

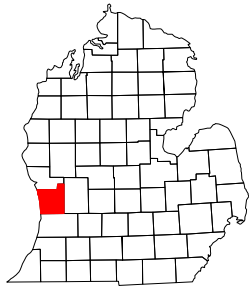
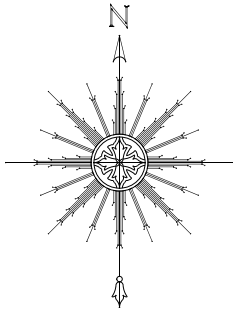
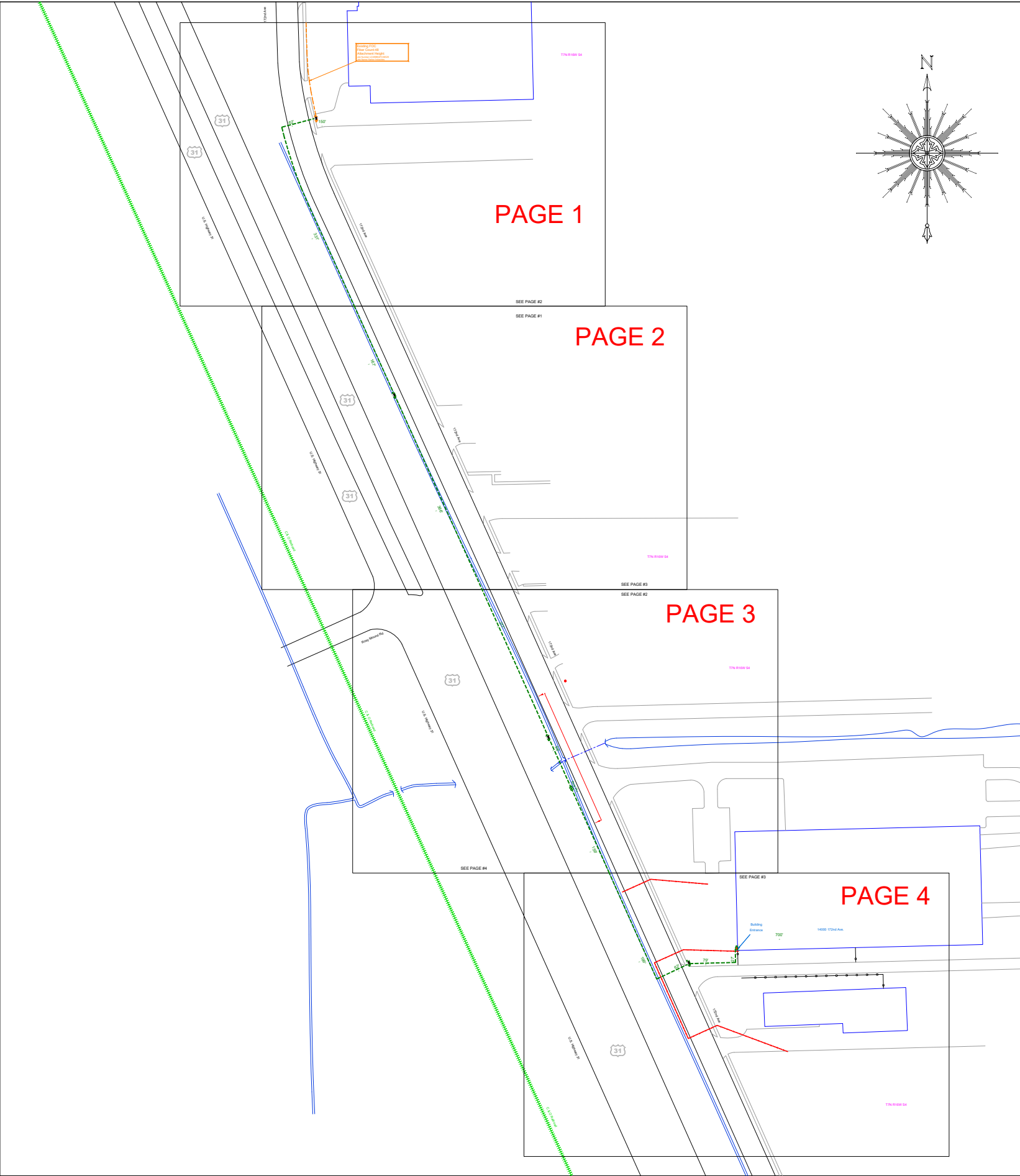


**Advanced Communications & Data**  
**KEPS Technologies, Inc. d/b/a ACD.net**  
**FIBER OPTIC CABLE ROUTE**

Project Number  
**LC012699FO041052**

[517-999-9999](tel:517-999-9999)

1800 Grand River Ave  
Lansing MI 48906



Advanced Communications & Data  
517-999-9999  
1800 Grand River Ave  
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MISS DIG 1-800-482-7171	O.U.P.S 1-800-362-2764	INDIANA811 1-800-382-5544
----------------------------	---------------------------	------------------------------

### Project Manager

K. LaBelle

### Permitting

K. LaBelle

### Transport Manager

G. Gould

Drawn By	Date
K. Ngo	01/03/24

As Built	Date

### Revisions

REV #	DESCRIPTION	BY	DATE
1	Changed Building Entrance	KN	02/07/24
2	Added Property Lines and Traffic Control Notes	KN	02/08/24
3	Changed Interior Fiber Count	DW	02/08/24
4	Moved UG Fiber To The West Side of Road	KN	03/11/24
5	Adjusted and dimensioned infrastructure	DW	3/20/24
6	Changed infrastructure dim color, made running line heavy, changed fiber ct	DW	4-9-24

**Exhibit:** N/A

Remarks:

PEACHTREE ID: 41052

SCALE: 1" = NTS

TRS:

COUNTY: Ottawa

TOWNSHIP: Grand Haven

CITY:

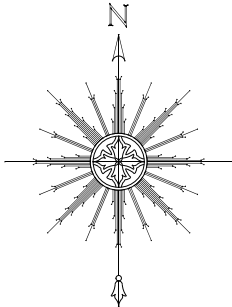
PROJECT ID: LC012699FO041052

CUSTOMER NUMBER: 12699

**GRID KEY**

CONSTRUCTION NOTES

1. CONTRACTOR SHALL EMAIL \_\_LABELLE.KATELYN@ACD.NET\_\_ WITH DAILY STATUS UPDATES AND ONCE WORK IS COMPLETE
2. MUNICIPALITY MUST BE NOTIFIED AT LEAST 48 HOURS BEFORE ANY WORK COMMENCES
3. ALL APPROPRIATE PERMITS AND ASSOCIATED DRAWINGS SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION
4. NOTIFY THE APPROPRIATE UTILITY NOTIFICATION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.  
MICHIGAN- MISS DIG (1-800-482-1711), OHIO- O.U.P.S. (1-800-362-2764) OR INDIANA- INDIANA811 (1-800-382-5544)
5. ALL UTILITIES MUST BE FIELD VERIFIED
6. ALL HANDHOLES ARE TO INCLUDE 150' OF COILED FIBER FOR STORAGE
7. NEW INSTALLATION SHALL MAINTAIN 18" CLEARANCE FROM ALL EXISTING UTILITIES UNLESS NOTED OTHERWISE
8. ALL ROAD AND DRIVEWAY CROSSINGS WILL BE DIRECTIONAL BORED
9. CONSTRUCTION SHALL NOT DEVIATE FROM APPROVED PLANS WITHOUT WRITTEN CONSENT FROM BOTH THE MUNICIPALITY AND AN AUTHORIZED ACD.NET REPRESENTATIVE
10. PROPER SIGNAGE AND TRAFFIC CONTROL IS REQUIRED BEFORE STARTING ANY WORK WITHIN THE PUBLIC RIGHT OF WAY
11. ALL BACKFILL MATERIAL WITHIN THE ROAD RIGHT OF WAY OR NEAR SIDEWALKS AND PATHWAYS SHALL MEET THE REQUIREMENTS OF MDOT CLASS II MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM DENSITY IN SUCCESSIVE LAYERS THAT ARE NO MORE THAN 12" THICK, UNLESS OTHERWISE AUTHORIZED
12. ALL SODDED AREAS THAT MAY DISTURBED DURING CONSTRUCTION ARE TO BE RESTORED WITH 3" QUALITY TOP SOIL, SEED AND MULCH
13. ALL CONCRETE/SIDEWALK AREAS THAT MAY BE DISTURBED ARE TO BE RESTORED TO A LIKE OR BETTER CONDITION.
14. CONTRACTOR SHALL PROVIDE AS-BUILTS ON ALL WORK WITHIN 5 BUSINESS DAYS OF COMPLETION





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Exhibit: N/A

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TOWNSHIP: Grand Haven

CITY:

PROJECT ID: LC012699FO041052

CUSTOMER NUMBER: 12699

NOTES



General Site Preparation For Installing Hand Holes (All Sizes)

These guidelines for installing ACD Hand holes are provided as a general guide and actual site conditions may warrant the use of additional installations procedures not covered here. Follow all project specifications when installing ACD Hand holes.

1. Excavate the earth approximately 12" wider and longer than the hand hole as well as 6" deeper then the depth of the hand hole. Fill the excavation with a 6" base of pea stone or crushed rock to ensure proper drainage. Tamping is recommended to provide a compact and level surface for the hand hole to be place upon.

2. Wood bracing should be used inside the hand hole to ensure minimal sidewall deflection when backfilling. Temporary bracing can be constructed out of construction grade lumber. Start by using (1) 2x4 to brace the end walls and (2) 2x4s to brace the side walls, finish with (1) 2x4 from one side of the ring to the other. Do not install the bracing to tight to prevent damage.

3. Lift the Hand hole into the excavation using the lifting bolts or lifting wires. Check the top of the box is flush with the finished grade. Any necessary adjustments should be made to bring it to finished grade.

4. Backfill with clean, loose soil and compact to a minimum of 90%-95% compaction. Remove bracing materials and secure cover using included hardware.

General Hand Hole Notes (All Sizes)

1. All Hand holes are to contain 150' of coiled up storage.

2. All Conduits are to be brought up through the bottom of the hand hole. No Conduits are to penetrate the sides of the enclosure. All conduits are to be tagged with the colored zip ties following this system:

Red= Riser  
Blue= North  
Yellow= West  
Green= South  
Black= East

3. All Hand holes are to contain a 5/8" DIA x 8' grounding rod to be placed in a corner 3" away from each side and 18" above tamped earth.

Restoration Notes

1. All backfill material within the road right of way or near sidewalks and pathways shall meet the requirements of MDOT Class II material, compacted to 95% of its maximum density in successive layers that are no more than 12" thick, unless otherwise authorized


2. All sodded areas that may disturbed during construction are to be restored with 3" quality top soil, seed and mulch

3. All Concrete/Sidewalk areas that may be disturbed are to be restored to a like or better condition.

Underground Coupler Detail

### PUSH2CONNECT™ Coupler

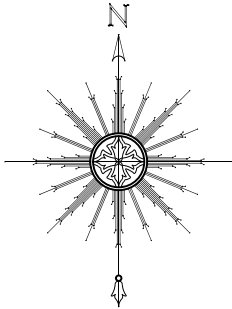
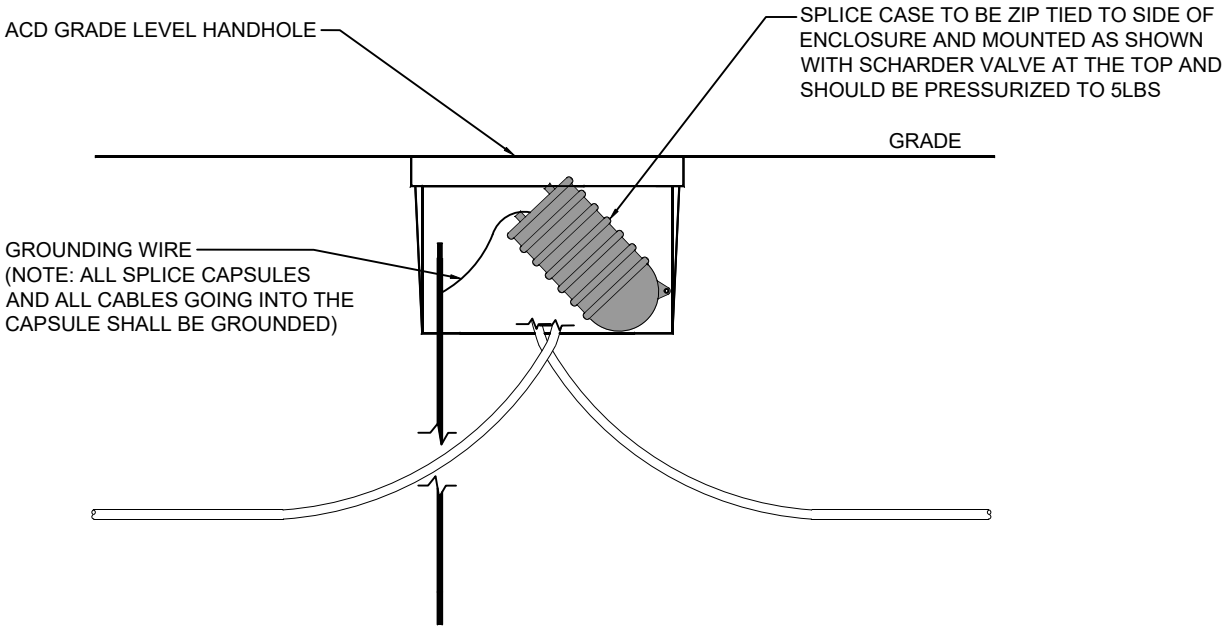
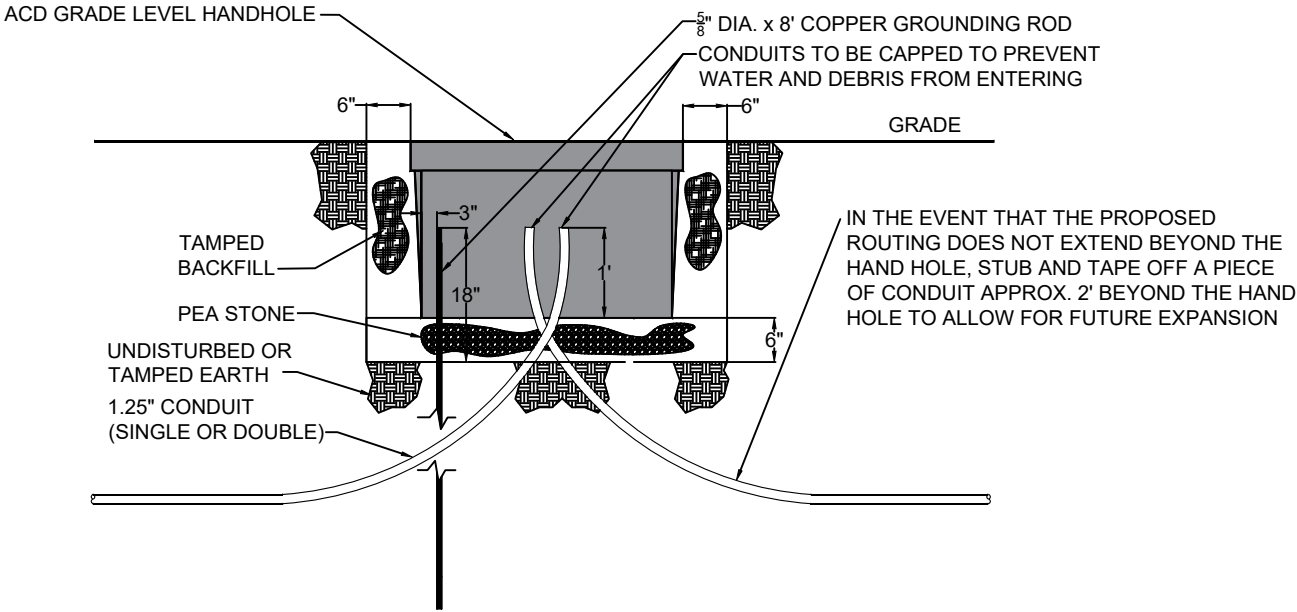
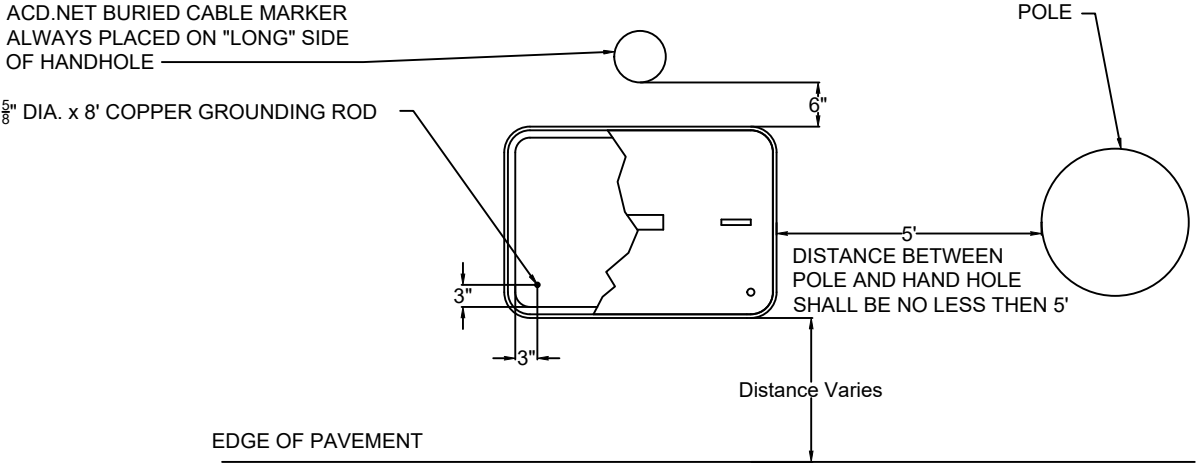
## Do Not Unscrew!



**Push-On-Only!**  
(Loosening collars prior to installing can cause improper installation, create air loss, or coupler failure)

**Air Tight - Water Tight**  
Tested to **GREATER THAN 1500#**  
**Pull-Out**  
**GREATER THAN 450 (psi) air pass-through**

Couplers for the Following Sizes	Duct OD		Color	Box Qty	Part Number
1" Smoothwall HDPE	1.315		Yellow	85	P2C-1.315
1.25" Smoothwall HDPE	1.66"		Blue	100	P2C-1.66
1.25" Smoothwall HDPE True Sized	1.58"		Black	100	P2C-1.58
2" Smoothwall HDPE	2.375"		Orange	24	P2C-2.375
Transition Coupler 1.25" to 1.25"	1.58" to 1.66"		Black AND Blue	100	P2C-1.66-1.58trans



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K. LaBelle

Permitting

K. LaBelle

Transport Manager

G. Gould

Drawn By

Date

K. Ngo

01/03/24

As Built

Date

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5	Adjusted and dimensioned infrastructure	DW	3/20/24
6	Changed Infrastructure dim color, made running line heavy, changed fiber ct	DW	4-9-24

Exhibit: N/A

HAND HOLE

INSTALLATION

NOTES AND DETAILS

Remarks:

PEACHTREE ID: 41052

SCALE: 1" = NTS

TRS:

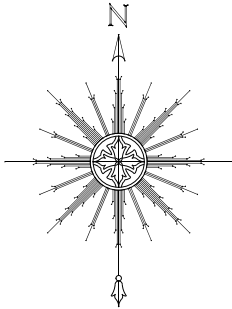
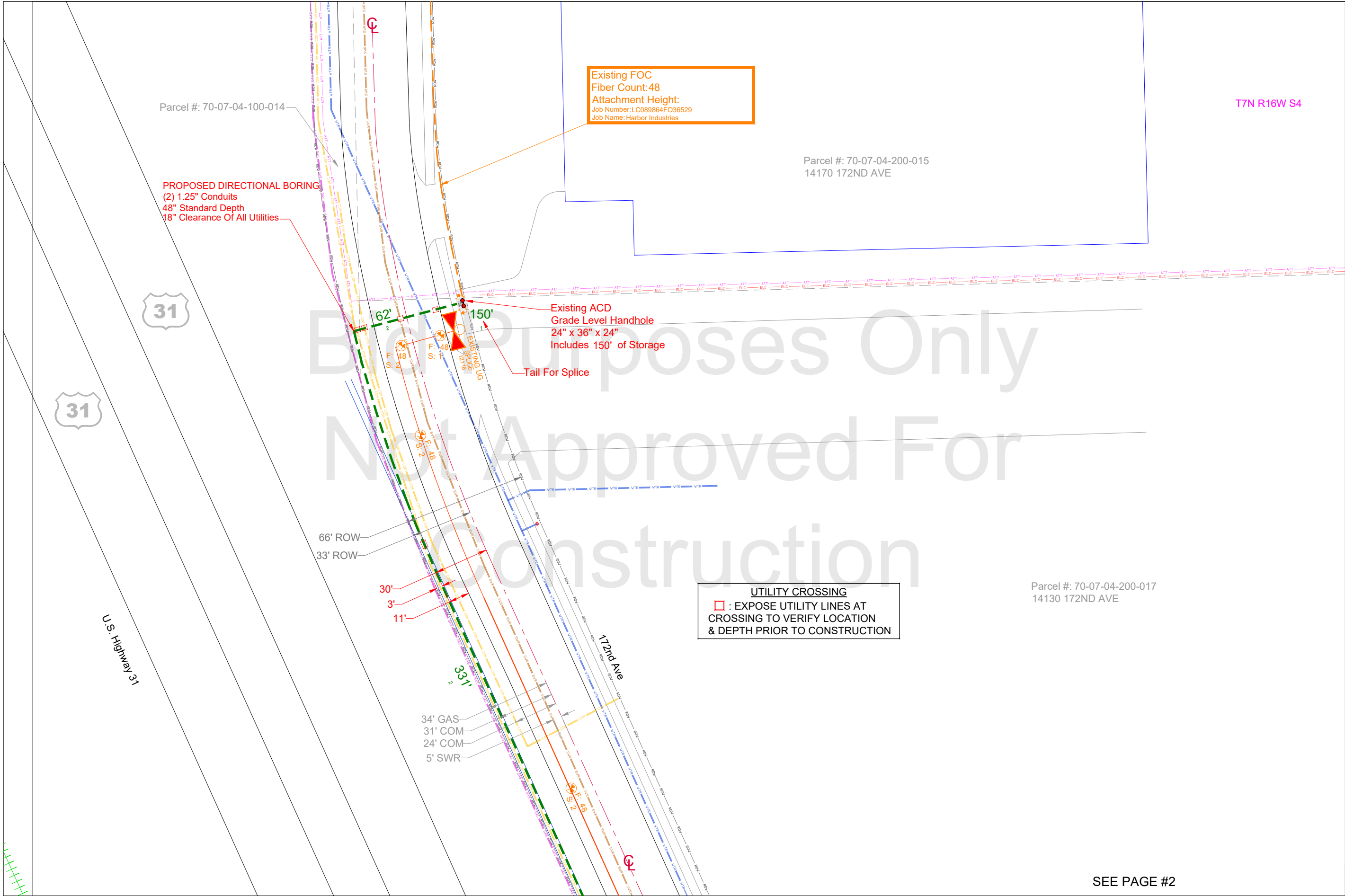
COUNTY: Ottawa

TOWNSHIP: Grand Haven

CITY:

PROJECT ID: LC012699FO041052

CUSTOMER NUMBER: 12699



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**Permitting**

K. LaBelle

**Transport Manager**

G. Gould

**Drawn By**      **Date**

K. Ngo      01/03/24

**As Built**      **Date**

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**Exhibit:** N/A

Remarks:

PEACHTREE ID: 41052

SCALE: 1" = 50'

TRS: T7N R16W S4

COUNTY: Ottawa

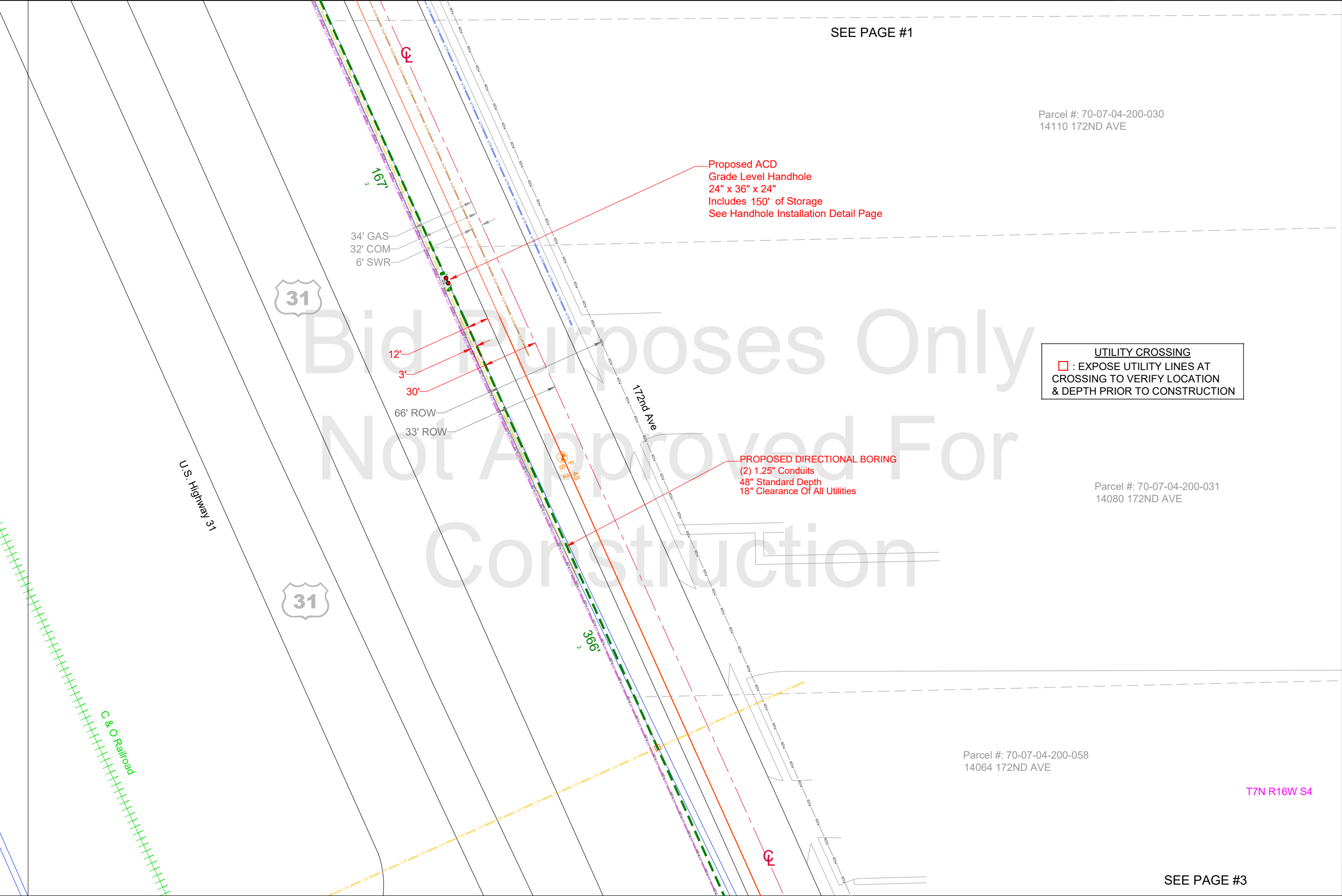
TOWNSHIP: Grand Haven

CITY:

PROJECT ID: LC012699FO041052

CUSTOMER NUMBER: 12699

PAGE 1



SEE PAGE #1

Parcel #: 70-07-04-200-030  
14110 172ND AVE

Proposed ACD  
Grade Level Handhole  
24" x 36" x 24"  
Includes 150' of Storage  
See Handhole Installation Detail Page

UTILITY CROSSING  
□ : EXPOSE UTILITY LINES AT  
CROSSING TO VERIFY LOCATION  
& DEPTH PRIOR TO CONSTRUCTION

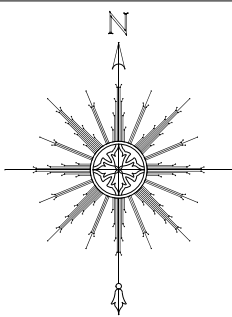
PROPOSED DIRECTIONAL BORING  
(2) 1.25" Conduits  
48" Standard Depth  
18" Clearance Of All Utilities

Parcel #: 70-07-04-200-031  
14080 172ND AVE

Parcel #: 70-07-04-200-058  
14064 172ND AVE

T7N R16W S4

SEE PAGE #3



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K. LaBelle

Permitting

K. LaBelle

Transport Manager

G. Gould

Drawn By Date

K. Ngo 01/03/24

As Built Date

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Exhibit: N/A

Remarks:

PEACHTREE ID: 41052

SCALE: 1" = 50'

TRS: T7N R16W S4

COUNTY: Ottawa

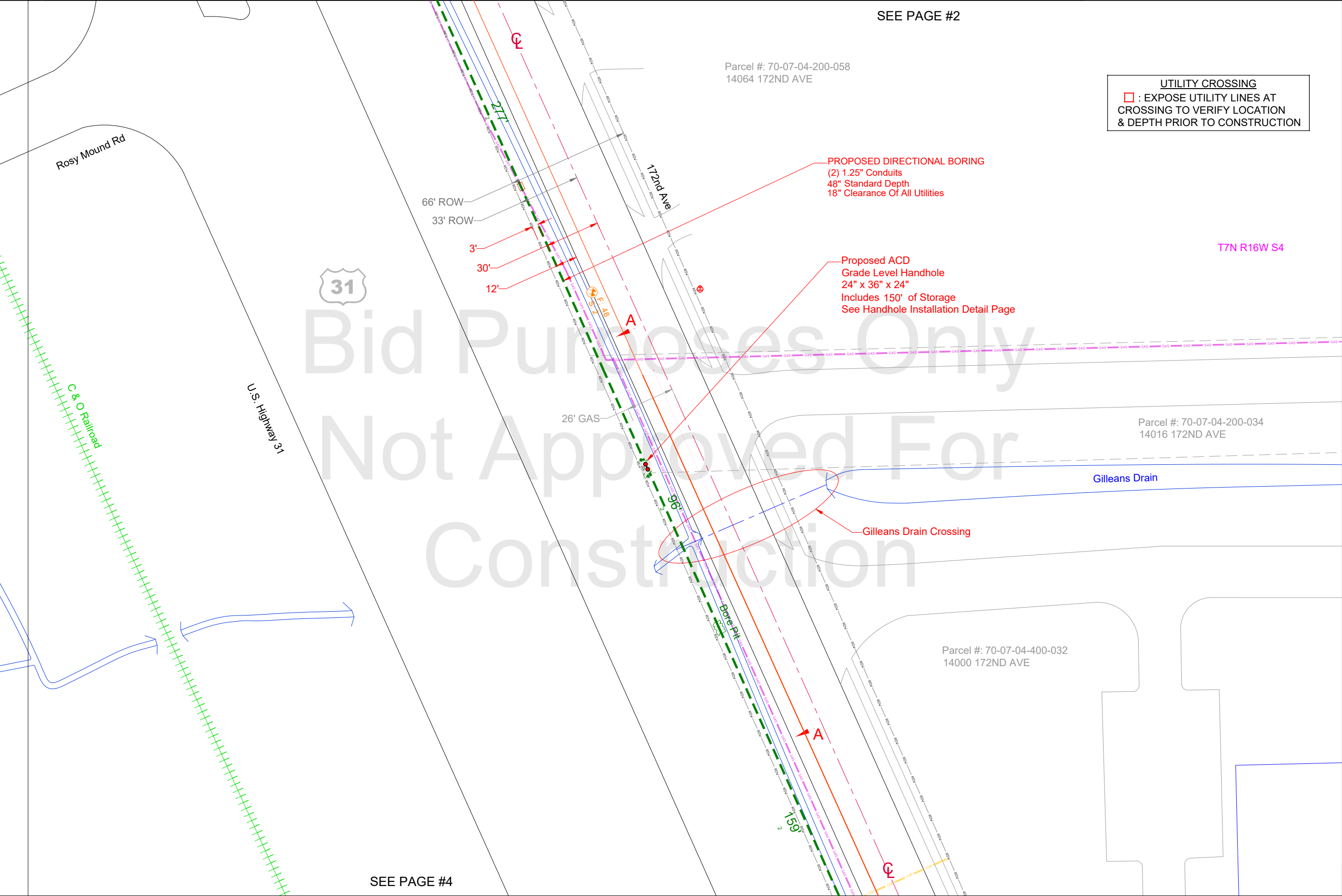
TOWNSHIP: Grand Haven

CITY:

PROJECT ID: LC012699FO041052

CUSTOMER NUMBER: 12699

PAGE 2



SEE PAGE #2

Parcel #: 70-07-04-200-058  
14064 172ND AVE

UTILITY CROSSING  
□ : EXPOSE UTILITY LINES AT  
CROSSING TO VERIFY LOCATION  
& DEPTH PRIOR TO CONSTRUCTION

PROPOSED DIRECTIONAL BORING  
(2) 1.25" Conduits  
48" Standard Depth  
18" Clearance Of All Utilities

Proposed ACD  
Grade Level Handhole  
24" x 36" x 24"  
Includes 150' of Storage  
See Handhole Installation Detail Page

T7N R16W S4

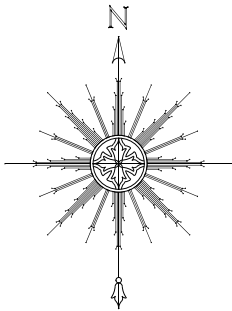
Parcel #: 70-07-04-200-034  
14016 172ND AVE

Gilleans Drain

Gilleans Drain Crossing

Parcel #: 70-07-04-400-032  
14000 172ND AVE

SEE PAGE #4



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SCALE: 1" = 50'

TRS: T7N R16W S4

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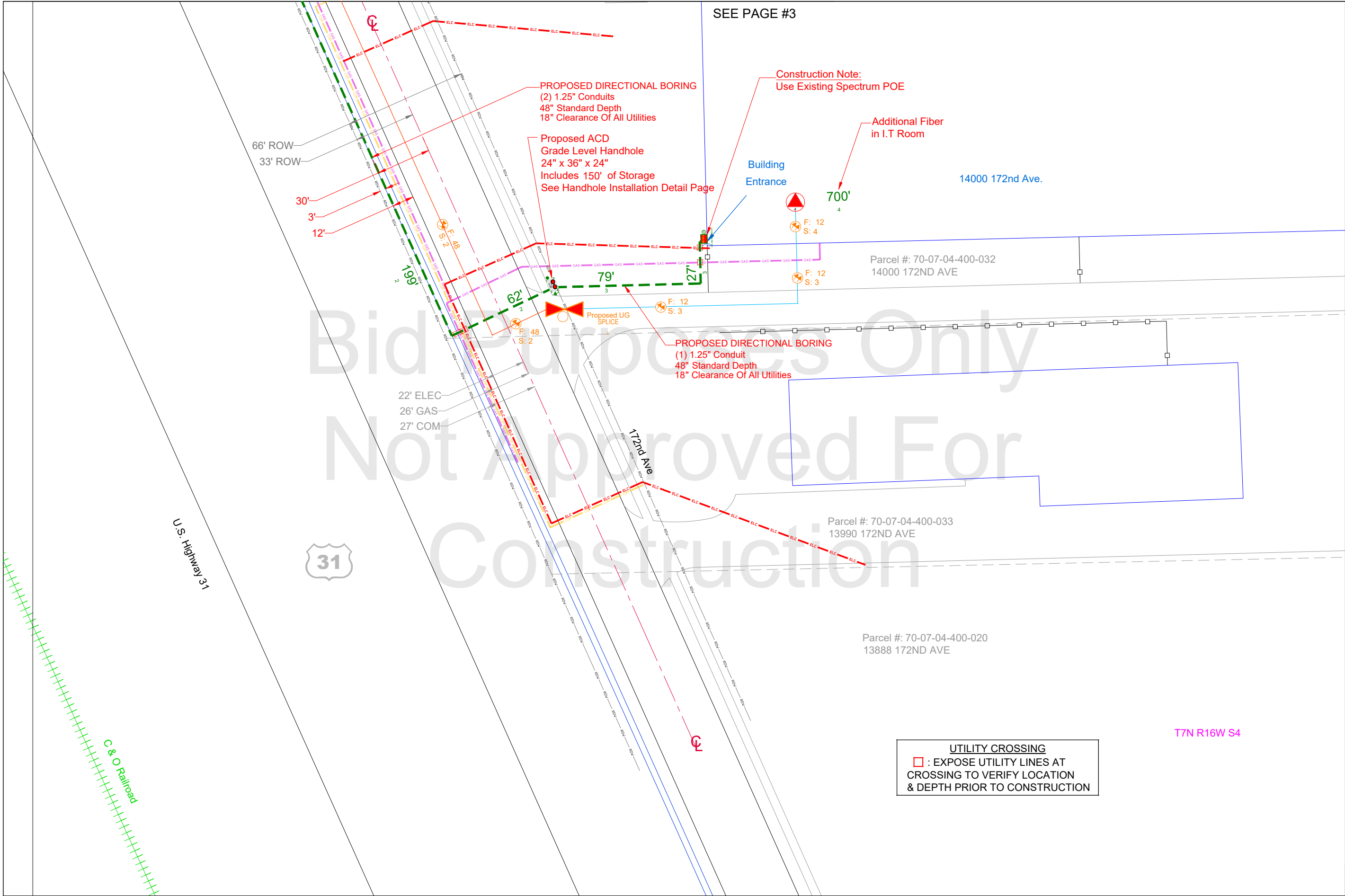
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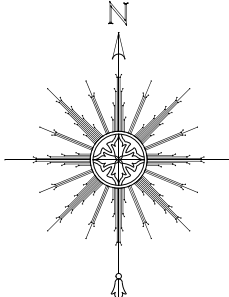
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PROJECT ID: LC012699FO041052

CUSTOMER NUMBER: 12699

PAGE 3





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K. Ngo	01/03/24
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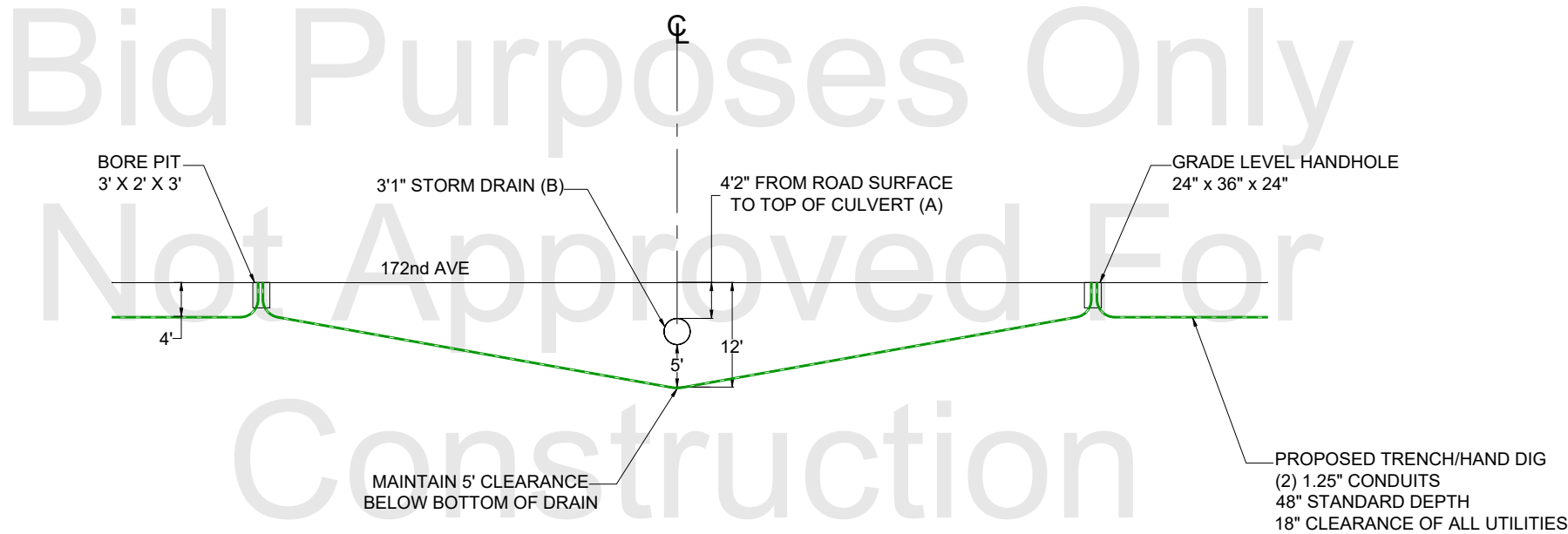
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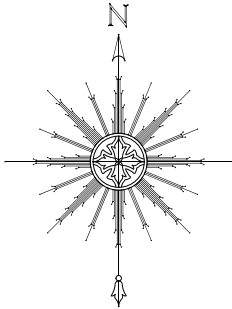
**PAGE 4**

Remarks:				PEACHTREE ID: 41052	
SCALE: 1" = 50'		TRS: T7N R16W S4			
COUNTY: Ottawa	TOWNSHIP: Grand Haven	CITY:	PROJECT ID: LC012699FO041052		CUSTOMER NUMBER: 12699

GILLEANS DRAIN CROSSING  
ELEVATION DETAIL "A-A"  
VIEW IS LOOKING SOUTHWEST



**A-A** ELEVATION VIEW  
1" = 20'



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**Exhibit:** N/A

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SCALE: 1" = 20'

TRS: T7N R16W S4

COUNTY: Ottawa

TOWNSHIP: Grand Haven

CITY:

PROJECT ID: LC012699FO041052

CUSTOMER NUMBER: 12699

Gilleans Drain

Elevation AA

172 nd Ave

