

SEE SHEET 2 FOR  
INDEX OF SHEETS,  
GENERAL NOTES,  
AND  
COMMITMENTS



**Project Description:**

Proposed residential network buildout

**Geographic Information**

State: Illinois  
County: McHenry  
City: Lake in the Hills

**List of Permitting Authorities:**

1. Lake in the Hills
- 2.
- 3.
- 4.
- 5.

i3Broadband - Engineering Department  
PHONE: (309) 670-0400 ext. 400  
EMAIL: [engineering@i3broadband.com](mailto:engineering@i3broadband.com)

Project Designer: Troyer Group  
Const. Manager: Nemanja Stanojevic  
Market Manager: Coty Keoprasa

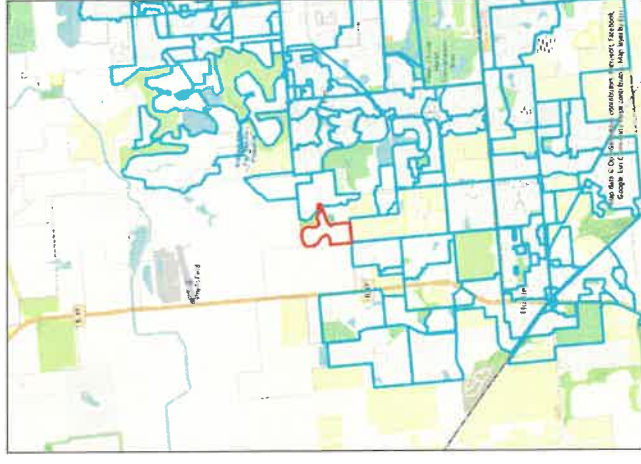
**811** FOR LOCATING SERVICES  
CALL: (800) 892-0123 (IL)  
(800) 344-7483 (MO)  
or 811 (US)

SAFETY IS IN YOUR HANDS  
PLEASE CALL BEFORE YOU DIG.

Printed: 4/23/2025  
Time: 12:25 PM

# PLANS FOR PROPOSED FIBER INSTALLATION

**Market: NWCHIL**  
**Chassis: NWCHILMXKC03**  
**Sector: NWCHIL2063**  
**Bore Footage: 11,110'**  
**Passings: 189**



**SUBMITTED  
FOR PERMITTING**

**C1**

## INDEX OF SHEETS

CI	Cover Sheet
NI	Index, General Notes, and Commitments Sheet
DT1	Typical Vault Details Sheet
DT2	Typical Vault Details Sheet
LI	Symbol Reference Legend Sheet
PO1	Project Overview Map
DI - D4	Duct and Vault Installation Maps
FI - F4	Fiber Installation Maps

## SPECIAL PERMITTING COMMITMENTS



RESERVED  
FOR SHEET  
NORTH ARROW  
AND SCALE

## GENERAL PLAN NOTES

- These notes shall be applicable to all operations performed under this contract, except when they conflict with any SPECIAL PERMIT COMMITMENTS (SEE THIS SHEET). In such cases, the notes in that section shall supercede these notes.
- All care should be taken to mitigate damage to existing utilities. OneCall shall be contacted before any boring or excavation.
- Note that handholes drawn on the shared lot line can be adjusted to either side of the lot line as necessary, which is standard on i3Broadband prints. Handholes that are shifted to one side of a lot line need to be placed on that side of the lot line, generally to comply with an easement, or to avoid a driveway or large tree.
- Construction change order requests shall be coordinated with the appropriate i3 Construction Department Representative and CLEARLY DOCUMENTED ON THESE PLANS AS RED-LINED AS-BUILT DRAWINGS.
- Any damage to adjacent properties caused by construction operations within the work area shall be fully restored to their ORIGINAL CONDITION.
- Dimensions (approximate, in feet) shown generally indicate total Right-of-Way width, or Utility Easement width relative to nearest lot line. Rights-of-Way and Utility Easements are not necessarily uniform (i.e. not split evenly a cross street centerline or property line). Contact i3 as needed for clarity.
- SLACK NOTES:
  - All taps are to have 4' of slack at the head, 55' at the splice case, and no slack storage anywhere else.
  - Mainline cable to have 55' at all ends/cut points and 110' at all #3 or larger handholes where cable is uncut.
  - Any other abnormalities will be noted on prints.
- The CONTRACTOR shall be required to comply with all Federal, State, and Local laws/ordinances, in addition to all i3broadband contract documents.

**SUBMITTED  
FOR PERMITTING**

PROPOSED FIBER INSTALLATION PLANS

INDEX, GENERAL NOTES, AND COMMENTS

SECTOR: NWCHIL2063

Printed: 4/23/2025  
Time: 12:26 PM

PROJECT ENGINEER:

Troyer Group

REVISIONS

/ / 24 | No. \_\_\_\_\_

/ / 24 | No. \_\_\_\_\_

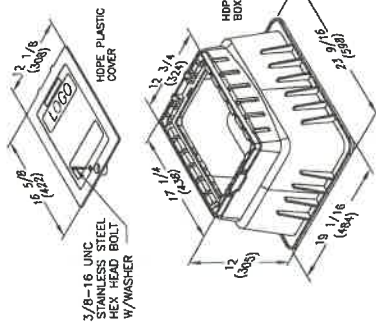
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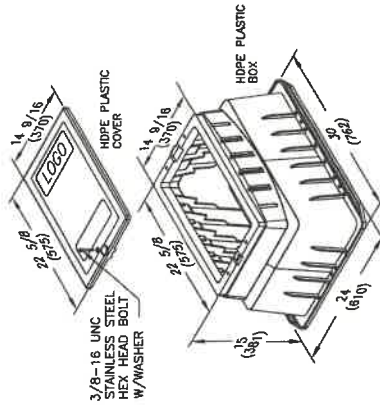
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N1

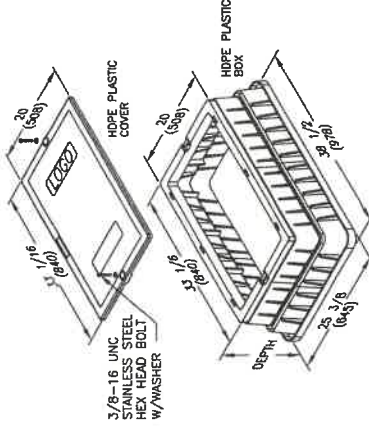
# TYPICAL VAULT (HANDHOLE) DETAILS



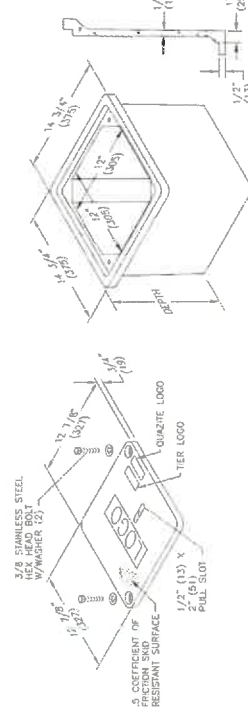
**HH1 (PED RATED) (PE-14 or Eq.)**



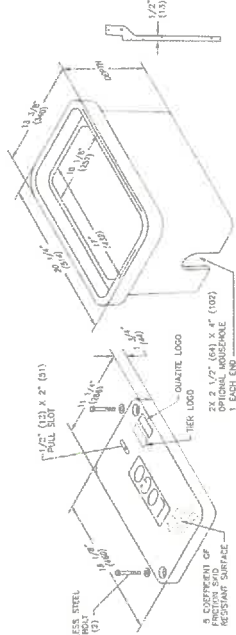
**HH2 (PED RATED) (PE-20 or Eq.)**



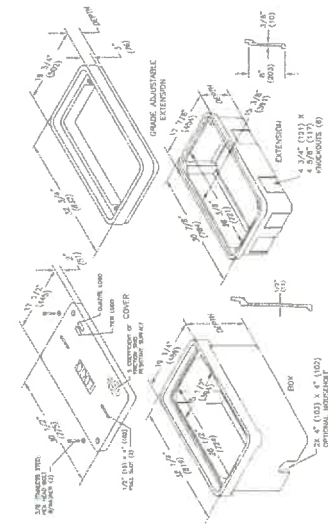
**HH3 (PED RATED) (PE-30 or Eq.)**



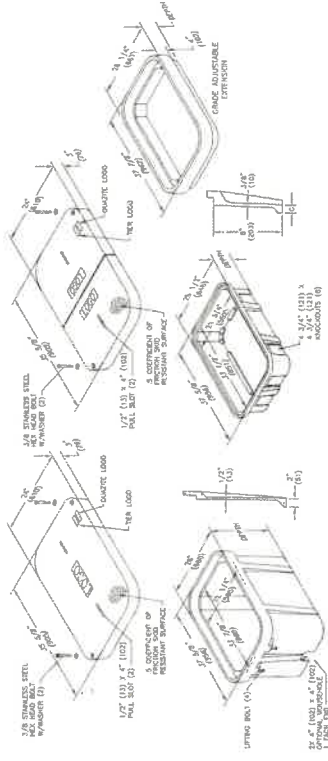
**HH0 (TIER15 RATED)**



**HH1 (TIER15 RATED) (QUAZITE 11X18 or Eq.)**



**HH3 (TIER15 RATED) (QUAZITE 17X30 or Eq.)**



**HH6 (TIER15 RATED) (QUAZITE 24X36 or Eq.)**

Note: Dimensions shown on this sheet represent typical configurations based on manufacturer's specifications. Variations in dimensions may exist between various manufacturers.

**SUBMITTED FOR PERMITTING**

**DT1**

PROJECT ENGINEER:  
 Troyer Group

REVISIONS

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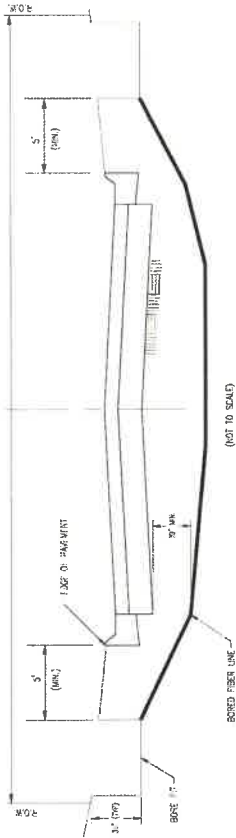
PROPOSED FIBER INSTALLATION PLANS

INDEX, GENERAL NOTES, AND COMMENTS

SECTOR: NWCCHIL2063

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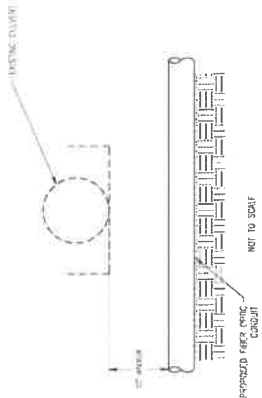
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 FOR PERMITTING**



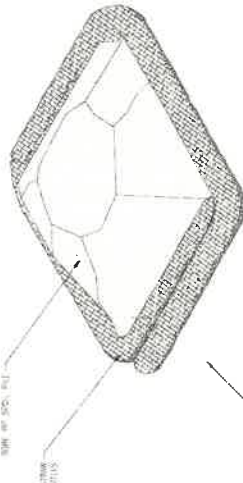
**BORED ROAD CROSSING  
 TYPICAL DETAIL**

NOTE:  
 1. DETAIL TO BE CONSULTED WITH PLANS INDICATE A HANGSOLE ON EITHER SIDE OF A ROAD CROSSING. IF  
 A HANGSOLE IS INDICATED ON ONLY ONE SIDE OF THE ROADWAY, THE BORE MUST CONTINUE BEYOND THE  
 CROSSING, SURFACE AND DEPTH TO MATCH ON THE OTHER SIDE SHALL APPLY.

- ADDITIONAL NOTES**
1. CONTRACTOR TO APPLY FOR EROSION CONTROL PERMITS TO CITY PRIOR TO CONSTRUCTION.
  2. ALL AREAS DISTURBED BY CONSTRUCTION TO BE REVEGETATED OR REPAIRED BY HAND WITH LIKE MATERIALS.
  3. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
  4. UPON COMPLETION OF CONSTRUCTION, PROVIDE A TOPSOIL AT SURFACE.
  5. TOPSOIL REMOVED DURING CONSTRUCTION SHALL BE SAVED.
  6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
  7. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY ORDINANCES AND SPECIFICATIONS.
  8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
  9. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
  10. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.



**FIBER OPTIC CONDUIT AND CULVERT SEPARATION  
 TYPICAL VERTICAL SEPARATION**

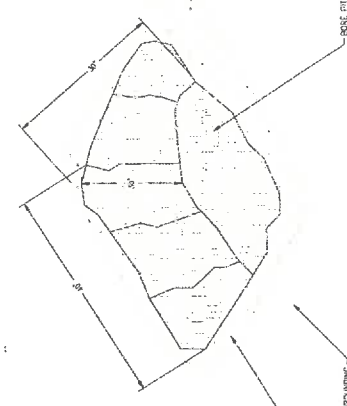


**EROSION & SEDIMENT CONTROL  
 BORE PIT SPOIL PILE**

- NOTE:
1. INSULATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  2. FIBER TRAYS SHOULD BE INSPECTED AFTER EVERY SIGNIFICANT STEEP TRENCH TO CLEAR AND CURB OF SEDIMENT AND DEBRIS.

**SPECIFICATIONS:**

ROCK SHALL BE A STRAW-FILLED TUBE OF FIBERGLASS REINFORCED POLYESTER (FRP) WITH A MINIMUM PRODUCTION TENSILE STRENGTH OF 100,000 PSI. THE STRAW SHALL BE CERTIFIED FIBER FREE FIBER, BY A MANUFACTURER WHOSE PRODUCTION PROCESS IS WATERSIDE MANUFACTURING. THE FIBER SHALL CONSIST OF SEAMLESS, HIGH DENSITY POLYETHYLENE AND ETHYLENE ACRYLATE AND CARBON ULTRAFIBER FIBER TRAYS. A MINIMUM NET TENSILE STRENGTH OF 100,000 PSI SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THE STRAW SHALL BE 24 INCHES HIGH, 12 INCHES WIDE, AND A MINIMUM WEIGHT OF 0.25 LB/SQ YD. THE SEDIMENT RETENTION CAPACITY OF THE MATTE SHALL BE 25 LB/SQ YD. THE STRAW SHALL BE 100 PERCENT CURED AND SHALL BE A MINIMUM LENGTH OF 10 FT.



**NOT TO SCALE**

- NOTE:
1. BORE PITS TO BE EQUIPPED ON 17"x30" HANDLES AND LATCHES.
  2. HOOKS AND SLEEVES (EITHER 1/2\"/>

**SUBMITTED  
 FOR PERMITTING**

# SYMBOL REFERENCE LEGEND



**RESERVED FOR SHEET NORTH ARROW AND SCALE**

**PROJECT ENGINEER:**  
Troyer Group

**REVISIONS**

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**PROPOSED FIBER INSTALLATION PLANS**

**SYMBOL REFERENCE LEGEND**

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SECTOR: NWCCHIL2063

SHEET: **L1**

**CONSTRUCTION**

**Duct/Conduit**

- Primary
- Secondary
- Third Order
- Fourth Order
- In Building

**Shelters**

- Shelters

**Cabinets**

- Cabinets

**Vaults/Handholes**

**Pedestrian Rated**

- Unknown Size (Pedestrian)
- HH 0 (12x12 or eq.)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)

**Tier 15 Rated**

- Unknown Size (Tier Rated)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)

**Spitters**

- Cable
- Zone
- Unknown

**Additional Cable Stack**

- Additional Cable Stack

**Taps**

- 2 Pairs
- 4 Pairs
- 6 Pairs
- 8 Pairs
- 12 Pairs

**Unknown/Other**

- Unknown Type/Size (13 Owned, See Notes)

**Building Terminations (OPDCs)**

- Building Terminations (OPDCs)

**Cable Terminations**

- Cable Terminations

**Duct Terminations**

- Banded Encap
- Subbed Above Ground (BAG, Termination)
- Wall Box
- Other/Unknown

**Duct Field Repairs**

- Duct Field Repairs

**INSTALLED**

**Duct/Conduit**

- Primary
- Secondary
- Third Order
- Fourth Order
- In Building

**Shelters**

- Shelters

**Cabinets**

- Cabinets

**Vaults/Handholes**

**Pedestrian Rated**

- Unknown Size (Pedestrian)
- HH 0 (12x12 or eq.)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)

**Tier 15 Rated**

- Unknown Size (Tier Rated)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)

**Spitters**

- Cable
- Zone
- Unknown

**Additional Cable Stack**

- Additional Cable Stack

**Taps**

- 2 Pairs
- 4 Pairs
- 6 Pairs
- 8 Pairs
- 12 Pairs

**Unknown/Other**

- Unknown Type/Size (13 Owned, See Notes)

**Building Terminations (OPDCs)**

- Building Terminations (OPDCs)

**Cable Terminations**

- Cable Terminations

**Duct Terminations**

- Banded Encap
- Subbed Above Ground (BAG, Termination)
- Wall Box
- Other/Unknown

**Duct Field Repairs**

- Duct Field Repairs

**MISC.**

**Utility Easement**

- Utility Easement

**Parcels**

- Parcels

**Sector Boundaries**

- Control & Inset Map (Project)
- Inset Map (All)

**Project Sector**

- Project Sector

**Not Project Sectors**

- Not Project Sectors

**Drop Arrows**

- Drop Arrow (Walkie)

**Index Sheet Borders**

- Project Sheet Boundaries

**Duct/Conduit**

- Primary
- Secondary
- Third Order
- Fourth Order
- In Building
- Other (See Notes)

**Splice Cases**

- Type A
- Starfighter 3000
- 3M
- Type B (No Grounding)
- Type C
- Coyote
- Type D (No Grounding)
- Other (Field Repair)

**Internal Taps**

- 2 Pairs
- 4 Pairs
- 6 Pairs
- 8 Pairs
- 12 Pairs

**Spitters**

- Cable
- Zone
- Unknown

**Additional Cable Stack**

- Additional Cable Stack

**Taps**

- 2 Pairs
- 4 Pairs
- 6 Pairs
- 8 Pairs
- 12 Pairs

**Mainline Cables**

- 11
- 41
- 81
- 121
- 241
- 481
- 721
- 961
- 1441
- 2161
- 2881
- 432

**SUBMITTED FOR PERMITTING**



**SHEET NOTES:**  
 PCS USA Contemporary Fundamentals Code  
 1. See Sheet 072 for typical road crossing and bore pit details.  
 2. Method of conduit installation shall be as shown UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIAL PERMITTING COMMITMENTS (see sheet 071).  
 3. Additional conduit locations (other than those shown) shall be noted on the plans ONLY. Additional ducts shall follow the same general bore-path as the Primary Duct.  
**PROJECT ENGINEER:**  
 Troyer Group

REVISIONS	
/	/ 24   No. _____
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**PROPOSED FIBER INSTALLATION PLANS**  
**INDEX, GENERAL NOTES, AND COMMENTS**  
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SECTOR: NWCCHIL2063

**PO1**

Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.



**SUBMITTED FOR PERMITTING**  
 NWCCHIL2060



Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.



602 High Point Lane  
 636 Peoria, Illinois  
 (309) 690-0000 ext. 400  
 i3broadband.com



**SHEET NOTES:**

1. See Sheet D13 for typical road crossing details.
2. Method of conduit installation shall be as shown on the drawings UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIAL PERMITTING COMMITMENTS (See Sheet 01).
3. Additional conduit locations (other than those shown) shall be shown on the plans ONLY. All additional ducts shall follow the same general bore-path as the Primary Duct.

PROJECT ENGINEER:  
 Troyer Group

REVISIONS	
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SECTOR: NWCILL2063

**PROPOSED FIBER INSTALLATION PLANS**  
**DUCT AND VAULT INSTALLATION MAPS**

D2



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Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.



PCS USA Geographic Establishment Code  
**SHEET NOTES:**  
 1. See Sheet 012 for typical road crossing and bore pit details.  
 2. Method of conduit installation will be determined by the contractor. ALL CONDUITS SHALL BE INSTALLED UNLESS OTHERWISE NOTED ON THE PLANS. SPECIAL PERMITTING COMMENTS (See Sheet 01).  
 3. Additional conduit locations (other than those shown) shall be determined by the contractor. Address labels shall follow the same general format as the Primary Duct.

**PROJECT ENGINEER:**  
 Toyer Group

REVISIONS	
/ /	No.
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/ /	No.

**PROPOSED FIBER INSTALLATION PLANS**  
**DUCT AND VAULT INSTALLATION MAPS**  
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SECTOR: NWCHILL2063

**D3**



Plot 1076 from 10/10/2024

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603 High Point Lane  
East Peoria, Illinois  
(309) 570-9400 ext. 400  
ibroadband.com



1 inch equals 50 feet  
PCS USA, Conditional Easement, Conc

**SHEET NOTES:**

- 1. See sheet D02 for typical road crossing details.
- 2. Method of conduit installation shall be as shown on sheets D02 and D03 UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIAL PERMITTING COMMITMENTS (see sheet 04).
- 3. Additional conduit locations (other than shown) shall be noted on the plans (see sheet 04).
- 4. Additional ducts shall follow the same general bore-path as the Primary Duct.

**PROJECT ENGINEER:**

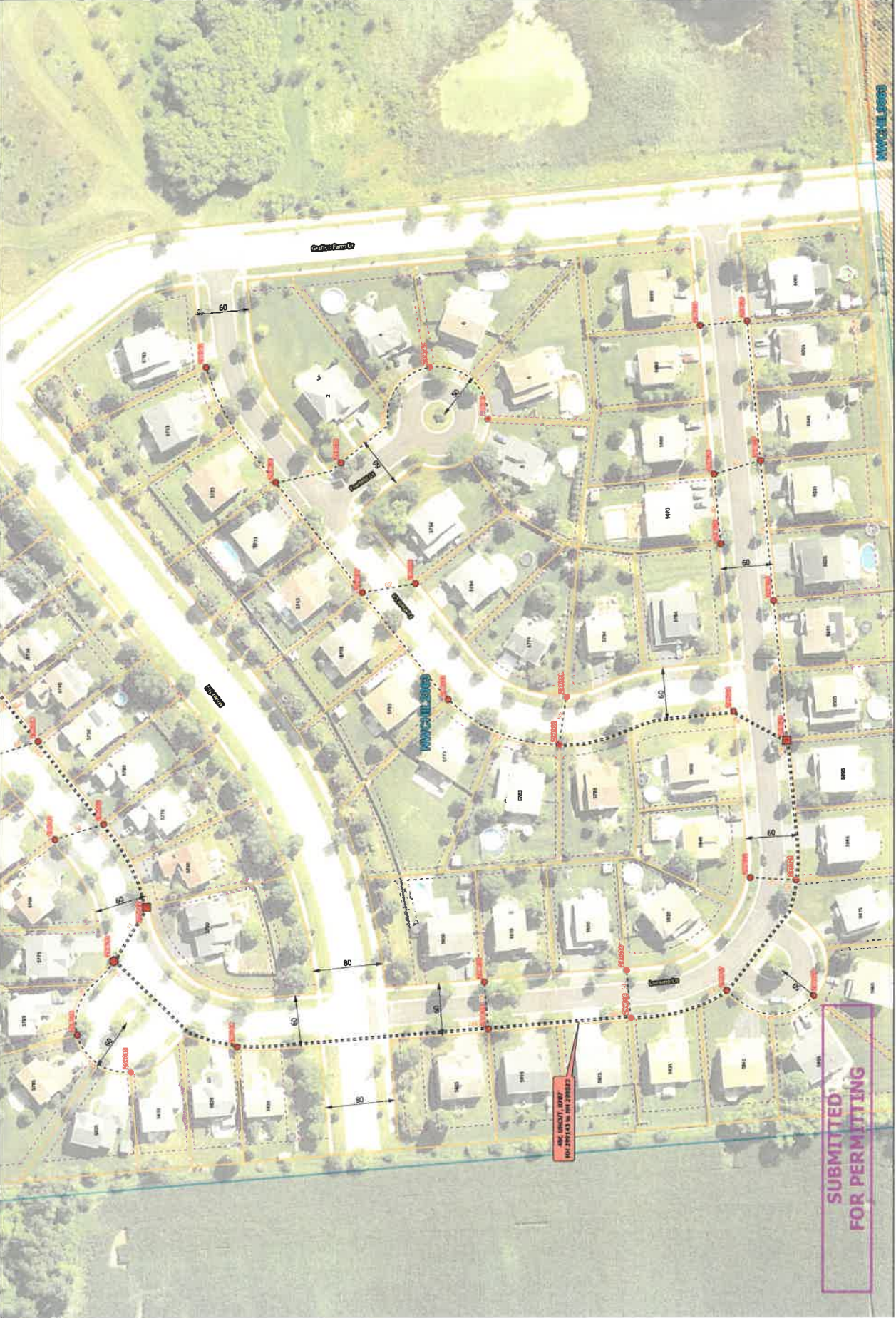
Troyer Group

REVISIONS	
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**PROPOSED FIBER INSTALLATION PLANS**  
**DUCT AND VAULT INSTALLATION MAPS**  
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Time: 12:28 PM

SECTOR: NWCHIL2063

**D4**



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602 High Right Lane  
 East Peoria, Illinois  
 (309) 670-0400 ext. 400  
 ibroadband.com



1 inch equals 50 feet  
 PLS: USA Continental Equilibrium Cont.

**SHEET NOTES:**

- See Sheet 072 for typical road crossing details.
- Method of conduit installation shall be as shown on the plans UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIAL PERMITTING COMMITMENTS (See sheet 07).
- Additional conduit locations (other than those shown on the plans) shall be shown ONLY. Additional ducts shall follow the same general bore-path as the Primary Duct.

**PROJECT ENGINEER:**  
 Troyer Group

REVISIONS	
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/ /	I No.

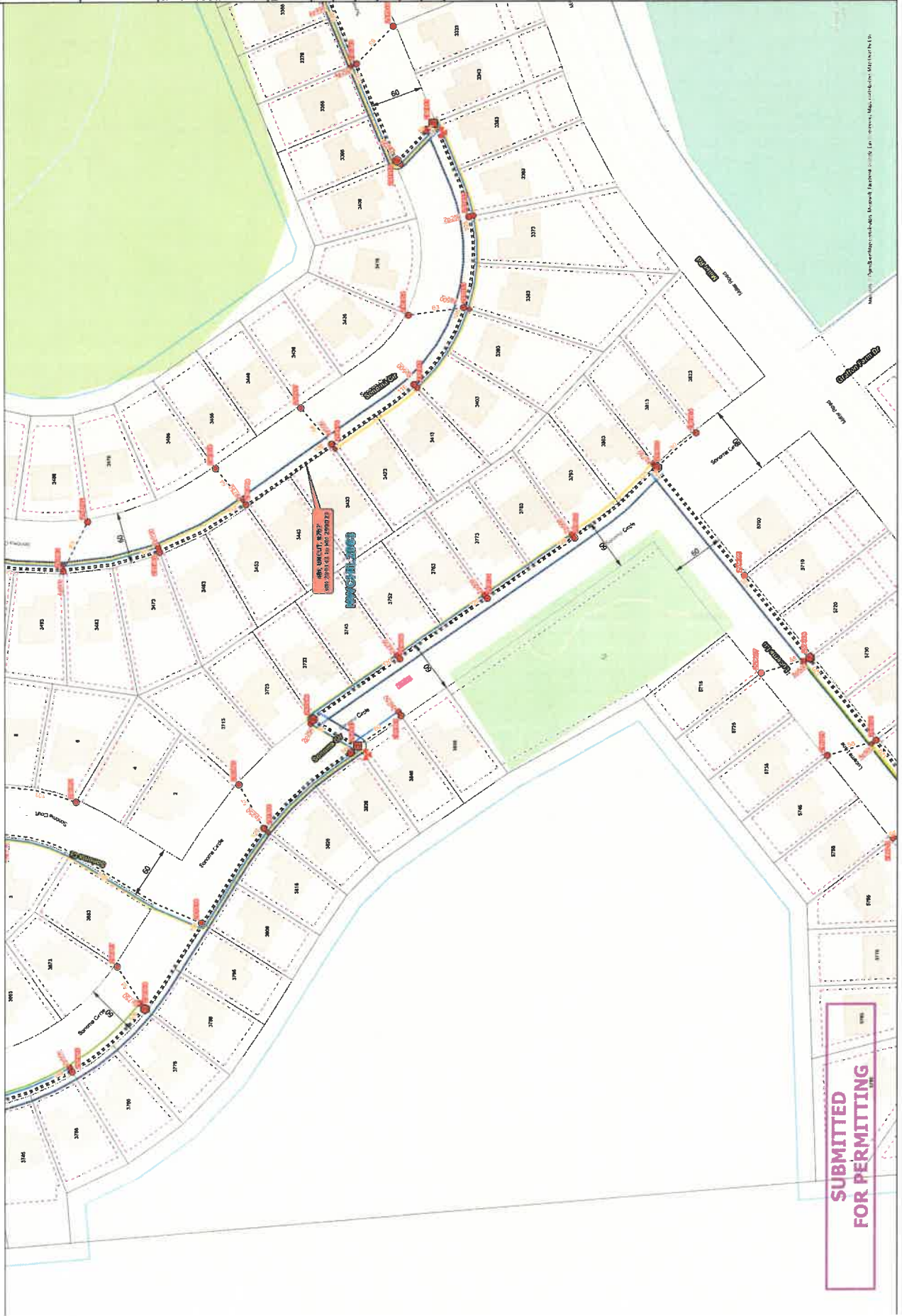
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SECTOR: NWCII12063

**FIBER INSTALLATION PLAN MAPS**

**PROPOSED FIBER INSTALLATION PLANS**

**F2**



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Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.

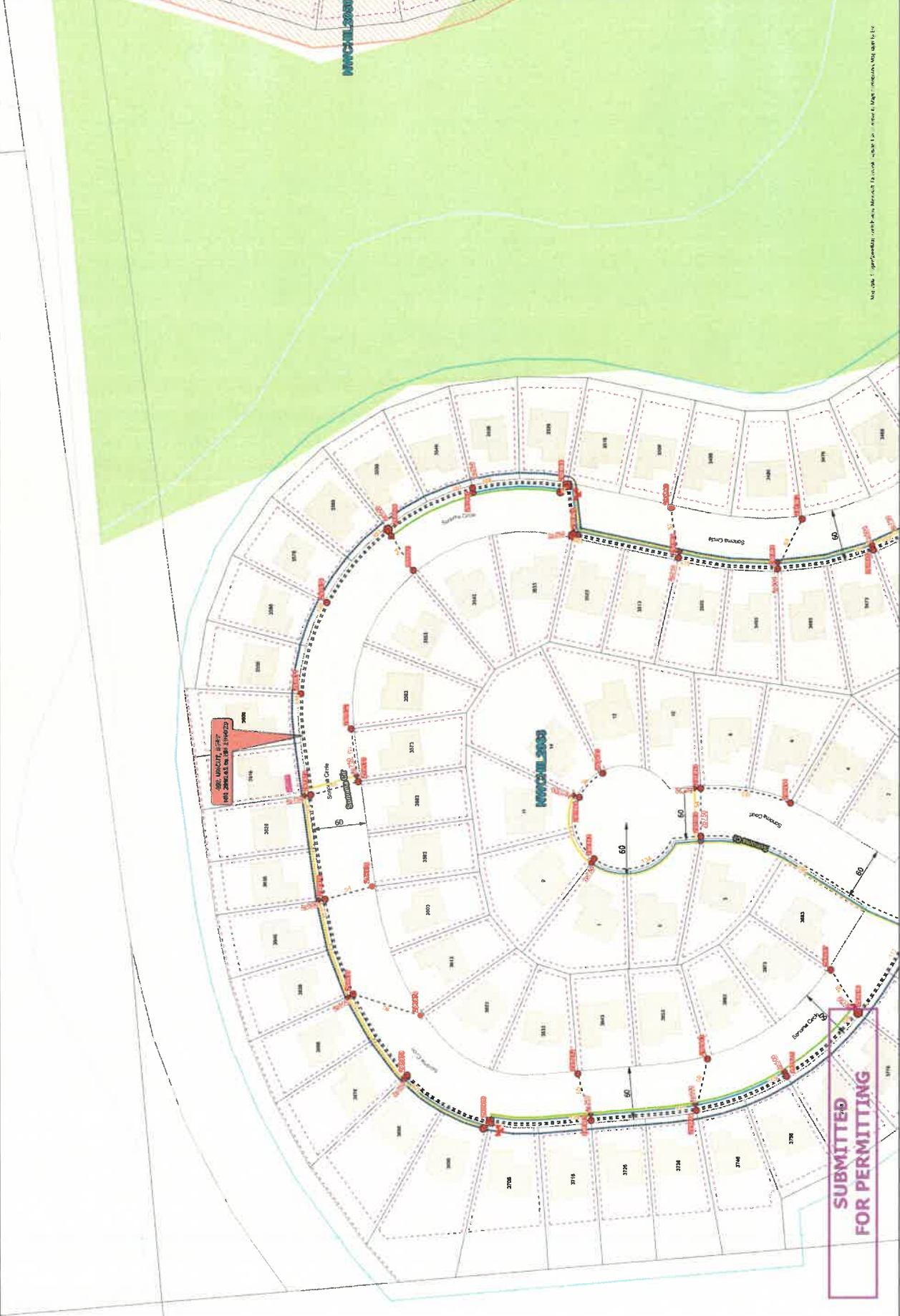


PS: USA Contiguous Inhabitant Cont.  
**SHEET NOTES:**  
 1. See Sheet 0122 for typical road crossing details.  
 2. Method of conduit installation shall be determined by the contractor. ALL VALUES OTHERWISE NOTED ON THE PLANS OR SOCIAL PERMITTING COMMITMENTS (see sheet 01).  
 3. Additional conduit locations (other than those shown) shall follow the same general bore path as the Primary Duct.  
**PROJECT ENGINEER:**  
 Troyer Group

REVISIONS	
/ /	No.
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/ /	No.
/ /	No.
/ /	No.

**PROPOSED FIBER INSTALLATION PLANS**  
**FIBER INSTALLATION PLAN MAPS**  
 SECTOR: NWCCHIL2063  
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**F3**



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