



NATALIE CREEK FINAL DESIGN ENGINEERING PROJECT



- ▶ **Project Overview**
- ▶ **Design Improvements**
 - Flood Control Structure Sizes
 - Updated Inundation Maps
- ▶ **Coordination Effort**
 - Resident Coordination Effort
 - Associated Traffic Access/Detours
- ▶ **Village of Midlothian's Natalie Creek Trail Steering Committee**
- ▶ **Summary**



NATALIE CREEK FINAL DESIGN PROJECT OVERVIEW



- ▶ **Project Limits:** North end of Central Park Detention Basin in Oak Forest to 146th Street & Pulaski Road in Midlothian, Roughly 15,800 lineal feet
- ▶ **Scope of Work:** To develop Bidding Plans and Documents for a 2017 “Letting” of the “Flood Control Project on Natalie Creek in Midlothian and Oak Forest, IL, Contract 14-252-3F
- ▶ **Current Status:** 98% Completion Plans and Documents will soon be submitted to the Village of Midlothian and the City of Oak Forest for Review and Comments. Draft Intergovernmental Agreements were already provided for review by both municipalities



NATALIE CREEK FINAL DESIGN PROJECT OVERVIEW (CON'T)

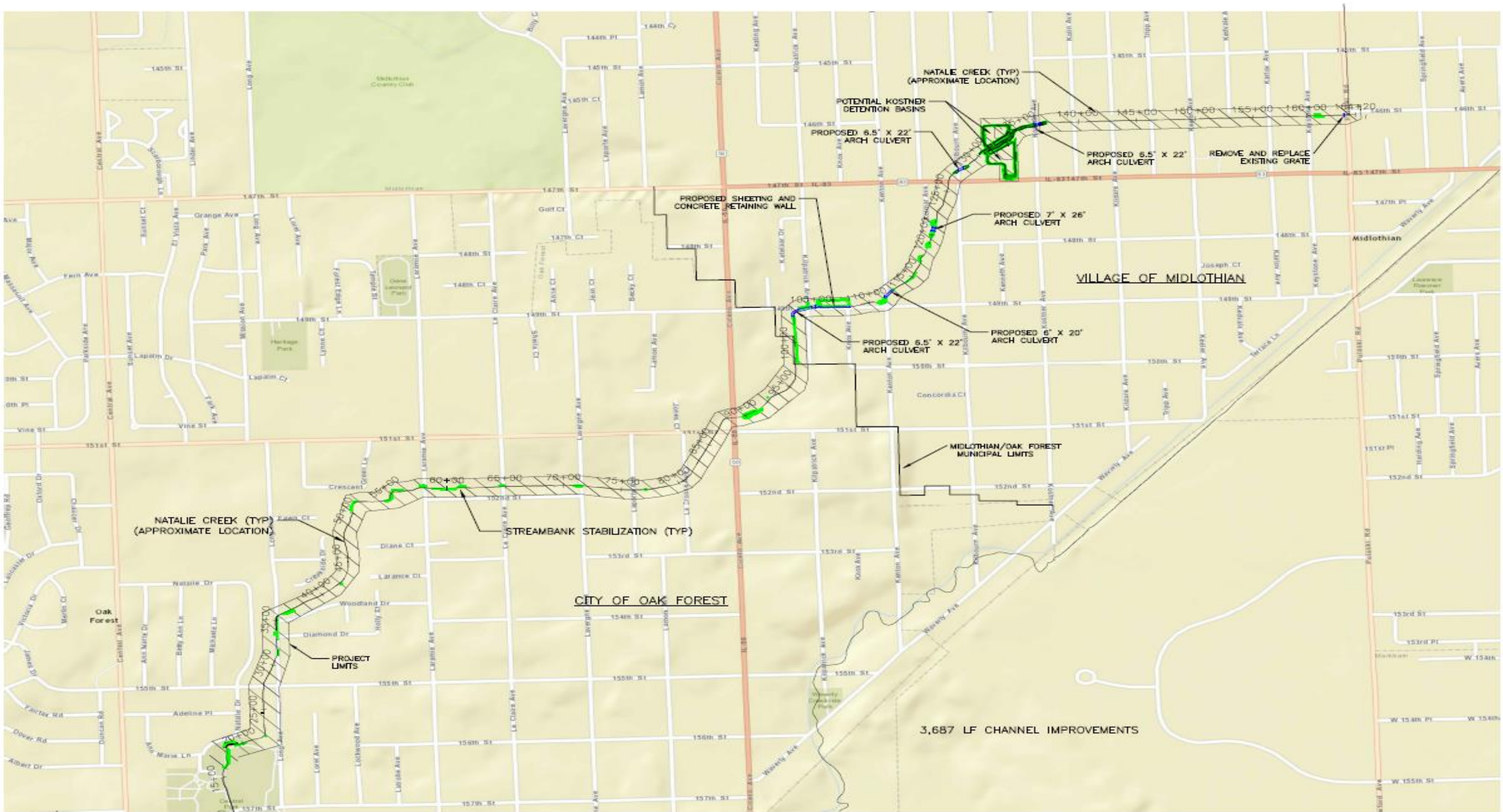


► Planned Construction Work

- **Oak Forest** – Misc. Channel Improvements, i.e. erosion control, channel widening or reshaping, etc., along the Creek, and Sediment Removal at Laporte & LaCrosse Avenues
- **Midlothian** – Installation of the following Flood Control Improvements:
 - Misc. Channel Improvements along the Creek
 - Concrete Channel Renovations and existing Detention Basin expansion at 149th Street & Kilpatrick
 - Upsizing of Culverts at 149th Street & Kilpatrick, Kenton, Kolmar, Kilbourn, & Kostner Avenues
 - New Detention Basin Facility in the vicinity of Kostner Avenue & 147th Street
 - 146th Street & Pulaski Road Conduit Outfall Grate Improvements
- **CONSTRUCTION ESTIMATE: \$8.3M** (Current Working Estimate = \$7.9M)



NATALIE CREEK FINAL DESIGN PROJECT OVERVIEW (CON'T)



NOTE: CHANNEL IMPROVEMENTS MAY INCLUDE EROSION CONTROL BLANKET, VEGETATED GEOGRID, ROCK TOE AND COIR LOG, SEDIMENT REMOVAL, OR ANY COMBINATION THEREOF.

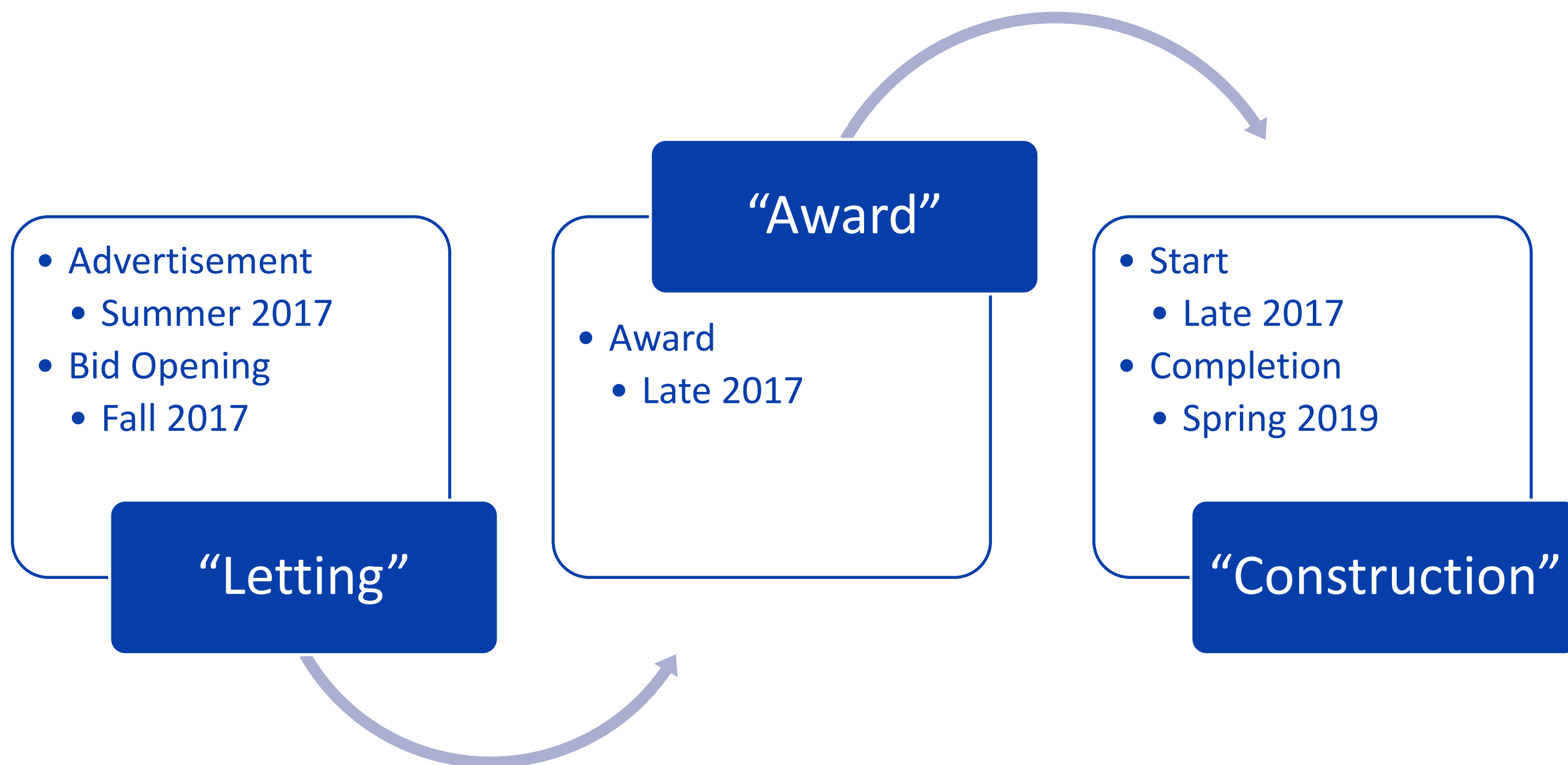
-  CHANNEL IMPROVEMENTS
-  STRUCTURAL IMPROVEMENTS



NATALIE CREEK FINAL DESIGN PROJECT OVERVIEW (CON'T)



Estimated “Letting”/Construction Schedule





NATALIE CREEK FINAL DESIGN PROJECT OVERVIEW (CON'T)



Proposed Construction Staging

Streambank Stabilization (Oak Forest & Midlothian) and Kostner Sites

Kilbourn Culvert

Kolmar Culvert

Kenton Culvert

149th St. &
Kilpatrick

Restoration for all areas will be completed as each phase is done.



NATALIE CREEK FINAL DESIGN- DESIGN IMPROVEMENTS



► Final Design Flood Control Structure Sizes:

- Six (6) Restrictive Culvert Locations will be Upsized and Reduced to Five (5)
 - 149th Street & Kilpatrick Avenue - 6.5' x 22' Arch Culvert (all with Headwalls)
 - Kenton Avenue – 6' x 20' Arch Culvert
 - Kolmar Avenue – 7' x 26' Arch Culvert
 - Kilbourn Avenue – 6.5'x 22' Arch Culvert
 - Kostner Avenue – 6.5' x 22' Arch Culvert
- 149th Street & Kilpatrick Avenue Concrete Channel Renovation & Existing Basin Expansion
- New 2.9 acre-feet Detention Basin has increased in size to 5.63 acre-feet



NATALIE CREEK FINAL DESIGN- DESIGN IMPROVEMENTS



Typical Arch Culvert

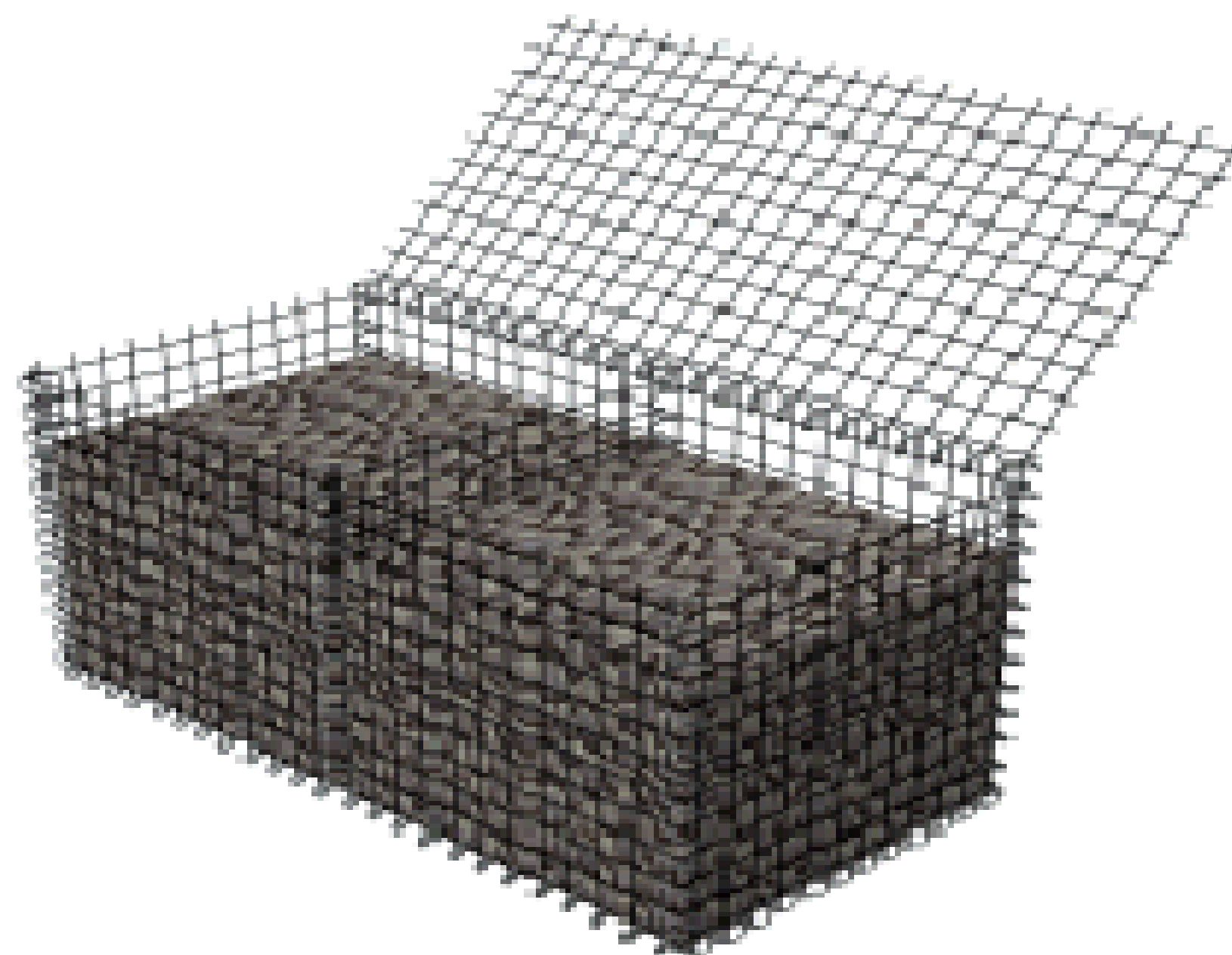
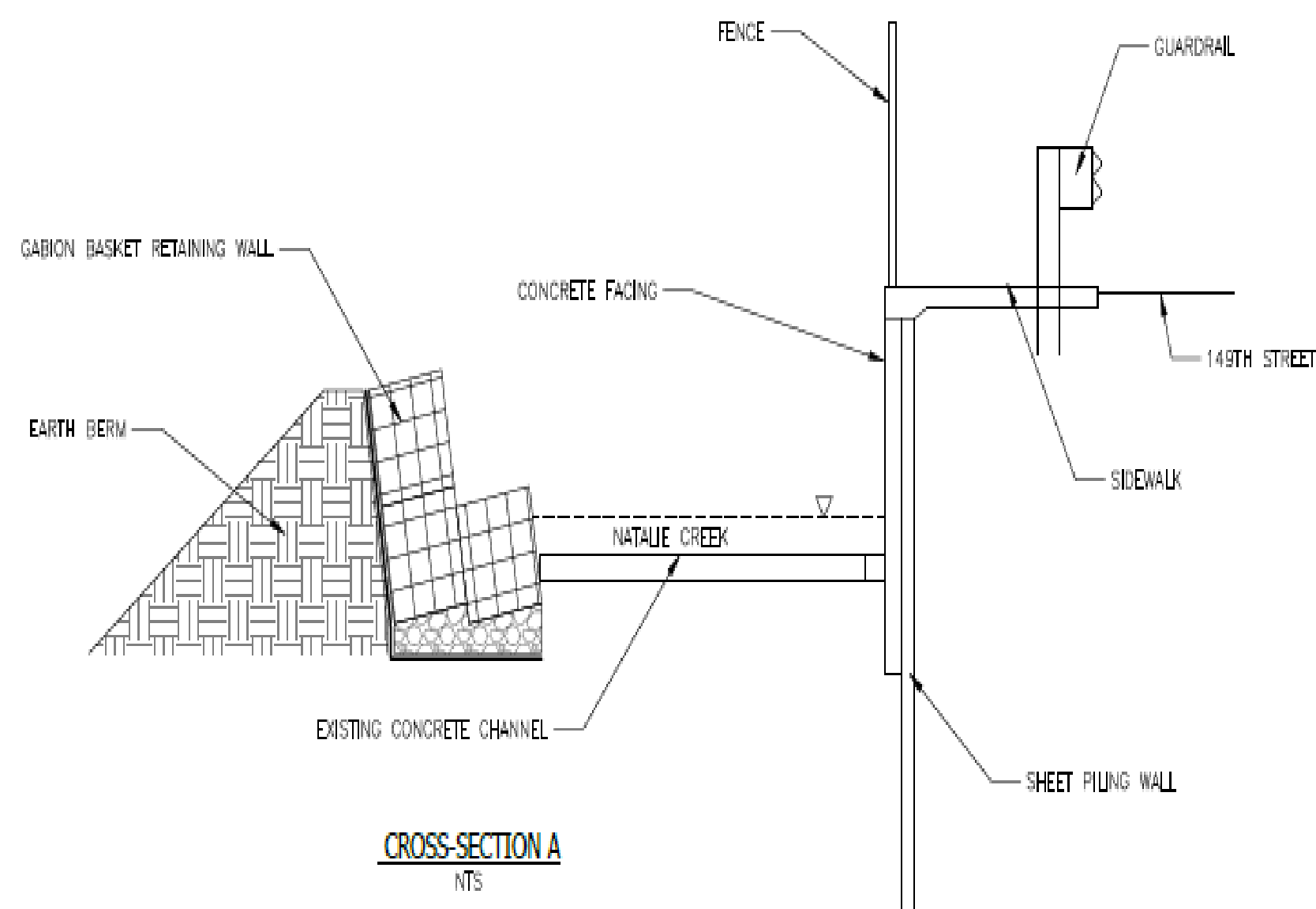


NATALIE CREEK FINAL DESIGN- DESIGN IMPROVEMENTS



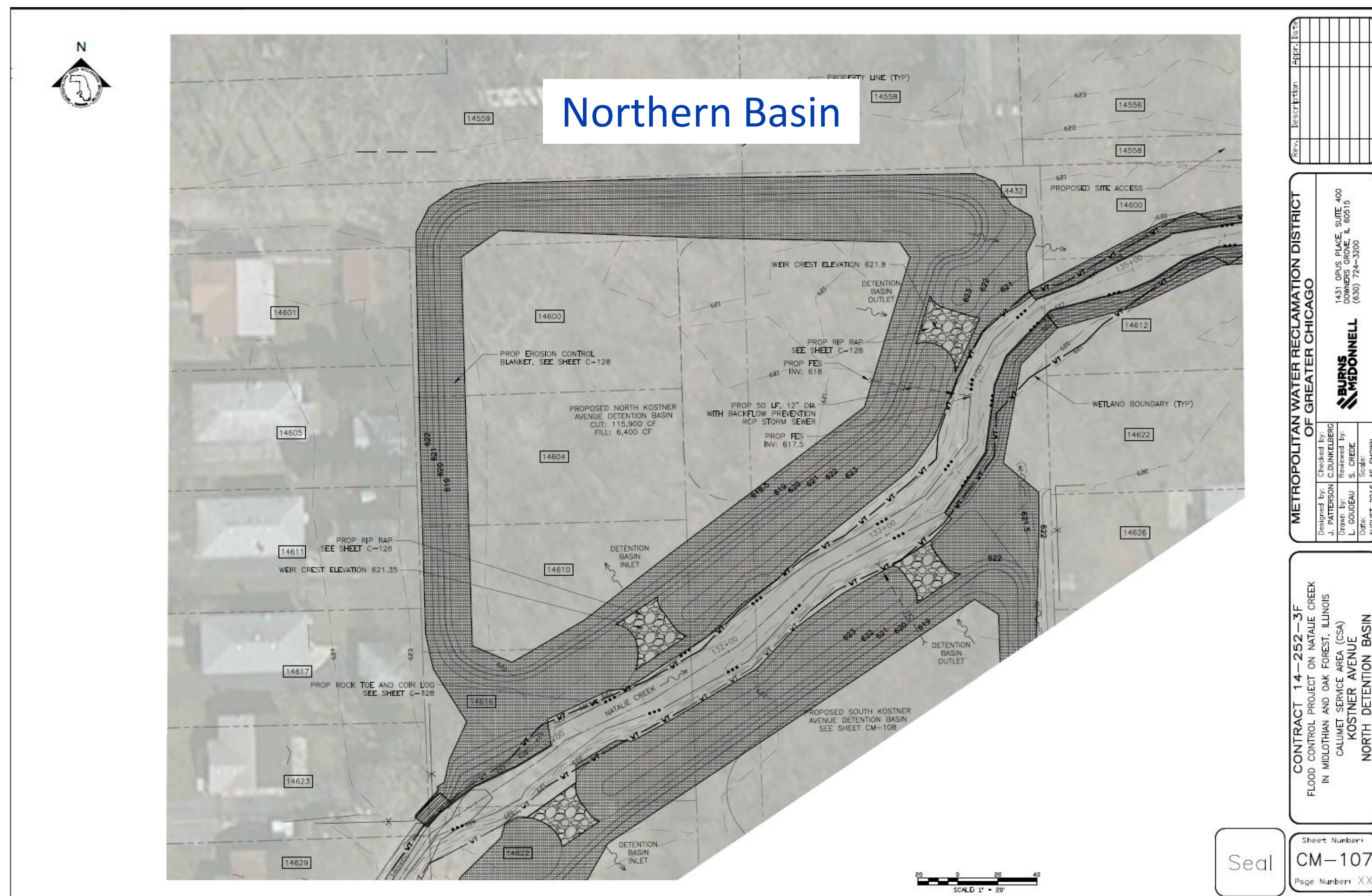
Proposed Cross Section of 149th St.
& Kilpatrick “Concrete” Channel

Gabion Basket



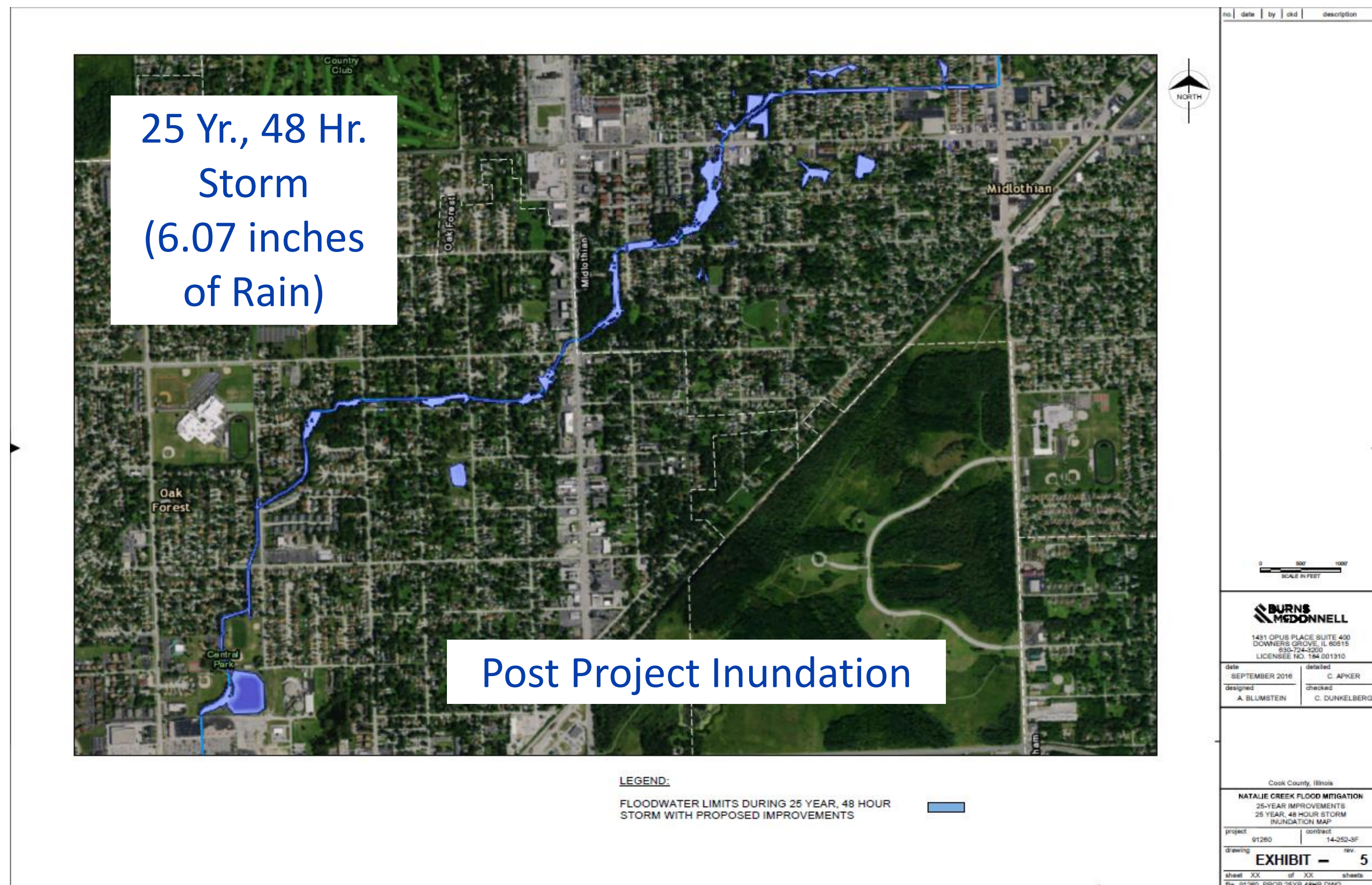


NATALIE CREEK FINAL DESIGN- DESIGN IMPROVEMENTS





NATALIE CREEK FINAL DESIGN- DESIGN IMPROVEMENTS

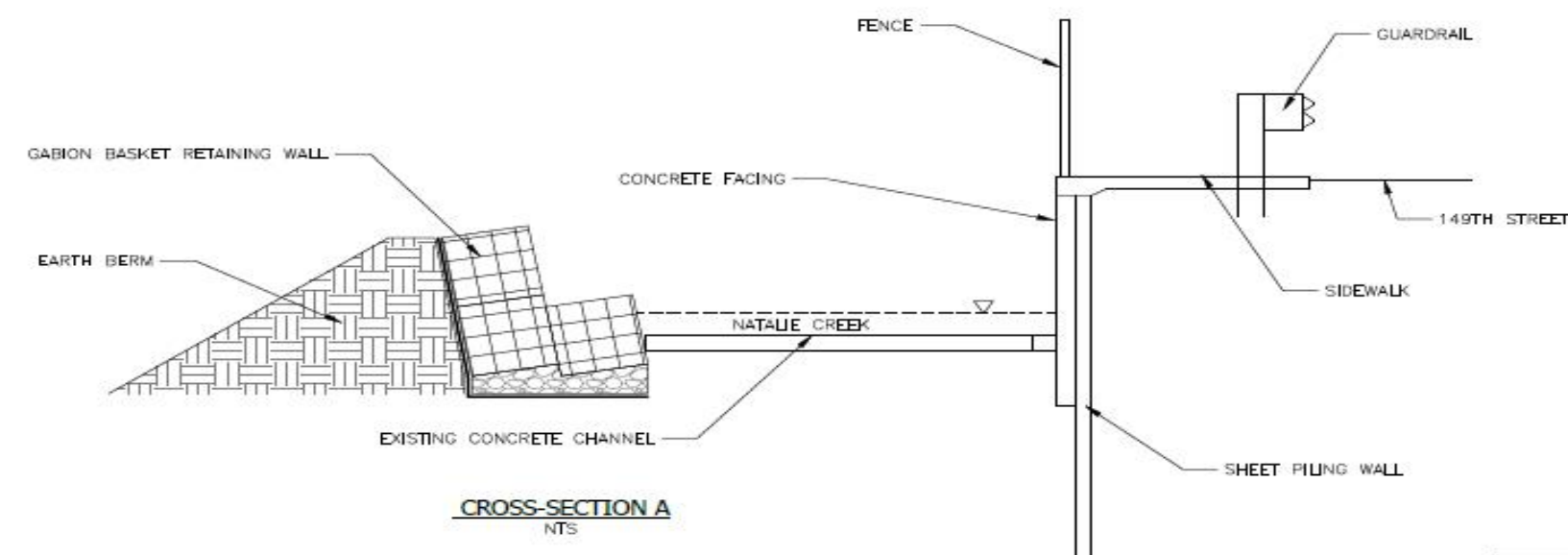
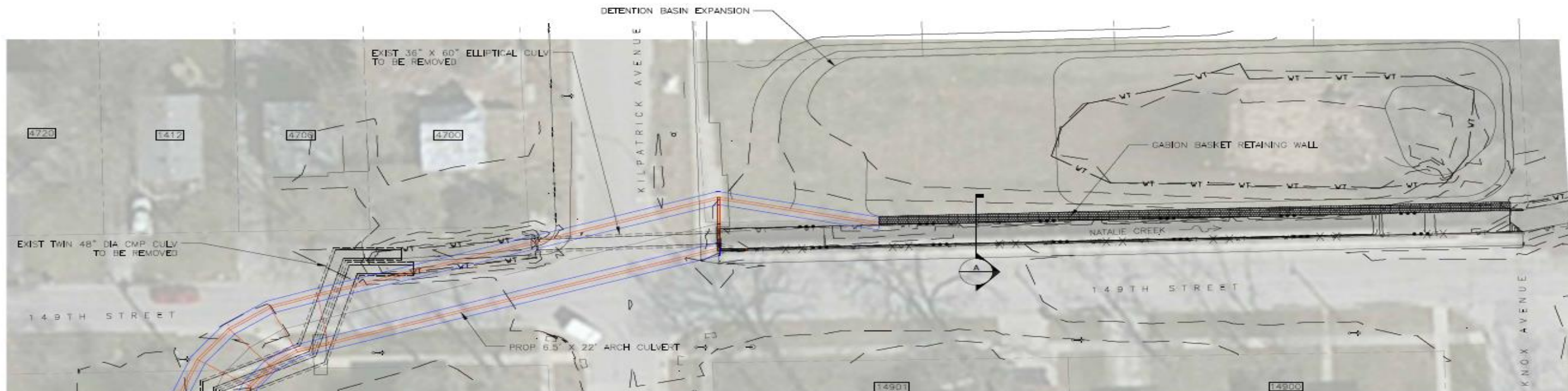




NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT



149th St. & Kilpatrick Culvert Installation, Concrete Channel Reconstruction, & Basin Expansion



Seal

Rev.	Description	Appr. Date

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO	
Designed by: J. PATTERSON	Checked by: C. DUNKLEBEG
Drawn by: L. GOUDEAU	Reviewed by: S. CREE
Date: AUGUST 2016	Scale: AS SHOWN
1431 OPUS PLACE, SUITE 400 DOWNERS GROVE, IL 60515 (630) 724-3200	
BURNS MCDONNELL	

CONTRACT 14-252-3F FLOOD CONTROL PROJECT ON NATALIE CREEK IN MIDLOTHIAN AND OAK FOREST, ILLINOIS CALUMET SERVICE AREA (CSA) NTRC PROPOSED IMPROVEMENTS STA 102+00 TO 108+00
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NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT

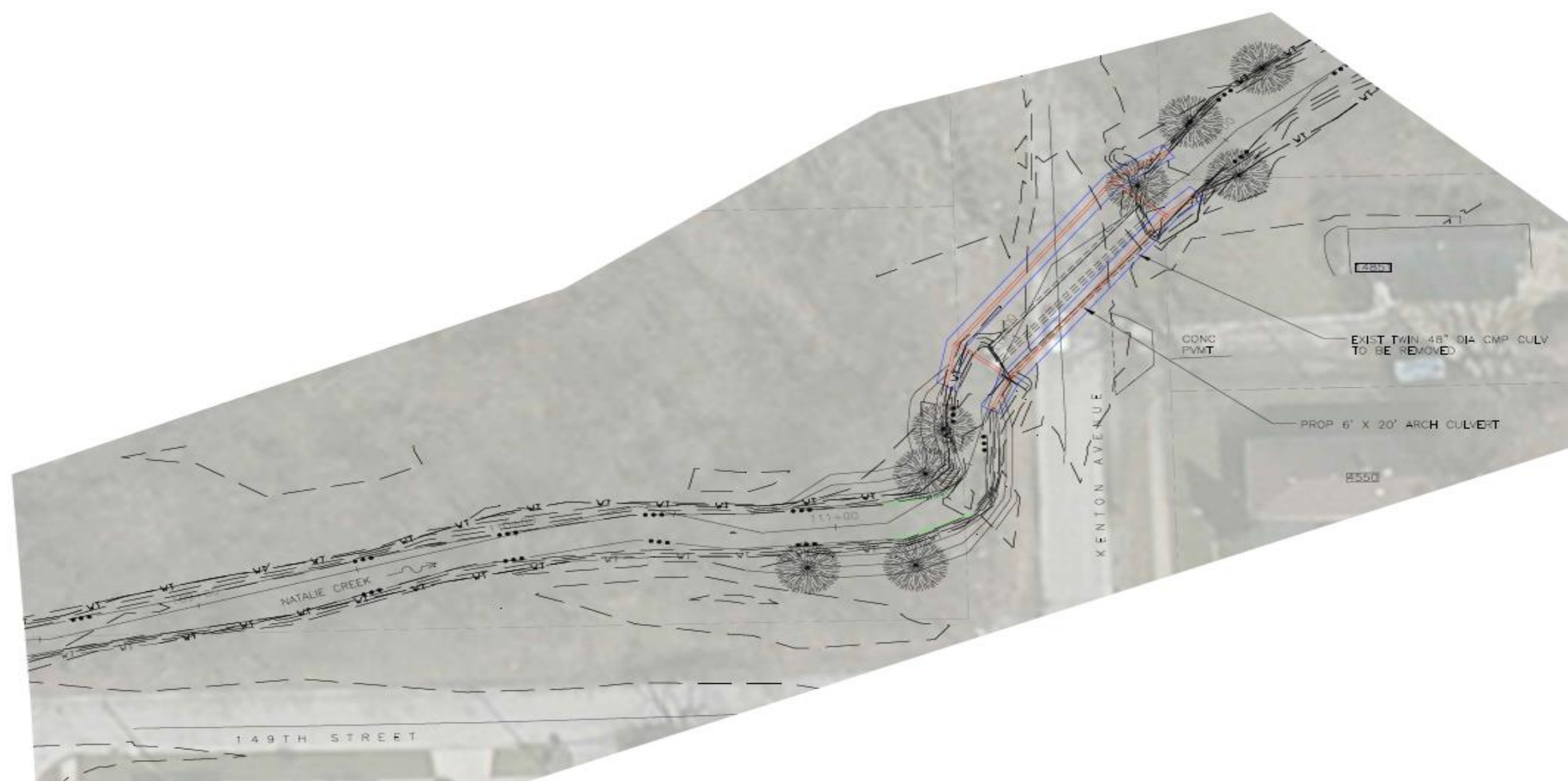




NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT



Kenton Ave. – Culvert Installation



SCALE: 1" = 20'

Rev.	Description	Date

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO	
Designed by: J. PATTERSON, CIVIL/EL/ENG	1431 OPIUS PLACE, SUITE 400 DOWNERS GROVE, IL 60515 (630) 724-3200
Drawn by: L. GOUTEAU, S. CRE/E	
Date: AUGUST 2016	AS SHOWN

CONTRACT 14-252-3F FLOOD CONTROL PROJECT ON NATALIE CREEK IN MIDLOTHIAN AND OAK FOREST, ILLINOIS CALUMET SERVICE AREA (CSA) NCR PROPOSED IMPROVEMENTS STA 108+00 TO 113+00

Seal

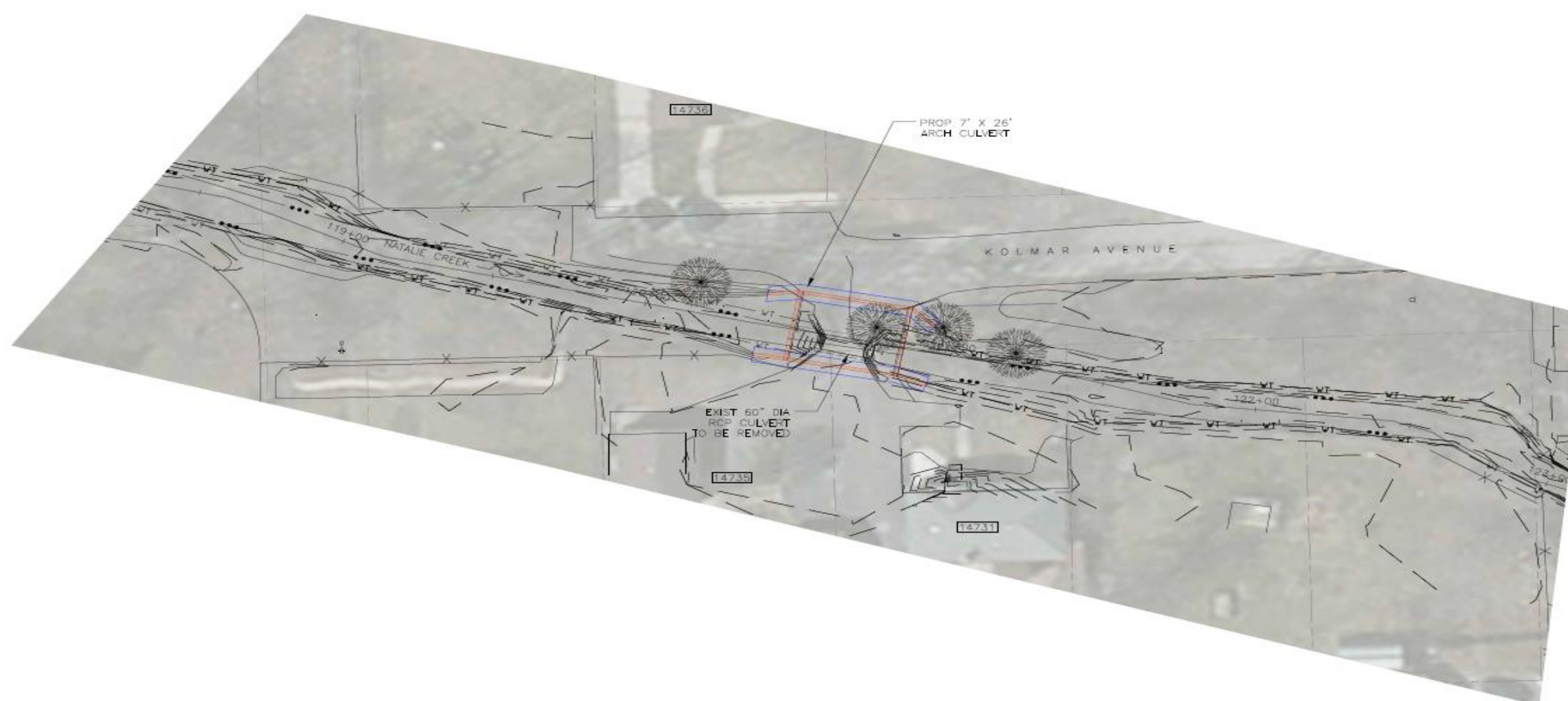
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NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT



Kolmar Ave. – Culvert Installation



SCALE: 1" = 20'

Rev.	Describe	Date

**METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO**

Designed by: J. PATTERSON
Drawn by: L. GOUDEAU
Checked by: S. CHIE
Reviewed by: S. CHIE
Date: AUGUST 2015
Scale: AS SHOWN

**BURNS
MCDONNELL**

1431 OPUS PLACE, SUITE 400
DOWNERS GROVE, IL 60515
(630) 721-1200

CONTRACT 14-252-3F
FLOOD CONTROL PROJECT ON NATALIE CREEK
IN MIDLOTHIAN AND OAK FOREST, ILLINOIS
CALUMET SERVICE AREA (CSA)
NCR PROPOSED IMPROVEMENTS
STA 117+00 TO 122+00

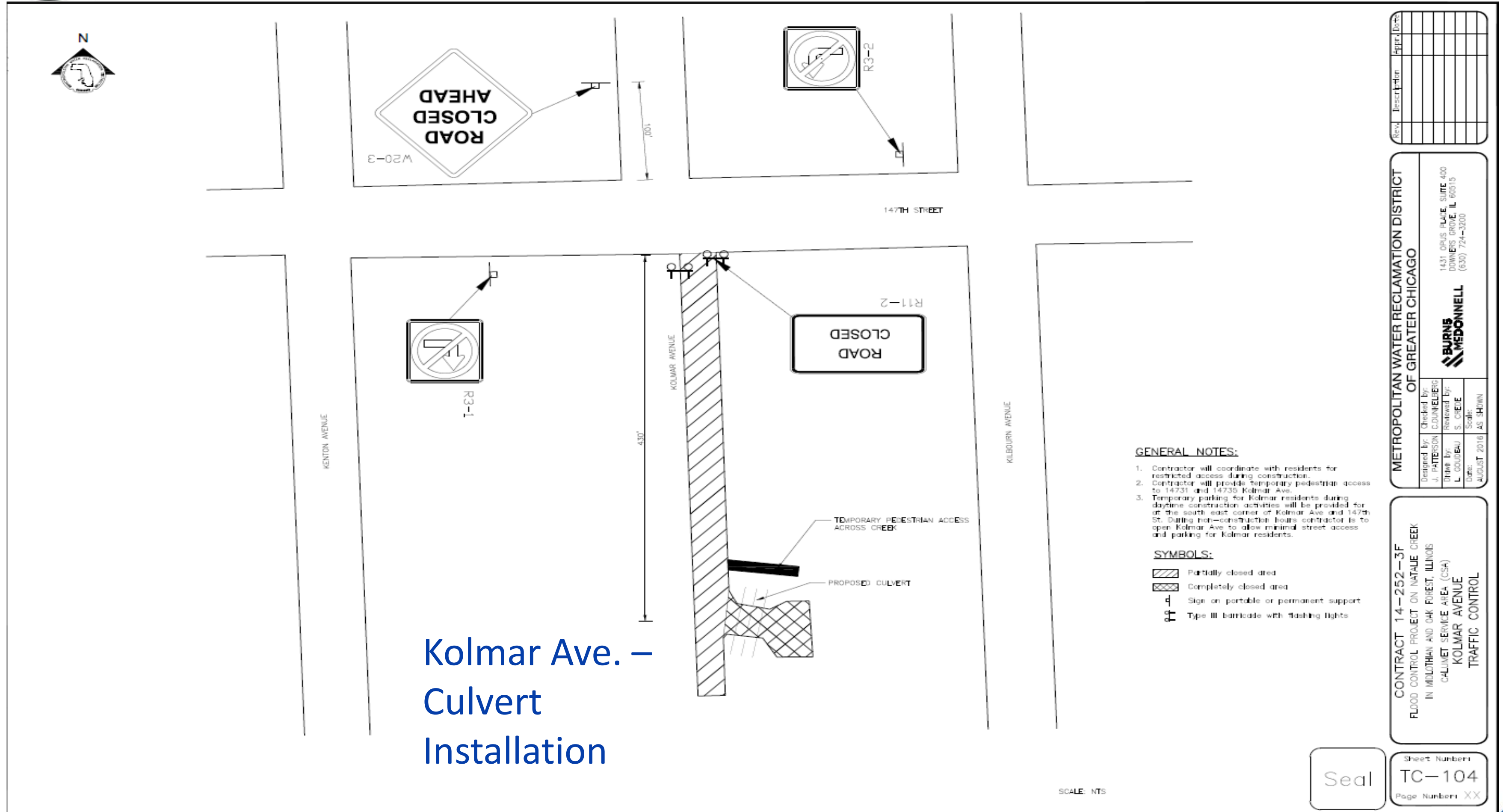
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NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT

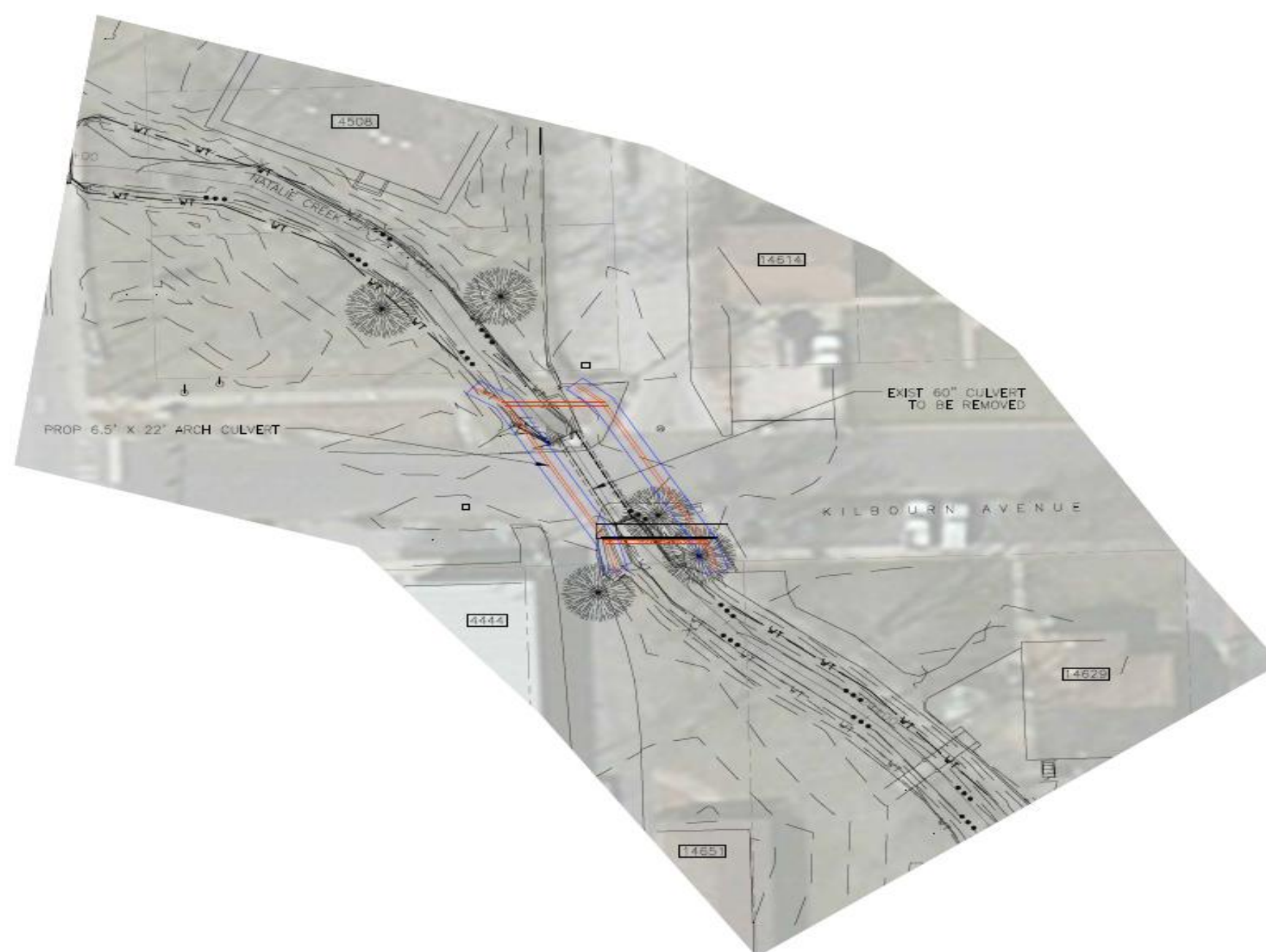




NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT



Kilbourn Ave. – Culvert Installation



SCALE: 1" = 20'

Rev.	Revised By	Date

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO	
Designed by: J. PATTERSON, COUNTELEC	Checked by: S. CREIE
Drawn by: L. GOUDEAU	Reviewed by: S. CREIE
Date: AUGUST 2016	Scale: AS SHOWN
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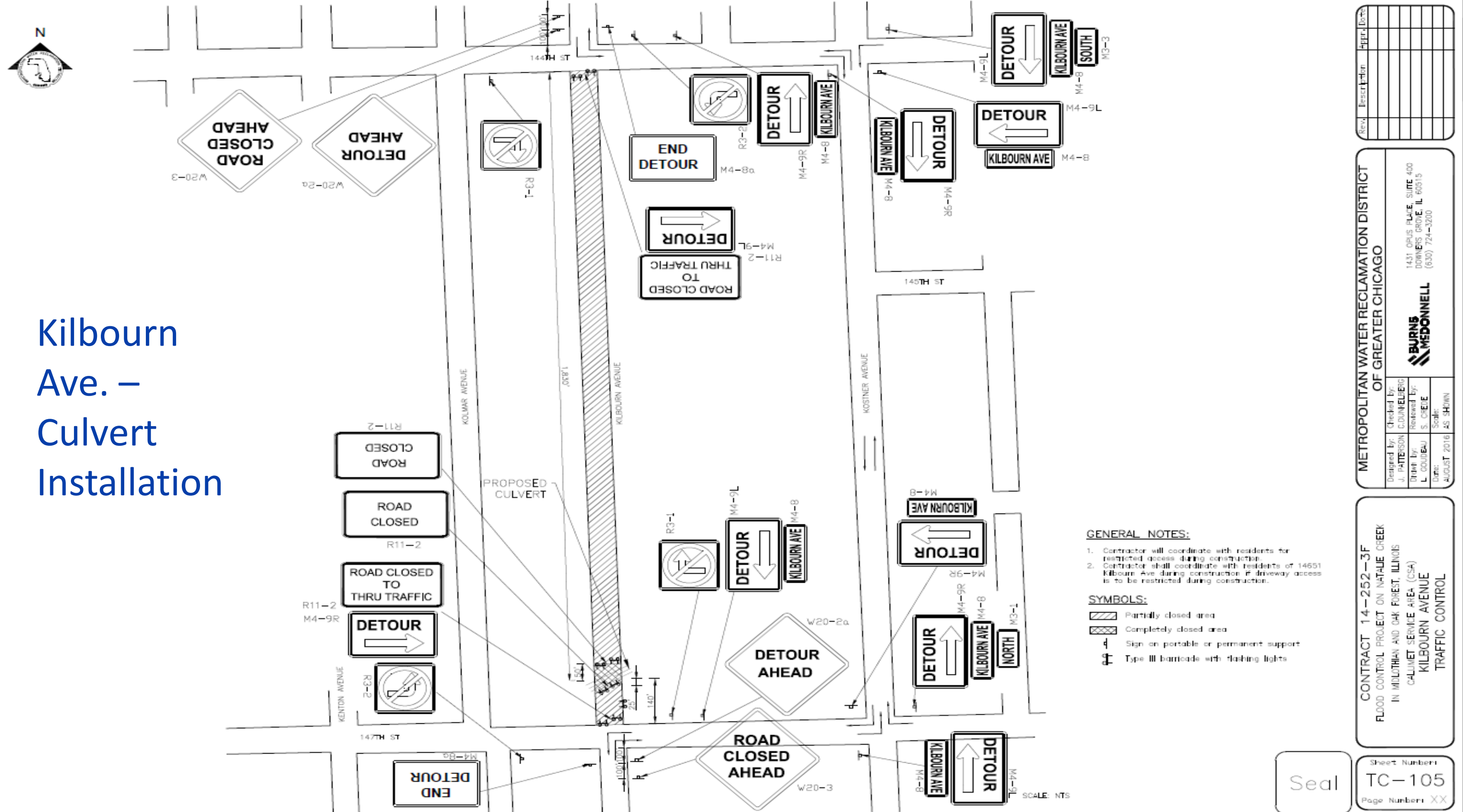
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NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT

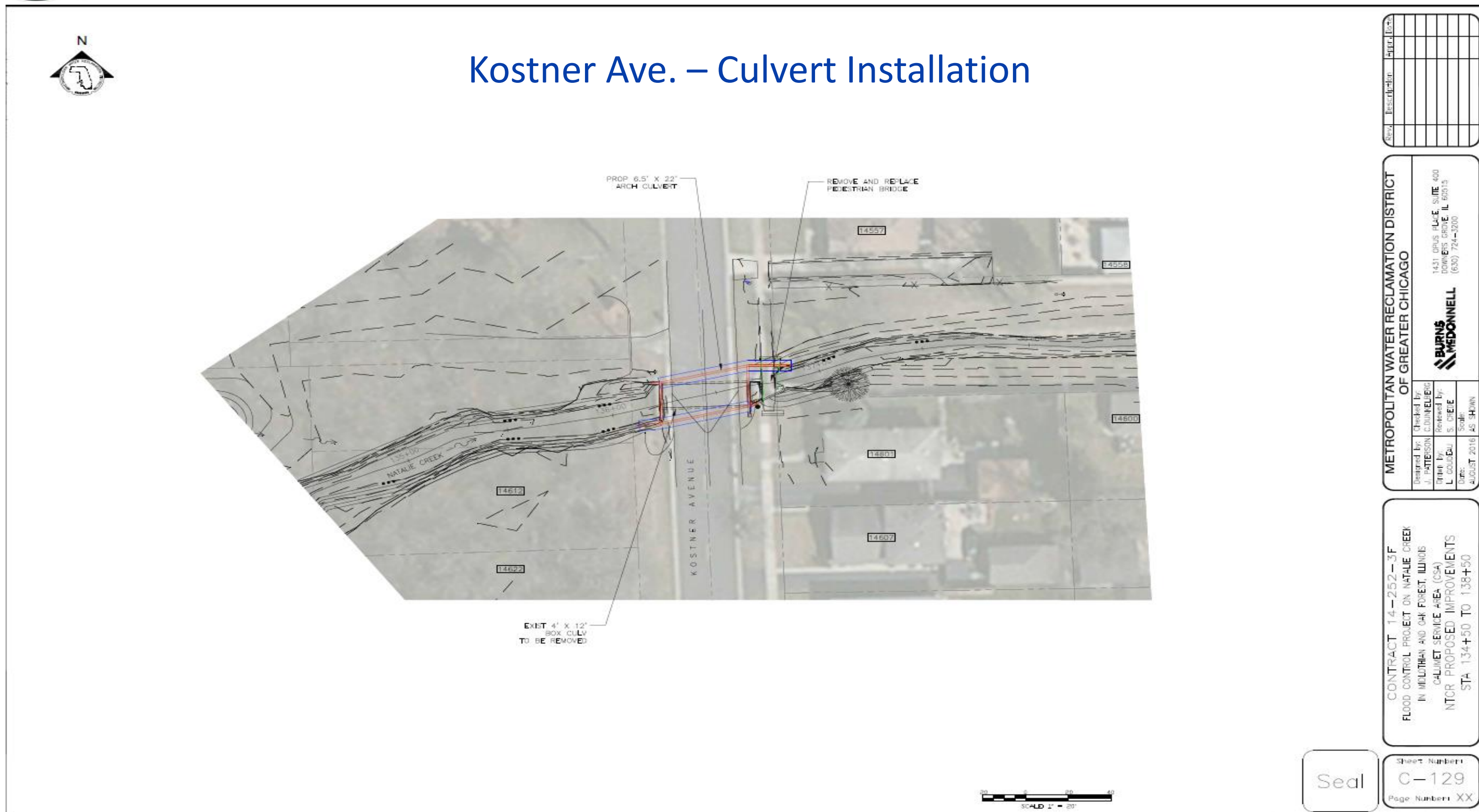




NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT

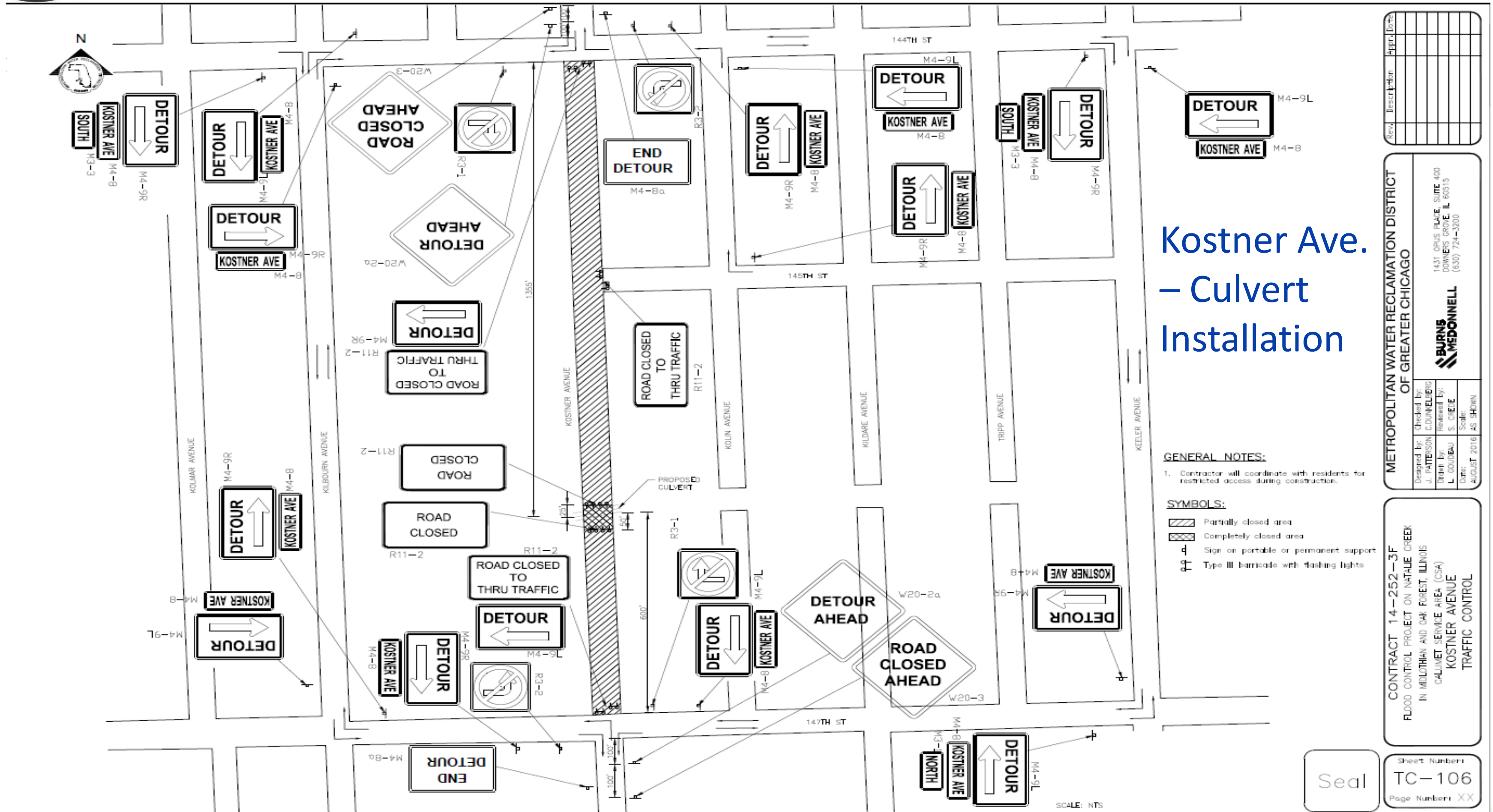


Kostner Ave. – Culvert Installation



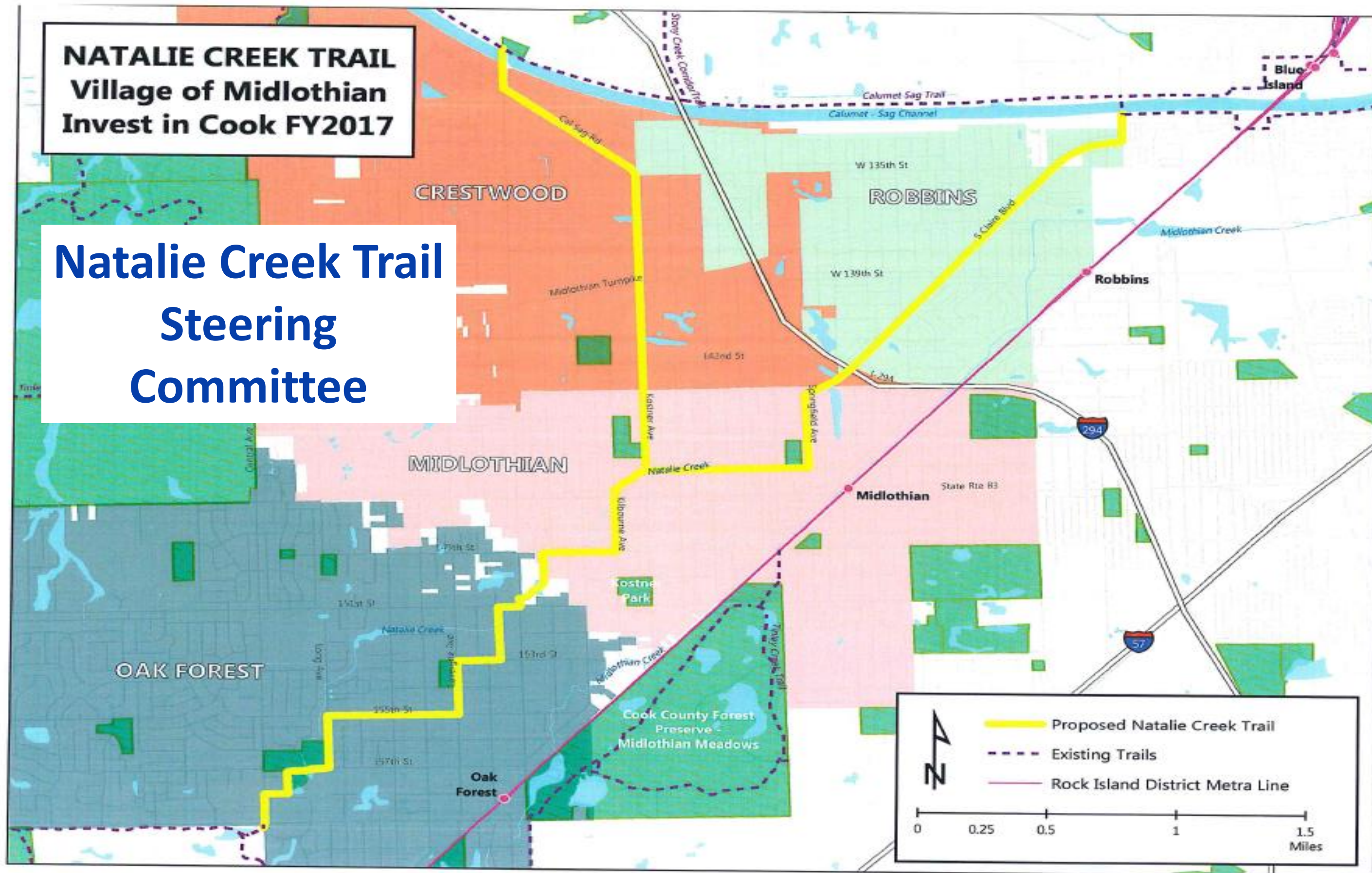


NATALIE CREEK FINAL DESIGN- COORDINATION EFFORT



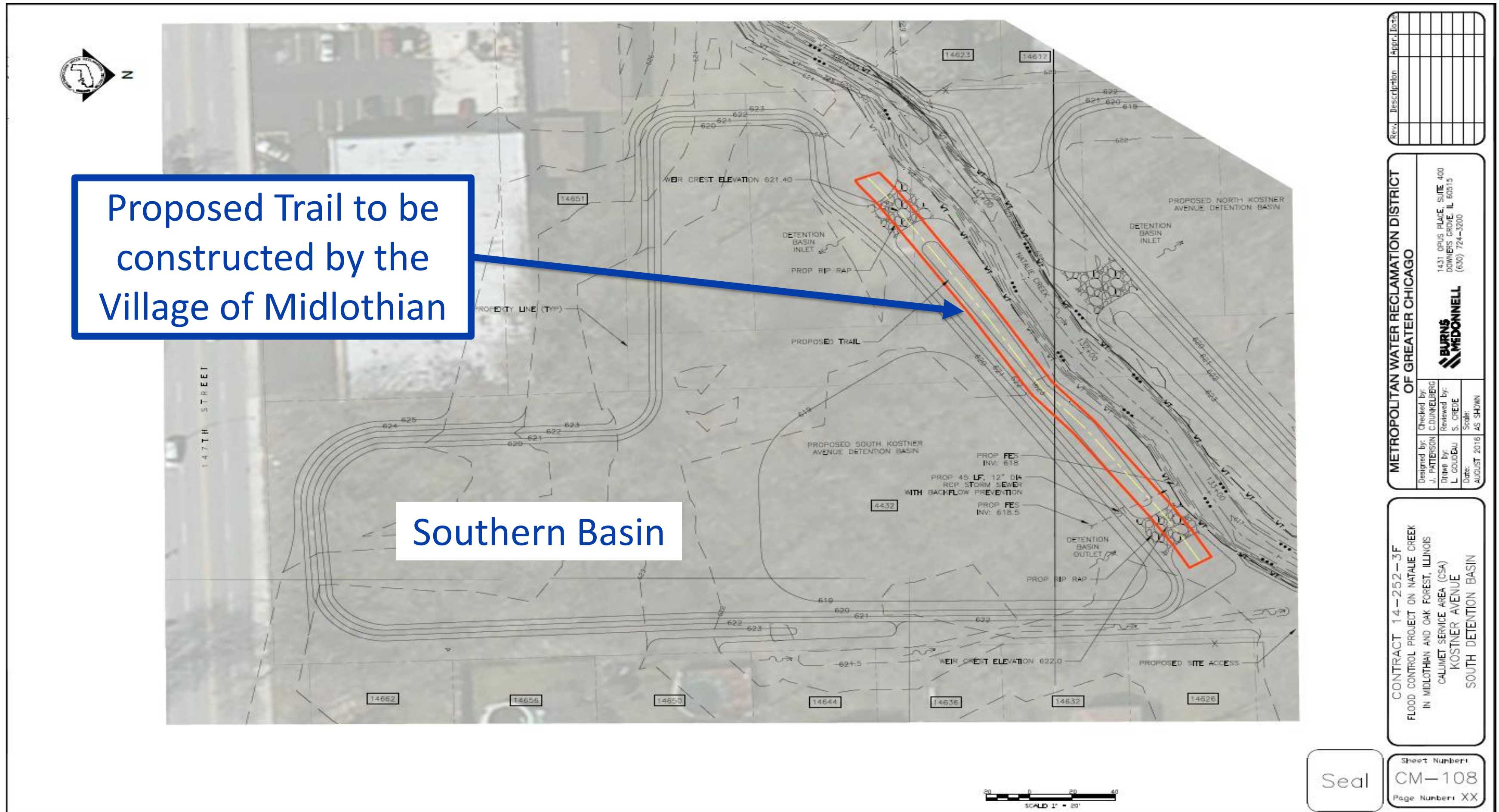


NATALIE CREEK FINAL DESIGN- Village of Midlothian Committee





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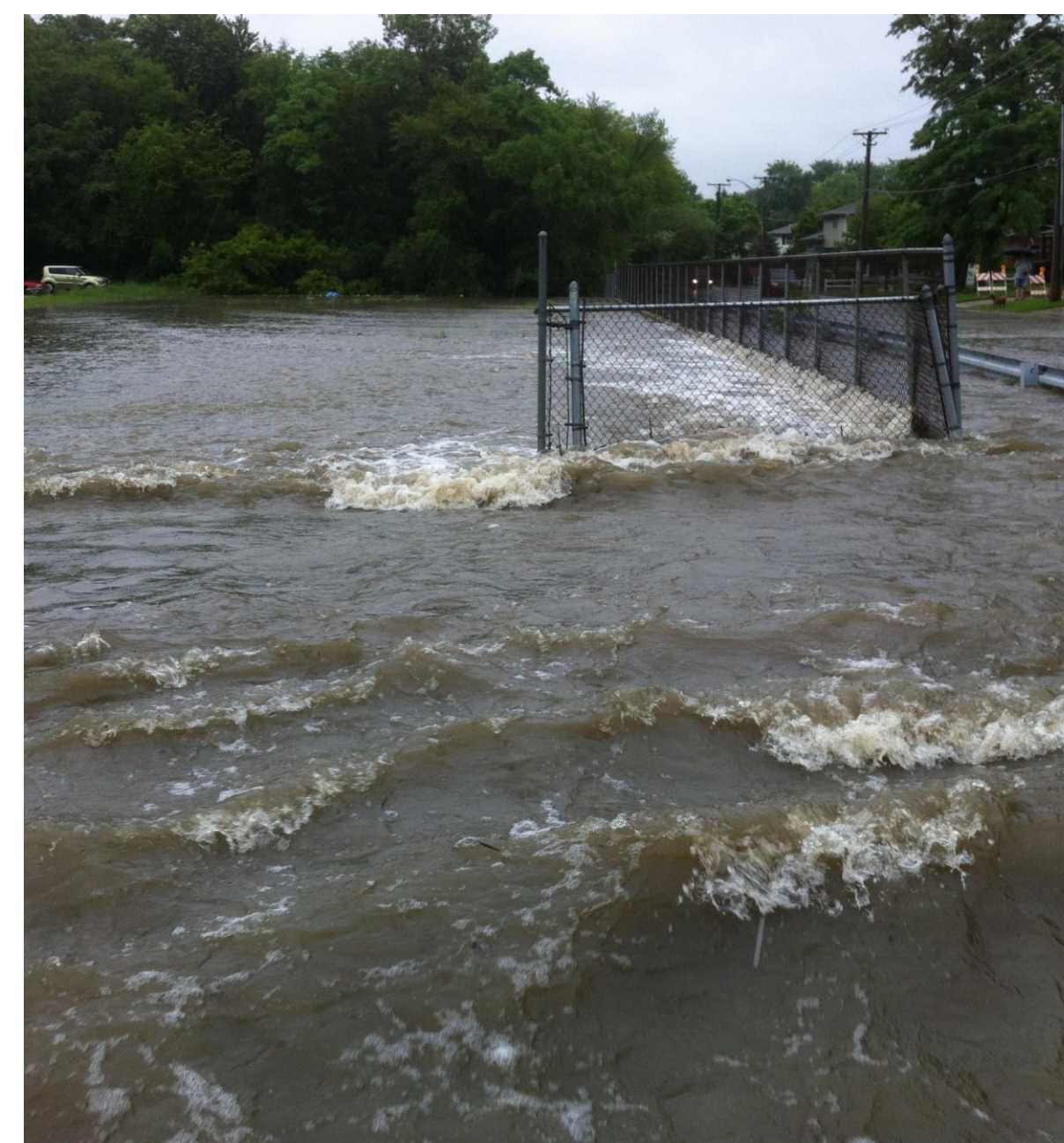


NATALIE CREEK FINAL DESIGN ENGINEERING PROJECT



Summary

- ▶ Past & Present Completion Timeline:
 - Preliminary Design Study – Summer 2016
 - Final Design – Summer 2017
 - Construction Start – Late 2017
 - Construction (Substantial) Completion – Fall 2018
 - Final Completion – Spring 2019





NATALIE CREEK FINAL DESIGN ENGINEERING PROJECT



Thank You!

- ▶ Village of Midlothian & City of Oak Forest
- ▶ "Floodlothian Midlothian"
- ▶ USACE/Center for Neighborhood Technology/"RainReady"
- ▶ & All others that played a role in the success of this project

Questions???

"Coming together is a beginning; keeping together is progress; working together is success."

Henry Ford