FINAL ENGINEERING PLANS

FOR

FREEDOM COMMONS - MOB

NAPERVILLE, ILLINOIS

PROJECT TEAM

OWNER/DEVELOPER

CHP-HSG Naperville, LLC 225 West Hubbard Street, Suite 401 Chicago, Illinois 60654 847 922 7225 Contact: Daniel Ahlering

ENGINEER

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ARCHITECT

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BENCHMARKS

SOURCE:

STATION DESIGNATION: 703 ESTABLISHED BY: CITY OF NAPERVILLE DATE: 07/12/1995

ELEVATION: 780.31 (MEASURED) DATUM: NAVD88

DESCRIPTION: BERNSTEN 3D TOP SECURITY MONUMENT. CONSISTING OF A 9/16" DIA. STAINLESS STEEL DATUM POINT ON THREADED 9/16" X 4' LONG ROD TOTALING 8' IN LENGTH WITH GREASED TOP SECURITY SLEEVE ENCLOSED IN SAND AND 6" PVC PIPE WITH BMAC 6 ALUMINUM ACCESS COVER. LOCATED ON THE NORTH SIDE OF U.S. 34 (OGDEN AVE) IN ISLAND AT ENTRANCE/EXIT BETWEEN "PANERA BREAD" AND "CVS", 21.43' SOUTHERLY FROM A CHISELED "+" ON SE CORNER OF SIGN BASE, 15.35' EASTERLY FROM A CHISELED "+" ON TOP OF FIRE HYDRANT AND 8.20' NORTHERLY FROM A CHISELED "+" ON NE CORNER OF TRAFF. HANDHOLE.

STATION DESIGNATION: SBM#1 ESTABLISHED BY: V3 COMPANIES DATE: 09-12-23

DATUM: NAVD88

DESCRIPTION: FLAG BOLT ON FIRE HYDRANT NEAR SOUTHWEST CORNER OF BUILDING ON SITE.

STATION DESIGNATION: SBM#2 ESTABLISHED BY: V3 COMPANIES

ELEVATION: 782.96 (MEASURED)

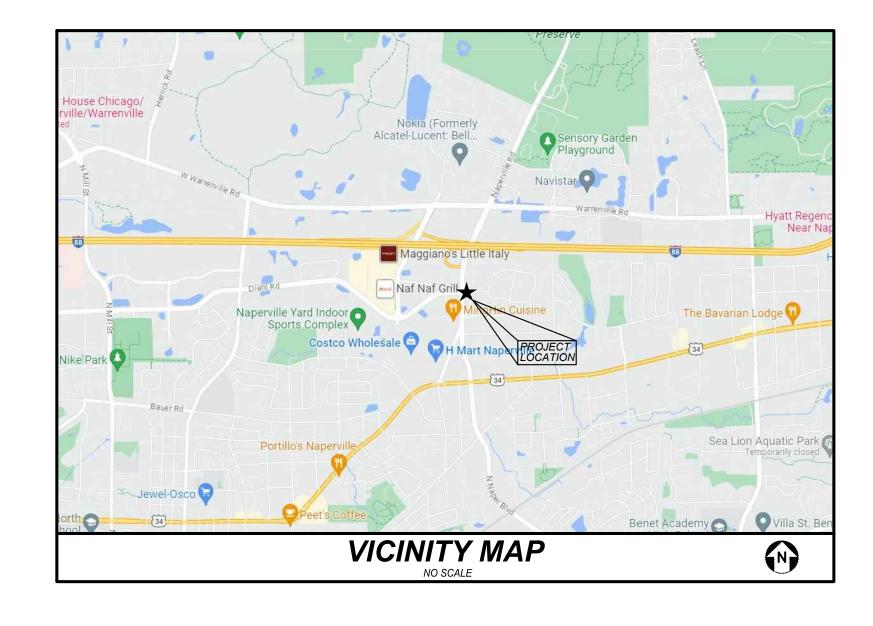
DATE: 09-12-23

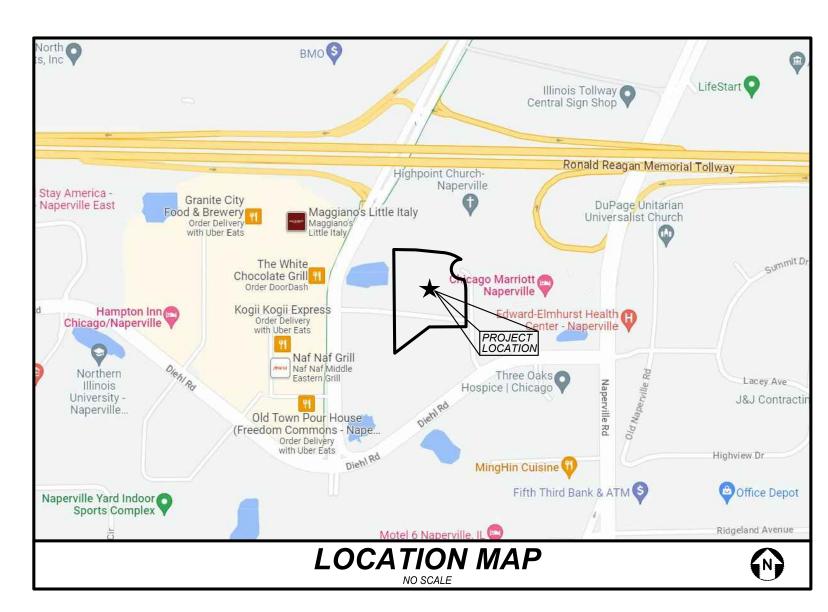
DATUM: NAVD88 DESCRIPTION: SET CUT CROSS IN CURB AT HIGHPOINT DRIVE CUL-DE-SAC, ± 28.4' NORTHERLY OF A INLET AND ± 19.7' EASTERLY OF A ELECTRIC CABINET CONC. PAD.

THE ELEVATIONS ABOVE WERE KNOWN TO BE ACCURATE AT THE TIME THEY WERE ESTABLISHED. V3 DOES NOT CERTIFY TO THE ACCURACY THEREAFTER, NOR ASSUMES RESPONSIBILITY FOR THE MIS-USE OR MIS-INTERPRETATION OF THE INFORMATION SHOWN HEREON.

T IS ADVISED THAT ALL OF THE ABOVE ELEVATIONS BE CHECKED BETWEEN EACH OTHER AND VERIFY A MINIMUM OF 3 SURROUNDING UTILITY RIM ELEVATIONS AND ANY ADJACENT BUILDING FINISHED FLOOR OR TOP OF FOUNDATION ELEVATIONS SHOWN HEREON PRIOR TO USE OR COMMENCEMENT OF ANY CONSTRUCTION OR

PERSONS USING THIS INFORMATION ARE TO CONTACT V3 IMMEDIATELY WITH ANY DISCREPANCIES FOUND PRIOR TO THE START OF ANY WORK.





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SUPPORTING DOCUMENTS

ALTA AND TOPOGRAPHIC SURVEY 1 of 2

PHOTOMETRIC EXHIBIT P1.0

800.892.0123

Locating Information Excavators

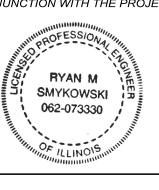
48 hours before you dig

PROFESSIONAL ENGINEER'S CERTIFICATION

, RYAN SMYKOWSKI, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THE CIVIL ENGINEERING PLANS WERE PREPARED ON BEHALF OF CHP-HSG NAPERVILLE. LLC BY V3 COMPANIES, LTD. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

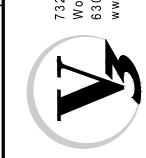
LLINOIS/LICENSED PROFESSIONAL ENGINEER 062073330 MY LICENSE EXPIRES ON NOVEMBER 30, 2025

ILLINOIS LICENSED DESIGN FIRM NO. 184-000902



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DRAWING NO.

GENERAL NOTES

EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

> V3 COMPANIES, LTD. 7325 JANES AVENUE WOODRIDGE, IL 60517

COPIES OF THE SURVEY ARE AVAILABLE FROM THE SURVEYOR. SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTORS TO VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

- ALL EXISTING TOPOGRAPHY, UNDERGROUND UTILITIES, STRUCTURES AND ASSOCIATED FACILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND ELEVATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES, THE EXISTENCE OF WHICH ARE NOT PRESENTLY KNOWN.
- CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.
- ALL APPLICABLE PROVISIONS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.
- THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR, BY USING THESE PLANS FOR THEIR WORK, AGREE TO HOLD HARMLESS V3 COMPANIES LTD. THE MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, HIS AGENTS, THE ENGINEER, HIS EMPLOYEES AND AGENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE OWNER OF THE ROADWAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS TRAFFIC CONTROL DEVICES AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS. ALL TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
- EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK PROPOSED HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS WHICH ARE HEREBY MADE A PART HEREOF:
- a. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PREPARED BY IDOT, LATEST EDITION.
- b. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION.
- c. ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS," AS PUBLISHED BY THE IEPA. LATEST EDITION.
- d. THE LATEST EDITIONS OF THE MUNICIPAL CODE AND STANDARDS OF THE CITY OF NAPERVILLE.
- e. THE NATIONAL ELECTRIC CODE.
- f. THE ILLINOIS ACCESSIBILITY CODE.
- g. CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD) REQUIREMENTS AS PUBLISHED BY THE IEPA. TESTING OF SOILS BEING EXPORTED FROM THE SITE AND APPROPRIATE DISPOSAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

IN THE EVENT OF CONFLICTING SPECIFICATIONS WITH REGARD TO SITE WORK ISSUES DESIGNED BY THE ENGINEER, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

- THE CONTRACTOR SHALL NOTIFY THE AUTHORITY HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO COMMENCING ANY WORK AND FOR ANY NEW CONSTRUCTION REQUIRING INSPECTION.
- 10. ALL TREES TO BE SAVED SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION AND SHALL BE PROTECTED PER IDOT STANDARDS. THE RIGHT-OF-WAY LINE AND LIMITS OF THE CONTRACTOR'S OPERATIONS SHALL BE CLEARLY DEFINED THROUGHOUT THE CONSTRUCTION PERIOD. ALL TREES IDENTIFIED TO REMAIN SHALL BE PROTECTED FROM DAMAGE INCLUDING TRUNKS, BRANCHES AND ROOTS. NO EXCAVATING, FILLING OR GRADING IS TO BE DONE INSIDE THE DRIP LINE OF TREES UNLESS OTHERWISE INDICATED.

- 11. CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT ACCUMULATION OF MUD OR SOIL ON PUBLIC THOROUGHFARES. AT THE END OF EACH DAY AND AS OFTEN AS OTHERWISE NECESSARY THE CONTRACTOR SHALL CLEAN UP ALL MUD OR SOIL WHICH HAS BEEN TRACKED ONTO PUBLIC STREETS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.
- 12. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS WHERE HIS/HER OPERATIONS ABUT PUBLIC THOROUGHFARES AND ADJACENT PROPERTY IN ACCORDANCE WITH THE CITY OF NAPERVILLE MUNICIPAL CODE AND IDOT REQUIREMENTS.
- 13. NO HOLES ARE TO BE LEFT OPEN IN THE PAVEMENT OR PARKWAY OVER A HOLIDAY, WEEKEND OR AFTER 3:00 P.M. ON THE DAY PRECEDING A HOLIDAY OR A WEEKEND.
- 14. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.
- 15. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR AS PART OF THE BASE CONTRACT.
- 16. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.
- 17. FOR REGULATED UTILITY LOCATIONS, THE CONTRACTOR SHALL CONTACT THE JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS, "J.U.L.I.E." AT 1-800-892-0123. LOCAL GOVERNMENT AGENCIES SHOULD BE CONTACTED BY THE CONTRACTOR FOR LOCATION OF ALL NONREGULATED UTILITY LOCATIONS. CALL FOR LOCATES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION.
- 18. BEFORE EXCAVATING OVER OR ADJACENT TO ANY EXISTING UTILITIES, CONTRACTOR SHALL NOTIFY THE OWNER OF SUCH UTILITIES TO ENSURE THAT PROTECTIVE WORK WILL BE COORDINATED AND PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER OF THE UTILITY INVOLVED. IF ANY EXISTING SERVICE LINES, UTILITIES AND UTILITY STRUCTURES WHICH ARE TO REMAIN IN SERVICE ARE UNCOVERED OR ENCOUNTERED DURING THIS OPERATION, THEY SHALL BE SAFEGUARDED, PROTECTED FROM DAMAGE AND SUPPORTED IF NECESSARY.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AS SHOWN ON THE EROSION CONTROL PLAN.
- 21. ALL CURB RADII REFER TO BACK OF CURB.
- 22. ANY AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN CONFORMANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND SHALL BE INCIDENTAL TO THE CONTRACT.
- 23. STREET PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE AND IF DAMAGED, SHALL BE REPLACED PROMPTLY IN CONFORMANCE WITH THE CITY OF NAPERVILLE OR IDOT STANDARD SPECIFICATIONS IN MATERIALS AND WORKMANSHIP.
- 24. PROPOSED ELEVATIONS INDICATE FINISHED CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THICKNESS OF PROPOSED PAVING (ROADS, WALKS, DRIVES, ETC.) OR TOPSOIL AS INDICATED ON DRAWINGS.
- 25. CAD FILES ARE AVAILABLE FOR CONSTRUCTION LAYOUT UPON REQUEST.
- 26. BACKFILL SHALL BE PLACED NEXT TO THE CURB AS SOON AS PERMISSIBLE AFTER CONSTRUCTION TO PREVENT SCOURING AND UNDERCUTTING BY STORM WATER RUNOFF.
- 27. BUTT JOINTS SHALL BE PROVIDED WHEREVER NEW PAVEMENT ABUTS EXISTING PAVEMENT. ALL BUTT JOINTS SHALL BE CONSTRUCTED BY MILLING AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE BITUMINOUS SURFACE COURSE.
- 28. WHEN AN EXISTING DRAINAGE ROUTE, EITHER A STORM SEWER OR WATERWAY, IS INTERRUPTED DUE TO CONSTRUCTION, THE DRAINAGE ROUTE SHALL BE REESTABLISHED TO ORIGINAL CONDITIONS BY THE END OF THE SAME WORK DAY. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- 29. PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.
- 30. FINAL ADJUSTMENT OF FIRE HYDRANTS, VALVE VAULTS AND MANHOLES TO FINISHED GRADE ARE INCIDENTAL TO THEIR COST.
- 31. ANY EXISTING UTILITY STRUCTURES REQUIRING ADJUSTMENT ARE TO BE ADJUSTED OR RECONSTRUCTED BY THE CONTRACTOR TO THE UTILITY OWNER'S SATISFACTION. ADJUSTMENTS OR RECONSTRUCTIONS NOT CALLED FOR ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 32. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND TO THE SATISFACTION OF THE UTILITY OWNER.
- 33. PROVIDE TRENCH BACKFILL IN ACCORDANCE WITH THE

- DETAILS OF THE PLANS FOR ALL UTILITY LINES (OR AS OTHERWISE NOTED ON PLANS). BACKFILL SHALL BE PLACED AND COMPACTED PER THE CITY OF NAPERVILLE AND IDOT SPECIFICATIONS. COST OF BACKFILL IS TO BE CONSIDERED INCIDENTAL TO THE UTILITY WORK.
- 34. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 35. PRIOR TO DEMOBILIZATION, ALL WORK SHALL BE CLEANED AND INSPECTED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 36. THE GENERAL CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS AND IRRIGATION SERVICES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 37. BAND-SEAL CONNECTORS OR EQUIVALENT SHALL BE USED TO JOIN PIPES OF DISSIMILAR MATERIAL.
- 38. CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL CONSTRUCTION IN CONFORMANCE WITH ALL MUNICIPAL AND CLIENT REQUIREMENTS FOR USE IN PREPARING RECORD DRAWINGS.
- 39. THE SUBCONTRACTOR SHALL INSTALL A 2"x4"x6' POST ADJACENT TO THE TERMINUS OF UTILITY MAINS AND SERVICE LINES. POSTS SHALL BE MARKED IN ACCORDANCE WITH THE VILLAGE STANDARDS.
- 40. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ANY EXCAVATION. ANY DEWATERING REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT.
- 41. COPIES OF SOILS INVESTIGATION REPORTS MAY BE OBTAINED FROM THE OWNER. ANY BRACING, SHEETING OR SPECIAL CONSTRUCTION METHODS REQUIRED IN ORDER TO INSTALL THE PROPOSED IMPROVEMENTS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. ANY ADDITIONAL SOILS DATA NEEDED TO CONFIRM THE CONTRACTOR'S OPINIONS OF THE SUBSOIL CONDITIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL OBTAIN THE OWNER'S WRITTEN AUTHORIZATION TO ACCESS THE SITE TO CONDUCT A SUPPLEMENTAL SOILS INVESTIGATION.
- 42. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY AS DETERMINED BY THE ENGINEER. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATIONAL CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ON-SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE SUBCONTRACTOR AND SUBMITTED TO THE ENGINEER UPON COMPLETION OF THE PROJECT. ALL FIELD TILE REPAIRS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
- 43. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

LEGE	ND		ABBI	REVIATIONS			
EXISTING	PROPOSED	DESCRIPTION	Α	ARC LENGTH			
EXISTING	FROFOSED		B-B	BACK TO BACK OF CURB			
		RIGHT-OF-WAY LINE	B/C	BACK OF CURB			
		PROPERTY LINE (EXTERIOR)	BLDG BM	BUILDING BENCHMARK		<u> </u>	
		LOT LINE (INTERIOR)	B/P	BOTTOM OF PIPE		PTI(
		EASEMENT LINE	BV/VV	BUTTERFLY VALVE IN VALVE VAULT		DESCRIPTION	
	xx	FENCE LINE	C & G CB	CURB AND GUTTER CATCH BASIN		DES	
•		CENTERLINE PROPERTY CORNER	Q	CENTERLINE			
		CONTOUR	CL CO	CLOSED LID CLEAN OUT			
	710 —	CURB & GUTTER	DIP	DUCTILE IRON PIPE			
		DEPRESSED CURB & GUTTER	DIA	DIAMETER			
		REVERSE PITCHED CURB	DIWM DWG	DUCTILE IRON WATER MAIN DRAWING		7E	
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		UTILITY STUB	E/P	EDGE OF PAVEMENT	SIA		
—)———)—	—)———)—	SANITARY SEWER	EX. F & CL	EXISTING FRAME & CLOSED LID	REV		
	_ >>	SANITARY FORCE MAIN	F & G	FRAME & GRATE	"		
->	->>-	STORM SEWER	F & OL	FRAME & OPEN LID			
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G	——— G———	GAS MAIN	FF	FINISHED FLOOR		JTION MENTS	UBN
—— т/е ——	——— T/E ———	UNDERGROUND TELEPHONE	F/G FH	FINISHED GRADE FIRE HYDRANT	_ω	SCRIP	
·	г	& ELECTRIC DUCT BANK BURIED CABLE-ELECTRIC	FH F/L	FLOW LINE	22/2033	DES(<u> </u>
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12"		TREE	ME	MATCH EXISTING	OJEC	OJEC	SIGNED
		TREE LINE	MH MW	MANHOLE MONITORING WELL	PR	PR	B DE
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)	<u></u>	SUBMERGED HEADWALL	NIC NWL	NOT IN CONTRACT / NOT INCLUDED NORMAL WATER LEVEL			
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4	₫ ⊥	FLOOD LIGHT	PC PCC	POINT OF CURVATURE PORTLAND CEMENT CONCRETE		,	MOB
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	∅ □•□ •□	LIGHT STANDARD	PGL Pl	PROFILE GRADE LINE POINT OF INTERSECTION		S.	
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		FEATURE TO BE REMOVED	S SAN	SLOPE OR SOUTH SANITARY	14	₹ <	· <u> </u>
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	0	BOLLARD	STMH	STORM MANHOLE	`		
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		WATER MAIN PROTECTION	T/P	TOP OF CURB		je 7	ine ine
	<u>C01</u>	UTILITY CROSSING LABEL	T/W	TOP OF WALL		Avenue 6051	bhone om
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		RAILROAD TRACKS	UP	UTILITY POLE		5 Jar	630.724.9 www.v3c
		RETAINING WALL	VC VERT	VERTICAL CURVE VERTICAL		732	630 WW
		REVISION DELINEATION	VCP	VITRIFIED CLAY PIPE			
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		TREE PROTECTION FENCE	WM	WATER MAIN			
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SPECIFICATIONS

EARTHWORK

- 1. THE GRADING OPERATIONS ARE TO BE INSPECTED BY A THIRD PARTY SOILS ENGINEER. THE CONTRACTOR'S REPRESENTATIVE MUST BE NOTIFIED PRIOR TO ANY UNSUITABLE SOIL REMOVAL AND MUST APPROVE, IN WRITING, ANY REMEDIATION. BOTH THE CONTRACTOR AND SOILS ENGINEER MUST BE PRESENT DURING REMEDIATION.
- THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISH GRADE. A MINIMUM OF 6 INCHES OF TOPSOIL IS TO BE PLACED BEFORE FINISH GRADE ELEVATIONS ARE ACHIEVED, UNLESS OTHERWISE NOTED. AREAS IN DETENTION FACILITIES NOTED TO BE ESTABLISHED WITH NATIVE VEGETATION SHALL REQUIRE A MINIMUM OF 12 INCHES OF TOPSOIL. REFER TO PLANTING PLANS TO VERIFY TOPSOIL THICKNESS REQUIREMENTS.
- THE SURFACE VEGETATION, TOPSOIL, TRANSITIONAL MATERIAL, AND ANY OBVIOUSLY SOFT UNDERLYING SOIL SHALL BE STRIPPED FROM ALL AREAS TO RECEIVE STRUCTURAL FILL. IF THE UNDERLYING SUBGRADE IS FOUND TO BE UNSUITABLE FOR PROPER COMPACTION, CONTRACTOR TO CONSULT WITH SOILS ENGINEER PRIOR TO REMEDIATION.
- EMBANKMENT MATERIAL WITHIN ROADWAY, DRIVEWAY, BUILDING AND OTHER STRUCTURAL CLAY FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D1557 (MODIFIED PROCTOR METHOD), OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOILS ENGINEER, THE AUTHORITY HAVING JURISDICTION, AND THE CONTRACTOR.
- ALL PAVEMENT SUBGRADE SHALL MEET THE REQUIREMENTS DETERMINED BY THE SOILS ENGINEER AND DOCUMENTED IN THE GEOTECHNICAL REPORT. IF AREAS OF PAVEMENT SUBGRADE ARE ENCOUNTERED WHICH DO NOT MEET THESE REQUIREMENTS. SUBGRADE REPLACEMENT OR PAVEMENT DESIGN REVISIONS SHALL BE PROVIDED WHICH ARE ADEQUATE TO OBTAIN EQUIVALENT PAVEMENT STRENGTH AS DETERMINED BY THE ENGINEER, SOILS ENGINEER, AND THE AUTHORITY HAVING JURISDICTION.
- COMPLETED GRADING (FINISHED FINE GRADE) FOR PROPOSED PAVEMENT SUBGRADE AREAS, BUILDING PADS, AND OPEN SPACE AREAS SHALL BE WITHIN A 0.1' TOLERANCE OF DESIGN SUBGRADE.
- THE SUBGRADE FOR PROPOSED STREET AND PAVEMENT AREAS SHALL BE PROOF-ROLLED BY THE SUBCONTRACTOR IN THE PRESENCE OF THE JURISDICTIONAL INSPECTOR, CONTRACTOR, AND SOILS ENGINEER.
- BORROW PIT LOCATION(S) SHALL BE APPROVED BY THE OWNER, ENGINEER, AND GEOTECHNICAL ENGINEER.

STORM SEWER

- STORM SEWERS SHALL BE CONSTRUCTED OF THE FOLLOWING MATERIALS AS SPECIFIED ON THE PLANS:
 - A. REINFORCED CONCRETE PIPE (RCP) IN CONFORMANCE WITH IDOT STANDARD SPECIFICATIONS DETERMINATION FOR PIPE CLASS, AND CONFORMING TO ASTM C76. ALL STORM SEWER SHALL HAVE GASKETED JOINTS CONFORMING TO ASTM C-361, UNLESS OTHERWISE NOTED.
 - B. POLYVINYL CHLORIDE PLASTIC SEWER PIPE (PVC) CONFORMING TO ASTM D3034 WITH ELASTOMERIC GASKETED JOINTS CONFORMING TO ASTM D3212.
 - C. HIGH DENSITY POLYETHYLENE PIPE, HDPE, CONFORMING TO ASTM D3350 WITH ELASTOMERIC JOINTS CONFORMING TO ASTM D3212.
 - D. DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI A21.51 (AWWA C151) WITH JOINTS CONFORMING TO ANSI 21-11 (AWWA C-111).
- STORM SEWER STRUCTURES SHALL BE PRECAST OF THE TYPE AND DIAMETER AS SPECIFIED IN THE PLANS WITH APPROPRIATE FRAME AND LIDS (SEE CONSTRUCTION DETAIL). LIDS SHALL BE IMPRINTED "STORM".

IEPA CROSSING REQUIREMENTS

SIDE OF THE SEWER.

BEFORE BACKFILLING.

- **HORIZONTAL SEPARATION:**
 - A. WATER MAINS SHALL BE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN. STORM SEWER, SANITARY SEWER OR SEWER SERVICE CONNECTION.
 - B. WATER MAINS MAY BE LAID CLOSER THAN TEN FEET TO A
 - SEWER LINE WHEN: I. LOCAL CONDITIONS PREVENT A LATERAL
 - SEPARATION OF TEN FEET; II. THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE
 - CROWN OF THE SEWER; AND
 - III. THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE
 - I. BOTH THE WATER MAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING THE REQUIREMENTS OF SECTION 653.111 WHEN IT IS IMPOSSIBLE TO MEET (A) OR (B) ABOVE. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD

2. VERTICAL SEPARATION:

- A. A WATER MAIN SHALL BE LAID SO THAT ITS INVERT IS 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN FEET HORIZONTALLY OR ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN.
- B. BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING REQUIREMENTS OF SECTION 653.111 WHEN:
- I. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN 9A) ABOVE;
- II. THE WATER MAIN PASSES UNDER A SEWER
- C. A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATER MAIN.
- D. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN FEET.

PAVING

- 1. BASE COURSE SHALL BE AGGREGATE BASE COURSE. CONFORMING TO IDOT STANDARD SPECIFICATIONS (SEE PLANS FOR THICKNESS).
- 2. SURFACE COURSE AND BINDER COURSE SHALL BE HOT-MIX ASPHALT (HMA) CONFORMING TO IDOT STANDARD SPECIFICATIONS (SEE PLANS FOR THICKNESS).
- 3. CURB & GUTTER AND SIDEWALK SHALL BE CLASS SI PORTLAND CEMENT CONCRETE CONFORMING TO IDOT STANDARD SPECIFICATIONS.
- 4. SUBGRADE SHALL BE FINISHED TO BE WITHIN 0.1 FEET OF DESIGN SUBGRADE ELEVATIONS BY THE EARTHWORK CONTRACTOR. FINE GRADING FOR PAVEMENTS AND SIDEWALKS SHALL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR.
- 5. AGGREGATE BASE COURSES SHALL BE PRIMED AT THE RATE OF 0.25 TO 0.50 GALLONS PER SQUARE YARD AND BRICK, CONCRETE, OR HMA BASES SHALL BE PRIMED AT THE RATE OF 0.05 TO 0.10 GALLONS PER SQUARE YARD WITH LIQUID ASPHALT CONFORMING TO THE IDOT STANDARD SPECIFICATIONS AND APPROPRIATE FOR PREVAILING WEATHER AND SITE CONDITIONS. PRIME COAT AND CLEANING THE EXISTING SURFACE SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
- PAVEMENT SHALL BE CONSTRUCTED ON A THOROUGHLY COMPACTED SUBGRADE MEETING THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND RECOMMENDATIONS OF THE GEOTECHNICAL CONSULTANT. PRIOR TO PLACEMENT OF THE NEW PAVEMENT, THE SUBGRADE SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK (MINIMUM 20 TONS). PROOF ROLLING SHALL BE WITNESSED BY THE GEOTECHNICAL CONSULTANT.
- SIDEWALKS SHALL BE OF THE THICKNESS AND DIMENSIONS AS SHOWN IN THE CONSTRUCTION PLANS. CONTRACTION JOINTS SHALL BE SET AT 5' CENTERS AND ½ INCH PREMOLDED FIBER EXPANSION JOINTS SHALL BE SET AT 50' CENTERS AND WHERE THE SIDEWALK MEETS THE CURB, A BUILDING, OR AT THE END OF EACH POUR. ALL SIDEWALKS CONSIDERED TO BE ACCESSIBLE ROUTES AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT (ADA) SHALL BE SUBJECT TO ILLINOIS ACCESSIBILITY CODE (IAC) REQUIREMENTS, UNLESS OTHERWISE NOTED.
- TESTING OF THE SUBBASE, BASE COURSE, BINDER COURSE, SURFACE COURSE, AND CONCRETE WORK SHALL BE REQUIRED IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. A QUALIFIED TESTING FIRM SHALL BE EMPLOYED TO PERFORM THE REQUIRED TESTS.
- 9. ASPHALT JOINTS FOR BINDER AND SURFACE COURSES ARE TO BE STAGGERED.

Transportation, Engineering and Development Business Group Standard Construction Plan Notes for Development Projects **AUGUST 2023**

General Notes

The General Notes in this section should be included in all final engineering plans regardless of the type of project.

1	THE OWNER OR THEIR REPRESENTATIVE IS RESPONSIBLE TO OBTAIN ANY AND ALL PERMITS REQUIRED APPLICABLE GOVERNMENTAL AGENCIES.
2	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NAPERVILLE DESIGN MANUAL AI STANDARD SPECIFICATIONS (CURRENT EDITION) AND WITH THE ILLINOIS DEPARTMENT TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (CURRE EDITION).
3	ALL CONTRACTORS DOING WORK IN THE PUBLIC RIGHT-OF-WAY MUST BE LICENSED (WHEN APPLICABLE TO MAKE PUBLIC IMPROVEMENTS WITHIN THE NAPERVILLE CORPORATE LIMITS.
4	THE CONTRACTOR/DEVELOPER ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR ANY ACTION RESULTING FROM THEIR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
5	THE CONTRACTOR/DEVELOPER SHALL INDEMNIFY AND HOLD HARMLESS THE CITY OF NAPERVILLE.
6	PRIOR TO COMMENCEMENT OF ANY OFF-SITE CONSTRUCTION, THE CONTRACTOR SHALL SECURE WRITT AUTHORIZATION THAT ALL OFF-SITE EASEMENTS HAVE BEEN SECURED AND THAT PERMISSION HAS BE GRANTED TO ENTER ONTO PRIVATE PROPERTY.
7	THE CONTRACTOR AND THEIR ON-SITE REPRESENTATIVES WILL BE REQUIRED TO ATTEND A PROPERTY OF MEETING WITH THE CITY OF NAPERVILLE PRIOR TO ANY WORK BEING STARTED. A PROPERTY OF NAPERVILLE DEVELOPMENT REVIEW TEAM AND THE REQUIRED SURETY HAS BEEN POSTED.
8	A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN TO THE CITY OF NAPERVILLE TED BUSINESS GRO (630-420-6100 OPTION 1) PRIOR TO STARTING WORK OR RESTARTING WORK AFTER SOME ABSENCE WORK FOR ANY REASON.
9	IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADEQUATELY IDENTIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL CONTA JULIE FOR THE LOCATION OF ANY AND ALL UTILITIES. THE TOLL-FREE NUMBER IS 800-892-0123. IT IS TRESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY PRIVATE FACILITIES OR NON-JULIE MEMB FACILITIES.
10	THE CONTRACTOR CAN SCHEDULE ALL NECESSARY SITE INSPECTIONS WITH THE CITY OF NAPERVILLE CALLING (630) 420-6100 OPTION 1 BETWEEN THE HOURS OF 8:00AM AND 4:00PM (CLOSED 1:00PM 2:00PM DAILY) ON WEEKDAYS WHEN THE CITY IS OPEN FOR BUSINESS. THE CONTRACTOR WILL REQUIRED TO PROVIDE THE SITE PERMIT NUMBER FOR THE PROJECT IN ORDER TO SCHEDULE T INSPECTION(S).
11	RECORD DRAWINGS ARE REQUIRED TO BE SUBMITTED AND APPROVED BY THE CITY OF NAPERVILLE PRICED TO FINAL OCCUPANCY BEING GRANTED.
12	FINAL ACCEPTANCE OF PUBLIC IMPROVEMENTS SHALL BE GRANTED ONLY AFTER A FINAL INSPECTION H BEEN COMPLETED AND HAS REVEALED THAT ALL IMPROVEMENTS HAVE BEEN SATISFACTORI COMPLETED IN ACCORDANCE WITH THE NAPERVILLE STANDARD SPECIFICATIONS. UTILITIES ARE NO CONSIDERED ACCEPTED UNTIL THEY ARE FORMALLY ACCEPTED BY THE CITY COUNCIL AS REQUIRED ACCORDANCE WITH THE NAPERVILLE MUNICIPAL CODE.

General Notes (Project Specific)

The Consultant should review the following General Notes to determine if they are applicable to the work to be completed with the project. Those Notes that are applicable should be included in the engineering plans.

1	TRAFFIC SIGNALS AND THEIR ASSOCIATED EQUIPMENT UNDER THE JURISDICTION OF DUPAGE COUNTY ARE NOT INCLUDED IN THE JULIE SYSTEM. THE CONTRACTOR SHALL CONTACT DUPAGE COUNTY DOT AND IDOT DIRECTLY REGARDING THE LOCATION OF TRAFFIC SIGNALS (CABLING AND ASSOCIATED SYSTEMS) UNDER DUPAGE COUNTY OR IDOT JURISDICTION.
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Storm Sewer Notes (General)

The Storm Sewer Notes in this section should be included in all final engineering plans regardless of the type of work in the project.

1	NO CONNECTION TO AN EXISTING PUBLIC STORM SEWER MAY BE MADE WITHOUT PERMISSION OF THE CITY ENGINEER.
2	THE CONTRACTOR SHALL REPAIR ANY EXISTING FIELD DRAINAGE TILE DAMAGED DURING CONSTRUCTION AND PROPERLY REPOUTE AND/OR CONNECT SAID TILE TO THE NEAREST STORM SEWER OUTLET. ALL
-	LOCATIONS OF ENCOUNTERED FIELD DRAINAGE TILE SHALL BE PROPERLY INDICATED ON THE CONTRACTOR'S RECORD DRAWINGS.

The first note provided below includes information regarding all the allowable storm sewer pipe materials. Only those materials that are identified on the plans are required to be included. However, if the contractor requests a change to the pipe material and the associated pipe material information is not included in the engineering plans, the applicable Storm Sewer Note will need to be added to final engineering plans the as part of the Field Change request.

THE FOLLOWING MATERIALS ARE PERMITTED FOR STORM SEWER AND PIPE CULVERTS. WHERE A PARTICULAR MATERIAL IS SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS, NO OTHER KIND OF MATERIAL WILL BE PERMITTED:

1a	REINFORCED CONCRETE PIPE (RCP) - REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM DESIGNATION C 76, CLASSES I, II, III, IV OR V. BITUMINOUS JOINTS SHALL CONFORM TO ASTM DESIGNATIONS C 14 OR C 76 AS MAY BE APPLICABLE. BITUMINOUS MATERIAL SHALL CONSIST OF A HOMOGENEOUS BLEND OF BITUMEN, INERT FILLER, AND SUITABLE SOLVENT APPROVED BY THE CITY ENGINEER. RUBBER GASKET JOINTS SHALL CONFORM TO ASTM C 433. REINFORCED CONCRETE PIPE SHALL ALSO BE PERMITTED AS ROUND, ELLIPTICAL, OR BOX SHAPED OR AS REINFORCED CONCRETE ARCH CULVERT.
1b	NON-REINFORCED CONCRETE PIPE - NON-REINFORCED CONCRETE PIPE SHALL BE ALLOWED FOR PIPES WITH A 10 INCH OR SMALLER DIAMETER. NON-REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM DESIGNATION C 14, CLASS 3. BITUMINOUS JOINTS SHALL CONFORM TO ASTM DESIGNATIONS C 14 OR C 76 AS MAY BE APPLICABLE. BITUMINOUS MATERIAL SHALL CONSIST OF A HOMOGENEOUS BLEND OF BITUMEN, INERT FILLER, AND SUITABLE SOLVENT APPROVED BY THE CITY ENGINEER. RUBBER GASKET JOINTS SHALL CONFORM TO ASTM C 433.
1c	DUCTILE IRON PIPE (DIP) - DUCTILE IRON PIPE SHALL CONFORM TO ANSI A 21.51 (AWWA C-151), CLASS THICKNESS DESIGNED PER ANSI A 21.50 (AWWA C-150), TAR (SEAL) COATED AND CEMENT LINED PER ANSI A 21.4 (AWWA C-104), WITH MECHANICAL OR RUBBER RING (SLIP SEAL OR PUSH ON) JOINTS. ALL DUCTILE IRON PIPE SHALL BE WRAPPED WITH POLYETHYLENE.
1d	POLYVINYL CHLORIDE PIPE (PVC) - POLYVINYL CHLORIDE (PVC) PIPE SHALL CONFORM TO ASTM D 3034, TYPE PSM. THE MINIMUM STANDARD DIMENSION RATIO (SDR) SHALL BE 26. THE PIPE SHALL BE MADE OF PVC PLASTIC HAVING A MINIMUM CELL CLASSIFICATION OF 12454-C AND SHALL HAVE A MINIMUM PIPE STIFFNESS OF FORTY-SIX (46) LBS. PER INCH (317 KPA). JOINTS FOR PVC PIPE SHALL BE FLEXIBLE ELASTOMETRIC SEALS PER ASTM D 3212.
1e	HIGH DENSITY POLYETHELYNE PIPE (HDPE) - HIGH-DENSITY POLYETHYLENE (HDPE) PIPE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 252 AND M 294. PIPE AND FITTINGS SHALL BE MADE FROM VIRGIN PE COMPOUNDS WHICH CONFORM TO THE REQUIREMENTS OF CELL CLASS 324420C AS DEFINED AND DESCRIBED IN ASTM D 3350. RUBBER GASKET JOINTS SHALL BE USED.
1f	FULLY GALVANIZED CORRUGATED STEEL PIPE - FULLY GALVANIZED CORRUGATED STEEL PIPE MAY BE USED FOR RESIDENTIAL DRIVEWAY CROSSINGS ONLY WHEN A DITCH SECTION IS PRESENT. THE MINIMUM CULVERT SIZE IS 12" DIAMETER.
2	BEDDING, OTHER THAN CONCRETE EMBEDMENT, SHALL CONSIST OF GRAVEL, CRUSHED GRAVEL, OR CRUSHED STONE 1/4 INCH TO 1 INCH IN SIZE. AS A MINIMUM, THE MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS. THE GRADATION SHALL CONFORM TO GRADATION CA-7 OR CA-11 OF THE STANDARD SPECIFICATIONS.
3	BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS. THE GRADATION SHALL CONFORM TO GRADATION CA-6 OF THE STANDARD SPECIFICATIONS. BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
4	JOINTS CONNECTING DISSIMILAR PIPE MATERIALS SHALL BE MADE WITH SEWER CLAMP NON-SHEAR TYPE COUPLINGS; CASCADE CSS, ROMAC LSS, FERNCO, INC. SHEAR RING, OR APPROVED EQUAL. WHEN AVAILABLE, A STANDARD JOINT WITH A TRANSITION GASKET MAY BE USED. THE NAME OF THE MANUFACTURER, CLASS, AND DATE OF ISSUE SHALL BE CLEARLY IDENTIFIED ON ALL SECTIONS OF PIPE. THE CONTRACTOR SHALL ALSO SUBMIT BILLS OF LADING, OR OTHER QUALITY ASSURANCE DOCUMENTATION WHEN REQUESTED BY THE CITY ENGINEER. ALL NUTS AND BOLTS FOR COUPLINGS SHALL BE STAINLESS STEEL.
5	MANHOLES FOR STORM SEWERS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES AND SHALL BE CONSTRUCTED OF PRECAST CONCRETE UNITS IN ACCORDANCE WITH ASTM C478-05 (OR LATEST EDITION) AND SHALL CONFORM TO THE CITY OF NAPERVILLE STANDARD DETAIL. ALL MANHOLES SHALL BE WATER-TIGHT. ALL VISIBLE LEAKS SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE CITY ENGINEER.
6	MANHOLES SHALL BE FURNISHED WITH A SELF-SEALING FRAME AND SOLID COVER (EAST JORDAN IRON WORKS 1022 WITH TYPE A SOLID COVER, OR APPROVED EQUAL) WITH THE WORD "STORM" IMPRINTED ON THE COVER IN RAISED LETTERS. ALL FRAMES AND LIDS SHALL MEET OR EXCEED AASHTO H-20 LOADING SPECIFICATIONS. FRAMES SHALL BE SHOP PAINTED WITH ASPHALTIC BASE PAINT. BOTH THE MANHOLE FRAME AND COVER SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. INVERTED MANHOLE FRAMES ARE NOT ALLOWED. PICK HOLES SHALL NOT CREATE OPENINGS IN THE MANHOLE COVER.
10	ALL PIPE SHALL BE LAID TRUE TO LINE AND GRADE. DIRT AND OTHER FOREIGN MATERIAL SHALL BE PREVENTED FROM ENTERING THE PIPE OR PIPE JOINT DURING HANDLING OR LAYING OPERATIONS. ALL STORM SEWER PIPE TO PIPE CONNECTIONS SHALL BE SEALED WITH BUTYL MASTIC TO ENSURE WATER TIGHTNESS. LIFT HOLES TO BE SEALED USING BUTYL MASTIC AND CONCRETE PLUGS. AT NO TIME SHALL CONNECTIONS BETWEEN THE STORM SEWER AND SANITARY SEWER BE ALLOWED.
11	FOR STRUCTURES LOCATED IN PAVED AREAS, A MINIMUM OF FOUR, 2-INCH DIAMETER HOLES SHALL BE DRILLED OR PRECAST INTO THE STRUCTURE WITHIN 1 FOOT OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1-FOOT BY 1-FOOT SECTION OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE SUFFICIENTLY FIXED TO THE OUTSIDE OF
12	THE MANHOLE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING. ALL STORM SEWER STRUCTURE FRAMES WITHOUT INSIDE FLANGES SHALL BE SHAPED WITH NON-SHRINKING HYDRAULIC CEMENT TO FORM A FILLET TO THE STRUCTURE OR ADJUSTING RING. WHEN ADJUSTMENTS ARE NECESSARY, NO MORE THAN 12 INCHES OF VERTICAL ADJUSTMENT MAY BE MADE USING THE MINIMUM PRACTICAL NUMBER OF INDIVIDUAL RINGS. ALL RINGS SHALL BE HIGH DENSITY POLYETHYLENE PLASTIC (HDPE), RECYCLED RUBBER, HIGH DENSITY EXPANDING POLYSTYRENE, EXPANDED POLYPROPYLENE (EPP), OR OTHER MATERIAL AS APPROVED BY THE CITY ENGINEER. PRECAST CONCRETE RINGS, BRICKS, ROCKS, SHIMS, OR CONCRETE BLOCKS WILL NOT BE ALLOWED. TAPERED ADJUSTING RINGS SHALL BE REQUIRED WHEN THE FRAME WILL NEED TO MATCH THE SLOPE OF THE ROADWAY.
	A RESILIENT, FLEXIBLE, NON-HARDENING, PREFORMED BITUMINOUS MASTIC MATERIAL, CONSEAL 102 B OR APPROVED EQUAL, SHALL BE USED BETWEEN THE CONE OR TOP BARREL SECTION OF THE STRUCTURE AND THE ADJUSTING RINGS. A THICK BEAD OF NON-HARDENING ELASTOMERIC JOINT SEALANT CONFORMING TO ASTM C-920, TYPE S, GRADE NS, SHALL BE APPLIED BETWEEN ALL INDIVIDUAL RINGS, AND BETWEEN THE ADJUSTING RINGS AND THE FRAME. THE SEALANT OR MASTIC MATERIAL SHALL BE APPLIED IN SUCH A MANNER THAT NO SURFACE WATER OR GROUND WATER INFLOW CAN ENTER THE STRUCTURE.

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Erosion Control and Drainage Notes (General)

The Erosion Control and Drainage Notes in this section should be included in all final engineering plans regardless of the type of work in the project.

1	THE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
2	DURING EXTENDED DRY PERIODS, THE CONSTRUCTION AREA(S) MAY NEED TO BE WATERED DOWN TO PREVENT THE BLOWING OF SOIL FROM THE SITE.
3	DURING CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED TO MINIMIZE THE TRACKING OF DIRT ONTO THE PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP PUBLIC STREET PAVEMENT CLEAN OF DIRT AND DEBRIS. ANY DIRT THAT IS TRACKED ONTO THE PUBLIC STREETS SHALL BE REMOVED THE SAME DAY. IF THE AMOUNT TRACKED ON THE PUBLIC STREET IS EXCESSIVE, CLEANING MAY BE REQUIRED MORE FREQUENTLY.

Erosion Control and Drainage Notes (Project Specific)

The Erosion Control and Drainage Notes in this section are intended to be included when a project includes erosion control work as part of the project. The Consultant should review the following Notes to determine if they are applicable to the work being completed.

1	ALL EROSION CONTROL MEASURES SHALL BE PROPERLY INSTALLED, AS PERMITTED, PRIOR TO ANY LAND DISTURBANCE ACTIVITIES. ALL EROSION CONTROL SHALL BE MAINTAINED UNTIL TURF IS ESTABLISHED.
2	ACCEPTABLE PERIMETER EROSION CONTROL INCLUDES SILT FENCE, SILT WORM AND ANY OTHER APPLICATION APPROVED BY THE CITY ENGINEER.
3	ALL OPEN GRATE STRUCTURES SHALL HAVE EROSION CONTROL PROTECTION IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLANS. STRAW BALES SHALL NOT BE USED.
4	STOCKPILES NOT BEING DISTURBED FOR MORE THAN 14 DAYS SHALL BE SEEDED.
5	ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY, AFTER ANY 0.5 INCH OR GREATER RAINFALL, OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN THEIR FUNCTION.

Geometric and Paving Notes (General)

The Geometric and Paving Notes in this section should be included in all final engineering plans regardless of the type of work in the project.

THE DEVELOPER AND CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO ADEQUATELY PROTECT THE PAVEMENT AND PROPERTY, CURB AND GUTTER AND OTHER RIGHT-OF-WAY IMPROVEMENTS, WHETHER NEWLY CONSTRUCTED OR EXISTING, FROM ANY AND ALL DAMAGE. SUFFICIENT MEANS SHALL BE EMPLOYED BY THE CONTRACTOR TO PROTECT AGAINST SUCH DAMAGE TO THE SATISFACTION OF THE CITY ENGINEER.
ANY NEW OR EXISTING IMPROVEMENTS THAT ARE DAMAGED SHALL BE REPAIRED OR REPLACED IN A MANNER THAT IS SATISFACTORY TO THE CITY ENGINEER.
THE CONTRACTOR AND/OR DEVELOPER SHALL SECURE ALL NECESSARY RIGHTS AND PERMISSIONS TO PERFORM ANY WORK ON PRIVATE PROPERTY NOT WITHIN THE OWNERSHIP RIGHTS OF THE DEVELOPER THE DEVELOPER SHALL BEAR THE SOLE RESPONSIBILITY FOR DAMAGES THAT MAY OCCUR AS A RESULT OF WORK PERFORMED UNDER CONTRACTS THEY INITIATE.
THE CONTRACTOR/DEVELOPER WILL BE RESPONSIBLE FOR BRINGING PAVEMENTS (STREET, CURB AND GUTTER, SIDEWALK, DRIVEWAY) ON THE PROPERTY UP TO CITY STANDARDS INCLUDING ANY REPAIRS TO SUBSTANDARD PAVEMENTS THAT EXISTED PRIOR TO OR OCCURRED DURING CONSTRUCTION.
WHEREVER NEW WORK WILL MEET EXISTING CONDITIONS OTHER THAN LAWN AREAS, REGARDLESS OF WHETHER THE NEW OR EXISTING WORK IS ASPHALT OR CONCRETE, THE EXISTING ADJACENT SIDEWALK DRIVEWAYS, PAVEMENT OR CURB SHALL BE NEATLY SAW CUT. THE SAW CUT SHALL BE IN A NEAT STRAIGHT LINE SUFFICIENTLY DEEP SO THAT IT RENDERS A SMOOTH VERTICAL FACE TO MATCH TO. IF THE CONTRACTOR IS NOT CAREFUL OR DOES NOT SAW DEEP ENOUGH AND THE CUT LINE BREAKS OUT OR CHIPS TO AN IMPERFECT EDGE, THEN THE EXISTING SIDE MUST BE RE-CUT SQUARE AND DONE OVER UNTIL IT IS CORRECT
ALL PAVEMENT PATCHES WITHIN THE PUBLIC RIGHT-OF-WAY MUST CONFORM TO CITY STANDARDS REFERENCE NAPERVILLE STANDARD DETAILS 590.12 AND 590.13.

Traffic Control and Protection Notes (General)

The Traffic Control and Protection Notes in this section should be included in all final engineering plans regardless of the type of work in the project.

ALL DEVELOPERS AND CONTRACTORS SHALL PROVIDE SUITABLE TRAFFIC CONTROL FOR THEIR
CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH PART 6 OF THE MANUAL ON UNIFORM TRAFFIC
CONTROL DEVICES (MUTCD), LATEST EDITION. TRAFFIC CONTROL MUST BE PROVIDED FOR ANY ACTIVITY
THAT IMPACTS TRAFFIC FLOW. THIS INCLUDES, BUT IS NOT LIMITED TO, ROAD CLOSURES REQUIRING
DETOURS, DAILY LANE CLOSURES, LONG TERM LANE CLOSURES, NARROW LANES, AND CONSTRUCTION
VEHICLES ENTERING AND EXITING THE PUBLIC ROADWAY. ALL TRAFFIC CONTROL SET-UPS MAY BE
INSPECTED BY THE CITY OF NAPERVILLE TO ENSURE THAT THEY ARE PROVIDING POSITIVE GUIDANCE TO
MOTORISTS AND ARE NOT IN THEMSELVES PRESENTING A HAZARDOUS SITUATION. A REPRESENTATIVE
OF THE DEVELOPER OR CONTRACTOR MUST PROVIDE PHONE NUMBERS AT WHICH THEY CAN BE
REACHED 24 HOURS A DAY AND ON WEEKENDS SO THAT THEY CAN MAINTAIN TRAFFIC CONTROL
DEVICES.

2	PEDESTRIANS MUST BE PROVIDED WITH A SAFE ALTERNATE ROUTE IF PEDESTRIAN FACILITIES ARE TO BE CLOSED AS A RESULT OF CONSTRUCTION ACTIVITIES. GUIDANCE MUST BE PROVIDED TO PEDESTRIANS SO THAT THEY MAY AVOID THE WORK ZONE. SAID PEDESTRIAN DETOUR PLAN (WITH SIGNAGE) IS TO BE REVIEWED AND ACCEPTED BY THE CITY IN WRITING, PRIOR TO THE COMMENCEMENT OF THE WORK.
3	THE CONTRACTOR SHALL EMPLOY THE APPROPRIATE METHODS OF TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SUCH THAT THE SAFETY OF VEHICLES, AND PEDESTRIANS IS PRESERVED AT ALL TIMES. THE ERECTION AND MAINTENANCE OF THE TRAFFIC CONTROL DEVICES SHALL BE TO THE SATISFACTION OF THE AGENCY OF JURISDICTION AND THE CITY ENGINEER.
4	ANY TEMPORARY OPEN HOLES SHOULD BE BARRICADED AND PROTECTED IN ACCORDANCE WITH APPLICABLE STANDARDS.

