

ADDENDUM NO. 2

DATE: October 24, 2017

FROM: Village of Villa Park Public Works Department

TO: All Planholders

PROJECT: **2018 South Michigan Avenue Improvement Project (Jackson to Madison)**

The Bidding Documents for the subject project are hereby amended as follows. The attached Acknowledgement Form must be filled out and returned with your Bid.

GEOTECHNICAL INVESTIGATION

Included in this addendum is the Geotechnical Investigation by Soil and Material Consultants, Inc. for the project.

CHANGE THE FOLLOWING ITEM(S) IN THE PLANS:

REPLACE:

Replace Page 3 of the Plans with the attachment included in this addendum. The revisions were made to the quantities for pay item numbers 6, 7, and 14. The revisions are bubbled on the plan sheet.

CHANGE THE FOLLOWING ITEM(S) IN THE SPECIFICATIONS:

IN "SCHEDULES OF PRICES BLR 12200a":

REPLACE:

Replace sheet 4-1 for Alternative 1 and Alternative 2 with the attachments included in this addendum. The revisions were made to the quantities for pay item numbers 6, 7, and 14.

IN “GENERAL SPECIAL PROVISIONS”:

REPLACE:

Replace Page 16 of the General Special Provisions with the attachment included in this addendum. The revisions were made to the Trench Backfill and Pipe Bedding section and are as follows:

All trench backfill and pipe bedding materials furnished under this contract shall be virgin, non-recycled materials.

Trench backfill shall be CA-6 and installed per Method 1 outlined in section 550.07 of the Standard Specifications. Pipe bedding shall be CA-7 or CA-11 and installed per section 550.04 of the Standard Specifications.

IN “PAY ITEM SPECIAL PROVISIONS”:

REPLACE:

Replace Pages 34 and 35 of the Pay Item Special Provisions with the attachment included in this addendum. The revisions were made to Section (b) Water Service for Pay Items #34 and #35. The changes for each Pay Item are as follows:

- (b) Water Service- This work shall be completed in accordance with the applicable portions of the latest edition of the “Standard Specifications for Water and Sewer Main Construction in Illinois” and the requirements of the Owner of the Water Service, and shall consist of the repair of residential water service lines when disturbed by other construction crossing the service line. All materials shall be per the ~~Pay Item #40~~ Water Service Connection Special Provision. **If a service is copper it shall be spliced with flared couplings at the location of disturbance.** If a service is lead it shall be replaced from the water main to b-box and paid for as WATER SERVICE CONNECTION, 1”.

REPLACE:

Replace Page 39 of the Pay Item Special Provisions with the attachment included in this addendum. The revisions were made to Pay Item #45-46 and are as follows:

Materials. The pipe drains shall be PVC SDR 26 ASTM D-2241 pipe.

END OF ADDENDUM NO. 2

ADDENDUM NO. 2 ACKNOWLEDGMENT FORM

I/We hereby acknowledge receipt of the following documents pertaining to **ADDENDUM No. 2** to the Bidding Documents for the Village of Villa Park's **2018 SOUTH MICHIGAN AVENUE IMPROVEMENT PROJECT (JACKSON TO MADISON)**.

Addendum No. 2	2 pages
Attachments	
1. Geotechnical Investigation	12 pages
2. Plan Sheet (Sheet 3 of 34)	1 page
3. Bid Book Sheets	6 pages
Acknowledgment Form	1 page
TOTAL	22 pages

Name: _____

Title: _____

Company: _____

Signature: _____

Date: _____



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www.soilandmaterialconsultants.com

October 19, 2017
File No. 23602

Mr. Jeremie Lukowicz, P.E.
Village of Villa Park
Public Works Department
11 W. Home Avenue
Villa Park, IL 60181

Re: Geotechnical Investigation
Michigan Avenue
Jackson Street to Madison Street
Villa Park, Illinois

Dear Mr. Lukowicz:

The following is our report of findings for the geotechnical investigation completed along Michigan Avenue between Jackson Street and Madison Street located in the Village of Villa Park, 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 assist in the planning, design and construction of proposed site improvements. We understand it is proposed to reconstruct the pavement along Michigan Avenue and install new underground utilities.

SCOPE OF THE INVESTIGATION

The field investigation included obtaining 5 borings at the locations requested and as indicated on the enclosed location sketch. The boring locations were established using field taping methods and accuracy.

We auger drilled the borings to depths of 25.0 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.

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

SOIL BORINGS • SITE INVESTIGATIONS • PAVEMENT INVESTIGATIONS • GEOTECHNICAL ENGINEERING
TESTING OF • SOIL • ASPHALT • CONCRETE • MORTAR • STEEL

RESULTS OF THE INVESTIGATION

Enclosed are boring logs indicating the conditions encountered at each location. The existing pavement consisted of 2.0 inches to 2.5 inches of bituminous concrete over 7.0 inches to 8.0 inches of concrete pavement. Topsoil was present below the pavement at borings 1, 2 and 4. The topsoil was found extending to depths of 1.5 feet at borings 1 and 2 and to 2.0 feet at boring B-4.

Fill soil conditions were encountered at boring B-3 which is likely the result of trench backfill. Composition of the fill includes the presence of clay/silt mixtures extending to a depth of 7.0 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 consist primarily of cohesive soils. These are classified as tough to hard clay/silt mixtures with lesser portions of sand and gravel. Thinner seams of non-cohesive soils were also encountered as indicated at borings B-2, B-4 and B-5. These include loose to medium dense sand, silt/clay, and silt/sand/clay mixtures. The non-cohesive granular soils are 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.

The following table summarizes depth ranges below existing grade, the magnitude of soil strength within these ranges and other information:

<u>Boring</u>	<u>Depth Range Below Existing Surface (feet)</u>	<u>Soil Strength (lbs./sq.ft.)</u>	<u>Recorded Water Levels, W.D./A.D. (feet)</u>
1	2.0 to 7.0	3,000	dry/dry
	7.0 to 12.0	5,000	
	12.0 to 22.0	4,000	
2	2.0 to 8.0	5,000	12.0/10.5
	8.0 to 22.0	3,000	
3	1.0 to 7.5	*2,000	6.5/6.5
	7.5 to 22.0	3,000	
4	2.5 to 6.0	3,000	dry/dry
	6.0 to 10.0	8,000	
	10.0 to 16.0	5,000	
	16.0 to 21.5	3,000	
	21.5 to 22.0	6,000	
5	1.0 to 4.0	4,000	11.5/13.0
	4.0 to 8.0	6,000	
	8.0 to 12.5	3,000	
	12.5 to 15.0	4,000	
	15.0 to 21.5	3,000	
	21.5 to 22.0	5,000	

* Not recommended for support of utilities.

Undercuts and utilities supported on coarse crushed stone fill may be needed to reduce the magnitude of long-term total and differential settlement.

The boring logs and the above table indicate the depth at which subsurface water was 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.

The levels recorded at boring B-3 indicate a perched water condition. Perched water is primarily surface precipitation falling on this site or adjacent properties and which becomes trapped in pervious soil that is underlaid by relatively impervious soil. This water often flows laterally along a path of least resistance such as non-cohesive soil strata, drain tile or other permeable medium. This water will also drain from the embankments of open excavations. The actual ground water condition is expected to be present in well defined granular soil layers located at deeper elevations.

PAVEMENT RECONSTRUCTION

The complete reconstruction of Michigan Avenue would include the removal of all the existing pavement materials. The subgrade would then be excavated to the design elevation, compacted and proof rolled. Any areas of buried topsoil and/or unstable soils will most likely require removal and replacement with large crushed aggregate, possibly in conjunction with the use of an appropriate geotextile fabric. Without knowledge of the new design pavement section we would anticipate undercuts in the areas of buried topsoil and possibly existing utility trenches.

Underdrains are recommended to be installed in order to assist with drainage and alleviate potential frost heave. The new aggregate base would then be placed and compacted followed by the placement of the designed thickness of bituminous concrete binder and bituminous concrete surface courses.

SEWER SUPPORT

The soils encountered at the boring location should provide adequate support of underground utilities. The bedding for the sewer pipe can be supported on the undisturbed natural soils located below all topsoil, unsuitable fill soils, low strength soils and other unsuitable conditions which may be encountered. Soil strength values and the depths at which they are expected to be encountered at these boring locations are indicated in the above table.

In the unimproved areas, the trench excavation can be backfilled with the suitable non-organic soils from the trench. In the improved areas, such as under pavements and sidewalks, the trench should be backfilled with compacted crushed granular fill (CA06). The backfill should be placed in lifts not to exceed 12.0 inches when uncompacted. Each lift should exceed the minimum compaction requirement prior to the placement of the next lift. We would recommend a minimum of 95% compaction based on the modified Proctor test, ASTM D-1557, be achieved in the pavement and sidewalk areas and a minimum of 85% in the unimproved areas.

DEWATERING

Excavations may require dewatering due to subsurface water seepage and/or surface precipitation. This water can likely be removed to depths of several feet by standard sump and pump operations. Soils exposed at subgrade or pipe-bedding elevations should not be permitted to become saturated. Loss of bearing strength and stability may occur, requiring additional soil excavation.

Organic soils, fill soils, cohesive soils and others can be unstable when saturated. These soils tend to cave or run when submerged or disturbed. The stability of exposed embankments is minimal to non-existent as confining soil pressures are removed. Proper drainage within excavations is necessary at all times, particularly when excavations extend below anticipated water levels and below saturated soils.

The contractor should be made responsible for designing and constructing stable temporary excavations. Also, the contractor should shore, slope, bench or restrain the sides of the excavations as required to maintain stability of both the excavation sides and bottom. In no case, should the slope, slope heights, or excavation depth exceed those in the local, state, and federal safety regulations.

CONCLUSION

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

Our understanding of the proposed improvements is based on very 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. We recommend that proposed pavement and utility plans be reviewed by our office to determine if additional considerations are necessary to address anticipated subsurface conditions.

The soils exposed during subgrade preparation should be evaluated for suitability prior to placement of granular base, as previously indicated in this report. Soils and aggregates placed as structural fill should be tested as the work progresses to verify that minimum compaction requirements have been met.

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.

cc: Mr. Kevin Mantels – Village of Villa Park



SMC		SOIL AND MATERIAL CONSULTANTS, INC.	LOCATION SKETCH
Client:	VILLAGE OF VILLA PARK		
Project:	MICHIGAN AVE. – JACKSON AVE. to MADISON ST.		
Location:	VILLA PARK, ILLINOIS		
File No.	23602	Date: 10-17-17	Scale: NONE

Client: Village of Villa Park

File No. 23602 Date Drilled: 10/17/17

Reference: Michigan Avenue
 Jackson St. to Madison St.
 Villa Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION
 Elevation Existing Surface

depth, ft.	(a,b & c) see below
7	Brown clay, some silt, trace sand & gravel damp, very tough
5-6	Brown clay, some silt, trace sand & gravel damp, very tough to hard
10-17	Gray clay, some silt, trace sand & gravel, damp, very tough
15-10	
10-10	
20-9	
9-9	
25-11	End of Boring
30	(a) Bituminous concrete - 2.0" (b) Concrete - 8.0" (c) Black silt, some clay, trace sand, damp, loose (topsoil)
35	
40	

standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	○ 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			
×	△	⊗	○				
7	23.2 22.4			×	●	△	
6	16.2	114.7	1.8	×	△	●	
9	19.4	108.8	3.3	×	△	●	○
17	15.4	117.9	6.8		△		○
8	15.2	119.4	2.8	×	△	●	○
10	15.3	119.7	3.7	×	△	●	○
10	15.1	118.3	2.7	×	△	●	○
9	23.2	105.5	2.0	×	●	△	
9	17.1	115.9	3.6	×	△	●	○
11	18.2	115.8	2.1	×	△	●	○

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.)

Client: Village of Villa Park

File No. 23602 Date Drilled: 10/17/17

Reference: Michigan Avenue
 Jackson St. to Madison St.,
 Villa Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION
 Elevation Existing Surface

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq. ft.				
					1.0	2.0	3.0	4.0	
					penetrometer reading, tons/sq. ft.				
					standard penetration "N", blows/ft.				
					moisture content, %				
					10	20	30	40	
(a,b & c) see below									
5-	10	25.5 21.4	24.5 102.1	3.3	X		△	○	
	6	21.3	103.6	3.3	X		△	●	○
	7	20.4	106.7	2.5	X		△	○	
10-	12	16.7	114.3	5.7	X	△			○
	8	21.7	105.5	2.2	X		●	△	
15-	10	15.9	119.1	1.5	X	○		●	
	14	18.4	114.2	1.8	X	△		●	
20-	15	18.2	120.6	2.9	X	△		●	○
	11	18.6	120.5	1.4	X	○	△		
25-	13	17.8	118.6	1.5	X	○	△		●
	End of Boring								
30-	(a) Bituminous concrete - 2.0"								
	(b) Concrete - 7.0"								
35-	(c) Black silt, some clay, trace sand, damp, loose (topsoil)								
40									

Water encountered at 12.0 feet during drilling operations (W.D.)
 Water recorded at 10.5 feet on completion of drilling operations (A.D.)
 Water recorded at _____ feet _____ hours after completion of drilling operations (A.D.)

Client: Village of Villa Park

File No. 23602

Date Drilled: 10/17/17

Reference: Michigan Avenue
 Jackson St. to Madison St.
 Villa Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION

Elevation Existing Surface

(a & b) see below

7-5 Brown-dark brown-black clay, some silt, trace sand & gravel, damp-very damp, very tough - Fill

5-6 Brown-dark brown-black clay, some silt, trace sand & gravel, damp-very damp, tough Fill (possible drain tile)

14-14 Brown clay, some silt, trace sand & gravel, damp, hard

10-13 Gray clay, some silt, trace sand & gravel, damp-very damp, hard

9-9 Gray clay, some silt, trace sand & gravel, damp-very damp, tough to very tough

15-10 15.9 120.4 1.7

9-9 22.9 108.0 1.9

20-10 15.4 124.6 1.2

16-16 16.7 119.7 2.3

25-11 Gray clay, some silt, trace sand & gravel, damp-very damp, tough

End of Boring

(a) Bituminous concrete - 2.5"
 (b) Concrete - 8.0"

30

35

40

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq. ft.				penetrometer reading, tons/sq. ft.			
					1.0	2.0	3.0	4.0	1.0	2.0	3.0	4.0
	X	Δ	⋈	○	X standard penetration "N", blows/ft. Δ moisture content, %							
					10	20	30	40	10	20	30	40
7-5	7	18.0	110.2	3.4	X	Δ	●	○				
5-6	6	18.7	108.7	1.9	X	Δ	●					
14-14	14	18.6 18.1	106.8 116.5	2.7 4.3		X	Δ	●	○			○ ₃
10-13	13	15.8	128.1	4.7	X	Δ	●					○ ₁
9-9	9	17.6	121.7	1.5	X	●	Δ					
15-10	10	15.9	120.4	1.7	X	Δ	●					
9-9	9	22.9	108.0	1.9	X	●	Δ					
20-10	10	15.4	124.6	1.2	X	Δ	●					
16-16	16	16.7	119.7	2.3		X	Δ	○	●			
25-11	11	19.4	117.8	1.2	X	Δ	●					

Water encountered at 6.5 feet during drilling operations (W.D.)
 Water recorded at 6.5 feet on completion of drilling operations (A.D.)
 Water recorded at _____ feet _____ hours after completion of drilling operations (A.D.)

Client: Village of Villa Park

File No. 23602

Date Drilled: 10/17/17

Reference: Michigan Avenue
 Jackson St. to Madison St.
 Villa Park, IL

Comments:

depth, ft.	Equipment: <input checked="" type="checkbox"/> CME 45B <input type="checkbox"/> CME 55 <input type="checkbox"/> Hand Auger <input type="checkbox"/> Other	standard penetration X	moisture content Δ	dry unit weight lbs./cu.ft. γ	unconfined compressive strength O	○ unconfined compressive strength, tons/sq. ft. ● penetrometer reading, tons/sq. ft. 1.0 2.0 3.0 4.0 X standard penetration "N", blows/ft. Δ moisture content, % 10 20 30 40													
	Elevation					Existing Surface													
	(a & b) see below																		
	(c) see below																		
5	Brown-gray clay, some silt, trace sand & gravel, damp, tough to very tough	7	30.0 23.6			X	●	Δ	Δ										
	Brown clay, some silt, trace sand & gravel, damp, hard	5	25.1	97.9	2.4	X		●	Δ										
		11	17.4	111.9	5.3	X	Δ												5.3
10	Gray clay, some silt, trace sand & gravel, damp, hard	12	15.4	117.7	4.8	X	Δ												4.8
		10	14.3	116.2	5.8	X	Δ												5.8
15	Gray clay, some silt, trace sand & gravel, damp, very tough	8	15.0	118.7	3.8	X	Δ		●										
		8	15.3	123.0	2.8	X	Δ	●											
20	Gray silt, some clay, trace sand & gravel, damp, loose	8	24.2 13.7	101.5	2.5	X	Δ	●	Δ										
	Gray clay, some silt, trace sand & gravel, damp, very tough	9	18.4	115.2	3.3	X	Δ	●											
25	End of Boring	11	18.4	115.4	3.3	X	Δ	●											
30	(a) Bituminous concrete - 2.0" (b) Concrete - 8.0" (c) Black silt, some clay, trace sand, damp, loose (topsoil)																		
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.)

Client: Village of Villa Park

File No. 23602

Date Drilled: 10/17/17

Reference: Michigan Avenue
 Jackson St. to Madison St.
 Villa Park, IL

Comments:

Equipment: CME 45B CME 55 Hand Auger Other

CLASSIFICATION
 Elevation Existing Surface

(a & b) see below

Brown-gray clay, some silt, trace sand & gravel, damp, hard to very hard

(c) see below

Gray clay, some silt, trace sand & gravel, damp, very tough

Gray sand & silt, some clay, trace gravel, very damp, loose

Gray clay, some silt, trace sand & gravel, damp, very tough

End of Boring

(a) Bituminous concrete - 2.5"
 (b) Concrete - 7.5"
 (c) Gray silt, some sand & clay, trace gravel, damp-very damp, medium dense

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	Strength and Penetration Data			
					unconfined compressive strength, tons/sq. ft.	penetrometer reading, tons/sq. ft.	standard penetration "N", blows/ft.	moisture content, %
	X	Δ	γ	○	1.0	2.0	3.0	4.0
7		17.0	111.9	4.1	X	Δ	●	○
10		18.0	112.4	4.3	X	Δ	●	○
12		18.1	111.4	4.9	X	Δ		○
17		16.4	114.4	9.2	X	Δ		○
11		13.2 18.1	112.0	2.2	X	Δ	●	○
10		15.4	118.0	2.9	X	Δ	●	○
9		15.7	116.1	2.4	X	Δ	●	○
8		18.5			X	Δ		
13		14.8	120.4	3.1	X	Δ	●	○
15		15.8	114.1	2.4	X	Δ	●	○

Water encountered at 11.5 feet during drilling operations (W.D.)
 Water recorded at 13.0 feet on completion of drilling operations (A.D.)
 Water recorded at _____ feet _____ hours after completion of drilling operations (A.D.)

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

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

Moisture Content

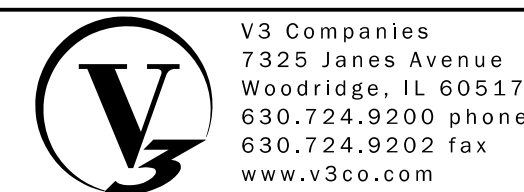
Dry
 Damp
 Very Damp
 Saturated

DRILLING, SAMPLING & SOIL PROPERTY 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/ith 1-7/8 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]

SP	ITEM NO.	IDOT REF. NO.	ITEM	UNIT	ALT 1	ALT 2
	1	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	129	129
	2	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	176	176
	3	20101000	TEMPORARY FENCE	FOOT	1,080	1,080
•	4	20101200	TREE ROOT PRUNING	EACH	18	18
	5	20200100	EARTH EXCAVATION	CU YD	432	432
	6	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	400	400
	7	20700220	POROUS GRANULAR EMBANKMENT	CU YD	0	0
	8	20800150	TRENCH BACKFILL	CU YD	6,580	5,307
	9	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SO YD	3,938	3,938
•	10		PARKWAY RESTORATION	SO YD	2,322	2,322
	11	25200200	SUPPLEMENTAL WATERING	UNIT	96	96
	12	28000400	PERIMETER EROSION BARRIER	FOOT	200	200
•	13	28000510	INLET FILTERS	EACH	28	28
•	14	30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	400	400
	15	35101800	AGGREGATE BASE COURSE, TYPE B 6"	SO YD	4,711	4,711
•	16		TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	1	1
•	17		TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	35	35
•	18		TEMPORARY ACCESS (ROAD)	EACH	5	5
•	19	40300200	BITUMINOUS MATERIALS (TACK COAT)	POUNDS	10,632	10,632
	20	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	883	883
	21	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	442	442
	22	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	31	31
•	23	Z0004514	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"	SO YD	287	287
•	24	42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6"	SO YD	328	328
•	25	42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8"	SO YD	88	88
•	26	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5"	SO FT	7,605	7,605
•	27	42400800	DETECTABLE WARNINGS	SO FT	180	180
•	28	44000100	PAVEMENT REMOVAL	SO YD	3,970	3,970
	29	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2 INCH	SO YD	7	7
•	30	44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	691	691
	31	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	2,817	2,817
	32	44000600	SIDEWALK REMOVAL	SO FT	7,347	7,347
	33	550A0410	STORM SEWERS, CLASS A, TYPE 2 24"	FOOT	61	40
•	34	550A0790	STORM SEWERS, CLASS A, TYPE 3 54"	FOOT	0	1,316
•	35	550A0820	STORM SEWERS, CLASS A, TYPE 3 72"	FOOT	1,316	0
	36	550A2520	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 12"	FOOT	286	286
	37	55100200	STORM SEWER REMOVAL 6"	FOOT	159	159
	38	55100300	STORM SEWER REMOVAL 8"	FOOT	132	132

SP	ITEM NO.	IDOT REF. NO.	ITEM	UNIT	ALT 1	ALT 2
	39	55100500	STORM SEWER REMOVAL 12"	FOOT	231	231
	40	55100700	STORM SEWER REMOVAL 15"	FOOT	21	21
	41	55100900	STORM SEWER REMOVAL 18"	FOOT	65	65
	42	55101200	STORM SEWER REMOVAL 24"	FOOT	26	26
•	43	56104900	WATER VALVES 6"	EACH	1	1
•	44		WATER SERVICE CONNECTION, 1"	EACH	2	2
•	45	60100905	PIPE DRAINS 4"	FOOT	16	16
•	46	60100905	PIPE DRAINS 6"	FOOT	100	100
	47	60200105	CATCH BASIN, TYPE A, 4' DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	7	7
	48	60218400	MANHOLES, TYPE A, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1
•	49		PRECAST 4' DIA "T" MANHOLES FOR 72" PIPE STORM SEWER, TYPE 1 FRAME AND GRATE, CLOSED LID	EACH	2	0
•	50		PRECAST 4' DIA "T" MANHOLES FOR 54" PIPE STORM SEWER, TYPE 1 FRAME AND GRATE, CLOSED LID	EACH	0	2
•	51		PRECAST 4' DIA "T" MANHOLES FOR 72" PIPE STORM SEWER, TYPE 1 FRAME AND GRATE, OPEN LID	EACH	1	0
•	52		PRECAST 4' DIA "T" MANHOLES FOR 54" PIPE STORM SEWER, TYPE 1 FRAME AND GRATE, OPEN LID	EACH	0	1
•	53		PRECAST 4' DIA "T" MANHOLES FOR 72" PIPE STORM SEWER, TYPE 11 FRAME AND GRATE	EACH	5	0
•	54		PRECAST 4' DIA "T" MANHOLES FOR 54" PIPE STORM SEWER, TYPE 11 FRAME AND GRATE	EACH	0	5
	55	60236800	INLETS, TYPE A, TYPE 11 FRAME AND GRATE	EACH	6	6
•	56	60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1
	57	60255500	MANHOLES TO BE ADJUSTED	EACH	7	7
	58	60255800	MANHOLE TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	1	1
	59	60257900	MANHOLES TO BE RECONSTRUCTED	EACH	4	4
	60	60258200	MANHOLES TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	2	2
	61	60260100	INLETS TO BE ADJUSTED	EACH	1	1
	62	60266600	VALVE BOXES TO BE ADJUSTED	EACH	1	1
	63	60500040	REMOVING MANHOLES	EACH	11	11
•	64		SANITARY SERVICE PIPE REPLACEMENT	FOOT	100	100
•	65		SANITARY SERVICE CONNECTION	EACH	3	3
•	66		SANITARY SEWER SERVICE COMBINATION CLEANOUT CHECK VALVE	EACH	3	3
•	67	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	2,817	2,817
	68	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	162	162
	69	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	88	88
	70	78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	60	60
•	71	X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	200	200
•	72	X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1
•	73	XX003668	PRECONSTRUCTION VIDEO RECORDING	L SUM	1	1
	74	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
•	75		WATER USAGE CREDIT	TGAL	100	100
•	76		WATER USAGE DEDUCTION	TGAL	100	100
•	77		CONTINGENCY ALLOWANCE	DOLLAR	30,000	30,000



USER NAME = sjandick
 PLOT SCALE = 1:8000' / in.
 PLOT DATE = 10/23/2017

DESIGNED - SJJ
 DRAWN - DRP
 CHECKED - MJR
 DATE - 09-22-2017

REVISED - 10-24-2017
 REVISED -
 REVISED -
 REVISED -

**2018 SOUTH MICHIGAN AVENUE
 IMPROVEMENT PROJECT (JACKSON TO MADISON)
 VILLAGE OF VILLA PARK, ILLINOIS**

SUMMARY OF QUANTITIES
 SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			34	3
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



**SCHEDULE OF PRICES
ALTERNATIVE 1**

County DuPage
 Local Public Agency Villa Park
 Section N/A
 Route South Michigan Ave

Schedule for Multiple Bids

Combination Letter	Sections Included in Combinations	Total

Schedule for Single Bid

(For complete information covering these items, see plans and specifications)

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
1	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	129		
2	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	176		
3	TEMPORARY FENCE	FOOT	1,080		
4	TREE ROOT PRUNING	EACH	18		
5	EARTH EXCAVATION	CU YD	432		
6	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	400		
7	POROUS GRANULAR EMBANKMENT	CU YD	0		
8	TRENCH BACKFILL	CU YD	6,580		
9	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	3,938		
10	PARKWAY RESTORATION	SQ YD	2,322		
11	SUPPLEMENTAL WATERING	UNIT	96		
12	PERIMETER EROSION BARRIER	FOOT	200		
13	INLET FILTERS	EACH	28		
14	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	400		
15	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	4,711		
16	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	1		
17	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	35		



**SCHEDULE OF PRICES
ALTERNATIVE 2**

County DuPage
 Local Public Agency Villa Park
 Section N/A
 Route South Michigan Ave

Schedule for Multiple Bids

Combination Letter	Sections Included in Combinations	Total

Schedule for Single Bid

(For complete information covering these items, see plans and specifications)

Bidder's Proposal for making Entire Improvements

Item No.	Items	Unit	Quantity	Unit Price	Total
1	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	129		
2	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	176		
3	TEMPORARY FENCE	FOOT	1,080		
4	TREE ROOT PRUNING	EACH	18		
5	EARTH EXCAVATION	CU YD	432		
6	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	400		
7	POROUS GRANULAR EMBANKMENT	CU YD	0		
8	TRENCH BACKFILL	CU YD	5,307		
9	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	3,938		
10	PARKWAY RESTORATION	SQ YD	2,322		
11	SUPPLEMENTAL WATERING	UNIT	96		
12	PERIMETER EROSION BARRIER	FOOT	200		
13	INLET FILTERS	EACH	28		
14	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	400		
15	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	4,711		
16	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	1		
17	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	35		

**2018 SOUTH MICHIGAN AVENUE IMPROVEMENT PROJECT (JACKSON TO MADISON)
VILLAGE OF VILLA PARK**

(\$3,000.00) to the Village for the temporary use of said hydrant meter, which deposit will be held by the Village until such time that the meter is returned to the Village by the Contractor in satisfactory condition. Contractor shall use said hydrant meter when obtaining water, and shall comply with all conditions for the use of said meter. Contractor shall return the hydrant meter to the Village within 24 hours of project completion and within 24 hours of any request by the Village that the hydrant meter be returned.

If Contractor makes application for temporary use of a hydrant meter and the application is not approved, Contractor shall make record of the quantity of water obtained, along with the date and time obtained, and shall report such information after each use to the Village of Villa Park Public Works Department, 11 West Home Avenue. If such use takes place outside of the normal working hours of the Public Works Department, Contractor shall report such information immediately upon the commencement of normal working hours.

Contractor shall not use, operate or obtain water from any hydrants other than the hydrant prescribed. Contractor shall not obtain water from the Village for construction operations or activities not under contract with the Village.

If a water main break occurs and the Village determines that the water main break is a result of Contractor's use of a hydrant, the Village may require the Contractor to repair the water main break in accordance with all applicable construction standards and requirements and at no cost to the contract, or may repair the water main break by other means and invoice the Contractor for reimbursement of the Village's costs.

Water usage will be measured according to the Special Provisions WATER USAGE DEDUCTION and WATER USAGE CREDIT."

TRENCH BACKFILL AND PIPE BEDDING

All trench backfill and pipe bedding materials furnished under this contract shall be virgin, non-recycled materials.

Trench backfill shall be CA-6 and installed per Method 1 outlined in section 550.07 of the Standard Specifications. Pipe bedding shall be CA-7 or CA-11 and installed per section 550.04 of the Standard Specifications.

EXCAVATION AND BACKFILLING OF DRAINAGE AND UTILITY STRUCTURES

Excavation, bedding and backfilling of drainage and utility structures which are constructed, reconstructed, or adjusted as a part of this contract will not be paid for separately but shall be included in the cost of the items to which this work pertains.

**2018 SOUTH MICHIGAN AVENUE IMPROVEMENT PROJECT (JACKSON TO MADISON)
VILLAGE OF VILLA PARK**

crossing the service line, complete in place including CCTV inspection, excavation; bracing; trench dewatering; removal of existing building service lines; repair of service lines with PVC SDR 26 ASTM 2241 pipe and non-shear couplings; bedding and covering of pipe; and trench backfilling with trench backfill materials.

- (b) Water Service- This work shall be completed in accordance with the applicable portions of the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois" and the requirements of the Owner of the Water Service, and shall consist of the repair of residential water service lines when disturbed by other construction crossing the service line. All materials shall be per the Water Service Connection Special Provision. If a service is copper it shall be spliced with flared couplings at the location of disturbance. If a service is lead it shall be replaced from the water main to b-box and paid for as WATER SERVICE CONNECTION, 1".
- (c) Nicor Gas- Contractor shall coordinate with Nicor for the disconnection and reconnection of gas service lines that are disturbed by construction crossing the gas service line.

Materials. Pipe shall be Type 3 Concrete Sewer (fill heights greater than 10-feet and less than 15-feet) with a diameter of 54-inches per Section 1042 of the Standard Specifications.

Pipe Elbows shall be furnished and installed per section 542.08 of the Standard Specifications and will be included in the cost of the 54-inch storm sewer. Contractor shall provide a shop drawing for the 54-inch Elbow to the Village and Engineer for review and approval.

Construction. Installation shall be according to the Standard Specifications and as directed by the Engineer.

Per Village standards, trench backfill shall be CA-6 and installed per Method 1 outlined in section 550.07 of the Standard Specifications.

Method of Measurement. Storm sewers will be measured for payment in place in feet and in accordance with section 550.09 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per linear foot for STORM SEWERS, CLASS A, TYPE 3 54".

**2018 SOUTH MICHIGAN AVENUE IMPROVEMENT PROJECT (JACKSON TO MADISON)
VILLAGE OF VILLA PARK**

PAY ITEM #35 – STORM SEWERS, CLASS A, TYPE 3 72”

Description. This work shall consist of installing 72-inch storm sewers. This work shall be in accordance with Section 550 of the Standard Specifications, except as modified herein.

All utility service disconnects and reconnects associated with the storm sewer installation will not be paid for separately but shall be included in the cost of the storm sewer. Utilities must be reconnected at the end of each working day. No overnight or weekend utility outages will be allowed.

Work shall include all excavation and disposal of material associated with the pipe installation in accordance with Section 202.03 of the Standard Specifications.

Utility disconnects and reconnects shall be performed per the following:

- (a) Sanitary Sewer Service- This work shall be completed in accordance with the applicable portions of the latest edition of the “Standard Specifications for Water and Sewer Main Construction in Illinois” and the requirements of the Owner of the Sanitary Sewer, and shall consist of the repair of sanitary sewer residential service lines when disturbed by other construction crossing the service line, complete in place including CCTV inspection, excavation; bracing; trench dewatering; removal of existing building service lines; repair of service lines with PVC SDR 26 ASTM 2241 pipe and non-shear couplings; bedding and covering of pipe; and trench backfilling with trench backfill materials.
- (b) Water Service- This work shall be completed in accordance with the applicable portions of the latest edition of the “Standard Specifications for Water and Sewer Main Construction in Illinois” and the requirements of the Owner of the Water Service, and shall consist of the repair of residential water service lines when disturbed by other construction crossing the service line. All materials shall be per the Water Service Connection Special Provision. If a service is copper it shall be spliced with flared couplings at the location of disturbance. If a service is lead it shall be replaced from the water main to b-box and paid for as WATER SERVICE CONNECTION, 1”.
- (c) Nicor Gas- Contractor shall coordinate with Nicor for the disconnection and reconnection of gas service lines that are disturbed by construction crossing the gas service line.

Materials. Pipe shall be Type 3 Concrete Sewer (fill heights greater than 10-feet and less than 15-feet) with a diameter of 72-inches per Section 1042 of the Standard Specifications.

**2018 SOUTH MICHIGAN AVENUE IMPROVEMENT PROJECT (JACKSON TO MADISON)
VILLAGE OF VILLA PARK**

The Contractor shall install a non-shear mission coupling for all connections to the yard drains. The Contractor shall connect the pipe drain to the storm sewer as directed by the Engineer. The non-shear mission coupling and connection to the storm sewer will not be paid for separately but is to be included in the cost of this item.

The pipe drain is to have a diameter of 4" or 6" as specified on the plans or directed by the Engineer.

Materials. The pipe drains shall be PVC SDR 26 ASTM D-2241 pipe.

Basis of Payment. This work shall be measured and paid for at the contract unit price per linear foot as PIPE DRAIN 4" or PIPE DRAIN 6".

PAY ITEM #49, 51, 53 – PRECAST 4' DIA "T" MANHOLES FOR 72" PIPE STORM SEWER, TYPE 1 FRAME AND GRATE, CLOSED LID

Description. This work shall consist of furnishing and installing Tee Section Manholes along the 72-inch storm sewer as specified in the construction drawings. This work shall be in accordance with Sections 602 and 550 of the Standard Specifications, except as modified herein.

Materials. Concrete tee base manholes shall be constructed in accordance with the Construction Details and with Section 542.08 of the Standard Specifications (Pipe Elbows, Tees, and Collars) and fabricated according to Article 1042.06 (Precast Concrete Pipe). The 4-foot diameter manhole sections shall be fabricated and installed in accordance with the requirements for an IDOT Standard 4-foot diameter Type A manhole. Contractor shall provide a shop drawing for Precast 4' Diameter "T" Manhole for 72" Pipe to OWNER and ENGINEER for review and approval.

Unless otherwise noted, an IDOT Type 1 Frame and Grate Closed Lid, IDOT Type 1 Frame and Grate Open Lid, or IDOT Type 11 Frame and Grate shall be installed per the construction plans.

Construction. Installation shall be according to the Standard Specifications and as directed by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price per EACH for PRECAST 4' DIA "T" MANHOLES FOR 72" PIPE STORM SEWER, TYPE 1 FRAME AND GRATE, CLOSED LID, PRECAST 4' DIA "T" MANHOLES FOR 72" PIPE STORM SEWER, TYPE 1 FRAME AND GRATE, OPEN LID, or PRECAST 4' DIA "T" MANHOLES FOR 72" PIPE STORM SEWER, TYPE 11 FRAME AND GRATE.