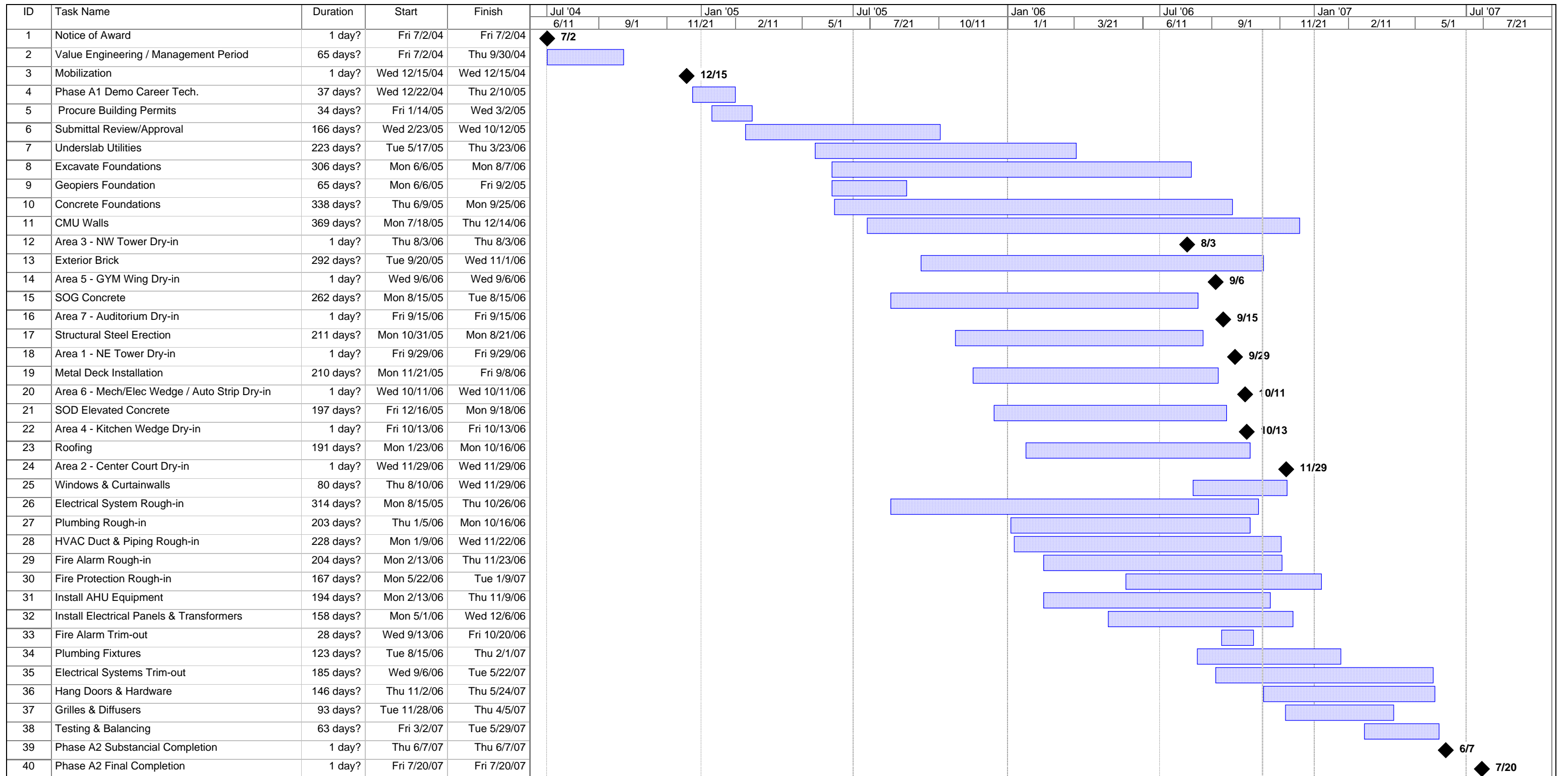











APPENDIX A

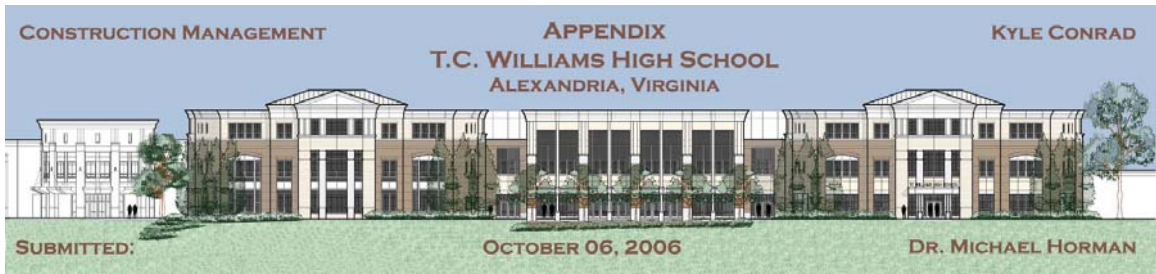
Phase A Project Summary Schedule

T.C. Williams High School Replacement Project



Project: T.C. Williams High School
 Summary Schedule
 Date: October 6, 2006

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			



APPENDIX B

D4 Cost 2002 Parametric Estimate

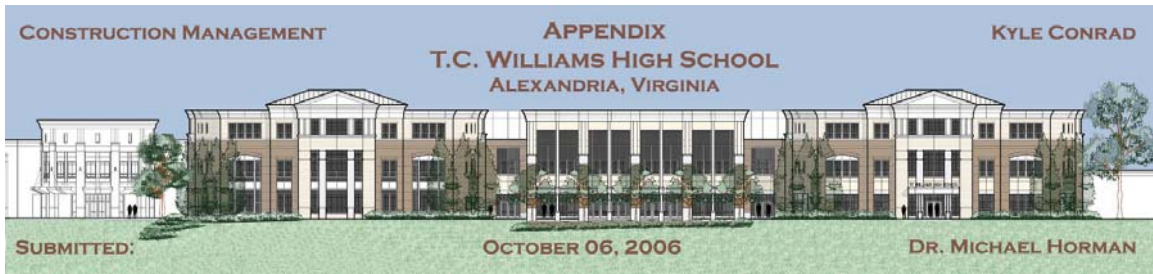
**T.C. Williams High School
Replacement Project**

T.C. Williams High School

Building Use	Educational
Bid Date	7/2/2004
Num Floors	3
Base Month	Jul
Base Year	2005
Projected Month	Jul
Projected Year	2007
Projected Location	VA - Alexandria
Building Size	469507
Project Height	45.67
1st Floor Height	12
1st Floor Size	228505
Foundation	CMU
Exterior Wall	CMU
Interior Wall	CMU
RoofType	EPD
Floor Type	CON
Project Type	NEW
By Contact	Kyle Conrad
For Contact	Dr. Michael Horman
For Firm	Penn State AE Faculty

Code	Division Name	%	Sq. Cost	Projected
01	General Requirements	13.78	23.79	11,169,919
	Access Road	0.03	0.05	25459.31
	Change Orders	12.74	21.99	10326032.24
	General Conditions	1.01	1.74	818427.58
03	Concrete	4.42	7.64	3,585,630
	Cement Decks	0.95	1.64	767789.02
	Equipment Pads	0.07	0.13	59853.70
	Footings	1.14	1.96	922179.34
	Reinforcement	0.38	0.66	307986.32
	Slab On Grade	1.89	3.25	1528021.71
04	Masonry	9.32	16.09	7,556,373
	4" CMU	0.01	0.01	6033.86
	6" CMU	0.01	0.01	6492.12
	Brick	1.56	2.68	1260235.64
	Cast Stone	0.01	0.02	7637.79
	Cavity Wall Insulation	0.05	0.08	38188.96
	Concrete Unit	7.69	13.28	6235747.79
	Slate Sills	0.00	0.00	2036.74
05	Metals	9.68	16.71	7,845,593
	Cold-Formed Metal Framing	0.81	1.40	657613.87
	Gratings	0.87	1.51	707366.45
	Gratings - Wire Mesh Part	0.01	0.02	9165.35
	Misc. Metals	1.26	2.18	1023700.87
	Ornamental Metal	0.19	0.33	153557.80
	Other-Expansion Joint Cov.	0.03	0.04	20367.44
	Steel Deck	0.65	1.12	526098.73
	Steel Erection	1.22	2.11	989094.03
	Steel Joists	0.78	1.34	631057.27
	Structural Steel	3.86	6.66	3127571.35
06	Wood, Plastics, and Composites	1.85	3.19	1,495,734
	Custom Display Cases	0.03	0.06	27750.64
	Finish Carpentry	0.63	1.09	509440.71
	Rough Carpentry	1.18	2.04	958542.87
07	Thermal and Moisture Protection	4.33	7.47	3,506,617
	Building Insulation	0.21	0.36	168286.01
	Built-Up Roofing	0.92	1.59	746293.73
	Firestopping	0.03	0.06	28005.24
	Flashing & Sheet Metal	1.40	2.42	1138002.97
	Metal Roofing	0.39	0.68	319856.86
	Roof Insulation	0.90	1.55	729919.30
	Sealants	0.05	0.08	39716.52
	Skylights	0.07	0.13	58358.37
	Spray Fireproofing	0.11	0.18	85797.86
	Waterproofing	0.24	0.41	191581.28
08	Openings	7.90	13.63	6,401,559
	Curtain Wall Framing	0.69	1.20	562650.66
	Entrances & Storefronts	1.22	2.11	992220.44
	Glazing	0.50	0.87	407348.89
	Hardware	0.69	1.20	562650.66
	Metal Doors & Frames	0.40	0.69	323333.18
	Metal Panel Type 1	1.75	3.01	1414264.44
	Metal Panel Type 2	1.58	2.73	1282385.24
	Metal Windows	0.39	0.68	318241.32
	Overhead Doors	0.12	0.20	95217.80
	Rolling Fire Doors	0.08	0.13	62884.49
	Wood Doors	0.47	0.81	380362.03
09	Finishes	6.48	11.19	5,253,332
	Acoustical Ceilings	0.75	1.29	607968.22
	Acoustical Panels	0.19	0.34	157338.51
	Carpet	0.19	0.32	152552.16
	Ceramic Tile	0.54	0.93	435863.32
	Gypsum Board	2.33	4.02	1885770.79
	Interactive Acoustical Panels	0.08	0.14	65885.01
	Painting	0.68	1.18	553994.50
	Resilient Flooring	0.95	1.65	773657.39
	Resinous Flooring	0.14	0.24	114057.69
	Wood Flooring	0.62	1.08	506444.15
10	Specialties	1.78	3.07	1,440,393
	Chalkboards & Tackboards	0.27	0.47	221424.68
	Cubicle Curtain	0.01	0.02	9419.94
	Display Cases	0.08	0.14	65122.36
	Fire Extinguisher Cabinets	0.04	0.07	32587.91
	Flagpole	0.01	0.02	10183.72
	Folding Partitions	0.11	0.20	92926.47
	Lockers	0.56	0.96	452994.88
	Louvers & Vents	0.20	0.35	165485.49
	Metal Shelving	0.06	0.10	48703.65
	Mobile Storage	0.07	0.12	58385.83
	Protective Covers	0.15	0.27	124750.60
	Signs	0.04	0.06	28514.42
	Toilet Partitions & Accessories	0.16	0.28	129893.38
11	Equipment	1.96	3.39	1,589,572
	Book Theft Protection	0.09	0.15	71286.06
	Food Service	1.39	2.40	1127108.93
	Gymnasium	0.18	0.30	142444.82
	Laundry Machines	0.03	0.06	25968.49
	Loading Dock	0.00	0.00	2291.34
	Projection Screens	0.05	0.09	43530.32
	Residential	0.02	0.04	19094.48
	Stage Curtains	0.19	0.34	157847.70

12	Furnishings	3.30	5.69	2,672,649
	Auditorium Seating - Fixed	0.18	0.31	147536.68
	Auditorium Seating - Loose	0.06	0.10	45062.97
	Blinds & Shades	0.16	0.28	132388.39
	Educational Casework	0.85	1.47	692185.06
	Laboratory Casework	1.06	1.82	855771.29
	Library Shelving	0.29	0.51	237308.74
	Special Furniture	0.24	0.41	190944.79
	Telescoping Bleachers	0.32	0.55	256120.63
	Wood Casework	0.14	0.25	115330.66
14	Conveying Systems	0.31	0.54	252,047
	Elevators	0.31	0.54	252047.13
21	Fire Suppression	1.26	2.17	1,017,608
	Fire Protection Piping	0.17	0.30	140026.18
	Fire Pumps	0.09	0.15	71286.06
	Other Fire Protection (Bond)	0.02	0.03	14639.10
	Standpipe & Hose System	0.01	0.01	5091.86
	Wet Sprinkler System	0.97	1.68	786565.26
22	Plumbing	5.75	9.93	4,660,209
	Domestic Water Heaters	0.10	0.17	81910.22
	Gas Piping System	0.19	0.33	157152.66
	Mechanical Insulation	1.56	2.70	1267873.43
	Plumbing Equipment	0.11	0.18	85825.87
	Plumbing Fixtures	0.47	0.81	382515.89
	Plumbing Piping	2.12	3.67	1721611.73
	Roof Drainage System	0.88	1.51	709864.00
	Special Systems (Acid Waste)	0.31	0.53	250175.87
	Water Distribution Pumps	0.00	0.01	3279.16
23	HVAC	16.37	28.26	13,268,092
	Air Cleaning Devices	0.12	0.21	96745.36
	Air Coils	0.03	0.05	23885.92
	Air Distribution	0.21	0.37	173123.28
	Air Handling	1.40	2.41	1130772.53
	Air Outlets & Inlets	1.13	1.95	916535.01
	Air Terminal Units	0.31	0.54	254593.06
	Boilers	0.38	0.65	307225.08
	Breechings/Chimneys/Stacks	0.10	0.17	81469.78
	Condensers (Piping)	0.29	0.50	232873.73
	Controls	2.97	5.12	2405904.41
	Cooling Towers	0.35	0.61	286806.72
	Ductwork	3.13	5.40	2536256.05
	Energy Recovery Units	0.52	0.90	422428.44
	Heat Pumps (Hydraulic)	0.34	0.59	276101.08
	Heat Transfer (Heat Pipe)	2.23	3.86	1810500.35
	Other Air Handling (Air Curtain)	0.01	0.02	7706.53
	Other Cooling (Chiller Piping)	1.16	2.01	944059.07
	Other Heat Transfer	0.09	0.16	73256.61
	Pkgs. Air Condition Units	0.12	0.20	94897.02
	Power Ventilators	0.35	0.60	280052.36
	Refrigeration	0.07	0.12	56774.25
	Testing/Adjusting/Balancing	0.19	0.33	153010.43
	Units & Coils	0.01	0.02	7752.36
	Water Chillers	0.86	1.48	695362.38
26	Electrical	7.96	13.74	6,448,842
	Boxes	0.24	0.42	196036.66
	Bus Duct	0.01	0.02	10183.72
	Exterior Luminaires	0.40	0.68	320787.25
	Interior Luminaires	1.52	2.62	1232230.41
	Lamps	0.09	0.15	71286.06
	Other Equipment Connect	0.25	0.42	198582.59
	Other Sitework	0.65	1.13	529553.56
	Panelboards	0.60	1.04	488818.67
	Pkgs. Engine Gen. System	0.23	0.39	183307.00
	Raceways	1.21	2.09	982729.21
	Switchboards	0.31	0.54	254593.06
	Temp. Basic Materials & Methods	0.19	0.33	152755.84
	Theatrical Lighting	0.38	0.66	310603.53
	Wires & Cables	1.60	2.75	1293332.74
	Wiring Devices	0.28	0.48	224041.89
27	Communications	2.77	4.78	2,245,511
	Data Hardware Allowance	0.31	0.54	254593.06
	Other Media Retrieval	0.17	0.29	137480.25
	P. A. & Music System	0.19	0.34	157847.70
	T. V. System	0.15	0.26	122204.67
	Telephone Dist. System	0.48	0.84	392073.31
	Voice & Data System	1.46	2.52	1181311.73
28	Electronic Safety and Security	0.78	1.35	633,937
	Alarm & Detection System	0.78	1.35	633936.72
	Total Building Costs	100.00	172.61	81,043,618
Code	Division Name	%	Sq. Cost	Projected
02	Existing Conditions	23.49	0.38	1,034,394
	Allowance	0.51	0.01	22388.88
	Construction Stakeout	0.91	0.01	40242.91
	Demolition/Abatement	14.94	0.24	657908.69
	Hardwood Surface	0.08	0.00	3358.33
	Stone Base	7.05	0.11	310494.71
31	Earthwork	19.57	0.31	862,062
	Clearing	2.64	0.04	116109.90
	Erosion Control	3.70	0.06	162826.55
	Excavation & Backfilling	12.81	0.21	564094.77
	Grading	0.43	0.01	19030.56
32	Exterior Improvements	42.95	0.69	1,891,859
	Asphalt Paving	15.77	0.25	694469.75
	Ball Fields	1.88	0.03	82669.85
	Curbs & Gutters	2.62	0.04	115382.26
	Fences	2.61	0.04	114752.01
	Landscaping	6.39	0.10	281339.90
	Roads & Walks	0.43	0.01	19030.56
	Sidewalks	9.21	0.15	405843.39
	Tennis Wall	1.39	0.02	61400.41
	Water	1.93	0.03	85066.58
	Wood Fence	0.15	0.00	6716.67
	Maintenance Of Traffic	0.19	0.00	8395.83
	Outdoor Athletic Equipment	0.38	0.01	16791.67
33	Utilities	13.99	0.22	616,074
	Sewer	1.36	0.02	59806.32
	Site Electrical	1.78	0.03	78361.11
	Site Utilities to 5 of Bldgs.	0.45	0.01	19814.17
	Storm	7.22	0.12	318131.56
	Storm Water Mgt. Pond	3.18	0.05	139960.78
	Total Site Costs	100.00	160.49	4,404,388
	Total Project Costs			85,448,006



APPENDIX C

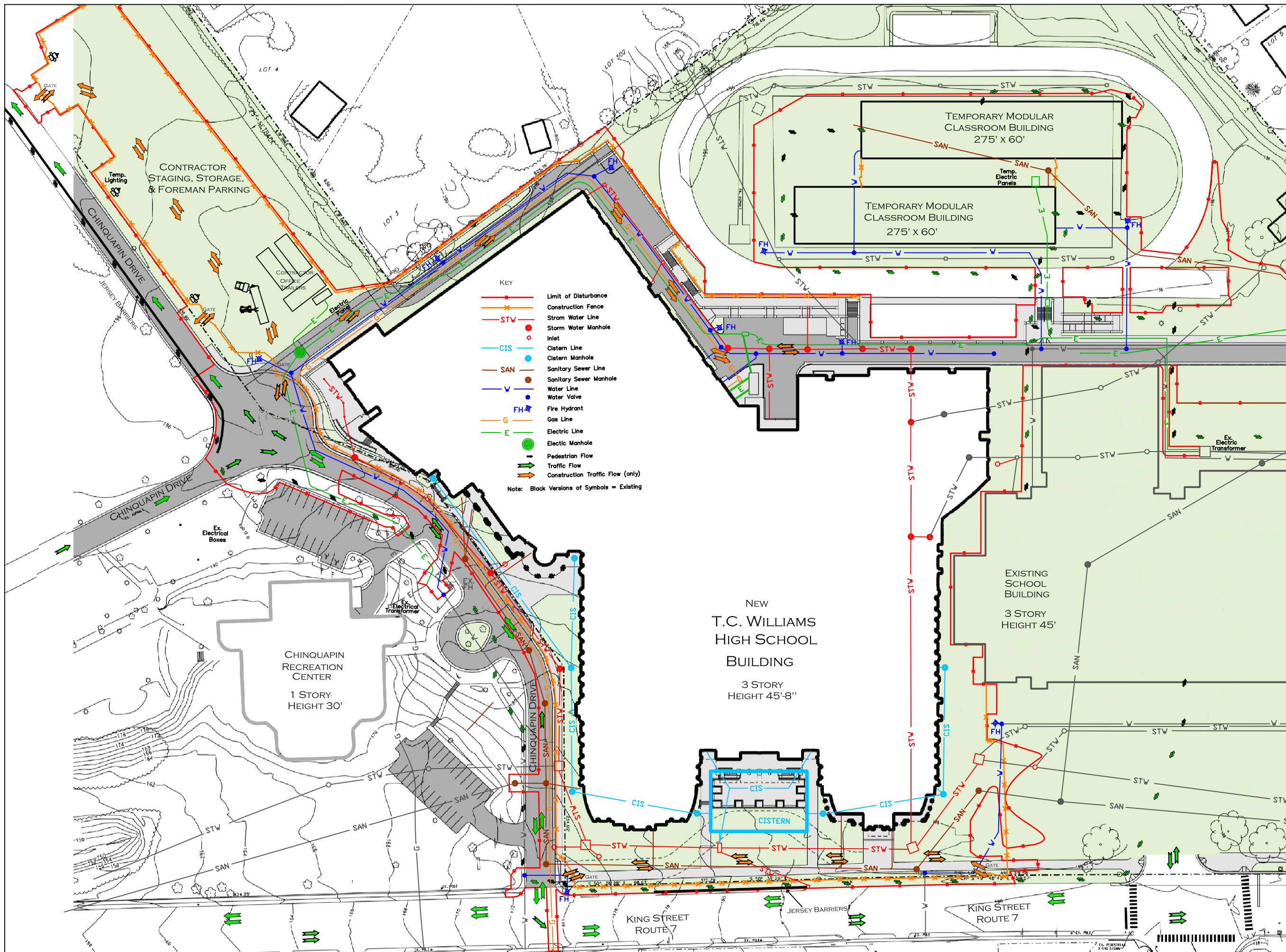
Site Plan of Existing Conditions

**T.C. Williams High School
Replacement Project**

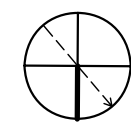
T.C. WILLIAMS HIGH SCHOOL REPLACEMENT PROJECT

OWNER:
ALEXANDRIA CITY PUBLIC SCHOOLS

LOCATION:
3330 KING STREET
ALEXANDRIA, VA 22302



- KEY**
- Limit of Disturbance
 - Construction Fence
 - STW Storm Water Line
 - Storm Water Manhole Inlet
 - CIS Cistern Line
 - Cistern Manhole
 - SAN Sanitary Sewer Line
 - Sanitary Sewer Manhole
 - V Water Line Water Valve
 - Fire Hydrant
 - G Gas Line
 - E Electric Line
 - Electric Manhole
 - Pedestrian Flow
 - Traffic Flow
 - Construction Traffic Flow (only)
- Note: Black Versions of Symbols = Existing



MARK	DATE	DESCRIPTION
1	10/06/06	TECH ASSIGN #1

PROJECT NO:
REVIEWED BY:
DRAWN BY: **KYLE CONRAD**
SCALE: 1/96" = 1'
SHEET TITLE:

SITE LAYOUT PLAN

C-100