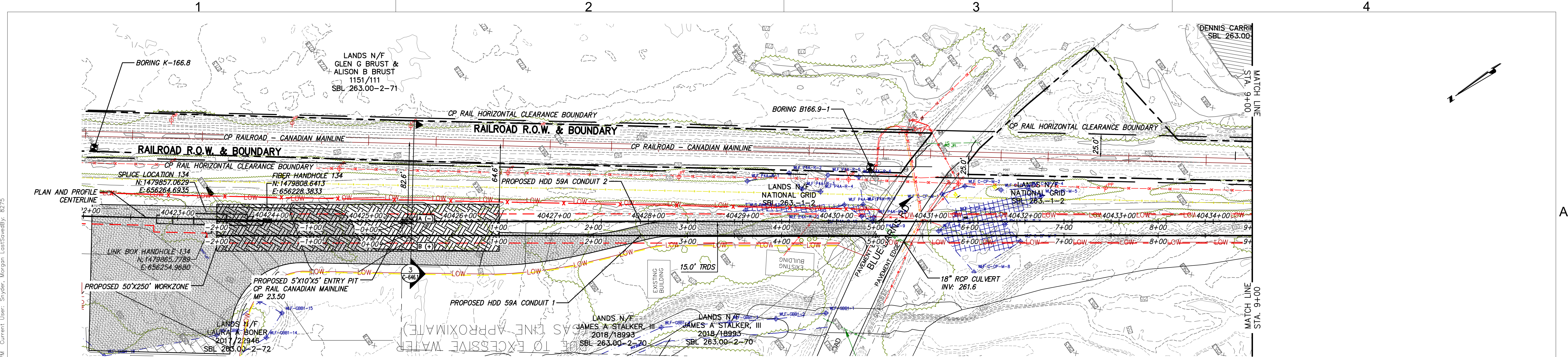
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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
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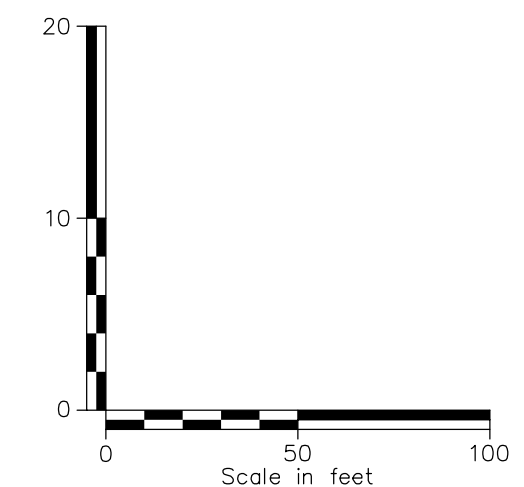
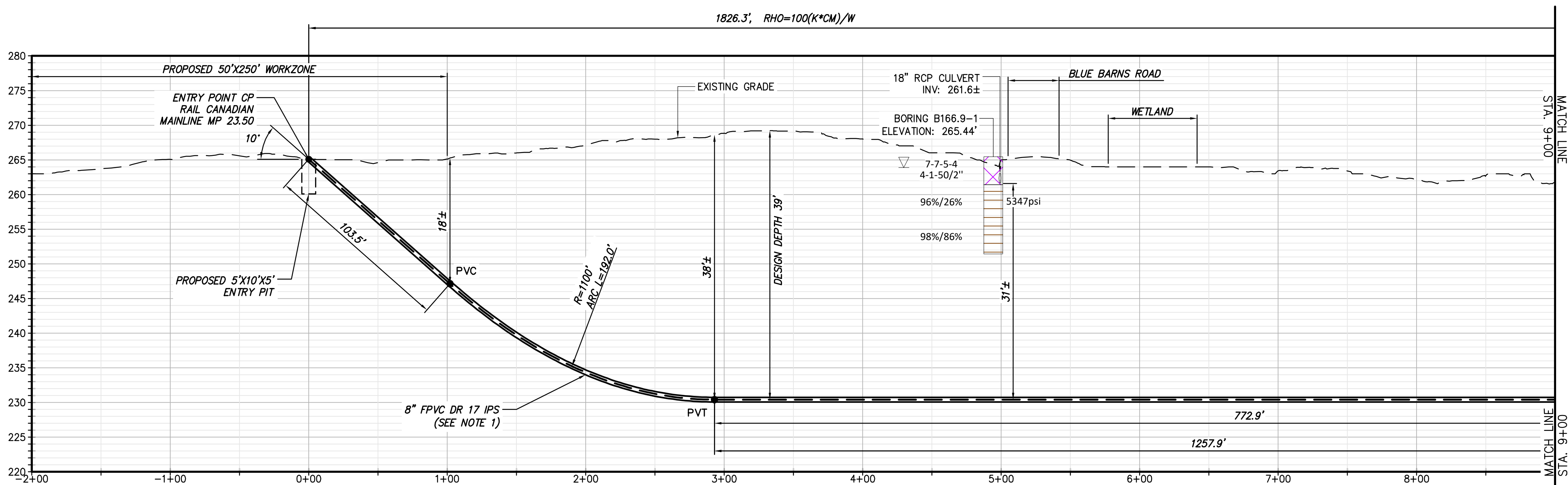
CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59A, CONDUIT 1

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	066076
DRAWING NO.	C-306.1
DATE	8/03/2023
SH.NO.	1

DRAWN BY: KDL DESIGNED BY: SPB APPROVED BY: JEO SCALE: AS NOTED

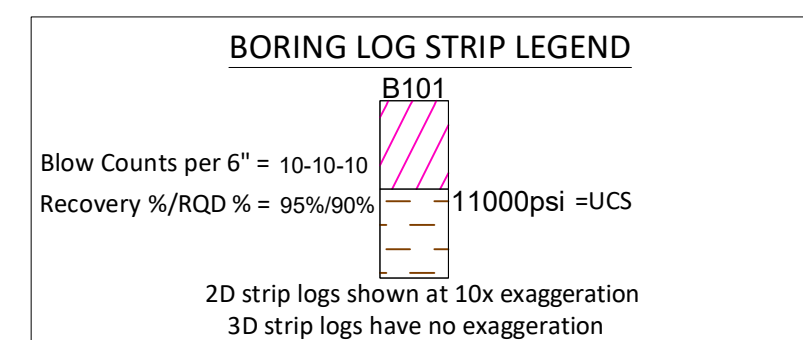


PROPOSED HDD 59A PLAN VIEW
CONDUIT 2



PROPOSED HDD 59A PROFILE
CONDUIT 2

- NOTES:**
- BORES WILL REQUIRE 8-INCH FPVC, DR 17, IPS, CONDUIT AND 3-INCH HDPE, DR 7, IPS, COMMUNICATION CONDUIT WHEN BUNDLED FOR PULLBACK.
 - BALLASTING WITH WATER WILL LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES.
 - ROLLER WILL ALSO LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES IN ADDITION TO BALLAST.
 - THE COMMUNICATION CONDUIT OF HDD #59A NEEDS TO BE SPECIFIED AS PE GRADE 4710 HDPE DUE TO THE ELEVATED STRESSES ENCOUNTERED IN THE BORE AID ANALYSIS IN ADDITION TO BALLASTING AND ROLLER CONSIDERATIONS.



Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean CLAY
	CL-ML	SILTY CLAY
	CONCRETE	Concrete
	FILL	Fill
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
	GM	SILTY GRAVEL
	GP	Poorly Graded GRAVEL
	GP-GC	Poorly Graded Gravel with CLAY
	GP-GM	Poorly Graded GRAVEL with SILT
	GW	Well Graded GRAVEL
	GW-GC	Well Graded GRAVEL with CLAY
	GW-GM	Well Graded GRAVEL with SILT
	Limestone	Limestone
	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
	SP	Poorly Graded SAND
	SP-SC	Poorly Graded SAND with CLAY
	SP-SM	Poorly Graded SAND with SILT
	SW	Well graded SAND
	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
	Topsoil	Topsoil
	USGS 601	Gravel or Conglomerate 1
	USGS 654	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table during drilling	Water Table during drilling
	Water Table after drilling	Water Table after drilling



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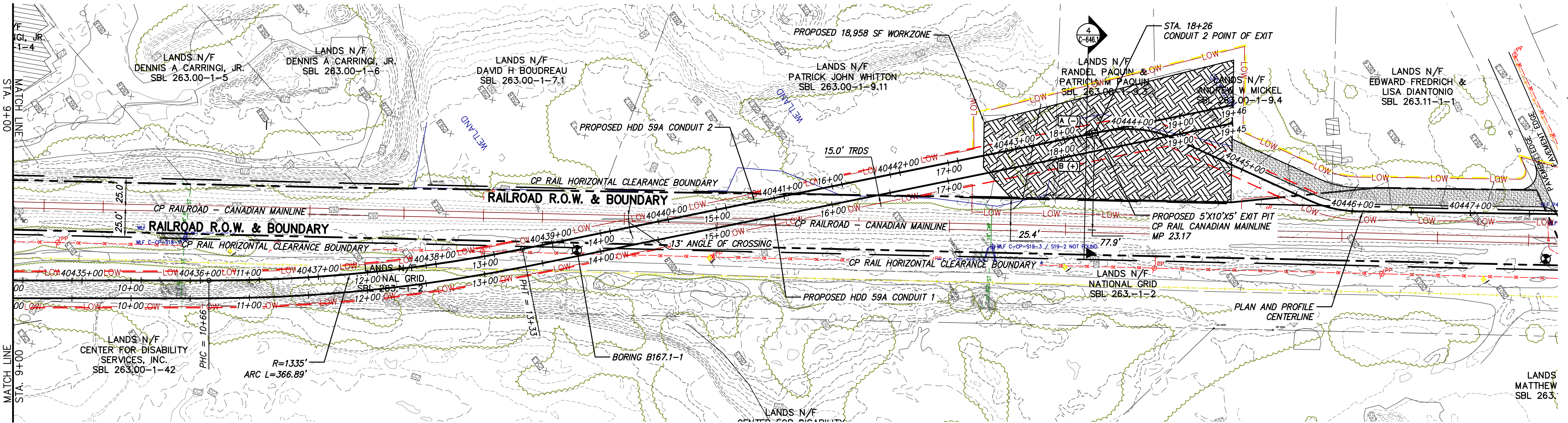
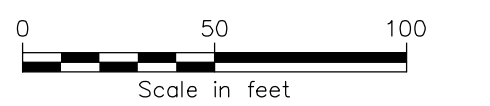
0	08/03/2023	ISSUED FOR CONSTRUCTION SUBMISSION	SPB	JEO
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

**CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59A, CONDUIT 2**

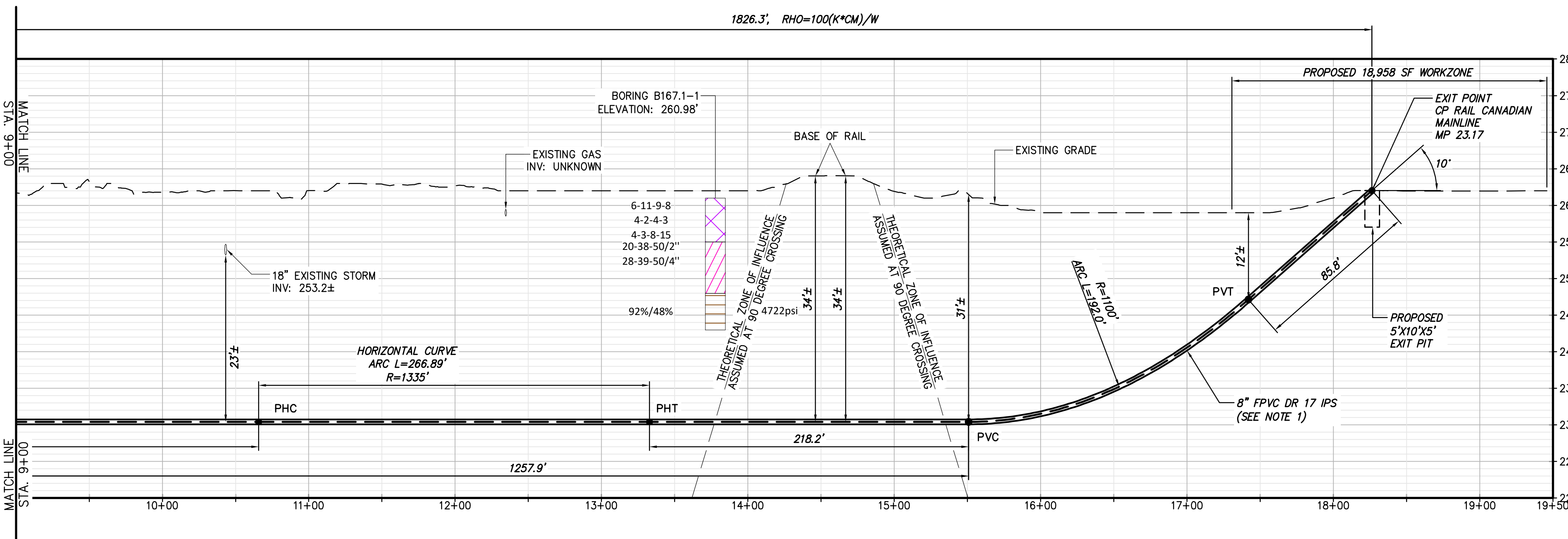
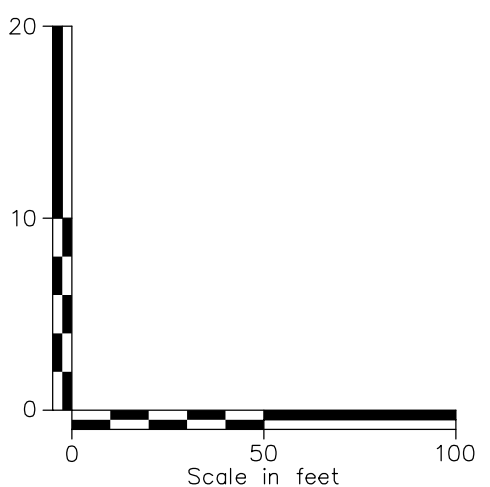
DRAWN BY:	KDL	DESIGNED BY:	SPB	APPROVED BY:	JEO	SCALE	AS NOTED	DATE	8/03/2023
REV. NO.	1	SH.NO.							

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	086076
DRAWING NO.	C-306A

File: V:\PROJECTS\ANY\6\066076_00\09_DESIGN\DRAWINGS\01_SHEETS\DESIGN PACKAGE 4\DESIGN PACKAGE 4\066076_4A - C-306A.DWG Saved: 8/1/2023 1:06:38 PM Plotted: 8/1/2023 1:39:47 PM Current User: Snyder, Morgan LastSavedBy: 8275

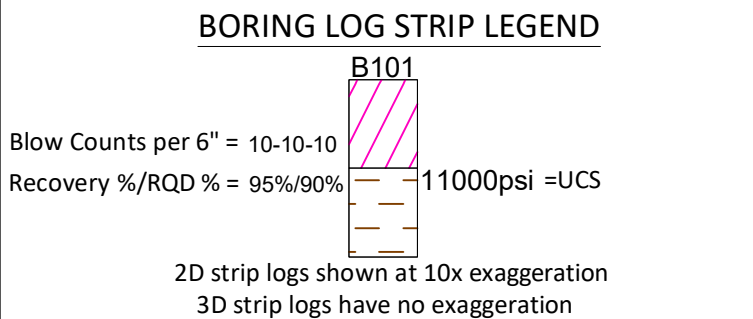


PROPOSED HDD 59A PLAN VIEW
CONDUIT 2



PROPOSED HDD 59A PROFILE
CONDUIT 2

- NOTES:**
- BORES WILL REQUIRE 8-INCH FPVC, DR 17, IPS, CONDUIT AND 3-INCH HDPE, DR 7, IPS, COMMUNICATION CONDUIT WHEN BUNDLED FOR PULLBACK.
 - BALLASTING WITH WATER WILL LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES.
 - ROLLER WILL ALSO LIKELY BE REQUIRED AND IS RECOMMENDED TO MANAGE PULL BACK FORCES AND RESULTANT STRESSES IN ADDITION TO BALLAST.
 - THE COMMUNICATION CONDUIT OF HDD #59A NEEDS TO BE SPECIFIED AS PE GRADE 4710 HDPE DUE TO THE ELEVATED STRESSES ENCOUNTERED IN THE BORE AID ANALYSIS IN ADDITION TO BALLASTING AND ROLLER CONSIDERATIONS.



Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean CLAY
	CL-ML	SILTY CLAY
	CONCRETE	Concrete
	FILL	Fill
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
	GM	SILTY GRAVEL
	GP	Poorly Graded GRAVEL
	GP-GC	Poorly Graded Gravel with CLAY
	GP-GM	Poorly Graded GRAVEL with SILT
	GW	Well Graded GRAVEL
	GW-GC	Well Graded GRAVEL with CLAY
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	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
	SP	Poorly Graded SAND
	SP-SC	Poorly Graded SAND with CLAY
	SP-SM	Poorly Graded SAND with SILT
	SW	Well graded SAND
	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
	Topsail	Topsail
	USGS 601	Gravel or Conglomerate 1
	USGS 654	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table	Water Table during drilling
	Delayed Water Table	Water Table after drilling



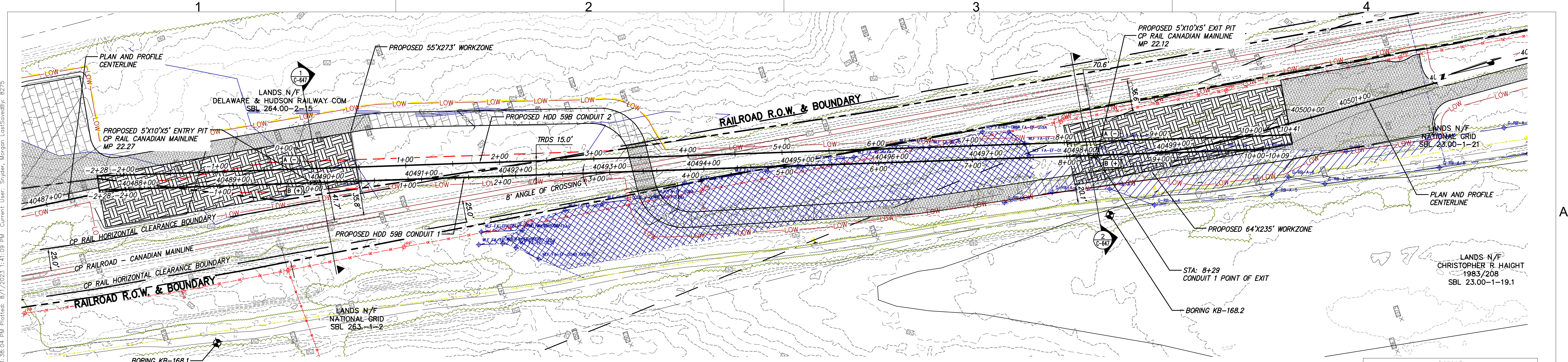
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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59A, CONDUIT 2

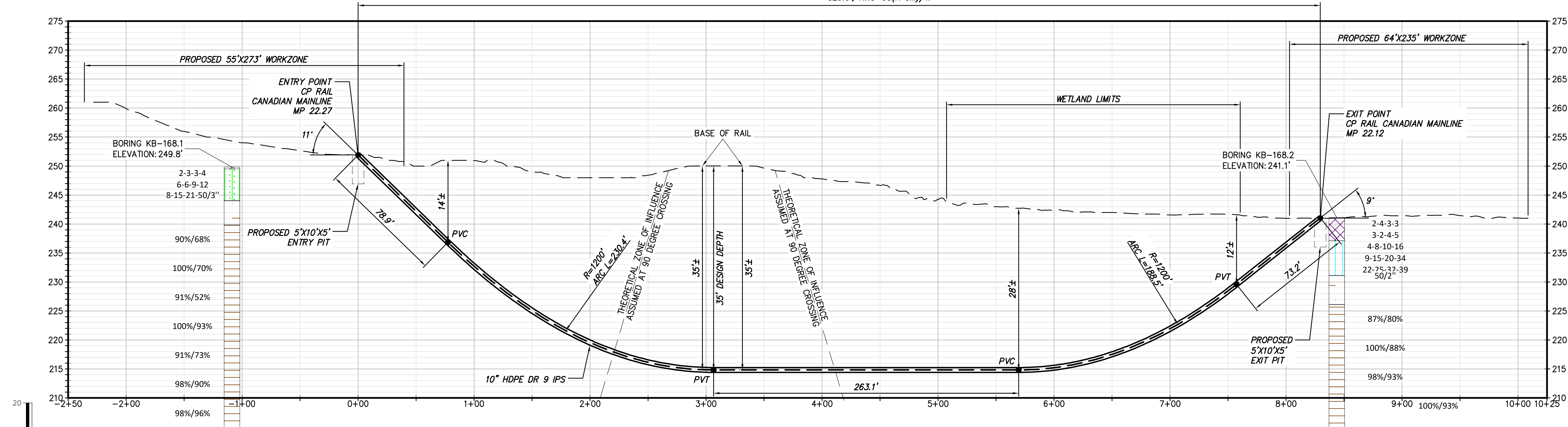
DRAWN BY: KDL DESIGNED BY: SPB APPROVED BY: JEO SCALE AS NOTED DATE 8/03/2023

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	066076
DRAWING NO.	C-306A.1
DATE	8/03/2023
SH.NO.	1



PROPOSED HDD 59B PLAN VIEW
CONDUIT 1

$829.5', RHO=55(K*CM)/W$



PROPOSED HDD 59B PROFILE
CONDUIT 1

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean CLAY
CL-ML	SILTY CLAY
CONCRETE	Concrete
FILL	FILL
GC	CLAYEY GRAVEL
GC-GM	SILTY CLAYEY GRAVEL
GM	SILTY GRAVEL
GP	Poorly Graded GRAVEL
GP-GC	Poorly Graded Gravel with CLAY
GP-GM	Poorly Graded GRAVEL with SILT
GW	Well Graded GRAVEL
GW-GC	Well Graded GRAVEL with CLAY
GW-GM	Well Graded GRAVEL with SILT
Limestone	Limestone
MH	Elastic SILT
ML	SILT
OH	ORGANIC Fat CLAY
OL	ORGANIC Lean CLAY
OL/OH	ORGANIC SOIL
PT	PEAT
Rock	Rock
Sandstone	Sandstone
SC	CLAYEY SAND
SC-SM	SILT, CLAYEY SAND
SHALE	Shale
SILTSTONE	Siltstone
SM	SILTY SAND
SP	Poorly Graded SAND
SP-SC	Poorly Graded SAND with CLAY
SP-SM	Poorly Graded SAND with SILT
SW	Well graded SAND
SW-SC	Well Graded SAND with CLAY
SW-SM	Well Graded SAND with SILT
Topsail	Topsail
USGS 601	Gravel or Conglomerate 1
USGS 654	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table during drilling	Water Table during drilling
Water Table after drilling	Water Table after drilling

BORING LOG STRIP LEGEND

B101

Blow Counts per 6" = 10-10-10
Recovery %/RQD % = 95%/90%

11000psi = UCS

2D strip logs shown at 10x exaggeration
3D strip logs have no exaggeration



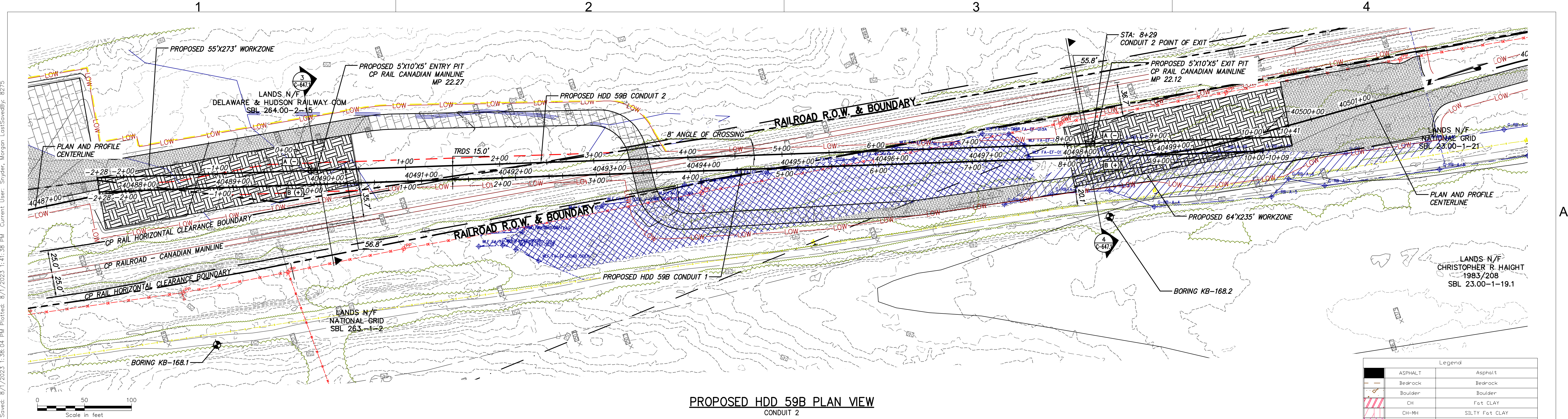
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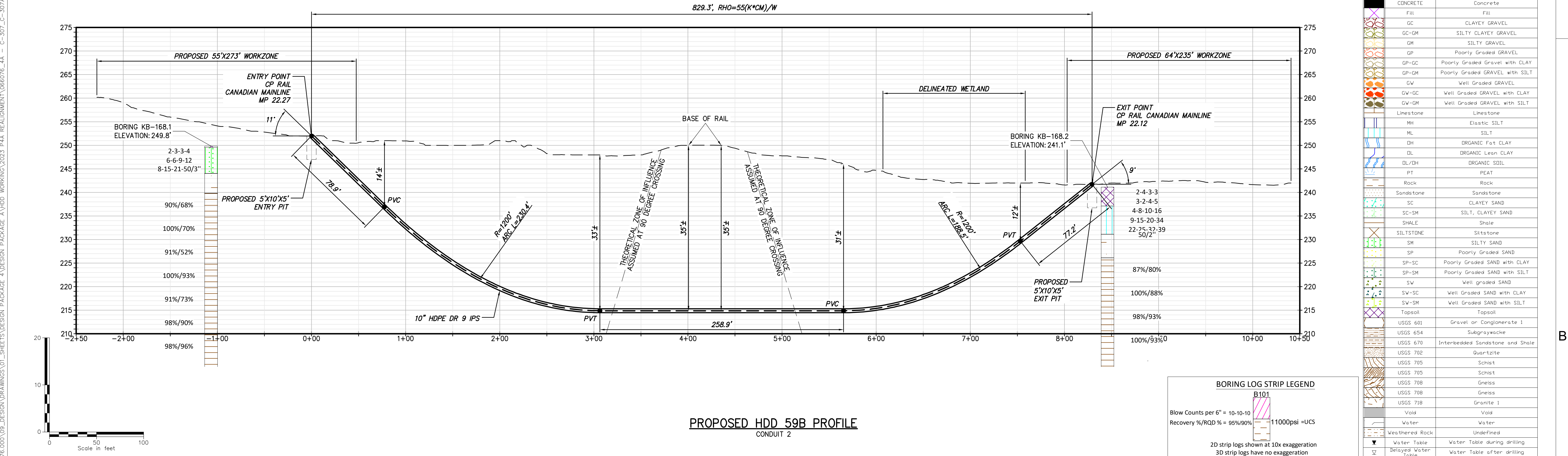
CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59B, CONDUIT 1

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	086076
DRAWING NO.	C-307
DATE	8/03/2023
SH.NO.	1

SCALE	AS NOTED
REV. NO.	1



PROPOSED HDD 59B PLAN VIEW
CONDUIT 2



PROPOSED HDD 59B PROFILE
CONDUIT 2

Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean CLAY
CL-ML	SILTY CLAY
CONCRETE	Concrete
FILL	Fill
GC	CLAYEY GRAVEL
GC-GM	SILTY CLAYEY GRAVEL
GM	SILTY GRAVEL
GP	Poorly Graded GRAVEL
GP-GC	Poorly Graded Gravel with CLAY
GP-GM	Poorly Graded GRAVEL with SILT
GW	Well Graded GRAVEL
GW-GC	Well Graded GRAVEL with CLAY
GW-GM	Well Graded GRAVEL with SILT
Limestone	Limestone
MH	Elastic SILT
ML	SILT
OH	ORGANIC Fat CLAY
OL	ORGANIC Lean CLAY
OL/OH	ORGANIC SOIL
PT	PEAT
Rock	Rock
Sandstone	Sandstone
SC	CLAYEY SAND
SC-SM	SILT, CLAYEY SAND
SHALE	Shale
SILTSTONE	Siltstone
SM	SILTY SAND
SP	Poorly Graded SAND
SP-SC	Poorly Graded SAND with CLAY
SP-SM	Poorly Graded SAND with SILT
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SW-SC	Well Graded SAND with CLAY
SW-SM	Well Graded SAND with SILT
Topsail	Topsail
USGS 601	Gravel or Conglomerate 1
USGS 654	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



Champlain Hudson
Power Express



Kiewit



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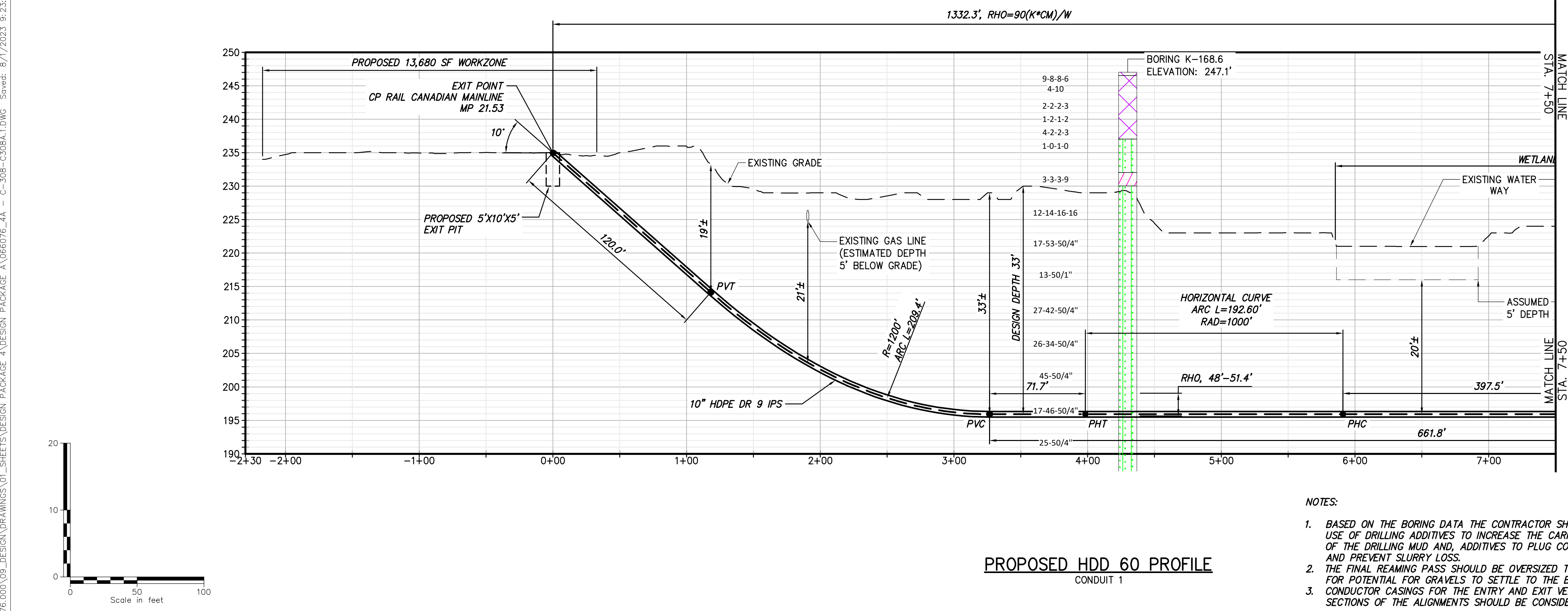
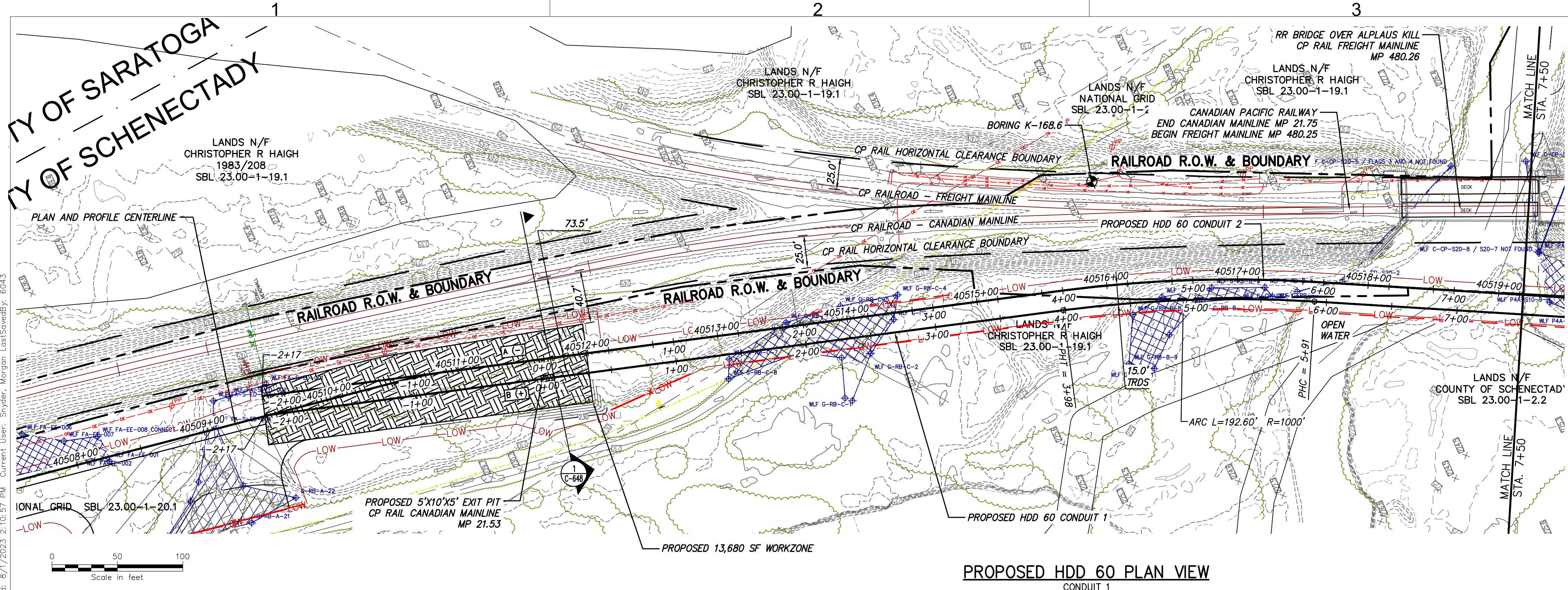
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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 59B, CONDUIT 2

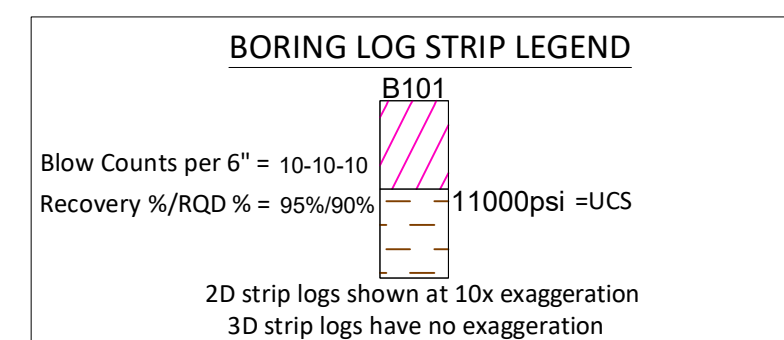
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CHA PROJECT NO. 068076
DRAWING NO. C-307A

SCALE AS NOTED
DATE 8/03/2023

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- NOTES:
1. BASED ON THE BORING DATA THE CONTRACTOR SHOULD CONSIDER USE OF DRILLING ADDITIVES TO INCREASE THE CARRYING CAPACITY OF THE DRILLING MUD AND, ADDITIVES TO PLUG COARSER GRAVELS AND PREVENT SLURRY LOSS.
 2. THE FINAL REAMING PASS SHOULD BE OVERSIZED TO ACCOUNT FOR POTENTIAL FOR GRAVELS TO SETTLE TO THE BOTTOM.
 3. CONDUCTOR CASINGS FOR THE ENTRY AND EXIT VERTICAL TANGENT SECTIONS OF THE ALIGNMENTS SHOULD BE CONSIDERED.



Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean CLAY
	CL-ML	SILTY CLAY
	CONCRETE	Concrete
	FILL	FILL
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
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	GW-GC	Well Graded GRAVEL with CLAY
	GW-GM	Well Graded GRAVEL with SILT
	Limestone	Limestone
	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
	SP	Poorly Graded SAND
	SP-SC	Poorly Graded SAND with CLAY
	SP-SM	Poorly Graded SAND with SILT
	SW	Well graded SAND
	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
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	USGS 654	Subgraywacke
	USGS 670	Interbedded Sandstone and Shale
	USGS 702	Quartzite
	USGS 705	Schist
	USGS 705	Schist
	USGS 708	Gneiss
	USGS 708	Gneiss
	USGS 718	Granite 1
	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table	Water Table during drilling
	Delayed Water Table	Water Table after drilling



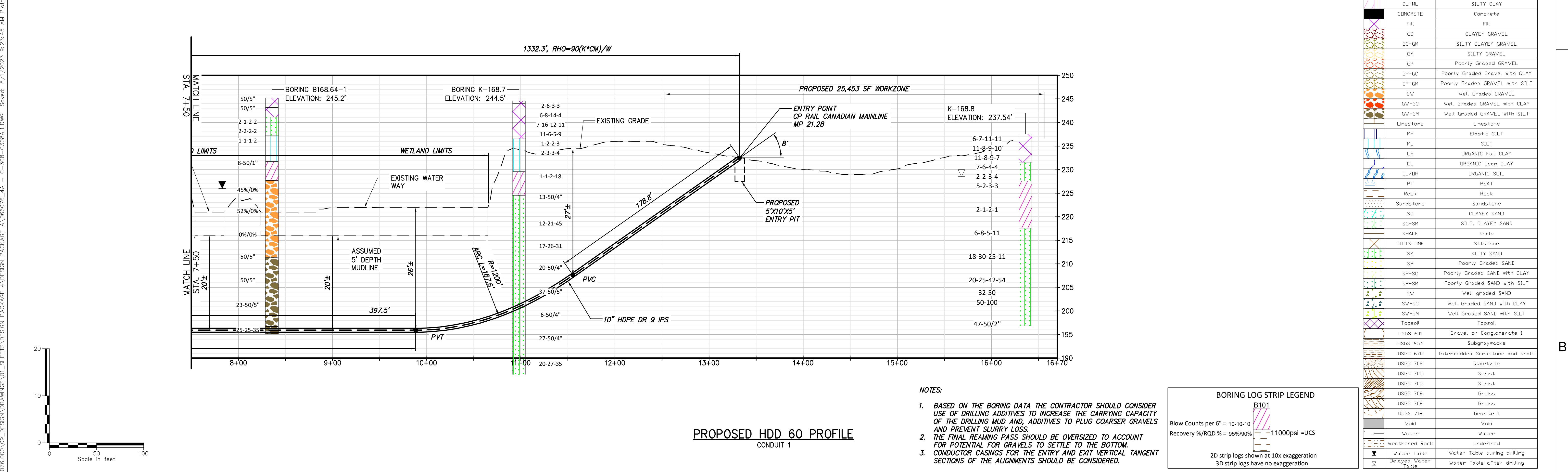
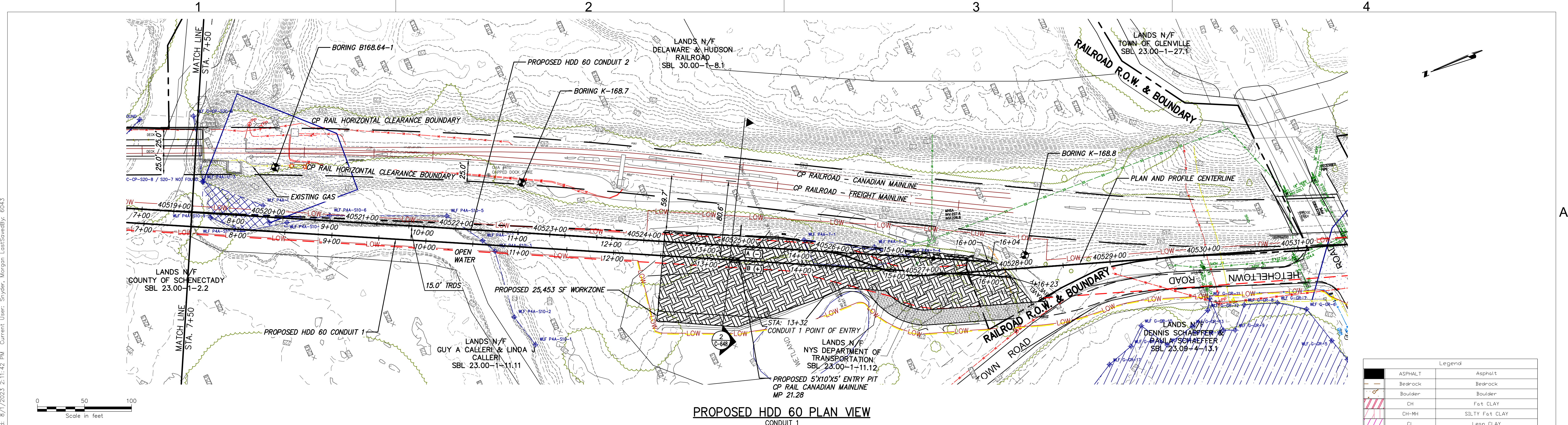
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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 60, CONDUIT 1

DRAWN BY:	CKZ	DESIGNED BY:	CKZ	APPROVED BY:	JEO	SCALE	AS NOTED	DATE	8/03/2023
REV. NO.	X	SH.NO.							

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	066076
DRAWING NO.	C-308





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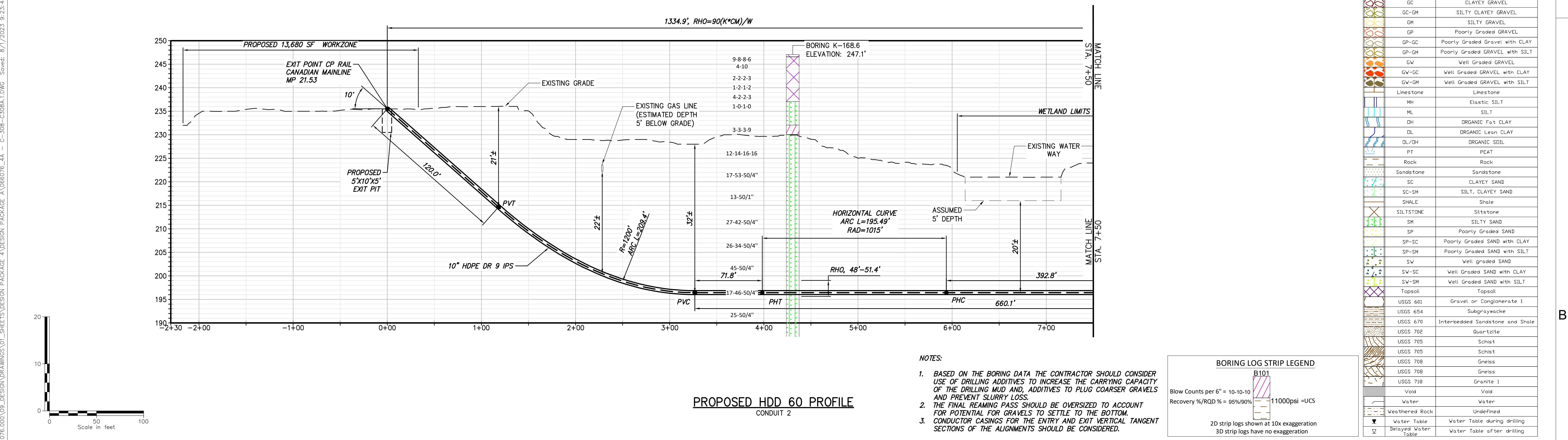
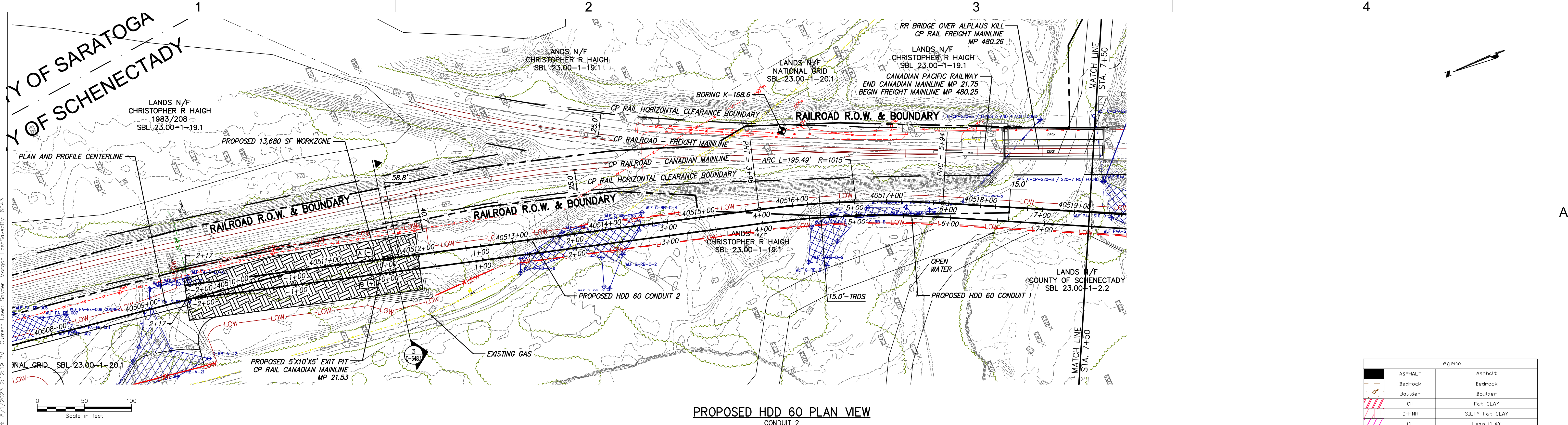
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CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 60, CONDUIT 1

DRAWN BY: CKZ DESIGNED BY: CKZ APPROVED BY: JEO SCALE AS NOTED DATE 8/03/2023

KIEWIT PROJECT NO. 21162
CHA PROJECT NO. 086076
DRAWING NO. **C-308.1**





CHPE
Champlain Hudson
Power Express



Kiewit



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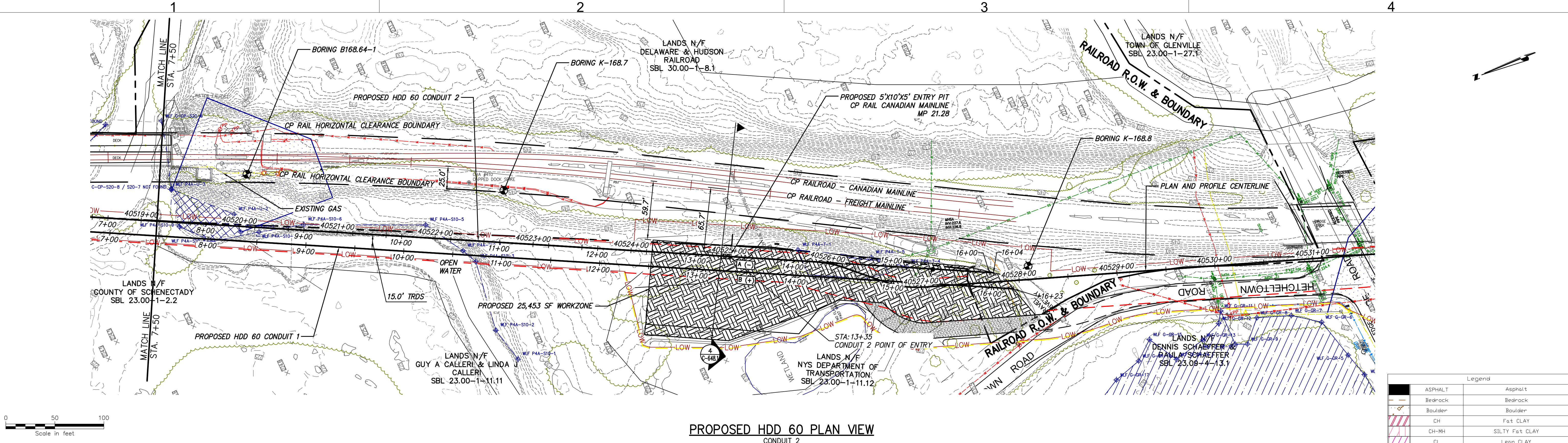
**CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE**

PLAN AND PROFILE - HDD 60, CONDUIT 2

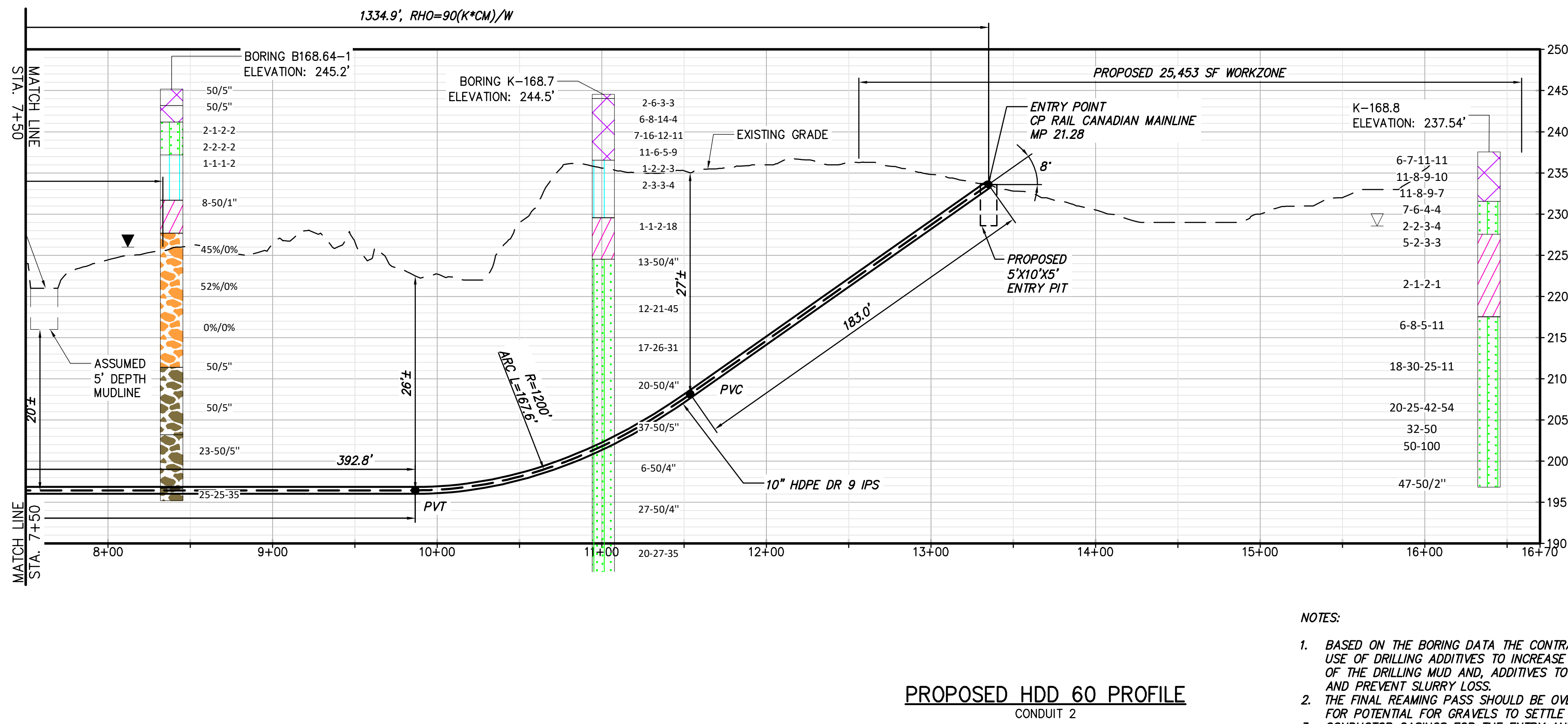
DRAWN BY: CKZ DESIGNED BY: CKZ APPROVED BY: JEO SCALE AS NOTED DATE 8/03/2023

KIEWIT PROJECT NO. 21162
CHA PROJECT NO. 066076
DRAWING NO. **C-308A**

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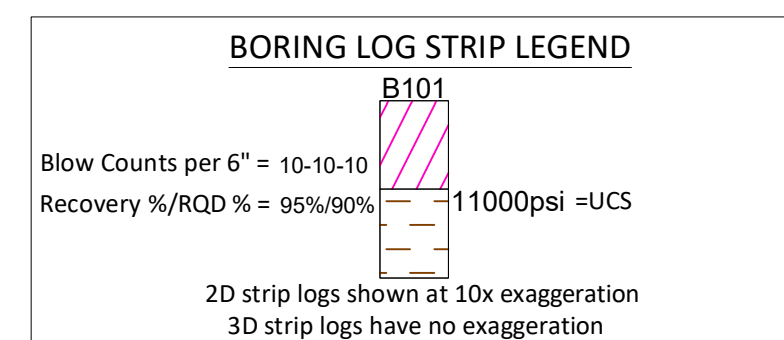


PROPOSED HDD 60 PLAN VIEW
CONDUIT 2



PROPOSED HDD 60 PROFILE
CONDUIT 2

- NOTES:
1. BASED ON THE BORING DATA THE CONTRACTOR SHOULD CONSIDER USE OF DRILLING ADDITIVES TO INCREASE THE CARRYING CAPACITY OF THE DRILLING MUD AND, ADDITIVES TO PLUG COARSER GRAVELS AND PREVENT SLURRY LOSS.
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 3. CONDUCTOR CASINGS FOR THE ENTRY AND EXIT VERTICAL TANGENT SECTIONS OF THE ALIGNMENTS SHOULD BE CONSIDERED.



Legend	
ASPHALT	Asphalt
Bedrock	Bedrock
Boulder	Boulder
CH	Fat CLAY
CH-MH	SILTY Fat CLAY
CL	Lean CLAY
CL-ML	SILTY CLAY
CONCRETE	Concrete
FILL	Fill
GC	CLAYEY GRAVEL
GC-GM	SILTY CLAYEY GRAVEL
GM	SILTY GRAVEL
GP	Poorly Graded GRAVEL
GP-GC	Poorly Graded Gravel with CLAY
GP-GM	Poorly Graded GRAVEL with SILT
GW	Well Graded GRAVEL
GW-GC	Well Graded GRAVEL with CLAY
GW-GM	Well Graded GRAVEL with SILT
Limestone	Limestone
MH	Elastic SILT
ML	SILT
DH	ORGANIC Fat CLAY
DL	ORGANIC Lean CLAY
DL/DH	ORGANIC SOIL
PT	PEAT
Rock	Rock
Sandstone	Sandstone
SC	CLAYEY SAND
SC-SM	SILT, CLAYEY SAND
SHALE	Shale
SILTSTONE	Siltstone
SM	SILTY SAND
SP	Poorly Graded SAND
SP-SC	Poorly Graded SAND with CLAY
SP-SM	Poorly Graded SAND with SILT
SW	Well graded SAND
SW-SC	Well Graded SAND with CLAY
SW-SM	Well Graded SAND with SILT
Topsoll	Topsoll
USGS 601	Gravel or Conglomerate 1
USGS 654	Subgraywacke
USGS 670	Interbedded Sandstone and Shale
USGS 702	Quartzite
USGS 705	Schist
USGS 705	Schist
USGS 708	Gneiss
USGS 708	Gneiss
USGS 718	Granite 1
Void	Void
Water	Water
Weathered Rock	Undefined
Water Table	Water Table during drilling
Delayed Water Table	Water Table after drilling



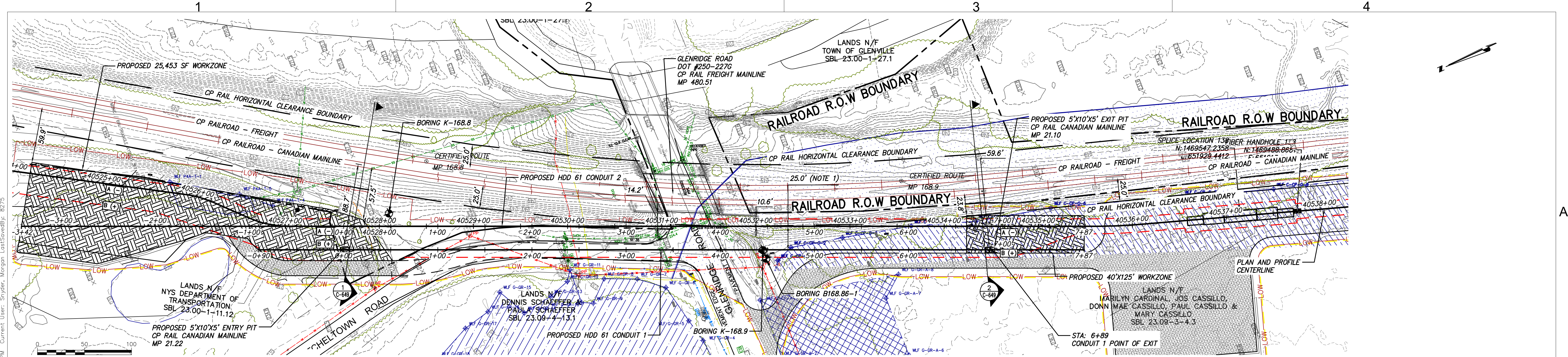
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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
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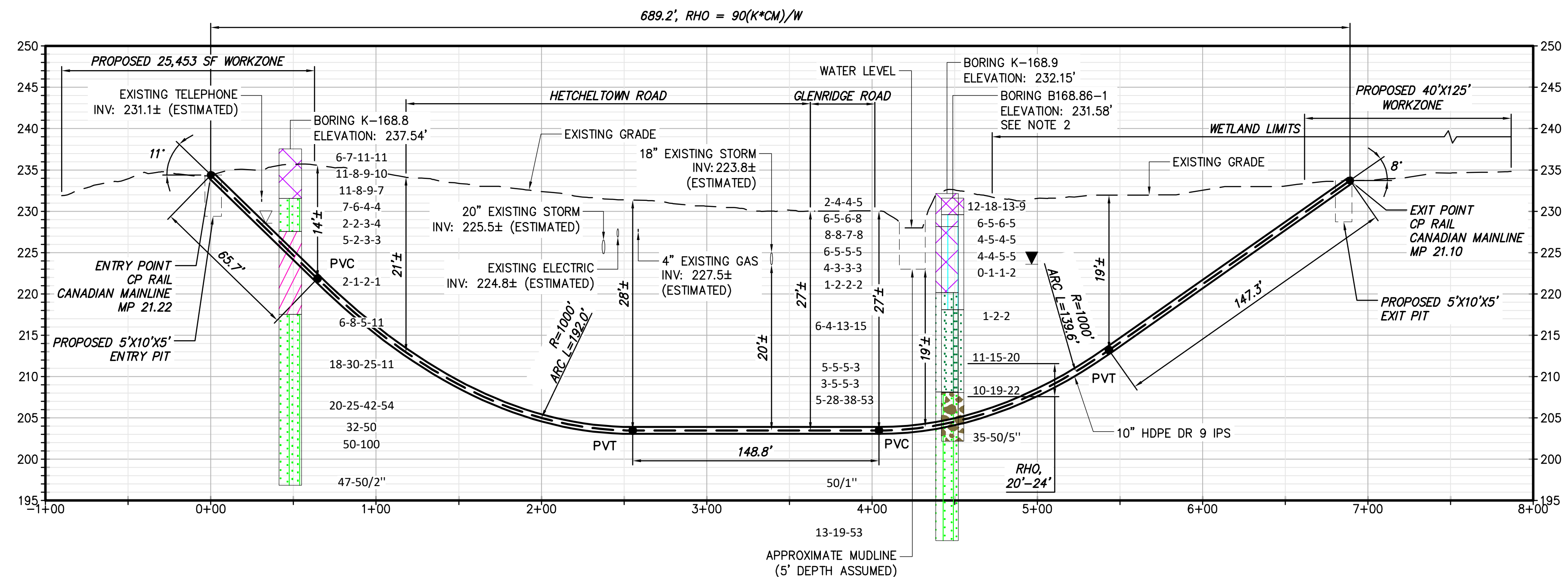
CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 60, CONDUIT 2

DRAWN BY: CKZ DESIGNED BY: CKZ APPROVED BY: JEO SCALE AS NOTED DATE 8/03/2023

KIEWIT PROJECT NO. 21162
CHA PROJECT NO. 066076
DRAWING NO. C-308A.1
DATE 8/03/2023



PROPOSED HDD 61 PLAN VIEW
CONDUIT 1



PROPOSED HDD 61 PROFILE
CONDUIT 1

NOTES:
1. CONDUIT SPACING WAS DESIGNED AT 25' PRIOR TO THE TRDS BEING ESTABLISHED AT 14'.
2. BORE AND BORE HATCHING IN PROFILE IS NOT CLEARLY LEGIBLE DUE TO THE CLOSE PROXIMITY OF THE MULTIPLE BORES AT 50 SCALE. USERS MUST CONSULT THE ACTUAL BORE LOGS AND REPORTS FOR CLARIFICATION AND OR INTERPRETATION.

Legend		
	ASPHALT	Asphalt
	Bedrock	Bedrock
	Boulder	Boulder
	CH	Fat CLAY
	CH-MH	SILTY Fat CLAY
	CL	Lean CLAY
	CL-ML	SILTY CLAY
	CONCRETE	Concrete
	FILL	FILL
	GC	CLAYEY GRAVEL
	GC-GM	SILTY CLAYEY GRAVEL
	GM	SILTY GRAVEL
	GP	Poorly Graded GRAVEL
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	GW	Well Graded GRAVEL
	GW-GC	Well Graded GRAVEL with CLAY
	GW-GM	Well Graded GRAVEL with SILT
	Limestone	Limestone
	MH	Elastic SILT
	ML	SILT
	OH	ORGANIC Fat CLAY
	OL	ORGANIC Lean CLAY
	OL/OH	ORGANIC SOIL
	PT	PEAT
	Rock	Rock
	Sandstone	Sandstone
	SC	CLAYEY SAND
	SC-SM	SILT, CLAYEY SAND
	SHALE	Shale
	SILTSTONE	Siltstone
	SM	SILTY SAND
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	SW-SC	Well Graded SAND with CLAY
	SW-SM	Well Graded SAND with SILT
	Topsail	Topsail
	USGS 601	Gravel or Conglomerate 1
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	Void	Void
	Water	Water
	Weathered Rock	Undefined
	Water Table	Water Table during drilling
	Delayed Water Table	Water Table after drilling

BORING LOG STRIP LEGEND	
	B101
Blow Counts per 6" = 10-10-10	
Recovery %/RQD % = 95%/90%	
	11000psi = UCS
2D strip logs shown at 10x exaggeration	
3D strip logs have no exaggeration	



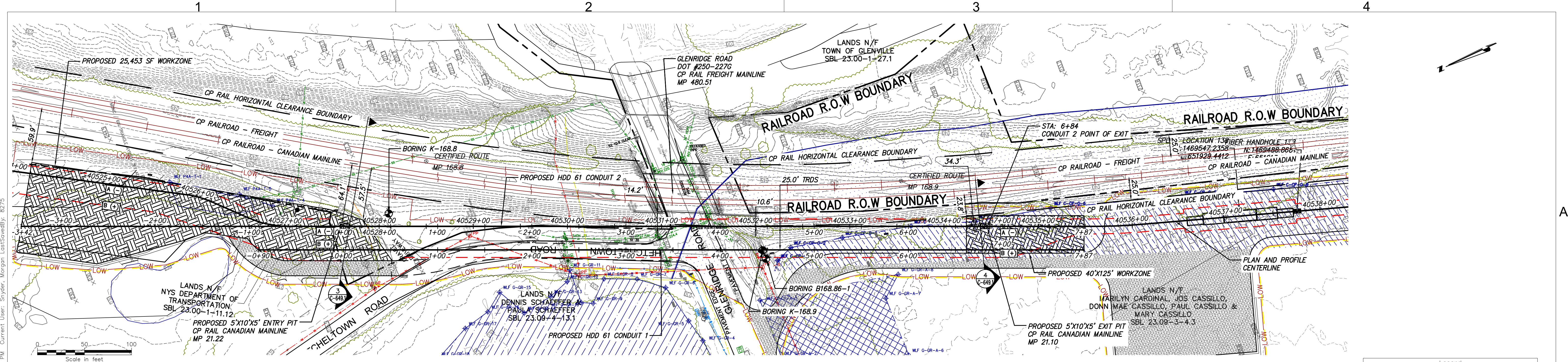
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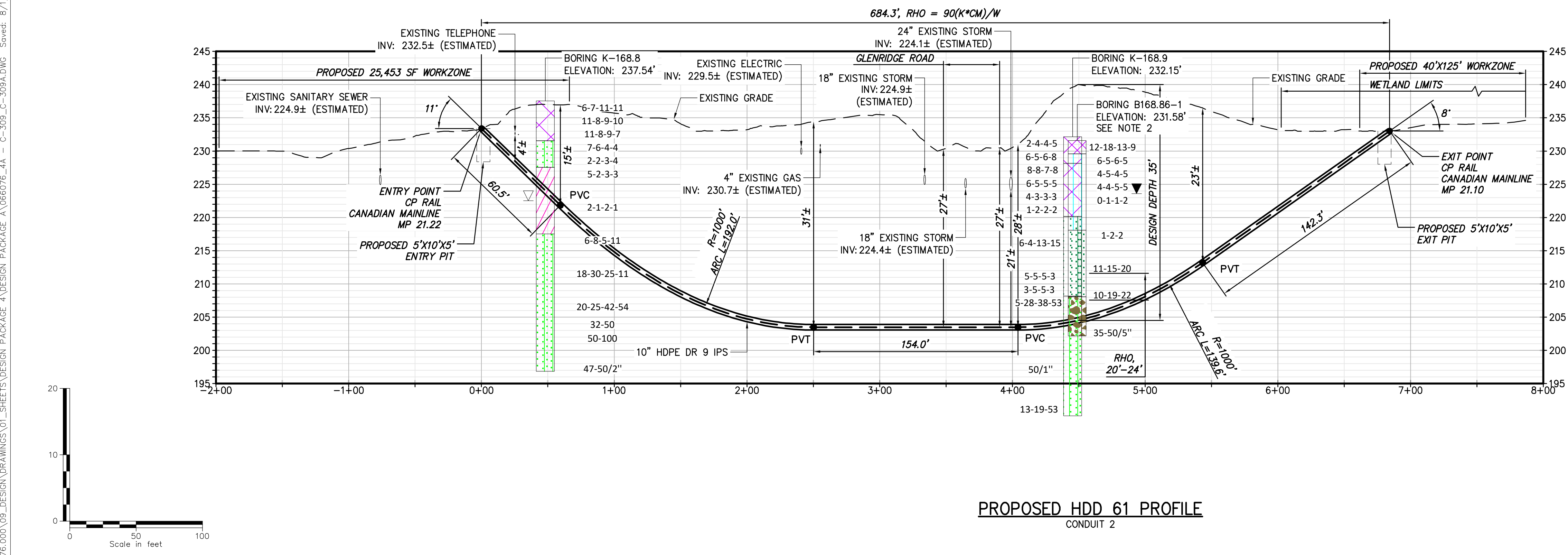
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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 61, CONDUIT 1

KIEWIT PROJECT NO. 21162		CHA PROJECT NO. 086076		DRAWING NO. C-309	
DRAWN BY:	ES	DESIGNED BY:	ES	APPROVED BY:	JEO
SCALE	AS NOTED	DATE	8/03/2023	SH.NO.	X

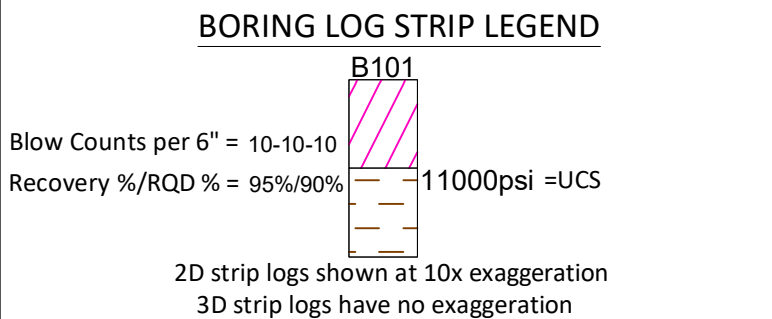


PROPOSED HDD 61 PLAN VIEW
CONDUIT 2



PROPOSED HDD 61 PROFILE
CONDUIT 2

NOTES:
1. CONDUIT SPACING WAS DESIGNED AT 25' PRIOR TO THE TRDS BEING ESTABLISHED AT 14'.
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Champlain Hudson Power Express



Kiewit



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CHAMPLAIN HUDSON POWER EXPRESS
SEGMENT 6 (PACKAGE 4A) - CP: BALLSTON TO GLENVILLE
PLAN AND PROFILE - HDD 61, CONDUIT 2

KIEWIT PROJECT NO.	21162
CHA PROJECT NO.	086076
DRAWING NO.	C-309A
DATE	8/03/2023
SH.NO.	X

DRAWN BY:	ES	DESIGNED BY:	ES	APPROVED BY:	JEO	SCALE	AS NOTED
REV. NO.							

