



TEAMWORK, DEDICATION, AND COMMITMENT





HAINES GIPSON & ASSOCIATES

CONSULTING ENGINEERS
CIVIL & STRUCTURAL SERVICES

SINCE ITS BEGINNING IN THE FOUNDER'S BASEMENT IN 1968, HAINES, GIPSON & ASSOCIATES, INC. HAS BEEN PROGRESSIVELY GROWING AND DEVELOPING INTO ONE OF THE MOST RESPECTED CIVIL AND STRUCTURAL ENGINEERING FIRMS IN THE SOUTHEAST. THE FOUNDATION OF OUR SUCCESS LIES PREDOMINANTLY IN THE KNOWLEDGE (HGA) HAS GAINED FROM THE SUCCESSFUL COMPLETION OF MORE THAN **10,000** PROJECTS NATIONWIDE OVER THE PAST **40** YEARS WORKING WITH A WIDE VARIETY OF INDUSTRIAL, GOVERNMENTAL, COMMERCIAL, AND INSTITUTIONAL CLIENTS. IN ADDITION TO THE KNOWLEDGE AND WISDOM ACCUMULATED AS A COMPANY OVER THE YEARS, THE DIVERSE ACADEMIC AND PROFESSIONAL BACKGROUNDS OF OUR INDIVIDUAL ENGINEERS ADD VALUABLE INSIGHT INTO THE CREATIVE PROBLEM-SOLVING PROCESS REQUIRED FOR THE SUCCESSFUL COMPLETION OF ANY TYPE OF PROJECT.

WE ARE LEADERS IN THE FIELDS OF:

AIRPORT
BRIDGE AND ROADWAY
COMMERCIAL AND MIXED USE
ECCLESIASTICAL
EDUCATIONAL
GOVERNMENT
HEALTH CARE
HISTORIC PRESERVATION
INDUSTRIAL
MILITARY
OFFICE AND LABORATORY
"ON CALL" CONSULTING SERVICES
PARKING STRUCTURES
PARKS AND RECREATION
RENOVATION
RETAINING AND DETENTION STRUCTURES
RETAIL ROLL-OUT PROGRAMS
SUSTAINABLE / LEED CERTIFIED DESIGNS

LIKE MOST WELL-ESTABLISHED COMPANIES, MUCH OF OUR CURRENT BUSINESS IS FROM **REPEAT CLIENTS**, SOME OF WHOM HAVE BEEN WITH US SINCE OUR FOUNDING. THESE RELATIONSHIPS CONTINUE TO GROW BECAUSE OF OUR COMPANY'S ADHERENCE TO FOUR CORE PRINCIPLES;

WILLINGNESS TO LISTEN

WE ACKNOWLEDGE OUR CLIENTS NEEDS AND STRIVE TO PROVIDE SOLUTIONS BASED ON JOB SPECIFIC STRATEGIES.

ADDRESS THE DIFFICULT DETAILS

A GOOD ENGINEER DIVES INTO THE DIFFICULT DETAILS FIRST. OUR CLIENTS CAN REST EASY KNOWING THE CRITICAL DETAILS WILL BE FULLY ADDRESSED IN THE DESIGN PHASE, NOT IN THE FIELD.

EMPIRICAL BASED SOLUTIONS

TECHNOLOGY IS NO SUBSTITUTE FOR EXPERIENCE. THOUGH WE STAY ON THE CUTTING EDGE OF SOFTWARE DESIGN AND PRODUCTION PROGRAMS, WE DRAW FROM YEARS OF EXPERIENCE TO SOLVE PROBLEMS WITH PRACTICAL SOLUTIONS.

DEADLINE DRIVEN

MISSING A DEADLINE IS NOT AN OPTION AT HGA. WE ARE COMMITTED TO DELIVERING TIMELY, QUALITY SERVICE.

CIVIL ENGINEERING SERVICES:

PRE-DEVELOPMENT SERVICES

PRELIMINARY SITE PLANNING AND SITE ASSESSMENT
SCHEMATIC / DESIGN DEVELOPMENT
ENTITLEMENT / ZONING DOCUMENTS
ASSISTANCE WITH PUBLIC HEARINGS
FEASIBILITY / DUE DILIGENCE STUDIES
BUDGETING AND COST ESTIMATES

CONSTRUCTION DOCUMENTS

SPECIFIC TENANT REQUIREMENTS
CONTRACT DOCUMENTS
EARTHWORK ANALYSIS
DESIGN CALCULATIONS
PREPARATION OF CONSTRUCTION SPECIFICATION / PROJECT MANUAL

ROADWAY & STREETScape DESIGN

CROSS-SECTION AND ROAD PROFILES
PAVEMENT DESIGN
HARDSCAPE AND LANDSCAPE COORDINATION

UTILITY DESIGN

POTABLE WATER SYSTEMS
NON-POTABLE WATER SYSTEMS - SITE DESIGN FOR FIRE PROTECTION REQUIREMENTS
POWER SUBSTATION SITE DESIGN
SANITARY SEWER SYSTEMS (MUNICIPAL AND ON-SITE)
SEWER / UTILITY FEASIBILITY STUDIES
LIFT STATIONS AND FORCE MAIN DESIGN

PERMITTING

ASSISTING WITH THE PERMIT PROCESS AND INTERACTION WITH LOCAL, STATE, AND FEDERAL AUTHORITIES
* LOCAL LAND DISTURBANCE AND DEVELOPMENT
* CLEARING AND GRUBBING
* DRIVEWAY AND ACCESS (LOCAL AND STATE)
* NPDES
* UTILITIES (LOCAL AND STATE)
* ASSISTANCE WITH STATE AND FEDERAL WATERS PERMITTING (WETLANDS, STREAM BUFFERS, ETC)

CONSTRUCTION ADMINISTRATION

PRELIMINARY OPINION OF PROBABLE COST
CONSTRUCTION BUDGET
VALUE ENGINEERING
SHOP DRAWING REVIEW
SUBSTANTIAL COMPLETION / "PUNCH LIST" SITE OBSERVATION REPORTS
AS-BUILT DOCUMENTS AND REVIEW
ASSISTANCE WITH CLOSING DOCUMENTS

STORMWATER MANAGEMENT

HYDROLOGY STUDIES
EROSION AND SEDIMENT CONTROL PLANS AND CALCULATIONS IN ACCORDANCE WITH NPDES STANDARDS
STORMWATER CONVEYANCE ANALYSIS AND DESIGN
DETENTION POND ANALYSIS AND DESIGN
WATER QUALITY DESIGN
BEST MANAGEMENT PRACTICES (BMP) DESIGN

PROGRAM MANAGEMENT

PUBLIC SECTOR:
* CONCEPTUAL DESIGN
* PUBLIC INTERACTION
* DOCUMENT COORDINATION AND MANAGEMENT
* DEVELOPMENT OF NEW DESIGN & CONSTRUCTION STANDARDS
* DESIGN & REVIEW PROCESS IMPLEMENTATION
* SCHEDULING
* CONSTRUCTION ADMINISTRATION
* "ON-CALL" DESIGN SERVICES
PRIVATE SECTOR:
* CONCEPTUAL DESIGN
* PROTOTYPICAL DESIGN DRAWING PREPARATION
* PROTOTYPICAL CONSTRUCTION SPECIFICATIONS
* DESIGN & REVIEW PROCESS IMPLEMENTATION

PEER REVIEW

CALCULATION REVIEW AND REPORT PREPARATION
PLAN REVIEW AND REPORT PREPARATION

LEGAL ASSISTANCE

CONTRACT REVIEW
EXPERT WITNESS TESTIMONY
FORENSIC ENGINEERING
SURETY ASSISTANCE

BUILDING INFORMATION MODELING

3D BUILDING MODEL GENERATION UTILIZING CIVIL 3D
COORDINATE FACILITATION BETWEEN ALL DISCIPLINES

STRUCTURAL ENGINEERING SERVICES:

NEW CONSTRUCTION

SCHEMATIC / DESIGN DEVELOPMENT
CONTRACT DOCUMENT PREPARATION
CALCULATION PREPARATION
SPECIFICATION PREPARATION
CONSTRUCTION ADMINISTRATION
SEISMIC ANALYSIS / DESIGN

RENOVATION / MODIFICATION

STRUCTURAL ASSESSMENT
STRUCTURAL REPAIRS
CODE COMPLIANCE UPGRADES
EXPANSIONS / ADDITIONS
SEISMIC ANALYSIS / DESIGN

BUILDING INFORMATION MODELING

3D BUILDING MODEL GENERATION UTILIZING REVIT STRUCTURE
COORDINATE FACILITATION BETWEEN ALL DISCIPLINES
BUILDING REVISION DOCUMENTATION

CONSTRUCTION ADMINISTRATION

PRELIMINARY OPINION OF PROBABLE COST
CONSTRUCTION BUDGET
VALUE ENGINEERING
SHOP DRAWING REVIEW
SUBSTANTIAL COMPLETION / "PUNCH LIST" SITE OBSERVATION REPORTS
AS-BUILT DOCUMENTS AND REVIEW
ASSISTANCE WITH CLOSING DOCUMENTS

PROGRAM MANAGEMENT

PUBLIC SECTOR:
* CONCEPTUAL DESIGN
* PUBLIC INTERACTION
* DOCUMENT COORDINATION AND MANAGEMENT
* DEVELOPMENT OF NEW DESIGN & CONSTRUCTION STANDARDS
* DESIGN & REVIEW PROCESS IMPLEMENTATION
* SCHEDULING
* CONSTRUCTION ADMINISTRATION
* "ON-CALL" DESIGN SERVICES
PRIVATE SECTOR:
* CONCEPTUAL DESIGN
* PROTOTYPICAL DESIGN DRAWING PREPARATION
* PROTOTYPICAL CONSTRUCTION SPECIFICATIONS
* DESIGN & REVIEW PROCESS IMPLEMENTATION

INVESTIGATIVE STUDIES

STRUCTURAL STRENGTH ISSUES
STRUCTURAL SERVICEABILITY ISSUES
PARKING STRUCTURE INVESTIGATION
VALUE ENGINEERING

PEER REVIEW

CALCULATION REVIEW AND REPORT PREPARATION
PLAN REVIEW AND REPORT PREPARATION

LEGAL ASSISTANCE

CONTRACT REVIEW
EXPERT WITNESS TESTIMONY
FORENSIC ENGINEERING
SURETY ASSISTANCE

AIRPORT

AIRPORTS ARE ECONOMIC LIFE LINES TO MANY CITIES ACROSS AMERICA. AS CITIES GROW, SO DO THE AIRPORTS THAT SERVICE THOSE REGIONS. AIRPORTS ARE DYNAMIC, CONSTANTLY MODIFYING AND EXPANDING IN RESPONSE TO GROWTH. AIRPORT PROJECT TIME LINES ARE TIGHT AND ROOM FOR ERROR IS NON-EXISTENT. HGA HAS WORKED ON SEVERAL AIRPORT EXPANSIONS AND HAS MET EVERY PROJECT ON TIME AND WITHIN BUDGET.

ONE OF OUR MOST RECENT PROJECTS WAS THE **AIR CARGO FACILITY AT NEW YORK'S J.F.K. INTERNATIONAL AIRPORT**. HGA PROVIDED THE CONSULTING ENGINEERING SERVICES FOR THE 2 BUILDING FACILITY TOTALING 500,000 SQ-FT, 6.5 ACRES OF NEW TAXI WAY AND AIRCRAFT APRON PAVEMENT, 100 NEW TRUCK STALLS AND TRUCK COURT PARKING AREAS, AND THE SITE INFRASTRUCTURE IMPROVEMENTS TO SUPPORT THE DEVELOPMENT OF TRACTS 8 AND 9A AT THE J.F.K. INTERNATIONAL AIRPORT IN JAMAICA, NEW YORK.



BRIDGE, ROADWAY, AND STREETSCAPES

IT CAN BE ARGUED THAT ACCESS IS THE MOST CRITICAL PARAMETER TO THE GROWTH OF AN AREA AND ROADWAYS ARE THE MAJOR MEANS OF LOCAL ACCESS IN TODAY'S TIMES. PROPER PLANNING CAN ASSURE THAT AN AREA WILL BE ACCESSIBLE IN THE INEVITABLE EVENT OF FUTURE GROWTH. WHERE ROADWAYS MEET OBSTRUCTIONS, BRIDGES ARE REQUIRED TO CONTINUE THE ROADWAY. WHETHER IT BE WATER CROSSINGS, INTERCHANGES, OR GRADE SEPARATIONS, HGA HAS THE EXPERIENCE TO DELIVER. HGA HAS EXPERIENCE IN COORDINATING WITH LOCAL AND STATE GOVERNMENTS AS WELL AS PRIVATE BRIDGE OWNERS. OUR KNOWLEDGE OF GDOT BRIDGE DESIGN POLICIES FACILITATE THE REVIEW PROCESS AND ALLOW FOR TIMELY PERMITTING.

THE SUGARLOAF PARKWAY EXTENSION PROJECT CONSISTS OF 7 BRIDGES. OF THE 7 BRIDGES, 5 ARE ROADWAY CROSSINGS OR INTERCHANGES AND 2 ARE STREAM CROSSINGS. THE PROJECT IS HIGHLIGHTED BY THE NEW HOPE ROAD CROSSING SINGLE POINT URBAN INTERCHANGE (SPUI). THE SPUI IS DESIGNED TO AID IN MOVING LARGE VOLUMES OF TRAFFIC UTILIZING LIMITED AMOUNTS OF SPACE. THE BRIDGE STRUCTURE IS ONLY GEORGIA'S 2ND SPUI AND AT 322' WIDE X 163' LONG, IS ALSO GEORGIA'S LARGEST.

(bottom left: Lake Placid Drive Improvements)

(bottom center: Perimeter Place Streetscapes)

(bottom right: Champions Green Parkway)



COMMERCIAL AND MIXED USE

REAL ESTATE OWNERS AND DEVELOPERS WORK TO BRING A COMMUNITY'S UNIQUE NEEDS FOR LIVABLE WORKING AND SHOPPING SPACES IN TO SYNERGY WITH PRACTICAL, COST EFFECTIVE, AND EFFICIENT SOLUTIONS. FROM SITE LAYOUT PLANNING, TO GRADING AND HYDROLOGY, TO BUILDING STRUCTURE DESIGN, HAINES, GIPSON & ASSOCIATES, INC PULLS FROM OUR VAST EXPERIENCE TO DELIVER COST EFFECTIVE SOLUTIONS, ALWAYS KEEPING SUSTAINABILITY VIABLE. OUR RELATIONSHIPS WITH PERMITTING AGENCIES AND RETAIL TENANTS (ALONG WITH KNOWLEDGE OF THEIR POLICIES) WILL HELP YOUR PROJECT PASS SMOOTHLY FROM CONCEPTION TO REALITY. SOME OF OUR PREVIOUS COMMERCIAL RETAIL EXPERIENCE INCLUDES **THE BOYTON BEACH MARKET PLACE** IN FLORIDA; **COLEMAN MARKET PLACE** IN DANVILLE, VIRGINIA; AND THE **OXFORD EXCHANGE** IN OXFORD, ALABAMA. (Shown middle of the page from left to right respectively)

ONE OF OUR FEATURED MIXED-USE PROJECTS IS **PERIMETER PLACE** (pictured to the right) LOCATED JUST 10 MILES NORTHEAST OF ATLANTA. THIS PROJECT FEATURES **45-ACRE** MIXED-USE DEVELOPMENT WITH **452,000 Sq.-FT.** OF RETAIL SPACE ALONG WITH CONDOMINIUMS AND RESTAURANTS

SELECTED RETAIL TENANTS (RETAIL):

LOEHMANN'S
OFFICE MAX
SUPER TARGET

SELECTED TENANTS (RESTAURANT):

CARRABBAS
FLEMMINGS
OUTBACK STEAKHOUSE



ECCLESIASTICAL

WE HAVE WORKED DIRECTLY FOR VARIOUS ARCHDIOCESES, LOCAL MINISTRIES, AND RELIGIOUS GROUPS THROUGHOUT THE UNITED STATES. PLACES OF WORSHIP ARE HIGH TRAFFIC AREAS THAT RELY ON WELL PLANNED FACILITIES TO ACCOMMODATE LARGE VOLUMES IN CONJUNCTION WITH QUICK TURN AROUND TIMES. WORSHIP CENTERS SEEK TO PROVIDE PATRONS WITH EASE OF INGRESS AND EGRESS ALONG WITH SPACIOUS, OPEN SANCTUARIES WITH UNOBSTRUCTED VIEWS. HGA HAS THE EXPERIENCE TO PROVIDE PROPER PLANNING IN SITE LAYOUT, PARKING SOLUTIONS, TRAFFIC CONTROL, AND STRUCTURAL SOLUTIONS FOR CLEAR SPANNING ROOF STRUCTURES.

ONE OF OUR MOST RECENT PROJECTS IS THE **12-STONE CHURCH**. A 106,000 SQ-FT PARTIAL 2-STORY STRUCTURE CONSISTING OF 5 WORSHIP ENVIRONMENTS: A 2,600 SEAT WORSHIP CENTER FOR THE ADULTS, A 600 SEAT HIGH SCHOOL WORSHIP CENTER, A 300 SEAT MIDDLE SCHOOL WORSHIP CENTER, AND TWO ADDITIONAL WORSHIP CENTERS FOR THE YOUNGER CHILDREN. THE CHURCH-IN-THE-PARK SETTING AFFORDS AN ENVIRONMENT FOR THE COMMUNITY AND A RELAXING EXPERIENCE INCLUDING A STARBUCKS COFFEE SHOP WITH AN EXTERIOR SEATING AREA OVERLOOKING A STREAM.

EDUCATIONAL

EDUCATIONAL FACILITIES ARE MORE THAN JUST LIBRARIES, CLASSROOMS, AND CAFETERIAS. WHETHER THEY ARE K-12, COLLEGIATE, PUBLIC, OR PRIVATE INSTITUTIONS, THE FACILITIES SERVE AS AN INTERFACE FOR THE STUDENTS AND FACULTY AND SHOULD INSPIRE COLLABORATION AND INTERACTION. HGA WORKS WITH DESIGN PROFESSIONALS TO CREATE ATTRACTIVE, YET COMFORTABLE AND FUNCTIONAL ENVIRONMENTS FOR FACULTY, STAFF, AND VISITORS. SOME PROBLEMS THAT WE HELP SOLVE ARE CLEAR-SPANNING ROOF STRUCTURES FOR THEATERS AND GYMNASIUMS, VARIOUS SITE / CIVIL CONSTRAINTS, AND MEETING TIGHT BUDGETS AND TIMELINES.

AN EXAMPLE OF SUCH A PROJECT IS **SAVANNAH COUNTRY DAY LOWER SCHOOL** (top of the three photos below)

THE FIRST SCHOOL IN SAVANNAH TO BE LEED CERTIFIED. THE SAVANNAH COUNTRY DAY LOWER SCHOOL CONSISTS OF 52,500 S.F. OF CLASSROOMS, LIBRARY, AND OFFICE SPACE. LEED CERTIFICATION WAS ATTAINED USING LOWER-FUME PAINTS, COATINGS, ADHESIVES, SEALANTS AND CARPETS, AS WELL AS RECYCLED MATERIALS. WATER CONSERVATION ALSO WILL CONTRIBUTE TO THE GREEN BUILDING BY REDUCING USAGE BY 20 PERCENT.



(Rabun Gap - Nacoochee School Arts and Technology)



(North Hall County Middle / High School – Gainesville, Georgia)



(The Weber School in Sandy Springs, Georgia)

ANOTHER EXAMPLE IS THE **SOUTHERN POLYTECHNIC & STATE UNIVERSITY STUDENT HOUSING AND DINING HALL** (Pictured below). **THIS IS A LEED-SILVER PROJECT**, LYING ON A 9 ACRE SITE, CONSISTING OF THE DESIGN OF A 600-BED DORM FACILITY AS WELL AS THE COORDINATION WITH THE PLANNING OF THE ADJACENT PARKING DECK.



(Lanier Technical College Expansion in Cumming, Georgia)



(Carroll Technical Institute – Douglasville Satellite Center – Carrollton, Georgia)

GOVERNMENT

LOCAL, STATE, AND FEDERAL GOVERNMENT PROJECTS INCLUDE COURTHOUSES, ADMINISTRATIVE OFFICES, LAW ENFORCEMENT CENTERS, ARCHIVE BUILDINGS, AND MORE. ALL PROJECTS, NO MATTER THE FACILITY PURPOSE, HAVE THE SAME TIGHT, FIXED BUDGET CONSTRAINTS. THESE TYPES OF PROJECTS FALL UNDER CLOSE SCRUTINY BY GOVERNMENTAL OFFICIALS AND TAX PAYING CITIZENS. HAINES, GIPSON & ASSOCIATES, INC PLAYS A KEY ROLE IN PRODUCING PRICING OPTIONS DURING CONCEPTION AND DESIGN DEVELOPMENT STAGES IN ORDER TO DO OUR PART TO STABILIZE THE "MOVING TARGET" AND SATISFY THE LOCAL COMMUNITY.

THE WHITFIELD COUNTY LAW ENFORCEMENT CENTER (see picture directly right and below). THIS PROJECT INVOLVED THE DESIGN OF A NEW \$19.5 MILLION, 142,000 S.F., 544-BED DETENTION FACILITY AND COURTHOUSE / JUDICIAL CENTER.



THE BANKS COUNTY COURTHOUSE ANNEX & COURTHOUSE RENOVATION (see picture on the right). HAINES, GIPSON & ASSOCIATES INC. PROVIDED CONSULTING ENGINEERING SERVICES FOR A NEW 18,000 S.F. COURTHOUSE AND ADMINISTRATION FACILITY, AS WELL AS THE SITE IMPROVEMENTS ASSOCIATED WITH THE NEW SALLY PORT AND PUBLIC ENTRANCE IMPROVEMENTS AT THE EXISTING BANKS COUNTY COURTHOUSE BUILDING, FOR THE BANKS COUNTY BOARD OF COMMISSIONERS.



CITY OF DULUTH PUBLIC SAFETY COMPLEX (see picture on the lower right). HAINES, GIPSON & ASSOCIATES, INC PROVIDED ENGINEERING SERVICES FOR A NEW 43,300 S.F. COURTHOUSE FACILITY AND NEW POLICE STATION FOR THE CITY OF DULUTH, GEORGIA. COMPONENTS OF THIS PROJECT INCLUDED THE DESIGN OF NEW DECELERATION LANES ALONG STATE ROUTE 23 (BUFORD HIGHWAY), THE DESIGN OF A NEW ENTRANCE DRIVE OFF OF DAVENPORT ROAD INTO THE NEW PUBLIC SAFETY COMPLEX CAMPUS, SITE FIRE PROTECTION AND DOMESTIC WATER SERVICE EXTENSIONS TO AND THROUGHOUT THE SITE, DESIGN AND DETAILING FOR THE EXTENSION OF THE MUNICIPAL SANITARY SEWER TO SERVE THE SUBJECT PROPERTY, THE DESIGN/DETAILING OF AN EXCAVATED STORM WATER MANAGEMENT POND AND THE ASSOCIATED STORM WATER COLLECTION AND CONVEYANCE SYSTEMS, (BMP's), AND OTHER STORM WATER POLLUTION CONTROL AND PREVENTION MEASURES TO COMPLY WITH GEORGIA'S NPDES MANDATES.



CITY OF ARCADE NEW CITY HALL AND POLICE STATION EXPANSION (see picture on the left). WE PROVIDED CONSULTING ENGINEERING SERVICES FOR A NEW 10,150 S.F. CITY HALL FACILITY AND A 2,290 S.F. POLICE STATION EXPANSION, AS WELL AS THE SITE IMPROVEMENTS ASSOCIATED WITH THE NEW CITY HALL FACILITY AND PUBLIC ENTRANCE IMPROVEMENTS AT THE EXISTING CITY OF ARCADE POLICE STATION BUILDING.



HEALTH CARE

HEALTHCARE FACILITIES RANGE FROM SMALL CHECK UP CLINICS TO SUBSTANTIAL FULL SERVICE HOSPITALS. JUST AS A CARE GIVER PROVIDES UNWAVERING AID TO A PATIENT, HAINES, GIPSON & ASSOCIATES, INC. PROVIDES ATTENTIVE SERVICE TO OUR HEALTHCARE PROJECTS NO MATTER WHAT THE AILMENT. SOME OF OUR WORK INCLUDES THE **GLACIAL RIDGE HOSPITAL IN GLENWOOD, MN** (picture on the left). HGA PROVIDED ENGINEERING SERVICES FOR A 3-STORY HOSPITAL ADDITION SERVING AS ER/OR SUITES.

PROJECT CHALLENGES:

- NEW BASEMENT EXCAVATION UNDERMINED THE EXISTING FOUNDATION
- SOIL NAILING AND HELICAL PIER ELEMENTS REQUIRED
- OPERATING ROOM HOUSING VIBRATION SENSITIVE EQUIPMENT ON ELEVATED FLOOR REQUIRED 7.5" THICK COMPOSITE SLAB FOR VIBRATION CONTROL
- ELEVATED FLOOR DESIGNED TO ACCOMMODATE VEHICULAR LOADS DUE TO LOCATION OF AMBULANCE ENTRANCE INTO BUILDING
- FIBER REINFORCED POLYMER USED TO REINFORCE EXISTING CAST-IN-PLACE CONCRETE STRUCTURE FOR SNOW DRIFT LOADING ON ROOF AND INTERIOR STORAGE AREAS

HISTORIC PRESERVATION

HISTORIC STRUCTURES ARE OFTEN RETROFIT TO PRESERVE, CONSERVE, AND PROTECT BUILDINGS OF HISTORIC SIGNIFICANCE. THESE TYPES OF PROJECTS REQUIRE NON-DESTRUCTIVE EVALUATION AND PROPER ANALYSIS WITH GREAT UNDERSTANDING OF THE BUILDING METHODS THAT WERE USED AT THE TIME OF ORIGINAL CONSTRUCTION. HAINES, GIPSON & ASSOCIATES, INC. UNDERSTANDS THE SENSITIVE ASPECTS OF PRESERVING HISTORIC STRUCTURES AND WE PROVIDE CREATIVE, YET FUNCTIONAL SOLUTIONS. HAINES, GIPSON & ASSOCIATES, INC HAS PERFORMED A VAST AMOUNT OF RENOVATION, RESTORATION AND HISTORICAL PRESERVATION WORK. WE HAVE WORKED DIRECTLY FOR LOCAL GOVERNMENTS AND PRIVATE ENTITIES THROUGHOUT THE ENTIRE STATE OF GEORGIA. TWO OF OUR MOST RECENT PROJECTS INCLUDE **THE GRADY HIGH SCHOOL STADIUM RENOVATION & ADDITION** AND **THE ROXY THEATER IN ATLANTA** (pictured here on the right).



EXPERIENCE

PEACHTREE STREETSCAPES REDESIGN (1996 OLYMPICS)

ATLANTA, GA

CLIENT: NIMROD LONG & ASSOCIATES.

THIS PROJECT INVOLVED THE RETROFIT OF MANY STREET AREAS AND THE EXISTING CONDITIONS BELOW THE STREET. THE SIGNIFICANCE OF THIS ENDEAVOR AND THE AREAS AFFECTED ARE DETAILED BELOW:

WOODRUFF PARK (pictured here below on the right) WAS TOTALLY REDESIGNED WITH THE MAIN STRUCTURAL / AESTHETIC FEATURE BEING A HUGE FREE-STANDING WATER WALL WITH ASSOCIATED POOL AREA. THIS STRUCTURE NECESSITATED A LARGE UNDERGROUND PUMP ROOM AND FOUNDATIONS. EXTREME CARE HAD TO BE TAKEN TO DETAIL THE WATERPROOFING AND MATERIALS REQUIRED. THE WATER CASCADES OVER ELEVATED GRANITE STEPS AT THE BASE INTO THE FRONT POOL AREA (pictured on the right).

CARNEGIE PAVILION WAS REDESIGNED FOR THE SIGNATURE SEGMENTAL BLOCK MONUMENT THAT WAS ADDED. CONSEQUENTLY, THIS EXTREMELY HEAVY MONUMENT SITS ATOP MARTA'S UNDERGROUND LINE. OUR FIRM WORKED WITH MARTA TO COME UP WITH A LIGHTWEIGHT FILL MATERIAL (ELASTIZELL) TO REPLACE EXISTING SOIL ATOP THE TUNNEL. THE END RESULT OF ADDING THE HEAVY MONUMENT ATOP LIGHTER FILL ALLOWED THE TUNNEL TO CONTINUE TO FUNCTION WITHOUT STRUCTURAL UPGRADES OR ALTERING OF THE PARK MONUMENT.



INDUSTRIAL WORK

HAINES, GIPSON & ASSOCIATES, INC. HAS DESIGNED A VAST AMOUNT OF INDUSTRIAL, WAREHOUSE, AND SPECULATIVE BUILDING PROJECTS. IN THE PAST, WE HAVE WORKED DIRECTLY FOR LOCAL GOVERNMENTS, CORPORATIONS, AND PRIVATE DEVELOPERS THROUGHOUT THE UNITED STATES TO BRING THEM STATE-OF-THE-ART DESIGN FOR A WIDE VARIETY OF SPECULATIVE BUILDINGS, AND HEAVY-INDUSTRIAL PROJECTS.

AMERICA'S INDUSTRY WAS ONCE THE BACKBONE OF OUR ECONOMY AND HAINES, GIPSON & ASSOCIATES, INC. HELPS TO PROVIDE THE BACKBONE TO AMERICA'S INDUSTRIAL FACILITIES. WE HAVE EXPERIENCE WITH POWER SUBSTATIONS AND SWITCHING STATIONS, LIGHT INDUSTRIAL / MANUFACTURING FACILITIES (LIKE THE **SGD GLASS MANUFACTURING PLANT** PICTURE BELOW), HEAVY INDUSTRIAL FACILITIES WITH CRANE SYSTEMS, PRE-ENGINEERED METAL BUILDING SYSTEMS, HYBRID BUILDING SYSTEMS, SPECIAL WATER QUALITY / DETENTION POND SYSTEMS, TILT-PANEL SYSTEMS FOR DISTRIBUTION AND WAREHOUSE USE, COORDINATION OF THE VEHICULAR / OPERATIONAL TRAFFIC AND MORE. INDUSTRIAL PROJECTS REQUIRE SOLUTIONS FOR UNIQUE ISSUES SUCH AS SUPPORTING MOVING LOADS ON ELEVATED FLOORS AND SLAB ON GRADE, VIBRATION TOLERANCES FOR OPERATING MACHINERY, VARIABLE PAVEMENT SPECIFICATIONS, SPECIAL FOUNDATIONS FOR (TANKS, HEAVY EQUIPMENT, TOWERS, AND SILOS), HIGH ROOF STRUCTURE CLEARANCES, CRACK CONTROL IN FLOOR SLABS, AND SLAB PITS.



MILITARY WORK

MILITARY CONSTRUCTION PROJECTS ARE CARRIED OUT VIA THE DESIGN BUILD METHOD, FORMERLY KNOWN AS THE MASTER BUILDER APPROACH. THE "MASTER BUILDER" MUST RELY ON THE TEAM TO PROVIDE TIMELY, ACCURATE INFORMATION IN ORDER TO COMPLETE THE PROJECT ON TIME AND WITHIN BUDGET. WE UNDERSTAND OUR ROLE ON THE DESIGN-BUILD TEAM AND HAVE THE EXPERIENCE TO PRODUCE PRELIMINARY DOCUMENTS AND QUANTITY ESTIMATES TO HELP HONE IN COST ESTIMATES AS WELL AS CARRY THE DESIGN THROUGH CONSTRUCTION DOCUMENT PRODUCTION AND CONSTRUCTION ADMINISTRATION.

SOME OF OUR EXPERIENCE INCLUDES THE **FORT GORDON ENTERTAINMENT FACILITIES RENOVATION**, WHERE WE PROVIDED THE ENGINEERING SERVICES FOR RENOVATION OF AN EXISTING +18,000 SQ-FT. ENTERTAINMENT HALL.



(Yancey Brothers service facility and offices in McDonough, Georgia)

OFFICE / LABORATORY

OFFICE FACILITIES PLAY A KEY ROLE IN THE PRODUCTIVITY OF THEIR OCCUPANTS. THE LEED PROGRAM HAS BEGUN TO ADDRESS THESE ROLES AND HAINES, GIPSON & ASSOCIATES, INC. COORDINATES WITH THE DESIGN TEAM TO NOT ONLY MEET THESE REQUIREMENTS, BUT TO EXCEED THEM. STRUCTURALLY, OFFICE BUILDINGS REQUIRE SYSTEMS THAT ALLOW FOR LARGE OPENINGS IN EXTERIOR WALLS, MINIMAL INTERIOR COLUMNS, AND ELEVATED FLOORS ACCOMMODATING FUTURE MODIFICATIONS TO FLOOR PLANS. **THE KENDRON OFFICE BUILDING (SHOWN BELOW)** WAS A UNIQUE PROJECT THAT REQUIRED SEVERAL CREATIVE SOLUTIONS.



UNIVERSITY OF GEORGIA – FOOD AND SCIENCE LAB ADDITION WHERE WE PROVIDED ENGINEERING SERVICES FOR THIS 14,000 SQ-FT, 3-STORY LAB ADDITION TO BE TIED INTO THE EXISTING ADJACENT 1970'S WING OF THE FACILITY.



(Pinebrook II Office Park in Lawrenceville, Georgia)



(Taylor Farm Park, in Paulding County, Georgia)



PARKS AND RECREATION

IT IS OUR RESPONSIBILITY TO PRESERVE AND CREATE PUBLIC GREEN SPACES FOR THE USE OF FUTURE GENERATIONS. WHETHER THE USE IS NATURE WALKING TRAILS, ATHLETIC FIELDS, COMMUNITY GARDENS, HISTORIC MUSEUMS, OR OTHER RECREATIONAL AREAS, HGA IS CONTRIBUTING TO THIS ESSENTIAL ENDEAVOR. SOME OF OUR PREVIOUS EXPERIENCE INCLUDES **THE BUFORD HIGH SCHOOL ATHLETIC COMPLEX** *(above left corner)* OR **THE LOUDERMILK FIELD** FOR PIEDMONT COLLEGE IN DEMOREST, GEORGIA *(above right corner)*

RENOVATION WORK

RENOVATION PROJECTS ARE CHALLENGING FOR VARIOUS REASONS INCLUDING CURRENT TENANT COORDINATION, UNKNOWN EXISTING CONDITIONS, EXISTING CONSTRAINTS, AND MUCH MORE. RENOVATION PROJECTS REQUIRE DESIGN TEAMS THAT HAVE EXPERIENCE IN ATTAINING PERTINENT INFORMATION AND MAKING BEST USE OF THE INFORMATION IN ORDER TO PROVIDE TIME SENSITIVE SOLUTIONS WITH MINIMAL IMPACT TO EXISTING CONDITIONS.

SOME OF EXPERIENCE INCLUDES THE **TACO MAC ADDITION** TO PHILIPS ARENA IN DOWNTOWN ATLANTA *(picture on the middle-right of the page)* ; **ABERCORN COMMON** IN SAVANNAH, GEORGIA *(picture to the lower right)*, AND **THE FRESH MARKET STORE** LOCATED IN MIAMI, FLORIDA *(see “before and after” pictures on the bottom left)*



ROLL-OUT NATIONAL PROGRAMS

RETAIL REAL ESTATE EXPANSION REQUIRES EFFECTIVE PLANNING ON MANY FACETS. HGA HAS EXPERIENCE IN MASTER PLANNING OF THE CIVIL AND STRUCTURAL INFRASTRUCTURE THAT IS CRUCIAL TO THE SUCCESS OF YOUR ROLL-OUT PROGRAM. WE HAVE A PROVEN TRACK RECORD OF DEVELOPING AND CARRYING OUT PROTOTYPES THAT STREAMLINE RETAIL EXPANSION.

CARMAX AUTO STORE

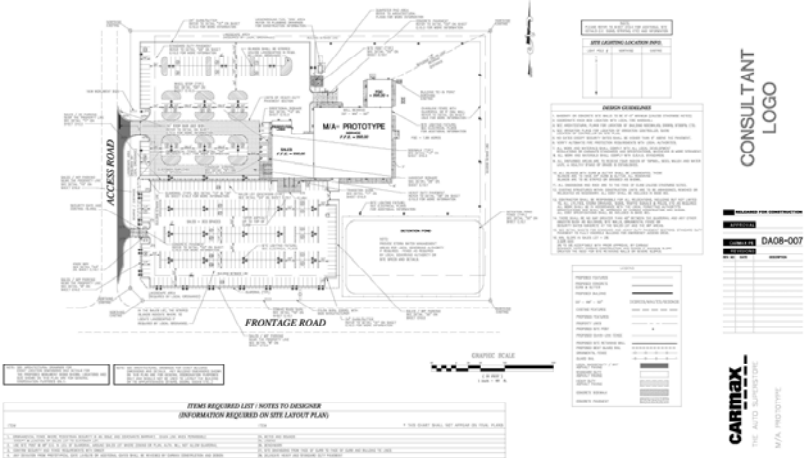
SINCE 2001, OUR FIRM HAS DESIGNED OVER 100 AUTOMOTIVE DEALERSHIPS THROUGHOUT THE COUNTRY. WE MAINTAIN THE NATIONAL PROTOTYPICAL PLANS (FOR BOTH CIVIL AND STRUCTURAL DISCIPLINES). WE ALSO PERFORM THE PEER REVIEW EVALUATION FOR OTHER ENGINEERS.



Hoover, Alabama Store



Ontario, California Store



Bristol, Virginia Store

HOME DEPOT SOUTHEASTERN DEVELOPMENT PROGRAM

THE TERMS OF THE CONTRACT WITH HOME DEPOT ON THE SOUTHEASTERN DEVELOPMENT PROGRAM GRANTED US THE ENGINEERING SERVICES ON 1 OF EVERY 3 HOME DEPOT STORES IN THE SOUTHEASTERN UNITED STATES (MS TO VA) FROM 2003 TO 2008. AS PART OF OUR CONTRACT, WE WORKED WITH THE SITE DEVELOPMENT CONSULTANTS TO DEVELOP PRELIMINARY ENGINEERING PLANS FOR INITIAL BUDGETING. OUR OVERALL SCOPE INCLUDED INITIAL SITE ANALYSIS, PRELIMINARY SITE DESIGN AND SITE WORK BUDGET, CONSTRUCTION DOCUMENT PREPARATION, CONSTRUCTION ADMINISTRATION, AND VALUE ENGINEERING.



Spartanburg, South Carolina Store

ON-CALL REVIEW / DESIGN SERVICES

HAINES, GIPSON & ASSOCIATES, INC. HAS PROVIDED ON-CALL SERVICES TO A LARGE NUMBER OF CITIES AND COUNTIES IN GEORGIA. WE HAVE DEVELOPED PLAN REVIEW PROGRAMS, DEVELOPED CONSTRUCTION DETAILS AND STANDARDS, AND PROVIDED WRITTEN TECHNICAL REVIEW COMMENTS TO THOSE WHO SUBMITTED PLANS / DOCUMENTS. WE HAVE ALSO PROVIDED ON-DEMAND DEMAND SERVICES FOR THE FEDERAL GOVERNMENT AND SEVERAL NATIONAL RETAIL COMPANIES. SOME OF PREVIOUS "ON-CALL" EXPERIENCE INCLUDES:

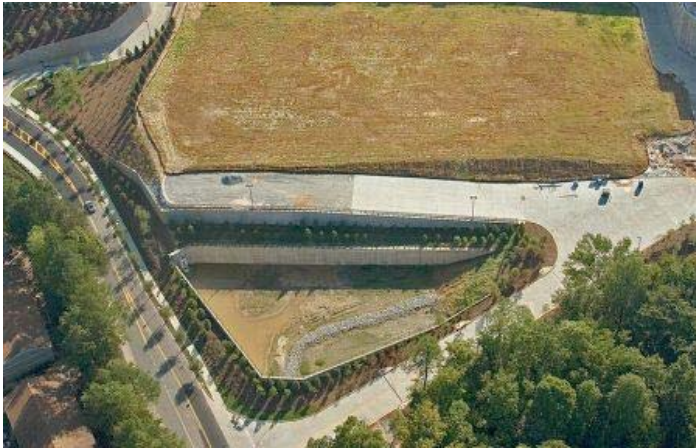
- **JACKSON COUNTY "OPEN END" CONTRACT AND "STANDARDS DEVELOPMENT CONTRACT"** FROM 2005 TO 2007. OUR SERVICES FOR JACKSON COUNTY, GEORGIA, INCLUDED DEVELOPING A UNIFIED DEVELOPMENT CODE, STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS ALONG WITH A DEVELOPMENT PLAN FOR TECHNICAL REVIEW PROCEDURES. WE PROVIDED WEEKLY PROJECT REVIEW SERVICES BASED ON THE NEW DEVELOPMENT CODE FOR ALL NEW PLAN SUBMITTALS REQUIRING DEVELOPMENT PERMITS. SOME OF THE SERVICES INCLUDED THE REVIEW OF SITE/CIVIL PLANS, HYDROLOGY REPORTS, PREPARATION OF WRITTEN COMMENTS AND REDLINES TO THE DOCUMENTS SUBMITTED, AND INTERACTION WITH THE PUBLIC. FURTHERMORE, WE DEVELOPED A CHECKLIST THAT CONTAINED ALL THE PERTINENT INFORMATION NEEDED TO BE PROVIDED AND VERIFIED PRIOR TO THE ISSUANCE OF A LAND DISTURBANCE PERMIT BY JACKSON COUNTY.
- **COBB COUNTY WATER SYSTEM "OPEN END" CONTRACT FOR ENGINEERING SERVICES** - COBB COUNTY - THIS ONGOING CONTRACT DATES BACK TO THE YEAR 2004. OUR FIRM HAS WORKED AS CONSULTANTS FOR COBB COUNTY AS A REVIEWING ENTITY ON PROJECT SUBMITTALS BY OTHER DESIGN FIRMS. WE AIDED COBB IN DEVELOPING THEIR STANDARDS ON RETAINING WALLS, DETENTION POND WALLS, UNDERGROUND DETENTION VAULTS, AND CULVERT DESIGN REVIEWS FOR THE COBB COUNTY WATER SYSTEM.
CONTACT: MR. WILLIAM J. HIGGINS, P.E, C.F.M. (DIVISION MANAGER) AT (770) 419-6434
- **CITY OF CARTERSVILLE UTILITIES "ON CALL" ENGINEERING AND UTILITIES SERVICES** - CITY OF CARTERSVILLE- 2003 TO PRESENT. SITE WALL AND BRIDGE EVALUATIONS / PEER REVIEWS. ALSO, HISTORIC BUILDING RENOVATIONS / EVALUATIONS.
CITY OF CARTERSVILLE PUBLIC WORKS DEPARTMENT
CONTACT: BOBBY C. ELLIOTT, P.E., CFM, DIRECTOR AT (770) 387-5602
- **CARMAX AUTO STORE "ROLL OUT" PROGRAM** - NATIONWIDE 2001 TO PRESENT. SINCE 2001. OUR FIRM HAS DESIGNED OVER 100 AUTOMOTIVE DEALERSHIPS THROUGHOUT THE COUNTRY. HAINES, GIPSON & ASSOCIATES, INC PERFORMS THE PEER REVIEW EVALUATION FOR OTHER ENGINEERS THAT HAVE PREPARED DESIGN DOCUMENTS FOR FUTURE CARMAX DEVELOPMENTS THROUGHOUT THE UNITED STATES. WE ALSO DESIGNED (AND CURRENTLY MAINTAIN) THE NATIONAL PROTOTYPICAL PLANS (FOR BOTH CIVIL AND STRUCTURAL DISCIPLINES).
- **HOME DEPOT** - HAINES, GIPSON & ASSOCIATES, INC PERFORMS THE PEER REVIEW EVALUATION FOR OTHER ENGINEERS THAT HAVE PREPARED DESIGN DOCUMENTS FOR FUTURE HOME DEPOT STORES AROUND THE UNITED STATES.
- **ROCKDALE COUNTY SPLOST FUND "ON CALL" CONTRACT FOR ENGINEERING SERVICES** FROM 1994 TO 2000. HAINES, GIPSON & ASSOCIATES, INC PROVIDED THE CIVIL ENGINEERING SERVICES FOR NUMEROUS INFRASTRUCTURE DESIGN AND IMPROVEMENT PROJECTS INCLUDING: UNPAVED ROAD IMPROVEMENTS, COUNTY MAINTAINED ROAD IMPROVEMENTS, MUNICIPALITY MAINTAINED STORMWATER MANAGEMENT SYSTEM IMPROVEMENTS, MUNICIPAL FIRE PROTECTION, AND DOMESTIC WATER SERVICE RELOCATION PROJECTS THROUGHOUT ROCKDALE COUNTY. IN ADDITION TO THE DESIGN ENGINEERING SERVICES PROVIDED, HAINES, GIPSON & ASSOCIATES, INC. ALSO PROVIDED SUPPORT TO ROCKDALE COUNTY PERSONNEL AT SEVERAL PUBLIC INFORMATION MEETINGS OR PRESENTATIONS.
- **GWINNETT COUNTY TRANSPORTATION CONSULTANT PROFESSIONAL SERVICES** - HAINES, GIPSON & ASSOCIATES, INC IS A MEMBER OF THE PRECISION PLANNING INC TEAM. THIS ONGOING CONTRACT COMMENCED IN 2006. THE CONTRACT WAS RECENTLY EXTENDED THROUGH 2015 AND COVERS BRIDGES, RETAINING WALLS, AND SIMILAR SITE STRUCTURES. HAINES, GIPSON & ASSOCIATES, INC. IS ALSO PLEASED TO SERVE THE DEVELOPMENT PLANNING & ENGINEERS TEAM IN THE SAME CAPACITY UNDER THEIR RECENT 2010 TO 2015 CONTRACT AWARD.
CONTACT: MR. DAVID TUCKER, A.S.L.A, DEPUTY DIRECTOR, CONTRACTED OPS & ADMIN AT (770) 822-7400
- **HALL COUNTY BOARD OF EDUCATION "ON CALL" ENGINEERING SERVICES** - HALL COUNTY, GEORGIA - THIS SERVICE HAS BEEN ONGOING THROUGH MUCH OF THE 1990's. THE LARGEST SINGLE OCCURRENCE TO DATE INVOLVED THE 1998 TORNADO DAMAGE AND ITS RESOLUTION. TORNADOS STRUCK 4 TO 5 SCHOOLS ONE FRIDAY NIGHT IMPARTING VARYING LEVELS OF DAMAGE. OUR FIRM WAS ON SITE EARLY SATURDAY MORNING WITH SCHOOL OFFICIALS, INSURERS, AND "ON CALL" GENERAL CONTRACTORS TO DETERMINE THE LEVEL OF DAMAGE, IMMEDIATE STEPS TO BE TAKEN, AND TO MAKE DECISIONS ON WHAT AREAS COULD ALLOW STUDENTS TO RETURN ON MONDAY MORNING. OUR WORK ON THIS PARTICULAR EMERGENCY LASTED FOR SEVERAL WEEKS AS REMEDIATION WAS PERFORMED. OTHER AREAS OF ONGOING ASSISTANCE HAVE INVOLVED SIMILAR STORM DAMAGE, SETTLEMENT ISSUES, SITE FEATURES, AND ENGINEERING EVALUATIONS
HALL COUNTY SCHOOL SYSTEM
CONTACT: MR. JERRY HUGULEY, DIRECTOR OF CONSTRUCTION AT (770) 534-1080
- **CDC "OPEN END" A/E CONTRACT** - THIS ONGOING CONTRACT DATES BACK TO THE YEAR 2000. HAINES, GIPSON & ASSOCIATES, INC HAS WORKED AS CONSULTANTS WITH SEVERAL ARCHITECTS AND GENERAL CONTRACTORS ON NUMEROUS FACILITY-EXPANSION AND IMPROVEMENT PROJECTS AT ALL CDC CAMPUSES IN GEORGIA. THE LAWRENCEVILLE CAMPUS HAS BEEN THE PRIMARY FOCUS OF OUR WORK LOCATION, BUT THERE HAVE BEEN SOME RENOVATIONS / ADDITIONS AT THE DECATUR CAMPUS AS WELL. ALL THE PROJECTS HAVE INVOLVED ADDITIONS OR RENOVATIONS TO EXISTING SPACE FOR CHANGING FUNCTIONAL USAGES. THE MAIN LAWRENCEVILLE CAMPUS PROJECT REQUIRED RENOVATIONS TO CONVERT THE OLD ANIMAL CONTROL AND TESTING BUILDING (BLDG A) TO A NEW HIGH TECH OFFICE AND CLASSROOM SPACE. THE RENOVATIONS INCLUDED DEMOLITION OF EXISTING MASONRY ANIMAL CONTROL SPACES, OVERHEAD CATWALK SYSTEMS, INFILL OF INCINERATOR PITS, REWORKING EXISTING DOCK AREA, ADDING RAMPS AND NEW ENTRY FEATURES, ALTERING EXISTING DOCK DOORS, PERFORMING REMEDIAL MEASURES ON EXISTING STRUCTURAL PROBLEM AREAS, AND REVISING / UPGRADING THE ROOF ELEMENTS (SKYLIGHTS, CHILLER SYSTEM, AND RTU's).
CDC - LAWRENCEVILLE CAMPUS
CONTACT: MRS. CHERYL HAWKINS AT (800) 232-4636
- **HENRY COUNTY BOARD OF EDUCATION "ON CALL" ENGINEERING SERVICES** - HENRY COUNTY, GA -THIS ONGOING SERVICE IS PROVIDED IN COMBINATION WITH BEING PART OF THE A/E TEAM THAT PROVIDES HENRY COUNTY'S NEW, EXPANDED, OR RENOVATED SCHOOLS PROGRAM. MANLEY SPANGLER SMITH ARCHITECTS ARE THE PRIME CONSULTANT FOR THE A/E TEAM. THE "ON CALL" SERVICES ARE IN RESPONSE TO PUBLIC CONCERNS OVER SAFETY ISSUES, DAMAGED ELEMENTS, PERIODIC CONDITION ASSESSMENTS, ETC
HENRY COUNTY BOARD OF EDUCATION
CONTACT: ALLEN GUIMARIN, EXECUTIVE DIRECTOR OF FACILITIES & MAINTENANCE AT 770-957-1891
- **DAWSON COUNTY "OPEN END" CONTRACT FOR TRAFFIC AND ENGINEERING SERVICES** - DAWSON COUNTY - HAINES, GIPSON & ASSOCIATES, INC WAS PART OF THE DPE ENGINEERING TEAM. THIS ONGOING CONTRACT COMMENCED IN 2007 AND COVERS BRIDGES, RETAINING WALLS, AND SIMILAR SITE STRUCTURES.
DAWSON COUNTY, DEPARTMENT OF PUBLIC WORKS / ENGINEERING
CONTACT: MR. DAVID E. HEADLEY AT (706) 344-3501, EXT. 246
- **EXPERT WITNESS AND LEGAL ASSISTANCE FOR CASE CONSULTATIONS** - HAINES, GIPSON & ASSOCIATES, INC CURRENTLY WORKS WITH SEVERAL ATTORNEYS PREPARING LEGAL DOCUMENTS REGARDING CONSULTING ENGINEERING. SOME OF OUR SERVICES INCLUDE: CONTRACT REVIEW, EXPERT WITNESS TESTIMONY, FORENSIC ENGINEERING, AND SURETY ASSISTANCE.

RETAINING AND DETENTION STRUCTURES

RETAINING STRUCTURES HOLD BACK OR “RETAIN” SOIL AND ROCK IN GRADE SEPARATIONS. THEY ALSO HOLD BACK WATER IN SOME INSTANCES SUCH AS COFFERDAMS AND BULKHEADS. RETAINING STRUCTURES VARY IN TYPE AND MATERIAL AND HAINES, GIPSON & ASSOCIATES, INC HAS EXPERIENCE IN MANY TYPES OF DESIGN INCLUDING CANTILEVER AND GRAVITY WALLS, SOLDIER PILE WALLS, SHEET PILE WALLS, TIE BACK WALLS, AND SOIL NAILED WALLS.

DETENTION STRUCTURES TEMPORARILY HOLD BACK WATER TO BE RELEASED AT A SPECIFIED RATE. THESE STRUCTURES ARE TYPICALLY UTILIZED TO MANAGE BOTH QUANTITY AND QUALITY OF STORM WATER RUN-OFF FROM DEVELOPED SITES. TYPES OF DETENTION STRUCTURES COMMONLY USED ARE DETENTION PONDS (TYPICALLY CONSTRUCTED WITH EARTHEN DAMS, CAST IN PLACE CONCRETE WALLS, GABION MESH WALLS, AND SEGMENTAL BLOCK WALLS), UNDERGROUND DETENTION VAULTS, AND CISTERNS.

THE PRADO REDEVELOPMENT PROJECT CONTAINED SOME OF THE LARGEST RETAINING WALLS THAT WE HAVE EVER DESIGNED. SITE CONSTRAINTS AND GRADE CONDITIONS AT THE PRADO RE-DEVELOPMENT PROJECT CREATED MANY PROBLEMS FOR THE DESIGN TEAM. NEARLY 100 FEET OF GRADE SEPARATION REQUIRED 3 LEVEL MULTI-TIERED RETAINING WALLS. THE MULTI-TIER ASPECT MADE IT POSSIBLE TO CONTAIN THE ENORMOUS CHANGE IN ELEVATIONS WHERE A SINGLE WALL COULD NOT ACCOMPLISH THE TASK. HGA PROVIDED THE DESIGN FOR OVER 4,000 LINEAR FEET OF CAST IN PLACE RETAINING WALLS RANGING BETWEEN 8' AND 26' TALL. PORTIONS OF THE RETAINING WALLS PROVIDED SUPPORT TO THE PARKING STRUCTURE SERVING THE DEVELOPMENT.



Detention Pond for The Prado Re-Development



HAINES, GIPSON & ASSOCIATES, INC ALSO PROVIDED ENGINEERING SERVICES FOR THE DESIGN OF AN OPEN-AIR STORMWATER MANAGEMENT STRUCTURE WITH A STORAGE CAPACITY OF APPROXIMATELY 250,000 CUBIC FEET. THE STORMWATER MANAGEMENT STRUCTURE WAS COMPRISED OF APPROXIMATELY 637 LINEAR FEET OF REINFORCED CONCRETE RETAINING WALLS AND AN OUTLET CONTROL DEVICE THAT REGULATES THE OUTFLOW OF STORMWATER RUNOFF FROM THE SITE. THE STORMWATER MANAGEMENT STRUCTURE WAS DESIGNED TO ACCOMMODATE THE 100 YEAR STORM RAINFALL EVENT, WATER QUALITY AND CHANNEL PROTECTION VOLUMES. (Please see picture above)



PARKING STRUCTURES

PARKING STRUCTURE DESIGN AIMS TO PROVIDE VISITORS WITH SAFE, CONVENIENT PASSAGE FROM THE TRAFFIC ROUTE TO THE BUILDING ENTRANCE. EFFICIENT DESIGN MAXIMIZES THE VEHICLE PARKING CAPACITY WITHOUT COMPROMISING ASPECTS OF DESIGN SUCH AS INGRESS, EGRESS, AND DRIVER COMFORT. HAINES, GIPSON & ASSOCIATES, INC UNDERSTANDS THAT EVERY PARKING STRUCTURE IS UNIQUE AND WE COLLABORATE WITH DESIGN PROFESSIONALS TO PROVIDE SITE SPECIFIC SOLUTIONS TO MEET ALL DESIGN NEEDS. PARKING STRUCTURES REQUIRE REGULAR MAINTENANCE MORE THAN ANY OTHER STRUCTURE TYPE. ROUTINE MAINTENANCE CAN INCREASE THE SERVICE LIFE OF A PARKING DECK. NEGLECTING DEFICIENCIES CAN CREATE MORE PROBLEMS AND EVEN POTENTIAL COLLAPSE. HAINES, GIPSON & ASSOCIATES, INC CAN SUPPORT PROACTIVE MAINTENANCE BY PERFORMING PARKING STRUCTURE INSPECTIONS AND REPORTING DEFICIENCIES SO THAT THEY CAN BE ADDRESSED BEFORE LARGER PROBLEMS OCCUR.

ONE OF OUR MOST RECENT PROJECTS WAS A PARKING DECK FOR A **CARMAX AUTO STORE** IN BURBANK, CALIFORNIA (*see picture on the upper-left corner of the page*). THE SINGLE LEVEL, 66,000 SQ-FT ELEVATED PARKING DECK WAS STRUCTURALLY CHALLENGING DUE TO THE FACT THAT IT WAS LOCATED IN A HIGH SEISMIC "4" REGION. THE ELEVATED DECK NOT ONLY SERVED AS PARKING, BUT IT ALSO SUPPORTED A CONCRETE MASONRY SERVICE FACILITY. CONCRETE MOMENT FRAMES AND SHEAR WALLS PROVIDED LATERAL SUPPORT. THE DECK WAS SUPPORTED BY PRE-CAST BEAMS.



Georgia Mountain Parking Deck Expansion in Gainesville, Georgia

ANOTHER FEATURED PROJECT IS **THE DISTRICT AT HOWELL MILL** IN ATLANTA, GEORGIA (*see picture below*). THE OWNER'S DESIRE FOR STACKED BIG-BOX RETAIL REQUIRED A MULTI-LEVEL PARKING STRUCTURE WHICH ALSO SUPPORTED RETAIL BUILDINGS. HAINES, GIPSON & ASSOCIATES, INC SERVED AS THE EOR ON THIS PROJECT AND COORDINATED WITH TINDALL CORPORATION TO PROVIDE A TOTAL PRE-CAST SOLUTION IN-FILLED WITH STEEL AND MASONRY FOR RETAIL OCCUPANTS. THE TOTAL ELEVATED PARKING STRUCTURE WAS IN THE NEIGHBORHOOD OF 400,000 SQ-FT.





ABOUT HAINES, GIPSON & ASSOCIATES, INC

HAINES GIPSON AND ASSOCIATES, INC. WAS FORMED IN 1968 (GUILLEBEAU, BRITT, & HAINES) AS A LOCAL BRIDGE AND CIVIL ENGINEERING CONSULTING FIRM. SINCE THAT TIME, HGA HAS GROWN INTO A FIRM THAT PERFORMS CIVIL AND STRUCTURAL ENGINEERING SERVICES ON A NATIONAL BASIS AND IS CURRENTLY LICENSED TO PRACTICE IN 48 OF 50 US STATES (EXCEPTIONS ARE ALASKA AND HAWAII). OUR COMPANY IS LARGE ENOUGH TO MEET THE NEEDS OF OUR CLIENTS, YET SMALL ENOUGH TO ADJUST TO THE EVER-CHANGING DEMANDS OF OUR PROFESSIONAL ENVIRONMENT.

FOR MORE INFORMATION
PLEASE VISIT US AT WWW.HAINESGIPSON.COM