

R.P.
MURRAY
GENERAL CONTRACTOR

September 20, 2016

Greensboro Coliseum Complex
1921 Gate City Boulevard
Greensboro, NC 27403
Attn: Mike Purdue

Re: Value Engineering for Parking Lot Improvements Project

Dear Mike,

R. P. Murray, Inc. is pleased to submit the following Value Engineering (VE) Options for consideration, approval, and incorporation into the Contract for the above referenced project. Per our discussions since the date of the bid, September 9, 2016, we have reviewed the items identified for VE by Coliseum Staff, R.P. Murray and our Subcontractors. Each proposed item is listed below with the expected value:

Base Bid Total:	\$1,875,000
Alternate No. 1 Total Bid Price:	\$470,000

Value Engineering Options with Cost Savings for Base Bid – Parking Lot Improvements:

- | | | |
|---|--------|-----------|
| 1. Remove All Scope in North Portions of Existing Lot: | deduct | \$250,000 |
| a. New work to terminate at existing curb as shown on the attached mark-up. | | |
| 2. Alternate Concrete Subcontractors: | deduct | \$50,000 |
| a. NOTE: This will reduce our MBE Participation to 1%. | | |
| 3. Change thermoplastic pavement markings to standard pavement marking paint: | deduct | \$12,000 |
| 4. Alternate lighting package for base bid: | | TBD |
| a. Additional information forthcoming from lighting vendors, to be evaluated at a later date. | | |

Value Engineering Options with Cost Savings for Alternate No. 1 – Metal Storage Building:

- | | | |
|--|--------|----------|
| 1. Change CMU to paint grade split face: | deduct | \$35,000 |
| 2. Mechanical/HVAC Options: | | |
| a. Alternate gas heaters with standard combustion: | deduct | \$1,260 |
| 1. Specified heaters included separated combustion. | | |
| b. Standard aluminum heat exchangers in heaters: | deduct | \$987 |
| 1. Stainless steel specified. | | |
| c. NEMA 1 disconnects instead of NEMA 4: | deduct | \$417 |
| d. Manual damper instead of motorized: | deduct | \$573 |
| 3. Reduction in Overhead for reduced scope & performing jobs concurrently: | deduct | \$48,000 |

Other changes not noted above:

- | | | |
|---|-----|----------|
| 1. Increase Owner's Contingency: | add | \$15,000 |
| a. Amount to cover removing entrance from Coliseum Blvd at proposed tie in. | | |

In summary, the total for performing the base bid work and alternate number 1 could potentially be reduced by a maximum of \$382,820 which would result in a total price for the combined work of \$1,962,180. For this scope of work, **the MBE participation would be 1% and the WBE participation would be 48%.**

Should you have any questions or need any additional information regarding the items listed above, please do not hesitate to contact me directly.

Sincerely,



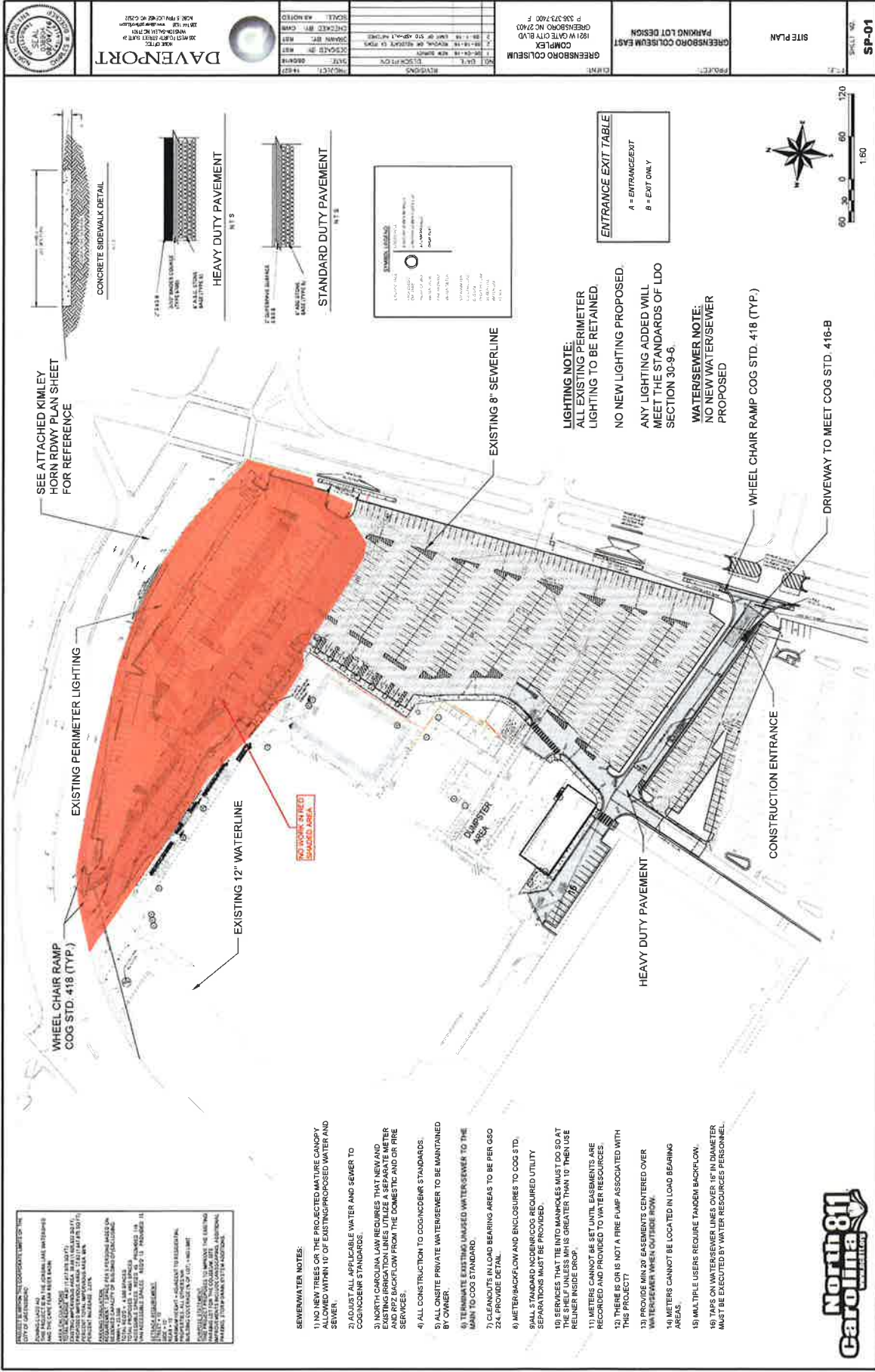
Andrew G. Wells
Vice President

Cc: Robert Furmage

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SEWER/WATER NOTES:

- 1) NO NEW TREES OR THE PROJECTED MATURE CANOPY ALLOWED WITHIN 10' OF EXISTING PROPOSED WATER AND SEWER.
- 2) ADJUST ALL APPLICABLE WATER AND SEWER TO COINCIDENT STANDARDS.
- 3) NORTH CAROLINA LAW REQUIRES THAT NEW AND EXISTING IRRIGATION LINES UTILIZE A SEPARATE METER AND RPZ BACKFLOW FROM THE DOMESTIC AND OR FIRE SERVICES.
- 4) ALL CONSTRUCTION TO COINCIDENT STANDARDS.
- 5) ALL ON-SITE PRIVATE WATER/SEWER TO BE MAINTAINED BY OWNER.
- 6) TERMINATE EXISTING UNUSED WATER/SEWER TO THE MAIN TO COG STANDARD.
- 7) CLEANOUT IN LOAD BEARING AREAS TO BE PER GSO 214 PROVIDE DETAIL.
- 8) METER BACKFLOW AND ENCLOSURES TO COG STD. SHALL STANDARD INCIDENT/COG REQUIRED UTILITY SEPARATIONS MUST BE PROVIDED.
- 9) SERVICES THAT TIE INTO MANHOLES MUST DO SO AT THE SHELF UNLESS MH IS GREATER THAN 10' THEN USE REINFORCED INSIDE DROP.
- 10) METERS CANNOT BE SET UNTIL EASEMENTS ARE RECORDED AND PROVIDED TO WATER RESOURCES.
- 11) THERE IS OR IS NOT A FIRE PUMP ASSOCIATED WITH THIS PROJECT.
- 12) PROVIDE MINOR EASEMENTS CENTERED OVER WATER/SEWER WHEN OUTSIDE ROW.
- 13) METERS CANNOT BE LOCATED IN LOAD BEARING AREAS.
- 14) MULTIPLE USERS REQUIRE TANDEN BACKFLOW.
- 15) TAPS ON WATER/SEWER LINES OVER 16" IN DIAMETER MUST BE EXECUTED BY WATER RESOURCES PERSONNEL.

