- 2. THE BOUNDARY AND TOPOGRAPHIC SURVEYS FOR THIS PROJECT WERE PERFORMED BY OTHERS AND H & B CONSULTING ENGINEERS, INC. ASSUMES NO RESPONSIBILITY, IN WHOLE OR IN PART, FOR THE COMPLETENESS AND ACCURACY OF THE SURVEYS. H & B CONSULTING ENGINEERS, INC. HAS RELIED UPON THE SURVEYS IN PREPARING THE CIVIL ENGINEERING DESIGN SHOWN IN THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE EXISTING TOPOGRAPHIC DATA, THE LOCATION OF EXISTING SITE FEATURES, UTILITIES AND ALL OTHER SITE CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO COMMENCING WORK. DIFFERING SITE CONDITIONS SHALL BE DISCLOSED AS DESCRIBED IN GENERAL NOTE NUMBER 1.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL REQUIRED CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
- 4. ALL MATERIALS, INSTALLATION, AND TESTING SHALL BE IN ACCORDANCE WITH LOCAL JURISDICTIONS AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. WHERE THE SPECIFICATIONS CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
- 5. THE SUBSURFACE INFORMATION FOR THIS PROJECT WAS OBTAINED FOR DESIGN PURPOSES AND MAY NOT BE AN ADEQUATE REPRESENTATION OF ACTUAL CONDITIONS FOR PROJECT CONSTRUCTION. INFORMATION SHOWN, INCLUDING GROUND WATER LEVELS, REPRESENTS EXISTING CONDITIONS AT THE SPECIFIC BORING LOCATIONS AT THE TIME THE BORINGS WERE MADE. DIFFERING SITE CONDITIONS SHALL BE DISCLOSED AS DESCRIBED IN GENERAL NOTE NUMBER 1.
- 6. THE SITE IS CLASSIFIED AS ZONE "X", PER FEMA FLOOD PANEL 12069C0560E DATED DECEMBER 18, 2012...
- 7. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION "ROADWAY DESIGN STANDARDS"
- 8. ALL HANDICAP ACCESSIBLE CURB RAMPS SHALL BE CONSTRUCTED (INCLUDING THE WALKING SURFACE) IN COMPLIANCE WITH THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION, SECTION 11 AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) INDEX 304.
- 9. THE CONTRACTOR SHALL COORDINATE CIVIL DRAWINGS WITH ALL TRADES, INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, IRRIGATION, FIRE SYSTEMS. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IMMEDIATELY.
- IO. SIGNAGE AND STRIPING SHALL CONFORM TO THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). SIGNS SHALL BE ERECTED ACCORDING TO THE REFERENCE NUMBERS DESIGNATED BY THE FDOT OR THE MUTCD.
- ALL WORK SHALL BE OPEN TO AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER AND REGULATORY AGENCIES. ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO REQUIRED INSPECTIONS.
- 12. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL SHALL BE REPORTED TO ENGINEER/OWNER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY ENGINEER/OWNER.
- 13. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENGINEERING AND AGENCY APPROVAL PRIOR TO PROCUREMENT OF MATERIALS.
- 14. CONTRACTOR TO SUBMIT COPIES OF ALL TESTING REPORTS TO THE OWNER AND ENGINEER FOR ACCEPTANCE AND CERTIFICATIONS.
- 15. ANY PUBLIC LAND CORNER, WITHIN THE LIMITS OF CONSTRUCTION, IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT YET BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE OWNER, ENGINEER & SURVEYOR WITHOUT DELAY. DISTURBED MONUMENTATION SHALL BE RESTORED BY A FLORIDA LICENSED LAND SURVEYOR AT CONTRACTOR'S EXPENSE.
- 16. ALL AREAS WHERE PAVEMENT, BUILDING SLABS, FOUNDATIONS, UTILITIES, CONDUITS, AND/OR UTILITY STRUCTURES HAVE BEEN REMOVED SHALL BE BACKFILLED WITH SELECT BACKFILL MATERIAL. ALL SELECT BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED PER THE REQUIREMENTS OF THE LOCAL JURISDICTION.
- 17. REFER TO F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX FOR CONSTRUCTION OF SITE ITEMS.
- 18. CONTRACTOR SHALL MEET ALL LOCAL STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF TRAFFIC (MOT) PLANS & SIGNAGE THAT WILL BE REQUIRED FOR THIS PROJECT AND SHALL BE INCLUDED IN THE BID FOR THIS PROJECT.
- 19. ACCESS ROADS AND A SUITABLE TEMPORARY OR PERMANENT SUPPLY OF WATER ACCEPTABLE TO THE FIRE DEPARTMENT SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD.
- 20. UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL OF THE WORK TO BE CONSTRUCTED. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- 21. ALL TESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS. CONTRACTOR SHALL PROVIDE TESTING SERVICES THROUGH A FLORIDA LICENSED GEOTECHNICAL ENGINEERING FIRM ACCEPTABLE TO THE OWNER AND ENGINEER. CONTRACTOR TO SUBMIT TESTING FIRM TO OWNER FOR APPROVAL PRIOR TO COMMENCING TESTING. TESTING OF SUB GRADE, BASE, AND ASPHALT FOR THICKNESS AND DENSITY SHALL BE PERFORMED AT NO MORE THAN 200' INTERVALS.
- 22. SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.
- 23. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL TAKE SPECIAL CARE AND PROVIDE ADEQUATE PROTECTION IN ORDER TO MINIMIZE DAMAGE TO VEGETATION, SURFACED AREAS, AND STRUCTURES WITHIN RIGHT-OF-WAY, EASEMENTS AND ON CONSTRUCTION SITE, AND TAKE FULL RESPONSIBILITY FOR THE REPLACEMENT OR REPAIR THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL MAKE GOOD ALL DAMAGE TO PAVEMENT, BUILDINGS, TELEPHONE OR OTHER CABLES, SANITARY PIPES, OR OTHER STRUCTURES BEYOND THE LIMITS OF THIS PROJECT WHICH MAY BE ENCOUNTERED, WHETHER OR NOT SHOWN ON THE DRAWINGS.
- 24. TEMPORARY FACILITIES: THE CONTRACTOR SHALL FURNISH WATER AND ELECTRIC POWER AS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL TEMPORARY CONNECTIONS AND FOR REMOVING SAME AFTER CONSTRUCTION HAS BEEN COMPLETED. THE CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES AND ENCLOSURES FOR THE USE OF ALL WORKMAN, AT A LOCATION ON THE PROJECT WHICH SHALL BE APPROVED BY THE JURISDICTION. SUCH FACILITIES SHALL COMPLY WITH ALL LOCAL CODES AND SHALL BE MAINTAINED IN SANITARY CONDITION AT ALL TIMES. NO WORK SHALL BE STARTED UNTIL THESE FACILITIES ARE ON THE JOB SITE.

<u>GENERAL NOTES</u> (CONT)

- 25. MAINTENANCE OF TRAFFIC: THE CONTRACTOR SHALL BE RESPONSIBLE, DURING THE COURSE OF CONSTRUCTION, FOR PROPER MAINTENANCE, CONTROL, AND DETOUR OF TRAFFIC IN THE AREA OF CONSTRUCTION. ALL TRAFFIC CONTROL AND MAINTENANCE PROCEDURES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION INDEX #600 AND LAKE COUNTY, FLORIDA, WITHIN THEIR RESPECTIVE AREAS OF JURISDICTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, AS BIDDER, PRIOR TO SUBMITTING HIS BID, TO DETERMINE THE REQUIREMENTS OF THESE AGENCIES SO THAT HIS PROPOSAL REFLECTS ALL COSTS TO BE INCURRED. NO CLAIMS FOR ADDITIONAL PAYMENT SHALL BE CONSIDERED FOR COSTS INCURRED DUE TO THE PROPER MAINTENANCE, CONTROL, DETOUR, AND PROTECTION OF TRAFFIC.
- 26. FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL FOR THE AFFECTED WORK.
- 27. ALL AREAS WITHIN RIGHT-OF-WAY SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL SWALES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMEROCK AND ROCKS AND SODDED AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS PRIOR TO FINAL INSPECTION. ALL GRASSING SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER.

DEMOLITION AND EARTHWORK NOTES

- 1. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION ACTIVITY FOR DIG PERMITS, ELECTRICAL PERMITS OR OTHER PERMITS AS APPLICABLE CONTRACTOR IS TO COORDINATE FULLY WITH UTILITY COMPANIES ON EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
- 2. ALL DEBRIS AND WASTE MATERIALS GENERATED BY DEMOLITION OR SUBSEQUENT CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT AN APPROVED DISPOSAL FACILITY. THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED FOR DEMOLITION, CONSTRUCTION WORK AND HAULING WASTE MATERIAL. ALL ASSOCIATED COSTS AND PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR PAVEMENT REPAIRS AND/OR RESURFACING TO ALL EXISTING ROADS WHICH ARE SAW-CUT OR DAMAGED DURING CONSTRUCTION.
- 4. ANY ENCOUNTERED CONTAMINATED MATERIALS SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER IN ACCORDANCE WITH FEDERAL STATE, AND LOCAL REGULATIONS. (REFER TO TREE PROTECTION REQ.)
- 5. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE, AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR FIELD VERIFICATION OF THE EXISTING UTILITIES. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY TO ENSURE THE INTEGRITY OF THE SYSTEM.
- 6. PRIOR TO DEMOLISHING UTILITY LINES, CONTRACTOR SHALL VERIFY FLOW DIRECTIONS FROM EXISTING BUILDINGS WHICH ARE TO REMAIN. IF DEMOLITION WILL CUT OFF THESE FACILITIES, THE ENGINEER, ARCHITECT, OWNER (AND/OR OWNERS REPRESENTATIVE) SHALL BE CONTACTED IMMEDIATELY.

EARTHWORK

- 7. THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED. OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.
- SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.
- 10. WHEN CLEARING LAND FOR THE PROJECT, A BURN PERMIT MUST BE OBTAINED FROM THE JURISDICTION AND THE DEPARTMENT OF FORESTRY PRIOR TO BURNING ANY MATERIAL.
- 11. THE FIRE DEPARTMENT WILL ISSUE A BURNING PERMIT TO ALLOW BURNING OF CLEARED MATERIAL ONLY IF THE FOLLOWING CONDITIONS ARE MET: A. AN AIR CURTAIN INCINERATOR PROCESS IS USED DURING THE BURNING PROCESS. B. THE BURN PIT IS AT LEAST 300 FEET AWAY FROM ANY STRUCTURE. C. THE BURN PIT IS AT LEAST 100 FEET AWAY FROM THE ROAD.
- 12. ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON—SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NON ORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE. ALL CLAY ENCOUNTERED SHALL BE EXCAVATED OUT AND REPLACED WITH CLEAN GRANULAR FILL MATERIALS.
- 13. ALL FILL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

EROSION & SEDIMENT CONTROL NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR: (NPDES) PERMITTING:
- A. PREPARING AND SUBMITTING FDEP NOTICE OF INTENT (NOI) AND NOTICE OF TERMINATION (NOT) APPLICATIONS AND FORMS.
- FDEP NOTICE OF INTENT APPLICATION FEES.
- C. PREPARING THE FDEP STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

THE COMPLETED FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NPDES NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AT THE SITE.

3. THE CONTRACTOR SHALL OBTAIN COPIES OF THE APPROPRIATE WATER MANAGEMENT

2. PRIOR TO EARTH WORK OR CONSTRUCTION, THE CONTRACTOR SHALL POST A COPY OF

- DISTRICT PERMITS PRIOR TO COMMENCING WORK FOR THIS PROJECT AND HAVE POSTED AT CONSTRUCTION SITE. 4. SILT SCREENS AND TURBIDITY BARRIERS MUST REMAIN IN PLACE AND BE MAINTAINED
- 5. THE EROSION CONTROL MEASURES SHOWN HEREON ARE INTENDED AS MINIMUM STANDARDS. ANY EROSION CONTROL REQUIRED BEYOND THAT SPECIFIED TO MAINTAIN SITE EROSION SHALL BE CONSIDERED AS INCLUDED WITHIN THIS CONTRACT.

IN GOOD CONDITION AT ALL LOCATIONS SHOWN UNTIL CONSTRUCTION IS COMPLETE,

EROSION & SEDIMENT CONTROL NOTES (CONT)

- 6. ALL FROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE LOCAL WATER MANAGEMENT DISTRICT, AND FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION STANDARDS, FDOT INDEX #102 AND BEST MANAGEMENT PRACTICES. HAY BALES ARE NOT ACCEPTABLE. COCONUT FIBER MATERIALS ARE ACCEPTED.
- 7. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN CONSTRUCTION.
- 8. ALL PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, AND ANY DISTURBED LAND AREAS SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING. ALL TEMPORARY PROTECTION SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE IN PLACE AND ESTABLISHED.
- 9. PRIOR TO INITIATING CONSTRUCTION OF PLANNED IMPROVEMENTS, ALL WRA'S WILL BE EXCAVATED AND ROUGH GRADED TO PROVIDE SEDIMENT AND RUNOFF CONTROL DURING CONSTRUCTION.
- 10. ALL DISTURBED AREAS WILL BE BROUGHT TO FINAL GRADE AND SEEDED AND MULCHED AS SOON AS POSSIBLE.
- 11. AREAS WHICH MAY ERODE DUE TO SLOPES OR CONCENTRATED RUNOFF DURING CONSTRUCTION WILL BE TREATED. TEMPORARY SLOPE DRAIN PROTECTION WILL BE PROVIDED PER FDOT ROAD DESIGN STANDARD INDEX NO. 100.
- 12. OFF SITE DISCHARGE OF UNTREATED STORMWATER WILL BE PREVENTED USING TEMPORARY BERMS AND DIKES WHERE NEEDED.
- 13. INSPECTIONS SHALL BE MADE IN ACCORDANCE WITH THE NPDES PERMIT BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF EROSION/SEDIMENT CONTROL EFFORTS. ANY NECESSARY REMEDIES AND MAINTENANCE SHALL BE PERFORMED WITHOUT DELAY.
- 14. ALL MUD, DIRT OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES, DUE TO CONSTRUCTION SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
- 15. EROSION AND SEDIMENT MATERIALS FROM THIS PROJECT SHALL BE CONTAINED ON-SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. THESE INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS.

STORMWATER AND GRADING NOTES

- 1. ALL OPEN DRAINAGE SWALES SHALL BE GRASSED OR LINED WITH APPROVED REINFORCED EARTH MATTING. APPROVED RIP RAP PER FDOT INDEX #100 MUST BE PLACED AS NECESSARY TO CONTROL EROSION.
- 2. BENCHMARK LOCATIONS AND ELEVATIONS ARE AS REPRESENTED BY THE SURVEYOR AT THE TIME OF THE SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.
- 3. SPOT ELEVATIONS SHOWN FOR INLETS AND MANHOLES ARE AT TOP OF RIM.
- 4. ALL GRADING AND SITE PREPARATION SHALL CONFORM TO THE LOCAL JURISDICTION'S CODE.
- 5. ALL OPEN AREAS WITHIN LIMITS OF CONSTRUCTION AND CONSTRUCTION EASEMENTS SHALL BE SODDED WITH BAHIA SOD BY CONTRACTOR UNLESS OTHERWISE NOTED ON
- 6. ALL CONCRETE PIPE JOINTS SHALL BE WRAPPED WITH 4' OF FILTER FABRIC CENTERED ON EACH JOINT.
- 7. CONTRACTOR SHALL DEWATER WHERE REQUIRED TO MEET TECHNICAL REQUIREMENTS.
- 8. AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON 8. ALL CONCRETE STORM SEWER PIPE TO BE REINFORCED CONCRETE PIPE CLASS III, EXCEPT WHERE OTHERWISE NOTED ON THE PLANS OR REQUIRED BY JURISDICTION. HDPE STORM PIPE SHALL BE APPROVED BY JURISDICTION AND ENGINEER AND SHALL MEET ASTM-477. PVC STORM PIPE SHALL BE ADS OR APPROVED EQUAL.
 - GEOTECHNICAL SERVICES HAVE BEEN PROVIDED AS REFERENCED BELOW. GEOTECHNICAL RECOMMENDATIONS ARE NOT THE RESPONSIBILITY OF H & B CONSULTING ENGINEERS, INC. AND HAS RELIED ON THE BELOW REFERENCED GEOTECHNICAL REPORT'S IN PREPARATION OF THE DRAWINGS. ANY CONFLICT BETWEEN INFORMATION WITHIN THE REPORT AND THESE DRAWINGS SHALL BE REPORTED TO ENGINEER/OWNER. H & B CONSULTING ENGINEERS, INC. ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS OR ACCURACY OF GEOTECHNICAL INFORMATION.
 - 10. GEOTECHNICAL REPORT PREPARED BY: CENTRAL TESTING LABORATORY, INC. CTL PROJECT NUMBER: 1584071.200
 - 11. ALL OFF-SITE DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION, OR BETTER
 - 12. ALL STORM STRUCTURES SHALL CONFORM WITH FDOT STANDARD INDEX DRAWINGS AND SPECIFICATIONS EXCEPT THAT DITCH BOTTOM INLETS IN PAVED AREAS SHALL HAVE TRAVERSABLE, TRAFFIC BEARING GRATES SUPPORTED BY STEEL ANGLE SEATS OR SUPPORTED ON FOUR SIDES. GRATES SHALL BE STEEL UNLESS OTHERWISE SPECIFIED OR APPROVED.
 - 13. EXISTING TOPOGRAPHY BASED ON DRAWING PREPARED BY: SURVEYOR: ALLEN & COMPANY, PROFESSIONAL SURVEYORS & MAPPERS DRAWING DATED: FEBRUARY 10, 2014 JOB NUMBER: 20140070
 - 14. ALL STORMWATER STRUCTURES SHALL HAVE CEMENT BENCHING FROM THE BOTTOM OF THE STRUCTURE TO THE LOWEST PIPE INVERT AND SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE UNLESS OTHERWISE NOTED.
 - 15. ALL DISTURBED AREAS ON-SITE SHALL BE SODDED WITH SOD OF LIKE TYPE AND QUALITY TO MATCH EXISTING. ALL DISTURBED AREAS OFF-SITE SHALL BE SODDED WITH ARGENTINA BAHIA. ALL SOD SHALL BE NON-MUCK FARM GROWN.

ROUTINE MAINTENANCE -- STORMWATER

- 1. AFTER COMPLETION OF CONSTRUCTION, WRA'S WILL BE MOWED AND MAINTAINED AS PART OF THE NORMAL LAWN AND OPEN SPACE MAINTENANCE.
- 2. TRASH AND DEBRIS THAT ACCUMULATES WITHIN THE WRA'S, SWALES, PIPES, AND INLETS WILL BE MANUALLY COLLECTED AND DISPOSED OF WITH OTHER NORMAL SOLID WASTE.
- 3. ANY EROSION, LOSS OF GRASS, ETC., WILL BE REPAIRED OR REPLACED ROUTINELY AND AS NEEDED.
- 4. PIPES, INLETS, FLUMES, AND OTHER CONTROL DEVICES WILL BE INSPECTED ANNUALLY AND REPAIRS MADE AS NEEDED.
- 5. BEST MANAGEMENT PRACTICES SHALL BE USED TO ASSURE EROSION AND SEDIMENT IS CONTROLLED. ADDITIONAL MEASURES MAY BE REQUIRED DURING CONSTRUCTION.

TREE PROTECTION REQUIREMENTS

- 1. PROTECT DESIGNATED EXISTING TREES AGAINST: -UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS -SKINNING AND BRUISING OF BARK -SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION OR EXCAVATION MATERIALS WITHIN DRIP-LINE -EXCESS FOOT OR VEHICULAR TRAFFIC -PARKING VEHICLES WITHIN DRIP-LINE
- 2. ERECT TEMPORARY TREE PROTECTION FENCING AS SHOWN ON THE DETAIL SHEETS. BEFORE COMMENCEMENT OF ANY SITE CLEARING OR GRADING. ALL FENCING SHOULD BE A MINIMUM OF 10' CLEAR DISTANCE FROM THE FACE OF ANY TREES AND SHALL FULLY ENCLOSE ALL TREES SCHEDULED TO REMAIN. NOTHING SHALL BE PLACED INSIDE OF PROTECTIVE BARRICADES. INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIAL. MACHINERY, CHEMICALS, OR TEMPORARY SOIL DEPOSITS. ON TREES LARGER THAN 20' DBH, BARRICADES SHALL BE NO CLOSER THAN 15' FROM FACE OF TREE. WHEN PAVING, EXCAVATION OR HARDSCAPE MUST BE DONE WITHIN BARRICADES, BARRICADES SHALL BE MOVED BACK TO A SECONDARY LOCATION AT EDGE OF WORK. EXTRA CARE MUST BE TAKEN AT THIS TIME BY THE CONTRACTOR TO ENSURE THAT NO DAMAGE TO THE TREE OCCURS.
- 3. PROVIDE WATER TO TREES AS REQUIRED TO MAINTAIN THEIR HEALTH DURING CONSTRUCTION WORK.
- 4. WHEN NECESSARY TO CUT ROOT OVER 1-1/2" DIAMETER OF TREES TO REMAIN, CUT MUST BE A CLEAN CUT, COAT CUT FACES OF ROOTS WITH AN EMULSIFIED ASPHALT OR OTHER ACCEPTABLE COATING FORMULATED FOR USE ON DAMAGED PLANT TISSUE. TEMPORARILY COVER EXPOSED ROOTS WITH WET BURLAP TO PREVENT DRYING AND COVER WITH EARTH AS SOON AS POSSIBLE.
- 5. NO GRADE CHANGES ARE TO BE MADE WITHIN THE BARRICADES WITHOUT PRIOR APPROVAL OF THE OWNER OR HIS DESIGNATED REPRESENTATIVE.
- 6. INTERFERING BRANCHES MAY BE REMOVED AT THE DIRECTION OF THE OWNER OR HIS DESIGNATED REPRESENTATIVE BY A QUALIFIED TREE SURGEON
- 7. REPAIR OR REPLACE TREES INDICATED TO REMAIN, WHICH ARE DAMAGED IN THE CONSTRUCTION OPERATIONS, IN A MANNER ACCEPTABLE TO THE OWNER. EMPLOY A QUALIFIED TREE SURGEON TO REPAIR MAJOR DAMAGES TO TREES AND SHRUBS, PROMPTLY, TO PREVENT PROGRESSIVE DETERIORATION'S CAUSED BY THE DAMAGE.
- 8. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF TREES DAMAGED BEYOND REPAIR WITH 3 TREES OF SIMILAR QUALITY AND SPECIES, SIZED TO MATCH THE LARGEST TREES OF THAT SPECIES BEING PLANTED AS PER THE LANDSCAPE PLANS. IF TREES ARE HARMED THROUGH LACK OF PROTECTION OR THROUGH NEGLIGENCE ON THE PART OF THE CONTRACTOR, THE CONTRACTOR SHALL BEAR THE BURDEN OF THE COST OF REPAIR OR REPLACEMENT.

RECORD DRAWINGS

1. THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD WITH RECORD SURVEYS OF THE INSTALLED WATER, RECLAIM, WASTEWATER AND STORMWATER SYSTEMS.

REQUIREMENTS ARE AS FOLLOWS:

- a. PERFORMED BY A FLORIDA REGISTERED LAND SURVEYOR.
- b. SIX SIGNED AND SEALED RECORD DRAWINGS SHALL BE PROVIDED TO THE ENGINEER OF RECORD.
- c. ELECTRONIC FORMATS OF THE RECORD DRAWINGS SHALL BE IN AUTOCAD 2000 OR HIGHER. A COPY OF THE ELECTRONIC FILES SHALL BE PROVIDED TO THE ENGINEER OF RECORD. IT IS PREFERRED TO USE THE APPROVED PLANS WITH STRIKE THROUGH CORRECTIONS.
- a. WATER, FORCEMAIN & RECLAIMED WATER LINE LOCATIONS, SIZE AND MATERIALS.

2. REQUIRED RECORD DRAWING DATA:

- b. LOCATION OF WATER, FORCEMAIN, RECLAIMED WATER & SEWER VALVES AND APPURTENANCES
- c. MANHOLE TOP AND INVERT ELEVATIONS
- d. DEPICT POTABLE WATER LINE CROSSING AND PROVIDE ACTUAL SEPARATION
- e. SAMPLE POINT LOCATIONS IN ACCORDANCE WITH THE FDEP PERMIT.
- f. GRAVITY STORM AND SEWER LOCATIONS, INVERTS, PIPE SIZE AND MATERIALS.
- q. PHOTOS OF ALL UTILITIES CROSSING AND WATER MAINS SHALL BE TAKEN AT THE TIME OF CONSTRUCTION PRIOR TO BACKFILLING.
- h. ALL STORMWATER MANAGEMENT AREAS SHALL BE DETAILED WITH CROSS SECTIONS AND/OR CONTOURS PROVING FINISH GRADE ELEVATIONS.
- i. ALL OUTFALL STRUCTURES SHALL BE VERIFIED WITH SPECIFIC DESIGN ELEVATIONS AS SHOWN ON THE PLANS. (ie. TOPS, WEIRS, ORIFICE AND SKIMMERS SHOULD ALL BE VERIFIED.
- i. FINISHED GRADES AT HIGH POINTS AND GRADE BREAKS IN PAVEMENT CENTERLINE AND EDGE OF PAVEMENT AT 100' INTERVALS, LOT GRADES, BUILDING PADS OR FINISH FLOOR ELEVATIONS.

STANDARD ARREVIATIONS

FORCE MAIN

HIGH POINT

LINEAR FEET

LIFT STATION

LOW POINT

INVERT

HANDICAPPED RAMP

HIGH DENSITY POLYETHYLENE

DOUBLE DETECTOR CHECK ASSEMBLY

10/15 | Listed lot No's. per Lake Co.

GATE VALVE

GV

HDPE

DDCA

HP

HR

INV

LP

LS

<u>JARU ABBREVIA IION</u>	<u> 12</u>	
AIR RELEASE VALVE	MES	MITERED END SECTION
BACKFLOW PREVENTER	МН	MANHOLE
BACK OF CURB	NWL	NORMAL WATER LEVEL
BOTTOM	PIV	POST INDICATOR VALVE
BALL VALVE	PL	PROPERTY LINE
CENTER LINE	PV	PLUG VALVE
CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE PIPE
CLEANOUT	RCP	REINFORCED CONCRETE PIPE
CONCRETE	RWM	RECLAIMED/REUSE WATER MAIN
DOUBLE CHECK DETECTOR	R/W	RIGHT OF WAY
VALVE ASSEMBLY	SAN	SANITARY
DUCTILE IRON PIPE	SHWT	SEASONAL HIGH WATER TABLE
DESIGN HIGH WATER LEVEL	SP	SAMPLE POINT
ELEVATION	TOB	TOP OF BANK
EDGE OF PAVEMENT	TOS	TOE OF SLOPE
ELLIPTICAL REINFORCED	TYP	TYPICAL
CONCRETE PIPE	WM	WATER MAIN
FIRE DEPARTMENT CONNECTION	RPZ	REDUCED PRESSURE ZONE
FINISHED FLOOR ELEVATION		BACKFLOW DEVICE
FIRE HYDRANT		
	AIR RELEASE VALVE BACKFLOW PREVENTER BACK OF CURB BOTTOM BALL VALVE CENTER LINE CORRUGATED METAL PIPE CLEANOUT CONCRETE DOUBLE CHECK DETECTOR VALVE ASSEMBLY DUCTILE IRON PIPE DESIGN HIGH WATER LEVEL ELEVATION EDGE OF PAVEMENT ELLIPTICAL REINFORCED CONCRETE PIPE FIRE DEPARTMENT CONNECTION FINISHED FLOOR ELEVATION	BACKFLOW PREVENTER BACK OF CURB NWL BOTTOM PIV BALL VALVE CENTER LINE CORRUGATED METAL PIPE CONCRETE DOUBLE CHECK DETECTOR VALVE ASSEMBLY DESIGN HIGH WATER LEVEL ELEVATION EDGE OF PAVEMENT FIRE DEPARTMENT CONNECTION FIRE DEPARTMENT CONNECTION RMH NWL PV PV CORRUGATED PV RCP RWM RCP RWM SAN DUCTILE IRON PIPE SHWT TOB TOB EDGE OF PAVEMENT FIRE DEPARTMENT CONNECTION RPZ FINISHED FLOOR ELEVATION

GENERAL NOTES H & B CONSULTING ENGINEERS, INC.

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Lake Minneola Landings C.R. 561 REVISIONS Groveland, Fl. 34711 10/15 | Added Turn Lanes CR 561A

Drawn: WSR 'Checked: MZB 4/16 | Lake County comments from 4-11-16| Date: 06/16 | Scale: as shown | Sheet 2 Of 18