Roads & Bridges Committee
NOTICE OF MEETING

Thursday, October 19, 2017 ~ 4:00 pm
112 Algonquin Road

AGENDA

1. Call to Order & Roll Call
2. Public Comments
3. [Vote] Minutes September 21, 2017
4. Discussion Items
   - 4.1 2017 Road Program Update
   - 4.2 Round Barn Road – Drainage Design Update
   - 4.3 2018 Roads & Bridges Fund Budget
   - 4.4 Longmeadow Parkway – Section D Schedule
   - 4.5 IL 62 Phase I Study
5. Adjournment

Chairman: Brian Cecola

NOTICE AS POSTED

ROADS & BRIDGES COMMITTEE
Meeting Minutes

112 Algonquin Road, Barrington Hills

Thursday, September 21, 2017 | 4:00 pm

Committee Members Present:	Trustee Brian Cecola, Chair Trustee Michelle Nagy Maison, Co-Chair Robert Kosin, Village Administrator Dan Strahan, Village Engineer
Others Present:	Linda Cools, Resident

1. ORGANIZATIONAL: The meeting of the Village of Barrington Hills Roads & Bridges Committee was called to order by Chairman Cecola at 4:04 PM.

2. PUBLIC COMMENTS:
Linda Cools addressed the committee with several questions and comments pertaining to the Longmeadow Parkway project. She noted that the Village as well as residents should be aware and involved in the project planning process. She expressed concerns including included how involved the Village will be in IDOT's Algonquin road phase study, how the project would impact overpass signalization, how the project would increase the burden on the Village's police force, and potential utility relocation costs. She indicated that the project would impact the Roads and Bridges committee and residents financially. She requested that the Committee keep all residents informed and educated throughout this process.

3. APPROVAL OF MINUTES AUGUST 24, 2017: The Roads & Bridges Committee approved the minutes from August 24, 2017 Roads & Bridges Committee Meeting.

4.1 2017 ROAD PROGRAM UPDATE
Mr. Strahan noted that Lorig had completed final landscaping as of September 20th ahead of September 22nd completion date. Anticipated final construction cost pending finalized quantities is estimated at $910,000 which is under the approved $945,000. Approximately 3.96 miles were resurfaced including an equivalent mileage for the village hall parking lot. As pertaining to the drainage issue on Round Barn Lane, Mr. Strahan noted that the "excavated" area had been filled in and stabilized. There is design in progress for more substantive improvements. Discussion has been had with IDOT regarding a proposed driveway apron at the village owned parcel on IL-25. IDOT has agreed in concept to permit the driveway apron, pending a full engineering submittal. An initial time and material quote was provided by Lorig at around $10,000 - $15,000.

4.2 PRELIMINARY BUDGET – 2018 ROAD PROGRAM
Mr. Strahan noted in anticipation of budgeting effors in October, the Committee should begin to consider the 2018 Road Program He noted that the resurfacing of Chapel Road and Church Road were deferred last year due to the potential Harps facility construction project, which has not yet begun. The committee must decide either to defer the roads again or move forward with resurfacing them. The current condition of both roads warrants resurfacing. Trustee Cecola stated that he wants to make sure the 3.9 mile resurfacing length is maintained. He also questioned if a white stop bar pavement marking should be added to a stop sign located in the Village Hall parking lot. Mr. Kosin added that since the

area is considered a "driveway" and not a street, a stop bar is not required; however, one can be added for additional protection.

4.3 PORTER BRIDGE FOLLOW UP INSPECTION

Mr. Strahan noted that after July 11 storm event, IDOT required full bridge scour inspection due to the intensity of the storm combined with the narrowness/age of the bridge as well as the lack of design plans to confirm the foundation depth of the bridge. Wiss Janney completed an initial inspection in July and saw nothing to note; however, they could not access the stream bed for full inspection due to the high water level of Flint Creek. They returned August 29th and were able to access the stream and complete full inspection. They found no signs of scour.

4.4 LONGMEADOW PARKWAY – SECTION D

Mr. Kosin stated that a parcel review was conducted regarding progress of land acquisition within Section D of the Longmeadow Parkway project. This includes all parcels in which property has been acquired either by Kane County or IDOT. Mr. Strahan clarified that the exhibit provided in the meeting packet shows all highlighted parcels in which any portion of the parcel has been acquired by means of easement, right of way., the improvements shown include both roadway improvements as well as a Bike path which many have mistaken for a frontage roadway. Mr. Strahan noted that land acquisition has commenced and IDOT is pursuing a November letting for this project.

5. [VOTE] CUBA TOWNSHIP IGA

Mr. Kosin stated that out of the bid proposals were requested from seven contractors for snow removal, but only 1 bid was received back in addition to Cuba Township. The service has equivalent rates and less benefits that Cuba Township. Mr. Kosin reviewed the history of the Village's IGA with Cuba Township and location within the Village limits. He noted the Township purchase salt in bulk before the season, avoiding price fluctuations. Cuba Township also takes damage responsibility for hitting mailboxes, gouging the road, or destroying roadside landscape. With Cuba Township, unused snow plow time can be used to purchase equivalent services such as roadside trimming, crack patching, and ditch grading which all have set rates as outlined by Cuba Township. Finally, because they are a governmental unit, a multiyear contract can be agreed upon with increased protection. It was noted that the IGA would be discussed further by the Village Board.

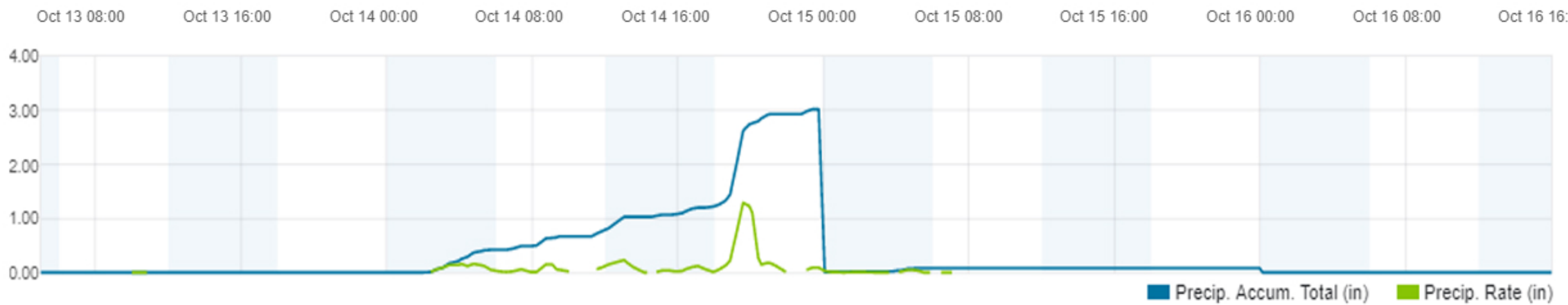
6. ENGINEERING SERVICES REVIEW

Trustee Maison informed the Committee that an index had been made of the engineering expenses for FY 2016 and from that index, it was provide to each of the three firms for comment has too the likely costs or delivery of service. The results of their review along with a over view of company characteristics was examined and considered in the recommendation process for engineering services. The companies were visited unannounced an offices were found to be reflective of their general character, with Baxtor Woodman being the largest and Trotter the smallest. It was the sense of the members that no single engineer or sole practitioner was preferred solution. Further study was intended and the comments will be presented to the Board of Trustees at their meeting in September, for which a recommendation in turn is made by the Village President.

7. ADJOURNMENT: The meeting was adjourned at 4:39 PM.

Weather History Graph
October 13, 2017 - October 16, 2017

Village of Barrington Hills, IL



Total Rainfall = 3.10 in
Peak Rainfall Rate = 1.29 in/hr at 7:35 pm 10/14

ROUND BARN ROAD DRAINAGE IMPROVEMENTS
VILLAGE OF BARRINGTON HILLS, ILLINOIS

STANDARD SYMBOLS

FEATURE | EXISTING | PROPOSED

- BUFFALO BOX
- BUSH/SHRUB
- CATCH BASIN
- CLEANOUT (CO / C.O.)
- COMBINE SEWER LINE
- CONTOUR (708 / 708)
- 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 (×850.00 / ×850.0)
- STORM SEWER LINE
- STORM SEWER MANHOLE
- TELEPHONE LINE
- TELEPHONE MANHOLE
- TELEPHONE BOX/PEDESTAL
- TREE–CONIFEROUS (SIZE/TAG#) (345 / 345)
- TREE–DECIDUOUS (SIZE/TAG#) (12" / 12")
- VALVE BOX
- VALVE VAULT
- WATER VALVE
- WATERMAIN LINE

EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

CONTRACTOR IS RESPONSIBLE FOR CONTACTING J.U.L.I.E. AT 1–800–892–0123 AND MUST ACQUIRE A DIG NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY WORK BEING DONE.

J.U.L.I.E
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION CALL 811

811 Know what's below. Call before you dig.

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

LOCATION MAP

PROJECT LOCATION
67 ROUND BARN ROAD
VILLAGE OF BARRINGTON HILLS, ILLINOIS

PLANS PREPARED FOR:

BARRINGTON HILLS

TOPOGRAPHIC SURVEY BY:
GEWALT HAMILTON ASSOCIATES, INC.
625 FOREST EDGE DRIVE
VERNON HILLS, ILLINOIS 60061
TELEPHONE: 847–478–9700

BENCHMARK:
ELEVATIONS SHOWN HEREON ARE OBTAINED VIA GPS USING TRIMBLE VRS® NOW™ (NO PUBLISHED MONUMENT VERIFIED)
DATUM: NAVD88

CONTROL POINTS:

Point #	Northing	Easting	Elevation	Description
1	1991671.35	1031042.81	856.01	CP1–MAG
2	1991565.22	1030695.98	855.14	CP2–MAG
3	1991597.72	1030621.68	855.98	CP3–MAG
4	1991518.23	1030953.47	851.68	CP4–MAG

SHEET INDEX

COORDINATING/PERMITTING AGENCIES:

COORDINATING/PERMITTING AGENCIES:	PHONE #:	PERMIT APPLICATION #/STATUS
VILLAGE OF BARRINGTON HILLS	847–551–3000	N/A

SIGNED: ____________________
NAME OF PROJECT MANAGER

DATE: ____________________

ILLINOIS LICENSE NO.: 062–059538

EXPIRATION DATE: NOVEMBER 30, 2017

CONTRACTOR SHALL:

NOTIFY THE OFFICES OF THE VILLAGE OF BARRINGTON HILLS ENGINEER THREE (3) WORKING DAYS PRIOR TO COMMENCEMENT OF WORK 847–478–9700

NOTIFY THE VILLAGE OF BARRINGTON HILLS 72 HOURS PRIOR TO THE COMMENCEMENT OF WORK 847–551–3000

NOT FOR CONSTRUCTION

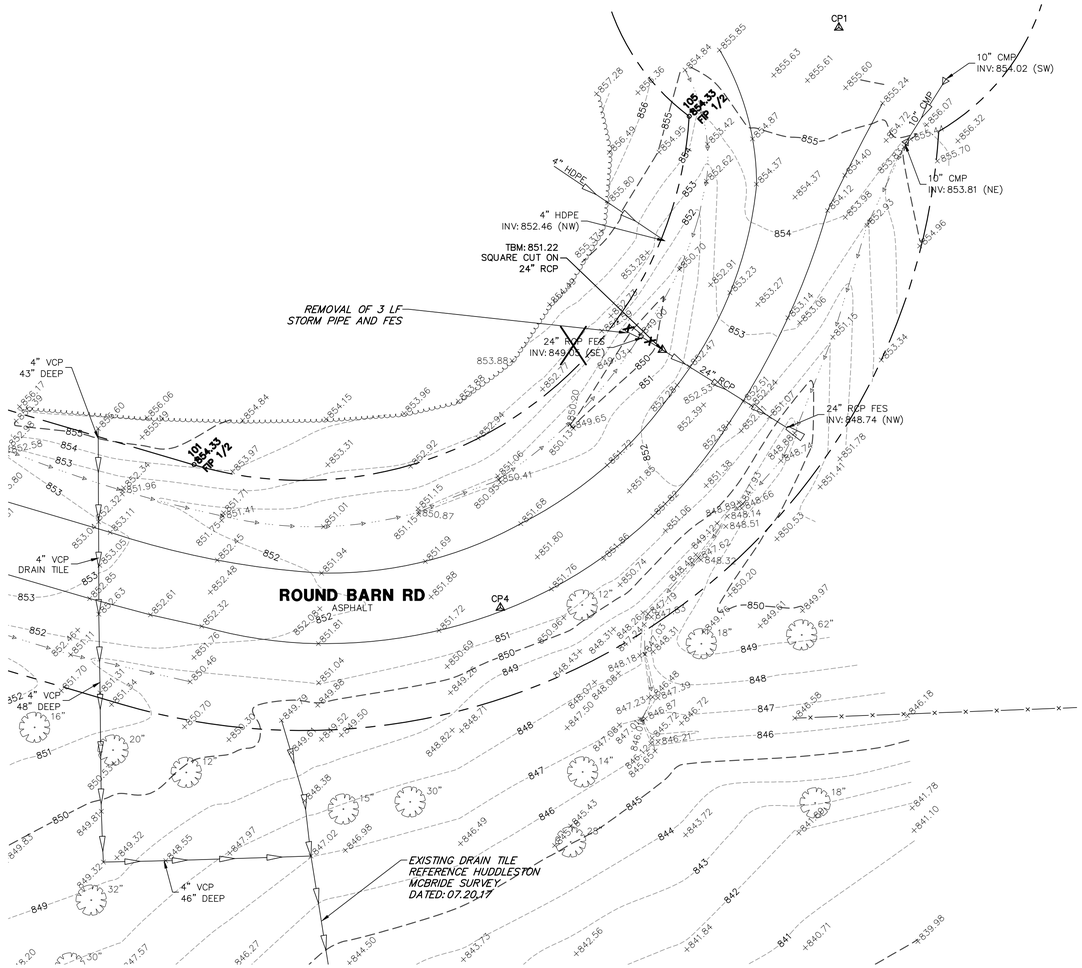
GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ■ Vernon Hills, IL. 60061
TEL 847.478.9700 ■ FAX 847.478.9701

TITLE SHEET
ROUND BARN ROAD DRAINAGE IMPROVEMENTS
VILLAGE OF BARRINGTON HILLS, ILLINOIS

NO.	BY	DATE	REVISION

NO.	BY	DATE	REVISION

FILE: 9355.153_PR1.dwg
DRAWN BY: CAS DATE: 09–11–17
GHA PROJECT # 9355.153
CHECKED BY: DJS DATE: 09–11–17
SCALE: NTS
SHEET NUMBER: 1 OF 3 SHEETS



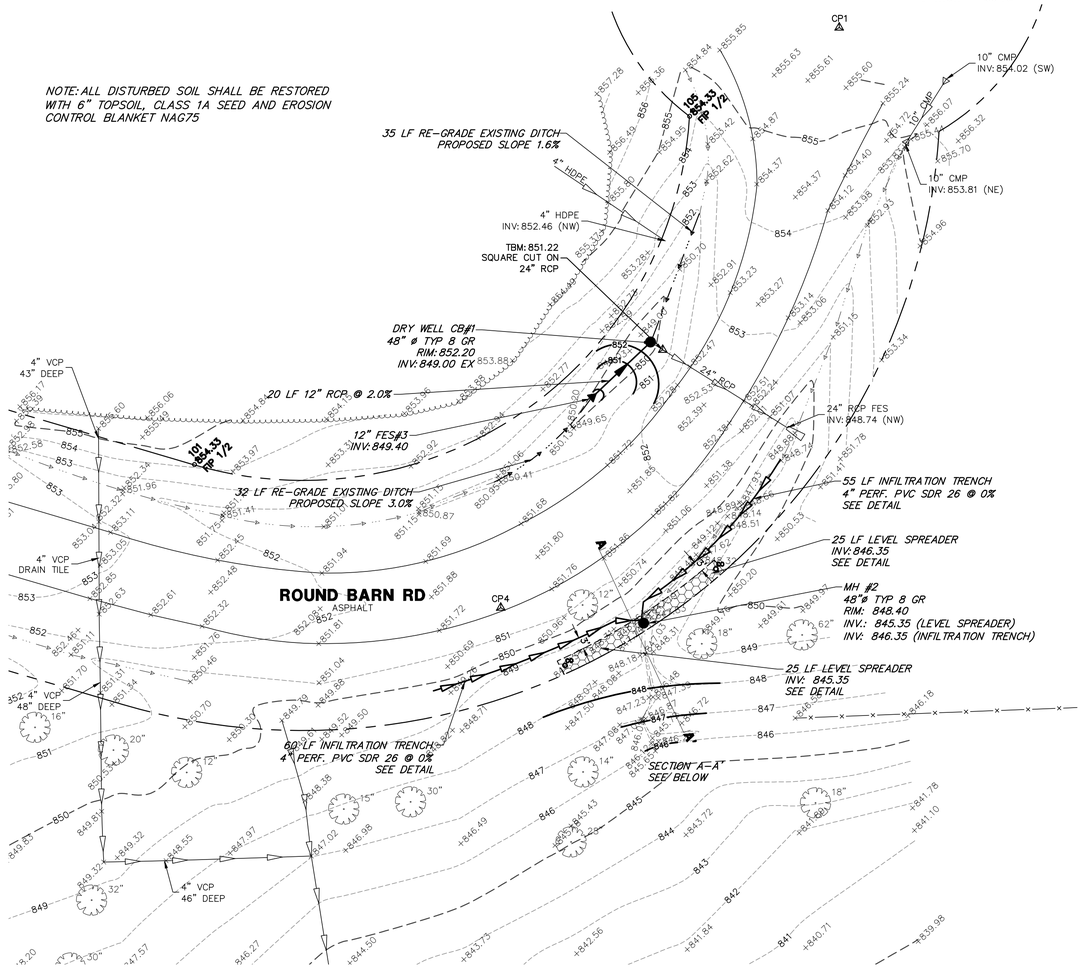
EXISTING CONDITIONS/DEMOLITION

GRAPHIC SCALE

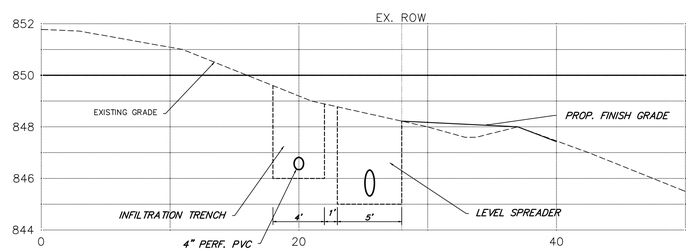
20 0 10 20

(IN FEET)
1 inch = 20 ft.

N



PROPOSED CONDITIONS



SECTION A-A'

N.T.S

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

SITE PLAN

ROUND BARN ROAD DRAINAGE IMPROVEMENTS

VILLAGE OF BARRINGTON HILLS, ILLINOIS

NO.	BY	DATE	REVISION

NO.	BY	DATE	REVISION

FILE: 9355.153_PR1.dwg
DRAWN BY: CAS
DATE: 09-11-17
GHA PROJECT # 9355.153
CHECKED BY: DJS
DATE: 09-11-17
SCALE: 1"=20'
SHEET NUMBER: 2 OF 3 SHEETS

GENERAL NOTES

1. 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 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.

2. 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.

3. 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.

4. 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..

5. ALL PAVEMENT DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

6. 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.

7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.

8. 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.

9. 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.

10. 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

1. 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.

2. MACHINE CORE ALL CONNECTIONS TO EXISTING STRUCTURES USING A CORE DRILL. HAMMERING OR SAWING OF STRUCTURES WILL NOT BE ALLOWED.

3. 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.

4. 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.

5. ALL CONNECTIONS TO EXISTING OR DISSIMILAR STORM/SANITARY LINES SHALL BE DONE WITH STAINLESS STEEL NON-SHEAR COUPLINGS.

6. 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.

7. ALL WATER MAIN SHALL HAVE MECHANICAL RESTRAINED TYPE JOINTS AT ALL CONNECTIONS AND FITTINGS. IN ADDITION, ALL HARDWARE SHALL BE STAINLESS STEEL.

8. 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.

9. 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.

10. 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

1. THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS THAT INCLUDE; CRITICAL SPOT GRADES SUCH AS OVERFLOW ELEVATIONS, SPOT ELEVATIONS NEAR ENTRANCES, SPOT ELEVATIONS ALONG THE DESIGNATED ADA ROUTE, SUFFICIENT INFORMATION SUCH THAT THE ENGINEER MAY VERIFY DETENTION VOLUMES, RIM AND INVERT ELEVATIONS OF ALL SEWERS, RIM AND TOP OF PIPE ELEVATIONS OF ALL WATER MAIN, LOCATIONS OF ALL INSTALLED UNDERGROUND UTILITIES, LOCATIONS OF ALL BURIED BENDS AND FITTINGS AND ALL FIELD CHANGES FROM THE APPROVED DRAWINGS.

2. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS FROM THE DATE OF INITIAL ACCEPTANCE OF THE WORK BY THE OWNER AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE.

3. ALL CONSTRUCTION WILL BE INSPECTED BY THE OWNER'S REPRESENTATIVE. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPALITY AS WELL AS THE STANDARD SPECIFICATIONS.

4. ALL PUBLIC WATER MAINS AND SANITARY SEWER MAINS MUST BE ACCEPTED BY THE VILLAGE OF BARRINGTON HILLS.

5. THE SEWER AND WATER CONTRACTOR SHALL BE REQUIRED TO BE LICENSED AND BONDED WITH THE INSERT LOCAL AGENCY GOVERNING WORK BEFORE WORK IS STARTED.

6. CONTRACTOR SHALL NOTIFY THE VILLAGE OF BARRINGTON HILLS (847-551-3000) AND THE PROJECT ENGINEER (847-478-9700) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.

7. 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.

8. THE CONTRACTOR MUST CARRY INSURANCE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ALL OFFICIALS, EMPLOYEES AND AGENTS OF GEWALT HAMILTON ASSOCIATES MUST BE LISTED AS ADDITIONAL INSURED.

9. ALL ELEVATIONS ARE ON NAVD 88 VERTICAL DATUM.

10. 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.

11. STOCKPILING MATERIAL WITHIN THE 100 YEAR FLOOD PLAIN AND OR THE FLOODWAY IS STRICTLY PROHIBITED

12. 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.

13. CRUSHED CONCRETE IS NOT PERMITTED FOR USE ON THE PROJECT UNLESS PRIOR WRITTEN NOTICE IS GIVEN BY THE ENGINEER.

14. ALL STONE USED ON THE PROJECT SHALL BE CRUSHED UNLESS SPECIFICALLY NOTED OTHERWISE.

15. ALL CONNECTIONS TO EXISTING STORM MANHOLES SHALL BE INSTALLED WITH A NEOPRENE BOOT SECURED WITH DOUBLE STAINLESS STEEL STRAPS MEETING THE REQUIREMENTS OF ASTM C-923.

16. ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH APPLIED WITHIN 1 HOUR OF FINAL STRIKING.

17. ALL CONCRETE SHALL CONSIST OF PORTLAND CEMENT CONCRETE, 4" SLUMP, 6.1 BAG MIX AND AIR ENTRAINMENT OF NOT LESS THAN FIVE (5%) OR MORE THAN EIGHT (8%). CONCRETE SHALL BE A MINIMUM COMPRESSIVE STRENGTH (4000PSI) AT TWENTY EIGHT (28) DAYS.

18. 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.

19. 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') FOURTY 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.

20. 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.

21. ALL DOWEL BARS AND TIE BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.

22. ALL PAVEMENT AND BUILDING SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY. ALL SUBGRADE IN LAWN AREAS SHALL BE COMPACTED TO 90% MODIFIED PROCTOR DENSITY.

23. SPREAD SCREENED TOPSOIL ON ALL DISTURBED AREAS AND PROPOSED GREEN AREAS. TOPSOIL SHALL COMPLY WITH REQUIREMENTS OF ARTICLE 1081.05.

STORM SEWERS	MODEL/SPECIFICATION	STANDARDS/REQUIREMENTS	
UNDERDRAINS	RCP CL I-IV	PIPE:ASTM C-76	JOINT:ASTM C-443
	PERFORATIONS	HOLE PATTERN:ASTM D-2729	
	PVC SDR 26	PIPE:ASTM D-3034	JOINT:ASTM D-3212
	PVC SDR 35	PIPE:ASTM D-3034	JOINT:ASTM D-3212
FRAME & GRATE/LID	GRASS AREAS	OPEN LID: SEE PLAN	
ADJUSTMENT RINGS	CONCRETE	4" MINIMUM, 12" MAXIMUM	
PIPE BEDDING MATERIAL	CA-11		
TRENCH BACKFILL	CA-6		
TRENCH BACKFILL UNDERDRAIN	CA7/CA-11	CRUSHED CONCRETE NOT ALLOWED, ALL STONE MUST BE WASHED	

EROSION CONTROL NOTES

1. 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.

2. 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.

3. 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.

4. 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.

5. AFTER ACHIEVING PERMANENT VEGETATION, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED, AND THE DRAINAGE STRUCTURES SHALL BE CLEANED.

6. 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.

7. THE CONTRACTOR SHALL STABILIZE ALL IDLE, DISTURBED AREAS WITHIN SEVEN DAYS OF CESSATION OF THE CONSTRUCTION ACTIVITIES IN THAT AREA.

8. THE CONTRACTOR IS EXPRESSLY ADVISED NOT TO DISTURB AREAS WHICH ARE OUTSIDE THOSE NECESSARY TO PROVIDE THE IMPROVEMENTS AS CALLED FOR IN THE PLANS.

9. ALL EROSION CONTROL MEASURES SHALL BE REPLACED IF DAMAGED OR MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

10. ALL 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.

11. 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.

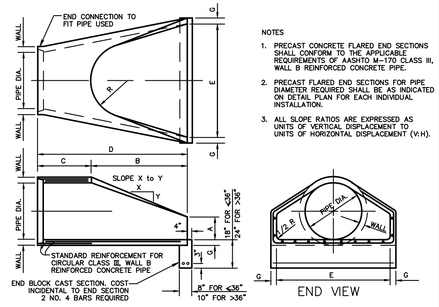
12. CONCRETE WASHOUT FACILITIES SHALL BE MADE AVAILABLE IF NEEDED, AND PROPERLY MAINTAINED THROUGHOUT THE PROJECT.

13. 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.

14. WASTE, CONSTRUCTION DEBRIS, AND BUILDING MATERIALS SHALL BE COLLECTED AND PLACED IN APPROVED RECEPTACLES.

PIPE DIA.	APPROX WT.(lbs)	WALL	A	B	C	D	E	G	R	SLOPE
12"	530	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	2"	9"	H:3
15"	740	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2 1/4"	11"	H:3
18"	990	2 1/2"	8"	2'-6"	3'-10"	6'-1"	2'-6"	2 1/2"	13"	H:3
21"	1280	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	2 3/4"	13"	H:3
24"	1520	3"	9 1/2"	3'-3 7/12"	2'-8"	6'-1 1/2"	4'-0"	3"	14"	H:3
27"	1930	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	3 1/4"	14 1/2"	H:3
30"	2190	3 1/2"	11'-0"	4'-0"	1'-7 3/4"	6'-1 3/4"	5'-0"	3 1/2"	15"	H:3
33"	3200	3 3/4"	1'-1 1/2"	4'-10 1/2"	3'-3 3/4"	8'-1 3/4"	6'-0"	3 3/4"	17 1/2"	H:3
36"	4100	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	4"	20"	H:1
42"	5380	4 1/2"	1'-5"	5'-3"	2'-11"	8'-2"	6'-0"	4 1/2"	22"	H:1
48"	6550	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	5"	22"	H:2.4
54"	8240	5 1/2"	2'-3"	6'-0"	2'-11"	8'-2"	7'-6"	5 1/2"	24"	H:2.6:1
60"	8730	6"	2'-11"	5'-0"	3'-3"	8'-3"	8'-0"	5"	*	H:2
66"	10710	6 1/2"	2'-6"	6'-0"	3'-3"	8'-3"	8'-0"	6 1/2"	*	H:2
72"	12520	7"	3'-0"	6'-6"	1'-9"	8'-3"	9'-0"	6"	*	H:2.26
78"	14770	7 1/2"	3'-0"	7'-6"	1'-9"	9'-3"	9'-6"	6 1/2"	*	H:2.12
84"	18160	8"	3'-0"	7'-6 1/2"	1'-9"	9'-3 1/2"	10'-0"	6 1/2"	*	H:1.94

* RADIUS FURNISHED BY MANUFACTURER

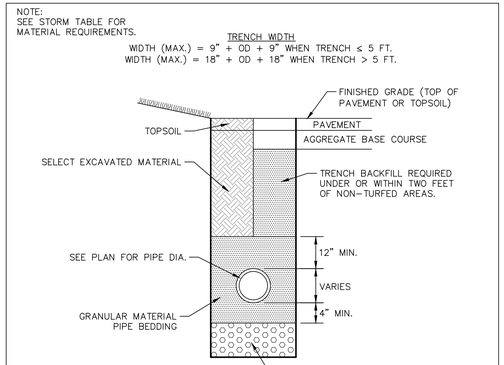


NOTES

1. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
2. PRECAST FLARED END SECTIONS FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.
3. ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

LONGITUDINAL SECTION

FLARED END SECTION



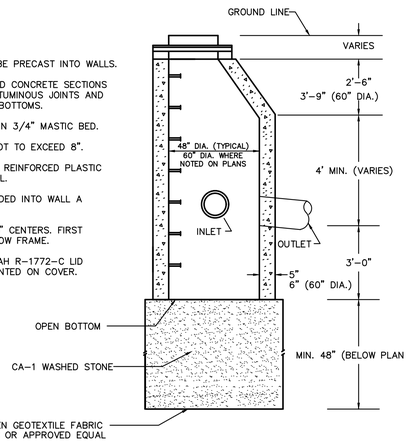
03.15.2016

GEWALT HAMILTON ASSOCIATES, INC.

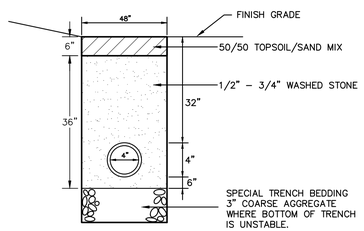
STORM TRENCH DETAIL

NOTES:

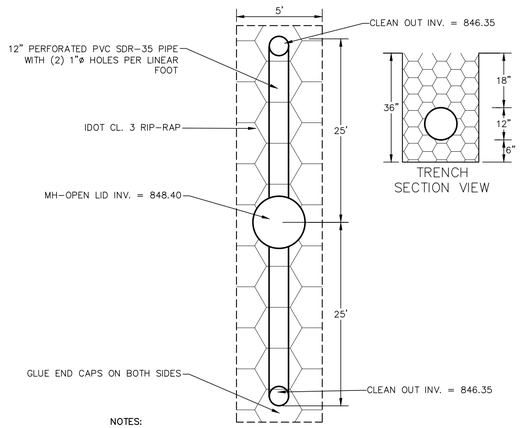
1. PIPE OPENINGS TO BE PRECAST INTO WALLS.
2. PRECAST REINFORCED CONCRETE SECTIONS WITH PREFORMED BITUMINOUS JOINTS AND INTEGRAL PRECAST BOTTOMS.
3. FRAME TO BE LAID IN 3/4" MASTIC BED.
4. ADJUSTING RINGS NOT TO EXCEED 8".
5. STEPS TO BE STEEL REINFORCED PLASTIC OR APPROVED EQUAL.
6. STEPS TO BE IMBEDDED INTO WALL A MINIMUM OF 3".
7. STEPS TO BE AT 16" CENTERS. FIRST STEP TO BE 8" BELOW FRAME.
8. FRAME TO BE NEENAH R-1772-C LID WITH "STORM" IMPRINTED ON COVER.



DRYWELL CATCH BASIN



INFILTRATION TRENCH DETAIL



NOTES:

1. LINE TRENCH WITH NON-WOVEN GEOTEXTILE FABRIC GTF 125EX OR APPROVED EQUAL

LEVEL SPREADER DETAIL

N.T.S

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

SITE PLAN

ROUND BARN ROAD DRAINAGE IMPROVEMENTS

VILLAGE OF BARRINGTON HILLS, ILLINOIS

NO.	BY	DATE	REVISION

NO.	BY	DATE	REVISION

FILE: 9355.153_PR1.dwg

DRAWN BY: CAS
DATE: 09-11-17

GHA PROJECT #: 9355.153

CHECKED BY: DJS
DATE: 09-11-17

SCALE: N.T.S

SHEET NUMBER: 3
OF 3 SHEETS

SOIL AND MATERIAL CONSULTANTS, INC.

Office: 847-870-0544
Fax: 847-870-0661
us@soilandmaterialconsultants.com
www.soilandmaterialconsultants.com

October 17, 2017
File No. 23585

Mr. Daniel J. Strahan, P.E., CEM
Gewalt Hamilton Associates, Inc.
825 Forest Edge Drive
Vernon Hills, IL 60061

Re: Geotechnical Investigation
67 Round Barn Road
Barrington Hills, Illinois

Dear Mr. Strahan:

The following is our report of findings for the geotechnical investigation completed at 67 Round Barn Road in the Village of Barrington Hills, Illinois.

The investigation was requested to determine current subsurface soil and water conditions at select boring locations. The findings of the field investigation and the results of laboratory testing are intended to determine the feasibility of an infiltration trench to help reduce drainage issues in the area.

SCOPE OF THE INVESTIGATION

The field investigation included obtaining 4 borings at the locations requested and as indicated on the enclosed location sketch. The boring locations were established using field taping methods and accuracy. Surface elevations were determined using the data presented on the topographic survey, estimated to the nearest 0.5 ft.

We auger drilled the 4 borings to depths of 20.0 feet below existing surface elevations. Soil samples were obtained using a split barrel sampler advanced utilizing an automatic SPT hammer. Soil profiles were determined in the field and soil samples returned to our laboratory for additional testing including determination of moisture content. Cohesive soils obtained by split barrel sampling were tested further to determine dry unit weight and unconfined compressive strength.

The results of all field determinations and laboratory testing are included in summary with this report.

RESULTS OF THE INVESTIGATION

Enclosed are boring logs indicating the soil conditions encountered at each location. Site surface conditions include pavement materials, vegetation, topsoil and fill soil conditions. The topsoil is classified as dark brown to black silt/sand and silt/clay mixtures with traces of roots.

Fill soil conditions were encountered at borings B-3 and B-4. Composition of the fill includes the presence of topsoil and clay/silt mixtures extending to depths of 3.0 feet. The limits of fill placement were not determined within the scope of this investigation. Larger debris may also be present within the fill but was not encountered during the investigation.

Underlying natural soil conditions include the presence of cohesive soils. These are classified as stiff to very hard clay/silt mixtures with lesser portions of sand and gravel. Non-cohesive soils were also encountered as indicated. These include loose to medium dense silt/clay mixtures often in a damp to very damp condition. Cobbles and boulders may be present within the site soils at any elevation, although none were encountered while drilling.

SUBSURFACE WATER

The boring logs indicate subsurface water was not encountered in the bore holes at the time of the drilling operations and during the period of these readings. It is expected that fluctuations from the water levels recorded will occur over a period of time due to variations in rainfall, temperature, subsurface soil conditions, soil permeability and other factors not evident at the time of the water level measurements.

DISCUSSION

It is our understanding that an infiltration trench extending approximately 3.5 feet deep from finished grade is proposed to assist in drainage of the site. Grain-size analysis testing, on selected samples from borings 1, 2, and 3, classified the underlying soils as Clay and Silty Clay Loam according to the USDA classification system. The Clay soils are present near the surface with the Silty Clay Loam soils being encountered at deeper elevations within borings B-2 and B-3. Estimated design infiltration rates for the Clay and Silty Clay Loam soils are 0.07 inches per hour and 0.19 inches per hour respectively due to the high percentages of clay and silt.

Generally subsurface infiltration drainage structures need to extend to depths at which well-defined granular soils are encountered. Also, the granular soils need to have the potential to sustain the natural infiltration process. Since these conditions were not encountered we would recommend an underdrain system be included in the design to eventually collect and drain the water off site.

CONCLUSION

The information within this report is intended to provide initial information concerning subsurface soil and water conditions on the site. Variations in subsurface conditions are expected to be present between boring locations due to naturally changing and filled soil conditions.

Our understanding of the proposed improvements is based on limited information available to us at the writing of this report. The findings of the investigation and the recommendations presented are not considered applicable to significant changes in the scope of the improvements or applicable to alternate site uses.

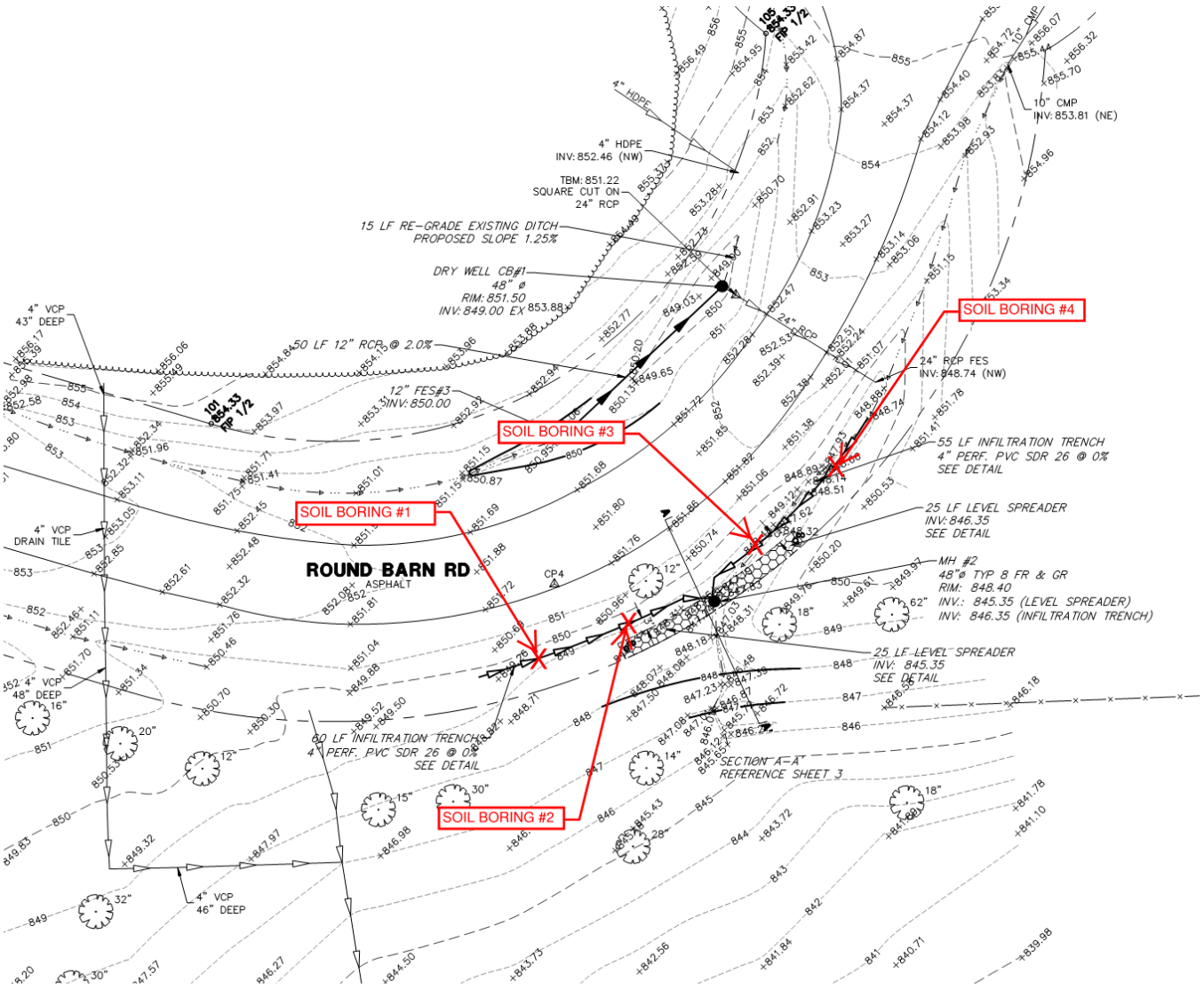
If you have any questions concerning the findings or recommendations presented in this report, please let me know.

Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.

Thomas P. Johnson, P.E.
President

TPJ:ek
Enc.



PROPOSED CONDITIONS

N

SMC	SOIL AND MATERIAL CONSULTANTS, INC.	LOCATION SKETCH
Client:	GEWALT HAMILTON ASSOCIATES	
Project:	67 ROUND BARN ROAD	
Location:	BARRINGTON HILLS, ILLINOIS	
File No. 23585	Date: 10-5-17	Scale: 1" ≈ 40'

SOIL AND MATERIAL CONSULTANTS, INC.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORING LOG 1

Logged By: DA **Page:** 1 of 1

Client: Gewalt Hamilton Associates, Inc.

File No. 23585 **Date Drilled:** 10/5/17

Reference: 67 Round Barn Road
Barrington Hills, IL

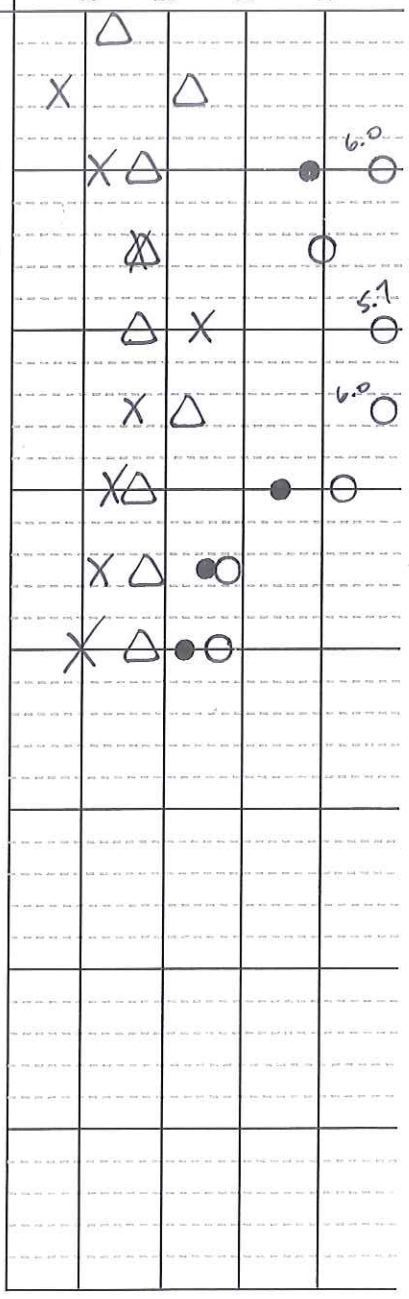
Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

depth, ft.	CLASSIFICATION Elevation 849.0' Existing Surface	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ϒ	unconfined compressive strengh ○
	(a) see below		11.9		
	Brown clay,some silt,trace sand & gravel, damp,stiff	7	21.9		
5	Brown-gray clay,some silt,trace sand & gravel,damp,hard	12	18.2	109.2	6.0
		17	18.4	111.2	4.0
10		24	18.2	111.8	5.7
		16	21.5	105.8	6.0
15		14	17.1	116.7	4.2
	Gray clay,some silt,trace sand & gravel, damp,very tough	12	19.4	111.4	2.9
20		10	18.1	114.2	2.7
	End of Boring				
	(a) Dark brown silt,some fine sand, trace clay & roots,damp (topsoil) - 15.0"				
25					
30					
35					
40					

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0

× standard penetration "N", blows/ft.
△ moisture content, %
10 20 30 40



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

SOIL AND MATERIAL CONSULTANTS, INC.
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SOIL BORING LOG 2

Logged By: DA Page: 1 of 1

Client: Gewalt Hamilton Associates, Inc.

File No. 23585 Date Drilled: 10/5/17

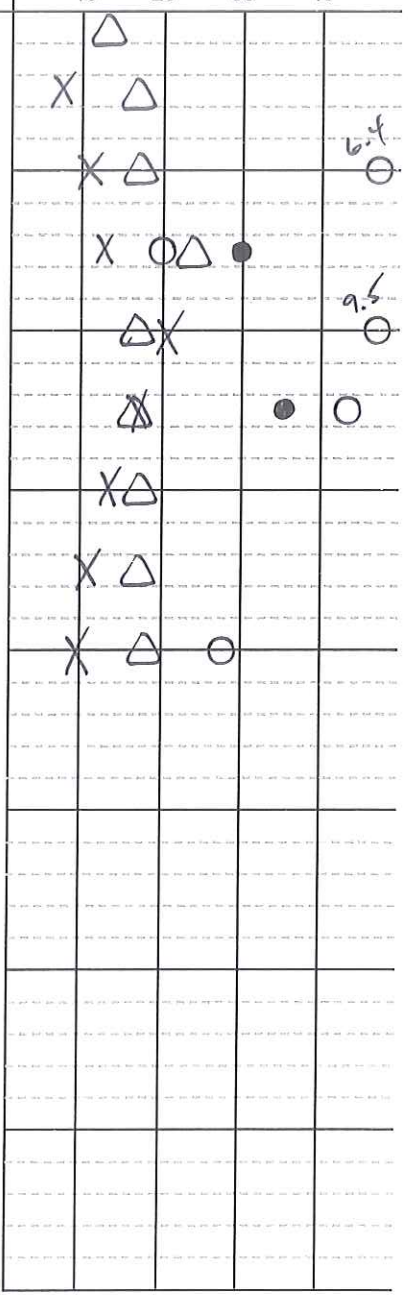
Reference: 67 Round Barn Road
Barrington Hills, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

depth, ft.	CLASSIFICATION Elevation 849.0' Existing Surface	standard penetration ×	moisture content △	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strengh ○
	(a) see below		12.8		
	Brown clay,some silt,trace sand & gravel, damp,stiff	7	16.9		
5	Brown-gray clay,some silt,trace sand & gravel,damp,hard	11	17.7	112.2	6.4
	Brown-gray clay,some silt,trace sand & gravel,damp,very tough to very hard	13	23.9	98.8	2.0
10		21	17.1	115.3	9.5
	Gray clay,some silt,trace sand & gravel, damp,hard	17	17.4	115.4	4.3
15	Brown silt,some clay,trace fine sand, damp,medium dense	14	18.3		
	Gray silt,some clay,trace fine sand,damp medium dense	11	17.8		
20	Gray clay,some silt,trace sand & gravel, damp,very tough	9	19.4	114.3	2.8
	End of Boring				
	(a) Dark brown silt,some fine sand,trace gravel & roots,damp (topsoil)				
25					
30					
35					
40					

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0
× standard penetration "N", blows/ft.
△ moisture content, %
10 20 30 40



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

SOIL AND MATERIAL CONSULTANTS, INC.

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SOIL BORING LOG 3

Logged By: DA Page: 1 of 1

Client: Gewalt Hamilton Associates, Inc.

File No. 23585 Date Drilled: 10/5/17

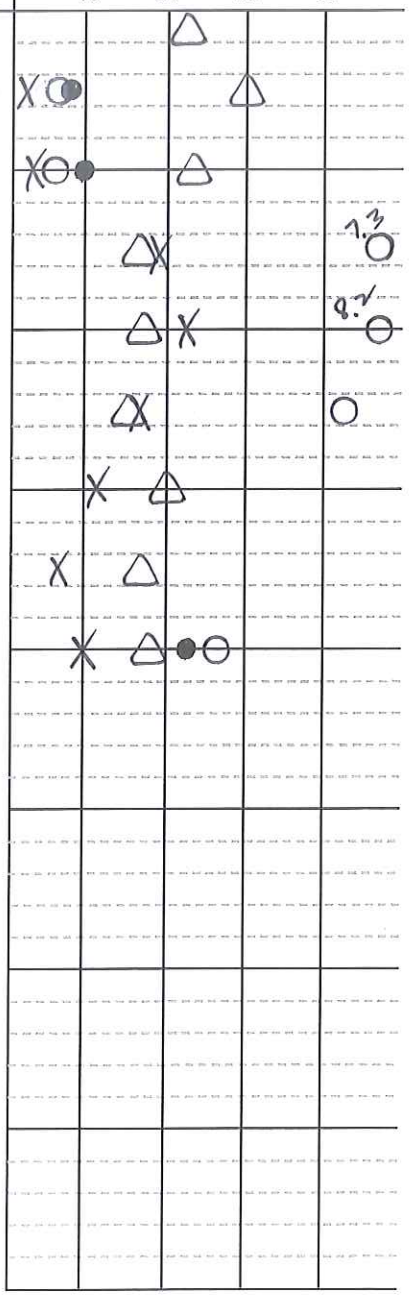
Reference: 67 Round Barn Road
Barrington Hills, IL

Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

Elevation 848.0' Existing Surface

depth, ft.	CLASSIFICATION	standard penetration X	moisture content Δ	dry unit weight lbs./cu.ft. ϒ	unconfined compressive strengh O
	Black silt,some clay,trace sand & roots, damp (topsoil) - Fill		21.4		
	(a) see below	3	30.3	88.1	0.6
5	Brown-gray clay,some silt,trace sand & gravel,very damp-damp,stiff to very hard	4	23.2	100.5	0.6
		19	17.0	115.5	7.3
10		23	18.2	110.5	8.2
	Brown-gray clay,some silt,trace sand & gravel,very damp-damp,hard	17	14.8	118.2	4.2
	Brown silt,some clay,trace fine sand, damp,medium dense				
15	Gray silt,some clay,trace fine sand, damp,loose	12	19.6		
		7	17.8		
	Gray clay,some silt,trace sand & gravel damp,very tough				
20		10	18.7	111.5	2.6
	End of Boring				
	(a) Dark brown-gray clay,some silt, trace sand,very damp,stiff - Fill				
25					
30					
35					
40					



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

SOIL AND MATERIAL CONSULTANTS, INC.

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SOIL BORING LOG 4

Logged By: DA **Page:** 1 of 1

Client: Gewalt Hamilton Associates, Inc.

File No. 23585 **Date Drilled:** 10/5/17

Reference: 67 Round Barn Road
Barrington Hills, IL

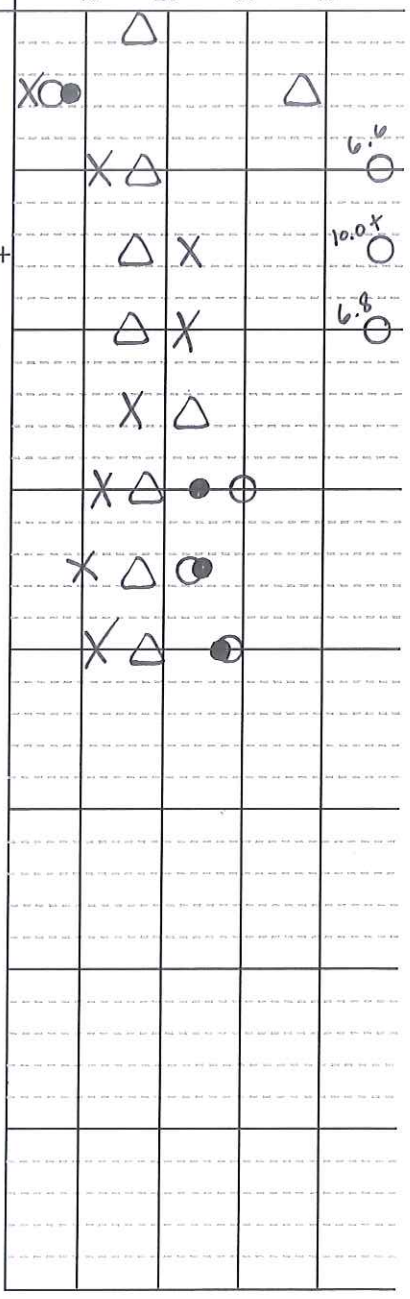
Comments:

Equipment: ☒CME 45B ☐CME 55 ☐Hand Auger ☐Other

depth, ft.	CLASSIFICATION Elevation 849.0' Existing Surface	standard penetration ×	moisture content Δ	dry unit weight lbs./cu.ft. ɣ	unconfined compressive strength ○
	Black silt,some clay,trace sand & roots, damp (topsoil) - Fill		16.3		
	(a) see below	2	38.0	78.0	0.5
5	Brown-gray clay,some silt,trace sand & gravel,damp,hard to very hard	12	17.6	112.6	6.6
		23	16.0	116.4	10.0+
10	Brown-gray clay,some silt,trace sand & gravel,damp,hard	23	15.1	118.2	6.8
	Brown silt,some clay,trace fine sand, damp,medium dense	16	22.1		
	(b) see below				
15	Gray clay,some silt,trace sand & gravel, damp,very tough	13	18.6	113.3	3.0
		10	17.9	113.3	2.3
20		12	18.8	113.6	2.9
	End of Boring				
	(a) Dark brown-gray clay,some silt, trace sand & gravel,very damp,stiff Fill				
25	(b) Brown clay,some silt,trace sand & gravel,damp				
30					
35					
40					

○ unconfined compressive strength, tons/sq. ft.
● penetrometer reading, tons/sq. ft.
1.0 2.0 3.0 4.0

× standard penetration "N", blows/ft.
Δ moisture content, %
10 20 30 40



Water encountered at dry feet during drilling operations (W.D.)
Water recorded at dry feet on completion of drilling operations (A.D.)
Water recorded at feet hours after completion of drilling operations (A.D.)

SOIL AND MATERIAL CONSULTANTS, INC.
8 W. COLLEGE DR. • ARLINGTON HEIGHTS, IL 60004 • 847-870-0544 • FAX 847-870-0661

GENERAL NOTES

SAMPLE CLASSIFICATION

Soil sample classification is based on the Unified Soil Classification System, the Standard Practice for Description and Identification Soils (Visual-Manual Procedure), ASTM D-2488, the Standard Test Method for Classification of Soils for Engineering Purposes, ASTM D-2487 (when applicable), and the modifiers noted below.

CONSISTENCY OF COHESIVE SOILS

Term	Qu-tons.sq.ft.	N (unreliable)
Very soft	0.00 – 0.25	0 – 2
Soft	0.26 – 0.49	3 – 4
Stiff	0.50 – 0.99	5 – 8
Tough	1.00 – 1.99	9 –15
Very Tough	2.00 – 3.99	16 – 30
Hard	4.00 – 7.99	30 +
Very Hard	8.00 +	

RELATIVE DENSITY OF GRANULAR SOILS

Term	N – blows/foot
Very Loose	0 – 4
Loose	5 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	50 +

IDENTIFICATION AND TERMINOLOGY

Term	Size Range
Boulder	over 8 in.
Cobble	3 in. to 8 in.
Gravel - coarse	1 in. to 3 in.
- medium	3/8 in. to 1 in.
- fine	#4 sieve to 3/8 in.
Sand - coarse	#10 sieve to #4 sieve
- medium	#40 sieve to #10 sieve
- fine	#200 sieve to #40 sieve
Silt	0.002 mm to #200 sieve
Clay	smaller than 0.002mm

Modifying Term	Percent by Weight
Trace	1 – 10
Little	11 – 20
Some	21 – 35
And	36 – 50

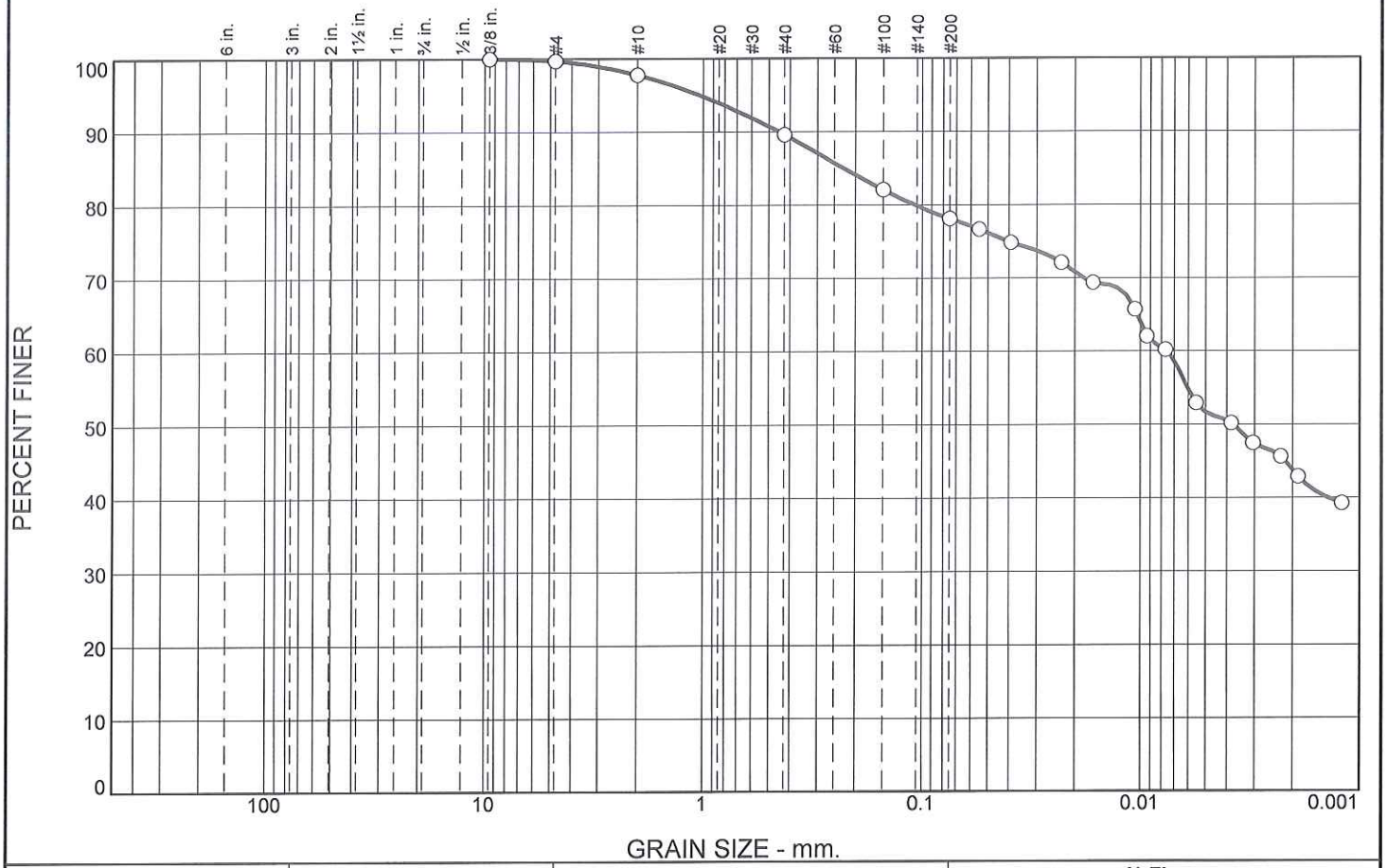
Moisture Content

Dry
Damp
Very Damp
Saturated

DRILLING, SAMPLING & SOIL PROPERY SYMBOLS

- CF - Continuous Flight Auger
- HS - Hollow Stem Auger
- HA - Hand Auger
- RD - Rotary Drilling
- AX - Rock Core, 1-3/16 in. diameter
- BX - Rock Core, 1-5/8 in. diameter
- NX - Rock Core, 2-1/8 in. diameter
- S - Sample Number
- T - Type of Sample
- J - Jar
- AS - Auger Sample
- SS - Split Spoon (2 in. O.D. with 1-3/8 in. I.D.)
- ST - Shelby Tube (2 in. O.D. w/ith1-7/8 in. I. D.)
- R - Recovery Length, in.
- B - Blows/6 in. interval, Standard Penetration Test (SPT)
- N - Blows/foot to drive 2 in. O.D. split-spoon sampler with 140 lb. hammer falling 30 in., (STP)
- Pen. - Pocket Penetrometer readings, tons/sq.ft.
- W - Water Content, % dry weight
- Uw - Dry Unit Weight of soil, lbs./cu.ft.
- Qu - Unconfined Compressive Strength, tons/sq.ft.
- Str - % Strain at Qu.
- WL - Water Level
- WD - While Drilling
- AD - After Drilling
- DCI - Dry Cave-in.
- WCI - Wet Cave-in.
- LL - Liquid Limit, %
- PL - Plastic Limit, %
- PI - Plasticity Index (LL-PL)
- LI - Liquidity Index [(W-PL)/PI]

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	1.9	8.2	11.5	34.3	43.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8"	100.0		
#4	99.7		
#10	97.8		
#40	89.6		
#100	82.1		
#200	78.1		

* (no specification provided)

Material Description

Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.4503 D_{85}= 0.2259 D_{60}= 0.0075
D_{50}= 0.0037 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

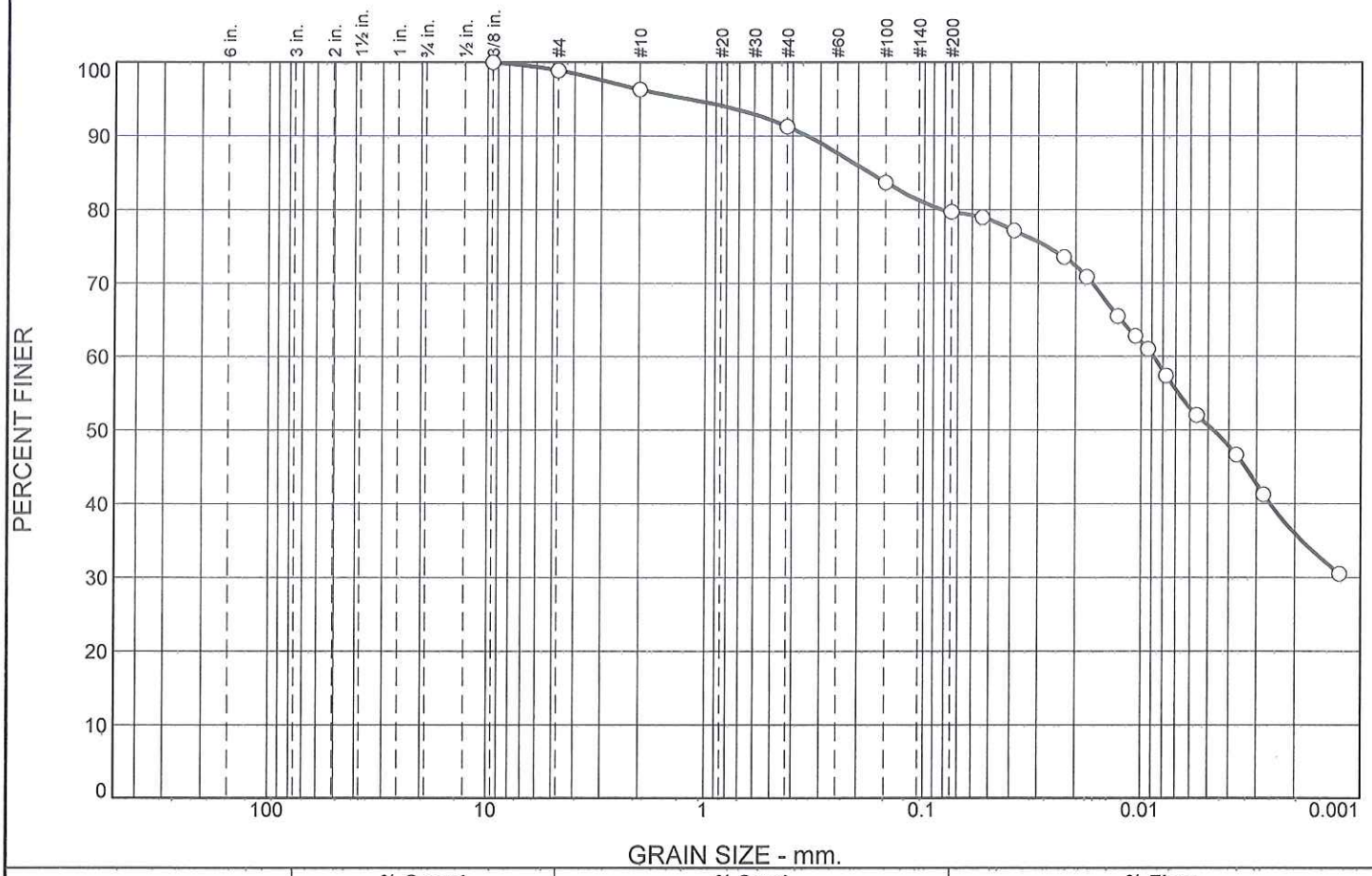
Remarks

Location: Boring 1
Sample Number: 2 **Depth:** 15" - 2.5' **Date:**

SOIL AND MATERIAL CONSULTANTS, INC.

Client: GEWALT HAMILTON ASSOCIATES, INC.
Project: 67 Round Barn Road
Barrington Hills, IL
Project No: 23585 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.1	2.6	5.0	11.6	43.7	36.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8	100.0		
#4	98.9		
#10	96.3		
#40	91.3		
#100	83.7		
#200	79.7		

* (no specification provided)

Material Description

Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3444 D_{85}= 0.1774 D_{60}= 0.0088
D_{50}= 0.0047 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

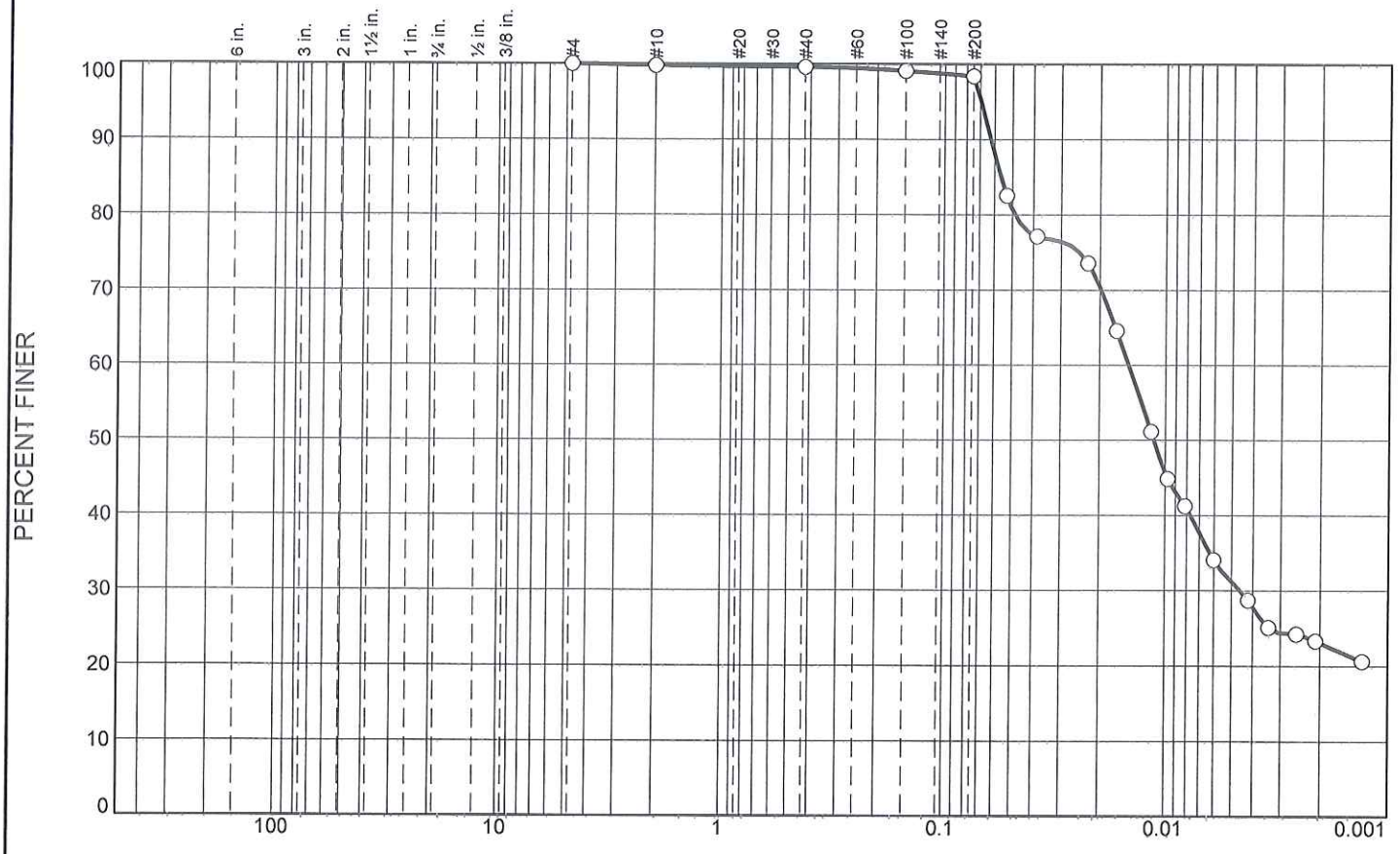
Remarks

Location: Boring 2
Sample Number: 3 **Depth:** 3.5' - 5.0' **Date:** 10/11/17

SOIL AND MATERIAL CONSULTANTS, INC.

Client: GEWALT HAMILTON ASSOCIATES, INC.
Project: 67 Round Barn Road
Barrington Hills, IL
Project No: 23585 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	0.2	1.2	75.4	23.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.8		
#40	99.6		
#100	99.1		
#200	98.4		

* (no specification provided)

Material Description

Silty Clay Loam

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.0624 D_{85}= 0.0563 D_{60}= 0.0147
D_{50}= 0.0113 D_{30}= 0.0046 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Location: Boring 3
Sample Number: 7 **Depth:** 13.5' - 15.0' **Date:** 10/16/2017

SOIL AND MATERIAL CONSULTANTS, INC.

Client: GEWALT HAMILTON ASSOCIATES, INC.
Project: 67 Round Barn Road
Barrington Hills, IL
Project No: 23585 **Figure**

GHA GEWALT HAMILTON ASSOCIATES, INC.
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www.gha-engineers.com

MEMORANDUM

To: Brian Cecola, VBH Chairman Roads & Bridges
Robert Kosin, VBH Director of Administration

From: Dan Strahan, P.E., CFM
Gewalt Hamilton Associates (GHA)

Date: October 16, 2017

Re: Proposed 2018 Roads & Bridges Budget

At the September meeting, the Roads & Bridges Committee began discussion of the 2018 budget process. As discussed further below, our recommended budget request for the various line item expenditures within the Roads & Bridges Fund for 2018 are as follows:

Revenue

Description	2017 Budget	2017 Actual Through 9/30/2017	*2018 Budget Request*
Property Tax- Road & Bridge	$1,471,000.00	$1,136,429.29	*$1,471,000.00*
Miscellaneous Revenue	-	$44,718.17	-
Road & Bridge Twn Taxes	$75,000.00	$73,040.00	*$75,000*
Total Revenue	**$1,546,000.00**	**$1,254,187.46**	***$1,546,000.00***

Expenditures

Description	2017 Budget	2017 Actual Through 9/30/2017	*Recommended 2018 Budget Request*
Road Maintenance Contracts	$960,000.00	$13,905.63	$922,000.00
Snow Plowing Contracts	$220,000.00	$120,054.25	$220,000.00
Mowing/Cleanup Contracts	$70,000.00	$53,995.75	$70,000.00
Sign Purchase/Installation	$12,000.00	$11,085.99	$12,000.00
Drainage Management	$40,000.00	$14,674.74	$40,000.00
Engineer Fees	$180,000.00	$109,262.13	$180,000.00
Road Striping	$1,000.00	$0.48	$25,000.00
Equipment Maintenance	$1,000.00	-	$1,000.00
Road Patching Contracts	$20,000.00	$5,669.35	$15,000.00
Equipment Purchases	$1,000.00	-	$1,000.00
Bridge Inspections	$1,000.00	$36,705.00	$10,000.00
Cuba Road Bridge Restoral Expenses	$40,000.00	$16,863.16	$50,000.00
Total Expenditures	**$1,546,000.00**	**$382,216.48**	***$1,546,000.00***

Below is a detailed summary of the recommended budget for each line item.

Road Maintenance Contracts
The largest component of the Roads & Bridges fund is typically the Road Maintenance Contracts line item and it is anticipated that this would be true for 2018. Over the last three years, highly competitive bid and construction pricing enabled some roads to be moved up within the original 5-year plan, with the result that most of the road scheduled for 2018 have been completed, while Chapel Road and Church Road were passed over due to anticipated construction activities at the proposed HARPS facility.

The remaining roads that had been previously schedule for resurfacing between 2017-2019 are as follows:

Street	From	To	Length (ft)	Prelim. 2018 Rehabilitation Cost
Chapel	Church Road	Haeger's Bend Road	5,172	$271,000.00
Church	Chapel Road	Algonquin Road	3,874	$201,000.00
Haegers Bend	Chapel Road	Village Limits	2,409	$146,000.00
River/Algonquin	East of Braeburn	West of Church	4,470	$271,000.00
Spring Lane	Spring Creek Road	Terminus	5,355	$306,000.00
Little Bend Rd.	Spring Lane	Terminus	4,475	$253,000.00
Springwood	Algonquin Road	Terminus	1,325	$60,000.00
TOTAL:			*27,080 = 5.13 Miles*	*$1,508,000*

Decisions will need to be made by the Committee regarding the scope of the 2018 Road Program. Chapel and Church Road remain in need of resurfacing; however, the timing of resurfacing may still be affected by the timing of construction of the proposed HARPS facility.

For preliminary budgeting purposes, we have shown a Road Maintenance Contracts line item amount of $922,000 to maintain a consistent Roads & Bridges fund balance compared to the 2017 budgeted amount.

Snow Plowing Contracts
Snow plowing expenses are subject to the recently renewed IGA with Cuba Township and are based on an annual fee (billed in six installments between November and April) that increases 3% annually in addition to the cost of materials which is billed separately. Over the last two seasons material costs have been low due to mild temperatures and limited snowfall totals, with the result that the actual expenditure has been below the budgeted amount.

Our recommended budget amount maintains the 2017 budgeted amount of $220,000.00.

Mowing/Cleanup Contracts
This line item reflects costs for roadside mowing contracts as well as tree and brush cleanup after storm events. As a result expenditures can fluctuate based on the number of severe storm events in a given year. Budgeted expenses through September 30, 2017 ($53,995.75) seem to be tracking well with the budgeted amount of $70,000.00. We would recommend the budgeted amount for 2017 be maintained at $70,000.

Sign Purchase/Installation
Typically $12,000-$14,000 is budgeted to cover replacement of various signage and miscellaneous requests over the course of the year. As budgeted expenditures in this area appear to be relatively consistent, we would recommend maintaining the 2017 budgeted amount of $12,000.00.

Drainage Management
Currently we anticipate completion of a drainage project on Round Barn Road in 2018, with a preliminary cost estimate of approximately $40,000. Typical culvert replacements can be included in the 2018 Road Program. We recommend maintaining the 2017 budget amount of $40,000 to cover the cost of drainage improvements on Round Barn Road.

Engineering Fees
Typically this budget amount covers engineering fees for design and construction of the road and drainage programs, associated resident coordination, Roads & Bridges meetings, and various other tasks that arise over the course of the year. The amount budgeted for 2017 for these tasks was $180,000.00. Expenditures through the end of September are tracking below this amount; however, much of the construction engineering costs for the 2017 Road Program will appear on our October invoice, so we anticipate final costs in this area will be close to the budgeted amount. If a similarly sized road program is anticipated for 2018, we would recommend maintaining the 2017 budgeted amount of $180,000.00.

Road Striping
Three Village roadways (Haegers Bend Road, Ridge Road, and Plum Tree east of Ridge) with paint pavement markings (double yellow centerline and white edge markings) are restriped on a bi-annual basis. The restriping work last occurred in 2016, so we recommend that the roads be restriped in 2018 with a corresponding budget amount of $25,000.00. It is noted that a majority of Ridge Road was resurfaced (and newly striped) in 2017, so a portion of the project could be omitted if desired.

Equipment Maintenance
No specific equipment purchases are anticipated in 2018. We recommend a budget amount of $1,000 to cover any minor purchases that arise during the year.

Road Patching Contracts
The amount budgeted typically covers cold patching completed during the winter and early spring or under emergency circumstances. This patching is separate from the patching completed during the annual road program. The budget is typically driven by late winter/early spring weather conditions as freeze thaw cycles damaged susceptible pavements. The budgeted amount was increased from $15,000 to $20,000 over the last two years, but actual expenditures were well below the budgeted amount in each year. We would recommend a 2018 budget amount of $15,000.00.

Equipment Purchases
No specific equipment purchases are anticipated in 2018. We recommend a budget amount of $1,000 to cover any minor purchases that arise during the year.

Bridge Inspections
The Village maintains four bridges that require bi-annual inspections under NBIS requirements administered by IDOT. Veterans' Crossing (Cuba Road), the Green Rail Bridge (Oak Knoll), the Porter Bridge (Oak Knoll), and the Spring Creek Road culverts each require a bi-annual inspection in 2018. Based on past costs with Wiss, Janney, Elstner, we recommend a budget amount of $10,000.

It is noted that certain 2017 expenditures appear to have been misclassified as "Bridge Inspections" based on the actual expenditures listed through September 30, 2017. An invoice in the amount of $2,690.60 was recently received for the scour inspections performed by WJE as required by IDOT, but to date no other structural bridge inspections have occurred in 2017.

Cuba Road Bridge Restoral Expenses
Following completion of Veterans' Crossing, this fund was renamed with the intent to use it to set aside funds for other future bridge repair or replacements. A basic funding analysis was completed last year

that determined funding levels between $40,000-$100,000 annually should be considered to account for future bridge replacements, depending upon when they are required.

PERMISSIBLE USES OF THE ILLINOIS MOTOR FUEL TAX FUND FOR MUNICIPALITIES

WORK ITEM	REFERENCE
Construction and Maintenance of:	
• Joint Improvements/ Construction or Maintenance Agreements	605 ILCS 5/4-409, 605 ILCS 5/9-101
• Municipal Streets and Extensions, Municipal Alleys, County Highways and Extensions, State Highways, and Federal-aid Routes within the municipality	605 ILCS 5/7-202.1, 202.1a, 202.1b, 202.2, 202.3 & 202.4
• Traffic Control and School Crossing Signals	605 ILCS 5/7-202.5
• Street Lighting Systems	605 ILCS 5/7-202.6
• Storm Sewers	605 ILCS 5/7-202.7
• Pedestrian Subway or Overhead Crossings	605 ILCS 5/7-202.8
• Sidewalks and Pedestrian Paths	605 ILCS 5/7-202.15
• Off-Street Parking Facilities	605 ILCS 5/7-202.17
• Bicycle Signs, Paths, Lanes, or Bicycle Parking Facilities	605 ILCS 5/7-202.20
• Grade Separations and Approaches	605 ILCS 5/7-202.21
• Non-dedicated Subdivision Roads established before July 23, 1959	605 ILCS 5/7-202.21a
Allotment of Funds for:	
• Investments and Deposits	50 ILCS 340/1
• Matching Federal-aid Funds	605 ILCS 5/7-202.10
• Engineering Services	605 ILCS 5/7-202.12
• Retirement of Indebtedness (MFT Eligible Items)	605 ILCS 5/7-202.13
• Local Mass Transit Districts	605 ILCS 5/7-202.14
• Motor Vehicle Safety Inspection Lanes Operation and Maintenance	605 ILCS 5/7-202.19
• Payment of Principal and Interest on Road Bonds	605 ILCS 5/7-202.18
• Engineering Investigation	605 ILCS 5/7-202.11
• Toll Bridge Studies	605 ILCS 5/7-202.16
Although the Statutes do not explicitly state that MFT funds can be used for the work items below, IDOT has determined that the costs for these items are eligible if they are related to MFT maintenance or construction.	
• Curb Ramps	BLRS Man. Sect. 4-3.03(b)
• Right-of-Way	BLRS Man. Sect. 4-3.03(b)
• Salt Storage Facilities	BLRS Man. Sect. 4-3.03(b)
• Equipment Operations Costs	BLRS Man. Sect. 4-3.03(b)
• Utility Adjustments	BLRS Man. Sect. 4-3.03(b)
• Wages or Salaries	BLRS Man. Sect. 4-3.03(c)
• Holidays, Vacation, and Sick Leave	BLRS Man. Sect. 4-3.03(c)
• Workers' Compensation Insurance Premiums	BLRS Man. Sect. 4-3.03(c)
• Retirement Fund and Social Security Fund	BLRS Man. Sect. 4-3.03(c)
• Health, Hospitalization, and Life Insurance	BLRS Man. Sect. 4-3.03(c)
• Asset Management	BLRS Man. Sect. 4-3.06
• Miscellaneous Expenses in Connection with Bond Issue Improvements	BLRS Man. Sect. 4-4.02 & 4-3.02(f)
• Tree Trimming and Tree Removal	BLRS Man. Sect. 14-1.03(i)
• Railroad Signal Protection and Crossing Work	BLRS Man. Chapter 40

Note: All uses of Motor Fuel Tax are subject to the provisions and limitations reflected in the BLRS Manual and the States statutes.

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MEMORANDUM

To: Robert Kosin, VBH Director of Administration
Brian Cecola, VBH Chairman Roads & Bridges

From: Dan Strahan, P.E., CFM
Gewalt Hamilton Associates (GHA)

Date: November 8, 2016

Re: Village Bridge Fund
Annualized Repair/Replacement Costs

On Monday, October 24, 2016 the Village Board passed Resolution 16-26 establishing the Village Bridge Fund. The fund is intended to be available for repair or replacement of any of the bridge or large culvert crossings throughout the Village.

During the Board discussion, there was question as to what level of funding should be appropriated for this area. The following page includes an overview of the bridges and significant culvert structures that are recommended to be eligible for funding through the Village Bridge Fund. Key criteria to consider when determining funding levels are as follows:

- Number of Eligible Structures- The seven structures listed are of a size and scale significant enough that replacement costs, if funded as part of an annual budget, would result in impacts to other Roads & Bridges maintenance items.
- Life Cycle- A conservative overall life cycle duration of 75 years for concrete structures and 50 years for metal culvert structures was assumed for planning purposes. It is noted that the Porter Bridge and the Old Hart Road Bridge are nearing 100 years old, having both been constructed in the 1920's. A shorter duration should be expected for the corrugated metal culverts at Spring Creek Road and Rock Ridge Road.
- Federal Funding Eligibility- Surface Transportation Program-Bridge (STP-Br) is available for all bridges that are part of the National Bridge Inspection System and meet certain bridge rating criteria (sufficiency rating below 50 required for replacement). Due to their span length (under 20 feet), the Old Hart Road Bridge, the Rock Ridge Road culverts, and the Algonquin Road culvert are not included in the NBIS and would need to be paid for with local funding. It should also be noted that being part of the NBIS only makes the bridge *eligible* for funding; there is no guarantee that any funding request or application will be granted.

Structure/Bridge Name	Road	Stream Carried	Construction Date	Projected Replacement Date	Estimated Replacement Cost (2016 dollars)	Description	STP-Br?	Village Share	Notes
Green Rail Bridge	Oak Knoll Road	Flint Creek	1988	2063	$800,000.00	Two-cell precast concrete box culvert; 22'4" structure width	Y	$160,000.00	Minor concrete repairs made in 2014.
Porter Bridge	Oak Knoll Road	Flint Creek	1926	2028	$800,000.00	Single span reinforced concrete slab; 22'3" wide	Y	$160,000.00	Sufficiency Rating of 78.0 per June 2016 inspection completed by WJE; no immediate repairs recommended.
Spring Creek Culverts	Spring Creek Road	Spring Creek	Unk.	2023	$1,000,000.00	Three corrugated steel pipe arches; total width 30'7"; Pipe height 6'7"	Y	$200,000.00	Sufficiency Rating of 81.0 per 2014 inspection completed by WJE; inadequate "deck width" and no guardail/railing.
Veteran's Crossing	Cuba Road	Flint Creek	2016	2091	$1,200,000.00	Single span precast concrete arch structure; 36' width	Y	$240,000.00	Complete replacement made with 80% federal funding in 2016.
Old Hart Road Bridge	Old Hart Road	Flint Creek	c.1920	2038	$600,000.00	Single span reinforced concrete slab; 18' wide.	N	$600,000.00	Structural concrete repairs completed in 2015
Rock Ridge Road Culverts	Rock Ridge Road	Spring Creek	1978	2033	$1,000,000.00	Four corrugated metal barrel culverts w/ concrete head wall; 37' structure width; 43'	N	$1,000,000.00	Considerable construction staging costs to maintain access for properties south of culvert.
Algonquin Road Culvert	Algonquin Road	Fox River Tributary	2008	2083	$300,000.00	Single span precast concrete arch structure;	N	$300,000.00	

Village Bridge Fund=	Total Construction Cost / 75 Year Life Cycle	= $2,660,000.00 / 75 years	= $35,467 per year

Green Rail Bridge (Oak Knoll Road, constructed in 1988)

Porter Bridge (Oak Knoll Road, constructed 1926)

Spring Creek Culverts (Spring Creek Road, construction date unknown)

Veterans Crossing (2016)

Old Hart Road Bridge (Constructed c. 1920, repaired in 2015)

Rock Ridge Road over Spring Creek (Constructed 1978)

Algonquin Road Culvert (Constructed 2008)

Illinois Department of Transportation
Office of Highways Project Implementation / Region 1 / District 1
201 West Center Court / Schaumburg, Illinois 60196-1096

August 18, 2017

The Honorable Martin J. McLaughlin
Village President
Village of Barrington Hills
112 Algonquin Road
Barrington Hills, IL 60010

Dear Village President McLaughlin:

This is to inform you that the Illinois Department of Transportation (Department) has recently initiated preliminary engineering and environmental studies (Phase I) to improve IL 62 from IL 25 to IL 68 in the Village of Barrington Hills in Cook and Kane Counties. A location map is attached for your reference. This improvement is not currently included in the Department's FY 2018-2023 Proposed Highway Improvement Program. However, this project will be included in our priorities for future funding consideration among similar improvement needs throughout the region. The proposed improvement is anticipated to accommodate existing and projected 2040 travel demands and address safety concerns. Improvements may include additional through lanes, a median, auxiliary lanes at intersections, and pedestrian and bicyclist accommodations.

A key planning tool for this project will include a public involvement program based upon the principles of Context Sensitive Solutions (CSS). CSS is an interdisciplinary approach that seeks effective, multi-modal transportation solutions by working with stakeholders to develop, build and maintain cost-effective transportation facilities which fit into and reflect the project's surroundings (its "context"). Through early, frequent, and meaningful communication with stakeholders (which includes elected officials at the federal, state and local levels) and a flexible as well as creative approach to design, the resulting project should improve safety and mobility for the traveling public, while seeking to preserve and enhance the scenic, economic, historic, and natural qualities of the settings through which they pass.

This will be accomplished through an outreach program that will include meetings with stakeholder groups including a Community Advisory Group and public meetings, as well as a public hearing, at key points in the study process. This input will be evaluated and used to help shape viable solutions. A project website is being developed that will provide current project information, activities and details on upcoming public involvement. Proposed highway improvements are typically processed in three distinct phases. In Phase I, proposed geometry, environmental concerns, as well as right-of-way (ROW) requirements are defined. During Phase II, contract plans are prepared and the necessary ROW is acquired. Phase III represents the actual construction of the improvement.

In an effort to ensure that our highway improvement will address actual highway needs and will be sensitive to local and community concerns, we will be contacting you at various points during our preliminary studies. The purpose of these contacts will be to assist us in data gathering, to incorporate locally requested improvements into our highway improvement (as appropriate), and to keep you informed of project status. Please note that our Hydraulics Section may be contacting you independently to discuss the drainage elements of our project.

At this early stage of our project development, we would particularly like to inform the Village of their opportunity to provide input into the need for pedestrian and bicycle accommodations. Please inform us of any existing or planned bicycle usage in the vicinity of the project, particularly bike lanes, separate bicycle trails, or signed bike routes. This information will be helpful in determining whether any special design features need to be considered to accommodate bicyclists or pedestrians within the improvement area.

Please also provide the following data and information, if it is available:

- Land use plans and planned developments
- Zoning ordinances and maps
- School, park, fire protection, and sanitary districts and boundaries
- On street parking ordinances, if applicable
- Locations of Village lighting and/or utilities within the study area
- Other community features, facilities, or items that you feel may be relevant for our consideration in development of this project
- Any engineering studies and/or programmed improvements, along with their respective schedules, involving Village routes which may affect implementation of our proposed project

Enclosed for your information and reference is a copy of Exhibits A and B. Exhibit A generally defines our cost participation policies for highway improvements, including such items as traffic signals, parking lanes, utilities, lighting, sidewalks, and additional work. Exhibit B outlines the steps and cost participation specifically for emergency vehicle pre-emption related items. Your areas of participation, if any, will be defined at a later date as the study nears completion. This information will be provided via a Letter of Intent which will form the groundwork for the Village/State agreement to be written during Phase II, contract plan development.

The Department is responsible for 100% of the cost for removal and replacement of existing sidewalk or paths affected by the roadway improvements. The local cost share for new pedestrian and bicyclist facilities is 20% of the construction cost, plus a 15% engineering fee. In addition, the Village must agree to assume long-term responsibility for the administration, control, reconstruction, and maintenance of the sidewalk or shared-use path.

Based on a preliminary review of existing conditions, it appears as though a separate off-road shared-use path will likely be required in order to accommodate bicyclists and pedestrians. According to our policy, this accommodation would be provided along, or short distances outside of, the project limits if the local agency is willing to participate in cost sharing and accept maintenance responsibilities of this path. If the local agency chooses not to participate in the bicycle or pedestrian accommodations, the Department requests that a local resolution indicating their non-participation be sent to the Department (see enclosed example). Without the local agency cost participation, the Department will consider the highest and best accommodation feasible.

Public utilities, installed in the highway ROW via permit and requiring relocation, will be relocated at no expense to the Department. The Village will be responsible for relocation of its facilities in conflict with the Department's improvements. Facilities subject to the previously stated condition may include, but may not be limited to, watermain and fire hydrants as well as storm, sanitary and/or combined sewers.

If you have any questions or need additional information, please contact me or Kimberly Murphy, Consultant Studies Unit Head, at (847) 705-4791.

Very truly yours,

Anthony J. Quigley, P.E.
Region One Engineer

Enclosures

cc: Dan Strahan

WHEREAS, The Illinois Department of Transportation (Department) has the power to approve and determine the final plans, specifications and estimates for all State highways; and

WHEREAS, the Department's projects must adequately meet the State's transportation needs, exist in harmony with their surroundings, and add lasting value to the communities they serve; and

WHEREAS, the Department must embrace principles of context sensitive design and context sensitive solutions in its policies and procedures for the planning, design, construction, and operation of its projects for new construction, reconstruction, or major expansion of existing transportation facilities by engaging in early and ongoing collaboration with affected citizens, elected officials, interest groups, and other stakeholders to ensure that the values and needs of the affected communities are identified and carefully considered in the development of transportation projects; and

WHEREAS, Bicycle and pedestrian ways must be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into State plans and programs; and

WHEREAS, The State's complete streets law requires bicycle and pedestrian ways to be established in or within one mile of an urban area in conjunction with the construction, reconstruction, or other change of any State transportation facility, except in pavement resurfacing projects that do not widen the existing traveled way or do not provide stabilized shoulders, or where approved by the Secretary of Transportation based upon documented safety issues, excessive cost or absence of need; and

WHEREAS, During the development of highway projects throughout the State, the Department gives consideration to accommodating bicyclists and pedestrians on a need-basis; and

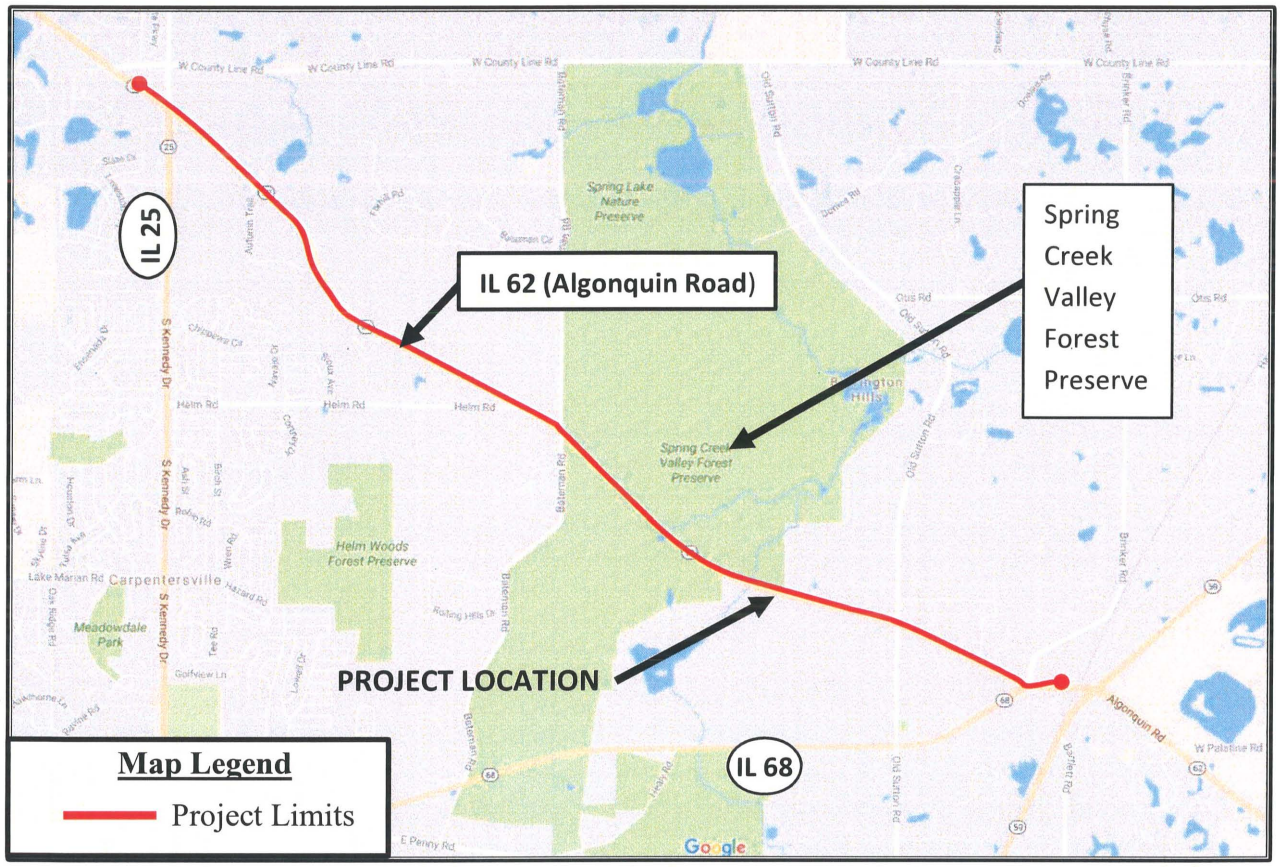
WHEREAS, The Department has presented the Village, for its consideration, a bicycle and/or pedestrian improvement with funding to be split 80% State, 20% local with maintenance to be provided by the Village; therefore, be it

RESOLVED, That the Village hereby rejects the Department's proposed bicycle and/or pedestrian improvement and acknowledges that such rejection will result in a cancellation of the proposed improvement; and be it further

RESOLVED, That a suitable copy of this resolution be presented to the Project Engineer associated with the proposal, or his or her equivalent, within the Department.

PROJECT LOCATION MAP

IL 62 (Algonquin Road)
IL 25 to IL 68
P-91-404-16



IL 62 (Algonquin Road)
IL 25 to IL 68
Village of Barrington Hills
Dundee/Barrington Township
Cook/Kane County

N

Exhibit "A"

TRAFFIC SIGNAL PARTICIPATION

The cost participation associated with traffic signal installation, modernization, or relocation will be in accordance with 92 Ill. Adm. Code 544 "Financing of Traffic Control Signal Installations, Modernization, Maintenance, and Operation on Streets and Highway under State Jurisdiction."

Traffic signals may be installed only where conditions meet warrants established in the current Illinois Manual on Uniform Traffic Control Devices. If a new signal installation is warranted, it may be included within the roadway improvement.

Current IDOT policy requires that IDOT and Local Agency (ies) share the responsibility for installation, modernization, and relocation of traffic signals. The installation, modernization, and relocation of pedestrian signals associated with traffic signal improvements will also require the Department and Local Agency (ies) to share financial responsibility. The eligible share of the cost to each agency will be in proportion to the number of intersection approaches that the agency maintains. Generally, traffic signal costs are 80% Federal and 20% non-Federal based on established cost participation policy (90% Federal and 10% non-Federal for safety projects). IDOT will participate in the non-Federal portion for the State-owned legs of an intersection. At locations where all legs of an intersection are State-owned, IDOT will participate in 100% of the cost of the traffic signal installation, modernization, or relocation. Closely spaced new or modernized traffic signals within the improvement limits generally require signal coordination or hardware interconnection for the purpose of providing vehicle progression. IDOT will be financially responsible for 100% of coordination or interconnection costs.

IDOT will be financially responsible for 100% of the installation and modernization of traffic signals at ramp terminals of ramps connecting to or from a State highway.

The entire cost of installing push button ("Fire pre-emption") and emergency vehicle pre-emption equipment is the responsibility of the requesting local fire district or municipality.

The entire cost of installing, modernizing, relocating, maintaining and energizing private benefit signals is the responsibility of the private benefit agency being served by the traffic signals. However, IDOT will enter into a formal agreement for a private benefit signal installation only with the local jurisdictional or governmental agency.

It should be noted that an agency involved might voluntarily assume responsibility for another agency's share of the cost in order to expedite the installation or modernization.

When warrants are met for school crossing signals at public road intersections, the eligible share to each agency for the installation and modernization cost shall be split on a 50/50 basis or in proportion to the number of intersection approaches that each agency maintains.

TRAFFIC SIGNAL MAINTENANCE

At intersections lying wholly outside the Corporate Limits of any municipality, IDOT will be responsible for the maintenance of the signals.

At intersections lying wholly or partially within the Corporate Limits of one or more municipalities, IDOT will assume the following costs for the maintenance of traffic signals on State highways within municipalities:

(A) The total costs for all signals at the intersections of two or more State highways.
(B) The total costs for all signals at the intersections along State highways that have an average daily traffic in excess of 35,000 vehicles per day as shown on the latest published edition of the traffic volume (AADT) map. The District Engineer will determine the limits of this section within the municipality.
(C) The total costs for all signals located at the terminals of ramps connecting to or from a State highway.
(D) At all other intersections IDOT and the municipalities will share in the cost of signal maintenance. The cost to the municipalities will be in proportion to the number of approaches that they maintain.

ENERGY CHARGES

The division of financial responsibility for the energy charges will be as follows:

(A) At intersections lying wholly outside the Corporate Limits of any municipality, IDOT will pay the energy charges for the operation of the signals.
(B) At intersections lying wholly within the Corporate Limits of a municipality, IDOT and the municipality will share the energy charges according to the proportionate number of intersection approaches maintained by each agency.
(C) At intersections lying partially within the Corporate Limits of one or more municipalities, the municipalities will be responsible for the energy charges.

Traffic Signal Master Agreements, consummated by IDOT, give municipality defined maintenance and energy responsibilities required for the operation of traffic signals. New traffic signal improvements shall contain maintenance and energy provisions in the improvement agreement adding the new traffic signals to said Master Agreement. Existing traffic signals to be modernized or relocated, shall contain maintenance and energy provisions in the improvement agreement indicating traffic signal maintenance and energy responsibilities for given traffic signal(s) shall continue to be as outlined in the Master Agreement. Certain circumstances, such as jurisdictional transfers of roadway segments affecting signalized intersections with the improvement limits, could result in a revision to maintenance and energy responsibilities contained in the Master Agreement for a given traffic signal(s). An amendment to the Master Agreement would be required.

IDOT does not share in maintenance costs for school crossing signals unless specified otherwise in the Master Agreement or if the school crossing signals are installed at public road intersections for which the maintenance costs shall be shared in proportion to the number of intersection approaches that each agency maintains.

PARKING LANES

If a new parking lane is added, IDOT will participate in 50% of the cost if the ADT is greater than 5,000 vehicles per day and if the pavement composition and lane width meets the IDOT criteria. The municipality would assume the total cost (100%) of the parking lane if the pavement composition or lane width does not meet IDOT criteria or if the ADT is less than 5,000 vehicles per day.

If an exclusive existing parking lane requires resurfacing, IDOT will participate in 50% of the milling and resurfacing costs for parking with lane widths equal to or less than the adjacent travel lanes. The municipality will assume the total cost (100%) of the milling and resurfacing costs for that portion of the parking that is greater than the width of the adjacent travel lane. The municipality will also assume 100% of any base repair cost for the entire width of the existing parking as well as any patching and curb and gutter repairs. If the municipality declines to participate, a very minimal amount of resurfacing would be done IDOT expense. (Minimal amount of resurfacing is defined as a taper across the parking lane ranging from approximately 1½ inch thick adjacent to the through lane to 1 inch or less adjacent to gutter line).

IDOT will assume the total cost (100%) associated with the milling and resurfacing of parking lanes when parking is eliminated during one or more peak hours.

The municipality is responsible for the total cost (100%) of reconstructing existing parking and any adjacent curb and gutter.

The State will not consider an improvement of a State-maintained highway unless the proposed parking or existing parking adjacent to the traffic lanes is parallel parking except as provided under Chapter 95 1/2 Art. 11-1304(c) (Illinois Revised Statutes).

Parking prohibition ordinances will be required through areas where there are no parking lanes.

ROADWAY MAINTENANCE

The State will assume the maintenance cost associated with the through traffic lanes, turning lanes, and the curb and gutter adjacent to these traffic lanes. The municipality will assume the maintenance cost associated with all other facilities including but not limited to items such as storm sewers, parkways, exclusive parking lanes, curb and gutter adjacent to the parking lanes, sidewalks, landscape features, appurtenances, etc.

UTILITY RELOCATION

Municipal utilities, installed by permit and requiring relocation, will be relocated at no expense to the Department.

Municipal utilities installed prior to the Department's assuming maintenance of the roadway will be relocated, if required, at IDOT expense.

The cost of any improvement to, or betterment of municipal utilities, would be the entire financial responsibility (100%) of the local agency.

ROADWAY LIGHTING

Existing highway lighting that is owned and maintained by the municipality, will be relocated and upgraded to current standards. New lighting, proposed by the municipality, may be incorporated into the total improvement plans.

The cost of the above work would be the entire financial responsibility of the local agency.

PEDESTRIAN AND BICYCLE FACILITIES

Sections 17 Bicycle and Pedestrian Accommodations and 48-2.04 Sidewalks of the IDOT Bureau of Design and Environment Manual establish the criteria to determine pedestrian and bicycle needs. Maintenance responsibilities as well as State and local agency participation toward the cost of these facilities included as part of a roadway construction contract on a State route shall be in accordance with Sections 5-03 and 5-05 of the Bureau of Design and Environment Manual as follows.

Maintenance Responsibilities – The Municipality will maintain any new or replacement sidewalks the Department provides in conjunction with the highway improvement project, excluding those constructed on structures. The Municipality will also maintain any bicycle paths associated with the State highway project other than that portion of the bicycle path carried on state structures. The State will assume the maintenance responsibilities for On-Road Bicycle Lanes or Wide Outside Lane and Widened Shoulders constructed as bicycle accommodations.

Cost Participation

1. New and Deteriorated Sidewalks – Use the criteria in Chapters 17 and 48 to determine the warrants for sidewalks. If these criteria are met and the Local Agency agrees to maintain the sidewalks, proportion the improvement costs associated with new or deteriorated sidewalks as follows:

    a. New Sidewalks – Proportion the cost between the State and Local Agency at 80/20 for new sidewalks within the project termini or for short distances outside the project termini as may be required to connect sidewalks to significant pedestrian generators (e.g., schools, transit facilities). The Phase I Study Report will document the need for sidewalk construction.

    b. Deteriorated Sidewalks – The Local Agency will pay 100% of the cost to remove existing deteriorated sidewalks. Proportion the cost 80/20 between the State and Local Agency for deteriorated sidewalk replacement when associated with a highway project. Local Agency will pay 100% of the cost of decorative sidewalks.

    c. Sidewalk Removal and Replacement – The State is 100% financially responsible for removing and replacing existing sidewalks if such a need is caused by the construction of an IDOT highway improvement.

2. Bicycle Accommodations – Use the criteria in Chapter 17 to determine the warrants for bicycle accommodations. If these criteria are met and the Local Agency agrees to maintain the bicycle accommodation as appropriate, proportion the improvement costs associated with the bicycle accommodations as follows:

a. On-Road Bicycle Lanes – Proportion the cost 80/20 between the State and Local Agency for the construction of new on-road bicycle lanes as indicated by the facility selection criteria contained in Chapter 17.

b. Wide Outside Lanes and Widened Shoulders – The State will pay 100% of all costs for wide outside lanes or widened shoulders indicated for bicycle accommodation.

c. New Paths – Proportion the cost 80/20 between the State and Local Agency for construction of new paths within the project termini or for short distances outside the project termini as may be required to connect paths to significant bicycle traffic generators (e.g., schools, transit facilities). The Phase I Study Report will document the need for path construction.

d. Path Removal and Replacement – The State is 100% financially responsible for removing and replacing existing paths if such a need is caused by the construction of an IDOT highway improvement.

e. Adjustment of Existing Paths – If an existing path requires adjustment due to an IDOT improvement, the State will pay 100% of the adjustment cost. The Department will construct the replacement in accordance with IDOT path criteria. The Local Agency is 100% financially responsible for path adjustments that are caused or initiated by a work request from the Local Agency.

f. Paths Above and Beyond Selection Criteria – If facility selection criteria for side paths are not met and the Local Agency still requests side path installation, the Local Agency is 100% financially responsible for all costs for installation of the path above those costs for the improvement identified in the selection criteria, including any necessary right-of-way and construction.

g. Paths on Structures - The State will pay 100% of all costs for bicycle and pedestrian accommodations on structures and approaches. The Local Agency will pay 100% of the cost difference of a separate bicycle and pedestrian structure if bicyclists and pedestrians could have been safely accommodated on the roadway structure, or request grade separation when at-grade crossings are considered safe.

3. Utility Adjustments and Other Items – Proportion the cost 80/20 between the State and Local Agency for reimbursable utility adjustments as defined in Chapter 6, Section 6-1.03 of the BDE Manual, as well as pedestrian barriers, retaining walls, and other collateral items that are required solely for pedestrian and bicycle accommodations not necessitated by the IDOT project. The Local Agency is responsible for 100% of the costs for right-of-way, utility adjustments, barriers, retaining walls, and other collateral items that are not required solely for the pedestrian and bicycle accommodations.

4. Right-of-Way – Proportion the cost 80/20 between the State and Local Agency for right-of-way if acquired solely for sidewalk construction. Also, the Local Agency will pay 100% of the construction costs for sidewalks associated with the construction of on-system parking not necessitated by the IDOT project. The State will pay 100% for right-of-way if additional right-of-way is required to construct an IDOT-proposed highway cross section.

5. Local Agency Does Not Accept Maintenance Responsibilities – If the Local Agency does not agree to maintain the sidewalk, the State will not construct it, even if it is

warranted. However, the State will take reasonable actions to not preclude future additions of sidewalk at such locations.

6. Local Agency Does Not Choose To Participate – If the local agency chooses not to participate financially in the bicycle or pedestrian accommodation, the Department will request that that local agency pass a local resolution indicating their non-participation and have this noted in the Phase I Project Report.

ADDITIONAL WORK

IDOT would be receptive to considering additional highway related work items suggested and paid for by the local agency for incorporation within the improvement, providing that the additional work items would not delay the implementation of the project. Such items could include lighting, over-size storm sewer, utilities, emergency vehicle pre-emption equipment etc.

The local agency may be expected to provide plans, specifications, and estimates for such additional work that is requested to be incorporated into the contract plans for the State-owned portion of the project. Said plans and specifications shall be of such quality to facilitate inclusion in the contract package and shall be available in a timeframe consistent with anticipated contract processing schedules and deadlines.

EXHIBIT "B"

(Updated June 2002)

The following improvements are optional and may be incorporated into this traffic signal improvement if the Municipality requests it. Construction costs and engineering costs of these items would have to be borne entirely by the Municipality. Please check the appropriate square. The Bureau of Traffic will not proceed with the design of plans for this improvement until this questionnaire has been completed.

Construction bracket-mounted traffic signals on existing street lighting standards.

❑Yes ❑No

Install emergency fire pre-emption equipment.

❑Yes ❑ No

If "Yes" indicate what type:_____

Type of existing parking on the four approaches of this intersection:

❑ Parallel ❑ Diagonal ❑ Prohibition Ordinance

Would the Municipality be willing to prohibit existing parking, including any off street parking within the limits of the State right-of-way, on the approaches to this intersection? (Depending upon individual situations the minimum distance for no parking from the stop line, along any approach, would vary from 30 to 250 feet).

❑Yes ❑ No

Is this intersection located at an established school crossing?

❑Yes ❑ No

If "Yes", across which leg or legs of the intersection do children cross?

❑ North ❑ South ❑ East ❑ West

Additional comments: _____

_____

By: _____

Date: _____

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MEMORANDUM

To: Brian Cecola, VBH
Chairman Roads & Bridges

From: Dan Strahan, P.E., CFM
Gewalt Hamilton Associates (GHA)

Date: October 16, 2017

Re: Longmeadow Parkway Update

Section D of the Longmeadow Parkway project was included the in the IDOT Transportation Bulletin for the November 17, 2017 letting, released on October 13, 2017. The current bulletin can be viewed at the IDOT website at the following link:
http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index

The plans and specifications for this project have been posted (under Contract No. 61D16) and a hard copy will be provided at the Village Hall for resident review. The completion date is listed in the Bulletin as June 30, 2019 and construction is anticipated to begin in the spring of 2018.