INVESTIGATION INTO THE UTICA CITY SCHOOL DISTRICT'S MANAGEMENT OF AN $8.85 MILLION CAPITAL IMPROVEMENT BOND

Report Prepared By:
TURNER CONSTRUCTION

June 23, 2005

TURNER CONSTRUCTION'S INVESTIGATION INTO THE UTICA CITY SCHOOL DISTRICT'S MANAGEMENT OF AN $8.85 MILLION CAPITAL IMPROVEMENT BOND

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ROSCOE CONKLING ELEMENTARY SCHOOL

1.0 INTRODUCTION

This report is a study and review of the confidential report titled, "Site Investigation, Roscoe Conkling School, Utica City School District", dated April 2002, prepared by Earth Tech, Inc. for the New York State Commission of Investigation to be used in their investigation into the Utica City School District's management of an $8.85 million capital improvement bond.

This report will follow the same format as the Earth Tech, Inc. report for ease of reference to both reports.

Our site review was based on the following criteria:

- Review of project related plans and specifications.
- Measurements of contract plans.
- Measurement of "as-built" field quantities, viewed from the surface.
- Evaluation of contractors and architect's change orders relative to plan quantities, as-built quantities and calculated/agreed upon pricing for change orders.
- Interview and site inspection of as-built conditions, with Mr. Craig Fehlhaber, Clerk of the Works for the Project.
- Interview and plan review with the architect of record, Mr. Louis DiOrio.
- Consult with:
  - CME Associates, Inc. – Testing laboratory.
  - Atlantic Testing Laboratories, Ltd. – Testing laboratory.
  - Architectural Stone Co., Inc. – Curb and sidewalk installer.
  - C&S Engineers – Department of Transportation inspection group.

We field measured all new construction work including new sidewalks, parking lot asphalt paving, curbing, concrete pads, retaining wall and stairs. Measurements were based on visible surface conditions. In comparison, it appears Earth Tech, Inc. only measured those items of work that "appeared to differ from the project plans", as stated on Page 2 of the investigation.

The results of our site review show different measurements from those reported by Earth Tech, Inc. The following tables show our actual field measurements compared to those produced by Earth Tech Inc.

2.0 DOCUMENT REVIEW

The document review for the sitework consisted of the following:

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- Project Plans for Parking Lots No.1, No. 2 and No. 3 ("Site Improvements") dated June 4, 1996.

- Project Plans for Parking Lot No. 4 ("Parking Lot Extension") dated September 1, 1999.
- Project Manual dated September 1, 1999.
- Standard Form of Proposal for Site Improvements.
- Standard Form of Proposal for Parking Lot Extension.
- Contractor's change order proposal.
- Architect's response to contractor's change order proposal letter dated November 18, 1999.
- Architect's correspondence regarding Parking Lot No. 1 Retaining Wall alleged deficiencies.
- Interview with the Architect, Mr. Louis DiOrio.
- Interview with the clerk of the works, Mr. Craig Fehlhaber.

The contract drawings lack necessary information to prepare a competitive bid. The drawings did not include existing conditions, dimensions and contour lines; nor did they describe specific sitework preparation prior to new construction. The drawings did not include a start point or elevation to begin the new work, as well as new dimensions and contour lines or spot elevations for the sitework.

Hence, the plans resulted in a range of competitive bids for Base Contract #1 from $144,000 to $239,500, or a 40% difference. In a number of cases there were conflicts between the project drawings and the technical specifications contained in the project manual. For example, the Typical Paving detail on the plan calls for 12 inches of the New York State Department of Transportation (DOT) Sub-base. Section 02000 of the specifications requires only 6 inches of "run-of-bank gravel or crushed stone". Also, the Paving details call for a thickness of 4½ inches of asphalt, while the specifications call for a thickness of 4 inches.

Mr. DiOrio advised that he and the contractor had post-bid conversations regarding conflicts between the contract drawings and specification, and the conflicts were resolved in the field to the satisfaction of both parties. However, we could not find any written evidence of this.

Standard construction practices create an order of hierarchy to be utilized when bidding and constructing work. Typically the hierarchy dictates the Contract Specification takes precedence over the Contract Drawings; large scale details take precedence over small scale details, etc. The object is to set a standard by which everyone will work (Architect, Owner, and Contractor). The Supplemental General Conditions to the Specifications typically define the hierarchy; however the documents utilized for the project did not define the hierarchy.

3.0 SITE REVIEW

3.1 The site was inspected to identify the extent of the work performed relative to the work called for on the plans. All in-place quantities were measured. We did not provide additional cores of asphalt paving, walks or retaining wall. Earth Tech provided a limited number of cores, which we utilized in our review.

3.2 Coring was performed by Atlantic Testing Laboratories, Ltd, Utica, New York for Earth Tech Inc. Earth Tech analyzed the cores and collected samples. In-place density testing was recorded by Earth Tech and displayed in their report. We utilized this information in our review.

4.0 RESULTS

The results of our review are presented on the following pages. Material quantities are summarized on Table 3. The quantities were produced by two methods:

1) Bid Quantities – We produced a take-off (measurement) of the required quantities to be built from the original bid documents. The bid quantities were produced utilizing a computerized digitizer pad and Pay Dirt Earthwork program, as well as taking measurements with a ruler as a backcheck.

2) As-built Quantities – In-field measurements were taken to produce quantities of materials built in the field. As-built conditions refer to an illustration of the conditions as they exist on site after completion of construction where deviations from the construction drawings are noted.

The following Table 3 will summarize the bid quantities and as-built quantities. We have also included Table 3 as produced by Earth Tech for easy comparison. Please note the difference in quantities between Turner and Earth Tech. The difference between bid quantities and as-built quantities shown in Table 3 has been transferred to Table 5. For items that have changed quantities, the bid unit prices were used to evaluate the change. For those items that did not have unit pricing, a fair unit price was used based on credible units in the industry at that time for the Utica, New York area.

Unit pricing is a tool used by contractors, architects and owners on a regular basis. They are used for preliminary budgets for/by owners, by contractors in the preparation of bids, and at times used by contractors, architects and owners in the preparation of change orders to contract work. Unit prices are established by contractors utilizing their knowledge of construction and past experiences. Contractors interpret the documents, envision the way in which the work will be performed, study the existing conditions and proposed construction, try to anticipate the volume of work to be added or deducted, question the difficulty of the work, question if the all work will be constructed at the

same time or in small parts, and whether the work be done while on-site or will remobilization be required. All avenues are investigated, and the contractors draw on their past experiences to establish a unit price. Not all contractors look at unit pricing in the same manner, indicating unit pricing is subjective. The largest part of unit pricing is the definition of the unit price the architect has provided in the specification as well as the anticipated volume of materials required to set a level playing field for all bidding contractors. The specification does not provide a definition of what the unit prices are to include and does not provide a material volume. The lack of definition starts the confusion. Bidding contractors must interpret the plans and provide what they believe is the definition of the unit price. Due to this, all contractors will provide unit pricing that differs dramatically. For instance, (a) low bid contractor, Precision Demolition, provided a unit price for subbase course at $8.50/cy. The bidding competition bid $24.00/cy for the same work. (b) Precision Demolition provided a unit price for concrete curb replacement at $14.75/lin.ft.. The bidding competition bid $22.00/lin.ft. for the same work.

Unit pricing is not consistent with bidders due to a lack of a true definition of work to be performed and a matter of document interpretation. In general, it is the contractors' best judgment.

Examples of confusion with unit pricing:

- Unit pricing for subbase course could be interpreted to include subbase materials placed on a prepared subgrade and compacted or could be interpreted to include demolition of existing conditions, stripping topsoil, cutting or filling the subgrade and then placing and compacting subbase materials and fine grading.
- Curb replacement could be interpreted to include new curb on existing subbase or could be interpreted to mean excavation and removal of old curb and subbase, replacement of subbase with new, new curb, and backfill of curb.

Without a true definition of what a unit price is to include, a contractor cannot provide an accurate unit price. Tables A and B (attached) show the wide range in unit pricing submitted by all bidding contractors for the project (Contracts #1 and #2). It is interesting to note the change in unit prices by Precision Demolition for the addition of Parking Lot No. 4.

In our interview with the Architect, Mr. Louis DiOrio, he admitted it was an oversight on his part to not include the definition of unit prices in the specification. Recognizing his oversight at the start of construction, he elected to negotiate all changes with the contractor and the Owner. There is no evidence this oversight and discovery was brought to the attention of the school board verbally or in writing. Additionally, Mr. DiOrio, in negotiating changes in lieu of utilizing unit prices, followed the provisions in the Contract. General Conditions of the Contract for Construction, Article 7.2, and Change

Order subparagraph 7.2.2 states that "method used in determining adjustments to the contract sum may include those listed in subparagraph 7.3.3". Subparagraph 7.3.3 provides four methods to determine adjustments to a contract. These methods are as follows:

1. Architect and contractor mutually accept a lump sum proposal with supporting data.
2. By the use of unit price
3. Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee (negotiations).
4. Cost determined by time and materials.

The architect, recognizing his problem with unit pricing as put forth in the contract documents, used Method #3 in determining changes.

Another method to check or determine a unit price is to take-off a bid quantity and apply it to the contractor's Application and Certification for Payment continuation sheet (AIA Document G703), commonly called a Schedule of Values. This application is typically reviewed and approved by the architect prior to the first Application for Payment.

In review of Precision Demolition's Application, Item #11, Retaining Wall, the contractor has applied $24,000 from his bid estimate. The take-off of wall quantity is 385 lin.ft.. $24,000 divided by 385 lin.ft. yields a unit price of $62.34/lin.ft.. 260 lin.ft. of wall was not constructed, therefore a credit in the amount of 260 lin.ft. x $62.34/lin.ft., less overhead and profit of 15% = a $13,777 credit. (Mr. DiOrio negotiated a $14,000 credit). Earth Tech believes that the credit should be $29,522.22 based on their quantity take-off and the use of Means cost data. It is not fair to take back from the contractor more than what the contractor has competitively bid ($24,000) for the total retaining wall as shown.

4.1 SUBBASE

Material Thickness: Earth Tech stated that, based on Article 15 of the Supplementary General Conditions, the project requirement for subbase thickness was 12 inches. Conflicts between the drawings and specifications were brought to the attention of the architect and clarified with the contractor in the field and established the subbase material thickness at 6 inches as called for in the contract specification.

Material Type: Earth Tech states a credit is due for subbase materials based on samples exceeding the DOT subbase requirement that limits fines (or dust) in the material to a maximum of 10% on a No. 200 sieve. As previously stated, specification have precedence over drawings. We consulted with both Atlantic Testing Laboratory (ATL) and CME Testing Laboratory (CME) regarding this issue. We were informed

that subbase testing is recommended to be performed in a laboratory with stone or gravel samples supplied directly from the quarry, not through coring. Both labs stated core samples may not provide an accurate analysis of fines (or dust) compared to samples from the quarry for the following reasons:

1. Groundwater could raise and deposit additional fines (dust) in the subbase course.
2. The individual coring and collecting sample could possibly core as little as 1/8" into the subgrade materials, which would result in a false reading.
3. Most important is the coring itself. Coring creates dust or fines. Coring is performed with water to assist in cutting and to prevent damage to the core bit. Both labs stated it is highly probable the fines from cutting would be carried into the subbase via the water used for cutting and the additional fines will provide an increased fine content in the subbase material.
4. Subbase materials are stockpiled at the source of manufacture. Although DOT sampling (taken from the center of the stockpile) indicates a fine content of less than 10%, the samples taken may not truly represent the material at the top or bottom of the stockpile which is affected by weather conditions, mainly rain and melting snow. Depending on the location from which the material is taken from the stockpile and transported to the site, the fine content will vary. Based on today's DOT specification for P-209 crushed aggregate base course, it is acceptable to have the fine base course content vary ± 3%.
5. The six, small 4" diameter samples taken by Earth Tech do not truly represent the 51,400 sq.ft. of asphalt subbase area.

Compaction: The technical specifications, Section 02000, do not contain a quantitative compaction requirement. Typically, documents require 95% in-place density. The three density tests produced by Earth Tech averaged 94.3%. In speaking with several testing agencies, in-place density tests should be taken at the time of installation. In order to determine if the in-place density is sufficient, the District would have to hire a geotechnical engineer to evaluate.

4.2 PAVEMENT

The pavement, as specified by the project drawings, is comprised of 3½" of NYSDOT Type 3 binder course with 1" of NYSDOT Type 7 top course, for a total thickness of 4½". However, the project specification specifies 3" of 2A binder course with 1" of 1A top course, for a total thickness of 4".

NOTE: The asphalt types called out in the specifications refer to a previous version of the NYSDOT standard specifications.

The Architect advised that he and the contractor had a post-bid conversation regarding this conflict and directed the contractor to follow the specification.

The January 2, 1990 Department of Transportation (DOT) standard specifications for construction and materials, Paragraph 401-1.15 Thickness Tolerance, allow a tolerance of ¼" in total thickness for paving 4" or less. In other words, pavement thickness of 3¾" (3.75 inches) is acceptable.

Pavement thickness was measured at six locations by Earth Tech, Inc. Comparing the specified thickness and the actual asphalt core thickness, 4 of the 6 cores equal or exceed the specified 4" requirement. The 2 additional cores are shy in thickness and only represent the location in which the core was taken. However, if you average all cores together, the average thickness is 3.79", which is within tolerance and above the 3.75" allowable thickness.

C&S Engineers is a well-known Syracuse, NY based company that has a division that specializes in DOT inspections. The head of that department informed us that DOT does not take credits for asphalt paving insufficient thicknesses. DOT requires removal and reinstallation. C&S questioned why the on-site testing agency did not pick up the insufficient thicknesses at the time of installation. The District did not hire a testing agency.

A credit is not due based on asphalt pavement thickness.

4.3 SIDEWALK

The project specifications indicate concrete sidewalks are to be installed per City of Utica specifications, which require 4" thick concrete walks. Alternatively, the Typical Sidewalk details on the project drawings indicate that concrete sidewalks are to be a minimum of 6" thick with wire reinforcement.

The architect advised that he and the contractor had a post-bid conversation regarding this conflict and directed the contractor to follow the City of Utica standards for sidewalks at 4" in thickness.

Earth Tech measured concrete sidewalks at 5¼" and 7½" in thickness. Both cores have exceeded the specified 4" thickness. A credit is not due based on sidewalk thickness.

4.4 CURBING

Table 3 shows the quantity differences between Earth Tech and Turner. The differences stem from as-built measurements and the field change to concrete curbing size. Please refer to Table 5 for the cost difference of the 6" curb called for and the 9" curb installed.

4.5 CONCRETE PAD

The concrete pad proposed on the contract plans was not built, and a credit is due the contract as shown in Table 5. The pad was a trade-off for additional asphalt paving over the existing concrete pad in the same location.

A dumpster pad was added adjacent to Parking Lot #2 in the amount of 168 sq.ft. as field measured. The dumpster pad is reflected in Table 5.

4.6 CONCRETE RETAINING WALL

A long retaining wall was proposed for the north side of the School District property line. During construction, 259 lin.ft. of wall was not constructed and credited to the owner.

We have reviewed the retaining wall credit in Paragraph 4.0. As stated, 385 lin.ft. of retaining wall was proposed. The contractor's approved Schedule of Values stated the value of the retaining wall was $24,000 or $62.34/lin.ft.. A credit for 259 lin.ft. of wall which was not constructed x $62.34/lin.ft. = $13,777, as shown on Table 5.

4.7 CHANGE ORDER TOTAL

The change order total proposed to the Board of Education is compared to the credit calculated based on the constructed quantities measured at the site (Table 3). The comparison is presented on Table 5. Table 5 also examines the Contractor's change order request.

The Contractor made a claim for approximately $20,000 to account for numerous changes to the parking lot; layouts during construction ($13,000) and for the use of a particular paving subcontractor ($7,000). The Architect counter offered $2,225 as compensation, taking all credits into account. Adjustments to the claimed amount are as stated in Mr. DiOrio's letter of December 14, 1999, revised. We have outlined our total change order adjustment in Table 5. Our calculated adjustment is $9,346. We have no information by which to judge the merits of the contractor's claims since they are a result of the interaction of the Contractor and the Architect during construction.

5.0 SUMMARY

This summary presents our findings of the Site Improvement Project and compares our findings to those found in the confidential report prepared by Earth Tech, Inc, for the New York State Commission of Investigation.

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Our investigation included the review of:

- Contract plans and specifications.
- Contract between the School District and Precision Demolition.
- Precision Demolition's request for change order and the Architect's response to the request
- Weekly bulletins as prepared by the clerk of the works
- Interview with the architect, Mr. Louis DiOrio
- Interview with the clerk of the works, Mr. Craig Fehlhaber
- Consult with:
  - CME Associates, Inc. – Testing laboratory
  - Atlantic Testing Laboratories, Ltd. – Testing laboratory
  - Architectural Stone Co., Inc. – Curb and sidewalk installer
  - C&S Engineers – Department of Transportation inspection group
- Reviewed the State of New York's Commission of Investigation Preliminary and Final Reports
- Reviewed the confidential site investigation as prepared by Earth Tech, Inc. for New York State Commission

Attached are Tables #3 and #5 as prepared by Turner and, for comparison purposes, Tables #3 and #5 as prepared by Earth Tech, Inc.

Comparing the tables you can see major differences in plan quantities, as built quantities and dollar value. The differences or irregularities may be explained by the following:

- Earth Tech, Inc. may not have measured all as-built conditions, other than those items that "appeared to differ from the project plane". As-built conditions refer to an illustration of the conditions as they exist on site after completion of the construction, where deviations from the construction drawings are noted.
- The building industry standard that dictates project specifications take precedence over contract drawings.
- Contract plans that lack dimensions and elevations.
- Ambiguities and inconsistencies between the contract plans and specifications.
- Changes in the scope of work that were not defined or documented in writing.
- Lack of a quantitative testing agency on site at the time of construction.
- Insufficient record keeping on the part of the architect and the contractor.
- Earth Tech's interpretation in reference to Article 15 of the Supplemental General Conditions which state:

  "Failure to report any conflicts discovered in the Contract Documents, and/or proceed with the work without clarification for same, shall be deemed evidence that the contractor(s) has elected to proceed in the more expensive manner at his own risk."

Mr. DiOrio advised he and the contractor had post-bid conversations regarding conflicts between the drawings and specification, and the conflicts were resolved in the field to the satisfaction of both parties.

The report prepared by Earth Tech, Inc. appears to be a summation of their interpretation of the contract documents, utilizing Article 15 of the General Conditions as the basis of their findings and associated measurements.

Our review is based on the industry practice that specifications have precedence over drawings and as-built field measurements showing differences in the areas of curbing, asphalt paving, retaining wall and materials quantity, all of which are presented in Tables 3 and 5.

The specification did not specify the order of precedence for bidding the project. Therefore, we use the lesser of the two methods due to the competitive nature of the bidding process.

6.0 FINDING

The Clerk of the Works, who took his direction from the Architect, was also the School District's Superintendent of Buildings and Grounds at the time of construction. Essentially, he was working two full time jobs for the District. He was tasked with overseeing nine roof projects and six sitework projects at the same time, in addition to duties related to operations and maintenance for the District.

Throughout our investigation we did not see evidence where anyone was grossly negligent or incompetent throughout the construction project. The management of the project was difficult based upon conflicting plans and specification, and the number of changes incorporated into the work. However, the intent of the contract was met, and within budget as shown on Tables 3 and 5.

The curbs, asphalt paving, walks, retaining walls, etc, are intact after six years. One would expect to see deterioration of asphalt paving within two years. Some is evident and expected without constant maintenance. The reason the asphalt is-tact is due to the proper installation of subbase materials.

The curbing is experiencing some deterioration which we believe is due to snow plows hitting and chipping the curb, with the exception of 20 lin.ft. of curb that appears to have been installed with substandard concrete or was severely damaged by snow plowing.

The sidewalks appear intact, with little or no evidence of deterioration or movement.

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The retaining wall, stairs, and railings are in very good condition with little or no evidence of deterioration, but were re-installed due to the District's subsequent arbitration with Precision Demolition.

Based on the differences in reporting, our report shows a more complete accounting for dollars based on accurate field measurements of as-built conditions.

TABLE 3

Comparison of Plan, Constructed, and Change Order Quantities

Roscoe Conkling School

PREPARED BY
EARTH TECH, INC
for NYS Commission of Investigation
Contracts 1 & 2

Prepared by Turner Construction
May 2005

Construction Item	Plan Quantity	Units	Construction Quantity	Units	Difference from Plan	Units	Architect's Change Order		Item No.
Curb									
Parking Lot #1	370		207		-163		-239	D	1
Parking Lot #3	359	lf	290	lf	-69	lf	-		2
Parking Lot #2	770		643		-127		-		3
Parking Lot #2 Change Order Letter Item 11			-		-		110	A	
Parking Lot #4	412		409		-3		-		3.1
Total Curb	1,908		1,543		-382		-125		
Sidewalk									
Northern side of building	985		895		-90		-167	D	4
Eastern side of building	2,299		2,321		22		462	A	5
Adjacent to Parking Lot #2	1,164	sf	1,266	sf	102	sf	-		6
Along Mohawk Street	-		275		275		275	A	6.1
Along McQuaide Ave.	1,060		880		-180		-		7
Adjacent to Parking Lot #4	984		996		12		-		
Total Sidewalk	6,492		6,633		141		570		
Electrical Conduits	-	lf	193	lf	193	lf	193	A	8
New Catch Basin w/Frame & Grate									
Lot #1	-		1		1		1	A	9
Reset catch basin Lot #1	-	ea	1	ea	1	ea	1	A	9
Lot #2 w/30 lf of 8" PVC	-		1		1		1	A	9
Lot #4 clean catch basin & raise frame & grate	-		1		1		1	A	9
Lot #4	2		-		-2		-2	D	9
Red Maples	-	ea	9	ea	9	ea	9	A	
NIMO Meter/Concrete Pad		ea	1	ea	1	ea	1	A	10
Concrete Entrance Lot #2	-	ls	1	ls	1	ls	1	A	
8" thick concrete pad									
Large eastern side of building	1540	sf	-	sf	-1540	sf	-		11
Additional dumpster pad southern side	-		48		48		48	A	13
Total Concrete Pad	1,540		48		-1,492		48		
Parking Lot Pavement									
Parking Lot #1	7,017		6,755		-262		-276	D	14
Parking Lot #2	18,775	sf	18,648	sf	-126	sf	-		15
Parking Lot #3	7,550		7,080		-470		-		16
Parking Lot #4	8,990		7,940		-1,050		-1,050	D	16.1
Driveway	1,052		1,692		639		-		17
Total Parking Lot Pavement	43,394		42,116		-1,278		-1,325		
New Lawn									
Northern side of Property	2,815		-		-2815		-	A	18
Adjacent to Parking Lot #3	563	sf	-	sf	-563	sf	-		19
Adjacent to Parking Lot #2	3,429		-		-3429		-		20
Adjacent to McQuaide Ave.	1,860		1,860		-		-		21
Total New Lawn	8,667		1,860		-6,837		-		
Retaining Wall									
Parking Lot #1 Retaining Wall	116	lf	116	lf	-	lf	-		22
Parking Lot #3 Retaining Wall	262		-		-262		-270	D	23

Item	Plan Quantity	Unit	As-Built Quantity	Unit	Difference from Plan	Unit
Curb						
6"	1,963	lf	1,033	lf	-930	lf
9"	0		579		579	
Sidewalk						
Lots 1-3	5,952	sf	6,024	sf	72	sf
Lot 4	1,178		1,174		-4	
Total Conduits	0	lf	193	lf	193	lf
New Catch Basin w/Frame & Grate						
Lot #1	0	ea.	1	ea.	1	ea.
Reset catch basin Lot #1	0		1		1	
Lot #2 w/30 lf of 8" PVC	0		1		1	
Lot #4 clean catch basin & raise frame & grate	0		1		1	
Lot #4	2		0		-1	
Red Maples	0	ea.	9	ea.	9	ea.
NIMO Meter/Concrete Pad	0	ea.	1	ea.	1	ea.
Concrete Entrance Lot #2	0	ls	1	ls	1	ls
8" thick concrete pad						
Between Lots 2 & 3	1,540	sf	0	sf		
Additional dumpster pad southern side	0	sf	168	sf		
Total Concrete Pads	1,540	sf	168	sf	-1372	sf
Parking Lot Pavement						
Lot #1	7,179		8,204		1,025	
Lot #2	19,470		21,729		2,259	
Lot #3	6,837	sf	10,854	sf	4,017	sf
Lot #4	10,652		10,613		-39	
Total Pavement	44,138		51,400		7,262	
New Lawn	0	sf	1,840	sf	1,840	sf
Retaining Wall						
Parking Lot #1 Retaining Wall	127	lf	127	lf	0	lf
Parking Lot #3 Retaining Wall	269		0		-269	

Add sub-base at Added Paving	0	cy	0	cy	155	cy
Add unclassified excavation at added paving	0		0		135	

NOTES:

lf = Linear foot
sf - Square feet
Negative difference = Under plan

Contractors Change Order Not Shown, because change quantities were not indicated
* = Units not broken down on Change Order
A = CONTRACT ADD, D = CONTRACT DELETE

TABLE 5
ROSCOE COMLING SCHOOL

PREPARED BY EARTH TECH, INC. for NYS Commission of Investigation Contracts 1 & 2					PREPARED BY TURNER CONSTRUCTION May 2005				
Construction Item	Measured Quantity	Bid Unit Price	Calculated Add / Deduct	Units		Difference from Plan Qty.	Unit Pricing	+/-	
Curbs					**Curbs**				
Parking Lot 1	-168	?	-1,141	lf/s	Lots 1-3 - 8"	-562	$8.75	3283	
Parking Lot 3	-66	?	-449		Lots 1-3 - 9"	+200	$16.23	+3246	Unit Price = $14.75 + 10% = $16.23 (6" curb to 9" curb)
Parking Lot 2	-127	?	-957		Lot 4 -8"	-358	$8.00	-1483	Unit Price = $16.75 + 10% = $18.43 (6" curb to 9" curb)
Parking Lot 2 Change Order L1	-	-	-		Lot 4 - 9"	+379	$18.43	+6335	
Parking Lot 4	-3	?	-20						
Curb Cutting Parking Lot 1	-	-	-						
Curb Cutting Parking Lot 2	-	-	-						
Sidewalk					**Sidewalk**				
Northern Side of Bldg	-90	$3.00	-$270.00	sf/s	Lots 1-3	+72	$8.53	6	Walks are 4" per City of Utica standard bid specs
Eastern Side of Bldg	22	$6.50	$143.00		Lot 4	-	-	-	
Adjacent to Parking Lot 2	102	$6.50	$663.00			0	-		
Along Mohawk Street	275	$6.50	$1,787.50						
Along McQuade Ave	-160	$3.00	-$540.00						
Adjacent to Parking Lot 4	12	$6.50	$78.00						
Deduct for 5 1/4" Sidewalk in lieu of 6"	-3,246	$0.81	-$2,629.26						
Electrical Conduit	**198**	**$9.68**	**$1,939.20**	**lf/s**	**Electrical Conduit**	**+198**	**$9.68**	**1939**	**Agreed by Architect**
Catch Basins					**Catch Basins**				
Lot 1	1	$935.00	$935.00		Lot 1	+1	$900.00	850	Contractor Request
Lot 1 Raise Catch Basin	1	$200.00	$200.00		Lot 1 Reset	+1	$200.00	200	
Lot 2 w/ 50 lf of 8" PVC	1	$935.00	$935.00	lf/ea	Lot 2	+1	$1,800.00	1800	MH fabric & cover = 850 + 2795 (215 lf @ $13.00/lf = 1295) Contractor Requests $1,800
Lot 4 Clean catch basin & raise Frame & Grate	1	$500.00	$500.00		Lot 4	+1	$1,000.00	1000	Contractor Request - raise and align existing
Lot 4	-2	$935.00	-$1,870.00		Lot 4	-1	$2,800.00	-3800	Contractor Request
Red Maple Trees	**6**	**$195.00**	**$940.00**	**lf/s**	**Red Maple Trees**	**+9**	**$52.59**	**599**	**Request by Contractor**
NIMO Meter / Concrete Pad	**1**	**$1,000.00**	**$1,000.00**	**ea**	**NIMO**	**-**	**-**	**-**	**Part of Sidewalks**
Concrete Entrance Lot 2	**1**	**$600.00**	**$600.00**	**ea**	**Entrance Lot**	**+1**	**$600.00**	**600**	**Agreed by Architect**
Concrete Pad					**Pads**				
Large eastern side of bldg	-1,540	$3.00	-$4,620.00	sf/s	Large Pad	-1540	$3.00	-4620	
Additional dumpster pad	48	$6.50	$312.00		Dumpster	+169	$6.53	1,092	
Parking Lot Pavement					**Paving**				
Parking Lot 1	-262	$1.52	-$398.24		Lot 1	+1025	$1.67	1,712	
Parking Lot 2	-126	$1.52	-$191.52		Lot 2	+2259	$1.67	3,773	
Parking Lot 3	-470	$1.52	-$714.40		Lot 3	+4017	$1.67	6,708	Lot 3: Contract 1 was installed and later removed
Parking Lot 3 Additional paving	-	-			Lot 4	-39	$0.70	27	
Parking Lot 4	-1,050	$1.27	-$1,333.50			0			Asphalt adjustment
Driveway	630	$2.29	$1,442.70			0			Asphalt adjustment
Deduct insufficient thickness Lot 1 (1/2" short)	-7,017	$0.11	-$771.87	sf/s		+1169	$0.53	594	Demo asphalt in Lot 3, previously placed including saw cut & trucking
Deduct insufficient thickness Lot 2 (7/8" short)	-19,773	$0.21	-$3,942.75			55	$1.67	93	Demo curb in Lot 3, previously placed including saw cut & trucking
Deduct insufficient thickness Lot 3 (1/4" short)	-8,890	$0.05	-$440.53						
Deduct insufficient thickness Lot 4 (1/2" short)	-8,890	$0.11	-$988.90						
Deduct subbase not meeting specs Lots 1-3	-33,342	$0.17	-$5,668.14						
Deduct subbase not meeting specs Lot 4	-8,890	$0.20	-$1,798.00						
New Lawn					**Lawn**				
Northern side of property	-2,915	$0.32	-$920.80			+1,943 sf	$0.35	644	Agreed by Architect
Adjacent to Lot 3	-593	$0.32	-$188.76	sf/s		1	Lump Sum	-200	Request by Contractor
Adjacent to Lot 2	-3,429	$0.32	-$1,097.28						
Retaining Wall			**$0.00**		**Retaining Wall**				
Concrete cap	-	-	-		Increase height	+1		57	See Application for Payment - $24,000 in for walls - 384 lf of wall called for = $60.91/lf less 10% O&P for credit = $51.77
Railing	-	-	-		layout	1	Lump Sum	+500	Agreed by Architect
Parking Lot 1 increase height	116	$8.25	$957.00	lf/s	Kernan School	1	Lump Sum	+150	Contractor Request - topsoil and seed
Parking Lot 3 Delete retaining wall	-262	$112.81	-$29,556.22		Donovan School	1	Lump Sum	+700	Agreed by Architect - raise 2 manholes
			$0.00		Add Subbase	135 cy	$8.00	+1080	
			$0.00		Add Excavation	135 cy	$8.53	+1148	

NOTES:

lf = Linear Foot
sf = Square Feet
ls = Lump Sum
ea = Each

UNIT PRICE COMPARISON

CONKLING SCHOOL - CONTRACT #1

ITEM	UNIT	ADD/ DEDUCT	Precision Demolition	United Contractors	Poncell Construction	George Nole	Jemcoat, Inc.	Ocuto Paving	Hanna Construction
Unclassified Excavation	cy	ADD	$8.00	$15.00	$25.00	$20.00	$25.00	$16.75	$9.00
Sub-base course	cy	ADD	$8.50	$13.50	$30.00	$30.00	$30.00	$18.35	$24.00
Asphalt binder course	sf	ADD	$1.03	$0.70	$0.80	$1.25	$7.00	$1.10	$0.92
Asphalt top course	sf	ADD	$0.64	$0.50	$0.60	$1.00	$7.00	$0.40	$0.48
Concrete curb	lf	ADD	$14.75	$14.50	$18.00	$15.00	$25.00	$15.75	$20.00
Concrete sidewalk	sf	ADD	$6.50	$5.50	$4.20	$6.50	$8.00	$5.25	$7.50
Concrete curb replacement	lf	ADD	$14.75	$14.50	$23.00	$25.00	$28.00	$15.75	$22.00
Concrete sidewalk replacement	sf	ADD	$8.50	$5.50	$4.80	$9.50	$8.00	$5.25	$8.50

* Deduct unit prices were not called for in contract documents

UNIT PRICE COMPARISON

CONKLING SCHOOL - CONTRACT 2

ITEM	UNIT	ADD/ DEDUCT	Precision Demolition	Nole Construction	Jemcoat, Inc.	Roberts Construction	Ocuto Blacktop	Hanna Construction	Murphy Excavation
Unclassified Excavation	cy	ADD	$10.00	$10.00	$30.00	$12.50	$23.60	$7.00	$6.50
	cy	ADD	$13.50	$15.00	$35.00	$10.25	$22.10	$20.00	$25.00
Sub-base course	cy	DEDUCT	$5.50	$12.00	$0.00	$6.75	$10.40	$15.00	$20.00
Asphalt binder	sf	ADD	$1.75	$1.10	$2.00	$0.90	$1.05	$1.00	$1.50
course	sf	DEDUCT	$0.50	$0.80	$0.00	$0.70	$0.65	$0.85	$1.20
Asphalt top	sf	ADD	$1.00	$1.15	$1.00	$0.50	$0.55	$0.60	$0.75
course	sf	DEDUCT	$0.20	$0.79	$0.00	$0.35	$0.35	$0.47	$0.50
	lf	ADD	$17.50	$14.00	$30.00	$20.00	$19.80	$25.00	$25.00
Concrete curb	lf	DEDUCT	$6.00	$10.00	$0.00	$15.00	$14.40	$15.00	$20.00
Concrete	sf	ADD	$7.50	$6.00	$8.00	$5.50	$6.20	$7.00	$8.00
sidewalk	sf	DEDUCT	$1.50	$4.00	$0.00	$3.00	$4.00	$5.00	$6.00
Concrete curb	lf	ADD	$16.75	$20.00	$30.00	$22.00	$22.00	$31.00	$28.00
replacement	lf	DEDUCT	$5.00	$18.00	$0.00	$15.00	$14.40	$20.00	$20.00
Concrete	sf	ADD	$10.50	$8.00	$8.00	$6.00	$7.80	$8.00	$10.00
sidewalk	sf	DEDUCT	$2.50	$6.00	$0.00	$3.00	$5.00	$6.00	$8.00

JOHN F. KENNEDY JUNIOR HIGH SCHOOL

SUMMARY

This summary presents our findings of the Site Improvement Project and compares our findings to those found in the confidential report prepared by Earth Tech, Inc, for the New York State Commission of Investigation.

Our review included the following:

- Contract plans and specifications
- Contract between the School District and George A. Nole & Son, Inc.
- George A. Nole & Son, Inc. request for change order.
- Weekly bulletins as prepared by the clerk of the works
- Interview with the architect, Mr. Louis DiOrio
- Interview with the clerk of the works, Mr. Craig Fehlhaber
- Consult with:
  - CME Associates, Inc. – testing laboratory
  - Atlantic Testing Laboratories, Ltd. – testing laboratory
  - Architectural Stone Co, Inc. – curb and sidewalk installer
  - C&S Engineers – Department of Transportation inspection group
- Reviewed the State of New York's Commission of Investigation Preliminary and Final Reports
- Reviewed the confidential site investigation as prepared by Earth Tech, Inc. for New York State Commission.

Attached are Tables 3 and 5 as prepared by Turner and, for comparison purposes, Tables 3 and 5 as prepared by Earth Tech, Inc.

Comparing the tables you can see differences in plan quantities, as-built quantities and dollar value. The differences or irregularities appear to be a result of:

- Earth Tech, Inc. not measuring all as-built conditions, other than those items that "appeared to differ from the project plane". As built conditions refers to an illustration of the conditions as they exist on site after completion of construction, where deviations from the construction drawings are noted.
- The building industry practice that dictates project specifications take precedence over contract drawings
- Contract plans that lack dimensions and elevations
- Ambiguities and inconsistencies between the contract plans and specifications
- Changes in the scope of work that were not defined or documented in writing
- Insufficient record keeping on the part of the architect and contractor
- Earth Tech's interpretation in reference to Article 15 of the Supplemental General Conditions which states:

"Failure to report any conflicts discovered in the Contract Documents, and/or proceed with the work without clarification for same, shall be deemed evidence

> that the contractor(s) has elected to proceed in the more expensive manner at his own risk."

After an interview with Mr. DiOrio, he advised that he and the contractor had post-bid conversations regarding conflicts between the drawings and specification and the conflicts were resolved in the field to the satisfaction of both parties.

The report prepared by Earth Tech, Inc. is a summation of their interpretation of the contract documents, utilizing Article 15 of the Supplementary General Conditions of the Contract as the basis of their findings and associated measurements.

Our review is based on the industry practice that specifications have precedence over drawings and as-built field measurements showing differences in the areas of concrete sidewalks, curbing, asphalt paving, and materials quantity, all of which are presented in Tables 3 and 5.

The specification did not specify the order of precedence for bidding the project. Therefore, industry practice uses the lesser of the two methods due to the competitive nature of the bidding process

CONCLUSION

The materials installed by George A. Nole & Son, Inc. remain in good condition after 6 years. There is little evidence of deterioration to the installed sidewalks, curbing, and asphalt paving other than the damage created by snow plowing.

Prior to the District's request to involve Turner in this review, the Attorney General of the State of New York, Oneida County District Attorney, and the New York State Commission on Investigations investigated George A. Nole & Son, Inc. regarding Nole's business practices in reference to the Utica City School District's $8.85 million bond issue; in particular, the contracts Nole was awarded by the School District. It is our understanding that as a result of the investigation by the state, Nole returned to the School District an overpayment of funds in the amount of $30,000 and an additional $60,000 as agreed to with the Assistant Attorney General of the State of New York.

We understand a portion of the $60,000 payment was contributed to John F. Kennedy Junior High School Project and speculate this payment as a settlement for any unresolved or underlying issues on the project.

COMPARISON OF PLAN, CONSTRUCTED AND CHANGE ORDER QUANTITIES

JOHN F. KENNEDY JR. HIGH SCHOOL

TABLE 3

DATA FROM EARTH TECH'S INC. APRIL 2002 REPORT

Construction Item	Plan Quantities	Units	Construction Quantities	Units	Difference from Plan	Units	Change Orders	Item No.
Curb	4,500	lf	4,734	lf	2600	lf	3,000	1
Concrete Backfill at Street Side Curb	25	cy	0	cy	-25	cy	0	1a
Sidewalk								
Replacement Concrete	1,800		1,450		-3150	*		2
Asphalt	0	sf	1,900	sf	1,900	sf		3
Add on NW Side Corner	0		200		200			4
New	9,000		9,200		3007	*		5
Total Sidewalks	10,800		7,350		-3650		-5,100	6
Paving	126,500		126,500		-44			7
Extend Parking Lot	0	sf	2,500	sf	2,500	sf	3,000	8
Mill and Pave on Street	0		1,472		1,472		2,000	9
Remove & Replace Existing Materials	400		400		0			10
Concrete Apron @ Chain Basins	2		2		0			11
Dumpster Pad	320	sf	193	sf	-127	sf	0	12

NOTES:

LF = Linear Feet

SF = Square Feet

Negative Difference = Under Plan

Positive Difference = Over Plan

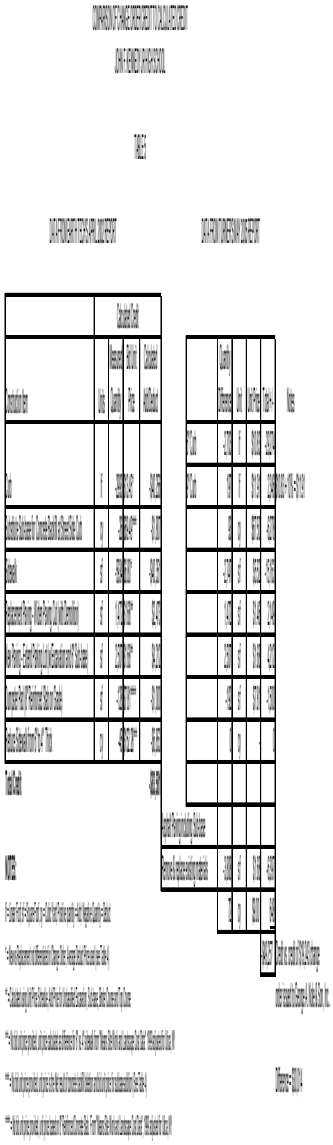
Negative Change Order = Credit Back

Positive Change order = Additional Charges

* = Replacement vs New Sidewalk - Not broken down on Change Order

DATA FROM TURNER'S MAY 2005 REPORT

	Quantities Per Plan	Units	As-Built Quantities	+/-
6" Curb	4,500	lf	1,915	-2,700
30" Curb	0	lf	197	197
Concrete Backfill at Street Side Curb	53	cy	1	-51
Sidewalk				
Replacement Concrete	9,000	sf	4,577	-2,944
Asphalt	0		2,000	2,000
Add on NW Side Corner	0		205	205
New	9,000		3,700	-3,170
Total Sidewalks	10,800		11,000	-2,147
Paving	180,000	sf	183,045	3,000
Extend Parking Lot	0		2,007	2,007
Mill and Pave on Street	0		1,472	1,472
Remove & Replace Existing Materials	0		2,022	2,022
Concrete Apron @ Chain Basins	2		2	0
Dumpster Pad	364	sf	193	-192



KERNAN ELEMENTARY SCHOOL

SUMMARY

This summary presents our findings of the Site Improvement Project and compares our findings to those found in the confidential report prepared by Earth Tech, Inc, for the New York State Commission of Investigation.

Our review included the following:

- Contract plans and specifications
- Contract between the School District and George A. Nole & Son, Inc.
- George A. Nole & Son, Inc.'s request for change order
- Weekly bulletins as prepared by the Clerk of the Works
- Interview with the Architect, Mr. Louis DiOrio
- Interview with the Clerk of the Works, Mr. Craig Fehlhaber
- Consult with:
  - CME Associates, Inc. – testing laboratory
  - Atlantic Testing Laboratories, Ltd. – testing laboratory
  - Architectural Stone Co., Inc. – curb and sidewalk installer
  - C&S Engineers – Department of Transportation inspection group
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Attached are Tables 3 and 5 as prepared by Turner and, for comparison purposes, Tables 3 and 5 as prepared by Earth Tech, Inc.

Comparing the tables, you can see differences in plan quantities, as-built quantities and dollar value. The differences or irregularities are produced by:

- Earth Tech, Inc. not measuring all as-built conditions other than those items that "appeared to differ from the project plane". As-built conditions refer to an illustration of the conditions as they exist on site after completion of construction where deviations from the construction drawings are noted.
- The building industry practice that dictates project specifications take precedence over contract drawings.
- Contract plans that lack dimensions and elevations.
- Ambiguities and inconsistencies between the contract plans and specifications.
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- Insufficient record keeping on the part of the Architect and Contractor.
- Earth Tech's interpretation in reference to Article 15 of the Supplemental General Conditions which states:

  "Failure to report any conflicts discovered in the Contract Documents, and/or proceed with the work without clarification for same, shall be deemed evidence

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The report prepared by Earth Tech, Inc. is a summation of their interpretation of the contract documents, utilizing Article 15 of the Supplementary General Conditions of the Contract as the basis of their findings and associated measurements.

Our review is based on the industry practice that specifications have precedence over drawings and as-built field measurements showing differences in the areas of concrete sidewalks, asphalt paving, additional items not previously reported and materials quantity, all of which are presented in Tables 3 and 5.

The specification did not specify the order of precedence for bidding the project. Therefore, we use the lesser of the two methods due to the competitive nature of the bidding process.

FINDINGS

1. Asphalt pavement resurfacing differences are based on plan quantity and as-built field measurements. The contract drawings do not portray existing asphalt paving surface correctly. Prior to project construction, additional asphalt paving was installed on the west side of the parking lot. This additional paving received asphalt paving resurfacing at an additional cost.

2. Asphalt paving is specified to be 4" thick. The average thickness of asphalt paving cores presented by Earth Tech is 4.15". Therefore, a credit does not apply.

3. Concrete sidewalk thickness as specified per City of Utica is 4"". The core, presented by Earth Tech, is 5". Therefore, a credit does not apply.

4. Sub-base course is specified to be 6" thick. The particle size distribution is specified, in part, as 0 - 10% passing a #200 sieve, which is dust. The average of 8 specified samples collected by Earth Tech averaged 11.75%, slightly higher than the 0 - 10% specified. The method of samples collection could easily adjust the final findings. For example, a sample collected deeper than the specified 6" thickness could have included subgrade materials containing a high fine, or dust, content and/or the water used for coring washed the fines, generated from the coring operation, into the subbase material, elevating the fine content.

Based on the above, a credit does not apply.

KERNAN ELEMENTARY SCHOOL

CONCLUSION

Throughout our review, we did not find evidence that anyone was grossly negligent or incompetent throughout the project. George A. Nole & Son, Inc. was issued a Change Order in the amount of $17,326 based on site changes and negotiations with the Architect. Our Table 5 indicates the change order amount could be in the range of $8,200. Why the difference? It could possibly due to undocumented changes and/or undocumented negotiations with the architect.

The curbs, asphalt paving, walks, etc, are holding up well after six years. One would expect to see deterioration of asphalt paving within two years. Some is evident and expected without constant maintenance. The asphalt is intact due to the sub-base materials holding up, which indicates the sub-base was installed correctly.

The curbing is experiencing some deterioration, which we believe is due to snowplows hitting and chipping the curb, but in general, they appear to be in good shape.

The walks appear to be intact, with little or no evidence of deterioration or movement.

TABLE 3

Comparison of Plan, Constructed and Change Order Quantities
Kernan Elementary School

Data from Earth Tech, Inc. April 2002 Report

Construction Item	Plan Quantity	Units	Construction Quantity	Units	Difference from Plan	Units	Change Order	Item No.
Curb	75		50		-25			1
Additional Replacement	-		58		58		-	2
Additional New Grass Play Area	-	lf	144	lf	144	lf	-*	3
Additional Bus Loop	-		80		80		-*	4
Total Curb	75		332		257		417	5
Sidewalk								
Concrete	375		-		-375		-	6
Asphalt	-		250		250		-	7
Additional New Grass Play Area	-	sf	1,076	sf	1,076	sf	-*	8
Additional Bus Loop	-		668		668		-*	9
Total Sidewalk	375		2,014		1,639		3,051	10
New Catch Basin w/Frame & Grate	1	ea	1	ea	-	ea		11
8" PVC	90	lf	113	lf	23	lf	-	12
Resurfaced Parking Area	43,952	sf	43,073	sf	-879	sf	-	13
New Base Course & Paving	46,995	sf	36,695	sf	-10300	sf	-10,500	14
Grass								
Additional New Grass Play Area	-	sf	8,934	sf	8,934	sf	10,500	15
Retaining Wall & Curb Repairs	-	lf	62	lf	62	lf	60	16

Data from Turner Construction's May 2005 Report

Construction Item	Plan Quantity	Units	As-Built Quantity	Units	Difference
Curb - New Per Plan	75		51		-24
Remove/Repair	0		58		58
New - Add	0	lf	144	lf	144
New - Add	0		81		81
Total Curb	75		388		261
Sidewalk					
	375		0		-375
	0		250		250
	0	sf	1,152	sf	1,152
	0		733		733
Total Sidewalk	375		2,135		2,135
Catch Basins	1	ea	1	ea	0
8" PVC	80	lf	115	lf	35
Resurfaced Parking Area	45,225	sf	47,643	sf	2,418
New Base Course & Paving	47,534	sf	34,344	sf	-13,190
Grass					
Additional New Grass Play Area	0	sf	9,547	sf	9,547
Retaining Wall & Curb Repairs	0	lf		lf	

Notes:

lf = Linear Feet
sf = Square Feet
Negative Difference = Under Plan
Negative Change Order = Credit Back
Positive Change Order = Additional Fees
* = Bus Loop vs. Grass - Not Broken Down on Change Order

TABLE 5

Comparison of Change Order Total to Calculated Total

Kernan Elementary School

Data from Earth Tech, Inc. April 2002 Report

Data from Turner Construction's May 2005 Report

		Calculated Change Order Value		
Construction Item	Units	Measured Quantity	Bid Unit Price	Calculated Add/Deduct
Delete Curbing	lf	-25	$12.75 ****	-$319
Additional Concrete Curbs at New Small Bus Loop	lf	80	$12.75 ****	$1,020
Additional Concrete Curbs at both sides of New Play Area	lf	144	$12.75 ****	$1,836
Additional Replacement Curb	lf	58	$18.90 ****	$1,096
Additional Concrete Sidewalks at New Small Bus Loop	sf	668	$6.70 ****	$4,472
Additional Concrete Sidewalks at both sides of New Play Area	sf	1,076	$6.70 ****	$6,994
Deleted Concrete Sidewalks	sf	-375	$6.70 ****	-2438
Substitute Asphalt Sidewalks in lieu of Concrete (6" Subbase)	sf	250	$1.68 **	$420
Deduct for 5" Concrete instead of 6" Concrete	sf	-1,764	$0.66	-1164
Replacement Curb/ Retaining Wall Repairs	lf			$1,800
Provide New Grass Surface in Lieu of Paved Areas	sf	8,584	$0.32 ***	$2,747
Pavement Resurfacing (no spec, 1" thickness assumed)	sf	-979	$0.53 **	-$466
Deduct for Average of 3.25" instead of 4.5" Pavement over 75% of paved Areas	sf	-27,521	$0.30 **	-$8,256
Deduct for Sub-base not Meeting Project Specifications	cy	-36,895	$0.26 **	-$9,541
Delete Designated Paving Areas as Directed (12" Sub-base)	sf	-10,300	$1.90 **	-$19,570
Delete Work to be done on Existing Play area	ls	0	0	-$7,950
Change Order Total				**-$29,318**

	Measured Difference	Unit	Unit Price	+/-	Notes
	-24	lf	$10.84	-260	$12.75 less 15% OH&P
	81	lf	$12.75	1,033	
	144	lf	$12.75	1,836	
	58	lf	$18.90	1,096	
	733	sf	$6.50	4,765	
	1,152	sf	$6.50	7,488	
	-375	sf	$5.53	-2,072	$6.50 less 15% OH&P
	250	sf	$1.68	420	
	0	sf	-	0	4" called for in specs
	121	lf	$30.00	3,630	$18.90 + $11.10
	9,547	sf	$0.67	6,396	$0.43 + $0.24 = $0.67
	2,583	sf	$0.63	1,634	$0.53 + $0.10 to clean & tack coat
	0	sf		0	4" called for in specs; see write-up
	0	cy		0	See written description
6"	-11,492	sf	$1.38	-16,547	$0.14 + $0.93 + $0.53 = $1.60 less 15% OH&P
Delete Playground	-	ls	-	-7,225	$8,500 scheduled value less 15% OH&P
8"PVC Pipe	35	lf	$13.00	455	
Concrete backfill @ curb repair	7	cy	$100.00	700	
8" Pad @ east exit	100	sf	$12.00	1,200	
8" Fill @ new grass surface	237	cy	$11.00	2,607	Compact & Grade

$8,155 vs. $17,335 change order written

Notes:

lf = Linear Foot, sf = Square Foot, cy = Cubic Yard, Positive Quantity = Add, Negative Quantity = Deduct

* = Work Not Broken Down on Change Order Proposal

** = Calculated using Unit Price Schedule. Add Price for Unclassified Excavation, Subbase, Binder Course and Top Course

*** = Bid Price Not Provided; Reference Price Utilized

**** = Bus Loop vs Grass - Not Broken Down on Change Order

TABLE A

UNIT PRICE COMPARISON

KERNAN ELEMENTARY SCHOOL

Item	Add/ Deduct	Unit	Nole Construction	Burrows Trucking	Hanna Construction	North Paving	Jemcoat, Inc.	Ocuto Blacktop
Unclassified Excavation	ADD	cy	$4.50	$8.00	$7.00	$12.50	$25.00	$12.00
Sub-Base Course	ADD	cy	$7.50	$10.00	$16.00	$12.50	$30.00	$27.00
Asphalt Binder Course	ADD	sf	$0.93	$0.86	$0.83	$0.77	$60.00	$0.80
Asphalt Top Course	ADD	sf	$0.53	$0.30	$0.35	$0.26	$80.00	$0.26
Concrete Curb	ADD	lf	$12.75	$19.00	$25.00	$22.00	$25.00	$16.00
Concrete Sidewalk	ADD	sf	$6.50	$5.50	$7.00	$6.50	$8.00	$7.00
Concrete Curb Replacement	ADD	lf	$18.90	$24.00	$30.00	$22.00	$28.00	$16.00
Concrete Sidewalk Replacement	ADD	sf	$9.50	$6.75	$7.50	$6.50	$8.00	$7.00

NOTE: Deduct Unit Prices not called for in Contract Documents

CHRISTOPHER COLUMBUS ELEMENTARY SCHOOL

SUMMARY

This summary presents our findings of the Site Improvement Project and compares our findings to those found in the confidential report prepared by Earth Tech, Inc, for the New York State Commission of Investigation.

Our review included the following:

- Contract plans and specifications
- Contract between the School District and George A. Nole & Son, Inc.
- George A. Nole & Son, Inc.'s request for change order
- Weekly bulletins as prepared by the Clerk of the Works
- Interview with the Architect, Mr. Louis DiOrio
- Interview with the Clerk of the Works, Mr. Craig Fehlhaber
- Consult with:
  - CME Associates, Inc. – testing laboratory
  - Atlantic Testing Laboratories, Ltd. – testing laboratory
  - Architectural Stone Co., Inc. – curb and sidewalk installer
  - C&S Engineers – Department of Transportation inspection group
- Reviewed the State of New York's Commission of Investigation Preliminary and Final Reports
- Reviewed the confidential site investigation as prepared by Earth Tech, Inc. for New York State Commission

Attached are Tables 3 and 5 as prepared by Turner and, for comparison purposes, Tables 3 and 5 as prepared by Earth Tech, Inc.

Comparing the tables, you can see differences in plan quantities, as-built quantities and dollar value. The differences or irregularities are produced by:

- Earth Tech, Inc. not measuring all as-built conditions other than those items that "appeared to differ from the project plane". As-built conditions refer to an illustration of the conditions as they exist on site after completion of construction where deviations from the construction drawings are noted.
- The building industry practice that dictates project specifications take precedence over contract drawings.
- Contract plans that lack dimensions and elevations.
- Ambiguities and inconsistencies between the contract plans and specifications.
- Changes in the scope of work that were not defined or documented in writing.
- Insufficient record keeping on the part of the Architect and Contractor.
- Earth Tech's interpretation in reference to Article 15 of the Supplemental General Conditions which states:

  "Failure to report any conflicts discovered in the Contract Documents, and/or proceed with the work without clarification for same, shall be deemed evidence

that the contractor(s) has elected to proceed in the more expensive manner at his own risk."

Mr. DiOrio advised that he and the contractor had post-bid conversations regarding conflicts between the drawings and specification, and the conflicts were resolved in the field to the satisfaction of both parties.

The report prepared by Earth Tech, Inc. is a summation of their interpretation of the contract documents, utilizing Article 15 of the Supplementary General Conditions of the Contract as the basis of their findings and associated measurements.

Our review is based on the industry practice that specifications have precedence over drawings and as-built field measurements showing differences in the areas of concrete sidewalks, asphalt paving, additional items not previously reported and materials quantity, all of which are presented in Tables 3 and 5.

The specification did not specify the order of precedence for bidding the project. Therefore, we use the lesser of the two methods due to the competitive nature of the bidding process.

1. The difference in quantity of concrete walks appears to exist in the removal and reinstallation of walks of which Earth Tech was unaware. Sidewalk thicknesses as specified per City of Utica are 4". The cores, presented by Earth Tech, averaged 7¾". Therefore, a credit does not apply.
2. Asphalt paving is specified to be 4" thick. The average thickness of asphalt paving cores, provided by Earth Tech, is 4". Therefore, a credit does not apply.
3. Sub-base course is specified to be 6" thick. The particle size distribution is specified, in part, as 0 – 10% passing a #200 sieve. The average of 7 samples collected by Earth Tech is 10%; therefore a credit does not apply.

CONCLUSION

Throughout our review we did not see evidence that anyone was grossly negligent or incompetent throughout this construction project. The project documentation was not managed well. However, the intent of the contract appears to be met and within budget as shown on Tables 3 and 5.

The curbs, asphalt paving, walks, etc, are well intact after six years. One would expect to see more deterioration of asphalt paving within the first two years. Some is evident and expected without constant maintenance. The asphalt is in good shape, which indicates the sub-base material is holding up. The curbing is experiencing some deterioration, which could be due to snow plowing. The walks are in very good shape, with little to no evidence of deterioration or movement.

CHRISTOPHER COLUMBUS ELEMENTARY SCHOOL

Based on the differences in reporting, our report shows a more complete accounting for dollars based on accurate field measurements of as-built quantities.

Comparison of Plan, Constructed, and Change Order Quantities
Christopher Columbus Elementary School

Table 3

	DATA FROM EARTH TECH'S APRIL 2002 REPORT						DATA FROM TORRES MAY 2006 REPORT					
Construction Item	Plan Quantity	Units	Construction Quantity	Units	Difference From Plan	Units	Plan Quantity	Units	As-Built Quantity	Units	Difference +/-	Units
Sidewalk							2,741		5,079		2,338	
- New	2,449		1,969		(480)		-		-		-	
- Add Additional Walks Along East Building Wall	-	sf	450	sf	450	sf	-	sf	-	sf	-	sf
- Add Concrete Sidewalk Along Bus Driveway*	-		1,599		1,599		-		-		-	
- Add (replace) Concrete Sidewalk at Front Street Area/Bus Drop Off	-		842		842		-		-		-	
Total Sidewalk	-		4,860		2,311		2,741		5,079		2,338	
Curbs												
- Repair	84	lf	3	lf	(81)	lf	87	lf	87	lf	0	lf
- New	852		824		(28)		1,109		848		-261	
Total Curb												
Pavement												
- New Eastern Parking Lot Paving Only (Large Section)	17,339		17,339		-		16,445		16,293		-152	
- New Eastern Parking Lot Paving Plus New Walkways (small)	600		600		-		Volume				-	
- Bus Driveway	4,726	sf	4,726	sf	-	sf	8,454	sf	9,453	sf	999	sf
- Area at End of Bus Driveway	3,289		3,169		(120)		Volume					
- Water Bus Driveway (From 12" to 10")	-		1,569		1,569		-					
Total Pavement	25,954		27,356		1,402		27,900		26,713		847	
Bollards												
- 6" Concrete Pad	210	sf	209	sf	-2	sf	231	sf	231	sf	1	sf
- 8" Concrete Pad	676	sf	669	sf	-7	sf	698	sf	710	sf	12	sf

Notes:

lf = Linear Feet — Negative Change Order = Credit Back

sf = Square Feet — Positive Change Order = Additional Fees

Negative Difference = Under Plan — * = Not identified on Change Order

** = Quantity Not Specified, Quantity Based on Pavement Widening Proposal (Date: 12/1/00)

Comparison of Change Order Total to Calculated Total
Christopher Columbus Elementary School

Table 5

DATA FROM EARTHTECH'S APRIL 2002 REPORT

Data from Turner's May 2005 Report

Construction Item	Units	Calculated Change Order Value: Measured Quantity		Bid Unit Price		Calculated Add/Deduct	Plan Quantity	As Built Quantity	Measured Difference	Unit Price	+/-	Notes
Sidewalk							2,368	2,368	0	$8.50	0	
- New Eastside of Large Parking Lot		(492)		$6.50	***	($3,198.00)	0	264	+264	$8.50	+1716	
- Add Additional Walks Along East Building Wall		485		$6.50		$3,152.50	0	1,127	+1127	$8.50	+7326	
- Add Concrete Sidewalks along Bus Driveway	sf	1,568		$6.50		$10,179.00	0	816	+816	$8.50	+5304	
- Add (replace) Concrete Sidewalks at Front Street Area/Bus Drop Off		642		$9.50		$6,099.00	0	778	+778	$9.50	+7315	
- Deduct 5" Concrete Sidewalk instead of 6"		(4,868)		$0.65		($3,094.74)	0	0	0	$0.00	0	City of Utica specification states 4"
Curbs												
- Repair	lf	(45)		$10.00	**	($830.50)	88	88	0	-	0	
- New		(25)		$6.30		($158.00)	878	846	-24	$10.83	-314	
Pavement									-		-	
- New Eastern Parking Lot Paving Only 4.5" (Large Section)			$	-		$ -			-		-	
- New Eastern Parking Lot Paving Plus New 12" Subbase (Small)			$	-		$ -			-		-	
- Bus Driveway	-3500		$	-		$ -			-		-	
- Area at end of Bus Driveway		(160)		$1.30		($234.00)					0	Per architect & clerk this was installed
- Widen Bus Driveway (12'-16') w/stripping, topsoil, added substrate		1,568		$3.52	*	$5,598.76			+1,568	$1.46	2,319	
- 3-5/8" Pavement instead of 4-1/2"		(17,359)		$0.25		($4,334.75)			0		0	
- Deduct for Subbase not meeting Project Specifications		(6,314)		$0.25		($1,641.64)			0		0	
Concrete												
-6" Concrete Pad	cy	(2)		$6.91	*	($13.82)			0	$7.95	0	
-9" Concrete Pad		(7)		$7.81	*	($54.67)			+13	$9.00	+117	
Revise Base Course-Grind and Regrade Cut and Remove Soft Spots and Areas. Fill and Compact Soft and Low Spots and Areas	ls					($3,500.00)						
Total Change Order Value $7,930 + 19,800 -3,500 = $24,230 VS $30,800						**$7,328.14**					-3500	Re-use existing stone sub-base
Tree removal at front of Bus Drop							0	1 ea	+1	$700.00	700	
Add concrete step at east building entrance 8' x 4' x 8"							0	1 ea	+1	$500.00	500	
Curb cut at se corner of large parking lot							0	1 ea	+1	$600.00	600	
Remove & replace sidewalk between curn line & front of building							0	2,200 sf	2,200	$9.50	22,900	In Change Order #2 for $30,800
Manhole @ east end of bus drive							0	1 ea	+1	$120.00	960	
Add unclassified excavation @ road widening							0	49 cy	49 cy	$4.50	221	9' + 4' = 10' x 1386 sf = 49 cy
Add sub-base materials @ road widening							0	30	30 cy	$7.50	225	
											$44,429	vs $40,000 issued by change order

* Bid Unit Price Not Provided, Reference Price Utilized
** Replacement Prices Utilized
*** "Add" Unit Price used, because change is new addition to contract

*NOTE: Unit prices were not required by contract documents, therefore unit pricing provided by Note for Kennedy School & Kernan School, which are identical, will be used in pricing