

SITE LAYOUT NOTES

- THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
- PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY.
- ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE.
- THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT.
- ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE, STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE.

SITE SPECIFIC NOTES

- PROPERTY OWNER: JSR LAND COMPANY LLC
8814 MONTGOMERY ROAD, CINCINNATI, OH 45236
- EXISTING PROPERTY INFORMATION: TPNA0300172000002
3100 PRINCETON ROAD, HAMILTON, OH 45011
ZONED B-PUD
- APPLICANT/EQUITABLE OWNER: NEW POTATO CREEK HOLDING LLC
C/O PJ LAND DEVELOPMENT, LLC
71 CAROLYN BOULEVARD, FARMINGDALE, NY 11735
(631) 449-3791
- HORIZONTAL DATUM IS BASED ON OHIO STATE PLANE SOUTH COORDINATES, NAD 83. VERTICAL DATUM IS NAVD 1988.
- BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 39017C0194E, EFFECTIVE 12/17/2010.
- ALL CURB AND PAVEMENT RADII ARE 5', UNLESS OTHERWISE NOTED.
- ALL PROPOSED PINS AND MONUMENTS SHALL BE PLACED AND CERTIFIED BY A LICENSED OHIO PROFESSIONAL SURVEYOR.

REFERENCES AND CONTACT INFORMATION

- BASE PLANS:
PLANS BY THE KLEINGERS GROUP
6305 CENTRE PARK DRIVE, WEST CHESTER, OH 45069
ENTITLED: "BRIDGEWATER CHURCH BPUD"
FILE NO: 180075.002
DATED: 05/16/22, NO REVISION
SHEETS 1-3 OF 3
- GEOTECHNICAL REPORT:
A REPORT BY CONSULTING SERVICES INCORPORATED
11785 HIGHWAY DRIVE, SUITE 100-B, CINCINNATI, OH 45241
ENTITLED: "GEOTECHNICAL REPORT"
PROJECT: "FAIRFIELD TOWNSHIP MULTI-COMMERCIAL RETAIL"
DATED 04/25/22, NO REVISION
- ENVIRONMENTAL REPORT:
A REPORT BY APEX COMPANIES, LLC
4701 CREEK ROAD, SUITE 100, CINCINNATI, OH 45242
ENTITLED: "PHASE I ENVIRONMENTAL SITE ASSESSMENT"
FILE NO: 845014-0313012-22003667
DATED 02/24/22, NO REVISION
- ARCHITECT:
SELM
33 WALT WHITMAN ROAD, SUITE 300A, HUNTINGTON STATION,
NY 11748
(631) 683-5588

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS. HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

LEGEND

PROPOSED FEATURES

- (A-1) DUAL LANE PAY KIOSK W/ 18' X 26' CANOPY (DESIGNED BY OTHERS).
- (A-2) BOOM VACUUMS (DESIGNED BY OTHERS).
- (A-3) CAN NOT WASH LANE.
- (A-4) DOUBLE VACUUM BUILDING (DESIGNED BY OTHERS).
- (A-5) TRASH ENCLOSURE 10' X 16' (DESIGNED BY OTHERS).
- (A-6) EXIT LIGHT (DESIGNED BY OTHERS).
- (A-7) SNOW MELT AREA.
- (P-1) TYPICAL CONCRETE CURB.
- (P-2) TYPICAL FLUSH CONCRETE CURB.
- (P-3) TAPERED CURB.
- (P-15) LIGHT DUTY CONCRETE PAVEMENT.
- (P-16) HEAVY DUTY CONCRETE PAVEMENT.
- (P-21) CONCRETE SIDEWALK.
- (P-26) CONCRETE WHEEL STOPS.
- (T-5) WHITE PAINTED STOP BAR & STOP LETTERING.
- (T-7) WHITE PAINTED TRAFFIC ARROW.
- (T-8) PAVEMENT MARKING.
- (T-11) STANDARD POLE MOUNTED SIGN INSTALLATION.
- (T-13) ADA ACCESSIBLE PARKING SPACE STRIPING.
- (T-14) RESERVED PARKING SPACE WITH PENALTIES & VAN ACCESSIBLE SIGNS.
- (T-15) RESERVED PARKING SPACE & PENALTIES SIGNS.
- (T-18) RESERVED PARKING SIGN WITHIN BOLLARD.
- (T-24) STANDARD CROSSWALK.



SITE LOCATION MAP

SCALE: 1" = 500'
SOURCE: GOOGLE MAPS

ZONING TABLE

ZONE: B-PUD - BUSINESS - PLANNED UNIT DEVELOPMENT
USE: CAR WASH
BLOCK: A030-172-000-002, LOT: 9617

APPLICANT/ OWNER INFORMATION

APPLICANT: NEW POTATO CREEK HOLDING, LLC
C/O PJ LAND DEVELOPMENT, LLC
71 CAROLYN BOULEVARD
FARMINGDALE, NY 11735

PROPERTY OWNER: JSR LAND COMPANY LLC
8814 MONTGOMERY ROAD
CINCINNATI, OHIO 45236

BULK REQUIREMENTS

ITEM	CODE	REQUIRED	PROPOSED
MIN. LOT AREA	§ 617.2.A	130,680 SF (3.0 AC)	50,190 SF (1.15 AC)
MIN. YARD SETBACKS			
SIDE YARD	§ 617.2.B	50 FT	3.6 FT
REAR YARD	§ 617.2.B	50 FT	N/A
MAX. PERMITTED HEIGHT	§ 617.2.F	3 STORIES, 40 FT	<40 FT
MAX. LOT COVERAGE	§ 617.2.C	80%	66.6% (33,415 SF)
MIN. SETBACK FROM RESIDENTIAL DISTRICT	§ 617.2.B	50 FT	N/A
MIN. STRUCTURE SETBACK FROM PUBLIC RIGHT-OF-WAY	§ 617.2.B	20 FT	20 FT
MIN. ACCESSORY STRUCTURE SETBACK	§ 711.4	5 FT	3.6 FT

KEY = VARIANCE REQUIRED

PARKING REQUIREMENTS

ITEM	CODE	REQUIRED	PROPOSED
MIN. STALL DIMENSIONS	§ 801.1	162 SF, 9 FT X 18 FT	162 SF, 9 FT X 18 FT; 247 SF, 13 FT X 19 FT; 285 SF, 15 FT X 19 FT
MIN. PARKING STALLS	§ 812.5	5	27 (INCL. 2 ADA & 20 VACUUM STALLS)
MIN. PARKING SETBACK	§ 801.2.D	5 FT (FROM R.O.W.)	44.1 FT
MIN. STACKING SPACES PER ENTRANCE	§ 804.3	6	20
MIN. ACCESS DRIVE WIDTH	§ 801.2	9 FT	13 FT
MAX. ACCESS DRIVE WIDTH	§ 801.2	24 FT	30 FT

FORMULA FOR CALCULATING REQUIRED STALLS:
1 PER EMPLOYEE + 1 "S EMPLOYEES + 5 STALLS REQUIRED

KEY = VARIANCE REQUIRED

LEGEND

PROPOSED

PROPERTY LINE	---
R.O.W. LINE	---
EASEMENT LINE	---
SETBACK LINE	---
BUILDING	[Symbol]
CONCRETE CURB	[Symbol]
FLUSH CURB	[Symbol]
ACCESSIBLE SYMBOL	[Symbol]
CROSSWALK	[Symbol]
SIDEWALK	[Symbol]
SIGN	[Symbol]
BOLLARD	[Symbol]
PARKING COUNT	[Symbol]
AREA LIGHT	[Symbol]
DRAINAGE INLET	[Symbol]
MANHOLE	[Symbol]
CLEANOUT	[Symbol]

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP
2	08/25/2022	PER CLIENT COMMENTS	CCP
3	11/30/2022	PER ARCH REVISIONS	CCP
4	02/07/2023	PER ARCH REVISIONS	CCP
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP
6	05/18/2023	PER CLIENT COMMENTS	LRB



ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/28/2022
CAD ID: PAD220070.00-SPFP-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS



PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER
1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com



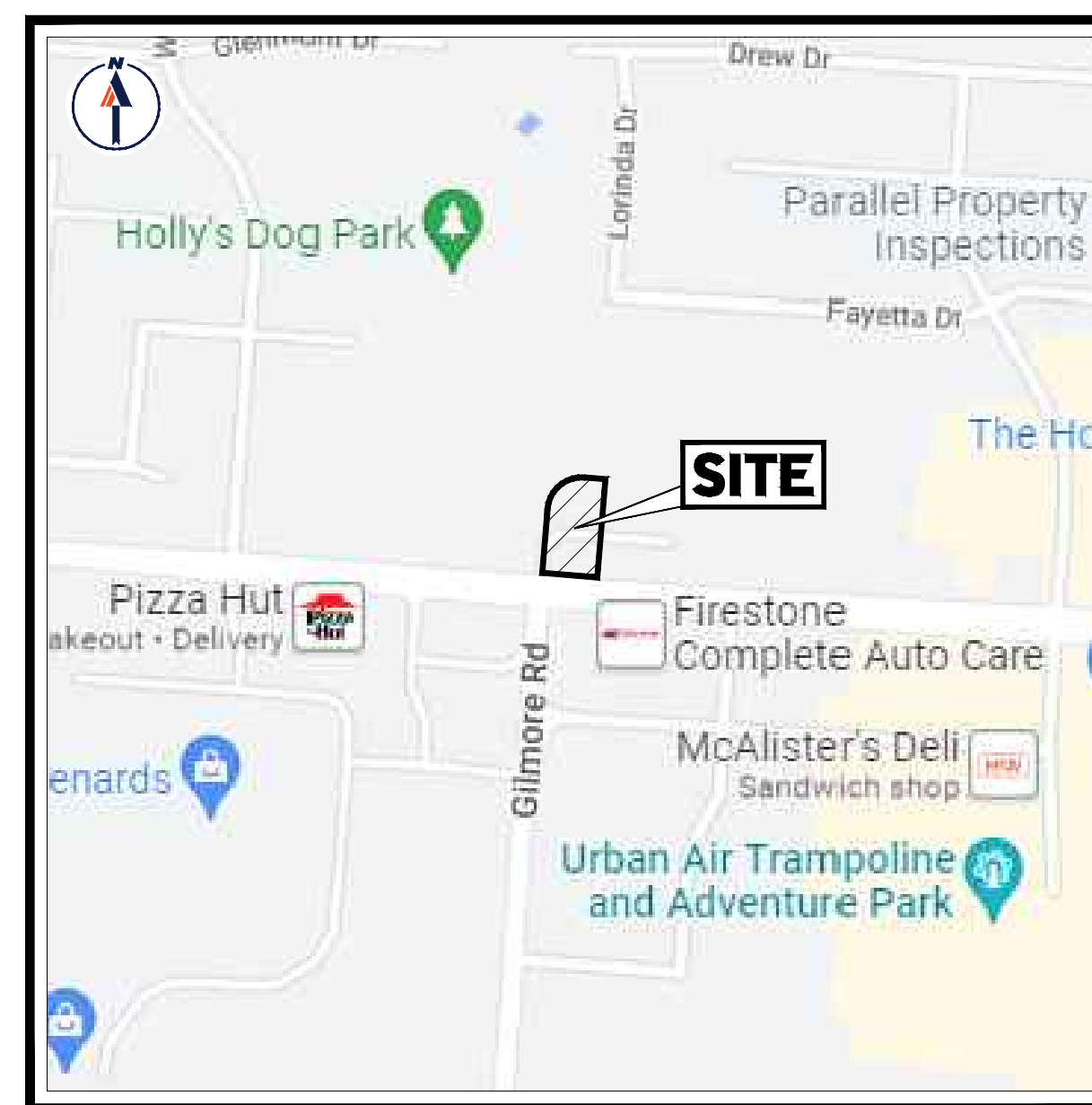
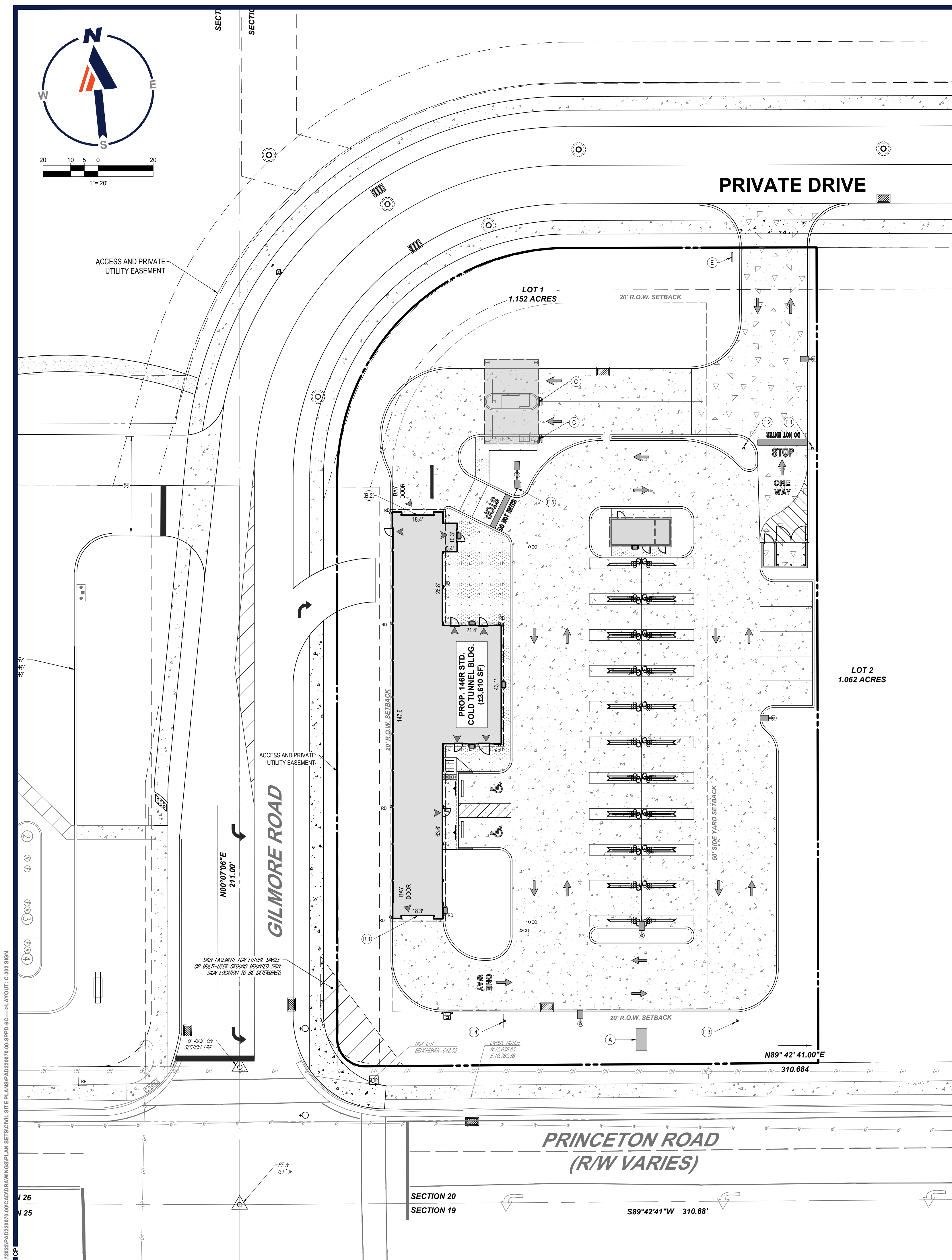
SHEET TITLE:

SITE PLAN

SHEET NUMBER:

C-301

REVISION 6 - 05/18/2023



SITE LOCATION MAP
SCALE: 1" = 500'
SOURCE: GOOGLE MAPS

<h1 style="text-align: center;"><i>LEGEND</i></h1> <h2 style="text-align: center;">PROPOSED SIGNAGE</h2>	
A	MONUMENT SIGN
B	CHANNEL LETTER SIGN
C	CAR WASH MENUS
D	DUMPSTER PANEL GRAPHICS
E	ENTER SIGN
F	DIRECTIONAL SIGNS

REVISIONS			
REV	DATE	COMMENT	DRAWING CHECKED
1	08/05/2022	PER CLIENT COMMENTS	CCP KJB
2	08/25/2022	PER CLIENT COMMENTS	CCP KJB
3	11/30/2022	PER ARCH REVISIONS	CCP KJB
4	02/07/2023	PER ARCH REVISIONS	CCP KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP LRB
6	05/18/2023	PER CLIENT COMMENTS	CCP LRB



**Know what's below.
Call before you dig.**

ALWAYS CALL 811

It's fast. It's free. It's the law.

**NOT APPROVED FOR
CONSTRUCTION**

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCT
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/29/2022
CAD I.D.: PAD220070.00-SPPD-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS

— FOR



PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER//

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com



SHEET TITLE:

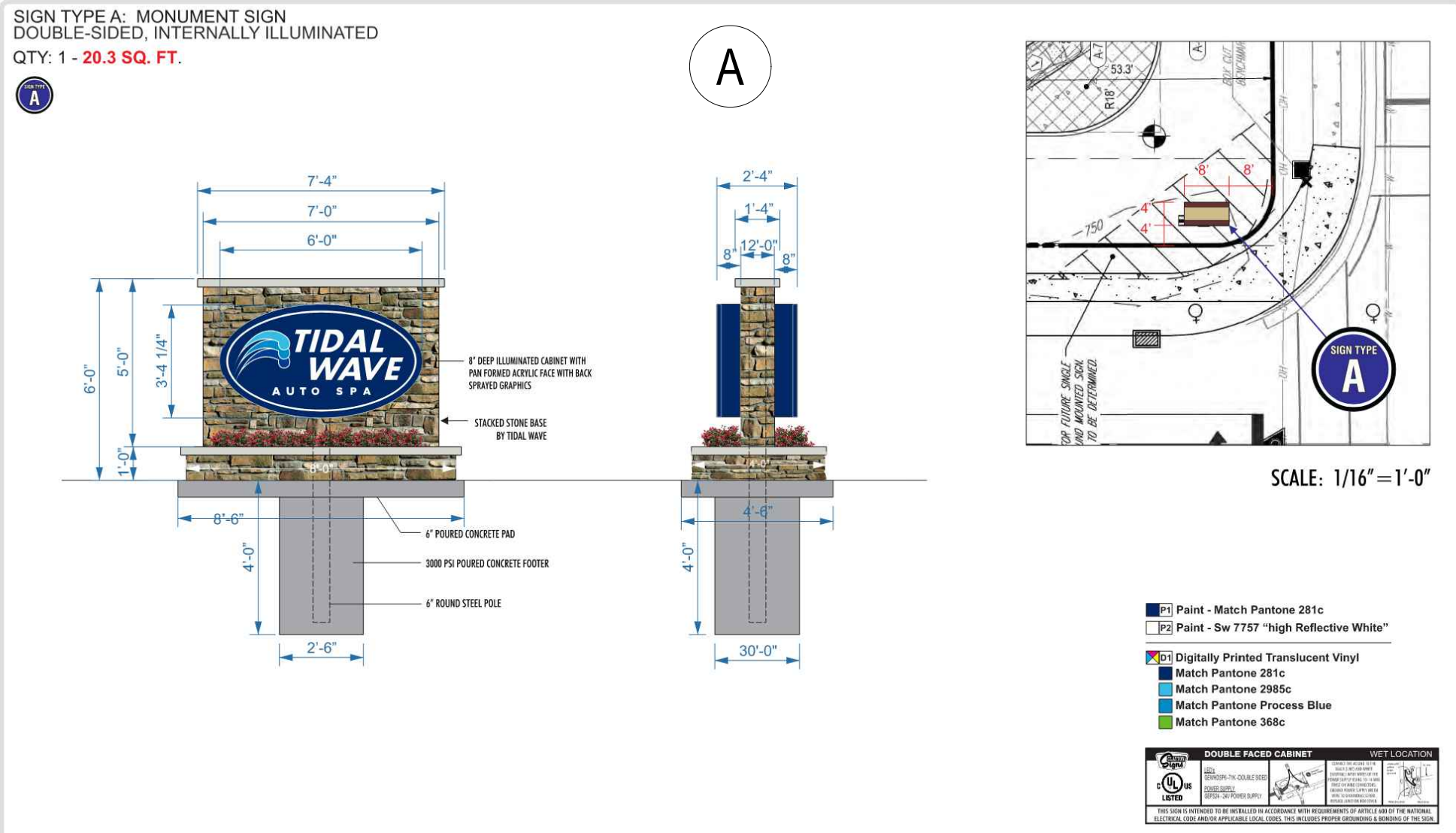
SIGNAGE PLAN

SHEET NUMBER:

C-302

REVISION 6 - 05/18/2023

SIGN TYPE A: MONUMENT SIGN
DOUBLE-SIDED, INTERNALLY ILLUMINATED
QTY: 1 - 20.3 SQ. FT.



CLAYTON Signs
5108 NORTH LAKE DRIVE
LAKE CITY, GA 30024
(404) 361-3800
FAX 404-361-7038
WWW.CLAYTONSIGNS.COM

DATE: 2.28.23
SIGN TYPE: EXTERIOR SIGN PACKAGE

CLIENT: TIDAL WAVE
3100 Princeton Rd.
Fairfield, OH 45011

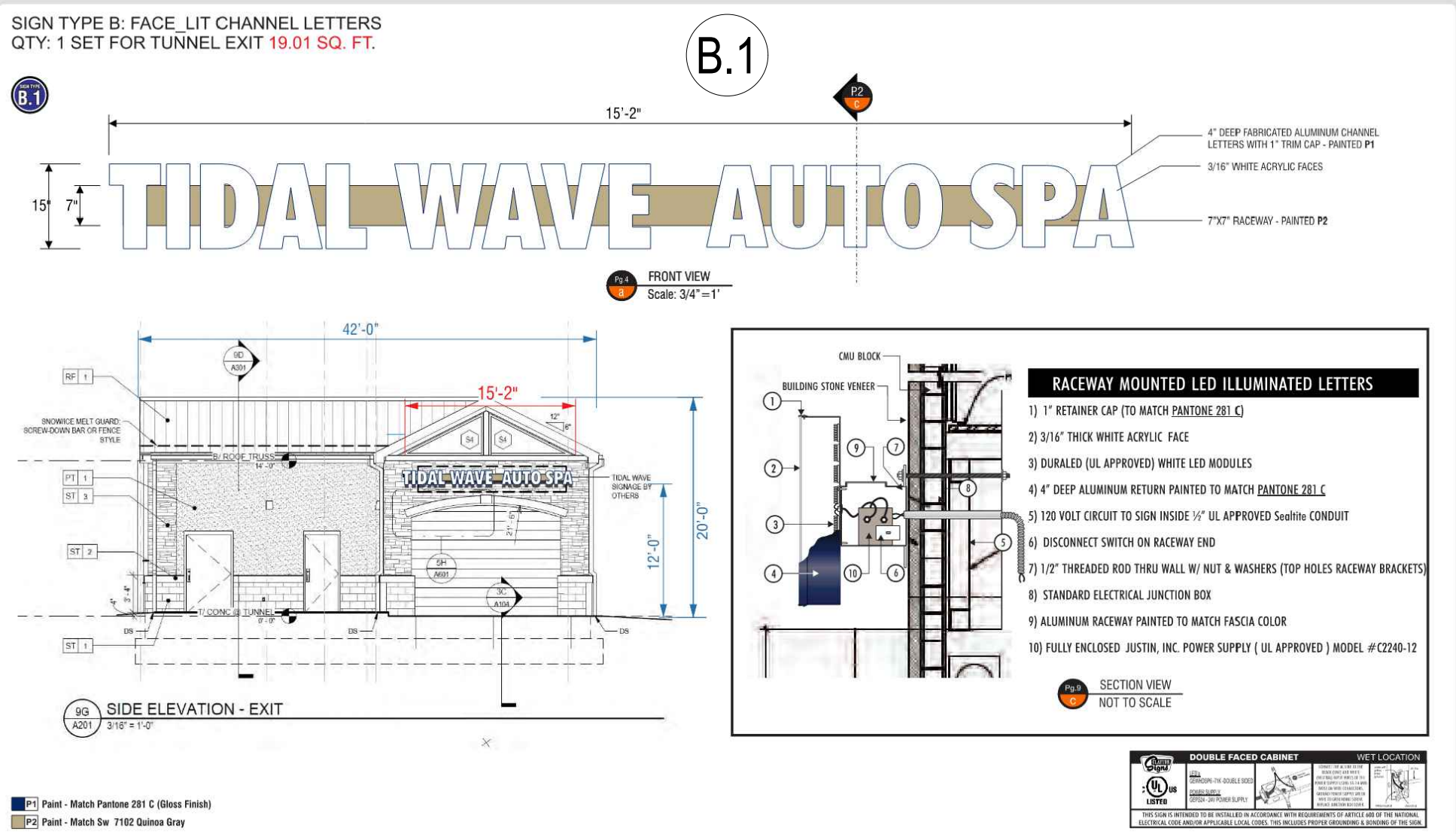
REVISIONS:
REVISION: # - DATE
DESIGNER: RYAN M
ACCOUNT REP: Todd Wilts

SCALE: AS INDICATED
DRAWING FILE NAME:
C:\NA TIDAL WAVE\Tid Wave Tidal OH 2.28.23

DRAWING STATUS: **NF**
© 2023 ALL RIGHTS RESERVED

PAGE 3

SIGN TYPE B: FACE, LIT CHANNEL LETTERS
QTY: 1 SET FOR TUNNEL EXIT 19.01 SQ. FT.



CLAYTON Signs
5108 NORTH LAKE DRIVE
LAKE CITY, GA 30024
(404) 361-3800
FAX 404-361-7038
WWW.CLAYTONSIGNS.COM

DATE: 2.28.23
SIGN TYPE: EXTERIOR SIGN PACKAGE

CLIENT: TIDAL WAVE
3100 Princeton Rd.
Fairfield, OH 45011

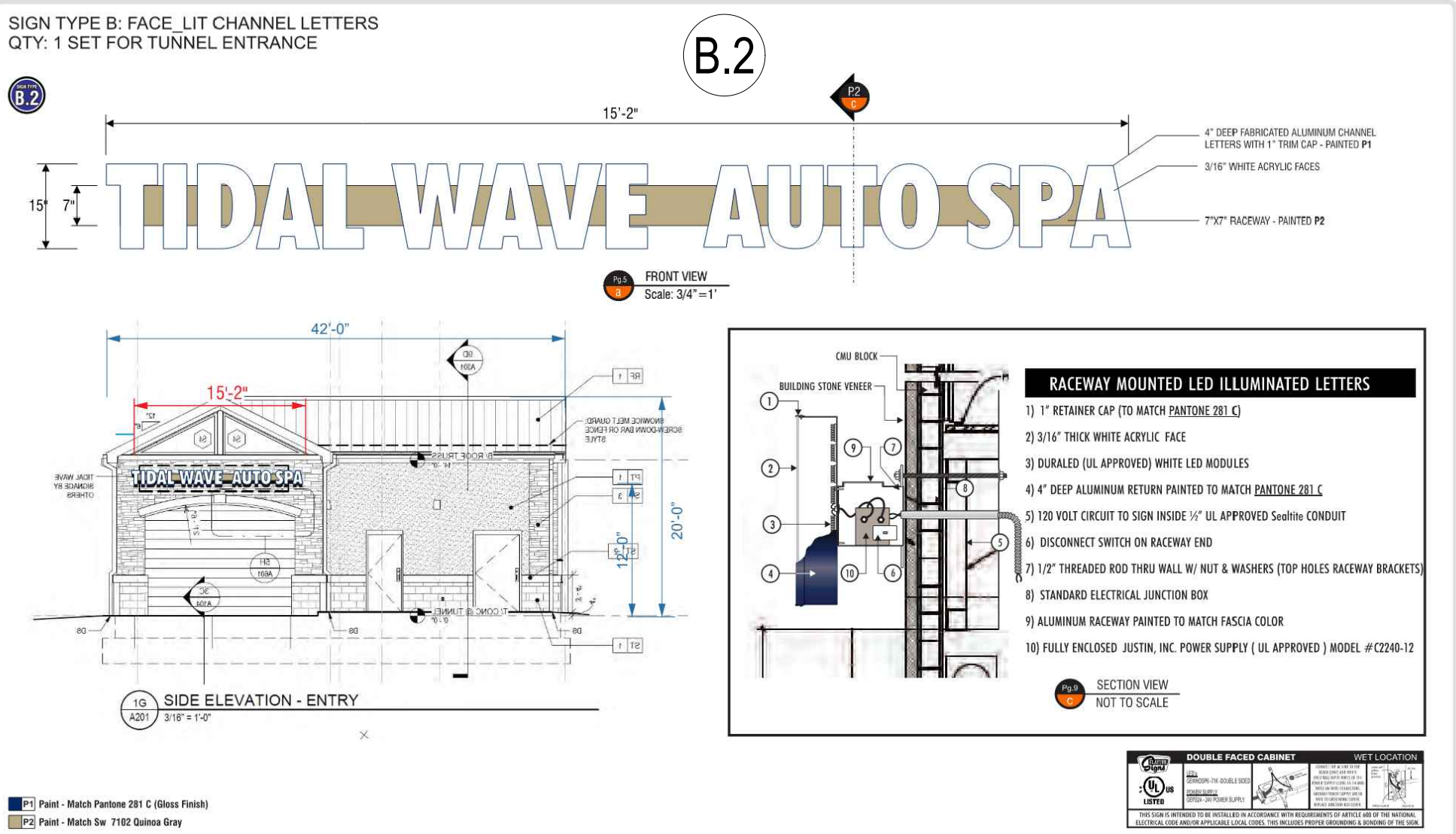
REVISIONS:
REVISION: # - DATE
DESIGNER: RYAN M
ACCOUNT REP: Todd Wilts

SCALE: AS INDICATED
DRAWING FILE NAME:
C:\NA TIDAL WAVE\Tid Wave Tidal OH 2.28.23

DRAWING STATUS: **NF**
© 2023 ALL RIGHTS RESERVED

PAGE 4

SIGN TYPE B: FACE, LIT CHANNEL LETTERS
QTY: 1 SET FOR TUNNEL ENTRANCE



CLAYTON Signs
5108 NORTH LAKE DRIVE
LAKE CITY, GA 30024
(404) 361-3800
FAX 404-361-7038
WWW.CLAYTONSIGNS.COM

DATE: 2.28.23
SIGN TYPE: EXTERIOR SIGN PACKAGE

CLIENT: TIDAL WAVE
3100 Princeton Rd.
Fairfield, OH 45011

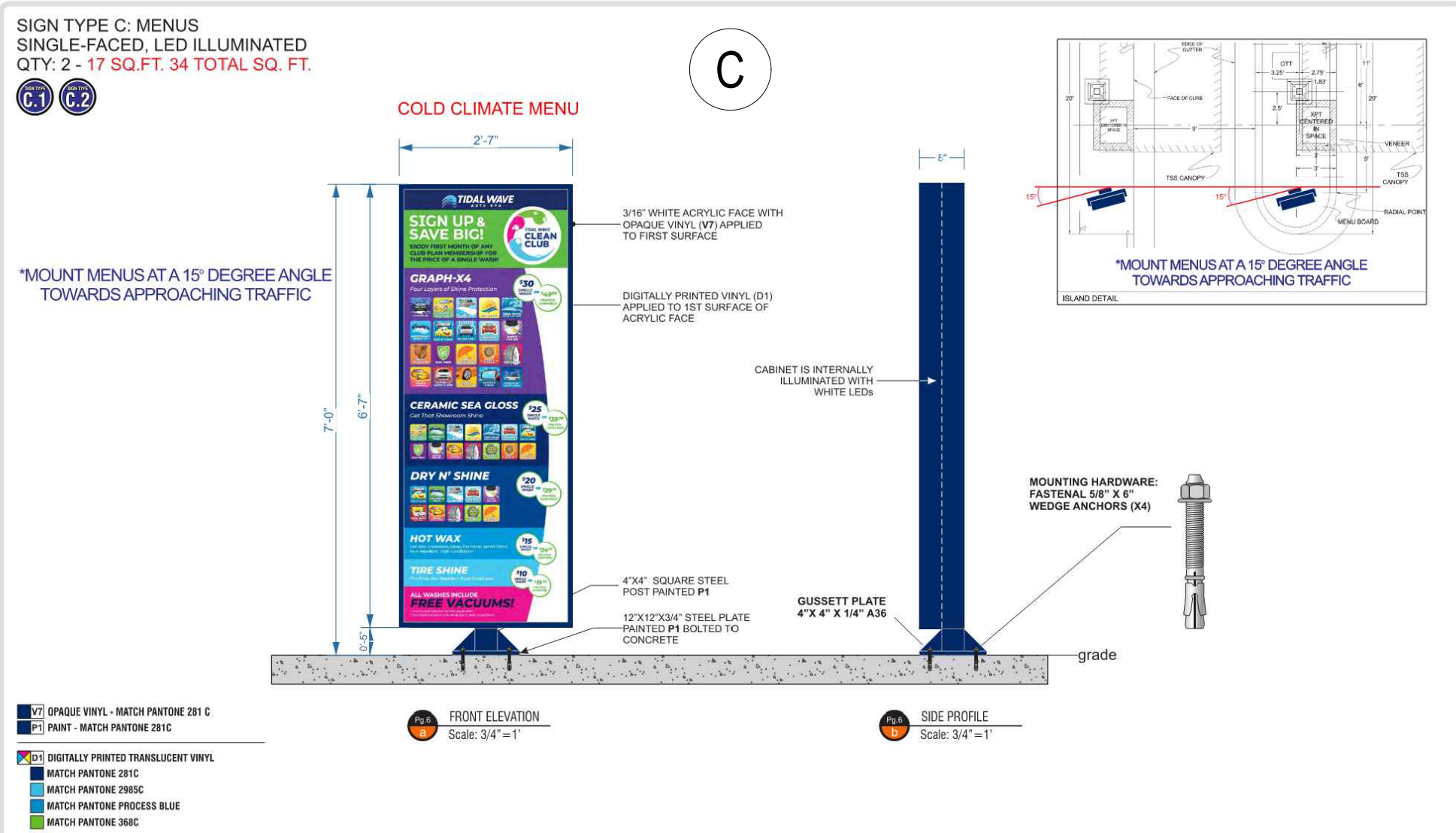
REVISIONS:
REVISION: # - DATE
DESIGNER: RYAN M
ACCOUNT REP: Todd Wilts

SCALE: AS INDICATED
DRAWING FILE NAME:
C:\NA TIDAL WAVE\Tid Wave Tidal OH 2.28.23

DRAWING STATUS: **NF**
© 2023 ALL RIGHTS RESERVED

PAGE 5

SIGN TYPE C: MENUS
SINGLE-FACED, LED ILLUMINATED
QTY: 2 - 17 SQ.FT. 34 TOTAL SQ. FT.



CLAYTON Signs
5108 NORTH LAKE DRIVE
LAKE CITY, GA 30024
(404) 361-3800
FAX 404-361-7038
WWW.CLAYTONSIGNS.COM

DATE: 2.28.23
SIGN TYPE: EXTERIOR SIGN PACKAGE

CLIENT: TIDAL WAVE
3100 Princeton Rd.
Fairfield, OH 45011

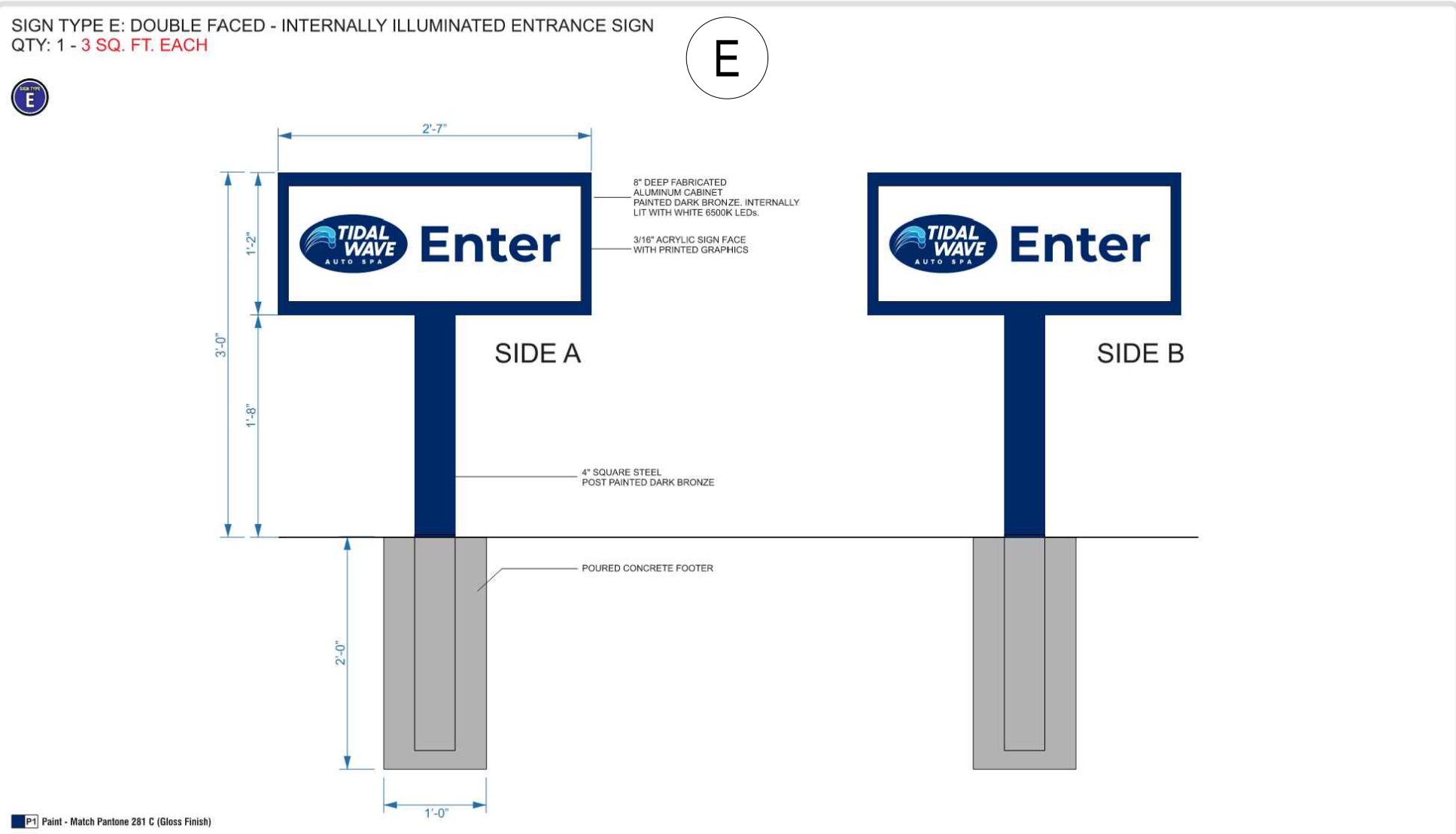
REVISIONS:
REVISION: # - DATE
DESIGNER: RYAN M
ACCOUNT REP: Todd Wilts

SCALE: AS INDICATED
DRAWING FILE NAME:
C:\NA TIDAL WAVE\Tid Wave Tidal OH 2.28.23

DRAWING STATUS: **NF**
© 2023 ALL RIGHTS RESERVED

PAGE 6

SIGN TYPE E: DOUBLE FACED - INTERNALLY ILLUMINATED ENTRANCE SIGN
QTY: 1 - 3 SQ. FT. EACH



CLAYTON Signs
5108 NORTH LAKE DRIVE
LAKE CITY, GA 30024
(404) 361-3800
FAX 404-361-7038
WWW.CLAYTONSIGNS.COM

DATE: 2.28.23
SIGN TYPE: EXTERIOR SIGN PACKAGE

CLIENT: TIDAL WAVE
3100 Princeton Rd.
Fairfield, OH 45011

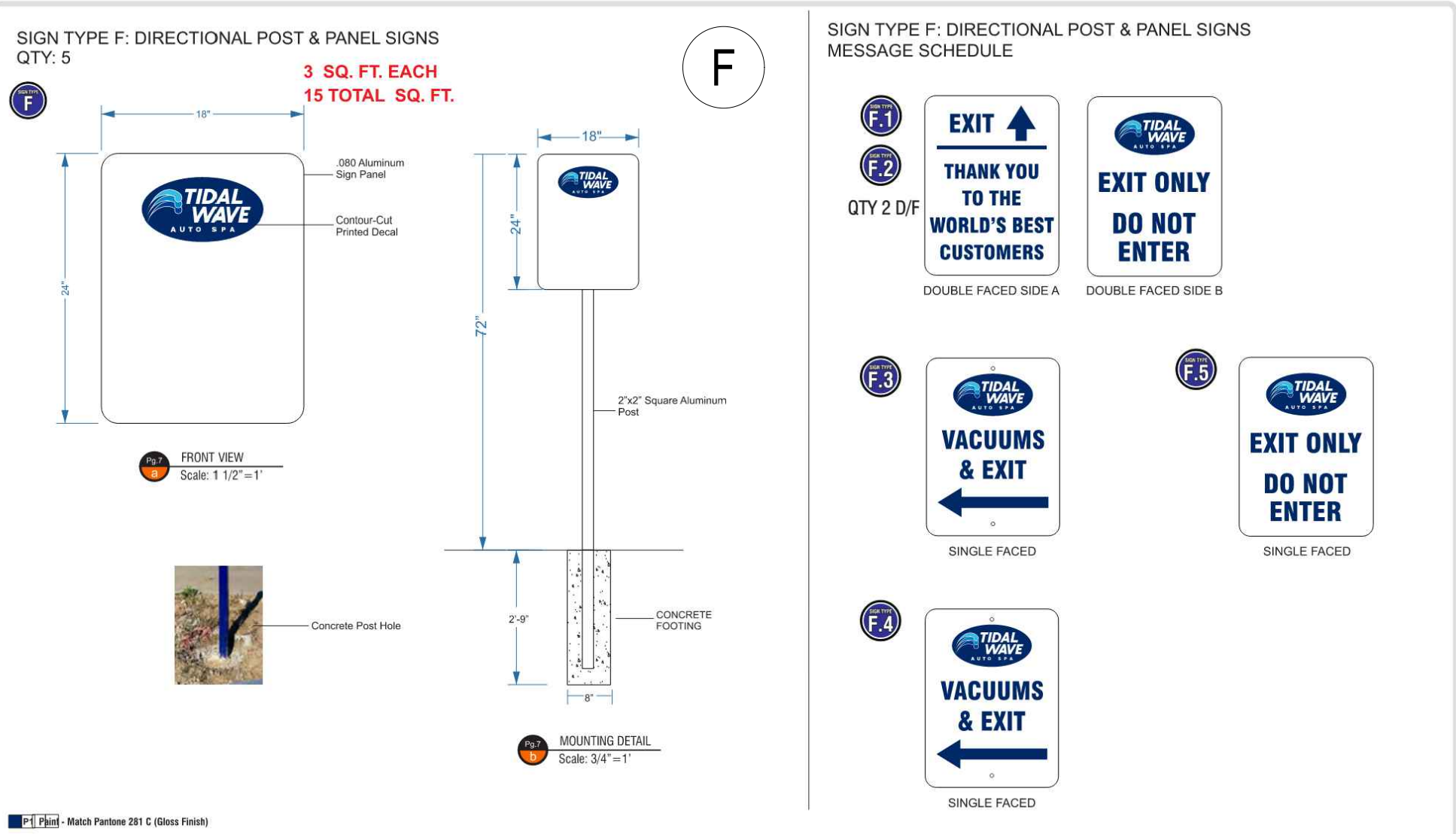
REVISIONS:
REVISION: # - DATE
DESIGNER: RYAN M
ACCOUNT REP: Todd Wilts

SCALE: AS INDICATED
DRAWING FILE NAME:
C:\NA TIDAL WAVE\Tid Wave Tidal OH 2.28.23

DRAWING STATUS: **NF**
© 2023 ALL RIGHTS RESERVED

PAGE 8

SIGN TYPE F: DIRECTIONAL POST & PANEL SIGNS
QTY: 5



CLAYTON Signs
5108 NORTH LAKE DRIVE
LAKE CITY, GA 30024
(404) 361-3800
FAX 404-361-7038
WWW.CLAYTONSIGNS.COM

DATE: 2.28.23
SIGN TYPE: EXTERIOR SIGN PACKAGE

CLIENT: TIDAL WAVE
3100 Princeton Rd.
Fairfield, OH 45011

REVISIONS:
REVISION: # - DATE
DESIGNER: RYAN M
ACCOUNT REP: Todd Wilts

SCALE: AS INDICATED
DRAWING FILE NAME:
C:\NA TIDAL WAVE\Tid Wave Tidal OH 2.28.23

DRAWING STATUS: **NF**
© 2023 ALL RIGHTS RESERVED

PAGE 9

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS				
REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP	KJB
2	08/25/2022	PER CLIENT COMMENTS	CCP	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP	KJB
4	02/07/2023	PER ARCH REVISIONS	CCP	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP	LRB
6	05/18/2023	PER CLIENT COMMENTS	CCP	LRB

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/28/2022
CAD ID: PAD220070.00-SFPD-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS

FOR

TIDAL WAVE
AUTO SPA

PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com

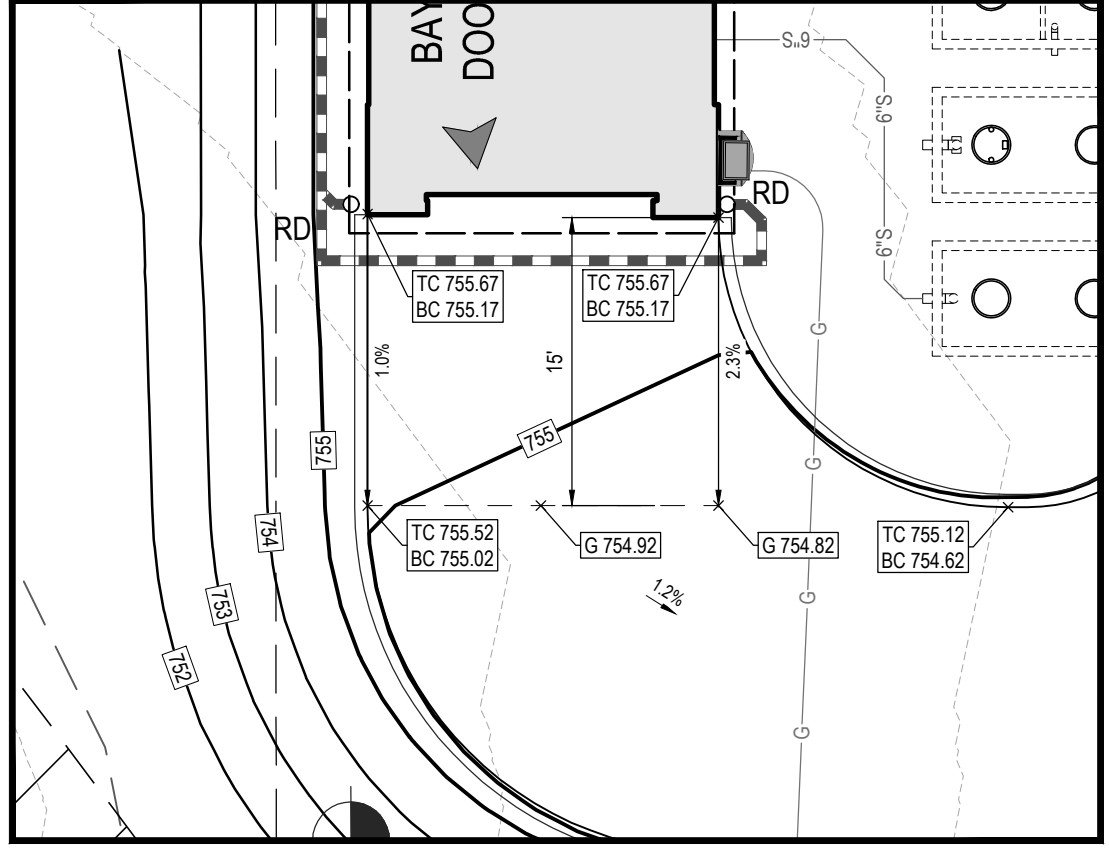
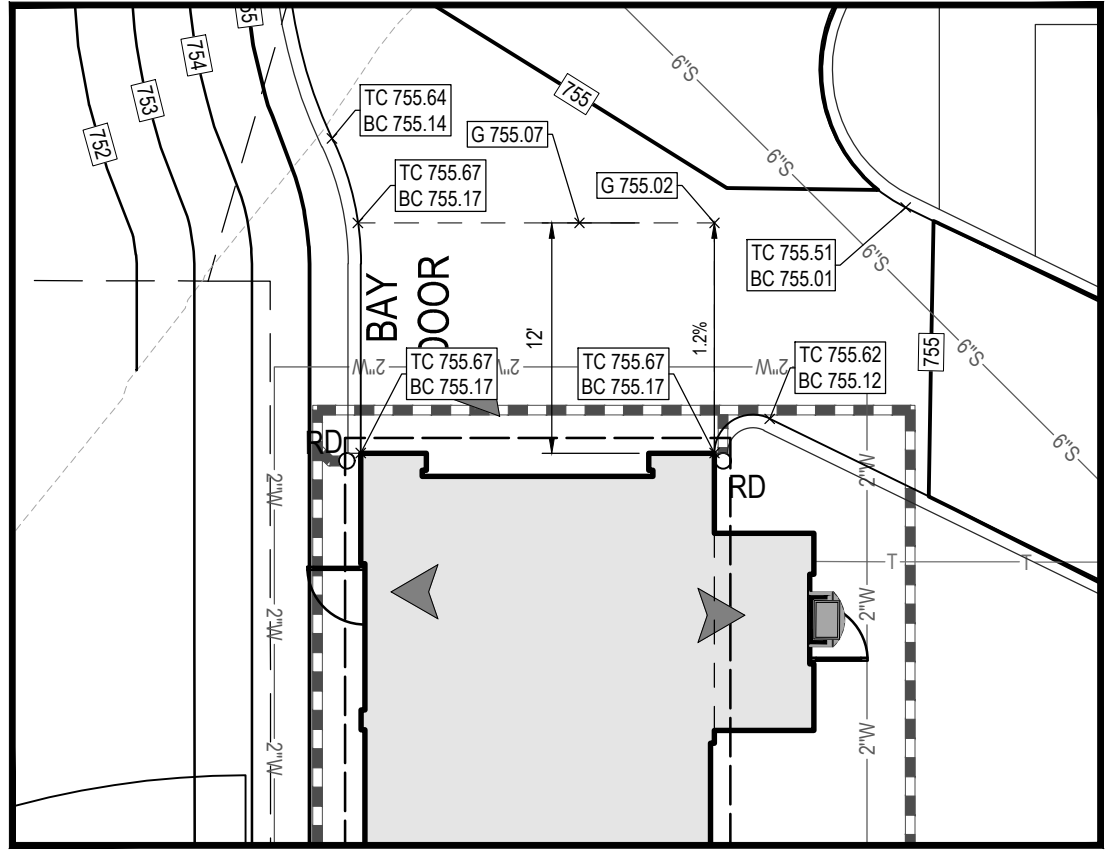
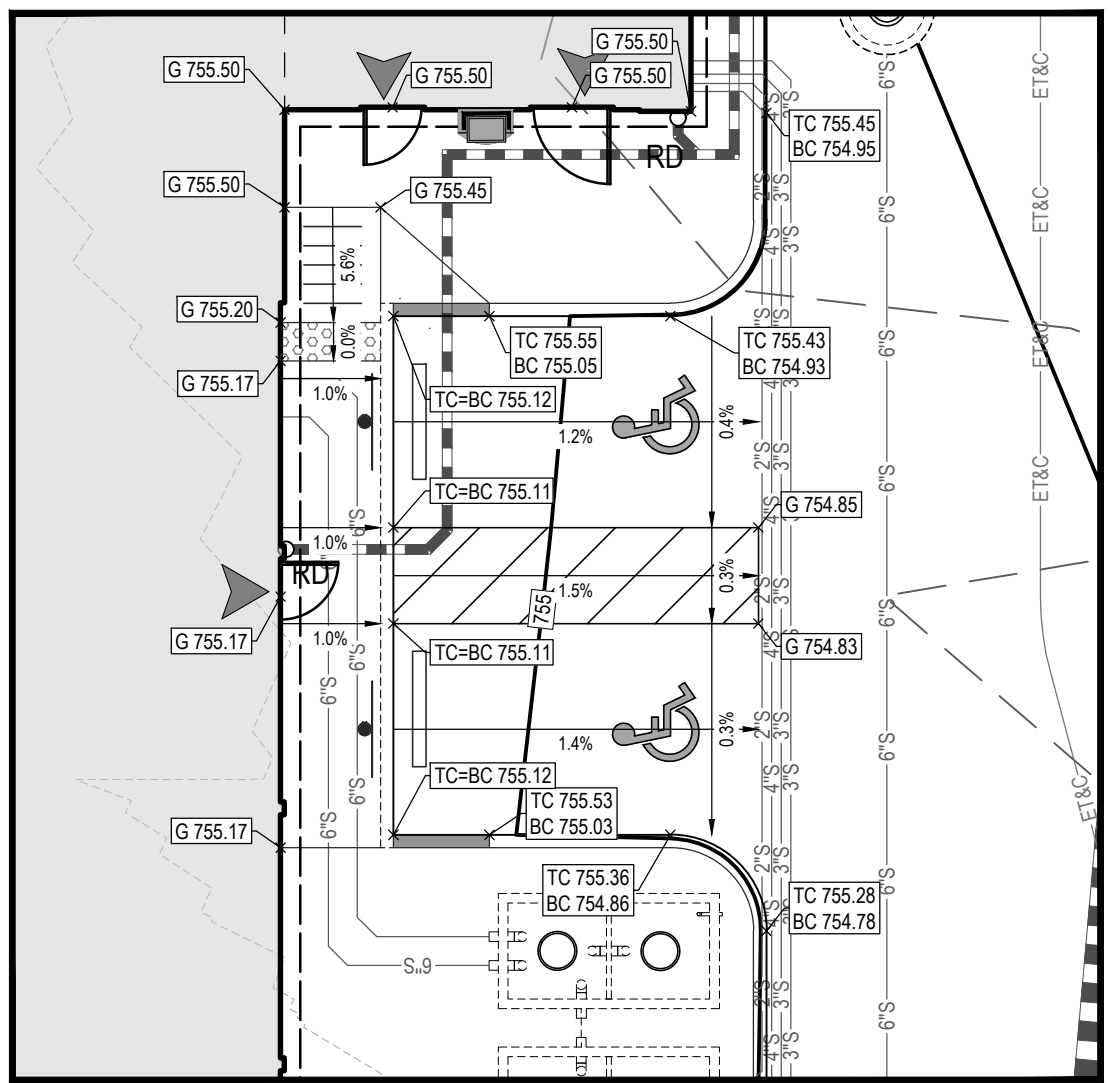
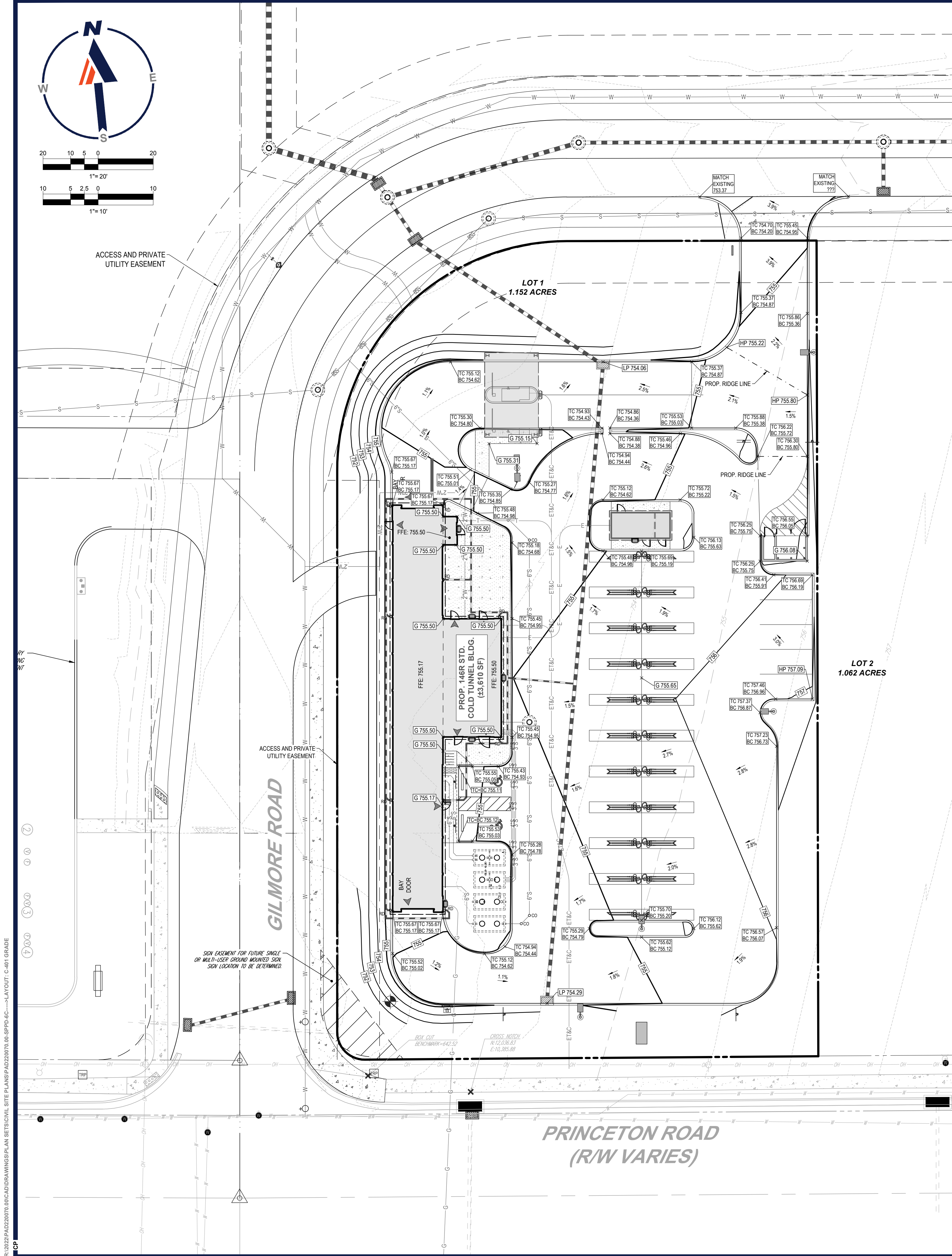
STATE OF OHIO
MICHAEL BOHLER
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
No. 101568
Exp. 12/31/2024

SHEET TITLE:

SIGNAGE DETAILS

SHEET NUMBER:
C-303

REVISION 6 - 05/18/2023



- GRADING NOTES**
- GENERAL**
1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
 2. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET. IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED, THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.
 3. THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK.
 4. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING.
 5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE. MOSTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. THIS REPORT MUST VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES WHICH ARE IN EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT. SUBBASE MATERIAL FOR SIDEWALKS, CURBS OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL, COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
 6. IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCY(IES) AND/OR CONFLICT(S).
 7. THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.
- SITE SPECIFIC**
8. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
 9. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE IS PROVIDED IN BOTH PAVED AND LAWN AREAS AFTER CONSTRUCTION. THE MINIMUM SLOPES FOR IMPROVEMENTS ARE 1% ON ALL CONCRETE SURFACES, 1.5% MINIMUM IN ASPHALT (EXCEPT WHERE ADA LIMITS SLOPE), AND 2% IN LAWN AREAS. ANY LOCALIZED DEPRESSIONS MUST BE ELIMINATED.
 10. THE CONTRACTOR MUST ENSURE POSITIVE DRAINAGE AWAY FROM STRUCTURES. WHERE THE GRADING ALONG AND ADJACENT TO A BUILDING ARE SCHEMATIC DUE TO A GENERIC BUILDING FOOTPRINT, THE GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE THE MINIMUM REVEAL AS REQUIRED BY THE ARCHITECT AND TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. ALL GRADING AND MINIMUM SLOPES AND SEPARATIONS MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES, AND CODES.
 11. WHERE SUBGRADE BUILDING AREAS ARE PROVIDED, THE CONTRACTOR MUST DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED SUBGRADE BUILDING AREA. WHERE GROUNDWATER IS ENCOUNTERED AT THE ELEVATION OF THE SUBGRADE BUILDING AREA, APPROPRIATE CONSTRUCTION METHODS SHALL BE EMPLOYED TO PREVENT GROUNDWATER FROM ENTERING THE STRUCTURE(S). IF AND WHERE SLUMP PUMPS ARE PROVIDED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER OR OTHERWISE PROTECTED FROM CAUSING SURFACE RUNOFF EROSION.
 12. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER AND IMPLEMENT RECOMMENDED STABILIZATION MEASURES FOR ANY CUT SLOPES IN EXCESS OF 2:1 AND/OR FILL SLOPES IN EXCESS OF 3:1.
 13. ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS OR GEOTECHNICAL SPECIFICATIONS.
 14. ALL DISTURBED TOPSOIL ON THE SITE IS TO BE REDISTRIBUTED ON SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. REMOVAL OF TOPSOIL IS NOT ALLOWED, UNLESS OTHERWISE SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.

LEGEND	
PROPOSED	
PROPERTY LINE	---
R.O.W. LINE	---
EASEMENT LINE	---
SETBACK LINE	---
BUILDING	[Symbol]
CONCRETE CURB	[Symbol]
FLUSH CURB	[Symbol]
ACCESSIBLE SYMBOL	[Symbol]
CROSSWALK	[Symbol]
SIDEWALK	[Symbol]
SIGN	[Symbol]
BOLLARD	[Symbol]
AREA LIGHT	[Symbol]
DRAINAGE INLET	[Symbol]
MANHOLE	[Symbol]
CLEANOUT	[Symbol]
ELECTRIC LINE	---
TELEPHONE LINE	---
ELECTRIC & TELEPHONE LINE	---
GAS LINE	---
WATER LINE	---
SANITARY SEWER	---
STORM PIPE	---
SPOT ELEVATION	[Symbol]

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS				
REV	DATE	COMMENT	DRAWN BY	CHECKED BY
1	08/05/2022	PER CLIENT COMMENTS	CCP	KJB
2	08/25/2022	PER CLIENT COMMENTS	CCP	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP	KJB
4	02/07/2023	PER ARCH REVISIONS	CCP	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP	LRB
6	05/18/2023	PER CLIENT COMMENTS	CCP	LRB

811

Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/29/2022
CAD ID: PAD220070.00-SPDP-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS

FOR

TIDAL WAVE
AUTO SPA

PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500
www.BohlerEngineering.com

STATE OF OHIO
MICHAEL BOHLER
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
No. 123456
PEL 123456

SHEET TITLE:

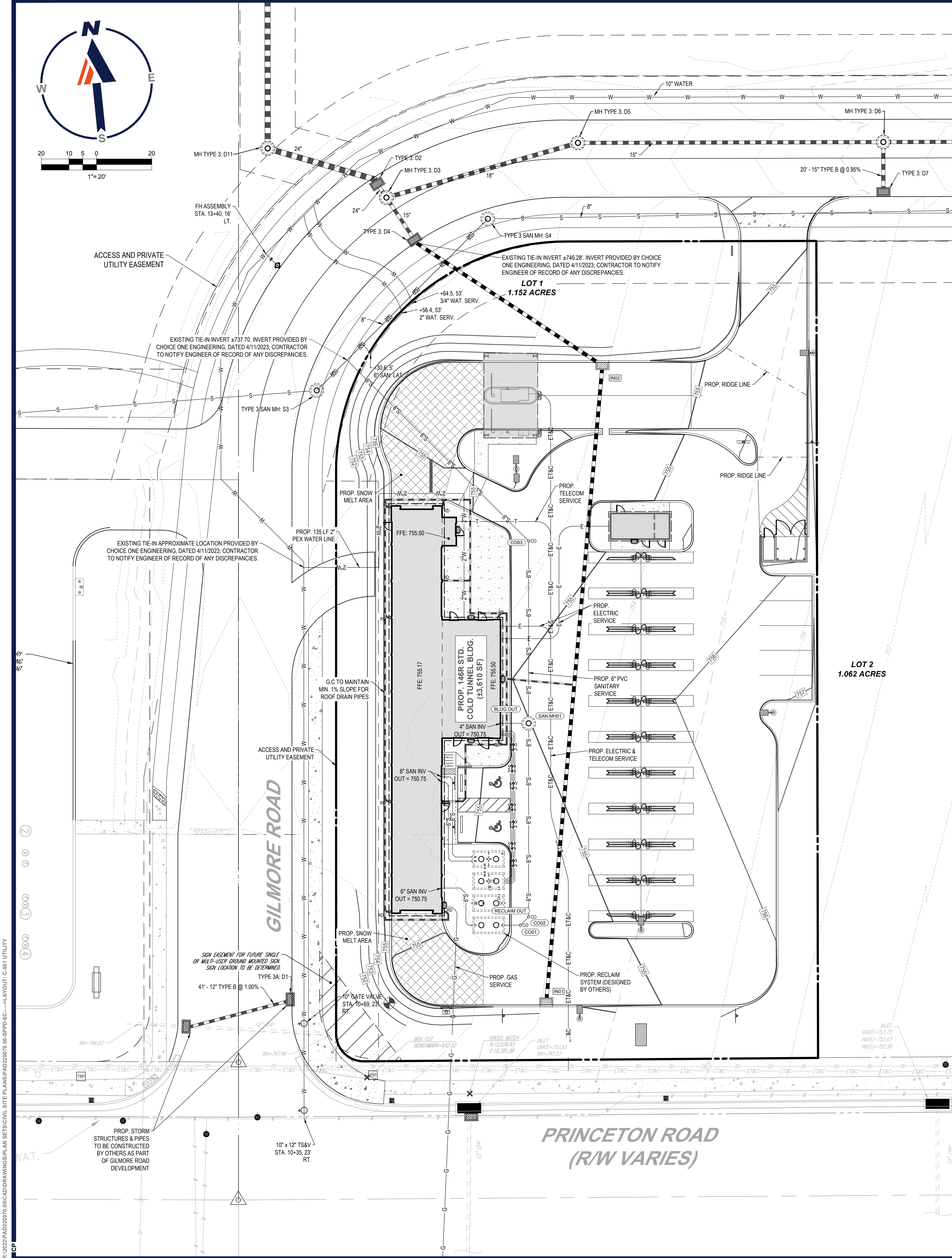
GRADING / UTILITY PLAN

SHEET NUMBER:

C-401

REVISION 6 - 05/18/2023

R:\3022\PA\220070.00\CAD\DRAWINGS\PLAN SET\TRICAL SITE PLANS\PA220070.00-SPDP-6C-LAYOUT.C-401.GRDE



LEGEND	
PROPOSED	
PROPERTY LINE	---
EASEMENT LINE	---
SETBACK LINE	---
BUILDING	
CONCRETE CURB	---
FLUSH CURB	---
ACCESSIBLE SYMBOL	
CROSSWALK	---
SIDEWALK	---
SIGN	---
BOLLARD	---
AREA LIGHT	---
DRAINAGE INLET	
MANHOLE	
CLEANOUT	
ELECTRIC LINE	E
TELEPHONE LINE	T
ELECTRIC & TELEPHONE LINE	E&T
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	---

DRAINAGE AND UTILITY NOTES

- GENERAL**
- THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY, THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
 - LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING, TO THE ENGINEER OF RECORD.
 - THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM, TELEPHONE, CABLE, FIBER, OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTORS SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION.
 - THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS, AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-IN CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY SERVICE, WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS OR WHERE AN ARCHITECTURAL PLAN UTILITY CONNECTION POINT OFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.
 - ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS.
 - DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE, IN ANY RESPECT, FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE APPROPRIATE PLANS, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.
 - THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
 - FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY COMPANY, REGARDLESS OF WHAT THIS PLAN DEPICTS.
 - WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
 - THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
 - THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS, MUST BE REPAIRED IN ACCORDANCE WITH THE REFERENCED MUNICIPAL, COUNTY, AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY(IES) HAVING JURISDICTION.
 - VARIOUS ASPECTS OF THE UTILITY DESIGNS DEPICTED ON THE PLANS ARE SCHEMATIC IN ORDER TO PROVIDE PLAN CLARITY OR TO CONVEY A DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY CONFIGURE ALL STRUCTURES IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL SERVICE PROVIDER OR MANUFACTURER REQUIREMENTS IN ORDER TO ACHIEVE PROPER SITING, OPERATION, CONNECTIONS, SEPARATIONS, AND ACCESSSES. THE CONTRACTOR SHALL REVIEW THE PLAN SPECIFICATIONS AND PREPARE STRUCTURE DESIGNS THAT INCORPORATE ANY AND ALL INTEGRAL COMPONENTS, SUCH AS TRASH RACKS, GATES, VALVES, INTERNAL OR EXTERNAL LININGS, WATER QUALITY DEVICES, SUMP, RESTRAINTS, STIFFERS, FRAMES, PRE-CONCRETE CONNECTIONS, MATERIALS, ETC. SHOULD DISCREPANCIES OR CONFLICTS ARISE UPON THE DESIGN OF THESE STRUCTURES OR INCORPORATION OF THE VARIOUS ELEMENTS, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD OR BOHLER IN WRITING.
 - UTILITIES IN GILMORE ROAD ARE TO BE CONSTRUCTED AND OPERATED BY OTHERS.

SITE-SPECIFIC

STORM STRUCTURE SCHEDULE

NAME	TYPE	GRT/RIM ELEV. (FT.)	INVERTS
EX D4	EXISTING INLET	750.62	INV IN = 746.28 (15' HDPE) INV OUT = 746.18 (15' HDPE)
EX MH D3	EXISTING MANHOLE	750.39	INV IN = 745.86 (15' HDPE)
IN01	REINFORCED CONCRETE	754.29	INV OUT = 749.28 (15' HDPE)
IN02	REINFORCED CONCRETE	754.09	INV IN = 746.97 (15' HDPE) INV OUT = 746.77 (15' HDPE)

STORM SEWER PIPE SCHEDULE

FROM	TO	SIZE (IN.)	TYPE	LENGTH (FT.)	SLOPE(%)
EX D4	EX MH D3	15"	HDPE	20	1.61%
IN01	IN02	15"	HDPE	231	1.00%
IN02	EX D4	15"	HDPE	81	0.60%

SANITARY STRUCTURE SCHEDULE

NAME	TYPE	RIM ELEV. (FT.)	INVERTS
BLDG OUT	BUILDING INVERT	751.12	INV OUT = 750.75
CO01	6 INCH CYLINDRICAL STRUCTURE	754.56	INV IN = 750.23 INV OUT = 750.23
CO02	6 INCH CYLINDRICAL STRUCTURE	754.62	INV IN = 750.19 INV OUT = 750.19
CO03	6 INCH CYLINDRICAL STRUCTURE	754.73	INV IN = 748.73 INV OUT = 748.73
RECLAIM OUT	NULL STRUCTURE	750.83	INV OUT = 750.28
SAN MH01	TYPE 4	755.00	INV IN = 748.49 INV IN = 749.49 INV OUT = 749.49

SANITARY PIPE SCHEDULE

FROM	TO	SIZE IN.	TYPE	n MANNING'S COEF.	So	L LENGTH FT.
BLDG OUT	SAN MH01	4	PVC	0.000	-0.66%	87.81
CO01	CO02	6	PVC	0.000	12.36%	10.19
CO02	SAN MH01	6	PVC	0.000	1.00%	4.21
CO03	TIE-IN	6	PVC	0.000	11.87%	92.87
RECLAIM OUT	CO01	6	PVC	0.000	1.00%	5.52

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP
2	08/25/2022	PER CLIENT COMMENTS	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP
4	02/07/2023	PER ARCH REVISIONS	CCP
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP
6	05/18/2023	PER CLIENT COMMENTS	LRB



ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/29/2022
CAD ID.: PAD220070.00-SPFD-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS

FOR



PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com



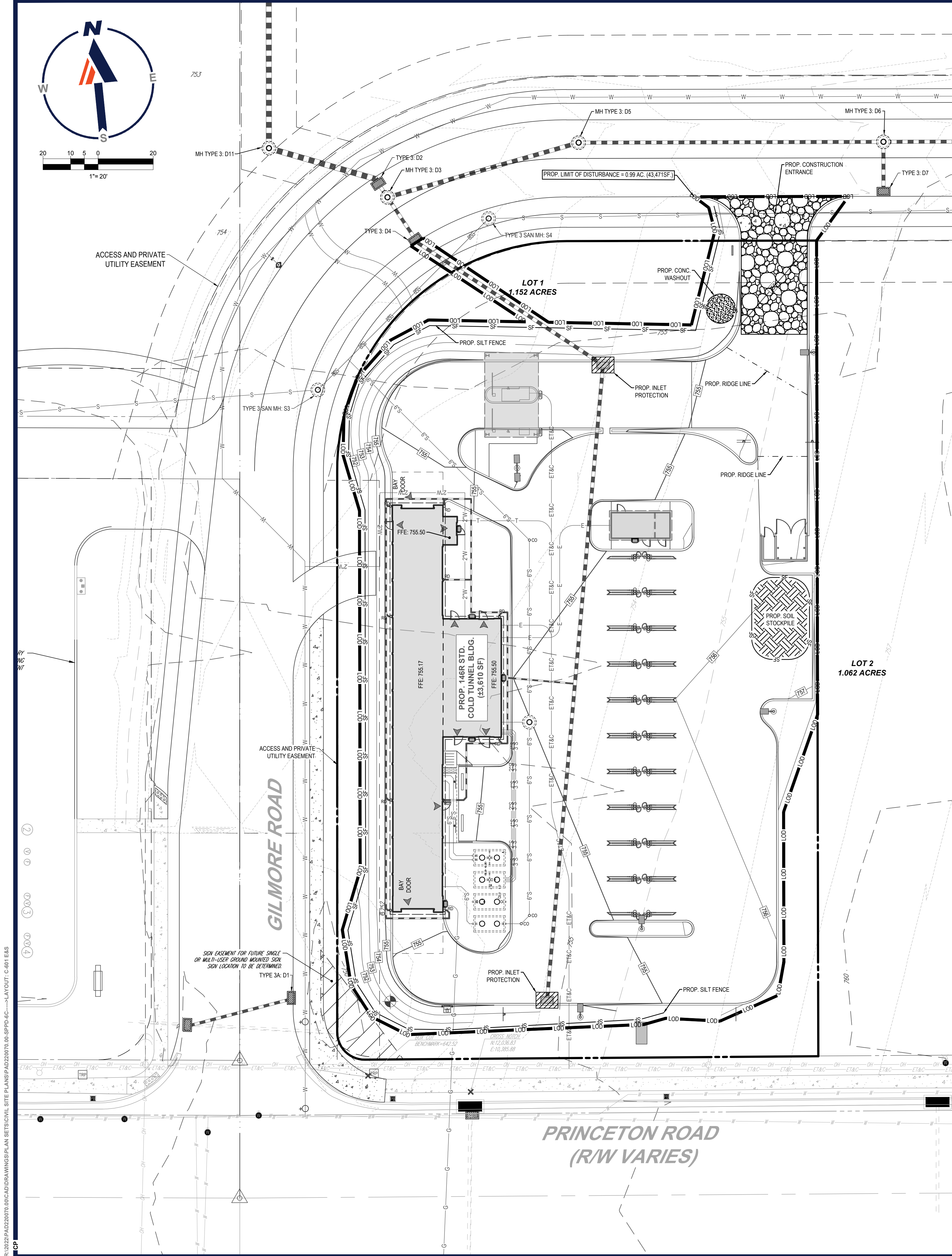
SHEET TITLE:

UTILITY PLAN

SHEET NUMBER:

C-501

REVISION 6 - 05/18/2023



LEGEND

PROPOSED

— LOO —
LIMIT OF DISTURBANCE

— SF —
SILT FENCE

CONCRETE WASHOUT

TEMPORARY STOCKPILE

ROCK CONSTRUCTION ENTRANCE

TM

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING

PROGRAM MANAGEMENT

LANDSCAPE ARCHITECTURE

SUSTAINABLE DESIGN

PERMITTING SERVICES

TRANSPORTATION SERVICES

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF BOHLER ENGINEERING AND CONSULTING, INC. AND IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF BOHLER ENGINEERING AND CONSULTING, INC.

BOHLER ENGINEERING AND CONSULTING, INC.

REVISIONS				
REV	DATE	COMMENT	DRAWN BY	
1	08/05/2022	PER CLIENT COMMENTS	CCP	KJB
2	08/25/2022	PER CLIENT COMMENTS	CCP	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP	KJB
4	02/07/2023	PER ARCH REVISIONS	CCP	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP	LRB
6	05/18/2023	PER CLIENT COMMENTS	CCP	LRB

811

Know what's below.
Call before you dig.

ALWAYS CALL 811

It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00

DRAWN BY: CCP

CHECKED BY: KJB

DATE: 07/29/2022

CAD ID: PAD220070.00-SPPD-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS

FOR

TIDAL WAVE

AUTO SPA

PROPOSED CAR WASH

SITE #054

3003 BRIDGEWATER LANDING DRIVE

FAIRFIELD TOWNSHIP

BUTLER COUNTY, OHIO

T.M.P.#: A0300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402

PITTSBURGH, PA 15212

Phone: (724) 638-8500

www.BohlerEngineering.com

STATE OF OHIO

MICHAEL J. BOHLER

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT

NO. 120158

EXPIRATION DATE 12/31/2024

SHEET TITLE:

SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN

SHEET NUMBER:

C-601

REVISION 6 - 05/18/2023



USGS MAP

SCALE: 1" = 1,000'
SOURCE: USGS HAMILTON
QUADRANGLE



SOIL MAP

SCALE: 1" = 80'
SOURCE: WEB SOIL SURVEY

SOIL TYPES, LIMITATIONS & RESOLUTIONS

1. SHOULD GROUND WATER BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATIONS, WATER SHALL BE PUMPED FROM TRENCH INTO FILTER BAG.
2. DUE TO GRADING LIMITATIONS OF SOILS DURING WINTER MONTHS, THE CONTRACTOR SHALL NOT GRADE THESE SOILS DURING FROSTING OR ICING CONDITIONS.
3. SHOULD BEDROCK BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATION, ROCK SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.
4. SOIL TESTING SHOULD BE PERFORMED TO DETERMINE SOIL SUITABILITY FOR TOP SOIL. IF SOIL IS DETERMINED TO BE UNSUITABLE THEN TOPSOIL SHALL BE IMPORTED AND DISTURBED THROUGHOUT THE SITE AS REQUIRED.

SITE SOIL DATA		
MAP UNIT SYMBOL OF SOIL	MAP UNIT NAME OF SOIL	HYDROLOGIC RATING
DaB	DANA SILT LOAM, 2 TO 6 PERCENT SLOPES	C
WyB2	WYNN SILT LOAM, 2 TO 6 PERCENT SLOPES	C

MAINTENANCE PROGRAM

THE FOLLOWING MAINTENANCE PROGRAM HAS BEEN DEVELOPED TO PROVIDE FOR THE INSPECTION OF BMPs TO ENSURE THEIR EFFECTIVE AND EFFICIENT OPERATION. SITE INSPECTIONS TO BE PERFORMED EVERY 7 CALENDAR DAYS; AND AFTER EVERY RAIN EVENT > 0.5 INCH IN A 24-HOUR PERIOD BY THE END OF NEXT CALENDAR DAY (EXCLUDING NON-WORKING WEEKENDS & HOLIDAYS). THE INSPECTION FREQUENCY MAY BE REDUCED TO MONTHLY FOR DORMANT SITES IF: 1. THE ENTIRE SITE IS TEMPORARILY STABILIZED 2. RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME. ONLY QUALIFIED INSPECTION PERSONNEL SHALL PERFORM SITE INSPECTIONS.

UNTIL THE SITE IS STABILIZED AND DURING CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

- SILT FENCE - INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND/OR AFTER EACH RUNOFF EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE HEIGHT OF THE FENCE. THE SEDIMENT SHALL BE DISPOSED OF ON SITE AND/OR IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. DAMAGED SILT FENCE SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

- CATCH BASIN PROTECTION (FILTER BAGS) - INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND/OR AFTER EACH RUNOFF EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. FILTER BAGS SHOULD BE CLEANED AND/OR REPLACED AFTER EACH RUNOFF EVENT. THE SEDIMENT SHALL BE DISPOSED OF ON SITE AND/OR IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS. DAMAGED FILTER BAGS SHOULD BE REPLACED.

- CONSTRUCTION ENTRANCES - LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED WHERE VEHICLES ENTER AND EXIT. EXITS SHALL BE MAINTAINED OR SUPPLEMENTED AS NECESSARY TO PREVENT THE RELEASE OF SEDIMENT FROM VEHICLES LEAVING THE SITE. ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEEPED AS NECESSARY THROUGHOUT THE DAY OR AT THE END OF EVERY DAY AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS. SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY AND DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED OR SWEEP INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.

- INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED WITH HYDRO-STRAW IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS.

- GRASSSED AREAS SHALL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION ONCE ALL AREAS ARE COVERED WITH BUILDING FOUNDATION OR PAVEMENT, OR HAVE A STAND OF GRASS WITH AT LEAST 70 PERCENT DENSITY OR GREATER IN ACCORDANCE WITH PERMIT REQUIREMENTS. THE VEGETATIVE DENSITY MUST BE MAINTAINED TO BE CONSIDERED STABILIZED. AREAS MUST BE WATERED, FERTILIZED, AND RESEEDED AS NEEDED TO ACHIEVE THIS REQUIREMENT.

- ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE OR IMPACTS TO RECEIVING WATERS.

- REPAIRS AND/OR CLEANING SHALL OCCUR WITHIN THREE (3) DAYS OF THE INSPECTION FOR NON-SEDIMENT POND BMPs AND WITHIN TEN (10) DAYS OF THE INSPECTION FOR SEDIMENT PONDS.

P.C.S.W.M. B.M.P. INSPECTION AND MAINTENANCE NOTES

1. UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY CONTRACTOR. ALL PERMANENT MAINTENANCE PROCEDURES SHALL BE PERFORMED BY THE OWNER. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS, AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL EPA NOTES AND SPECIFICATIONS. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

2. ALL SEDIMENT/DEBRIS/OIL REMOVED FROM THE STORM WATER MANAGEMENT SYSTEM SHALL BE DISPOSED PER LOCAL, STATE, AND FEDERAL STANDARDS.

3. SHOULD ON-SITE EROSION OCCUR FROM THE LANDSCAPED AREAS, SOURCE OF EROSION SHALL BE IMMEDIATELY STABILIZED AND THE CATCH BASINS, MANHOLES, AND STORM WATER PIPING SHALL BE CHECKED FOR ACCUMULATION AND CLEARED IF ACCUMULATION OF SEDIMENT EXISTS.

DEFINITION OF CLEAN FILL AND IMPORT/EXPORT MATERIAL NOTES

- (A) CLEAN HARD FILL CONSISTING OF REINFORCED OR NONREINFORCED CONCRETE, ASPHALT CONCRETE, BRICK, BLOCK, TILE, OR STONE SHALL BE MANAGED IN ONE OR MORE OF THE FOLLOWING WAYS:

- (1) RECYCLED INTO A USABLE CONSTRUCTION MATERIAL.
- (2) DISPOSED IN LICENSED CONSTRUCTION AND DEMOLITION DEBRIS OR OTHER WASTE FACILITIES.
- (3) USED IN LEGITIMATE FILL OPERATIONS FOR CONSTRUCTION PURPOSES OR TO BRING THE SITE UP TO A CONSISTENT GRADE, ON THE SITE OF GENERATION.
- (4) USED IN LEGITIMATE FILL OPERATIONS FOR CONSTRUCTION PURPOSES OR TO BRING THE SITE UP TO A CONSISTENT GRADE, ON A SITE OTHER THAN THE SITE OF GENERATION, PURSUANT TO PARAGRAPH (C) OF THIS RULE.

[COMMENT: USE OF CLEAN HARD FILL MAY CREATE A NUISANCE OR A SAFETY HAZARD. THE APPLICATION OF COVER OVER THE CLEAN HARD FILL MAY BE ONE WAY TO ADDRESS THE NUISANCE OR SAFETY HAZARD.]

- (B) CLEAN HARD FILL MAY BE STORED FOR A PERIOD OF LESS THAN TWO YEARS. FOR THE PURPOSE OF THIS RULE, "STORED" MEANS DEBRIS WHICH IS HELD IN A MANNER REMAINING RETRIEVABLE AND SUBSTANTIALLY UNCHANGED. CLEAN HARD FILL STORED MORE THAN TWO YEARS SHALL BE CONSIDERED ILLEGAL DISPOSAL OF CONSTRUCTION AND DEMOLITION DEBRIS. HOWEVER CLEAN HARD FILL PILED ADJACENT TO A CONSTRUCTION MATERIALS PROCESSING FACILITY SHALL NOT BE CONSIDERED STORED FOR MORE THAN TWO YEARS IF THE PILE IS ACTIVE, THAT IS, IF CLEAN HARD FILL MATERIAL IS ADDED TO AND REMOVED FROM THE PILE WITHIN A TWO YEAR PERIOD.

- (C) THE PERSON RESPONSIBLE FOR CAUSING CLEAN HARD FILL TO BE USED IN LEGITIMATE FILL OPERATIONS FOR CONSTRUCTION PURPOSES OR TO BRING THE SITE UP TO A CONSISTENT GRADE, ON A SITE OTHER THAN THE SITE OF GENERATION, SHALL PROVIDE A WRITTEN "NOTICE OF INTENT TO FILL" TO EACH LICENSING AUTHORITY WHERE THE CLEAN HARD FILL IS TO BE PLACED. THE "NOTICE OF INTENT TO FILL" SHALL STATE THE NATURE OF THE FILL MATERIAL, THE SITE TO BE FILLED, WHEN FILLING WILL BEGIN AND END, AND THE TELEPHONE NUMBER OF THE NOTIFIER. THE NOTIFICATION SHALL BE RECEIVED BY EACH LOCAL LICENSING AUTHORITY WITH SITES TO BE FILLED, AT LEAST SEVEN DAYS PRIOR TO FILLING AS REQUIRED BY DIVISION (5) OF SECTION 374.13 OF THE REVISED CODE. THE NOTIFIER SHALL PROVIDE A NEW NOTICE OF INTENT TO FILL IF THERE ARE ANY CHANGES IN THE INFORMATION REQUIRED BY THIS RULE FOR NOTIFICATION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

I. GENERAL INFORMATION

- A. THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.
- B. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED.
- C. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY.
- D. DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, THE PROTECTIVE SITE SHALL BE IMMEDIATELY STABILIZED WITH OR ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION.
- E. AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDING OR MULCHED.
- F. WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO HOLD SEED AND MULCH IN PLACE. THIS IS ESPECIALLY IMPORTANT AROUND WATERCOURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES.
- G. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS.
- H. THE CONTRACTOR MUST DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT. A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPILL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION.
- I. CONTRACTOR SHALL NOTIFY THE EPA OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE REMOVED FROM SITE.
- J. ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION LOCATION.
- K. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT CONSTRUCTION. ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFF-SITE STABILIZATION IN AND ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO COST TO THE OWNER. IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITIONAL STABILIZATION MEASURES BE NECESSARY, IN ACCORDANCE WITH THE NPDES AND/or SWPPP REQUIREMENTS FOR THE PROJECT.

II. STANDARD FOR LAND GRADING

- A. DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO FILL GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT.
- A.1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FULL SLOPES.
- A.2. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
- B. INSTALLATION REQUIREMENTS
- B.1. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETABLE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH STANDARD FOR DISPOSAL OF MATERIALS.
- B.2. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
- B.3. ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
- B.4. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.
- B.5. (SEE I. D.)

III. STANDARD FOR UTILITY TRENCH EXCAVATION

- A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
- B. LIMIT DAILY TRENCH DEPTH TO THE LENGTH OF PIPE PLACEMENT, PLUS INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX. OF SIX DAYS FOR CERTAIN CASES REQUIRING TESTING OF THE INSTALLED PIPE.
- C. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE DETAIL) BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS.
- D. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY.
- E. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF-CONTAINED AND SEPARATE FORM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
- F. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

IV. STANDARD FOR TEMPORARY STABILIZATION

- A. STANDARD FOR TEMPORARY STABILIZATION WITH FIBER/MULCH
- A.1. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING. IN ADDITION, STABLE MULCH SHALL BE USED DURING NON-GERMINATION PERIODS.
- A.2. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
- A.3. GRADE AS NEEDED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
- A.4. PROTECTIVE MATERIALS TO BE USED
- A.4.a UNROOTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
- A.4.b HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PRODUCTS TO BE INSTALLED AT A RATE OF 1 TON PER ACRE (MINIMUM) OR PER MANUFACTURER'S SPECIFICATIONS.

- B. STANDARD FOR TEMPORARY STABILIZATION WITH SEED
- B.1. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 180 DAYS OF CONSTRUCTION SHALL BE RESEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER.
- B.2. ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY.
- B.3. SEEDED PREPARATION FOR TEMPORARY SEEDING
- B.3.a PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
- B.3.b APPLY AGRICULTURAL LIME AT A RATE OF 1 TONE PER ACRE
- B.3.c APPLY 10-10-10 FERTILIZER AT A RATE OF 50 POUNDS PER ACRE
- B.3.d WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR (4) INCHES.

- C. SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

- A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER
- A.1. SITE PREPARATION
- A.1.a GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
- A.1.b SUBSOIL SHOULD BE WATERED OR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
- A.1.c IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
- A.2. APPLYING TOPSOIL
- A.2.a TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
- A.2.b ALL DISTURBED TOPSOIL ON-SITE IS TO BE REDISTRIBUTED ON-SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. NO REMOVAL OF TOPSOIL IS ALLOWED UNLESS APPROVED BY THE STATE OF OHIO. UNIFORM APPLICATION TO A DEPTH OF 4-6 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE.
- A.3. SEEDED PREPARATION
- A.3.a A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
- A.3.b PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
- A.3.c SOIL MODIFICATIONS
- A.3.c.1. APPLY 10-20-20 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
- A.3.c.2. APPLY AGRICULTURAL LIME AT A RATE OF 4 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
- A.3.d WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDED IS PREPARED.
- A.3.e REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
- A.3.f INSPECT SEEDED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
- A.4. SEEDING: SEE SEEDING SPECIFICATIONS
- A.5. SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG: HYDROMULCHING) AS OUTLINED IN ITEM IV.A. HEREIN.

- B. STANDARD FOR PERMANENT STABILIZATION WITH SOD
- B.1. METHODS AND MATERIALS
- B.1.a CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
- B.1.b SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
- B.1.c SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 58 INCH, PLUS OR MINUS 14 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
- B.1.d SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SURPRISED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 60% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
- B.1.e A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED.
- B.1.f ONLY MOST, FRESH LINEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
- B.2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)
- B.3. SOIL PLACEMENT
- B.3.a SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- B.3.b PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
- B.3.c ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.
- B.3.d ON SLOPES GREATER THAN 1 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE FASTENER.
- B.3.e SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE. BUT A CAPPING STRIP OF HEAVY LITE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
- B.3.f IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
- B.4. FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

SEQUENCE OF BMP INSTALLATION AND REMOVAL

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH THE OHIO RAINWATER AND LAND DEVELOPMENT REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE OHIO EPA FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE OHIO ONE CALL SYSTEM INC. AT 1-800-362-2764 FOR BURIED UTILITIES LOCATION.

BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE OHIO EPA. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

1. A PRE-CONSTRUCTION MEETING MUST BE HELD PRIOR TO ANY EARTH MOVING ACTIVITIES AND MUST INCLUDE THE OHIO EPA, BUTLER COUNTY SOIL AND WATER CONSERVATION DISTRICT, PROPERTY OWNER, DESIGN ENGINEER, AND CONTRACTOR. CONTRACTOR TO FIELD MARK THE LIMIT OF DISTURBANCE PRIOR TO MEETING.
2. INSTALL CONSTRUCTION ENTRANCE AND STAGING AREAS AS DESIGNATED ON THE PLANS.
3. INSTALL ALL PERIMETER SILT FENCES AND CATCH BASIN PROTECTION WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.
4. BEGIN DEMOLITION OF EXISTING STRUCTURES AND APPURTENANCES.
5. INSTALL CONCRETE WASHOUT.
6. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
7. INITIATE STORM SEWER INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURES.
8. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION (SANITARY, ELECTRIC, TELEPHONE, CABLE AND GAS) WHERE APPLICABLE.
9. INSTALL ALL CURBING SHOWN IN THIS PHASE AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS.
10. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDING). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
11. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.
12. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.
13. UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE OHIO EPA, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES. IF ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.
14. CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL BUILDING MATERIAL OR WASTE AT THIS SITE.
15. DEMOLIBLIZE.
16. A NOTICE OF TERMINATION FORM SHOULD BE SUBMITTED TO THE OHIO EPA UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

RECYCLING OR DISPOSAL OF MATERIALS

- 1) DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE EPA. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION.
- 2) SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.
- 3) SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPERATOR.
- 4) WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.
- 5) CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.
- 6) CONSTRUCTION WASTES, SUCH AS CONCRETE, METAL, ALUMINUM, PLASTIC, WOOD, ETC. FROM THE DEMO OF THE RESTAURANT, SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE EPA'S SOLID WASTE MANAGEMENT REGULATIONS.
- 7) NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

- COVERED, AND LEAK-PROOF CONTAINERS SHALL BE PROVIDED FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL WASTE WILL COMPLY WITH APPLICABLE STATE OR LOCAL WASTE DISPOSAL REQUIREMENTS.
- B.1.d SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SURPRISED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 60% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
 - B.1.e A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED.
 - B.1.f ONLY MOST, FRESH LINEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
 - B.2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)
 - B.3. SOIL PLACEMENT
 - B.3.a SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
 - B.3.b PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
 - B.3.c ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.
 - B.3.d ON SLOPES GREATER THAN 1 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE FASTENER.
 - B.3.e SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE. BUT A CAPPING STRIP OF HEAVY LITE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
 - B.3.f IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
 - B.4. FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.



REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP
2	08/25/2022	PER CLIENT COMMENTS	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP
4	02/07/2023	PER ARCH REVISIONS	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP
6	05/18/2023	PER CLIENT COMMENTS	CCP
			LRB



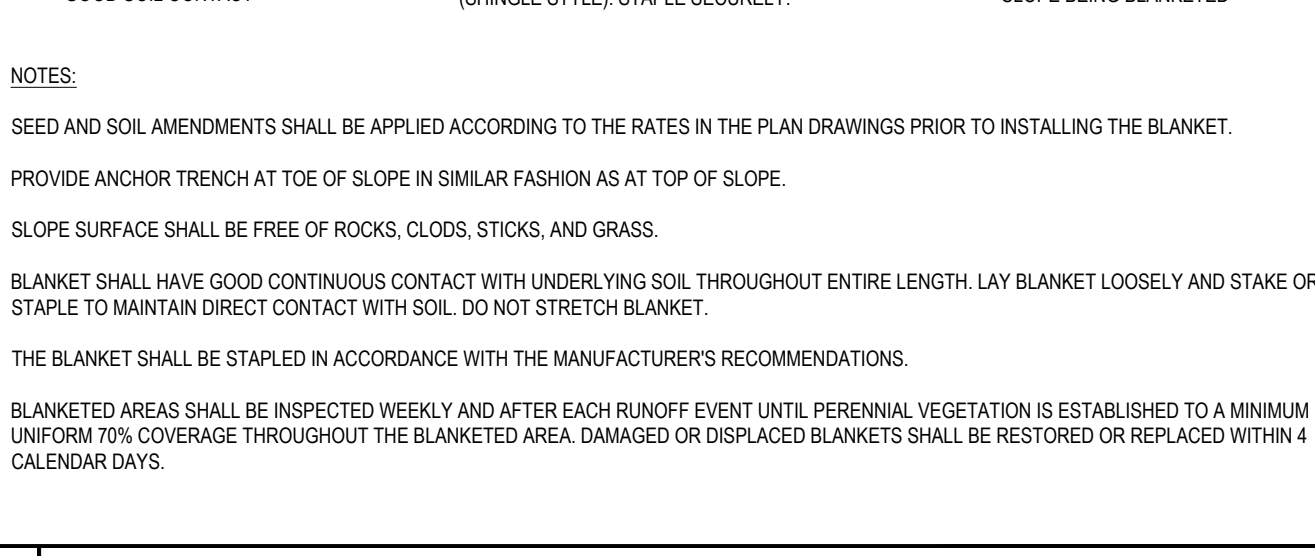
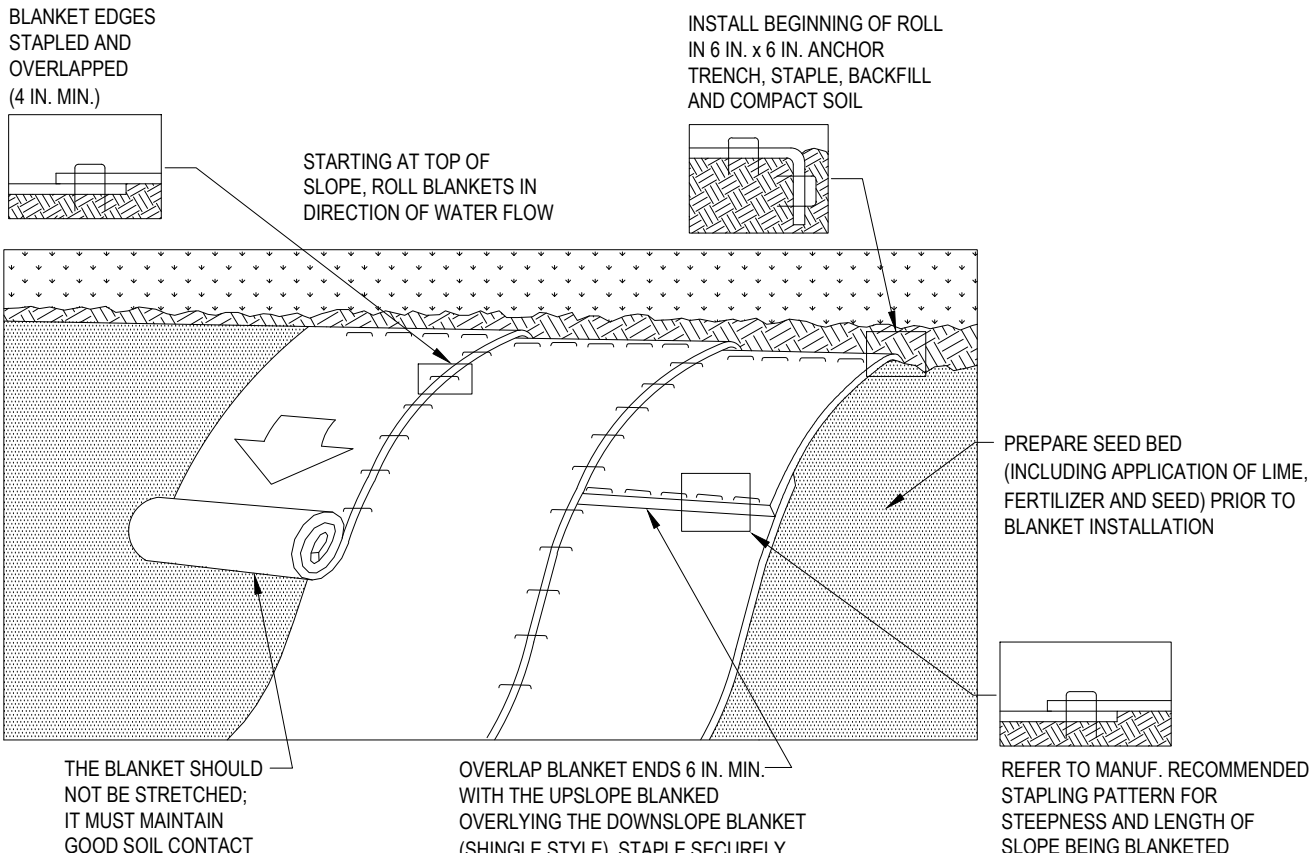
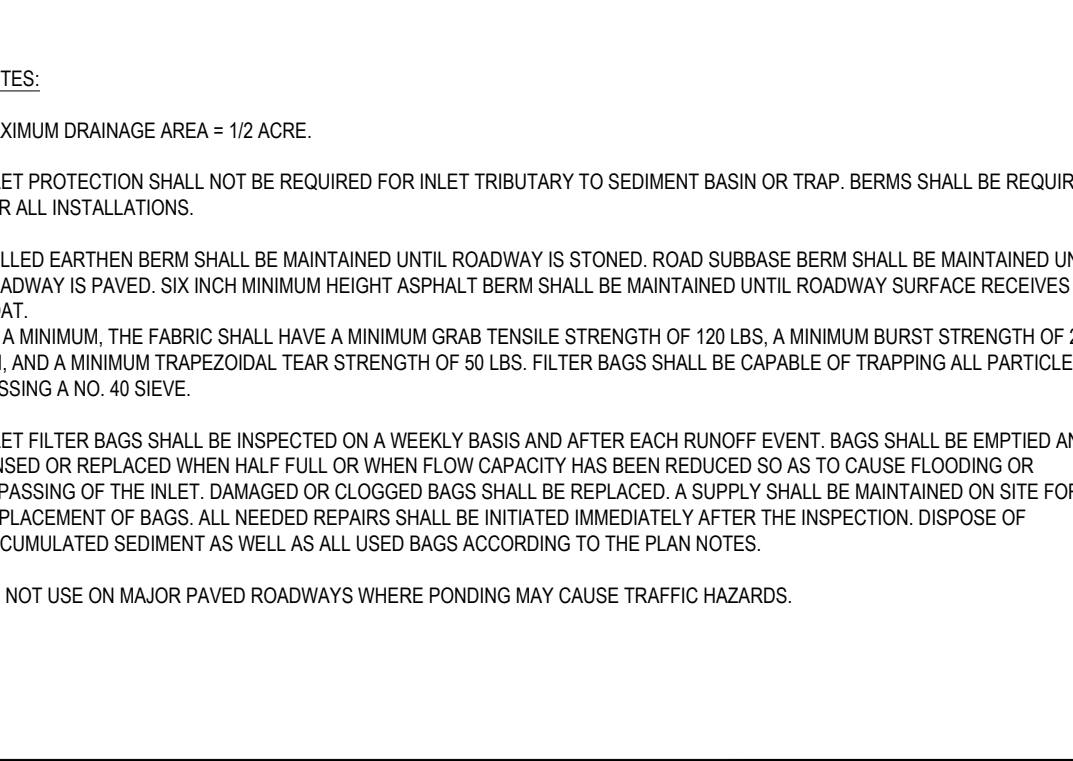
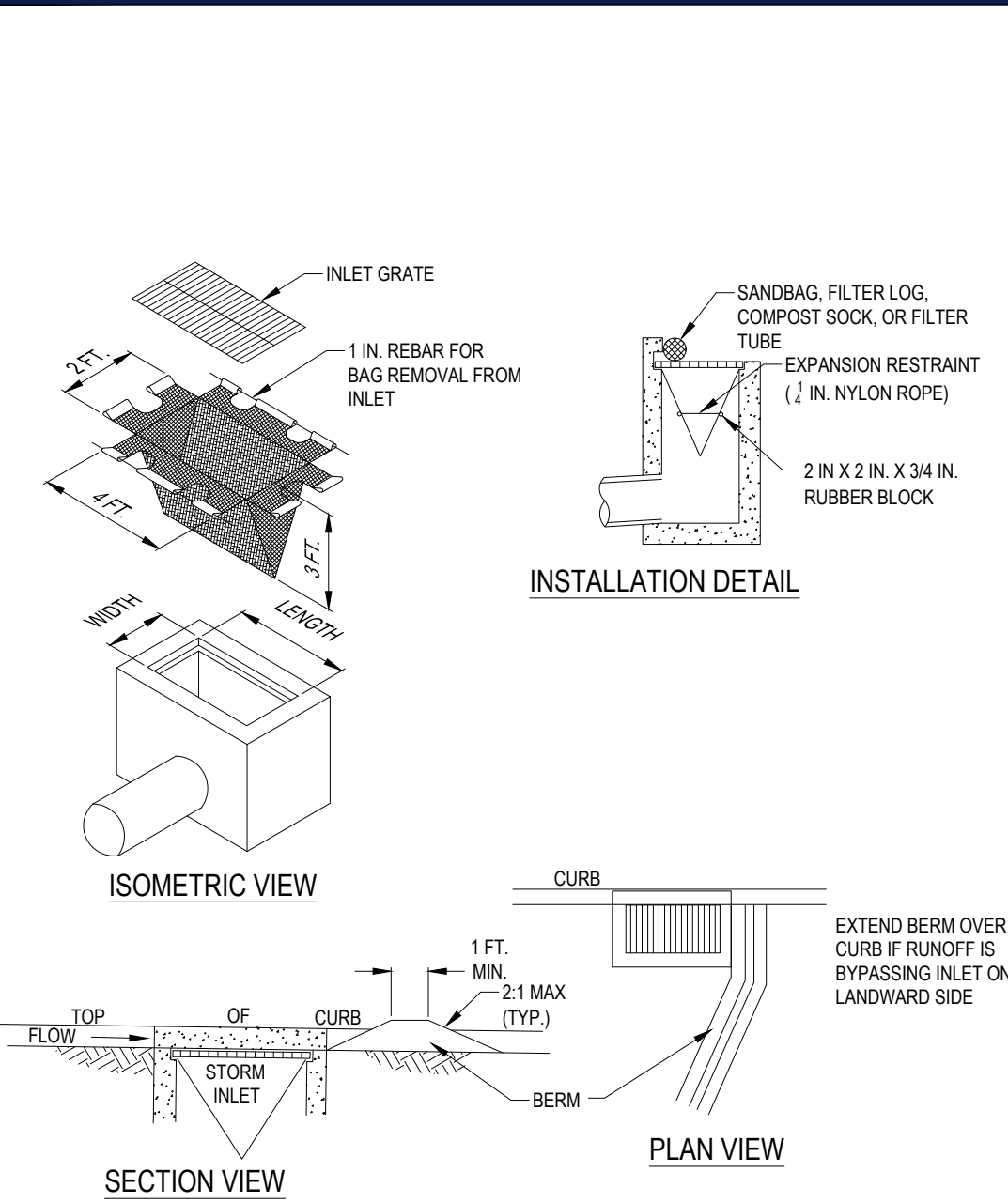
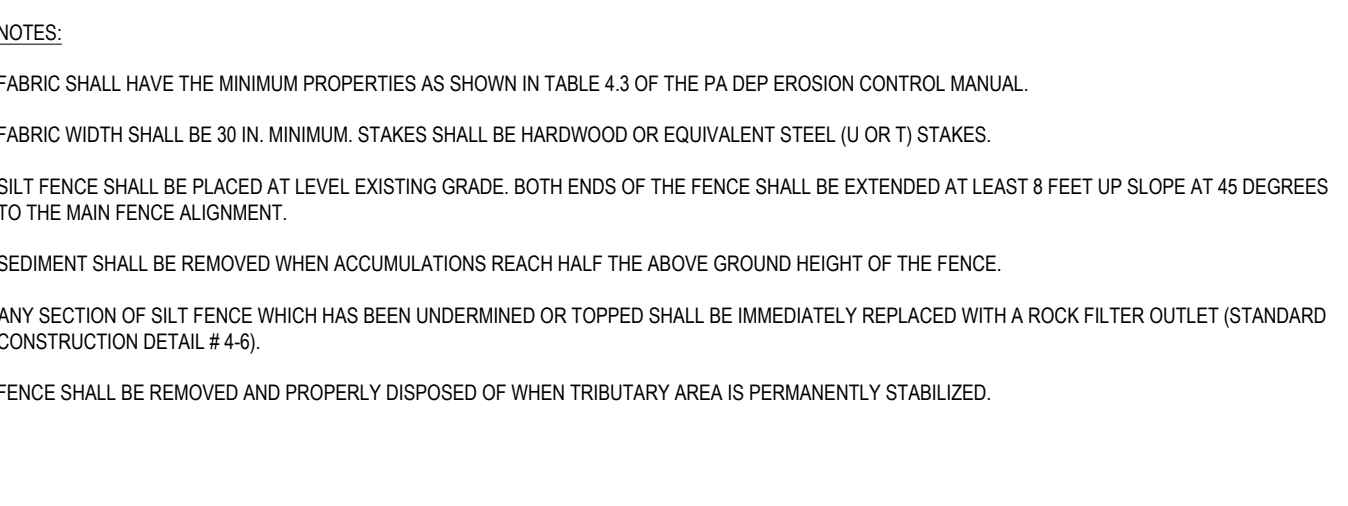
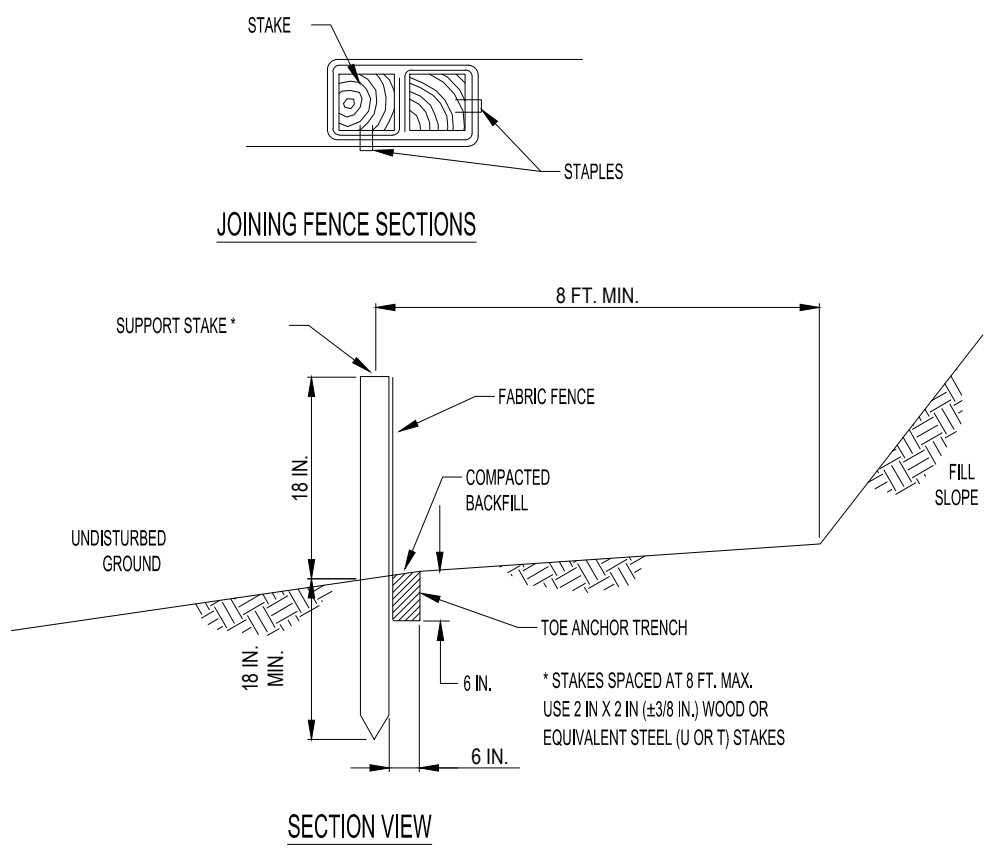
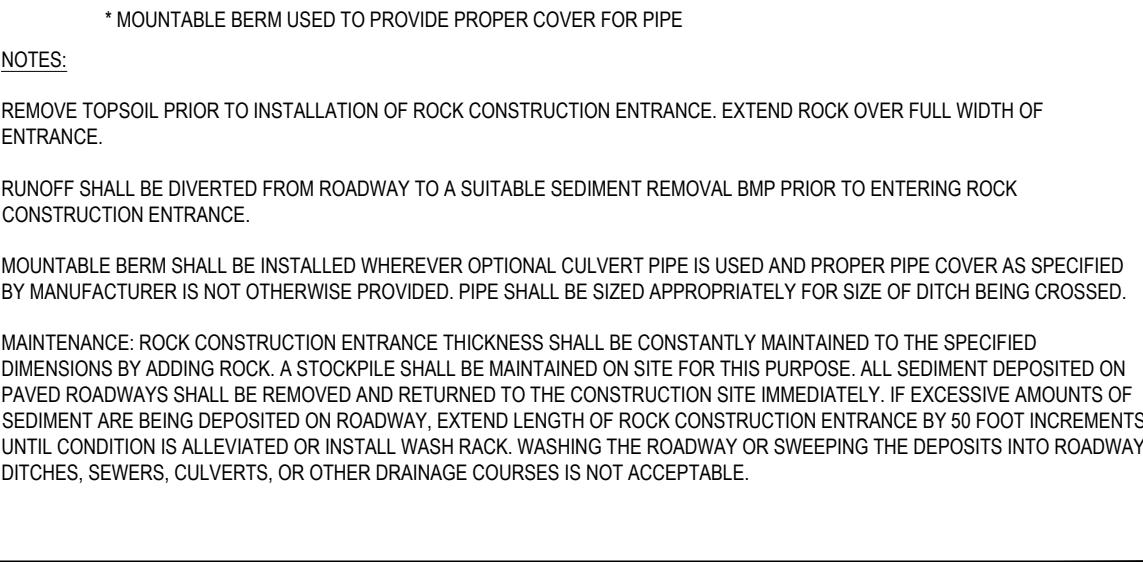
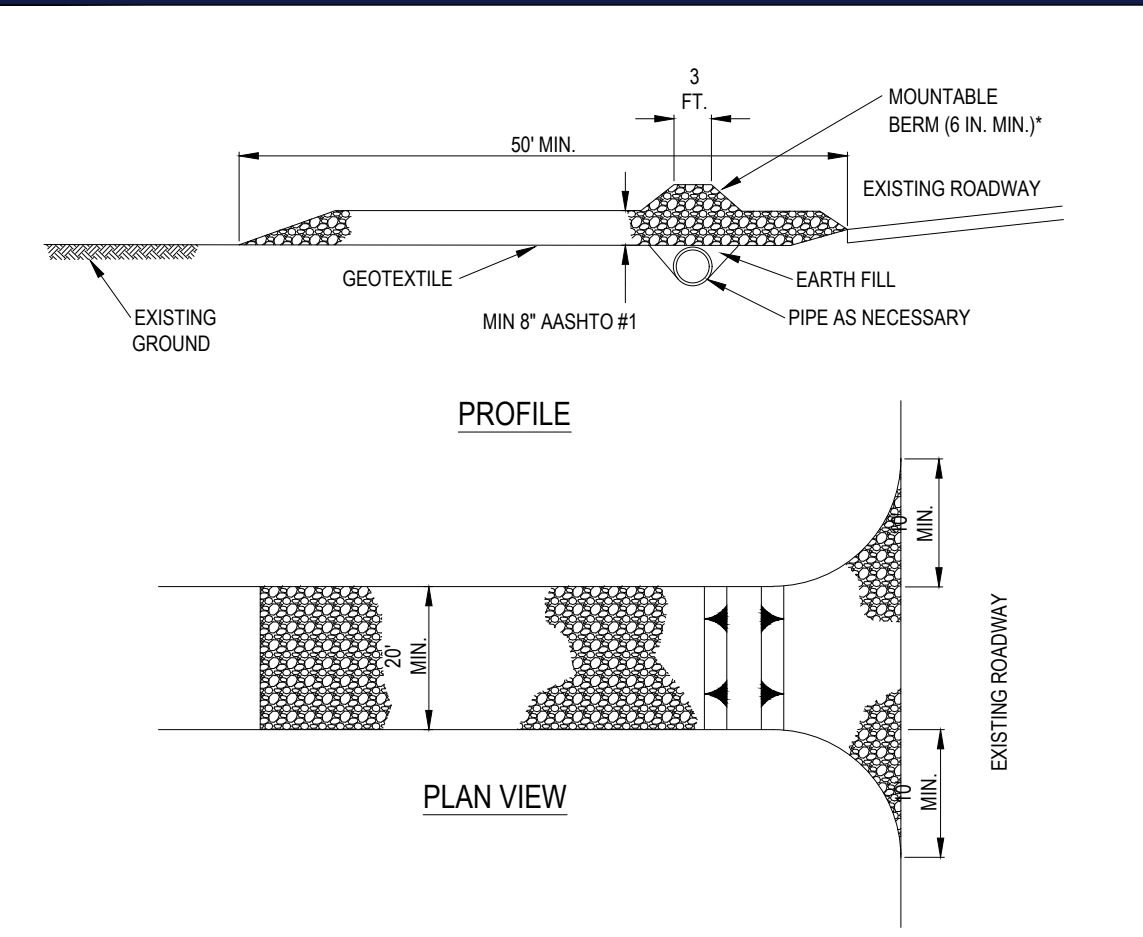
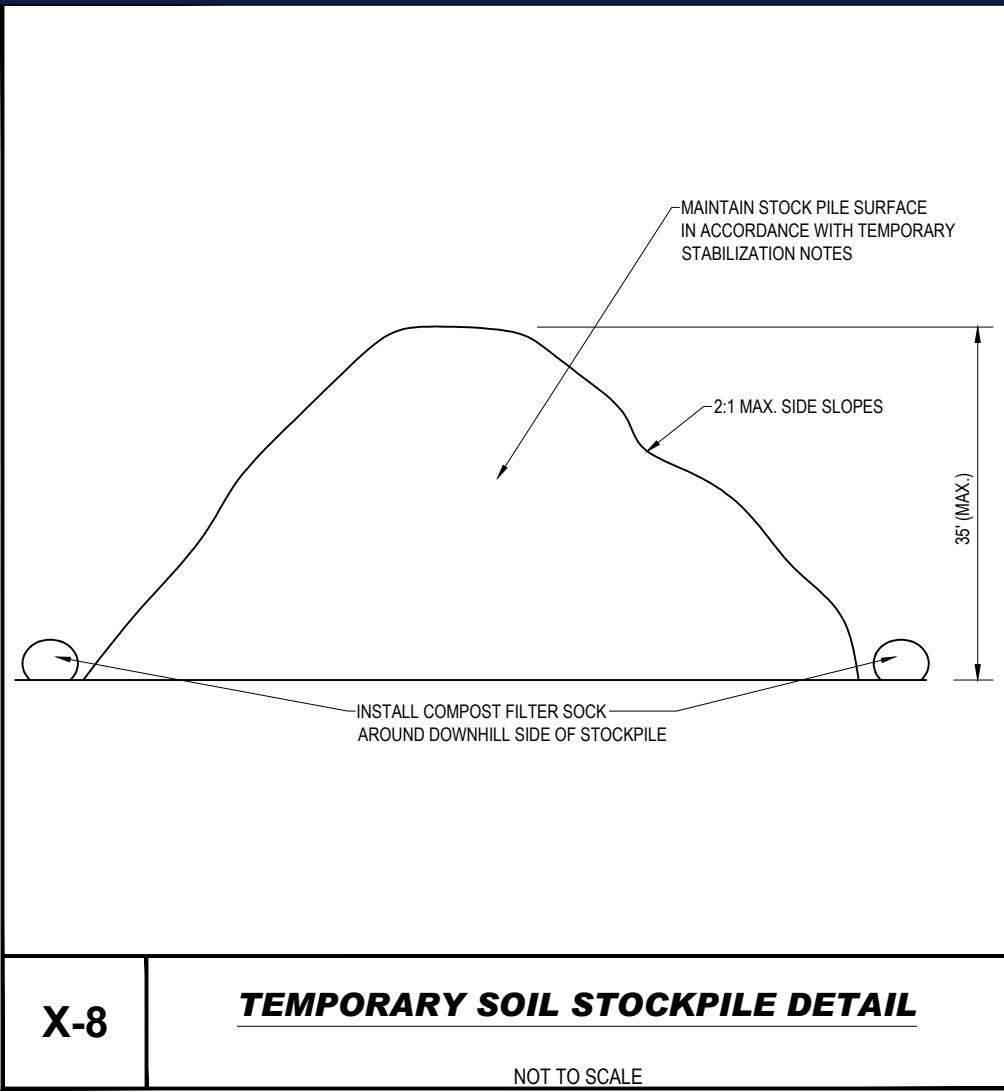
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

R:\0322\PA\2220070.00\CAD\DRAWINGS\PLAN SET\ICM\1 SITE PLANS\PA\2220070.00-CNDS-6C-----LAYOUT: C-603 E&B DETAILS

CP



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS				
REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP	KJB
2	08/25/2022	PER CLIENT COMMENTS	CCP	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP	KJB
4	02/07/2023	PER ARCH REVISIONS	CCP	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP	LRB
6	05/18/2023	PER CLIENT COMMENTS	CCP	LRB

811

Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/29/2022
CAD ID: PAD220070.00-CNDS-6C

PLANNED UNIT DEVELOPMENT PLANS

FOR

TIDAL WAVE
AUTO SPA

PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

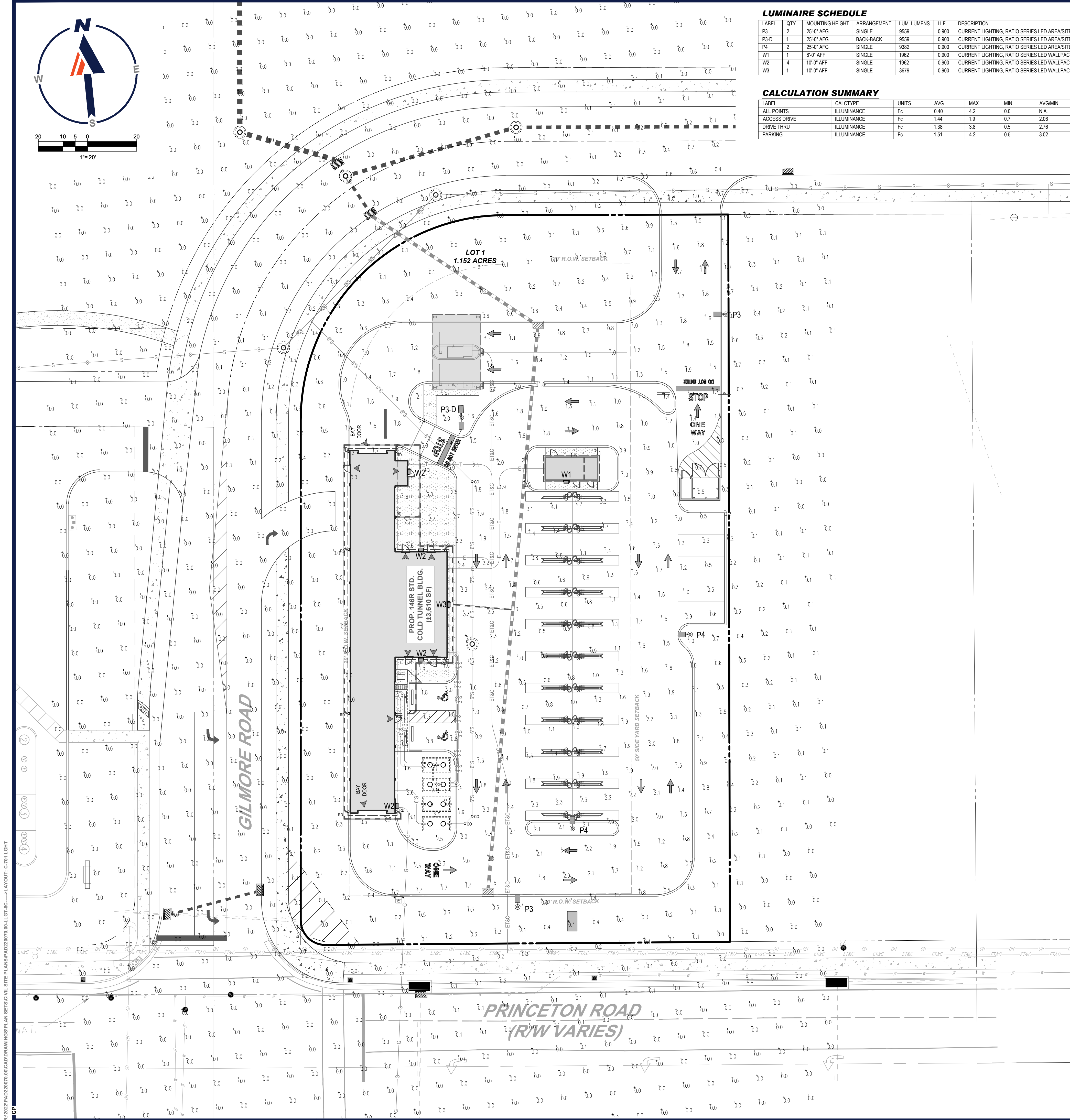
www.BohlerEngineering.com

STATE OF OHIO
MICHAEL BOHLER
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
NO. 12156
EXPIRATION DATE 12/31/2024

SHEET TITLE:
SOIL EROSION & SEDIMENT POLLUTION CONTROL DETAILS

SHEET NUMBER:
C-603

REVISION 6 - 05/18/2023

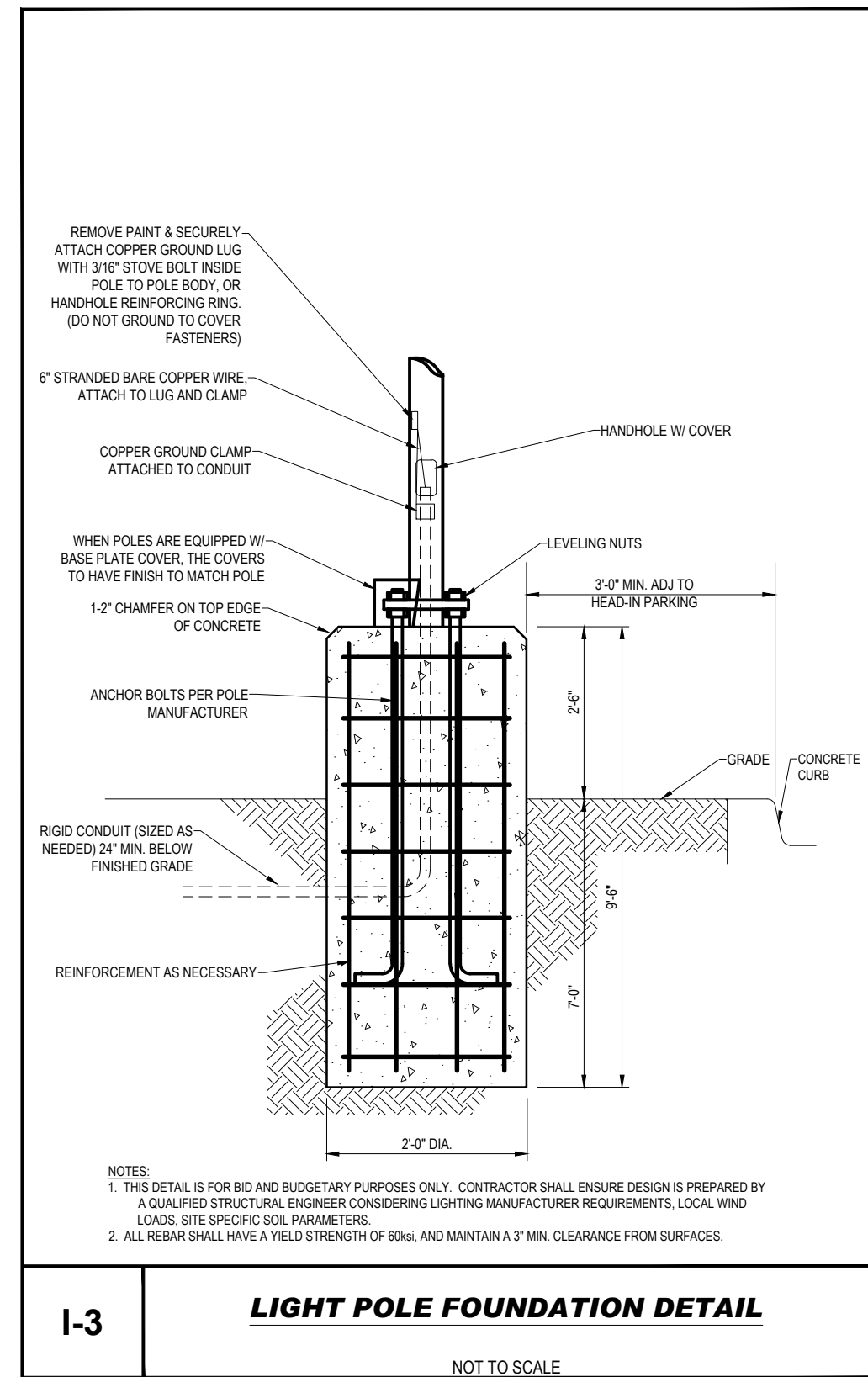


LUMINAIRE SCHEDULE

LABEL	QTY	MOUNTING HEIGHT	ARRANGEMENT	LUM. LUMENS	LLF	DESCRIPTION	POLE
P3	2	25'-0" AFG	SINGLE	9559	0.900	CURRENT LIGHTING, RATIO SERIES LED AREA/SITE LIGHTER, TYPE 3, ZERO UP-LIGHT (RAR1-160L-70-SK7-3-x-x-ASQ-BLT)	CURRENT LIGHTING, STRAIGHT SQUARE STEEL POLE, 22'-6" LENGTH (SSS-B-22.5-40-A-1-B3-BLT)
P3-D	1	25'-0" AFG	BACK-BACK	9559	0.900	CURRENT LIGHTING, RATIO SERIES LED AREA/SITE LIGHTER, TYPE 3, ZERO UP-LIGHT (RAR1-160L-70-SK7-3-x-x-ASQ-BLT)	CURRENT LIGHTING, STRAIGHT SQUARE STEEL POLE, 22'-6" LENGTH (SSS-B-22.5-40-A-1-B3-BLT)
P4	2	25'-0" AFG	SINGLE	9382	0.900	CURRENT LIGHTING, RATIO SERIES LED AREA/SITE LIGHTER, TYPE 4W, ZERO UP-LIGHT (RAR1-160L-70-SK7-4W-x-x-ASQ-BLT)	CURRENT LIGHTING, STRAIGHT SQUARE STEEL POLE, 22'-6" LENGTH (SSS-B-22.5-40-A-1-B3-BLT)
W1	1	8'-0" AFF	SINGLE	1962	0.900	CURRENT LIGHTING, RATIO SERIES LED WALLPACK, TYPE 3, ZERO UP-LIGHT (RWL1-48L-15-SK7-3-x-BLT-PC)	-----
W2	4	10'-0" AFF	SINGLE	1962	0.900	CURRENT LIGHTING, RATIO SERIES LED WALLPACK, TYPE 3, ZERO UP-LIGHT (RWL1-48L-15-SK7-3-x-BLT-PC)	-----
W3	1	10'-0" AFF	SINGLE	3679	0.900	CURRENT LIGHTING, RATIO SERIES LED WALLPACK, TYPE 4W, ZERO UP-LIGHT (RWL1-48L-25-SK7-4W-x-BLT-PC)	-----

CALCULATION SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVGMIN	MAXMIN
ALL POINTS	ILLUMINANCE	Fc	0.40	4.2	0.0	N.A.	N.A.
ACCESS DRIVE	ILLUMINANCE	Fc	1.44	1.9	0.7	2.06	2.71
DRIVE THRU	ILLUMINANCE	Fc	1.38	3.8	0.5	2.76	7.60
PARKING	ILLUMINANCE	Fc	1.51	4.2	0.5	3.02	8.40



GENERAL LIGHTING NOTES

- THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS SPECIFIC NOTES.
- THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
- THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL, SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
- THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
- THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND REPLACING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNERS ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNERS.
- THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECTS, MECHANICAL ENGINEERS AND/OR ELECTRICAL CONTRACTORS RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
- THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE UTILITIES, OR OTHER STRUCTURES TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
- UPON OWNERS ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
- THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.



REVISIONS			
REV	DATE	COMMENT	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP
2	08/25/2022	PER CLIENT COMMENTS	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP
4	02/07/2023	PER ARCH REVISIONS	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP
6	05/18/2023	PER CLIENT COMMENTS	CCP
			LRB



NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
DATE: 07/29/2022
CHECKED BY: KJB
CAD ID.: PAD220070.00-LLGT-6C

PROJECT:
PLANNED UNIT DEVELOPMENT PLANS
FOR

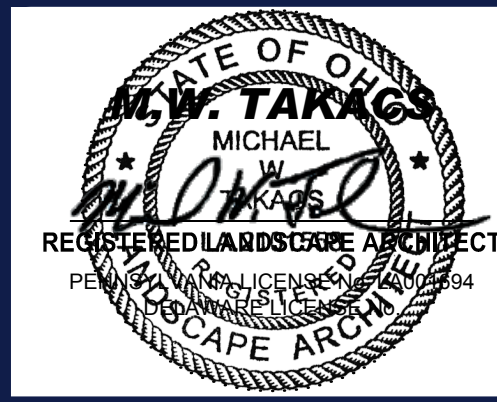


SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A6300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com



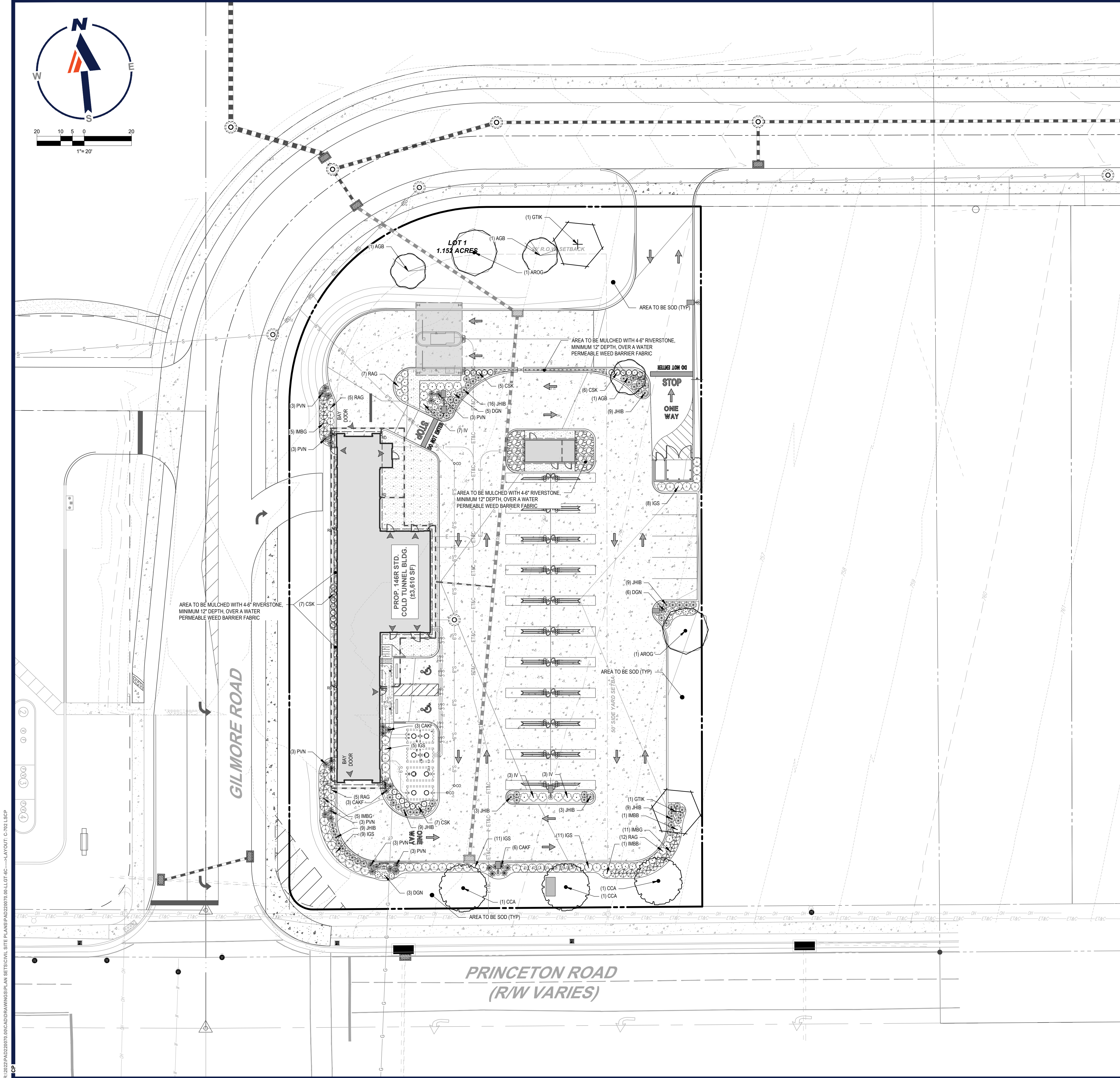
SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

C-701

REVISION 6 - 05/18/2023



TIDAL WAVE LANDSCAPE NOTES:

1. ALL DISTURBED AREAS NOT COVERED BY STRUCTURES, PAVING OR LANDSCAPING SHALL BE SOODED. NO SEEDING SHALL BE USED.
2. ALL PLANT BEDS SHALL BE UNDERLAIN WITH LANDSCAPING FABRIC AND HAVE 3" OF DYED BROWN OR BLACK WOOD MULCH WITH EDGING AS REQUIRED. NO PINE STRAW MULCH WILL BE ALLOWED.
3. ALL RIVER ROCK SHALL BE 4"-6" MINIMUM IN DIAMETER AND SHALL BE UNDERLAIN WITH LANDSCAPING FABRIC.
4. ALL UNDERGROUND IRRIGATION SYSTEM, SHALL BE INSTALLED AND SHALL COMPLY WITH ALL LOCAL MUNICIPAL CODES AND REGULATIONS AND ALSO COMPLY WITH THE LATEST NATIONAL ELECTRIC CODE RULES FOR ALL ELECTRIC WORKS AND MATERIALS.
5. IF THERE IS NO PLANT BED AGAINST THE CAR WASH TUNNEL, VAC HOUSE(S), OR DUMPSTER ENCLOSURE, THEN THERE SHALL BE AN 18 INCH MINIMUM STRIP OF RIVER ROCK INSTALLED.

GENERAL NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
2. ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE SPECIFICATION #2.C, UNLESS OTHERWISE STATED ON THIS PLAN.
3. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
4. IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCT'S MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
5. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
6. WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

PLANT SCHEDULE

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
AROG	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2.5" CAL.	B&B
CCA	3	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" CAL.	B&B
GTIK	2	GLEDTISIA TRIACANTHOS INERMIS 'SKYCOLE'	SKYLINE THORNLESS HONEY LOCUST	2.5" CAL.	B&B
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
AGB	3	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2-2 1/2" CAL.	B&B
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CSK	25	CORNUS SERICEA 'KELSEY'	KELSEY DOGWOOD	15-18"	CONTAINER
DGN	14	DEUTZIA GRACILIS 'NIKKO'	SLENDER DEUTZIA	18-24"	CONTAINER
IGS	44	ILEX GLABRA 'SHAMROCK'	SHAMROCK HIBERNY	24-30"	CONTAINER
IMBG	2	ILEX X MESSEPIAE 'BLUE BOY'	BLUE BOY HOLLY	24-30"	CONTAINER
IMBG	21	ILEX X MESSEPIAE 'BLUE GIRL'	BLUE GIRL HOLLY	24-30"	CONTAINER
IV	13	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPICE	24-30"	CONTAINER
JHB	67	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPDR	CONTAINER
RAG	29	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	15-18"	CONTAINER
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CAKF	12	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	1 GAL.	CONTAINER
PVN	21	PANICUM VIRGATUM 'NORTH WIND'	NORTHWIND SWITCH GRASS	1 GAL.	CONTAINER

REVISIONS

REV	DATE	COMMENT	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP
2	08/25/2022	PER CLIENT COMMENTS	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP
4	02/07/2023	PER ARCH REVISIONS	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP
6	05/18/2023	PER CLIENT COMMENTS	LRB

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/28/2022
CAD ID: PAD220070.00-LLGT-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS



PROPOSED CAR WASH
SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com



SHEET TITLE:

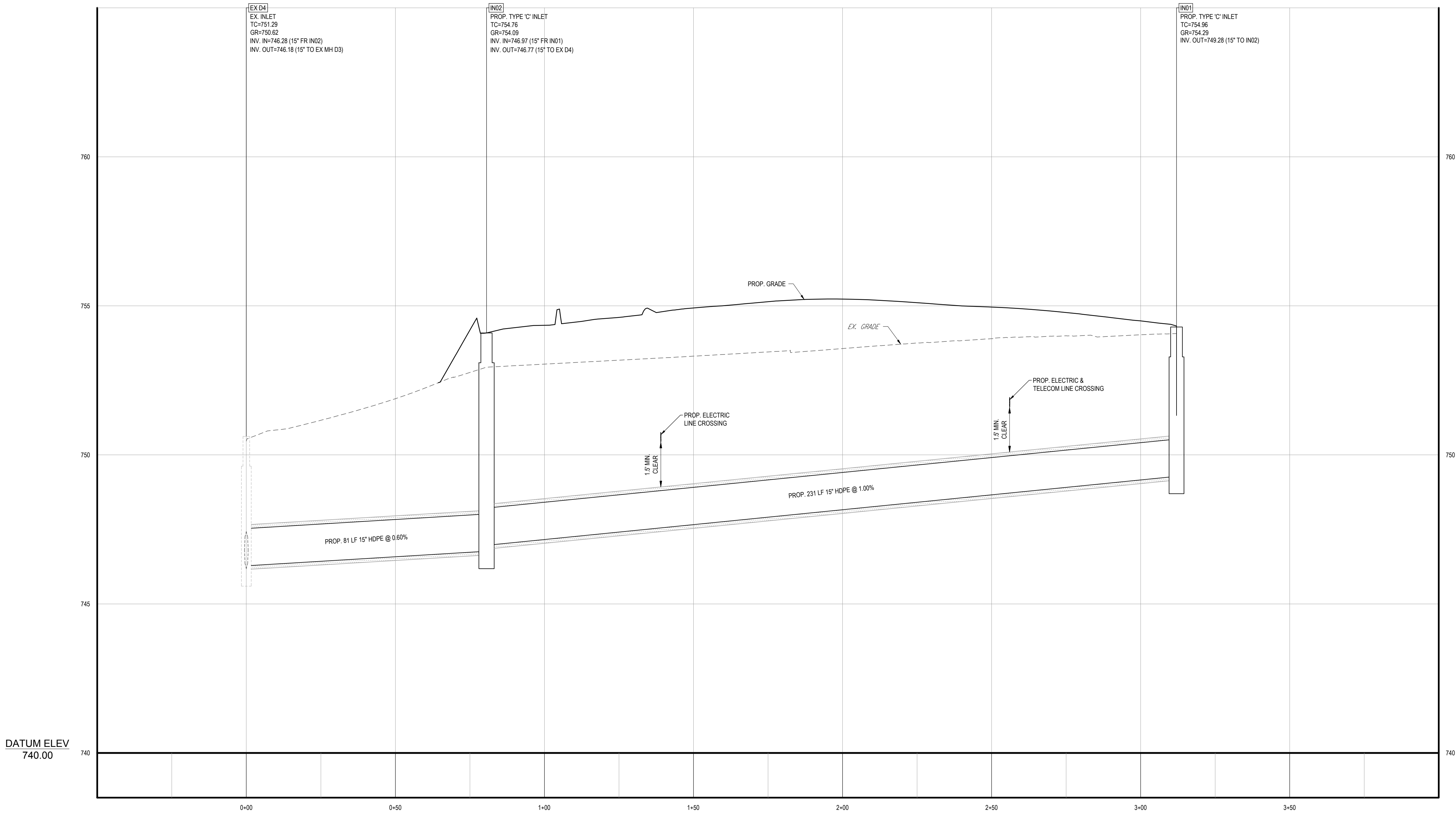
LANDSCAPE PLAN

SHEET NUMBER:
C-702

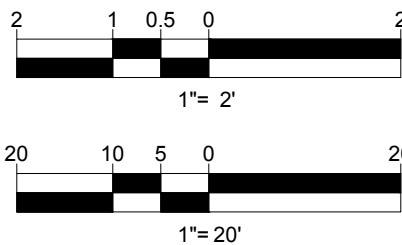
REVISION 6 - 05/18/2023

R:\0322\PA2220070.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\PA2220070.00-PROP-6C-----LAYOUT C-801.PROF

CP



IN01 - EX D4
SCALE: 1"= 20' HORIZONTAL
1"= 2' VERTICAL



SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP	KJB
2	08/25/2022	PER CLIENT COMMENTS	CCP	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP	KJB
4	02/07/2023	PER ARCH REVISIONS	CCP	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP	LRB
6	05/18/2023	PER CLIENT COMMENTS	CCP	LRB



Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/29/2022
CAD ID: PAD220070.00-PROF-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS

FOR



PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005



1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com



SHEET TITLE:

PROFILES PLAN

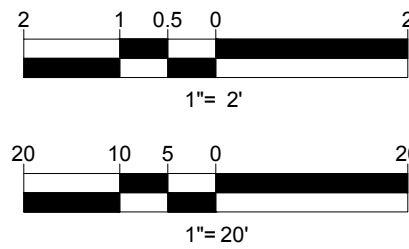
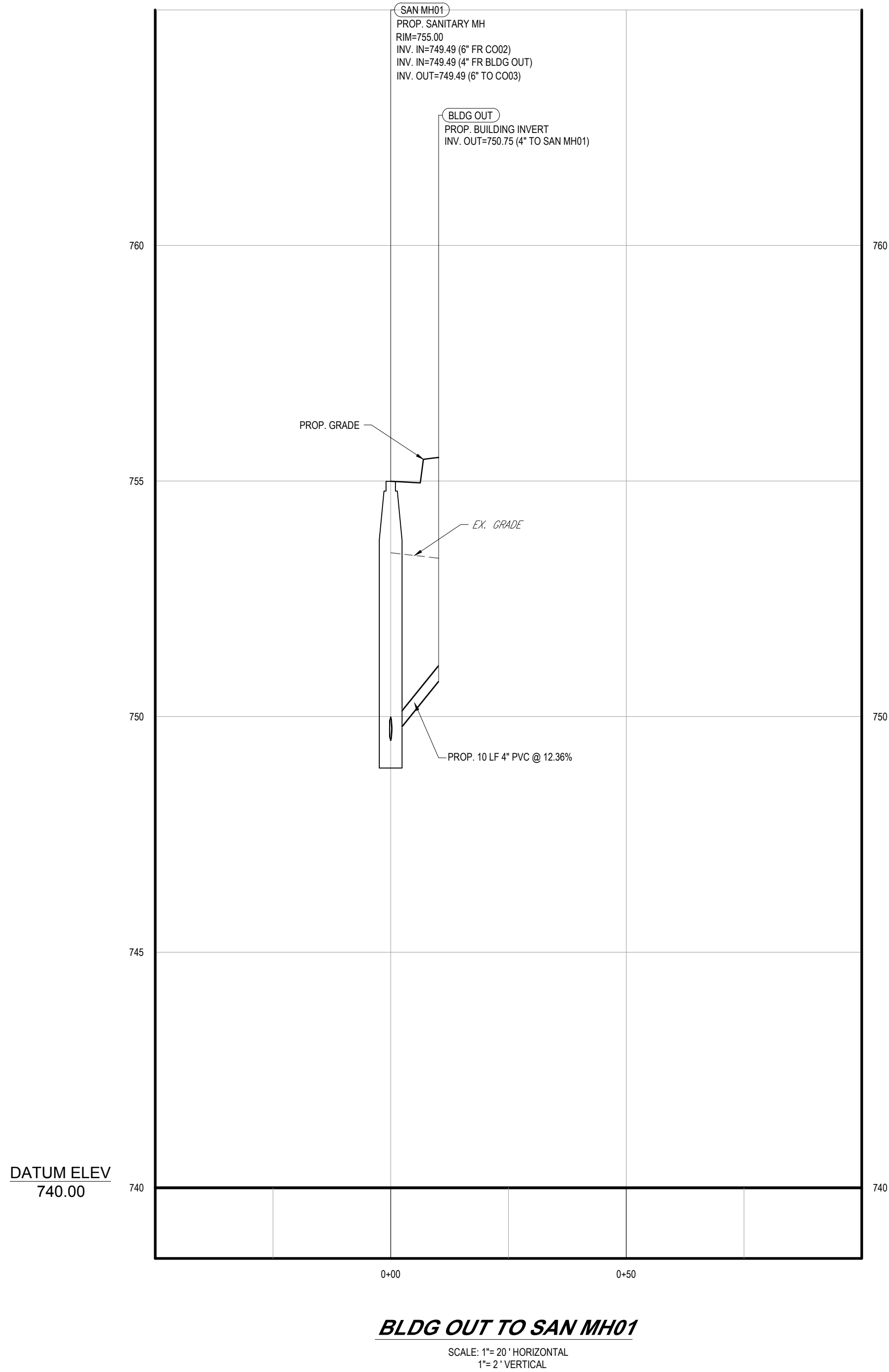
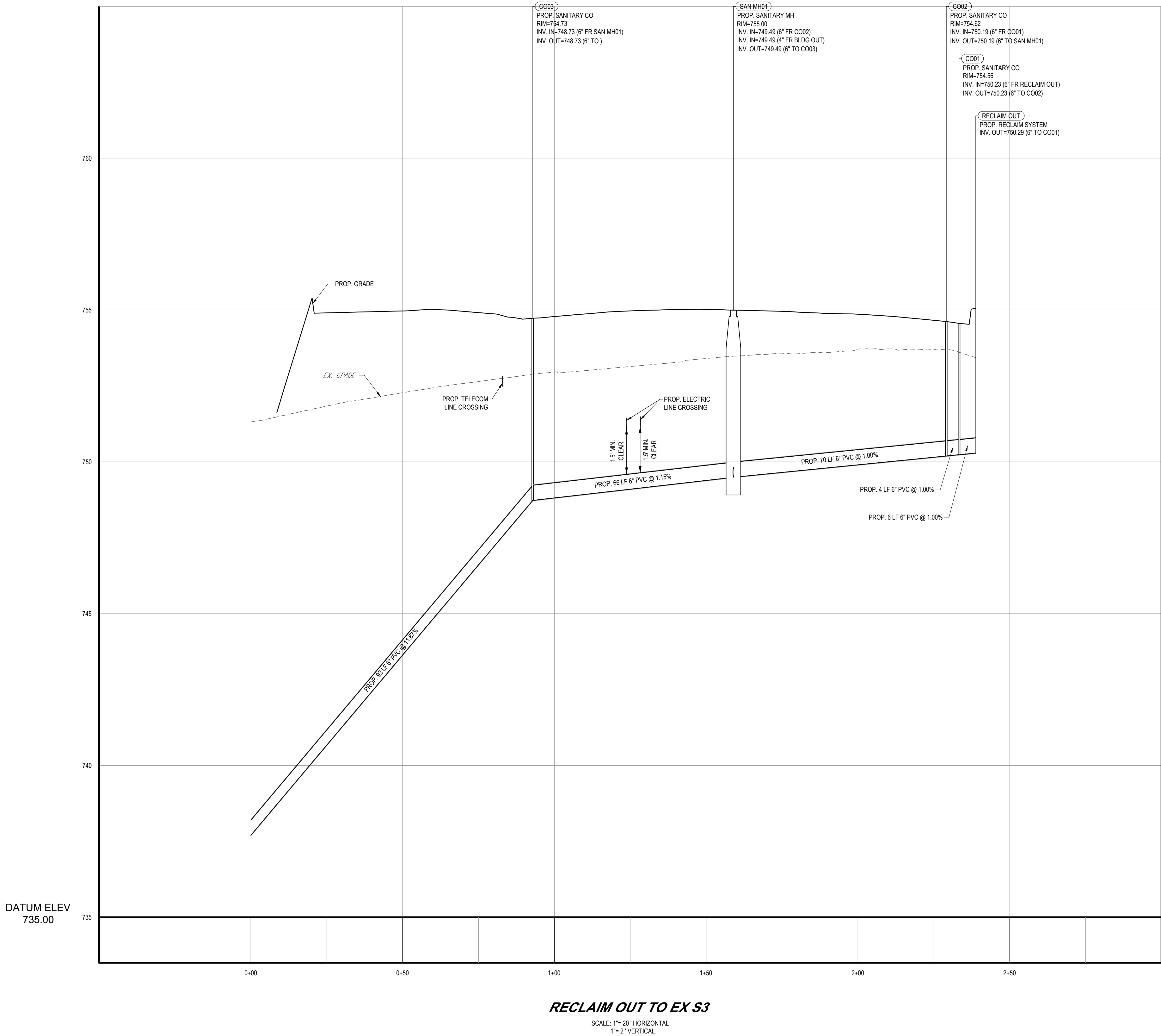
SHEET NUMBER:

C-801

REVISION 6 - 05/18/2023

R:\0322\PA2220070.00\CAD\DRAWINGS\PLAN SET\TRICMIL SITE PLANS\PA2220070.00-PROP-46-.....LAYOUT C-802.PROF

CP



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	CHECKED BY	DRAWN BY
1	08/05/2022	PER CLIENT COMMENTS	CCP	KJB
2	08/25/2022	PER CLIENT COMMENTS	CCP	KJB
3	11/30/2022	PER ARCH REVISIONS	CCP	KJB
4	02/07/2023	PER ARCH REVISIONS	CCP	KJB
5	04/07/2023	PER TOWNSHIP COMMENTS	CCP	LRB
6	05/18/2023	PER CLIENT COMMENTS	CCP	LRB



ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCP
CHECKED BY: KJB
DATE: 07/29/2022
CAD ID: PAD220070.00-PROF-6C

PROJECT:

PLANNED UNIT DEVELOPMENT PLANS

FOR



PROPOSED CAR WASH

SITE #054

3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER

1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212
Phone: (724) 638-8500

www.BohlerEngineering.com



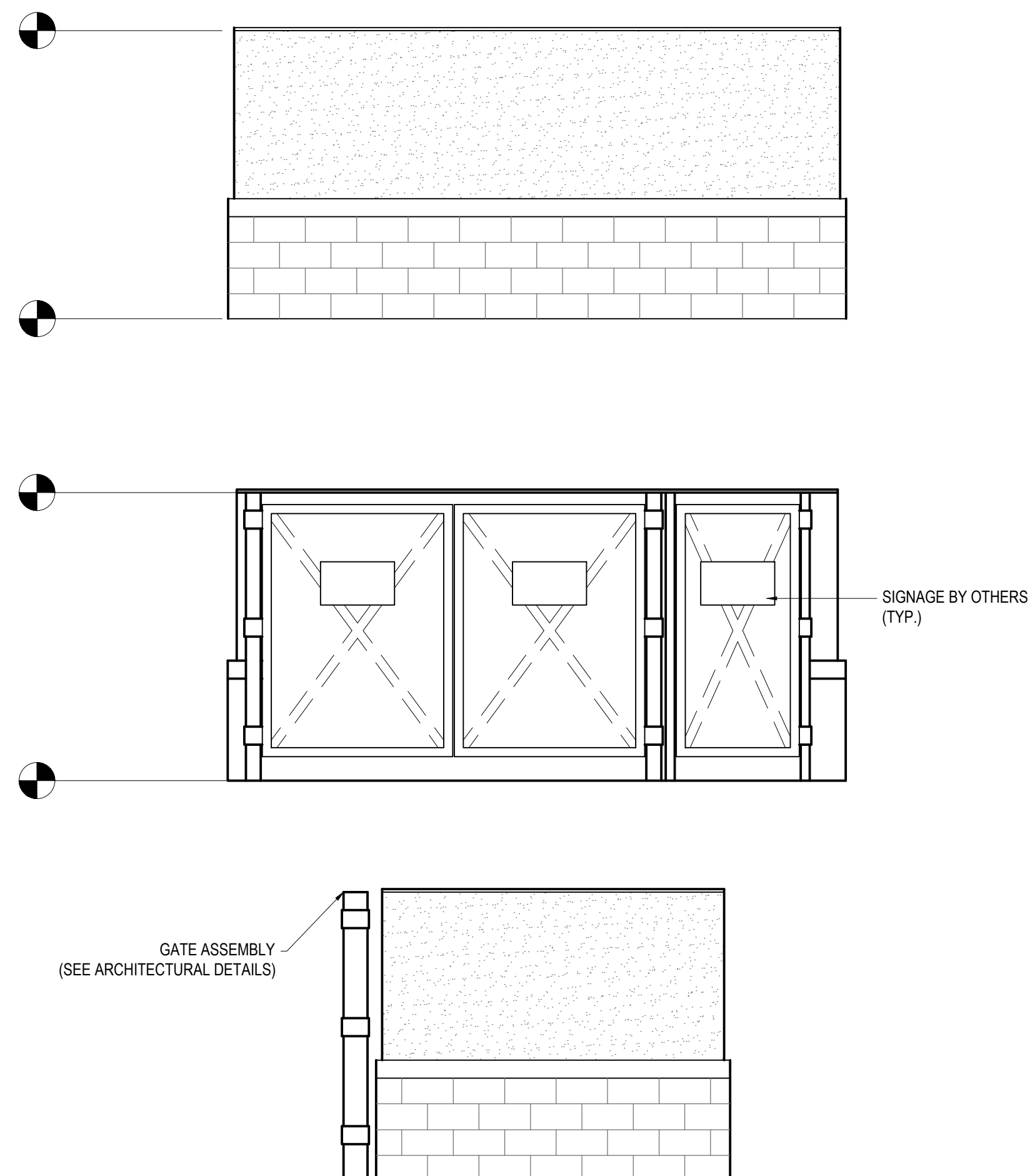
SHEET TITLE:

PROFILES PLAN

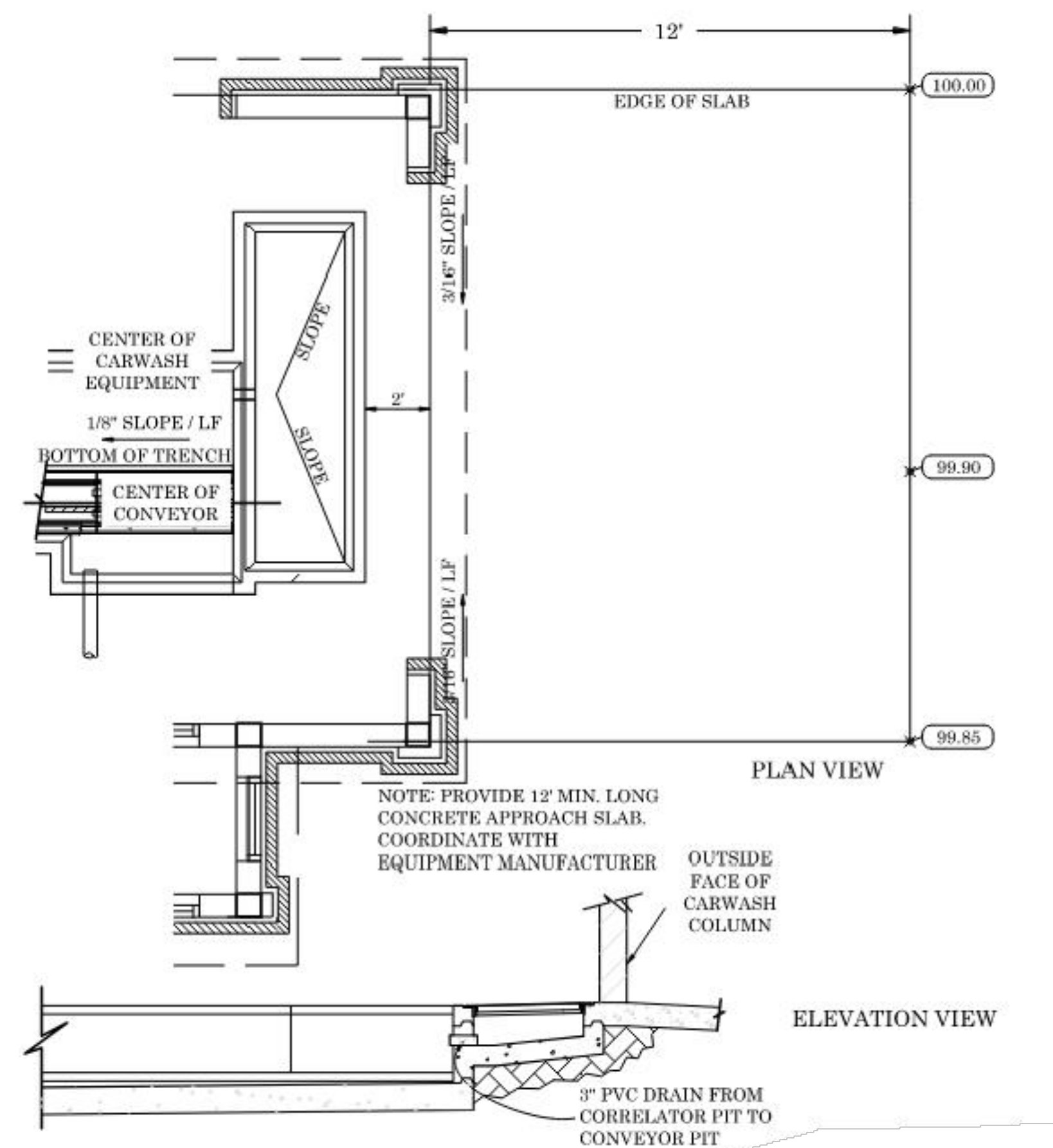
SHEET NUMBER:

C-802

REVISION 6 - 05/18/2023



N.T.S.



N.T.S.

30'-8" CANOPY ROOF

1'-0" OVERHANG

28'-8" COLUMN TO COLUMN

1'-0" OVERHANG

2'-4" 9'-0" 3'-0" 3'-0" 11'-4"

17'-6" 19'-6" CANOPY ROOF

BARRIER GATE

CAMERA

CONTROL BOX WITH ACCESS DOOR

PREFABRICATED PAY STATION KIOSK. VENEER TO MATCH MAIN CAR WASH BUILDING

STONE VENEER

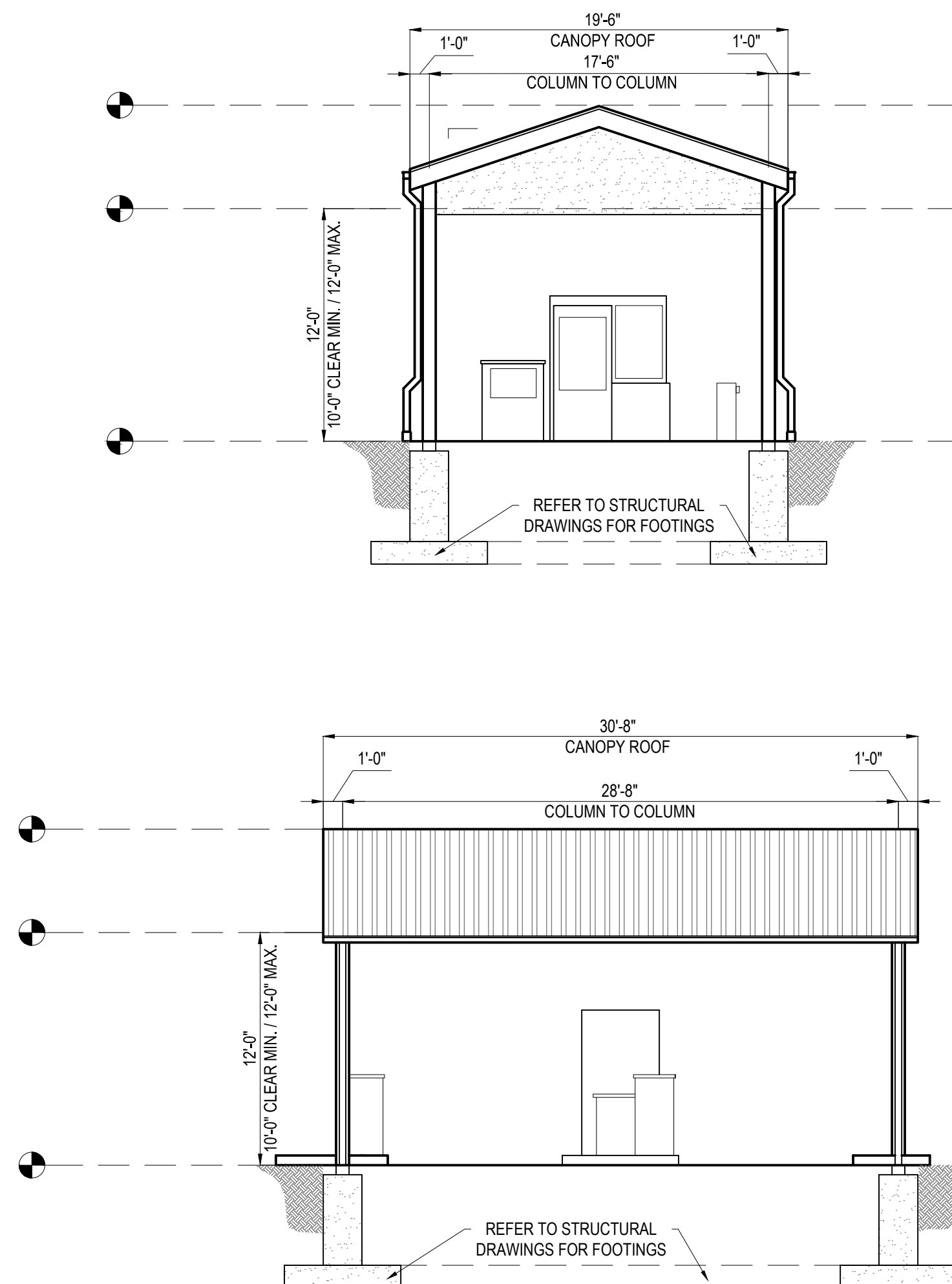
PAY KIOSK, COORDINATE LOCATION OF PAY KIOSK WITH OWNER

GROUND SIGN

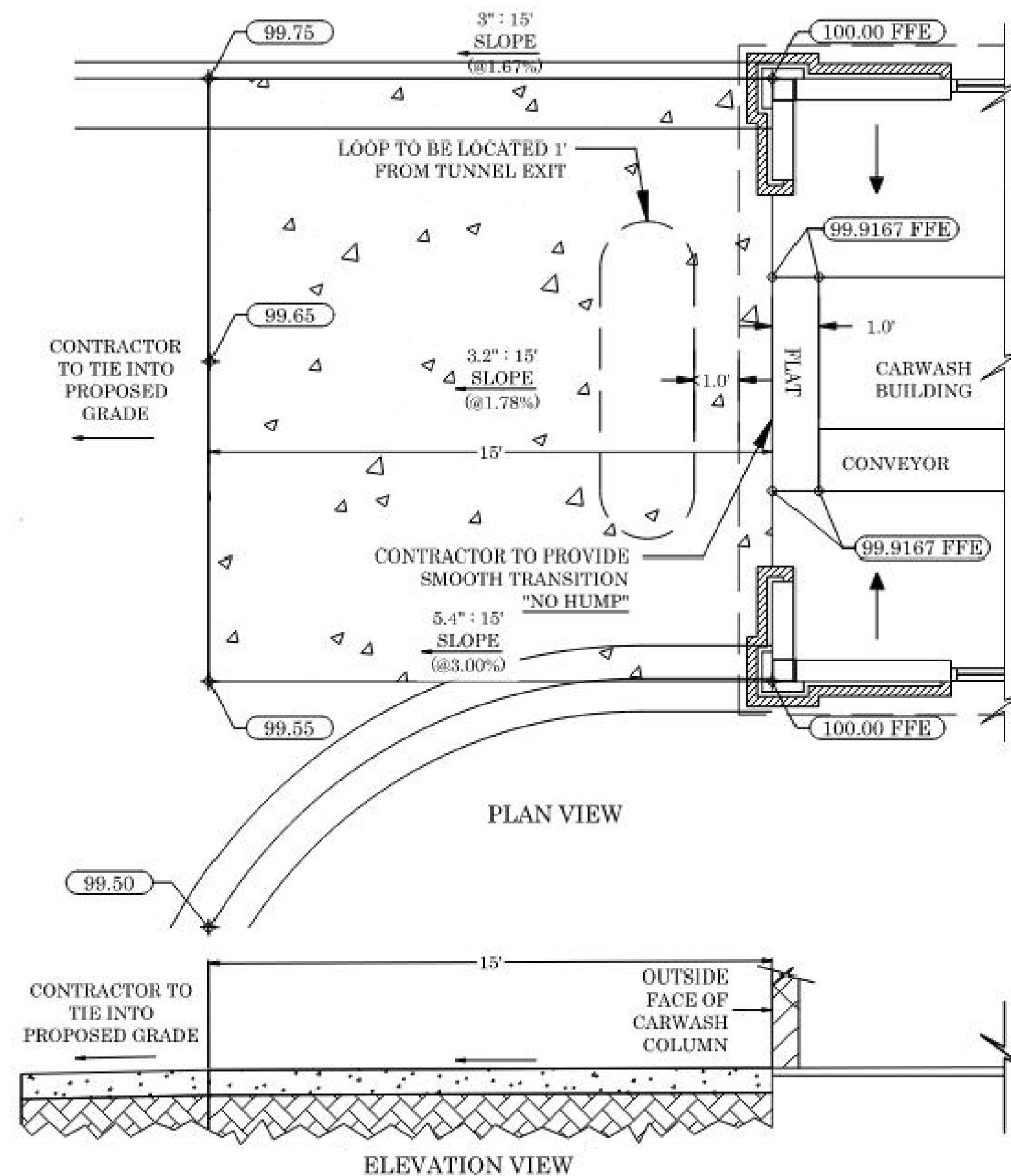
CONCRETE ISLAND, SEE SITE PLAN

PAINT PRIMARY STEEL BEAMS, HORIZONTAL BEAMS AND WIN FRAMES OF PEMB DO NOT PAINT ROOF PURLINS OR UNDERSIDE OF DECK

DOWNSPOUT, TYP.



N.T.S.



N.T.S.

REV	DATE	COMMENT	DRAWING CHECKED
1	08/05/2022	PER CLIENT COMMENTS	CC KJ
2	08/25/2022	PER CLIENT COMMENTS	CC KJ
3	11/30/2022	PER ARCH REVISIONS	CC KJ
4	02/07/2023	PER ARCH REVISIONS	CC KJ
5	04/07/2023	PER TOWNSHIP COMMENTS	CC LR
6	05/18/2023	PER CLIENT COMMENTS	CC LR



It's fast. It's free. It's the law.

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

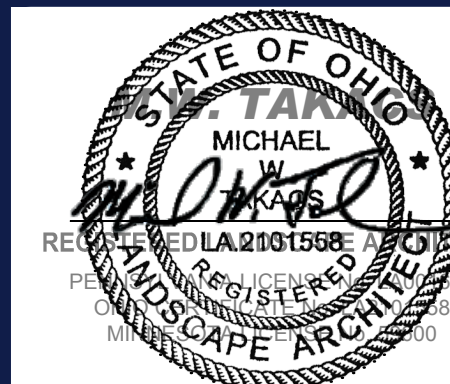
PROJECT:



SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER //

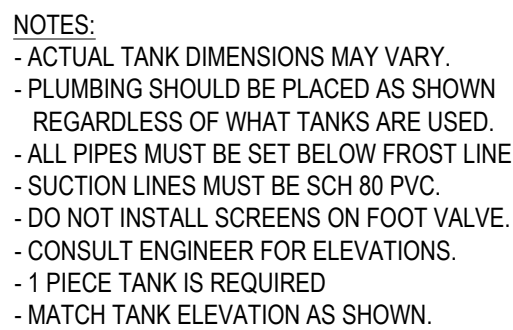
www.BohlerEngineering.com



DETAILS

C-902

REVISION 6 - 05/18/2023



(IF FOOT VALVE IS RAISED, THE FLOAT SWITCH ALSO
NEEDS TO BE RAISED)
KEEP A 10" DISTANCE BETWEEN THEM



TANKS
TYPICAL 1,500 GAL. PRECAST CONCRETE

TANK #1 - 1A UNDERFLOW - 1B PRIMARY SETTLEMENT
TANK #2 - SECONDARY SETTLEMENT W/ BAFFLE
TANK #3 - PROCESS TANK
TANK #4 - OIL AND WATER SEPARATOR PER MUNICIPAL SPECIFICATIONS

UNDERGROUND PLUMBING

- 1- 2" SCH 80 PVC PIPE - UNDERFLOW DISCHARGE - TO TANK 1A
- 2- 6" SCH 40 PVC PIPE - EXTERNAL CROSSOVER - FROM TANK 1B TO TANK 2A
- 3- TWO 6" SCH 40 PVC PIPES - CENTER TRENCH - TO TANK 1B
- 4- "4" OR 6" SCH 40 PVC PIPE - OVERFLOW FROM TANK 2B TO TANK 3
- 5- 6" SCH 40 PVC PIPE - EXTERNAL CROSSOVER - FROM TANK 2B TO TANK 3
- 6- 3" SCH 40 PVC PIPE - FILTER PUMP SUCTION LINE - FROM TANK 3 "SHOULD HAVE SLIGHT FALL TO RISER, INSTALL 90° AS HIGH AS POSSIBLE ON RISER TO ALLOW FOR EASY MAINTENANCE, NO DEEPER THEN 2" FROM FINISH GRADE"
- 7- 3" SCH 80 PVC PIPE - SPARE SUCTION LINE - FROM TANK 3 "COMPLETE PLUMBING ON SPARE SUCTION LINE. UNION & FOOT VALVE SAME AS PRIMARY (6). SHOULD HAVE SLIGHT FALL TO RISER. INSTALL 90° AS HIGH AS POSSIBLE ON RISER TO ALLOW FOR EASY MAINTENANCE."
- 8- 4" OR 6" SCH 40 PVC PIPE - AQUIAPPE DISCHARGE - SPLIT TO TANK 3
- 9- 4" OR 6" SCH 40 PVC PIPE - AQUIAPPE DISCHARGE - SPLIT TO CENTER TRENCH
- 12- 6" SCH 40 PVC PIPE - INTERNAL CROSSOVER - FROM TANK 1A TO TANK 1B
- 13- 6" SCH 40 PVC PIPE - INTERNAL CROSSOVER - FROM TANK 2A TO TANK 2B
- 15- 6" SCH 40 PVC PIPE - TIRE SHINE DRAIN TO TANK 4
- 16- 6" SCH 40 PVC PIPE - EXTERNAL CROSSOVER FROM TANK 3 TO TANK 4
- 17- PIPE TO SANITARY SEWER

ABOVE GROUND PLUMBING

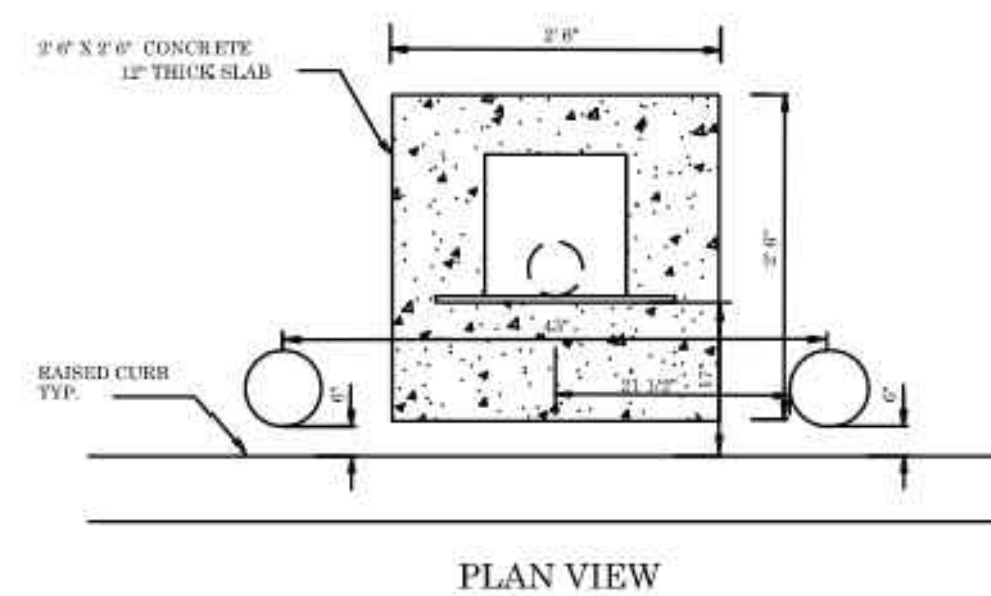
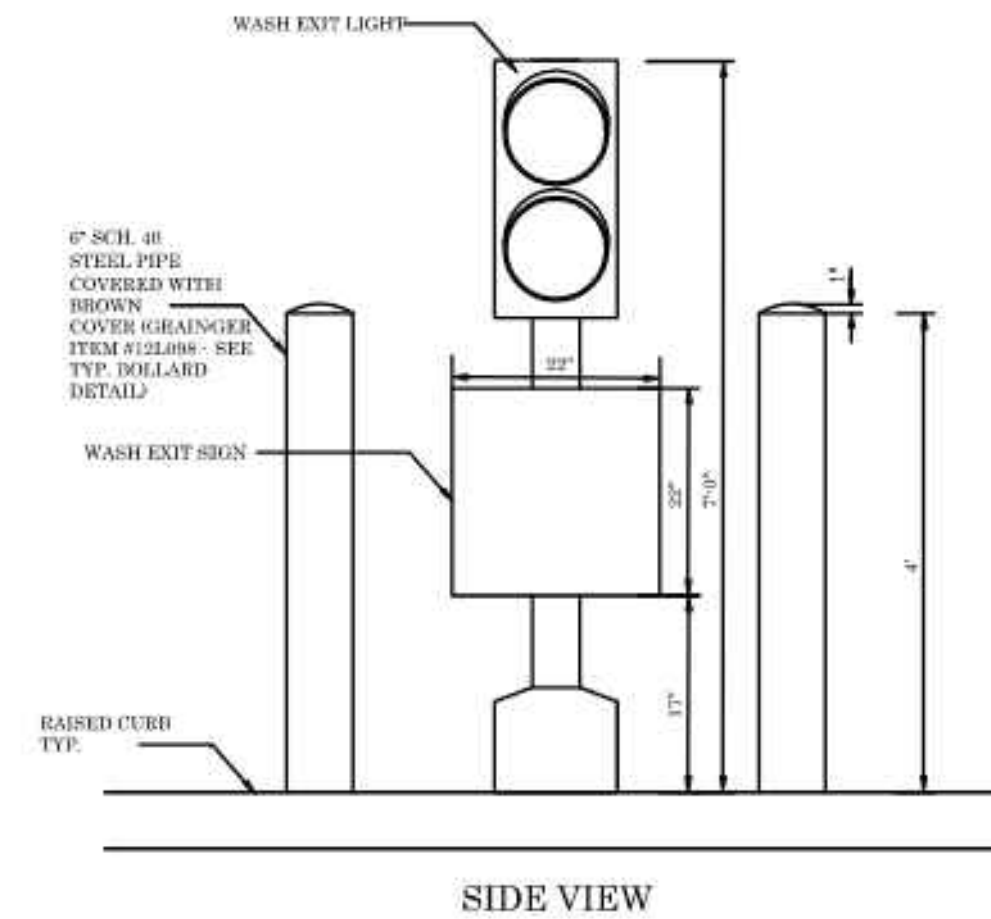
- 10 - 2" PIPE - RECLAIM WATER OUTLET - FROM ERS TO CAR WASH EQUIPMENT
11 - 2" PIPE - FRESH WATER INLET - FROM CITY WATER SOURCE TO ERS
14 - 2" SCH 80 PVC PIPE - AQUAPREP DISCHARGE TEE' D W/ BALL VALVES

UNDERGROUND ELECTRICAL

- A - 1" PVC CONDUIT - LOW WATER PROTECTION FLOAT SWITCH (FS-2) - TANK 3 TO MECHANICAL ROOM
B - 1" PVC CONDUIT - FOR FUTURE USE - TANK 2B TO MECHANICAL ROOM

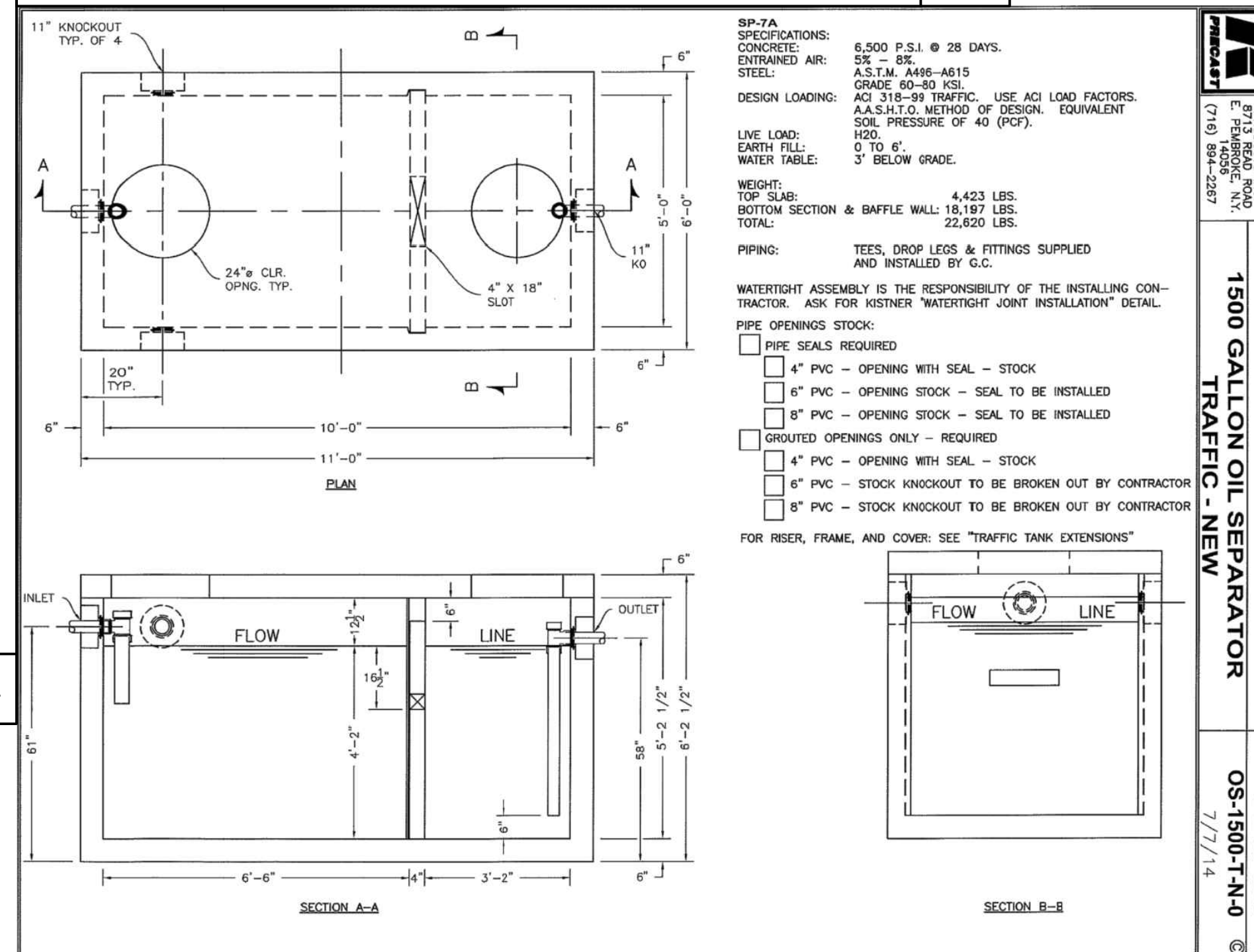
ABOVE GROUND ELECTRICAL

- C - 3 PHASE POWER IN L1-L2-L3
D - 120 VAC CONTROL CIRCUIT FEED



TIDAL WAVE EXIT LIGHT DETAIL

N.T.S.



BOHLER TM

SITE CIVIL AND CONSULTING ENGINEERING

LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SURFACE STRUCTURE
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

[illegible]

Know what's below.
Call before you dig.

ALWAYS CALL 811

It's fast. It's free. It's the law.

**NOT APPROVED FOR
CONSTRUCTION**

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PAD220070.00
DRAWN BY: CCR
CHECKED BY: KJE
DATE: 07/29/2022
CAD I.D.: PAD220070.00-CNDS-60

PROJECT:

**PLANNED UNIT
DEVELOPMENT
PLANS**

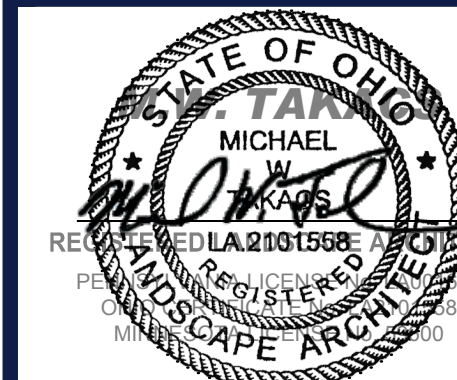
PROPOSED CAR WASH

SITE #054
3003 BRIDGEWATER LANDING DRIVE
FAIRFIELD TOWNSHIP
BUTLER COUNTY, OHIO
T.M.P.#: A0300172000005

BOHLER //

**1 ALLEGHENY SQUARE, SUITE 402
PITTSBURGH, PA 15212**
Phone: (724) 638-8500

www.BohlerEngineering.com



SHEET TITLE

DETAILS

SHEET NUMBER

C-903

REVISION 6 - 05/18/2023