

# MANATEE COUNTY, FLORIDA CANAL ROAD PIPING — FINAL DESIGN FROM 24TH STREET EAST TO 29TH STREET EAST MANATEE COUNTY PROJECT NO. 6067300

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BEGIN PROJECT

STA. 226+71

GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED JANUARY 2008,

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2007, AS AMMENDED BY CONTRACT DOCUMENTS,

MANATEE COUNTY TRANSPORTATION HIGHWAY & DRAINAGE STANDARDS DATED 2007.

ANY COUNTY UTILITIES EFFECTED AS A RESULT OF THIS PROJECT SHALL BE DEALT WITH PER THE LATEST VERSION OF THE APPROVED MANATEE COUNTY UTILITY STANDARDS.

AT LEAST 72 HOURS IN ADVANCE OF BEGINNING CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL CONTACT THE LOCAL MAINTENANCE FDOT ENGINEER'S OFFICE TO SECURE GENERAL USE PERMIT AND/OR OTHER PERMITS AS REQUIRED FOR WORKING WITHIN THE DEPARTMENT'S RIGHT—OF—WAY.

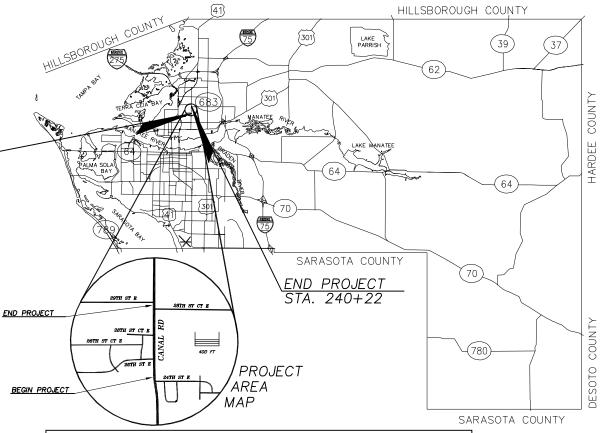
UTILITIES SHOWN WHERE INTERPOLATED FROM THE FOLLOWING CONSTRUCTION AND RECORD DRAWINGS:

NORTH SUREGIONAL SEWER SYSTEM — 1988 — LARSON ENGINEERING, INC. SAFETY IMPROVEMENTS TO CANAL ROAD — 1993 — GRACE RADCLIFFE, INC.

SURVEY DATA ALONG CANAL ROAD WAS INTERPOLATED FROM GRACE RADCLIFFE, INC. PLANS DATED 1993.

SURVEY DATA FOR THE EXISTING CANAL ROAD DITCH SYSTEM WAS PROVIDED BY BOWYER-SINGLETON & ASSOCIATES, INC. DATED 2007.

	KEY	SHEET REVISIONS
DATE	BY	DESCRIPTION
1		



LENGTH OF	PROJECT
	FEET
ROADWAY	1,351
BRIDGES	N/A
NET LENGTH OF PROJ.	1,351
EXCEPTIONS	N/A
GROSS LENGTH OF PROJ.	1,351

WADE TRIM PROJECT MANAGER : MICHAEL REINEKE

SHOP DRAWINGS TO BE SUBMITTED TO:

DAVID O. THEUNG, PE #44786 Wade Trim, Inc. 8745 Henderson Road, Suite 220 Tampa, Florida 33634

Vendor No. 59-2417170

PLANS PREPARED BY:

WADETRIM

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

CONSTRUCTION PLANS
ENGINEER OF RECORD: DAVID O. THEUNG, P.E.

P.E. NO.: 44786

# PAY ITEM QUANTITIES:

ITEM	PAY ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
1	101-1	Mobilization (5%)	LS	1
2	102-1	Maintenance of Traffic (7%)	LS	1
3	104-10-2	Synthetic Bales	LF	20
4	104-11	Floating Turbidity Barrier	LF	45
5	110-1-1	Clearing & Grubbing	LS	1
6	120-1	Regular Excavation	CY	3219
7	120-6	Embankment (Inc. final grading work)	CY	4097
8	285-705	Optional Base, Group 5 (Crushed Conc)	SY	70
9	327-70-1	Milling Existing Asphalt Pavement, 1"	SY	94
10	334-1-11	Superpave Asphaltic Conc, Traffic A, SP-9.5	TN	11.6
11	400-1-2	Concrete Class I, Endwalls	CY	11.6
12	400-1-15	Concrete Class I, Miscellaneous	CY	0.2
13	425-1-583	DBI Type H, J Bot, <10', Mod	EA	7
14	425-2-71	MH, J-7, <10', Mod	EA	3
15	430-175-101	Pipe Culvert, Opt Mat, Round, 0-24"S/CD	LF	16
16	430-175-202	Pipe Culvert, Opt Mat, Ellip, 25-36"S/CD	LF	34
17	430-175-203	Pipe Culvert, Opt Mat, Ellip, 37-48"S/CD	LF	2590
18	520-1-10	Concrete Curb and Gutter, Type F	LF	35
19	536-73	Guardrail Removal	LF	1196
20	570-1-2	Performance Turf, Sod	SY	6584
21	630-1-12	Signals-Conduit, F&I, Underground	LF	15
22	635-1-11	Pull & Junction Boxes, F&I, Pull Box	EA	1
23	660-2-106	Loop Detector, Inductive, F&I, Type F	EA	2
24	700-20-40	Single Post Sign (Relocate)	AS	1
25	730-76-108	Steel Casing, F&I, 14"	LF	20
26	1100-141-508	6" DIP Class 50 Watermain (RJ)	LF	35
27	1698-122-408	6" 45° Bend	EA	4
28		Utility Adjustments	LS	1
29		Utility Coordination	LS	1
30		Discretionary Work (7%)	LS	1

# PAY ITEM NOTES:

120-1 CONTRACTOR IS ADVISED OF THE POTENTIAL OF SHALLOW LIMEROCK LAYERS IN THE PROJECT VICINITY. ROCK EXCAVATED SHALL BE INCIDENTAL TO REGULAR EXCAVATION, SUBSOIL EXCAVATION, OR INCLUDED IN THE BID PRICE FOR PIPE. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK EXCAVATION.

285-107 OPTIONAL BASE, GROUP 5 SHOULD BE CRUSHED CONCRETE ONLY.

DESIGNED BY	MR	DATE	05/01/09	REVISION DESCRIPTION & DATE	BY	NO.
CHECKED BY	JT	DATE	05/01/09			
DRAWN BY	BG	DATE	05/01/09			
CHECKED BY	LS	DATE	05/01/09			
SUPERVISED BY	DAVID O.	THEUNG.	PE 44786			



# CANAL ROAD PIPING FINAL DESIGN

FROM 24TH STREET EAST TO 29TH STREET EAST
MANATEE COUNTY, FLORIDA

C'	WADE $T$ RIN	<b>I</b>

ENGINEER	Proj. No.	6067300	
	Dwg. Date	06/01/09	
	SL	JMMARY OF	
	F	PAY ITEMS	

# GENERAL NOTES:

- 1. All elevations are based on NAVD-88 Datum. Addition of +0.98 required to convert shown elevation to NGVD-29.
- 2. Florida Statute 553.851 (1979) requires a minimum of 2 days and a maximum of 5 days notice before any excavation. Call Sunshine State One Call Center of Florida, Inc. (811).
- 3. The Contractor shall contact the Manatee County Public Services Department 48 hours prior to Construction activities commencing.
- 4. All existing drainage structures within the right-of-way shall be removed unless shown on the plans to remain
- 5. Special attention is directed to the fact that portions of some drainage structures extend into the stabilized portion of the roadbed and extreme caution will be necessary in stabilization operations at these locations.
- 6. All proposed storm pipe shall be Class IV reinforced concrete pipe.
- 7. Install a filter fabric jacket aroud all storm pipe joints and the joints between the pipe and structures.
- 8. Pipe shall be constructed per manufacturer's specifications.
- 9. The contactor(s) shall make whatever additional geotechnical investigation he deems necessary to determine his bid.
- 10. The contractor(s) performing trench excavation on this contract shall comply with the occupational safety and health administrations (OSHA) trench excavation safety standards, 29 C.F.R., S.1926.650. subpart P, including all subsequent revisions or updates to the standards as adopted by the department of labor and employment security (DLES).
- 11. Unless otherwise specified in the plans, existing sod, seed, and pavement material disturbed by construction, shall be replaced in kind (or better, as approved by the county's project manager.)
- 12. Any wells discovered during Land Clearing shall be protected or abandoned in accordance with SWFWMD rule Chapter 40 D.
- 13. Any public land corner, right-of-way monumentation, or other property corners within the limits of construction are to be protected. If a corner monument is in danger of being destroyed and has not been properly referenced, the Engineer should notify the Consultant's Project Surveyor, without delay, by telephone. Monumentation destroyed during the course of construction should be reset at the completion of the project.
- 14. Maintenance of Traffic (MOT) shall be performed per Manatee Co. std. 406.0.

Posted speed = 35 mph

# EXISTING ROADWAY VARIES 10' 5' VARIES SOD GUNRORAIL & MSC. PAVEMENT TO BE REMOVED STA. 227+70 TO 239+50 DEPTH AND WIDTH VARIES SEE CROSS SECTIONS 14" MIN (TYP.) 38"X60" ERCP 7"-10" TYP.

ESIGNED BY MR DATE 05/01/09 REVISION DESCRIPTION & DATE BY NO. ...

DESIGNED BY	MR	DATE	05/01/09	REVISION DESCRIPTION & DATE	BY	NO.
CHECKED BY	JT	DATE	05/01/09		•••	
DRAWN BY	BG	DATE	05/01/09			
CHECKED BY	LS	DATE	05/01/09			
SUPERVISED BY	DAVID O.	THEUNG,	PE 44786			



# CANAL ROAD PIPING FINAL DESIGN

TYPICAL SECTION CANAL ROAD STA. 228+00.00 TO STA. 239+21.00

FROM 24TH STREET EAST TO 29TH STREET EAST
MANATEE COUNTY, FLORIDA

Ü	WADE $T$ RIM	

			NOTES SECTIO	
	Dwg. Date	05/0	1/09	
ENGINEER	Proj. No.	60673	00	

UTILITY NOTES:

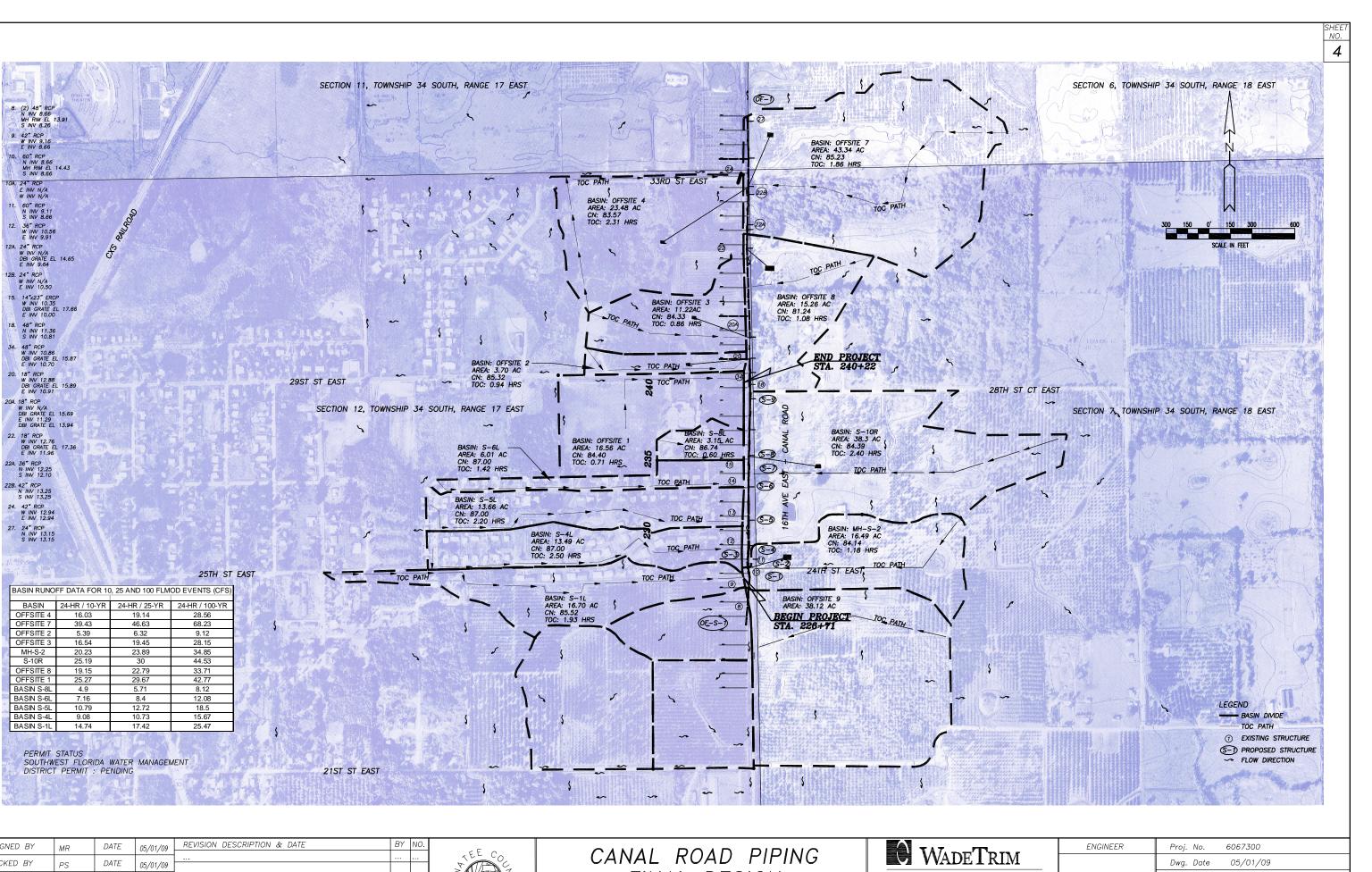
1. The contractor shall verify the location, elevation, and dimensions of all existing utilities, structures, and other features affecting his work and shall comply with all state, county, and local ordinances and obtain any necessary work permits that may be required prior to construction.

2. Existing utilities are to remain in place unless otherwise noted.

3. Utility/Agency Owners:

<u>Company</u> <u>Contact</u> Telephone Number (941) 748-3816 Bright House Networks Tom Wright (863) 767-4602x4602 Peace River Electric Cooperative, Inc. Jerry Twiggs (941) 723-4430 Florida Power & Light Greg Coker (941) 708-7400x5064 Manatee County Public Works Tod Phinney Manatee County Transportation Department (941) 708-7510 Aaron Burkett (941) 906-6722 Verizon Florida, Inc. Denise Hutton

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DESIGNED BY	MR	DATE	05/01/09	REVISION DESCRIPTION & DATE	BY	NO.	
CHECKED BY	PS	DATE	05/01/09				
DRAWN BY	LM	DATE	05/01/09				
CHECKED BY	PS	DATE	05/01/09				
SUPERVISED BY	DAVID O.	THEUNG,	PE 44786				

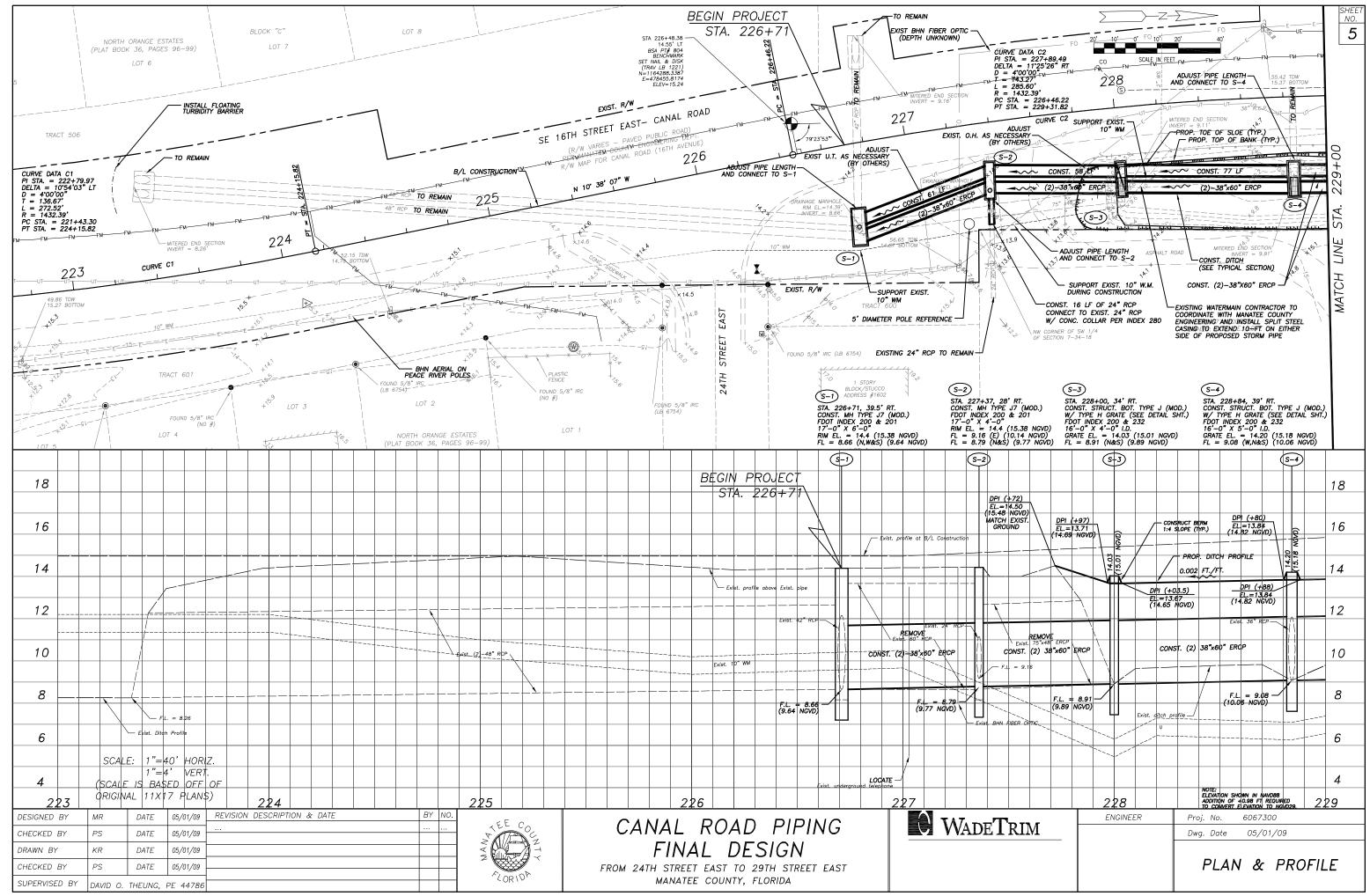


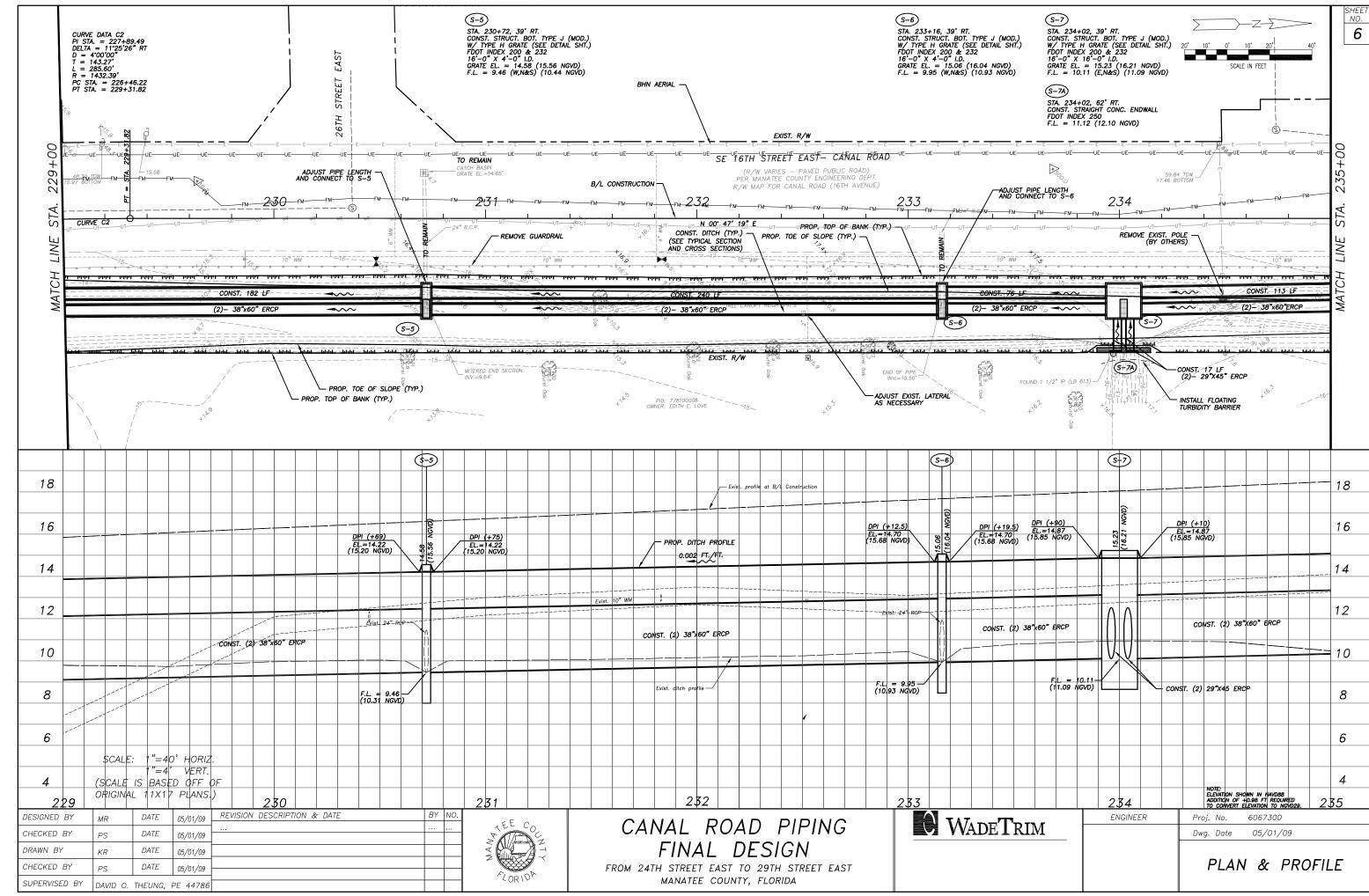
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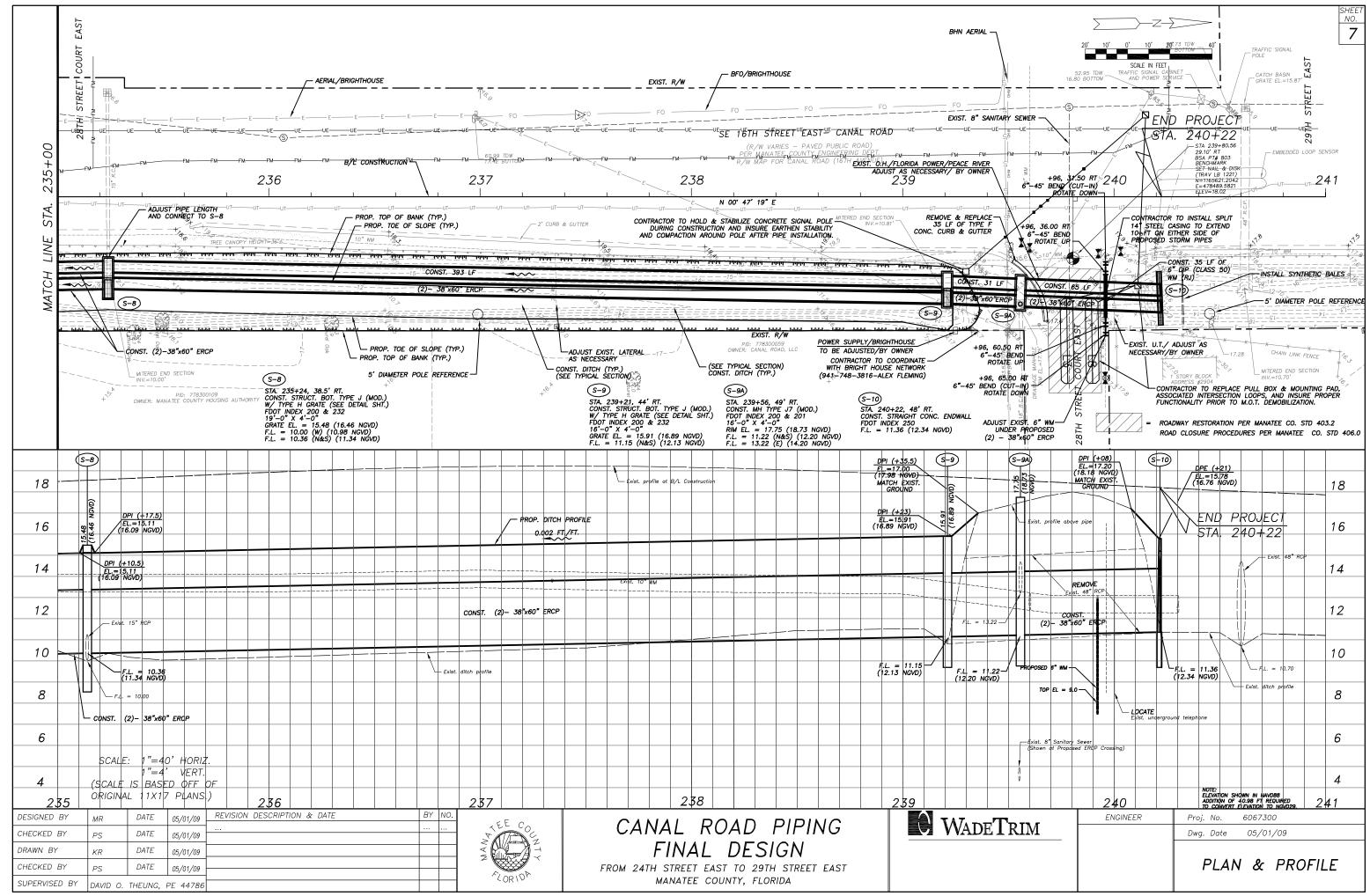
FROM 24TH STREET EAST TO 29TH STREET EAST MANATEE COUNTY, FLORIDA

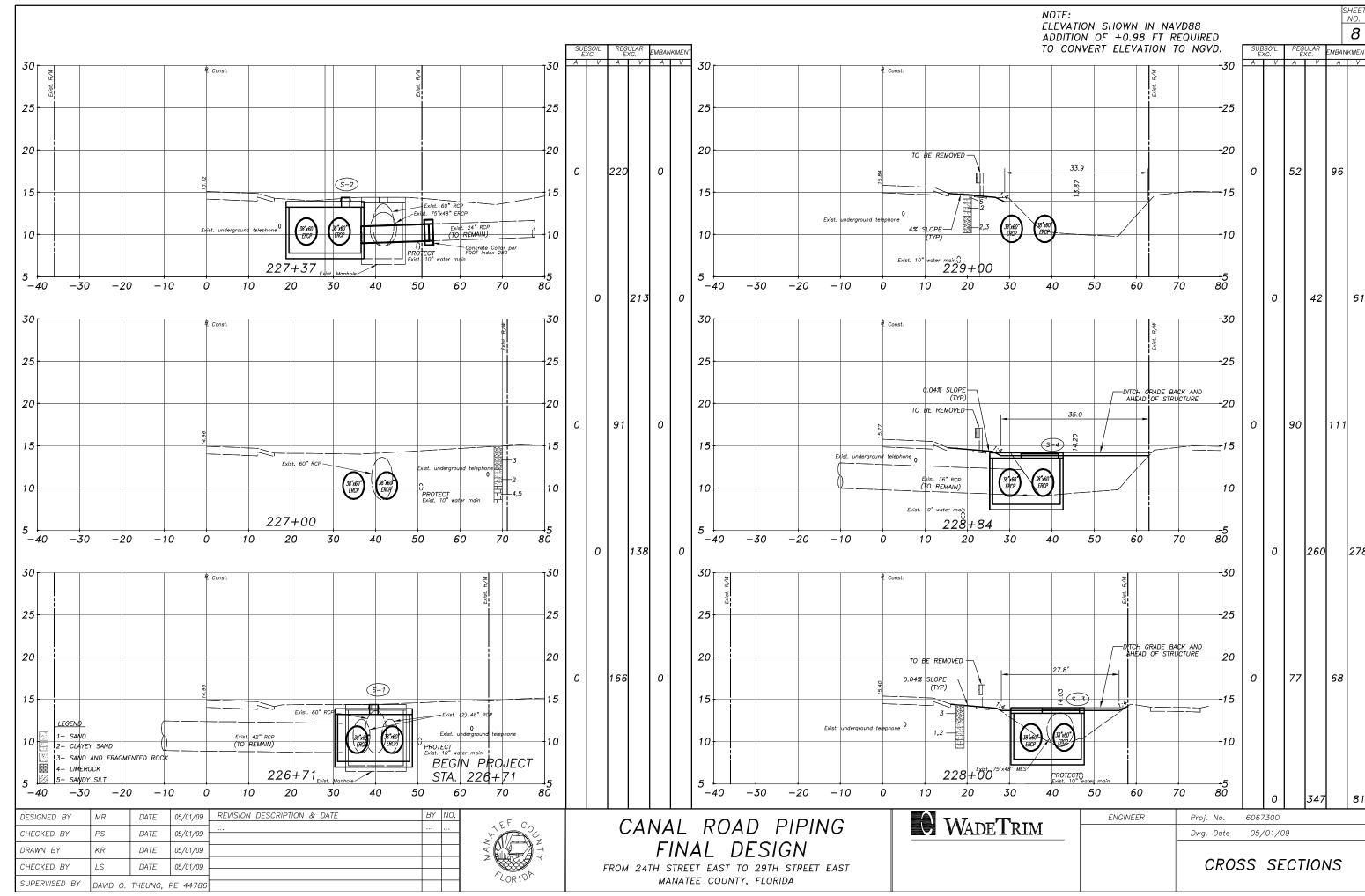
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WADETRIM 1		
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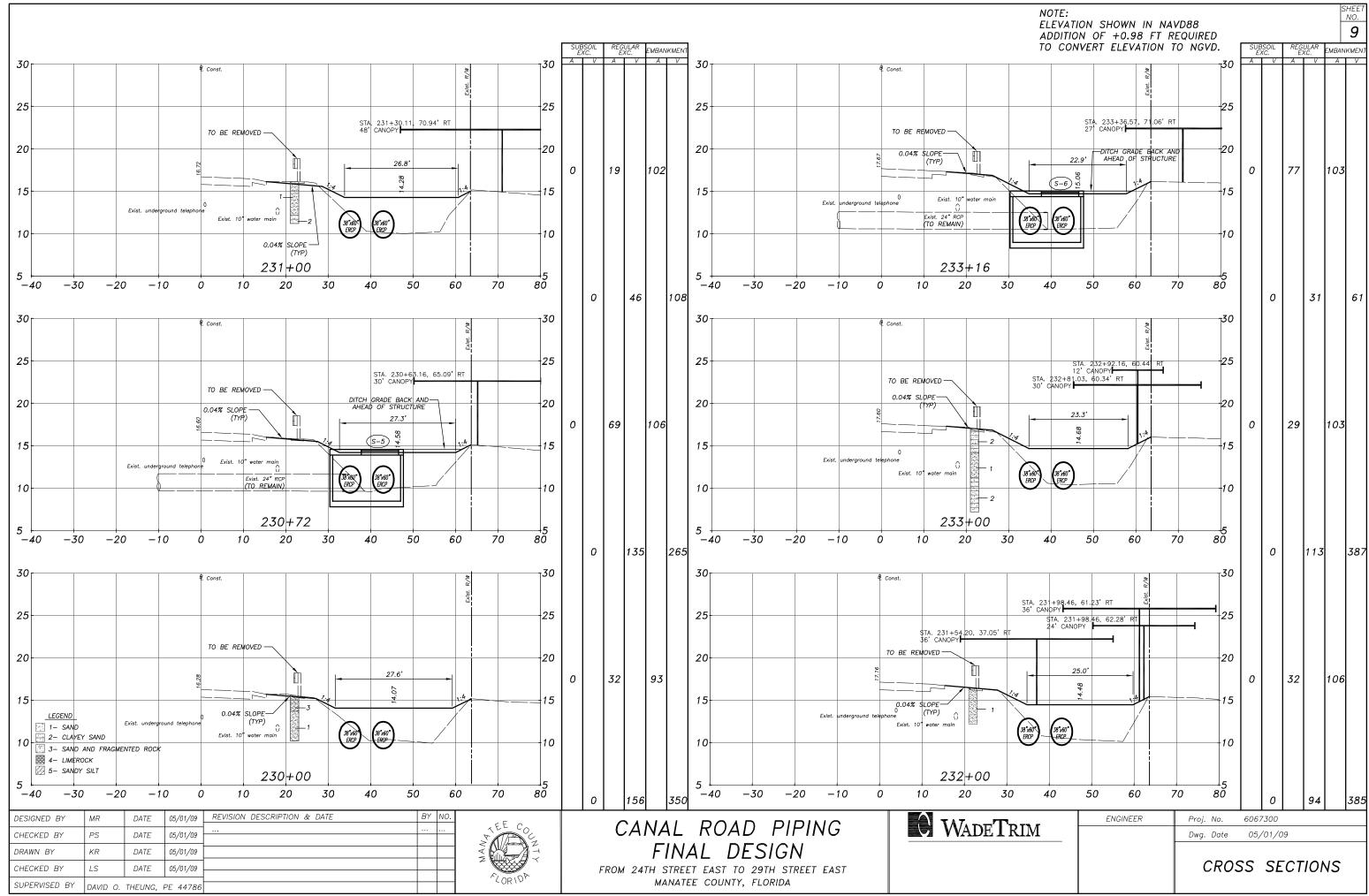
DRAINAGE MAP

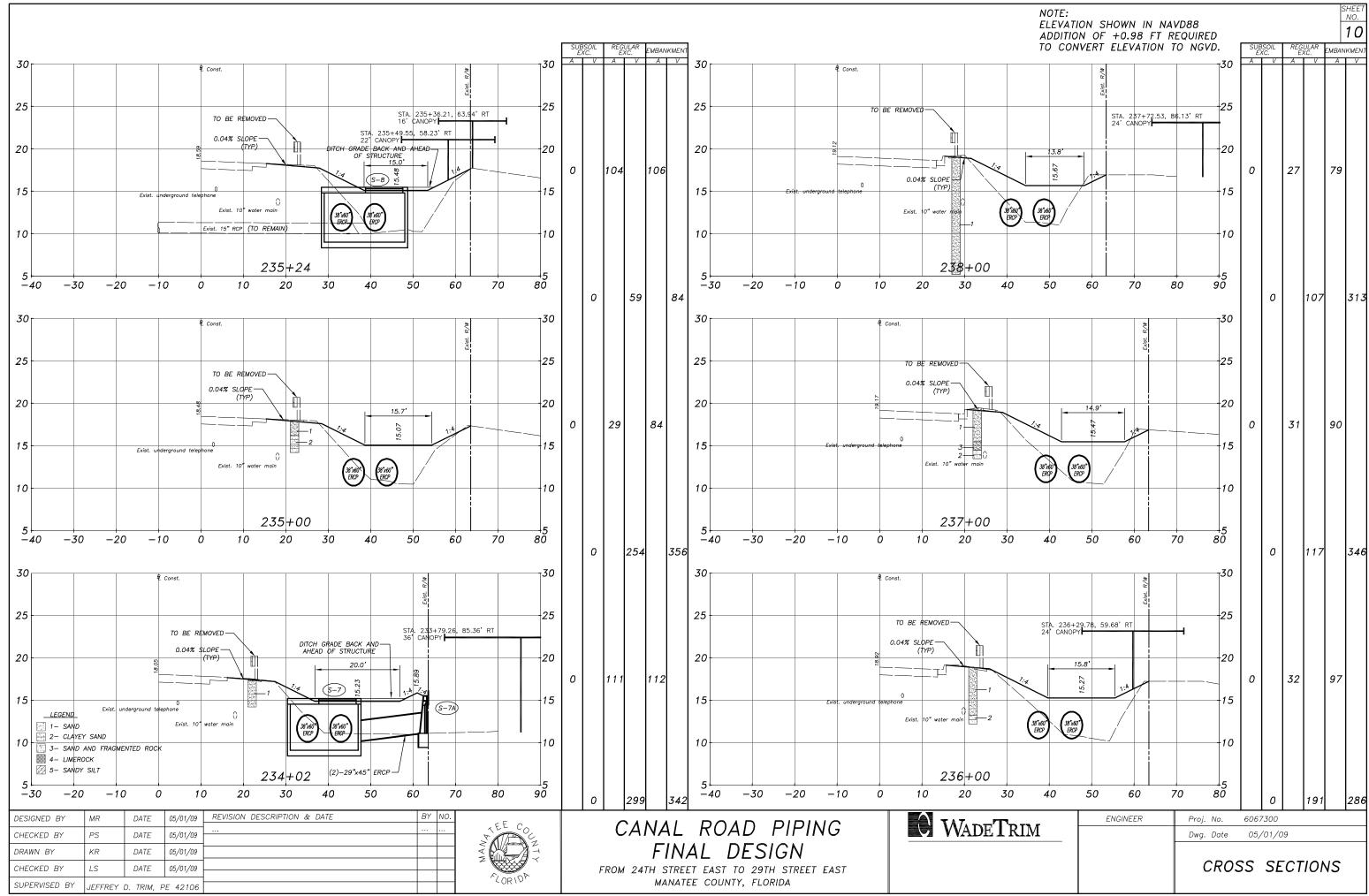


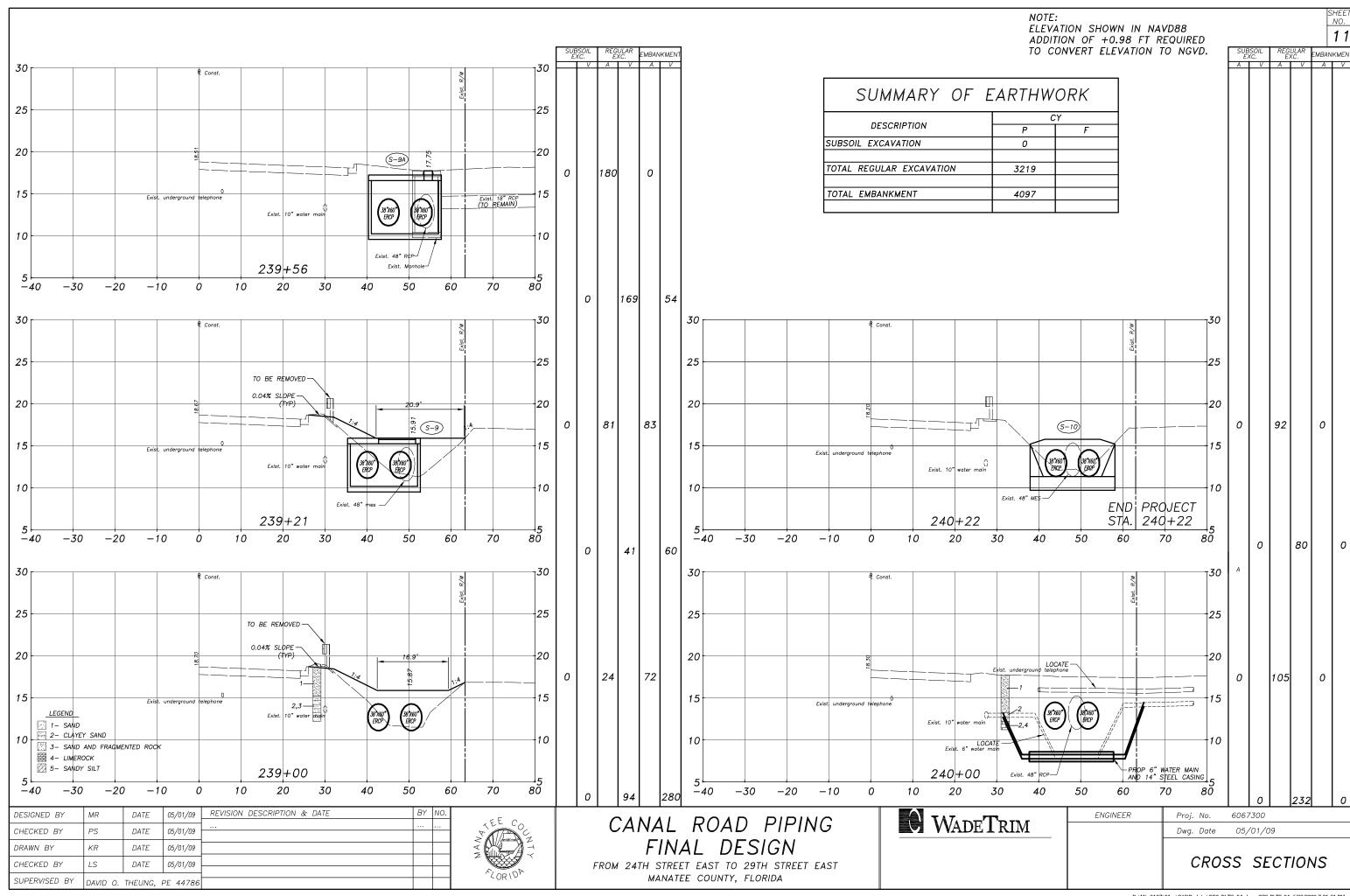












THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENT THE CHIVING ON SPELL IN A MININGON INFLERENT HE CHIVING OF SECONDISERS. IN CONTINCE BELOW AND THOSE BESIEVES SHOWN ON THE EROSON AND THEBUTY CONTROL PLAN IN ADDITION THE CONTROL FOR SHALL UNDERTHIKE ADDITIONAL MASSINESS REQUIRED TO BE IN COMPLING ON THE MATTER OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTROL OF MATERIALS AND METHOD OF

SEQUENCE OF MAJOR ACTIVITIES:
THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

INC. ORDER OF AUTHORS MILL BE AS FOLIOUS.

INSTALL STABILIZED

CONSTRUCTION ENTIRES, TURBIDITY

BARRIERS AND HAY BALES AS REQUIRED

3. CLEAR AND GRUF FOR DIMERSION

SWALES/DIKES AND SEDMENT

4. BASIN

5. CONSTRUCTION SEDMENTATION

6. RASIN

BASIN CONTINUE CLEARING AND

- 9. INSTALL UTILITIES, STORM
  SEWER, CURBS & CUTTERS
  10. APPLY BASE TO PARKING
  11. AREAS

  11. AREAS
  - 11. AGESS
    CAMPLETE GRADING AND INSTALL
    PERMANENT SEEDING/SOO AND
    12. PLANTING
    13. COMPLETE FAMIL PAWING
    REDIT ACCUMULATED SEDMENT
    14. FROM BISSIS
    FROM BISSIS
    FROM BISSIS
    ACTIVITY IS COMPLETE AND
    THE

TH
E SITE IS STABILIZED, REMOVE
ANY TEMPORARY DIVERSION
SWALES/DIKES AND RESEED/SOD
AS REQUIRED

AS NOICATED IN THE SEQUENCE OF WAVOR ACTIVITIES, THE SILT FENCES, TURBUILTY BARRIERS AND HAY BALES, STABULZED CONSTRUCTION DITERANCE AND SEDIMENT BASIN MILL BE CONSTRUCTED PRIOR TO CLERRING OR GRADING OF MY OTHER PORTIONS OF THE SITE, STABULZATION MESSURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE STABLICATION MEASURES SHALL BE MINED AS SOUN A PROCINCIAL IN POWING OF THE STEE WHERE CONSTRUCTION ACTUME HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTUM'S CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABLIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. A THERE THE ENTIRE STEE IS IS STABLIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDMENT TRAPS AND THE FARTH DIRE/ SWALES WILL BE RESOLUCIO, PELAN.

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN IN THE SEDIMENT AND EROSING CONTROL PLAN. IT IS IS ASO THE CONTRACTORS RESPONSIBILITY OF DENINE THESE CONTROLS ARE PROPERLY INSTALLED MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLITIED WATER FROM LEAVING THE PROPERCY SITE. THE CONTRACTOR MLL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED TO PROPER THE SITE METERS ALL FEDERAL SATE AND COLOR EROSION AND TURBIDITY CONTROL REQUIRE THE SITE METERS ALL FEDERAL SATE AND COLOR EROSION AND TURBIDITY CONTROL REQUIRED TO SITE BY THE REGULATORY AND FURBIDITY CONTROL REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY APPLICATION.

- LIMITATIONS:
  A. WHERE THE MAXIMAN SLOPE BEHND THE BARRER IS 33 PERCENT.
  B. IN MINOR SHALES OF DITCH HINES WHERE THE MAXIMAN CONTRIBUTING DRAINGE AREA IS NO GREATER THAN 2 ACRES.
  C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS
  D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRERS CONTROLLED IN USE STREAMS OR IN SMALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.
- FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
- LIMITATIONS:

  A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.

  B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
- BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON STE.
- LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SIDEMENT -FREE STORM RUNOFF IS INTERCEPTED AND OVERTED AWAY FROM THE GRADED AREAS ONTO UNDISDIRECED STABLIED AREAS. THIS PROCINCE APPLIES ONLY IN THOSE STUTIATIONS WHERE THE SPREADER ON BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL RECONCENTRATE AFTER RELEASE.
- STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
- EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EPPSED PLCTEMING AND GRUBBING OPERATION OF EXCHANGE WAS FLUNG OPERATIONS SHALL NOT EXCEED IN ACRES. THIS REQUIREMENT MAY BE MADED FOR LINGE PROJECTS WITH AN EXCENSION CONTING. I PLAN WHICH DEMONSTRATES THAT OPERATIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEMMENTS.
- INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY
  OFF-SITE SHALL BE PROTECTED FROM SEDMENT-LADEN STORM RUNOFF UNTIL THE
  COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDMENT
  TO THE INLET.
- TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCUANED OR DRESSED AND RECEIVE FINAL ORSSING TRANSMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COKER DAY THE SERSON WHICH WILL PROVIDE AN EARLY COKER DAY THE SERSON WHICH WILL PROVIDE AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.
- TEMPORARY SEEDING AND MULCHING. SLOPES STEPPER THAN 6:1 THAT FAULLY WITHIN THE CATECORY ESTABLISHED IN PARIOGRAPH B HOWE SHALL ADDITIONALLY RECEVE MULCHING OF APPROXIMENTLY 2 MICHES LOOSE WESLING OF MULCH MATERIAL CUI NITO THE SOL OF THE SEEDIO AND ALOU ATE TO PREVENT MOVEMENT OF SEED AND MULCH.

TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA (S) SHALL BE ROLLED AND NATERED OR HYDROWIJCHED OR OTHER SUITALBE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD

CONTRACTOR'S REQUIREMENTS

- TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT COOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO
- MAINTENNICE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTION.
- PERMANENT EROSION CONTROL: THE EROSION CONTROL FACULTIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACULTIES.
- PERMANENT SEEDING. ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AT MINIMUM, BE SEEDED. THE SEEDING LIXI MISST PROVIDE BOTH LONG-TERM VECETATION AND PARD GROWTH SESSIONL VECETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

## STRUCTURAL PRACTICES

- TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.
- TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED IN A DRAINAGE WAY AT A STORM DRAIN NILET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA WITH THE FOLLOWING LIMITATIONS.
- A THE SEDIMENT TRAP MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PANED CHANNEL SECTIONS WHERE THE VELOCITY OF FLOW AT DESIGN CAPACITY OF THE OUTLET WILL EXCEED THE PERMISSIBLE VELOCITY OF THE RECENNING CHANNEL OR AREA.
- SEDMENT BASIN: MILL BE CONSTRUCTED AT THE COMMON DRAWNGE LOCATIONS
  THAT SERVE AM AREA WITH 10 OR MORE DISTURBED LORES AT ONE TIME, THE PROPOSED
  STORM WATER POWLS (OR TEMPORARY PANDS) WILL BE CONSTRUCTED FOR USE AS
  SEDMENT BASIN, THESE SEDMENT BASINS MIST PROVIDE A MANMAIM OF 3,000 CUBY.
  FEET OF STORMER PER ACKE DRAWNED DIME, THAY STABULZATION OF THE SITE. THE
  3,600 CUBY. FEET OF STORMER AREA PER ACKE DRAWNED DOES NOT APPLY TO FLOWS
  FROM DESTREAMS AND FLOWS FROM CONSTRUCTES THAT ARE WHITE LINGUISTINGED
  OR HAVE UNDERGOINE FIRM STABULZATION WHERE SUCH FLOWS ARE DIMETED AROUND
  BOTH THE DISTURBED AREA AND THE SEDMENT BASINS. CONSTRUCTED MIST BE BACKFILLD AND COMPACTED IN ACCORDANCE WITH
  BASINS CONSTRUCTED MIST BE BACKFILLD AND COMPACTED IN ACCORDANCE WITH
  BESSENCE STORMS OF THE STABULTATION STRUMENT OF S THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

# WASTE DISPOSAL

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SALD WASTE MANAGEMENT REQULATIONS. THE DUMPSTER WILL BE EMPIRED AND STATE SAPROMED AND THE PROSED HEADER OF A STATE APPROMED LANDFALL ALL PERSONNEL WILL BE INSTRUCTED RECARDING THE CORRECT PROCEDURE FOR MISSTE DISPOSAL. NOTICES STATION THESE PROFICES WILL BE POSTED AT THE CONSTRUCTION STILE BY THE CONSTRUCTION SUPERINTENDENT. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY STILE OPERATIONS. WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SITE SUPERINTENDENT. THE INDIVIDUAL, WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES

ALL SANITARY WASTE MILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSBEL SPULAGE. THE MASTE WILL BE COLLECTED AND DISPOSED OF W ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SENER OR SEPTIC STSTEMS.

INVENTORY FOR POLITION PREVENTION PLAN

THE MATERIALS OR SURSTANCES LISTED RELOW ARE EXPECTED TO BE PRESENT ON SITE DURING CONSTRUCTION

DETERGENTS

FERTILIZERS
PETROLEUM BASED PRODUCTS
CLEANING SOLVENTS
PAINTS

## SPILL PREVENTION

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRICTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE
- ALL MATERIALS STORED ONSTE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOIL OWED.

THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

## HAZARDOUS PRODUCTS

These practices are used to reduce the risks associated with hazardous materials.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND/OR STATE RECOMMENDED METHOD FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTINE MANITEMANCE TO REDUCE THE CHANGE OF LEAGUE, PETROLEUM PRODUCTS WILL BE STORED WINGIN'S SCALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLED ACCOMING TO THE MANIFACTURER'S RECOMMENDATIONS.

## FFRTILIZFRS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED WITH THE SOLI TO LIMIT PETSOURCE TO STORM WATER, STORAGE WILL BE IN A COVERED ARB. THE CONTENTS OF ANY PARTIALLY LISED BAG. OF FERTILIZER WILL BE TRANSFERRED TO A SCALABE PLASTIC BIN TO AVIOD OF FERTILIZER WILL BE TRANSFERRED TO A SCALABE PLASTIC BIN TO AVIOD

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT MILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROFESTLY DISPOSED OF ACCORDING TO MANUFACTURES.\*
INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

IN ADDITION TO THE COOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND COUPLENT INCESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT MOT BE LIMITED TO BROOMS, DIESP PAIRS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ASSARBEUT (IE. KITTY LITTER OR COLAL). SAND, SANDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECOCURRING AND HOW TO CLEAN UP THE SPILLS IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERNIENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDNATOR. HE/SHE WILL DESIGNAL AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRANSIC, THESE ROMOVALUS WILL LEACH RECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE MARES OF RESPONSIBLE SPILL PERSONNEL WILL BE PORTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

SPILL CONTROL PRACTICES FROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDMENT CONTROLS.

- NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITH OUT WRITTEN PERMISSION FROM THE ENGINEER.
- ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY STIE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INJURIES OF OCEASTED
- ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
- BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE—THIRD THE HEIGHT OF THE FENCE
- SUI FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- THE SEDMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE SEEDING CAPACITY OR AT THE END OF THE JOB.
- DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY
- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTION IS ATTACHED. THE REPORTS WILL BE KEPT ON STE DURING CONSTRUCTION AND AMALBEL UPON REQUEST TO THE OWNER, ENGINEER OF ANY FEDERAL, SATE OR LOCAL AGENCY APPRINGS SCHIMENT AND ERGISION PLANS, OR STORMARTER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETURNED AS PAPEL OF THE STORMARTER POLLITION PREVIOUS HEAVEN FOR AT LESS THREE YEARS FROM THE DATE THAT THE SITE IS FRAILLY STRBUZED AND THE MORICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY AND INCIDENTS OF NON-COMPLANCE.
- THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
- PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER

- \* IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD.
- \* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED)
- \* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

## CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERUS AND CONDITIONS OF THE GENERAL WATKONAL POLITIANT DISCHARCE ELIMINATION SYSTEM (MPDES) PERMIT THAT AUTHORIZES HE STORM WATER DESCHARCE ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE

BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS	RESPONSIBLE FOR/DUTIES
	GENERAL CONTRACTOR
	SUBCONTRACTOR
	SUBCONTRACTOR
	SUBCONTRACTOR
	SUBCONTRACTOR
	OWNER RERESENTITIVE

PRIOR TO CONSTRUCTION, CONTRACTOR WILL INSTALL BMP DEVICES, SILT FENCE, HAY BALE, TURBIDITY BARRIERS, ETC., ALONG R/W AS PART OF THE POLLUTION PREVENTION PLAN FOR APPLICABLE AGENCY APPROVAL

**FNGINFFR** 

Wayne Roberts, P.E. Deputy Director/Engineering

Date

DESIGNED BY	MR	DATE	05/01/09	REVISION DESCRIPTION & DATE	BY	NO.
CHECKED BY	PS	DATE	05/01/09			
DRAWN BY	KR	DATE	05/01/09			
CHECKED BY	PS	DATE	05/01/09			
SUPERVISED BY	DAVID O.	THEUNG,	PE 44786			

CORPORATE OFFICER, GENERAL PARTNER, PROPRIETOR, EXECUTIVE OFFICER, OR TANKING ELECTED OFFICIAL



CANAL ROAD PIPING FINAL DESIGN

FROM 24TH STREET EAST TO 29TH STREET EAST MANATEE COUNTY, FLORIDA

$\mathbb{C}$	WADETRIM	

Dwg. Date 05/01/09 STORMWATER POLLUTION PREVENTION PLAN

Proi. No.