CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
1385 EIGHTH STREET, SUITE 130
ARCATA, CA 95521
VOICE (707) 826-8950
FAX (707) 826-8960

F8b

1-20-0559

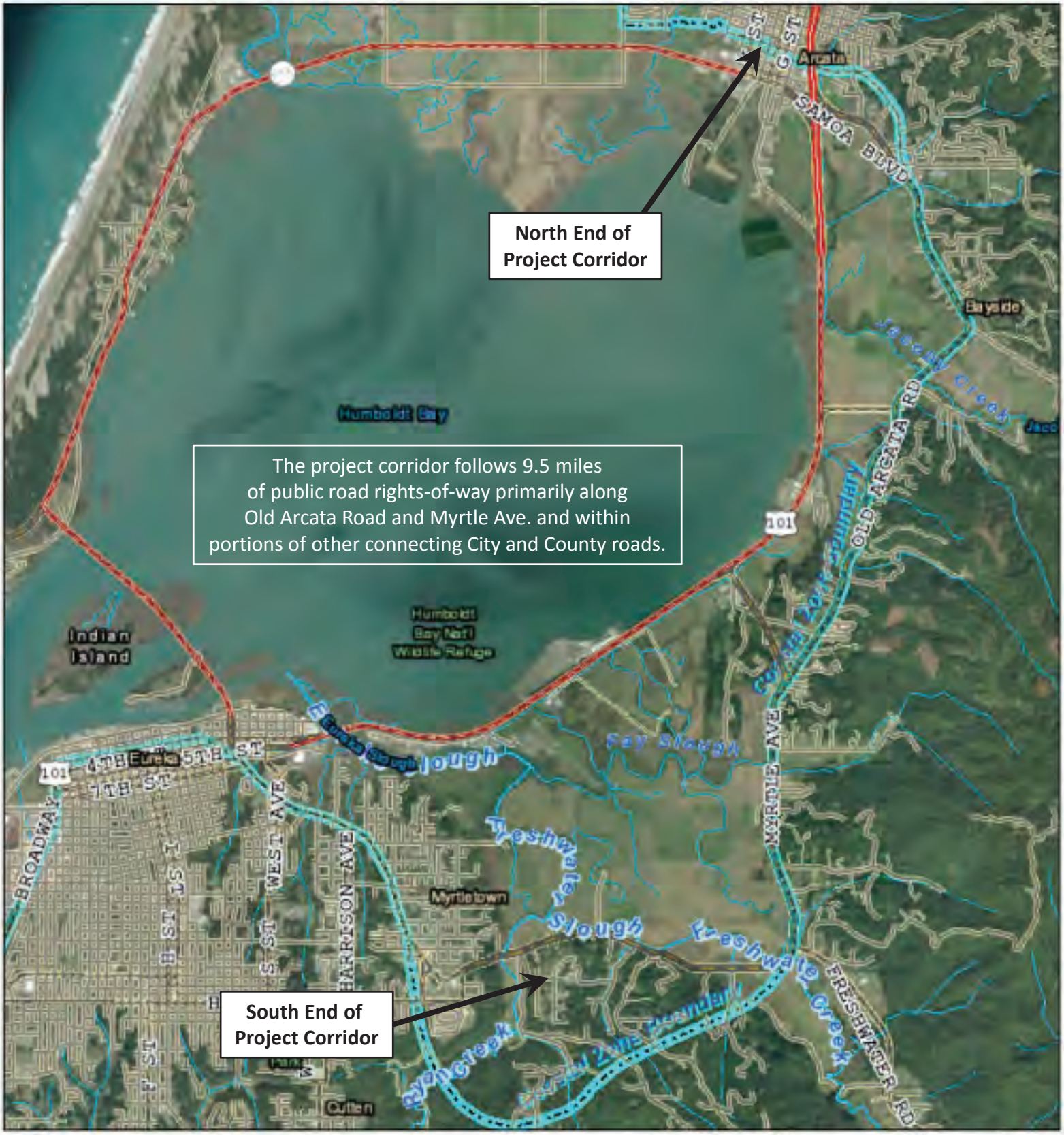
(VERO FIBER NETWORKS)

APRIL 16, 2021

EXHIBITS

Table of Contents

EXHIBIT 1
CDP 1-20-0559
(Vero Fiber Networks, LLC)
REGIONAL LOCATION MAP



ArcGIS Web Map

Humboldt County Planning and Building Department

0 2,750 5,500 11,000 Feet

0 0.5 1 2 Miles

RF= 1:72,224 1 in = 6,019 ft

Printed: March 23, 2021 Web AppBuilder 2.0 for ArcGIS

Map Disclaimer:
While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any differ

Source: Source: Esri, Maxar, DS, USDA, USGS, AeroGRID, County GIS, Esri, HERE, Ga GIS user community

Highways and Roads
- Principal Arterials
- Minor Arterials
- Major Collectors
- Minor Collectors
- Local Roads
- Private or Unclassified
- Major River or Stream

Blue Line Streams
- Perennial 1-3
- Perennial >4
- Intermittent
- Subsurface
- Coastal Zone Boundary
- <default layer do not remove>

EXHIBIT 2
CDP 1-20-0559
(Vero Fiber Networks, LLC)
VICINITY MAP

INTRODUCTION

Vero Fiber Networks, LLC (California Public Utilities Commission [CPUC] Certificate of Public Convenience and Necessity #U7344C) proposes to install conduit in approximately 9.5 miles of public right-of-way (ROW) between Arcata and Eureka in Humboldt County. The Arcata-Eureka Fiber Project (Project) extends from Arcata around Humboldt Bay to the east (**Figure 1**). The entire Project will be constructed underground using trenchless methods such as the horizontal direction drilling (HDD) construction method.

The Project consists of a single bore path, referenced as BH1. From an existing facility in Arcata, BH1 continues along the eastern side of Humboldt Bay and terminates at an existing substation just east of Eureka. The Project would be entirely bored, including under bridges and under water bodies.

1.1 Areas of Disturbance

The Project would include installation of approximately 9.5 linear miles of underground conduit and up to 76 handholes. Permanent disturbance includes the underground conduit and the handholes. Temporary disturbance resulting from construction (equipment staging/laydown) is expected to be limited to a 25-foot-wide corridor along the Project. Temporary and permanent disturbances per land jurisdiction are calculated in **Table 1**. Note that since the conduit is installed by trenchless methods, the actual disturbance area is only at bore and receive pits.

TABLE 1
TEMPORARY AND PERMANENT DISTURBANCE ACREAGES

Jurisdiction	**Distance** *(linear miles)*	**Temporary Disturbance** *(25-foot-wide Construction Corridor)*	**Permanent Disturbance** *(handholes)**
Public ROW	9.5	28.8 acres	912 square feet
*Combined area of surface disturbance for the handholes (i.e., 3 feet by 4 feet per handhole)			


Liscom
State University
Community Forest
11th St
G St
Samoa Rd
Old Samoa Rd
Arcata
Arcata Marsh and Wildlife Sanctuary
Gannon Slough
Buttermilk Ln
Idylbear Ln
Bayside
Humboldt Bay
Fwy
Jacoby Creek Rd
Washington Gulch
Rocky Gulch
101
Humboldt Bay Nat'l Wildlife Refuge
Eureka Slough
Burns
4th St
Murray Field
Park St
Myrtletown
Harrison Ave
Legend
Project Area
Project Overview Map
Arcata Eureka Fiber Project
Figure 1
0
0.5
1
Miles
Transcon environmental

DESCRIPTION OF THE UNDERTAKING

The Project comprises buried conduit and associated handholes. A description of these facilities and how they would be constructed is below.

2.1 Facilities and Construction

2.1.1 Buried Conduit

From Arcata around the eastern edge of Humboldt Bay, it is proposed that four 1.25-inch high-density polyethylene conduits would be placed within one bore to a depth of at least 4 feet.

Both conduits would be constructed using the HDD construction method. HDD is a steerable, trenchless method of installing underground conduits along a prescribed bore path by using a surface drilling rig (**Figure 2**). HDD causes minimal impacts; ground disturbance occurs only at each entry/exit point, or "bore pit." HDD can avoid surface disruption by going beneath roadways, waterways, or environmentally sensitive areas.

The HDD process involves drilling a hole with guidance equipment and continuous drill bit position monitoring. Once drilling is complete, the conduit is pulled through the bore hole and spliced together through handhole locations. HDD uses a clay/water mixture that is pumped down the drill stem to lubricate the drill head and drill pipe, maintain the bore hole opening, and remove bore cuttings.

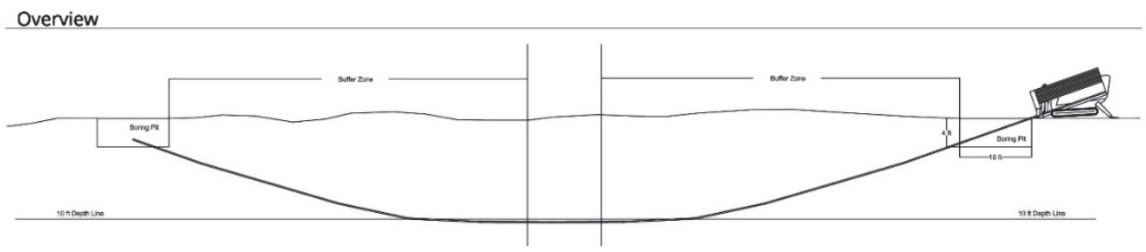


Figure 2. HDD construction method diagram.

2.1.2 Handholes

A total of 80 bore pits would be required (placed approximately every 800 feet per conduit/bore operation) to facilitate the bore operation and provide access to the conduit. Two handholes would be placed adjacent to each other in 38 of the 80 bore pits to provide access to the conduit. Handholes are made from a hybrid polymer concrete composite sized 2 by 4 by 1.5 feet and require an excavation about 1 foot greater than the handhole. Bore pits without handholes would be excavated to a size of 2 by 3 by 4 feet.

2.1.3 Cable Placement

After installation, the first conduit is tested, and the cable is placed by either pulling cable using Kevlar tape or using compressed air to "blow" the cable through the conduit. In the future, additional cables may be installed within empty conduits installed as part of this Project. Each conduit would be accessed via handholes; the installation of additional cables would not require future new disturbance.

2.1.4 Construction Operations

Equipment required to construct the Project includes two directional bore rigs Vermeer 24/40 Tier 3 to Tier 4, two Kubota Mini Excavators Tier 3, an Ingersoll Rand 185 Air Compressor Tier 3 and Walk Behind Saw, two Ford 5-yard dump trucks, three F550 utility trucks equipped with tools, arrow boards, equipment trailers, reel trailers, a fusion welder, wackers, a vacuum trailer, and a vac truck. The directional bore would require two drill rigs, one vac trailer, one mini-excavator, one air compressor, one 5-yard dump truck, and three F550 1-ton trucks, all operating in unison. Conduit placement would require one mini-excavator, one concrete saw, one air compressor, two 5-yard dump trucks, and two F550 1-ton trucks. Work zones would be delineated by cones and/or barricades.

2.1.4.1 Dewatering

Dewatering would occur at some handhole locations. Where the ground is fine sand, the excavation pits would be dug through a steel shoring box; the water would only be contained and pumped from this small area. Once pumped out, water would be stored in two 7,000-gallon poly tanks at a construction vendor yard. The water would then be tested, a discharge permit would be obtained if necessary, and the water would be discharged into either a sanitary sewer or designated discharge area. There would also be a washout for the vacs and a recycler to separate out the mud, silt, and water. Dewatering would take 2-3 hours per handhole.

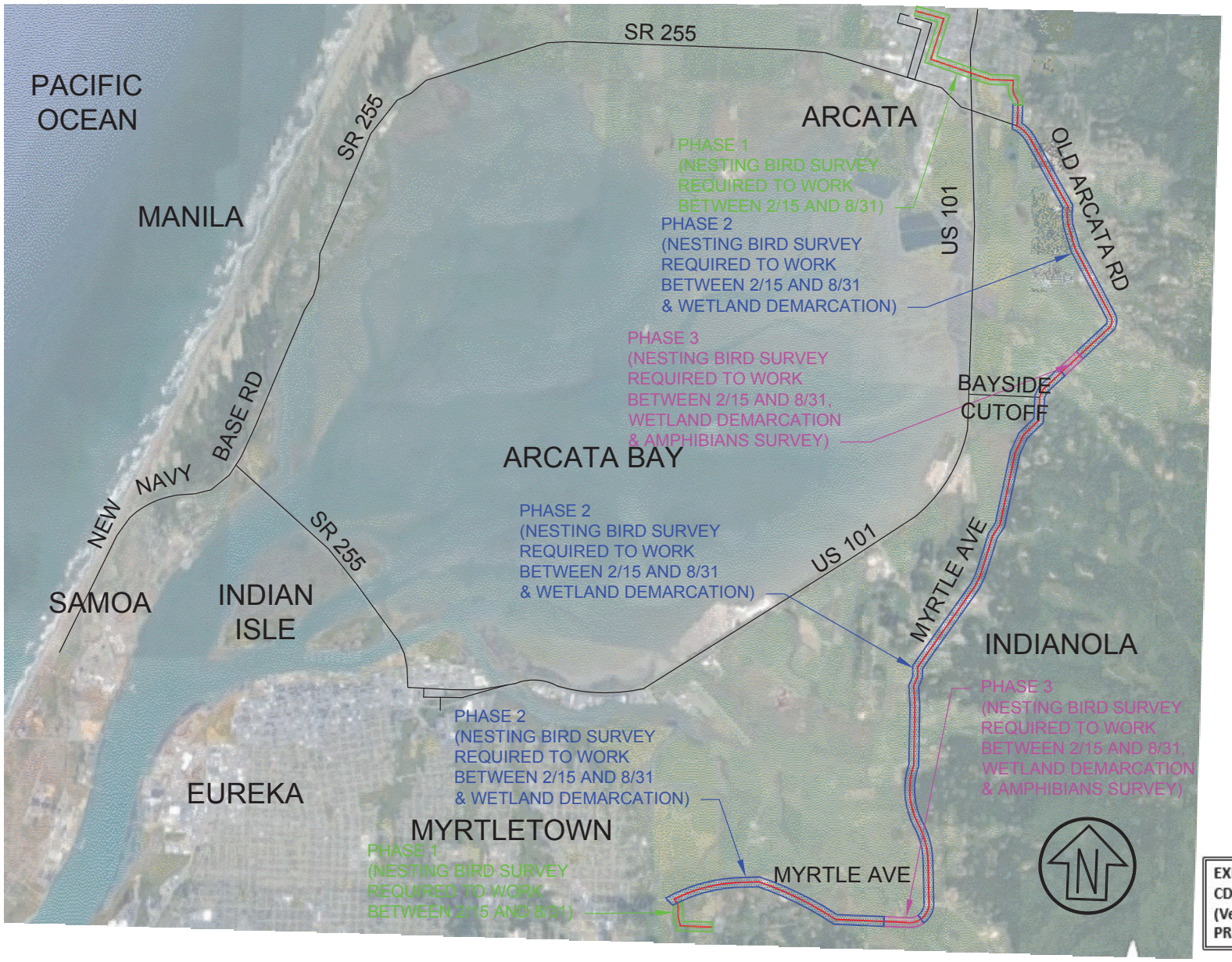
Equipment Storage and Staging

Staging and laydown for the Project construction would be along the ROW in the dirt area within the 25-foot-wide Construction Corridor. Equipment would be stored in the City of Arcata. Equipment would not be left within the ROW overnight.

Dry spoils would be placed directly into a dump truck and hauled to a construction vendor yard. When the stockpile reaches 100 yards, end dumps would transport the material to the nearest landfill. Wet spoils and vac mud would be run through a separator, the water would be reused in the bore machines, and the wet tailing would be dried in a pond lined with plastic sheeting before being hauled off.

2.1.5 Construction Schedule

The duration of construction for the Project would be approximately 6 months (400 to 600 feet per day); construction is planned to begin June 2021 and extend to December 2021. Construction operations would last 8 to 10 hours per day and would be performed 5 days per week. Some work may begin before sunrise or end after sunset.



Date: 01/13/21
Scale: 1" = 3,000'
Rev -
Job No. 1910140.03

ARCATA/EUREKA FIBER PROJECT
EXHIBIT
CONSTRUCTION PHASING PLAN
HUMBOLDT COUNTY CALIFORNIA

Prepared Under the Direction of:

ST2
CSW/Stuber-Stroeh Engineering Group, Inc.
Civil & Structural Engineers | Surveying & Mapping | Environmental Planning
Land Planning | Construction Management
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fax: 415.883.9835
http://www.csw-st2.com

EXHIBIT 4
CDP 1-20-0559
(Vero Fiber Networks, LLC)
PROJECT PHASING PLAN

P:\Projects\1910140 Eureka Fiber Optic Network -Feasibility Assessment\DWG\Exhibits\EXH - Sequencing Plan - BH1.dwg 01/12/2021 - 03:37 PM hanja 1:1

VERO
Fiber Networks

ARCATA/EUREKA FIBER PROJECT - PHASE I

STA: 1+00 TO STA: 163+66.31

CITY OF ARCATA

AUGUST 2020

EXHIBIT 5
CDP 1-20-0559
(Vero Fiber Networks, LLC)
PROJECT PLANS
(page 1 of 51)

CONTACT LIST:

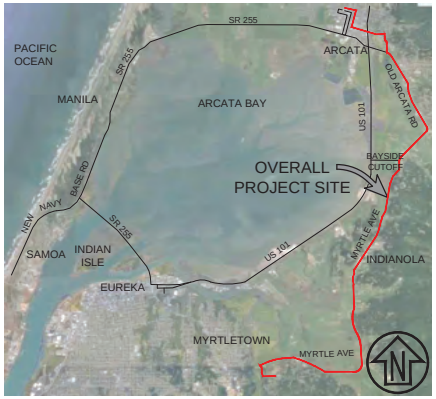
BOULDER, COLORADO 80306 EMAIL: nmcginn@veronetworks.com

LIGHTWAVE CONSTRUCTION (CONSTRUCTION CONTRACTOR)

POLLOCK PINES, CA 95726 EMAIL: steppen@lightwaveconstruction.com

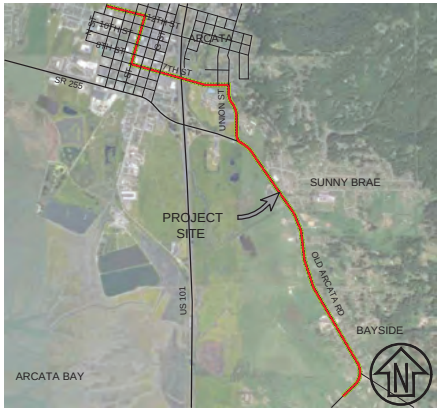
(415) 883-9850
599-9564
883-9835
juliah@cswst2.com

OVERALL LOCATION MAP



OVERALL LOCATION MAP
SCALE: NTS

LOCATION MAP



LOCATION MAP
SCALE: NTS

SHEET INDEX

			Designed	Drawn	Checked
			JAH	FAV	JAH

VERO
Fiber Networks

CSW | ST2
CSW/Stuber-Streeter Engineering Group, Inc.

City: Arcata
County: Humboldt
State: California

ARCATA/EUREKA FIBER PROJECT
COVERSHEET
VERO FIBER NETWORKS

Prepared Under the Direction of:
JULIA A. HARBERSON
No. 76826
CIVIL
STATE OF CALIFORNIA

Sheet G-001
Scale:
Date: 09/23/20
Project Number: 1910140
Plan File: D-XXXX-

			Designed	Drawn	Checked
			JAH	FAV	JAH

VERO
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City	Arcata
County	Humboldt
State	California

ARCATA/EUREKA FIBER PROJECT

SHEET KEY MAP

VERO FIBER NETWORKS

Prepared Under the Direction of:
REGISTERED PROFESSIONAL ENGINEER
JULIA A. HARBERSON
No. 76826
CIVIL
STATE OF CALIFORNIA

Sheet
G-002

Scale:	1" = 1000'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE CITY OF ARCATA STANDARD SPECIFICATIONS AND DETAILS.
2. ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL AND REGULATORY AGENCIES INCLUDING, BUT NOT LIMITED TO OSHA, ETC. GENERAL NOTES SHALL APPLY TO ALL DRAWINGS.
3. EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. SOME EXISTING UTILITIES MAY NOT BE DEPICTED ON THIS PLAN. USA & POTHOLE TO DETERMINE.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN CONSTRUCTION AS-BUILT DRAWINGS AND PRESENT A COMPLETE SET OF DRAWINGS TO VERO FIBER NETWORKS WITHIN 7 DAYS OF WORK COMPLETION.
5. APPROXIMATE LOCATIONS OF MANHOLES AND HANDHOLE'S ARE SHOWN ON THE PLANS. EXACT FINAL LOCATION OF MANHOLES AND HANDHOLES SHALL BE DETERMINED IN THE FIELD AFTER ALL EXISTING UTILITIES IN THE AREA OF WORK HAVE BEEN LOCATED. COORDINATE FINAL LOCATIONS WITH VERO FIBER NETWORKS.

CONSTRUCTION NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE IN PLACE BEFORE WORK IS STARTED. DEVICES NO LONGER REQUIRED SHALL BE REMOVED AS SOON AS POSSIBLE.
2. PEDESTRIAN TRAFFIC MUST BE MAINTAINED AT ALL TIMES. PEDESTRIANS MAY BE RELOCATED ONTO PRIVATE PROPERTY WITH OWNERS PERMISSION ONLY.
3. NO EQUIPMENT OR MATERIALS SHALL BE STORED OR PERMITTED TO STAND UNPROTECTED WHERE TRAFFIC IS MAINTAINED UNLESS IT IS ALLOWED BY LOCAL JURISDICTION IN WRITING.
4. NO EQUIPMENT OR MATERIALS SHALL BE STORED ON ROAD SURFACE DURING NON-WORKING PERIODS UNLESS IT IS ALLOWED BY LOCAL JURISDICTION IN WRITING.
5. NO EQUIPMENT OR MATERIALS SHALL BE STORED ON SIDEWALK UNLESS IT IS ALLOWED BY LOCAL JURISDICTION IN WRITING.
6. EXCAVATION MATERIAL SHALL BE STORED AWAY FROM THE PAVED ROADWAY WHENEVER POSSIBLE. ALL SPILLED MATERIAL IS TO BE REMOVED TO AVOID SLIPPERY CONDITIONS.
7. EXISTING SIGNS, DELINEATIONS, GUARDRAILS, MARKERS, TREES, SHRUBS, FENCES, WALKS, STEPS, ETC. THAT ARE DISTURBED BY THIS CONSTRUCTION SHALL BE REPLACED OR RESTORED TO THEIR ORIGINAL CONDITION.
8. CONTRACTOR SHALL VERIFY EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES IN AREA OF WORK PRIOR TO CONSTRUCTION. CALL UNDERGROUND SERVICE ALERT (CALIFORNIA, 1-800-227-2600) AT LEAST 48 HRS PRIOR TO START OF CONSTRUCTION ACTIVITIES.
9. CONTRACTOR SHALL HAND DIG AND USE EXTREME CARE WHEN WORKING IN CLOSE PROXIMITY TO EXISTING UTILITIES. CONTRACTOR MUST POTHOLE & EXPOSE EXISTING UTILITIES WHEN NEW CONSTRUCTION CROSSES IT.
10. TRAFFIC SIGNAL DETECTOR LOOP CIRCUITS ARE NOT SHOWN. CONTRACTOR SHALL LOCATE ALL TRAFFIC SIGNAL DETECTOR LOOP CIRCUITS PRIOR TO ANY TRENCHING OR BORING. ALL TRAFFIC LOOP DETECTOR CIRCUITS SHALL BE MAINTAINED AND PROTECTED. NOTIFY TRAFFIC DEPARTMENT 48 HOURS PRIOR TO ANY WORK IN THESE AREAS.
11. THE REMOVAL, STORAGE, AND REPLACEMENT OF ALL SHRUBBERY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR OR SUBCONTRACTOR (SUPERVISED BY LIGHTWAVE).
12. CONTRACTOR IS RESPONSIBLE TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE CITY INSPECTORS AT LEAST 72 HOURS BEFORE STARTING WORK.
13. BORING PITS: EXCAVATION AND RESTORATION OF BORING PITS SHALL BE IN ACCORDANCE WITH THE CITY STANDARDS FOR UTILITY EXCAVATIONS AND LOCATED TO THE SATISFACTION OF THE CITY ENGINEER & VERO FIBER NETWORKS.
14. DEPTHS OF EXISTING UTILITIES NOT REQUIRED OR AVAILABLE. EXISTING UTILITY LINES SHOWN IN PROFILES INDICATE APPROXIMATE UTILITY LOCATION ALONG THE DUCT. THE CONTRACTOR SHALL POTHOLE TO CONFIRM EACH DEPTH.
15. CONTRACTOR SHALL RESTORE ALL PAVEMENT TO PRECONSTRUCTION CONDITIONS, PER CITY STANDARD DETAILS.

SAFETY

1. THE CONTRACTOR IS RESPONSIBLE FOR JOB-SITE SAFETY AND SHALL BE RESPONSIBLE FOR ALL LIABILITY IMPOSED BY LAW FOR PERSONAL INJURY OR PROPERTY DAMAGE WHICH MAY ARISE OUT OF THE WORK PERFORMED UNDER THE ENCROACHMENT PERMIT, OR WHICH MAY ARISE OUT OF THE SAFETY FAILURE ON THE PART OF THE PERMITTEE TO PERFORM HIS OBLIGATIONS UNDER THIS PERMIT IN RESPECT TO MAINTENANCE OF THE ENCROACHMENT.
2. ALL TRAFFIC CONTROL SHALL CONFORM TO THE CURRENT CALIFORNIA DEPARTMENT OF TRANSPORTATION ("MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONE") ("MANUAL OF WARNING SIGNS, LIGHTS AND DEVICES FOR USE IN PERFORMANCE OF WORK UPON HIGHWAYS").
3. ALL EXCAVATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH. THE PERMITTEE MAY BE REQUIRED TO OBTAIN A "PERMIT TO EXCAVATE" FROM THE DIVISION OF INDUSTRIAL SAFETY, DEPARTMENT OF INDUSTRIAL RELATIONS, STATE OF CALIFORNIA
4. CONTRACTOR SHALL FURNISH AND MAINTAIN ALL DEVICES FOR PEDESTRIAN AND VEHICULAR TRAFFIC SAFETY. UNSAFE CONDITIONS WILL BE CORRECTED BY CITY PERSONNEL (OR AGENTS THEREOF) AND THE PERMITTEE WILL BE BILLED FOR ALL EXPENSES INCURRED, OR COSTS SHALL BE RECOVERED FROM CASH DEPOSITS HELD FOR SUCH PURPOSES.

ADDITIONAL NOTES:

1. ALL WETLANDS SHALL BE IDENTIFIED IN THE FIELD BY A BIOLOGIST PRIOR TO PERFORMING ANY ADJACENT EXCAVATION. INSTALL HIGH VISIBILITY CONSTRUCTION FENCING AROUND IDENTIFIED WETLANDS PRIOR TO COMMENCEMENT OF EXCAVATION.
2. IMPLEMENT ALL AVOIDANCE AND MINIMIZATION MEASURES (AMMS) AND BEST MANAGEMENT PRACTICES AS OUTLINED IN THE BIOLOGICAL ASSESSMENT.

SYMBOLS

EXISTING		PROPOSED
	LIGHT - POST MOUNTED	
	STREETLIGHT	
PP	POWER POLE	PP
PP	POWER POLE (WITH GUY)	PP
SSCO	SANITARY SEWER - CLEANOUT	SSCO
SS	SANITARY SEWER - MANHOLE	SS
	STORM DRAINAGE - AREA DRAIN	
SDCO	STORM DRAINAGE - CLEANOUT	SDCO
	STORM DRAINAGE - CATCH BASIN	
	STORM DRAINAGE - CURB INLET	
	STORM DRAINAGE - DROP INLET	
SD	STORM DRAINAGE - MANHOLE	SD
GV	GAS VALVE	GV
	FIRE HYDRANT	
WV	WATER VALVE	WV
	MANHOLE	
	HANDHOLE	
	BORE PIT	

LINETYPES

EXISTING		PROPOSED
	RIGHT OF WAY	
	CENTERLINE	
E	ELECTRICAL LINE	E
OH OH	OVERHEAD UTILITY	OH OH
	PROPERTY / LOT LINE	
SS	SANITARY SEWER	SS
SD	STORM DRAIN	SD
W	WATER	W
	FACE OF CURB	
	BH1	
	WATER	

ABBREVIATIONS

CL	CENTERLINE / CONTROL LINE	PVC	POLYVINYL CHLORIDE PIPE
DI	DROP INLET	RCP	REINFORCED CONCRETE PIPE
DWY	DRIVEWAY	RW	RIGHT OF WAY
EG	EXISTING GRADE	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDCO	STORM DRAIN CLEANOUT
EX	EXISTING	SDMH	STORM DRAIN MANHOLE
HDPE	HIGH DENSITY POLYETHYLENE PIPE	SF	SQUARE FEET
		SS	SANITARY SEWER
HH	HANDHOLE	SSCO	SANITARY SEWER CLEANOUT
INV	INVERT	SSMH	SANITARY SEWER MANHOLE
LF	LINEAR FEET		
MH	MANHOLE	SW	SIDEWALK
NTS	NOT TO SCALE	VIF	VERIFY IN FIELD
PRO	PROPOSED		

QUANTITIES

BH1:
HANDHOLES - 26
4 - 1.25" CONDUIT (SDR 13.5) - 16863 LF

	Designed	Drawn	Checked
	JAH	FAV	JAH

VERO
Fiber Networks

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City	Arcata
County	Humboldt
State	California

ARCATA/EUREKA FIBER PROJECT

NOTES, LEGENDS AND QUANTITIES

VERO FIBER NETWORKS

Prepared Under the Direction of:
REGISTERED PROFESSIONAL ENGINEER
JULIA A. HARBERSON
No. 76826
CIVIL
STATE OF CALIFORNIA

Sheet
G-003

Scale:	
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-

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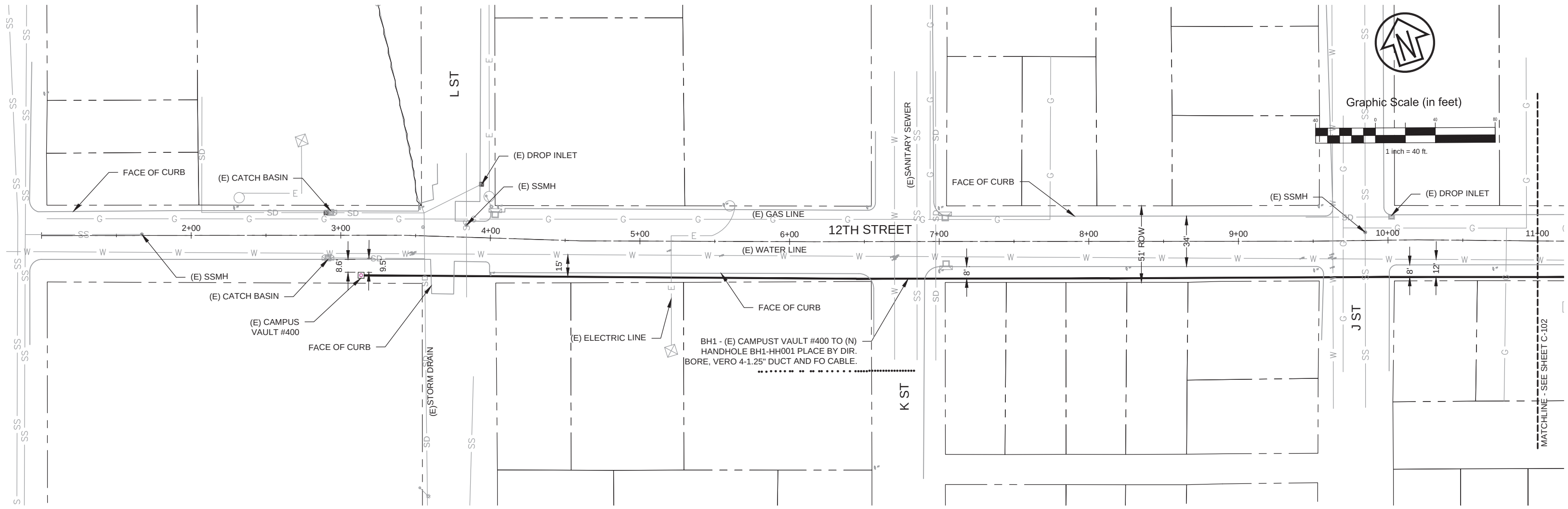
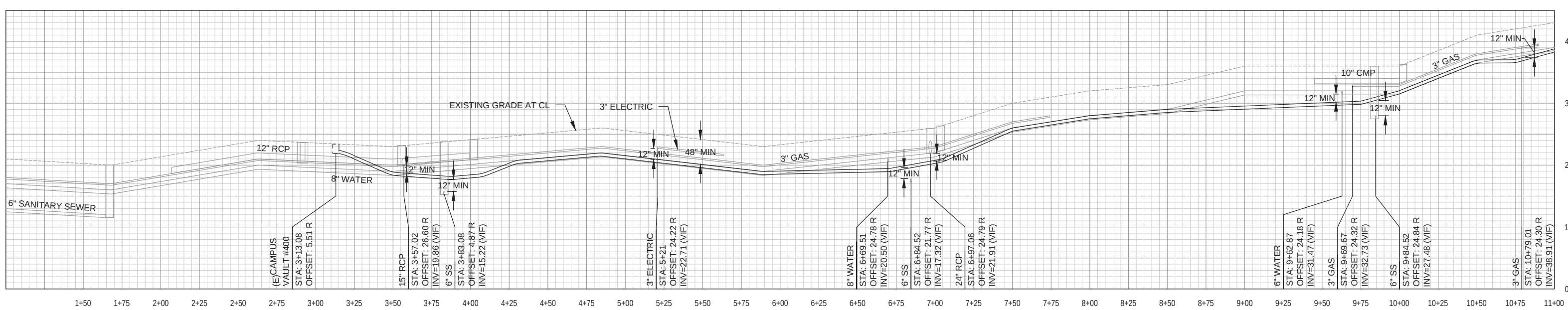


PLAN - BH1 STA: 1+00 TO STA: 11+00
SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 1+00 TO 11+00
SCALE: HOR. 1" = 40' VERT. 1" = 10'

	Designed	Drawn	Checked
	JAH	FAV	JAH

VERO Fiber NetworKs

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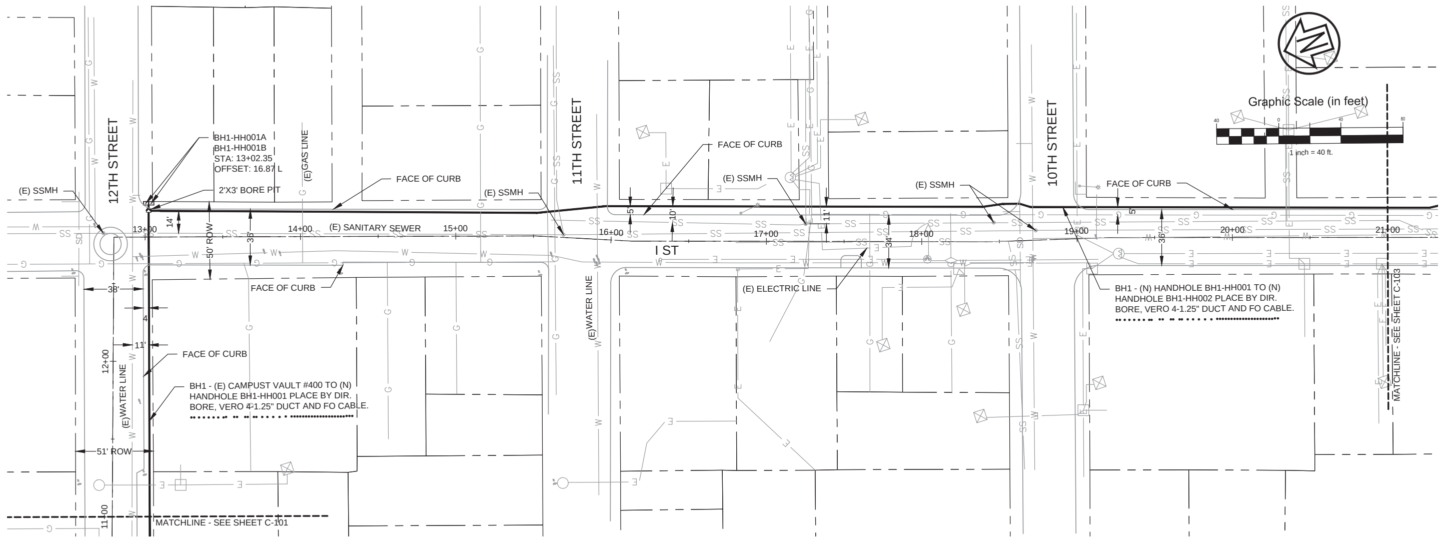
State	California

ARCATA/EUREKA FIBER PROJECT
CONDUIT LAYOUT PLAN & PROFILE - STA: 1+00 TO STA: 11+00
VERO FIBER NETWORKS

Prepared Under the Direction of:
JULIA A. HARBERSON No. 76826 CIVIL STATE OF CALIFORNIA

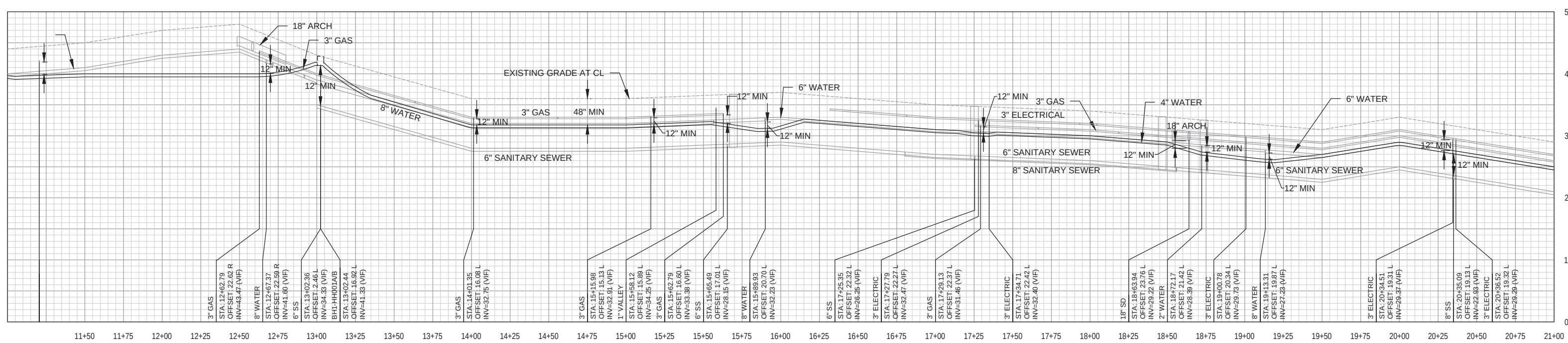
Sheet C-101

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 11+00 TO STA: 21+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 11+00 TO 21+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

VERO Fiber Networks

CSW ST2

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County	Humboldt
State	California

ARCATA/EUREKA FIBER PROJECT

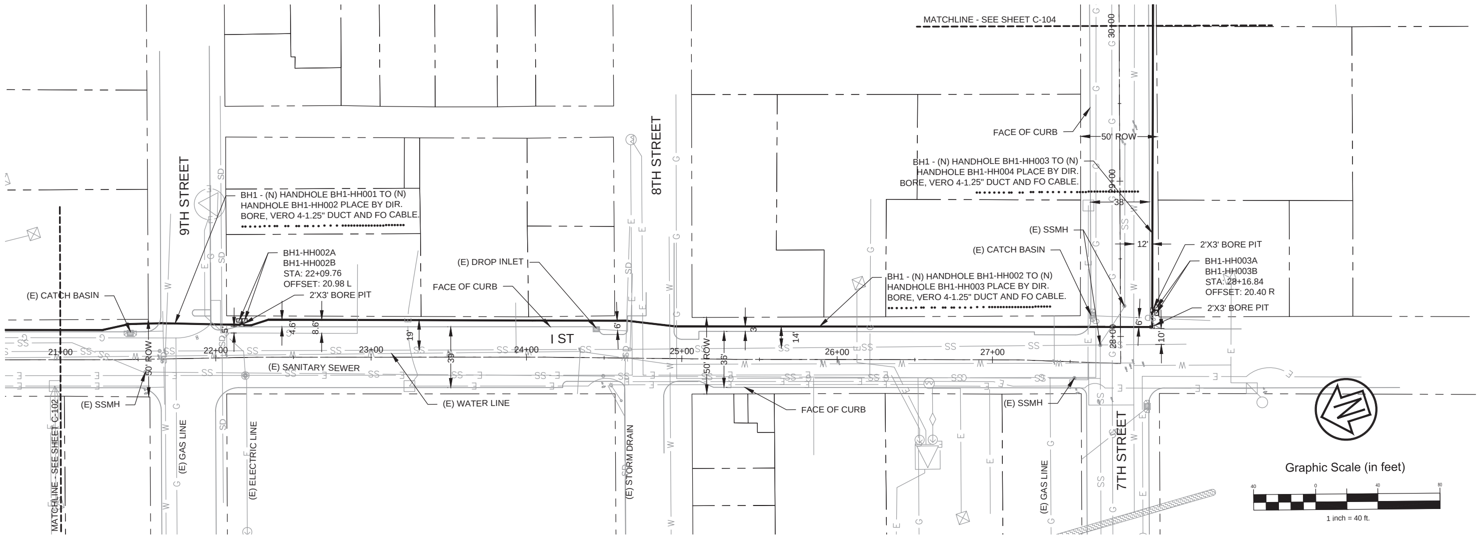
CONDUIT LAYOUT PLAN & PROFILE - STA: 11+00 TO STA: 21+00

VERO FIBER NETWORKS

Prepared Under the Direction of:
JULIA A. HARBERSON
No. 76826
CIVIL
STATE OF CALIFORNIA

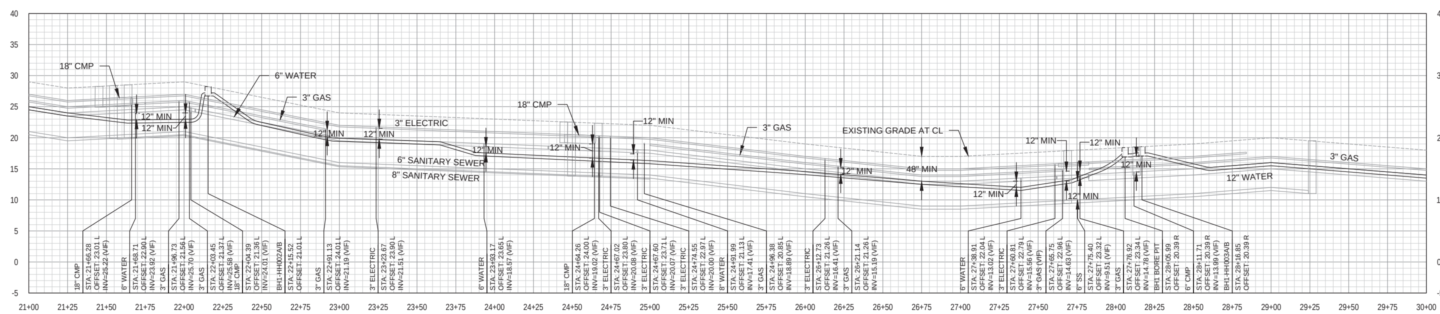
Sheet
C-102

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 21+00 TO STA: 30+00

SCALE: 1" = 40'



PROFILE 2 - BH1 - STA 21+00 TO 30+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

VERO Fiber Networks

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County	Humboldt
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ARCATA/EUREKA FIBER PROJECT

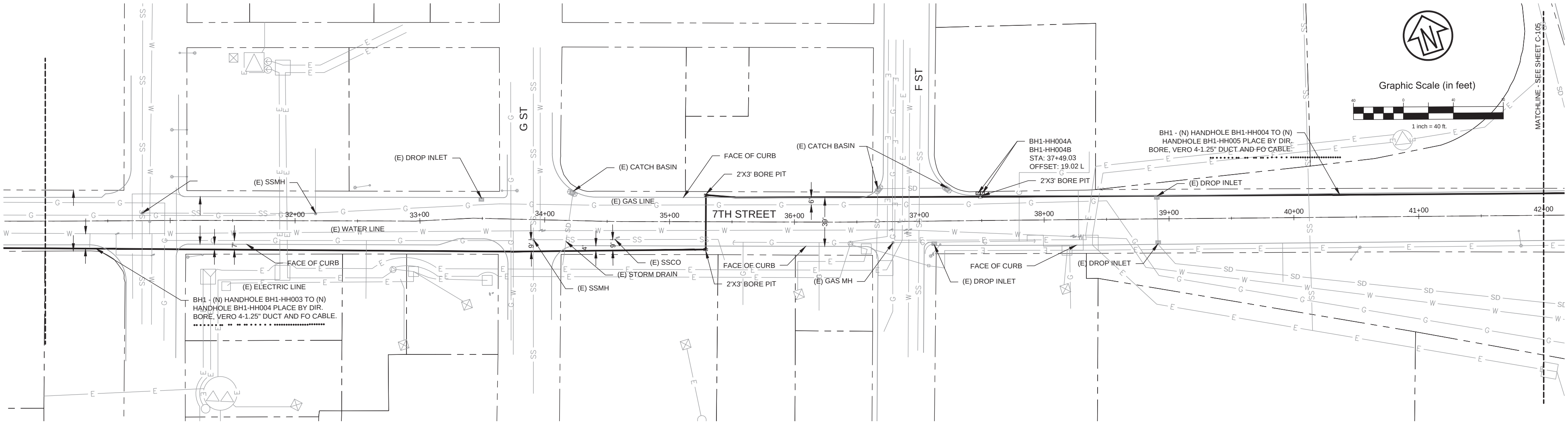
CONDUIT LAYOUT PLAN & PROFILE - STA: 21+00 TO STA: 30+00

VERO FIBER NETWORKS

Prepared Under the Direction of:
JULIA A. HARBERSON No. 76826 CIVIL STATE OF CALIFORNIA

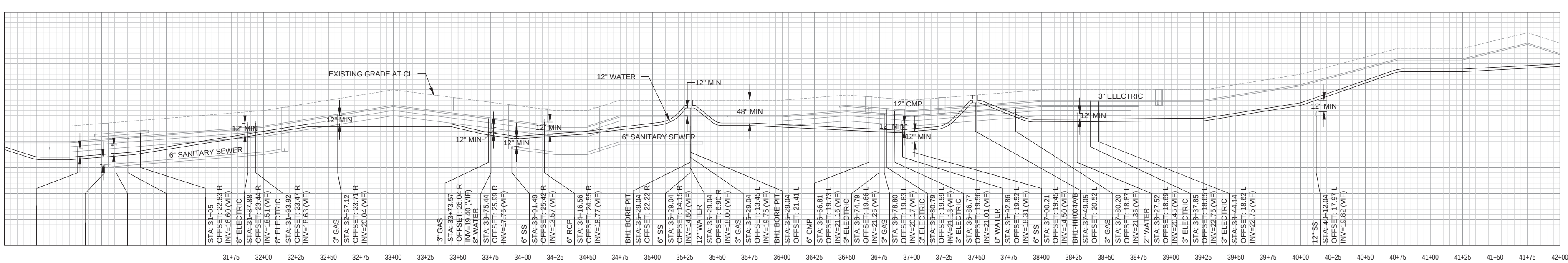
Sheet C-103

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 30+00 TO STA: 42+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 30+00 TO 42+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 30+00 TO STA: 42+00

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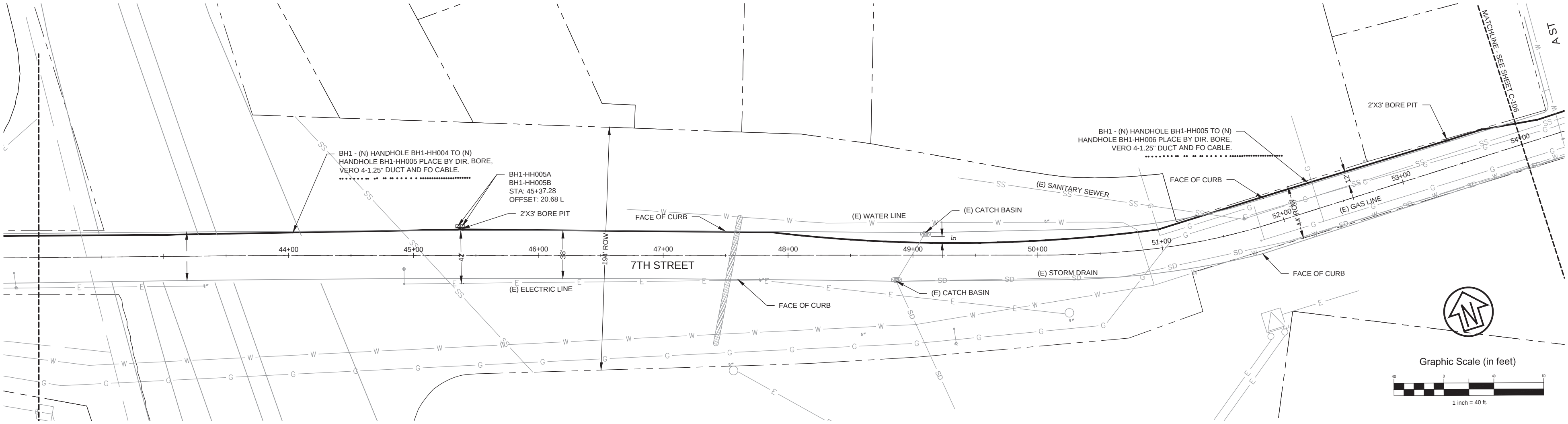
JULIA A. HARBERSON No. 76826 CIVIL STATE OF CALIFORNIA

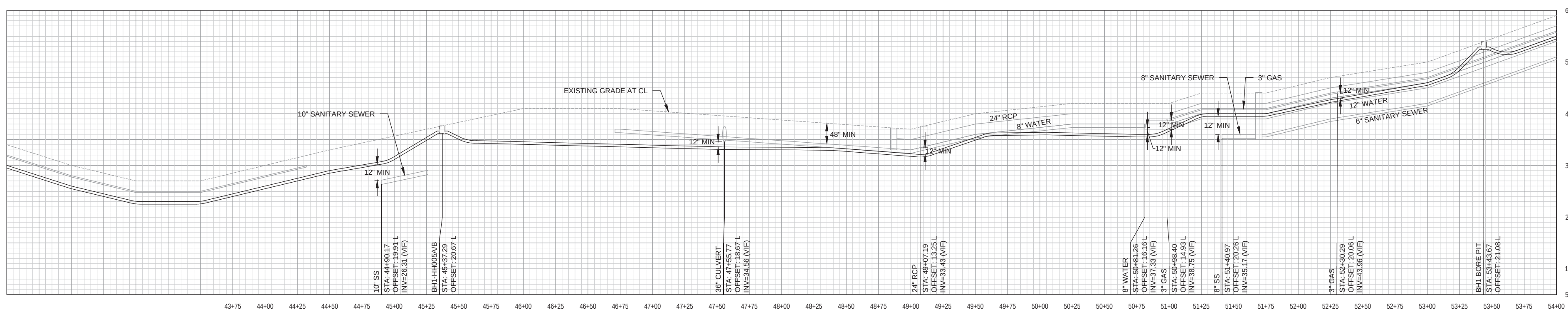
Sheet C-104

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 42+00 TO STA: 54+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 42+00 TO 54+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 42+00 TO STA: 54+00

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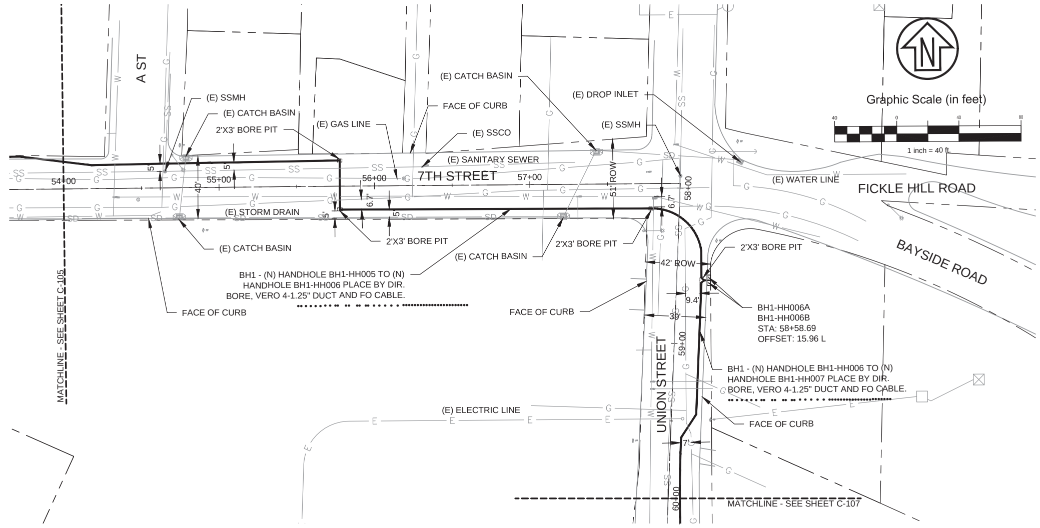
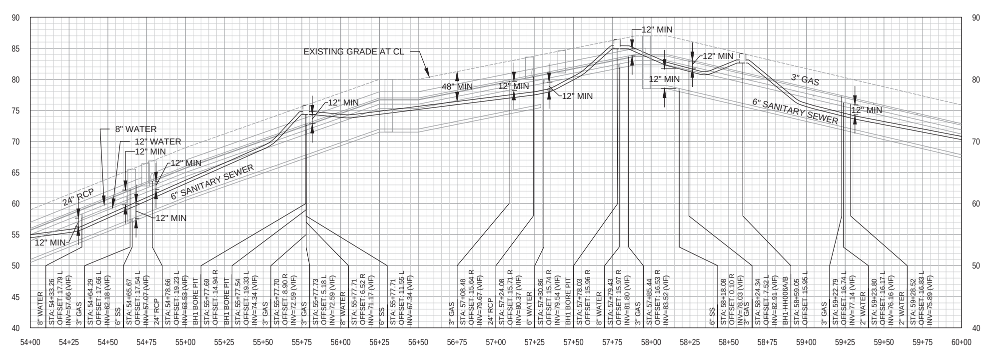
Sheet C-105

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 54+00 TO STA: 60+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 54+00 TO 60+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 54+00 TO STA: 60+00

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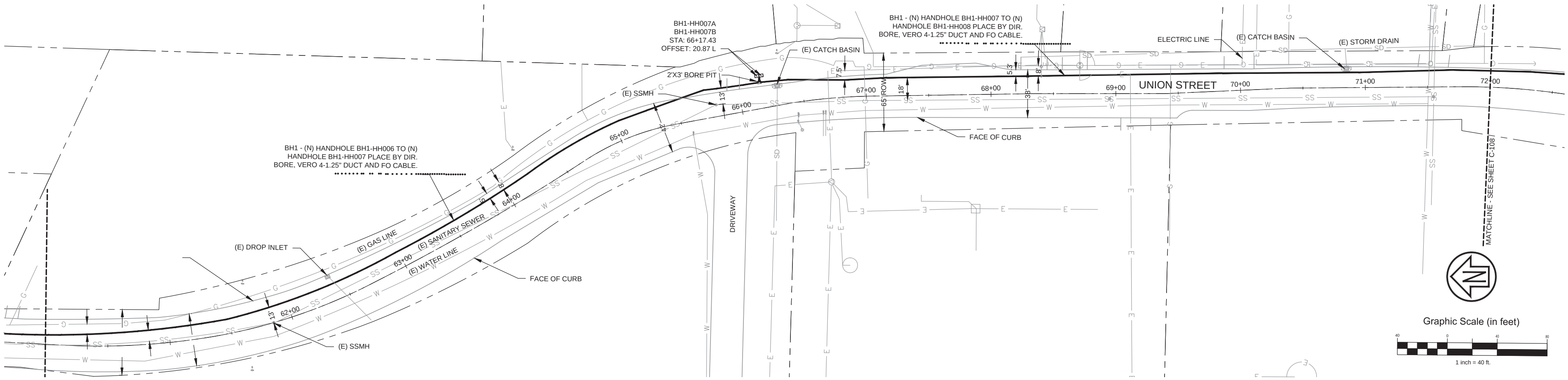
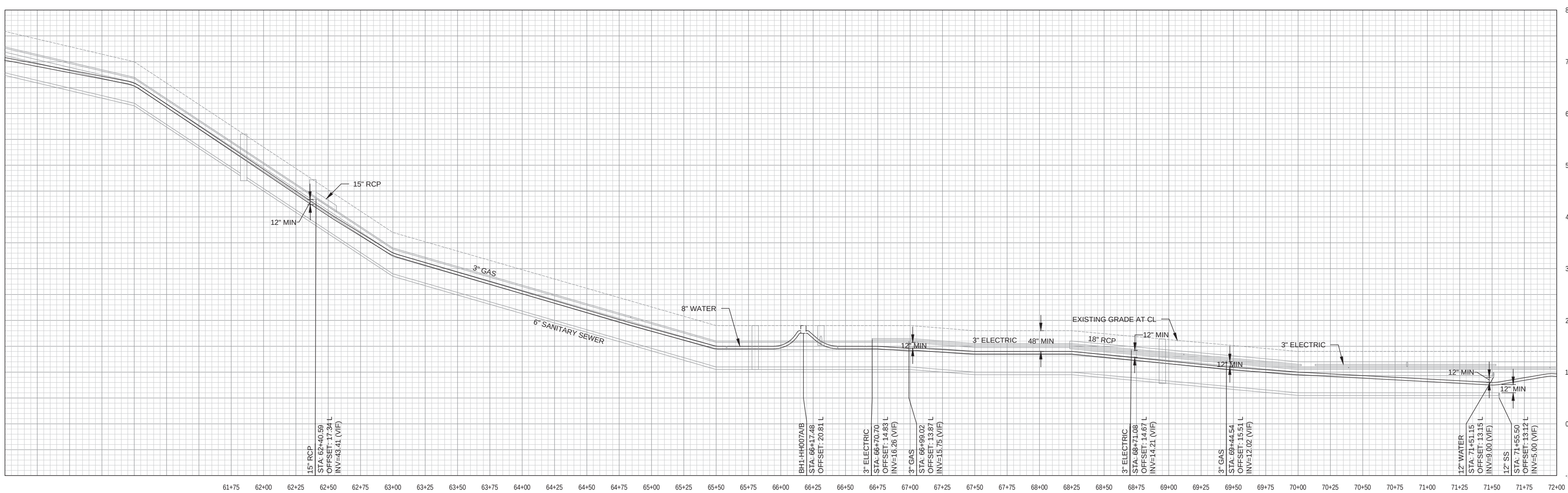
Sheet	C-106
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 60+00 TO STA: 72+00
SCALE: 1" = 40'



PROFILE - BH1 - STA 60+00 TO 72+00
SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 60+00 TO STA: 72+00
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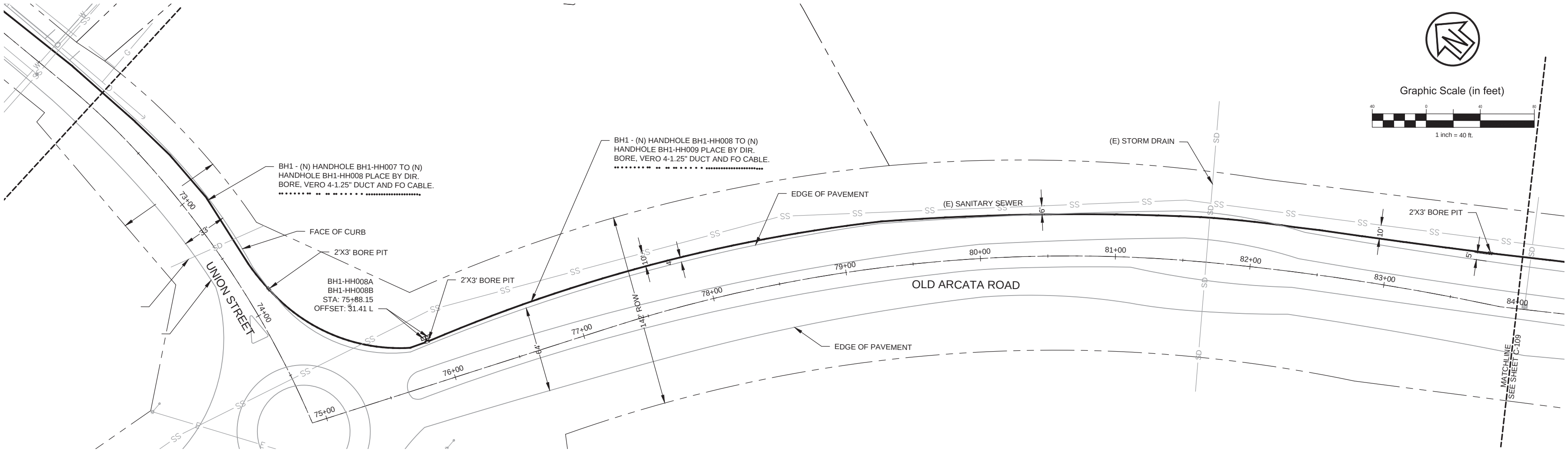
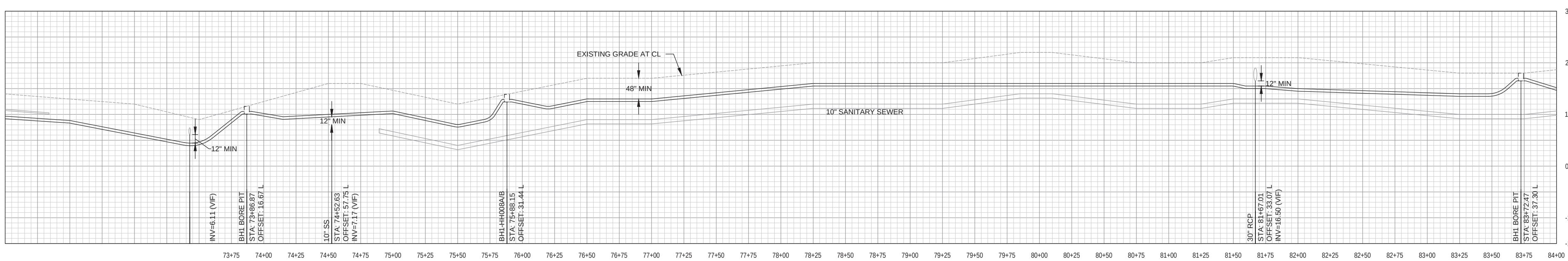
Sheet	C-107
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 72+00 TO STA: 84+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 72+00 TO 84+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 72+00 TO STA: 84+00

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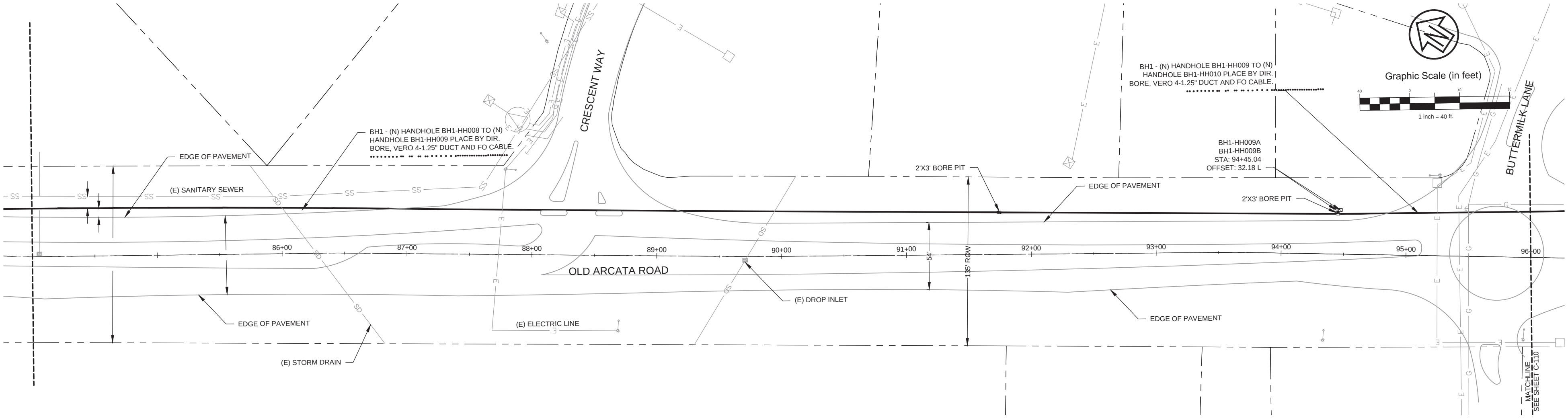
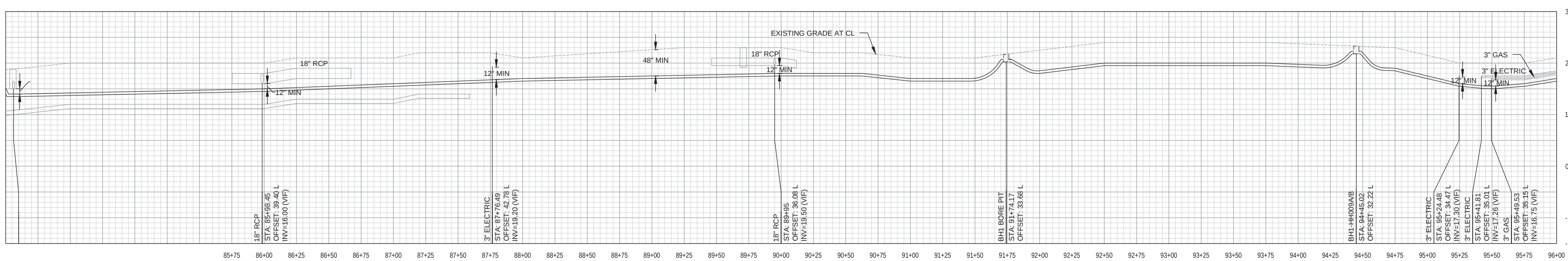
Sheet
C-108

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 84+00 TO STA: 96+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 84+00 TO 96+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 84+00 TO STA: 96+00

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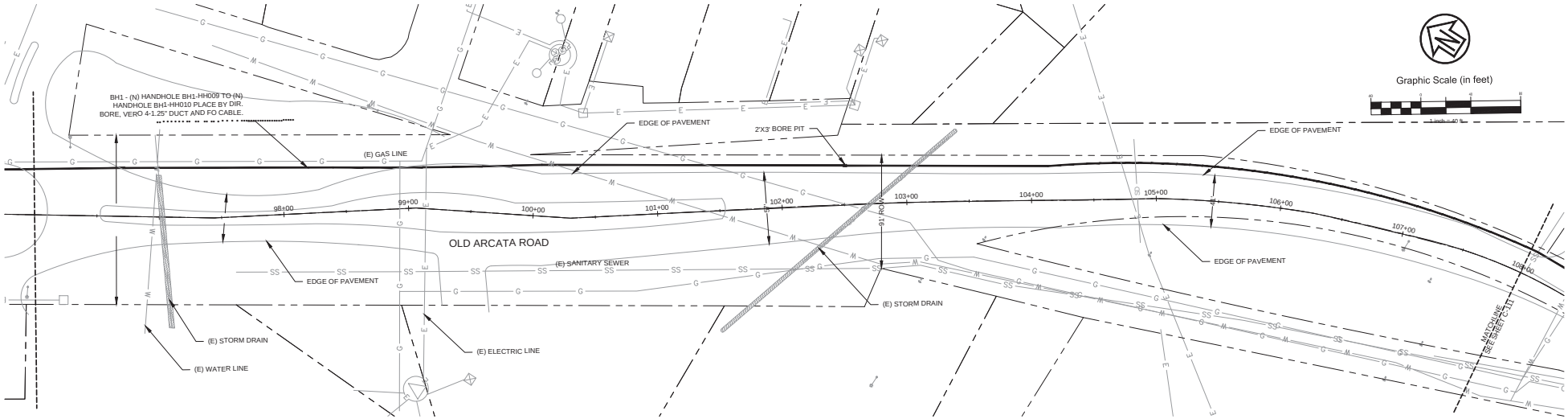
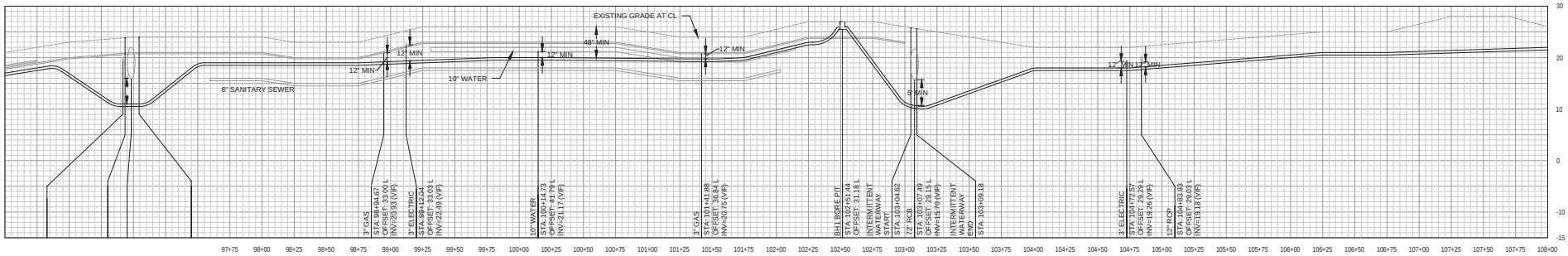
Sheet	C-109
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 96+00 TO STA: 108+00
SCALE: 1" = 40'



PROFILE - BH1 - STA 96+00 TO 108+00
SCALE: HOR. 1" = 40' VERT. 1" = 10'

			Designed	Drawn	Checked
			JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 96+00 TO STA: 108+00
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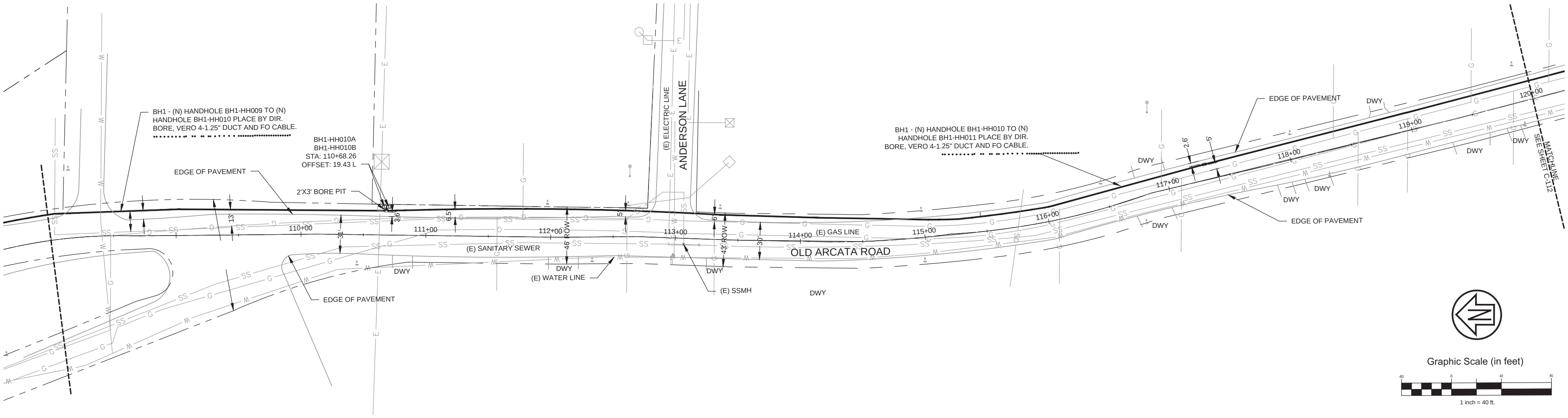
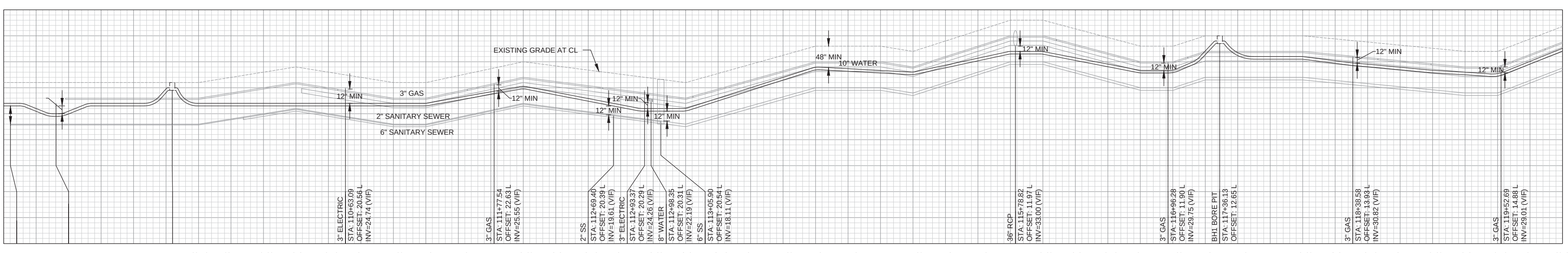
Sheet
C-110

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 108+00 TO STA: 120+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 108+00 TO 120+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 108+00 TO STA: 120+00

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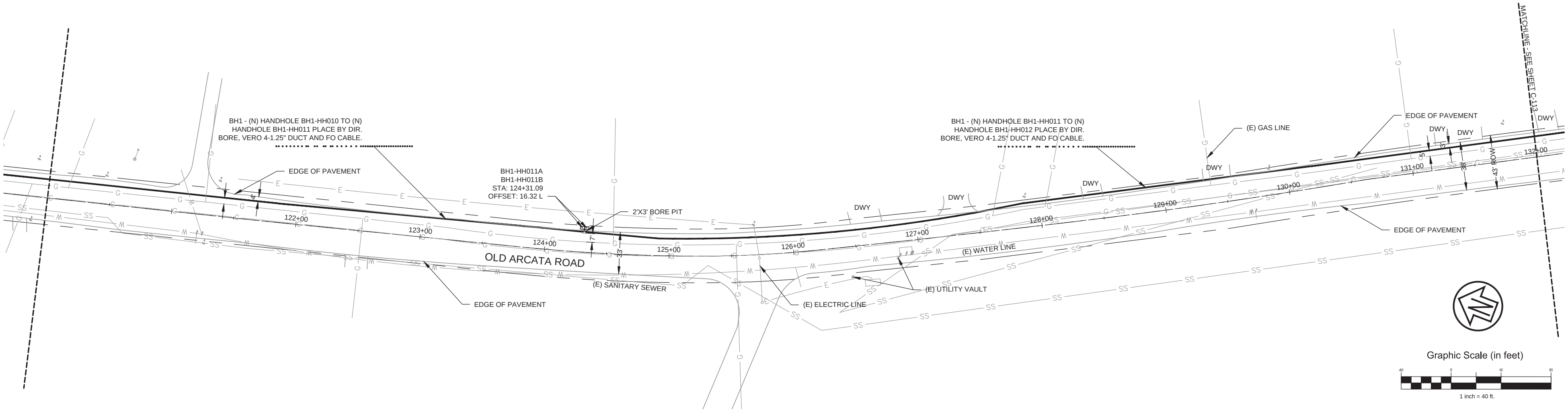
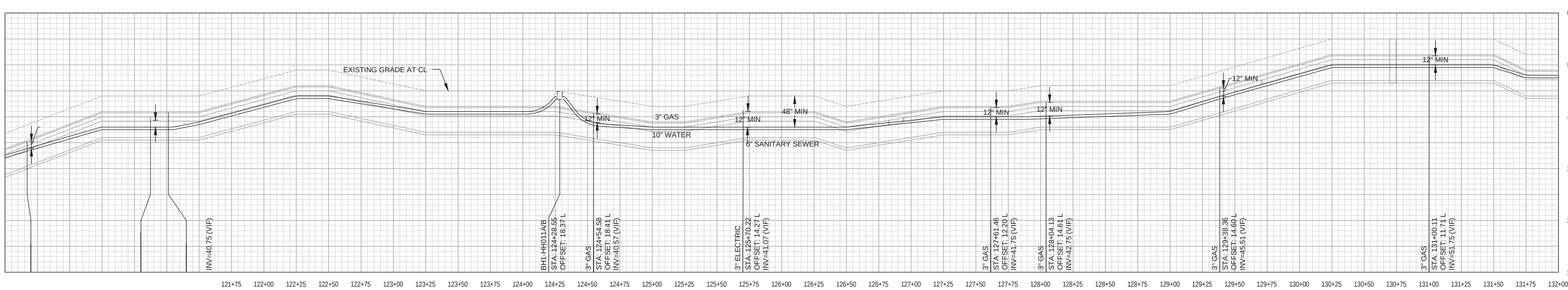
Sheet C-111

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 120+00 TO STA: 132+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 120+00 TO 132+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 120+00 TO STA: 132+00

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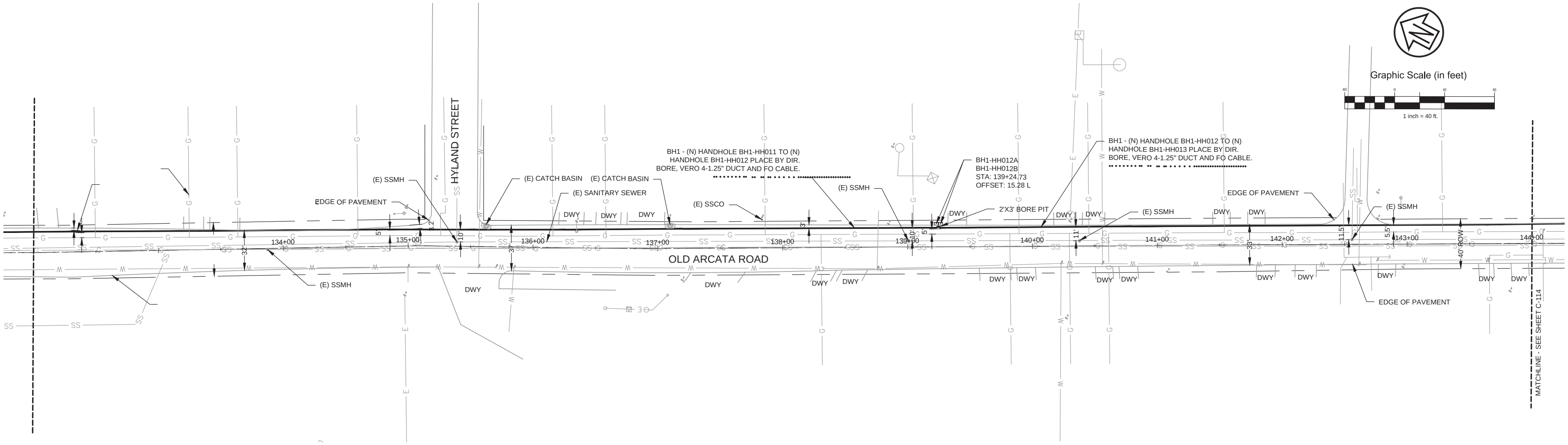
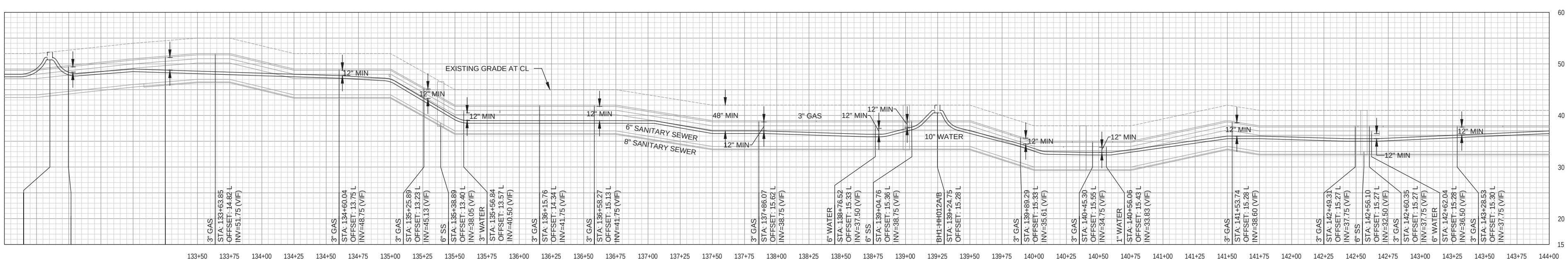
Sheet	C-112
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 132+00 TO STA: 144+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 132+00 TO 144+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 132+00 TO STA: 144+00

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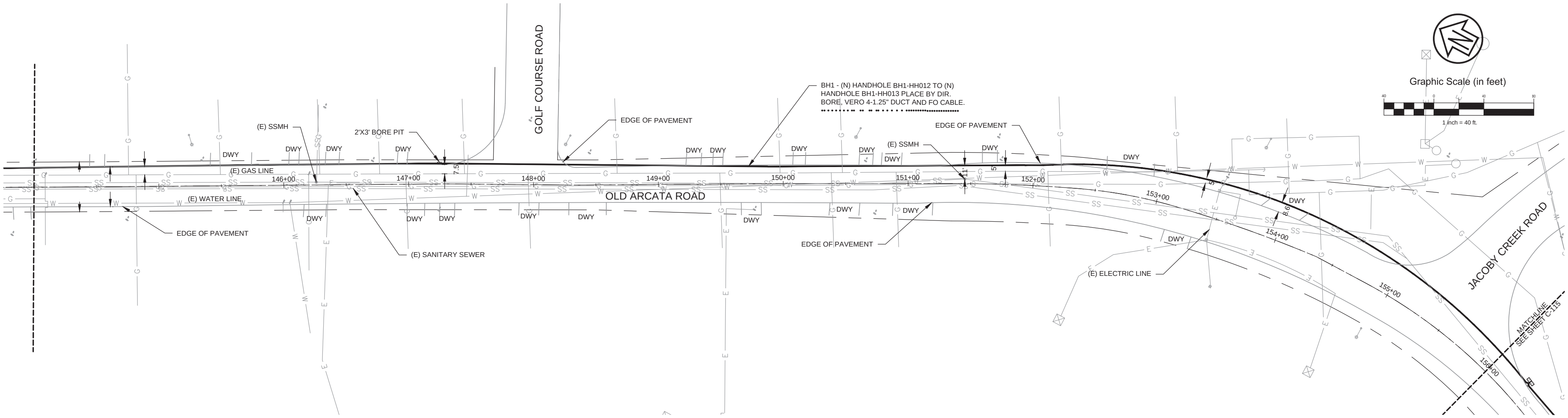
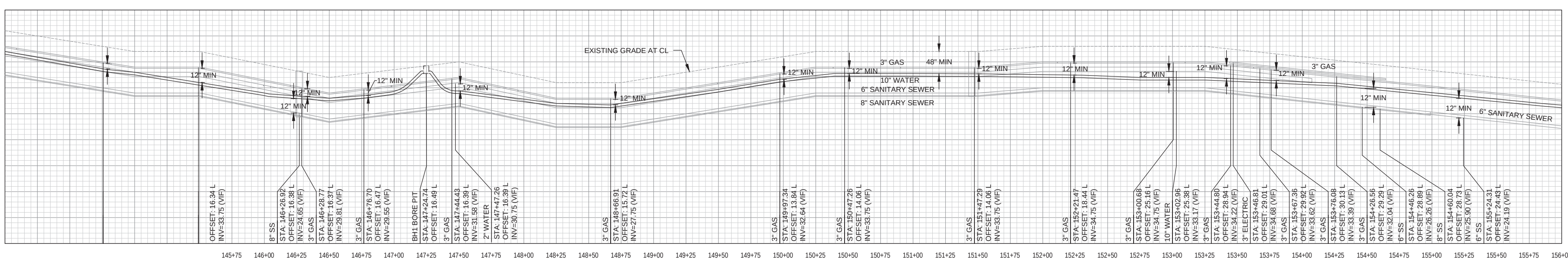
Sheet	C-113
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 144+00 TO STA: 156+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 144+00 TO 156+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 144+00 TO STA: 156+00

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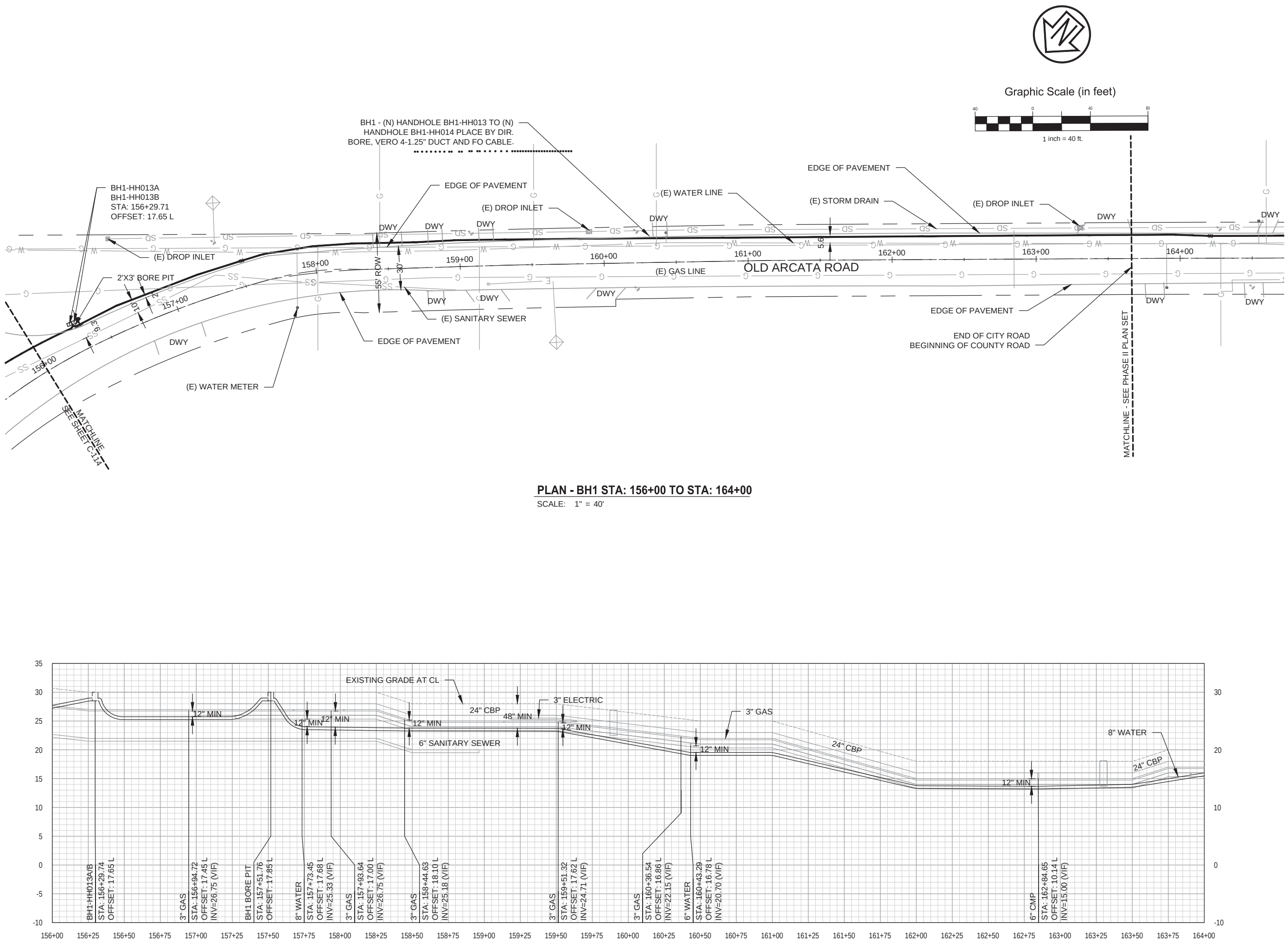
Sheet C-114

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 156+00 TO STA: 164+00

SCALE: 1" = 40'

PROFILE - BH1 - STA 156+00 TO 164+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 156+00 TO STA: 168+00

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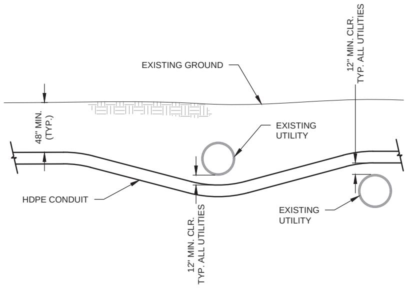
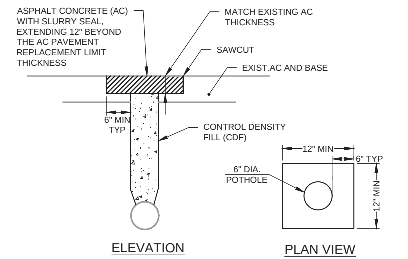
Sheet C-115

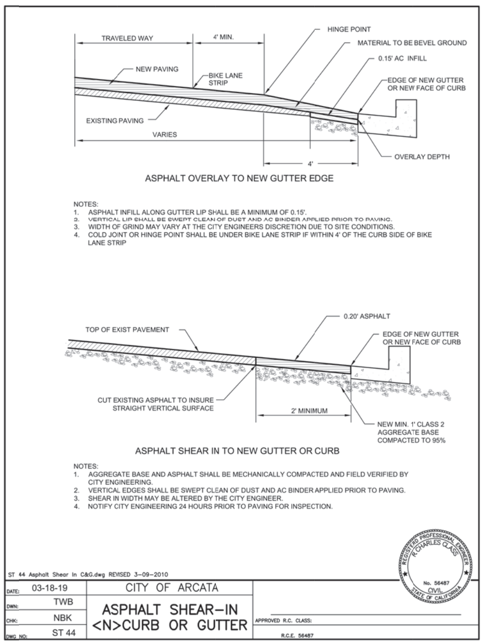
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



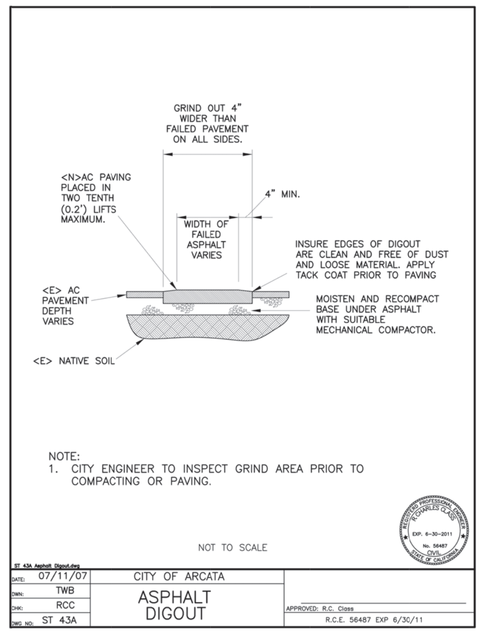
(A) **TYPICAL UTILITY CROSSING DETAIL**
SCALE: 1" = 5'



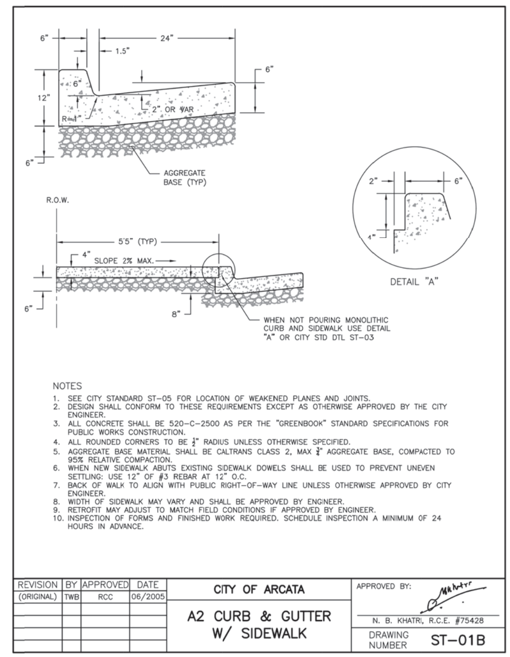
(B) **TYPICAL POTHOLE REPAIR**
SCALE: 1" = 5'



ASPHALT DETAIL



(D) **ASPHALT DETAIL**
SCALE: N.T.S.



(E) **A2 CURB & GUTTER W/SIDEWALK**
SCALE: N.T.S.

			Designed	Drawn	Checked
			JAH	FAV	JAH

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Sheet	C-501
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-

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ARCATA/EUREKA FIBER PROJECT - PHASE II

STA: 163+66.31 TO STA: 504+99.80

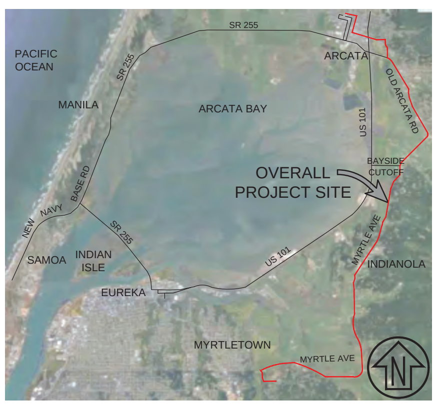
COUNTY OF HUMBOLDT

AUGUST 2020

BOULDER, COLORADO 80306 EMAIL: nmcginn@veronetworks.com

POLLOCK PINES, CA 95726 EMAIL: steppen@lightwaveconstruction.com

OVERALL LOCATION MAP



OVERALL LOCATION MAP
SCALE: NTS

LOCATION MAP

LOCATION MAP
SCALE: NTS

SHEET INDEX

Designed	Drawn	Checked
JAH	FAV	JAH

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COVERSHEET

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Sheet	G-001
Scale:	
Date:	09/23/20
Project Number:	1910140
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Rev	Date	Description	Designed	Drawn	Checked
-	09/23/20	SUBMITTAL	JAH	FAV	JAH

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SHEET KEY MAP

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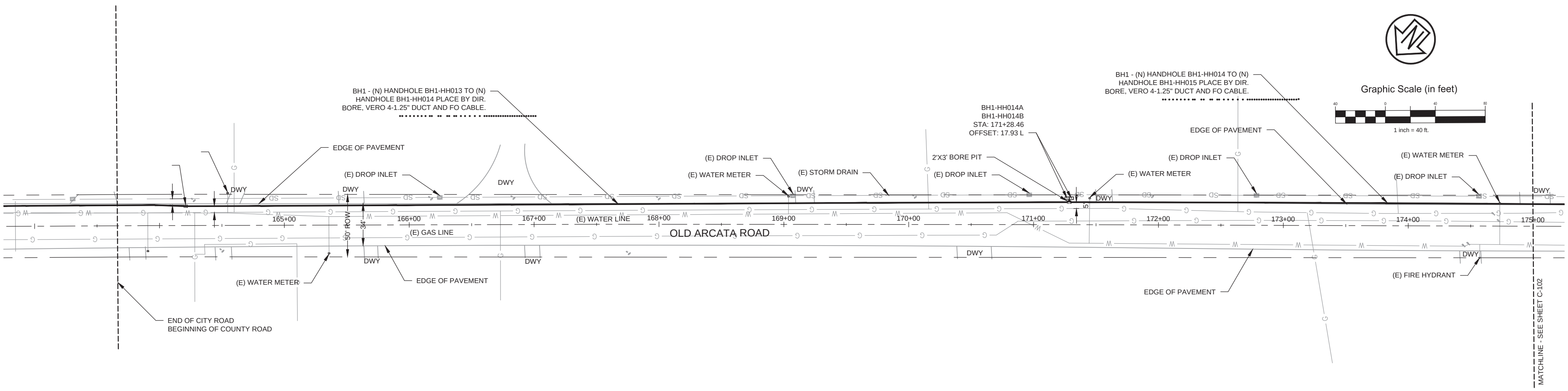
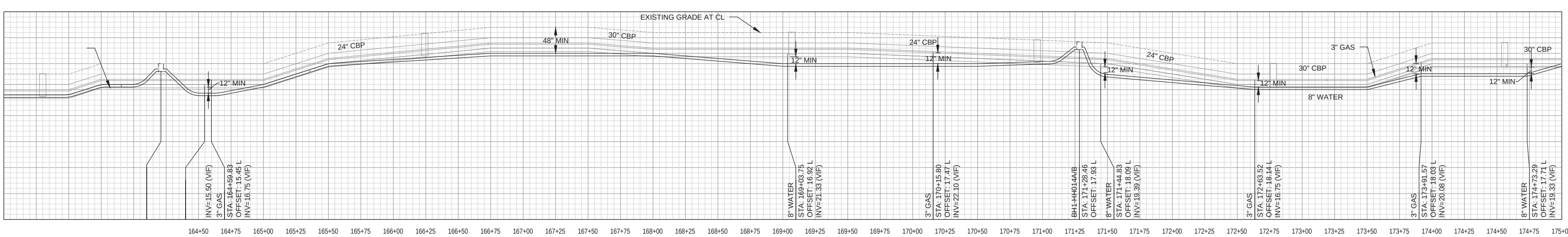
Sheet
G-002

Scale:	1" = 2000'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 163+00 TO STA: 175+00

SCALE: 1" = 40'



PROFILE - BH1 - STA 163+00 TO 175+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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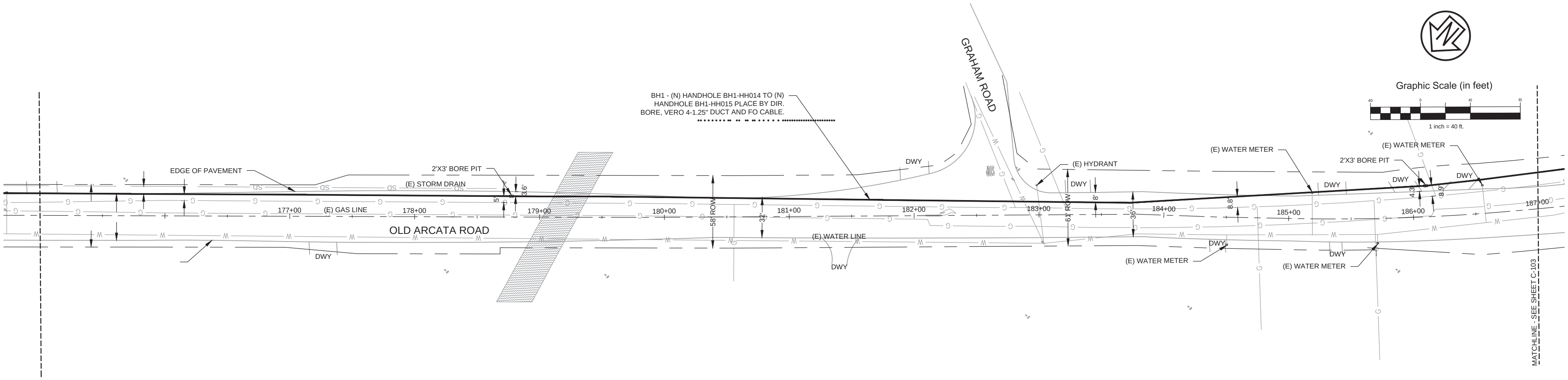
Prepared Under the Direction of:
JULIA A. HARBERSON No. 76826 CIVIL STATE OF CALIFORNIA

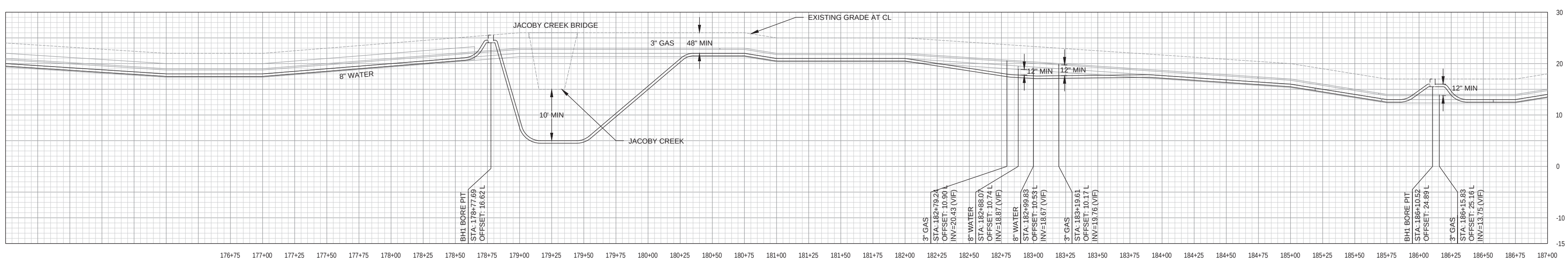
Sheet C-101

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 175+00 TO STA: 187+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 175+00 TO 187+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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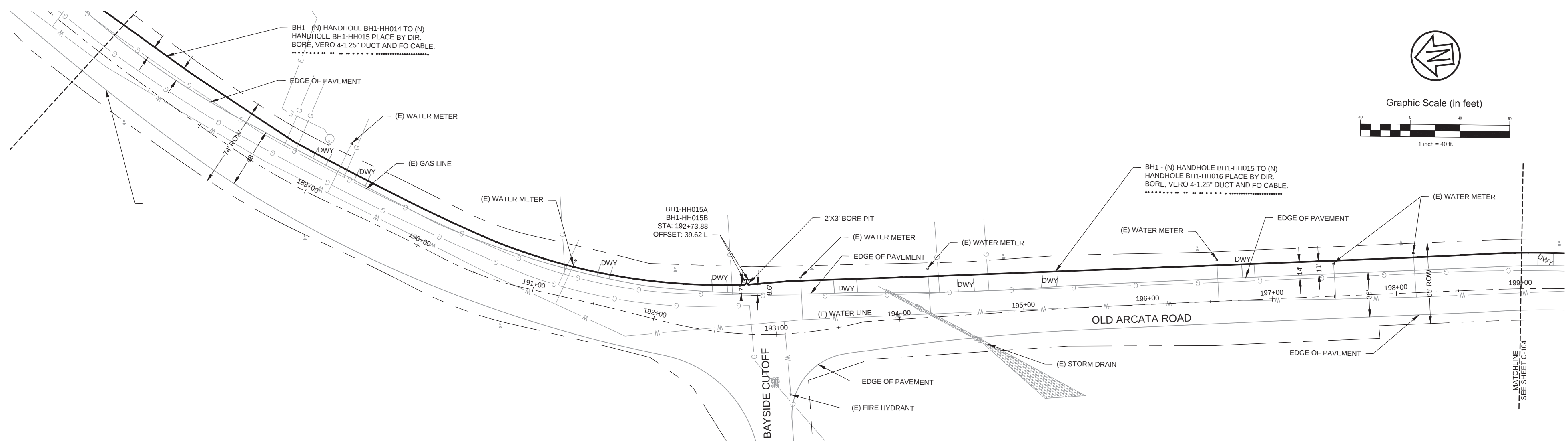
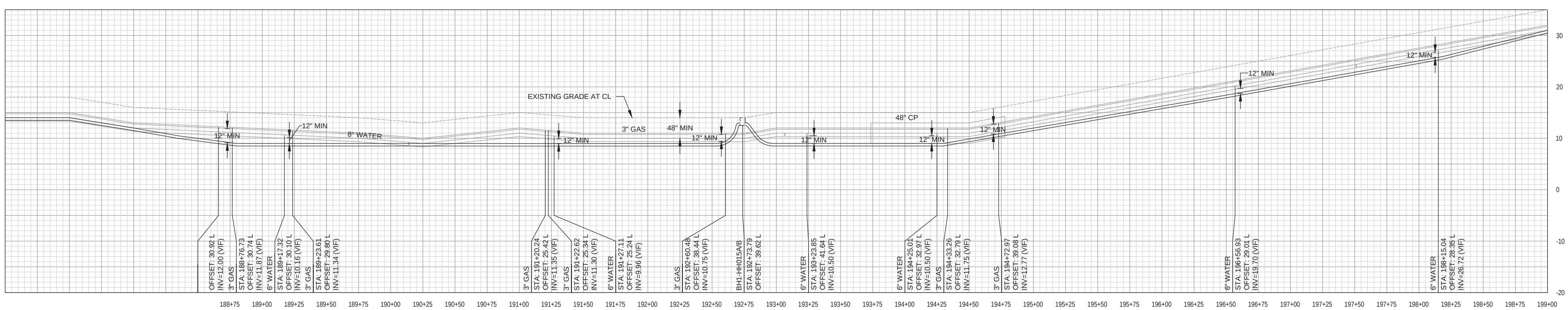
Sheet	C-102
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 187+00 TO STA: 199+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 187+00 TO 199+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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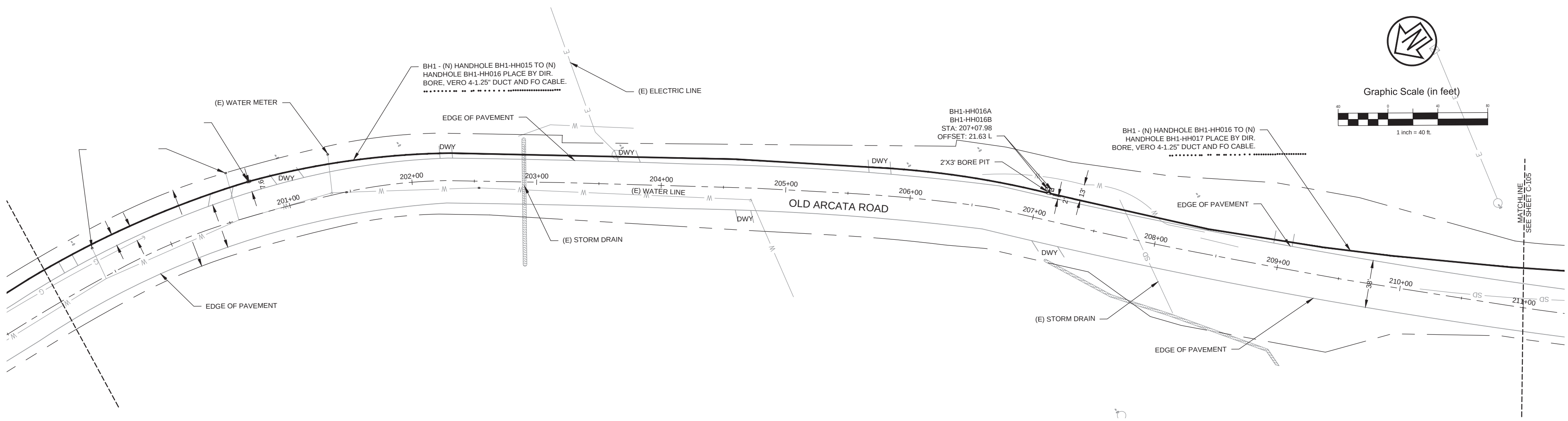
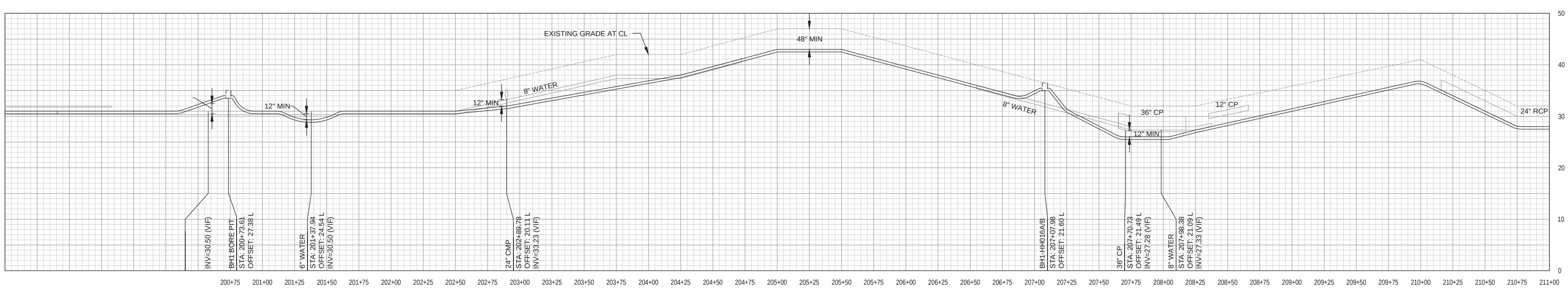
Sheet C-103

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 199+00 TO STA: 211+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 199+00 TO 211+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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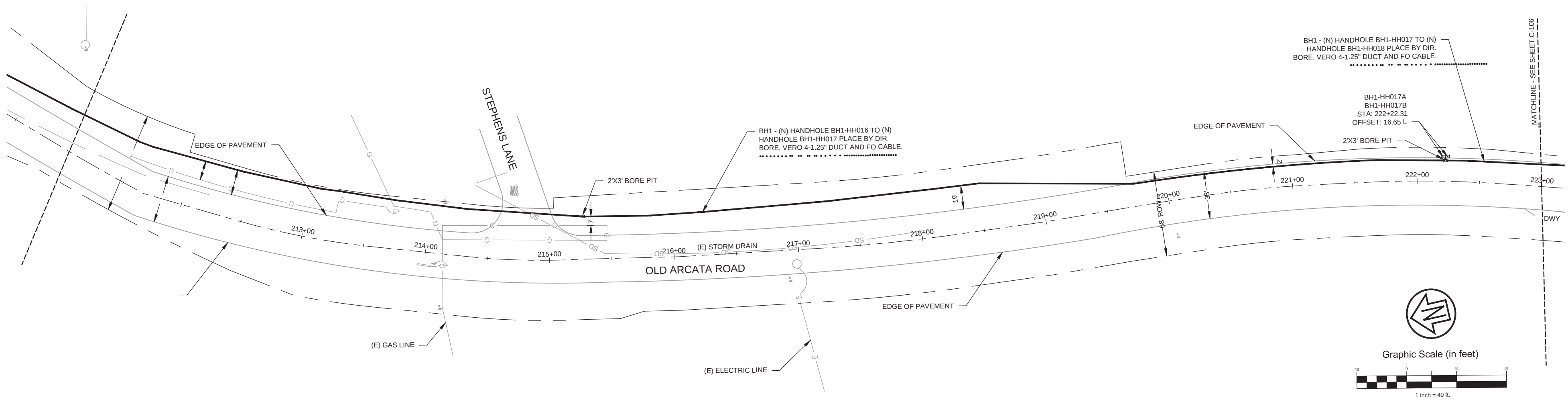
CIVIL
STATE OF CALIFORNIA

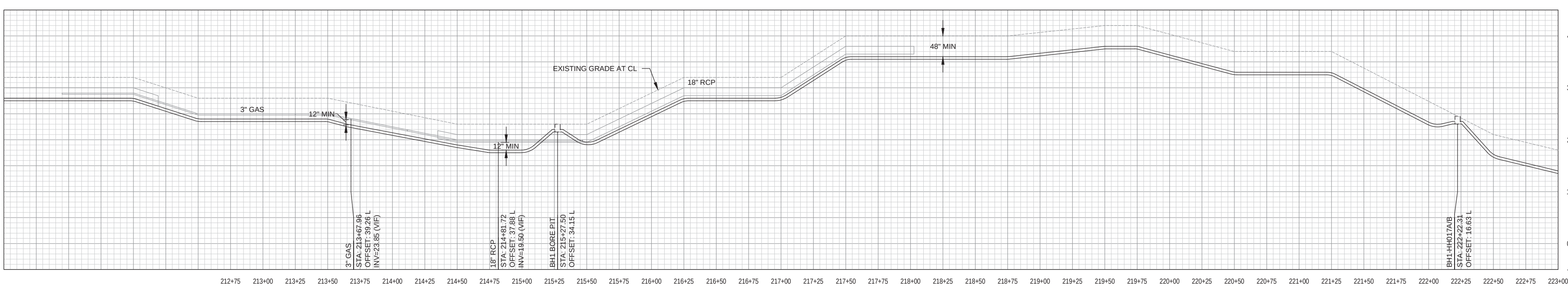
Sheet C-104

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 211+00 TO STA: 223+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 211+00 TO 223+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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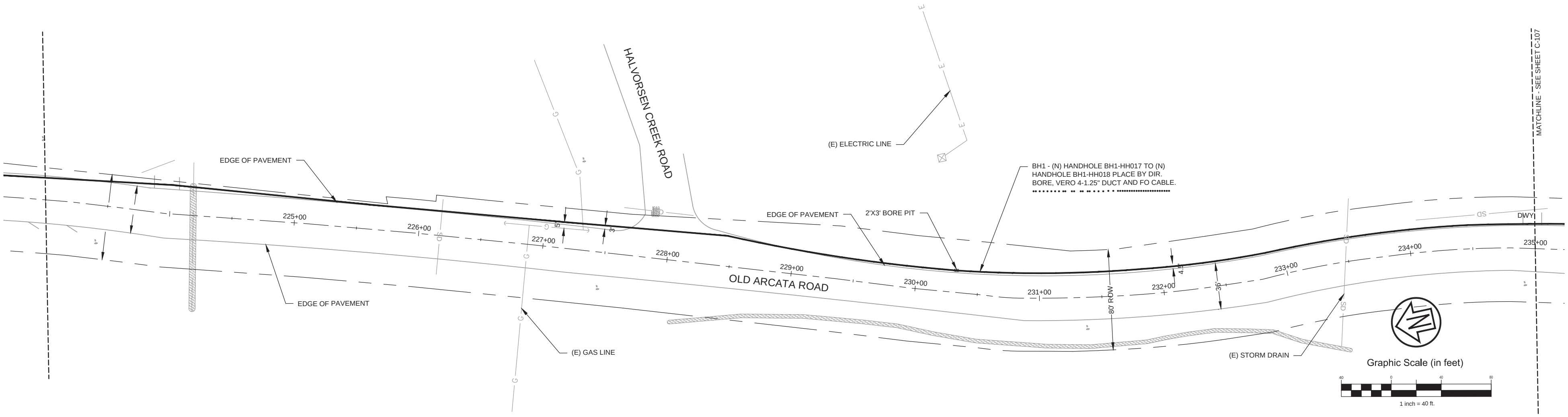
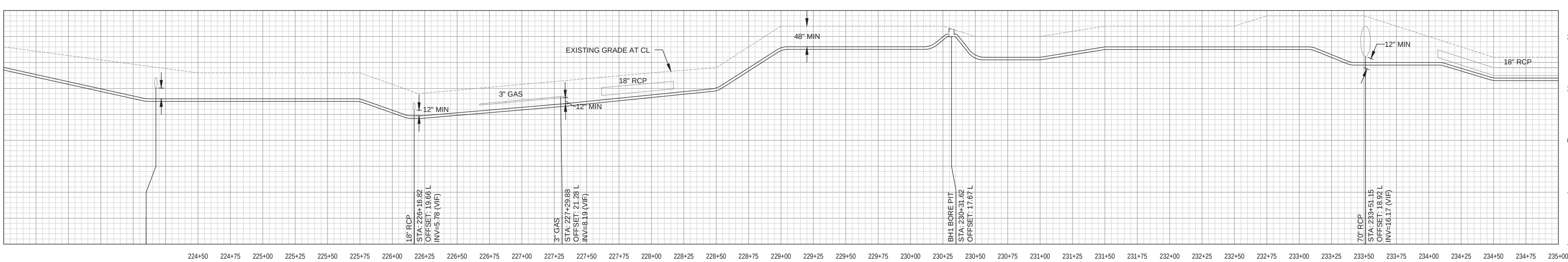
Sheet	C-105
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 223+00 TO STA: 235+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 223+00 TO 235+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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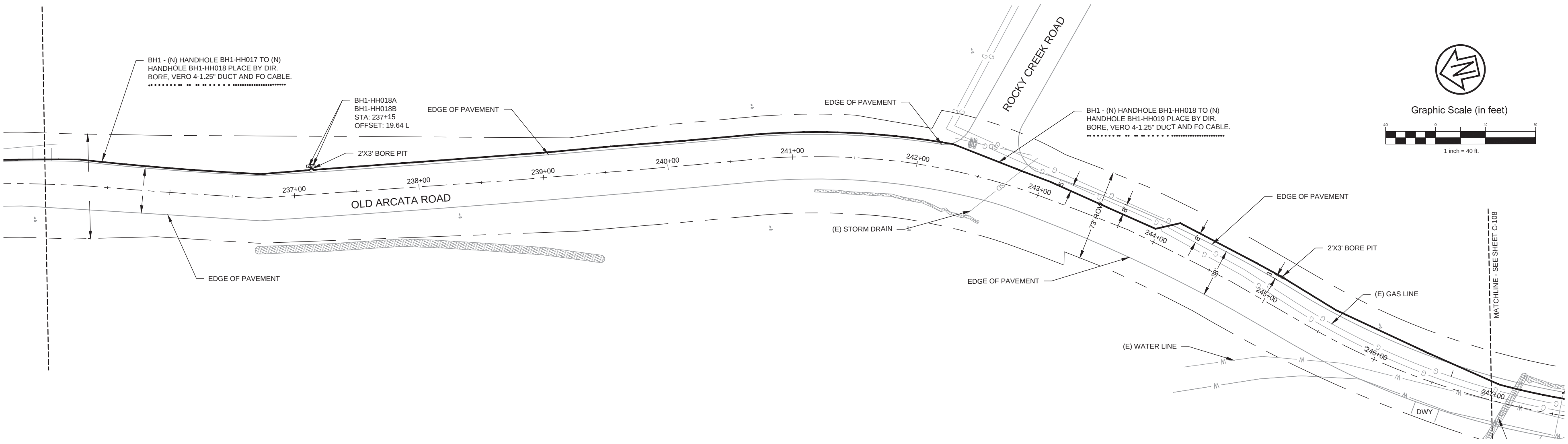
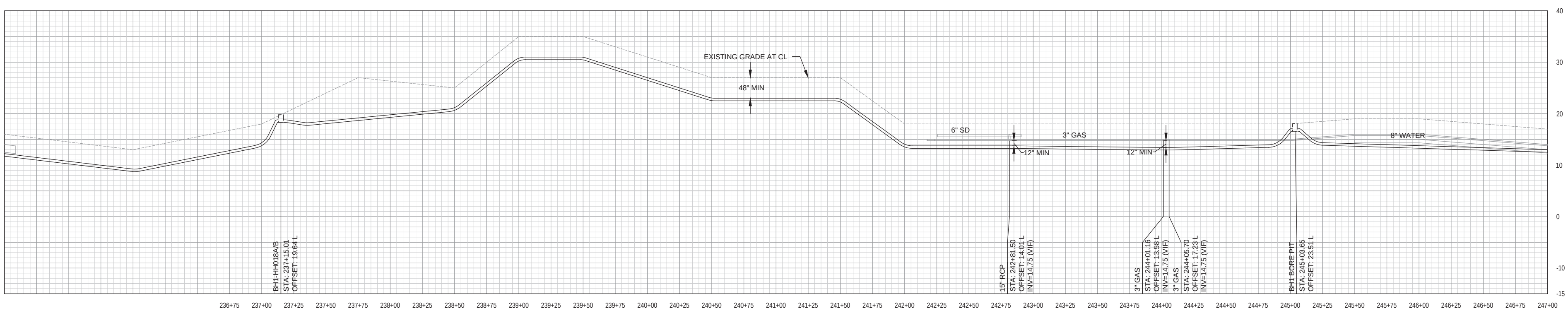
Sheet	C-106
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 235+00 TO STA: 247+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 235+00 TO 247+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 228+00 TO STA: 240+00

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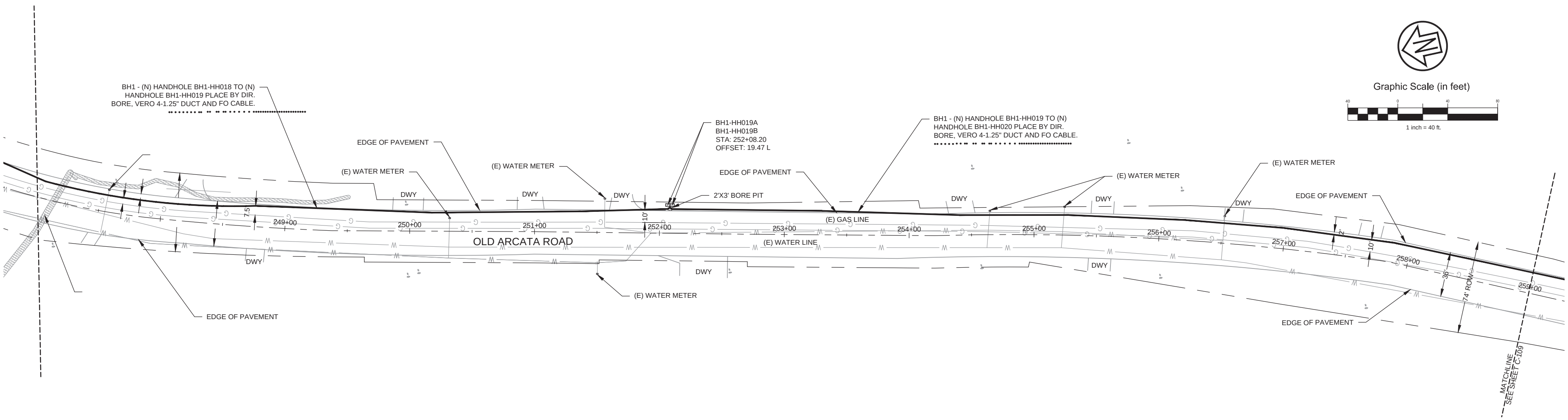
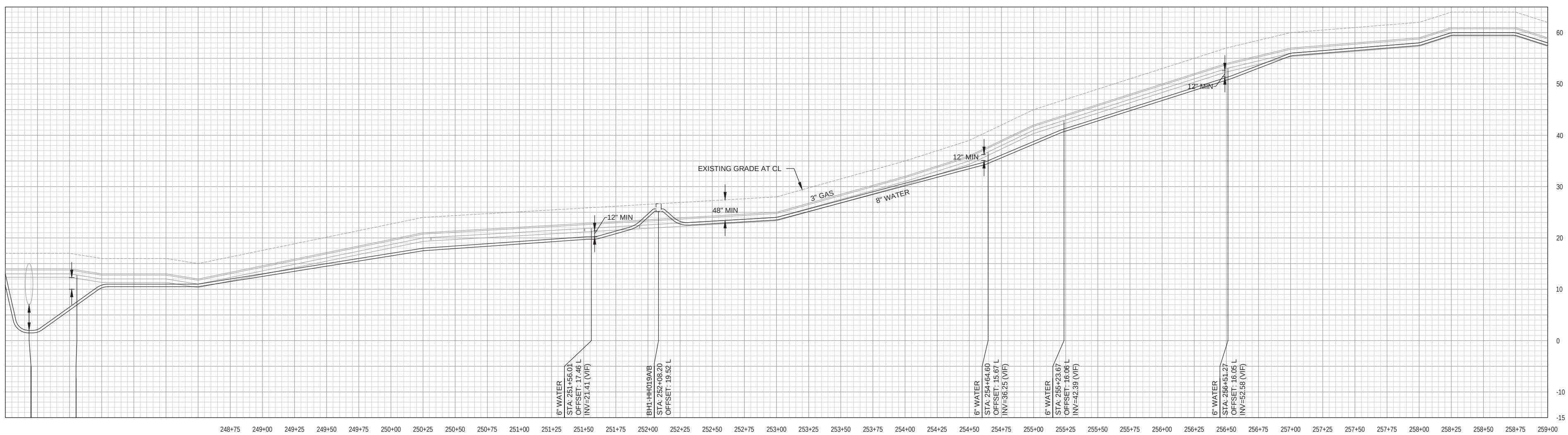
Sheet	C-107
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 247+00 TO STA: 259+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 247+00 TO 259+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 247+00 TO STA: 259+00

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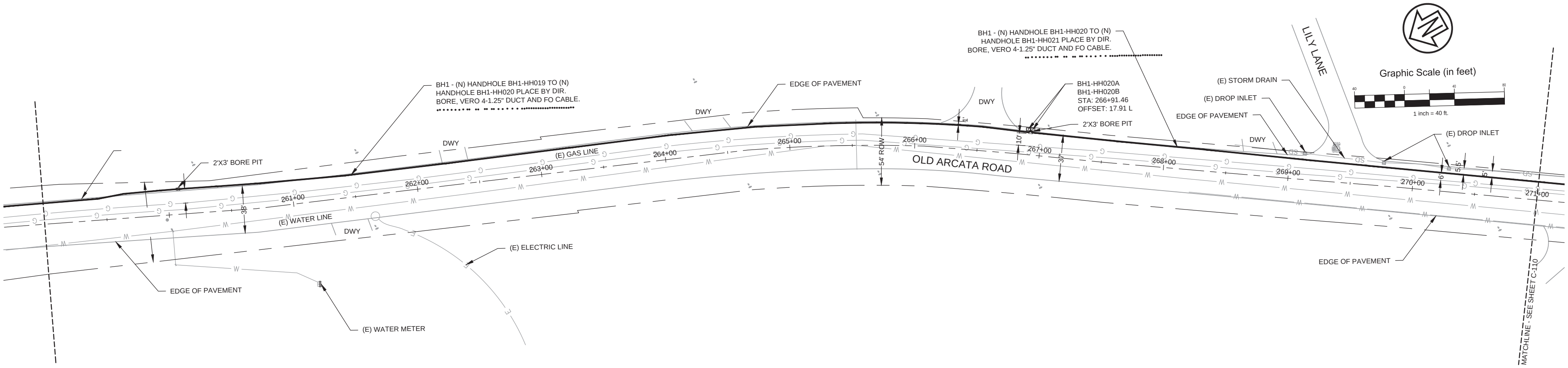
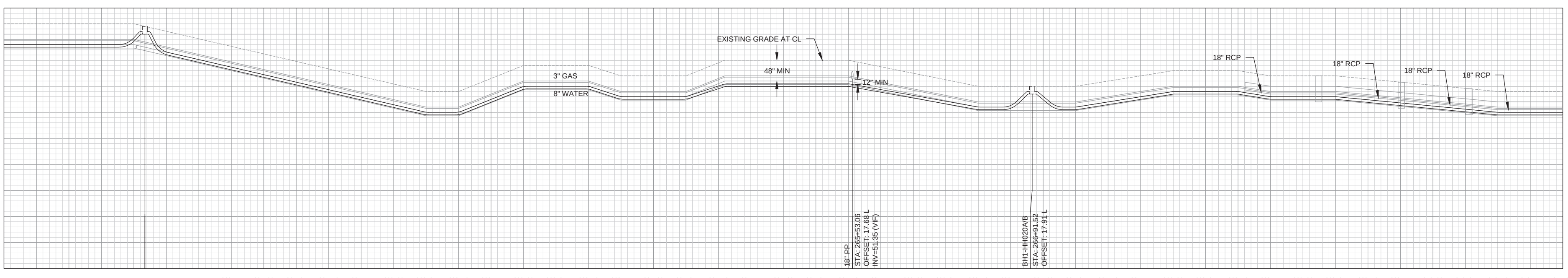
Sheet	C-108
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 259+00 TO STA: 271+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 259+00 TO 271+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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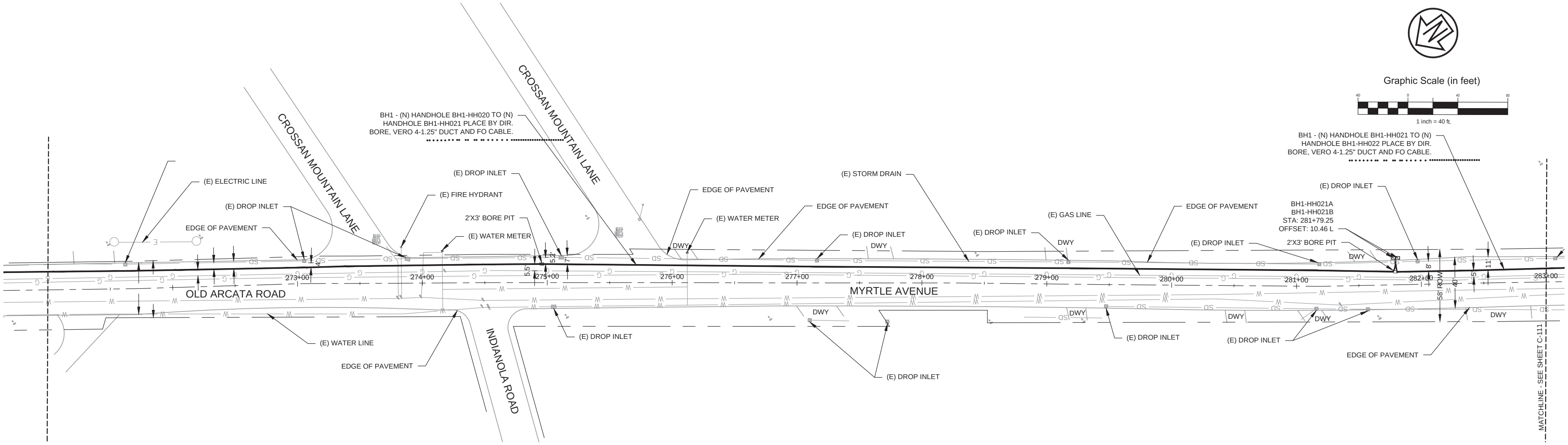
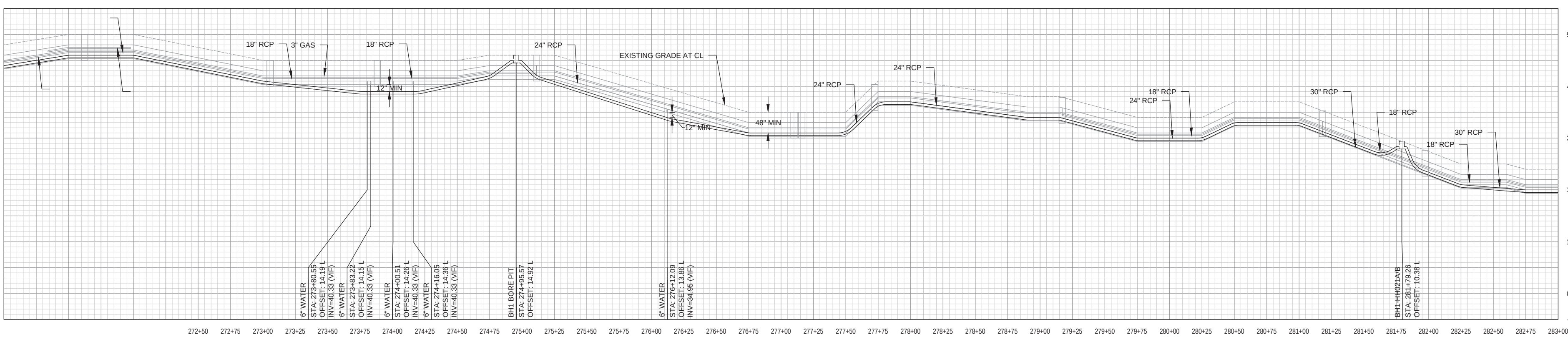
Sheet	C-109
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 271+00 TO STA: 283+00
SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 271+00 TO 283+00
SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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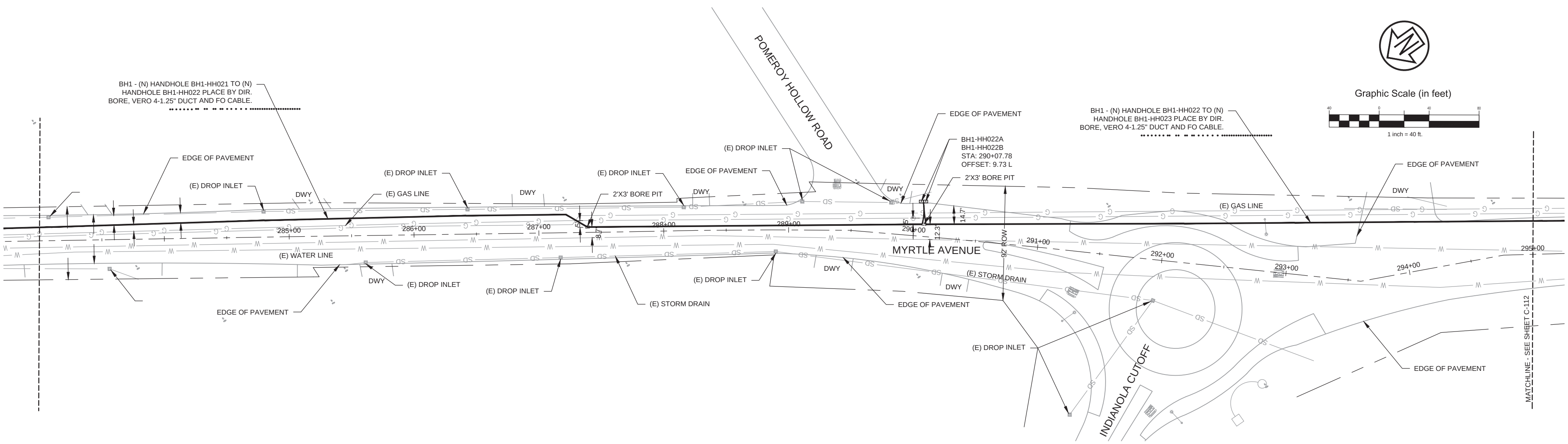
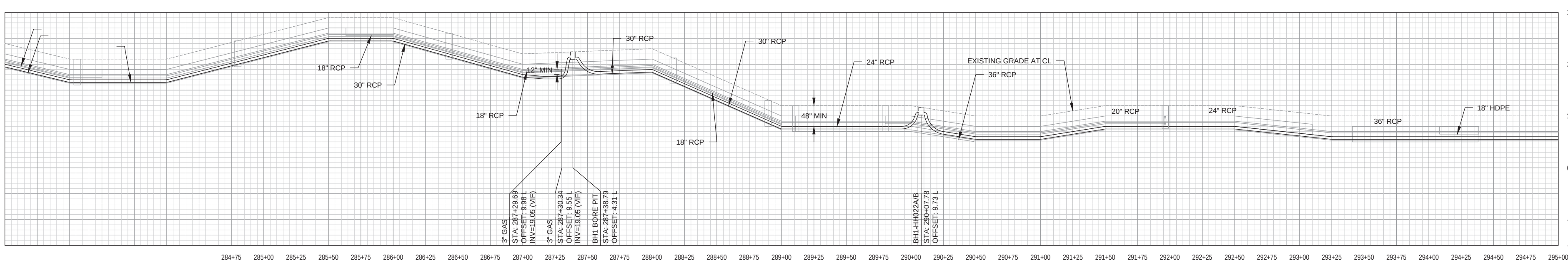
Sheet: C-110

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 283+00 TO STA: 295+00
SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 283+00 TO 295+00
SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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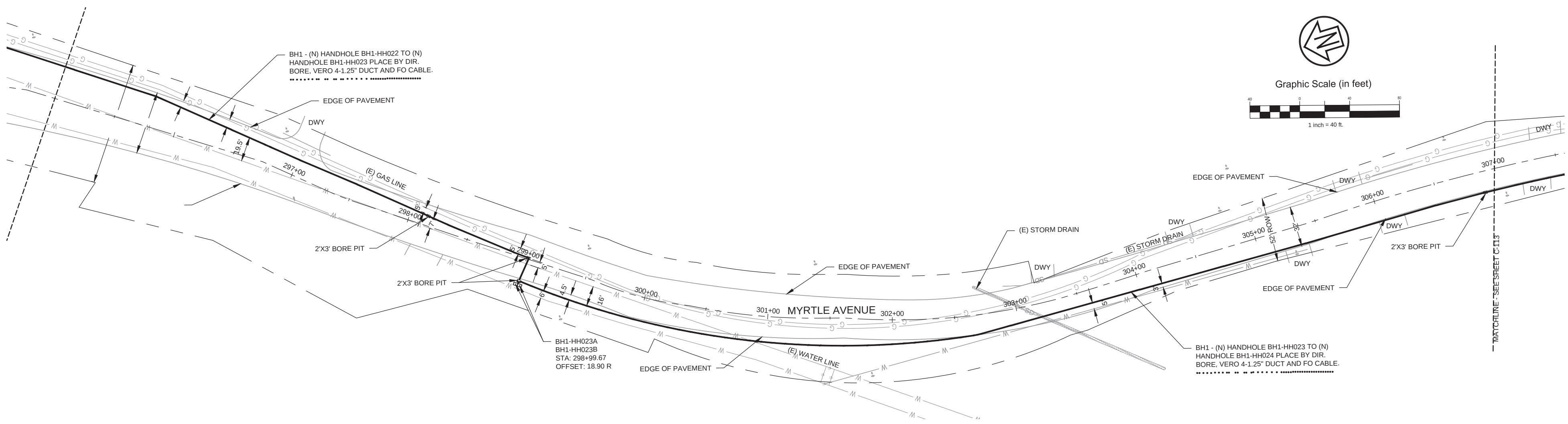
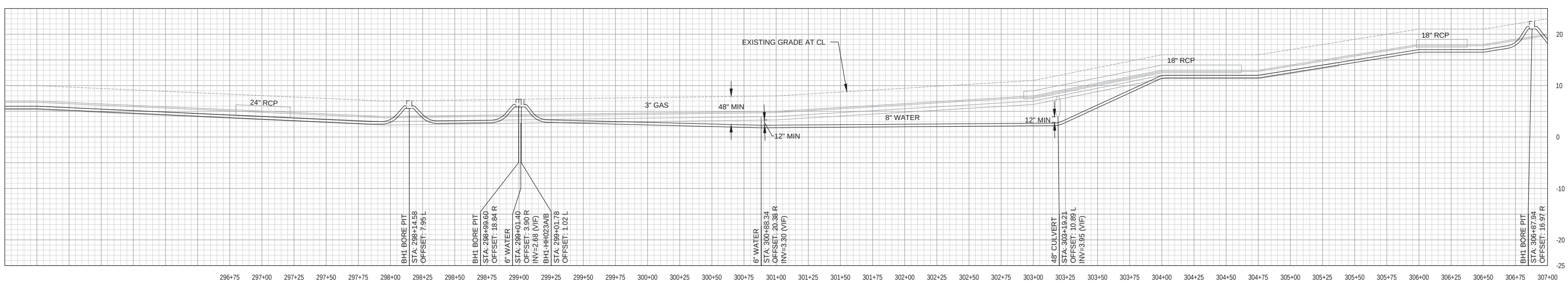
Sheet	C-111
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 295+00 TO STA: 307+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 295+00 TO 307+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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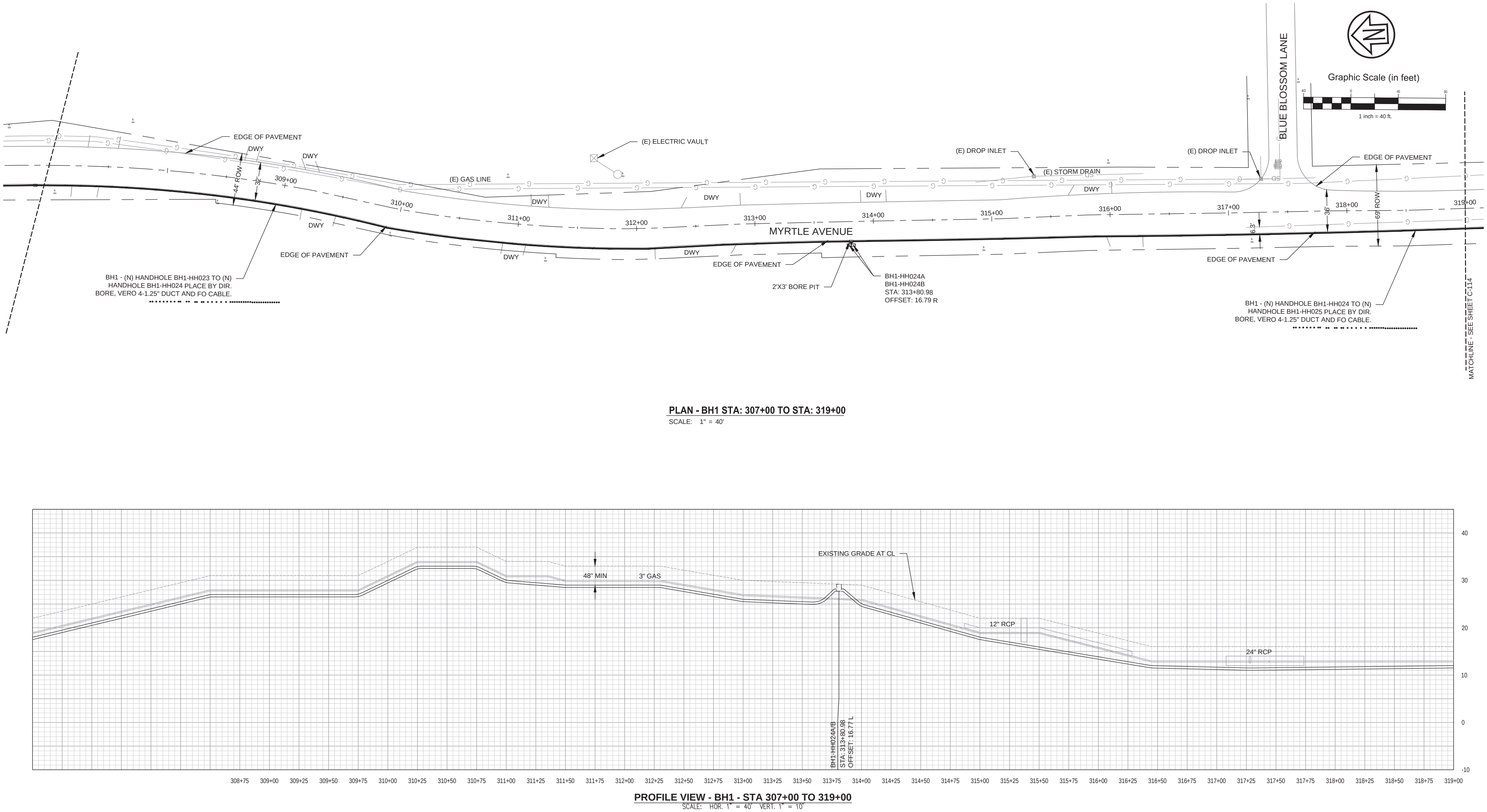
Sheet C-112

Scale: 1" = 40'
Date: 09/23/20
Project Number: 1910140
Plan File: D-XXXX-



Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 307+00 TO STA: 319+00

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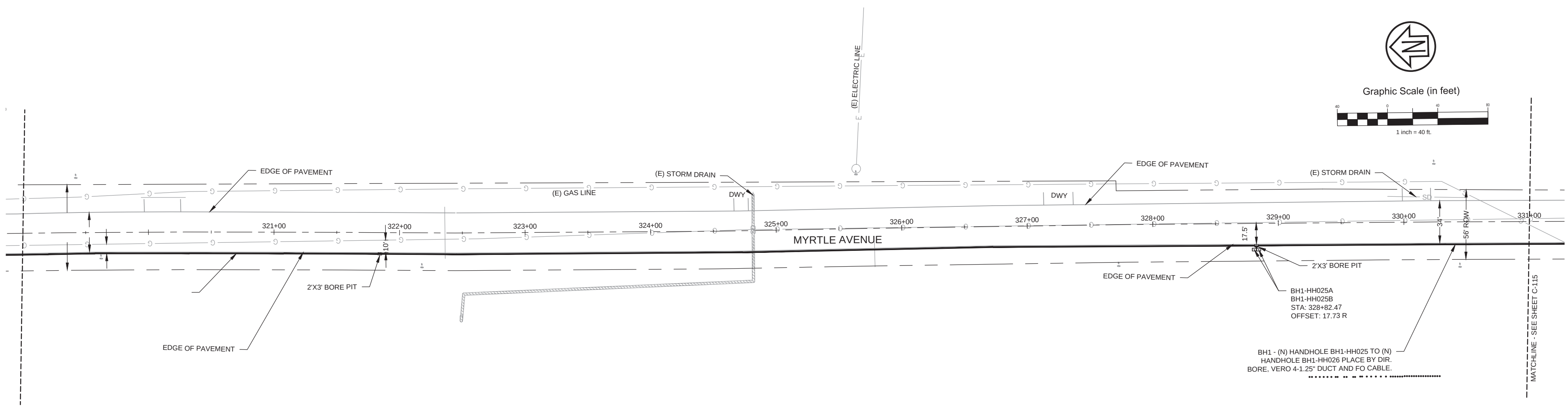
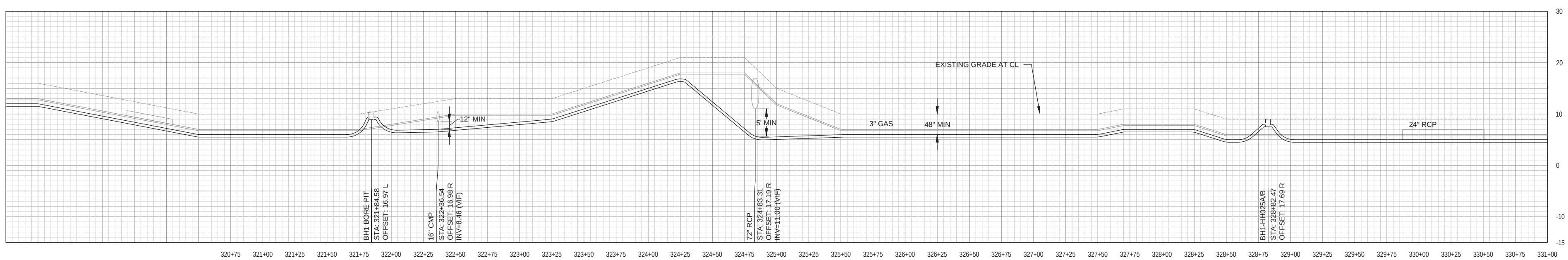
Sheet	C-113
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 319+00 TO STA: 331+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 319+00 TO 331+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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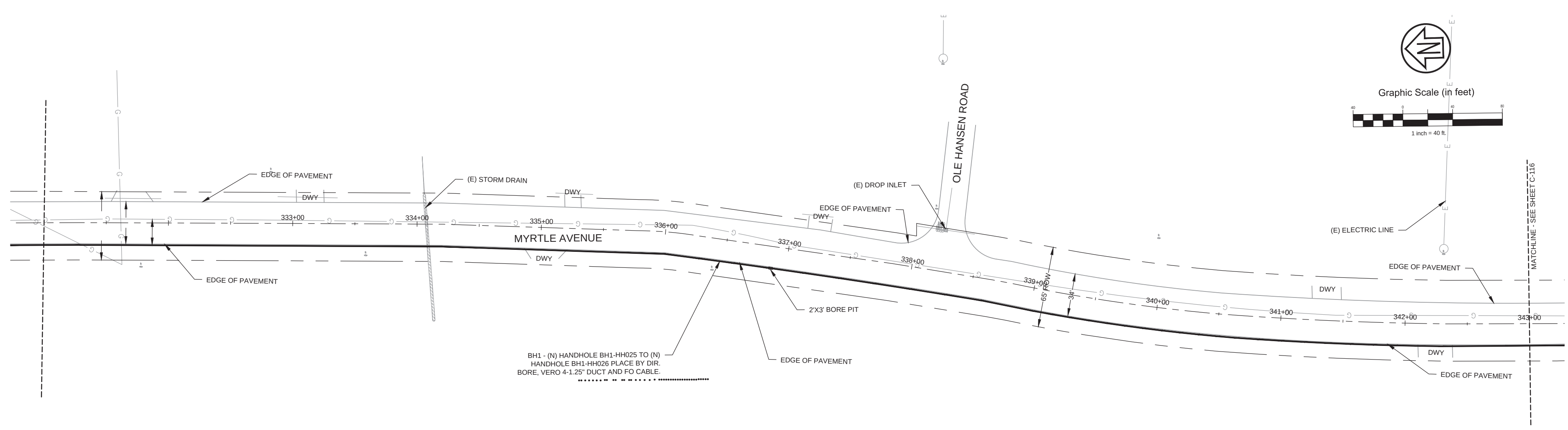
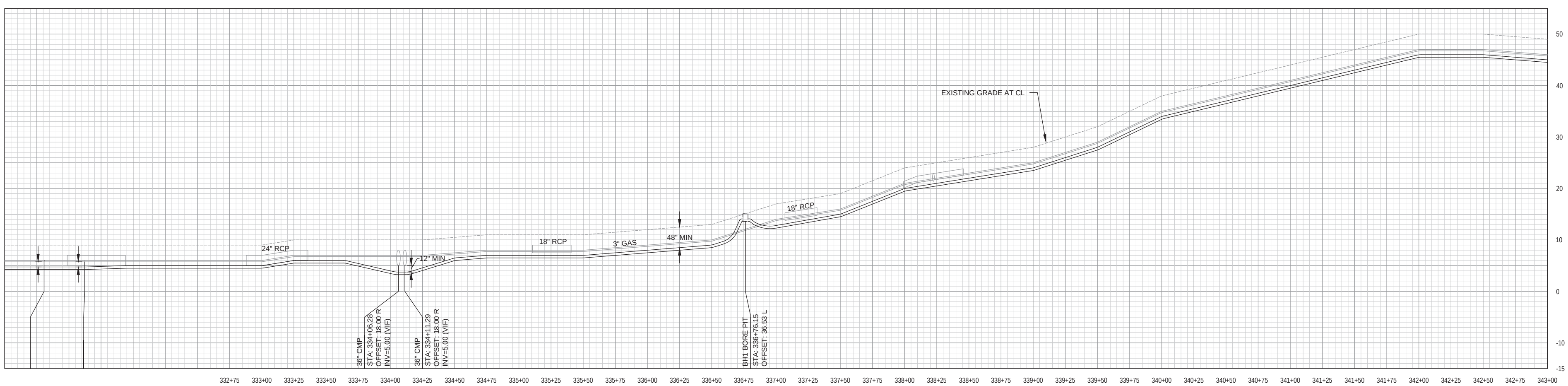
Sheet	C-114
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 331+00 TO STA: 343+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 331+00 TO 343+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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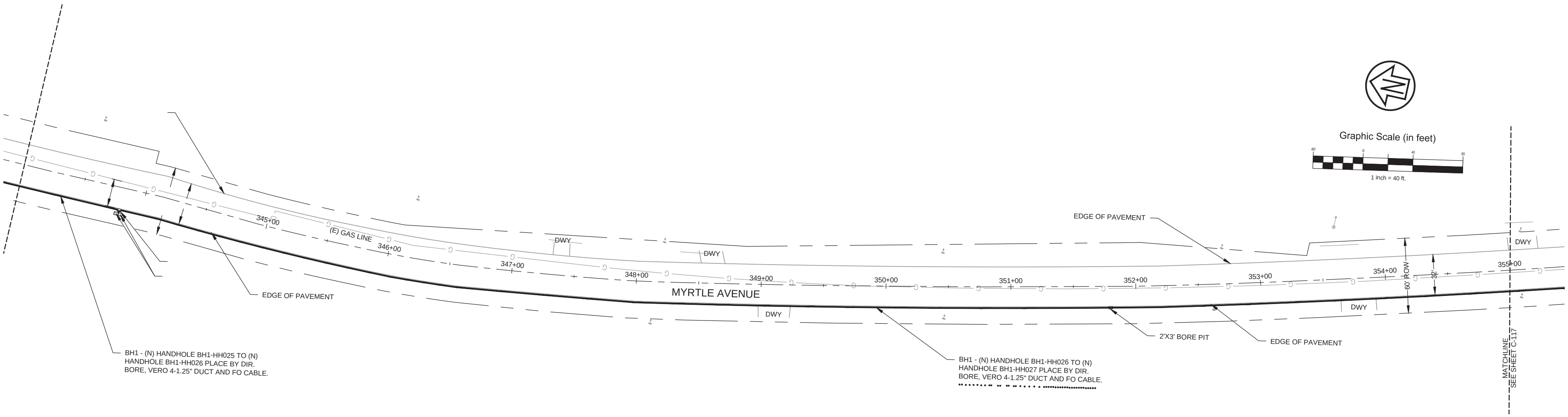
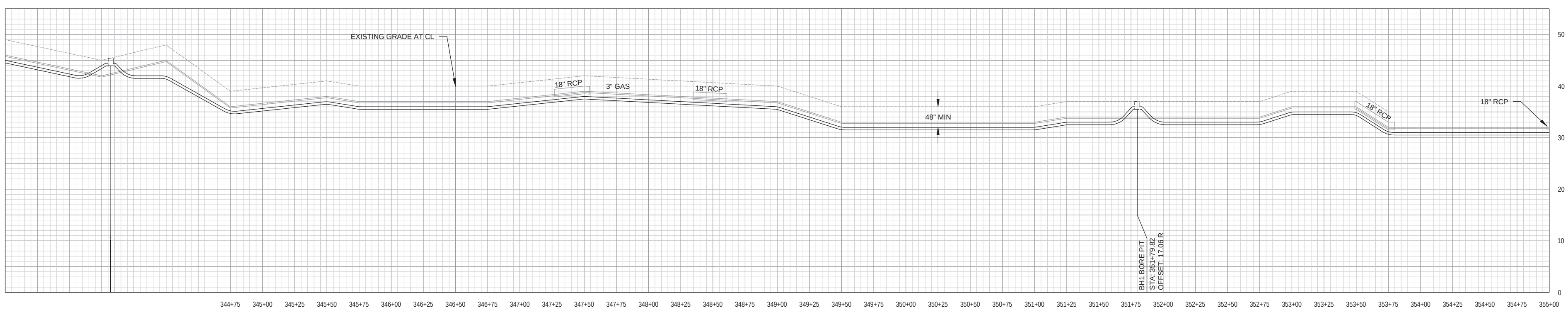
Sheet C-115

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 343+00 TO STA: 355+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 343+00 TO 355+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 343+00 TO STA: 355+00

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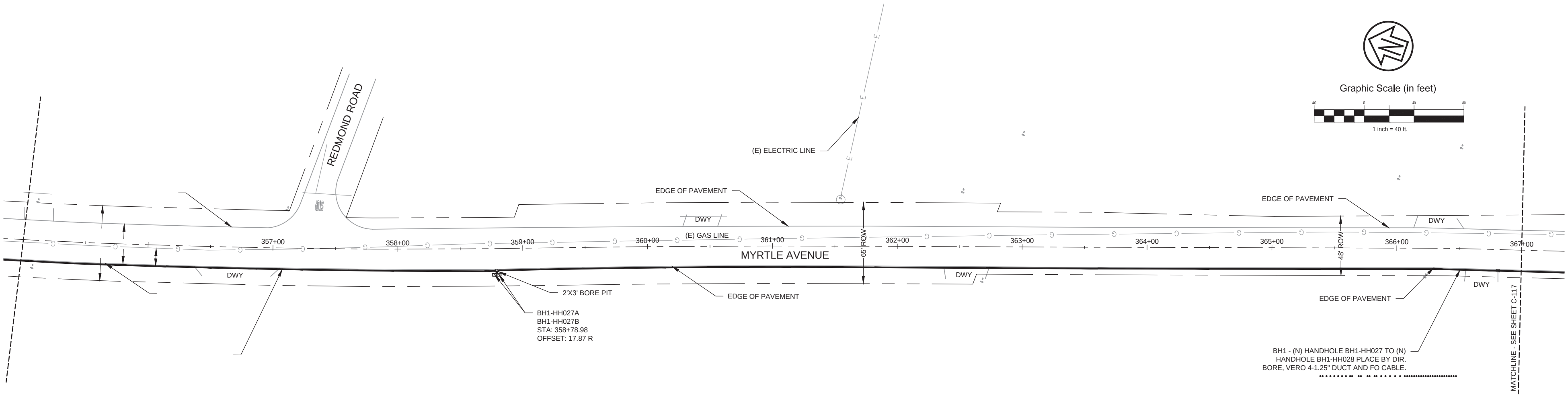
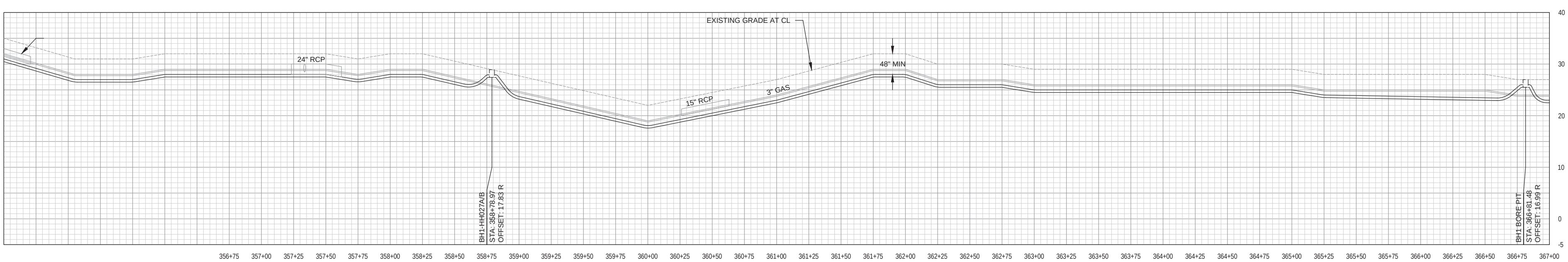
Sheet	C-116
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 355+00 TO STA: 367+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 355+00 TO 367+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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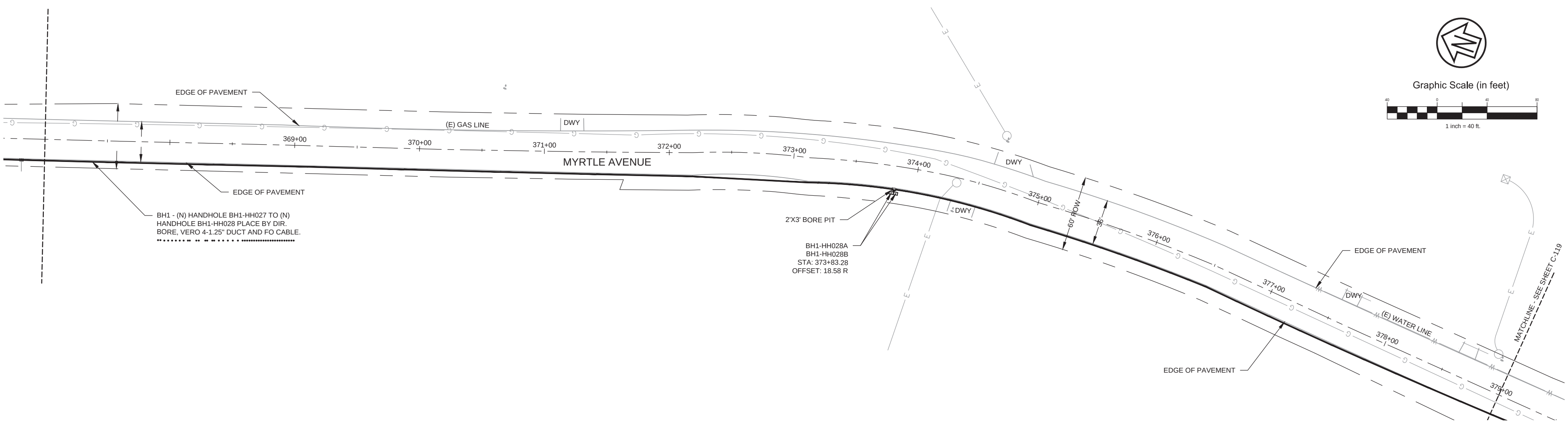
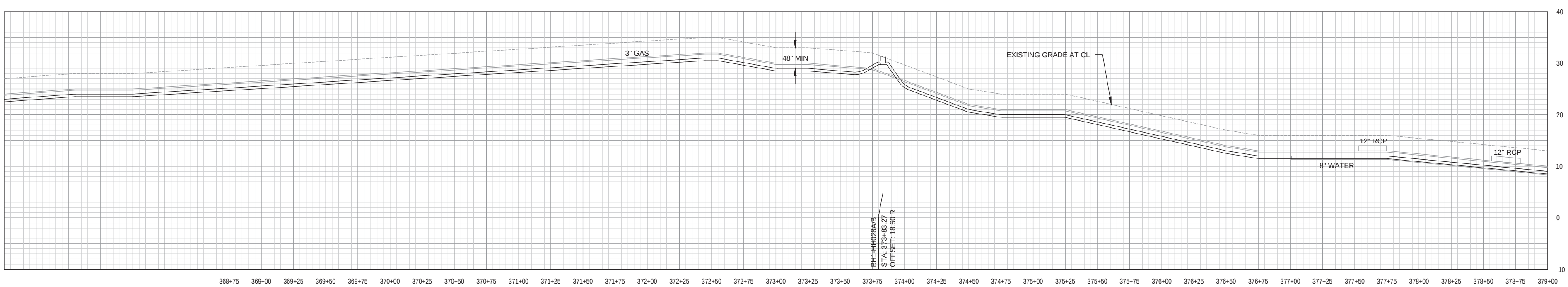
Sheet C-117

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 367+00 TO STA: 379+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 367+00 TO 379+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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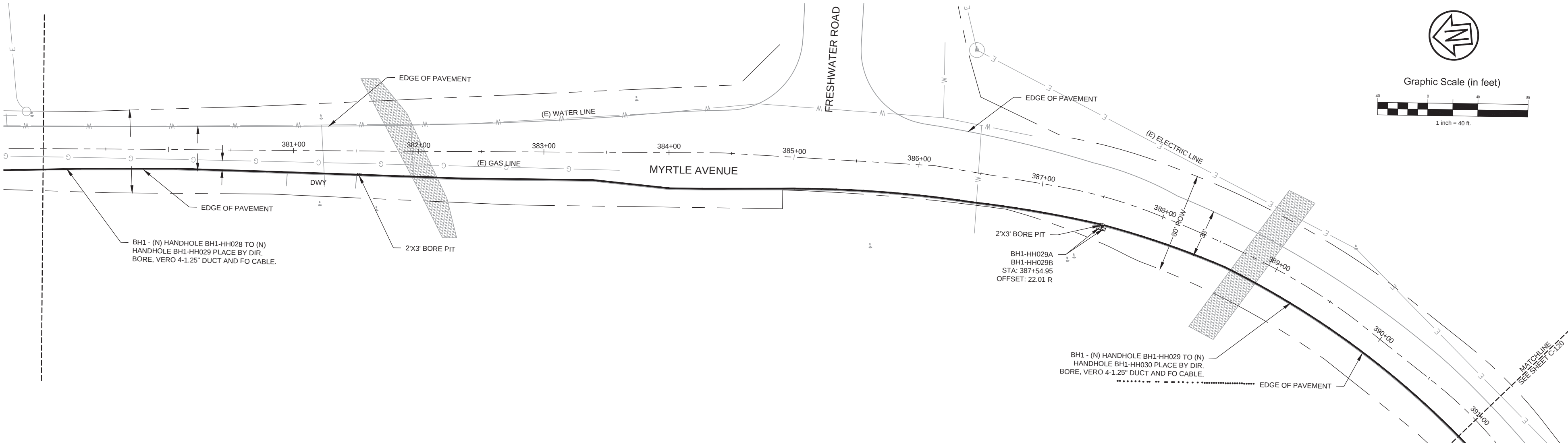
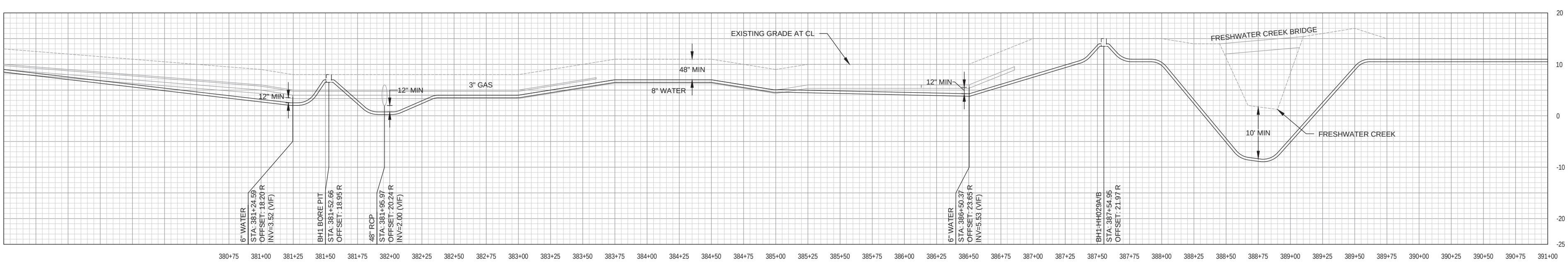
Sheet	C-118
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 379+00 TO STA: 391+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 379+00 TO 391+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed: JAH | Drawn: FAV | Checked: JAH

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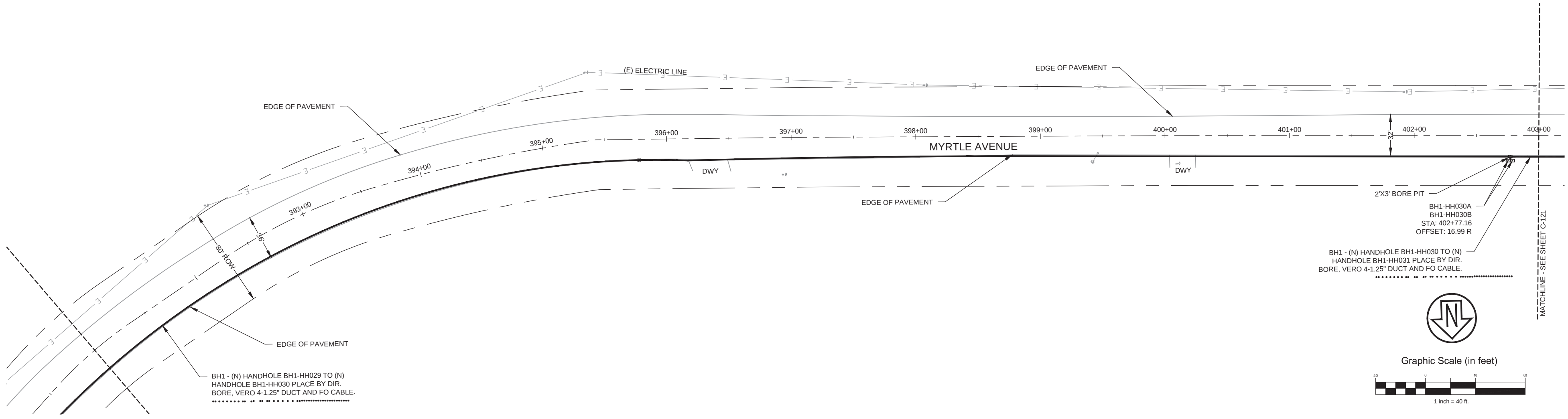
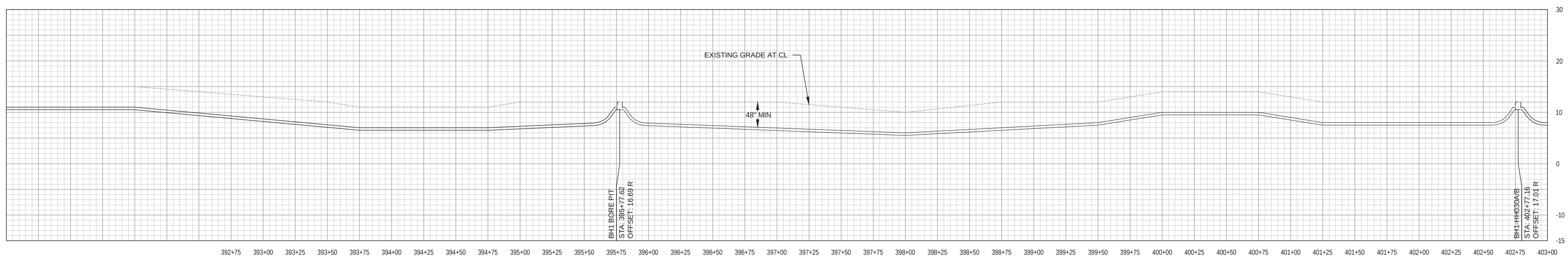
Sheet: C-119
Scale: 1" = 40'
Date: 09/23/20
Project Number: 1910140
Plan File: D-XXXX-



PLAN - BH1 STA: 391+00 TO STA: 403+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 391+00 TO 403+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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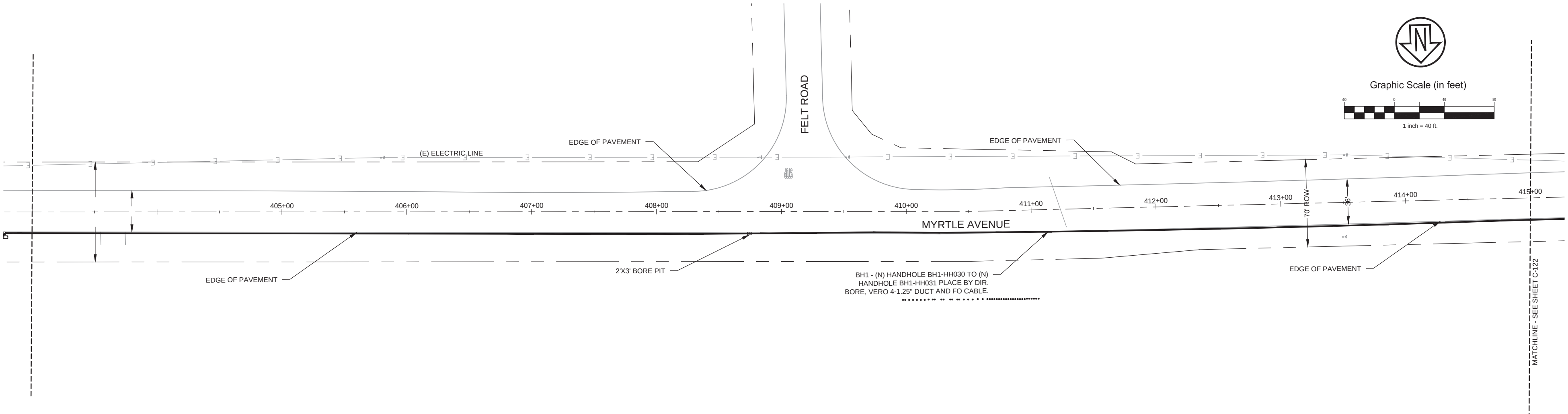
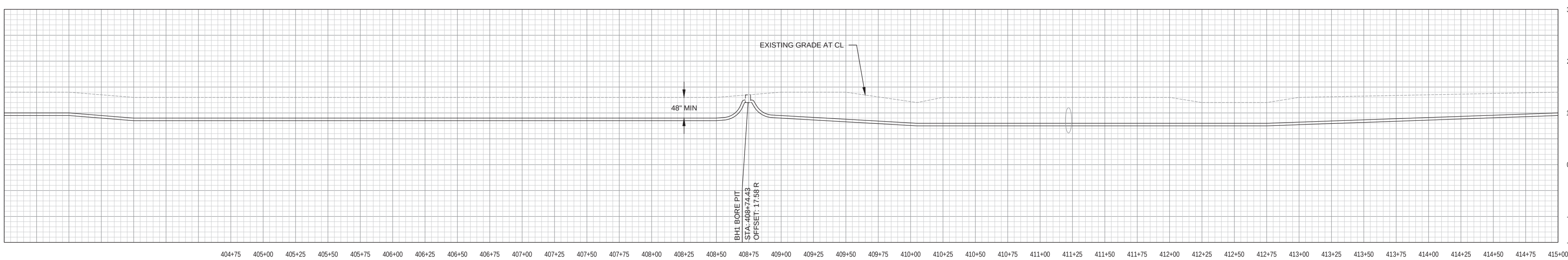
Sheet	C-120
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 403+00 TO STA: 415+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 403+00 TO 415+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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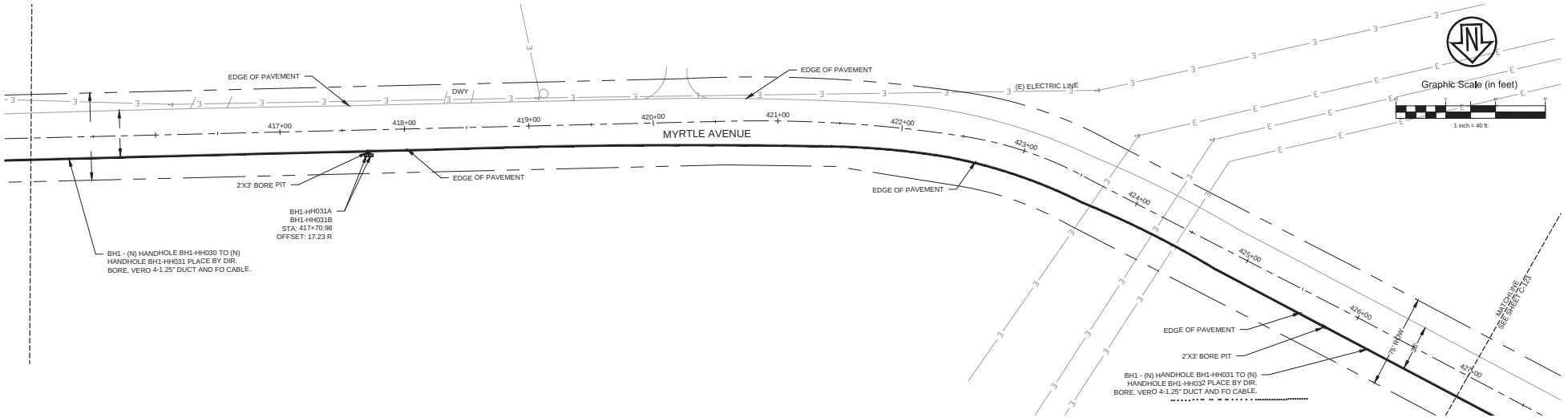
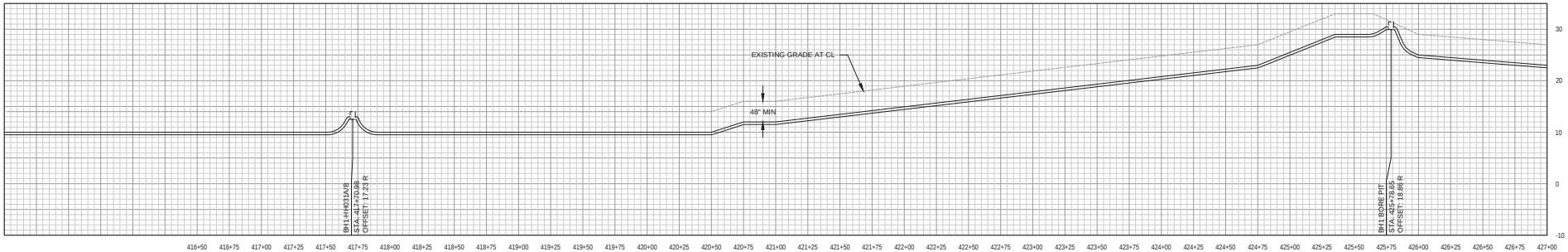
Sheet	C-121
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 415+00 TO STA: 427+00
SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 415+00 TO 427+00
SCALE: HOR. 1" = 40' VERT. 1" = 10'

			Designed	Drawn	Checked
			JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 415+00 TO STA: 427+00
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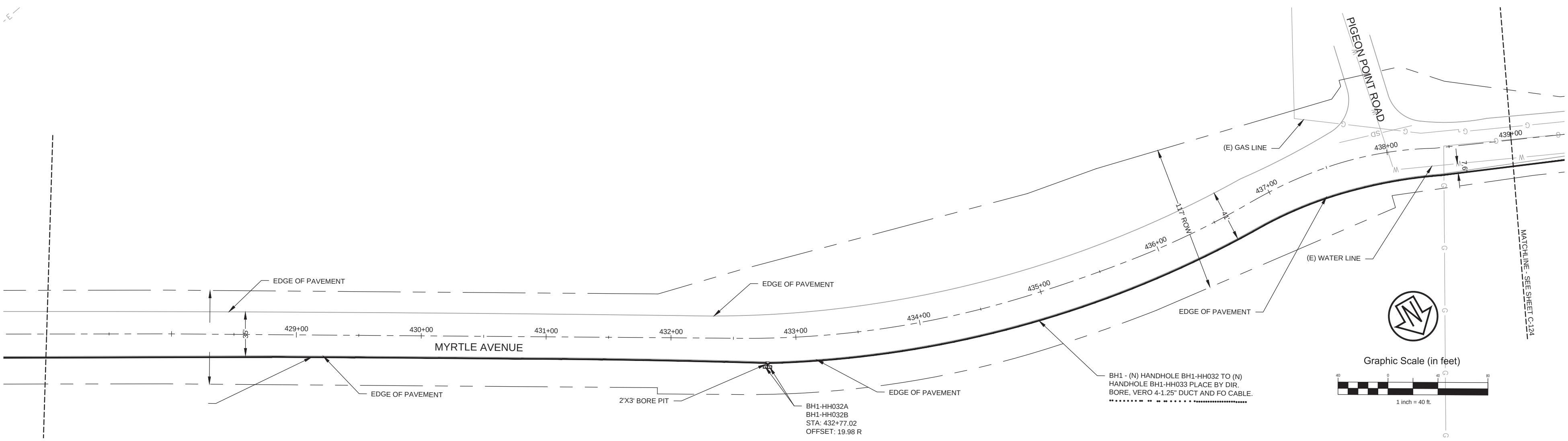
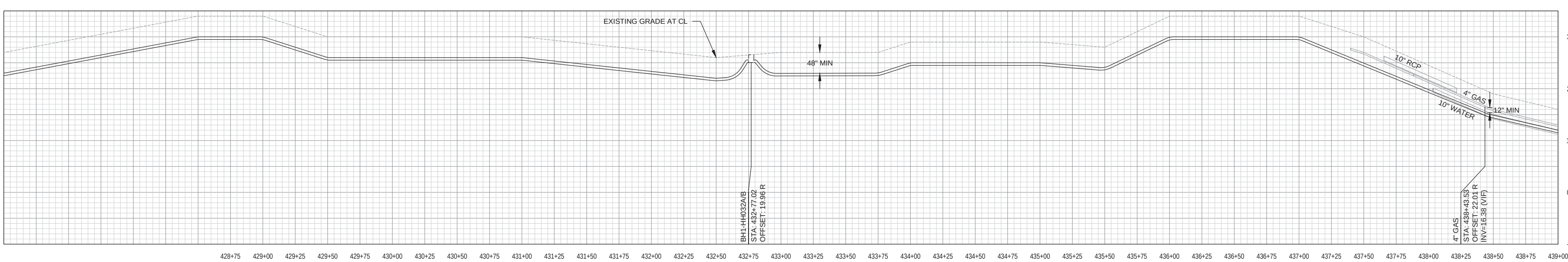
Sheet C-122

Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 427+00 TO STA: 439+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 427+00 TO 439+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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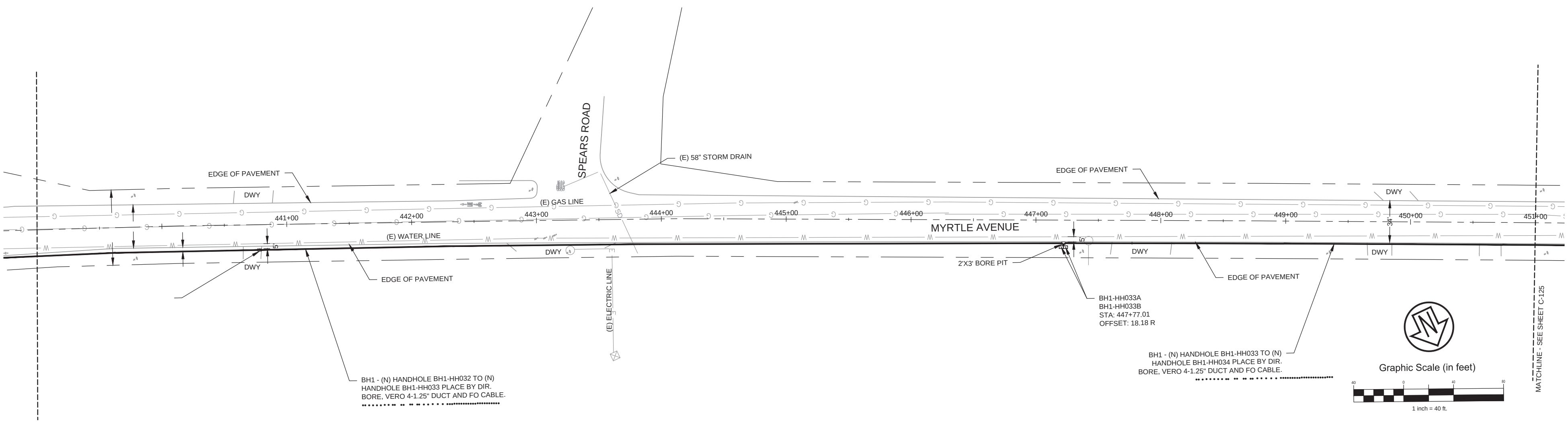
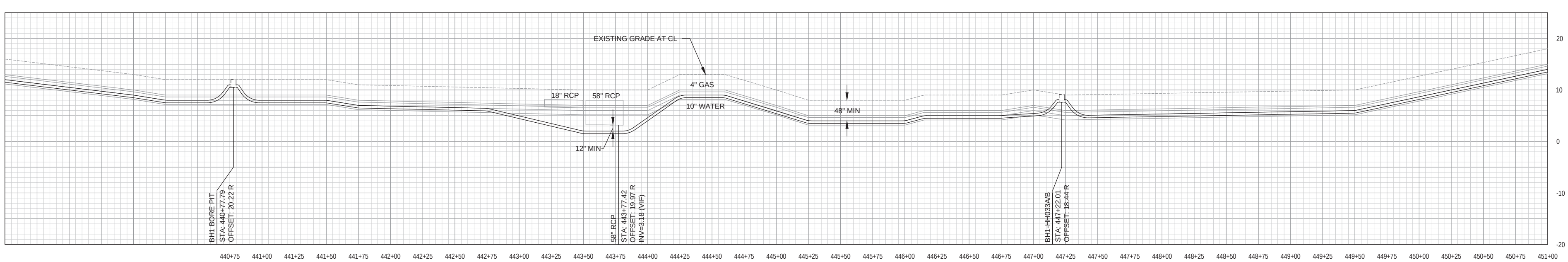
Sheet C-123

Scale: 1" = 40'
Date: 09/23/20
Project Number: 1910140
Plan File: D-XXXX-



PLAN - BH1 STA: 439+00 TO STA: 451+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 439+00 TO 451+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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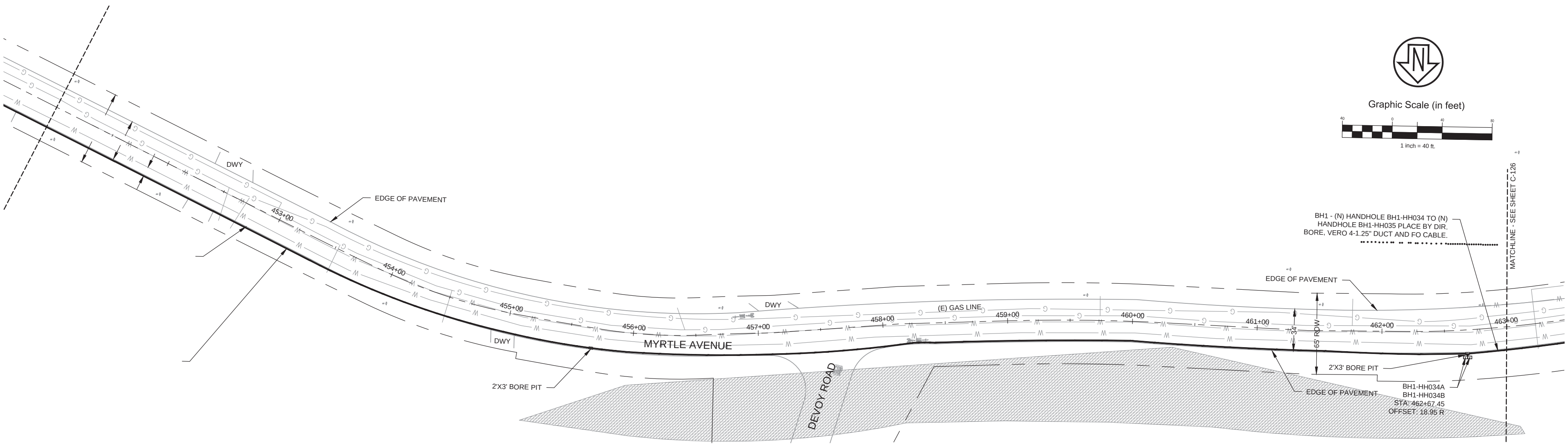
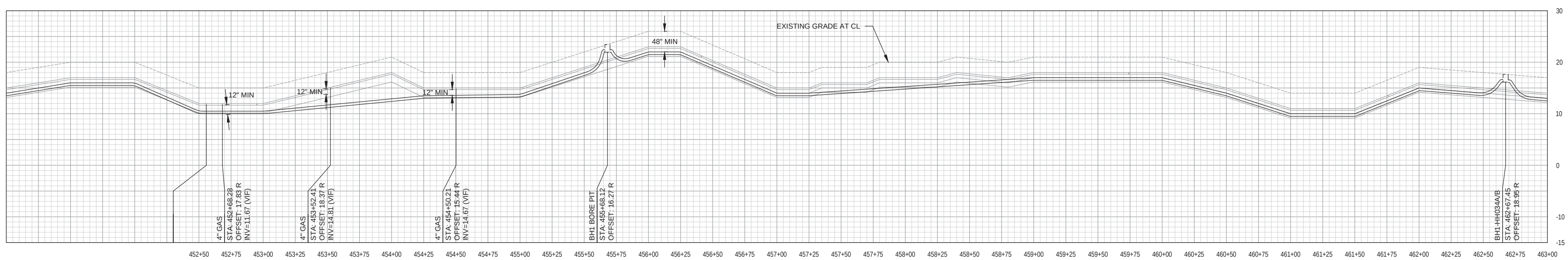
Sheet	C-124
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 451+00 TO STA: 463+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 451+00 TO 463+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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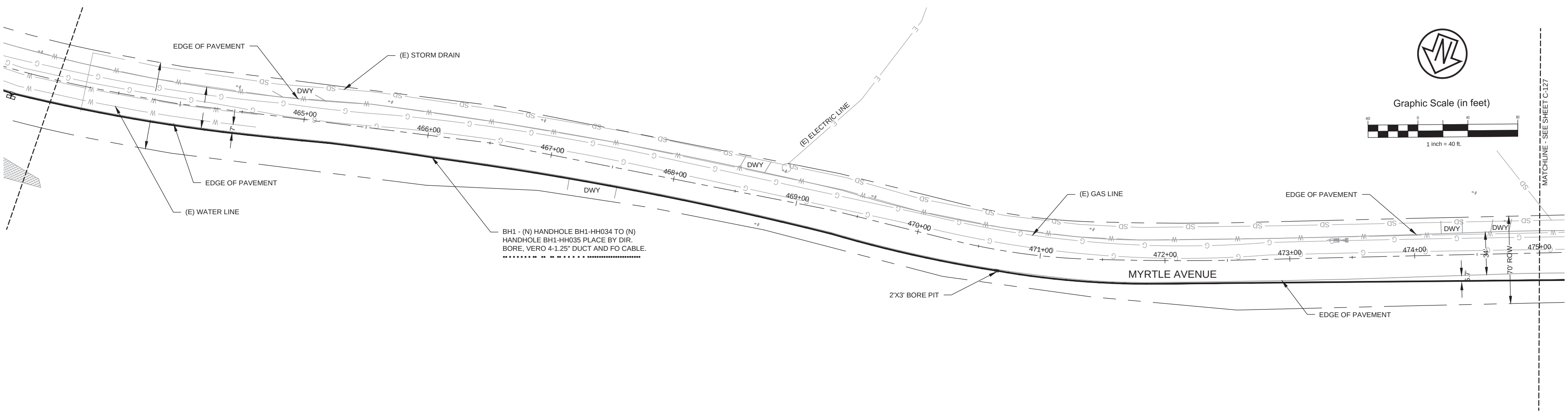
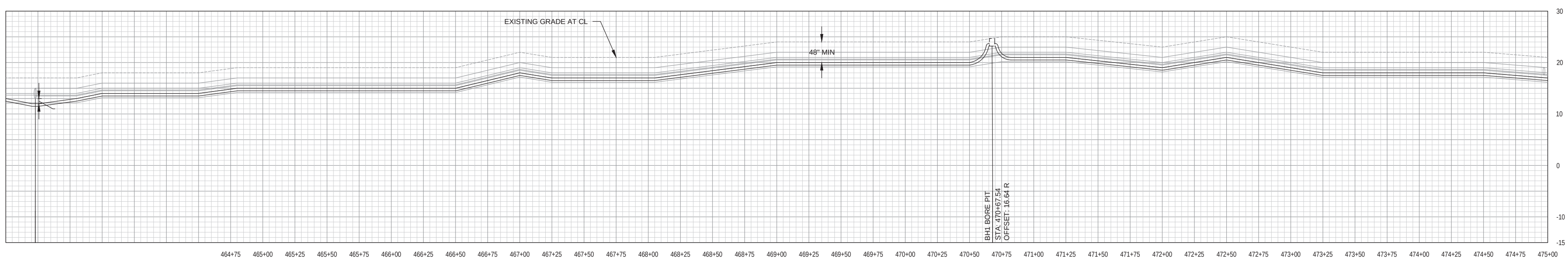
Sheet C-125

Scale: 1" = 40'
Date: 09/23/20
Project Number: 1910140
Plan File: D-XXXX-



PLAN - BH1 STA: 463+00 TO STA: 475+00
SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 463+00 TO 475+00
SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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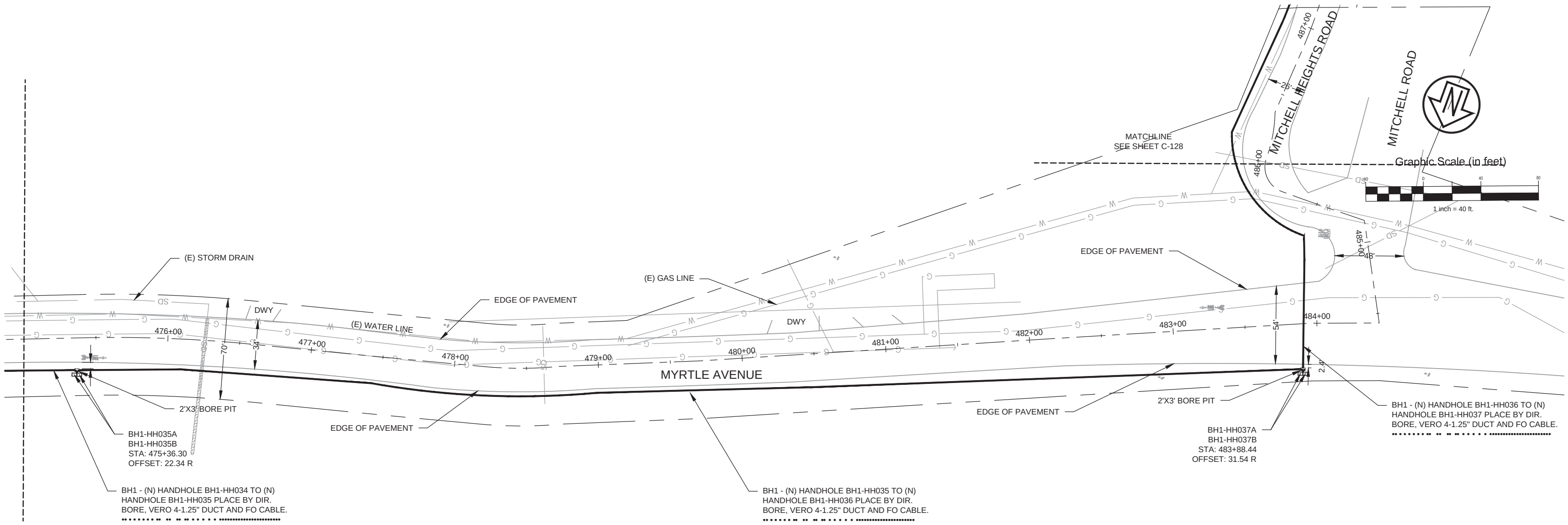
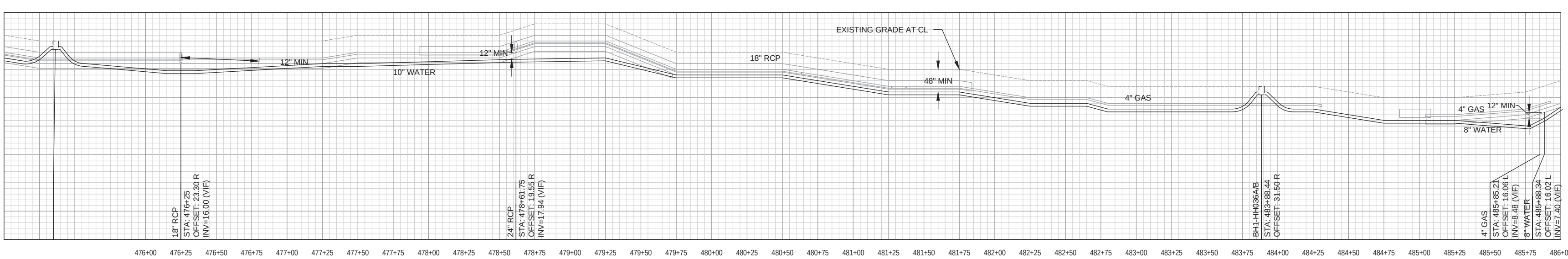
Sheet C-126
Scale: 1" = 40'
Date: 09/23/20
Project Number: 1910140
Plan File: D-XXXX-



PLAN - BH1 STA: 475+00 TO STA: 486+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 475+00 TO 486+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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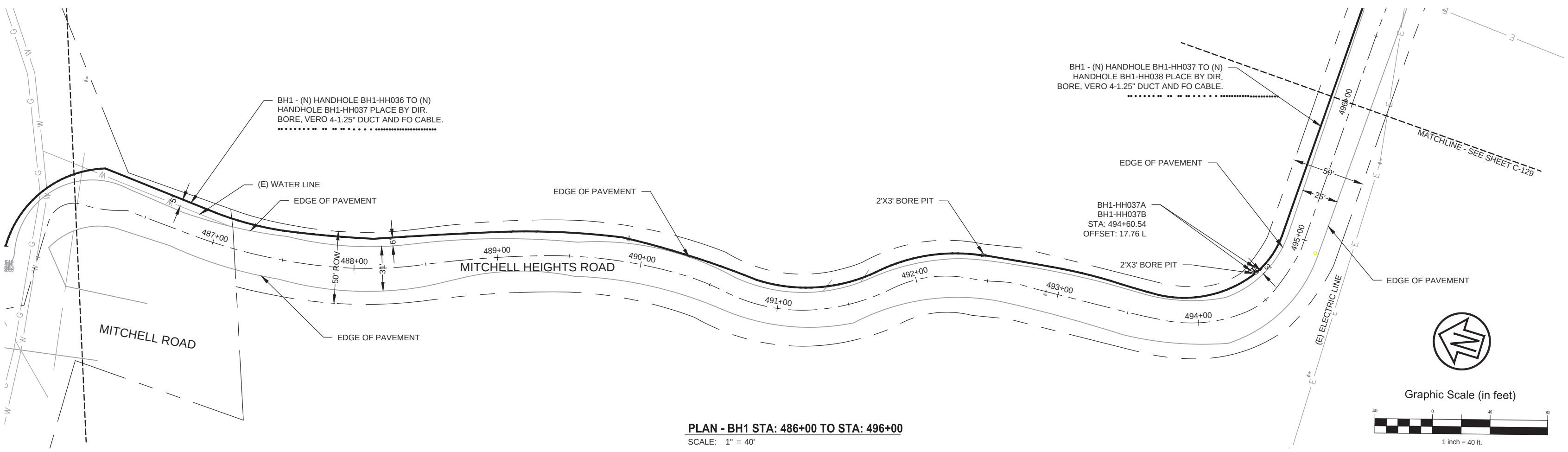
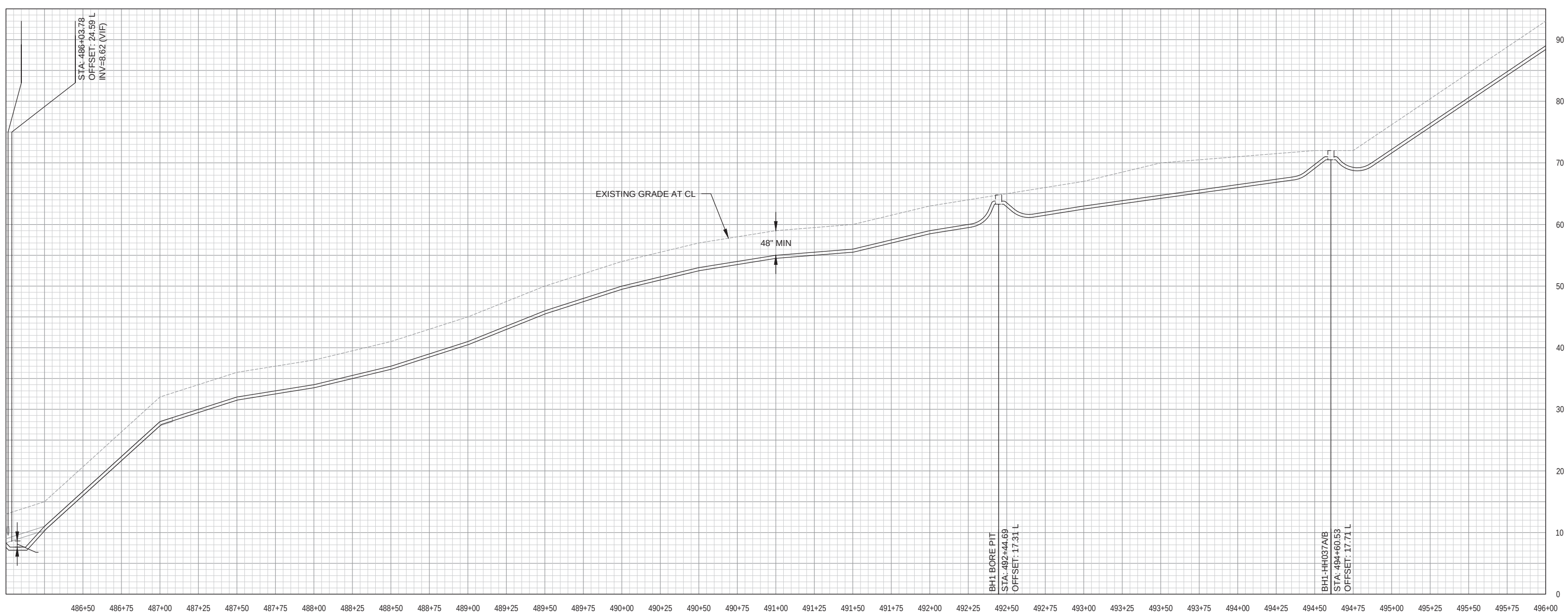
Sheet C-127

Scale: 1" = 40'
Date: 09/23/20
Project Number: 1910140
Plan File: D-XXXX-



PLAN - BH1 STA: 486+00 TO STA: 496+00

SCALE: 1" = 40'



PROFILE VIEW - BH1 - STA 486+00 TO 496+00

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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CONDUIT LAYOUT PLAN & PROFILE - STA: 486+00 TO STA: 496+00

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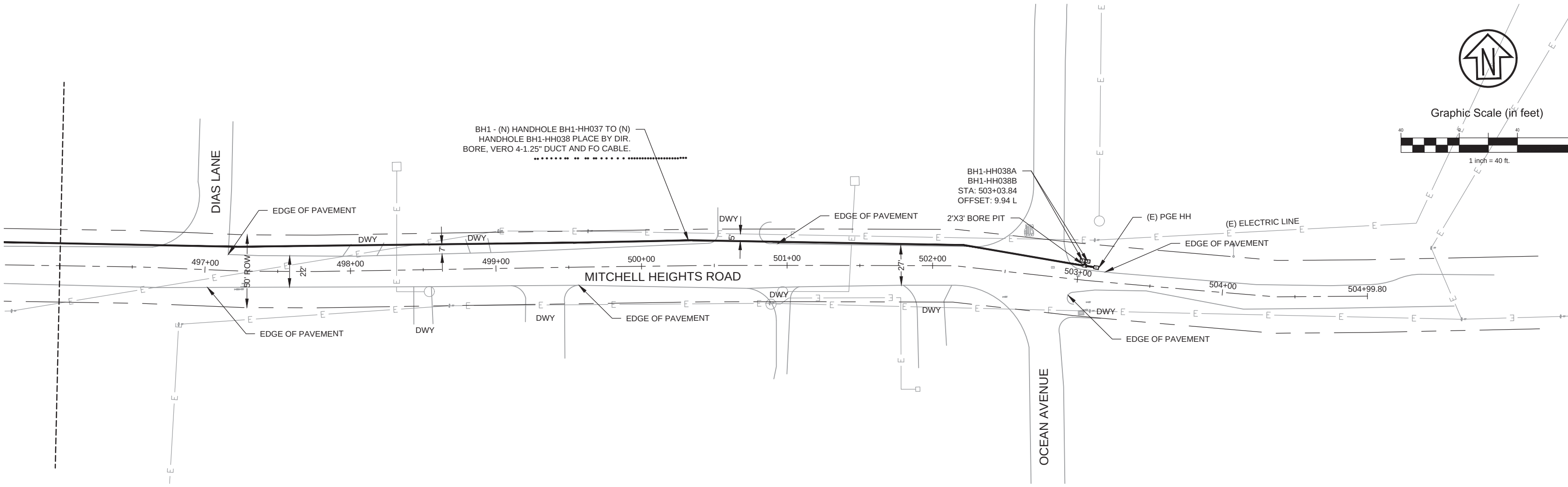
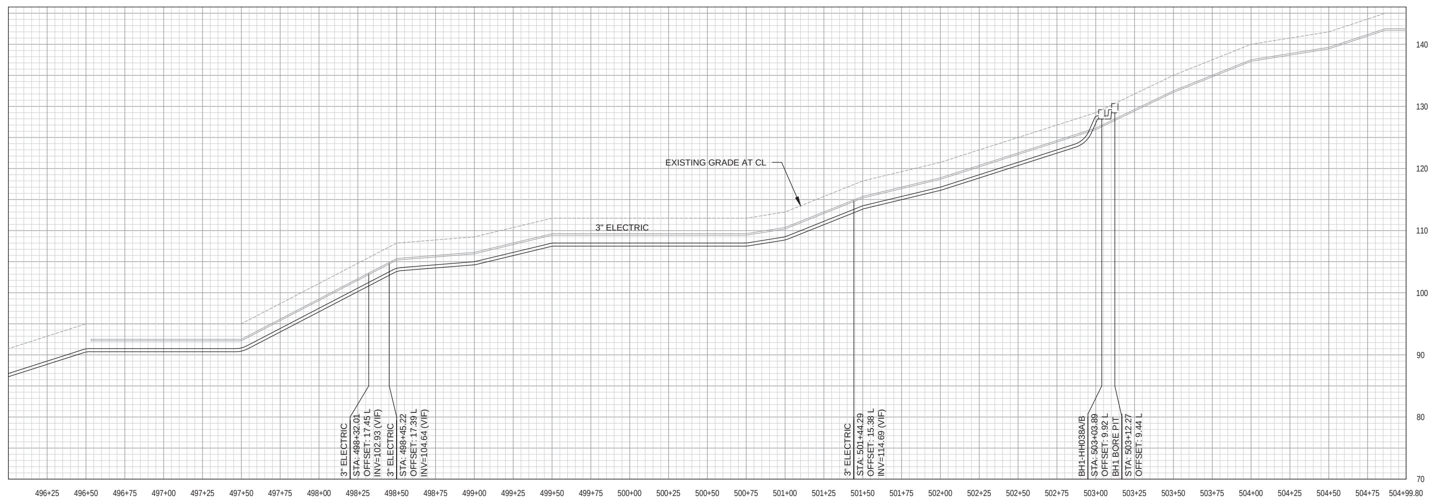
Sheet	C-128
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-



PLAN - BH1 STA: 496+00 TO STA: 504+99.80

SCALE: 1" = 40'



PROFILE - BH1 - STA 496+00 TO 504+99.80

SCALE: HOR. 1" = 40' VERT. 1" = 10'

Designed	Drawn	Checked
JAH	FAV	JAH

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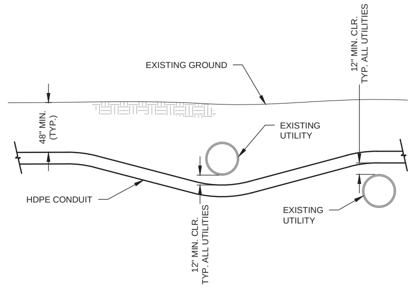
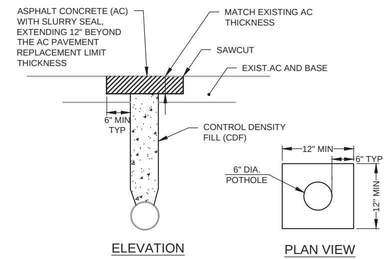
Sheet	C-129
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-

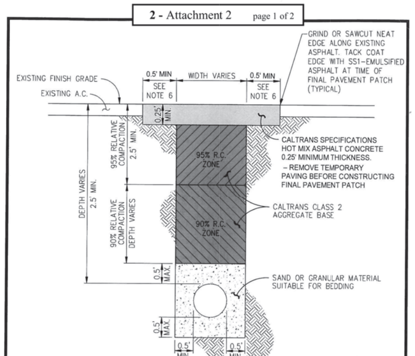


(A) **TYPICAL UTILITY CROSSING DETAIL**
SCALE: 1" = 5'



(B) **TYPICAL POTHOLE REPAIR**
SCALE: 1" = 5'

2 - Attachment 2 page 1 of 2



NOTES:

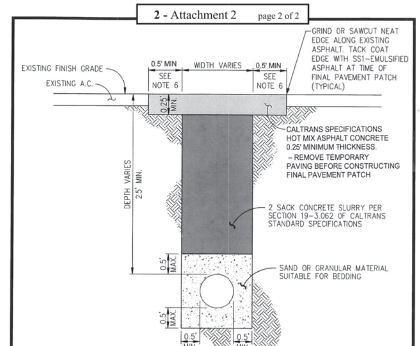
1. THE TRENCH SHALL HAVE AT LEAST 0.25 FEET OF TEMPORARY COLD MIX ASPHALT BEFORE OPENING ROAD TO TRAFFIC.
2. FOR ITEMS NOT SHOWN, SEE ISSUED HUMBOLDT COUNTY ENCROACHMENT PERMIT.
3. ALL MATERIALS SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS, CURRENT EDITION.
4. IF GROUNDWATER IS ENCOUNTERED DURING TRENCH EXCAVATION, ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED FOR SITE SPECIFIC CORRECTIVE MEASURES.
5. THE PERMITEE, OR ITS DESIGNEE, SHALL BE RESPONSIBLE FOR PERFORMING COMPACTION TESTS. THE DEPARTMENT OF PUBLIC WORKS RESERVES THE RIGHT TO MAKE AS MANY COMPACTION TESTS AS IT DEEMS REASONABLE TO ENSURE THAT THE COMPACTION REQUIREMENTS ARE MET. PERMITTEE SHALL REIMBURSE THE DEPARTMENT OF PUBLIC WORKS FOR ALL COSTS ASSOCIATED WITH SUCH TESTS. SAID COSTS SHALL BE IN CONFORMANCE WITH THE HUMBOLDT COUNTY SCHEDULE OF FEES AND CHARGES FOR PERMITS AND SERVICES, AS ADOPTED BY THE BOARD OF SUPERVISORS.
6. WHEN EXISTING AC PAVEMENT IS LESS THAN 5 YEARS OLD, USE 9' MINIMUM. WHEN EXISTING AC PAVEMENT IS MORE THAN 5 YEARS OLD, USE 0.5' MINIMUM

NOTE: FIGURES HEREON ARE NOT DRAWN TO SCALE, UNLESS OTHERWISE NOTED.

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS 1106 SECOND STREET • EUREKA • CA • 95501 TEL (707) 445-7377 • FAX (707) 445-7409	TYPE I TRENCH DETAIL -AGGREGATE BASE BACKFILL- ISSUED: 08/26/2009 REVISED 04/22/2013 F:\AUTOCAD PROJECTS\STANDARD PLANS\DWG\STD-PLAN_TRENCH DETAILS.DWG	STD DWG SHT 1 OF 1

(C) **TYPE I TRENCH DETAIL**
SCALE: N.T.S.

2 - Attachment 2 page 2 of 2



NOTES:

1. THE TRENCH SHALL HAVE AT LEAST 0.25 FEET OF TEMPORARY COLD MIX ASPHALT BEFORE OPENING ROAD TO TRAFFIC.
2. FOR ITEMS NOT SHOWN, SEE ISSUED HUMBOLDT COUNTY ENCROACHMENT PERMIT.
3. ALL MATERIALS SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS, CURRENT EDITION.
4. IF GROUNDWATER IS ENCOUNTERED DURING TRENCH EXCAVATION, ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED FOR SITE SPECIFIC CORRECTIVE MEASURES.
5. THE PERMITEE, OR ITS DESIGNEE, SHALL BE RESPONSIBLE FOR PROVIDING CERTIFICATION OF MATERIALS TO THE COUNTY. THE DEPARTMENT OF PUBLIC WORKS RESERVES THE RIGHT TO MAKE AS MANY MATERIAL ASSURANCE TESTS AS IT DEEMS REASONABLE TO ENSURE THAT THE CONSTRUCTION MATERIAL REQUIREMENTS ARE MET. PERMITTEE SHALL REIMBURSE THE DEPARTMENT OF PUBLIC WORKS FOR ALL COSTS ASSOCIATED WITH SUCH TESTS. SAID COSTS SHALL BE IN CONFORMANCE WITH THE HUMBOLDT COUNTY SCHEDULE OF FEES AND CHARGES FOR PERMITS AND SERVICES, AS ADOPTED BY THE BOARD OF SUPERVISORS.
6. WHEN EXISTING AC PAVEMENT IS LESS THAN 5 YEARS OLD, USE 9' MINIMUM. WHEN EXISTING AC PAVEMENT IS MORE THAN 5 YEARS OLD, USE 0.5' MINIMUM

NOTE: FIGURES HEREON ARE NOT DRAWN TO SCALE, UNLESS OTHERWISE NOTED.

COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS 1106 SECOND STREET • EUREKA • CA • 95501 TEL (707) 445-7377 • FAX (707) 445-7409	TYPE II TRENCH DETAIL -CONCRETE SLURRY BACKFILL- ISSUED: 08/26/2009 REVISED 04/22/2013 F:\AUTOCAD PROJECTS\STANDARD PLANS\DWG\STD-PLAN_TRENCH DETAILS.DWG	STD DWG SHT 1 OF 1

(D) **TYPE II TRENCH DETAIL**
SCALE: N.T.S.

			Designed	Drawn	Checked
			JAH	FAV	JAH

VERO Fiber Networks

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City	
County	Humboldt
State	California

ARCATA/EUREKA FIBER PROJECT
CONSTRUCTION DETAILS
VERO FIBER NETWORKS

Prepared Under the Direction of:
JULIA A. HARBERSON No. 76626 CIVIL STATE OF CALIFORNIA

Sheet	C-501
Scale:	1" = 40'
Date:	09/23/20
Project Number:	1910140
Plan File:	D-XXXX-

ARCATA/EUREKA FIBER PROJECT BH1

HORIZONATAL DIRECTIONAL DRILL CONTINGENCY PLAN

Humboldt County, California

December 2020

Prepared By

CSW | ST2

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Prepared For

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TABLE OF CONTENTS

APPENDICES

1-INTRODUCTION

This Horizontal Directional Drill Contingency Plan (Plan) discusses how Vero Fiber Networks and its contractors will implement procedures to minimize impacts from an inadvertent release during horizontal directional drilling (HDD) during construction of the Arcata/Eureka Fiber Project BH1 (Project). The Project involves the installation of four (4) 1.5 conduit in BH1 along approximately 9.5 miles of public ROW between Arcata and Eureka in Humboldt County. These conduits will house fiber optic cables.

The project must cross Jacoby Creek and Freshwater Creek on the east end of Arcata Bay. To avoid impacting environmental resources, the project will install the conduits below the slough using the HDD method.

This project requires approval from the California Department of Fish and Wildlife (CDFW) Section 1602 Streambed Alteration Agreement (SAA) as well as a State of California Department of Transportation encroachment permit.

2-OBJECTIVES

This Plan has been prepared to provide methods and procedures that will minimize the impacts associated with the HDD activities. The HDD practices and construction methods presented in this Plan are intended to accomplish the following objectives:

- To avoid direct impacts to creek crossings during the rainy season using HDD techniques and in a manner that does not result in sediment-laden discharge or hazardous materials release into waters.
- To address procedures for containing an inadvertent release of drilling fluid (frac-out) during HDD activities.
- To coordinate HDD activities with the CDFW in accordance with the Section 1602 SAA.

3-BEST MANAGAMENT PRACTICES

The contractor will implement several Best Management Practices (BMP) to protect the slough including:

1. Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages.
2. Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).
3. Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times.
4. Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful.

5. The applicant shall obtain the required permits prior to conducting creek crossing work. Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. The applicant shall implement all pre- and post-construction conditions identified in the permits issued.

4-PLAN IMPLEMENTATION

The HDD methodology will be utilized on this Project to bore at different locations along the fiber optic line. Bore pits will be located on each side of the proposed bore segment. Boring depths will vary depending on the location and should not exceed 50 feet below grade.

This document includes descriptions of construction methods and drilling procedures, spill prevention measures, notification, documentation, and corrective action procedures. While avoiding impacts to sensitive resources, HDD has the potential to inadvertently release drilling fluids, but properly managed released material can be contained, removed and disposed of safely.

4.1 Drilling Procedures

HDD are technically advanced procedures that involve trenchless drilling to minimize impacts to sensitive habitats and waterways. The HDD process uses a combination of water and bentonite slurry (naturally occurring clay) for drilling fluids. The non-hazardous mixture consists of a combination of active clay, inert solids and water. The fluid is prepared in a mixing tank and is pumped through the center of the drill pipe to the cutters. The fluid used during this process acts as a coolant and a lubricant during the drilling process and removes the cuttings and stabilizes the borehole. The cuttings are returned to the entry pit where it is pumped to processing equipment. The fluid is cleaned and recycled while the cuttings are disposed of at an approved disposal facility.

As site soils within the BH1 route contain higher concentrations of clay and silt, the initial recommendation for the drilling fluid to be mixed with 100 gallons of water is:

- 25 lbs of Baroid Bore-Gel – Bentonite clay used to suspend the bore hole in sand and reduce friction
- 0.25 lbs of Baroid No-Sag – Helps to suspend drill cuttings

The initial recommendation for application of the drilling fluid rate is 12 GPM while maintaining a hydrostatic pressure of no more than 15 PSI. To expand the pilot hole to the four 1.5 inch conduits, the contractor shall use reamers of successively larger diameters. During pull back, the contractor shall continue to apply drilling fluid at the pressure and flow as previously stated. As the pullback operation can significantly increase pressure, the contractor shall diligently monitor the bore hole pressure as well as fluid flow at the entry and exit pits.

4.1.1 Inadvertent Release

The process of HDD can cause drilling fluid to be released during installation, which can occur when pressure in the drill hole is not maintained and a loss of circulation of drilling fluids occurs. Drilling fluid loss is typical in small amounts when layers of soil, gravel, and rocks are encountered and the drilling fluid fills voids in the materials; however, there is a potential for the inadvertent release of drilling fluid. Drilling fluid release is usually caused by the drill hole pressure going beyond the containment capacity due to fractures in bedrock or other

significant voids in geologic strata that allows fluids to surface. A good indicator that a significant amount of loss has occurred is when the returning drilling fluid volume is significantly lower than the pumping fluid volume. The following provides the steps that will be taken in an effort to avoid an inadvertent release of HDD fluid.

4.1.2 Prior to Construction

All sediment and erosion control measures will be installed by the contractor. The measures include the following:

- Storm drain inlets will be protected.
- Large diameter fiber rolls (straw wattles) will be placed around proposed work areas.
- Silt fencing will be placed as needed.
- A site entrance and exit will be established to avoid track out.
- The site will be evaluated for areas that have potential for inadvertent release of fluids (dry and cracked soils) and an inventory of proper drilling fluids and equipment will be on site to deal with the potential problem areas.
- Containment areas will be set up for equipment, drilling fluids, and cuttings storage. Containment areas consist of some type of plastic sheathing formed with straw waddles to form a pit like area.
- Spill kits and cleanup materials, as described in Section 4.1.5 Spill Kit Equipment, will be available on site prior to any construction activities.
- The BMPs, emergency spill kit, and the Frac-Out kit will be staged nearby for immediate spill response.

4.1.3 During Construction

- All equipment within 100 feet from any drainage or other water resource will be placed in a double containment area.
- Drilling fluid and any waste will be contained in containment areas and stored in storage tanks.
- Spoil stockpiles will be stored behind a sediment barrier and covered with a plastic sheathing. Spoils will be stored at least 25 feet from any water bodies.
- Monitoring of fluid pressure, bore paths, and water bodies will continue during the duration of the construction activities by the Qualified Drilling Monitor (see Section 4.2 Notifications, Monitoring, and Documentation Procedures for monitoring and documentation procedures).
- A vacuum truck with sufficient hoses to reach all areas along the bore alignment will be staged on site prior to and during all drilling operations for emergency response. If workspace does not permit a vacuum truck to be staged on site, the truck will be readily available at a nearby work location or staging area via on-call procedures.
- An interim pump will be on site to reach low areas and assist the vacuum truck.
- Good housekeeping procedures will be maintained during construction at all times. Tailboard meetings will be held before work each day to discuss housekeeping and safety along with other topics.

4.1.4 Post Construction

- Following completion of trenchless excavation activities for the Project, all cuttings and other spoils will be hauled off site to an approved facility.
- All drilling fluids will be removed and hauled off site to an approved facility throughout construction;

however, all drilling fluids, cuttings, and spoil piles associated with trenchless excavation activities for the Project will be removed upon completion of those activities.

- All pre-construction sediment and erosion control measures described previously will continue to remain in place and will be monitored until the site has been stabilized and the spoils have been removed.

4.1.5 Spill Kit Equipment

The materials provided in the Emergency Spill Kit may include the following items:

- Three (3) absorbent socks
- Six (6) disposal bags and ties
- Two (2) pair of safety glasses
- Two (2) pair of rubber gloves
- One (1) sorbent drip pillow
- Twelve (12) sorbent pads
- One (1) Emergency Response Guidebook
- Two (2) sorbent spill pillows
- Four (4) hazardous labels
- One (1) bag Lite-Dri Absorbent
- One (1) shovel & 1 broom
- Absorbent skipper booms
- One (1) 55-gallon storage barrel

The materials provided in the Frac-Out Kit may include the following items:

- One hundred (100) sand bags
- Vacuum truck with sufficient length of vacuum hose
- Intermediate pump
- Hundred (100) feet of fiber rolls
- Twenty (20) straw bales
- Two (2) shovels
- Lumber
- One (1) 3,000-gallon tank for storage of released material

4.2 NOTIFICATIONS, MONITORING, AND DOCUMENTATION PROCEDURES

As identified in the Project plans, and the Project's federal, state and local permits, HDD locations will be monitored, in Section 4.2.1 Monitoring Procedures of this Plan, until the sites are stabilized and the spoils have been removed. The personnel operating the drilling machine as well as at the bore and receiving pits shall be in constant communication. They shall be trained in the equipment's hydrostatic pressure monitoring system and have at least 10 years of experience in directional drilling.

4.2.1 Monitoring Procedures

During drilling operations, the drilling contractor will have a Qualified Drilling Monitor present on site, who will perform the following activities:

- Visually inspect the bore path at the completion of each joint and inspect 100 feet upstream and downstream along bore alignment.
- Examine drilling mud pressures and return flows. Shut down drilling operations immediately if more than 2% of the total fluid volume in circulation is lost during the drilling of one (1) joint (30 feet max).
- Visually inspect the bore alignment and a 100-foot radius around the HDD operation.
- If drilling fluids begin to decline, two (2) crew members will continue to monitor until drilling fluid returns are stabilized.
- Communicate regularly regarding the drilling conditions during the course of the drilling activities.
- Inspect all stream crossings with flowing water.
- Monitoring for frac-outs shall continue 48 hours after all the drilling and reaming is completed.
- Contain all drilling fluids and cuttings for proper disposal at an approved facility.

A daily inspection form with hourly inspection intervals is included in Attachment B: Inspection Forms.

Prior to the commencement of drilling operations, the environmental monitor will identify any sensitive environmental resources located in the area of potential frac-out. The location of these resources will be communicated to the drilling contractor verbally.

An environmental monitor will be present at all times when HDD activities are being performed. As discussed in Section 4.2.4 Corrective Actions, in the event of an inadvertent release outside of the approved work area, the construction contractor will conduct cleanup and inspections of the area via foot when feasible and, if it is safe to do so, will be accompanied by the appropriate environmental, archeological, and biological monitor(s).

4.2.2 Notification

In the event that an inadvertent release is discovered, the required notifications will be made according to the Project's permits and plans. Specifically, as required by the Project's Section 404, 401, and 1602 permits, the United States Army Corps of Engineers, Regional Water Quality Control Board, CDFW, and CPUC will be notified of any inadvertent release impacting jurisdictional waters. The notification(s) will be made as soon as an impact to a resource has been identified and sufficient data has been gathered to release the report. Vero Fiber Networks will endeavor to make the required notifications by phone or in writing within 24 hours following discovery of the release, if feasible.

4.2.3 Documentation

In the event that an inadvertent release is discovered, the following information will be documented:

- Name and telephone number of the person reporting release
- Date and time of release
- Location of release
- Nature of the release (type, quantity, size, etc.)
- How the release occurred

- Type of activity occurring around area
- Description of sensitive areas and their location in relation to the release
- Any identified impacts to biological, cultural, or paleontological resources
- Corrective actions taken
- Information regarding the potential threat to public health and safety (if any)

After the information detailed previously has been gathered, Vero Fiber Networks will provide the appropriate information in writing within 48 hours to the requisite agencies, as discussed in Section 4.2.2 Notification. However, in the event that the information cannot be gathered and/or cleanup activities are not completed within 48 hours, a final report documenting the information discussed in Section 4.2.2 Notification will be submitted to the requisite agencies as soon as practicable.

4.2.4 Corrective Actions

In the event that an inadvertent release/frac-out is discovered, the following corrective actions will take place:

- Drilling operations will stop immediately.
- Notification procedures will be implemented.
- The material will be removed and/or contained to minimize the affected area. Environmental monitors will be on site at all times while HDD activities are performed to ensure environmental requirements are met for removals in sensitive areas.
- The spill kit equipment will be kept on a trailer to facilitate rapid response to the site of the inadvertent release.
- The least damaging equipment and techniques will be used to clean up the spill. In the event that cleanup of an unanticipated release is necessary outside of the approved Project area and procedures beyond the use of foot traffic are required, the equipment and access route to be utilized for cleanup activities will be approved by CPUC prior to the completion of these activities, if feasible. However, the primary objective of the contractor in the event of a release will be to secure the site to prevent harm to human health and the environment.
- Impacted soils and any other materials associated with spill containment will be removed as soon as practical to an approved disposal facility.

4.3 CONTACT INFORMATION

The following table lists the individuals responsible for implementation of this Plan during construction.

Company/Organization	Name/Title	Telephone Number
Vero Fiber Networks	Josh Nelson, Project Manager	850.490.0409
Lightwave Construction	Steppen Beecher, Superintendent	916.515.7698
CSW|ST2	Robert Stevens, Project Manger	415.533.1864
CSW|ST2	Julia Harberson, Project Engineer	415.599.9564

APPENDIX A

INSPECTION FORMS

PROJECT NAME: _____ DIALY INSPECTION LOG

DATE	TIME	INSPECTION LOCATION	NOTES	INSPECTOR NME
	7 AM			
	8			
	9			
	10			
	11			
	12 PM			
	1			
	2			
	3			
	4			
	5			
	6			
	7 pm			
	7 AM			
	8			
	9			
	10			
	11			
	12 PM			
	1			
	2			
	3			
	4			
	5			
	6			
	7 pm			

RELEASE INSPECTION AND DOCUMENTATION FORM

Name and Title: _____

Date: _____

Location of Release:_____

Approximate amount of boring actives completed (feet): _____

Nature of Release:

How release occurred:

Description of sensitive area:

Corrective Action taken:

Attach photograph here

Signature _____

TABLE C AMMS AND BMPS		
ID	**Subject**	**Measure to be Implemented**
AMM BIO 1	**Biological Monitoring Requirements**	The applicant shall designate one or more Project biologists. Project biologist refers to the qualified person assigned to ensure Project-wide biological measures identified in this document are followed and to document compliance with these measures. The Project biologist will also oversee other biologists and/or biological monitors. Biological monitor refers to a qualified person assigned to ensure biological measures are being implemented during construction activities. Project biologist(s) or biological monitor(s) shall be on-site as needed according to AMMs. Project biologists and biological monitors shall be familiar with sensitive species and resources and the minimization measures for this Project. The Project biologist(s) shall be responsible for overseeing and training biological monitors; advising the applicant and contractor on compliance with biological mitigation measures; notifying the applicant of noncompliance with biological resources conditions; responding directly to inquiries of the lead agencies or resource agencies regarding biological resource issues; maintaining records of tasks related to compliance and reporting for biological resource measures; preparing monthly, annual, and final compliance reports; establishing and enforcing speed limits at Project work areas; and maintaining the ability for regular, direct communication with representatives of CDFW and USFWS, including notifying these agencies of dead or injured special-status species and reporting special-status species observations. Daily logs—When on site, the Project biologist(s) and/or biological monitor(s) shall maintain electronic records of daily activities, observations, and communications with the applicant or construction personnel. These records shall be made available for review to the lead agencies at any time during or following Project implementation. Stop Work Authority—The Project biologist(s) and biological monitor(s) shall have written authority to require a halt to activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued. Applicability: Project wide, where and when a monitor is needed.
AMM BIO-2	**Environmental Awareness Training**	Key personnel (e.g., crew leads, foremen) will complete an environmental awareness training on the protected species in and around the Project route and on required environmental protection measures. Training shall explain the need for and implementation of minimization measures. The training shall include supporting written material and electronic media, including photographs of protected species; providing information regarding the locations and types of sensitive biological resources within the Project alignment and adjacent areas as well as explaining the reasons for protecting these resources; informing participants that no snakes, other reptiles, bats, or any other wildlife shall be harmed or harassed, with special emphasis on special-status species, and including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures; identifying the Project biologist(s) and biological monitor(s) for contact or further comments and questions about the material discussed in the program; directing trainees to report all observations of listed species and their sign to the Project biologist for inclusion in the compliance reports; a

TABLE C AMMS AND BMPS		
ID	**Subject**	**Measure to be Implemented**
		discussion of the Project biologists and biological monitors' stop work authority; and a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines. Applicability: Project wide.
AMM BIO-3	**Habitat Mitigation and Monitoring Plan**	During final Project design, a Habitat Mitigation and Monitoring Plan will be developed that provides detailed plans for the restoration of temporarily disturbed waterways, wetlands, and riparian habitat. For these areas, temporary ground disturbance from construction activities (including staging/laydown areas) will be restored to the original conditions and contours and revegetated with native plant species. This plan shall also be submitted to and approved by the USACE, USFWS, and CDFW prior to initiating any mitigation activities. The plan will outline restoration and conservation activities, locations, monitoring requirements, and criteria to measure mitigation success. Restoration may include planting and/or seeding with locally sourced native species, erosion control measures, non-native plant control, and site monitoring.
AMM BIO-4	**Wetlands, Riparian Habitat, and Aquatic Resources**	Prior to construction, a qualified biologist will flag the boundaries of wetland, riparian habitat, and waterways delineated in the Preliminary Jurisdictional Delineation Report (Transcon 2020). Project infrastructure will be designed to avoid these resources to the greatest extent practicable. During construction, crews will limit all construction activities and staging to outside of the flagged areas. Manholes, handholes, and boring pits will not be located in any wetland, riparian, or aquatic resources. If construction activities require placement of fill, crews, or equipment in wetlands, or require disturbance to jurisdictional wetland or riparian areas, then Inyo will do the following: Vero will obtain and comply with all necessary USACE, CDFW, and California Coastal Commission permits. Applicability: Project wide.
AMM BIO-5	**Special-Status Plants**	The Project biologist shall conduct a clearance survey for special-status plant species immediately prior to construction in appropriate habitat. If planned construction activities may result in an impact to special-status plant species, the following measures will be taken: 1) a minor re- route of the alignment would be made to avoid the plant(s) and a suitable buffer area to prevent root damage or other incidental damage, or 2) in areas that cannot be avoided by a minor re-route, the Project biologist will contact the appropriate agency to discuss the potential for salvaging the affected plants. A biological monitor shall be responsible for designating an appropriate buffer area or bore depth to minimize potential adverse impacts to the plants and roots. Applicability: Suitable habitat (will be mapped for construction crews).
AMM BIO-6	**Invasive Species Prevention**	Contractor vehicles and equipment will be cleaned inside and out prior to mobilization to limit the introduction of non-native species on the Project corridor, specifically: • Exterior cleaning will consist of washing vehicles and equipment, with attention paid to the tracks, feet, and/or tires and on the undercarriage, with special emphasis on axles, frame, cross members, motor mounts, and on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out, and refuse will be disposed of in

TABLE C AMMS AND BMPS		
ID	**Subject**	**Measure to be Implemented**
		waste receptacles to be disposed of at an approved off-site location. The contractor will inspect vehicles and equipment to ensure that they are free of soil and debris capable of transporting non-native vegetation seeds, roots, or rhizomes. Seeds and plant parts that result from the cleaning will be collected and bagged for disposal at an approved off-site location. If noxious or invasive weeds are within the Construction Corridor, vehicles will be cleaned before moving on to areas that are weed free. • Contractors will avoid or minimize all types of off-road travel that may result in the collection and dispersion of non-native vegetation by construction vehicles and equipment. • Activity boundaries including equipment staging and parking areas shall avoid known noxious plant infestations. If unavoidable, prior to implementation of operations where invasive plants are present, invasive plant-infestations shall be bladed away from equipment and access routes before operations start. Removed invasive plants or shrubs should be located on the edge of the clearing out of the way of operations to avoid retrieval on equipment. Equipment/machinery shall be cleaned prior to leaving the infested area to operate in another non-contiguous area. • Rock, sand, or any material used for soil erosion control shall originate from a certified weed-free source if available. Rock source shall be inspected by staff trained in invasive plant identification. Permittee shall provide documentation that material is weed-free. (see https://www.cal-ipc.org/solutions/prevention/weedfreeforage/ and https://www.cal-ipc.org/solutions/prevention/weedfreegravel/ for more information about weed-free erosion control and aggregate sources) Applicability: Project wide.
AMM BIO-7	**Nesting Birds**	To avoid and minimize adverse effects to nesting birds, the following measures shall be implemented: • If work will occur during the nesting bird season (February 15 until August 31 OR January 1 until August 31 where there is potential for nesting eagles), nesting bird surveys will be conducted within seven days prior to the onset of construction by a Project biologist or biological monitor familiar with the species that may nest in the Action Area. Surveys will occur to a distance of 100 feet (for passerines) or 300 feet (for raptors) from the proposed work, access routes, and staging areas. In areas within 0.5 mile of suitable bald or golden eagle nesting habitat, nesting season begins January 1(to August 31) and surveys will be performed within 2,640 feet of work. If an active nest is encountered in or adjacent to a work area, a no equipment/no activity buffer will be implemented around the nest (the size of which will be determined by the Project biologist) OR the nest will be monitored by a Project biologist or biological monitor for disturbance. Applicability: Project wide.
AMM BIO-8	**Special-Status Amphibians**	When ground-disturbing work is occurring within 50 feet of waterways that have water present and that are suitable habitat for special-status amphibians, a qualified biologist will conduct a pre-disturbance survey for special-status amphibians (adults, subadults, tadpoles, or egg masses). The survey area will include suitable habitat within 50 feet of perennial and intermittent waterways and at least 50 feet upstream and downstream of the work area. The biologist will conduct surveys for special-status

TABLE C AMMS AND BMPS		
ID	**Subject**	**Measure to be Implemented**
		amphibians prior to the start of ground-disturbing activities. If no special-status amphibians are detected, work may resume for 3 to 5 days before new surveys need to be conducted. If a special-status amphibian is confirmed to be present, then a qualified biologist will move the individual to a suitable off-site location within the same waterway. Applicability: Suitable habitat (will be mapped for construction crews).