

**ADDENDUM 02**  
**FOR**  
**2024 WHITE PINE STREET & UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE, IL**  
**VoBG 2024-02**

Date of Addendum: Friday, November 10, 2023  
Bid Due Date: **10:00 AM Thursday, November 16, 2023**

**Description of Addendum:**

The following items provide additional clarification and modifications to the bid documents and are made a part of the bid documents for the Village of Buffalo Grove's '2024 White Pine Street & Utility Project'. It is the bidder's responsibility to review all bid documents thoroughly in preparation of their bid. Additionally, this addendum shall be attached to the bid proposal.

**Schedule of Prices:**

1. A revised schedule of prices is included with this addendum. Various pay item quantities have been adjusted, new quantities have been added, and a few pay items have been omitted based on an internal review of the bid documents and other changes included with Addendum 02. **This shall replace the respective Schedule of Prices previously included in the bid documents.**

**Plan & Specification Modifications or Clarifications:**

2. A revised plan set is included with this addendum. **This shall replace the respective plan set previously included in the bid documents.**
3. Construction layout will be performed by the Engineer.
4. Stone bedding of all pipes as shown on the plan details shall be included in the cost of the pipe.
5. The Contractor is responsible for following all plumbing code requirements for service installations.
6. Frame and grate manufacturers shall be consistent within the project limits as indicated within Exhibit No. 109, unless written approval from the Village and Engineer is provided.
7. The following shall be added to the 'Fire Hydrant Assembly, Complete' Special Provision:

The Contractor shall furnish and install heavy-duty ½" diameter steel hydrant markers measuring four (4) feet high with a 3" wide by 2-3/4" high flag. The entire apparatus shall have a red powder-coated finish with a loop mount that slips over any 2-1/2" NST outlet and is held in place by the hydrant cap. Steel hydrant markers shall be manufactured by Hydro Hitch, Part #: 85935, or approved equal. The flag shall be wrapped in one (inch) wide white reflective marking tape meeting the requirements of Type II Sheeting.

The steel hydrant markers shall be installed on the right side, while facing the front, of each new fire hydrant after the new distribution system is live and the temporary protective bags are removed and no longer required. The Contractor shall submit a shop drawing for approval of the steel hydrant marker and white reflective marking tape prior to ordering or incorporation into the project.

8. The following Special Provision shall be added to the bid documents:

**Frames and Lids, Type 1, Closed Lid (Storm) (Special)**

This work shall include all labor, material, and equipment necessary to furnish and install frames and lids, of the type specified, at locations shown on the Engineering plans in accordance with Section 604 of the Standard Specifications and as specified herein.

The structure shall be brought flush to the surrounding elevation with new adjustment rings. Adjustment ring material type and method shall be in accordance with Exhibit No. 109 Materials List, as specified herein. Bricks, aggregate, lathe, or any other organic material shall not be used as shim materials or otherwise.

The lid shall be cast iron with the word 'Storm' imprinted and embossed with 'Village of Buffalo Grove, in accordance with Section 604 of the Standard Specifications.

The existing frame and lid shall be salvaged and delivered to the Village of Buffalo Grove Public Works yard or at a location determined by the Village. Any material not suitable for salvage shall be disposed of off-site according to Article 202.03 of the Standard Specifications.

This work will be measured in place and paid for at the contract unit price per each (EA) for FRAMES AND LIDS, of the type specified, (STORM), (SPECIAL) which price shall include all labor, material, and equipment required to complete the work as specified herein.

PLEASE NOTE AND INCLUDE THIS ADDENDUM IN YOUR RESPONSE:

PROSPECTIVE RESPONDER: \_\_\_\_\_

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

End of Addendum 02

**SCHEDULE OF PRICES****Base Bid Scope of Work:**

For the complete scope of work and information covering these items, see the plans and specifications.

**2024 WHITE PINE STREET AND UTILITY PROJECT**

The following Unit Prices will be used for basis of payment and shall be the bidder's proposal for completing the entire improvements herein.

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	VALUE
1	TREE TRUNK PROTECTION	192.0	EA	\$	\$
2	TREE ROOT PRUNING	124.0	EA	\$	\$
3	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	620.0	CY	\$	\$
4	TRENCH BACKFILL, COARSE AGGREGATE, CA-11 (SPECIAL)	3,700.0	CY	\$	\$
5	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	620.0	SY	\$	\$
6	GENERAL LANDSCAPE RESTORATION (SPECIAL)	4,600.0	SY	\$	\$
7	MOWING (SPECIAL)	4.0	EA	\$	\$
8	SUPPLEMENTAL WATERING	16.0	UN	\$	\$
9	TEMPORARY EROSION CONTROL SEEDING (SPECIAL)	4,600.0	SY	\$	\$
10	TEMPORARY MULCH METHOD 3A (SPECIAL)	4,600.0	SY	\$	\$
11	INLET FILTERS	36.0	EA	\$	\$
12	AGGREGATE SUBGRADE IMPROVEMENT	620.0	CY	\$	\$
13	AGGREGATE BASE COURSE, TYPE B VARIES (SPECIAL)	2,480.0	TN	\$	\$
14	PREPARATION OF BASE	17,530.0	SY	\$	\$
15	HOT-MIX ASPHALT BINDER COURSE (SPECIAL)	2,728.0	TN	\$	\$
16	HOT-MIX ASPHALT SURFACE COURSE (SPECIAL)	2,182.0	TN	\$	\$
17	BITUMINOUS MATERIALS (TACK COAT)	8,200.0	LB	\$	\$
18	CLASS D PATCHES, TYPE III, 5 INCH (SPECIAL)	35.0	SY	\$	\$
19	WELDED WIRE REINFORCEMENT	1,380.0	SY	\$	\$
20	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	610.0	SY	\$	\$
21	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	6,930.0	SF	\$	\$
22	DETECTABLE WARNINGS (FURNISHED BY OTHERS) (SPECIAL)	22.0	SF	\$	\$
23	PAVEMENT REMOVAL (SPECIAL)	17,530.0	SY	\$	\$
24	DRIVEWAY PAVEMENT REMOVAL (SPECIAL)	590.0	SY	\$	\$
25	COMBINATION CURB AND GUTTER REMOVAL	2,770.0	FT	\$	\$
26	SIDEWALK REMOVAL	7,222.0	SF	\$	\$
27	WATER MAIN 8" (FURNISHED BY OTHERS) (SPECIAL)	6,445.0	FT	\$	\$
28	WATER VALVES 8" (FURNISHED BY OTHERS) (SPECIAL)	11.0	EA	\$	\$
29	FIRE HYDRANTS TO BE REMOVED (SPECIAL)	15.0	EA	\$	\$
30	FIRE HYDRANT EXTENSION (SPECIAL)	2.0	FT	\$	\$
31	FIRE HYDRANT ASSEMBLY, COMPLETE (FURNISHED BY OTHERS) (SPECIAL)	17.0	EA	\$	\$
32	PIPE UNDERDRAINS, 4" (SPECIAL)	2,700.0	FT	\$	\$
33	VALVE VAULT, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	7.0	EA	\$	\$
34	VALVE VAULT, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	4.0	EA	\$	\$
35	REMOVING CATCH BASINS	5.0	EA	\$	\$
36	REMOVING MANHOLES	3.0	EA	\$	\$
37	REMOVING INLETS	19.0	EA	\$	\$
38	COMBINATION CONCRETE CURB AND GUTTER, TYPE M (MODIFIED) (SPECIAL)	2,770.0	FT	\$	\$
39	MOBILIZATION	1.0	LS	\$	\$
40	CONNECT INTO EXISTING DRAINAGE STRUCTURE (SPECIAL)	2.0	EA	\$	\$
41	STORM SEWER CONNECTION (SPECIAL)	17.0	EA	\$	\$
42	SANITARY SEWER CONNECTION (SPECIAL)	14.0	EA	\$	\$

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	VALUE
43	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	5.0	EA	\$	\$
44	CATCH BASINS, TYPE A, 5'-DIAMETER, TYPE 11 FRAME AND GRATE	1.0	EA	\$	\$
45	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	3.0	EA	\$	\$
46	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID	1.0	EA	\$	\$
47	INLETS, TYPE A, TYPE 11 FRAME AND GRATE	18.0	EA	\$	\$
48	VALVE VAULTS TO BE ABANDONED	1.0	EA	\$	\$
49	VALVE BOXES TO BE REMOVED	2.0	EA	\$	\$
50	VALVE VAULTS TO BE REMOVED	16.0	EA	\$	\$
51	WATER VALVES TO BE REMOVED	16.0	EA	\$	\$
52	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	1.0	LS	\$	\$
53	CUT AND CAP EXISTING WATER MAIN	1.0	EA	\$	\$
54	CONNECTION TO EXISTING WATER MAIN (NON-PRESSURE) - 8" (SPECIAL)	5.0	EA	\$	\$
55	PRESSURE CONNECTION 8" x 8"	1.0	EA	\$	\$
56	WATER MAIN REMOVAL, 8"	70.0	FT	\$	\$
57	DRAINAGE STRUCTURES TO BE ADJUSTED	2.0	EA	\$	\$
58	DRAINAGE STRUCTURES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID (SPECIAL)	8.0	EA	\$	\$
59	FRAMES AND LIDS, TYPE 1, CLOSED LID (SANITARY) (SPECIAL)	23.0	EA	\$	\$
60	FRAMES AND LIDS, TYPE 1, CLOSED LID (STORM) (SPECIAL)	4.0	EA	\$	\$
61	SANITARY MANHOLES TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID (SPEC	3.0	EA	\$	\$
62	SANITARY SEWERS, WATER MAIN QUALITY PIPE, 6"	135.0	FT	\$	\$
63	SANITARY SEWERS, WATER MAIN QUALITY PIPE, 8"	70.0	FT	\$	\$
64	SANITARY SEWERS, WATER MAIN QUALITY PIPE, 10"	35.0	FT	\$	\$
65	STORM SEWERS, RUBBER GASKET, CLASS A, TY 1, 12"	20.0	FT	\$	\$
66	STORM SEWERS, RUBBER GASKET, CLASS A, TY 1, 15"	20.0	FT	\$	\$
67	STORM SEWERS, RUBBER GASKET, CLASS A, TY 1, 18"	20.0	FT	\$	\$
68	STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 6"	100.0	FT	\$	\$
69	STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 10"	390.0	FT	\$	\$
70	STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 12"	265.0	FT	\$	\$
71	STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 15"	45.0	FT	\$	\$
72	EXPLORATION EXCAVATION (SPECIAL)	8.0	EA	\$	\$
73	ADJUSTING SANITARY/STORM SERVICES, 8-INCH DIAMETER OR LESS (SPECIAL)	80.0	FT	\$	\$
74	STORM SEWER TO BE REMOVED, 18-INCH DIAMETER OR LESS (SPECIAL)	800.0	FT	\$	\$
75	SANITARY SEWER TO BE REMOVED, 18-INCH DIAMETER OR LESS (SPECIAL)	240.0	FT	\$	\$
76	BUFFALO BOX FRAME & LID (SPECIAL)	12.0	EA	\$	\$
77	WATER SERVICE, TYPE K COPPER, 1" (SPECIAL)	1,670.0	FT	\$	\$
78	WATER SERVICE, TYPE K COPPER, 1", TRENCHLESS METHOD (SPECIAL)	2,895.0	FT	\$	\$
79	WATER SERVICE, CONNECT EXISTING, COMPLETE (SPECIAL)	141.0	EA	\$	\$
80	WATER SERVICE, TAP, 1" COMPLETE (SPECIAL)	141.0	EA	\$	\$
81	ABANDON EXISTING WATER MAIN (SPECIAL)	130.0	CY	\$	\$
82	TEMPORARY PAVEMENT	20.0	TN	\$	\$
83	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	24.0	SY	\$	\$
84	REMOVE AND RELOCATE EXISTING SIGN	13.0	EA	\$	\$

PROPOSAL OF UNIT PRICE BID TOTAL: \$ \_\_\_\_\_

Written Amount for Proposal of Unit Price Bid Total:

--



# 2024 WHITE PINE STREET AND UTILITY PROJECT VILLAGE OF BUFFALO GROVE BUFFALO GROVE, ILLINOIS 60089

## STANDARD SYMBOLS

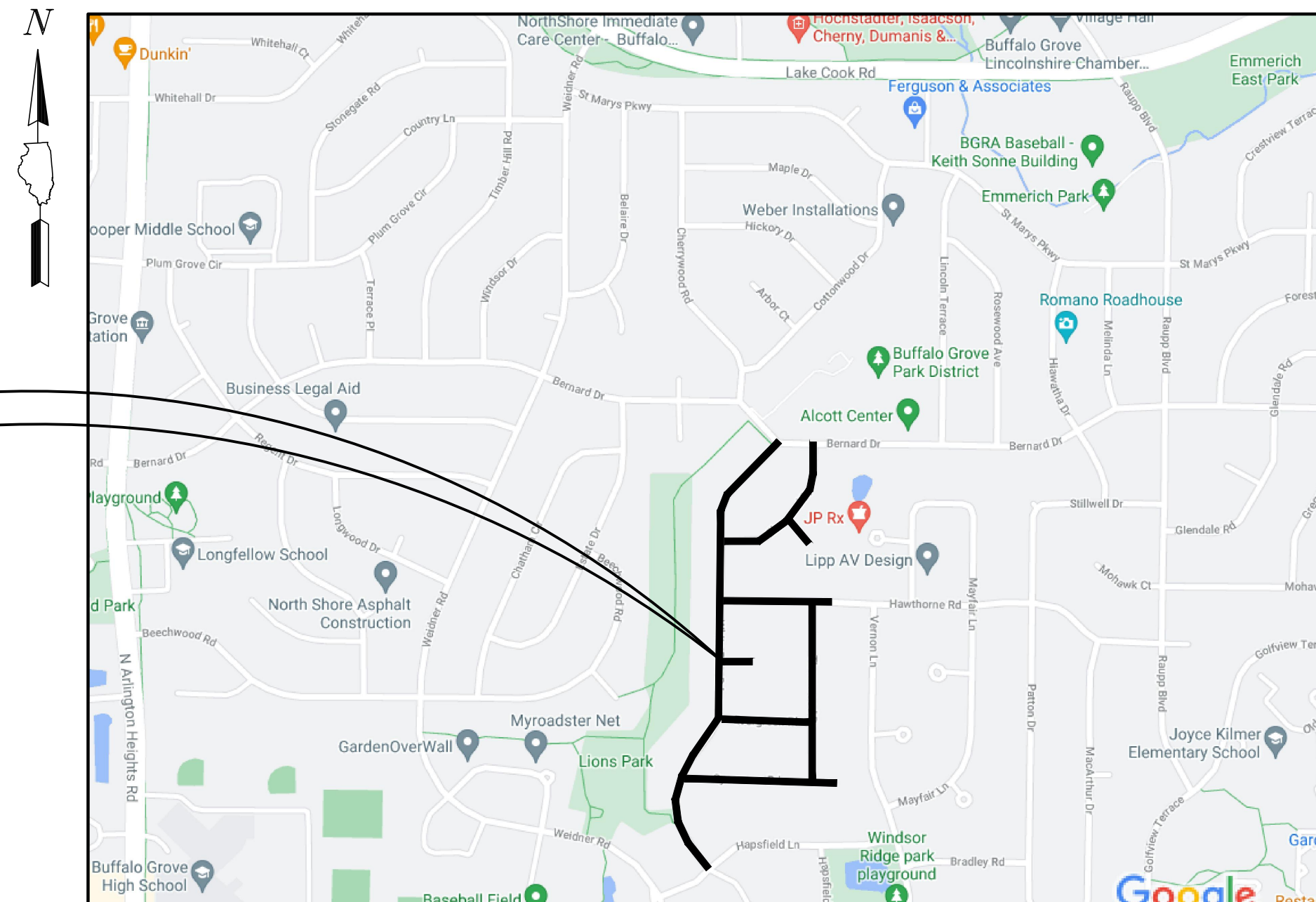
FEATURE	EXISTING	PROPOSED
BUFFALO BOX		
BUSH/SHRUB		
CATCH BASIN		
CLEANOUT		
COMBINE SEWER LINE		
CONTOUR		
CULVERT		
DITCH/SWALE		
ELECTRIC LINE		
ELECTRIC MANHOLE		
FENCE		
FIRE HYDRANT		
FLARED END SECTION		
GAS LINE		
GAS MANHOLE		
GAS VALVE		
INLET		
LIGHT POLE		
OVERHEAD WIRES		
POWER POLE		
R.O.W LINE		
R.O.W MARKER		
SANITARY FORCEMAIN LINE		
SANITARY SEWER LINE		
SANITARY SEWER MANHOLE		
SIGN		
SPOT ELEVATION		
STORM SEWER LINE		
STORM SEWER MANHOLE		
TELEPHONE LINE		
TELEPHONE MANHOLE		
TELEPHONE BOX/PEDESTAL		
TREE-CONIFEROUS (SIZE/TAG#)		
TREE-DECIDUOUS (SIZE/TAG#)		
VALVE BOX		
VALVE VAULT		
WATER VALVE		
WATERMAIN LINE		

## SHEET INDEX

1. TITLE SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES & SEQUENCING
4. TYPICAL SECTIONS
5. WHITE PINE RD STA. 1+00 - 7+00
6. WHITE PINE RD STA. 7+00 - 16+50
7. WHITE PINE RD STA. 16+50 - BERNARD DR
8. ELMWOOD DR STA. 13+00 - BERNARD DR
9. ELMWOOD DR STA. 10+80 - 13+00 & POPLAR CT
10. HAWTHORNE RD & EVERGREEN PL
11. THORNEWOOD DR
12. SYCAMORE RD
13. ADA CROSSINGS
14. ADA CROSSINGS
15. ADA CROSSINGS
16. DETAILS
17. DETAILS
18. DETAILS
19. BUFFALO GROVE DETAILS

### PROJECT LOCATION

ELMWOOD DRIVE, WHITE PINE ROAD  
RED OAK COURT, HAWTHORNE ROAD  
THORNEWOOD DRIVE, POPLAR COURT  
EVERGREEN ROAD, SYCAMORE ROAD  
BERNARD DRIVE, HAPSFIELD LANE  
VILLAGE OF BUFFALO GROVE, IL



**LOCATION MAP**  
(Not to Scale)

### PLANS PREPARED FOR:

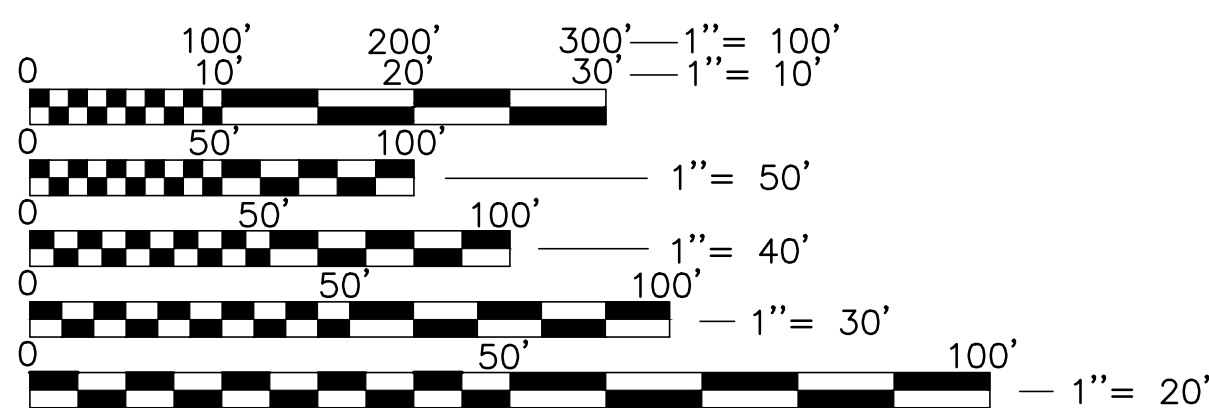
VILLAGE OF BUFFALO GROVE  
50 RAUPP BOULEVARD  
BUFFALO GROVE, ILLINOIS 60089  
TELEPHONE: 847-459-2500

### TOPOGRAPHIC SURVEY BY:

GEWALT HAMILTON ASSOCIATES, INC.  
625 FOREST EDGE DRIVE  
VERNON HILLS, ILLINOIS 60061  
TELEPHONE: 847-478-9700

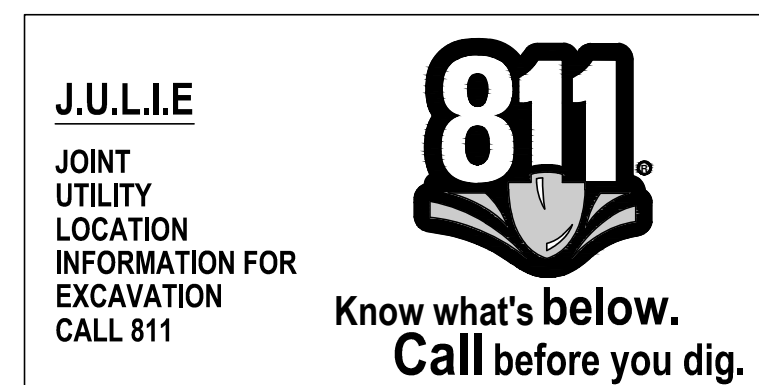
### COORDINATING/PERMITTING AGENCIES:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY PUBLIC WATER SUPPLY	217-782-1724
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY WATER POLLUTION CONTROL	217-782-3397
VILLAGE OF BUFFALO GROVE (ENGINEERING DEPARTMENT)	847-459-2523



**FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.**

**NOTE: CONSTRUCTION MEANS, METHODS AND JOB SITE SAFETY IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR**



SIGNED: \_\_\_\_\_ P.E.  
PETER C. LIND

DATE: \_\_\_\_\_

ILLINOIS LICENSE NO.: 062-072045

EXPIRATION DATE: NOVEMBER 30, 2023

**ISSUED FOR PERMIT**

**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
TEL 847.478.9700 ■ FAX 847.478.9701

COPYRIGHT NOTICE  
This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**TITLE SHEET**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.		BY		DATE		REVISION		NO.		BY		DATE		REVISION	
1		SHY		11.10.2023		ADDENDUM 01									

FILE: 4798.072-DT.dwg	SHEET NUMBER:
DRAWN BY: KRM	GHA PROJECT #
DATE: 11.02.2023	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.2023	N.T.S.
	OF 19 SHEETS



**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" LATEST EDITION, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, THE ILLINOIS PLUMBING CODE, THE DETAILS IN THESE PLANS, THE CONTRACT DOCUMENTS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, THE IEPA AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO.
- EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE PRIOR TO ORDERING MATERIALS. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS/HER OWN RISK AND EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY COSTS INCURRED..
- ALL PAVEMENT DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
- IF DURING CONSTRUCTION THE CONTRACTOR ENCOUNTERS OR OTHERWISE BECOMES AWARE OF ANY SEWERS OR UNDERDRAINS OTHER THAN THOSE SHOWN ON THE PLANS, HE/SHE SHALL INFORM THE ENGINEER, WHO SHALL DIRECT THE WORK NECESSARY TO MAINTAIN OR REPLACE THE FACILITIES IN SERVICE AND TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION IF MAINTAINED. EXISTING FACILITIES TO BE MAINTAINED THAT ARE DAMAGED BECAUSE OF NON-COMPLIANCE WITH THIS PROVISION SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES AND HAND SANITIZING STATIONS FOR THE USE OF ALL THE CONTRACTORS PERSONNEL EMPLOYED ON THE WORK SITE. THE FACILITIES SHALL BE MAINTAINED IN PROPER SANITARY CONDITION THROUGHOUT THE PROJECT. THE LOCATION OF THE TEMPORARY FACILITIES SHALL BE APPROVED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE NPDES PERMIT AND SWPPP MANUAL. IF NO NPDES PERMIT OR SWPPP MANUAL IS NEEDED FOR THE PROJECT THE CONTRACTOR SHALL PERFORM SOIL EROSION SEDIMENT CONTROL BEST PRACTICES OR AS DIRECTED BY THE OWNER TO PREVENT ILLICIT DISCHARGES FROM THE SITE.

**UTILITY NOTES**

- UNDERGROUND WORK SHALL INCLUDE TRENCHING, DISPOSAL OF EXCESS MATERIAL, DEWATERING, INSTALLATION OF PIPE, CASTINGS, STRUCTURES, BACKFILLING OF TRENCHES AND COMPACTION, AND TESTING AS SHOWN ON THE CONSTRUCTION PLANS. FITTINGS AND ACCESSORIES NECESSARY TO COMPLETE THE WORK MAY NOT BE SPECIFIED BUT SHALL BE CONSIDERED AS INCLUDED TO THE COST OF THE CONTRACT. ALL SEWER SHALL BE INSTALLED USING A LASER AND BEGIN AT THE DOWNSTREAM END.
- MACHINE CORE ALL CONNECTIONS TO EXISTING STRUCTURES USING A CORE DRILL. HAMMERING OR SAWING OF STRUCTURES WILL NOT BE ALLOWED.
- SANITARY SERVICE CONNECTIONS TO NEW SEWERS SHALL BE MADE WITH WYE BRANCHES. WYE BRANCHES SHALL BE FACTORY MANUFACTURED PERMANENTLY AFFIXED TO THE MAIN SEWER. TEE BRANCHES ARE NOT ALLOWED.
- ALL CONNECTIONS TO EXISTING SANITARY MANHOLES SHALL BE INSTALLED WITH A NEOPRENE BOOT SECURED WITH DOUBLE STAINLESS STEEL STRAPS MEETING THE REQUIREMENTS OF ASTM C-923.
- ALL CONNECTIONS TO EXISTING OR DISSIMILAR STORM/SANITARY LINES SHALL BE DONE WITH STAINLESS STEEL NON-SHEAR COUPLINGS.
- STONE BEDDING AND BACKFILL SHALL BE OMITTED FOR A DISTANCE OF 15 FEET UP AND DOWNSTREAM OF SEWERS DRAINING TO OR FROM PONDS OR STREAMS. THE REPLACED BEDDING SHALL BE SILTY CLAY SOIL MECHANICALLY COMPACTED TO 90% MODIFIED PROCTOR DENSITY. THE USE OF PERMEABLE SOILS WILL NOT BE PERMITTED.
- ALL WATER MAIN SHALL HAVE MECHANICAL RESTRAINED TYPE JOINTS AT ALL CONNECTIONS AND FITTINGS. IN ADDITION, ALL HARDWARE SHALL BE STAINLESS STEEL.
- THRUST BLOCKING SHALL BE PROVIDED ON WATER MAIN AT ALL BENDS, TEES, ELBOWS, ETC. INDIVIDUAL INSPECTION FOR ALL THRUST BLOCKING IS REQUIRED. THRUST BLOCKING SHALL BE POURED IN PLACE CONCRETE. PRECAST BLOCKS MAY BE USED AS APPROVED BY THE ENGINEER IN THE FIELD.
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER. ALL DOWNSPOUTS, SIDE YARD DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM. FOOTING DRAINS SHALL FIRST DRAIN TO A SUMP PIT.
- BUILDING STORM SEWER SERVICE PIPE SHALL NOT BE LESS THAN THE DIAMETER OF THE PLUMBING PIPE FROM THE BUILDING, BUT NOT LESS THAN 6 INCHES. THE PIPE SHALL HAVE A MINIMUM SLOPE OF 1/8-INCH PER FOOT, BUT NOT MORE THAN 1/2-INCH PER FOOT. CHANGES OF DIRECTION OF SERVICE PIPE SHALL BE MADE WITH COMBINATIONS OF 22-1/2 DEGREE BENDS WHEREVER PRACTICABLE, WITH NOT LESS THAN 2 FEET OF STRAIGHT PIPE BETWEEN SUCH BENDS. RIGHT ANGLE (90 DEGREE) BENDS WILL NOT BE ALLOWED. WHEN A SERVICE LINE EXCEEDS 100 FEET IN LENGTH, A CLEANOUT SHALL BE PROVIDED AT A LOCATION DESIGNATED BY THE ENGINEER. THE CLEANOUT SHALL BE PROPERLY SEALED, WITH THE TOP OF THE PLUGGED RISER FLUSH WITH FINISHED GRADE.

**PROJECT SPECIFIC NOTES**

- ALL CONSTRUCTION WILL BE INSPECTED BY THE OWNER'S REPRESENTATIVE. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPALITIES CODE AS WELL AS THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, THE MUNICIPALITY AND THEIR AGENTS, FROM ALL LIABILITY INVOLVED IN CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT.
- THE CONTRACTOR MUST CARRY INSURANCE IN ACCORDANCE WITH THE SPECIFICATIONS. ALL OFFICIALS, EMPLOYEES AND AGENTS OF GEWALT HAMILTON ASSOCIATES MUST BE LISTED AS ADDITIONAL INSURED.
- ALL ELEVATIONS ARE ON NAVD 88 VERTICAL DATUM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL TO ADEQUATELY INFORM AND PROTECT THE PUBLIC OF ALL CONSTRUCTION OPERATIONS.
- PRIOR TO PLACEMENT OF FABRIC AND STONE, THE SUBGRADE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER. PROOF-ROLLING SHALL BE DONE USING A THREE AXLE DUMP TRUCK TOGETHER WITH LOAD WEIGHING AT LEAST TWENTY-FIVE (25) TONS. THE LOAD SHALL BE UNIFORMLY PLACED IN THE DUMP BODY. ALL DEFICIENCIES SHALL BE REPAIRED AND RE-PROOF-ROLLED UNTIL FOUND ACCEPTABLE TO THE ENGINEER.
- ALL STONE USED ON THE PROJECT SHALL BE CRUSHED UNLESS SPECIFICALLY NOTED OTHERWISE.
- ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH APPLIED WITHIN 1 HOUR OF FINAL STRIKING.
- ALL CONCRETE SHALL HAVE A WHITE, IDOT TYPE 3 CURING COMPOUND APPLIED TO THE SURFACE WITHIN 1 HOUR OF FINAL STRIKING AT THE MANUFACTURER RECOMMENDED APPLICATION RATE.
- 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 2 , 3/4" x 18" PLAIN ROUND, STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURBS AT (45') FORTY-FIVE FOOT INTERVALS AND AT ALL P.C.'S, P.T.'S AND CURB RETURNS. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR FULL DEPTH. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS.
- UNLESS OTHERWISE NOTED ON THE PLANS WHENEVER NEW CONCRETE ABUTS EXISTING/ OR NEW CONCRETE SET A 1/2" THICK PRE-MOLDED FIBER EXPANSION JOINT AND DOWEL WITH SMOOTH 12" #4 BARS @ 24" O.C. THIS INCLUDES CONCRETE POURED ADJACENT TO EXISTING SIDEWALKS, CURBS AND BUILDING. THE DOWEL BARS SHOULD BE 4" INTO EXISTING CONCRETE WITH 8" EXTENDING INTO NEW CONCRETE.
- ALL DOWEL BARS AND TIE BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
- ALL PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY (ASTM D-1557). ALL SUBGRADE IN LAWN AREAS SHALL BE COMPACTED TO 90% MODIFIED PROCTOR DENSITY (ASTM D-1557). ALL TOPSOIL AND SUBGRADE 6" BELOW TOPSOIL SHALL BE COMPACTED TO 80% STANDARD PROCTOR DENSITY (ASTM D-698).
- SPREAD SCREENED TOPSOIL ON ALL DISTURBED AREAS AND PROPOSED GREEN AREAS. TOPSOIL SHALL COMPLY WITH REQUIREMENTS OF ARTICLE 1081.05.
- ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED TO MEAN THE VILLAGE ENGINEER OR AUTHORIZED VILLAGE REPRESENTATIVE.

**VILLAGE OF BUFFALO GROVE NOTES**

- FRAMES, LIDS, GRATES, VALVES, FIRE HYDRANTS, ETC. WHICH ARE ABANDONED OR REPLACED IN THIS PROJECT SHALL BE SALVAGED AND REMAIN PROPERTY OF THE VILLAGE OF BUFFALO GROVE. THE CONTRACTOR SHALL COORDINATE DELIVERY TO THE VILLAGE'S SELECTED SITE. ANY DAMAGE TO THE SALVAGED ITEMS DUE TO THE CONTRACTORS NEGLIGENCE SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ALL PUBLIC AUTHORITIES BEARING ON SAFETY OF PERSONS OR PROPERTY OR THEIR PROTECTION FROM DAMAGE, INJURY OR LOSS.
- ANY EARTH EXCAVATION DONE WITH REMOVAL OR FRAMING OF DRIVEWAY OR SIDEWALK IS INCIDENTAL TO THAT ITEM.
- ANY STREET LIGHT POLE BRACING REQUIRED SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.
- NO SIGNAGE IS TO BE REMOVED. IF SIGNS ARE TAKEN DOWN FOR CONSTRUCTION PURPOSES, THEY MUST BE RE-ERECTED ON THE SAME DAY TO THE SATISFACTION OF THE ENGINEER.
- ANY BRANCHES THAT REQUIRE TRIMMING FOR EQUIPMENT CLEARANCE/CONSTRUCTION OPERATIONS SHALL BE DONE IN ACCORDANCE WITH THE IDOT DISTRICT ONE DETAIL "PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE" AND SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT. ALL ADDITIONAL TREE TRIMMING MUST BE APPROVED BY THE ENGINEER.
- ALL HOOKS AND LIFTING RINGS SHALL BE REMOVED AND CUT FLUSH ONCE THE STRUCTURE IS IN ITS FINAL LOCATION AND HAVE MORTAR INSTALLED TO COVER THE REBAR.

**EROSION CONTROL NOTES**

- AT A MINIMUM, THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S URBAN MANUAL.
- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY ROAD OF MATERIAL THAT IS FROM THE PROJECT. THIS WILL BE DONE AT THE CLOSE OF EACH DAY OF WORK OR MORE FREQUENTLY AS FIELD CONDITIONS WARRANT.
- ALL STORM WATER STRUCTURES WITH OPEN LIDS SHALL BE PROTECTED WITH INLET FILTER BASKETS. DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED AS NEEDED, AND BASKETS SHALL BE REPAIRED OR REPLACED AS NEEDED.
- AFTER ACHIEVING PERMANENT VEGETATION, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED, AND THE DRAINAGE STRUCTURES SHALL BE CLEANED.
- THE CONTRACTOR SHALL KEEP A WATER SOURCE AT THEIR DISPOSAL FOR THE PURPOSE OF WATERING DOWN SOIL ON SITE AND ADJACENT ROADWAYS WHICH OTHERWISE MAY BECOME AIRBORNE.
- THE CONTRACTOR SHALL STABILIZE ALL IDLE, DISTURBED AREAS WITHIN SEVEN DAYS OF CESSATION OF THE CONSTRUCTION ACTIVITIES IN THAT AREA.
- THE CONTRACTOR IS EXPRESSLY ADVISED NOT TO DISTURB AREAS WHICH ARE OUTSIDE THOSE NECESSARY TO PROVIDE THE IMPROVEMENTS AS CALLED FOR IN THE PLANS.
- ALL EROSION CONTROL MEASURES SHALL BE REPLACED IF DAMAGED OR MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
- EROSION BYPASS CHANNELS, MUST BE CONSTRUCTED SO THAT CHANNEL FLOWS WILL NOT CAUSE EROSION OF EXCAVATED MATERIAL. IN EACH CASE A SEDIMENTATION BASIN MUST BE CONSTRUCTED SO AS TO ALLOW THE SEDIMENT TO SETTLE PRIOR TO THE DOWNSTREAM OUTLET OF THE PROJECT AREA.
- PUMPS MAY BE USED AS BYPASS DEVICES, BUT IN NO CASE WILL THE WATER BE DIVERTED OUTSIDE THE PROJECT LIMIT. ALL PUMPED WATER SHALL BE FREE OF SILT. PUMPING MAY REQUIRE THE USE OF A SEDIMENT CONTAINMENT FILTER BAG AND OTHER SUPPLEMENTAL SEDIMENT CONTROL MEASURES.
- CONCRETE WASHOUT FACILITIES SHALL BE MADE AVAILABLE IF NEEDED, AND PROPERLY MAINTAINED THROUGHOUT THE PROJECT.
- PROPERLY MANAGE ALL MATERIAL STORAGE AREAS, PORTABLE TOILETS, AND EQUIPMENT FUELING, CLEANING, AND MAINTENANCE AREAS TO ENSURE THESE AREAS ARE FREE OF SPILLS, LEAKS, OR OTHER POTENTIAL POLLUTANTS.
- WASTE, CONSTRUCTION DEBRIS, AND BUILDING MATERIALS SHALL BE COLLECTED AND PLACED IN APPROVED RECEPTACLES.

**VILLAGE OF BUFFALO GROVE WATER MAIN NOTES**

- SIZES OF EXISTING MAINS WERE DETERMINED FROM THE VILLAGE OF BUFFALO GROVE UTILITY ATLASES AND MAY NOT REPRESENT ACTUAL WATER MAIN SIZES. THE CONTRACTOR SHALL HAVE AN ADEQUATE NUMBER OF FITTINGS, SLEEVES, ETC TO COMPLETE THE WORK WITHOUT DELAYS DUE TO DIFFERING WATER MAIN PIPE SIZES.
- COVER ALL NEW FIRE HYDRANTS AND ABANDONED FIRE HYDRANTS WITH BLACK PLASTIC BAGS AFTER INSTALLATION OR UNTIL REMOVAL AND UNTIL NEW WATER MAIN IS IN SERVICE. THE PLASTIC BAG SHALL BE SECURELY TAPED TO THE HYDRANT.
- ADJUSTMENT OF VALVE VAULT RIM ELEVATIONS TO FINAL GRADE AT THE TIME OF PAVING OR LANDSCAPING SHALL BE INCLUDED IN THE COST OF THE VALVE VAULT. VALVE VAULTS SHALL HAVE RUBBER BOOTS MEETING THE REQUIREMENTS OF ASTM C-923 FOR ALL WATER MAIN CONNECTIONS. ALL VALVE VAULTS SHALL BE WATER TIGHT PER ASTM C-1244.
- ALL MAIN INSTALLED NOT SUBJECT TO PRESSURE TEST AND CHLORINATION TESTING REQUIREMENTS SHALL BE INSTALLED PER THE SPECIFICATIONS AND BROUGHT UP TO SYSTEM PRESSURE UNDER WITNESS OF THE ENGINEER. THE PIPE SHALL NOT BE BACKFILLED UNTIL DIRECTED BY THE ENGINEER. THE SECTION OF PIPE WILL BE INSPECTED FOR A PERIOD OF TIME DETERMINED BY THE ENGINEER TO VERIFY THERE ARE NO LEAKS IN THE LINE. ALL COSTS ASSOCIATED WITH COMPLYING WITH THIS REQUIREMENT ARE INCLUDED IN THE COST OF THE CONTRACT.
- ALL MISHANDLED OR DAMAGED MATERIALS AS INSPECTED BY THE ENGINEER WILL BE MARKED WITH SPRAY PAINT. THE MARKED MATERIALS REMAIN THE PROPERTY OF THE CONTRACTOR. ALL MATERIALS MARKED ARE DEEMED UNSUITABLE FOR CONSTRUCTION BY THE ENGINEER AND MUST BE REMOVED FROM THE PROJECT SITE ON A WEEKLY BASIS AT NO COST TO THE VILLAGE.
- BACKFILL IN TURF AREAS MAY UTILIZE THE EXISTING SUBGRADE. ANY SETTLEMENT WITHIN THE WARRANTY PERIOD AS DESCRIBED IN THE SPECIFICATIONS SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. AT THE CONTRACTORS OPTION SAND MAY BE UTILIZED AS BACKFILL IN TURF AREAS TO PREVENT SETTLEMENT. THE SAND MUST BE KEPT 6" BELOW FINISHED GRADE FOR ACCEPTANCE OF TOPSOIL. ALL SAND UTILIZED FOR BACKFILLING IN THE PARKWAY AND ADDITIONAL TOPSOIL NEEDED SHALL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN THE CONTRACT.

**DEMOLITION NOTES:**

- RESIDENT ACCESS MUST BE MAINTAINED THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR MORE DETAILED REQUIREMENTS FOR RESIDENT ACCESS AND STAGING.
- BRICK PAVERS WITHIN THE VILLAGE RIGHT OF WAY THAT ARE DISTURBED AS PART OF THIS PROJECT SHALL BE REMOVED AND NEATLY STACKED ADJACENT TO THE DRIVEWAY THEY WERE REMOVED FROM.
- THE CONTRACTOR SHALL CAREFULLY REMOVE ALL FIRE HYDRANTS, HYDRANT AUXILIARY, B-BOXES AND VALVES. ALL VALVES, B-BOXES AND HYDRANTS REMOVED FROM THIS PROJECT SHALL BE DELIVERED TO THE BUFFALO GROVE PUBLIC WORKS YARD AT 51 RAUPP BLVD OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING STRUCTURES TO REMAIN. ANY DAMAGED STRUCTURES DUE TO THE CONTRACTORS NEGLIGENCE SHALL BE REMOVED AND REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER A MINIMUM OF 48 HOURS AHEAD OF TIME FOR OPERATION OF ANY EXISTING VALVE OR HYDRANT BY THE VILLAGE. AT NO TIME SHALL THE CONTRACTOR OPERATE ANY EXISTING VALVES OR HYDRANTS. NON COMPLIANCE WITH THIS REQUIREMENT WILL RESULT IN A \$500 FINE PER OCCURRENCE AS DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL REMOVE ALL SAWCUT SLURRY PROMPTLY TO PREVENT TRACKING ONTOP SURFACES TO REMAIN. ANY SLURRY TRACKED OR LEFT ON SURFACES TO REMAIN SHALL BE THOROUGHLY CLEANED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE VILLAGE.

**IMPROVEMENTS NOTES:**

- ANY SIDEWALKS, CURB RAMPS, DEPRESSED CURBS, DETECTABLE WARNINGS, CROSSWALKS OR OTHER ACCESSIBLE ROUTES INSTALLED THAT DOES NOT MEET THE ADA CODE SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE. THE COST OF COMPLYING WITH THIS REQUIREMENT IS CONSIDERED INCLUDED IN THE CONTRACT.
- ALL RESIDENTIAL DRIVEWAYS SHALL BE POURED NO LATER THAN THE DAY AFTER THE CURB IS INSTALLED. REFER TO THE SPECIAL PROVISIONS FOR FURTHER REQUIREMENTS.
- THE CONTRACTOR SHALL TAKE CARE DURING CONSTRUCTION TO LIMIT THE DISTURBANCE FOR THE PROJECT. ALL DISTURBED AREAS SHALL BE RESTORED WITH VARIABLE DEPTH TOPSOIL, IDOT CLASS 1A SEED AND MULCH METHOD 3A. AREAS DISTURBED BY THE CONTRACTORS NEGLIGENCE SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE VILLAGE.
- AT THE DIRECTION OF THE ENGINEER AND AS MARKED IN THE FIELD, ADDITIONAL PARKWAY GRADING MAY BE REQUIRED TO RE-ESTABLISH POSITIVE SITE DRAINAGE.
- ALL MAILBOXES DISTURBED AS PART OF THIS PROJECT SHALL BE RESET AT THE CONCLUSION OF THE DAY TO THE SATISFACTION OF THE ENGINEER & RESIDENT. THIS WORK IS CONSIDERED INCLUDED IN THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING LOCKING GASKETS FOR ALL JOINTS WITHIN THE BELOW TABLE FROM ALL BENDS. THE COST OF THE LOCKING GASKETS AND THRUST BLOCKS SHALL BE INCLUDED IN THE COST OF THE WATER MAIN.
  - 45 DEGREE HORIZONTAL BEND - 15'
  - 22.5 DEGREE HORIZONTAL BEND - 10'
  - 45 DEGREE VERTICAL OFFSET - 25'
  - TEES - PROVIDE THRUST BLOCK
  - PRESSURE CONNECTIONS - PROVIDE THRUST BLOCK
  - END CAPS - PROVIDE THRUST BLOCK
- THE USE OF 90 DEGREE BENDS IS NOT ALLOWED UNLESS PRIOR WRITTEN APPROVAL IS GIVEN BY THE ENGINEER.
- ALL VALVES TO BE ABANDONED IN PLACE SHALL HAVE THE VALVE CLOSED. HAVE THE OPERATING NUT REMOVED AND A PLATE PROVIDED BY THE VILLAGE INSTALLED ON-TOP OF THE CLOSED VALVE IN LIEU OF THE OPERATING NUT.
- ALL WATER MAIN CAPS ON THE EXISTING MAIN SHALL BE INSTALLED REGARDLESS OF THE COMPLETE SHUTDOWN CAPABILITY OF THE EXISTING VALVE.
- ALL SERVICE TAPS MUST BE A MINIMUM OF 2' FROM ANY FITTINGS, BELLS, OR SERVICE TAPS.
- FOR ALL CURB AND GUTTER REMOVAL AND REPLACEMENT THE CONTRACTOR SHALL REMOVE THE EXISTING CURB IN A MANNER TO SALVAGE THE EXISTING TIE BARS FOR RE-USE.
- ANY DAMAGED TIE BARS SHALL BE REPLACED PER ARTICLE 420.05 (B)

S:\2024\2024 BUFFALO GROVE\UTILITY IMPROVEMENTS\4798.072-DT.dwg - 11/9/2023 3:29 PM

625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
TEL 847.478.9700 ■ FAX 847.478.9701

**COPYRIGHT NOTICE**  
This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**GENERAL NOTES**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1	SHY	11.10.2023	ADDENDUM 01				

FILE	4798.072-DT.dwg
DRAWN BY:	KRM
DATE:	11.02.2023
GHA PROJECT #	4798.072
CHECKED BY:	PCL
DATE:	11.02.2023
SCALE:	N.T.S.

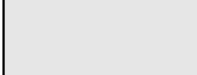


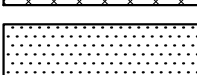
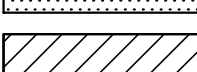

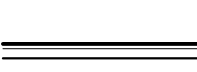
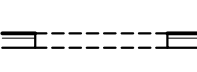
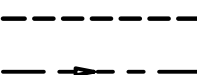
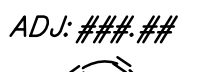


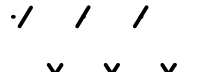


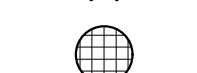

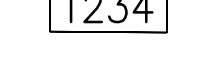




SHEET NUMBER:  
**2**  
OF 19 SHEETS

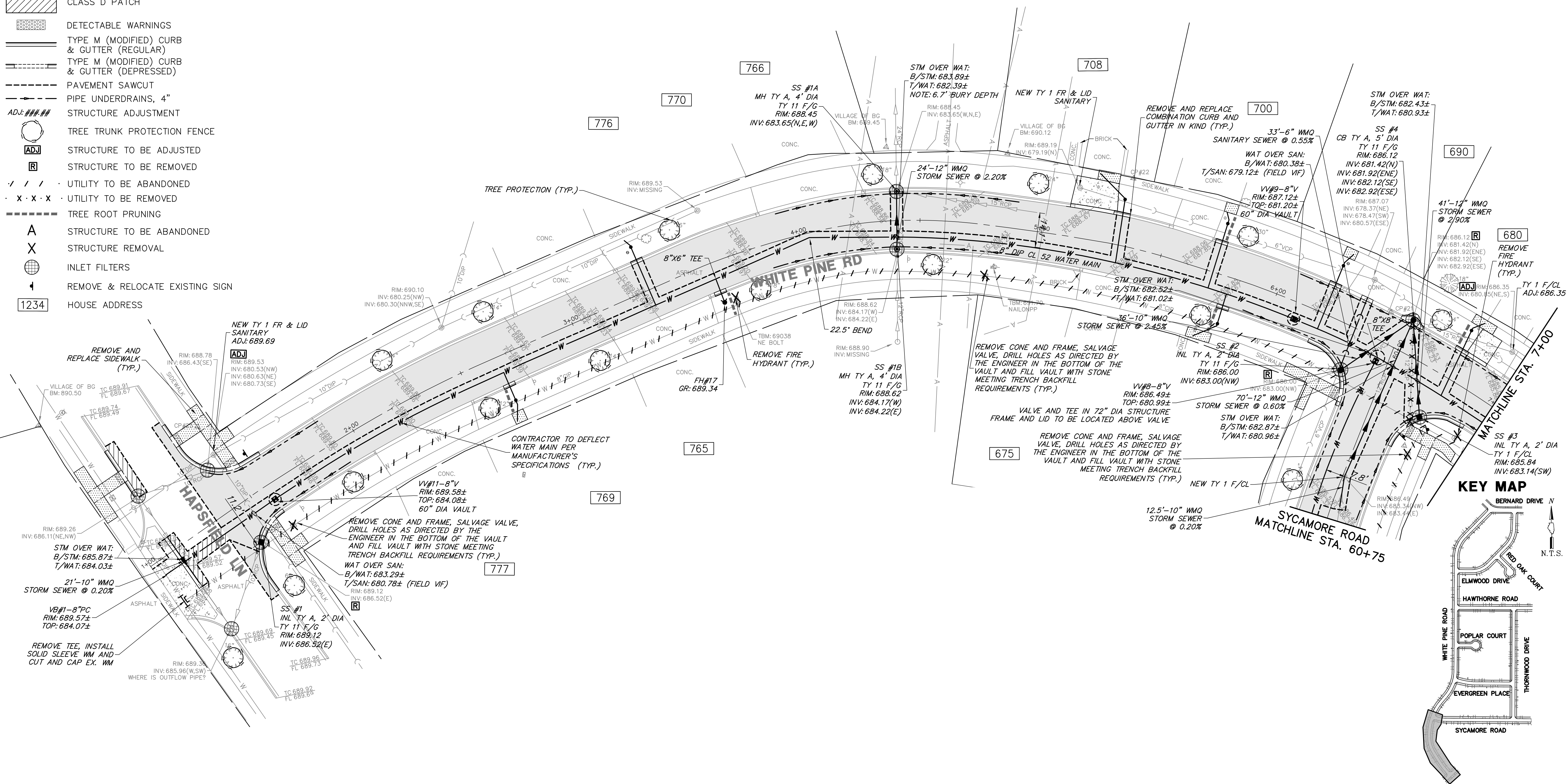
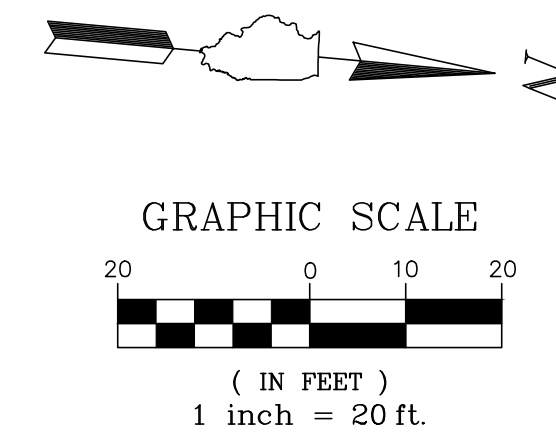




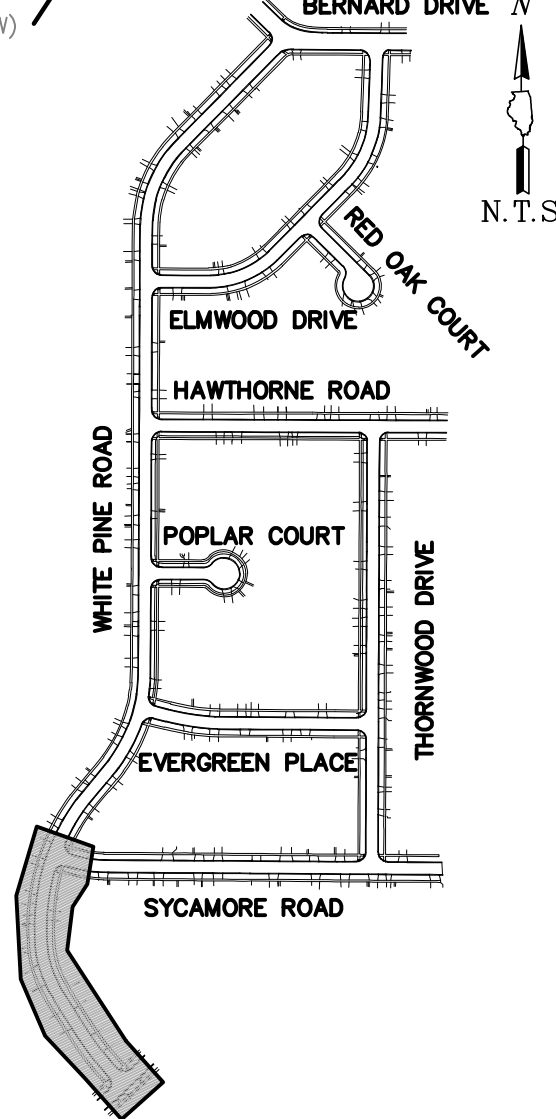


**PROPOSED LEGEND**

-  HMA RECONSTRUCTION
-  PCC PAVEMENT
-  HMA DRIVEWAY PAVEMENT
-  PCC SIDEWALK
-  CLASS D PATCH
-  DETECTABLE WARNINGS
-  TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
-  TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
-  PAVEMENT SAWCUT
-  PIPE UNDERDRAINS, 4"
-  ADJ:### STRUCTURE ADJUSTMENT
-  TREE TRUNK PROTECTION FENCE
-  [ADJ] STRUCTURE TO BE ADJUSTED
-  [R] STRUCTURE TO BE REMOVED
-  / / / UTILITY TO BE ABANDONED
-  x x x UTILITY TO BE REMOVED
-  ----- TREE ROOT PRUNING
-  A STRUCTURE TO BE ABANDONED
-  X STRUCTURE REMOVAL
-  [Globe] INLET FILTERS
-  [Sign] REMOVE & RELOCATE EXISTING SIGN
-  [Box] HOUSE ADDRESS



**KEY MAP**



6:42024.028 BUFFALO GROVE UTILITY PROJECT WHITE PINE WATER & STREET IMPROVEMENTS 4798.072-PR4.DWG 11/29/2023 8:31 PM

**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**WHITE PINE ROAD STA. 1+00 TO STA. 7+00**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

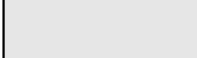


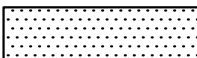
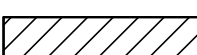

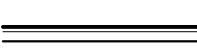
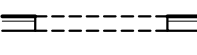









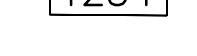




NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1	SHY	11.10.2023	ADDENDUM 01				

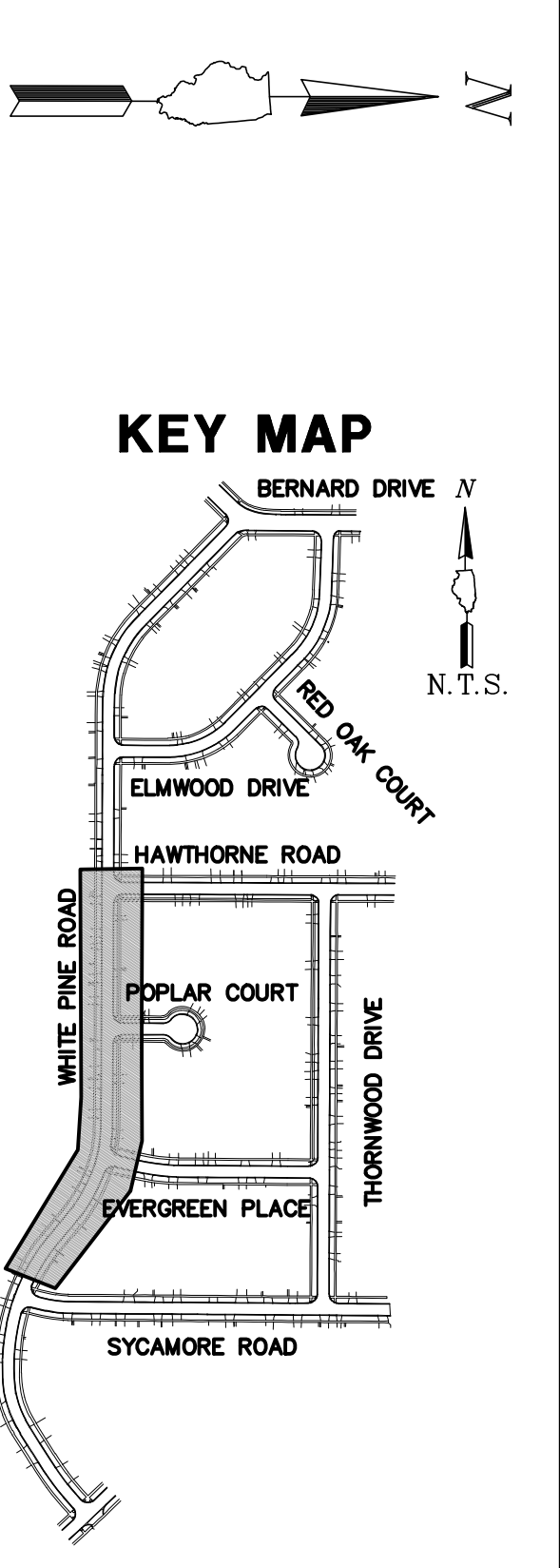
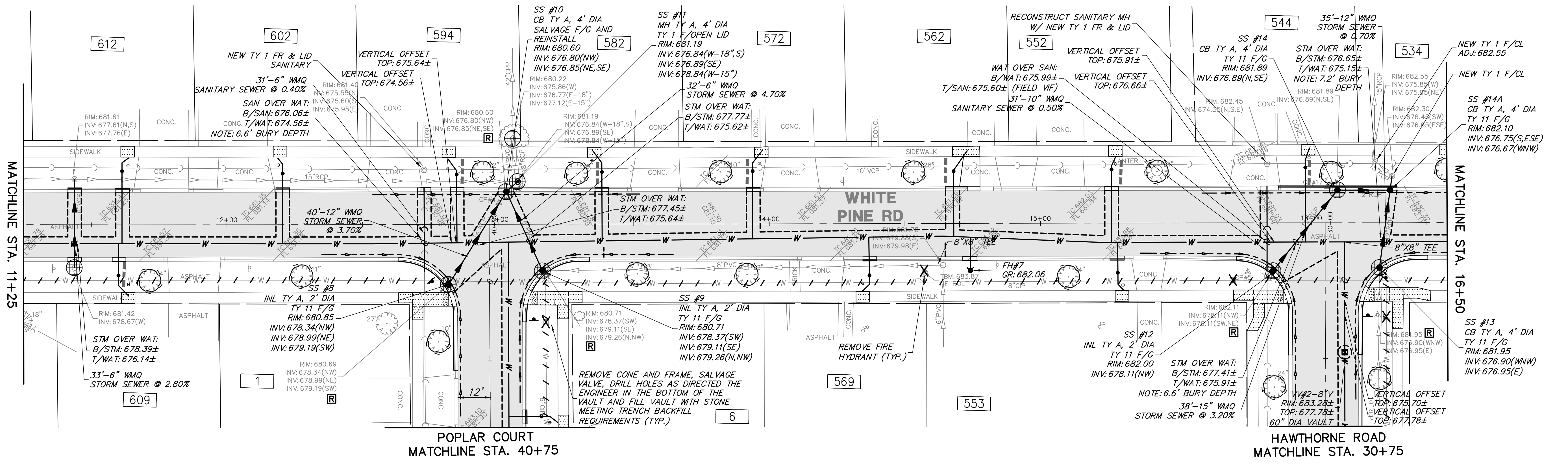
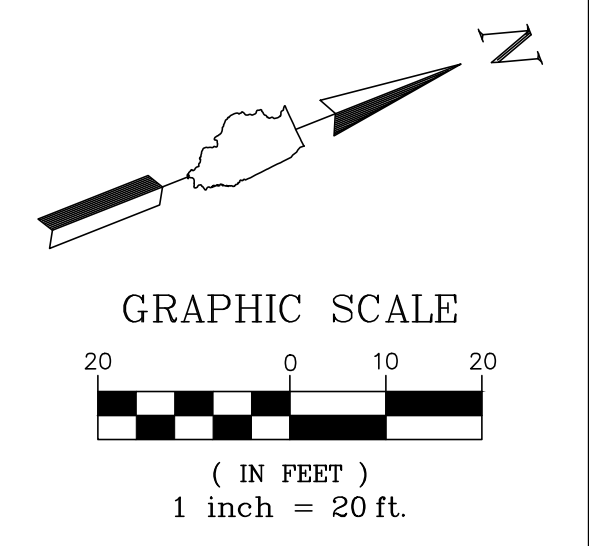
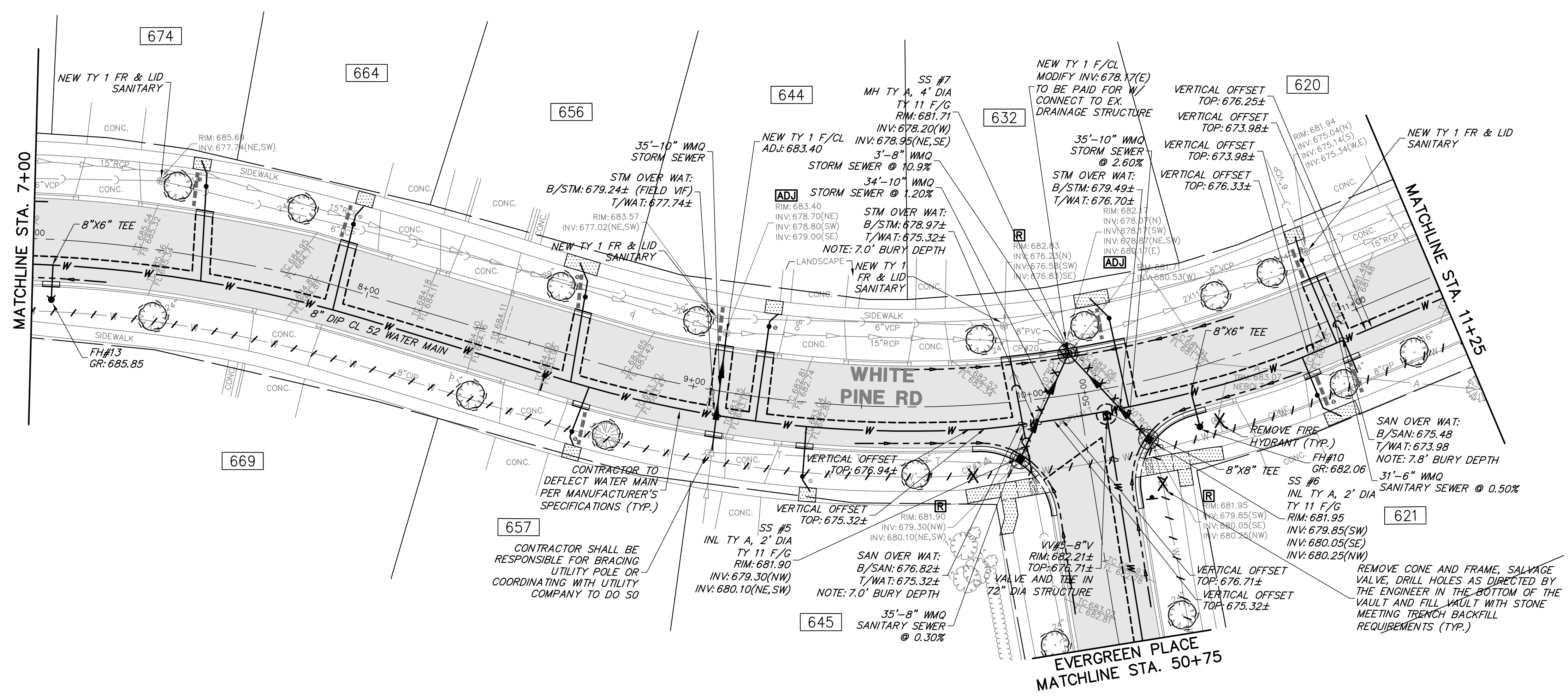
FILE: 4798.072-PR4.dwg	SHEET NUMBER:
DRAWN BY: SHY	GHA PROJECT #
DATE: 11.02.2023	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.2023	1"=20'
	OF 19 SHEETS

**5**



**PROPOSED LEGEND**

-  HMA RECONSTRUCTION
-  PCC PAVEMENT
-  HMA DRIVEWAY PAVEMENT
-  PCC SIDEWALK
-  CLASS D PATCH
-  DETECTABLE WARNINGS
-  TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
-  TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
-  PAVEMENT SAWCUT
-  PIPE UNDERDRAINS, 4"
-  STRUCTURE ADJUSTMENT
-  TREE TRUNK PROTECTION FENCE
-  STRUCTURE TO BE ADJUSTED
-  STRUCTURE TO BE REMOVED
-  UTILITY TO BE ABANDONED
-  UTILITY TO BE REMOVED
-  TREE ROOT PRUNING
-  STRUCTURE TO BE ABANDONED
-  STRUCTURE REMOVAL
-  INLET FILTERS
-  REMOVE & RELOCATE EXISTING SIGN
-  HOUSE ADDRESS



**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

COPYRIGHT NOTICE  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

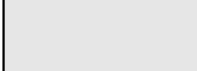


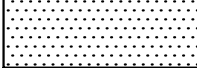

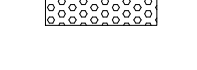
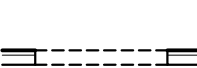
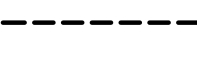
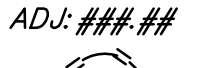


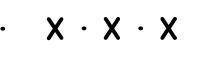



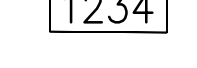
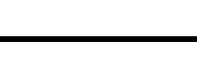





**WHITE PINE ROAD STA. 7+00 TO STA. 16+50**  
 2024 WHITE PINE STREET AND UTILITY PROJECT  
 VILLAGE OF BUFFALO GROVE  
 BUFFALO GROVE, ILLINOIS 60089

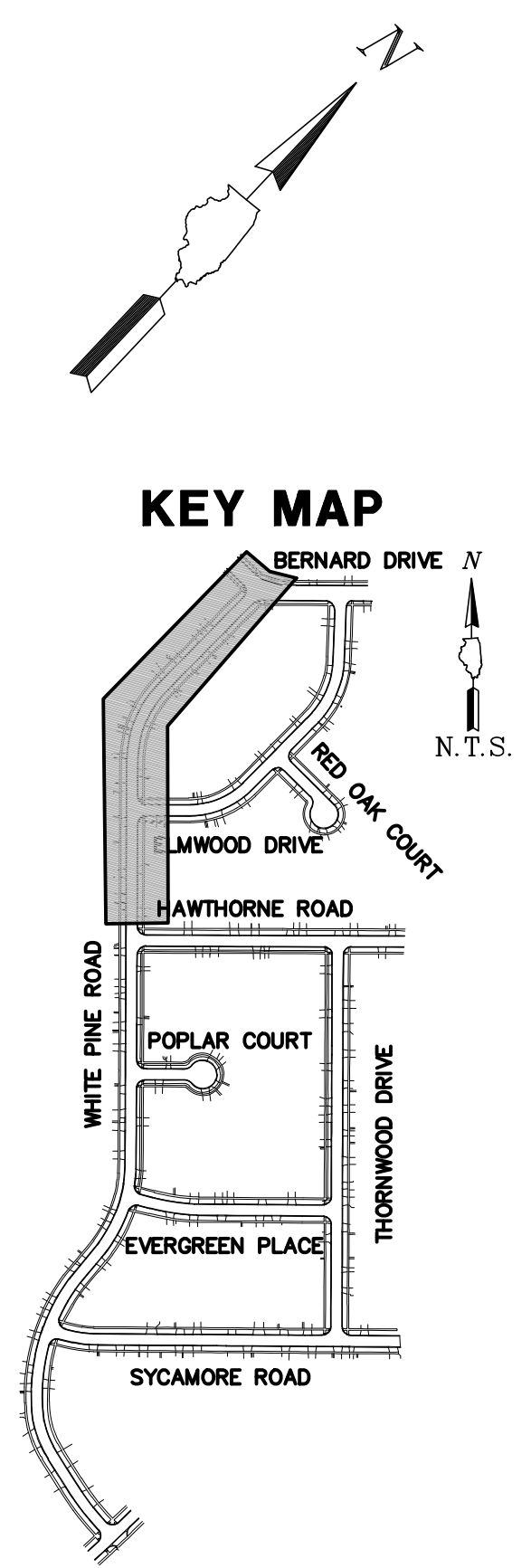
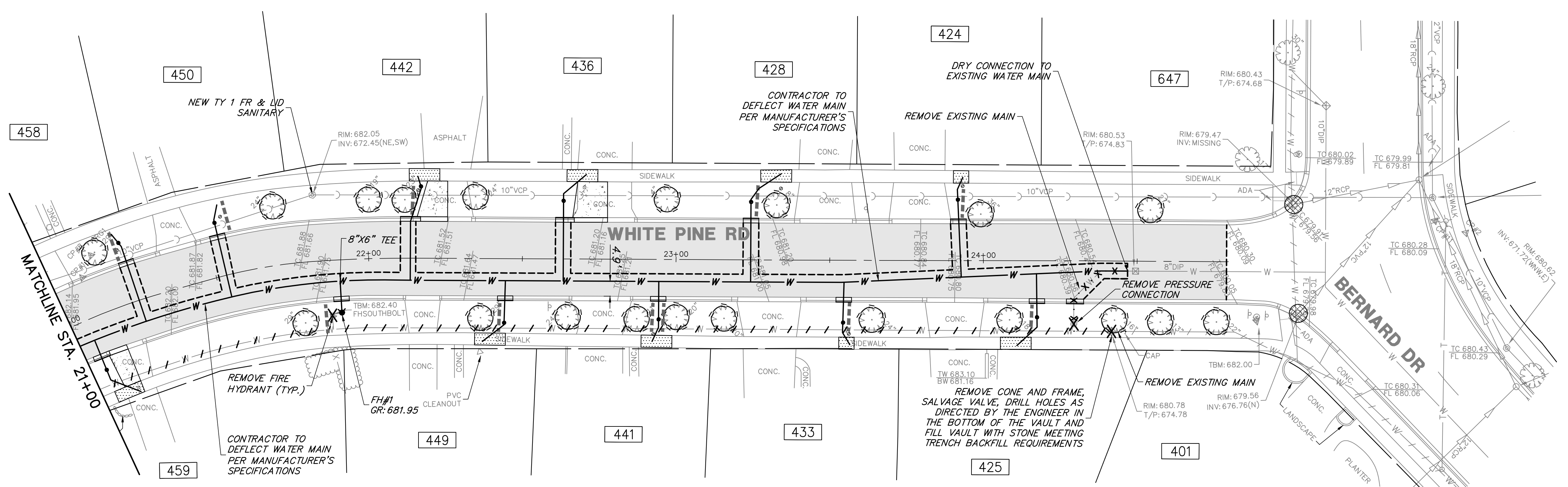
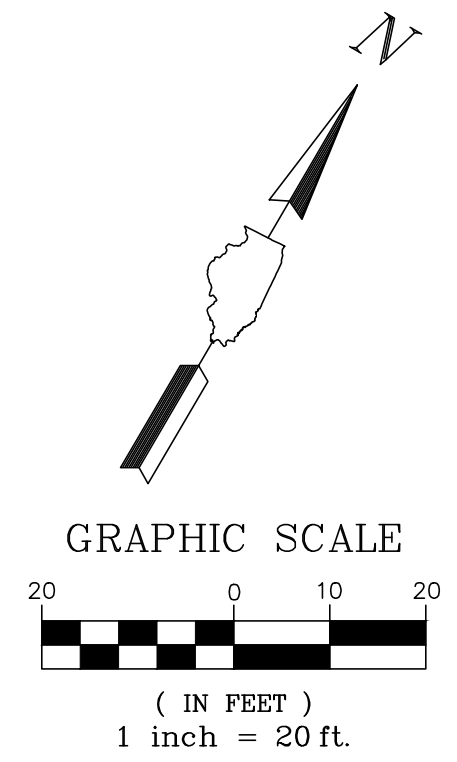
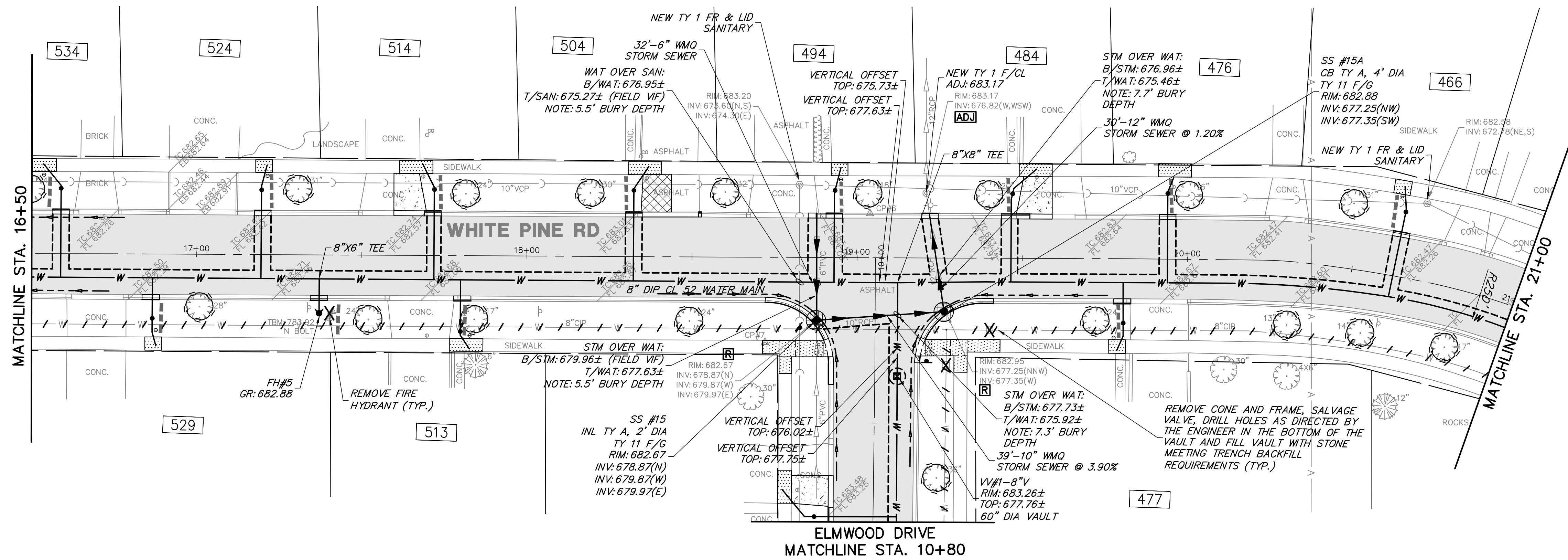
NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE 4798.072-PR4.dwg	SHEET NUMBER: <b>6</b>
DRAWN BY: SHY	GHA PROJECT # 4798.072
DATE: 11.02.2023	
CHECKED BY: PCL	SCALE: 1"=20'
DATE: 11.02.2023	OF 19 SHEETS



**PROPOSED LEGEND**

-  HMA RECONSTRUCTION
-  PCC PAVEMENT
-  HMA DRIVEWAY PAVEMENT
-  PCC SIDEWALK
-  CLASS D PATCH
-  DETECTABLE WARNINGS
-  TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
-  TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
-  PAVEMENT SAWCUT
-  PIPE UNDERDRAINS, 4"
-  ADJ:#### STRUCTURE ADJUSTMENT
-  TREE TRUNK PROTECTION FENCE
-  [ADJ] STRUCTURE TO BE ADJUSTED
-  [R] STRUCTURE TO BE REMOVED
-  / / / UTILITY TO BE ABANDONED
-  · · · · · UTILITY TO BE REMOVED
-  - - - - - TREE ROOT PRUNING
-  A STRUCTURE TO BE ABANDONED
-  X STRUCTURE REMOVAL
-  [Globe] INLET FILTERS
-  [Sign] REMOVE & RELOCATE EXISTING SIGN
-  [1234] HOUSE ADDRESS



**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

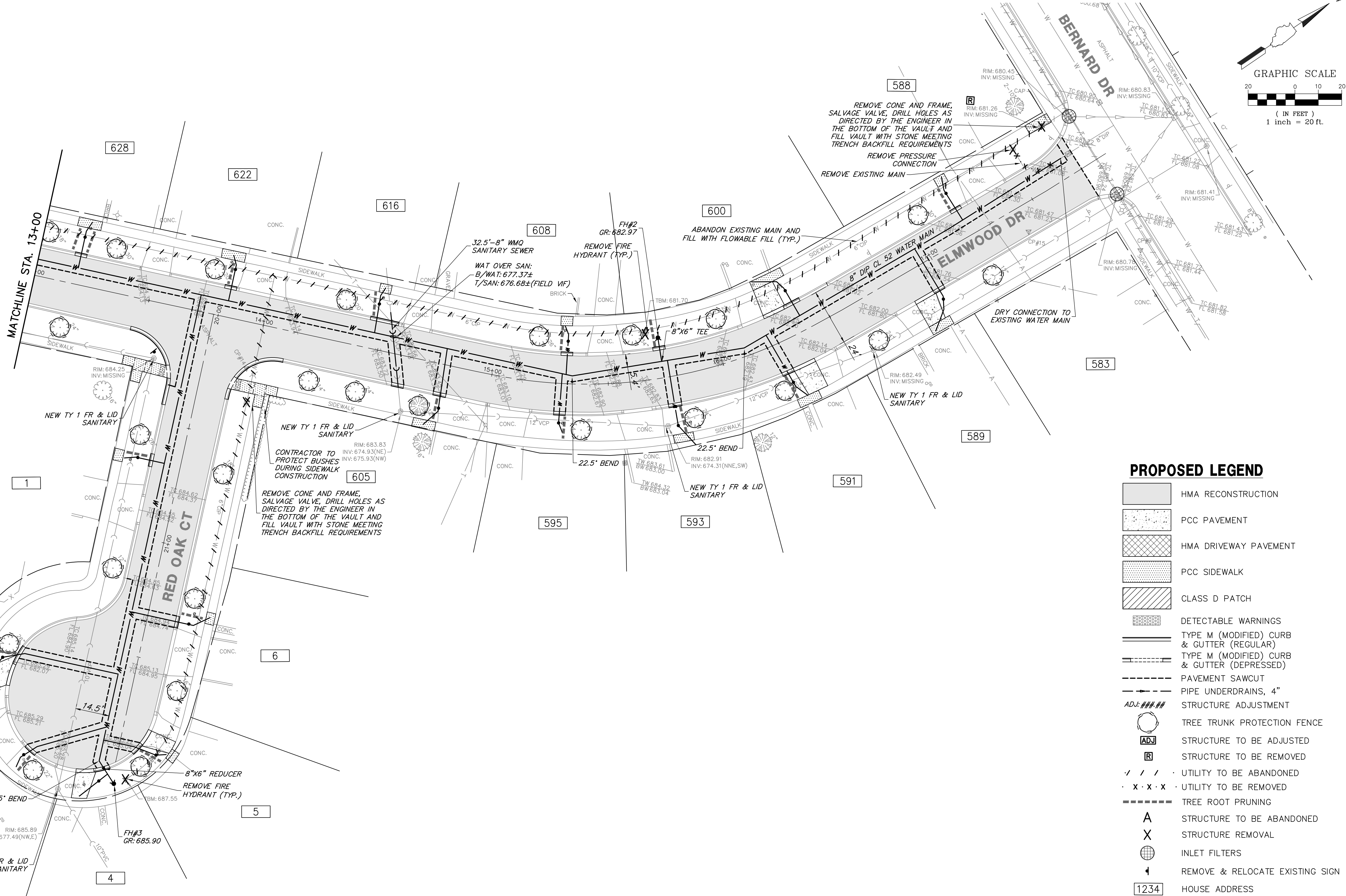
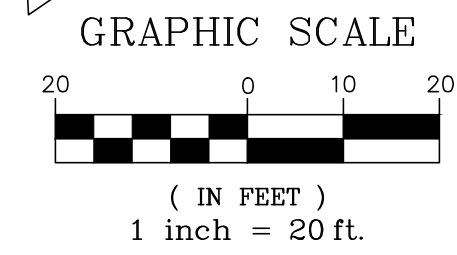
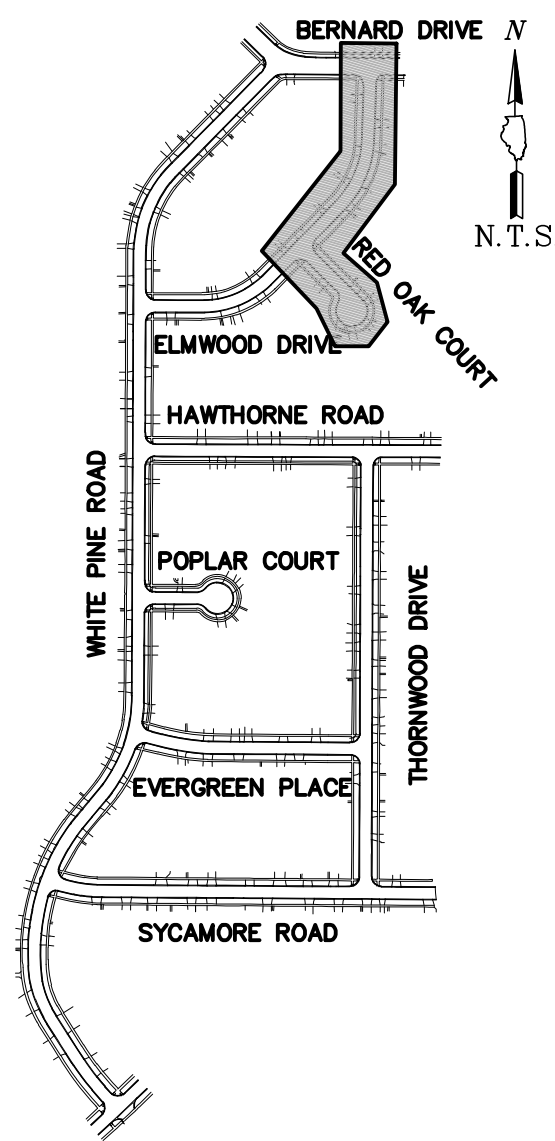
**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**WHITE PINE ROAD STA. 16+50 TO BERNARD DR**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION

FILE 4798.072-PR4.dwg	SHEET NUMBER: <b>7</b>
DRAWN BY: SHY	GHA PROJECT # 4798.072
DATE: 11.02.2023	
CHECKED BY: PCL	SCALE: 1"=20'
DATE: 11.02.2023	OF 19 SHEETS

**KEY MAP**



**PROPOSED LEGEND**

- HMA RECONSTRUCTION
- PCC PAVEMENT
- HMA DRIVEWAY PAVEMENT
- PCC SIDEWALK
- CLASS D PATCH
- DETECTABLE WARNINGS
- TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
- TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
- PAVEMENT SAWCUT
- PIPE UNDERDRAINS, 4" STRUCTURE ADJUSTMENT
- TREE TRUNK PROTECTION FENCE
- STRUCTURE TO BE ADJUSTED
- STRUCTURE TO BE REMOVED
- UTILITY TO BE ABANDONED
- UTILITY TO BE REMOVED
- TREE ROOT PRUNING
- STRUCTURE TO BE ABANDONED
- STRUCTURE REMOVAL
- INLET FILTERS
- REMOVE & RELOCATE EXISTING SIGN
- HOUSE ADDRESS

**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

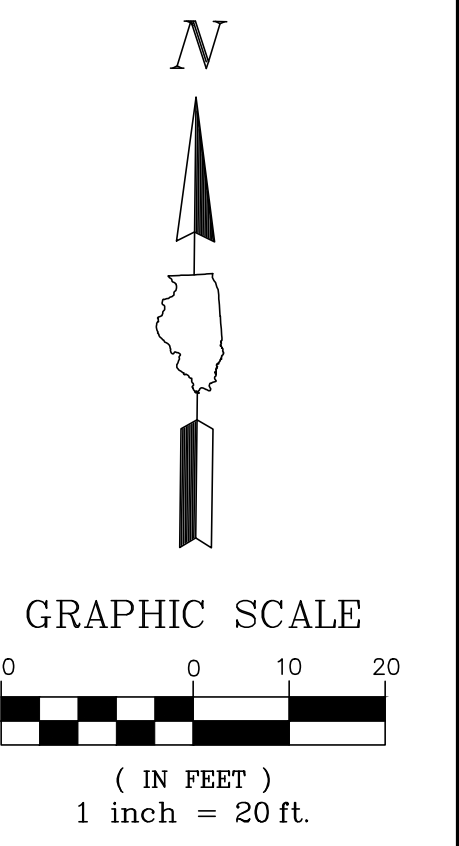
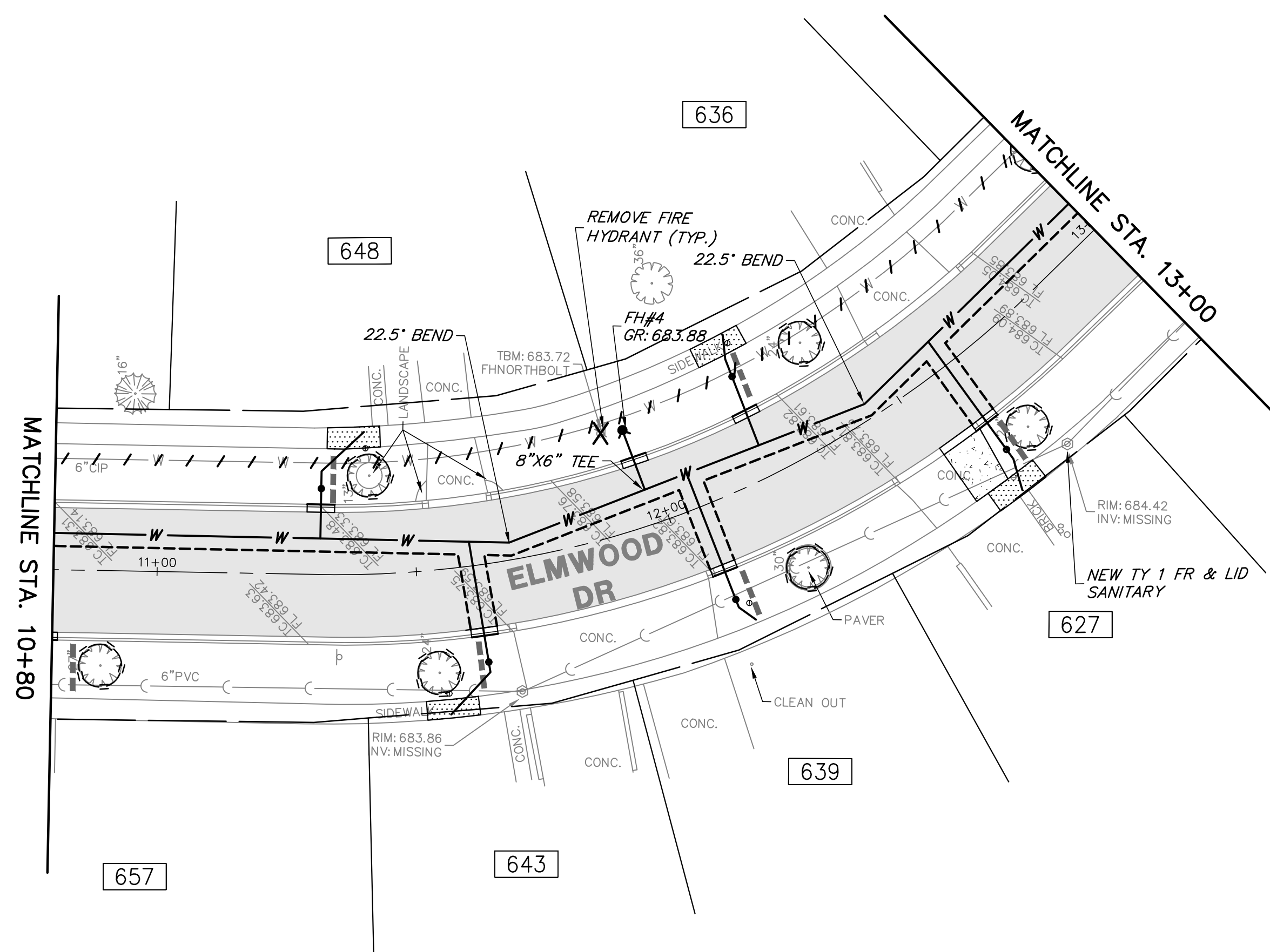
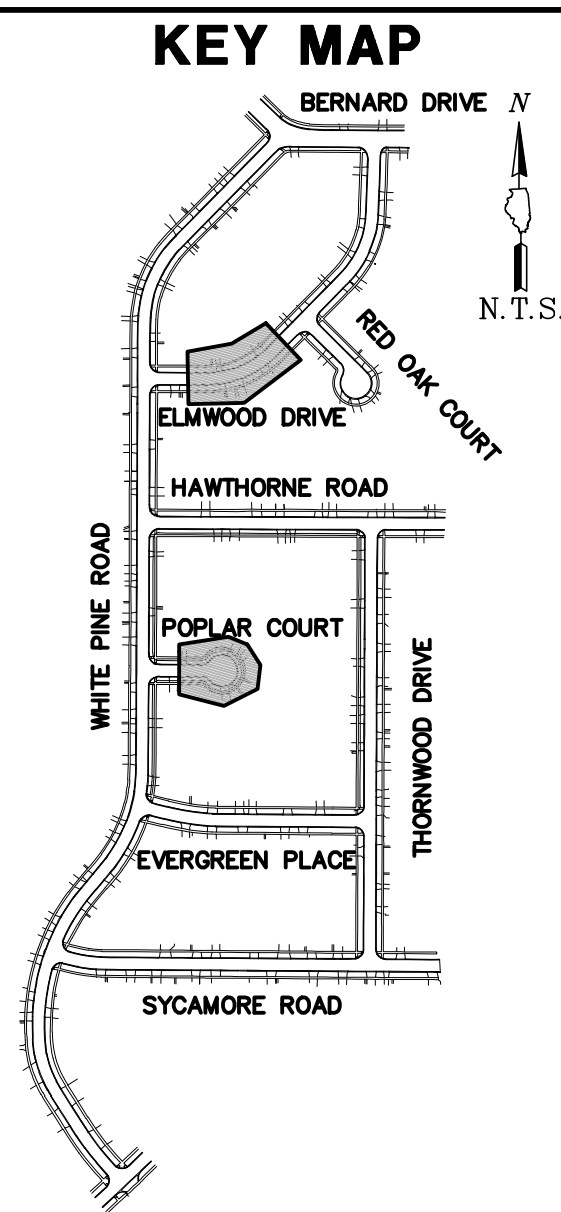
**ELMWOOD DRIVE STA. 13+00 TO BERNARD DRIVE**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION

FILE: 4798.072-PR4.dwg	SHEET NUMBER:
DRAWN BY: SHY	GHA PROJECT #
DATE: 11.02.2023	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.2023	1"=20'
	OF 19 SHEETS

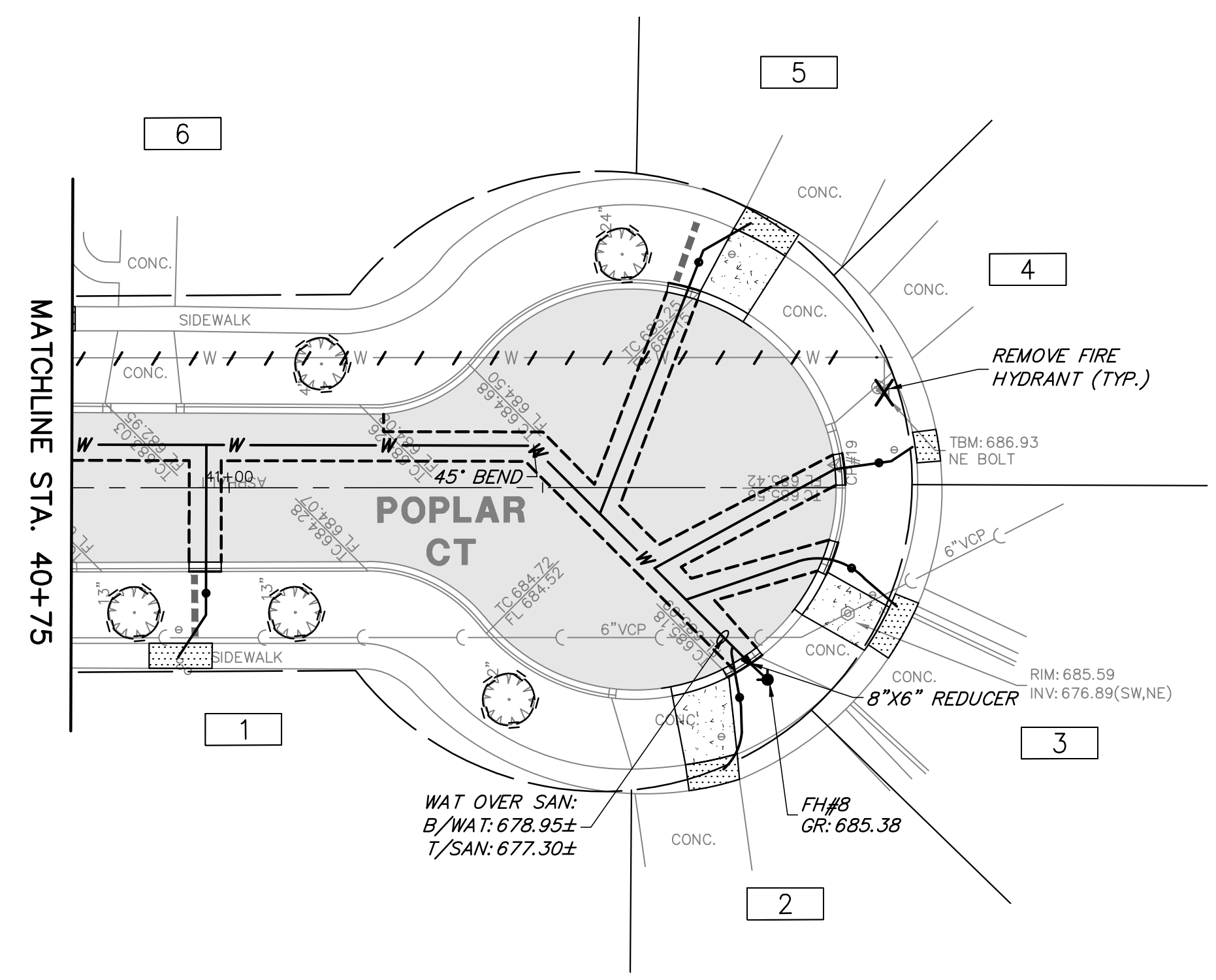
**8**





**PROPOSED LEGEND**

- HMA RECONSTRUCTION
- PCC PAVEMENT
- HMA DRIVEWAY PAVEMENT
- PCC SIDEWALK
- CLASS D PATCH
- DETECTABLE WARNINGS
- TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
- TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
- PAVEMENT SAWCUT
- PIPE UNDERDRAINS, 4"
- STRUCTURE ADJUSTMENT
- TREE TRUNK PROTECTION FENCE
- STRUCTURE TO BE ADJUSTED
- STRUCTURE TO BE REMOVED
- UTILITY TO BE ABANDONED
- UTILITY TO BE REMOVED
- TREE ROOT PRUNING
- STRUCTURE TO BE ABANDONED
- STRUCTURE REMOVAL
- INLET FILTERS
- REMOVE & RELOCATE EXISTING SIGN
- HOUSE ADDRESS



CALSTRONG 2798 BUFFALO GROVE 4798 072-PR4.DWG - 11/9/2023 3:34 PM

**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

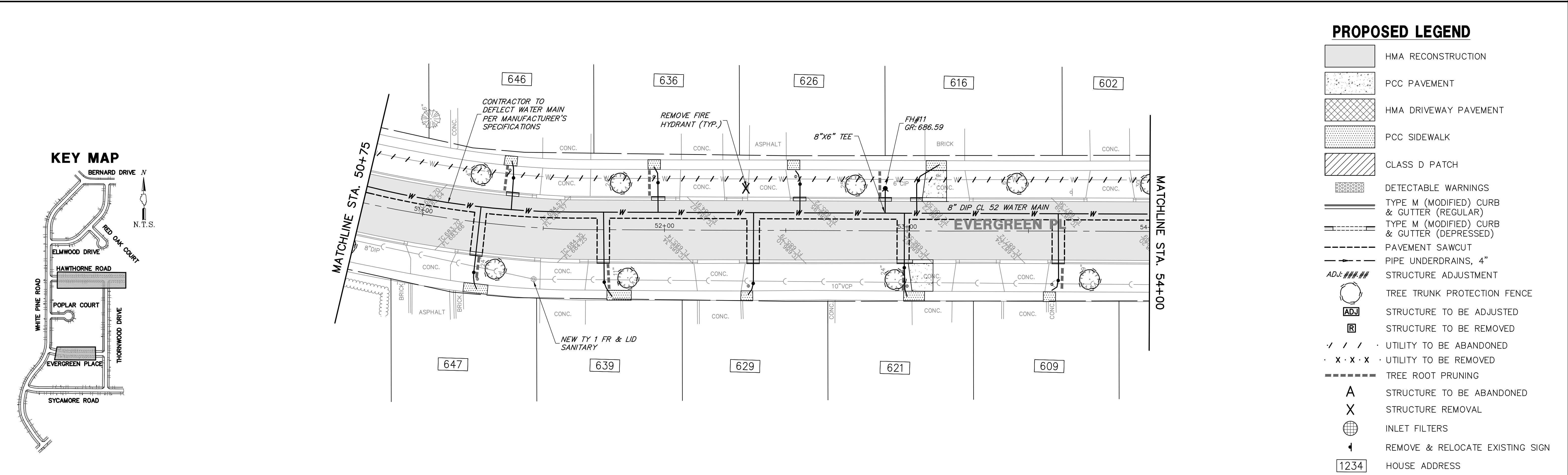
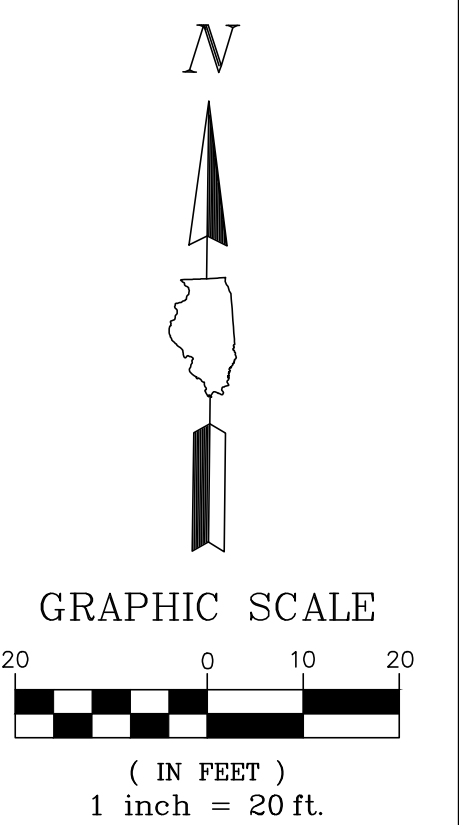
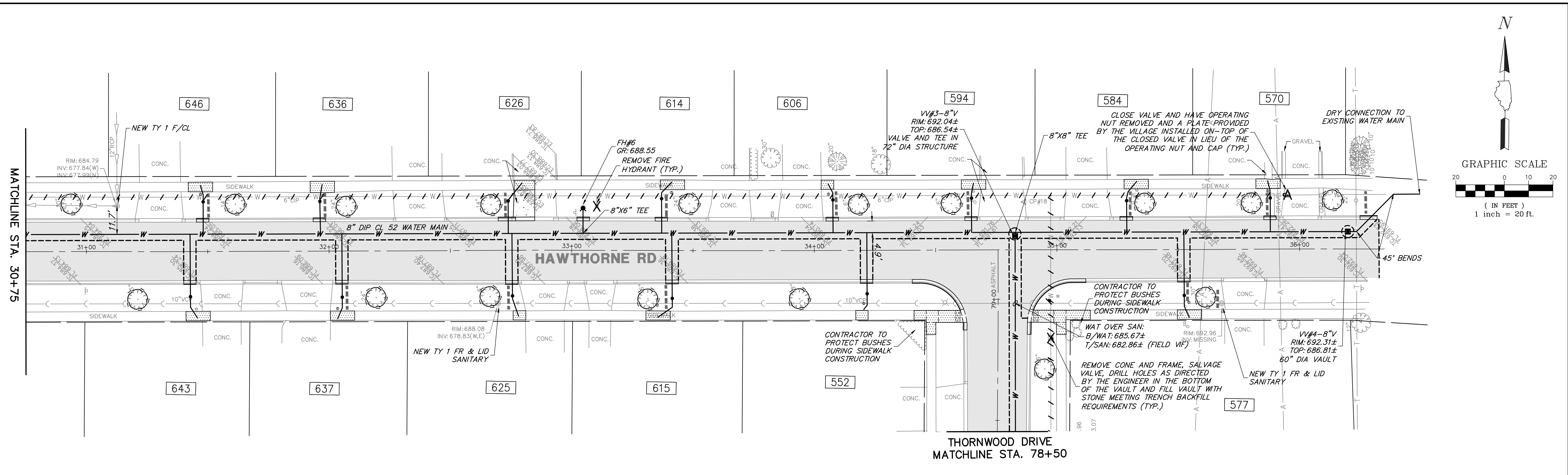
**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**ELMWOOD DR STA. 10+80 - 13+00 & POPLAR CT**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 4798.072-PR4.dwg	SHEET NUMBER:
DRAWN BY: SHY	GHA PROJECT #
DATE: 11.02.2023	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.2023	1"=20'

**9**  
OF 19 SHEETS



**PROPOSED LEGEND**

	HMA RECONSTRUCTION
	PCC PAVEMENT
	HMA DRIVEWAY PAVEMENT
	PCC SIDEWALK
	CLASS D PATCH
	DETECTABLE WARNINGS
	TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
	TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
	PAVEMENT SAWCUT
	PIPE UNDERDRAINS, 4"
	STRUCTURE ADJUSTMENT
	TREE TRUNK PROTECTION FENCE
	STRUCTURE TO BE ADJUSTED
	STRUCTURE TO BE REMOVED
	UTILITY TO BE ABANDONED
	UTILITY TO BE REMOVED
	TREE ROOT PRUNING
	STRUCTURE TO BE ABANDONED
	STRUCTURE REMOVAL
	INLET FILTERS
	REMOVE & RELOCATE EXISTING SIGN
	HOUSE ADDRESS

**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

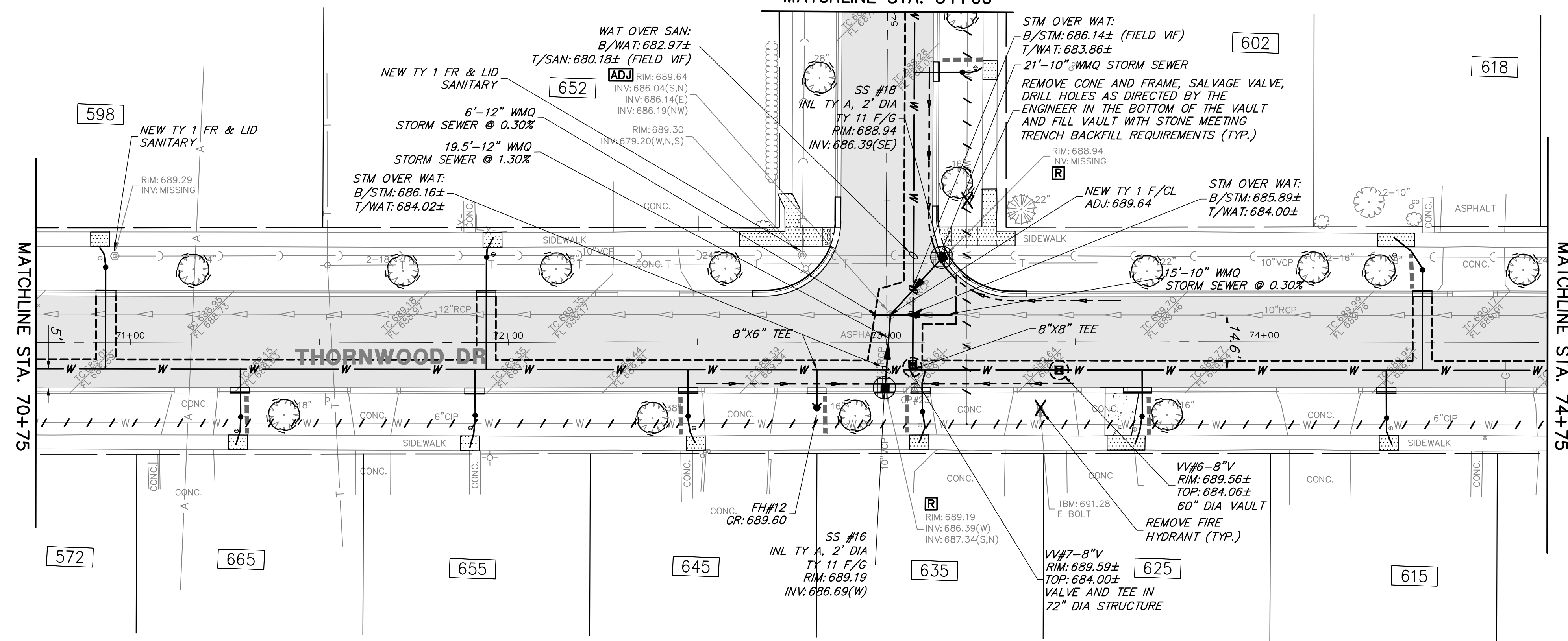
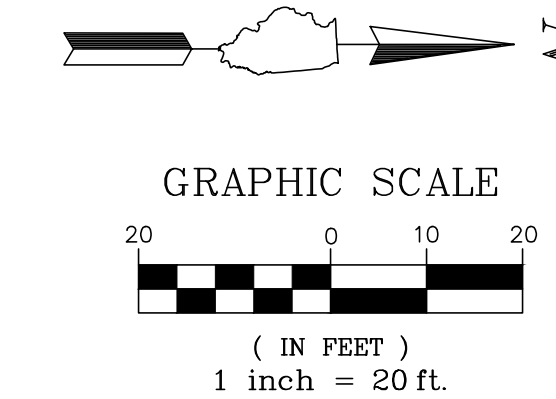
**HAWTHORNE ROAD & EVERGREEN PLACE**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION

FILE: 4798.072-PR4.dwg	SHEET NUMBER:
DRAWN BY: SHY	GHA PROJECT #
DATE: 11.02.2023	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.2023	1"=20'
	OF 19 SHEETS

**10**

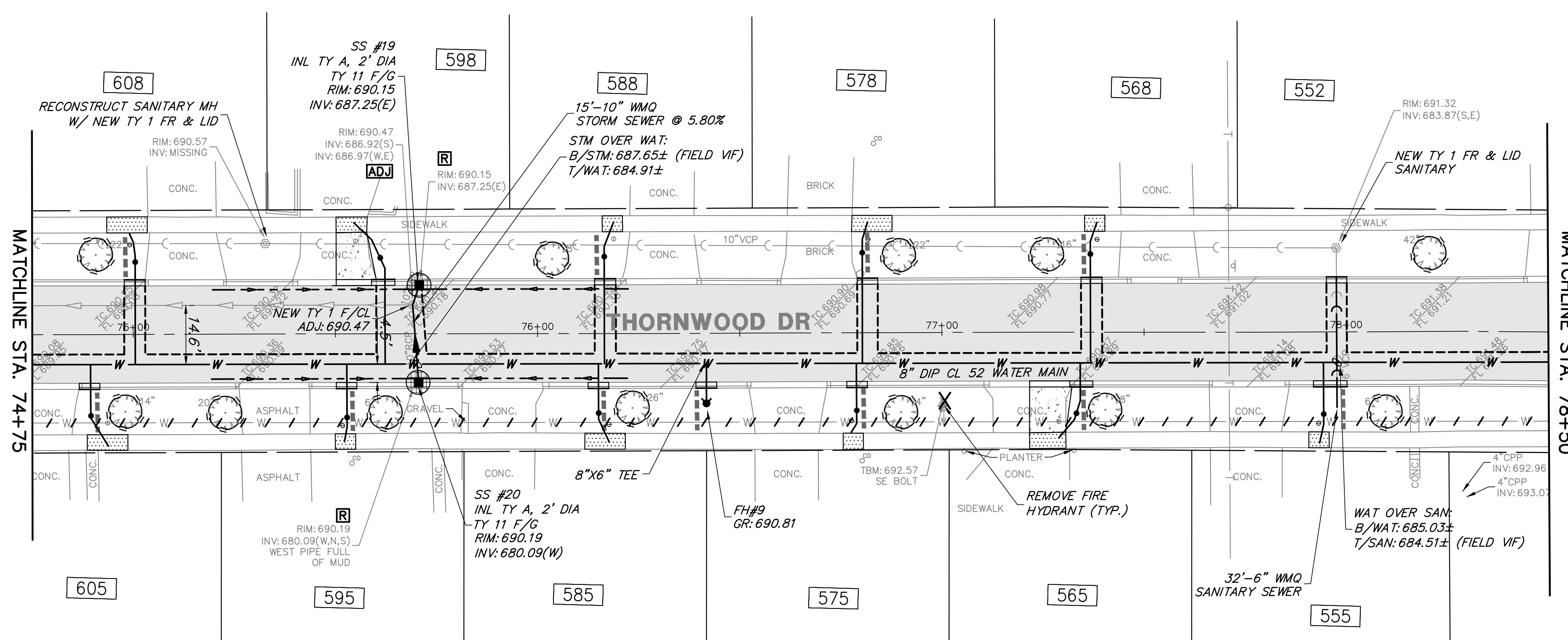
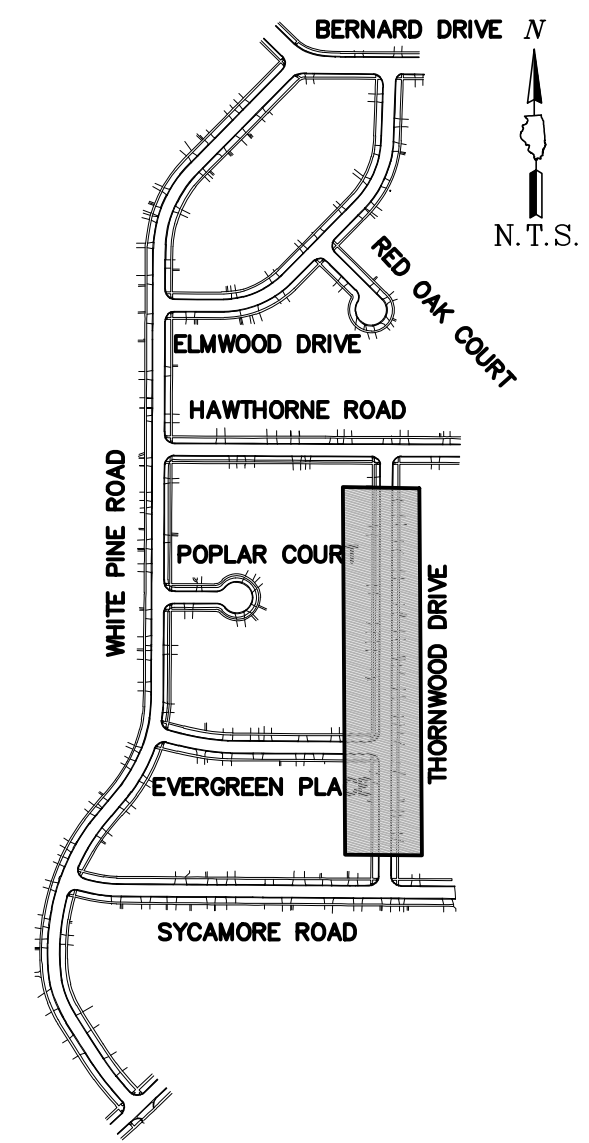
EVERGREEN PLACE  
MATCHLINE STA. 54+00



**PROPOSED LEGEND**

- HMA RECONSTRUCTION
- PCC PAVEMENT
- HMA DRIVEWAY PAVEMENT
- PCC SIDEWALK
- CLASS D PATCH
- DETECTABLE WARNINGS
- TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
- TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
- PAVEMENT SAWCUT
- PIPE UNDERDRAINS, 4"
- STRUCTURE ADJUSTMENT
- TREE TRUNK PROTECTION FENCE
- STRUCTURE TO BE ADJUSTED
- STRUCTURE TO BE REMOVED
- UTILITY TO BE ABANDONED
- UTILITY TO BE REMOVED
- TREE ROOT PRUNING
- STRUCTURE TO BE ABANDONED
- STRUCTURE REMOVAL
- INLET FILTERS
- REMOVE & RELOCATE EXISTING SIGN
- HOUSE ADDRESS

**KEY MAP**



**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
TEL 847.478.9700 ■ FAX 847.478.9701

**COPYRIGHT NOTICE**  
This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

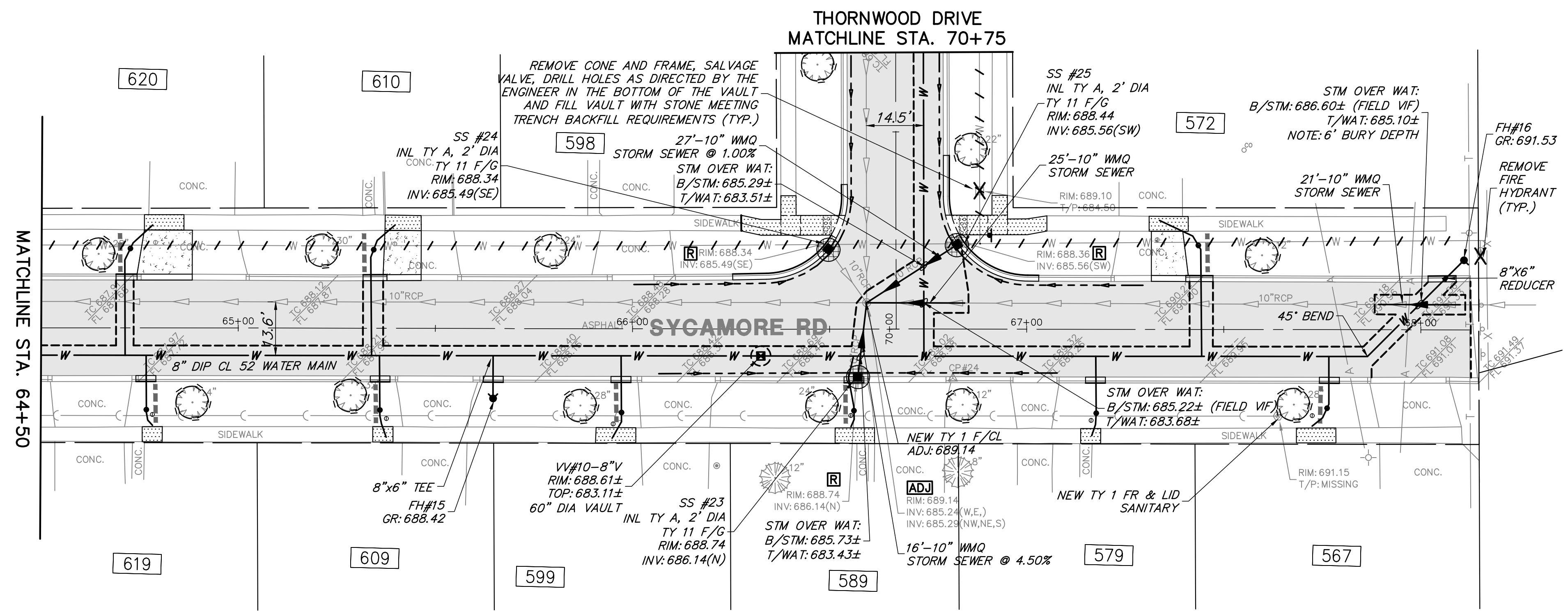
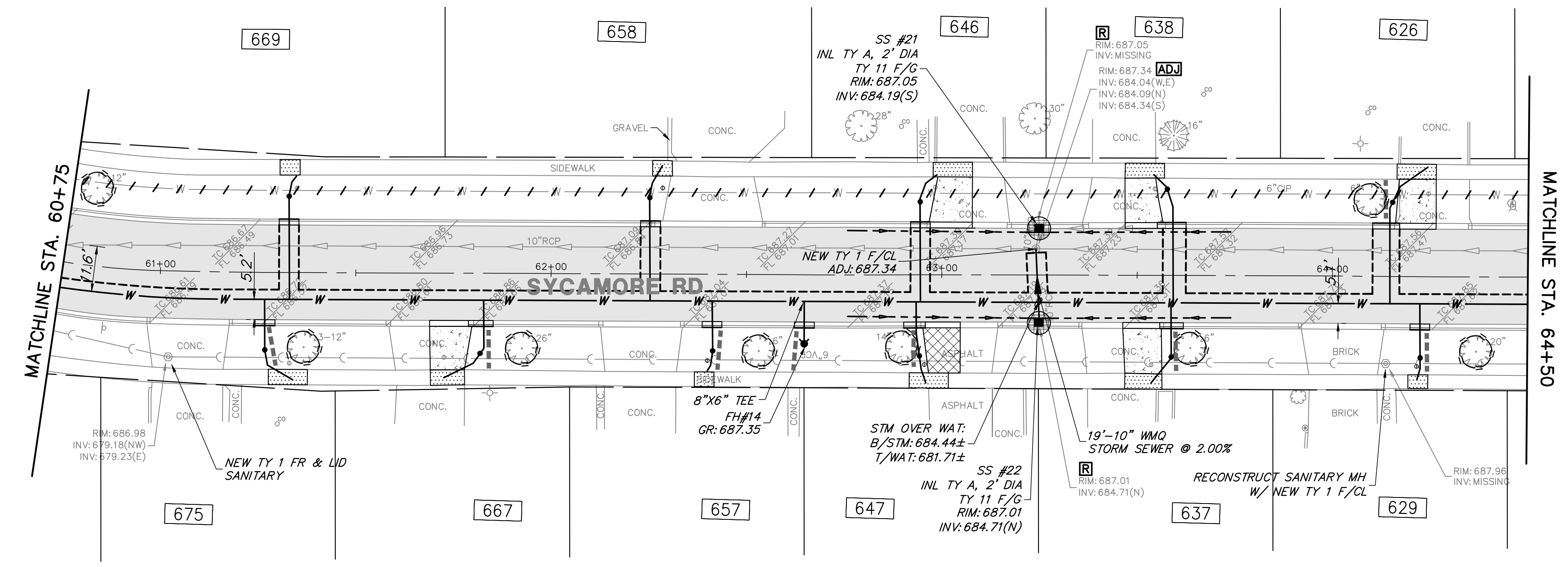
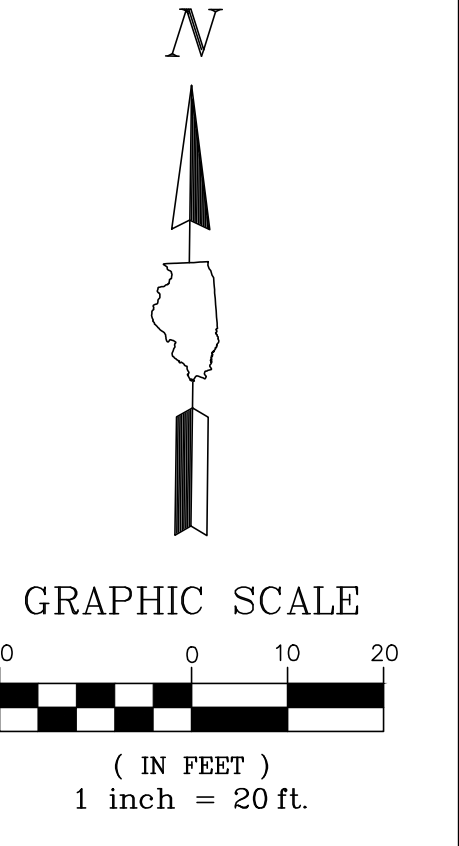
**THORNWOOD DRIVE**  
2024 WHITE PINE STREET AND UTILITY PROJECT  
VILLAGE OF BUFFALO GROVE  
BUFFALO GROVE, ILLINOIS 60089

NO.	BY	DATE	REVISION

FILE 4798.072-PR4.dwg	SHEET NUMBER:
DRAWN BY: SHY	GHA PROJECT #
DATE: 11.02.2023	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.2023	1"=20'
	OF 19 SHEETS

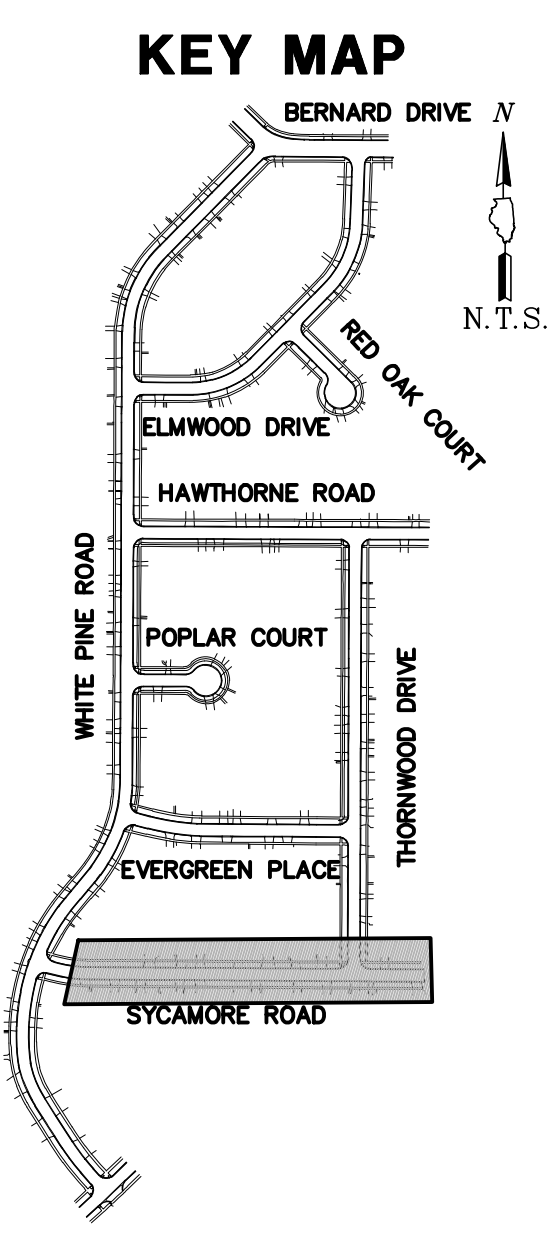
**11**





**PROPOSED LEGEND**

- HMA RECONSTRUCTION
- PCC PAVEMENT
- HMA DRIVEWAY PAVEMENT
- PCC SIDEWALK
- CLASS D PATCH
- DETECTABLE WARNINGS
- TYPE M (MODIFIED) CURB & GUTTER (REGULAR)
- TYPE M (MODIFIED) CURB & GUTTER (DEPRESSED)
- PAVEMENT SAWCUT
- PIPE UNDERDRAINS, 4"
- STRUCTURE ADJUSTMENT
- TREE TRUNK PROTECTION FENCE
- STRUCTURE TO BE ADJUSTED
- STRUCTURE TO BE REMOVED
- UTILITY TO BE ABANDONED
- UTILITY TO BE REMOVED
- TREE ROOT PRUNING
- STRUCTURE TO BE ABANDONED
- STRUCTURE REMOVAL
- INLET FILTERS
- REMOVE & RELOCATE EXISTING SIGN
- HOUSE ADDRESS



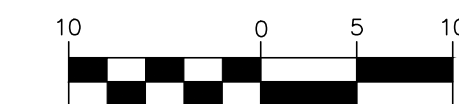
**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**SYCAMORE ROAD**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

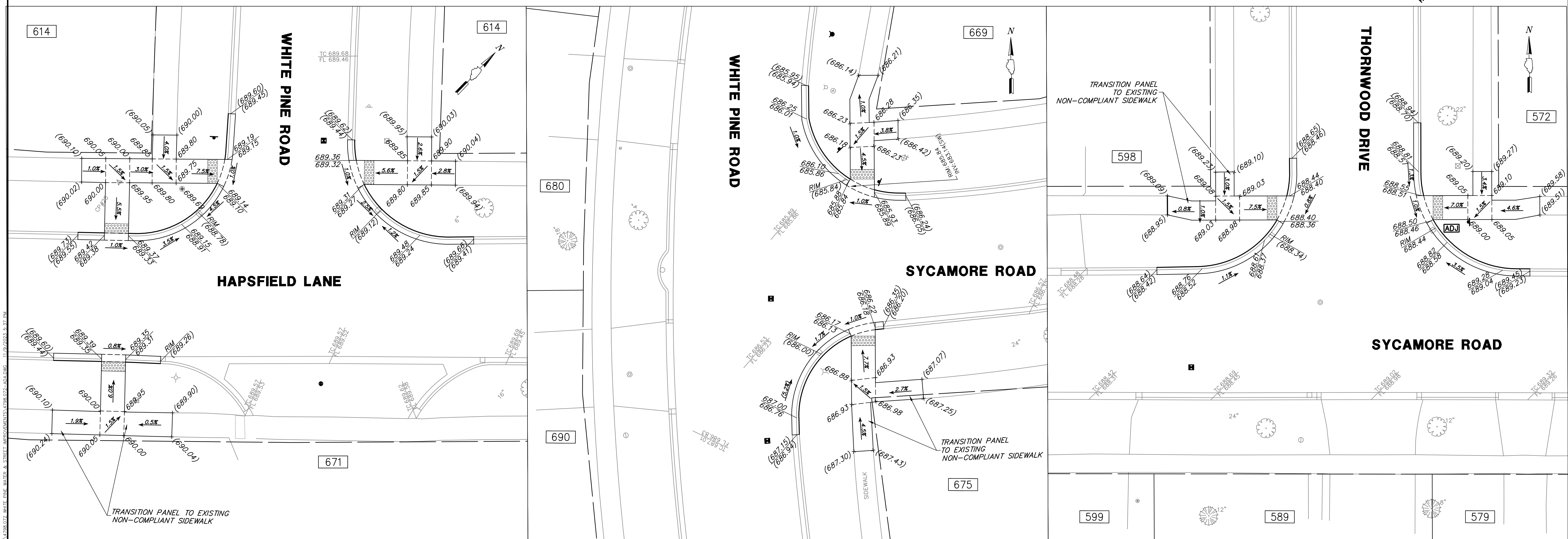
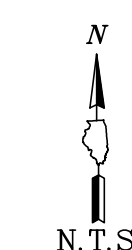
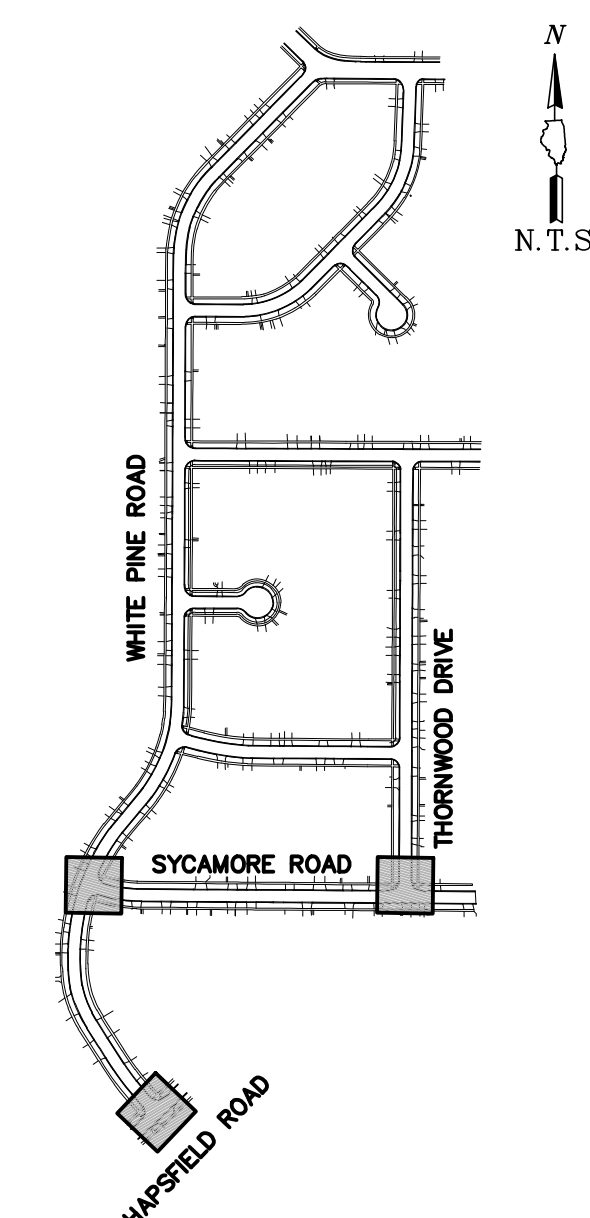
NO.	BY	DATE	REVISION

FILE 4798.072-PR4.dwg	SHEET NUMBER:
DRAWN BY: SHY	GHA PROJECT #
DATE: 11.02.2023	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.2023	1"=20'
	OF 19 SHEETS



( IN FEET )  
1 inch = 10 ft.

KEY MAP



**GHA** **GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

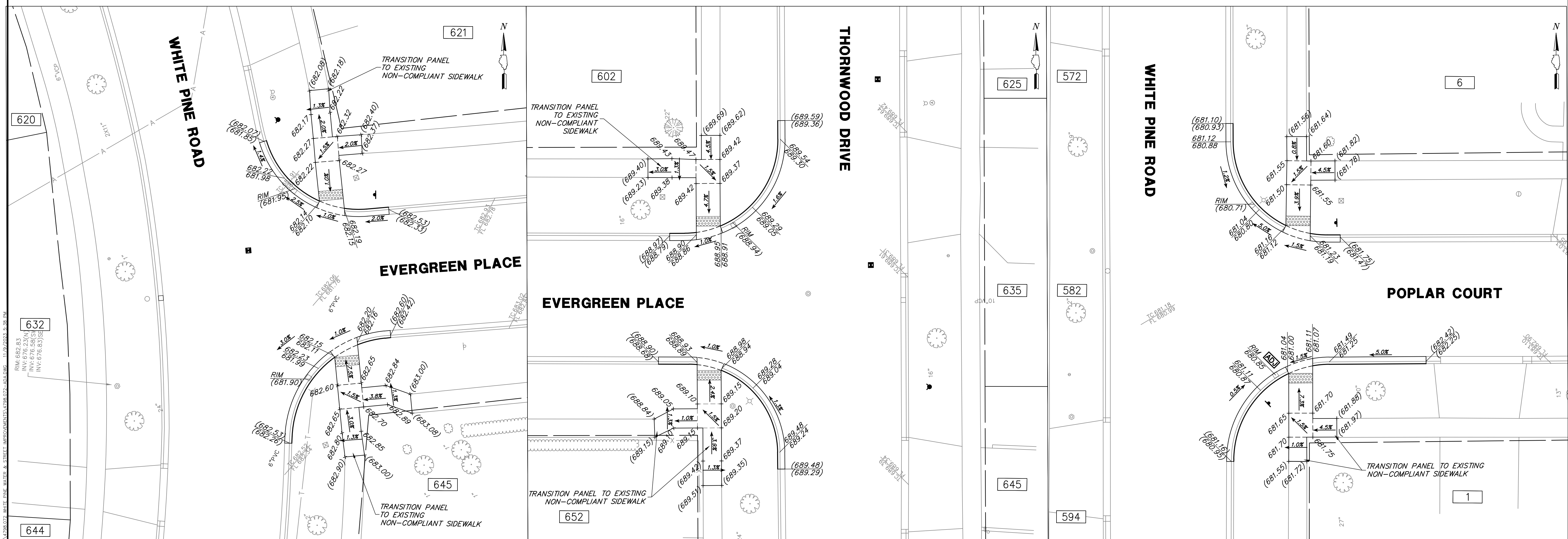
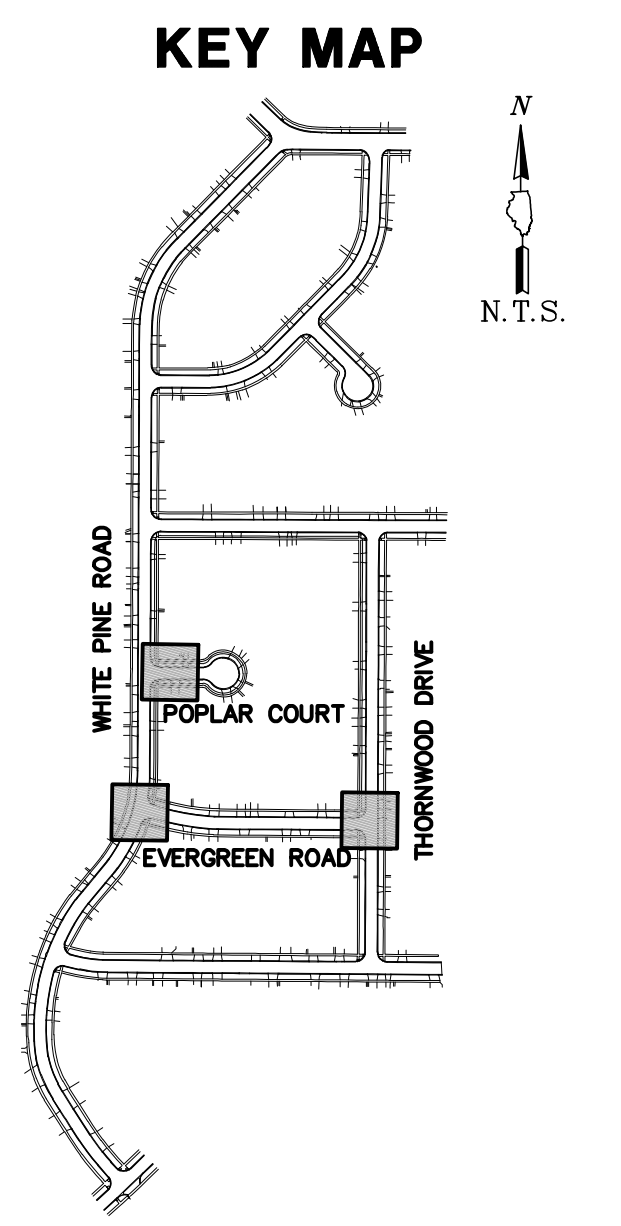
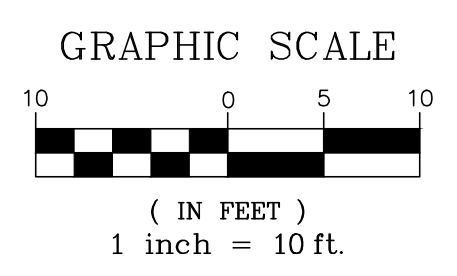
**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**DETAILED ADA CROSSINGS**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1	SHY	11.10.2023	ADDENDUM 01				

FILE	4798.072-ADA.dwg	SHEET NUMBER:	<b>13</b>
DRAWN BY:	KRM	GHA PROJECT #	4798.072
DATE:	11.02.23	SCALE:	1"=10'
CHECKED BY:	PCL		
DATE:	11.02.23		OF 19 SHEETS

6:30203A298-BUFFALO GROVE UTILITY PROJECT WHITE PINE WATER & STREET IMPROVEMENTS 4798.072-ADA.DWG 11/27/2023 5:37 PM



625.0203A.028 - BUFFALO GROVE UTILITY AND STREET IMPROVEMENTS 4798.072-ADA.DWG - 11/22/2023 - 5:38 PM

**GHA** **GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

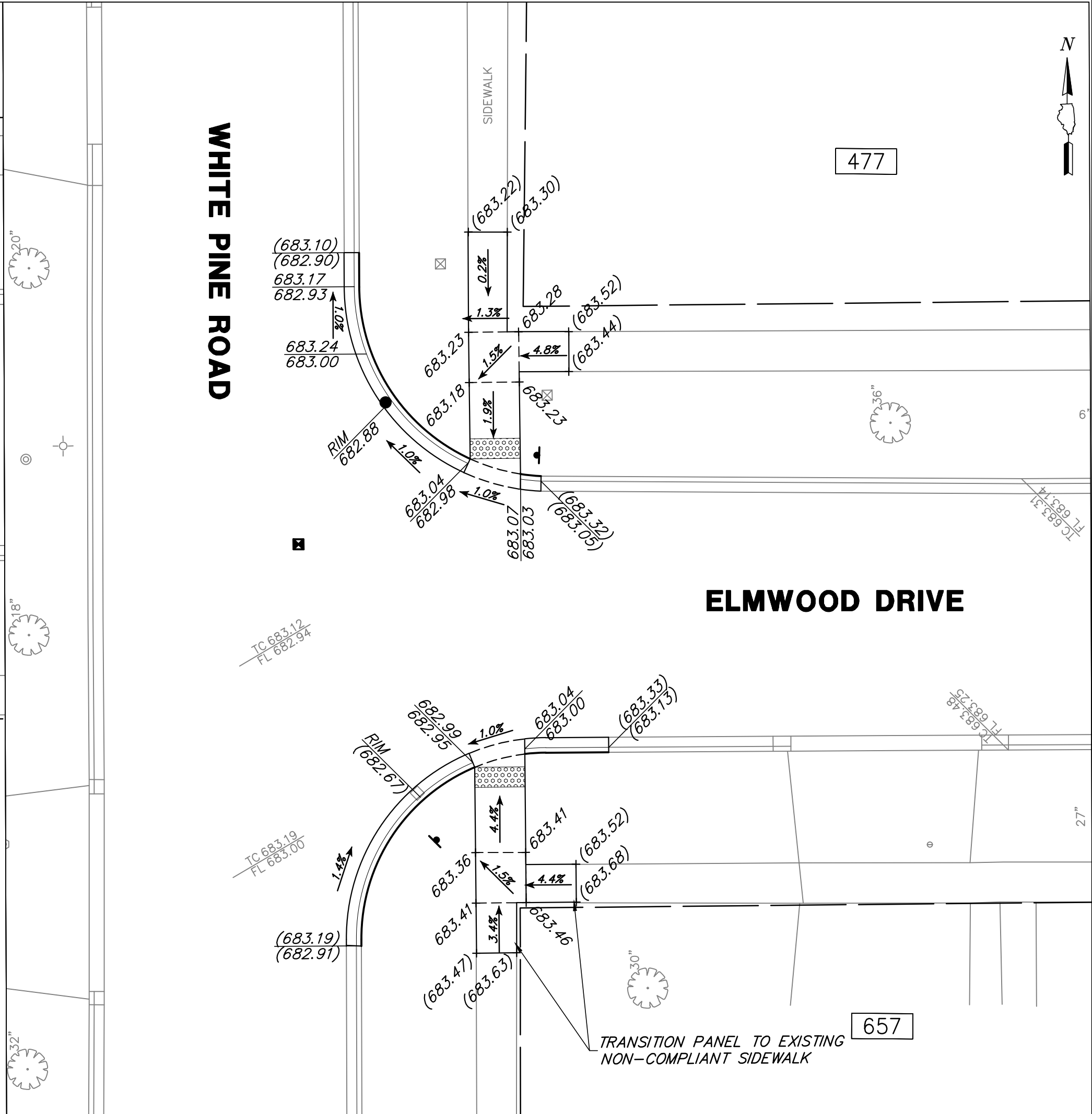
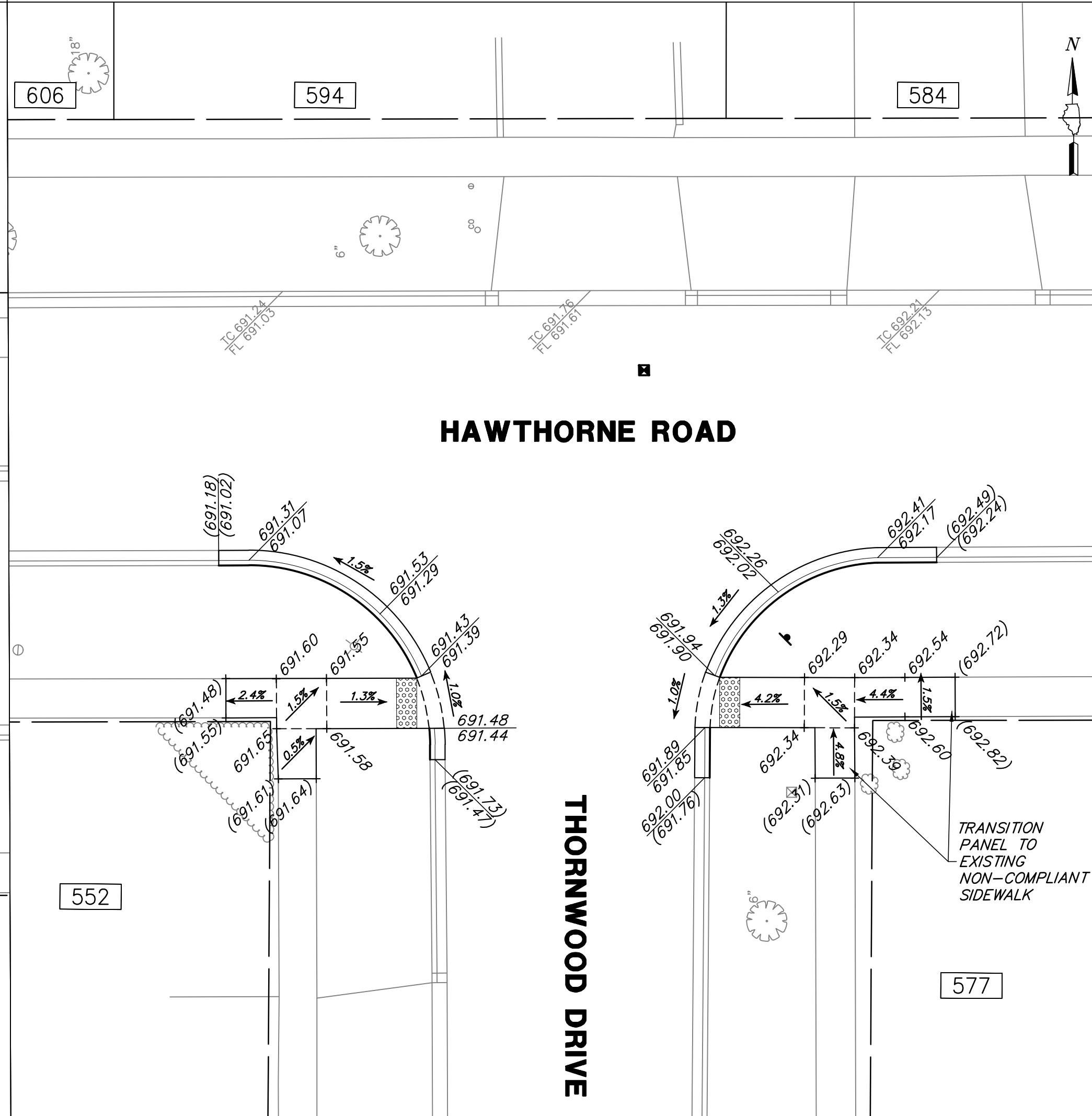
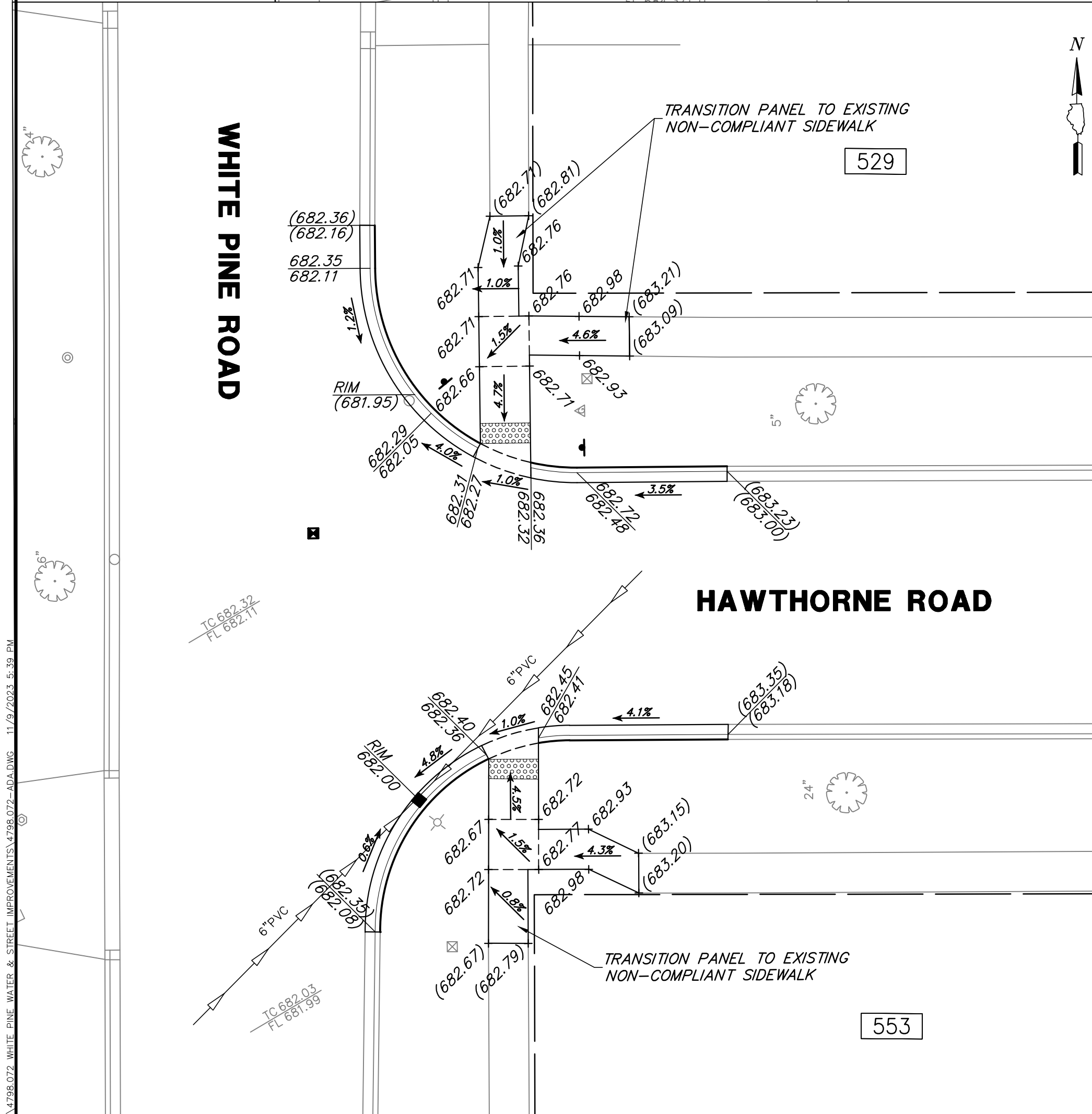
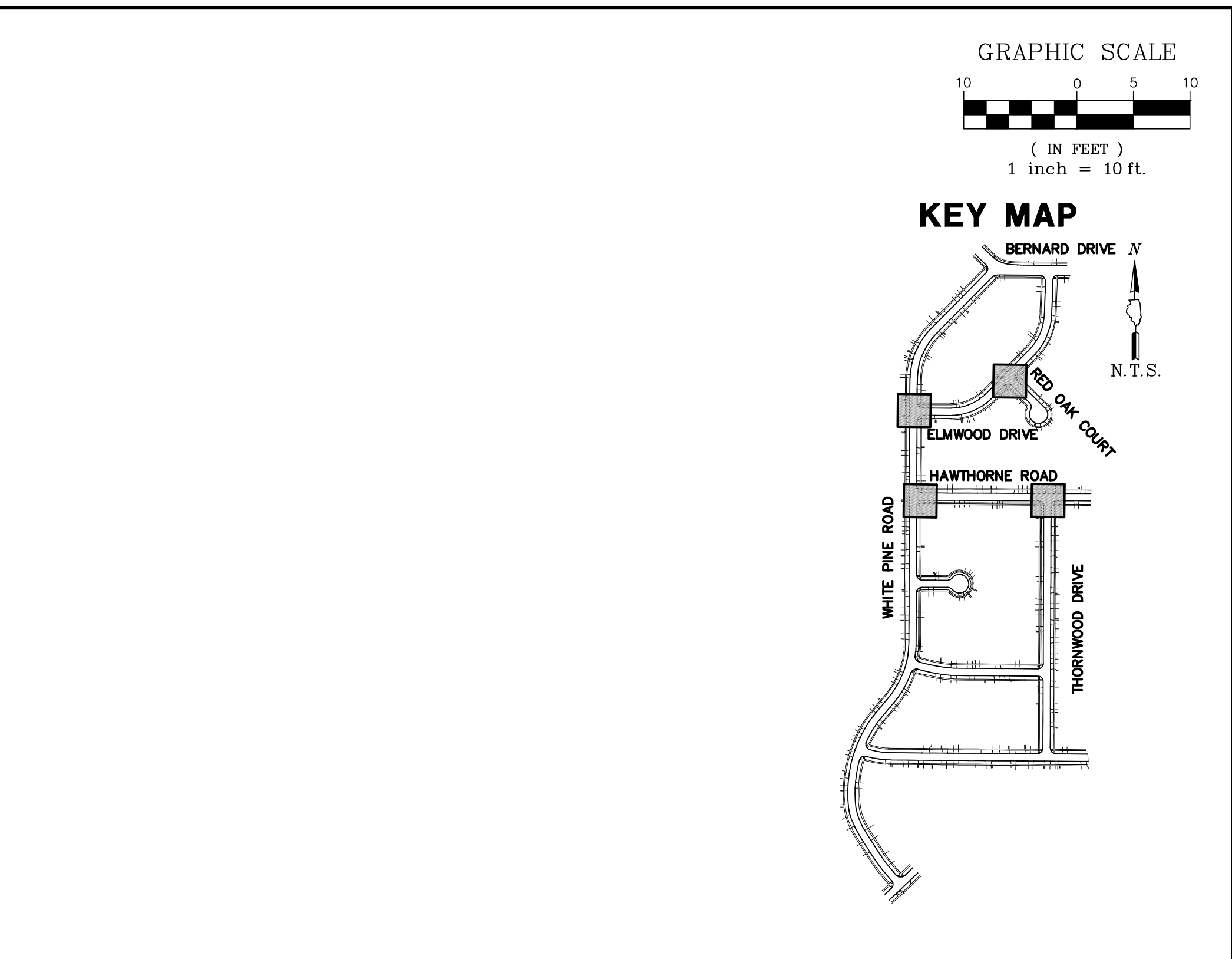
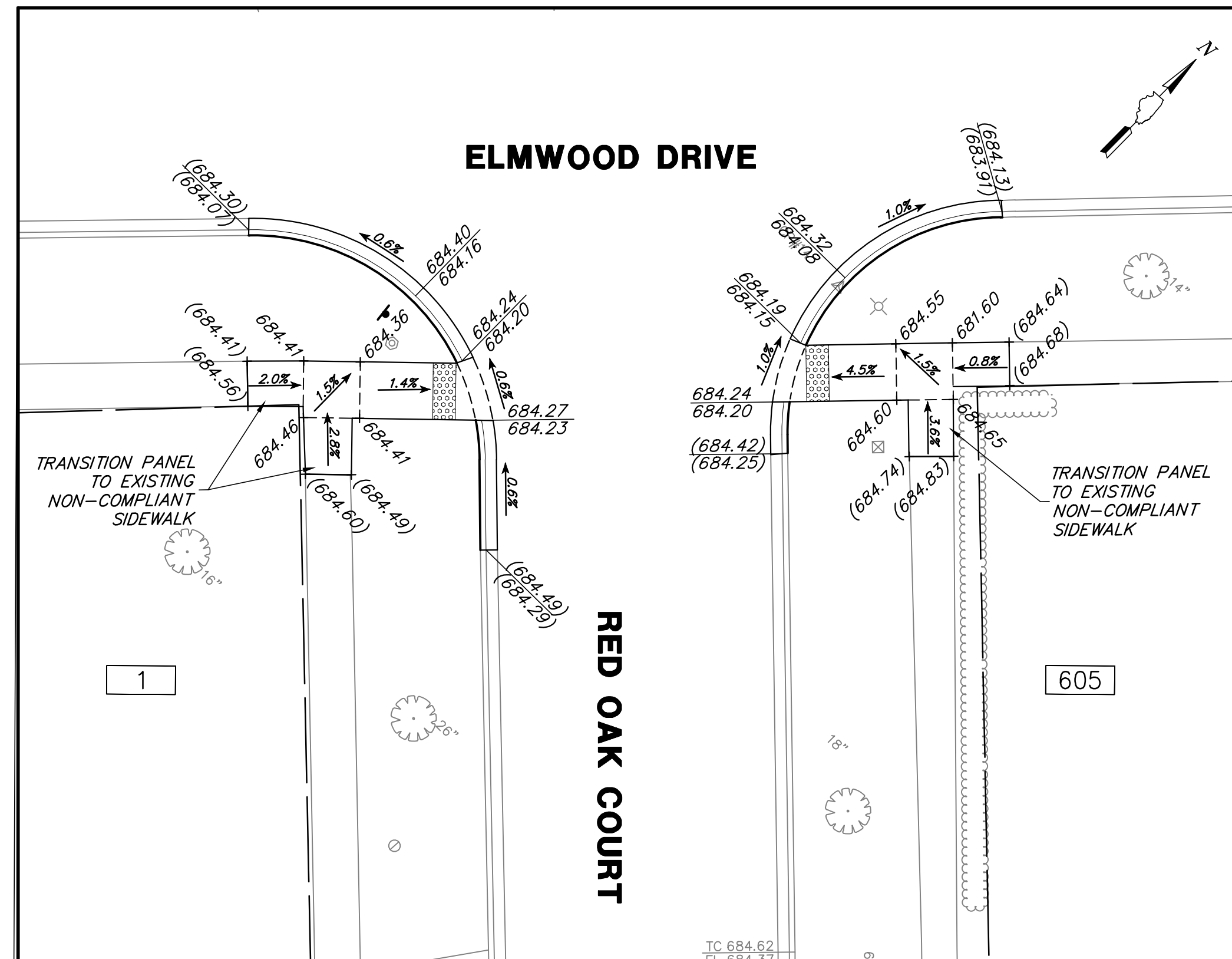
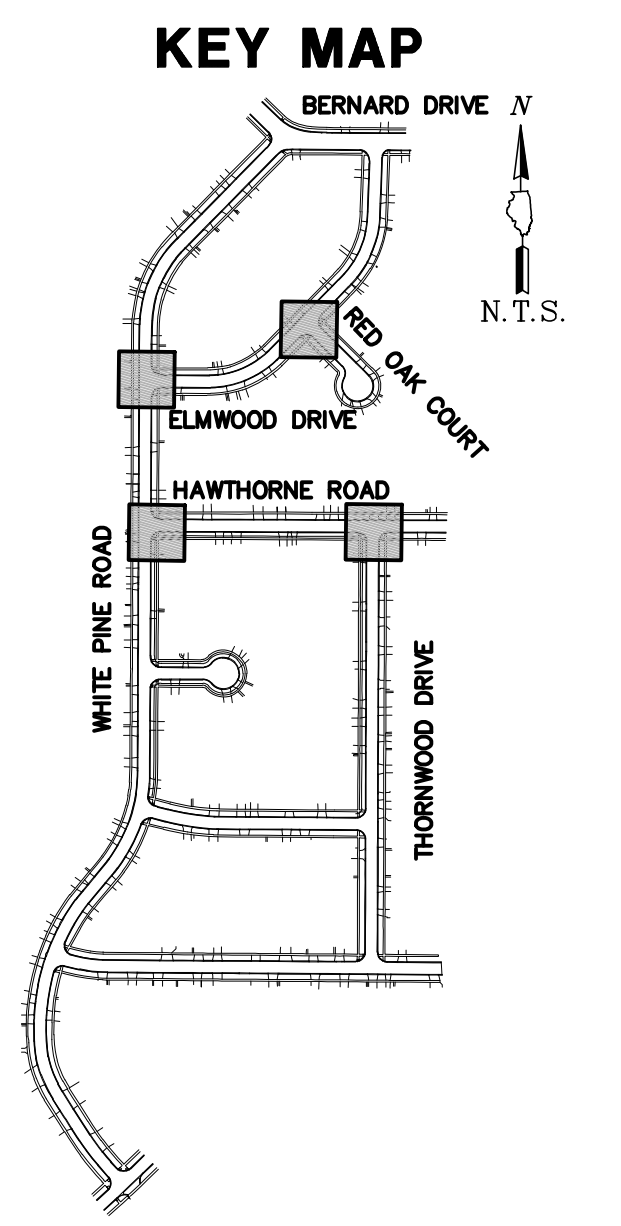
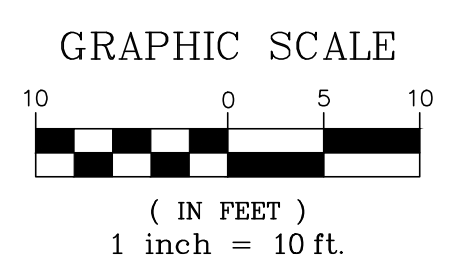
COPYRIGHT NOTICE  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**DETAILED ADA CROSSINGS**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1	SHY	11.10.2023	ADDENDUM 01				

FILE	4798.072-ADA.dwg	SHEET NUMBER:	<b>14</b>
DRAWN BY:	KRM	GHA PROJECT #	4798.072
DATE	11.02.23	SCALE	1"=10'
CHECKED BY:	PCL		
DATE	11.02.23		
		OF 19 SHEETS	





**GHA** GEWALT HAMILTON ASSOCIATES, INC.  
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
 TEL 847.478.9700 ■ FAX 847.478.9701

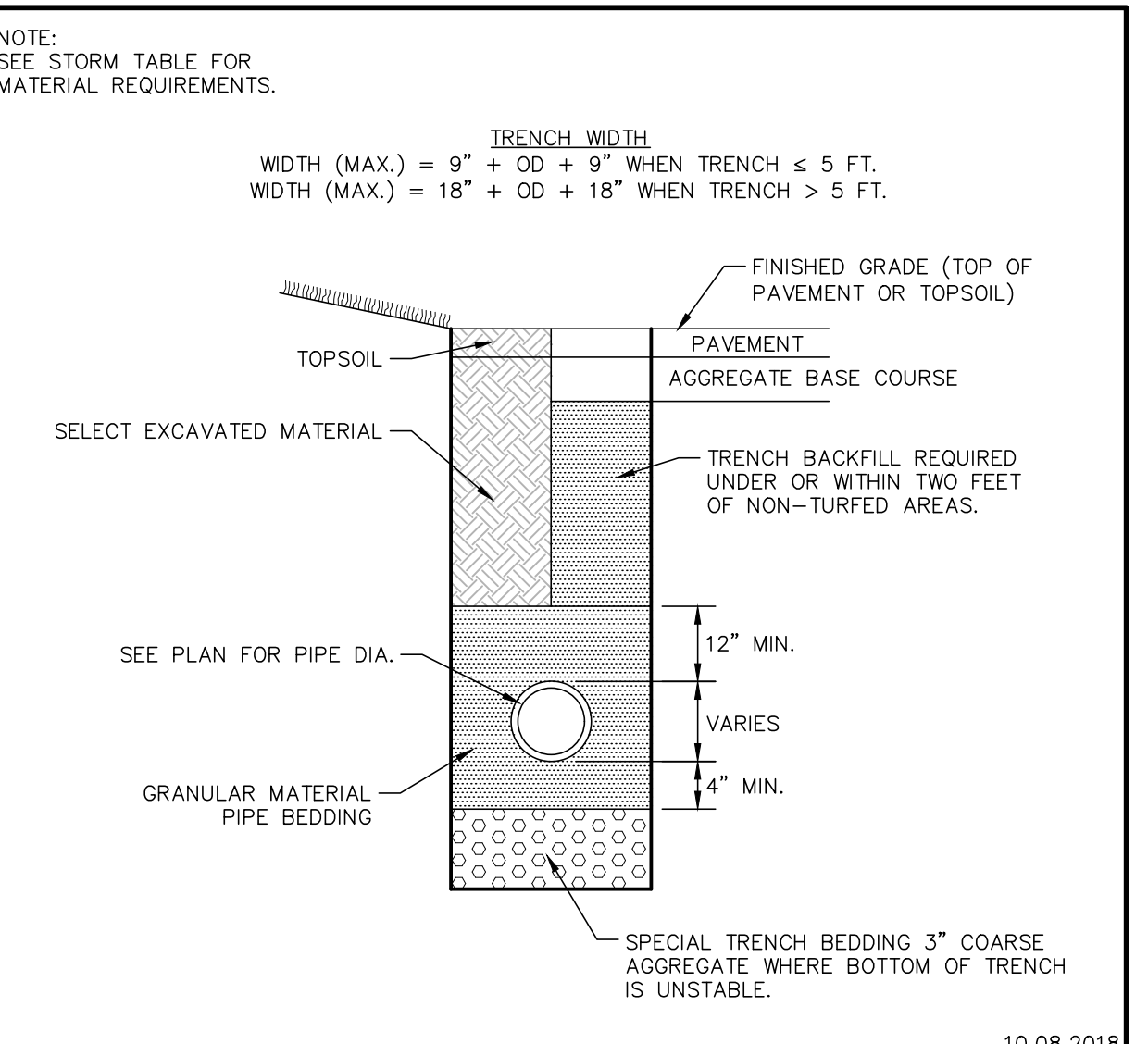
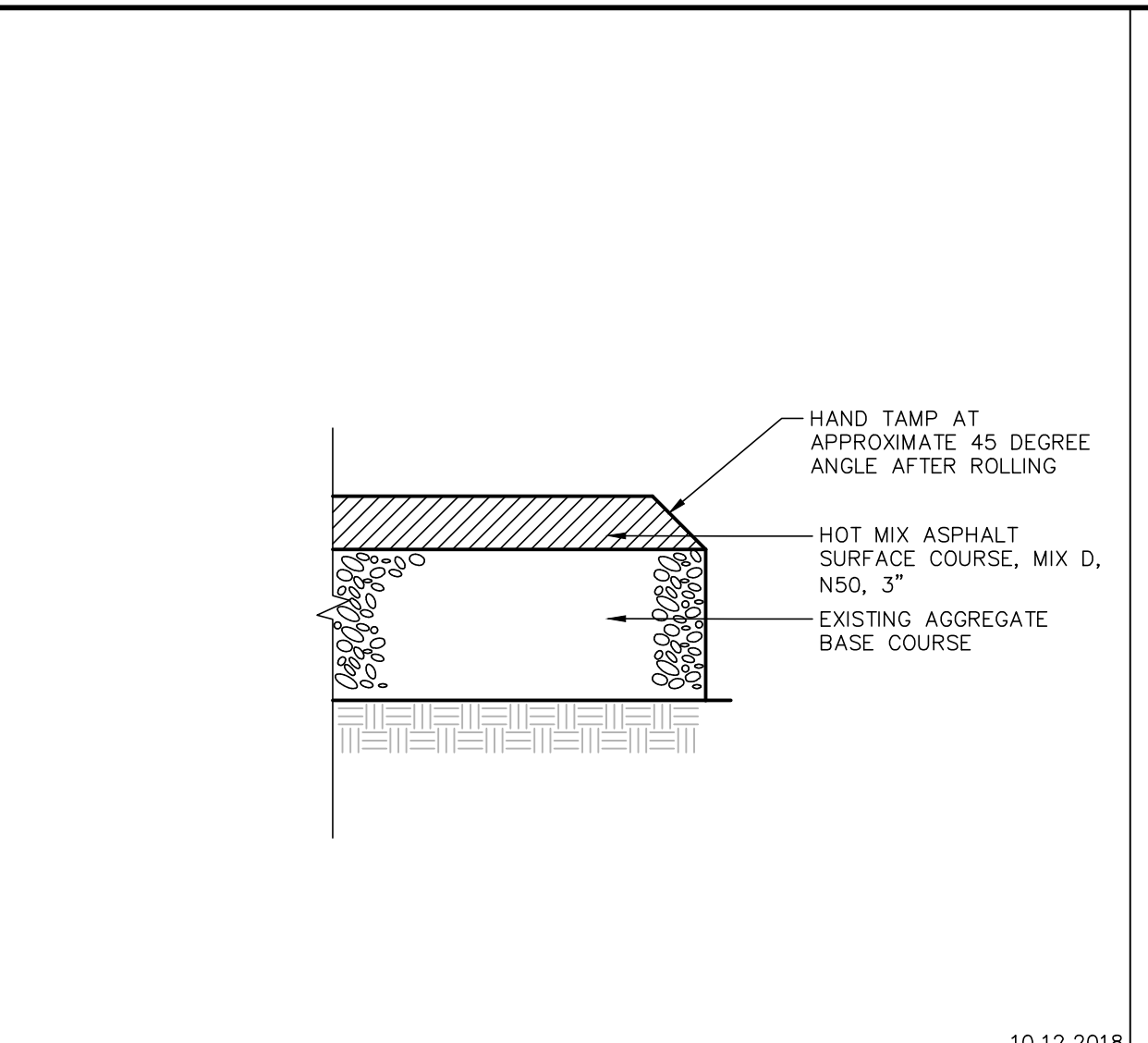
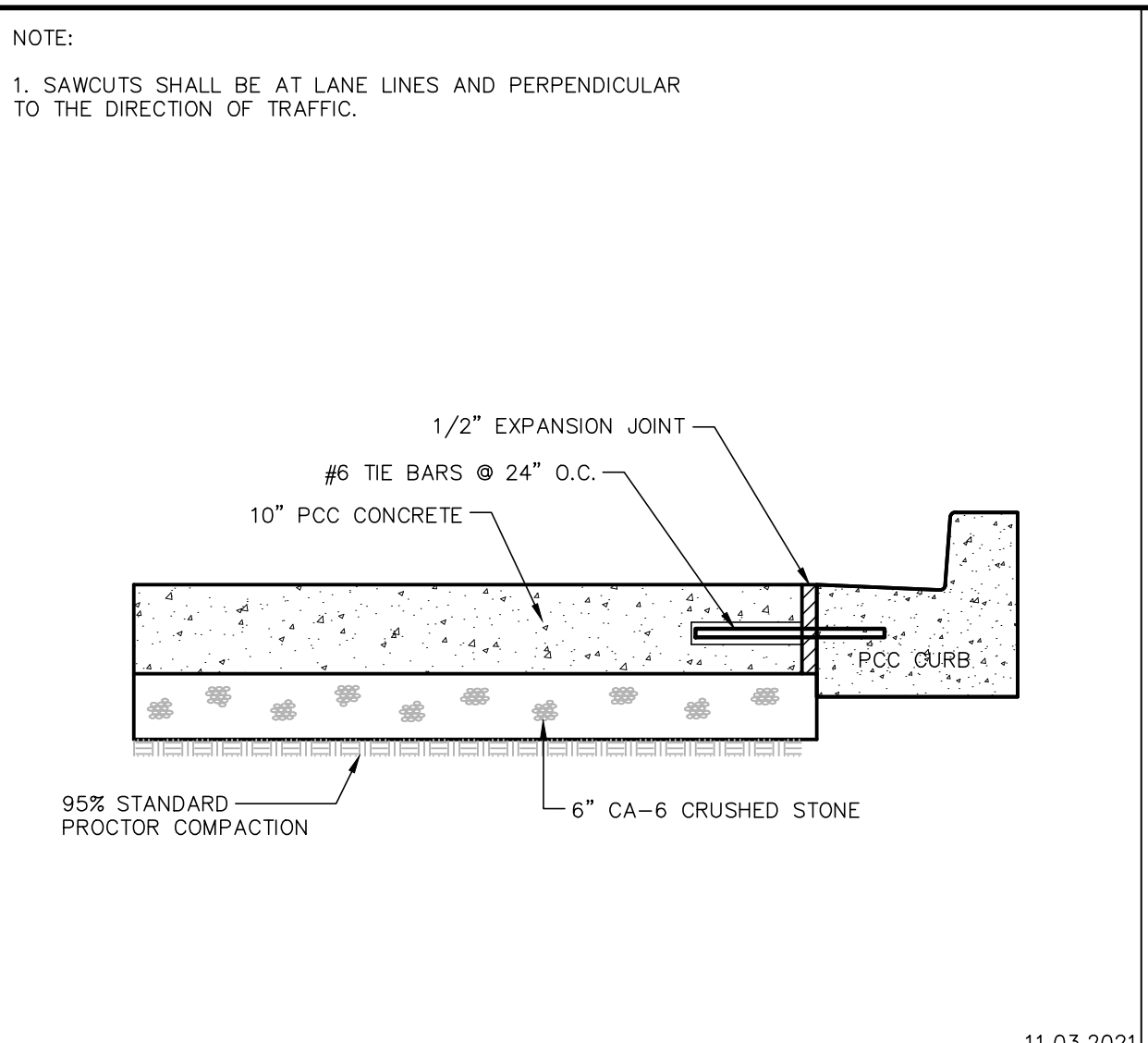
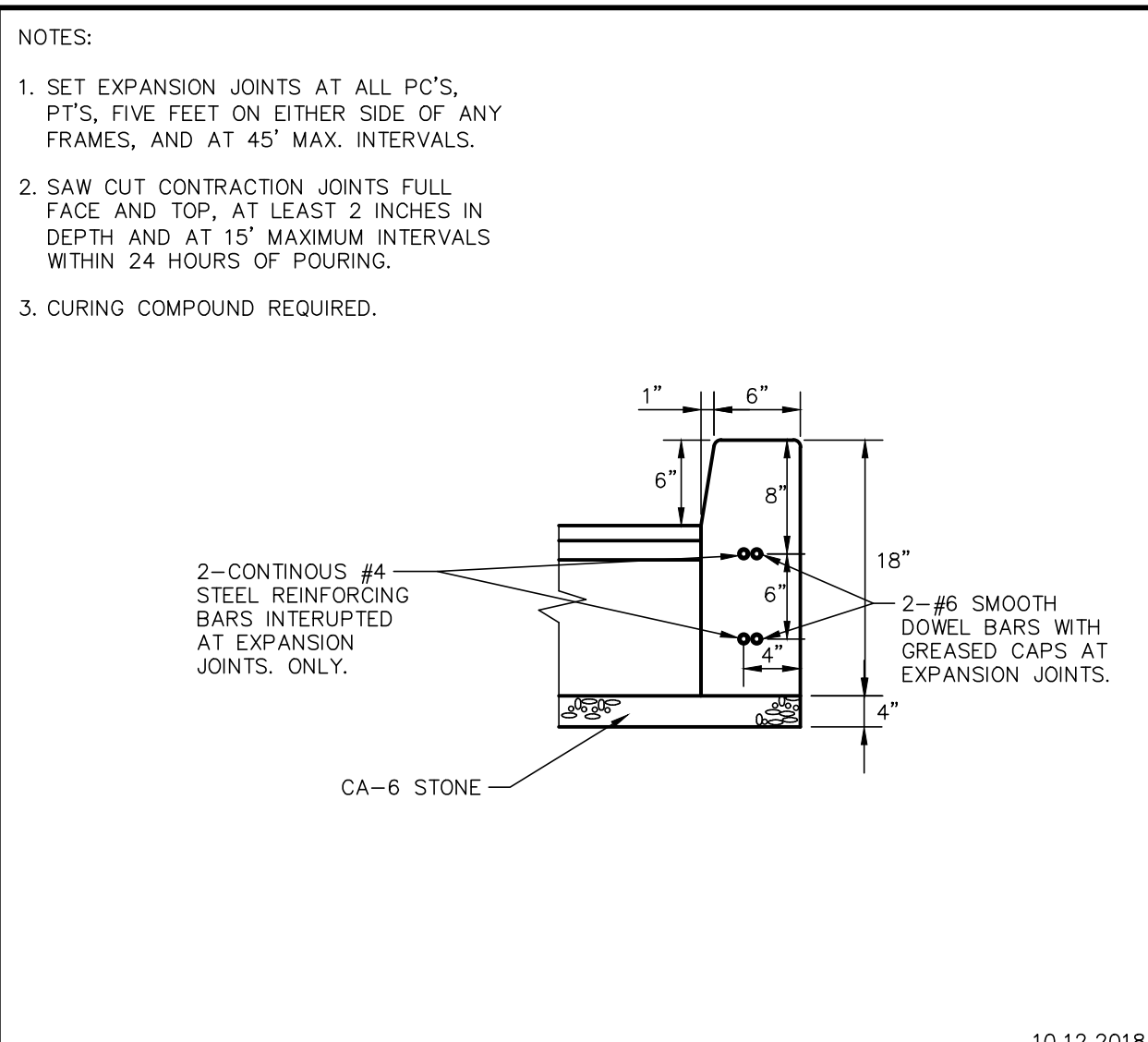
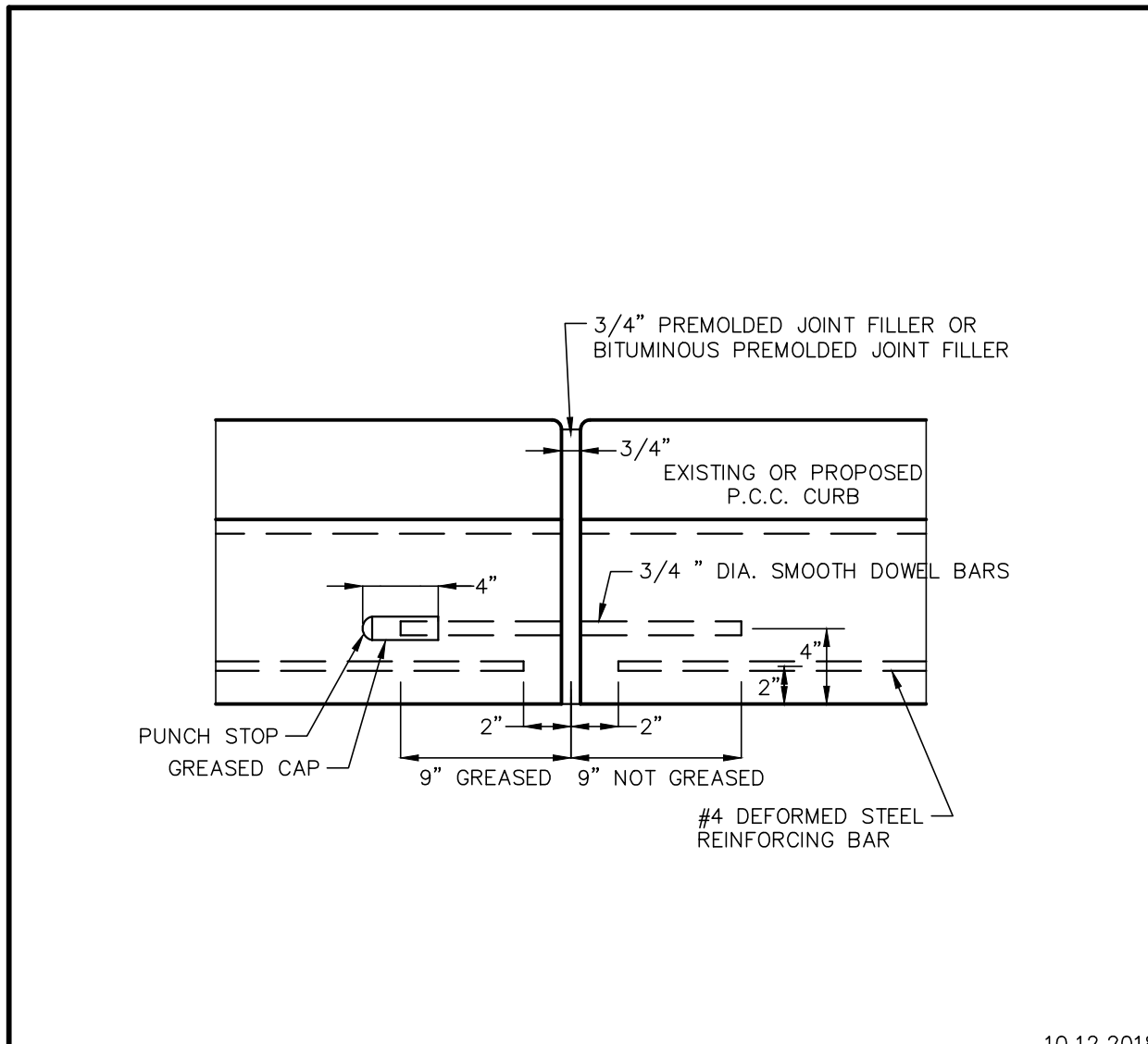
**COPYRIGHT NOTICE**  
 This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**DETAILED ADA CROSSINGS**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1	SHY	11.10.2023	ADDENDUM 01				

FILE 4798.072-ADA.dwg	SHEET NUMBER:
DRAWN BY: KRM	GHA PROJECT #
DATE: 11.02.23	4798.072
CHECKED BY: PCL	SCALE:
DATE: 11.02.23	1"=10'
	OF 19 SHEETS

**15**



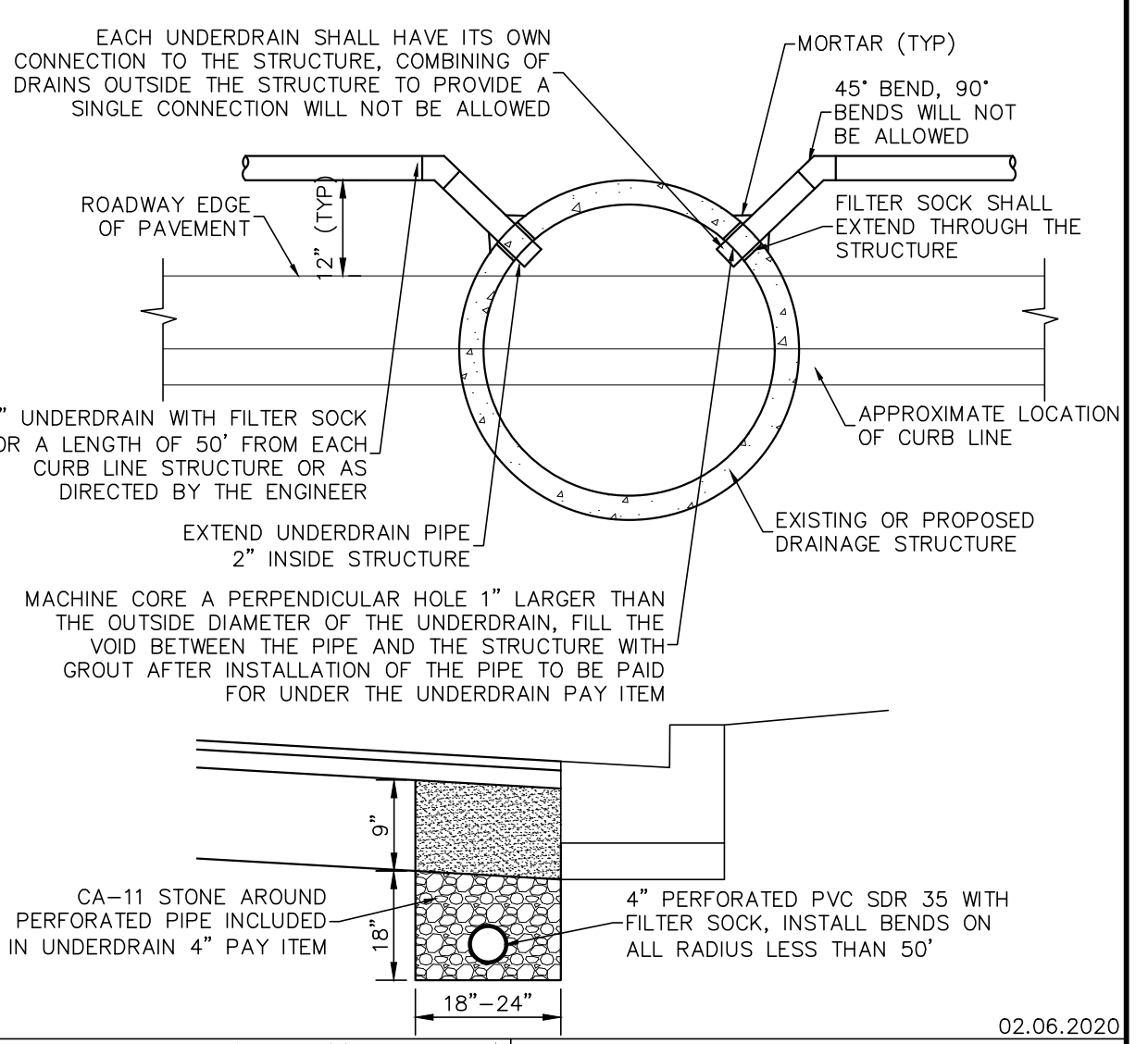
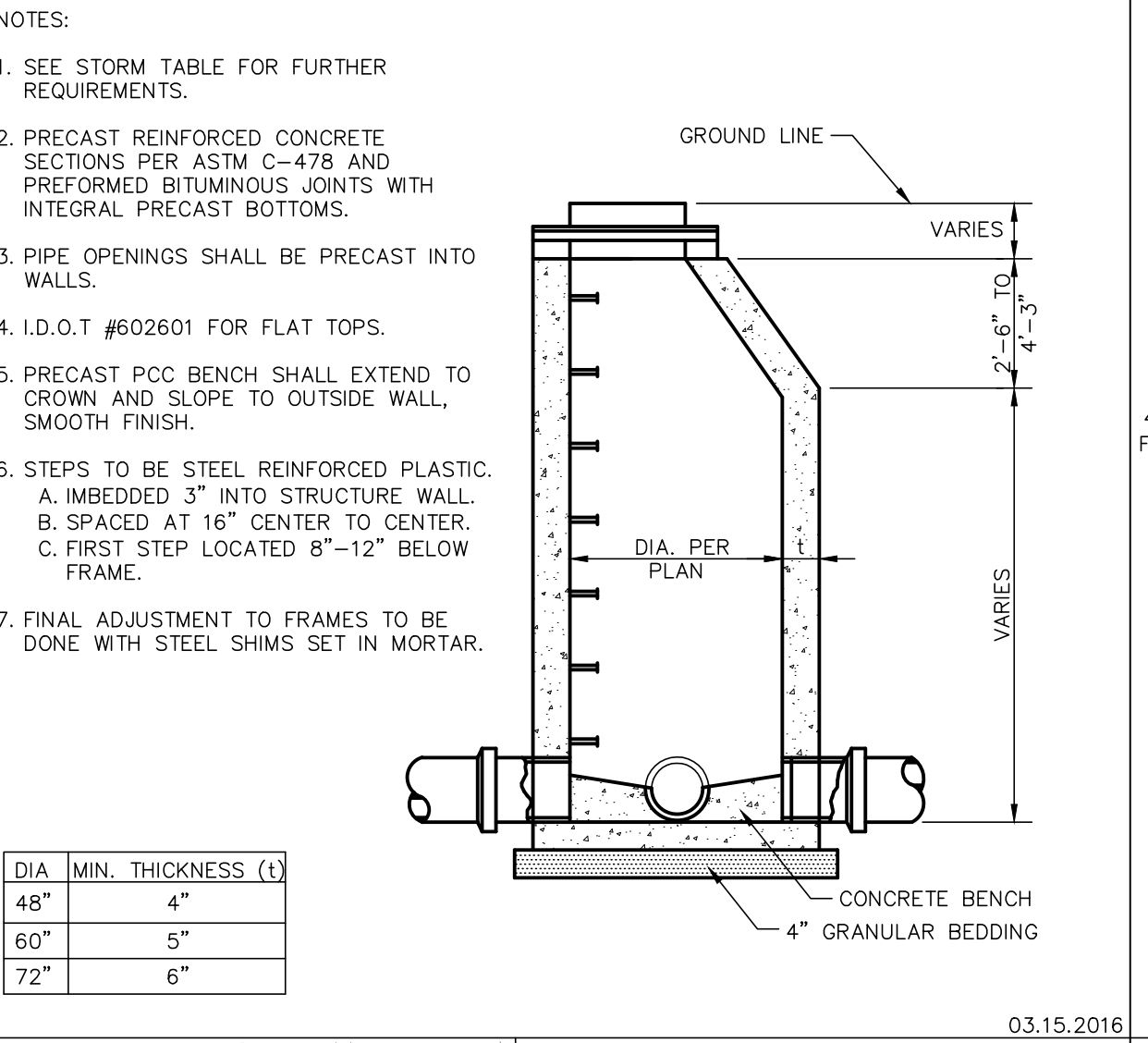
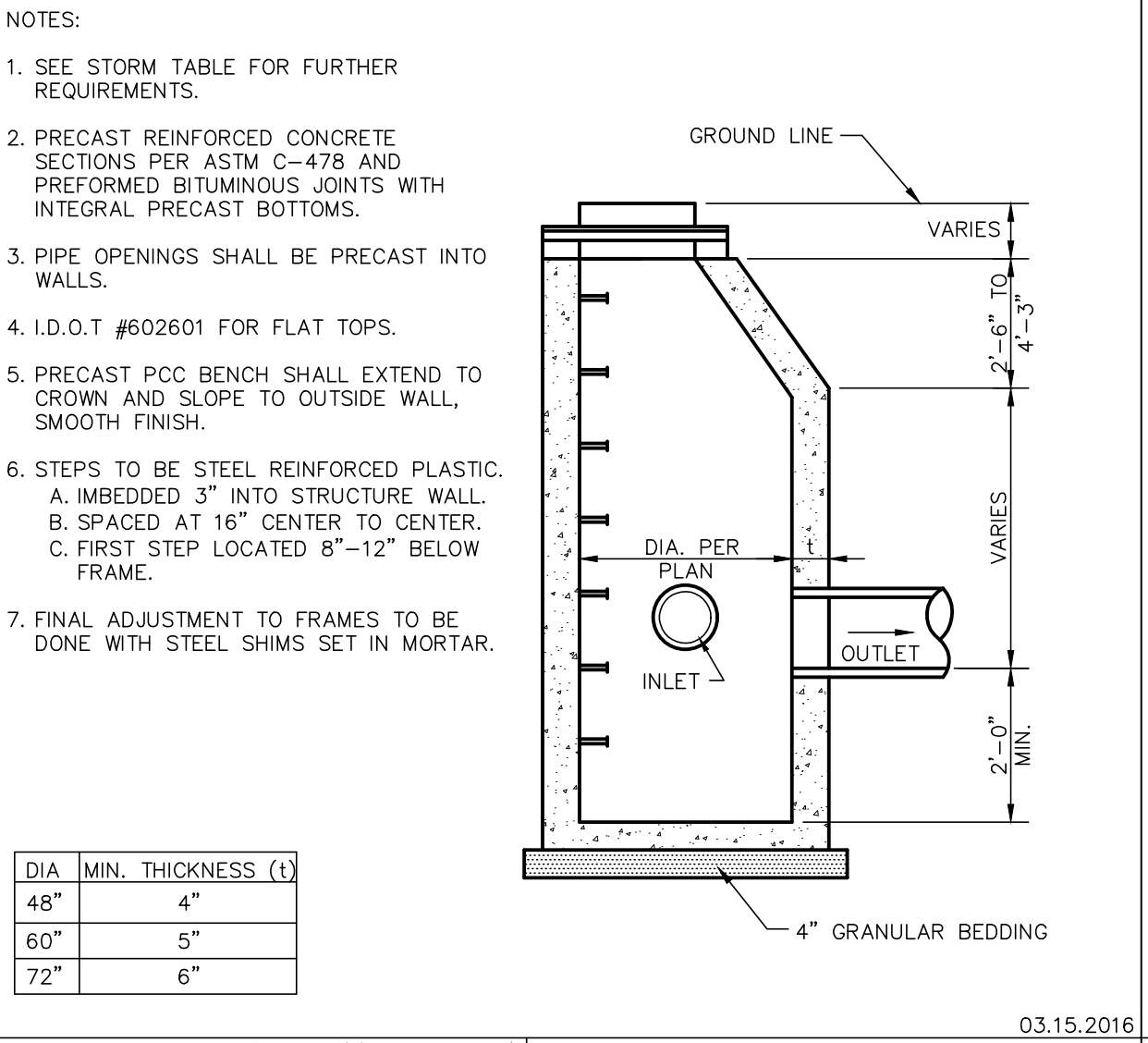
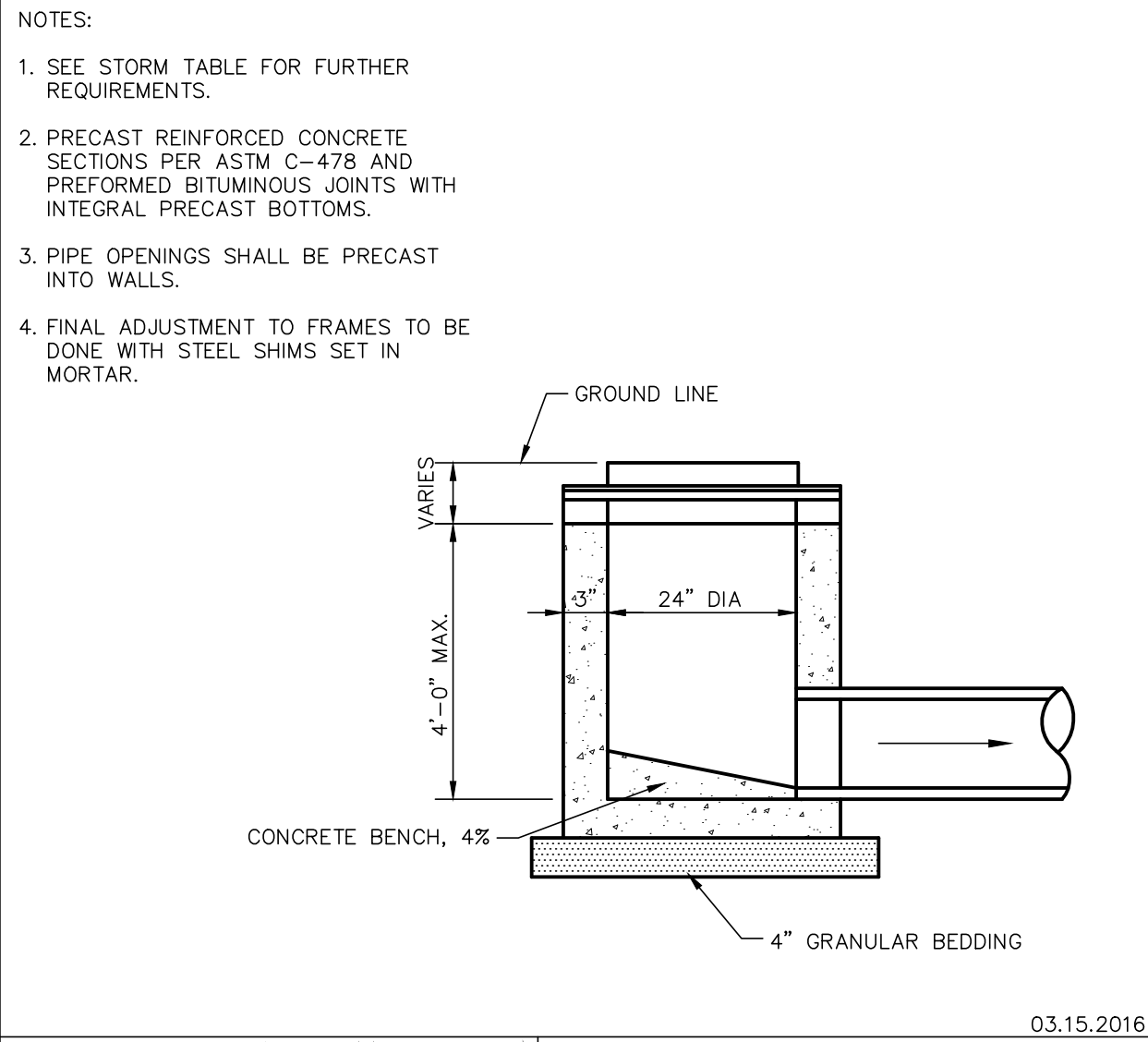
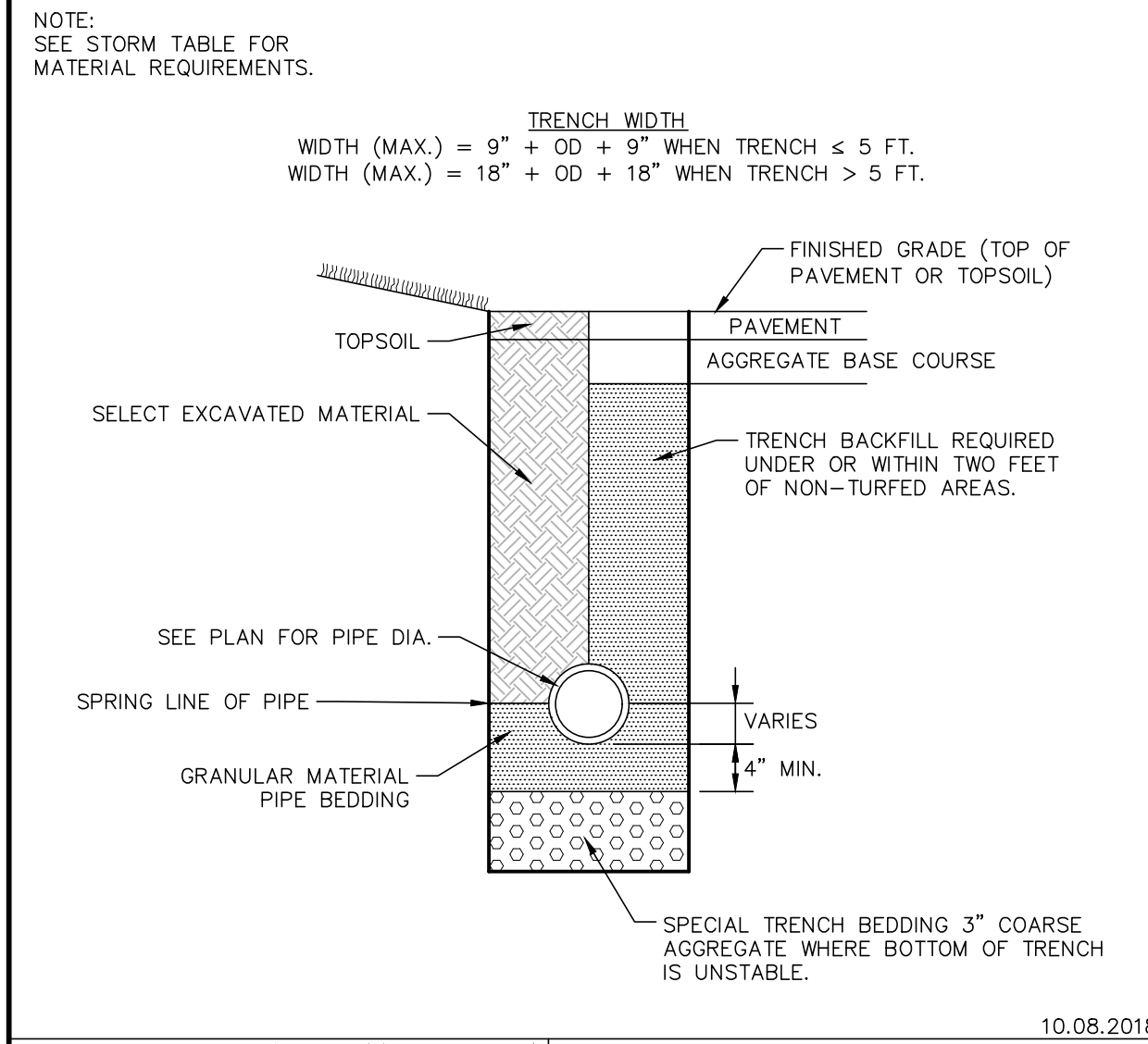
**GHA GEWALT HAMILTON ASSOCIATES, INC.** EXPANSION JOINT DETAIL 10.12.2018

**GHA GEWALT HAMILTON ASSOCIATES, INC.** VERTICAL CURB 10.12.2018

**GHA GEWALT HAMILTON ASSOCIATES, INC.** PCC PAVEMENT DETAIL 11.03.2021

**GHA GEWALT HAMILTON ASSOCIATES, INC.** HMA DRIVEWAY PAVEMENT DETAIL 10.12.2018

**GHA GEWALT HAMILTON ASSOCIATES, INC.** STORM TRENCH DETAIL FLEXIBLE PIPE INSTALLATION 10.08.2018



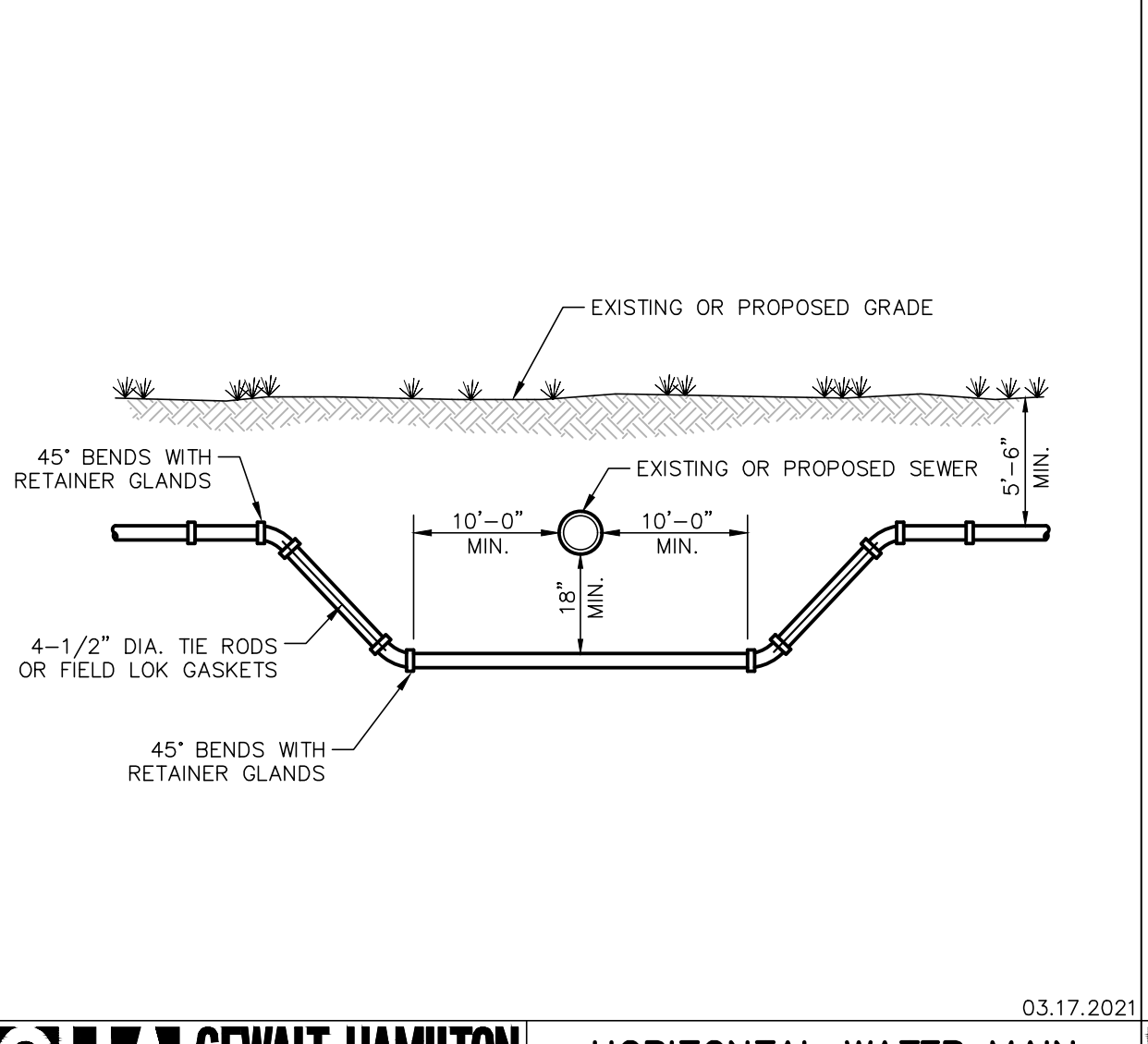
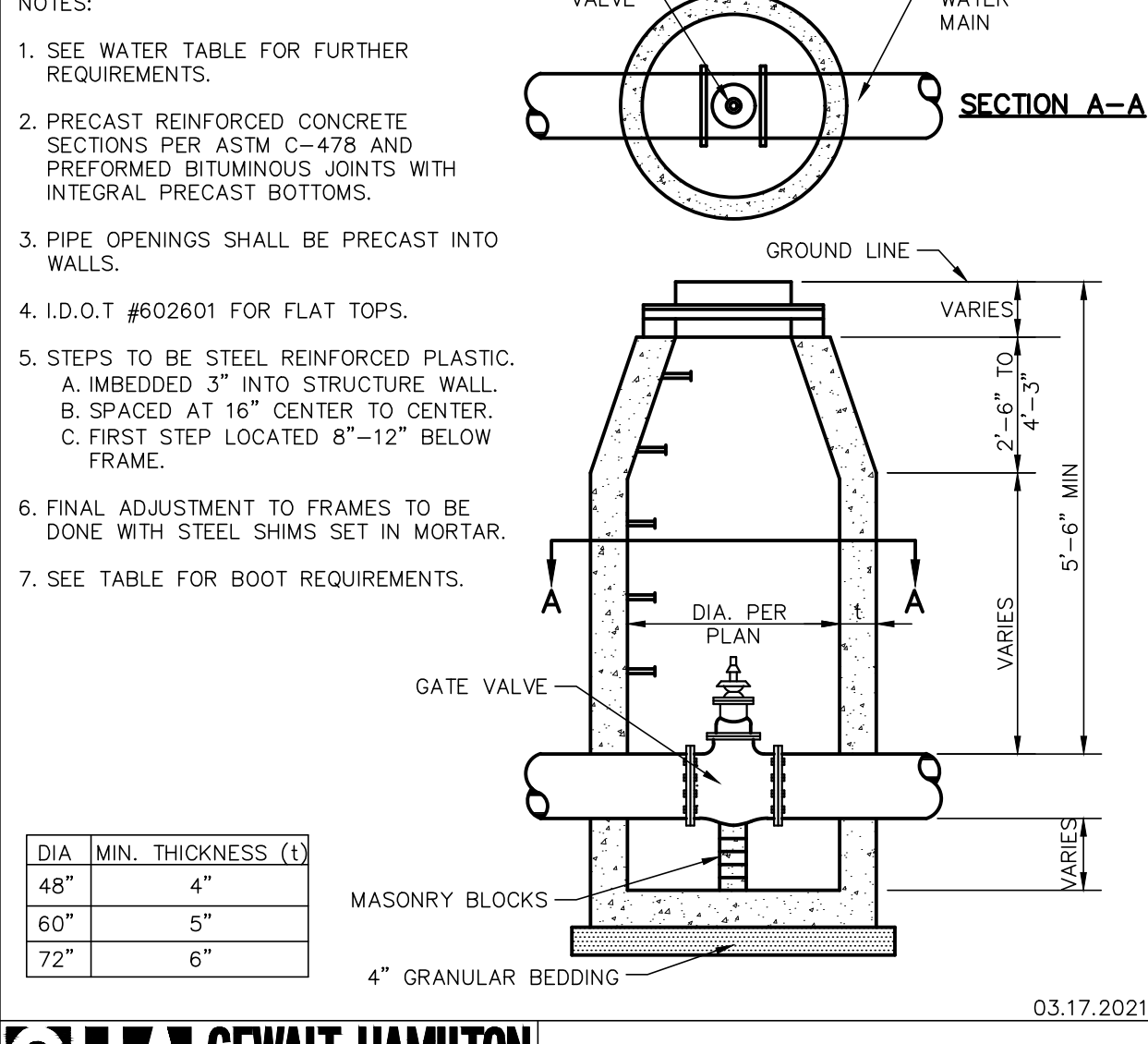
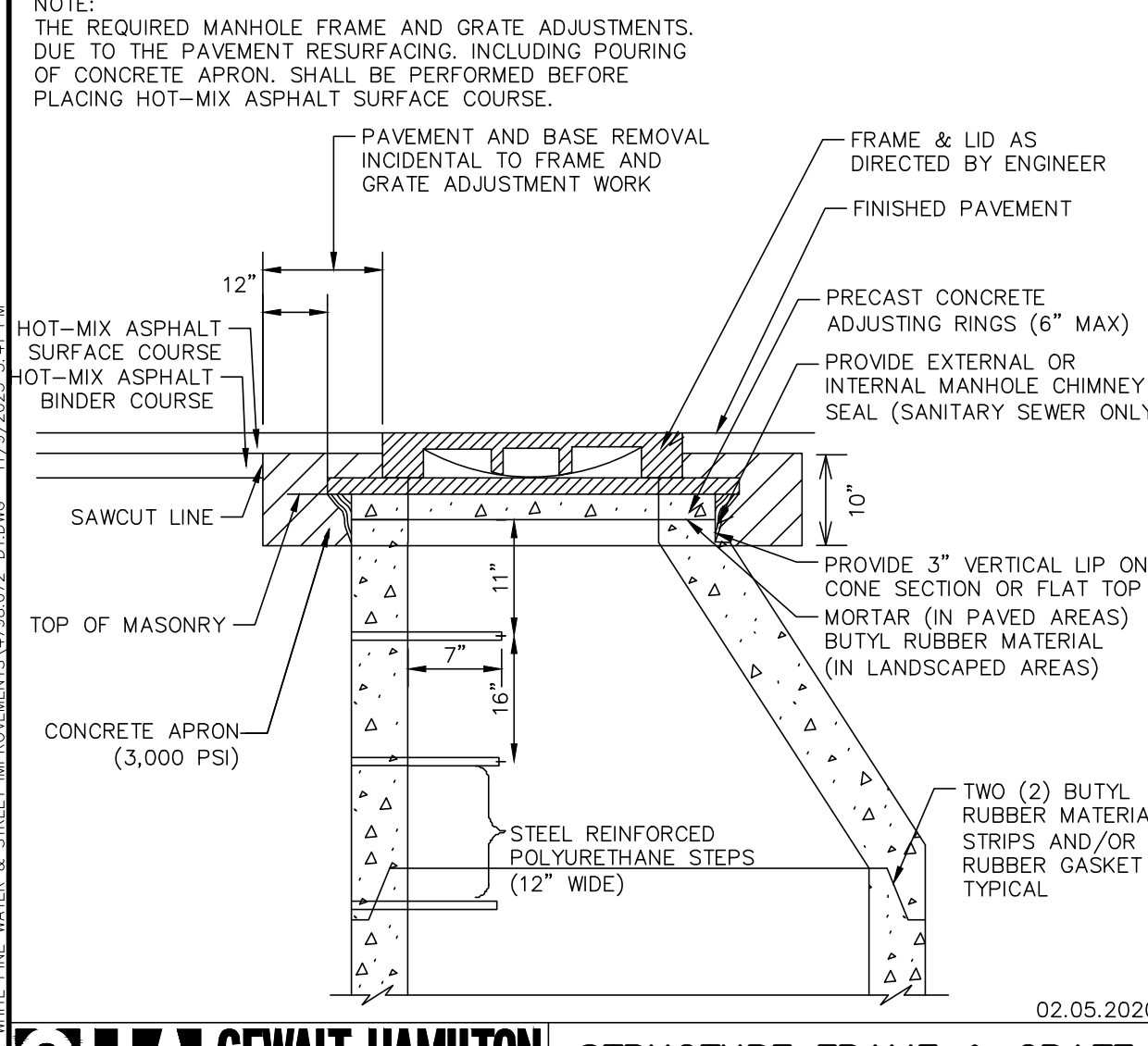
**GHA GEWALT HAMILTON ASSOCIATES, INC.** STORM TRENCH DETAIL RIGID PIPE INSTALLATION 10.08.2018

**GHA GEWALT HAMILTON ASSOCIATES, INC.** INLET TYPE A 03.15.2016

**GHA GEWALT HAMILTON ASSOCIATES, INC.** CATCH BASIN TYPE A 03.15.2016

**GHA GEWALT HAMILTON ASSOCIATES, INC.** STORM MANHOLE TYPE A 03.15.2016

**GHA GEWALT HAMILTON ASSOCIATES, INC.** UNDERDRAIN IN FRONT OF CURB INSTALLATION 02.06.2020



**VERTICAL SEPARATION REQUIREMENTS**

CROSSING	REQUIRED VERTICAL SEPARATION	ADDITIONAL REQUIREMENTS (SELECT ONE)
WATER OVER SEWER	WATER INVERT 18" ABOVE CROWN OF SEWER.	<b>VERTICAL SEPARATION &lt; 18"</b> 1. WATER OR SEWER TO BE ENCASED FOR A MINIMUM DISTANCE OF 10' FROM THE EDGE OF PIPE, ON EITHER SIDE, PERPENDICULAR TO THE CROSSING. 2. SEWER TO BE WATERMAIN CLASS PIPE FOR A DISTANCE OF 10' FROM THE EDGE OF PIPE ON EITHER SIDE PERPENDICULAR TO THE CROSSING.
SEWER OVER WATER	SEWER INVERT 18" ABOVE CROWN OF WATER.	<b>VERTICAL SEPARATION &lt; 18" (NEVER ALLOWED)</b> 1. WATER OR SEWER TO BE ENCASED FOR A MINIMUM DISTANCE OF 10' FROM THE EDGE OF PIPE ON EITHER SIDE PERPENDICULAR TO THE CROSSING. 2. SEWER TO BE WATERMAIN CLASS PIPE FOR A DISTANCE OF 10' FROM THE EDGE OF PIPE ON EITHER SIDE PERPENDICULAR TO THE CROSSING.

**HORIZONTAL SEPARATION REQUIREMENTS**

REQUIRED HORIZONTAL SEPARATION	ADDITIONAL REQUIREMENTS
10' OF LATERAL SEPARATION FROM EDGE OF PIPE TO EDGE OF PIPE.	<b>HORIZONTAL SEPARATION &lt; 10'</b> 1. WATER INVERT 18" ABOVE CROWN OF SEWER. <b>HORIZONTAL SEPARATION &lt; 10' &amp; VERTICAL SEPARATION &lt; 18"</b> 2. SEWER CONSTRUCTED WITH WATERMAIN CLASS PIPE (SEE VERTICAL SEPARATION REQUIREMENTS) AND PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE PRIOR TO BACKFILLING.

**RESTRAINED LENGTH TABLE**

TYPE OF FITTING	RESTRAINED LENGTH (EACH WAY)
TEE AND PLUG	LENGTH OF TEE
90° BEND	18'-0"
45° BEND	8'-0"
22 1/2° BEND	4'-0"
11 1/4° BEND	2'-0"

**LOCKING GASKET LENGTH TABLE**

TYPE OF BEND/FITTING	DISTANCE FROM BEND/FITTING (EACH WAY)
45° HORIZONTAL BEND	15'-0"
22.5° HORIZONTAL BEND	10'-0"
45° VERTICAL OFFSET	25'-0"
TEES	PROVIDE THRUST BLOCK
PRESSURE CONNECTION	PROVIDE THRUST BLOCK
END CAPS	PROVIDE THRUST BLOCK

**NOTES:**

- SEE WATER TABLE FOR FURTHER MATERIAL REQUIREMENTS.
- SEPARATION REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED WATERMAIN, STORM SEWER, SANITARY SEWER, COMBINED SEWER, AND ALL SERVICE CONNECTIONS.
- SEWER MAINS SHALL BE SEPARATED FROM SEPTIC TANKS, DISPOSAL FIELDS, SEEPAGE BEDS, AND LIFT STATIONS BY A MINIMUM OF 25'.

**GHA GEWALT HAMILTON ASSOCIATES, INC.** STRUCTURE FRAME & GRATE ADJUSTMENT DETAIL 02.05.2020

**GHA GEWALT HAMILTON ASSOCIATES, INC.** VALVE VAULT 03.17.2021

**GHA GEWALT HAMILTON ASSOCIATES, INC.** HORIZONTAL WATER MAIN SEPARATION 03.17.2021

**GHA GEWALT HAMILTON ASSOCIATES, INC.** WATER MAIN INSTALLATION AND SEPARATION REQUIREMENTS 03.17.2021

**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
TEL 847.478.9700 ■ FAX 847.478.9701

**DETAILS**  
2024 WHITE PINE STREET AND UTILITY PROJECT  
VILLAGE OF BUFFALO GROVE  
BUFFALO GROVE, ILLINOIS 60089

FILE: 4798.072-DT.dwg  
DRAWN BY: KRM  
DATE: 11.02.2023  
GHA PROJECT #: 4798.072  
CHECKED BY: PCL  
DATE: 11.02.2023  
SCALE: N.T.S.  
SHEET NUMBER: 16  
OF 19 SHEETS

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1	SHY	11.10.2023	ADDENDUM 01				



**NOTE:**  
SEE WATER TABLE FOR MATERIAL REQUIREMENTS.

**TRENCH WIDTH**  
WIDTH (MAX.) = 9" + OD + 9" WHEN TRENCH ≤ 5 FT.  
WIDTH (MAX.) = 18" + OD + 18" WHEN TRENCH > 5 FT.

SELECT EXCAVATED MATERIAL

FINISHED GRADE (TOP OF PAVEMENT OR TOPSOIL)

PAVEMENT

AGGREGATE BASE COURSE

TRENCH BACKFILL REQUIRED UNDER OR WITHIN TWO FEET OF NON-TURFED AREAS.

5'-6" MIN.

12" MIN.

SEE PLAN FOR PIPE DIA.

GRANULAR MATERIAL PIPE BEDDING

VARIES

4" MIN.

SPECIAL TRENCH BEDDING 3" COARSE AGGREGATE WHERE BOTTOM OF TRENCH IS UNSTABLE.

02.05.2020

**NOTES:**

- SEE UTILITY TABLE FOR MATERIAL REQUIREMENTS.
- WEAVE SERVICE PIPE IN TRENCH TO ALLOW AT LEAST ONE (1) FOOT EXTRA LENGTH FOR ITS LENGTH.
- ALL CONNECTIONS SHALL BE OF THE "FLARED" TYPE.

SIZE (IN.)	PRESSURE CLASS			
	150	200	250	300
3	-	-	-	3/4
4	-	-	-	1
6	-	-	-	1 1/4
8	-	-	-	1 1/2
10	-	-	-	1 3/4
12	-	-	-	2
14	-	-	1 1/2	2 1/4
16	-	-	2	2 1/2
18	-	-	2 1/2	3
20	-	-	3	3 1/2
24	-	2	3 1/2	4

MAXIMUM RECOMMENDED DIRECT TAP SIZE (INCH)

FINISHED GRADE

1'-0"

B-BOX

5'-6" MIN.

RIGHT OF WAY LINE OR ROADWAY SIDE OF SIDEWALK

WATER MAIN WITH DIRECT TAP SERVICE.

CORPORATION VALVE

CURB STOP/ROUNDWAY

MASONRY BLOCK

45°

03.17.2021

**NOTES:**

- SEE WATER TABLE AND MANUFACTURERS SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- SWAB ALL CONNECTIONS WITH 2% HYPOCHLORITE SOLUTION

36" MIN.

18" TO 24"

5'-6" MIN.

"WATER ON LID"

SEE VALVE BOX DETAIL

SEE PLANS AND SPECIFICATIONS FOR DEPTH OF BURY

FILTER FABRIC OVER DRAIN FIELD

SEE UTILITY TABLE FOR DRAIN STONE REQUIREMENTS

CONCRETE BASE AND THRUST BLOCKING AGAINST UNDISTURBED EARTH (DO NOT OBSTRUCT BOLTS)

ALL JOINTS FROM HYDRANT TO TEE SHALL BE RESTRAINED

1/8" MIN. SPOOL

03.17.2021

**NOTES:**

- SEE WATER TABLE AND MANUFACTURERS SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- SWAB ALL CONNECTIONS WITH 2% HYPOCHLORITE SOLUTION

MJ SOLID SLEEVE COUPLING

EXISTING WATERMAIN

RESTRAINED JOINT

PROPOSED WATERMAIN

03.17.2021

**NOTES:**

- CASING SPACERS AND HARDWARE SHALL BE T-304 STAINLESS STEEL.
- CASING SPACERS SHALL BE INSTALLED AT EACH END OF THE CASING PIPE A MAXIMUM OF 2' FROM THE END OF THE CASING PIPE.
- FOR DUCTILE IRON PIPE INSTALLATIONS CASING SPACERS SHALL BE PLACED AT A MAXIMUM INTERVAL OF 10'
- FOR PVC AND HDPE INSTALLATIONS CASING SPACERS SHALL BE PLACED AT A MAXIMUM INTERVAL OF 6'
- CASING SPACERS ON PVC PIPE SHALL BE INSTALLED AT THE SPIGOT END OF EACH PIPE.
- CASING SPACERS SHALL BE A MINIMUM OF 8" WIDE.
- CASING SPACERS SHALL ELECTRICALLY ISOLATE THE CARRIER PIPE FROM THE CASING PIPE.
- CASING RUNNERS SHALL HAVE A COEFFICIENT OF FRICTION < 0.13 PER ASTM D-1894 ON SMOOTH STEEL SURFACES
- SEE TRENCH DETAIL FOR TRENCHING REQUIREMENTS

CENTER CARRIER PIPE IN CASING PIPE

SEE UTILITY TABLE FOR CASING PIPE SPECIFICATIONS

RUBBER END CAPS WITH STAINLESS STEEL BANDS PER ASTM C-923

SEE UTILITY TABLE FOR CASING PIPE SPECIFICATIONS

STAINLESS STEEL CASING SPACER WITH POLYETHYLENE LOW FRICTION RUNNERS. SEE NOTES ABOVE FOR REQUIREMENTS

03.17.2021

**GEWALT HAMILTON ASSOCIATES, INC.** WATER MAIN TRENCH DETAIL

**GEWALT HAMILTON ASSOCIATES, INC.** WATER SERVICE

**GEWALT HAMILTON ASSOCIATES, INC.** FIRE HYDRANT

**GEWALT HAMILTON ASSOCIATES, INC.** SOLID SLEEVE CONNECTION TO EXISTING WATER MAIN

**GEWALT HAMILTON ASSOCIATES, INC.** PIPE CASING FOR WATER MAIN SEPARATION REQUIREMENTS

**NOTES:**

- CONTRACTOR'S DISCRETION TO INSTALL MASONRY BLOCK OR Poured-IN-PLACE CONCRETE THRUST BLOCKS.
- ALL THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
- ALL MASONRY BLOCK AND CAST IN PLACE THRUST BLOCKS SHALL BE MINIMUM 3,000 PSI.

DEAD END - PLAN VIEW

90° ELBOW - PLAN VIEW

45°, 22.5°, 11.25° BEND - PLAN VIEW

SECTION A-A

2'-0" MIN.

2'-0" MIN.

UNDISTURBED EARTH

2'-0" MIN.

2'-0" MIN.

03.17.2021

**NOTES:**  
SEE SANITARY TABLE FOR MATERIAL REQUIREMENTS.

**TRENCH WIDTH**  
WIDTH (MAX.) = 9" + OD + 9" WHEN TRENCH ≤ 5 FT.  
WIDTH (MAX.) = 18" + OD + 18" WHEN TRENCH > 5 FT.

FINISHED GRADE (TOP OF PAVEMENT OR TOPSOIL)

PAVEMENT

AGGREGATE BASE COURSE

TRENCH BACKFILL REQUIRED UNDER OR WITHIN TWO FEET OF NON-TURFED AREAS.

12" MIN.

VARIES

4" MIN.

SELECT EXCAVATED MATERIAL

SEE PLAN FOR PIPE DIA.

GRANULAR MATERIAL PIPE BEDDING

SPECIAL TRENCH BEDDING 3" COARSE AGGREGATE WHERE BOTTOM OF TRENCH IS UNSTABLE.

03.15.2016

OVERPOUR CONCRETE DRIVEWAY AROUND FRAME

REPLACED CONCRETE DRIVEWAY

NEENAH R-1976 COVER FLUSH WITH CONCRETE DRIVEWAY

4" CA-6 BASE COURSE

B-BOX SET 4" BELOW COVER

02.05.2020

**NOTES:**

- EXTERIOR NEOPRENE CHIMNEY SEAL STAINLESS STEEL TRIM PER ASTM C-923.
- PIPE OPENINGS SHALL BE PRECAST INTO WALLS. CAST IN RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.
- FILL VOID BETWEEN BOOT AND PIPE WITH MORTAR
- PRECAST REINFORCED CONCRETE SECTIONS PER ASTM C-478 AND PREFORMED BITUMINOUS JOINTS WITH INTEGRAL PRECAST BOTTOMS.
- FINAL ADJUSTMENT TO FRAMES TO BE DONE WITH STEEL SHIMS SET IN MORTAR.
- STEPS TO BE STEEL REINFORCED PLASTIC.
  - IMBEDDED 3" INTO STRUCTURE WALL.
  - SPACED AT 16" CENTER TO CENTER.
  - FIRST STEP LOCATED 8"-12" BELOW FRAME.
- PRECAST PCC BENCH SHALL EXTEND TO CROWN AND SLOPE TO OUTSIDE WALL, SMOOTH FINISH.
- SEE SANITARY TABLE FOR FURTHER REQUIREMENTS.

GROUND LINE

VARIES

3'-9" TO 4'-3"

VARIES

4" GRANULAR BEDDING

DIA. PER PLAN

02.08.2018

DIM	MIN. THICKNESS
48"	4"
60"	5"
72"	6"

**NOTES:**

- MACHINE CORE CIRCULAR OPENING IN STRUCTURE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE PER MANUFACTURERS RECOMMENDATION.
- CUT SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM/TO NEW CONNECTION.
- CLEAN EXISTING STRUCTURE AND SEWER PIPE OF ANY DIRT CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.
- RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.
- FILL VOID BETWEEN BOOT AND PIPE WITH MORTAR

EXISTING STRUCTURE

STAINLESS STEEL INTERNAL EXPANDING BAND

BOOT

SANITARY OR COMBINED SEWER

TWO (2) STAINLESS STEEL EXTERNAL BANDS

MODIFY EXISTING BENCH

12.08.2018

**GEWALT HAMILTON ASSOCIATES, INC.** THRUST BLOCKING

**GEWALT HAMILTON ASSOCIATES, INC.** SANITARY TRENCH DETAIL

**GEWALT HAMILTON ASSOCIATES, INC.** WATER SERVICE IN DRIVEWAY DETAIL

**GEWALT HAMILTON ASSOCIATES, INC.** SANITARY MANHOLE

**GEWALT HAMILTON ASSOCIATES, INC.** SANITARY OR COMBINED SEWER PIPE CONNECTION TO EXISTING STRUCTURE DETAIL

EXISTING SANITARY SEWER

WYE FITTING, SIZE TO MATCH SERVICE AND MAINLINE SEWER

SEE PLANS FOR SEWER CONTINUATION

SIZE TO MATCH SERVICE

EXISTING SANITARY SEWER

PLAN VIEW

PROPOSED PAVEMENT SECTION

SEE SANITARY TRENCH DETAIL AND SANITARY TABLE FOR BACKFILL/BEDDING REQUIREMENTS

1" MAX.

45° MAX. RISE

INSTALL BENDS AS REQUIRED TO ADJUST GRADE IF A RISER IS NEEDED.

PROFILE VIEW

03.15.2016

**NOTES:**  
SEE SANITARY TABLE FOR MATERIAL REQUIREMENTS.

PAVED

NON-PAVED

NEENAH R-1976 FRAME

WATER TIGHT THREADED CAP

FINISHED GRADE

HEIGHT VARIES

6" MIN. RISER TO MATCH SEWER MATERIAL

WYE FITTING WITH 45° BEND FOR IN-LINE ASSEMBLIES OR TWO 45° BENDS FOR END ASSEMBLIES.

SEE PLAN FOR PIPE DIA.

4" GRANULAR BEDDING

03.15.2016

**GEWALT HAMILTON ASSOCIATES, INC.** SANITARY SERVICE CONNECTION DETAIL

**GEWALT HAMILTON ASSOCIATES, INC.** SANITARY SEWER CLEAN-OUT DETAIL

**GEWALT HAMILTON ASSOCIATES, INC.**  
625 Forest Edge Drive ■ Vernon Hills, IL. 60061  
TEL 847.478.9700 ■ FAX 847.478.9701

**COPYRIGHT NOTICE**  
This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

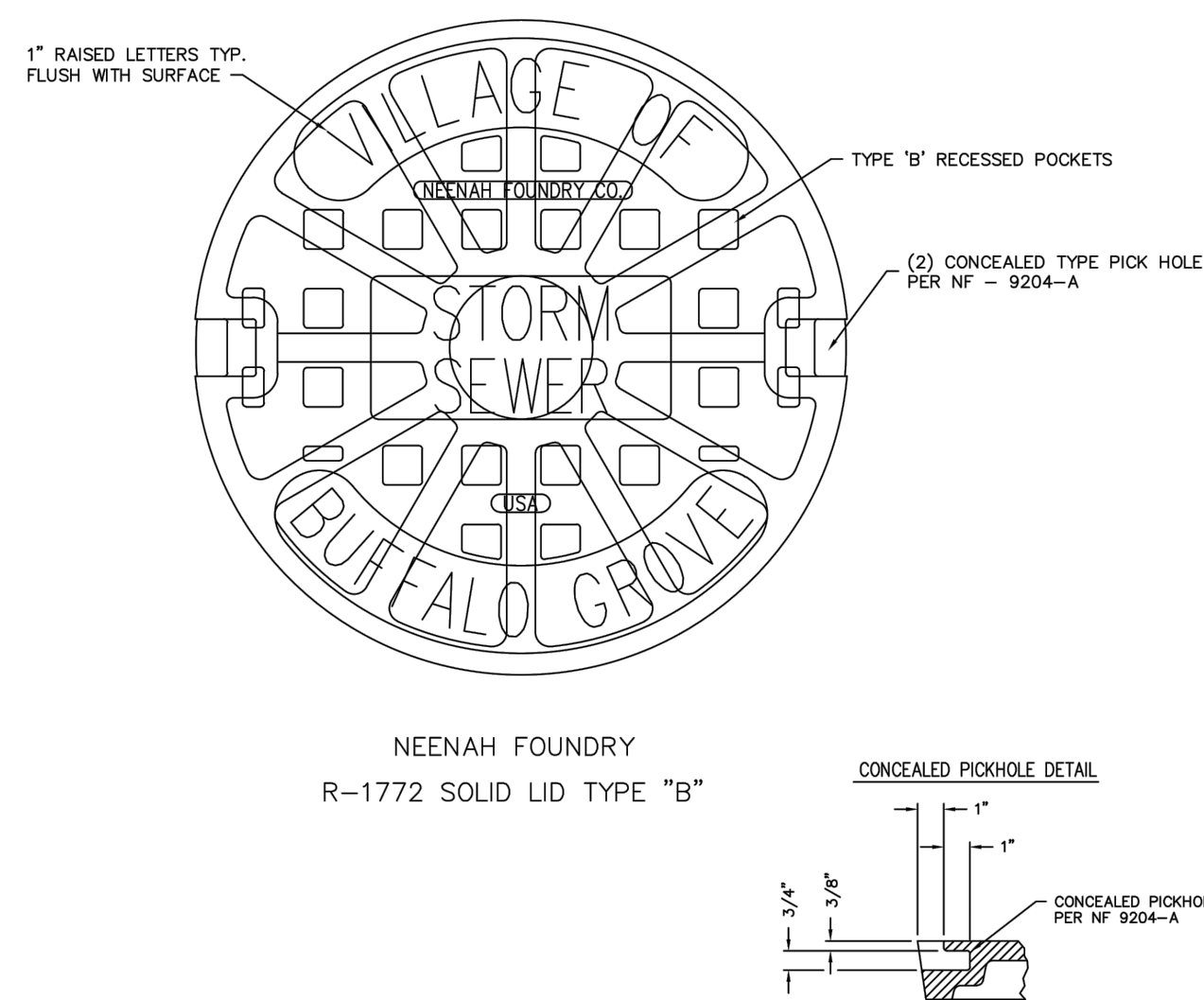
**DETAILS**  
**2024 WHITE PINE STREET AND UTILITY PROJECT**  
**VILLAGE OF BUFFALO GROVE**  
**BUFFALO GROVE, ILLINOIS 60089**

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1	SHY	11.10.2023	ADDENDUM 01				

FILE: 4798.072-DT.dwg	SHEET NUMBER: <b>17</b>
DRAWN BY: KRM	GHA PROJECT # 4798.072
DATE: 11.02.2023	
CHECKED BY: PCL	SCALE: N.T.S.
DATE: 11.02.2023	OF 19 SHEETS



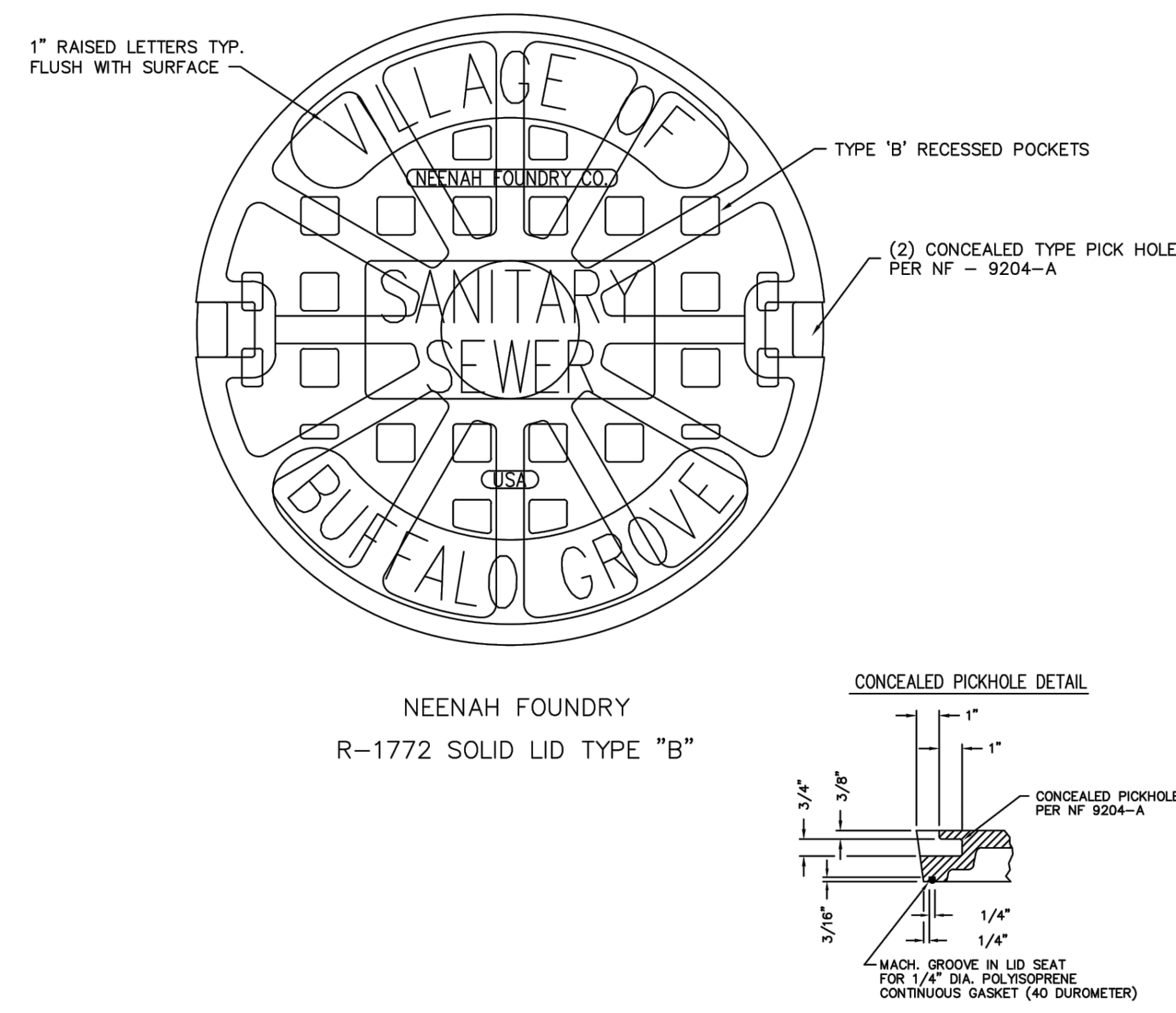
EXHIBIT NO. 201



STORM SEWER MANHOLE LID  
DETAIL

Prepared by the Village Engineering Division

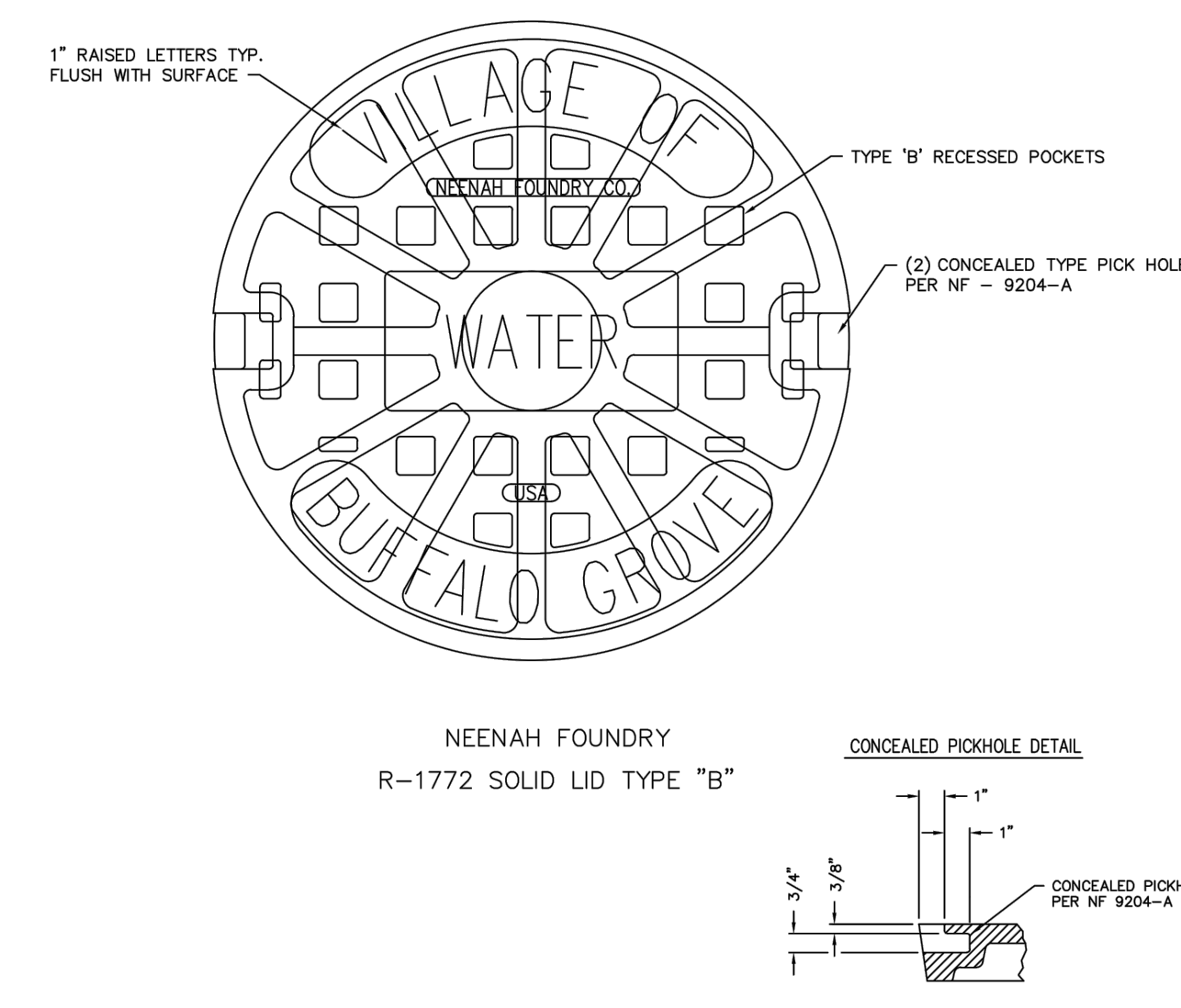
EXHIBIT NO. 301



SANITARY SEWER MANHOLE LID  
DETAIL

Prepared by the Village Engineering Division

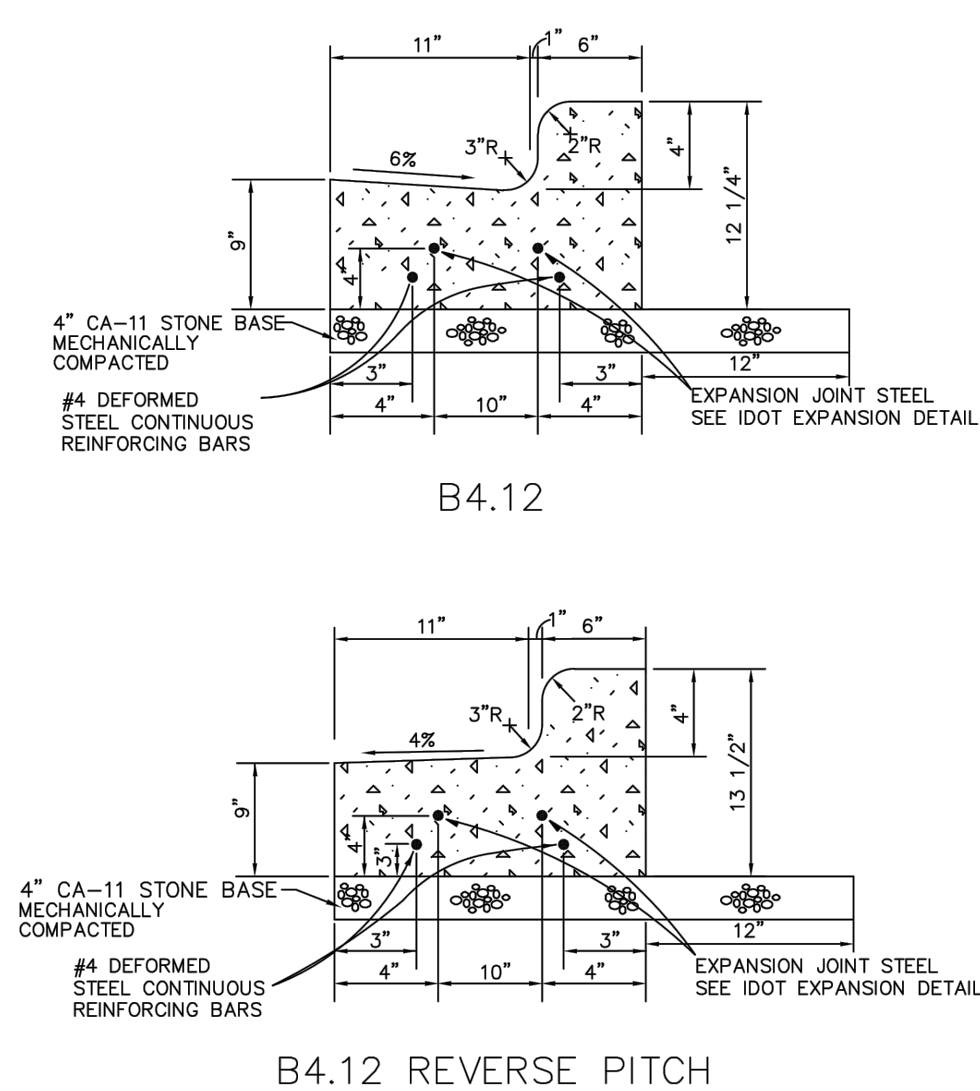
EXHIBIT NO. 401



VALVE VAULT LID DETAIL

Prepared by the Village Engineering Division

EXHIBIT NO. 501

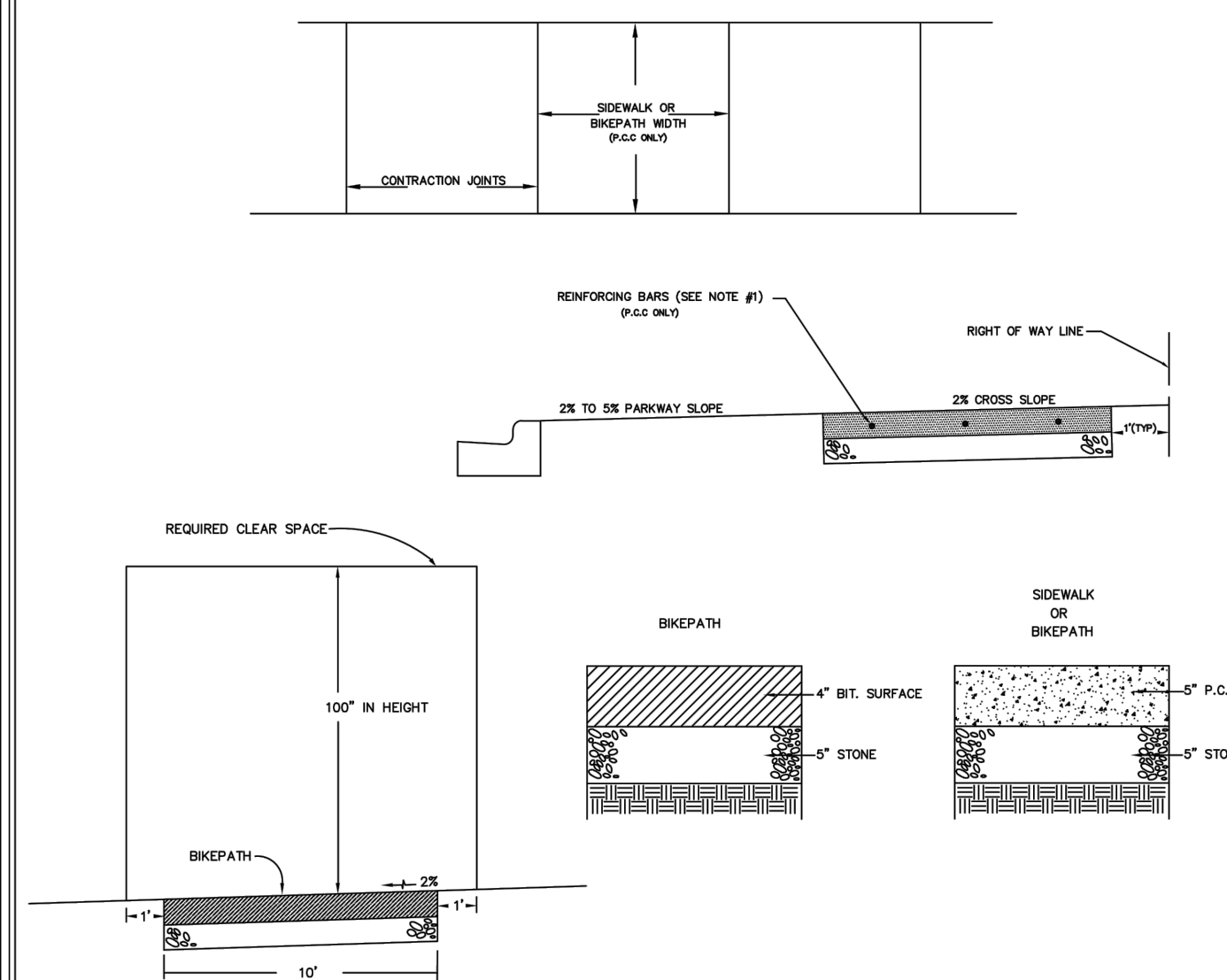


B4.12 CURB AND GUTTER DETAIL

- NOTE:
1. SET EXPANSION JOINTS AT ALL P.C.'S, P.T.'S, FIVE FEET ON EITHER SIDE OF ANY FRAMES, AND AT 45' MAX. INTERVALS.
  2. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS AND SAW CUT WITHIN 24 HOURS.
  3. JOINTS SHALL BE CLEANED AND SEALED ACCORDING TO ARTICLE 420.12.
  4. CURING COMPOUND REQUIRED.
  5. IDOT APPROVED CURBS ALSO PERMITTED.

Prepared by the Village Engineering Division

EXHIBIT NO. 502

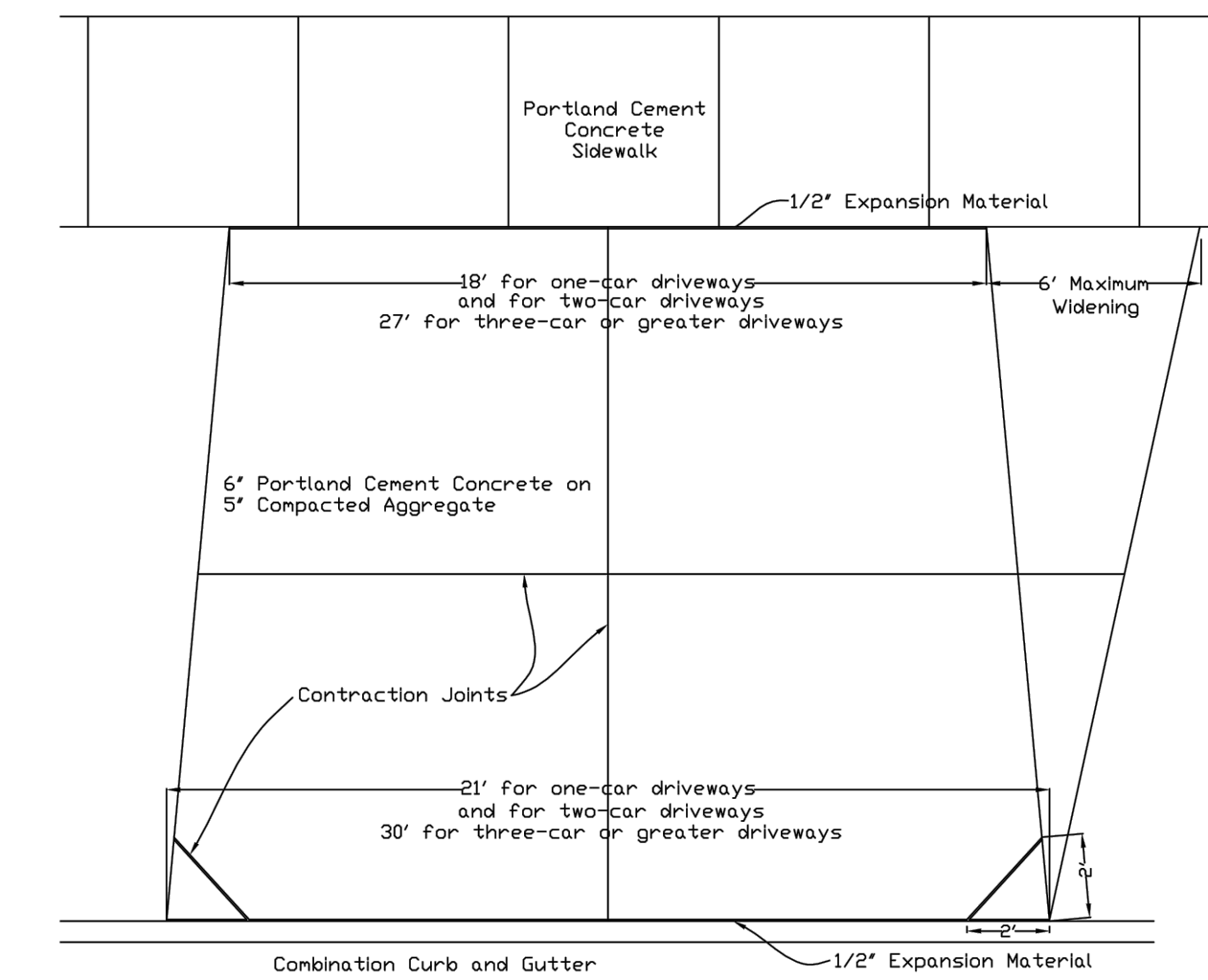


BIKEPATH & SIDEWALK DETAIL

- NOTE:
1. AT ALL TRENCH CROSSINGS, 3 - 10' X 3/4" REINFORCING BARS SHALL BE PLACED EQUALLY SPACED AND CENTERED OVER THE TRENCH.
  2. CONCRETE THICKNESS SHALL BE 6" AT ALL DRIVEWAYS AND TRENCH CROSSINGS.
  3. SET 3/4" EXPANSION JOINTS AT 50' MAX. SPACING INTERVALS.
  4. SIDEWALK WIDTH AS SHOWN ON PLANS.
  5. CURB RAMPS SHALL COMPLY WITH LATEST ACCESSIBILITY STANDARDS.

Prepared by the Village Engineering Division

EXHIBIT NO. 503



DRIVEWAY APRON DETAIL

- NOTE:
1. Contraction joint depth shall be 1-1/4" minimum.
  2. Contraction joint shall divide the apron into slabs approximately square with no side longer than 15'.
  3. Minimum apron width is 10' at the sidewalk.

Prepared by the Village Engineering Division