BEFORE THE BOARD OF COUNTY COMMISSIONERS MARTIN COUNTY, FLORIDA

RESOLUTION NO. 04-2.5

A RESOLUTION AUTHORIZING EXECUTION OF FDOT DISTRICT FOUR (4) MAINTENANCE MEMORANDUM OF AGREEMENT FOR THE MAINTENANCE OF LANDSCAPING FOR STATE ROAD 732 (JENSEN BEACH CAUSEWAY) FROM STATE ROAD 707 TO STATE ROAD A1A

WHEREAS, the Board of County Commissioners, Martin County, Florida, agree that enhanced landscaping associated with FDOT roadways are of benefit to the citizens of Martin County; and

WHEREAS, the Florida Department of Transportation (FDOT) has agreed to furnish and install the landscaping for SR 732 (Jensen Beach Causeway) from SR 707 to SR A1A; and

WHEREAS, it is necessary for the Board of County Commissioners to authorize execution of an FDOT District Four (4) Maintenance Memorandum of Agreement, which outlines the County's maintenance responsibilities for the landscaping for SR 732 (Jensen Beach Causeway) from SR 707 to SR A1A.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners, Martin County, Florida, that Martin County hereby agrees to enter into the above referenced FDOT District Four (4) Maintenance Memorandum of Agreement, and authorizes the execution thereof.

DULY PASSED AND ADOPTED ON THIS 10th DAY OF FEBRUARY, 2004.

ATTEST:

MARSHA EWING, CLERK

BOARD OF COUNTY COMMISSIONERS

MARTIN COUNTY, FLORIDA

OUG SMITH, CHAIRMAN

APPROVED AS TO FORM AND CORRECTNESS

STEPHEN FRY, COUNTY ATTORNEY

DISTRICT FOUR (4) MAINTENANCE MEMORANDUM OF AGREEMENT

THIS AGREEMENT, made and entered into this 10 day of Local 2014 by and between the STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, a component agency of the State of Florida, hereinafter called the DEPARTMENT and MARTIN COUNTY, a political subdivision of the State of Florida, existing under the Laws of Florida, hereinafter called the AGENCY.

WITNESSETH:

WHEREAS, the DEPARTMENT has jurisdiction over State Road 732 as part of the State Highway System; and

WHEREAS, as part of the continual updating of the State of Florida Highway System, the Department, for the purpose of safety, protection of the investment and other reasons, has constructed and does maintain a two (2) lane highway facility as described in Exhibit A attached hereto and incorporated by reference herein, within the corporate limits of the AGENCY; and

WHEREAS, the AGENCY is of the opinion that said highway facilities that contain landscape medians and areas outside the travel way to the right of way line, excluding standard concrete sidewalk, shall be maintained by periodic trimming, cutting, mowing, fertilizing, litter pick-up and necessary replanting; and

WHEREAS, the parties hereto mutually recognize the need for entering into an Agreement designating and setting forth the responsibilities of each party; and

WHEREAS, the AGENCY by Resolution No $\underline{04-2.5}$ dated $\underline{2-10}$, $\underline{200+}$, attached hereto and by this reference made a part hereof, desires to enter into this Agreement and authorizes its officers to do so;

NOW THEREFORE, for and in consideration of the mutual benefits to flow each to the other, the parties covenant and agree as follows:

- 1. The **DEPARTMENT** hereby agrees to install or cause to be installed landscape, irrigation and/or hardscape(s) on the highway facilities as specified in plans and specifications hereinafter referred to as the Project; and incorporated herein as Exhibit B. Hardscape(s) shall mean any non-standard roadway, sidewalk or median surface such as, but not limited to interlocking pavers, stamped asphalt and stamped concrete.
- 2. The AGENCY agrees to maintain the landscape within the medians and areas outside the travel way to the right of way line by periodic trimming, cutting, mowing, fertilizing, curb

and sidewalk edging, litter pickup and necessary replanting, following the **DEPARTMENT**'s landscape safety and plant care guidelines. The **AGENCY'S** responsibility for maintenance shall include all landscaped/turfed areas and areas covered with interlocking pavers or similar type surfacing (hardscape) within the median and areas within the travel way to the right of way line, including paver sidewalks, paver intersections and all paver header curbs, stamped asphalt and concrete areas. It shall be the responsibility of the **AGENCY** to restore an unacceptable ride condition of the roadway caused by the differential characteristics of the paver brick and/or the header curb on Department of Transportation right-of-way within the limits of the Project.

Such maintenance to be provided by the AGENCY is specifically set out as follows: To maintain, which means the proper watering and fertilization of all plants and keeping them as free as practicable from disease and harmful insects; to properly mulch the plant beds; to keep the premises free of weeds; to mow and/or cut the grass to a proper length; to properly prune all plants which includes (1) removing dead or diseased parts of plants, or (2) pruning such parts thereof which present a visual hazard for those using the roadway. To maintain also means removing or replacing dead or diseased plants in their entirety, or removing or replacing those that fall below original project standards. All plants removed for whatever reason shall be replaced by plants of the same size and grade as specified in the original plans and specifications. To maintain also means to keep the hardscape areas free from weeds and replacement of any areas becoming in disrepair so as to cause a safety hazard. To maintain also means to keep litter removed from the median and areas outside the travel way to the right of way line. Plants shall be those items that would be scientifically classified as plants and include but are not limited to trees, grass, or shrubs. All debris arising from maintenance activities is to be properly removed from the roadway right of way without using the roadway's storm water drainage system for disposal.

If it becomes necessary to provide utilities (water/electricity) to the median or side areas for these improvements, the AGENCY shall be responsible any fees associated with the installation and maintenance of these services.

The above named functions to be performed by the AGENCY may be subject to periodic inspections by the **DEPARTMENT** at the discretion of the **DEPARTMENT**. Such inspection findings will be shared with the AGENCY and shall be the basis of all decisions regarding repayment, reworking, or agreement termination. The AGENCY shall not change or deviate from said plans without written approval of the **DEPARTMENT**.

3. If at any time after the AGENCY has assumed the landscape installation and/or maintenance responsibility above-mentioned, it shall come to the attention of the DEPARTMENT's District Secretary that the limits or a part thereof is not properly maintained pursuant to the terms of this Agreement, said District Secretary may at his option issue a written notice that a deficiency or deficiencies exist(s), by sending a certified letter to the AGENCY, to place said AGENCY on notice thereof. Thereafter the AGENCY shall have a period of thirty (30)

calendar days within which to correct the cited deficiencies. If said deficiencies are not corrected within this time period, the **DEPARTMENT** may at its option, proceed as follows:

- (a) Maintain the landscape or a part thereof, with **DEPARTMENT** or contractor's personnel and invoice the **AGENCY** for expenses incurred, or
- (b) Terminate the Agreement in accordance with Paragraph 7 of this Agreement and remove, by **DEPARTMENT** or contractor's personnel, all of the landscape/hardscape installed under this Agreement or any preceding agreements except as to trees and palms and charge the **AGENCY** the reasonable cost of such removal.
- 4. It is understood between the parties hereto that the landscape covered by this Agreement may be removed, relocated or adjusted at any time in the future as determined to be necessary by the **DEPARTMENT** in order that the adjacent state road be widened, altered or otherwise changed to meet with future criteria or planning of the **DEPARTMENT**. The **AGENCY** shall be given sixty (60) calendar days notice to remove said landscaping after which time the **DEPARTMENT** may remove same.
- 5. The **DEPARTMENT** agrees to enter into a contract for the installation of landscape project for an amount not to exceed \$ 1,176,894.80 as defined in Exhibit C.
 - The **DEPARTMENT**'s participation in the project cost, as described in Exhibit C is limited to only those items that are directly related to this project. The **AGENCY** shall be invited to assist the **DEPARTMENT** in final inspection at the end of the Contractor's 365 day warranty and establishment period.
- 6. The AGENCY agrees to reimburse the **DEPARTMENT** all monies expended for the project, should the landscape/hardscape areas fail to be maintained in accordance with the terms and conditions of this Agreement.
- 7. This Agreement may be terminated under any one (1) of the following conditions:
 - (a) By the **DEPARTMENT**, if the **AGENCY** fails to perform its duties under Paragraph 3, following ten (10) days written notice.
 - (b) By the **DEPARTMENT**, for refusal by the **AGENCY** to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the **AGENCY** in conjunction with this Agreement.
- 8. The term of this Agreement commences upon execution.

- 9. To the extent permitted by law, the AGENCY shall indemnify and hold harmless the **DEPARTMENT**, its officers and employees from all suits, actions, claims and liability arising out of the AGENCY's negligent performance of the work under this agreement, or due to the failure of the AGENCY to maintain the Project in conformance with the standards described in Section 2 of this Agreement.
- 10. The AGENCY may construct additional landscape/hardscape within the limits of the rights-of-ways identified as a result of this document, subject to the following conditions:
 - Plans for any new landscape/hardscape shall be subject to approval by the **DEPARTMENT**. The **AGENCY** shall not change or deviate from said plans without written approval by the **DEPARTMENT**.
 - (b) All landscape shall be developed and implemented in accordance with appropriate state safety and road design standards;
 - (c) The AGENCY agrees to comply with the requirements of this Agreement with regard to any additional landscape installed;
 - (d) No change will be made in the payment terms established under item number five (5) of this Agreement due to any increase in cost to the **DEPARTMENT** resulting from the installation of landscape added under this item.
- 11. This writing embodies the entire Agreement and understanding between the parties hereto and there are no other agreements and understanding, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby.
- 12. The **DEPARTMENT**, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The **DEPARTMENT** shall require a statement from the Comptroller of the **DEPARTMENT** that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding 1 year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years; and this paragraph shall be incorporated verbatim in all contracts of the Department which are for an amount in excess of TWENTY FIVE THOUSAND DOLLARS (\$25,000.00) and which have a term for a period of more than 1 year.
- 13. The **DEPARTMENT**'s District Secretary shall decide all questions, difficulties and disputes of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution or fulfillment of the service hereunder and the character, quality, amount and

value thereof; and his decision upon all claims, questions and disputes shall be final and conclusive upon the parties hereto.

- 14. This Agreement may not be assigned or transferred by the AGENCY in whole or part without the consent of the **DEPARTMENT**.
- 15. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. In the event of a conflict between any portion of the contract and Florida law, the laws of Florida shall prevail.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective the day and year first above written.

AGENCY
MARTIN COUNTY

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

By: Doug Smith
Title: Chairman

District Secretary

Attest: Clerk

Attest: Morra Chin

Approval as to Form

Approval as to Form

Date

Date

Stephen Fry, County Attorney

m 3/1/

K BK 01879 PG 015:

SECTION NO.:

89030000

FM NO.(s):

228758-1-52-01

COUNTY: S.R. NO.: Martin 732

EXHIBIT A

PROJECT LOCATION:

State Road 732 from State Road 707 (M.P. 26.800) to State Road A1A (M.P. 28.406)

SECTION NO.:

89030000

FM NO.(s):

228758-1-52-01

COUNTY: S.R. NO.: Martin 732

EXHIBIT B

The Department agrees to install the Project with a contractor in accordance with the plans and specifications attached hereto and incorporated herein.

Please see attached plans prepared by: Cotleur Hearing

1934 Commerce Lane, Suite 1

Jupiter, FL 33458.

dated: September 7, 2001

Please see attached plans.

SECTION NO.:

89030000

FM NO.(s):

228758-1-52-01

COUNTY: S.R. NO.:

Martin 732

EXHIBIT C (GENERAL)

PROJECT COST

| MEMOR | This Exhibit forms an integral part of the DISTRICT FOUR (4) HIGHWAY MAINTENANCE MEMORANDUM OF AGREEMENT between the State of Florida, Department of Transportation and the AGENCY. | | | | | | | | | | | | | |
|-------|---|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Dated | | | | | | | | | | | | | | |
| I. | APPROXIMATE LANDSCAPE COST: | \$ <u>1,176,894.80</u> | | | | | | | | | | | | |
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

W.P.I. NO. 4116228

SHEET NO. 02 LD-1

CONTRACT PLANS

FINANCIAL PROJECT ID 228758-1-52-01 (FEDERAL FUNDS) MARTIN COUNTY (89030) STATE ROAD NO. 732 JENSEN BEACH CAUSEWAY

INDEX OF LANDSCAPE PLANS

| SHEET NO. | SHEET DESCRIPTION |
|-----------|-------------------------------------|
| LD-1 | KEY SHEET |
| LD-2-3 | TABULATION OF QUANTITIES |
| LD-4 | GENERAL NOTES |
| LD-5 | PROJECT LAYOUT |
| LD-6-19 | LANDSCAPE PLANS |
| LD-20-21 | LANDSCAPE DETAILS |
| ID-1 | IRRIGATION TABULATION OF QUANTITIES |
| ID-2-3 | IRRIGATION NOTES |
| £0-4-5 | IRRIGATION DETAILS |
| In-e-19 | IDDICATION OF THE |

GOVERNING STANDARDS AND SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2000 AS AMENDED BY CONTRACT DOCUMENTS.

DATED JANUARY 2000 AND

LANDSCAPE AND IRRIGATION PLANS

LANDSCAPE AND IRRIGATION PLANS ENGINEER OF RECORD: ROBERT J. COTLEUR, ASLA LA. NO. 1067 1934 COMMERCE LANE SUITE 1 JUPITER, FLORIDA 33458

PLANS PREPARED BY:



Cotleur Hearing 1934 Commerce Lane Suite 1 Jupiter, Florido 33458 561-747-6336 Fax-747-1977

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED BY REPRODUCTION.

KEY SHEET REVISIONS DATE BY DESCRIPTION

NOTE: THIS IS A METRIC UNIT PROJECT

LANDSCAPE PLANS LANDSCAPE ARCHITECT OF RECORD:

R.L.A. NO.: _____

PROJECT MANAGER: JOSEPH BORELLO, P.E.

FRANCIAL PROJECT NO.

228758-1-52-01 | 89030-3535 | LD-2 **TABULATION OF QUANTITIES (SHEET 1 OF 2)** ET NUMBE SPECIFICATIONS UNIT LD-6 10-7 10-0 1.0.10 LD-11 TOTAL THIS SHEET ORIG ONG FINAL ORIG FINAL ORIG FINAL DRIG FINAL ORIG MISC. GRAVEL FILL SEE PAY ITEM FOOTMOTE SHEET I D.4 7 37 26 114 PRISH SOL LAYER SEE PAY ITEM FOOTNOTE SHEET LINA 162 392 1399 908 458 172 386 3748 FENCING, SPECIAL SEE PAY ITEM POOTNOTE SHEET LD-4 101 391 320 212 14 1006 DIRECTIONAL BORE SEE PAY ITEM POOTNOTE SHEET LD-4 81 20 20 PERTURER FOR GRASSING SEE PAY ITEM FOOTNOTE SHEET LD-4 MT 0.03 0.34 0.38 0.19 0.07 9.03 0.24 1.28 WATER FOR GRAZING SEE PAY ITEM FOOTNOTE SHEET LD-. 2671-1-11 EROSION FASSISC SEE PAY ITEM FOOTNOTE SHEET LOA 162 727 455 122 1384 2676-1-4 \$00 (BERMUDA) SEE PAY ITEM POOTNOTE SHEET LD-4 102 800 7500 8438 4125 1600 708 **5250** 28213 2500-173 BED PREPARATION SEE PAY ITEM FOOTNOTE SHEET LD-4 MZ 748 1834 908 466 172 34 395 4539 2886-361-1 STAKING & GUYING (TREES) SEE PAY ITEM FOOTNOTE SHEET LD-4 EA 13 129 -45 23 7 61 344 STARING & GUYING (PALMS) SEE PAY ITEM POOTNOTE SINGET LO 2 20 217 167 29 35 17 **59** 582 3590-336-4 MULCH SEE PAY ITEM POOTNOTE SHEET LD-4 M2 745 1932 112 627 214 59 444 4915 GROUNDCOVER SEE PAY ITEM FOOTNOTE SHEET LD-4 ga. 2143 EN (Euphorbis mill Rosy' (Pink) - Dwt. Crown of Thoms 4L-EL CONT. 0.28M OA X 6.3M SPR. 0.5M OC 6 MD (Helianthus dabilla - Dune Syrabover AL-AL CONT, A 2M GA X 63M BFR, 63M GC 100 178 911 MLJ Multienburgin capillaris - Darf, Multiy Grass N. S. CONT. D.3M CA. X A.3M JOST & SM. CC. 921 100 244 2232 9481100 SEE PAY ITEM FOOTHOTE SHEET LD-4 **6**643 CS Compositions erectus var. sertcaus - Silver Buttorwood THE CONT. DAM ON X 0.5M SPR, 0.78M OC 211 112 185 82 804 Ci Citryeobalanus Idaco - Cocopium 11L CONT. GUIN DA X G.IM BPR, G.76M OC 33 443 232 129 163 1172 CID | Chrysolinianum lonco - Dwerf Hobe Sound Cocopium 111. CONT. B.ZSM OA X 0.5M SPR. ARM OC 204 31 235 CU Countable uniform - Sengrape IL CONT, D.M. CA X G.M. SPR, D.TEM OC 414 166 26 67 186 649 ill line vocalions - Yeucon Holy SIL CONT, BANDA X BANDERFIL, BANDO 210 169 184 81 644 N | Sex vontions Name' - Dearf Yaupon Holly STIL CONT, DOM ON X DUSM SPR. DUSM OC 263 244 115 82 131 每 884 JP Junipurus Chinerals Personii 115. CONT. B.25M DAX B.3M SPR. BURN CO. 78 118 196 Rimphiologis Indice - Indian Heatherns TIL CONT, \$25M OAX \$3M SPR, BANGO 171 76 247 YE Yucca stolicita - Sounist: Bevorate SELECTION CAN BE SELECTED FOR 12M DC . SR Serence repera - Saw Palmetto 25L CONT, SUM OAX SUM SPR, 1,6M OC 179 139 99 60 303 SEE PAY ITEM FOOTNOTE SHEET LD-4 346 25 Burera simanuba - Gumbo Umbo 3.5M OA X 3.0M SPR, 8.079M CAL, 1.5M CT 13 24 11 12 60 CE Green Buttorwood 3.5M QA X JUNESPR, G.075M CAL, 1.8M CT 7 12 4 3 33 CES Silver Bullionwood 1.5H OA X 1.0H 8PR, 0.075H CAL, 1.5H CT 15 12 7 41 CLR Chusia rosso - Pitch Apple 3.0M QA X 2.1M SPR 0.13M CAL 7 4 21 CU1 | Coccioba uvillera - Seagrape 1.5H CAX 1.0H SPR 0.075H CAL, 1.5H CT 42 17 12 11 120 CD Cocolobe diversibile - Pigeon Plum LON OAX LON SPR, 0.075M CAL, 1.5M CT 17 12 6 4 2 14 66 HM Noronhia emerginata - Madagascar Olive A SM CA X 3 PM SPR, BOTSM CAL, 1,EM CT. 10 ---- 9---3 23 TA Tebebula argumas - Yellow Tabebula 1.5M OA X 3.5M SPR 0.075M CAL 1.5M CT 6 3 6 13 SINGLE TRUNK PALMS (MEDIUM) SEE PAY ITEM FOOTNOTE SHEFT LD.4 598 SP | Sabal pairmatio - Sabal Peiro 1 CM - NOW STIG HOT, SCOTED TRUNK, STRAIGHT 7 112 104 76 27 341 SPC | Satel paimetto - Curved Trunk Sabel Palm 3.0% - 6.0M STG HGT, BOOTED TRUNK, CURVED 7t 29 4 44 148 WR. Washingtonia retusta - Washington Pales S.OM - S.OM STG HGT, FAT TRUNK, STRAIGHT 13 28 24 13 . . 16 109 CLUMP TYPE PALMS (MEDIUM) SEE PAY ITEM FOOTNOTE SHEET LD-4 22 CH Chammarops humilis - European Fan Pains 2.8H CA X 1.8M SPR, 3 STEMB 38H W/ 1.0L/ CT M 13 PW Acceleratesphe weight - Paurots Pain SOM OA X 4.8M EPP, PURL MULTI-STEM 4 6 • IRRIGATION SYSTEM SEE PAY ITEM FOOTHOTES SHEET LD-4 1 2639-1-22 ELECTRIC SERVICE SEE PAY ITEM FOOTNOTES SHEET LD-4 AS 1 2721-74-1 TRASH RECEPTACLE SEE PAY ITEM FOOTNOTES SHEET LD-4 EA 2 7 1 2 18 2721-78-1 SENCH SEE PAY ITEM FOOTNOTES BHEET LD-4. ĒA 3 2 . 4 2. 3 20 BRIE RACK SHE PAY ITEM FOOTHOTHE SHEET UD-4 ĒA 2

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| | | 11L CONT, 8.25M OA X 0.3M SPR. 9.6M OC | | | | | | | | | — † | | | | | 66 | | 54 | | 303 | | | |
| — —— | | 191-291. CONT, GAM CA X S.IM SPR, 1.3M CC | Щ | | | | | | | | | | | | | 6 | | 6 | | -5 | | | • |
| 2683-7 | | 28L CONT. 4.8M OA X 0.8M SPR, 1.6M DC | | 84 | | 23 | | | | | | | | | | | | 107 | — † | 612 | | | |
| 2863-1 | 1 i_ i | SEE PAY ITEM FOOTHOTE SHEET LD-4 | EA | | | | | | | | | | | | 1 | 1 | | 116 | | 482 | | | |
| | | 3.5M CA X 3.6M 8PR, 8.075M CAL 1.5H CT | <u> </u> | 3 | | | | | | | | | | | | $\neg \neg$ | | 3 | | 63 | | | |
| | i _ i | 1.5M CA X 1.5M SPR, 0.675M CAL 1.5M CT | | | | | | | | | | | | | | \neg | · | - | _ + | 33 | | | |
| | | 3.5M GA X 3.5M BPR (8.676M GAL, 1.5M CT | | . 7 | | 4 | $oxed{oxed}$ | 12 | | | | 24 | | | | 13 | + | 80 | | 101 | | | |
| \vdash | | SOM CAX 25M SPR £ 13M CAL | | | | | | | | 18 | | | | | | - | | 18 | | 39 | | ——i | |
| —— | | 3.5M CA X 3.6M 8FFC, 0.675M CAL, 1.5M CT | | 11 | | 3 | | | | | | | Í | T Ì | | | + | 14 | | 134 | | | |
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| <u> </u> | | 3.5M GA X 3.6M \$PPL 0.676M GAL, 1.6M CT | | 2 | | | | | T | | | | 1 | | | - i | | 2 | | 25 | | | |
| 2684-2 | · | 3.5M CA X 3.0M SPR, 6.075M CAL 1.5M C7 | | | 1 | 3 | |] | T | | | | | | İ | | | 3 | - + | 16 | | | |
| | | SEE PAY ITEM POOTNOTE SHEET LID-4 | EA | | | | | | | | i | 1 | : | | | - | | 214 | i | 812 | | -↓ | |
| | | 1.0M - 6.8M ETG HQT, BOOTED TRUNK, STRAIGHT | | 46 | | 8 | Ţ | 10 | | 20 | | | | 14 | | - | † | 98 | | 439 | + | | |
| - | | 3.0M - \$.0M ETG HOT, BOOTED TRUNK, CURVED | | 5 | | 30 | | 27 | | 1 | | | | | | 33 | | 96 | | 243 | | | |
| 2586-1 | | 3.0M - E.DM STG HGT, PAT TRUME, STRAIGHT | | | | | | 21 | | | | | | - + | \rightarrow | | | 21 | + | 130 | + | | |
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| 7605 70 | | SOM CA X 4.0M SPR, PULL MULTI-STEM | _1 | | | | i | | | | | | i | i | | | | 0 | | 9 | | — | |
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| 2721-77 | SIKE RACK | SEE PAY ITEM POOTNOTES SHEET LD-4 | EA | î | | | Ť | | o | | | - -+ | | - | -+ | + | \rightarrow | • | | | | [| |
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LANDSCAPE NOTES

1. Plant bads shall receive bed preparation in accordance with Subarticle 580-4.3 of the Standard Specifications, except the required depth of new soil shall be increased from 100 to 450 and the backfill shall be prepared and paid for as described below. New planting soil (Prepared Backfills) shall be paid for under Pay them 2162-3-101 (Finish Soil Layer) and shall include a 100 layer of recycled organic material or solid waste compost, (as outlined in Chapter 17-709 of the FAC 62-7809.515), thoroughly mixed with a 350 layer of 50% sand and 50% topsoil, (100% sand will be utilized when backfilling for Paim planting only). Finish Soil Layer shall also have Fertilizer and Soil Polymer added and thoroughly mixed into the top 150 of depth prior to planting. Fertilizer will have an analysis of 6-8-6, or other analysis as may be approved by the Engineer and will be added at a rate of 2-4kg per cubic meter of Finish Soil. Soil Polymer shall be 3/gmClamond inc.' or other approved equal, Na base (sodium) soil polymer, and will be added at a rate of 0.12kg per M2 of Finish Soil area.

Existing topsoil may be utilized in the Prepared Backfill provided it meets the following requirements: All topsoil that is unsuitable for planning or does not meet the following requirements will be removed and discarded off-site. Natural topsoil shall be taken from well-drained arable sites and must contain at least 5% decayed organic matter. It must be excepted or weeds, subsoil, stones, earth clods, sticks, notes or other objectionable extraneous matter. It will not contain toxic materials and shall have a Phrange of 8.0 to 7.0. Topsoil from Nut Grass or Tropical Soda Apple infested areas will not be accepted. Contractor shall provide verification to the Engineer that topsoil is within these parameters. Representative samples shall be tested by the for acidity, fertilized elevers in the standard Specification to the Engineer that topsoil is within these parameters. Representatives samples shall be found to the Engineer. The cost, delivery and placement of planting soil shall be paid for under Pay Item 2162-3-101 and shall include all additives, include compost material, sand, natural topsoil, soil polymer, testing and fertilizer in accordance with the Standard Specifications and these notes.

- 2. All landscape bads shall receive a uniformly applied much material to a minimum thickness of 75 over the entire plant bed, (except within 150 of tree trunks). Individually planted Trees (not within shrub beds) shall receive a 1.22M much ring whether it is defineated on the landscape plan or not. Much type to be Recycled Much and must be finely shredded with no pieces over 80. It must be free of weed seed, Nematodes, and pathogens. It cannot contain any plastics, heavy metals or any other toxins of any kind. Ph shall be between the ranges of 7.0 and 7.5.
- The successful bidder shall furnish to the FDOT a unit price breakdown for all materials at the Pre-Construction conference. The FDOT may, at its discretion, add to or delete from the materials utilizing the unit price breakdown submitted.
- Contractor shall be responsible for the location of all utilities prior to excavation. Refer to Roadway Plans for a listing of all known utilities in the area.
- 5. Maintenance shall begin immediately after each plant is planted and continue until final acceptance. This maintenance shall include watering, pruning, weeding, mowing at a minimum of one week intervals, mulching, re-setting of plants, litter removal, replacement of 'sick' or dead plants, and all other care required for proper growth. All maintenance work during the establishment period shall be included in the unit cost of the plant material.
- 6. Not all ptanting is within irrigated areas and the irrigation system may not be completely operational at the time of plant installation. Therefore, hand watering is required by the Contractor. The Contractor shall determine his or her own watering schedule and rate to ensure the healthy establishment of all plants. All costs for hand watering of plantings (except sod) shall be included in the unit cost of the plant material. All costs for hand watering of sod areas located <u>outside of irrigated areas</u> shall be compensated under Pay Item 2570-9. Water for Grassing. All costs for all watering of sod located <u>within irrigated areas</u> shall be included in the contract unit price for sod. Plants that die, or excessively shock due to lack of water, must be replaced by the Contractor, at no cost to the Department. Water force from water truck shall not be applied in a manner which would damage plants, nor in a manner which would remove soil saucer ring or much a round each plant. Any damage to plant or other surrounding items, either by water force or by water truck, is the responsibility of the Contractor to repair or replace.
- 7. Trees planted in sod areas and not within shrub beds with not be compensated separately for Bed Preparation or Finish Soil Layer. All costs for excavation, Bed Preparation and Prepared Backfill for those plants will be included in the cost of the plant. Prepared Backfill for these plants shall be as described for "Finish Soil Layer in Notes" at above.
- 8. Landscape Plan Sheets LD-6 and LD-7 show plant beds with 'Existing Vegetation to Remain'. These areas are included in the Bed Preparation and Mutch quantities, but got in the Finish Soil Layer quantities. No Soil or amendments (except Mulch) will be added in these areas. All weeds, dead, diseased or damaged plants (as determined by the Engineer) shall be removed prior to mulching. Actual layout (and area) of these plant beds may change depending on the extent of existing vegetation that remains after roadway construction is complete. Coordinate all changes with engineer prior to proceeding with Bed Preparation.
- 9. Where palm trees are specified with a staggered height (STG. HGT.) in the plant list, and a range of sizes (such as 3.0M-5.0M) are given, the contractor shall provide 1/3 the quantity in the smallest size, 1/3 the largest size and 1/3 in the middle of the range. In general the palms shall be placed with the largest palms in the middle of the grouping and the smaller palms towards the ends of the grouping. Coordinate placement with Engineer in the field.

LANDSCAPE PLAN NOTES

- Rafer to Sheet LD-2 & LD-3 for Tree quantities per sheet. Unless otherwise noted, whole numbers indicate millimeters and decimal numbers refer to meters.
- 2. All references to "by County", or "The County" in these Landscape Plans shall mean The Martin County Public Works Department.

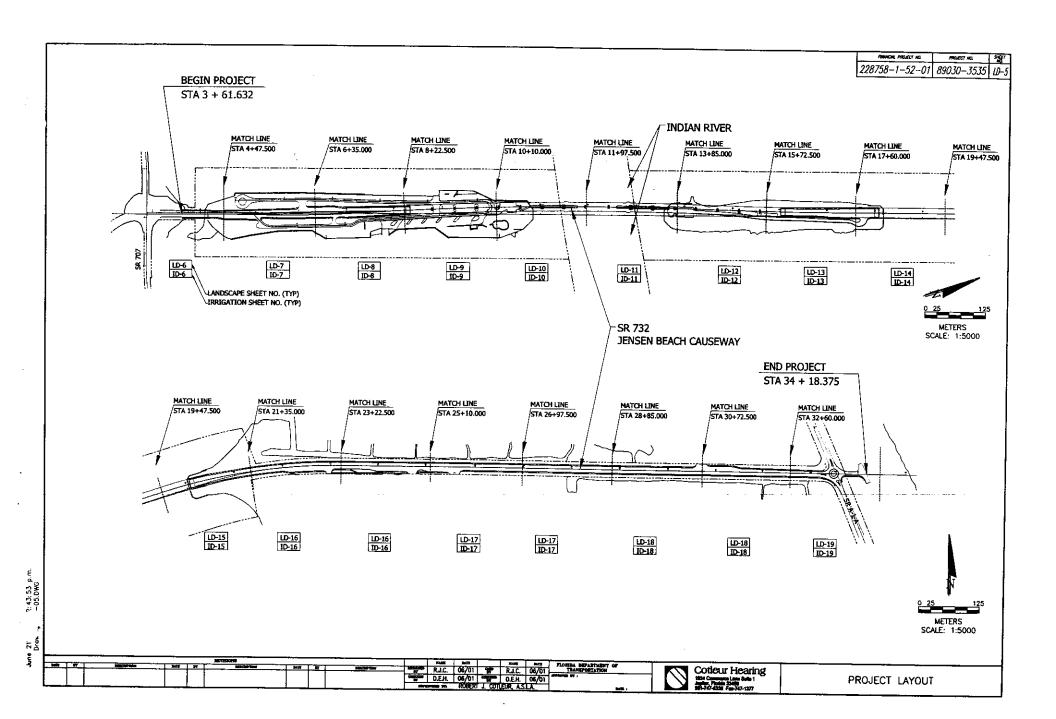
PAY ITEM FOOTNOTES:

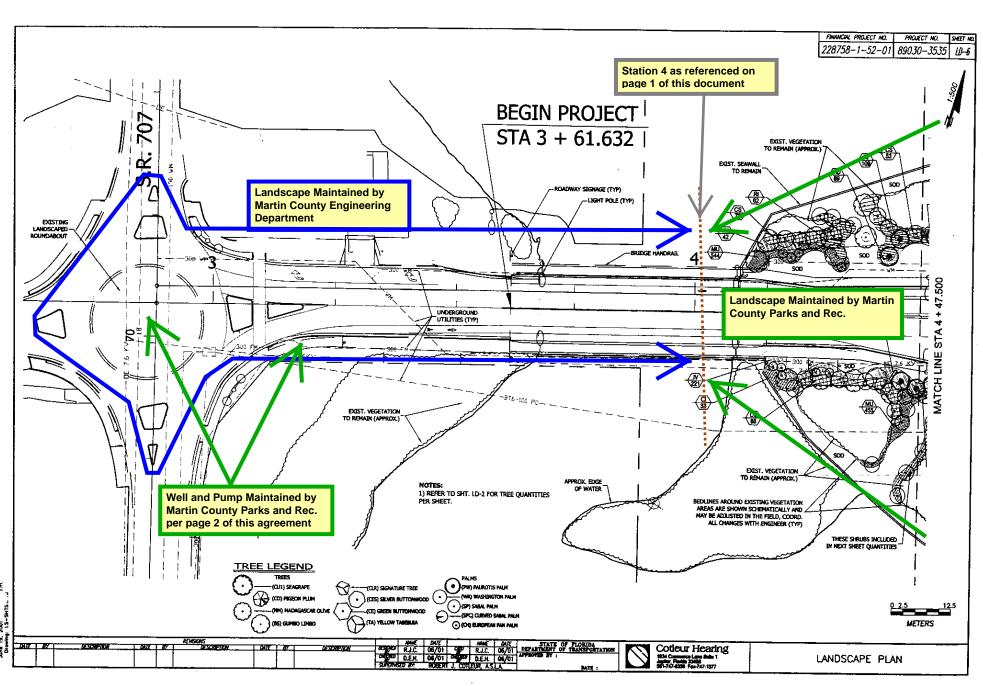
17) 2721-77

- 2120-72 Includes all labor, materials, equipment and incidental necessary for the complete installation of <u>Gravel Fill</u>. Quantity based on Depth of 150mm over areas as shown on plans. Pay item number shall also include installation of 97.0 meters of Gravel Edging and all Ground Cover Fabric 6 materials as shown on the plans and detail on sheet LD-21.
- 2) 2162-3-101 includes all labor, materials, equipment and incidental necessary for the complete installation of <u>Firish Soil Laver</u> to required 450 depth, including, but not limited to, new top-soil, recycled organic material (or compost), fertilizer, soil polymer and delivery and placement on afte in
- 2550-73 Includes all labor, materials, equipment and incidental necessary for the complete installation of <u>Special Fencing</u> as shown on the plans and detail on sheet LD-21.
- 4) 2555-1-3 Includes all labor, materials, equipment and incidentals for the complete installation of 300 PVC conduit underground by Directional Drilling, for the purpose of irrigation sleewing. The cost of electronic markers, and-caps, and restoration of paving and the work sits, including labor, materials and incidentals, shall be included in the unit price for this pay item.
- 5) 2570-5 Based on 3 applications, (after installation, after 90 days, after 180 days) at a rate of 450 kilograms per hectare of sod.
- 6) 2570-9 Total quantity estimated at 280 kiloiker per hectare of sod in unitrigated areas only. There is no separate compensation for cost of water for sod areas located within intigated areas. All costs for hand watering of sod areas within intigated areas shall be included in the cost of the sod.
- 7) 2571-1-11 Erosion Control Fabric shall be a Coconut fiber bisniket (filem # C125) as manufactered by North American Green, or equivalent. Materials and installation procedures shall be in accordance with Details and Notes on Sheet LD-21 of these Landscape Plans. Compensation for Erosion Control Fabric shall include the costs of all labor, materials, supplies and installation equipment in the contract unit price. All Shrub beds in areas with 4:1 alopses and steeper require Erosion Fabric Installation.
- 8) 2575-1-6 Includes all tabor, materials, equipment and incidentals necessary for the complete installation of <u>Barmuda Sod</u>, including delivery, preparation, excervation, installation and sod. This pay frem number also requires Fertilizer (Pay frem 2570-5) and Water For Grassing (Pay 1507-6) are required for the complete installation of sodding in accordance with the PDOT Standard Specifications. These items shall be compensated under their respective numbers and in accordance with these notes.
- 9) 2580-173 Includes all labor, materials, equipment and incidentals necessary for <u>Bed Preparation</u> including soil removal to a depth of 450 and as further described herein. The provisions for Bed Preparation shall meet all inequirements of Section 550-4.3 of the FDOT Standard Specifications, except the depth of excevation of soil removal and replacement shall be increased from 100 to 450, and the backfilt shall be the Finish Soil. Layer as specified above and in tendecape note 1. (Sheet LD-4) Note: Grass areas and individually planted trees, (not within shrub beds) do not receive separate compensation for Bed Preparation.
- 10) 2580-301-1 Includes all labor, materials, equipment and incidentals necessary for the complete installation (and future removal) of <u>Tree Stating</u> as per details and Standard Specifications, including, but not limited to, wood components, steel banding, burtap and nails.
- 11) 2560-326-4 Including all labor, materials, equipment and incidentals necessary for the complete installation of Multihaccordance with landscape note 2.
- 12) 2581-3, 2582-2, Includes all labor, materials, equipment and incidentals necessary for the complete installation of <u>Ptant</u> including, but not limited to, plant, 2583-7, 2584-2, prepared top soil (including amendments), unsuitable soil removal, temporary hand watering, guaranty and maintenance during established period, in accordance with the FDOT Standard Specifications and all notes on plans.
- 13) 2590-70 Includes all labor, material, conduit (except as noted herein), equipment and incidentals for the complete installation of <u>Automatic Intestion Systems</u> as specified in these plans and the governing specifications, includes the cost of water service connections, well installations all system components including, but not limited to valves, irrigation heads, pipes, fittings, selvers, clocks, controllers, pumps, conc. stabs and wires. Where irrigation system utilizes potable water, there will be no cost to the Contractor (or The Department) for the water utilized.
- 14) 2639-1-22 Electric Service Includes all labor, materials, equipment and incidentals necessary for providing Electric Power Service to the irrigation pump station. Compensation shall be for a complete installation including, but not limited to, transformers, wires, conduit, excavation, meters and/or payments to FPL for service connection fees. The cost of electricity to power the system will fail the responsibility of the contractor.
- 15) 2721-74-1 Includes all labor, materials, equipment and incidentals necessary for the complete installation of <u>Trash Receptacle</u> including, but not limited to, trash receptacle (including shipping & delivery costs), and all mounting components, in accordance with the FDOT Standard Specifications and manuf, recommendations. Trash receptacles shall be "Landscape Forms Gretchen" style, side opening w/ Jarrah wood sides and by color, powdercost fireheld metal. Contractor shall submit shop drawings of proposed installation methods for Engineers approval prior to ordering materials.
- 16) 2721-75-1 Includes all labor, materials, equipment and incidentals necessary for the complete installation of <u>Berich</u> including, but not limited to, Bench (including stripping & delivery costs), and all mounting components, in accordance with the FDOT Standard Specifications and manufactors. Benches shall be Landscape Forms Petoskeys tyte, backed, quast support, surface mount w/ Jarrah wood hasers, radius arms and lay color, powderoust finished metal. Contractor shall submit shop drawings of proposed installation methods for Engineers approval
 - Includes all labor, materials, equipment and incidentals necessary for the complete installation of <u>Bike Rack</u> including, but not limited to, Bike Rack (including shaping & delivery costs), and all mounting components, in accordance with the FDOT Standard Specifications and manuf, recommendations. Bike Racks shall be "Madrax inc., Genesist" 4 hop style, surface mount wit 8 bike capacity, Gelvanized metal finish & Grount Cover Set. Item Number GNS-8-SF-G. Contractor shall submit shop drawings of proposed installation methods for Engineers approved

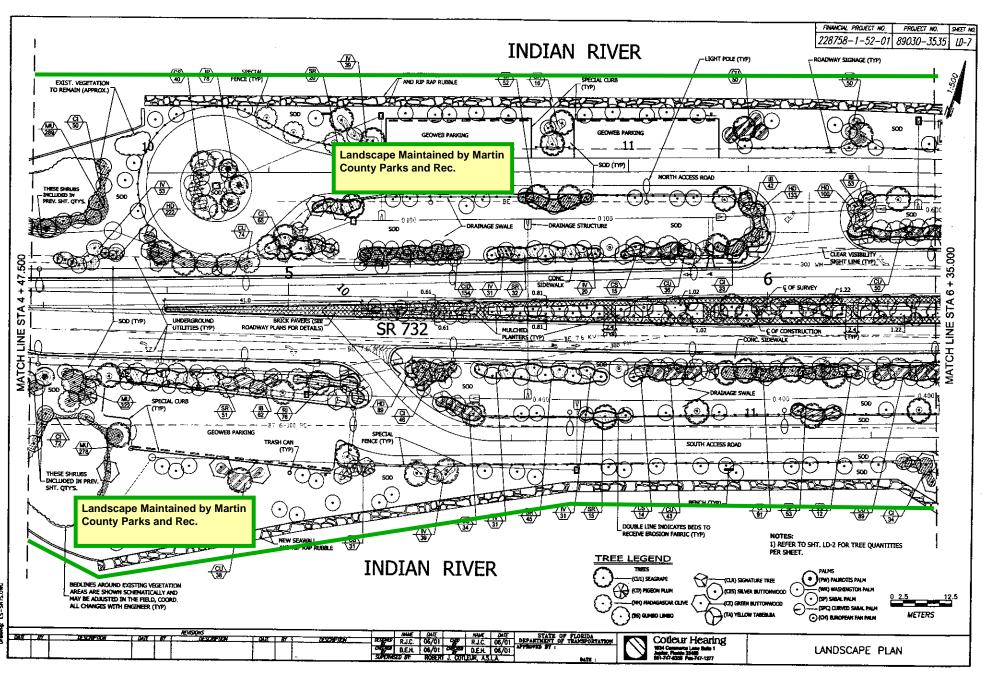
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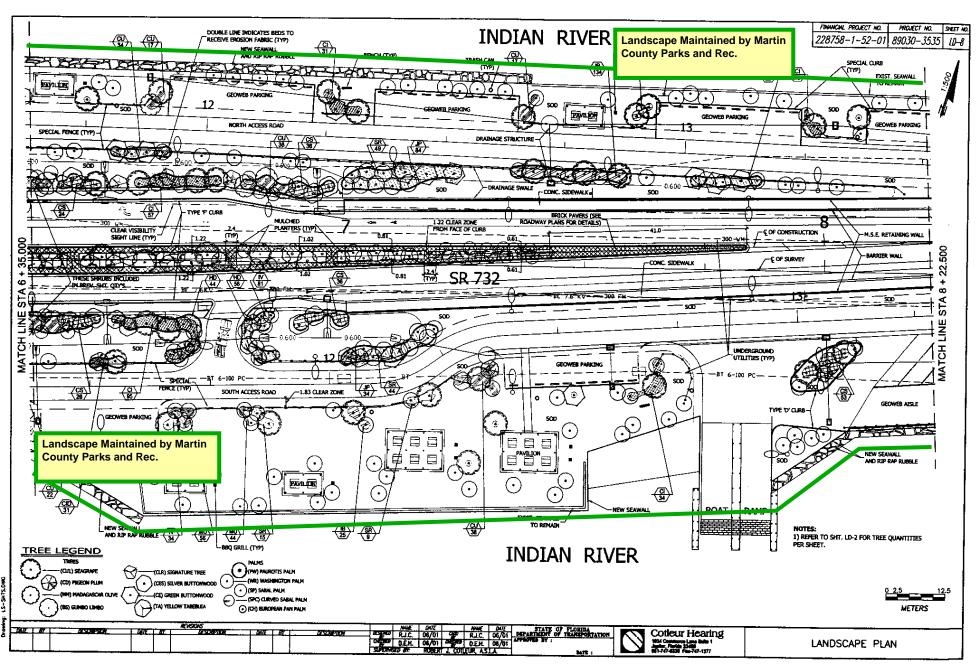




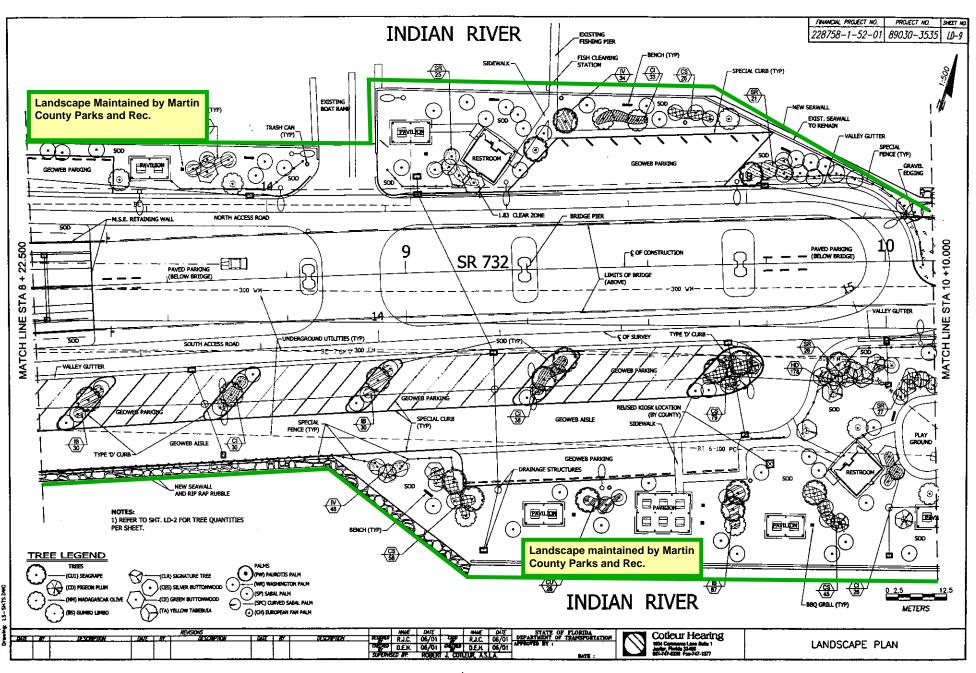
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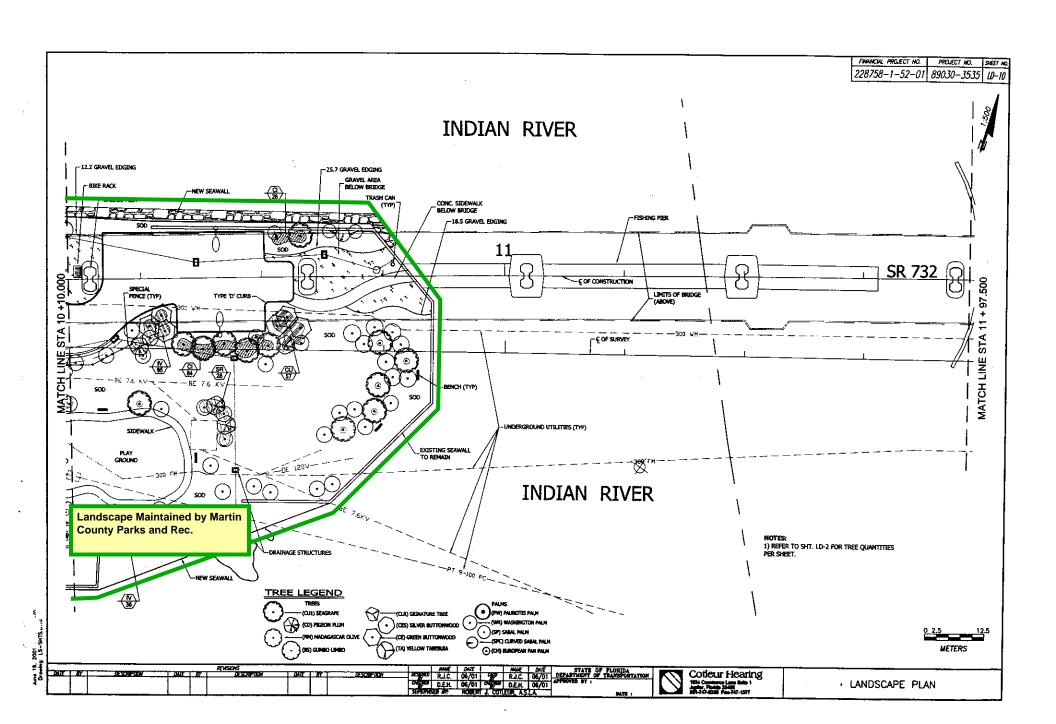
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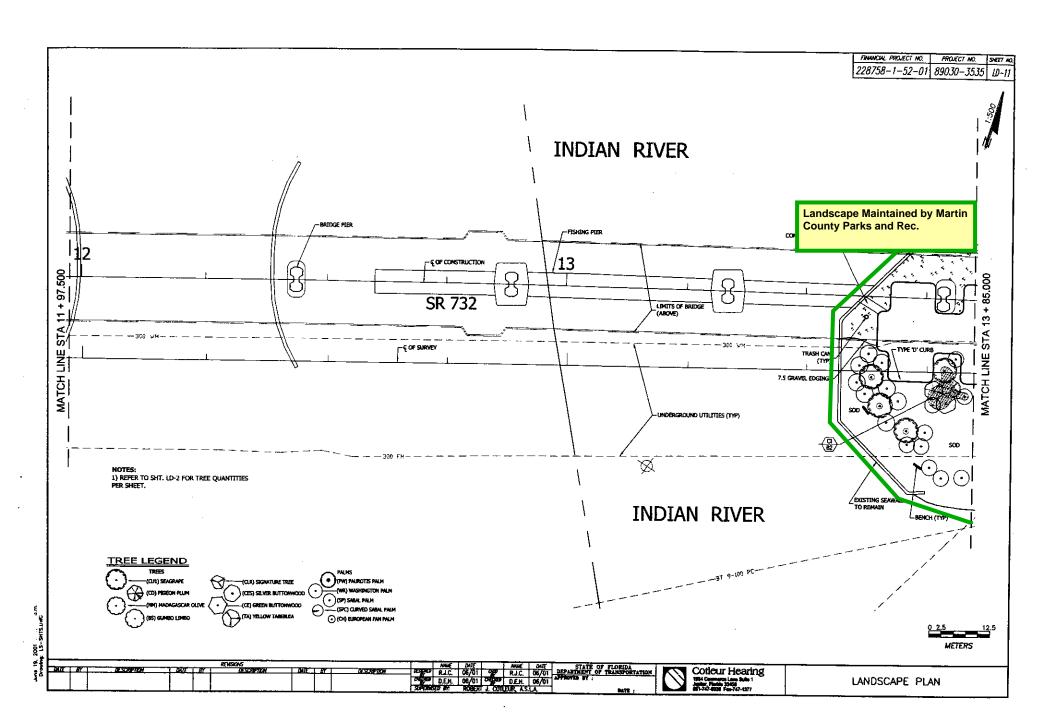


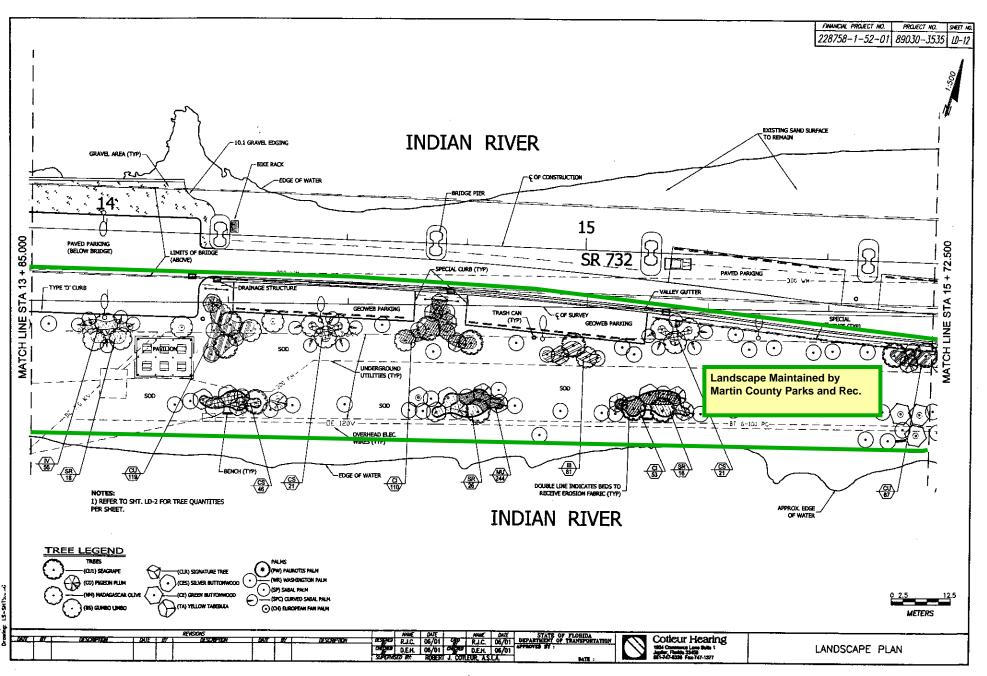
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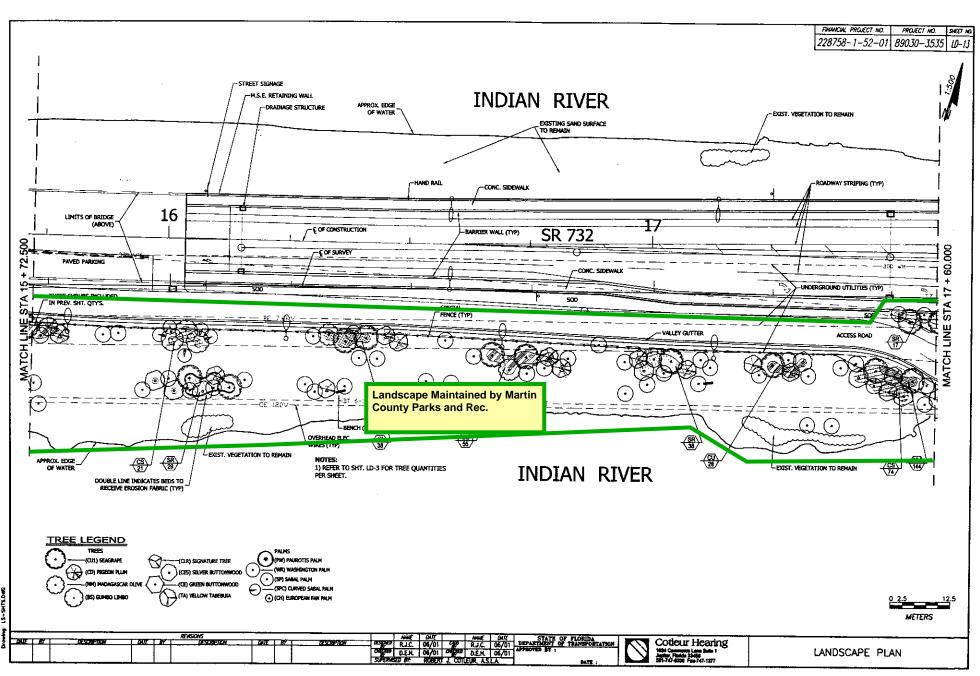
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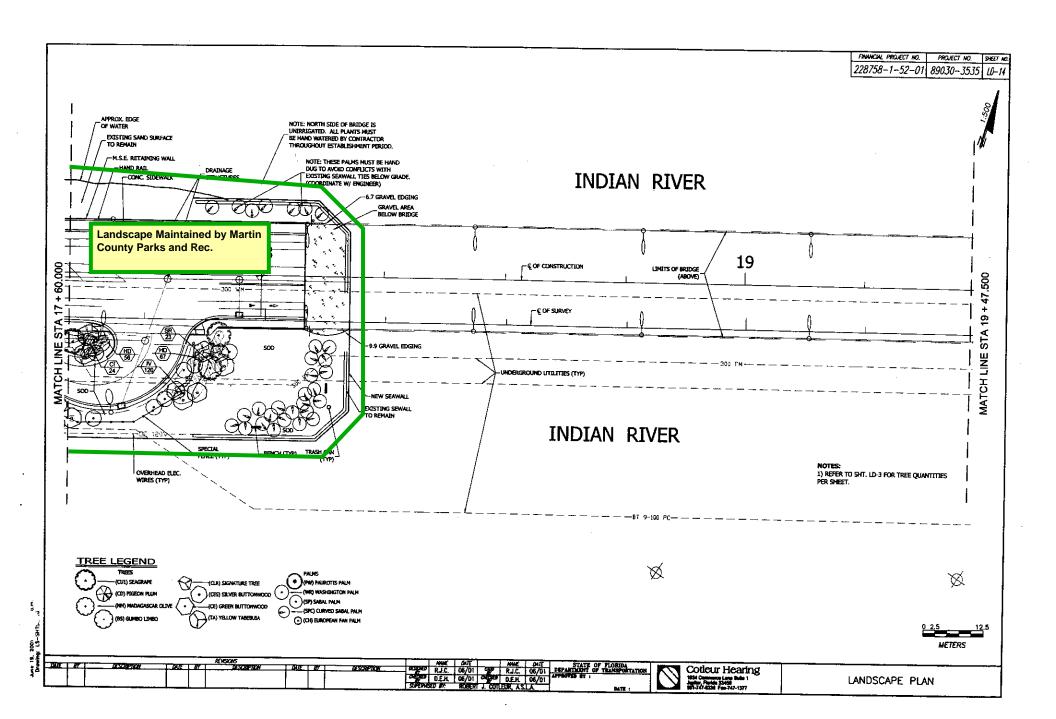


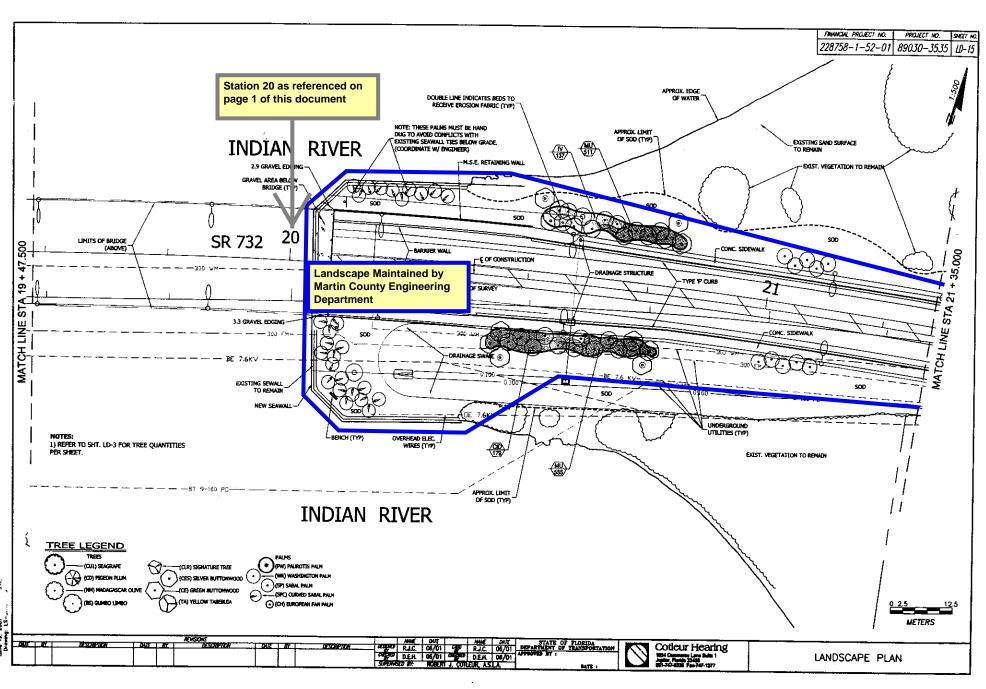


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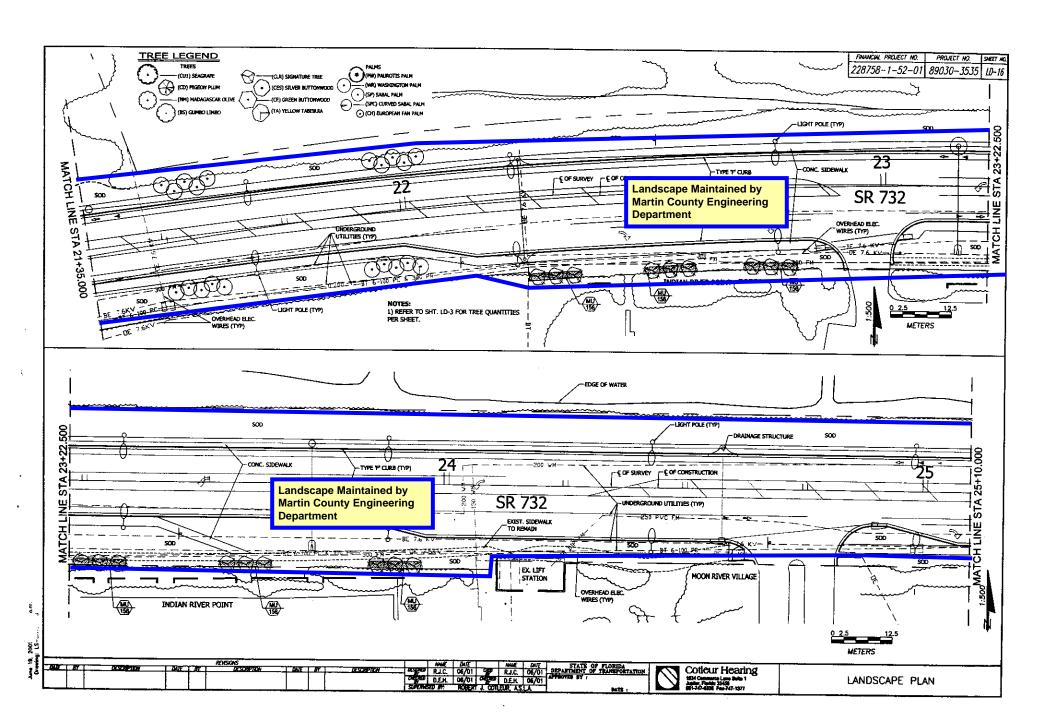


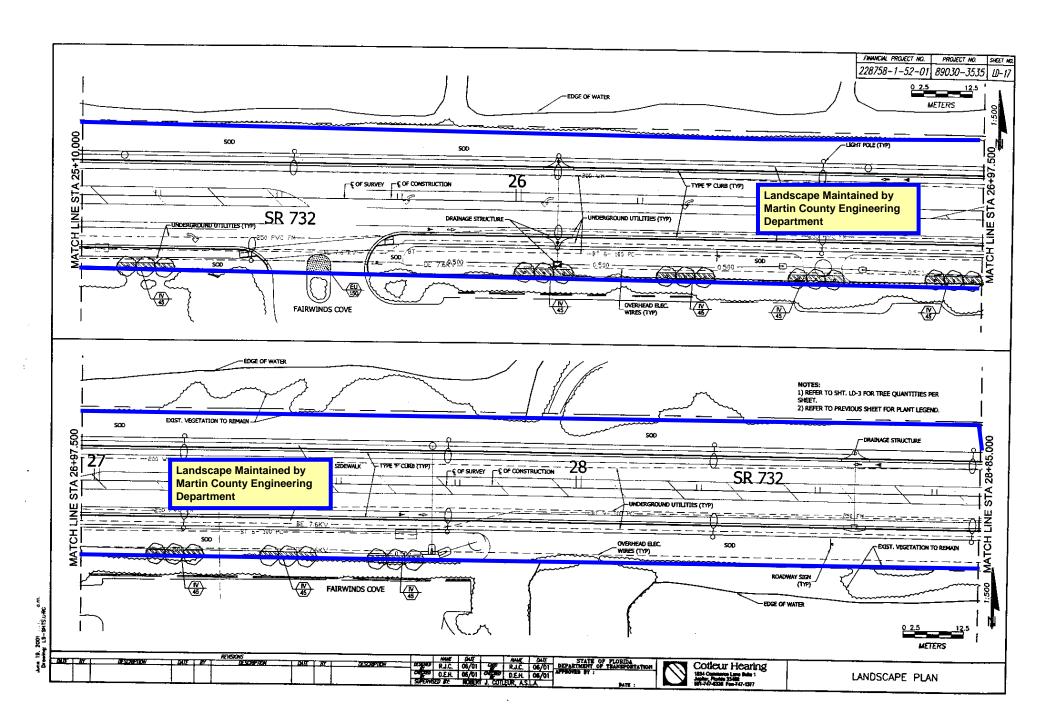
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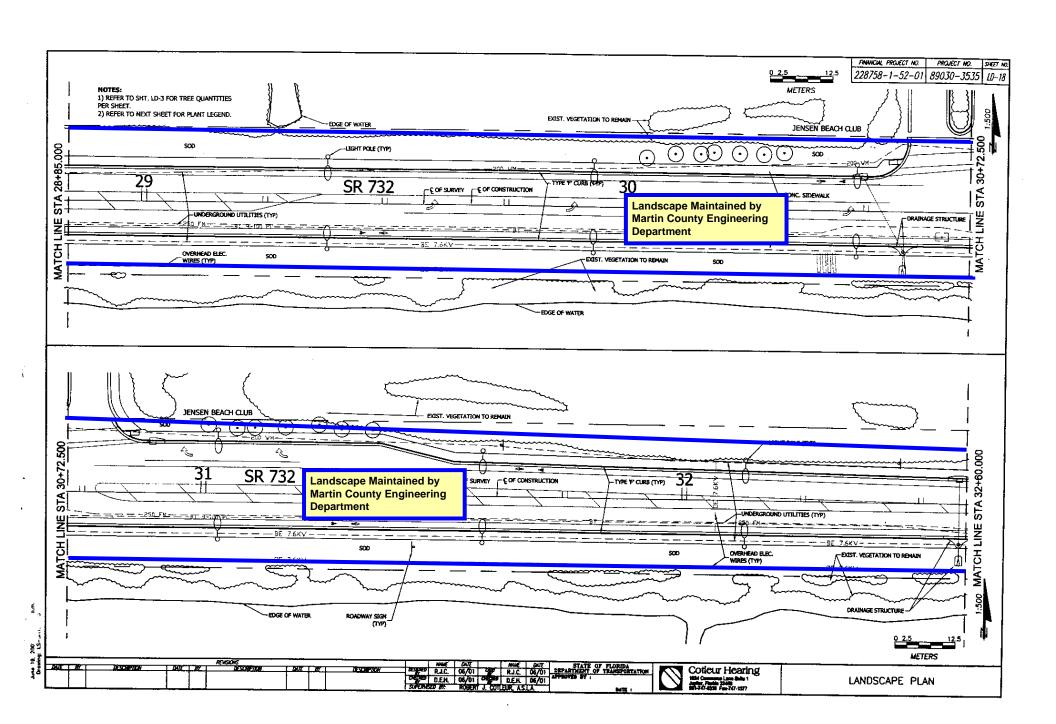


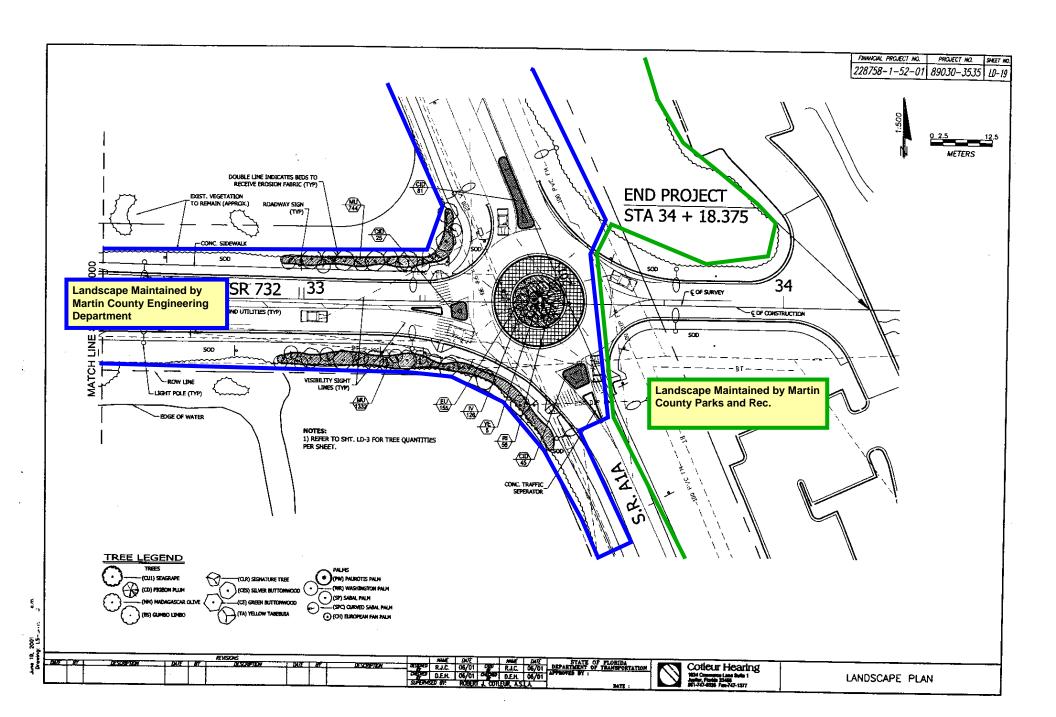


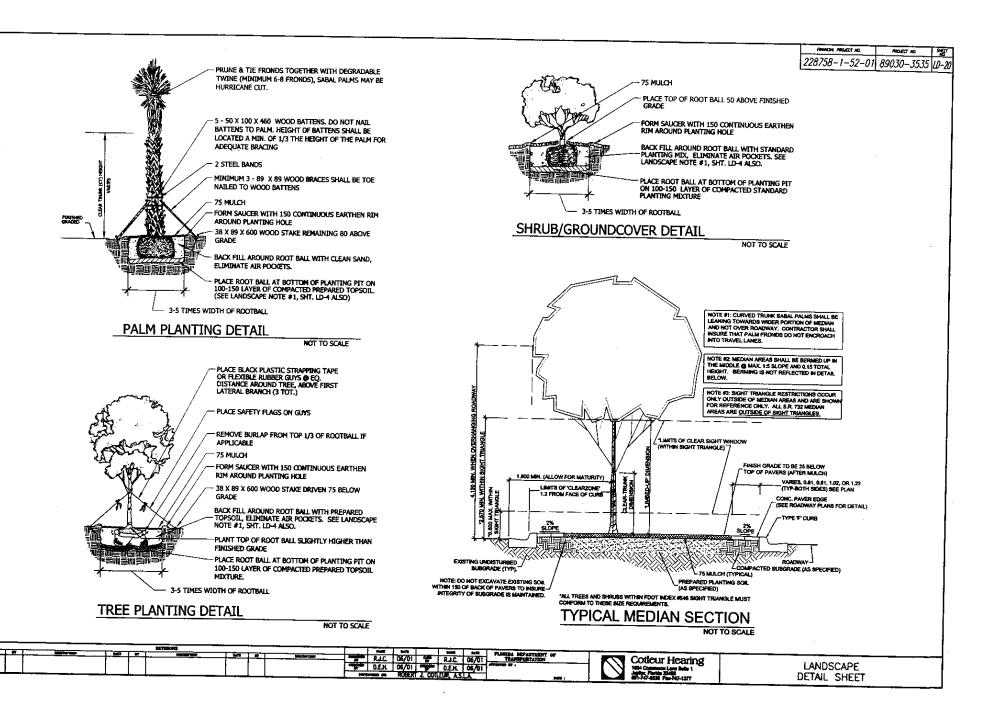
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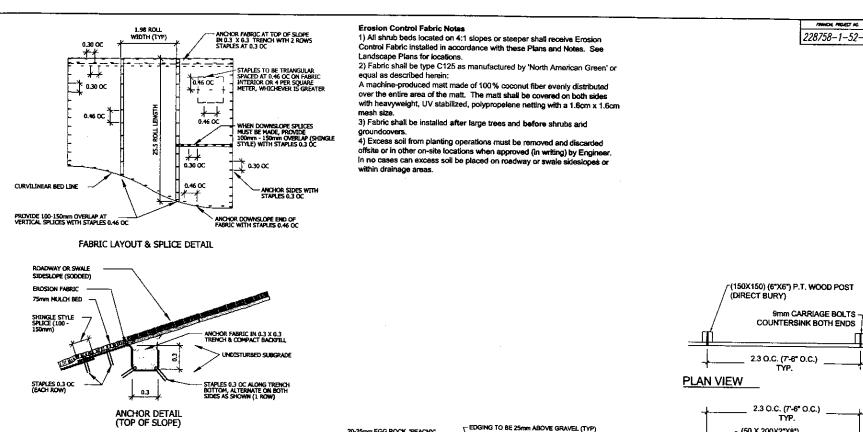


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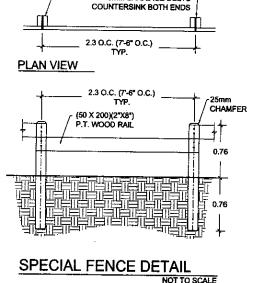
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PLANTING DETAIL

147 . 94

REFER TO PLANT LIST FOR PLANT SPACING

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CUT "X" IN FABRIC WITH SHARP KNIFE TO AVOID FRAYING OF FABRIC

REMOVE STAPLES WITHIN "X" AREA AS NEEDED, FOLD BACK CORNERS AND TEMPORARILY STAPLE TO ALLOW

PLACE EXCAVATION SOIL ON TARP AS

NEEDED TO AVOID DAMAGE TO FABRIC, REMOVE EXCESS SOIL IMMEDIATELY

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INTERLOCKING POLYETHYLENE ROOT BARRIER PANELS, 0.30 DEPTH BY 0.61

INC. (OR EQUAL).

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NOTE: THE CONTRACTOR SHALL PROVIDE SAMPLES OF GRAVEL, FABRIC AND EDGING TO THE ENGINEER FOR APPROVAL PRIOR TO

GRAVEL EDGE DETAIL

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LANDSCAPE DETAIL SHEET

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| DESCRIPTION | UNIT | ID-6 | ID-7 | ID-8 | ID-9 | ID-10 | | | | ID-14 | ID-15 | ID-16 | ID-17 | ID-18 | ID-19 | TOTA |
| RAINBIRD 1804 SERIES SPRINKLER SIDESTRIP 15 SST (1.2 x 8 SPRAY PATTERN) | EA | | 60 | 65 | 4 | | | | | | | | | | 2 | 131 |
| RAINBIRD 1804 SERIES SPRINKLER 12 SERIES SPRAY HEAD/NOZZLE QUARTER CIRCLE (12Q) | EA | | | | | | <u> </u> | | | | | | | | | |
| RAINBURD 1804 SERIES SPRINKLER 12 SERIES SPRAY HEADANOZZLE HALF CURCLE (12H) | EA | | 18 | 3 | 37 | | | | | | | | | | | 58 |
| RAINBIRD 1804 SERIES SPRINGER 12 SERIES SPRAY HEAD/NOZZLE FULL CIRCLE (12F) | EA | | | | | 4 | | | | | | | | ··· | | 4 |
| RAINBURD 1804 SERIES SPRINKLER 15 SERIES SPRAY HEAD/NOZZLE QUARTER CIRCLE (15Q) | EA | 2 | 10 | 4 | 22 | 6 | 2 | | | | | | | | 12 | 58 |
| RAINBURD 1804 SERIES SPRINKLER 15 SERIES SPRAY HEAD/NOZZLE HALF CIRCLE (194) | EA | 17 | 118 | 159 | 112 | 17 | | | | | | | | | 53 | 476 |
| RAINBIRD 1804 SERIES SPRINKLER 15 SERIES SPRAY HEADMOZZIE FULL CIRCLE (15F) | EA | | 9 | 8 | 3 | | | | | | | | | | | 20 |
| HUNTER I-20 SERIES SPRINGER 47 SERIES SPRAY HEAD/NOZZLE QUARTER CIRCLE (30Q) | EΑ | | 6 | 29 | 7 | 4 | | 5 | 1 | 3 | 1 | | | | | 56 |
| HUNTER 1-20 SERIES SPRINKLER #7 SPRAY HEAD/NOZZLE HALF CIRCLE (30H) | EA | 17 | 109 | 85 | 57 | 22 | 2 | 40 | 60 | 12 | 45 | | | | | 449 |
| HUNTER 1-20 SERIES SPRINKLER #9 SPRAY HEAD/NOZZLE FULL CIRCLE (30F) | EA | 5 | 14 | 18 | 9 | 17 | 6 | 25 | 11 | 4 | 10 | | | | | 119 |
| HUNTER 1-40 SERIES SPRIBALER SERIES SPRAY HEAD/NOZZLE QUARTER CIRCLE | EA | | | | 12 | | | | | | | | | | | 12 |
| HUNTER 1-10 SERIES SPRINKLER SPRAY HEADYNOZZLE HALF CIRCLE | EA | | | | 3 | | | | | | | | | | | 3 |
| HUNTER 1-46 SERIES SPRINKLER SPRAY HEAD/MOZZLE RULL CIRCLE | EA | | | - | 2 | | | | | | | _ | | | | 2 |
| 100-P SERIES VALVE | EA | | 7 | 12 | 8 | 1 | | 3 | 4 | | 2 | | | | 3 | 40 |
| LETT 4000 IRREGATEON CONTROLLER | EA | | 1 | 2 | 1 | | | 1 | 1 | | 1 | | | \neg | 1 | 8 |
| PUMP STATION | EA | 1 | | | | | | | | | | | | | | 1 |
| RAIN SWITCH MOISTURE SENSOR | EA | | 1 | 2 | 1 | } | | 1 | 1 | | 1 | | | | 1 | 8 |
| BACKFLOW PREVENTOR AND METER | EA | | | | | | | | 1 | | 1 | 一十 | | _ | 1 | 3 |

| SYM | DESCRIPTION | SYM | DESCRIPTION |
|----------|---|----------|---|
| | RAINBERO 1804 SERIES SPRINKLER SIDESTREP (1.2 x 8 SPRAY PATTERN) | • | HUNTER 1-20 SERIES SPRINKLER #7 SERIES SPRAY HEAD/NOZZLE QUARTER CIRCLE (300) |
| <u>O</u> | RAMBIRO 1804 SERIES SPRINCER 12 SERIES SPRAY HEAD/NOZZLE QUARTER CIRCLE (12Q) | • | HUNTER 1-20 SERIES SPRINGLER #7 SPRAY HEAD/NOZZLE HALF CIRCLE (30H) |
| | RAINBURD 1804 SERIES SPRINCLER 12 SERIES SPRAY HEAD/NOZZLE HALF CURLLE (12H) | • | HUNTER I-20 SERIES SPRINGER 89 SPRAY HEAD/NOZZLE RULL CIRCLE (30F) |
| | RAINBINO 1804 SERIES SPRINKLER 12 SERIES SPRAY HEAD/MOZZILE FULL CIRCLE (12F) | <u> </u> | HUNTER 140 SERIES SPRINKLER #41SERIES SPRAY HEAD/MOZZLE QUARTER CIRCLE |
| • | RAINBIRD 1804 SERIES SPRINKLER 15 SERIES SPRAY HEAD/NOZZLE QUARTER CIRCLE (15Q) | | HUNTER 1-10 SERIES SPRINKLER #43 SPRAY HEAD/HOZZLE HALF CIRCLE |
| • | RAINEIRO 1804 SERIES SPRINKLER 15 SERIES SPRAY HEAD/NOZZLE HALF CIRCLE (19H) | • | HUNTER 1-40 SERIES SPRINKLER #44 SPRAY HEAD/NOZZIE FULL CIRCLE |
| • | RABHSIRO 1804 SERIES SPRINCLER 15 SERIES SPRAY HEAD/NOZZLE RALL CIRCLE (15P) | • | 50 IRRITROL 100-P SERIES VALVE IN 305 VALVE BOX |
| | 100 PVC MAINLENE CLASS 200 (UNLESS OTHERWISE NOTED) | C | IRRIGATION CONTROLLER LET 4000 SERIES W/ PEDESTAL 8 STATION |
| | 150 PVC MAINLINE CLASS 200 O-RING TYPE | R | RAINSWITCH MOISTURE SENSOR |
| | IRRIGATION LATERAL LINES (SIZING VARIES) | P | PRE-FAB PLIMP STATION SEE DETAILS AND NOTES |
| | CONDUST AND SLEEVES SCH 40 SIZING AS NOTED OR TWICE THE SIZE OF PIPE TRAVELING THROUGH | | BACKFLOW PREVENTOR/METER POTABLE WATER |

VALVE LABEL DETAIL

IRRIGATION DESIGN STANDARDS

ZONE NUMBER
VALVE SIZE
20.0
M3/H

| PIPE SIZE | M3H |
|------------|-----------|
| 19 | 0-1.8 |
| 2 5 | 1.9-2.7 |
| 32 | 2.8-5.0 |
| 38 | 5.1-6.8 |
| 50 | 6.9-11.4 |
| 63 | 11.5-15.9 |
| 75 | 16.0-25.0 |
| | |

| | | | | | | | | | | | | | | | | | | | | | | |
|-------|-----|------|-----------------|-------|------|------|---|-------------|---|---|----------|------------|-------|-------|--------|--------|---------|---|-------|---------------------------|---|----------------------------|
| See (| | | T-1 | | PEVI | H014 | | | | | | | lact) | T | No. | == | Della I | PLORIBA DEPARTMENT OF | | | | |
| | _ | | - | 1 - 1 | | | _ | | - | - | - Manual | R.I.C. | 06/01 | 7 | R.J | i.c. C | 06/01 | FLORIBA DEPARTMENT OF TRANSPORTATION | | Cotleur Hearing | | IDDIOATION I FORMS |
| ľ | - 1 | | | | | | | - 1 | ļ | | | 1.3.0 | 06/01 | 9 | O.E | H. C | 06/01 | | - [\ | 25% Champion Lave Sults 1 | ļ | IRRIGATION LEGEND AND |
| | | | | | | | | ᆂ | | | | | ROBET | J. CO | TLEUT. | ASD | 1 | i | | 100-70-43% Pa-743-1377 | 1 | TABULATION OF QUANTITIES |
| | | | | | | | | | | | | | | | | | | | | | 1 | THE CONTROL OF CONTRIBUTES |

IRRIGATION NOTES

GENERAL

ABOVE AND BELOW UTILITIES SHALL BE VERIFIED AND LOCATED BY THE LANDSCAPE CONTRACTOR PRIOR TO COMMENCING WORK IN THE PROJECT AREA. IF UTILITY PLANS ARE AVAILABLE, THE CONTRACTOR SHALL EXAMINE THEM AND BRING ANY AND ALL CONFLICTS TO THE ATTENTION OF THE ENGINEER WHO SHALL COORDINATE THE NECESSARY ADJUSTMENTS. WHEN WORKING IN AN AREA WHERE KNOWN UTILITIES EXIST, UTILITY LOCATION MAY NEED TO BE STAKED BY A SURVEYOR OR THE UTILITY COMPANIES. THE CONTRACTOR SHALL CONTACT SUSSHINE 48 HOURS BEFORE YOU DIG AT 1-800-432-4770 TO SCHEDULE LOCATION OF UTILITIES WHICH SUBSCRIBE TO THEIR SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITIES INCLUDING THOSE WHICH DO NOT SUBSCRIBE TO SUNSHINE. REFER TO ROADWAY PLANS FOR A LIST OF KNOWN UTILITY PROVIDERS IN THE AREA

PRODUCT TYPES FOR IRRIGATION ARE LISTED AS A QUALITY STANDARD ONLY. EQUIVALENT PRODUCTS ARE ACCEPTABLE ON AN "AS EQUAL" BASIS SUBJECT TO THE ENGINEER'S APPROVAL.

THE CONTRACTOR WILL REFER TO THE LANDSCAPE PLAN WHEN TRENCHING TO LAY PIPE TO AVOID NEW AND EXISTING TREES AND LARGE SHRUBS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR CONFORMANCE TO ALL APPLICABLE STATE AND LOCAL REGULATIONS AND CODES FOR IRRIGATION INSTALLATION.

THE CONTRACTOR WILL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK UNDER THIS CONTRACT.

ALL PIPING ON THE PLANS IS DIAGRAMMATICALLY ROUTED FOR CLARITY AND SHALL BE ROUTED TO AVOID PLANTS. DESIGN MODIFICATIONS WILL ONLY BE MADE AS NECESSARY TO MEET FIELD CONDITIONS AND ONLY UPON APPROVAL OF THE ENGINEER.

THE CONTRACTOR SHALL FIELD ADJUST NOZZLE TYPE/PATTERN TO SUITE SITE CONDITIONS AND TO AVOID OVER SPRAY ONTO THE TRAVEL LANE.

THE IRRIGATION CONTRACTOR SHALL PROVIDE THE ENGINEER, AND THE MARTIN COUNTY PUBLIC WORKS DEPARTMENT WITH AN ACCURATE AND REPRODUCBLE "AS INSTALLED" PLAN AT COMPLETION SHOWING HEADS, MAIN LINES, LATERAL LINES, WIRING, SLEEVES, VALVES, SUPPLIES ETC., USING DIMENSIONS FROM FIXED DATUMS.

MATERIALS

IRRIGATION HEADS

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE FINAL ADJUSTMENTS OF THE SPRINKLER'S ARC AND RADIUS TO ASSURE 100 % COVERAGE. NO OVER SPRAY WILL BE ACCEPTABLE.

RAINBIRD 100 POP UP SPRAY SPRINKLERS (1804 SERIES) WILL BE USED IN ALL GRASS AREAS. HUNTER (I-20 SERIES) WITH STAINLESS STEEL RISERS WILL BE USED IN SOD AREAS.

PIPING

MAINLINE WILL BE CLASS 200 'O' RING TYPE, EXCEPT WHERE MAINLINE IS ATTACHED TO BRIDGE, WHERE SOLVENT WELD TYPE SHALL BE USED, (SEE PLAN FOR LOCATION).

ALL LATERAL PIPE SHALL BE SCHEDULE 40 PVC.

ALL GLUE JOINTS SHALL BE CLEANED, SANDED AND TREATED WITH A COLORED HIGH ETCH PRIMER AND JOINED USING A SOLVENT CONFIRMING WITH ASTM D2564.

VALVES

VALVE LOCATIONS ARE SCHEMATIC ONLY AND WILL BE ADJUSTED FOR SITE CONDITIONS. EACH VALVE SHALL BE INSTALLED IN 300 AMETEK OR CARSON VALVE BOX WITH COVER MARKED TRIKGATION WATER.

IRRIGATION CONTROLLER

IRRIGATION CONTROLLER SHALL BE LEIT 4000 SERIES, (8 STATION) CONTROLLER WITH PEDESTAL, AND ACTUATORS.

IRRIGATION WIRING

ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES WILL BE 12 GAUGE SINGLE STRAND COPPER WIRE, IN SCHEDULE 40 PVC CONDUIT, ALL WIRE SPLICES WILL BE MADE IN VALVE BOXES ONLY, USING RAIN BIRD' SMAP-TITE CONNECTORS (OR APPROVED EQUAL) AND SEALANT.

ELECTRIC IRRIGATION AND ELECTRICAL SERVICE CONDUIT WILL BE SCHEDULE 40 PVC.

PIPE CONDUIT AND CASING

ALL CONDUIT MATERIAL SHALL BE SCHEDULE 40 PVC, SIZE TO BE TWICE THAT OF THE ENCASED PIPE, OR AS SHOWN ON THE PLANS.

ALL CONDUIT BENEATH ROAD PAVEMENT SHALL HAVE A MINIMUM COVERAGE OF 915 AS MEASURED FROM THE FINISH GRADE.

ALL CONDUIT BENEATH PAVERS SHALL HAVE A MINIMUM COVERAGE OF 450 AS MEASURED FROM THE FINISH GRADE.

ALL CONDUIT BENEATH ROADWAY PAVEMENT SHALL BE CAPPED AT BOTH ENDS AND SHALL BE MARKED AT THE TIME OF INSTALLATION.

BACKFILLING ABOVE DIRECT BURIED CONDUIT SHALL BE PERFORMED WITH F.D.O.T. CRITERIA FOR BACKFILLING ABOVE PIPELINES.



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WELL SPECIFICATIONS

THE CONTRACTOR SHALL PROVIDE A 150 GRAVEL PACKED AND SCREENED IRRIGATION WATER WELLS AT THE LOCATION INDICATED ON THE PLANS. THE IRRIGATION WATER WELLS SHALL BE DEVELOPED TO PROVIDE THE WATER DEMAND REQUIRED BY THE SYSTEM DESIGN.

THE CONTRACTOR SHALL DRILL WELLS TO OBTAIN THE MOST SUITABLE IRRIGATION WATER TO A DEPTH OF 23.0M. CONTRACTOR SHALL PROVIDE SUPPORT DOCUMENTATION TO THE ENGINEER. WATER OBTAINED SHALL BE THE LEAST SUSCEPTIBLE TO YIELD STAINING AS POSSIBLE.

THE IRRIGATION WATER WELLS SHALL BE DRILLED IN ACCORDANCE WITH ALL APPLICABLE ORDINANCES, LAWS, REGULATIONS AND SHALL CONFORM TO ALL LOCAL CODES AND CONDITIONS.

ALL PERMITS THAT ARE REQUIRED FOR THE INSTALLATION OF WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT CONTAMINATION OR WATER HAVING UNDESTRABLE PHYSICAL CHARACTERISTICS FROM ENTERING THE STRATUM FROM WHICH THE WELL IS TO DRAW IT'S SUPPLY. IF THE WELL BECOMES CONTAMINATED OR WATER WITH UNDESTRABLE PHYSICAL OR CHEMICAL CHARACTERISTICS ENTER, THE CONTRACTOR SHALL PROVIDE CASINGS, SEALS, STERLIZING AGENTS OR OTHER MATERIALS AS NECESSARY TO ELIMINATE OR SHUTT OFF CONTAMINATED WATER FROM ENTERING THE WELL REMEDIAL WORK WILL BE PROVIDED AT NO ADDITIONAL COST TO THE DEPARTMENT.

WELL SPECIFICATIONS (CONT.)

CARE SHALL BE EXERCISED IN PERFORMANCE OF WORK TO PREVENT EITHER TAMPERING WITH THE WELL OR THE ENTRANCE OF FOREIGN MATTER. UPON COMPLETION, PROVIDE TEMPORARY WELL CAP.

AN EXPERIENCED FOREMAN OR DRILLER SHALL BE IN CONSTANT CONTROL OF WELL SITE AT ALL TIMES DURING WELL CONSTRUCTION AND DEVELOPMENT,

WELL SHALL BE GALVANIZED STEEL.

GROUT SHALL BE ANSI/ASTM C150 AND OF THE TYPE TO SUIT PROJECT CONDITIONS.

WELL SCREEN SHALL BE STAINLESS STEEL JOINTS CONNECTING SCREENS SHALL BE BUTT TYPE. WELL SCREEN SLOTS SHALL BE SIZED TO PREVENT SAND FROM ENTERING THE WATER COLUMN. THE SCREEN AND GRAVEL PACK SHALL BE SIZED SO THAT THE MAXIMUM DIAMETER OF ANY PARTICLE ENTERING THE WELL IS NOT LARGER THAN .75mm.

THE CONTRACTOR SHALL DEVELOP WELLS BY SUCH METHODS AS WILL EFFECTIVELY EXTRACT FROM THE WATER-BEARING FORMATION THE MAXIMUM YIELD PER 4.0M OF DRAWDOWN TO A SAND-FREE CONDITION. WELL DEVELOPMENT SHALL BE PERFORMED IN A MANOR THAT DOES NOT CAUSE UNDUE SETTLEMENT AND DISTURBANCES OF STRATA ABOVE WATER BEARING FORMATION.

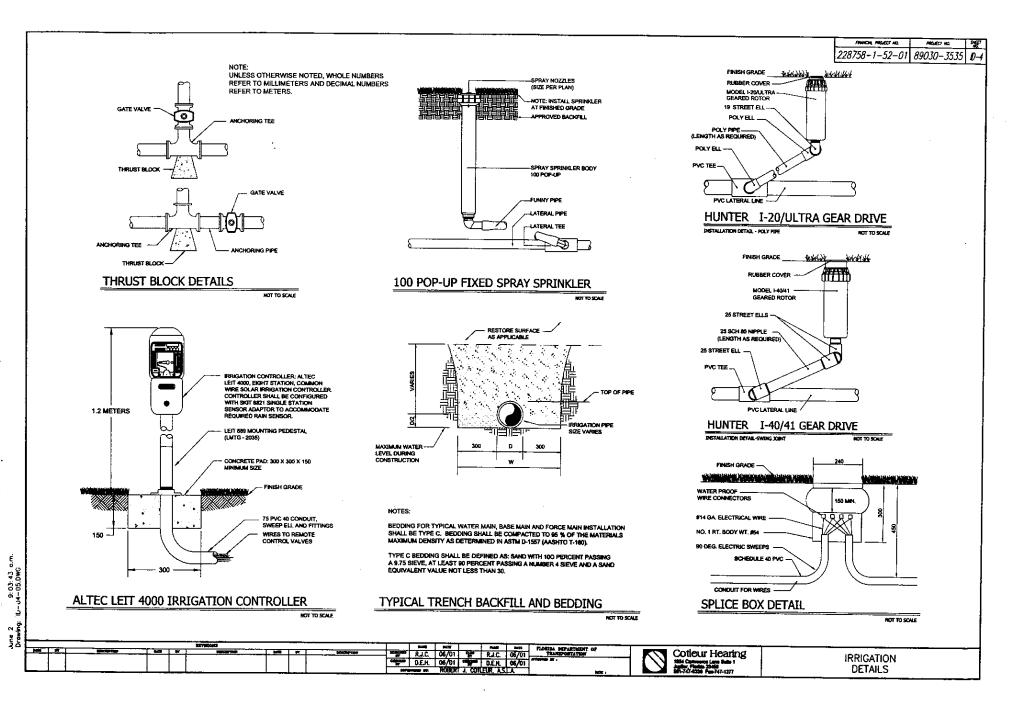
THE CONTRACTOR SHALL CONDUCT VARIABLE CAPACITY TEST PUMP WITH MINIMUM CAPACITY OF MAXIMUM EXPECTED YIELD AT TOTAL HEAD EQUAL TO DRAWDOWN IN WELL PLUS HEAD LOSS IN PUMP COLUMN AND DISCHARGE PIPE.

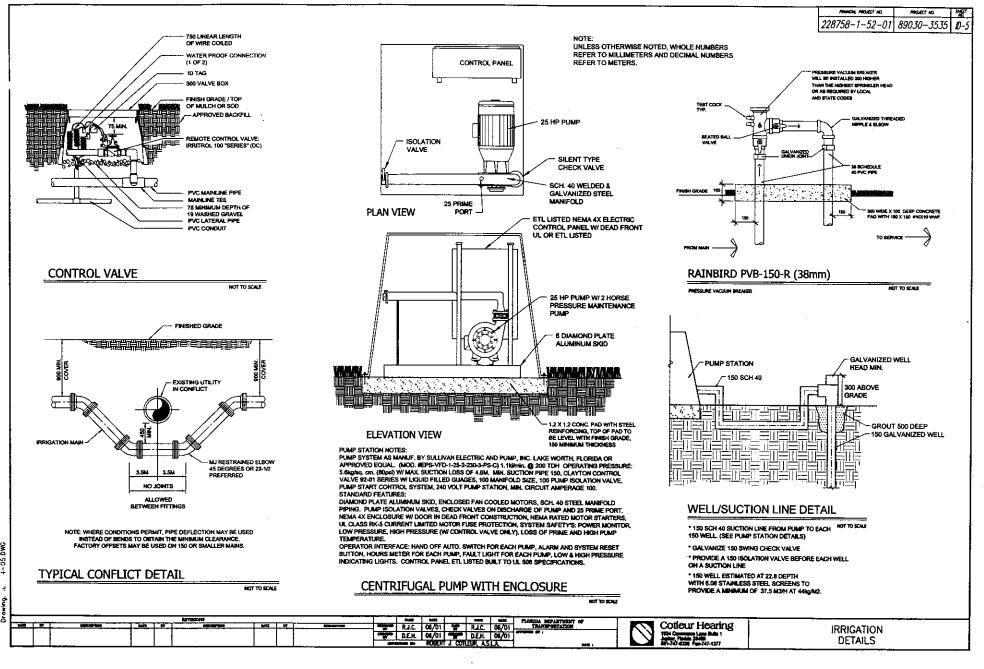
ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.

SUBMITTALS: THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A REPORT CONTRACTIOR'S REPORT SHALL INCLUDE: STATIC WATER LEVEL; ESTIMATED MAXIMUM SAFE YIELD AND ANTICIPATED DRAWDOWN AT MAXIMUM SAFE YIELD; LOG INFORMATION INDICATING STRATA ENCOUNTERED FOR THE WELL; AND SCREEN DIAMETER AND OPENING SIZE.

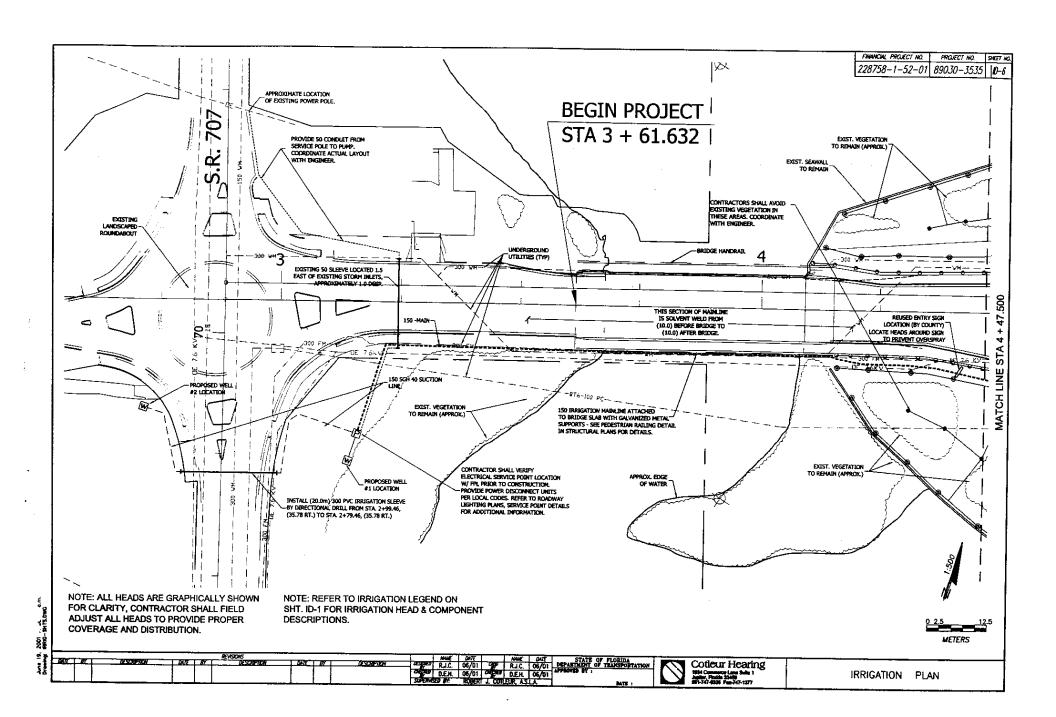
GUARANTEE: THE CONTRACTOR SHALL GUARANTEE THE IRRIGATION WATER WELL, INCLUDING MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF PROVISIONAL ACCEPTANCE.

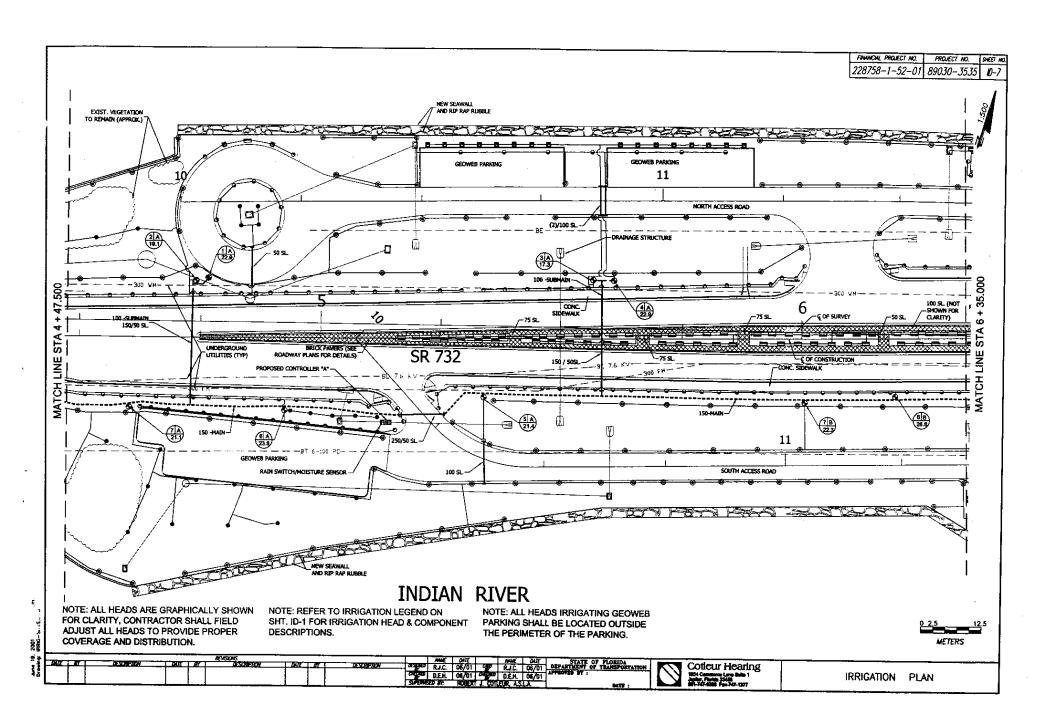
WELL CONSTRUCTION AND DEVELOPMENT INCLUDING ALL PERMITS, LABOR, MATERIALS, TESTING AND INCIDENTALS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR IRRIGATION.

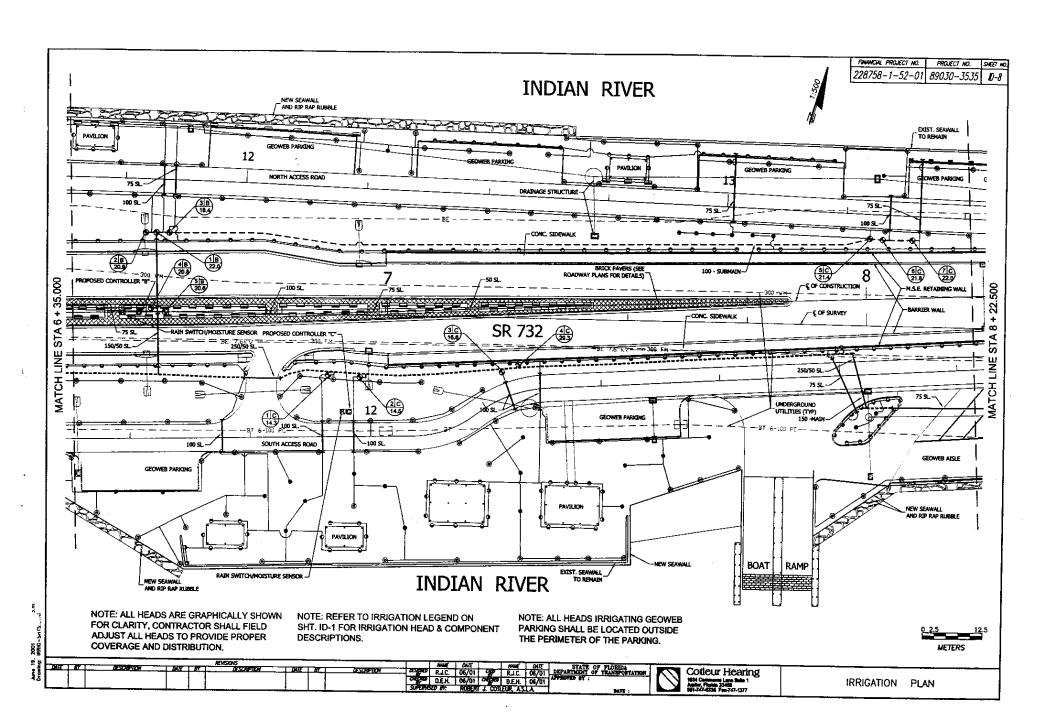


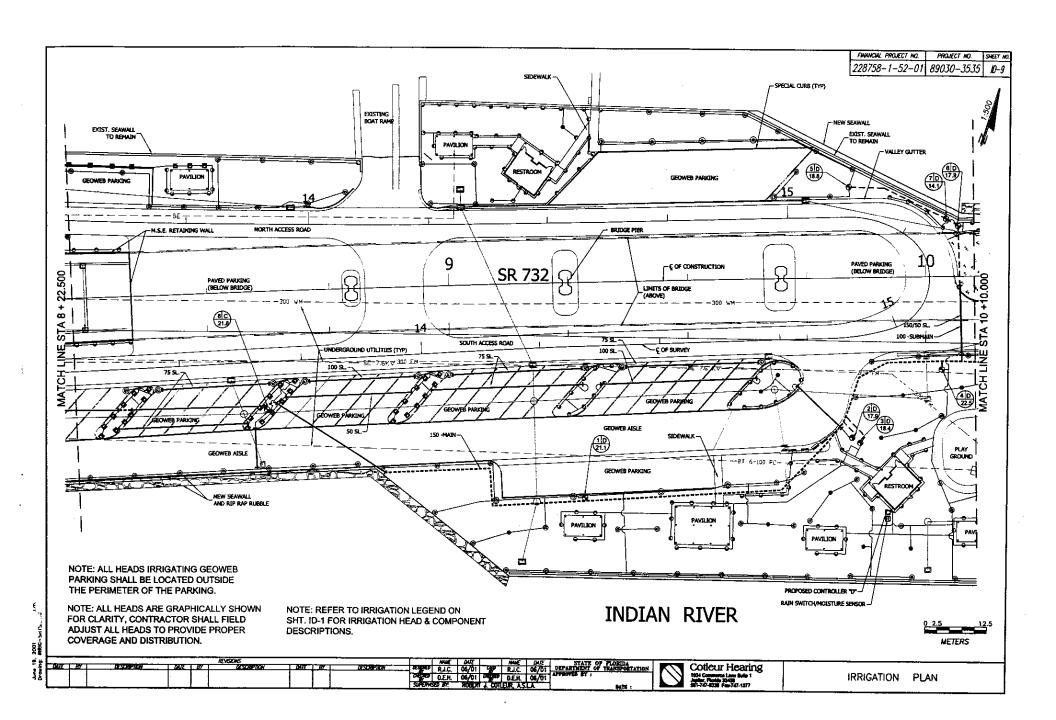


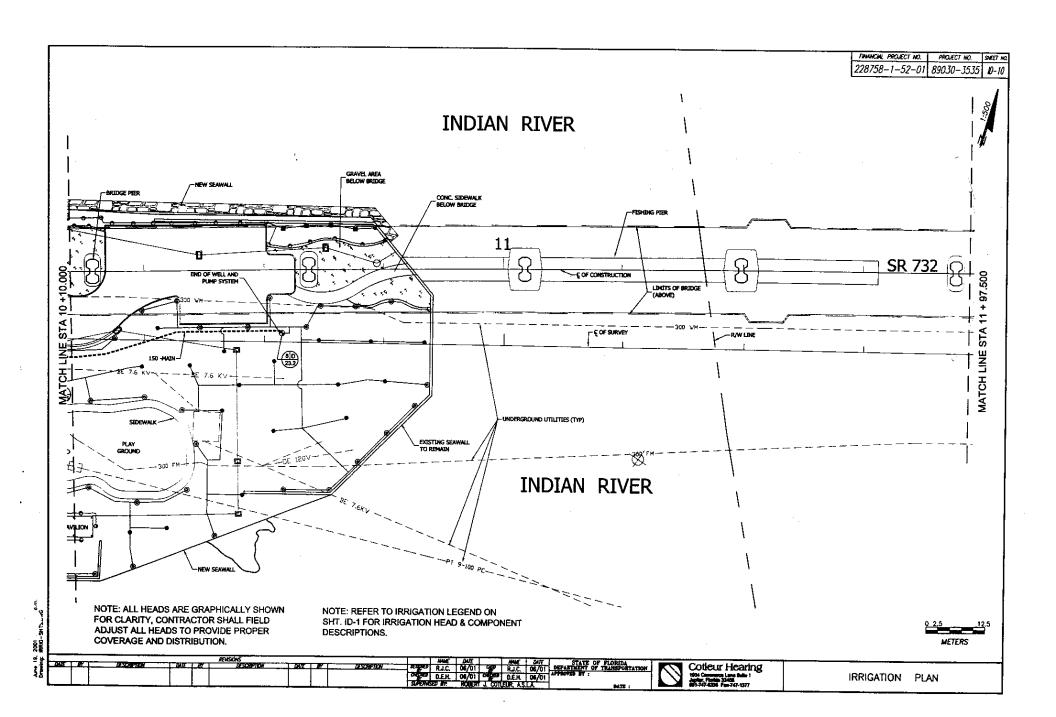
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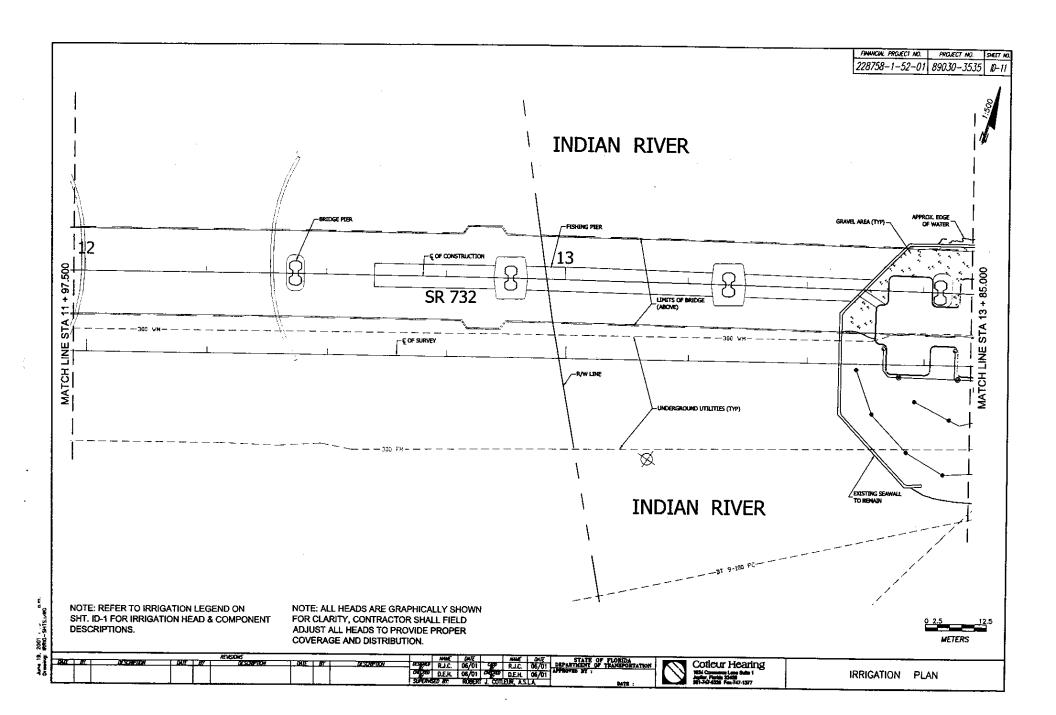


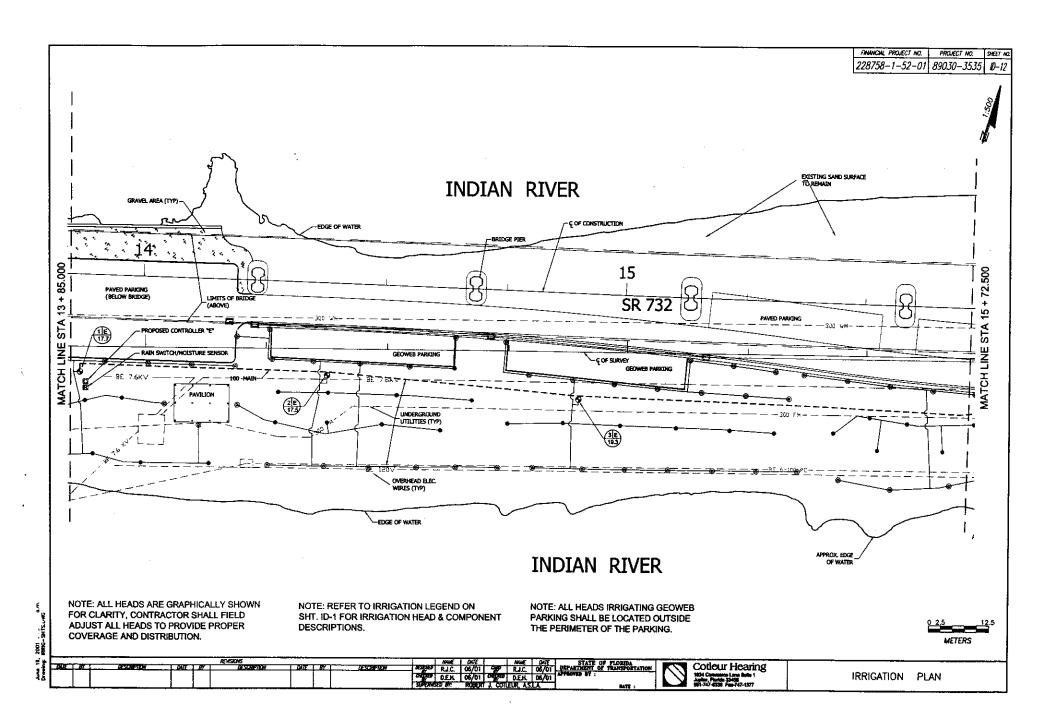


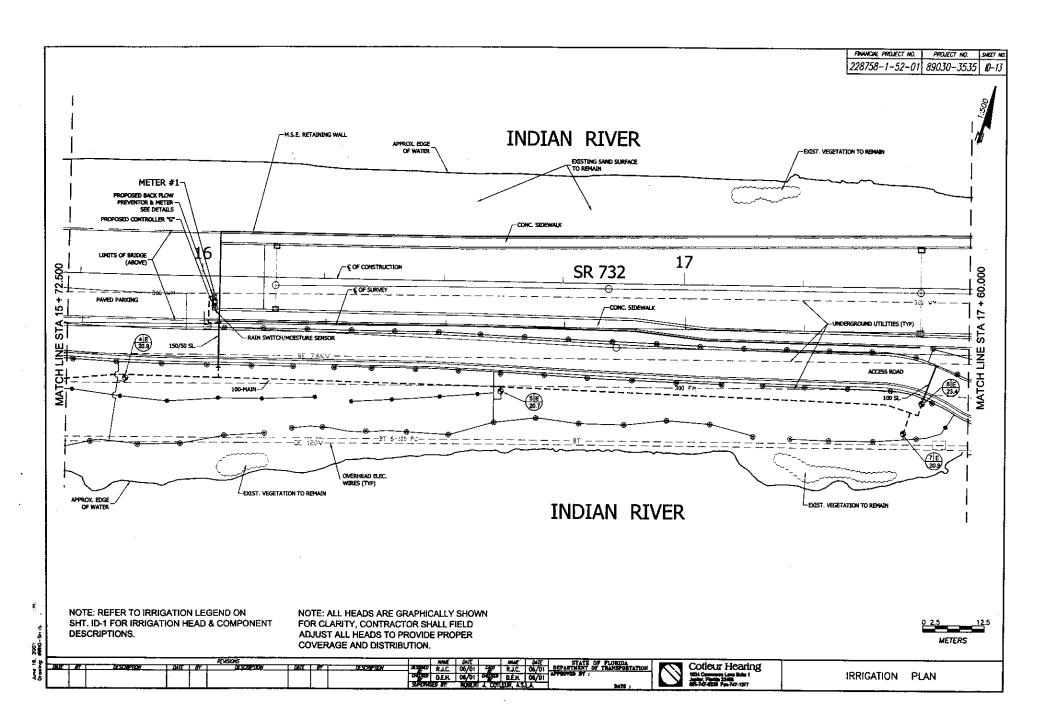


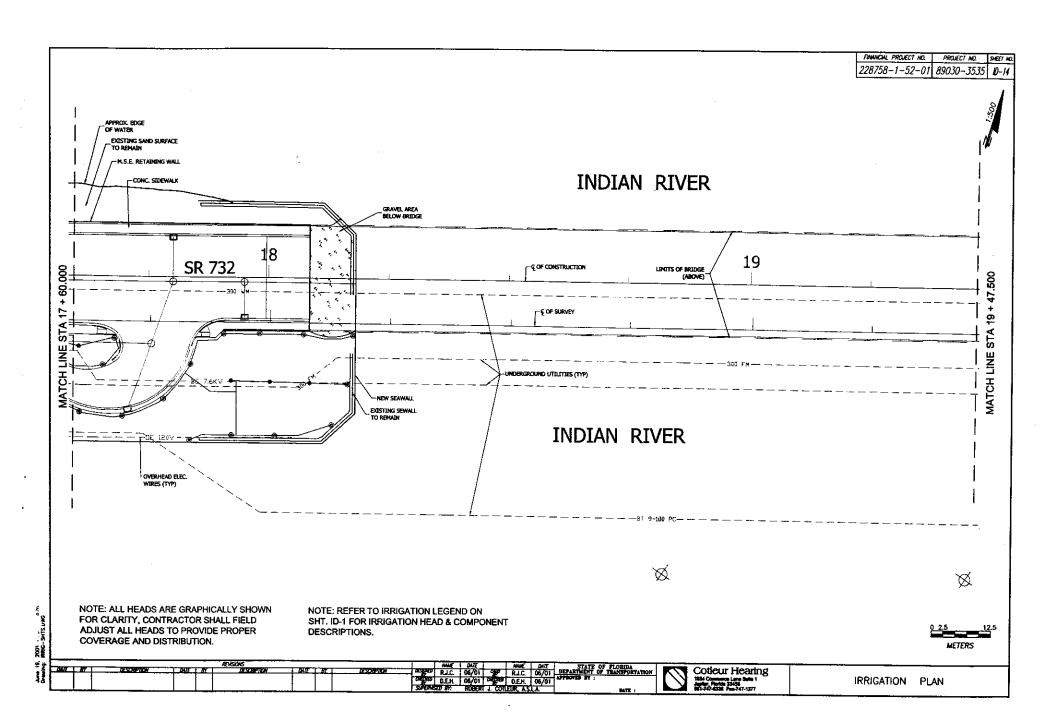


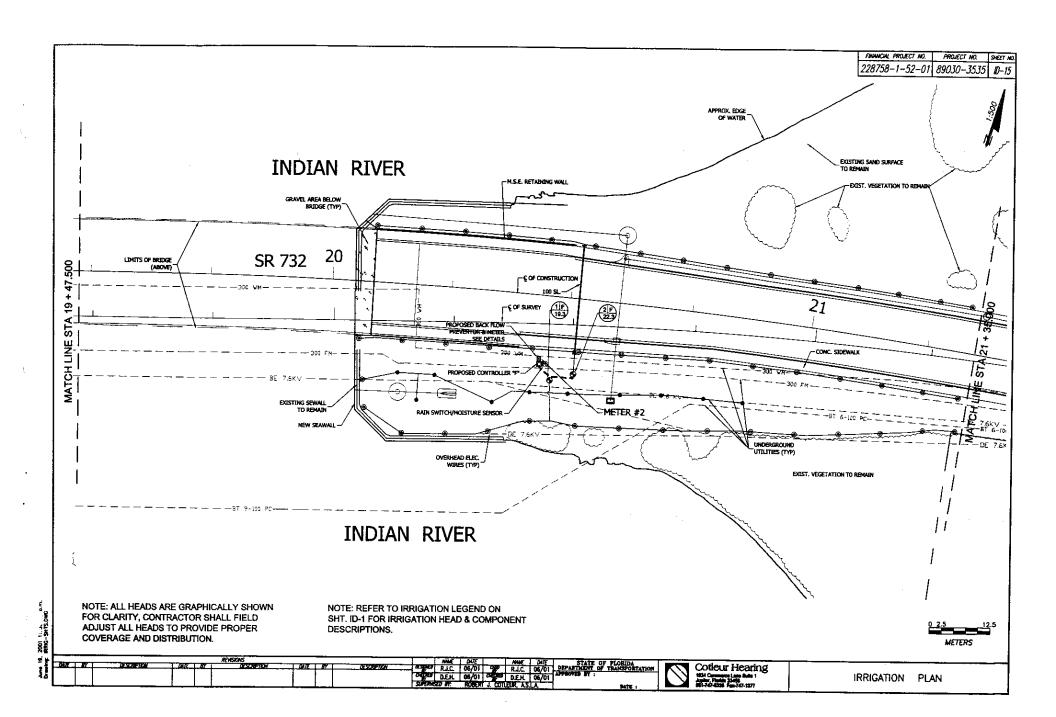


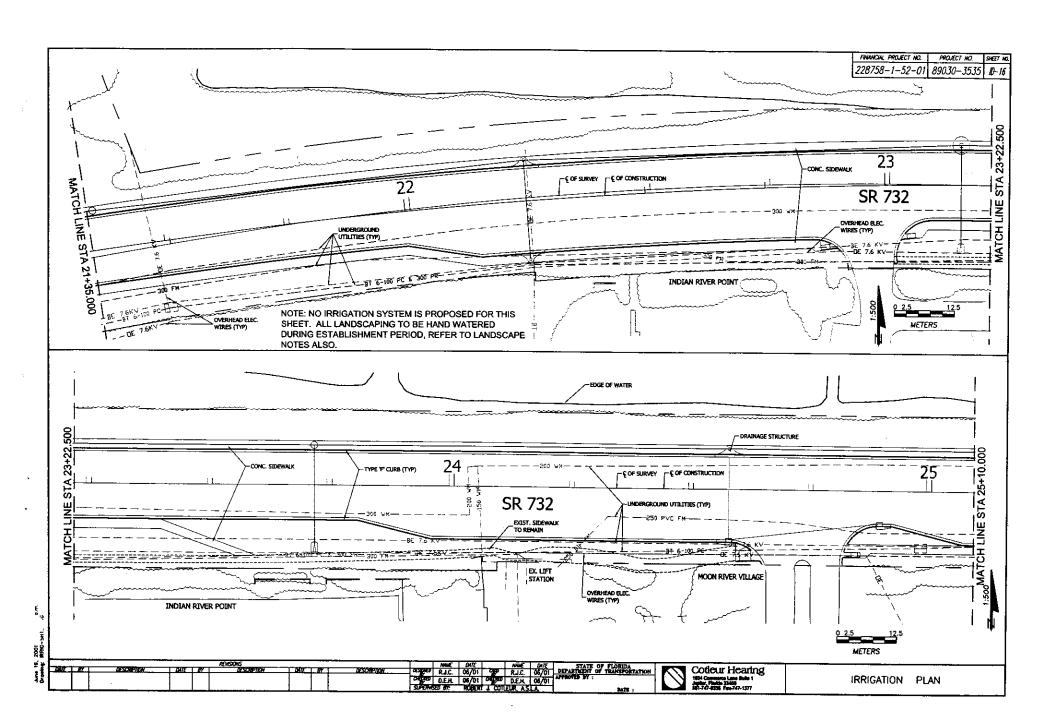


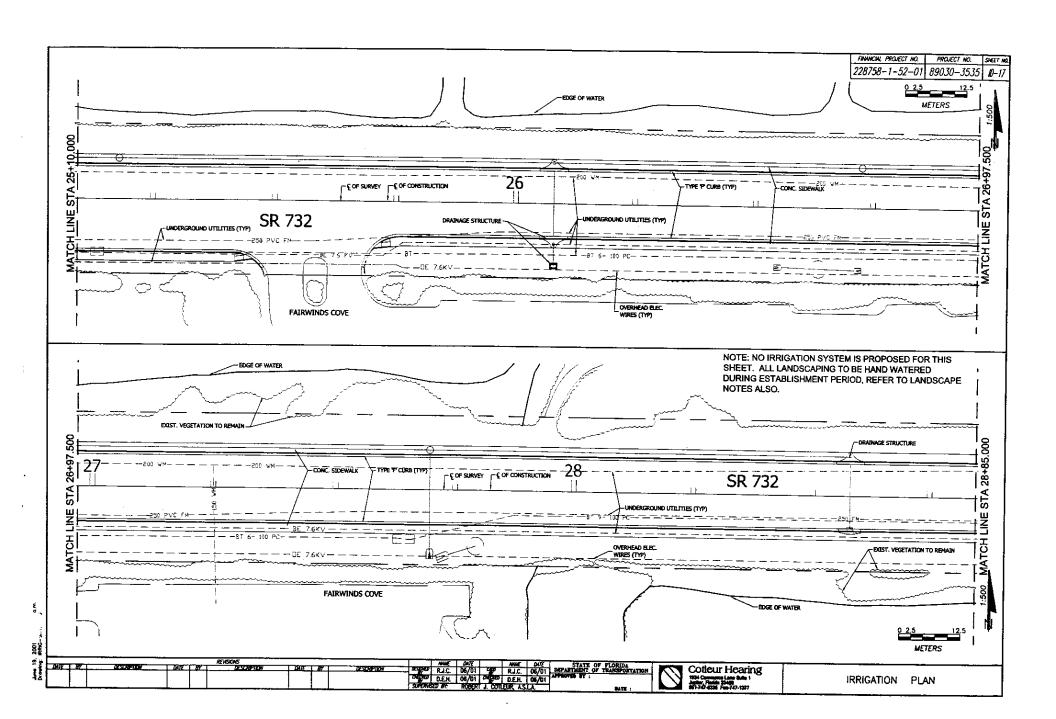


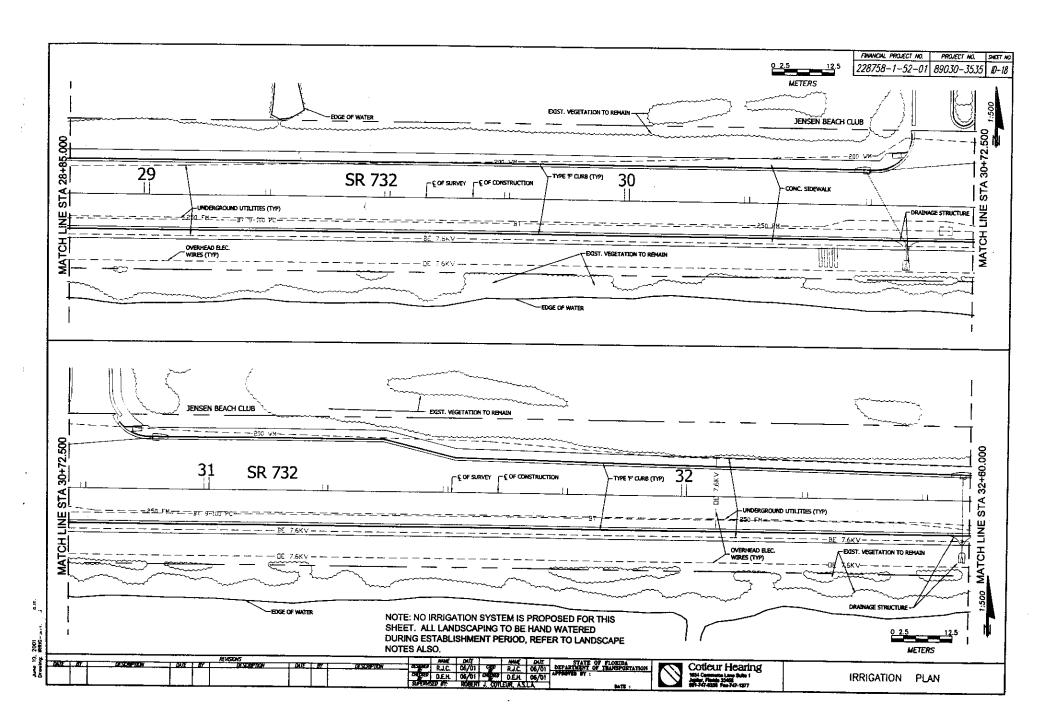


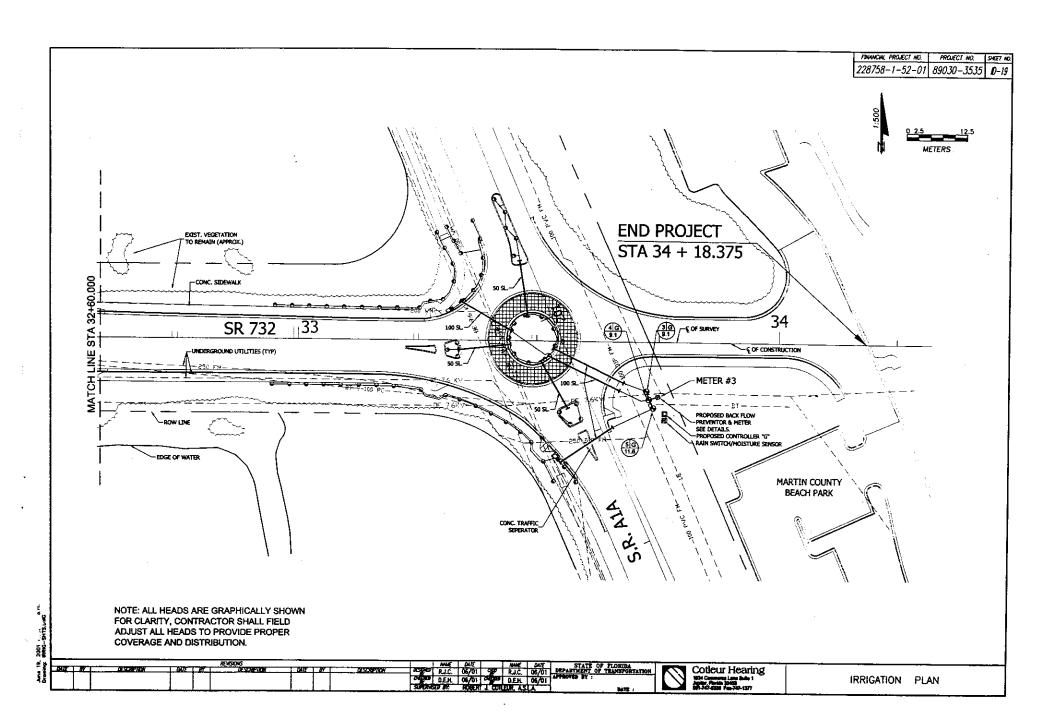












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INDEX OF ARCHITECTURAL PLANS

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SEWAGE PUMPING STATION SPECIFICATIONS

O SPECIFICATIONS FOR ROPO AND BREDGE

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 228758-1-52-01 STATE PROJECT NO. 89030-3535 (FEDERAL FUNDS) MARTIN COUNTY (89030) STATE ROAD NO. 732

ARCHITECTURAL PLANS

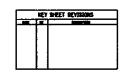
ARCHITECTURAL SHOP DRAWINGS TO BE SUBMITTED TO: GRANFIELD & GRANFIELD ARCHITECTS

3601 SE. OCEAN BLVD ST. LUCIE BUILDING SUITE #002 STURRT FL. 34996

ARCHITECTURAL PLANS PREPARED BY: GRANFIELD & GRANFIELD ARCHITECTS 3601 SE. OCEAN BLVD ST. LUCIE BUILDING SUITE #002 STURRT FL. 34996 PHONE (561) 283-6032 FAX (561) 283-8150

CIVIL PLANS PREPARED BY: CRLVERT MONTGOMERY P.O. BOX 92 STURRT FL. 34995 PHONE (561) 287-3636 FRX (561) 220-0580

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED BY REPRODUCTION.



P.E. Mai

NOTE: ARCHITECTURAL PLANS ARE IN ENGLISH UNITS

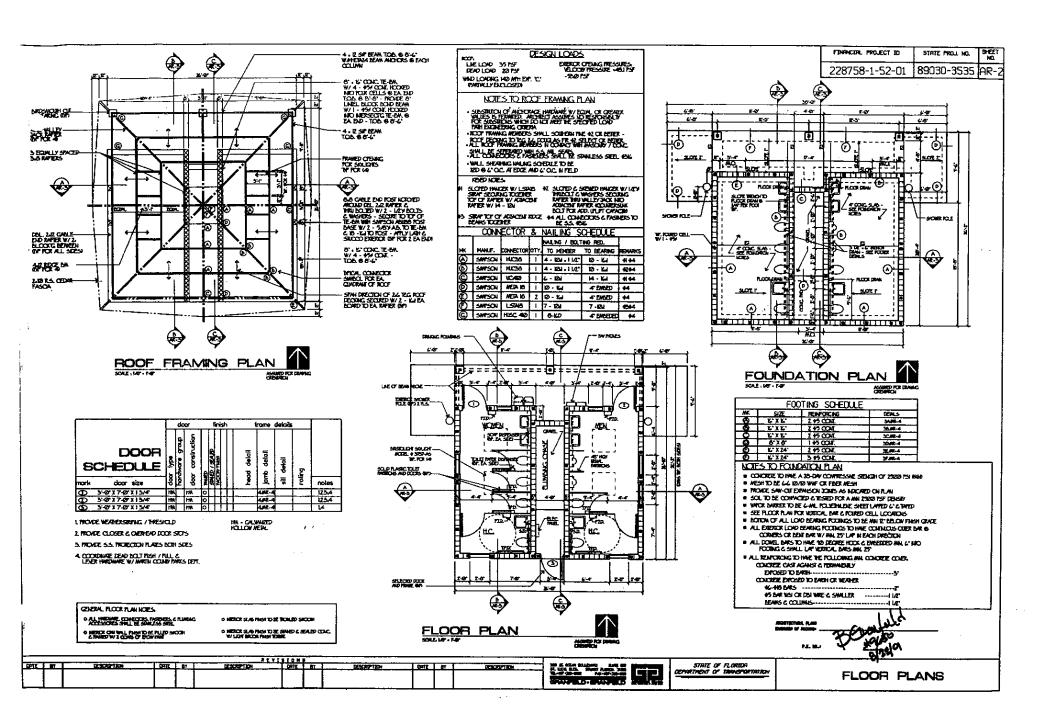
FOOT PROJECT MANAGER IJOSEPH BORFILLO

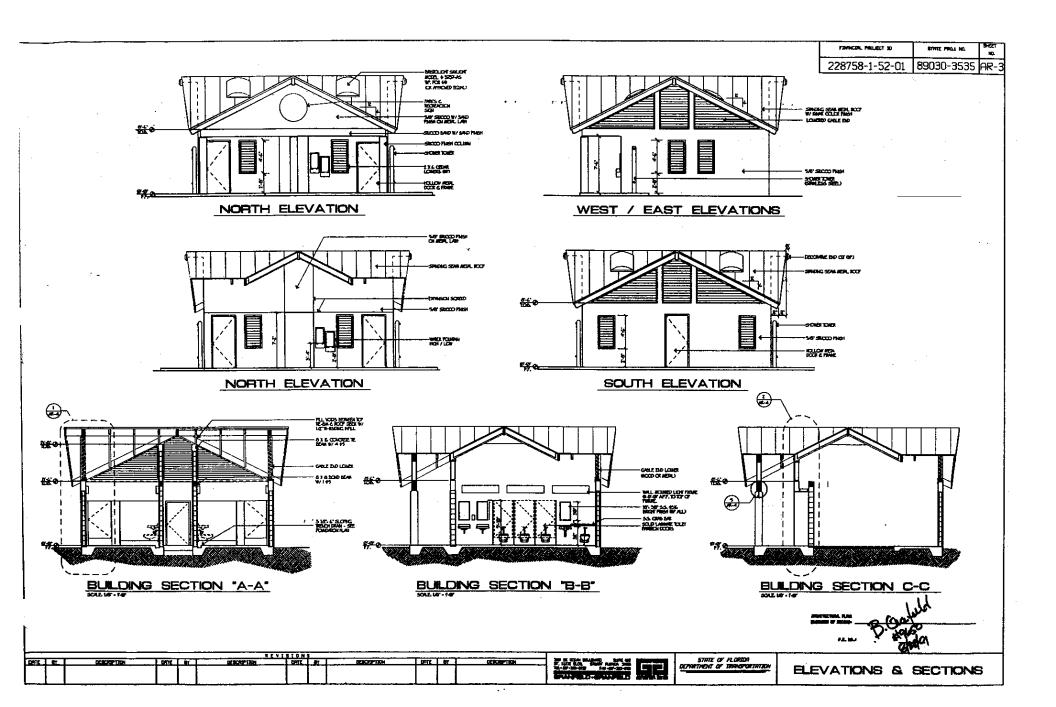
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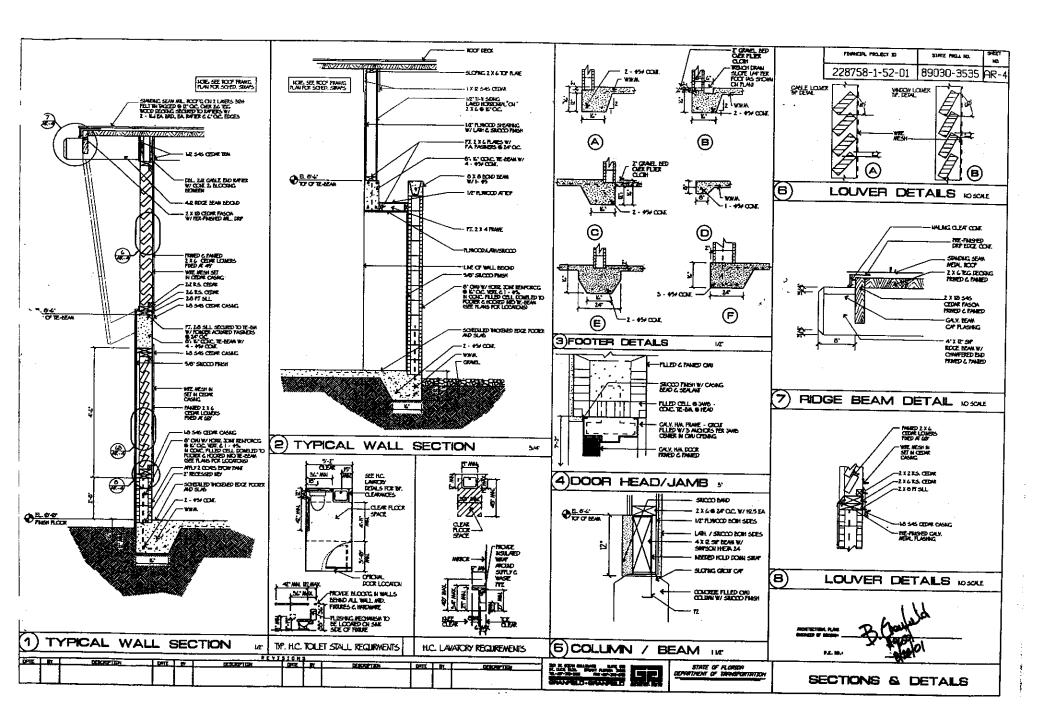
ANTERSON DESCRIPTION

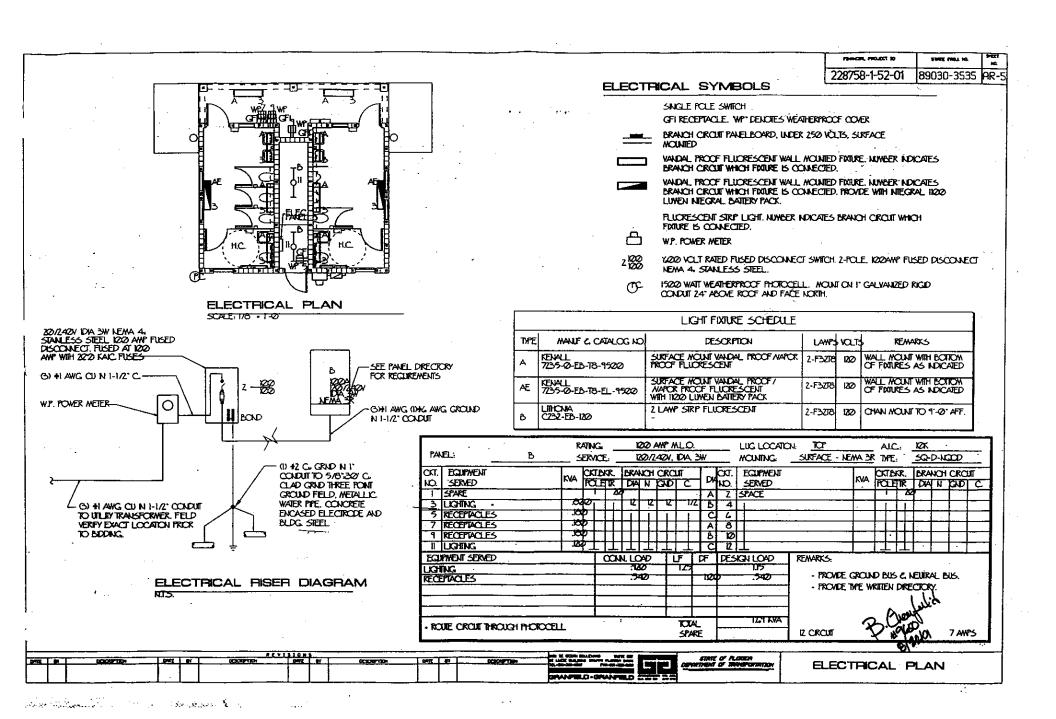
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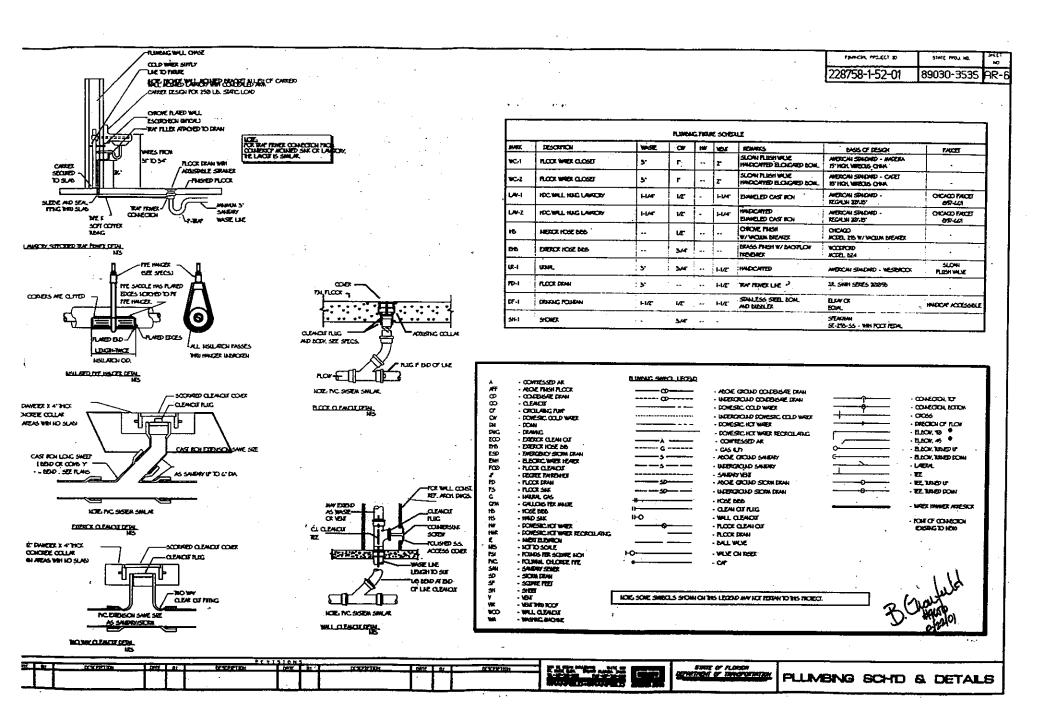
KEY SHEET

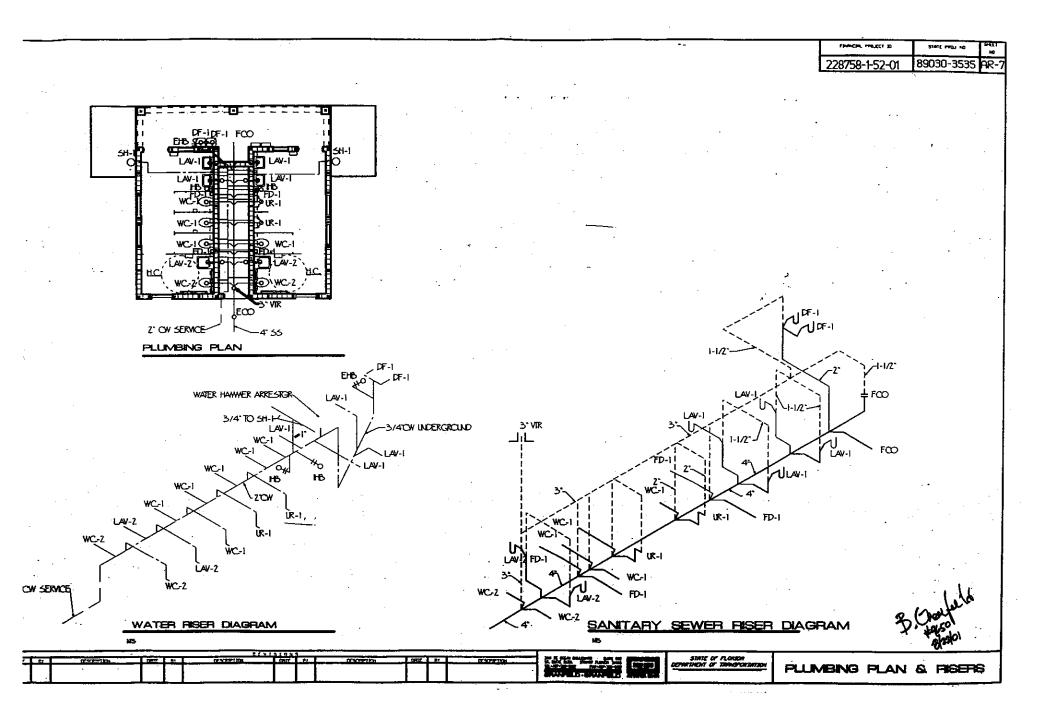












ELECTRICAL SPECIFICATIONS

GENERAL

- ALL WORK SHALL BE IN ACCORDANCE WITH THE LARST ACCITED EDITION OF THE NATIONAL RELEGIFICAL CODE GUELD ALL LOCAL CODES, ORDANICES, REGLATIONS AND ULLIFYTOMER AND PREPRIORS COMPANY STANDARDS.
- ALL WEE SHALL BE COTTER THE THAT FOR SEES IF TO 46 AND THE THAT FOR 46 AND LARGE ULLESS CHEMBER LOTTER AND SHALL BE INSTALLED IN CONDUC. MANNA COLDUCTIC SEE SHALL BE 1859 AND.
- ALL BRAICH AND FEEDER CRICUIS SHALL COMPAN A SEPARATE GROUNDIG CONDUCTOR AND SHALL BE SEED AND BOXED IN ACCORDANCE WITH ARROLE 250 OF THE NECL.
- A ALL CODE INSTALLED IN INTERCY LOCATIONS SHALL BY THE EAST, WITH STEEL SET SOTEM COLLECTORS AND COLLINGS, ALL COMBIT INSTALLED IN EXERCIS LOCATIONS, ANONE CHAIRE, SHALL BY CALMANIZED FICED CODES, ALL CODES BELOW CAREE SHALL BY SOMERLE 40 FING. ALL CODES SHALL BY CONCEASED.
- COMPACTOR TO COORDINGE THE LOCATION OF RECEIPAGLES, COURCE, CROSSS, COMMINICATIONS AND DATA CULLETS, LICETRIA FROMES AND REVIOUS WINTER CHARTS REPRESENTANCE PRIOR TO HERALLATION.
- 6. DRAWNES ARE DACKAWATIC CONTACTOR SHALL REFER TO ARCHECTURAL, CALL AND STRUCTURAL PRANNES AND FIELD CONDITIONS FOR ALL DIVENSIONS.
- 7. COMPACION SHALL CISPAN AND TRINISH ALL TERMIS TECLIED. PROVED ALL LABOR MARRIALS. EQUIPMON, ATTUMICES AND TOCAS TO PERFORM ALL MORE MECASIAN TOTAL TO PERFORM ALL MORE DECIDION OF THE BLECTRICAL WORK AS SHOWN ON THE GRAWNICS. PROVIDE WORK NOT SECONDULY SHOWN ON SPECIFIED, HE TECRIFIED IN SHALL RECOVER AND TO SAMEN'THE DESIGN MEDIT IN THE WORK AND TO COMPLY WITH ALL ATTUCABLE CODES AND RECLIFICATION.
- 6. THE DRAWNES INDICATE THE CENTRAL ARRANGINGS OF ORDIDS AND CIRCUIS. LOCATIONS OF SANDLES, PARE BOOKES, CONDUIS AND OTHER MORE, RICCE FIELD MEMORICAL OF ALL, DAMBISCON IS REQUIRED. CONDUIT RIMS AND GROUNDIG ARE SHOWN PROGRAMMEDICALLY CALLY. FIELD MEMORY ACTUAL COUNCIL OF CONDUIS.
- 1. PROVE ALL 20 AMP EMED CIPS COLORD WRIGH DEMOS NU ESS CHERMES LOTED, NOLDE COOR FLARES, JUNCTICH BONES AND FLASEK RIKES AS MEDIED TO FACLINE THE INSTILLATION OF FLUSH MICHIED REVICES AS RODECT COODTONS WARMS, ALL, COOK FLARES SHALL SE SEMELISS SIRED, UNLESS CHERMES CORD, ALL CULTIS AND SMITCHES SHALL SE RUSH MOUNTED.
- 2). ALL TOLERATORS MADE THROUGH A FIRE RAPED ASSEMBLY SHALL BE PROTERLY SEALED TO MANKAN THE NEGRIFY OF THE ASSEMBLY FIRE RUL, AND RITA.
- COMPACION TO PROME SPROT COORDANION WHI ENSING BOUNDER AND FELD VERFYTHE ENACT FINAL LOCATION AND BOUNDAY FOREY OWNACENSICS WHI THE CHARTS ANNORED REFRESHARINE FROM TO CONTRICTION
- E. EACH NODER SHALL INSPECT THE SIE AS REQUEED FOR RICHLEDGE OF EISTING COURTIONS PROFET TO RECORD TO ARRIVE TO CERNAL SUCH RICHLEDGE. SHALL NOT RELIDE THE SUCCESSFIL BOTTER OF THE RESPONSIBILITY TO MEET ERSTING COURTIONS IN PERFORMACINE WORK WIDER THIS COURTROOT.
- B. WHERE NEW WORK CANNOT BE INSTALLED WINDLY CHANGES IN EXISTING FACILITY OR SISSING OR WHERE IT IS INDICATED ON IRRAININGS TO REVIORS AND EXISTING INSTALLATION, THIS CONTROL SHALL INCLIDE ALLERFACIOUS TO EXISTING WORK AS REQUIRED TO INSTALL NEW WORK. APPRIONS TO THE CONTROL COST SHALL NOT BE ALLONED RECORDER OF THIS CONTRACTORS FALLER TO INSTRUCT EXISTING CONDITIONS AT THE SIRE OF THE WORK.
- ME VOX SWL NOLDE ROISOIS MODERADIS
 AD RENOX OF HE DESING MOLEM AD SISHIS
 AS RELIEDED FOR INSTITUTION OF HEW WOX, AD
 TOX CONSCIOUS BETHERE DESING WOX, AD INV
 OX, WHER ROLLIED, HE WOX, AD COMICL CROSS,
 TOX EDAZES AD RELIMBET HA ARE TO RESAN IN
 SENCE, FORCIES ARE ROUND IN PRINCIPAL
 WOX, OR THE ROMAN OR CHING OF DESING
 BUILDING CONSTRUCTS, AD WINDOW HOT SHILL
 USE CONTERNO
 BUILDING CONSTRUCTS, AD WINDOW HOT SHILL
- F. ITOME FORM CONFICION TO FRE-WIRD MODILAR PURBURE SISTEM UTLENG PLEIBLE MENI, COLOUL FILE COCONING THE ENGLICORION AND REQUIREMENTS MENI PROFE EQUIPMENT LITELIZED.

LE DISTRIC COLOTOLIS INDICATED CHITTE DEMANCIS ARE TAREN FROM THE BEST INFORMATION AMALANILE ON IPPORTUS CONTRICT FRANCIS AND TROM WEIGHT, SER INSTRUCTION AND ARE INCIT OF BE COCKREDIO AS ASSAULT COLOTOLIS BUT ARE TO MODIFIED THE MIDIT OF THIS WORK. IF SHALL BE THE RESPONSIBILIES OF THE CONTRICTOR TO VERTY ALL DISTRIC COLDIDIONS AT THE FROECE SHE FROM THE WORK FOR THE WORK AS RECIRED TO MEET THE DISTRIC COLDIDIONS AND THE MIDIT OF THIS WORK FOR LONG AND THE MIDITE OF THIS WORK FOR LONG AND THE MIDITE OF THE WORK FOR LONG AND THE MIDITE OF THIS WORK FOR THE WORK FOR TH

CUTING AND PATCHING

- THE RESPONSELBY FOR ANY CURRIG OF CONSTRUCTION WHICH IS REQUED FOX THE RESPULLATION OF DIRECTLY BY MOCK, SPILL BE BY THE CORRECTOR. THE COMPACIDES SHIPL CORRECTION WITH ALL OTHER TRACES AND THE COMPET AND COSTAN PATTOON. FROM THE MODINEST/BUSINESS FROM TO ANY CURRIGS. ALL PAGINGS, PRAINING AND PHISH WORK, SHIPL, LEE BY THE CORRECTOR.
- 2. OITHIG SHALL BE DOLE WHI EDITENE CAPE AND IN SIDO! A MANARE THAT THE SPENICH OF THE SHIDDIES WILL NOT BE DIDMICERED. WHEREIGH INSISELE CHEMICALS IN CONCRETE OF MACOINF CONSTRUCTION SHALL BE BY CONCRETE SHA OF ROMEY COSE BY COLOR BY CONCRETE SHALL BE CHEMICAL SHALL BE GUTTER MANARE SEE REGISTED FOR THE MORELAND OF THE WORK. A REGISTED FOR SHALL BE THAT IN SEE THE TOWER TO MORE TO MORE AREAS AND TO THEREIT DIST FROM STREAMED TO MORE THAT AREAS AND TO THEREIT DIST FROM STREAMED TO MORE TO MORE TO THE WORK. AND TO THEREIT DIST FROM STREAMED TO MORE TO MORE TO MORE AND TO THE WORK. AND THE W
- 3. WERE OTBACS ON FOLES ARE OF IN CONSTRUCTION AND THE COTTAG BREAKS ELECTRICAL CINCUITY ON COUNCIL CROSSING CONDUIT AND WINKS, THEIR IS SHALL BETHER RESPONSABLE OF THE CORNICOL TO REPORE THE CINCUITY CONDUIT AND REWING AND TO CONTLIES THE CROSSING AS REQUIRED AND AS ARROAD BYTE ARCHEOLOGICIES. THE TRANSAY CONTLICTION SHALL, BE PROJECT WHERE RECEISAN SETTIES THE TRANSAY RECORDING AND CONTLIED UNITY IS PRIMARY.
- 4. REPORE ANY CODING, TARCHING, OR FINSHING WORK IS STARRED, DUST AND MOISIURE PRODECTION SHALL FIRST RE. INSULED AS RECURED BY THE WORK AND AS SPECIFED IN THESE SPECIFICATIONS.
- O'BRACS CUI IN FLOOR SHALL SE CUI DY CODE DRILLING WHERE ROSSELE, AFTER WORK IS HERPLED THOUGH AN O'BRACG IN FLOOR, THE O'BRACG ARCIND THE WORK SHALL SE PROFED AND SEALED WARRESTON AND BYON O'R SLICOLE BASED. HOH-OWCHAG ELAFOLDRIC SEALEN.
- CORRACTOR SHALL BE RESPONSIBLE FOR ALL CUTING AND PAYONING OF THE ENSING COLORERE SCHWILLS, ASHMUT PARKING LOTS AND EXTERNOR WALLS IN CREEK TO INSTALL MERIORCULO ELECTRICA, PEDER L'ARRALLS.

PANTING

 COMPACION SHALL BE RESPONSELE POR REPAIRING AVEAS OF CONSTRUCTION HAT ARE SOMEONED, MARKED, OR PANAGED BY HE NEW CONSTRUCTION, COMPACION SHALL MARCH THE COLOR, THE ARE PROVIDED OF PANEAS PREVIOUS.

ACCEPTANCE TESTING

I UTON CONFLETCH OF WORK, THE BITTE WIRKS, SISTEM SHIVEL, BE TESSED, AND SHIVEL BE SHOWN TO BE IN TROTTE WORKING COLDITION IN ACCORDANCE WHIT MIRES OF STEEDPENDEDS AND PRIMARIOS. IT SHIVE LIKE THE RESPONSIBILITY OF THE COURCION TO HAVE ALL SISTEMS TRANFFOR OF THE ADD THE AN ELECTIONAL MANUALE TO OFFERE SHIP IN ACCORDANCE WHI AND WORK THE SUPERVISCH OF THE INSTECTION REFRESHINGS OF THE ANOMECONALISES. THE CORRECTOR SHIVE BE ANALASE TO ASSIST IN POWORAL OF PARTY, PROMISE EIC. TO TRAIN INSTECTION AS REGISTED.

AS-BUILT DRAWINGS

INTECOMERACION SHILL PROVICE AND REST IS TO DARE A COMPLER PECCED SET OF CONSTRUCTION TA-SHILL'S BLILL RE TRINS WHICH SHILL BE CONSTRUCT DRAWN. AND SHILL SHOW REST OR OWNER FROM THE ORDINAL COMERAT DRAWNES, INCLIDING ADDIDA AND CHARLE ORDERS IN ACCORDANCE WHI COMERAT DRAWNES, INCLIDING ADDIDA AND CHARLE ORDERS IN ACCORDANCE WHI COMERAT REQUIREMENTS AND SHILL BE REST ON THE SET OF TRINS SHILL BE REST ON THE SHIP AND THE COMERAD AS ARRICOVER TO THE SET OF THE SHIP AND THE CHARLES IN THE LACULT WHICH DRAWNES SHIP AND THE SHIP AND THE OWNERS SHIP AND THE S

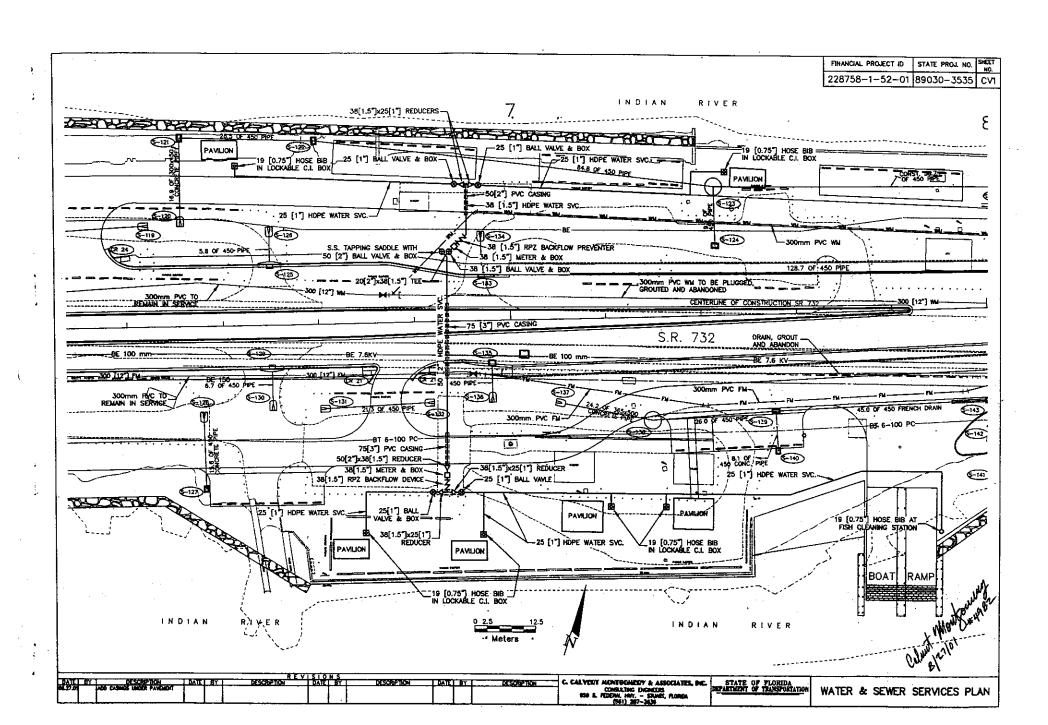
7044CRU, FROLET 30 STORE ROLL NO. SHET NO. 10. 228758-1-52-01 89030-3535 AR-8

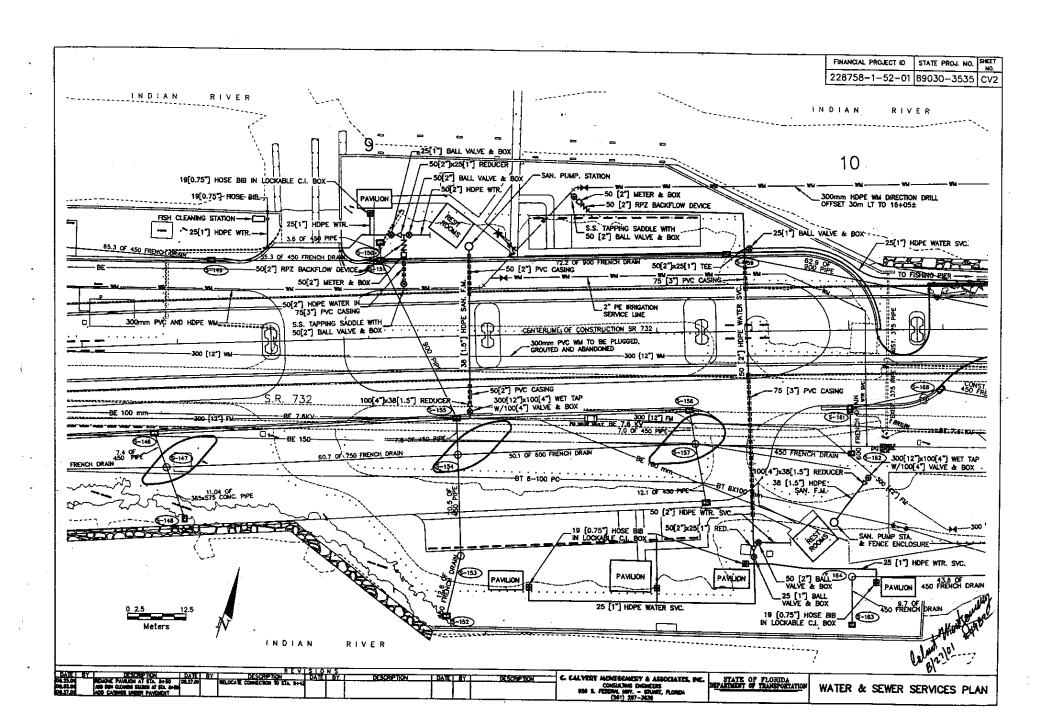
PROTECTION

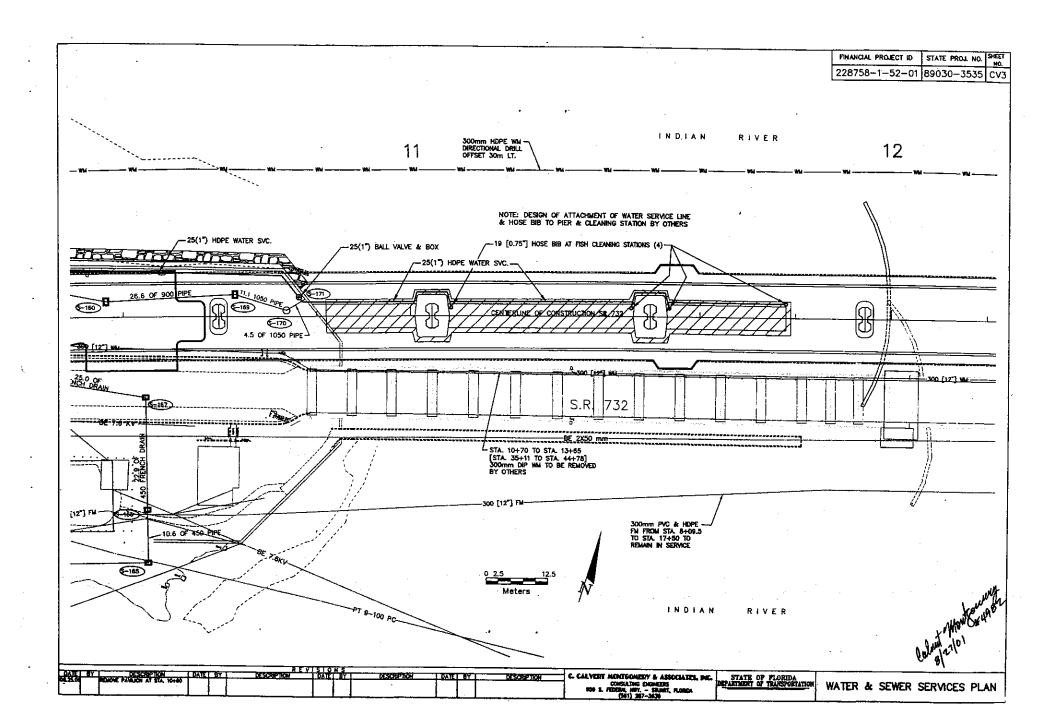
- 2. THE CORRIGOR SHALL FROME AFEAINE PROJECTION WERENER WORK IS TO BE TEPCHREEN IN PRISED COCKETS FOR PROJECT IN PROJECT OF ARMOUND A PRISED ACCOUNT. NOW TO BUILDING OCCUPANTS AND TE FRILL TO PROJECT HE SHEADING OF DUST, DRE, DERIS, AND ACCOUNT FROM THE ARMA WHERE WORK IS SHEED TEPCHREEN AND TO TROBBET BUSY, DIESES, AND ACCOUNT WORK OF THE SHADING COCKETANTS. PRISEDERS OF BUSY AND ACCOUNT.
- 3. THE COMPACES SHILL REPAR AT NO COST TO THE OWER ANY DAWNOE COSE BY HINSELF OR HIS ENYLORES.

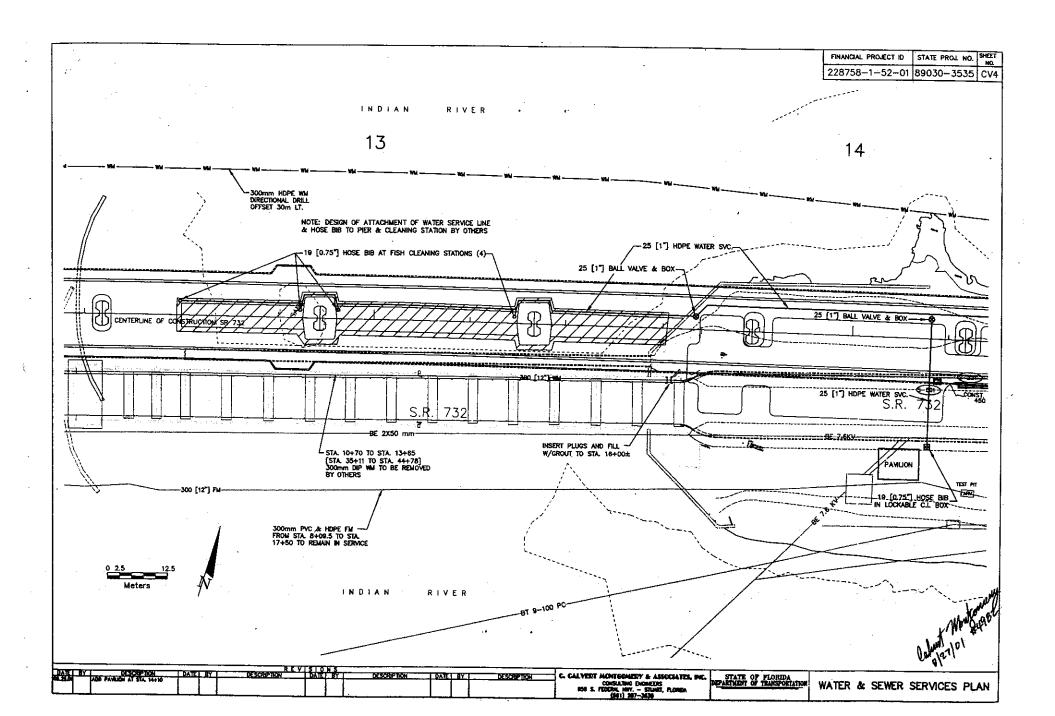


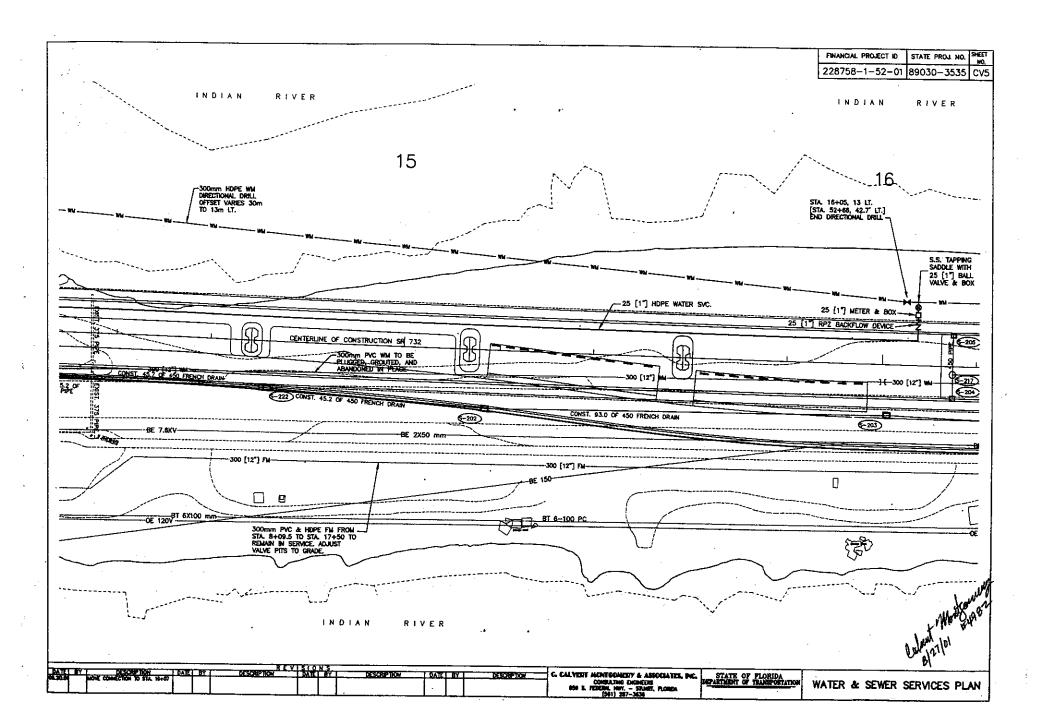
ELECTRICAL SPECIFICATIONS

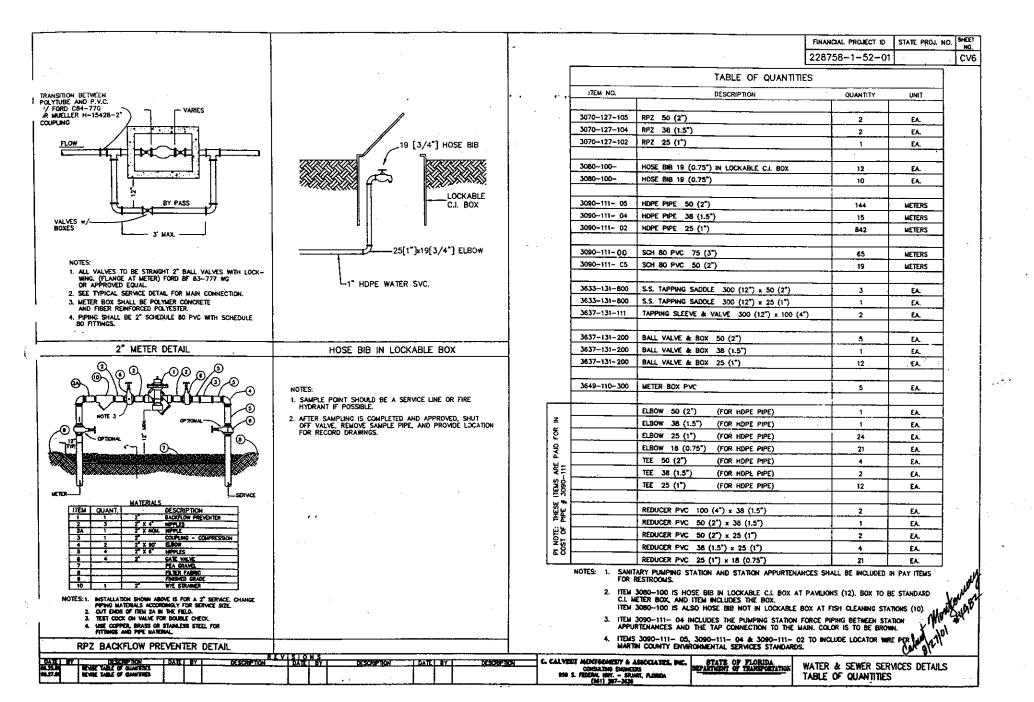












FINANCIAL PROJECT ID

STATE PROJ. NO. SHEET

228758-1-52-01 89030-3535 CV7

POTABLE WATER SERVICES

Water service tops on the main shall be spaced at a minimum A distance of 18 inches apart, or as shown on the drawings. A minimum distance of 18 inches from a 5 joints must be maintained statement of 18 inches from 18 joints must be maintained. Services shall have a minimum of 30 inches of cover including at distance, and the statement of the s

All values shall be placed according to pion unless relocation is mutually agraed to. Record or as built drawings shall reliest the actual location and size or at makes, hydratis, services and values. All taps must be at least 18 Inches from a fitting or ball.

- 10. Connection To Existing System.
- a) Tapping Tees and Volves.

Tepping stemms shall be \$30° intainless stack with floraged and/or. Topping volves shall be resilient used type with a floraged print of the intel side one of mechanical print on the stack promotion of the volves. Topping volves shall have a 2 stack promotion of the volves. Topping volves shall have a 2 stack promotion of the volves. Topping volves shall have a 2 stack promotion of the volves of the volve

A Department representative shotl operove each topping location before the topping steeve is installed. Topping steeves shotl not be installed within 3 feet of ony joint or fitting. Before installation of topping ise, the area to be topped and the topping less, the area to be topped and the topping less, that is a state of the steeping less and be cleaned with petables selfer. After all sand, did not debrik have been removed from the moin, the topping he has been self-upon shot be be installed on the satisfus moin shotl be sevoluted with a chaoring or blacks self-upon with 100 ppm of choicins.

After the topping las is altoched to the main, the valve shall be about our topping las and valve assembly sholl be shall be about to provide the contract of the shall be about to the shall be about

Construction telem shall include a highest mater installation for each size resident to be invalided (see officient display), but bows. Fer 2 such and smaller meters are standard. The beatifier prevention device shall be installed choice ground close to the meter. No taps or connections are obtained between the meter and the becifitor prevention device.

On all pipe construction 10 gauge, Thirty insulates, stembed copper vire short be laid and seasoned or land flower flow shall be conditioned from rolve box to video box, arrapped to forces around sect, joint of pipe and extended shall seek sometime to contain the section of t

Service wire shall be loid in the trench with all services, connected to the main wire and wrapped around the service piping or tabing. Were far potable water shall be blue in color.

All wire connections shall be made with Dri-Spice wire connectors, Imperial Snip-Snap filtings filled with exterproof allicone seatont or approved equal. All spices shall be impacted by the Department before buriol.

After its installation, the complete water service system shall be thoroughly itselfed to reserve all foreign motter. The bepartment shall be notified at least 24 hours in advance of the state of the

All piping shall be tested for leakage. Water shall be supplied to the main and pumped to the required 150 p.s.i. pressurs. The pipe tested shall aliker be leaked from presently potable lines or protected from leakage by a double valve errangement.

The Department shall be notified at least 48 hours in advance of any testing procedures. After flushing is completed, fine setting procedures. After flushing is completed, fine determine if only major defects are present. The complete order system shall then be tested at a pressure of 150 psi, for a period of not less than ten hours. The Department may, at its discretion, increase the period to four hours. No visible movement of the system shall occur and leadings shall not exceed:

(For P = 150 p.s.i., L = NO X 0.001855)

15. Diainfection and Bacteriological Testing.

After pressure testing, the complete enter system shall be chiberhooked to dehiber a minimum combined chibrine residual of of the chibren of

Contractor shall furnish boctariol analysis results to the Engineer and to the City of Stuart Public Works Department.

SEWAGE FORCE MAINS

All motorials, littings and appurtanences intended for use in pressure, pipe systems shall be designed and constructed for a minimum vorting pressure of 150 ps unless the specific application dictates a higher working pressure requirement.

All construction material shall be first quality, not previously

The accompanying STANDARD DETAIL DRAWINGS indicate specific moleral requirements. In general, metarical requirements will be guided by the latest revisions of the specifications of ANNIA, ANSI, ASTM, and MSF.

The pipe color shall be white or brown.

Ductile iron pipe shell conform to lotest stondords of ANSI/AMMA C150/A21.50 for the thickness design of Ductile Iron pipe and ANSI/AMMA C151/A21.51 for ductile iron pipe centrifugally cest in metal moids or sond-lined moids.

Joints for ductile iron pipe shall conform to the latest standard of ARS/ARMA C111/A21.11 for rubber gaster joints. Coment-lined ductile iron pipe shall conform to the latest standards of ARS/ARMA C104/A21.4

Pipe joints to be push on. The use of ductile iron pipe shall be allowed only where individually approved on a case by case basis.

Force main piping should cross under water mains whenever possible,

A minimum 10 foot horizontal separation shall be maintained between any type of sever and water line in parallel installations whenever possible.

In cases where it is not possible to maintain a 10-foot hardsontal separation, the water main must be laid in a separation the stream of an undisturbed south shelf liceated on one side of the sewer or force main at such an elevation that the bottom of the water main in at least 18 Inches above the log of the sewer.

Hartrental separation of 15 feet to buildings, top of baries of lotes and concils and other attractures shall be moleculard, if possible. An obsolute minimum of 10 feet may be allowed any when unavoidable and only with DP.

Goto Velves shall be ductile iron, resilient seat type with meximized joints conforming to AWNA C-500, lottest revision. Volves shall be designed for a working pressure of not less then 200 psi. Each volves shall have the pressure rating cost tale the body and manufacturar's none or labello cost into abory and manufacturar's none or labello cost into abory arenes.

Volving of all systems shall be designed to facilitate the isolation of each section of pipeline between intersections of the grid system. Generally, the number of valves at the intersection shall be one less than the number of pipes forming the intersection.

in all instances, effectiveness of placement shall be primary criterie in determining valve locations.

All volves, bands, tees, crosses and dead ands shall be restrained.

Clearance of 18 inches shall be maintained between all fittings (bells, valves, flanges, etc.).

5. Minimum Cover.

Minimum Cover to liniened grade over piping shall be 30 inches.

On all pipe construction 10 gauge, THIN insulated, stranded coppur wire shall be load on top of pipe. Whe shall be continuous from value box to value box, wrapped the times ground continuous from value box to value box. Yet of pipe and extended at each value box to enable location develors to be attached eithout disping up the value box.

All wire connections shall be made with Dri-Splice wire connectors or shall be encased with imperial Sale-Snap fittings filled with waterprior disclone seelant. All splices shall be inspected by the Department before buriet.

- 7. Connections for Pressure Systems.

Topping sterves shall be \$3.04 stainless steel with floraged outsite. Topping valves shall be resilient seat type with a fine party state that said and a machanical plant on the state of the valves. Topping valves shall have a 2 sinch operation of the valves of the va

After the topping lee is effectived to the make, the gate value shall be closed and trapping lee and gold value assembly shall be shall be closed and trapping lee and gold value assembly shall be closed as the contract of the shall be contracted as the contract of the c

All piping shall be tested for leakage. Water shall be supplied to the pipe and pumped to the required 150 p.al. pressure. The piping tested shall be incloted from presently potable lines.

The Department shall be notified at least 48 hours in advance of any feeting procedures. After finaling in completed, fin or procedures are not complete system to describe the complete system to describe the complete system to describe the tested of any moior defect opening of the complete system to describe the bested at a pressure of 150 pat for a partial of such death blue between the complete system of 150 pat for a partial of such death blue between the complete system of 150 pat for a partial of such death of the partial of the partial of the partial of the partial partial of the partial of the partial partia

- Where L = Leohage in gallens
 N = Humber of joints in test section
 P = Test pressure in ppi.
 D = diameter of pipe in inches
- (For P = 150 p.s.i., L = HD X 0.001856)

The "Department" refere to MARTIN CO. EMMINISTRAL SERVICES DEPT.

THE UTILITY PROVIDER (WATER & WASTEWATER) IS:

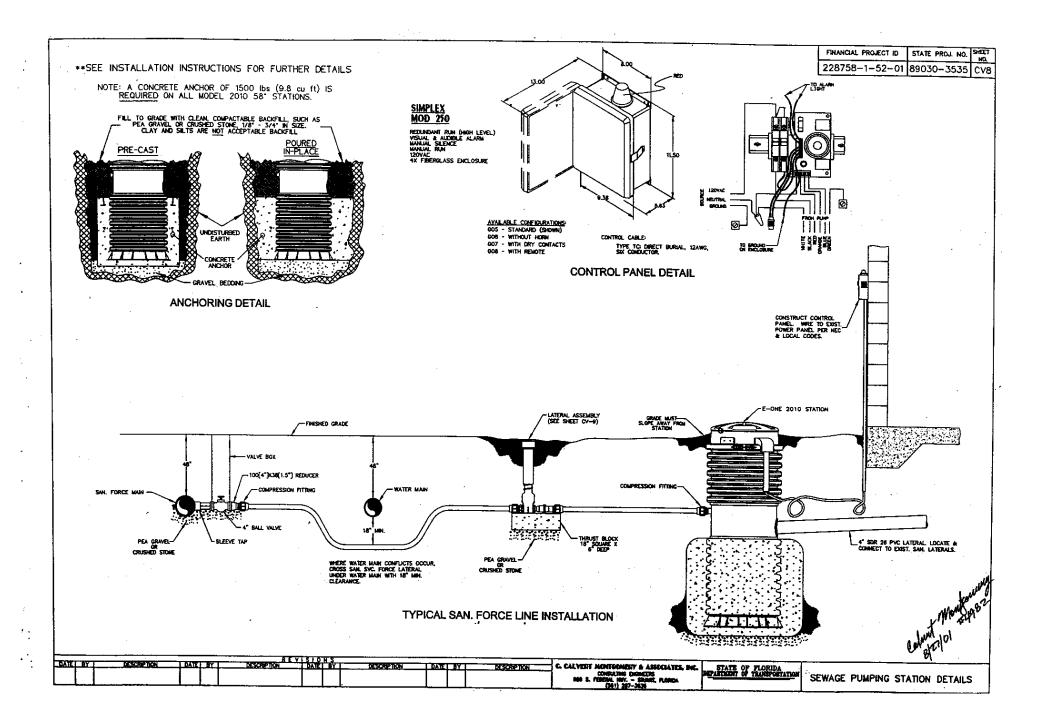
MARTIN CO. EMPRONNIDATAL SERVICES DEPT. MARTIN CO. EJAMPONI-DI. P.O. BOX 9000 STUART, FLORIDA 34995 (361) 221-1442 MR. JOHN POLLEY, P.E. M.C.E.S. DIRECTOR

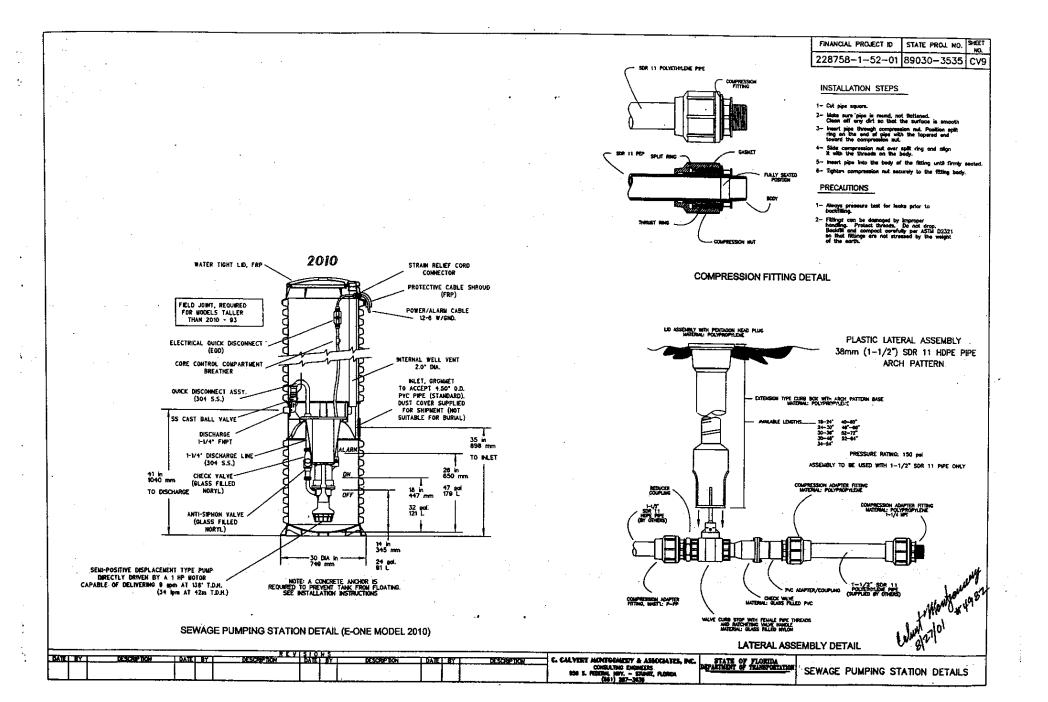
THE CONTRACTOR SHALL CONTACT THE UTILITY PROVIDER PRIOR TO ANY CONSTRUCTION, EXCHANGED OR TESTING ON OR AGUACENT TO THE PROVIDER'S FACILITIES.

THE CONTRACTOR SHALL HAVE THE LOCATION OF ALL UNDERGROUND UTILITIES MARKED, PROF TO ANY EXCAPATION.

THE CONTRACTOR SHALL HAVE APPROPRIATE PERMITS FROM MARTH COUNTY PURLY SERVICES DEPARTMENT PRIOR TO ANY UTILITY WORK IN THE PURLY ROOM OF T DATE L. BY DESCRIPTION J DATE! BY I DESCRIPTION C. CALVEST MONTGOMERY & ASSOCIATES, INC.
COMMANDE DICHESTS

500 S. FEDERAL HIV. STUME, PLONGA
(501) 267-2628 DATE BY STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION WATER & SEWER SERVICES SPECIFICATIONS





SEMI-POSITIVE DISPLACEMENT TYPE GRINDER PUMP STATIONS

. .

1.01 GENERAL DESCRIPTION: The MANUFACTURES shall furnish complete foctory-built and tested Grader Pump Station(s), each consisting of grader pump(s) solitably mounted in a beat constituted of Rhanglass or Infed Healty supplicitation (PCPC), selectives upin disconnect (NEDLA 5), pump removed system, short-eff volve, extil-signon volve, and check vative asymmisted within the basic, destricted stemming-disconnect power, and of discovery internal winting and combride within the basic statistics. For seas of serviceobility, oil pump, meter/grinder units shall be of like type and harves throughout the system.

1.02 SHOP DRANGES: After receipt of notice to proceed, the MANUFACTURER shall furnish a minimum of six (5) sets of sings drowings detailing the sopioment to be furnished including consequence and construction. The DEPORCE Manufacture parameter has data, and system to (2) copies as accepted, or with respected meditionisms. Upon receipt of exceptation are enough of several proceeds manufactured with factorists of the several parameter for the several paramet

1.03 MANUFACTURER: The equipment specified shell be a product of a company experienced to the design and monthicture of private pumps for specific case in low-pressure seeings systems, which is a company of the specified specified to the specified specifie

1.04 CPERATING CONDITIONS: The pumps shall be copable of delivering 15 GPM against a retard talked symmetric based of 0 feet (in PBIC) and 9 GPM against a retard talked symmetric based of 158 feet (60 PBIC). The pump(o) must also be capable of operating at heaptive total symmetric based without controlling the moder(s). Under no conditions shall in-fine piping or volting be allowed

1.05 WARRANTY: The grinder pump WANLFACTURER shall provide a part(s) and labor warranty on the complete stribus and accessories, lockaling, but all milited its, panel and redundent check value, for a partied of investigation form notice of OMIRIT'S occupations, but as greater than tensity—seven (27) membre after receipt of intiperent, any defects found during the warrenty partie will be reported to the MANLFACTURER by the OMIRIT.

2.01 PUMP: The pump shall be a custom designed, lategral, vertical retar, motor driven, audits herafter pump of the progressing certify tipe with a single mechanical seal. The rotar out be through hordened, helpin positions, prospectation hordened, striple patients, prospectation hordened, striple stated. The station shall be of a specification compounded oblyses prospects published substitute. The material shall be satisfied for domestic vestorened surface. In hypical propriets while include high tear and solventies reductions, presses resistance, units and designant resistance, temperature stability, good capity properties, and existence prove resistances.

stability, good epilor processus, and automating over researches.

2.00 CROBIDE: The grider relate be proced immediately before the pumping atments and and in direct-ordered by a single, services stabilities shall native short. The grider impairs researchly shall be accornly included to the pump mater short. The grider will be of the relating tips with a decipionary hardward and prevent stabilities steel shreeding ring spoces in course does excepted explanated with the effort impaired examinity, which shot carry two bendevok type 400 series felicies steel notice learn. This assembly shell be dynamically believed and except the steel of the steel of the steel of the steel of the control of the steel
- d. The impaller machinism must retate at a numbed speed of no greater than 1800

The grider shall be copable of reducing oil components in normal connectic secops, including a reasseable enhant of liberties objecting, such as space, wood, plottic, gloss, nisher and be like, to failightfolded perticles which will space trackly through the possages of the pump and the $1-1/4^{-r}$ distinctor x/e distinctor

2.03 ELECTRIC MOTOR: As a mealman, the motor shot be a 1 HP , 1725 RPst, 240 Veh 50 Hertz, 1 Pheses, capacitor start, but bearing, septrat cope feducition type with a four storting current not to accord 20 empers on this pit starting trappe of EA, 4 tool passeds tokened protection against numbel eventoots or locked rater conditions for the pump motor stadle by profiled by the use of an extension-curved, lateral thermal controls protection local particular to the pump motor bacopyrated that the motor. This motor protector combination shall now been specifically investigated and State of the Carlot and Carlot a

2.06 MECHABICAL SEAL: The sers shall be provided with a machaeled short and to present leadings between the seater and pump. The seal shall have a stationary recremic seat and carbon relating surface with laces proclide topped and held in position by a statistics shed sorted.

2.05 TANK AND INTEGRAL ACCESSIAY (Model 2010) High Density Polysthylane Construction: The tank shall be made of high density polysthylane, with a most indicate of 2.0 grams/th minutes or lower to sensor high environmental stress tracking resistance. Camagated sections are to be made of a doubte well construction with the internal well being consisty aments to parents asserting. Corresponders of entities well are to be of internation engiliated of 1.1/2" to preside accessory transverse diffluent. Any hiddential occitions of a design will construction or to be so whether 2.05 the thirt. All sensor consists and dark parent consistency on the internal well and feature transverse for lead tightness. Tent well and better most offended they present extend by started and incoming on construction of the property
The tank shall be furnished with one EPDM grommet (4" DWV or SCH 40) litting to occupt a 4.50" OD DWV pips. Tank ospecities shall be as shown on the contract drawings.

The occurrency shall be an integral extension of the wet wall consentity and include a temper—proof cover occurring previous their prelie mounting and weterlight compatity. Accessively design and construction shall enable field adjactment of station height in barraments of 4 $^{\circ}$ or loss.

The station shall have all necessary penetrations molded in and factory sealed. No field penetrations shall be acceptable.

All discharge piping shall be constructed of 304 Series Stafelass Steal and terfining the accessively buildhood with a stateless stant, 1 1/4 build semale NFT Stating, The discharge piping shall include a stateless stant bell vothe roted for 200 pai 900. The buildhood panelessism shall be fectory installed and swirmstad by the manufacturer to be sustertight.

The eccessively shall include a single MEMA B stackfoot quits, disconnect for all power and control functions, featory healand with eccessively penetrations warranted by the manufact to be votartight. The occessively shall stack include a 2° PVC varii to prevent assumps governmentating in the texts.

2.08 CHECK VALVE: The pump descharge shall be equipped with a factory installed, greaty sparricel, flapper—type integral check who half the that stories steel discharge pints. The check valve will provide a fact-provide passage-say who open, and shall birnches a fattlier loss of less than 8 bathes of a traction rated from stories passage of the made of a resistance, dimensional visibility, and fettipes strongly in an extension of the stories of the sto

2.08 CORE LMST: The Grinder Pump Station shall have cartridge type easily removable core executifies containing pump, meter, grinder, of motor centrols, check velva, extin-gipton velva, inscribed spaid disconnect and wither. The self-trip belongity of each sere unit shall be established by 100X fectory test at a minimum of 5 PSG.

2.10 CONTROLS: All necessary controls shall be located in the top heading of the core walk. The top heading off the otherwise with eliminary. The top heading off the otherwise was to the otherwise with the control of the otherwise was to the otherwise with the otherwise was to the otherwise was to the otherwise which will be otherwise which the otherwise was to making part in direct contact with many control of the otherwise was to the otherwise which of the same type.

To essure reliable operation of the pressure associate autiates, such core shall be equipped with a function essensity, complete with a sublate measure to prevent uncleanted entry of water into the monator comportance. The grinder purps will be furnished with a fample of 6 conductor 14 gauge, type \$4,00 cobie, pra-wind and extertight to most Us requirements.

2.11 ALARM/OISCONNECT PANEL: Each printer pump station shall include a MEMA AX, UL flatted ALARM/SISCONNECT PANEL and/alies for red or pale meanting. The MEMA AX enclosure shall exclude a highest conductor shall exclude a highest conductor shall continue to the conductor and the shall be sh

The Aferm/Disconnect Penel shall include the following features: earlie & visual storm, push to run switch, and high level (redundant) purp storting central. The storm sequence is to se sollows:

- When Reads level is the sessage set will filter elseve the cleam level, should and outlie cleams will be activated. The contents on the cleam pressure earlies will dees. The readment purps strating system will be emergized. The condic cleam may be allocated by means of the enteredry mounted, push-to-sitence section. When it cleams to the content of the cleam present unified.

The visual atoms temps should be hadde a red Setalal tems at least 2.5/8" in discretar and 1.11/16" in height. Visual others shall be mounted to the top of the enclosure in much of mother on to mentioned WEAA OX rating for deplex units, in addition to the others, two high level indicators lights which be manufally behind the access cover.

Coring a high level darm condition the appropriate tight will illuminate to indicate which pump coar regular searching. The sends derive high is a spikeler dark boost in comparation with on the all buzzer with solds meanting terrelated strip meanted that boost in comparation with the earlier storm such be complete of sharple decided by deprecating a push-type switch which is encognitated in a weetherprised efficient

The entire Alerm/Disconnect Pend as manufactured, shall be listed by Underwriters Laboratories, Inc.

2.12 SERVICEARELTY: The private pump core unit shall have too lifting hooks correlate with replan lift-mark horness connected to its top Newloy to facilitate cary core removed when necessary. All mechanical and electrical conventions must provide a cary placement as meanability for core unit restored and industrian. A pull-to-run factors will be provided for face transfer connected on a resolution of transfer connected on a resolution provided for face transfer connected on the face transfer connected on a resolution provided for face transfer connected on a resolution provided for face transfer connected on the face transfer connected o

2.12.5 CHSA CONFINED SPACE: All melateance lasts for the grinder pump station must be possible ellihout entry of the grinder pump station (so per CHSA 1910.146 Permit—required conflicted opeces). Takey messes the settles by which a person passes through an opening last a permit—required confined space. Early hockess conseque was softlike in Need space and is considered to how examined as soon as any part of the entreal's body breats the place of an opening last the space.

2.13 SAFETY: The Orisider Pump shall be then from electrical and fire increases on recogling to a residentified environment. As evidence of compliance with this regularizate, the compliance with this regularizate, the compliance communicated and virtual Orivider Pump Station shall be listed by Underwillers Laboratorian, Inc., to be seek and appropriate for the behavior and.

The grinder pump what most eccepted standards for plantibing despinent for use in at near residences, such to five for minds, eater, or health legaring, and shall have been leaded by an independent inderestry to certify its couplifig to partners as specified in other implicates or low presents assert system oppositions. As independent complicates with the requirement, the grinder pump shall been the sent of title interestings.

20 EXECUTION

| FINANCIAL PROJECT ID | STATE PROJ. NO. | SHEET NO. |
|----------------------|-----------------|--------------|
| 228758-1-52-01 | 89030-3535 | CV10 |

2.01 FACTORY TEST: Each grinder pump shall be submerged and operated for 5 minutes (minimum), included in this procedure will be the testing of all emotions compensates such as, the noti-spine only with, where view, included provides according to the same of the color built included controls according to the same of the color built included properties each of the above letted litems. Actual appartmentors and combate special properties and the same of pumps and the same of the same

All completed statisms shell be factory look tested to essure the integrity of all joints, earns and prendendates. All necessity possiterations such as held, discharge fittings and code consectors shell be tabulated in this test using with best respective scalar persons growners, gastes set.).

3.02 DELIVERY: All Grinder Pump units will be delivered to the job sits, 100% camplelely essenshed, belowing testing, ready for installation. Grinder pump units will be inshibutely manufact on weedee policy.

3.03 RESTALLATION: Earth excivertion and backfill are specified under STR WORS, but are also be done as a part of the work under this section, including any secsessry sheeting and hrusing.

The CONTRACTOR shall be responsible for handling ground water to provide a firm, dry subspiciel for the sixurcture, and shall guerd opinist Sotation or other demage resulting from general voter are Reading.

The Crister Pump Stations shall not be set into the excevation until the installation precedures and excevation have been approved by the EMEMER.

Remove patching material. Users' instructions MAST be given to the CMMER. Horsever supplied with the small, if required, will be read at the instruction. The beain will be supplied with a standard birth germanic AGO COD for connecting the inserting sener lies. Appropriate Joint piping must be used. The beats may not be dropped, rolled or teld on its olds for any realine.

installation shall be excomplished so that 1" to 4" of excessively, below the bettern of the fit, extends shown the finished grade than. The finished grade shall stope away from the unit. The distributor of the hade must be longs enough to also for the concrets marker.

 λ 5" Inck (minimum) layer of neturally reunded aggregate, clean and ires Scoting, with particle size of not less then 1/5" or more than 3/4" shall be used as bedding material under such a

A searchic enti-ficiation coller, as detailed on the drawings, and sized according to the manufacturar's isochracture, shall be required out shall be re-cost to the grinder pump or poured in place. Each Order Pump Station with its precost enti-fielding to the grinder pump station with the process.

Under the contract of the process of

The self, shall be leveled, and filled with water, to the bottom of the leist, to help present the uniform shifting while the concrete is being peared. The concrete result be manually shreled to enter the control are no votes. If it is necessary to pour the concrets to a sive higher than the leist, piping, an 8° storm is required ever the leist prior to the concrets being peared.

The CONTRACTOR will provide one install a four (a) foot piece of 4" SOI 40 PMC pipe shift webstright eap, to stub-mut the later for the property enters' instalation contraster, as applicad on the enterthor diversion. The description enterties that the training-hardware diversion is described enterties that the state of the Children's partial by the CONTRACTOR. An elementary is applicated to every hetafaction, there is no DE CONTRACTOR. An elementary is the CONTRACTOR and THE CONTRACT

The CONTRACTOR shall meant the sterm derics in a complicate beatin, 21 pm nettered and lead codes. The Atemy/disconnect Penal will be accounted to the Grinder Fump-seation by a length of the [3] conductor 12 gauge 10 type codes as sharm on the contract droubing. The power and others already to an apparete power carolite.

J.D4 START—IP AND FELD TESTING: The MAMAFACTURER shot provide the services of qualified factory—frained technicism(s) she shot inspect the picconnect and writing of each station, perform field tests as specified hards, and survey the CAMEST, personnel in this approxime not make the state of the sequential health of the stations are accepted by the CAMEST, All applement and institutions in accessory in separation testing which be the responsibility of the STATILING COMPRICTION. The well include, or a minimum, a particular generator (if immersary power is required) and souther in each beach.

The services of a truthed fectory—authorized technicien shall be provided at a rate of one (1) — four (4) day reads for each 100 grinder pump stations supplied. Each day shall be len (10) person hours in duration.

- Upon completen of the hetclieties, the outberford foctory techniciase will perform the fellewing tool on each mellion.

 A felle certain the discharge shut-off where in skip span. This when must not be closed when the pump is operating to ream installation. This when may be a value(a) at the many is operating to ream installation.

 For the first power should.

 Fill the not sell with water to a depth sufficient to verify the high loved dearn is operating. Shut all radios. Mid-het pump sever should be been to verify extensition "moviet" and the state of the state of the sell with the STAT because the should be should be should be stated to the should be should be stated the state of the should be should be stated to sell with the STAT because the should be stated to sell should be should be stated to sell should be should be stated to sell should be should be should be should be stated to sell should be sh

4.01 SPARE CORE: The MANNEAU ACTURES will supply one (1) spore grinder pump core for every 25 effector pump stellman bandales, complete with all operation controls lovel passars, check with, multiplyine within, pumply involver with, and grinder.

4.02 MANUALS: The MANUFACTURER shall mapply four (4) copins of Operation and Maintenance Manuels to the CHMER, and one (1) copy of the same to the ENGINEER.

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