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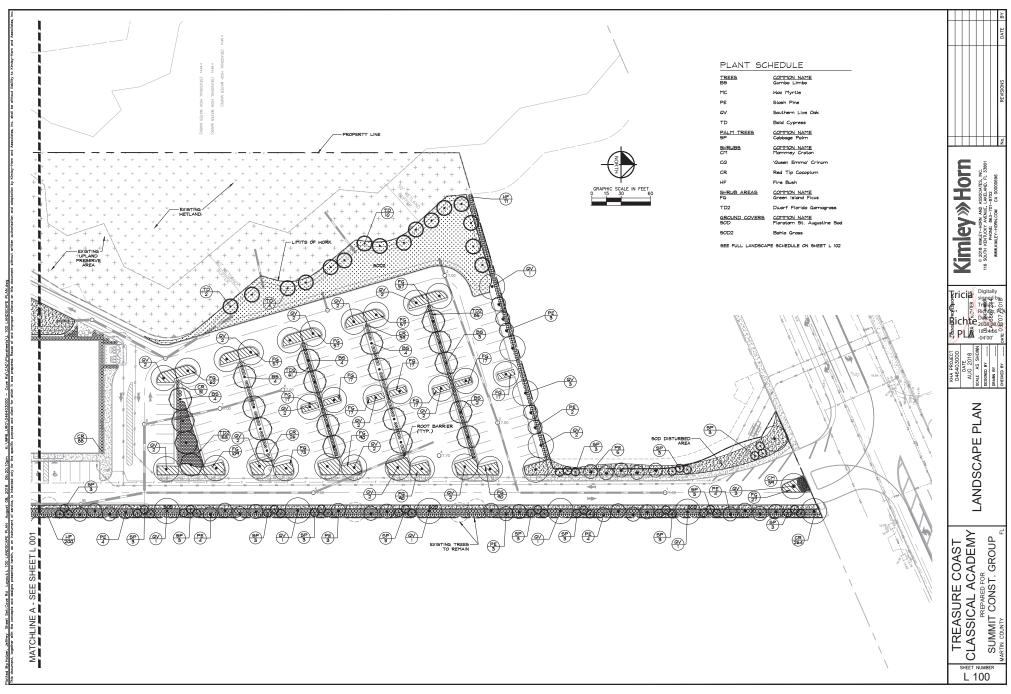
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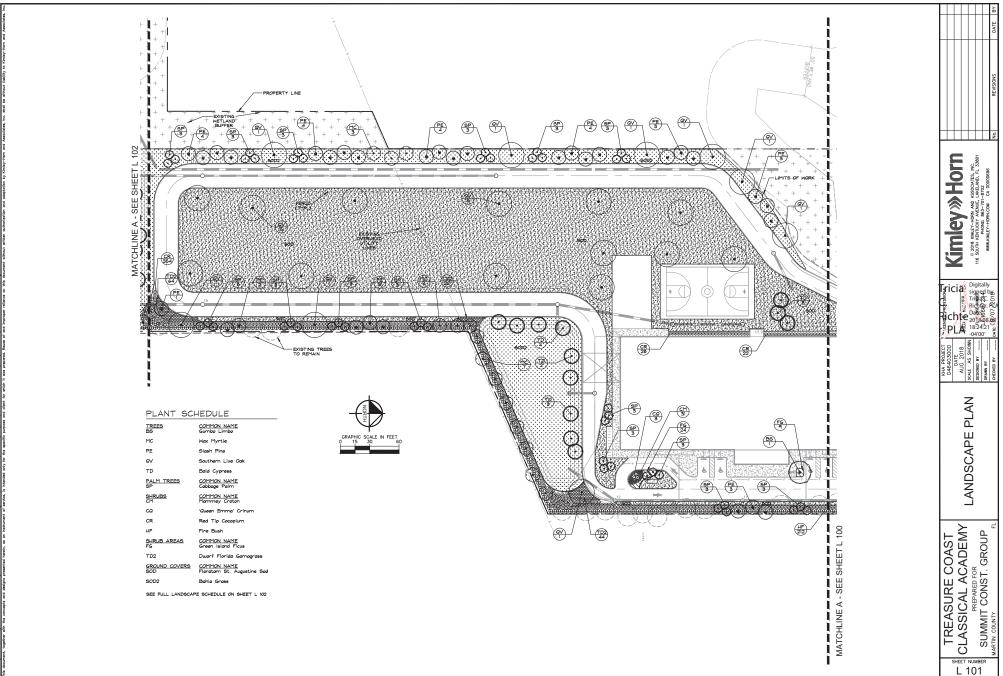
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DISPOSITION PLAN TREE

TREASURE COAST CLASSICAL ACADEMY GROUP PREPARED FOR SUMMIT CONST. G



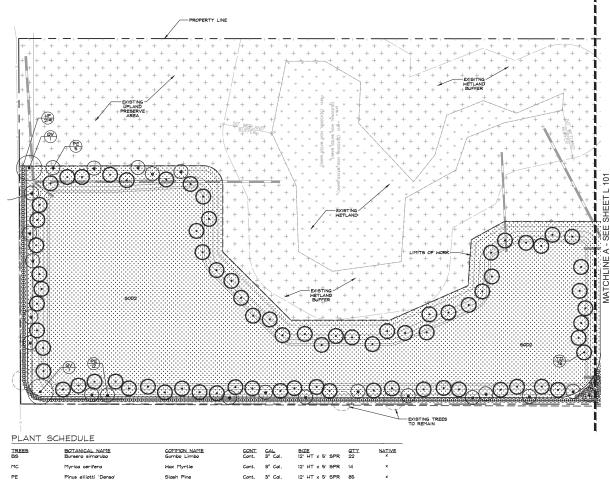


L 101

Kimley » Horn

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L 102



<u>QTY</u> 87

852

702

QTY 921

429

<u>QTY</u> ± 74,230 sf

± 129,635 sf

36" O.C.

36" O.C.

6' HT Min

NATIVE

NATIVE

NATIVE

NATIVE

QV TD

PALM TREES SP

SHRUB AREAS FG

GROUND COVERS

SHRUBS CM

ca cr

TD2

SOD2

BOTANICAL NAME Sabal palmetta

BOTANICAL NAME

BOTANICAL NAME

Stagger heights in groupings

Paspalum notatum 'Argentine

Bald Cypress

COMMON NAME Cabbage Palm

COMMON NAME Mammey Croton

COMMON NAME

COMMON NAME Floratom St. Au

Bahia Grass

	CODE REQUIREMENTS		
	SITE AREA: 619,476 SF (14.22 ACRES)	REQUIRED	PROVIDED
	SEC. 4.663.1		
	AT LEAST 20% OF THE TOTAL DEVELOPED AREA SHALL BE LANDSCAPED. 416,515 SF X 20% = 83,303 SF	83,303 SF	83,303 SF
	SEC. 4.663.3.b		
	ALL NONRESIDENTIAL DEVELOPMENTS SHALL PROVIDE AT LEAST 1 TREE PER 2,500 SF OF SITE AREA. 416,515 SF / 2,500 SF * 1 TREE = 167 TREES	167 TREES	167 TREES
	SEC. 4.663.4.a.3		
	TOTAL TREE REQUIREMENT WITHIN THE PERIMETER LANDSCAPE AREA SHALL BE EPTERMINED BY USING A RATIO OF I TREE PER SO LE OR ITREE POR EVERY 300 SF OF PLANTING AREA OR MAJOR PORTION THEREOF, WITH NO LESS THAN 750 OF TREES TO DE SHADE TREES. 834 LE / 30 LF \$1 TREE = 20 TREES 20 TREES + 75% = 20 SHADE TREES	28 TREES 21 TREES	4 TREES
	SEC. 4.663.4.a.5		
	A MINIMUM OF 25% OF TOTAL PERIMETER LANDSCAPE AREA IS TO BE NATIVE PLANTINGS. 215 TREES/SHRUBS/GC # 25% = 54 TREES/SHRUBS/GC	54 NATIVES	54 NATIVES
	SEC. 4.663.4.b.1		
2	IN VEHICULAR USE AREAS MITHIN THE INTERIOR OF A SITE, I 500 SF PLANTING AREA SHALL BE REQUIRED FOR EVERY 5,000 FOF VEHICULAR USE AREA, OR MAJOR PORTION THEREOF, AND AT LEAST 3 2" OR 2 3" CALIPPEAD THE STATE OF THE LANDSCAPE 20 ST STATE OF THE STATE OF THE LANDSCAPE 21 STATE OF THE STATE OF	12,500 SF 50 TREES	12,500 SF 50 TREES
1	SEC. 4.663.B.6.b		
5	TYPE 2 BUFFER - AT LEAST 1 TREE AND 10 SHRUBS SHALL BE PROVIDED FOR EVERY 300 SF OF REQUIRED BUFFER.		
ILLINE A - OEE	NORTH: 1,913 9F / 300 9F * 1 TREE = 7 TREE9 1,913 9F / 300 9F * 10 9HRUB9 = 70 SHRUB9	7 TREES 70 SHRUBS	7 TREES 70 SHRUBS
	<u>EAST:</u> 29,992 9F / 300 9F * 1 TREE = 100 TREES 29,992 9F / 300 9F * 10 SHRUBS = 1,000 SHRUBS	100 TREES 1,000 SHRUBS	100 TREES 1,000 SHRUBS
	<u>SCUTH:</u> 4,629 SF / 300 SF * I TREE = 16 TREES 4,629 SF / 300 SF * 10 SHRUBS = 160 SHRUBS	16 TREES 160 SHRUBS	16 TREES 160 SHRUBS
5	SEC. 4.664.A.2		
	AT LEAST 50% OF ALL REQUIRED LANDSCAPING SHALL BE NATIVE. 3,2% TREES/SHRUBS/GC # 50% = 1,648 NATIVE TREES/SHRUBS/GC	1,648 NATIVES	1,648 NATIVES
	SEC. 4.664.B.2.b		
	NOT MORE THAN 30% OF ALL REQUIRED TREES SHALL BE PALMS. (2 PALMS OR 3 SABAL PALMS CONSTITUTE 1 TREE) 316 REQUIRED TREES * 30% = 96 PALMS MAX	96 PALMS	87 PALMS
	SEC. 4.664.C		
	75% OF HEDGES AND SHRUBS SHALL BE NATIVE 2,977 SHURBS * 75% = 2,233 SHRUBS	2,233 SHRUBS	1,983 SHRUBS

PLANTING NOTES:

- CONTRACTOR SHALL REFER TO THE LANDSCAPE PLANTING DETAILS, PLANT LIST, GENERAL NOTES AND ALL CONTRACT DOCUMENTS FOR FURTHER AND COMPLETE INSTRUCTIONS.
- PLANT LIST QUANTITIES ARE PROVIDED FOR CONVENIENCE. IN THE EVENT OF QUANTITY DISCREPANCIES
 THE DRAWING SHALL TAKE PRECEDENCE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF
 THE LANDSCAPE ARCHITECT PRIOR TO BIDDING.
- 3. PLANT SIZES LISTED ARE THE MINIMUM SIZE THAT WILL BE ACCEPTED FOR THAT PLANT.
- 4. ANY SUBSTITUTION IN SIZE AND/OR PLANT MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT IN MRITING. ALL PLANTS HILL BE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND/OR OWNERS REPRESENTATIVE BEFORE PLANTING CAN BEGIN.
- S. CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO ENTING INDERGROUND UTILITIES AND/OR INTERFERE WITH DISTING ADOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTOR'S EMPRISE AND SHALL BE COORDINATED WITH HER DOWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
- 6. THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK AND INCLUDED IN THE SPECIFICATIONS.
- CONTRACTOR SHALL FAMILIARIZE HIMHERSELF WITH THE LIMITS OF WORK AND EXISTING CONDITIONS AND VERIFY ALL INFORMATION. IF DISCREPANCIES EXIST, CONTRACTOR SHALL NOTIFY OWNER'S KERRESENTATIVE IN WRITING WITHIN SEVEN CALENDAR DAYS OF MOTICE TO PROCEED.
- ALL NEW AND TRANSPLANTED PLANT MATERIAL SHALL BE IRRIGATED BY AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.



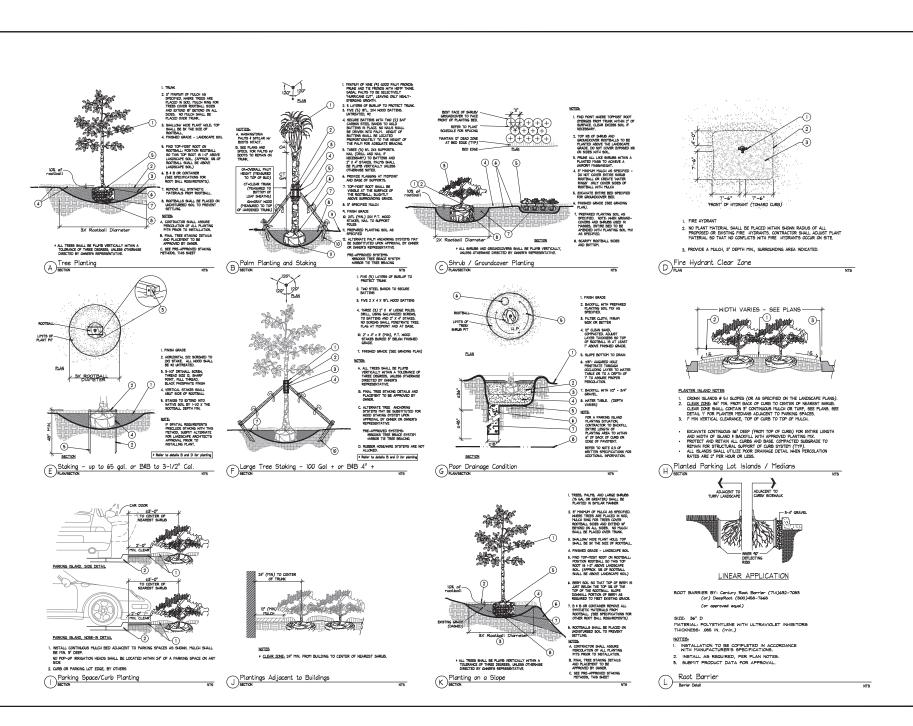
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DETAIL LANDSCAPE

TREASURE COAST CLASSICAL ACADEMY GROUP

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PREPARED FOR SUMMIT CONST. SHEET NUMBER



- L. THE MORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.
- MORK SHALL INCLUDE MAINTENANCE AND MATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

B. PROTECTION OF EXISTING STRUCTURES

ALL EXISTING BUILDINGS, WALKS, MALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE GAMER, AT NO COST TO THE GAMER.

C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OFERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASCLINE, OR OTHER DELETEROUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED WHERE HEAT WILL DAMAGE ANY PLANT. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/ OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (1900) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER,

D. MATERIALS

1. GENERAL

MATERIALS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, UPON SUBMITTALS' APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.

SUBMITTAL PRODUCT DATA TRANSALL IMIA
ARREDMENT MW PRODUCT DATA/ TEST RESULTS
PHOTOGRAPHS OF ONE (I) OF EACH SPECIES (OR TAGGED IN NURSERY)
CLIENT-REQUESTED TAGGING MAY SUBSTITUTE PHOTOS,
INDICATE SIZES (HEIGHT/MIDTH) AND GUALITY PER SPEC. FERTILIZER
INNOCULANT
HERBICIDE
STAKING/GUYING
FOR ALTERNATE TO DETAILS: SEND PRODUCT DATA, DETAIL

2. PLANT MATERIALS

- P. PLANT MATERIALS.

 A. PLANT PROFICES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS.

 NOTHECLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, INVESTIGATION, ALL NUMBERY

 STOCK SHALL BE IN ACCORDANCE WITH CADES AND STANDARDS FOR INSERT PLANTS, LATEST

 EDITION, THE LIBERT STATE PLANTS AND ACTIVITIES AND CONSIDER RESOVERS.

 DIVISION OF PINT INQUISITY. ALL PLANTS SHALL BE HEALTH, VICKORDUS, SOAND,

 NELL-PRINCHED, AND FREE OF DESADE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL

 MANY ADDILATE FOOT STYPED. THE END ATT. SHALL BE THE COMES. INSECT BE AND SHALL BE AND SHALL BE AND SHALL BE AND SHALL BE SHALL PLANTS AND SHALL BE AND SHALL BE AND SHALL BE AND SHALL BE SHALL PLANTS AND SHALL BE SHALLET TO APPROVABLE THE OWNER. AND SHALL BE SHALLET TO APPROVABLE THE OWNER. AND SHALL BE SHALLET TO APPROVABLE THE OWNER. WHERE ANY

 RESIDENCE THE COTTON FOR THE DAYL IS, THE PLANT IS, THE P PERMISSION FROM THE OWNER'S REPRESENTATIVE
- PENTISON FROM THE CHRIST REPRESENTATIVE BY BEIGHT THESE SHALL BE HEASURED FROM THE GROUND OR ACCESS THE MORPHL SPREAD OF BOANGLES WITH THE PLANTS IN THEIR MORPHL AND THE PLANTS IN THE REPRESENTATION OF THE PLANTS IN THE REPRESENTATION OF THE PLANTS IN THE PROPERTY OF APPROVED THE PLANT IN THE PROPERTY OF THE PLANTS IN THE PLANTS I
- C. INSPECTION. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF AROUND, OR LIPPOR DELIVERY TO THE SITE, AS DIFFERENCED BY THE OWNER, FOR GOLLIFTY SEE, AND THE OWNER, FOR GOLLIFTY SEE, AND THE SITE AND THE OWNER OWNERS AND THE OWNER OWNERS AND THE OWNER OWNER PROVIDES OF THE WORK OR A PIECE OFFICIATION FOR A WOOD THALLS OR BOOTS, LATENT DEPECTS OR NAURISS. REJECTED PLANTS SHALL BE SERVICED INTEGRATELY FROM THE SET. NOTICE REQUESTINE INSPECTION SHALL BE SUBMITTED. IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE

E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)

- 1. SOIL HUTTURE (PLANTING PEDIAT FOR PLANT FIRST SHALL COMEST OF 205 CLEAN FLORIDA MICK AND 807 PARTS CLEAN SAND. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND A PH BETWEEN 5.5 AND 7.0 SUBHIT SANTILE AND PH TESTING RESULTS FOR APPROVIAL.
- TESTING RESULTS FOR APPROVAL.

 FLOSC (OR THUCKY PEAT) FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, AND OF A VERY HARD ROBANCE CONTENT DERIVED FROM FLORIDA SCARCES, ROOTS, STUPELS, GANGE SARGES HAND 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TORIC MATTER HARPFUL TO PLANT GROWTH.

 SAND, FOR USE IN PREPARING SOIL INTUITES SHALL BE COARSE, CLEAN, MELT-PRAINING, NATIVE SHAD, CONTRACTOR SHALL SUBSIT RESULTS OF SOIL TESTS FOR TOPSOIL AND SHAD PROPOSED FOR USE MORE THAN 2" IN A PROPOSED FOR USE MORE THAN 15 OF SOIL TESTS FOR TOPSOIL AND SHAD PROPOSED FOR USE MORE THAN 15 OF SOIL TESTS FOR TOPSOIL AND SHAD.
- 4. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE AT WHICH POINT THE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
- 5. CONTRACTOR TO SUBMIT SAMPLES OF SOIL MIVTURE FOR CHARFUS REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE

F. WATER

*WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL

G FEDTILITED

CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, FLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR O'THERNIES HATURALLY-DERIVED.

*FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

MULCH MATERIAL SHALL BE MOSTENED AT THE TIME OF APPLICATION TO PREVENT MIND DISPLACEMENT, AND APPLIED AT A MINIMUM DEPTH OF 3 INCHES, CLEAR MULCH FROM EACH PLANT'S CRONN (BASE). TYPE OF MATERIAL "FLORIMULCH" OR SHREDDED, STERILE EUCALYPTUS MULCH

DIGGING AND HANDLING

- I, PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEDING, AS NECESSARY LATTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMME BURNE TRANSIT. TREES TRANSPORTED MORE THAN THE (IO) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("NILTPRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
- BALLED AND BURLAPPED PLANTS (BIB) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL
 OF SUFFICIENT SIZE TO SHOOTPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO
 PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROCKEN
 PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.
- 3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS, COMPLYING WITH FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS, CURRENT EDITION. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT DURING TRANSPORTATION AND PRIOR TO
- PLANTING.
 4. PROTECTION OF PALMS (IF APPLICABLE): ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED FER PALM PLANTING DETAIL.

J. CONTAINER GROWN STOCK

- I. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION, FLORIDA #1 OR
- 2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FERROLS ROOTS TO HAV DEVILOPED SO THAT THE ROOT INSES WILL RETAIN TIS SHAPE AND LOUT OFFICETHE WEB REPOYDE FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEPS.
- 3. PLANT ROOTS BOUND IN CONTAINERS ARE NOT ACCEPTABLE.
- 4. SUBSTITUTION OF NON-CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL IS OBTAINED FROM THE OWNER OF OWNER'S REPRESENTATIVE.

WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

L. NATIVE STOCK

PLANTS COLLECTED FROM MILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO NIDICATE PULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW

M MATERIALS LIST

QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWNING SHALL BE FURNISHED BY THE CONTRACTOR, QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANGECAPE DESCREPANCY COLOR BETHERN THE PLANS AND THE PARTY LIST GOMETRY, THE LANGECAPE ARCHITECT SHALL BE MOTIFIED FOR CLARIFICATION PROR TO BIDDING OR INSTALLATION, ALL DIMENSIONS AND SEEDS SPECIFIED SHALL BE THE MINIMAY ACCEPTAGE OF THE PARTY OF THE PROPERTY OF THE PROPERTY OF THE PARTY OF

N. FINE GRADING

- I. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND FLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERNING AS SHOWN ON THE DRAWNING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOLI WITHIN THE SITE.
- ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE ANAY FROM THE BUILDINGS, REFER TO CIVIL BIGINEER'S PLANS FOR FINAL GRADES.

O. PLANTING PROCEDURES

- VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO. ELECTRIC, GAS (LINES AND TAXES), MATER, SANITARY SPIERR, STORPWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY HAINTAIN AND PROTECT EXISTING UTILITIES. CALL NATIONAL ONE CALL 811 70 LOCATE UTILITIES.
- EXISTING UTILITIES. CALL NATIONAL ONE CALL 811 TO LOCATE UTILITIES.

 3. SURGRADE EXCHANTION. CONTRACTOR IS RESPONSIBLE TO REPOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A NONIMUM DEPTH OF SE². CONTRACTOR IS RESPONSIBLE TO BACKPILL THESE PLANTING AREAS TO ROUGH FINISHED GARDE WITH CLEAN TOPSOUL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER AND VERSES CONDITIONS COOKEN IN PLANTING AREAS AFTER STORED CONTRACTOR SHOULD UTILIZE TRAITING STAIL THAT ADDRESSES FOOR TRAIT AND AREA SHOPPED, CONTRACTOR SHOULD UTILIZE TRAITING STAIL THAT ADDRESSES FOOR TRAIT.
- FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED, INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.
- S. BEREALL COMEN WITH APPLICABLE FEDERAL STATE, COUNTY, AND LOCAL BESULATIONS.

 CONDENNES LANDSCAPE THAT SHARP AND HOME. CONSONION TO ACCEPTED WATCH CATEVARY
 PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, FLANTS SHALL BE
 THOROUGHT WATERED AND PROPERTY HAMITANDE UNIT, PLANTED, PLANTS STOKED
 ON-SITE SHALL NOT REVAIR UNPLANTED FOR A PERIOD EXCEPTION THATH-FAUNT (20)
 MARS. AT ALL THISS, THE TOOLS CUSTOMEY IN GOOD KETCHILLTURAL PRACTICES SHALL
 OFFICE SHALL THISS, THE TOOLS CUSTOMEY IN GOOD KETCHILLTURAL PRACTICES SHALL
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 OFFICE SHALL THISS, THE TOOLS CUSTOMEY IN GOOD KETCHILLTURAL PRACTICES SHALL
 OFFICE SHALL THIS SHALL THE SHALL THE
- 6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
- 7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCREDANCE WITH THE USA
 STANDARD FOR NURSERY STOCK 2601, UNLESS SHOWN OTHERWISE OF THE DRAWNING, AND
 BOKCHLED WITH THE PERPARED PLANTING SOIL MOTHER AS SEPECTION BE SECTION E. TEST
 ALL TIZE PITS WITH MATER BEFORE PLANTING TO ASSURE PROPER DRAWNING PERCOLATION IS
 ANALIABLE. ON ALLOWANCE WILL BE "PHOSE FOR LOST PLANTING UP TO THE PRESCA THO BE STORY THE PROOF THE STORY THAT SIDE TO IMPROVE PERCOLATION
 FORCE PRESCA THE ADDITION THE STORY OF THE STORY.
- 8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES
- 9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS
- 10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN MILL STAND ONE (1) TO TWO (2) MOVIES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOLL MENTER SHALL BE BACKFILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY MATER (AFTER TAMPING).
- II. AMBIND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMBINDED WITH BINDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRICK TO INCULATION.
- 12. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL Z. PILL ACE MITH SOIL PIKTUNE, PHANNA CENTAIN ALL SOIL IS SATUWATED. TO 10 THIS, PILL LOCE MITH ANTER AND ALLON TO SOOK MINIMUM THATTY! (20) PINIMITS, STRENNIE IF NECESSARY TO GET SOIL THARDAGE'S MET. PICK LIGHTLY MITH FEET. ADD MORE MET SOIL WITH SOIL MINTURE, OIL WITH HULCH. ALL BURLAY, ROPE, MIRES, BACKETS, ETC., SHALL BE REDOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAY SHALL BE PULLED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAY SHALL BE PULLED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAY SHALL BE PULLED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAY SHALL BE PULLED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAY SHALL BE PULLED FROM THORMACH.
- B. PRUNING: TREES SHALL BE PRIAIED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT NOOD OR SUCKER GROWTH AND ALL BROCKEN OR BOLD! DAMAGED BRANCHES SHALL BE REPOYED WITH A CLEAN CUT. ALL PROMING TO BE PERFORMED BY LICENSED ARBOINGT, IN ACCIDANCE UTHIN ANSI A-300.
- 14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6', REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" TO ACHEIVE SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
- WHITE ALL PAINTS OF THE MONIGHAM THAT BY THE CONTRACTOR IN ALLOREMANT.

 THEE GATHA, AND BRACKS SHALL BE DITALLED BY THE CONTRACTOR AND DRACKS SHALL BE DITALLED BY THE SHALL REPORT FOR DRACKS.

 IF THE CONTRACTOR AND DOMER DECIDE TO MAINT THE THEE GATHA AND BRACKS, THE
 OWNER SHALL NOTHY THE LANDSCAPE ARCHITECT IN SHATING AND AGEET TO INDEPNIETY
 AND HAD HARRIESS THE LANDSCAPE ARCHITECT IN THE EVENT WAPPORTED TREES
 PLANTED MORE THIS CONTRACT THAT AND DAMAGE PERSON OR PROPERTY.
- 16. MULCHING: PROVIDE A THREE INCH (MINIMUM) LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT PLANTED UNDER THIS CONTRACT.
- 7. HERBICIDE WEED CONTROL. ALL PLANT BEDS SHALL BE KEPT FREE OF NORGAS WEEDS WITH FINAL ACCEPTANCE OF MORE IF DIRECTED BY THE OWNER, "ROUDH-UP" SHALL BE APPLIED R ANNIHOLDERS PRECALITIONS AND SPECIPACITIONS. FORCE TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-PERSENT HERBICIDE AT AN APPLICATION RAT ALL PLANTING BEDS WITH AN APPROVED PRE-PERSENT HERBICIDE AT AN APPLICATION RAT EXCOMPRIBIOD BY THE MANIFACTIONER. (AS ALLOWS BY JURISDICTIONAL AUTHORITY)

P LAWN SODDING

- 1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODI COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
- JUNIORATION OF THE CONTROL OF THE STATE OF THE CONTROL OF THE CONT PEGLIPED GRADE
- SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.

- A. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
- B. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WIEEDS, FLANGUS, INSECTS AND DISEASE OF ANY KIND.
- SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLD SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDIGES OF ALL ORDS AND OTHER IMPOSCAFE LEIDPINTS, PAVED AND PLANTED AREAS. ADJACENT TO BUILDINGS, A 24 INCH STONE HILLED STRUCK STONE OF THE TOTAL STRUCK, STRUCK STONE TO STRUCK STONE SOLD AND STRUCK SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLED CONTOWNELY USES FOR SUCH PURPOSE, AND THEN AND AREAS SHALL BE ROLLED WITH A LAWN ROLLED CONTOWNELY USES FOR SUCH PURPOSE, AND THEN LANN ROLLER COSTONARY LYSED FOR SUCH PURPOSES, AND THEN THOROCALT RENGATED. IF, IN THE COMINGO OF THE COMEN, TO THE COMEN, TO THE THOROCALT SERVICE OF THE ROLLING TO FILL THE VOID SECTION TO RECEIVED THE SOO PARKES ARE FROM THE SOO PARKES ARE FROM THE SOO, CLEAN SAND, AS PROVIDED BY THE COMEN'S REPRESENTATIVE, SHALL BE MINROCALT SPECIAL OF THE EDITIES SHAPE OF THE SOO AS ALLOHED BY PROPERTY SURSOLCHARL AUTHORITY.
- 5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE L AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY

6. LAWN MAINTENANCE:

- A MINN THE CONNECT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, A MINN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, THE REPORT OF THE REPORT OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE CONTRACT PROPERTY OF THE CONTRACT REPORT OF THE CONTRACT PROPERTY OF THE CONTRACT OF THE CONTRACT PROPERTY OF THE CONTRACT PROPERTY OF THE CONTRACT PROPERTY OF THE CONTRACT OF THE CONTRACT PROPERTY OF THE CONTRACT OF THE CONTRACT PROPERTY OF TH
- B. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE CHARE'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE MATERING/RIRIGATION SCHEDULE TO CHARE. OBSERVE ALL APPLICABLE MATERING RESTRICTIONS AS SET FORTH

UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REPROVE ALL PATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAYED AREAS SHALL BE BROOM-CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S

R. PLANT MATERIAL MAINTENANCE

R. PLANT MATERIAL MAINTENANCE
ALL PLANTS AND PLANTING MICLIDED INDER THIS CONTRACT SHALL BE MAINTAINED
BY MATTENING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS
EN-STAKING OR PERRING GUT SPROTTS) NECESSARY TO SINGRE A HEALTHY
PLANT CONDITION BY THE CONTRACTOR INTIL CERTIFICATION OF ACCEPTABILITY BY
THE COMPRESS REPRESENTATIVE, MAINTENANCE AFTER THE CERTIFICATION SIX THE
ACCEPTABILITY SHALL BE IN ACCORDANCE MITH THE SPECIFICATIONS IN THIS
SECTION. CONTRACTIONS ARE RESIDESTED TO PROVIDE AD ESTIMACT TO COVER
LANDSJAFF AND RINGATORY MAINTENANCE FOR A PERCO OF 90 CALEDOR DAYS
CONTRIBIONAL WITER ACCEPTANCE.

S. MAINTENANCE (ALTERNATE BID ITEM)

CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR MAINTENANCE FOLLOWING THE INITIAL 90-DAY MAINTENANCE PERIOD ON A COST-PER-MONTH

T. FINAL INSPECTION AND ACCEPTANCE OF WORK

THE INSPECTION AND THE DURING HIS PROPERTY PERSON SHALL BE OUT FANTING, THE DURING HIS PROPERTY PERSON SHALL BE OUT FANTING, ANY REPLACEMENT AT THIS THE SHALL BE SUBJECT TO THE SHATE ONE (I) YEAR MARRANITY (OR A SPECIFIED BY THE LADROCARE AREATET OR OWNERS IN MICHING) BEGINNING INTIL THE THE OF REPLACEMENT AND BIDDING WITH THE SHATE INSPECTION AND ACCEPTANCE MERRING DESCRIBED.

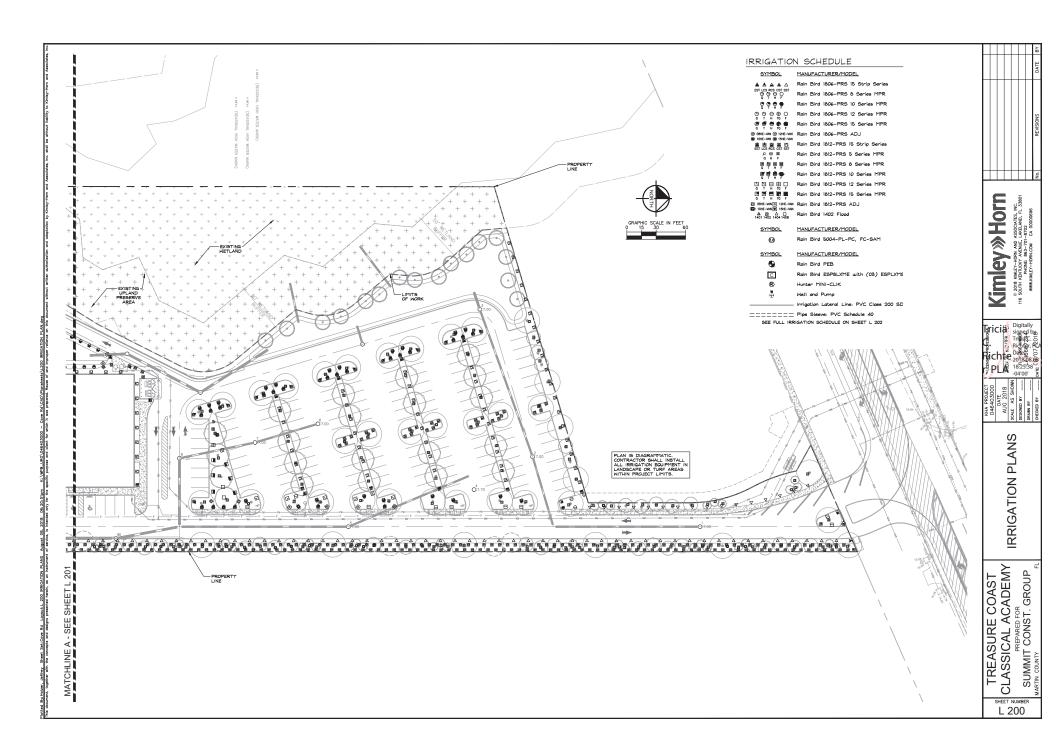
- THE LIFE AND SATISFACTORY CONDITION OF ALL 7 GALLON AND LARGER PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE MARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALIDNAY YEAR COMPISCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE CANER'S REPRESENTATIVE.
- 2. THE LIFE AND SATISFACTORY CONDITION OF ALL OTHER PLANT MATERIAL (INCLUDING SOD) INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A NINITHM OF ORC (I) CALENDAR YEAR COMPINCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATION.
- REPLACEMENT, ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE BND OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOOM AS HEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANT OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED UNDER "PLANTING", AT NO ADDITIONAL COST TO THE OWNER.
- 4. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE YEAR WARRANTY PERIOD VISHT THE PROJECT SITE PERIODICALLY DURING THE ONE TARK MARKWATT PERIOD TO EVALUATE HANTENANCE PROCEDURES BEINE PERFORMED BY THE CONER, AND SHALL KOFFEY THE CONER IN RICTING OF HANTENANCE PROCEDURES OR COODITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT ROWTH. IT IS SUGGESTED SUCK SITE VISHTS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TRUEVE (2) MONTHS FRONT THE DATE OF ACCEPTANCE.

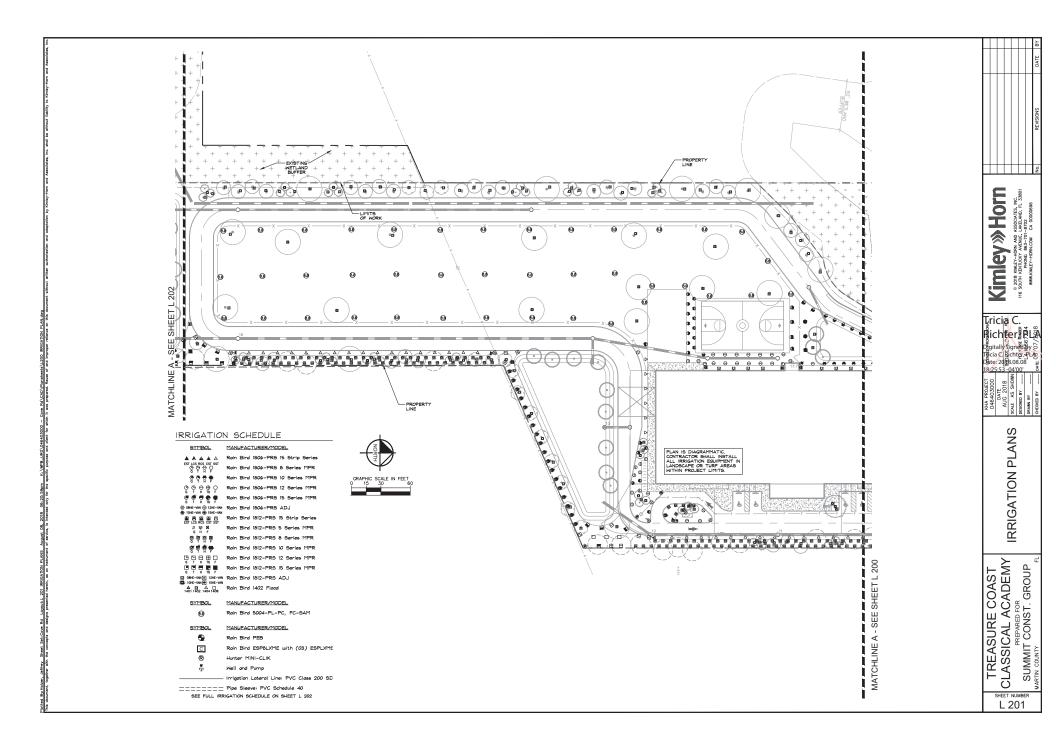
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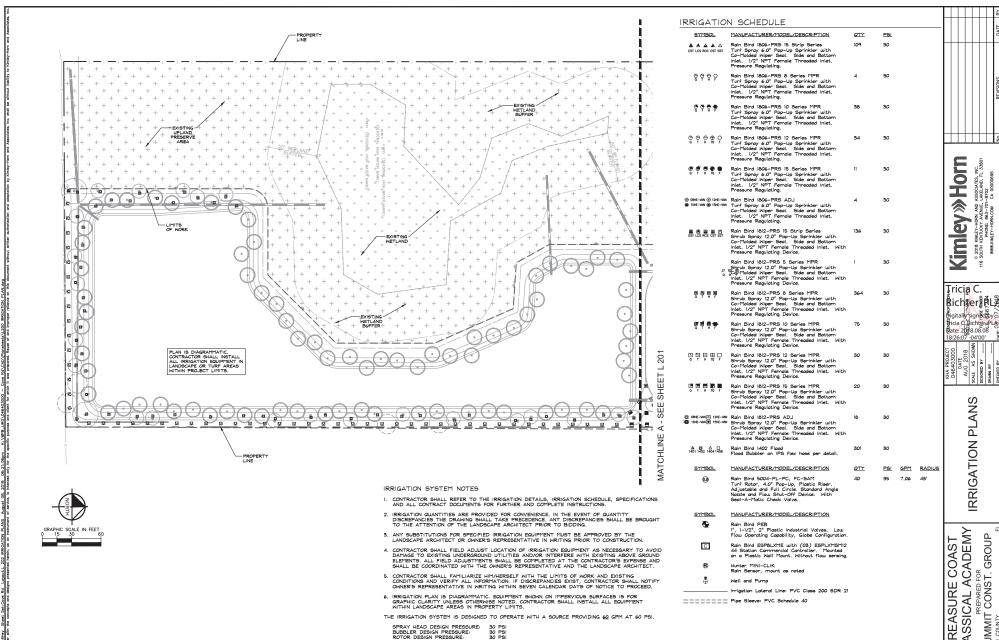
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TREASURE COAST CLASSICAL ACADEMY PREPARED FOR SUMMIT CONST. SHEET NUMBER

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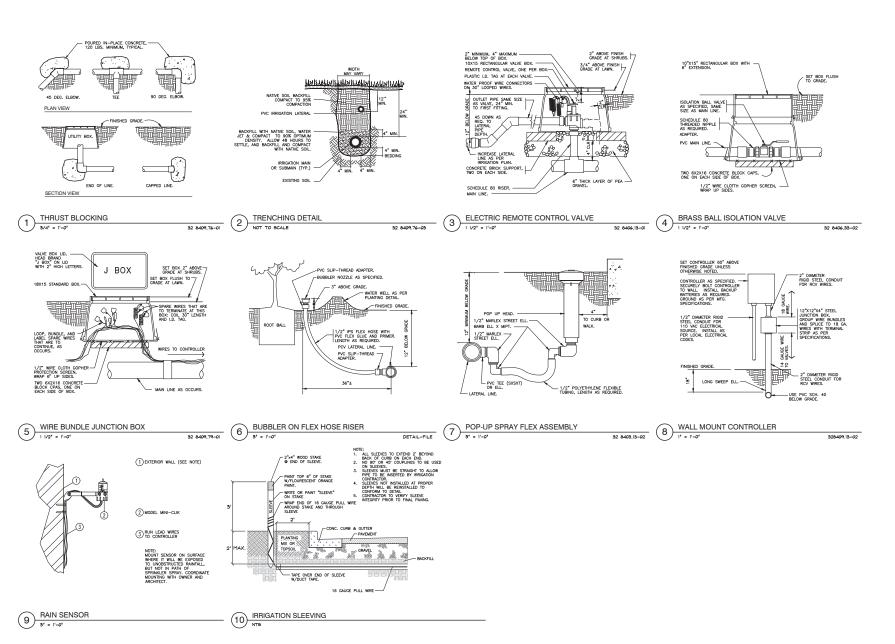
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IRRIGATION DETAILS

GROUP

PREPARED FOR SUMMIT CONST. G



- A. The unst covered by this specification shall include the furnishing of all lobor, materials, tools and equipment increasery to perform and complete the installation of an attended irrigation system as specified herein and as shown on the drawings and any incidental work not shown or specified which can researchly be determined to be part of the work and necessary to provide a complete.
- B. The work covered by this specification also includes all permits, federal, state and local taxes and all other costs, both foreseeable and unforeseeable at the time of construction.
- C. No deviation from these specifications, the accompanying drawings, or agreement is authorized or shall be made without prior written authorization signed by the Owner or his duly appointed

102 QUALITY ASSURANCE

- A. Installer Qualifications: A firm specializing in irrigation work with not less than five (5) years of experience in installing irrigation systems similar to those required for this project.
- B. Coordination: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.
- C. Inspection of Site: The Contractor shall acquaint himself with all site conditions, including underground utilities before construction is to begin. Contractor shall coordinate placement of underground materials with contractors previously working underground in the vicinity or those scheduled to do underground work in the vicinity. Contractor is responsible for minor adjustments in the layout of the work to accommodate existing facilities.
- D. Protection of Existing Plants and Site Conditions: The Contractor shall take necessary precautions to protect site conditions to remain. Should damages be incurred, this Contractor shall repair the damage to its original condition at his own expense. Any disruption, destruction, or disturbence of any existing plant, tree, shrub, or turf, or any structure shall be completely restored to the satisfaction of the Currer and his representatives, solely at the Contractor's expense.
- E. Protection of Work and Property: The Contractor shall be liable for and shall take the following actions as required with regard to damage to any of the Owner's property.
- 1. Any existing building, equipment, piping, pipe coverings, electrical systems, sewers, sidewolks, roads, grounds, landscaping or structure of any kind (including without limitation, damage from leaks in the piping system being installed or howing been installed by Controtour) damaged by the Contractor, or by his agents, employees, or subcontractors, during the course of his work, whether through realigence or otherwise, softli be replaced or replaced by Contractor of his work, whether through realigned or otherwise, softli be replaced or replaced by Contractor of his our perpendent of contract of the contract
- 2. Contractor shall also be responsible for domage to any work correct by these specifications before final acceptance of the work. He shall accept soore all openings into the system cover all approximately, equipment and appliances, both before and offser being set in place to prevent obstructions on the pipes and the breadage, misuse or disflavement of the apparatus,

Buildings, walks, walls, and other property shall be protected from damage. Open ditches left exposed shall be flagged and barricaded by the Contractor by approved means. The Contractor shall restore disturbed areas to their original condition.

4. The Contractor shall be responsible for requesting the proper utility company to stake the exact location of any underground lines including but not limited to electric, gas, telephone service, water, and coble.

The Contractor shall take whatever precautions are necessary to protect these underground lines from damage. In the event damage does occur, all damage shall be completely repaired to its original condition, at no additional cost to the Ouner.

- 5. The Contractor shall request the Owner, in writing, to locate any private utilities (i.e., electrical service to outside lighting). before proceeding with any excavation. If, after such requests and necessary staking, private utilities which were not staked are encountered and damaged by the Contractor, they shall be repaired by the Owner at no cost to the Contractor. If the Contractor damages ackaded or located utilities, they shall be repaired at the Contractor's
- F. Codes and inspections: The entire installation shall comply fully with all local and state laws and ordinances and with all established codes arrange for all necessary inspections and shall pay all fees and sepreses in connection with some, as part of the work under this Cantract. Upon completion of the work, he shall furnish to the "Quare" all inspection certificates customarily issued in connection with the class of work involved.
- G. The Contractor shall keep on his work, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Owner, or Owner's representative.
- H. The superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor.
- The Owner's Londscape Architect or designated individual shall have full authority to approve or reject work performed by the Contractor. The Owner's Authorized Representative shall also have full authority to make field changes that are deemed necessary.
- J. Final Acceptance. Final acceptance of the work may be obtained from the Quarar upon the satisfactory completion of all work. Acceptance by the Londoscope Architect and/or Quarar in a way removes the Contractor of his responsibility to make further repairs, corrections and adjustments to eliminate any deficiencies which may late to elizowered.
- K. Guarantee: All work shall be guaranteed for one year from date of final acceptance against all defects in material, equipment and workmanship to the satisfaction of the Owner. Repairs, if defects in material, equipment and workmanship to the so required, shall be done promptly at no cost to the Owner
- 1. The guarantee shall also cover repair of damage to any part of the premises resulting from leaks or workmanking, to the satisfaction of the Quere. The Contractor shall not be responsible for work damaged by others. Repairs, if required, shall be done promptly. The guarantee shall state the name of the Quere, provide full guarantee terms, effective and termination date, name all license number of Contractor providing quarantee, address, and telephone number. It shall be signed by the chief executive of the Contractor of his liability under the guarantee. Such warranties shall only supplement the guarantee and the provided of the Contractor.
- 2.1f, within ten (10) days after mailing of written notice by the Quere to the Controdor nequesting repoirs or replicament resulting from a precord of surrently, the Controdor shall neglect to make or undertake with due diligence to make the same, the Quarer may make such repoirs of the Controdor's expense; provided, houseer, thic in the case of emergency where, in the judgment of the Querer, delay would case serious loss or damage, repairs or replacement thereof the during the cost thereof the controlled or and Controdor shall pay the cost thereof

- L. The Contractor shall provide full, 100% irrigation coverage in all areas designed with proposed plantings, in accordance with the site's governing permitting requirements and as designed.
- M. On-site Observation: At any time during the installation of the irrigation system by the Contractor, the Owner or Landscape Architect may visit the site to observe work underway. Upon request, the Contractor shall be required to underway especified work as directed by the Owner or material, workmanship or method of installation not meet the standards specified herein, the Contractor shall replace the work of this own expense.
- N. Norhomenhip. All usor's shall be installed by qualified, skilled personnel, proficient in the trades required, in a neath, noterity, and responsible manner until necognitise standards of unconformation. The Contractor shall have had considerable experience and demonstrated ability in the installation of spinisher irrigation systems of this type.

1.04 SUBMITTALS

- All materials shall be those specified and/or approved by the Landscape Architect.
- A. Product Data: After the award of the Contract and prior to beginning work, the Contractor shall submit for approval by the Owner and Landscape Architect, two copies of the complete list of public, mend-factures technical data, and installation instructions which he proposes to
- B. Commence no work before approval of material list and descriptive material by the Landscape Architect.
- C. Record Drawings: The Contractor shall record on reproducibles, all changes that may be made during actual installation of the system. Provide controller sequencing and control valve locations.
 - immediately upon installation of any piping, valves, uning, sprinkters, etc., in locations other than shourn on the original drawings or of sizes other than indicated, the Contractor shall clearly indicate such changes on a set of blueline prints. Records shall be made on a daily besis. All records shall be need and subject to the approval of the Quarte.
- The Contractor shall also indicate on the record prints the location of all wire splices, original or due to repair, that are installed underground in a location other than the controller pedestal remate control valve box, power source or connection to a valve-in-head sprinkler.
- 3. These drawings shall also serve as work progress sheets. The Contractor shall make neat and legible notations thereon daily as the work proceeds, showing the work as actually instal. These drawings shall be available at all times for review and shall be kept in a location designated by the Quarrie's Representative.
- Progress payment request and record drawing information must be approved by Landscape Architect before payment is made.
- 5. If in the opinion of the Owner or his representative, the record drawing information is not being properly or promptly recorded, construction payment may be stopped until the proper information has been recorded and submitted.
- . Before the date of the final site observation and approval, the Contractor shall deliver one set (copies) of reproducible record drawing plans and notes to the Londscape Architect. Record drawing information shall be approved by the Londscape Architect prior to submittal to Owner for final payments, including retentions.
- D. Operations and Maintenance Manuals: The Contractor shall prepare and deliver to the Owner, or his designated representative within ten (10) calendar days prior to completion of construction, a hard cover binder with three rings containing the following information:
- Index sheet stating the Contractor's address and business telephone number, list of equipment with name(2) and address(es) of local manufacturer's representative(s).
- 2. Catalog and parts sheets on every material and equipment installed under this Contract.
- Complete operating and maintenance instruction on all major equipment, include initial controller schedule and recommended schedule after establishment period.
- 4. Demonstrate to and provide the Quiner's maintenance personnel with instructions for major equipment and show evidence in writing to the Quiner, or his designated representative at the conclusion of the project that this service has been rendered.
- 1.05 EXPLANATION OF DRAWINGS
- A. Due to the scale of the drowings, it is not possible to indicate all offsets, fittings and sleenes which may be required. The Controctor shall carefully investigate the structural and friends conditions offseting all of the work and plan his work accordingly, furnishing such offsets, fittings and sleenes as may be required to meet such conditions.
- B. The drawings one generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between inrigation systems, planting and architectural features. Deviations shall be brought to the Landscape Architects attention.
- C. All work called for a on the drawings by notes or details shall be furnished and installed whether or not specifically mentioned in the specifications.
- performed, the Contractor shall assume full responsibility for any revision necessary
- E. If, in the opinion of the Londscope Architect, the labor furnished by the Contractor is incompetent inskilled, or unreliable, his equipment inadequate, improper or unsafe, or if the Contractor shall fall to continuously and diligentity execute the construction, the Landscape Architect or Ourser shall, in unriting, instruct the Contractor to remove all such causes of noncompliance and the Contractor shall promptly comply.
- F. The Contractor shall be responsible for full and complete coverage of all irrigation areas. The Londscape Architect shall be notified of any necessary adjustments at no additional cost to the Quiner. Any revisions to the irrigation system must be submitted and answered in unitien form, along with any change in Contract price. Loyout may be madified, if necessary to obtain coverage. Spacing not to exceed 60°C of the diameter.

PART III PRODUCTS

2 01 MATERIALS

Noterial and eiginment shall be supplied by the Contractor. No substitutions shall be alloued without the prior unitten approved of the Cumer/Landscope Architect. The Contractor shall respect of materials and eiginment. Those Items used in the installation found to be defective, impropried materials and eiginment. Those Items used in the installation found to be defective, improper materials and eigenment. Those Items used in the installation found to be defective, improper by the proper manner, as interpreted by the Quiner/Landscope Architect. The Contractor shall remove all damaged and defective pipe and eiginment from the site.

2.02 PIPING

- A. General Provisions: All materials throughout the system shall be new and in perfect condition unless otherwise directed by the Landscape Architect.
- B. Polyvinyl Chloride Pipe (PVC): (Where indicated on plan, use non-potable purple piping.)
- Laterals: PVC shall conform to the requirements of ASTM Designation D 2241, Class 1120 or 1220. All lateral piping less than 3° in diameter shall be Class 200 SDR-21.
- Main Line Under Pressure: PVC shall conform to the requirements of ASTM Designation D 224l, Class 1120 or 1220, Schedule 40 with belled end for solvent weld connection.
- - o Normal ripe Size
 o Schedule or Class
 o Pressure Rating of PSI
 o NSF (National Sanitation Foundation) Approval
 o Date of Extrusion
- 2.04 PVC JOINTS

Joints in PVC pipe smaller than $3^{\rm f}$ shall be solvent welded in accordance with the recommendations of the pipe manufacturer; the solvent cleaner and welding compound furnished

2.05 THREADED CONNECTIONS

- A. Threaded PVC connections shall be made up using Teflon tape only.
- B. Connection between mainline pipe fittings and automatic or manual control valves shall be made using Schedule 80 threaded fittings and nipples.

- A. General: Provide solvent cement and primer for PVC solvent weld pipe and fittings recommended by the manufacturer. Pipe joints for solvent weld pipe to be belied end. Pipe joints for gasketted pipe to be intrical ring type. Insert gaskets will not be accepted.
- B. Thrust Blacks: Mol line piping 3" or greater in diameter shall have thrust blacks stand and aloaded in accordance with the pipe manufacturer's recommendations or, in the observace if specified recommendations by the pipe manufacturer. 3000 PBI cancette thrusts shall be properly installed of tees, ellows, 45%, crosses, reducers, piles, cops and volvies.

2.07 PIPE AND WIRE SLEEVES

1. The Contractor shall install irrigation system pipe and wire sleeves conforming to the following

- a. All pipe sleeves shall extend a minimum of 36" beyond the edges of payement.
- All pipe sleeves to be installed beneath future/existing road surfaces shall be PVC pipe Schedule 40 or jack and bore steel pipe as per FDOT specifications, and as shown an
- c. All irrigation system wires shall be sleeved seperately from main or lateral lines.
- d. All pipe sleeves shall be installed at the minimum depth specified for main lines, lateral lines, and electric wire.
- Contractor shall coordinate all pipe sleeve locations and depths prior to initiating installation of the irrigation system.

2 08 SPRINKLER MEADS

A. Sproy Sprinklers: The sprinkler shall be a fixed sproy type designed for in-ground installation. The noztle shall elevate 6" (or as designated on plan) when in operation. The body of the sprinkler shall be constructed of non-corneaive heavy day't cycloic. A filter screen shall be the noztle piston. All sprinkler parts shall be removable through the tip of the unit by rer of a threaded cap.

Riser mounted spray shall be as indicated on the plans. The sprinkler shall consist of a nazzle and body. The body of the riser-mount sprinkler shall be constructed of non-corresive materials. A cone strainer shall be a separate part with the nazzle assembly to allow for easy flushing of the sprinkler. Maximum working pressure at the base of the sprinkler shall be 40 PSI.

(continued...)

Digitally

The automatic remote control valves shall be as specified on the plans, or approved equal.

2.10 GATE VALVES

- A. Gote valves for 3/4" through 2-1/2" shall be of bross or bronze construction, solid wedge, IPS threads, non-rising stern with wheel operating handle, for a continuous working pressure of 150 PSI.
- B. Gate valves for 3" and larger: Iron body, brass or bronze mounted ANNA gate valves, with a clear waterway equal to the fill norminal diameter of the valve, rubber gasket for a continuous working pressure of 150p PSI. Valve shall be equipped with a square operating nut.

2.11 VALVE BOXES

- A. For gate valves, use AMETEK #10-181-014 box with #10-181-015 tacking tid, or as per the drawings.
- B. For control valves 3/4" through 2", the drip valve assemblies, use AMETEK #10-181-014 box with #10-181-015 tocking tid, or sized as necessary to effectively house the equipment
- C. For control wiring splices, use AMETEK #10-181-014 box with #10-181-015 lacking lid, or as per the
- 2,12 IRRIGATION WIRING
- A. Wining used for connecting the electric control valves to the controllers shall be Type UF, 600 volt, single strand, solid copper with PVC insolution 4/64° thick. Size shall be 14 gauge, red for "not" or lead wires, and common wire to be 14 gauge, withe in color.
- B. Contractor shall perform an ohm test on ground to assure adequate protection against surges and indirect lightning strikes.

2.13 MISCELLANEOUS MATERIALS

- A. Drainage Backfilli Cleaned grayel or crushed stone, graded from 1" maximum to 3/4" minimum.
- B. Helalized Underground Tope: The detectable, underground utility marking tape shall consist of a minimum: 5 mil (0.005) averall thickness; five-ply composition; utra-high molecular usight, 100% virgin polyethylenic acid, alkaline and corrosion resistant; with no less than 150 pounds of tensile brack strength per 6° width; color-code impregnated with color stable, lead-free, organic pignents suitable for direct buriol. Topes utilizing reprocessed plastics or resins shall not be acceptable. The detectable, underground utility marking tape shall have a 35 gauge (0.0035) solid aluminum foil, core encognitional within a 2.55 mil (0.0025) solid plantimum foil, core acceptable with no 2.55 mil (0.0025) solid plantimum foil, core acceptable with minimation each side shall consist of a 0.1% mil (0.00074) layer of hat LPDE, poly-lusing the "sendulor" without was of adhelives.
- 2.14 AUTOMATIC CONTROL SYSTEM

An independent Station Controller: Furnish a solid state controller, as specified on the plans. Each station shall be capable of timing from zero (0) minute to 99 minutes per station in one (1) minute increments.

Each station shall be capable of operating two (2) TVA electric valve-in-head solenoids.

The stand-alone controller shall have two (2) possible programs.

The stand-alone controller shall provide global percentage increase/decrease (water budget) for all stations simultaneously, from ten (10) to two hundred (200) percent, in ten (10) percent increments.

All stations shall be able to be turned on/off manually buy operating timing mechanism or by manual switch at station output.

The stand-alone controller shall incorporate an integral MOV surge protection into the terminal block for each of its 24 VAC field wire outputs. Controller power input wires will also

The control panel shall provide continuous display time. It shall have alphanumeric displays of descriptive English menus and legend identifiers with cursor selection of function and precision value adjustment by rotary dial input.

The stand-alone controller shall be UL listed and FCC approved.

The stand-alone controller shall have 117 VAC, 60 Hz input, 26.5 VAC, 60 Hz output for operating 24 VAC solenoids.

The stand-alone controller cabinet shall be a lockable and weather-resistant outdoor cabinet. Mount as noted on plans,

The controller shall be equipped with lightening protection, by the Contractor, on both the primary (120 γ) and each secondary (24 γ) circuit. The controller circuits shall be grounded to a copper clad grounding roal located at each controller.

The controller shall be equipped for a water conservation device, as specified

PART III: EXECUTION

3 OI INSPECTION

The Contractor shall exemine the areas and conditions under which landscape irrigation system is to be installed and notify the Landscape Architect in uniting of conditions detrimental to the proper and timely completion of the work. The Contractor shall proceed with the work until unstallisticatory conditions have been corrected in a manner acceptable to the Landscape Architect.

3.02 PREPARATION

The Contractor shall provide sleeves to accommodate piping under walks or paving. The Contractor shall coordinate with other trades and install to accurate levels prior to paving work. Cutting and patching of poving and concrete will not be permitted. The Contractor shall moditatin all worning signs, sharing, barricades, flares and red lanterns, as required by any local cades, ordinances or permits.

3 03 TRENCHING AND BACKFILLING

A. Excavation: The Contractor shall stake out the location of each run of pipe, sprinkler heads, sprinkler bridge from the prior of the prior of

Pipe and Wire Depth

Pressure Moinline
Lateral Piping (rotor)
Lateral Piping (pop-up)
Cantrol Nining (pop-up)
Side of main Line

B. Minimum Clearances: All pipelines shall have a minimum clearance of six inches from each other and from lines of other crafts. Parallel lines shall not be installed directly over one another. No lateral line shall be installed in the main-line trench.

3.04 INSTALLATION OF PIPING

- A. PVC Pipe and Joints: The Contractor shall not install solvent wild pipe when air temperature is below 400 F. Installation shall be in accordance with the manufacturer's instructions.
 - 1. Only the solvent recommended by the pipe marufacturer shall be used. All PVC pipe and fittings shall be installed as autilined and instructed by the pipe marufacturer, and it shall be the Contractor's full responsibility to make arrangements with the pipe marufacturer for any field assistance that may be necessary. The Contractor shall assume full responsibility for the correct installation.

3.05 BACKFILLING PROCEDURES

initial backfill on PVC lines shall be sulverised native soil, free of familiar matter. Within radius of of the pipe shall be clare soil or eard. Plant locations shall take precedence over sprinkter and pipe locations. The Centractor shall coordinate the location of trees and shrubs with the routing of lines and final head locations.

A. Backfill and Compaction: The Contractor shall leave trenches slightly mounded to allow for settlement after the backfilling is completed. The Contractor shall clean the site of the work continuously of excess usate materials as the backfilling progresses, and leave in a next condition. No trenches shall be left open for a period of more than 48 hours. Protect open trenches as required.

The Contractor shall carefully backfill excavated materials approved for backfilling, consisting of earth, loarn, sand, and other approved materials, free of rock and debris over 11 in size. Backfill shall be compacted to original density of surrounding soil uithout dips, sunken areas, or

The Contractor shall conform to DOT requirements for methods and required compaction percentages, for roads and paying.

The Contractor shall hand place the first 6" of backfill (or to top of pipe) and have it walked on so as to secure the position of the pipe and wire.

No wheel rolling will be allowed. The Contractor shall remove rack or debris extracted from backfill materials and dispose of offsite. The Contractor shall fill any voids left in backfill with approved backfill materials.

- B. Existing Lourns: Where trenching is required across existing lourns, uniformly out strips of sod 6st wider than trench. The Contractor shall remove sod in rolls of suitable size for handling and keep moistened until replanted. The Contractor shall replant sod within 48 hours of the removal, roll and water generously. The Contractor shall resod any areas not in healthy condition equal to adjoining laurus 10 days after replanting.
- C. Seeded Area: Trenching will be required across existing seeded areas, primarily roadway edging. The Contractor shall conform to the requirements of seeding, Section 02930 for the reseeding of the disturbed trench area.
- D. Pavements: Jack and bore or directional bore piping under paving materials as per local regulatory codes. No cutting and patching of povement will be permitted.

3.06 VALVES

- A. selotion Volves: Short be sized corresponding to edipcent pipe size. Specified volve boxes shall be installed flues with finish grade in such a morner that surface forces applied to their exposed area will not be transmitted to the piping in which the valve is installed nor any other piping, wiring or other lines in the vicinity of soid volves.
- B. Gate Valves: Install where shown, in valve boxes.
- C. Electric Control: Volvers Shall be installed in specified volve bores. The valve shall have 61 of 3.2/11 page grown installed shall be bettom or the valve. In the valve box dose not extend to the bose of the valve, a valve box extension shall be installed. Electric control valves shall be installed uhere shown and grouped together uhere procision. The Contractor shall place no closer than 24' to walk edges, biliseusy edges, buildings and walls. The Contractor shall adjust the valve to provide flour note or road operating pressure required for each sprinkter circuit.

3.07 CONDUIT AND SLEEVES

A. Conduit and Sleeves for Control Wining and Main/Lateral Pipe: The Contractor shall provide and install where necessary. Contractor shall coordinate locations of previously installed sleeving with the General Site Contractor.

The Contractor shall coordinate installation of sleeves with work of other disciplines

3.08 CONTROLS

- A. The Contractor shall cornect electric control values to controllers in a clockulae sequence to correspond with station settings beginning with Stations 1, 2, 3, etc. Automatic controllers shall be provided and installed by the Contractor as noted on the drawings. All zones will be tabeled on the controller.
- B. Controllers shall be equipped with lightning protection and grounded to a standard 5/8" copper clad steel ground rod driven a minimum of 8' into the ground and clamped.
- C. The electrical service to the controllers shall be performed by an electrical subcontractor in compliance with NEC requirements,

3.09 CONTROL WIRE

- A. Control using between the controller and electric values shall be buried in main line trenches or in separate trenches. Electrical connection at valves will allow for pital's a soleratio at one removed from volve with sufficient slack to allow ends to be pulled 12" above ground for examination and cleaning.
- B. An expansion loop shall be provided at every valve at 100° o.c. Expansion loop shall be formed by urapping wire at least eight times around a 3/4° pipe and withdrawing pipe.
- C. The wire shall be bundled and taped every ten feet. The wire shall be lold in the trench prior to installing the pipe being careful to install wire beneath and 6" to the side of the main pipe line.
- D. Electrical connections to electric control valves shall be made with Rainbird Pen-Tite or Techdel GT-3-GEL - Tite connectors or equal.

Power Connections: Electrical connections to power and signal wires shall be made using 3M 82-A2 power cable splice kits.

3.10 SPRINKLER HEADS

. General Provisions:

- Sprinkler heads shall be installed as designated on the shop drawings. Heads shall be installed on flexible PVC. Top to be flush with finish grade or top of curb.
- Spacing of heads shall not exceed the maximum indicated on the shap drawings (unless directed by the Landscape Architect). In no case shall the spacing exceed the maximum recommended by the manufacturer.

B. Head Types:

- Pop-up- Rotory Sprinkler Heads: Shall be installed on flex joint and be set with top of head flush with finish grade. Heads installed of curb shall have 6" to 10" between perimeter of head and concrete. Heads placed at edge of povement having no curb shall be installed 24" from edge.
- 2. Spray Pop-up Sprinkter Heads. Shall be installed on Flexible PVC and be set with top of head Flush with Finished grade. Sprinkter heads pleade adjacent to curbe will be installed 4" from concrete. Sprinkter heads pleade adjacent to povement having no curb shall be installed 24" from the edge of povement.

3.11 COMPLETION

A. Flushing: Before sprinkler heads are set, the Contractor shall flush the lines thoroughly to make sure there is no foreign matter in the lines.

The Contractor shall flush the main lines from dead end fittings for a minimum of five minutes under a full head of pressure.

B. Testing: The Contractor shall notify Landscape Architect and Owner forty-eight (48) hours in advance of testing.

Prior to bookfilling of main line filtings, Contractor shall fill the main line piping with water, in the presence of the Cuner/Lordscope Architect, Loking care to pring the air from it by the presence of the Cuner/Lordscope Architect, Loking care to pring the air from it by the presence purp or other means of maintaining a continuous water supply shall be connected to the main line and set so as to maintain 100 PSI in the main line system for two (2) hours without interruption. When this hose been accomplished and while the Akikla Standard C-600. Pressure readings shall be noted and make up water usage shall be forced and make up water usage shall be forced and make up water usage shall be forced and the system of the s

C. Adjustment and Coverage of System: Coordinate pressure testing with adjustments and coverage test of system so both may occur at the same time. The Contractor shall balance and adjust efficient. This includes a synchronization of the controllers, adjustments to pressure regulators, pressure relief values, part circle sprinkler heads, and individual station adjustments on the controllers.

3.12 WARRANT

- A. The Contractor shall fully uncrent the landscape irrigation system for a period of one (1) year ofter the written final acceptance and will receive a written confirmation from the Landscape Architect that the uncrenty period is in effect.
- B. During the warranty period, the Contractor will enforce all manufacturer's and supplier's warranties as if made by the Contractor himself. Any malfunctions, deficiencies, breaks, damages, disreppir, or or their disorder due to materials, warkraneship, or installation by the Contractor and his suppliers shall be immediately and properly corrected to the proper order as directed by the Course and/or Londonce Architect.
- C. Any damages caused by system malfunction shall be the responsibility of the Contractor who shall make full and immediate restoration for said damages.

No. REVISONS DATE BY

Kimley » Horr © 2018 FMLY-HOR AD ASSOLIES, NC. 116 SOUTH KENTUCK AND ASSOLIES, NC.

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IRRIGATION NOTE

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TREASURE COAST CLASSICAL ACADEMY REPARED FOR SUMMIT CONST. GROUP