

# GENERAL SCOPE OF DESIGN PERMITTING AND CONSTRUCTION WORK FOR LAKES RESTORATION

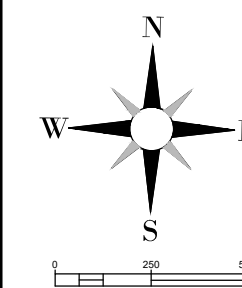
## LAKE 8 & 9 RESTORATION PROJECTS

### COLLIER COUNTY, NAPLES, FLORIDA

LOCATED IN  
SECTION 4 TOWNSHIP 50 SOUTH, RANGE 25 EAST  
COLLIER COUNTY, NAPLES, FLORIDA



VICINITY MAP



LEGEND

- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.36 ACRES)
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.84 ACRES)

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THE PLANS SHOULD BE PLOTTED AT 22" X 34" TO OBTAIN SCALED DATA.

GOVERNING SPECIFICATIONS:  
THE PROJECT DEVELOPMENT CODE;  
CITY OF NAPLES;  
COLLIER COUNTY;  
FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT);  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP);  
SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD);  
UNITED STATES ARMY CORPS OF ENGINEERS (USACE);  
IN THE EVENT OF A CONFLICT, THE MOST RESTRICTIVE APPLIES.

MAYOR

TERESA HEITMANN

VICE MAYOR

MICHAEL McCABE

CITY COUNCIL

TERRY HUTCHISON  
BETH PETRUNOFF  
TED BLANKENSHIP  
PAUL PERRY  
RAYMOND CHRISTMAN

CITY MANAGER

JAY BOODHESHWAR

PUBLIC WORKS DIRECTOR

BOB MIDDLETON

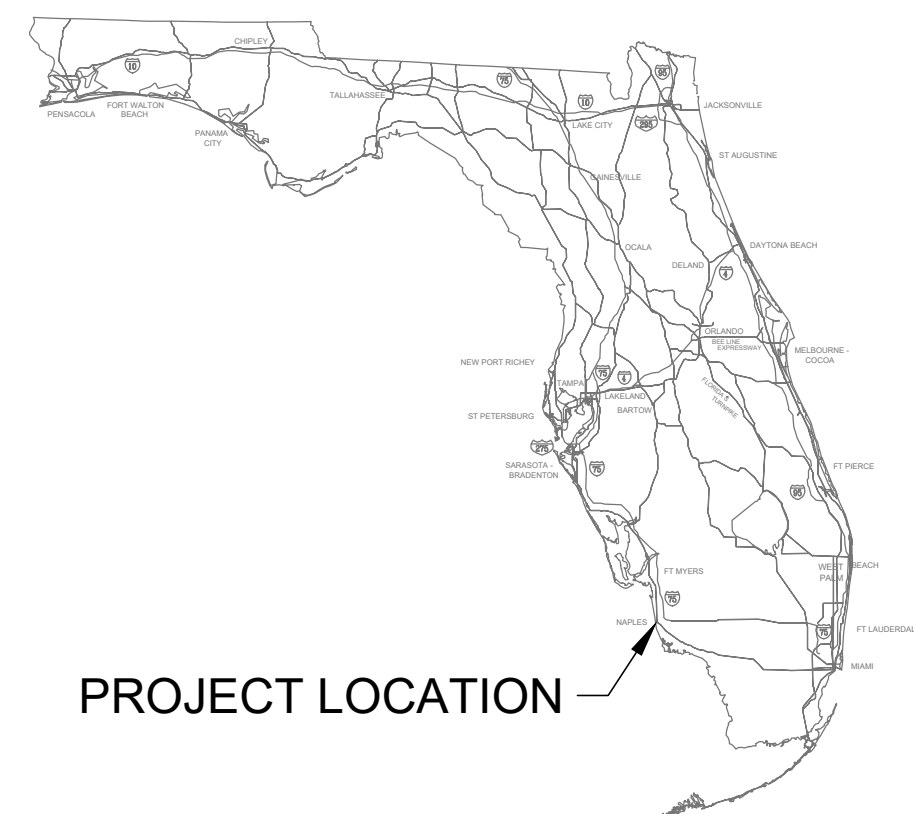
PLANS PREPARED FOR:

CITY OF NAPLES  
PUBLIC WORKS DEPARTMENT  
295 RIVERSIDE DRIVE NAPLES, FLORIDA 34102  
PHONE: 239-213-5016 FAX: 239-213-5010

PLANS PREPARED BY:

WSP ENVIRONMENT AND INFRASTRUCTURE, INC.  
5845 NW 158TH ST  
MIAMI LAKES, FLORIDA 33014  
TEL: (305) 826-5588  
E-MAIL: greg.corning@wsp.com  
ENGINEER OF RECORD: GREGORY CORNING, P.E (FL 79293)

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
G-001	COVER
G-002	GENERAL NOTES
C-101_8	EXISTING SITE PLAN LAKE 8
C-102_8	EROSION & SEDIMENT CONTROL PLAN LAKE 8
C-103_8	MAINTENANCE OF TRAFFIC CONTROL PLAN
C-104_8	PROPOSED SITE PLAN LAKE 8
C-201_8	LITTORAL PLANTING AND GRADING PLAN AND PROFILE
C-301_8	CROSS SECTION LOCATION PLAN LAKE 8
C-101_9	EXISTING SITE PLAN LAKE 9
C-102_9	EROSION AND SEDIMENT CONTROL PLAN LAKE 9
C-103_9	MAINTENANCE OF TRAFFIC CONTROL PLAN LAKE 9
C-104_9	PROPOSED SITE PLAN LAKE 9
C-201_9	PROFILE VIEW & LOCATION LAKE 9
C-301_9	CROSS SECTION LOCATION PLAN AND SECTIONS LAKE 9
C-501	DESIGN DETAILS (1 OF 3)
C-502	DESIGN DETAILS (2 OF 3)
C-503	DESIGN DETAILS (3 OF 3)



PROJECT LOCATION

SUNSHINE STATE ONE CALL OF FLORIDA  
CALL BEFORE YOU DIG  
1-800-432-4770

- CALL 1-800-432-4770 TWO FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) BEFORE DIGGING TO FIND OUT WHERE BURIED FACILITIES (ELECTRIC, GAS, TELECOMMUNICATIONS, CABLE WATER, SEWER) ARE LOCATED.
- WAIT THE REQUIRED TIME FOR THE UTILITIES ON SITE TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES AND CONFIRM THAT THE SITE HAS BEEN LOCATED.
- RESPECT AND PROTECT THE MARKS DURING THE PROJECT, IF MARKS ARE DESTROYED, REQUEST A NEW LOCATE TICKET.
- DIG SAFELY, USING EXTREME CAUTION WHEN DIGGING WITHIN 24 INCHES ON EITHER SIDE OF THE MARKS TO AVOID HITTING THE BURIED UTILITY LINES.



USA ENVIRONMENT & INFRASTRUCTURE, INC.  
1101 Channelside Drive  
Suite 200  
Tampa, FL 33602  
Phone: 1.813.289.0750  
www.wsp.com

GREGORY W. CORNING, P.E.  
FLORIDA PE LICENSE NO. 79293

PROJECT:  
CITY OF NAPLES  
LAKES RESTORATION



CLIENT:  
CITY OF NAPLES  
PUBLIC WORKS  
DEPARTMENT

295 RIVERSIDE DRIVE  
NAPLES, FL 34102

WSP PROJECT NO:  
600843.03

90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

SHEET TITLE:

COVER

SHEET NUMBER:	REV. #
G-001	D
SHEET 01 OF 17 SHEETS	



**NOTES:**

**A. GENERAL**

**1. PROPERTY OWNERS NAME AND ADDRESS:**

LAKE 8 (NORTH LAKE)				
PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE
8531040007	THOMAS & MEICHUSNEAD	481 7TH AVE. N.	NAPLES	FL
8531080009	FRANK D. & SHARLENE R. DRIER	485 7TH AVE. N.	NAPLES	FL
8531120005	MARY HENE BINGHAM	501 7TH AVE. N.	NAPLES	FL
8531160000	JEAN V. KANE REVOCABLE TRUST	507 7TH AVE. N.	NAPLES	FL
8531200009	HEIDI L. ROBAR REV LIV TRUST	527 7TH AVE. N.	NAPLES	FL
8531240001	DANIEL W. TERPSMA TRUST	549 7TH AVE. N.	NAPLES	FL
8531280003	GEORGE REVOCABLE TRUST	565 7TH AVE. N.	NAPLES	FL
8531320002	WILLIAM M. & NANCY DUNLAP JR	579 7TH AVE. N.	NAPLES	FL
8531360004	FRANKLIN & JACQUE L. PAULSON	615 7TH AVE. N.	NAPLES	FL
17911320008	SHRI & VICTORIA PERSAUD	687 BOUGAINVILLE RD	NAPLES	FL
17911280009	DOROTHY M. HARE TRUST	470 7TH AVE. N.	NAPLES	FL
17911240007	LARRY A. & KATHLEEN A. RAMBO	655 BOUGAINVILLE RD	NAPLES	FL
17911200005	PATRICIA K. COLLINS REVOC. TRUST	645 BOUGAINVILLE RD	NAPLES	FL
17911160006	JOHN D. REMINGTON, & JAQUELINE S. REMINGTON	633 BOUGAINVILLE RD	NAPLES	FL
17911120004	CONSTANTINE S. MIHAS REV. TRUST	625 BOUGAINVILLE RD	NAPLES	FL
17911080005	CORNIE H. SPARPE 2018 FL TRUST	605 BOUGAINVILLE RD	NAPLES	FL
17911040003	MARGARET PATTEN SMITH R TRUST	615 BOUGAINVILLE RD	NAPLES	FL
17911000001	LORRANE M. LONERGAN TRUST	616 BOUGAINVILLE RD	NAPLES	FL
17910960003	SEMPRONE INVESTMENTS LTD	649 BOUGAINVILLE RD	NAPLES	FL
17910920001	MAAAT TRUST	677 BOUGAINVILLE RD	NAPLES	FL
17910900005	PEARL R. STRUMINGER TRUST	689 BOUGAINVILLE RD	NAPLES	FL
17910880002	TERRY & BOBBIE CANERDY	572 7TH AVE. N.	NAPLES	FL

LAKE 9 (SOUTH LAKE)				
PARCEL ID	OWNER NAME	ADDRESS	CITY	STATE
17910360001	ELIZABETH A. MIHAS REV TRUST	677 PALM CIR. E.	NAPLES	FL
17910400000	CONSTANTINE S. MIHAS REV. TRUST	659 PALM CIR. E.	NAPLES	FL
17910440002	LINDA LADAMANY REVOC TRUST	649 PALM CIR. E.	NAPLES	FL
17860200006	OTTO W. & JENNIFER J. INGRAM	635 PALM CIR. E.	NAPLES	FL
17860200004	JOHN M. & GERALDINE C. ROEDER	605 PALM CIR. E.	NAPLES	FL
17910480004	DAVID H. & LAURA C. LINDNER	597 PALM CIR. E.	NAPLES	FL
17910520003	GREGORY S. & ROSAUE L. DEVESON	575 PALM CIR. E.	NAPLES	FL
17910560005	JOHN J. & LORI A. RAY III	561 PALM CIR. E.	NAPLES	FL
17910600004	KENNETH C. MC CUBBINS	555 PALM CIR. E.	NAPLES	FL
17910640006	KEVIN & BARBARA ELLEN MORANO	499 PALM CIR. E.	NAPLES	FL
17910680008	JOSEPH G. WHEELER REV TRUST	479 PALM CIR. E.	NAPLES	FL
17910720007	CHRISTOPHER B. LOFGREN	455 PALM CIR. E.	NAPLES	FL
17910760009	ROBERT H. & LINDA W. MEADE	411 PALM CIR. E.	NAPLES	FL
17910800008	GREGORY D. & KIMBERLEE K. WHITE	410 PALM CIR. W.	NAPLES	FL
17910840000	JOSEPH M. & DIANE R. THOMAS	430 PALM CIR. W.	NAPLES	FL
17860120003	BRIAN M. & DIANNA L. KANTER	450 PALM CIR. W.	NAPLES	FL
17860080004	FERN LP	476 PALM CIR. W.	NAPLES	FL
17910040004	FRED C. & SUE C. SCHULTE	450 PALM CIR. W.	NAPLES	FL
17910080006	JOHN P. CARDILLO, LINDA CARDILLO & JOHN THOMAS CADILLO	510 PALM CIR. W.	NAPLES	FL
17910120005	EIC REVOCABLE TRUST & EDWARD J. CAVLEY	542 PALM CIR. W.	NAPLES	FL
17910160007	ROBERT J. SULLIVAN & JENNIFER SPROUL SULLIVAN	570 PALM CIR. W.	NAPLES	FL
17910200006	LEE K. & HELEN C. ANDERSON	590 PALM CIR. W.	NAPLES	FL
17910240008	DAVID E. WINEBRENNER IV & ELIZABETH C. WINEBRENNER	542 PALM CIR. W.	NAPLES	FL
17910280000	TIMOTHY E. & JOCELYN A. HIRSCH	659 PALM CIR. W.	NAPLES	FL
17910320009	JAMES TOWNLEY HAMMAN & MARY SMITH HAMMAN	674 PALM CIR. W.	NAPLES	FL

PROJECT LOCATION: LAKE 8 - LAT: 26° 9' 19"N LONG: 81° 48' 8"W  
 LAKE 9 - LAT: 26° 9' 10"N LONG: 81° 48' 10"W

- DESCRIPTION: THIS PROJECT CONSISTS OF SITE IMPROVEMENTS, INCLUDING REMOVAL OF INVASIVE EXOTIC VEGETATION, HYDRAULIC AND MECHANICAL DREDGING OF ORGANIC MATERIAL AND SAND FROM THE BOTTOM OF THE LAKES, CONTOURING LAKE BOTTOM AND CONSTRUCTING LITTORAL SHELVES, AND PUBLIC OUTREACH AMENITIES.
- THE TYPES OF SOIL DISTURBANCE ACTIVITIES INCLUDE: HYDRAULIC DREDGING, GRADING, EXCAVATING AND COMPACTING.
- SEQUENCE OF MAJOR ACTIVITIES:
  - INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND MAINTAIN THROUGHOUT PROJECT.
  - CONSTRUCT HYDRAULIC DREDGING AND DEWATERING STAGING AREAS
  - DREDGE ORGANIC MATERIAL, DEWATER, AND HAUL OFFSITE.
  - CONSTRUCT FEATURES ACCORDING TO ENGINEERING DESIGN PLANS AND TECHNICAL SPECIFICATIONS.
  - STABILIZE AREAS AS NEEDED.
  - OBTAIN FINAL APPROVAL, REMOVE EROSION AND SEDIMENTATION CONTROLS AND STABILIZE ANY AREA DISTURBED BY THEIR REMOVAL.
- AREA ESTIMATES:
  - LAKE 8 AND CITY ROADS PLATTED BOUNDARY = 2.36 ACRES
  - LAKE 9 AND CITY ROADS PLATTED BOUNDARY = 4.84 ACRES
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP, OBTAIN, AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE EPA NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES, THE FDEP GENERIC PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES AND ALL OTHER FEDERAL, STATE AND LOCAL REQUIREMENTS.
- THE CONTRACTOR SHALL SUBMIT A ROW PERMIT APPLICATION THROUGH THE CITY OF NAPLES STREETS AND TRAFFIC DIVISION SHOWING MAINTENANCE OF TRAFFIC AND ANY ROAD OR LANE CLOSURES.
- THE CONTRACTOR SHALL USE CAUTION TO PROTECT WILDLIFE AND ECOSYSTEM THROUGH THE PROJECT DURATION.
- THE CITY OF NAPLES, THE ENGINEER OF RECORD, THE CONTRACTOR, AND SFWMD SHALL HAVE A PRE-CONSTRUCTION MEETING TO DISCUSS THE COMPLEXITY AND POTENTIAL PUBLIC CONCERNS WITH THE PROJECT.
- COORDINATES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT, PROJECTED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE 901, US SURVEY FEET, AND ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED ON GLOBAL POSITIONING SYSTEM (GPS) MEASUREMENTS TO THE NATIONAL GEODETIC SURVEY (NGS) CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) NETWORK. THE POSITIONS OF THE PROJECT CONTROL STATIONS SHOWN HEREON HAVE A CALCULATED POSITIONAL ACCURACY OF 2 CM OR BETTER BASED UPON THE NGS OPUS ADJUSTMENT REPORT.

**B. TEMPORARY EROSION AND SEDIMENT CONTROL**

- CONTRACTOR SHALL INSTALL PRIOR TO AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS.
- EROSION CONTROL MEASURES AND THE OUTFALLS WILL BE INSPECTED AT LEAST DAILY, AFTER EACH RAIN AND REPAIRED BY THE GENERAL CONTRACTOR IF DAMAGED. CLEAN OUT OF SEDIMENT CONTROL STRUCTURES WILL BE PERFORMED BY THE CONTRACTOR WHEN SEDIMENT HAS ACCUMULATED TO ONE-HALF (1/2) FULL FOR SILT FENCE, TURBIDITY BARRIERS, AND INLET SEDIMENT TRAPS.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING SEDIMENT AND EROSION CONTROL MEASURES TO PROVIDE OPTIMUM SEDIMENT AND EROSION CONTROL. SEDIMENT AND EROSION CONTROL MEASURES SHALL COMPLY WITH CHAPTER 6 OF THE FLORIDA DEVELOPMENT MANUAL.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION OF CITY OF NAPLES DESIGNATED REPRESENTATIVE.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING DITCHES, WETLAND VEGETATION, STORM DRAIN PIPES, AND INLETS, IN THE VICINITY OF WORK TO BE PERFORMED, FROM DAMAGE OR SILTATION, WHETHER OR NOT SPECIFICALLY IDENTIFIED IN THE PLANS.
- EROSION CONTROL MEASURES DESCRIBED SHALL BE MAINTAINED UNTIL PERMANENT DRAINAGE FACILITIES HAVE BEEN RECONSTRUCTED AND VEGETATION ON PLANTED SLOPES IS SUFFICIENTLY ESTABLISHED TO BE AN EFFECTIVE EROSION DETERRENT.
- CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD INTO PUBLIC STREETS. IF TRACKING OR FLOW OF MUD OCCURS, CONTRACTOR SHALL CONSTRUCT A SOIL TRACKING PREVENTION DEVICE IN ACCORDANCE WITH FDOT DESIGN STANDARD 2010, INDEX NO. 106.
- REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION OR PROJECT COMPLETION, AS DIRECTED BY THE CITY'S REPRESENTATIVE.
- SILT FENCE AND TURBIDITY BARRIERS SHALL MEET THE REQUIREMENTS OF FDOT DESIGN STANDARDS 2017-18, INDEX NO. 104.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTROL OF EROSION WITHIN THE WORK SITE AND PREVENTION OF SEDIMENTATION OF ANY ADJACENT OR DOWNSTREAM WATERWAYS. THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. THE CONTRACTOR'S METHODS OF OPERATION MAY DICTATE ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND INSTALLING ADDITIONAL MEASURES.
- ANY UNCOVERED DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 20 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

**C. DEWATERING**

- DEWATERING ACTIVITIES SHALL ADHERE TO THE SFWMD PERMIT.
- SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

**D. EXISTING INFRASTRUCTURE**

- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING INFRASTRUCTURE THAT IS IMPACTED DURING CONSTRUCTION TO MATCH EXISTING CONDITIONS.

**E. EXISTING UTILITIES**

- THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL PERTINENT UTILITIES COMPANIES 48 HOURS PRIOR TO DIGGING FOR LOCATION OF UNDERGROUND UTILITY LINES.
- IN THE EVENT THE UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL RESTORE TO MATCH EXISTING CONDITIONS AND NOTIFY THE PERTINENT UTILITY COMPANY IMMEDIATELY.



GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
**CITY OF NAPLES**  
**LAKES RESTORATION**



**CLIENT:**  
**CITY OF NAPLES**  
**PUBLIC WORKS**  
**DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
**WSP PROJECT NO:**  
**600843.03**

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	11/13/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	November 13, 2023

**SHEET TITLE:**  
**GENERAL NOTES**

<b>SHEET NUMBER:</b>	<b>REV. #</b>
G-002	D
<b>SHEET 02 OF 17 SHEETS</b>	

**90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)**



PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-101\_8.dwg LAYOUT: EXISTING SITE PLAN LAKE 8 SAVED: 9/27/2023 7:55 AM PLOTSTYLETABLE: ... PLOTTED: 9/27/2023 7:54 AM DRAWN BY: BOLTON, GARY P.

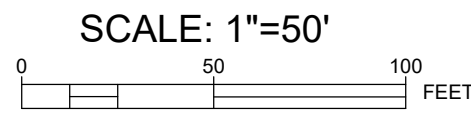


SOURCE: FLORIDA LABINS (OP2019\_NC\_310245)

**LEGEND**

- 5 — EXISTING CONTOURS
- EXISTING STORMWATER DRAINS & PIPES
- NORMAL LAKE WATER LEVEL EL. 2.6'
- ⊙ CONTROL POINT / BENCHMARK
- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
- ▭ COLLIER COUNTY PARCEL BOUNDARY
- ⊙ EXISTING AERATOR / DIFFUSER
- ⊙ INVASIVE SPECIES (TO BE REMOVED)

**1 EXISTING SITE PLAN - LAKE 8**



**NOTES:**

1. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
2. THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 8 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022
3. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
4. THE CONTRACTOR SHALL LOCATE AND FLAG ALL INVASIVE SPECIES TO BE REMOVED FOR CITY REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.

CONTROL POINTS & BENCHMARK DATA TABLE				
I.D.	NORTHING	EASTING	ELEV.	DESCRIPTION
CP-1	662961.069	393386.528	7.80'	IRON ROD & CAP STAMPED "TRAVERSE"
CP-2	663158.479	393193.812	7.18'	MAG NAIL E.F. GAINES LS 4576
CP-3	663039.773	392599.265	7.43'	DSK NAIL E.F. GAINES LS 4576 NLD
CP-4	662493.003	392492.566	7.18'	DSK NAIL
BM-191	662624.93	396219.28	6.00'	5/8" IRON ROD & CAP
BM-192	662592.66	395943.02	6.20'	5/8" IRON ROD & CAP
BM-204	657635.89	393659.64	3.30'	5/8" IRON ROD & CAP
CP-5	658801.610	395120.238	6.37'	*SSR W/CAP 3" IN BRASS USGS V241 1965 (PID:AD1256)

NOTE: ALL ELEVATIONS (ELEV.) ARE IN FEET, DATUM IS NAVD 88 UNLESS OTHERWISE STATED.  
 \* = DATUM UNKNOWN



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

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 FLORIDA PE LICENSE NO. 79293

PROJECT:  
**CITY OF NAPLES  
 LAKES RESTORATION**



CLIENT:  
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 295 RIVERSIDE DRIVE  
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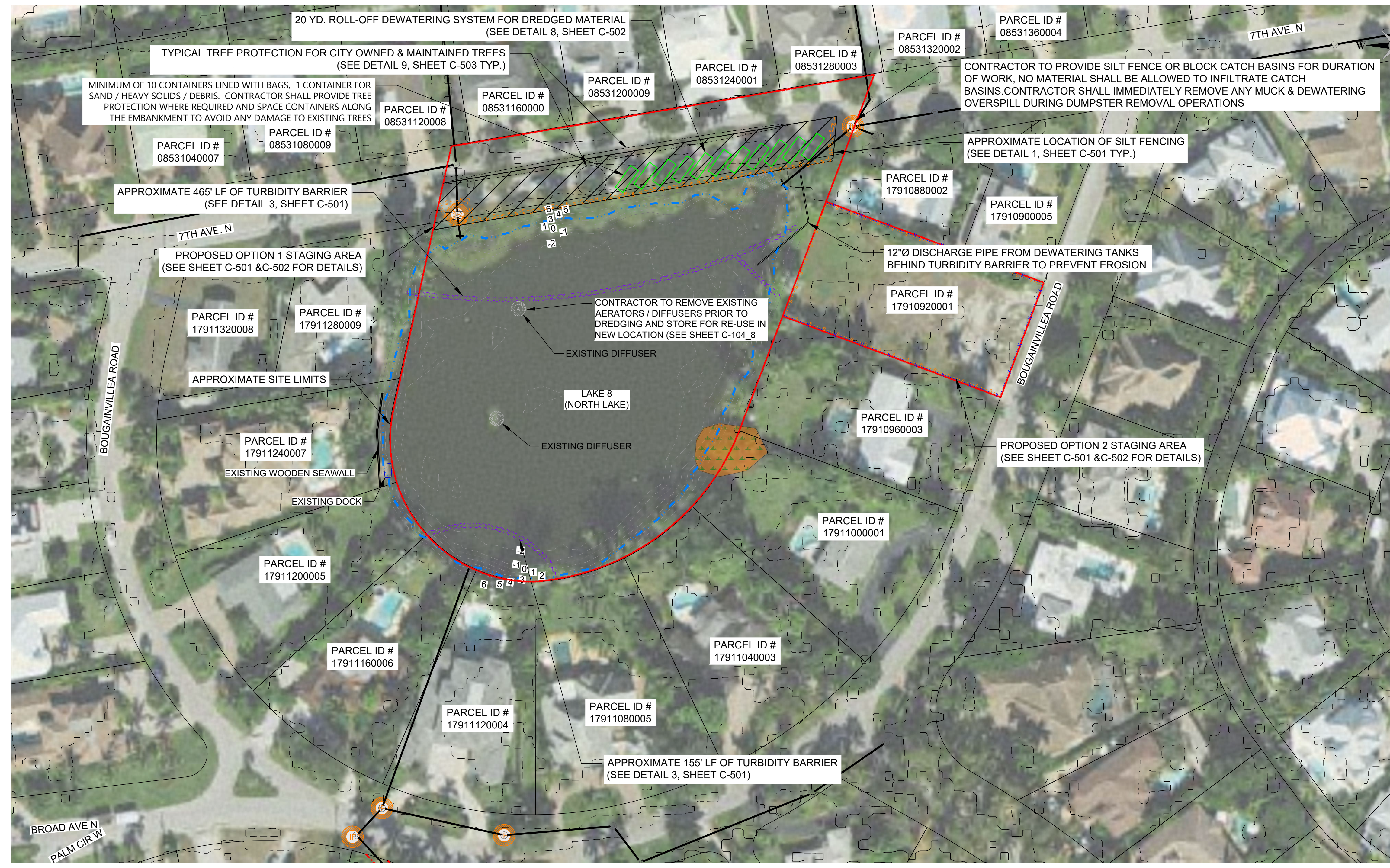
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APPROVED BY:	G. CORNING
DATE:	September 27, 2023

SHEET TITLE:  
**EXISTING SITE PLAN  
 LAKE 8**

SHEET NUMBER:	REV. #
C-101_8	D
SHEET 03 OF 17 SHEETS	



PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB673007\WSP\0965\Corning, Greg - City of Naples - North and South Lake Restoration - Standard\C-102\_8.dwg LAYOUT: EROSION & SEDIMENT CONTROL PLAN LAKE 8 SAVED: 9/27/2023 7:52 AM PLOTTED: 9/27/2023 7:52 AM DRAWN BY: BOLTON, GARY P.



SOURCE: FLORIDA LABINS (OP2019\_NC\_310245)

# 1 PROPOSED EROSION AND SEDIMENT CONTROL PLAN - LAKE 8

Scale: 1"=50'

**LEGEND**

- EXISTING CONTOURS
- EXISTING CONTOURS MINOR
- EXISTING STORMWATER DRAINS & PIPES
- NORMAL LAKE WATER LEVEL EL. 2.6'
- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- PROPOSED INLET FILTER
- PROPOSED AERATOR
- INVASIVE SPECIES (TO BE REMOVED)
- 20 YD ROLL OFF DEWATERING SYSTEM
- FLOATING TURBIDITY BARRIER
- TEMPORARY FENCING
- TEMPORARY SILT FENCING

**NOTES:**

1. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
2. CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.
3. CONTRACTOR TO DEPLOY / RELOCATE FLOATING TURBIDITY CURTAINS AROUND PROJECT IMPROVEMENTS AS CONSTRUCTION PROGRESSES



SITE MAP LOCATION

**90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)**

**USA ENVIRONMENT & INFRASTRUCTURE, INC.**  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
**CITY OF NAPLES LAKES RESTORATION**



**CLIENT:**  
**CITY OF NAPLES PUBLIC WORKS DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
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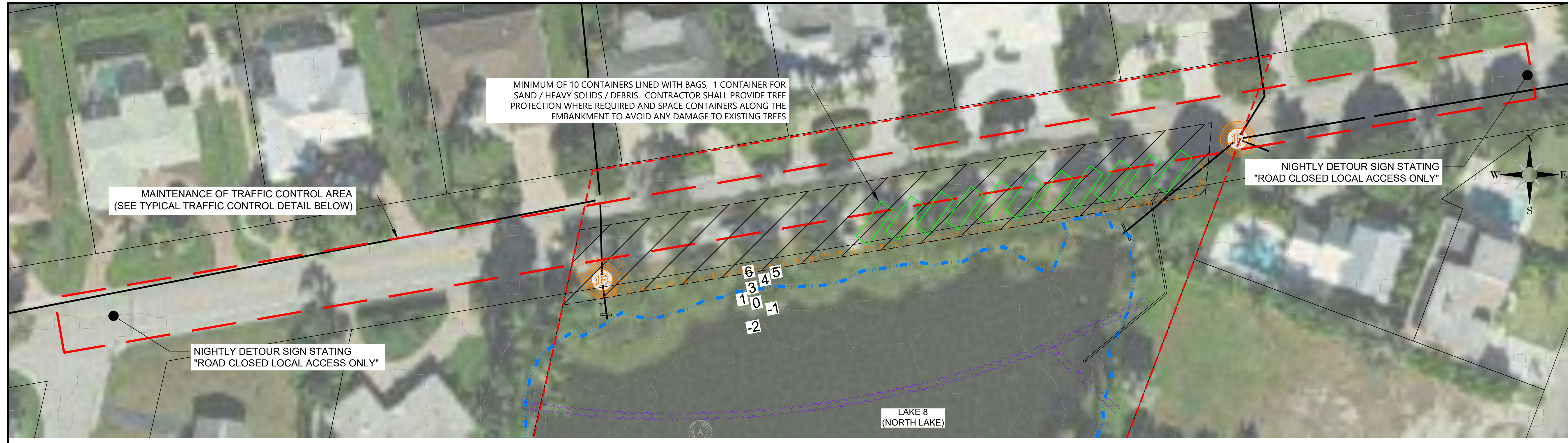
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DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

**SHEET TITLE:**  
**EROSION & SEDIMENT CONTROL PLAN LAKE 8**

SHEET NUMBER:	REV. #
C-102_8	D
SHEET 04 OF 17 SHEETS	



PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB673007\WSP\0965\Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-103\_8.dwg LAYOUT: MAINTENANCE OF TRAFFIC CONTROL PLAN SAVED: 9/27/2023 7:15 AM PLOTSTYLETABLE: ... PLOTTED: 9/27/2023 7:51 AM DRAWN BY: BOLTON, GARY P.




USA ENVIRONMENT & INFRASTRUCTURE, INC.  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

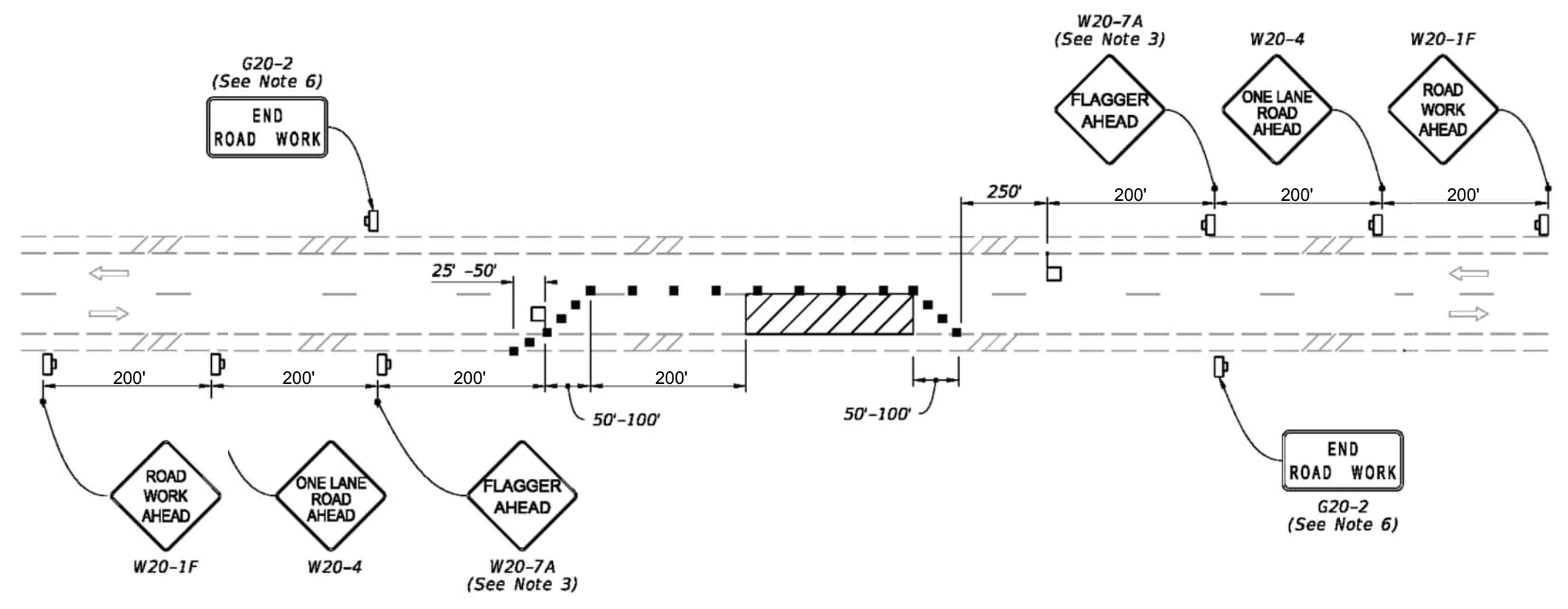
PROJECT:  
**CITY OF NAPLES  
 LAKES RESTORATION**



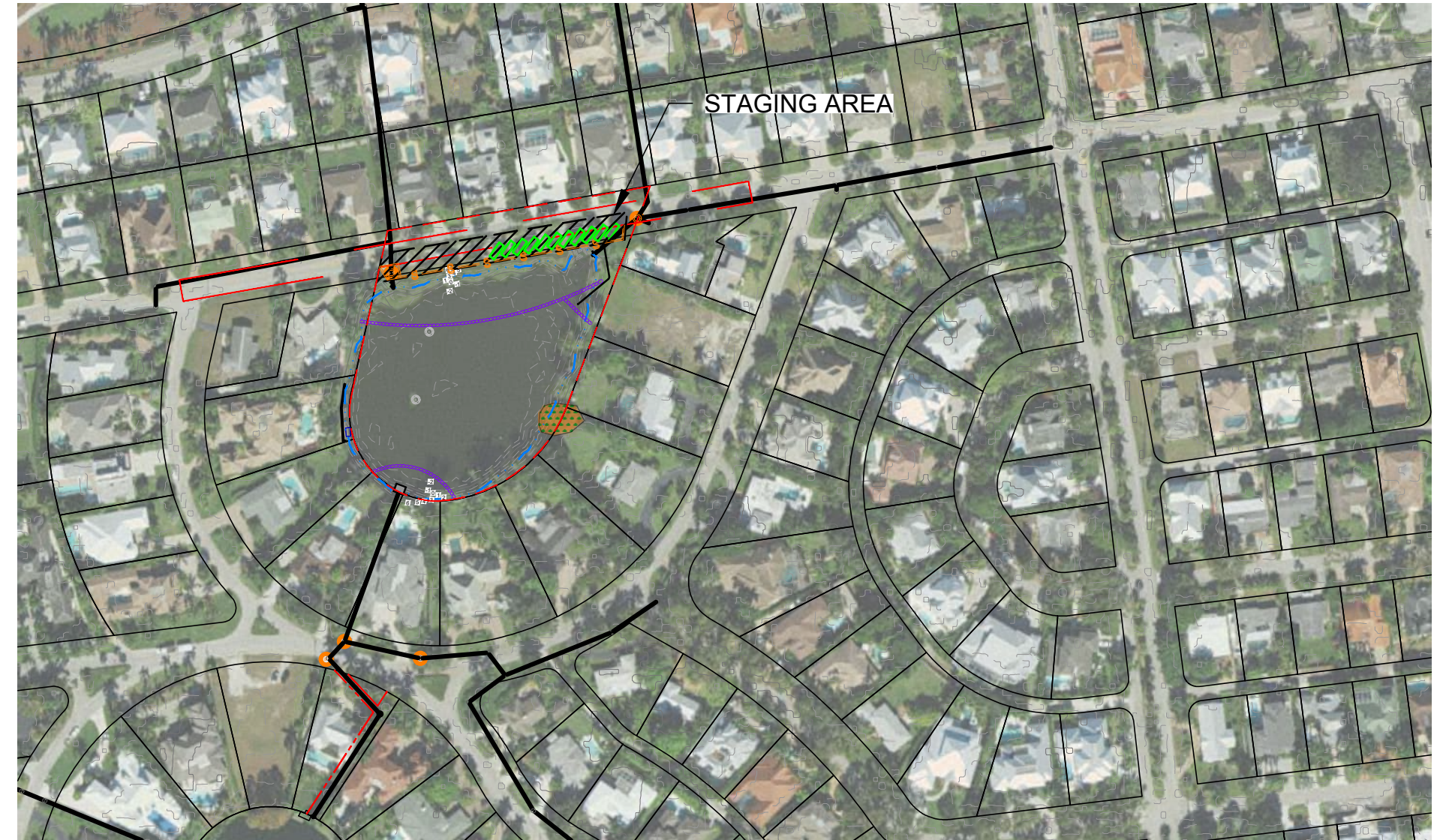
CLIENT:  
**CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
 WSP PROJECT NO:  
 600843.03

90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

**1 PROPOSED MAINTENANCE OF TRAFFIC CONTROL PLAN - LAKE 8**  
 NOT TO SCALE



TYPICAL TWO LANE ROAD TRAFFIC CONTROL DETAIL



- LEGEND**
- 5 — EXISTING CONTOURS
  - - - - EXISTING CONTOURS MINOR
  - EXISTING STORMWATER DRAINS & PIPES
  - NORMAL LAKE WATER LEVEL EL. 2.6'
  - APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
  - COLLIER COUNTY PARCEL BOUNDARY
  - PROPOSED INLET FILTERS TYPICAL
  - EXISTING AERATOR (TO BE REMOVED & STORED FOR REUSE)
  - 20 YD ROLL OFF DEWATERING SYSTEM
  - FLOATING TURBIDITY BARRIER
  - TEMPORARY SILT FENCING

- NOTES:**
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
  - CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.
  - THE CONTRACTOR SHALL MAINTAIN AN EXCAVATOR ON SITE TO MANEUVER THE ROLL OFFS INTO POSITION FOR THE TRUCKS THAT WILL HAVE TO BACK DOWN THE LANE TO LOAD / UNLOAD THE CONTAINERS.

**REVISIONS**

NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

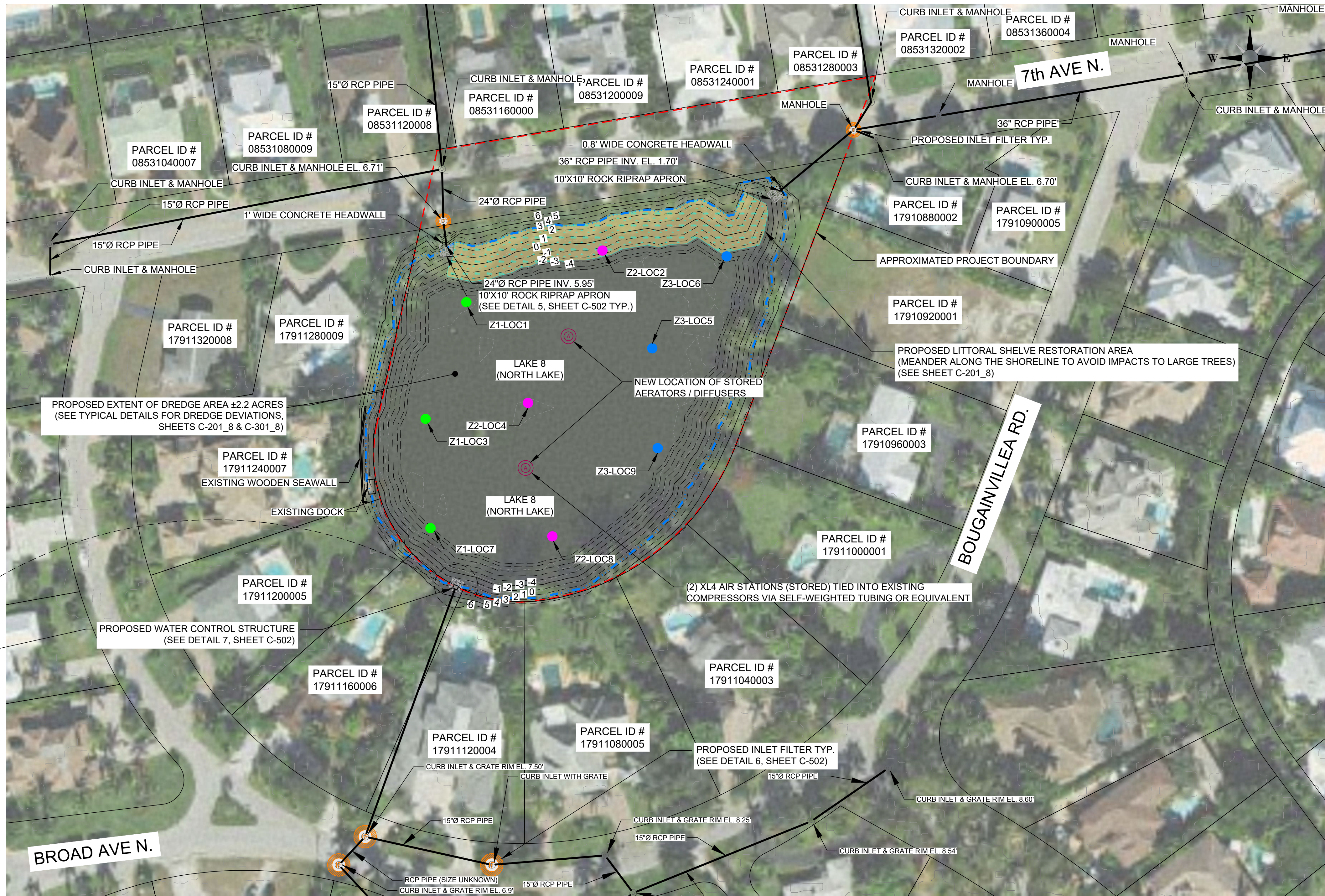
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

**SHEET TITLE:**  
 MAINTENANCE OF  
 TRAFFIC CONTROL  
 PLAN

SHEET NUMBER:	REV. #
C-103_8	D
SHEET 05 OF 17 SHEETS	



PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\JULY\_2023\C-104\_8.dwg LAYOUT: PROPOSED SITE PLAN LAKE 8 - North and South Lake\2023\JULY\_2023\C-104\_8.dwg PLOTTED: 9/28/2023 12:00 PM DRAWN BY: BOLTON, GARY P.



SOURCE: FLORIDA LABINS (OP2019\_NC\_310245)

- LEGEND**
- 5 — PROPOSED CONTOURS
  - - - - PROPOSED CONTOURS MINOR
  - 5 — EXISTING CONTOURS MAJOR
  - - - - EXISTING CONTOURS MINOR
  - ⊕ EXISTING STORMWATER DRAINS & PIPES
  - ⬠ APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
  - ⬠ COLLIER COUNTY PARCEL BOUNDARY
  - WC PROPOSED WATER CONTROL STRUCTURE TYPICAL
  - ⊙ PROPOSED INLET FILTER TYPICAL
  - ⊙ PROPOSED AERATOR TYPICAL
  - ▨ LITTORAL SHELF GRADING & PLANTING
  - SEDIMENT SAMPLING LOCATIONS
    - ZONE-1 LOCATIONS 1, 3 & 7 (Z1-LOC7)
    - ZONE-2 LOCATIONS 2, 4 & 8 (Z2-LOC8)
    - ZONE-3 LOCATIONS 6, 5, & 9 (Z3-LOC9)

# 1 PROPOSED SITE PLAN - LAKE 8

Scale: 1"=50'  
 0 50 100 Feet

- NOTES:**
1. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
  2. THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 8 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022.
  3. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
  4. THE CONTRACTOR SHALL LOCATE AND FLAG ALL INVASIVE SPECIES TO BE REMOVED FOR CITY REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.
  5. CONTRACTOR TO REFERENCE FEASIBILITY REPORT FOR INFORMATION ON SEDIMENT SAMPLING ZONE LOCATIONS AND ANALYTICAL DATA FOR DEWATERING AND DISPOSAL LOGISTICS.



SITE MAP LOCATION

90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

**USA ENVIRONMENT & INFRASTRUCTURE, INC.**  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
 CITY OF NAPLES  
 LAKES RESTORATION



**CLIENT:**  
 CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
 WSP PROJECT NO:  
 600843.03

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/28/23	GB	GC

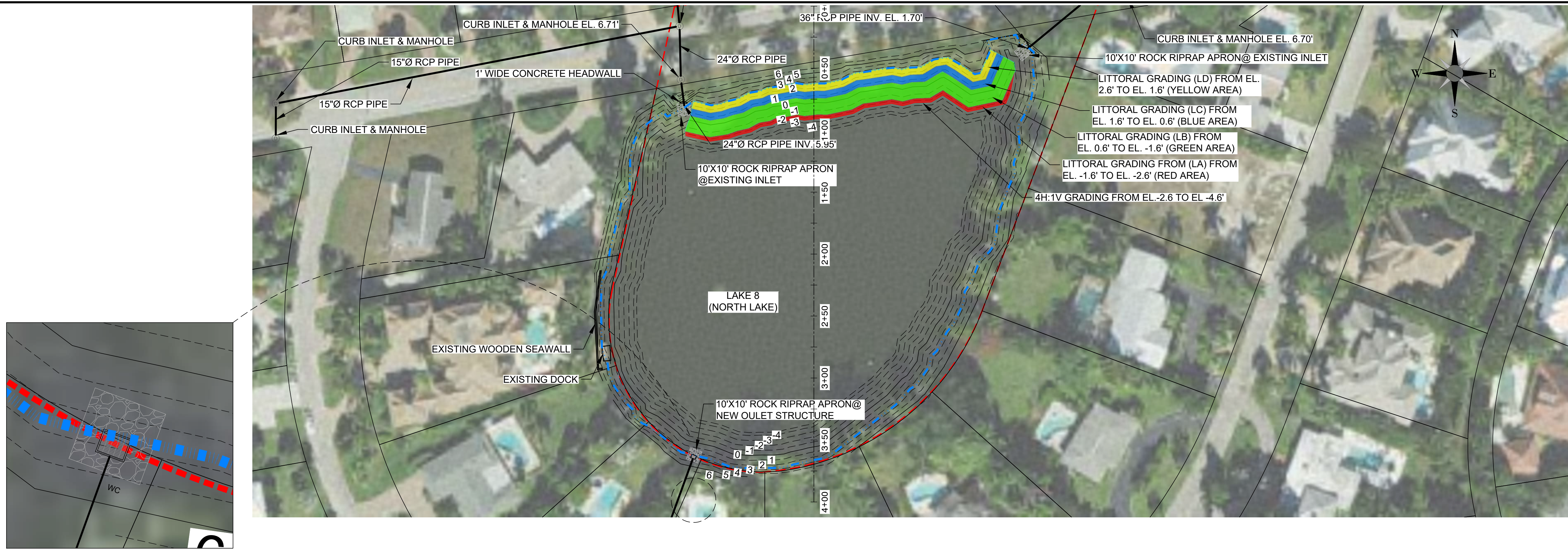
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 28, 2023

**SHEET TITLE:**  
 PROPOSED SITE  
 PLAN LAKE 8

SHEET NUMBER:	REV. #
C-104_8	D
SHEET 06 OF 17 SHEETS	

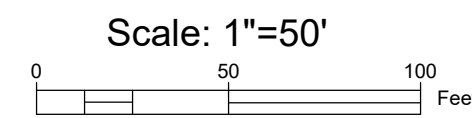


PROJECT NUMBER: 600843.03 CITY: TAMPA  
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 DRAWN BY: BOLTON, GARY P.

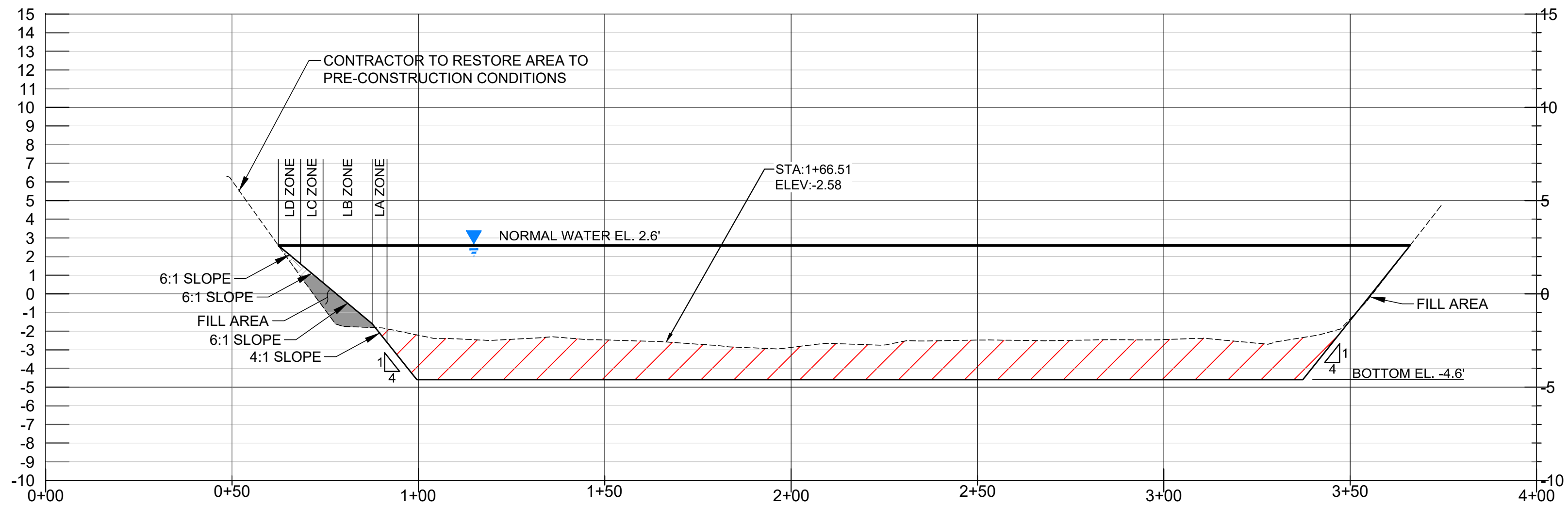


- NOTE:**
- CONTRACTOR SHALL STAY A MINIMUM OF 10 FEET FROM EXISTING DOCKS AND SEAWALLS TO AVOID DAMAGE TO PRIVATE PROPERTY.
  - CONTRACTOR TO RESTORE ALL AREAS ABOVE LITTORAL PLANTINGS (EL. 2.6') TO PRE-CONSTRUCTION CONDITION AFTER ALL WORK IS COMPLETED.

### 1 PROFILE LOCATION PLAN - LAKE 8



- NOTES:**
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
  - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 8, AND 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022, ELECTRONIC FILES OF DATA WILL BE SUPPLIED TO CONTRACTOR FOR BIDDING PURPOSES.
  - CUT AND FILL VOLUMES ARE APPROXIMATE AND ARE BASED ON PROPOSED SURFACE.



### 2 NORTH - SOUTH PROFILE VIEW

- LEGEND**
- FILL AREA (APPROXIMATELY 371 CU. YDS.)
  - CUT AREA (APPROXIMATELY 4822 CU. YDS.)
  - PROPOSED CONTOURS
  - PROPOSED CONTOURS MINOR
  - NORMAL LAKE WATER LEVEL EL. 2.6'
  - APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
  - WC PROPOSED WATER CONTROL STRUCTURE TYPICAL

CITY OF NAPLES PLANTING PLAN								
SYMBOL	ZONE	SLOPE	SQUARE FEET	WATER DEPTH (FT)	COMMON NAME	SCIENTIFIC NAME	SPACING (FEET)	QUANTITY OF PLANTS
	LITTORAL MIX D (LD)	6:1 SLOPE	1610	0-1 (EL. 2.6' TO EL. 1.6')	LEATHER FERN	ACROSTICHUM DANAEIFOLIUM	2	403
					MUHL GRASS	MUHLENBERGIA CAPILLARIS	3	268
					SAND CORDGRASS	SPARTINA BAKERI	3	184
	LITTORAL MIX C (LC)	6:1 SLOPE	1657	1-2 (EL. 1.6' TO EL. 0.6')	PICKERELWEED	PONTEDERIA CORDATA	2	276
					DUCK POTATO	SAGITTARIA LATIFOLIA	2	276
					BULRUSH	SCHOENOPLECTUS AMERICANUS	1	1275
	LITTORAL MIX B (LB)	6:1 SLOPE	3824	2-3 (EL. 0.6' TO EL. -1.6')	ALLIGATOR FLAG	THALIA GENICULATA	3	425
					SMOOTH CORDGRASS	SPARTINA ALTERNIFLORA	1	1275
	LITTORAL MIX A (LA)	4:1 SLOPE	1148	3-4 (EL. -1.6' TO EL. -2.6')	WATER LILY	NYPHAEA ODORATA	7	164



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
 CITY OF NAPLES  
 LAKES RESTORATION



**CLIENT:**  
 CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102

**WSP PROJECT NO:**  
 600843.03

**90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)**

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

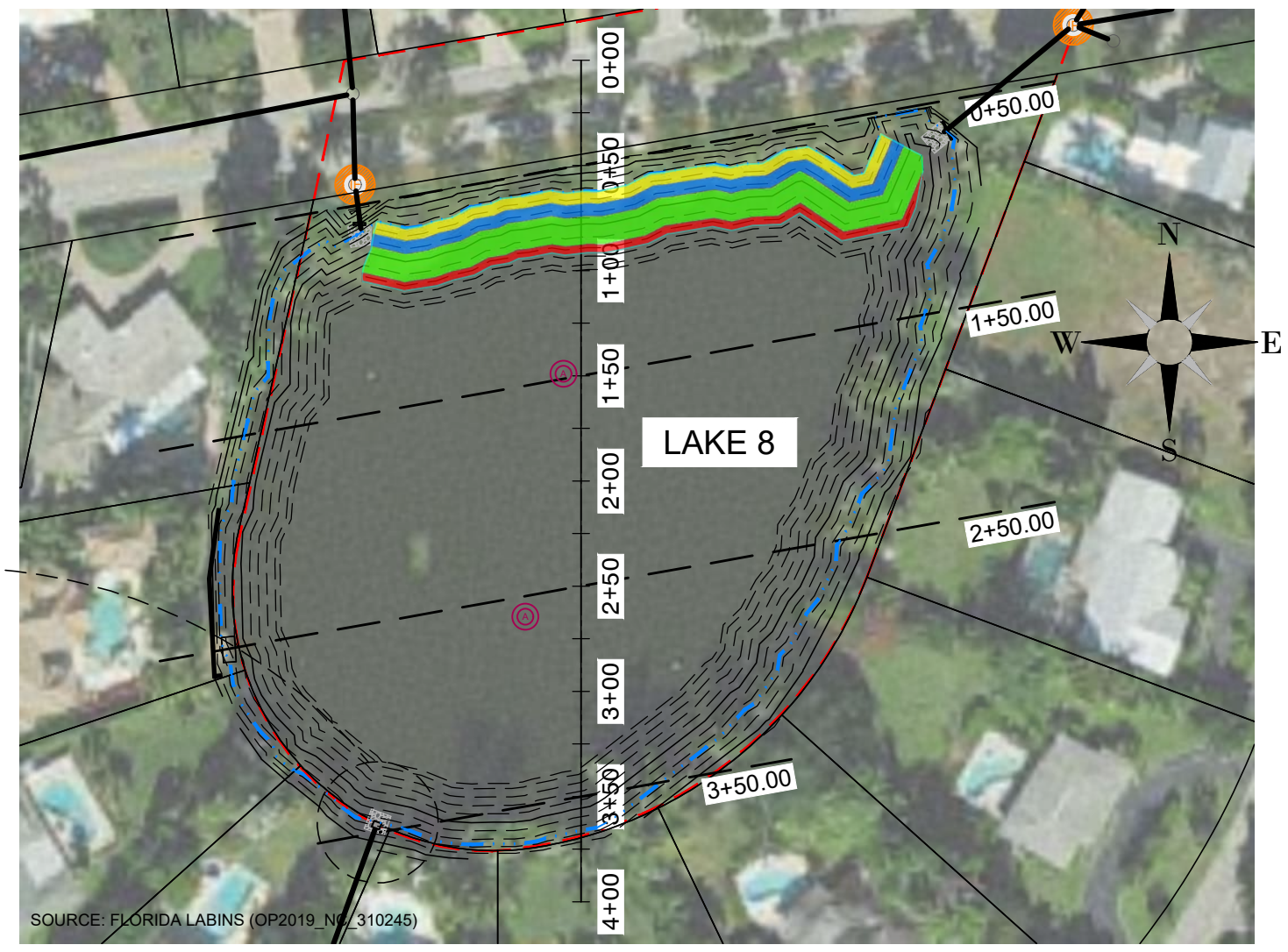
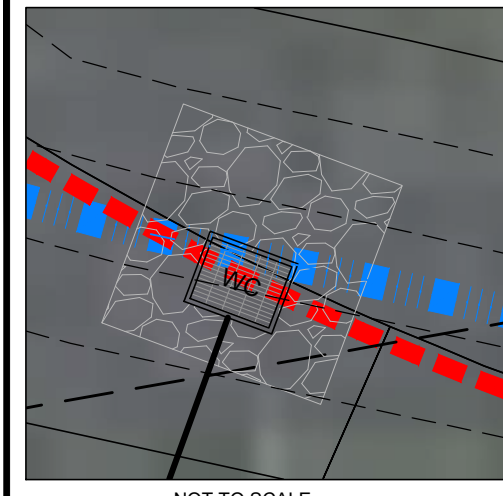
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

**SHEET TITLE:**  
 LITTORAL PLANTING  
 AND GRADING PLAN  
 AND PROFILE

<b>SHEET NUMBER:</b>	<b>REV. #</b>
C-201_8	D
SHEET 07 OF 17 SHEETS	

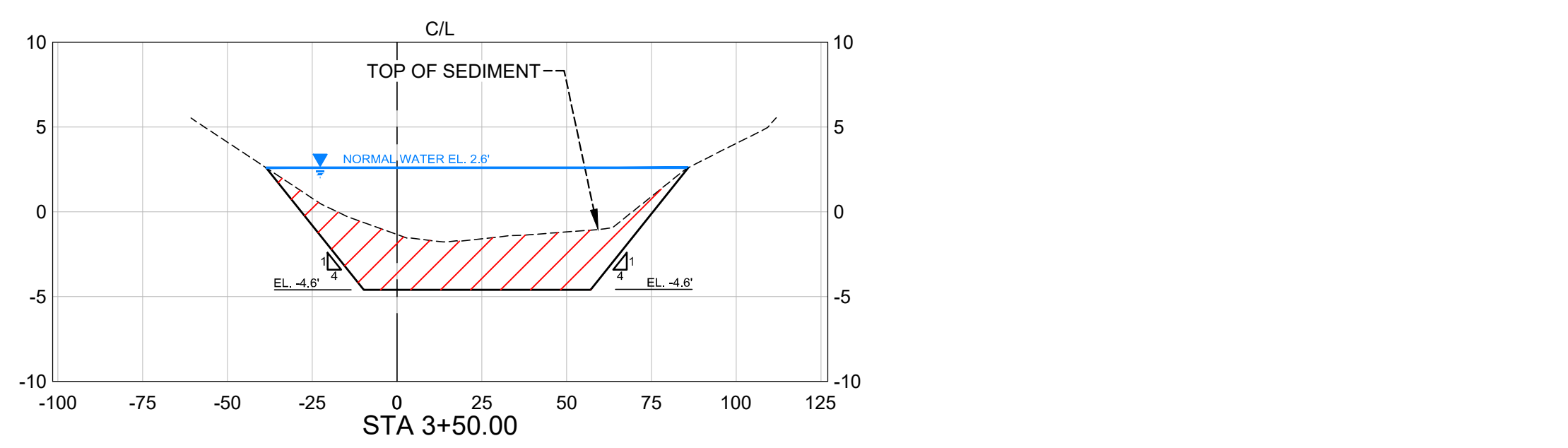
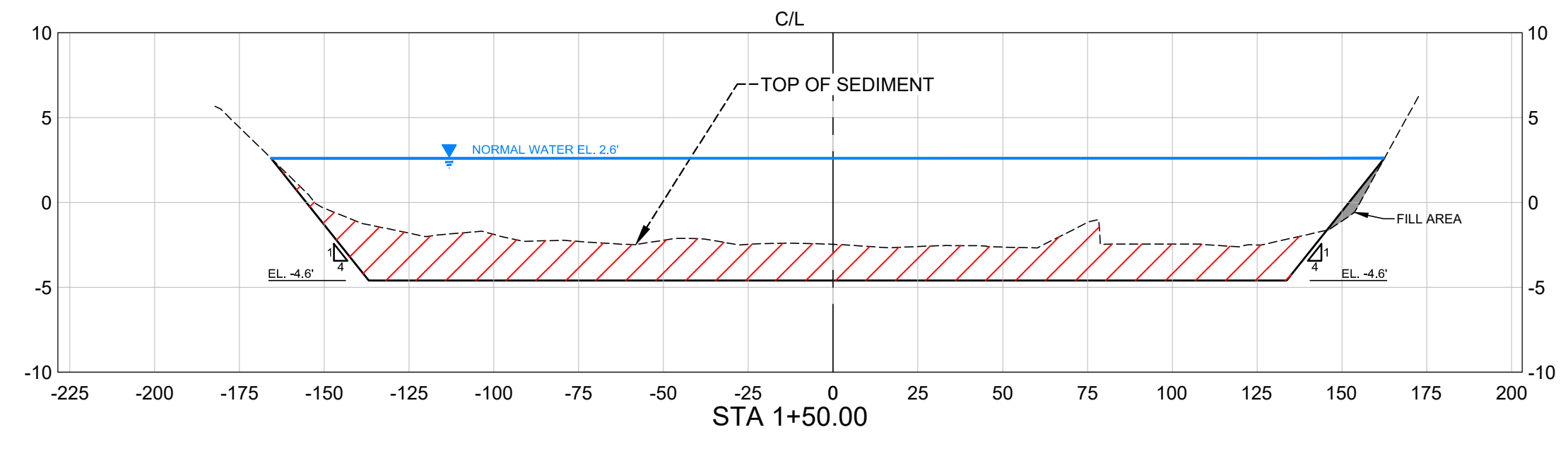
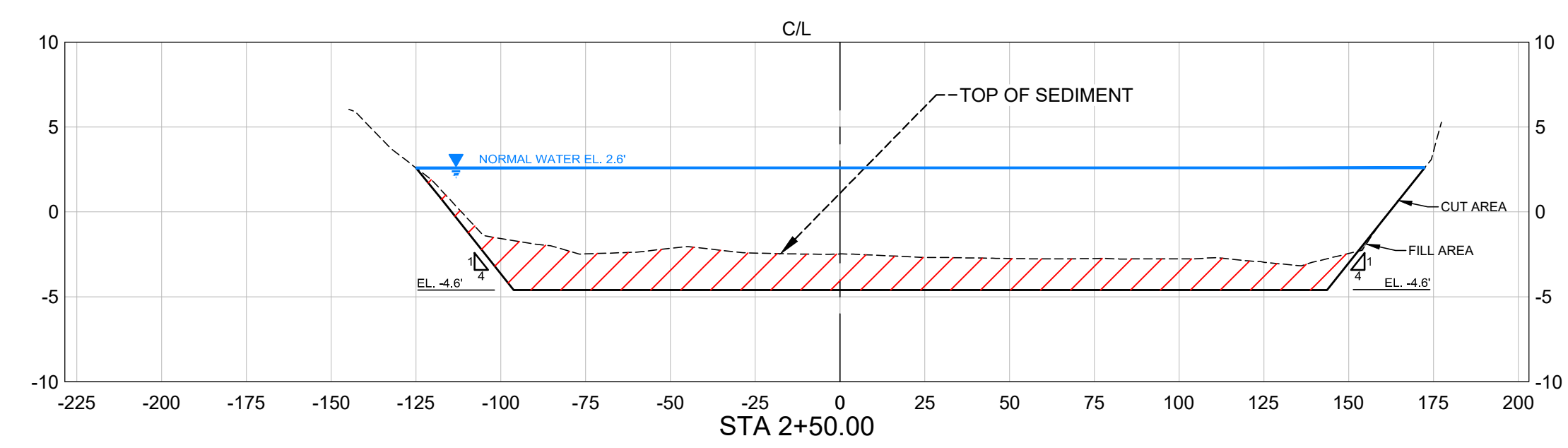
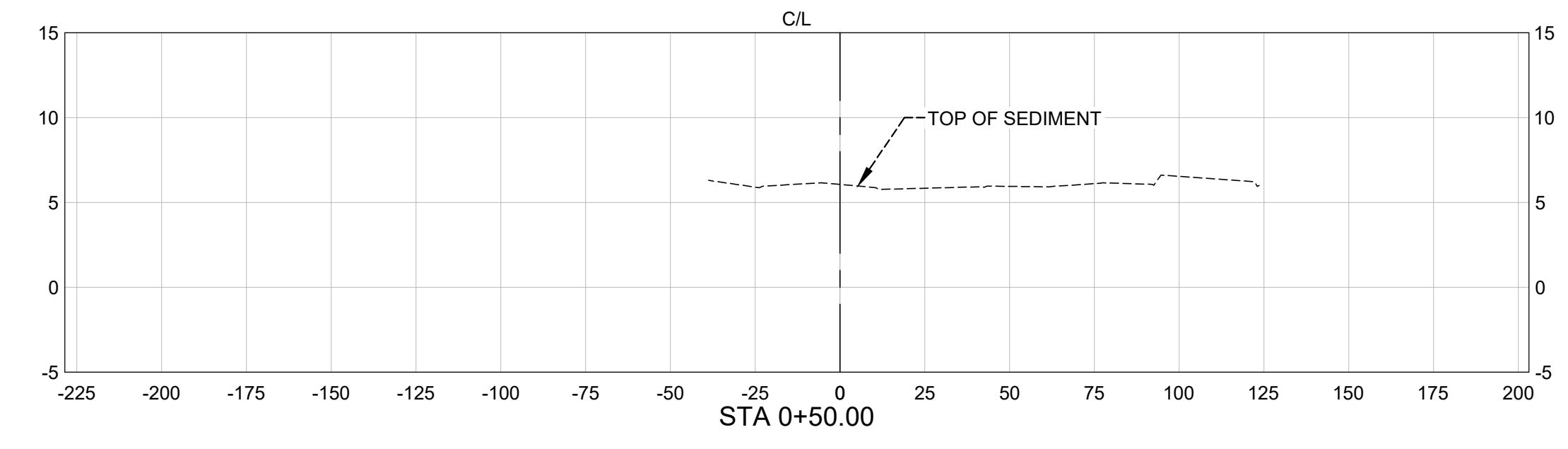


PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB673007\WSP\0365\Coming, Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-301\_8.dwg LAYOUT: CROSS SECTION LOCATION PLAN LAKE 8 SAVED: 9/27/2023 7:15 AM PLOTSTYLETABLE: ... PLOTTED: 9/27/2023 7:45 AM DRAWN BY: BOLTON, GARY P.



### PROPOSED CROSS-SECTION LOCATION PLAN - LAKE 8

Scale: 1"=80'  
 0 80 160 Feet



**LEGEND**

- FILL AREA (APPROXIMATELY 371 CU. YDS.)
- CUT AREA (APPROXIMATELY 4822 CU. YDS.)
- 5 PROPOSED CONTOURS
- PROPOSED CONTOURS MINOR
- NORMAL LAKE WATER LEVEL EL. 2.6'
- APPROXIMATE LAKE 8 PROJECT BOUNDARY (2.8 ACRES)
- PROPOSED WATER CONTROL STRUCTURE
- PROPOSED INLET FILTER TYPICAL
- PROPOSED AERATOR

- NOTES:**
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
  - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 8, AND 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022.
  - THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
  - CUT AND FILL VOLUMES ARE APPROXIMATE AND ARE BASED ON PROPOSED SURFACE.

**CITY OF NAPLES PLANTING PLAN**

SYMBOL	ZONE	SLOPE	SQUARE FEET	WATER DEPTH (FT)	COMMON NAME	SCIENTIFIC NAME	SPACING (FEET)	QUANTITY OF PLANTS
Yellow	LITTORAL MIX D (LD)	6:1 SLOPE	1610	0-1 (EL. 2.6' TO EL. 1.6')	LEATHER FERN	ACROSTICHUM DANAEIFOLIUM	2	403
					MUHL GRASS	MUHLENBERGIA CAPILLARIS	3	268
Blue	LITTORAL MIX C (LC)	6:1 SLOPE	1657	1-2 (EL. 1.6' TO EL. 0.6')	SAND CORDGRASS	SPARTINA BAKERI	3	184
					PICKERELWEED	PONTERERIA CORDATA	2	276
					DUCK POTATO	SAGITTARIA LATIFOLIA	2	276
Green	LITTORAL MIX B (LB)	6:1 SLOPE	3824	2-3 (EL. 0.6' TO EL. -1.6')	BULRUSH	SCHOENOPELECTUS AMERICANUS	1	1275
					ALLIGATOR FLAG	THALIA GENICULATA	3	425
Red	LITTORAL MIX A (LA)	4:1 SLOPE	1148	3-4 (EL. -1.6' TO EL. -2.6')	SMOOTH CORDGRASS	SPARTINA ALTERNIFLORA	1	1275
					WATER LILY	NYPHAEA ODORATA	7	164

**90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)**

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 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

PROJECT:  
**CITY OF NAPLES LAKES RESTORATION**

CLIENT:  
**CITY OF NAPLES PUBLIC WORKS DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102

WSP PROJECT NO:  
**600843.03**

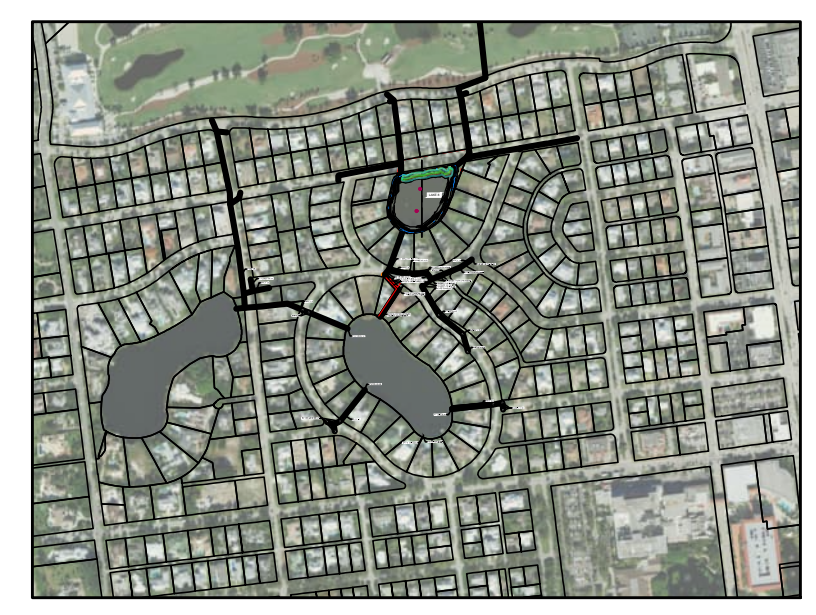
**REVISIONS**

NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

**SHEET TITLE:**  
**CROSS SECTION LOCATION PLAN LAKE 8**

SHEET NUMBER:	REV. #
C-301_8	D
SHEET 08 OF 17 SHEETS	



SITE MAP LOCATION



PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB673007\WSP\0665\Corning, Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-101\_9.dwg LAYOUT: EXISTING SITE PLAN LAKE 9 SAVED: 9/27/2023 7:15 AM PLOTSTYLETABLE: ... PLOTTED: 9/27/2023 7:28 AM DRAWN BY: BOLTON, GARY P.



SOURCE: FLORIDA LABINS (OP2019\_NC\_310245)

LEGEND

- 5 — EXISTING CONTOURS MAJOR
- - - - EXISTING CONTOURS MINOR
- EXISTING STORMWATER DRAINS & PIPES
- CITY OF NAPLES EASEMENT
- NORMAL LAKE WATER LEVEL EL. 2.6'
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
- COLLIER COUNTY PARCEL BOUNDARY
- INVASIVE SPECIES (TO BE REMOVED)

1

EXISTING SITE PLAN - LAKE 9

Scale: 1"=75'

NOTES:

1. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
2. THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022.
3. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
4. THE CONTRACTOR SHALL LOCATE AND FLAG ALL INVASIVE SPECIES TO BE REMOVED FOR CITY REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.



SITE MAP LOCATION



USA ENVIRONMENT & INFRASTRUCTURE, INC.  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

PROJECT:  
**CITY OF NAPLES  
 LAKES RESTORATION**



CLIENT:  
**CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102

WSP PROJECT NO:  
**600843.03**

90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

REVISIONS

NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

SHEET TITLE:

EXISTING SITE PLAN  
 LAKE 9

SHEET NUMBER:	REV. #
C-101_9	D
SHEET 09 OF 17 SHEETS	



PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB673007\WSP\0965\Coming, Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-102\_9.dwg LAYOUT: EROSION AND SEDIMENT CONTROL PLAN LAKE 9 SAVED: 9/27/2023 7:14 AM PLOTSTYLETABLE: ..... PLOTTED: 9/27/2023 7:27 AM DRAWN BY: BOLTON, GARY P.

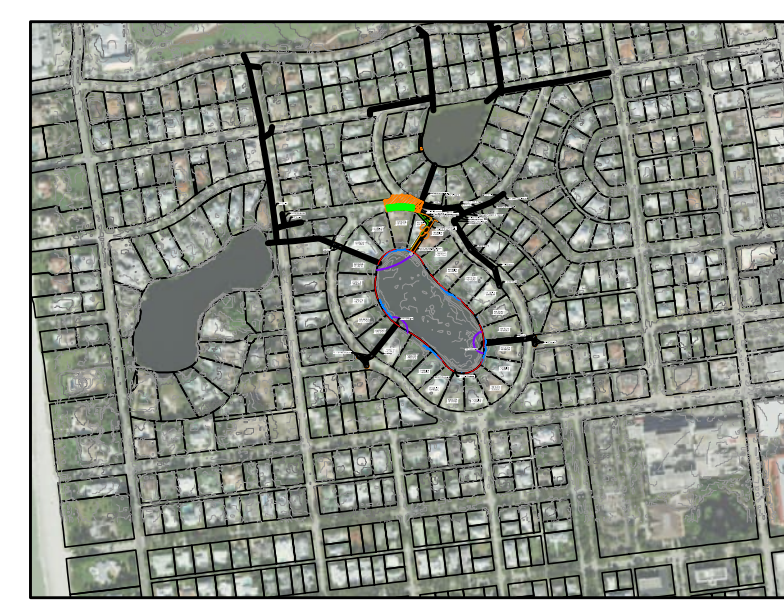


**1 PROPOSED EROSION AND SEDIMENT CONTROL PLAN - LAKE 9**  
 Scale: 1"=75'

**LEGEND**

- 5 — EXISTING CONTOURS
- EXISTING CONTOURS MINOR
- ⊙ — EXISTING STORMWATER DRAINS & PIPES
- CITY OF NAPLES EASEMENT
- NORMAL LAKE WATER LEVEL EL. 2.6'
- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
- STAGING AREA
- COLLIER COUNTY PARCEL BOUNDARY
- 20 YD ROLL OFF DEWATERING SYSTEM
- ⊙ PROPOSED INLET FILTER TYPICAL
- FLOATING TURBIDITY BARRIER
- TEMPORARY FENCING
- TEMPORARY SILT FENCING

- NOTES:**
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
  - CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.



SITE MAP LOCATION

**90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)**

**wsp**  
 USA ENVIRONMENT & INFRASTRUCTURE, INC.  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
 CITY OF NAPLES  
 LAKES RESTORATION



**CLIENT:**  
 CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
 WSP PROJECT NO:  
 600843.03

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

**SHEET TITLE:**  
 EROSION AND  
 SEDIMENT  
 CONTROL  
 PLAN LAKE 9

SHEET NUMBER:	REV. #
C-102_9	D
SHEET 10 OF 17 SHEETS	



PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USG8673007\WSP\0365\Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\103\_9.dwg LAYOUT: MAINTENANCE OF TRAFFIC CONTROL PLAN LAKE 9. SAVED: 9/27/2023 7:14 AM PLOTSTYLETABLE: ... PLOTTED: 9/27/2023 7:27 AM  
 DRAWN BY: BOLTON, GARY P.



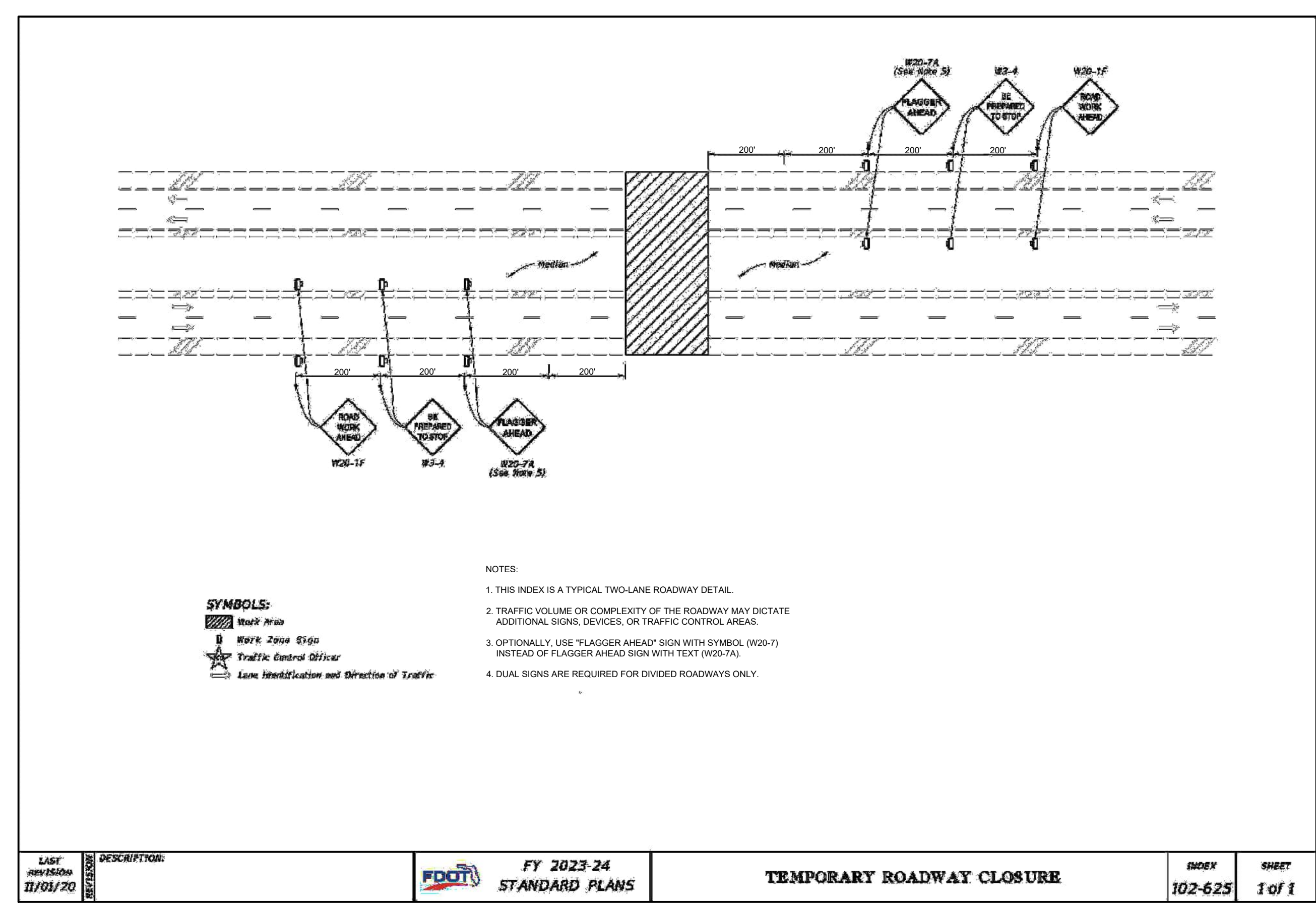
SOURCE: FLORIDA LABINS (OP2019\_NC\_310245)

LEGEND	
	EXISTING CONTOURS
	EXISTING CONTOURS MINOR
	EXISTING STORMWATER DRAINS & PIPES
	CITY OF NAPLES EASEMENT
	NORMAL LAKE WATER LEVEL EL. 2.6'
	FLOATING TURBIDITY BARRIER
	TRAFFIC CONTROL AREA
	STAGING AREA
	APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
	COLLIER COUNTY PARCEL BOUNDARY
	20 YD ROLL OFF DEWATERING SYSTEM
	PROPOSED INLET FILTER TYPICAL

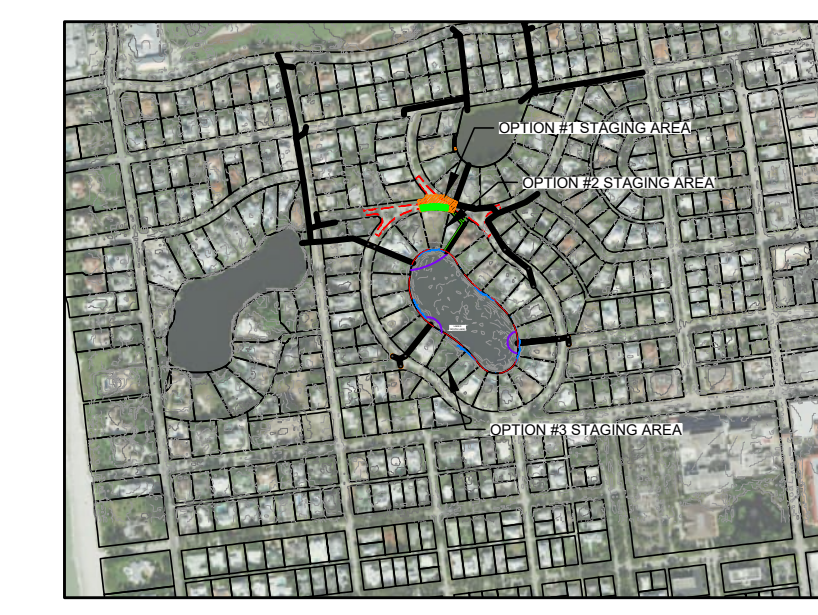
# 1 PROPOSED MAINTENANCE OF TRAFFIC CONTROL PLAN - LAKE 9

NOT TO SCALE

- NOTES:
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ADDITIONAL EROSION SEDIMENT CONTROL MEASURES AS NEEDED TO PREVENT AND MINIMIZE SEDIMENT TRANSFER FROM THE PROJECT SITE. THESE MEASURES INCLUDE BUT NOT LIMITED TO SILT FENCE, FLOATING TURBIDITY CURTAIN AND TRUCK CLEANING STATIONS.
  - CONTRACTOR SHALL ENSURE THE SITE IS KEPT IN GOOD CLEAN WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT INCLUDING PICKING UP/ DISPOSING OF TRASH, SWEEPING ROADWAYS AND CLEANING STORMWATER INLETS, AS NEEDED.



LAST REVISED: 11/01/20	DESCRIPTION:	FDOT	FY 2023-24	TEMPORARY ROADWAY CLOSURE	INDEX	SHEET
			STANDARD PLANS		102-625	1 of 1



90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

USA ENVIRONMENT & INFRASTRUCTURE, INC.  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

PROJECT:  
**CITY OF NAPLES LAKES RESTORATION**

City of *Naples* Florida

CLIENT:  
**CITY OF NAPLES PUBLIC WORKS DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102

WSP PROJECT NO:  
 600843.03

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

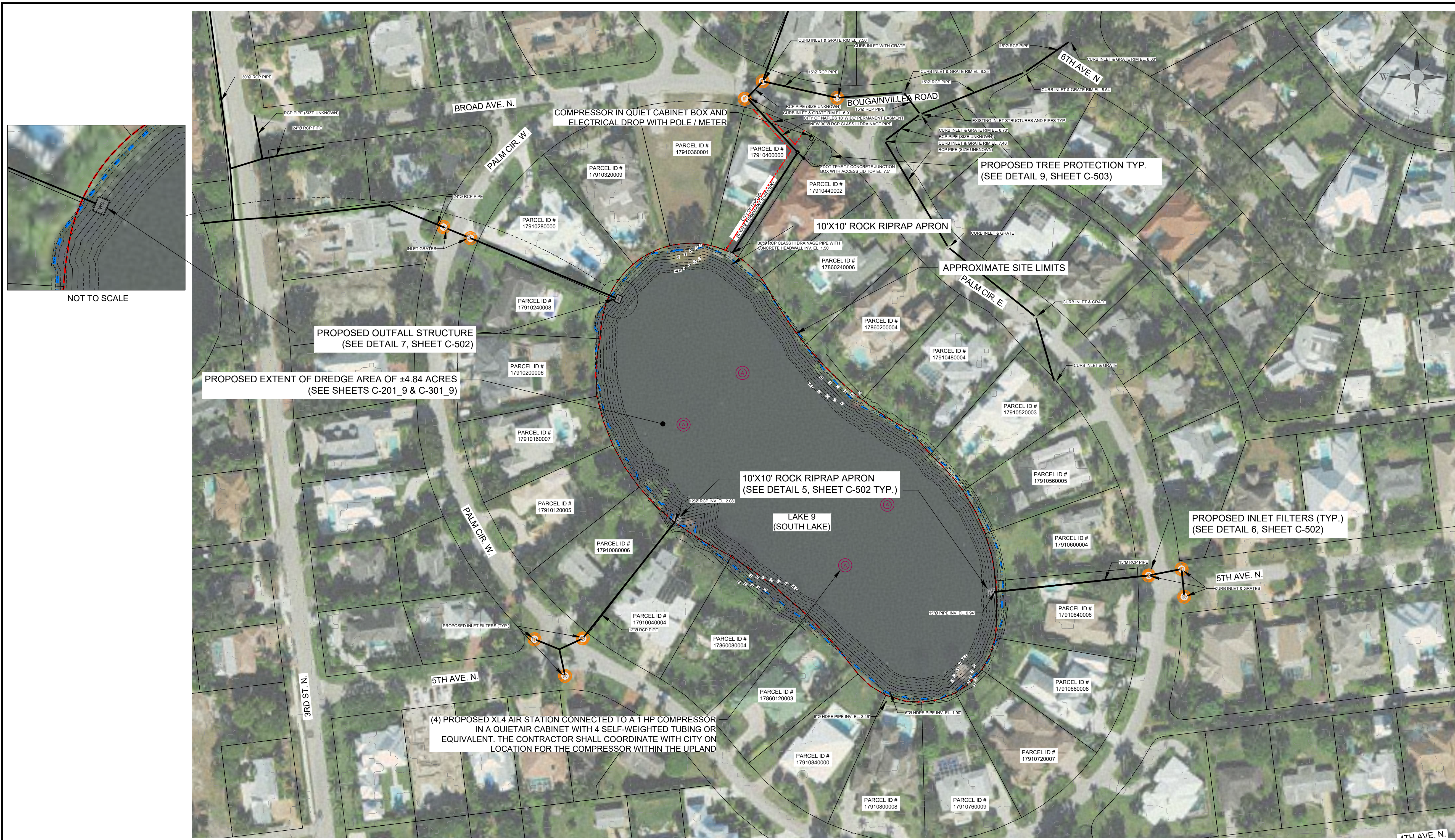
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

SHEET TITLE:  
**MAINTENANCE OF TRAFFIC CONTROL PLAN LAKE 9**

SHEET NUMBER:	REV. #
C-103_9	D
SHEET 11 OF 17 SHEETS	



PROJECT NUMBER: 600843.03 CITY, TAMPA  
 C:\Users\USGB73007\WSP\0365\Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-104\_9.dwg LAYOUT: PROPOSED SITE PLAN LAKE 9 SAVED: 9/28/2023 10:48 AM PLOTSTYLETABLE: ..... PLOTTED: 9/28/2023 10:48 AM DRAWN BY: BOLTON, GARY P.



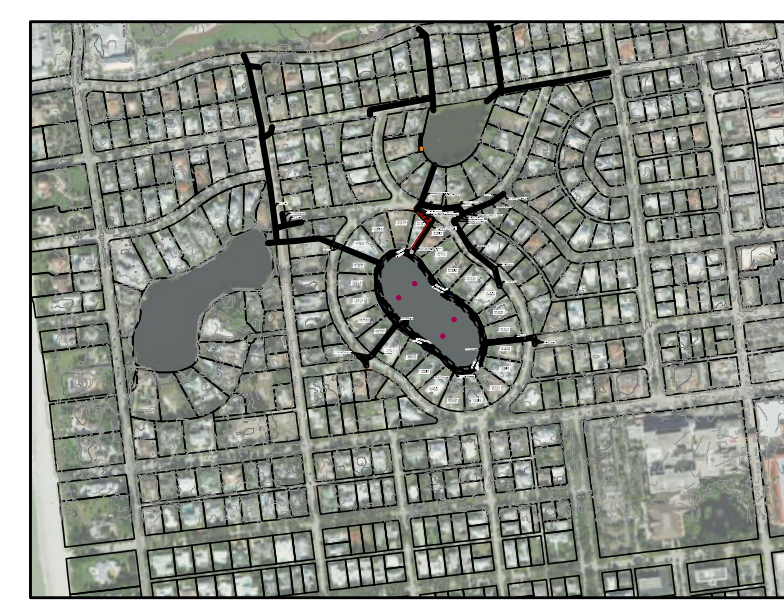
SOURCE: FLORIDA LABINS (OP2019\_NC\_310245)

- LEGEND**
- 5 — PROPOSED CONTOURS
  - 5 --- PROPOSED CONTOURS MINOR
  - 5 --- EXISTING CONTOURS MAJOR
  - 5 --- EXISTING CONTOURS MINOR
  - 6 — EXISTING STORMWATER DRAINS & PIPES
  - 6 — CITY OF NAPLES EASEMENT
  - 6 — NORMAL WATER LEVEL EL. 2.6'
  - 6 --- APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
  - COLLIER COUNTY PARCEL BOUNDARY
  - WC PROPOSED WATER CONTROL STRUCTURE
  - ⊙ PROPOSED INLET FILTER
  - ⊙ PROPOSED AERATORS

# 1 PROPOSED SITE PLAN - LAKE 9

Scale: 1"=75'  
 0 75 150 Feet

- NOTES:**
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
  - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022,
  - THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
  - THE CONTRACTOR SHALL PROTECT THE CYPRESS TREES AND FEET ALONG THE NORTHERN BOUNDARY DURING CONSTRUCTION. SEE TREE PROTECTION DETAIL 9, SHEET C-503.



SITE MAP LOCATION

90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

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 Tampa, FL 33602  
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GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
**CITY OF NAPLES  
 LAKES RESTORATION**



**CLIENT:**  
**CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
**WSP PROJECT NO:**  
**600843.03**

REVISIONS			
NO.	DATE	BY	APPROVED
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B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/28/23	GB	GC

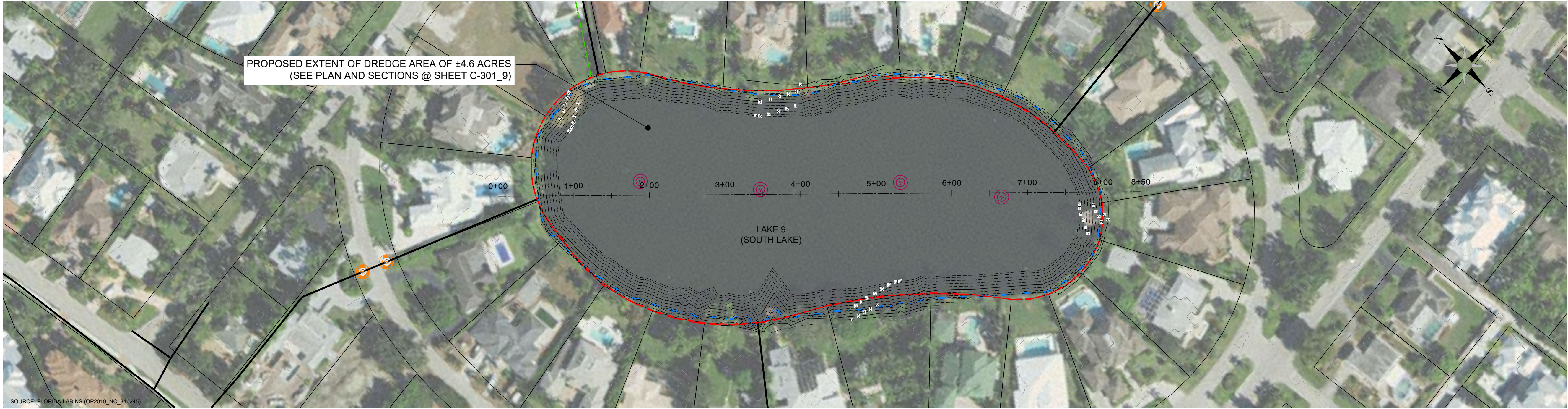
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 28, 2023

**SHEET TITLE:**  
**PROPOSED  
 SITE PLAN  
 LAKE 9**

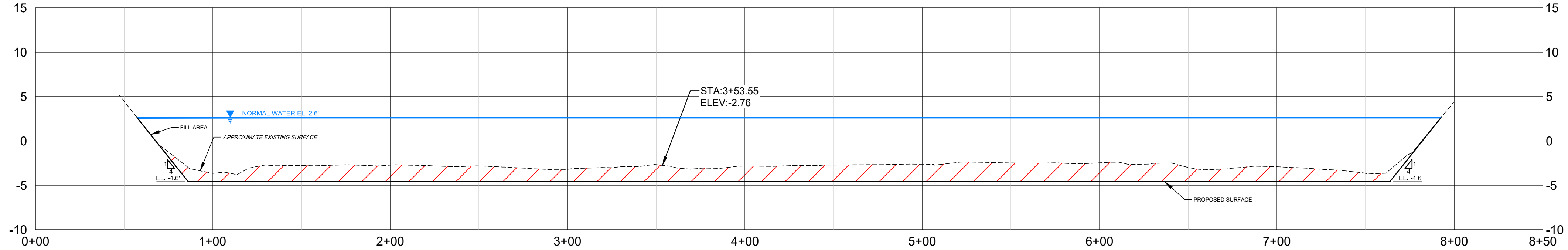
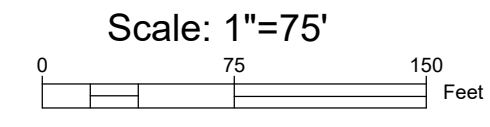
<b>SHEET NUMBER:</b>	<b>REV. #</b>
C-104_9	D
<b>SHEET 12 OF 17 SHEETS</b>	



PROJECT NUMBER: 600843.03 CITY, TAMPA  
 C:\Users\USGB673007\WSP\0365\Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-201\_9.dwg LAYOUT: PROFILE VIEW & LOCATION LAKE 9 SAVED: 9/27/2023 7:23 AM PLOTSTYLETABLE: ... PLOTTED: 9/27/2023 7:24 AM DRAWN BY: BOLTON, GARY P.



1 PROFILE LOCATION PLAN - LAKE 9

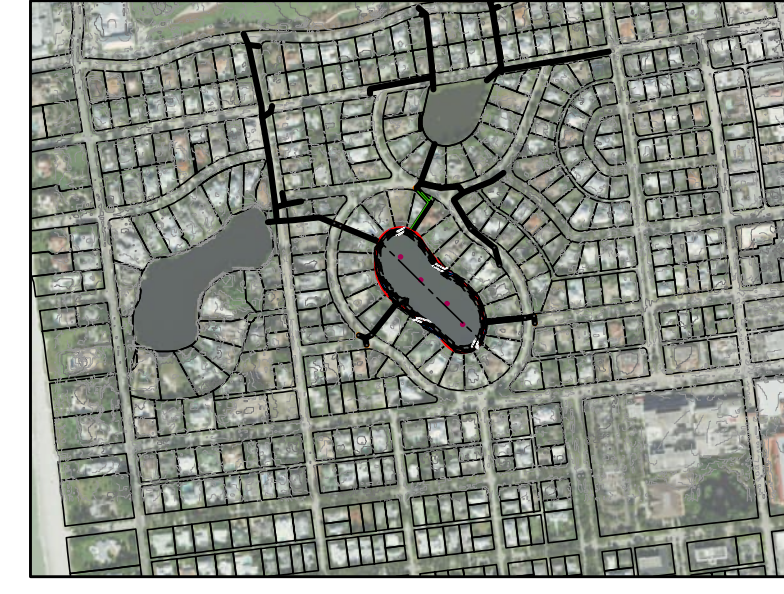


2 NORTHWEST - SOUTHEAST PROFILE VIEW

- LEGEND**
- 5 — PROPOSED CONTOURS
  - 5 — PROPOSED CONTOURS MINOR
  - 5 — EXISTING CONTOURS MAJOR
  - 5 — EXISTING CONTOURS MINOR
  - EXISTING STORMWATER DRAINS & PIPES
  - CITY OF NAPLES EASEMENT
  - NORMAL WATER LEVEL EL. 2.6'
  - APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
  - COLLIER COUNTY PARCEL BOUNDARY
  - PROPOSED INLET FILTERS TYPICAL
  - PROPOSED AERATORS TYPICAL

- FILL AREA (APPROXIMATELY 79 CU. YDS.)
- ▨ CUT AREA (APPROXIMATELY 12,457 CU. YDS.)

- NOTES:**
1. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
  2. THE BATHYMETRIC DATA FOR PROJECT WAS COMPILED BY WSP IN 2022. ELECTRONIC FILES OF DATA WILL BE SUPPLIED TO CONTRACTOR FOR BIDDING PURPOSES.
  3. CUT AND FILL VOLUMES ARE APPROXIMATE AND BASED ON PROPOSED SURFACE.



SITE MAP LOCATION

**USA ENVIRONMENT & INFRASTRUCTURE, INC.**  
 1101 Channelside Drive  
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 Tampa, FL 33602  
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 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
 CITY OF NAPLES  
 LAKES RESTORATION



**CLIENT:**  
 CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
 WSP PROJECT NO:  
 600843.03

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

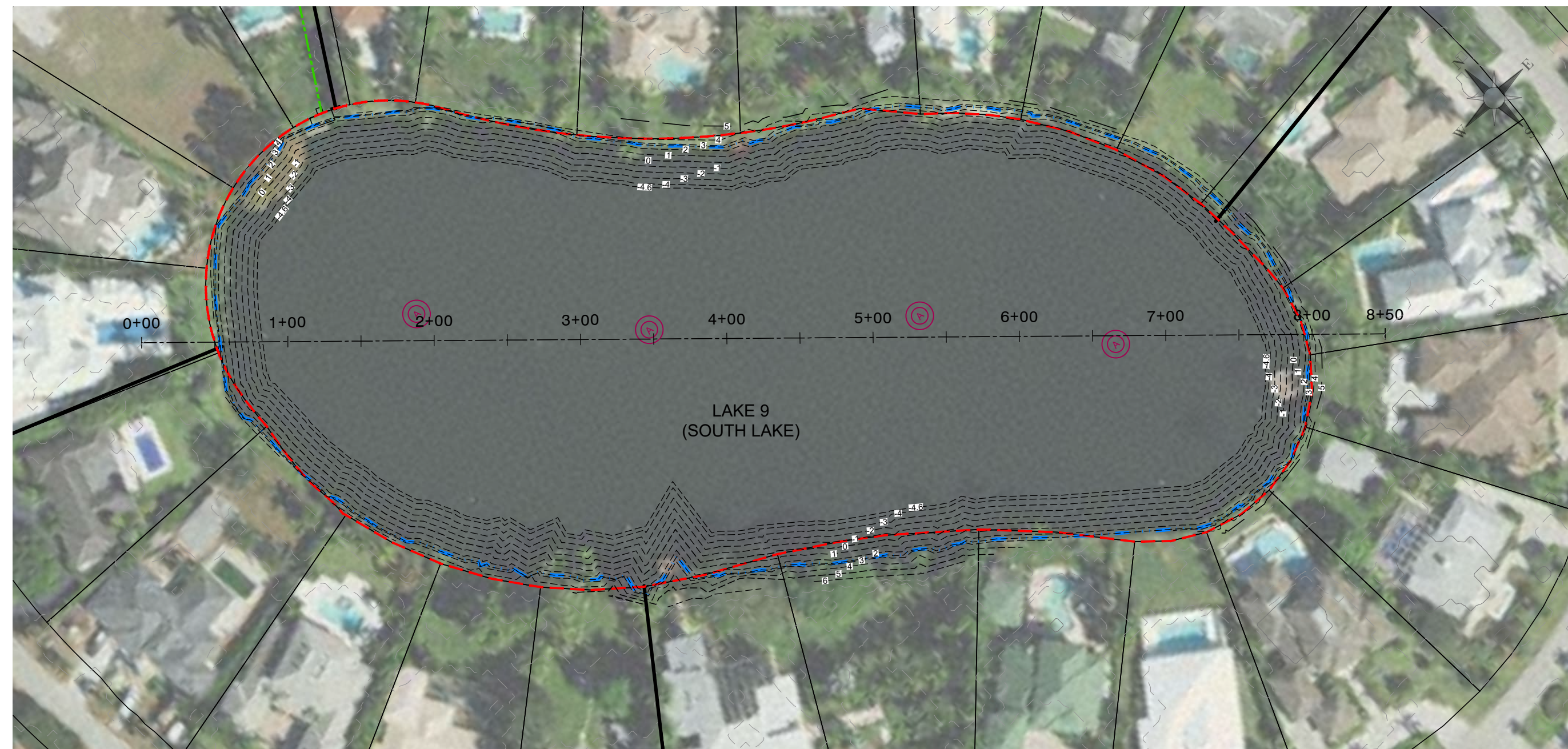
**SHEET TITLE:**  
 PROFILE VIEW  
 & LOCATION  
 LAKE 9

SHEET NUMBER:	REV. #
C-201_9	D
SHEET 13 OF 17 SHEETS	

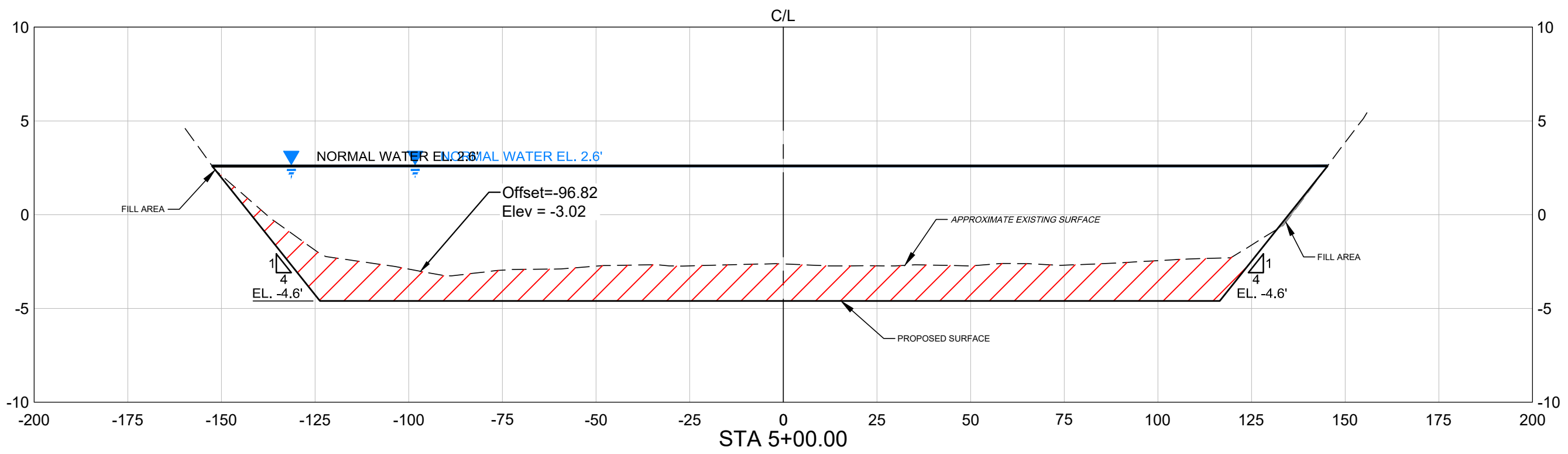
90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)



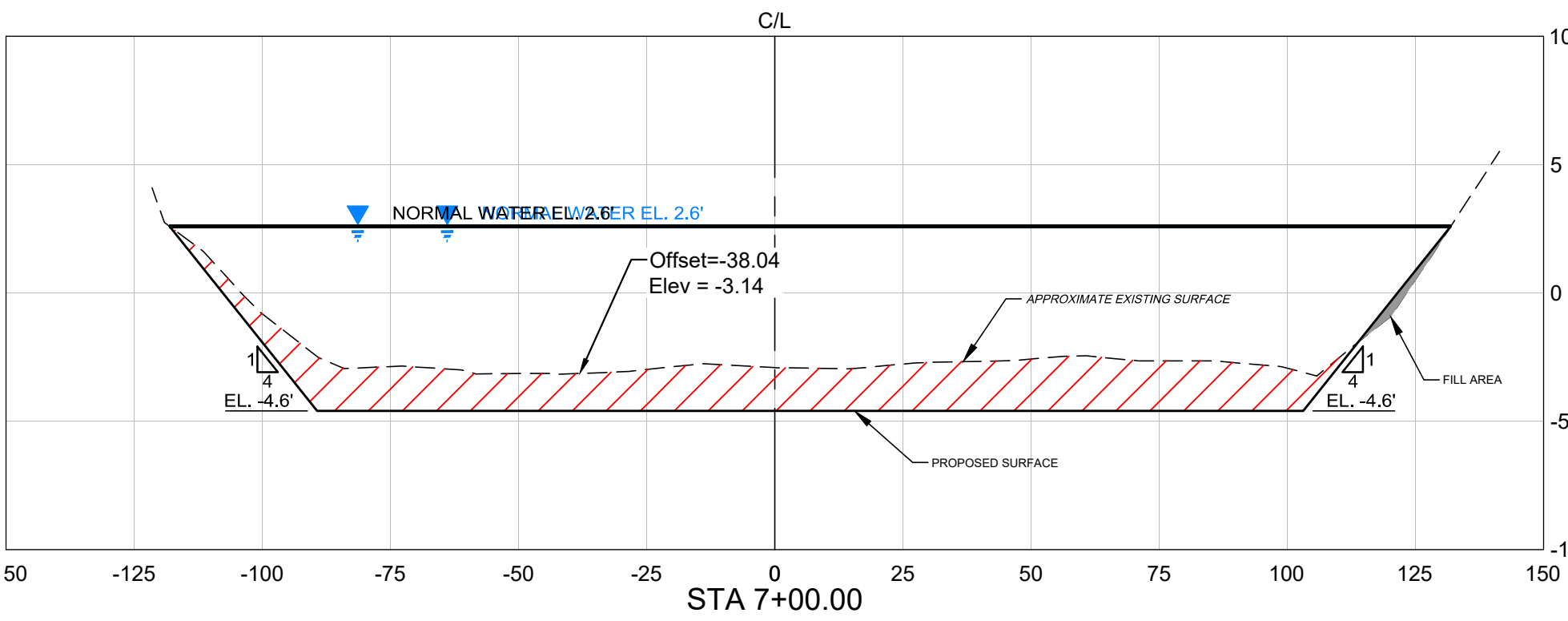
PROJECT NUMBER: 600843.03 CITY: TAMPA  
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 DRAWN BY: BOLTON, GARY P.



1 PROPOSED CROSS SECTION LOCATION PLAN - LAKE 9  
NOT TO SCALE



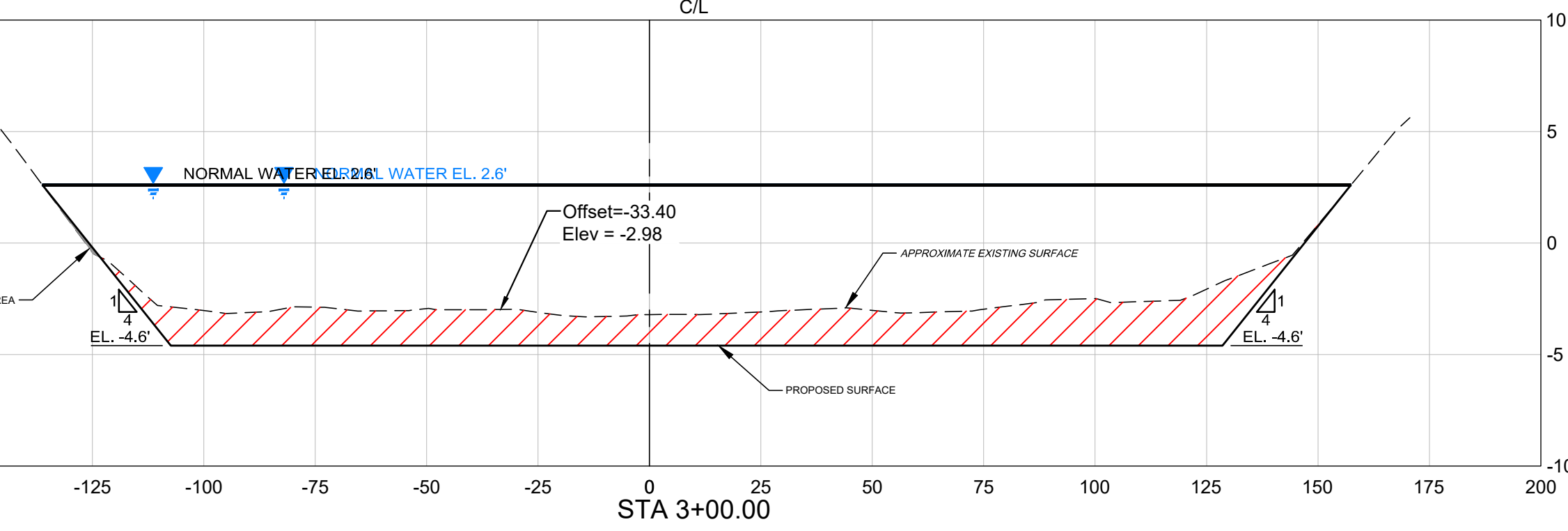
3 CROSS SECTION STA 5+00.00



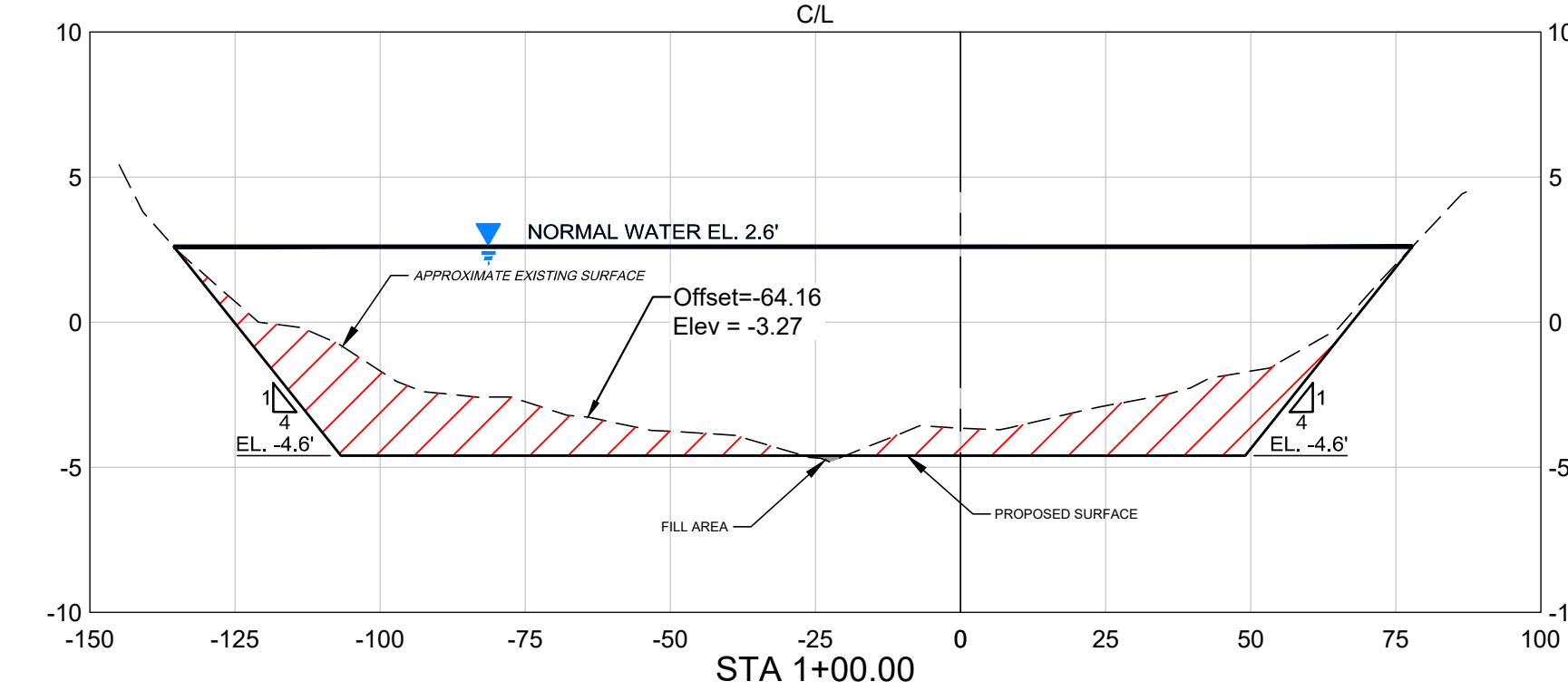
4 CROSS SECTION STA 7+00.00

- LEGEND**
- - - 5 - PROPOSED CONTOURS
  - - - 1 - PROPOSED CONTOURS MINOR
  - - - 5 - EXISTING CONTOURS MAJOR
  - - - 1 - EXISTING CONTOURS MINOR
  - EXISTING STORMWATER DRAINS & PIPES
  - CITY OF NAPLES EASEMENT
  - NORMAL WATER LEVEL EL. 2.6'
  - APPROXIMATE LAKE 9 PROJECT BOUNDARY (4.6 ACRES)
  - COLLIER COUNTY PARCEL BOUNDARY
  - FILL AREA (APPROXIMATELY 79 CU. YDS.)
  - ▨ CUT AREA (APPROXIMATELY 12,457 CU. YDS.)
  - ⊙ PROPOSED AERATOR TYPICAL

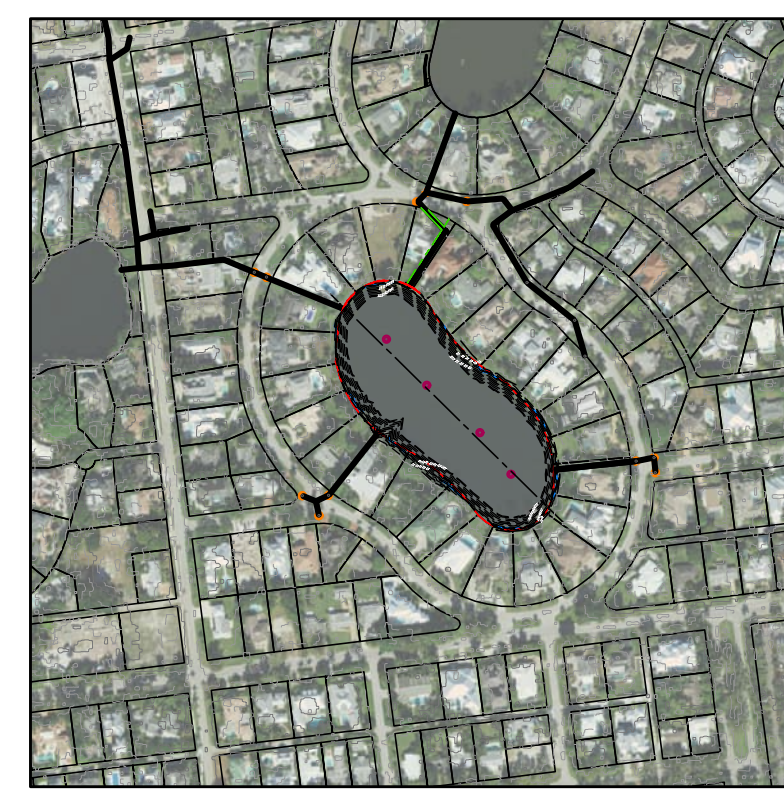
- NOTES:**
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
  - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKE 9 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WSP SURVEY - DATED 2022,
  - THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDER GROUND AND ABOVE GROUND UTILITIES WITHIN THE PROJECT BOUNDARY. IN THE EVENT, THE UTILITIES ARE IMPACTED THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AND CITY IMMEDIATELY AND REPLACE TO MATCH EXISTING CONDITIONS.
  - CUT AND FILL VOLUMES ARE APPROXIMATE AND BASED ON PROPOSED SURFACE.



2 CROSS SECTION STA 3+00.00



1 CROSS SECTION STA 1+00.00



SITE MAP LOCATION

**wsp**  
 USA ENVIRONMENT & INFRASTRUCTURE, INC.  
 1101 Channelside Drive  
 Suite 200  
 Tampa, FL 33602  
 Phone: 1.813.289.0750  
 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
 CITY OF NAPLES  
 LAKES RESTORATION



**CLIENT:**  
 CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102  
 WSP PROJECT NO:  
 600843.03

90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

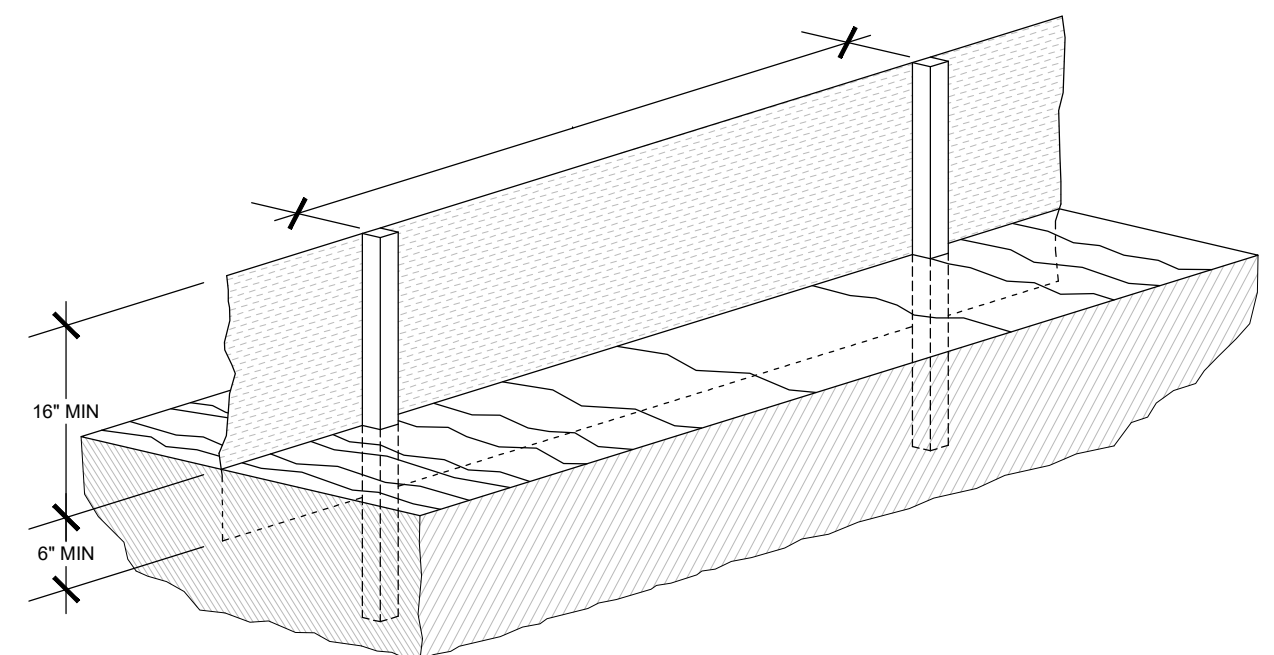
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

**SHEET TITLE:**  
 CROSS SECTION  
 LOCATION PLAN  
 AND SECTIONS  
 LAKE 9

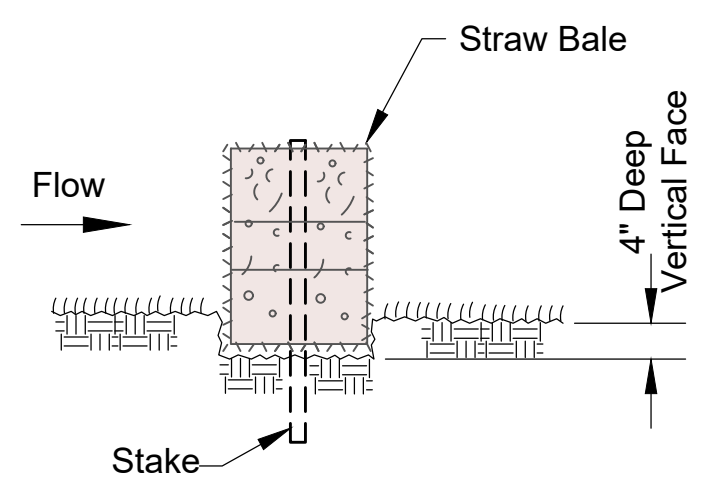
SHEET NUMBER:	REV. #
C-301_9	D
SHEET 14 OF 17 SHEETS	



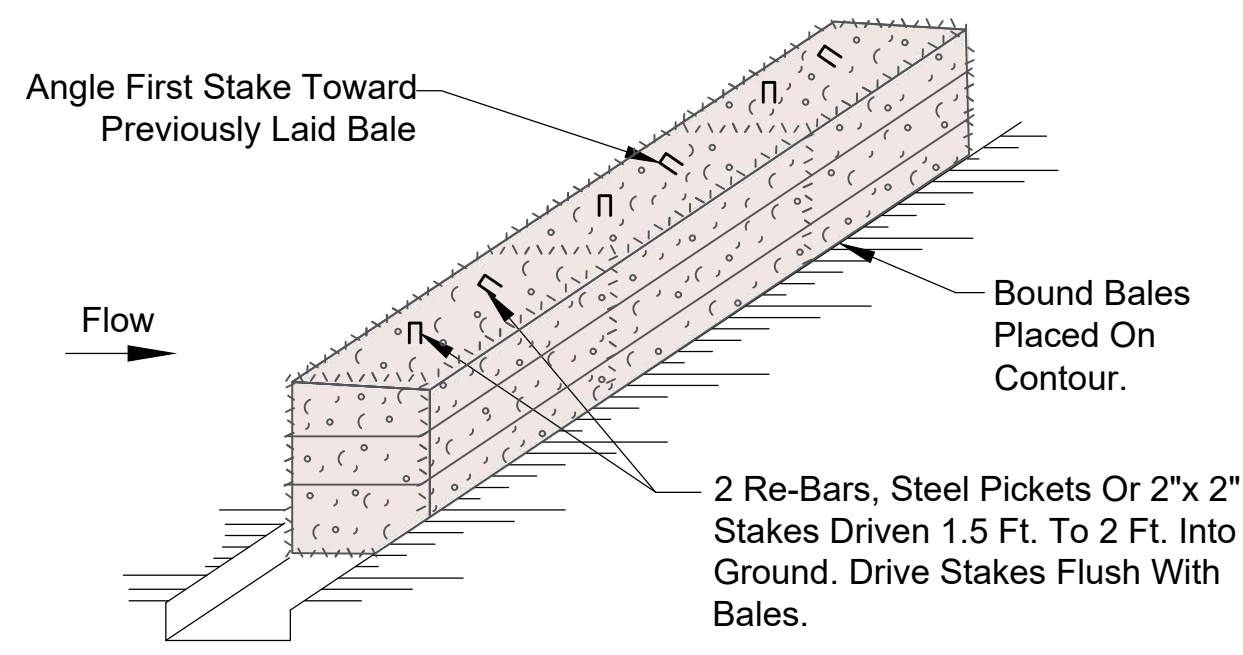
PROJECT NUMBER: 600843.03 CITY: TAMPA  
 C:\Users\USGB7307\WSP\0865\Corning, Greg - City of Naples - North and South Lake\2023\JULY\_2023\City of Naples\_Lakes 8 & 9 Restoration - Standard\C-501.dwg LAYOUT: DESIGN DETAILS (1 OF 3) PLOTTED: 9/27/2023 7:21 AM PLOTSTYLETABLE: ... DRAWN BY: BOLTON, GARY P.



**1** **TYPICAL SILT FENCE DETAIL**  
 Not To Scale

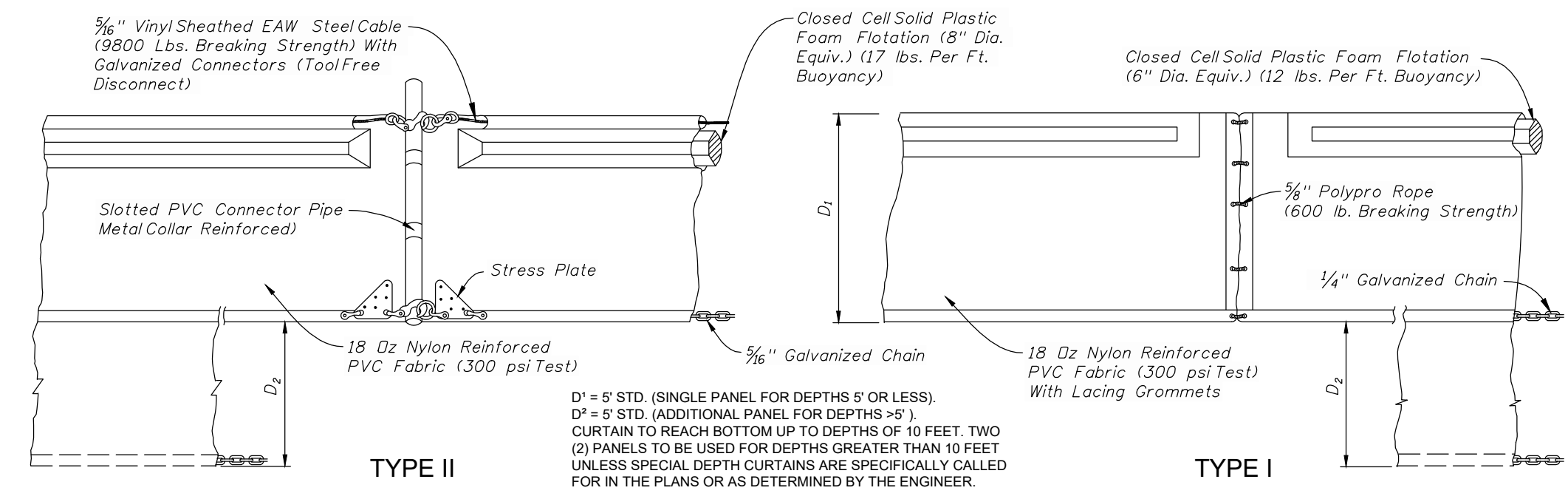


**BEDDING DETAIL**



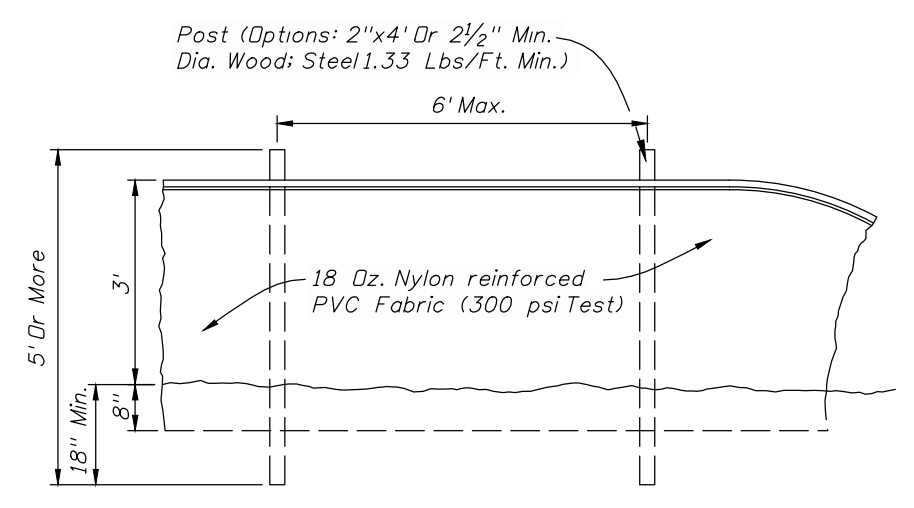
**ANCHORING DETAIL**

**2** **TYPICAL HAY/STAW BALE DETAIL**  
 Not To Scale

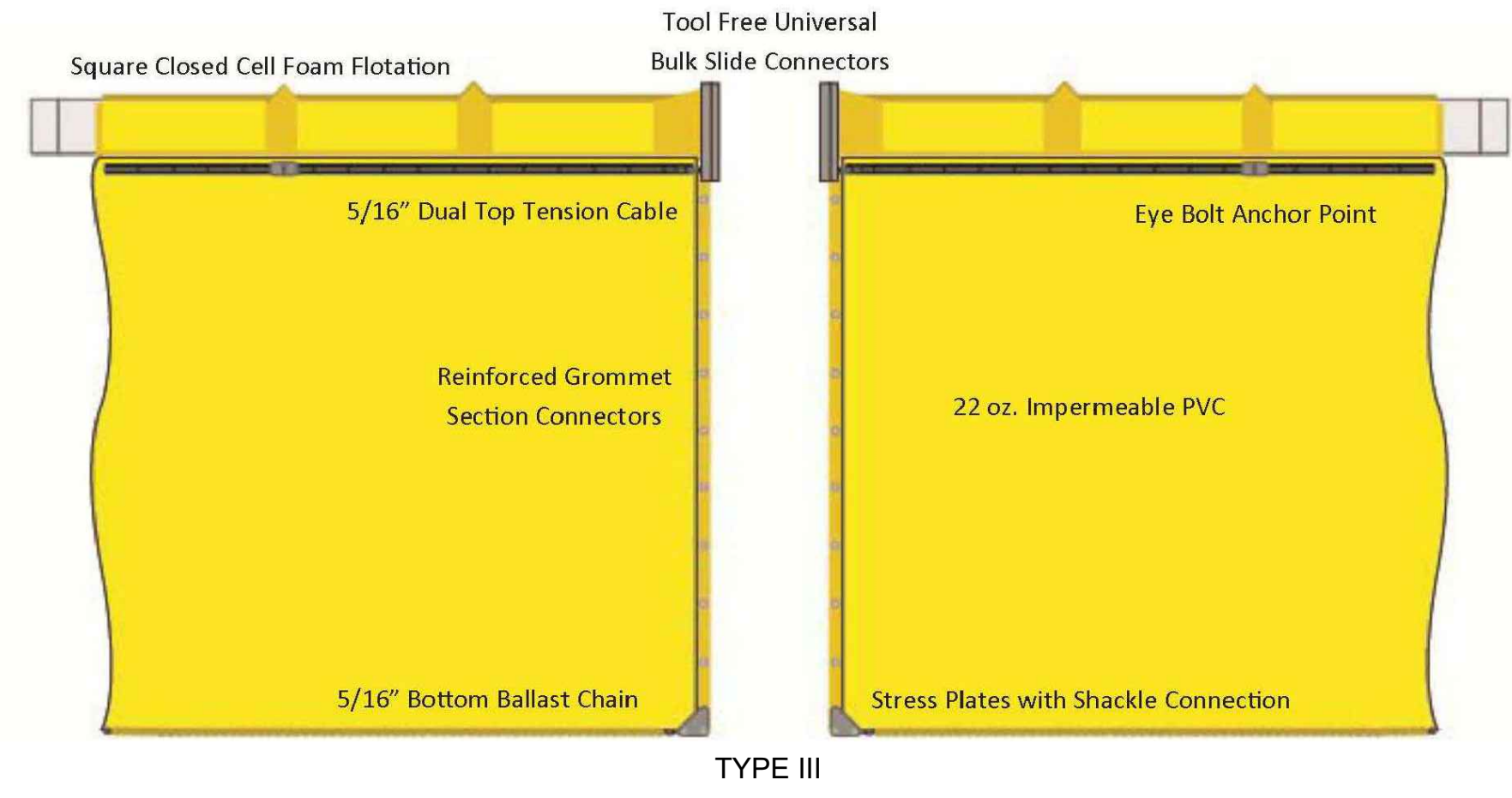


NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

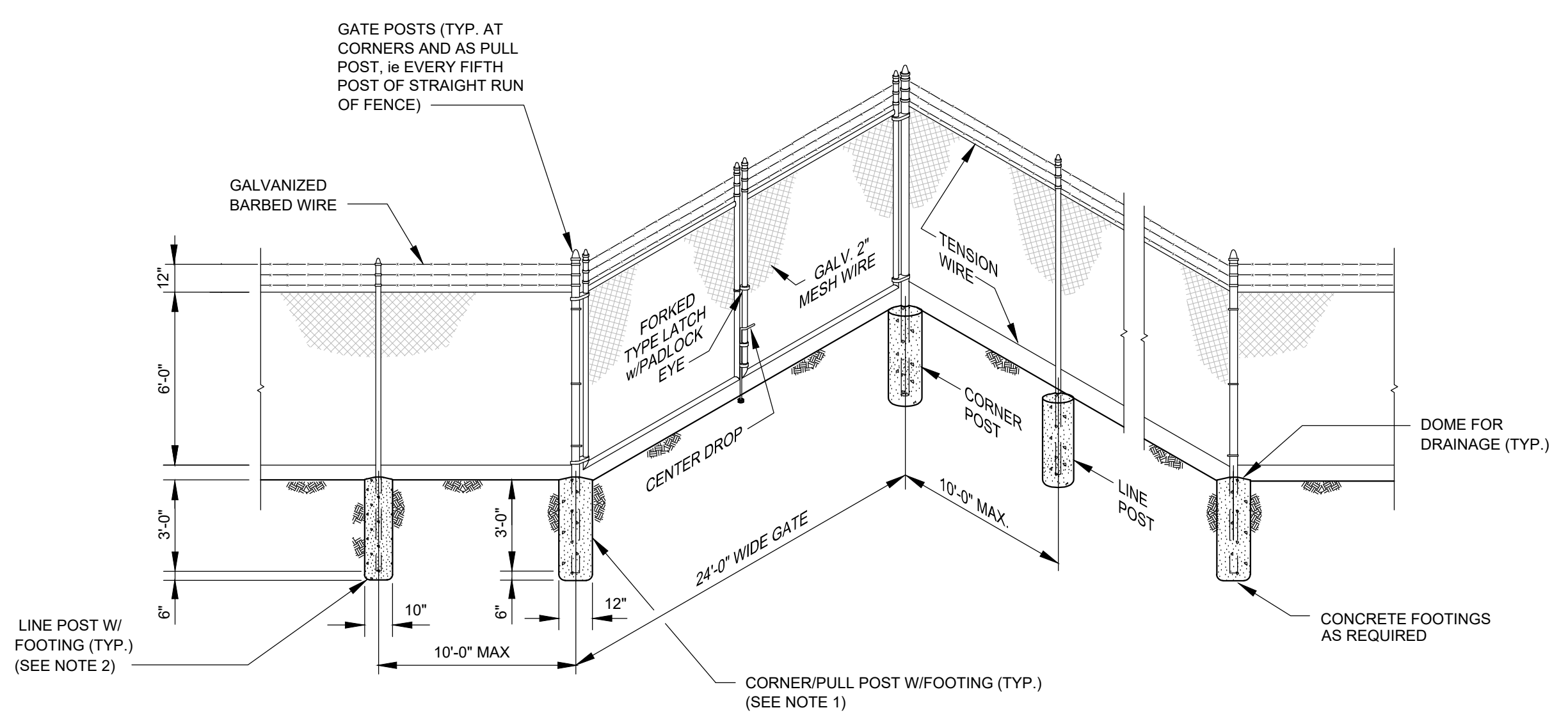
**FLOATING TURBIDITY BARRIERS**



**STAKED TURBIDITY BARRIER**



**3** **TURBIDITY BARRIERS DETAIL**  
 Not To Scale



**4** **TYPICAL FENCE / GATE DETAIL**  
 Not To Scale

**wsp**  
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 1101 Channelside Drive  
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 www.wsp.com

GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

**PROJECT:**  
 CITY OF NAPLES  
 LAKES RESTORATION



**CLIENT:**  
 CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102

**WSP PROJECT NO:**  
 600843.03

**90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)**

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

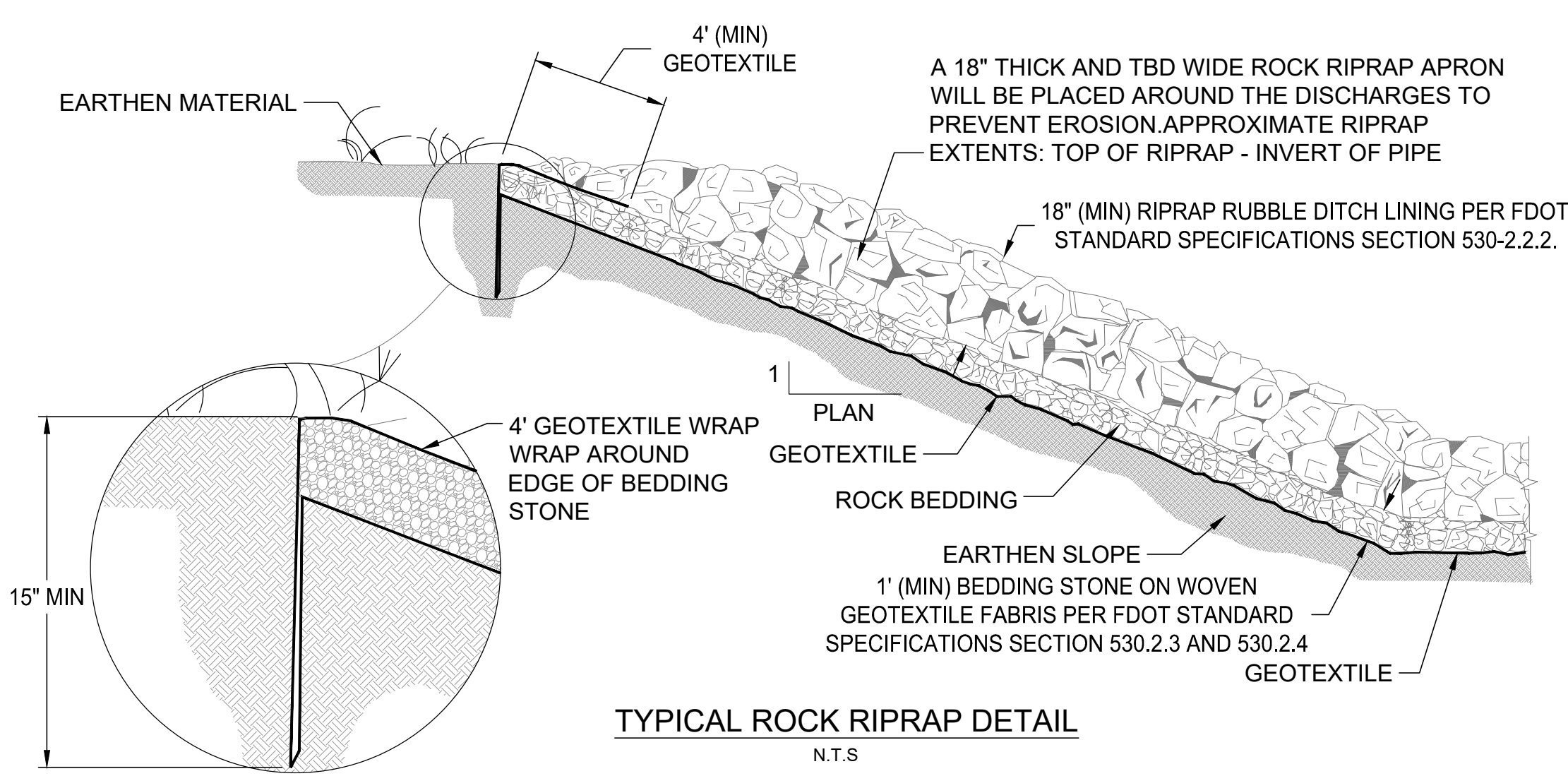
DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

**SHEET TITLE:**  
 DESIGN DETAILS  
 (1 OF 3)

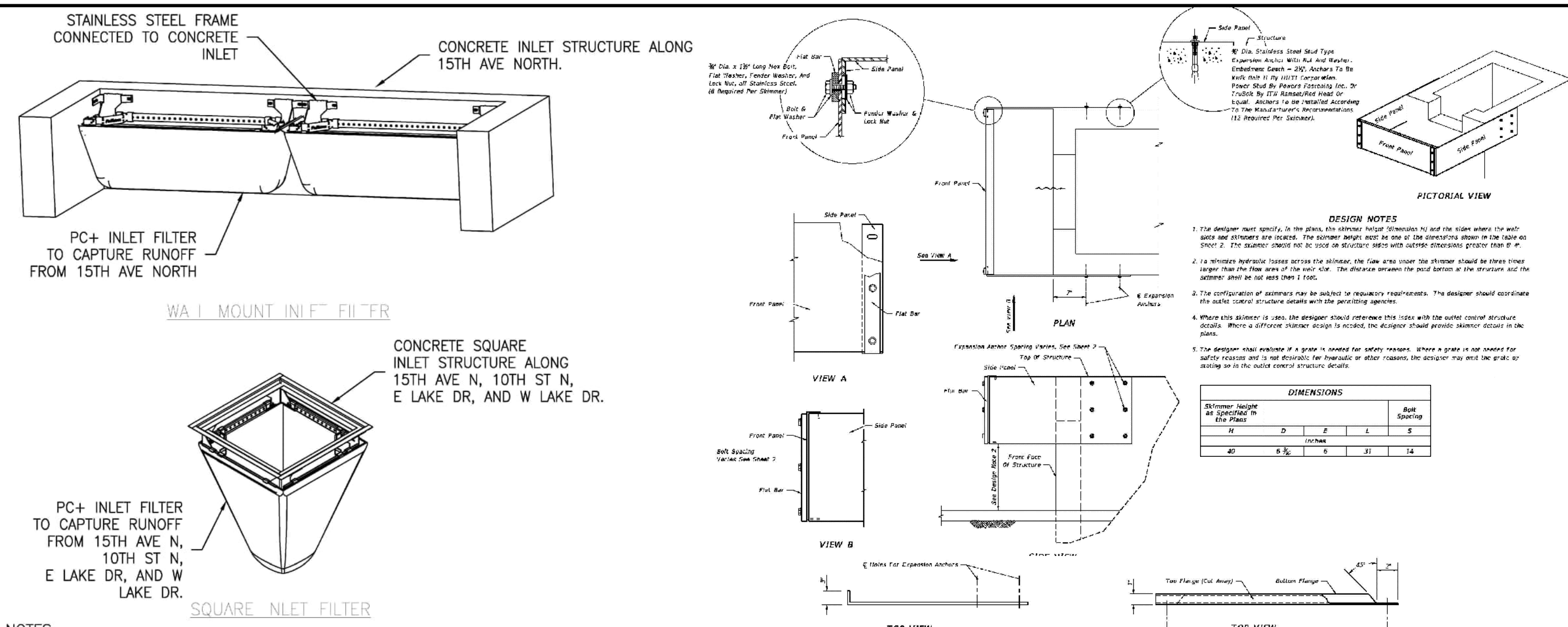
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C-501	D
<b>SHEET 15 OF 17 SHEETS</b>	



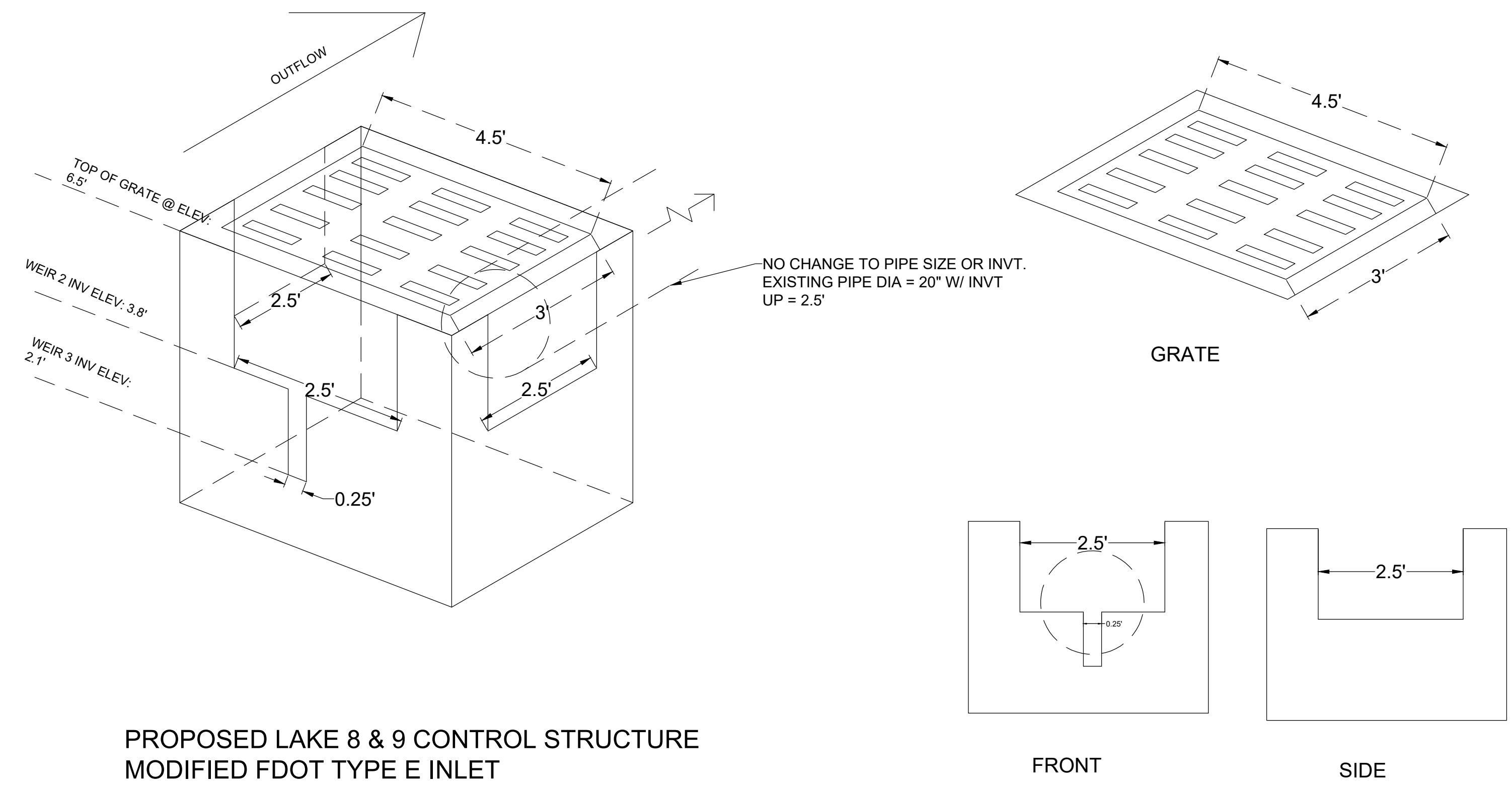
PROJECT NUMBER: 600843.03 CITY: TAMPA  
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 PLOTTED: 9/27/2023 7:20 AM PLOTSTYLETABLE: ...



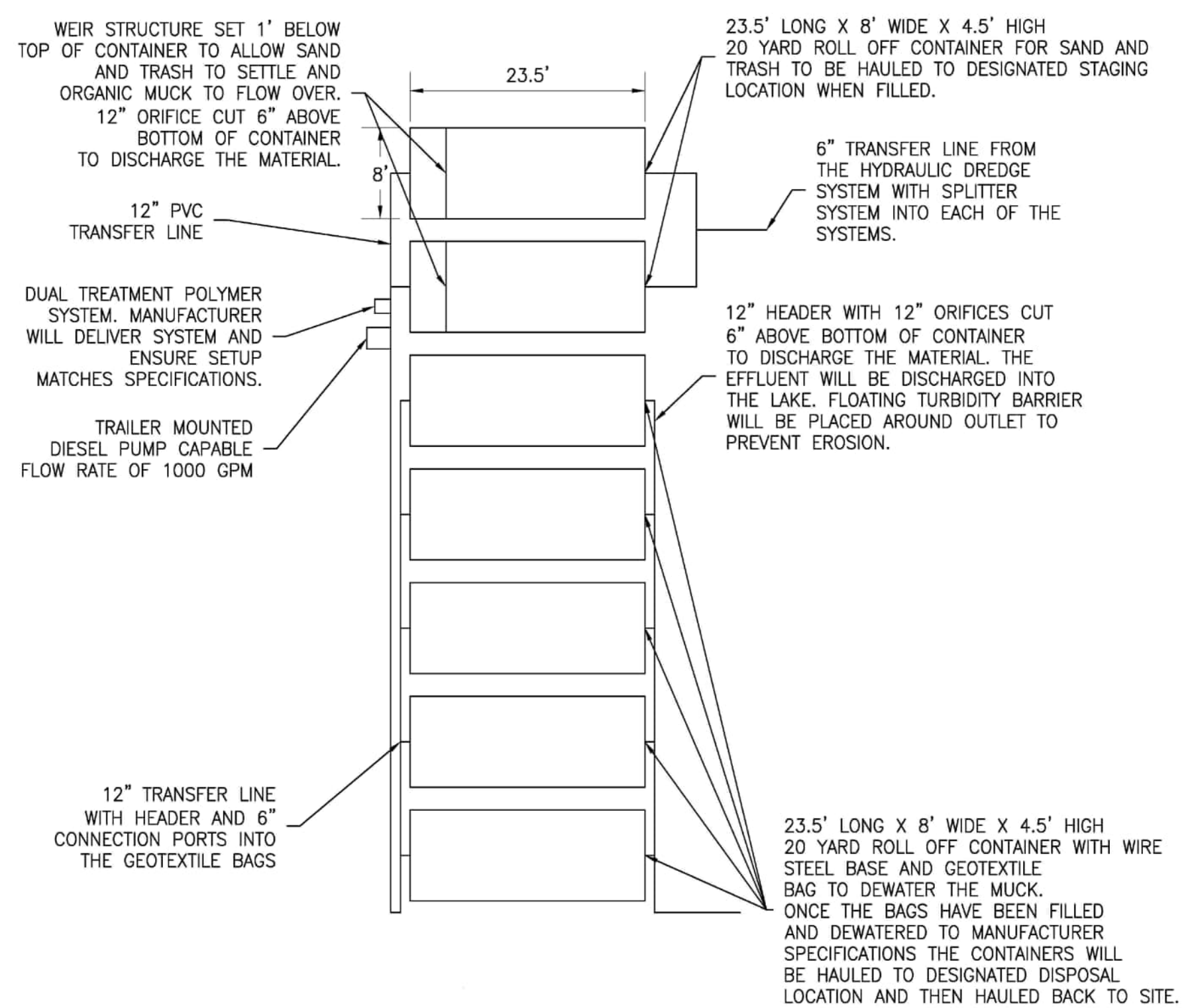
**5** TYPICAL ROCK RIPRAP DETAIL  
 NOT TO SCALE



**6** INLET FILTER DETAILS  
 NOT TO SCALE



**7** WATER CONTROL STRUCTURE DETAILS  
 NOT TO SCALE



**8** DEWATERING DETAIL  
 NOT TO SCALE

**wsp**  
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GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

PROJECT:  
**CITY OF NAPLES LAKES RESTORATION**

City of *Naples* Florida

CLIENT:  
**CITY OF NAPLES PUBLIC WORKS DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102

WSP PROJECT NO:  
 600843.03

**90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)**

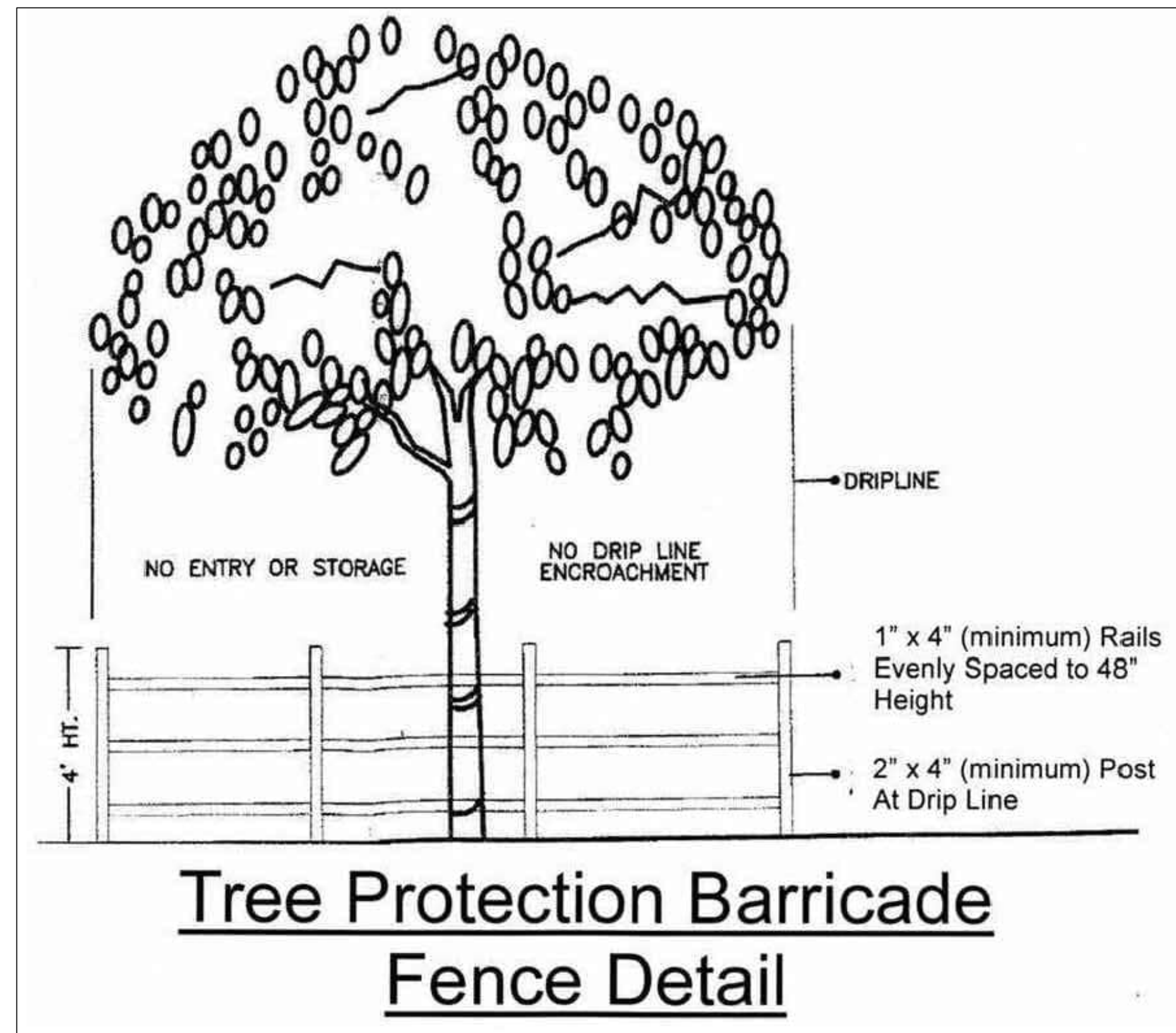
REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

SHEET TITLE:  
**DESIGN DETAILS (2 OF 3)**

SHEET NUMBER:	REV. #
C-502	D
SHEET 16 OF 17 SHEETS	





9 TYPICAL TREE PROTECTION DETAIL NOT TO SCALE

- NOTES:
- LAKE 8 - NORTH LAKE HAS THE POTENTIAL TO SEVERELY IMPACT THE CITY OWNED TREES IN THE RIGHT OF WAY AND THE MEDIAN ON THE SECTION OF 7TH AVE NORTH SHOWN ON THE PLANS.
1. TREE PROTECTION SHALL BE REQUIRED FOR THE CITY OWNED AND MANAGED TREES (SEE CITY OF NAPLES ORDINANCE 2020-14460.)
  2. THE CITY ARBORIST SHALL BE NOTIFIED OF THE PRE-CONSTRUCTION MEETING.
  3. ANY CITY IRRIGATION WITHIN THE ROW AND/OR MEDIAN SHALL REMAIN ACTIVE DURING THE PROJECT.

**CITY OF NAPLES CHAPTER 38 - TREE PROTECTION**  
**SEC. 38-106. - PROTECTION OF CITY TREES.**

- REQUIREMENTS FOR UTILITY PRUNING.** UTILITIES MUST CONFORM TO CURRENT ANSI A300 STANDARDS WHEN PERFORMING LINE CLEARING WORK IN CANOPY STREET ZONES TO BALANCE THE REQUIREMENT TO PRESERVE THE CANOPY AND MAINTAIN SAFE, RELIABLE ELECTRIC SERVICE.
- (1. FRANCHISED UTILITIES MUST NOTIFY THE DEPARTMENT BY E-MAIL OR MAIL 30 BUSINESS DAYS PRIOR TO ANY MAINTENANCE UTILITY LINE CLEARING WORK IN CANOPY STREETS.
  - (2. FRANCHISED UTILITIES MUST HAVE AN ISA CERTIFIED ARBORIST DIRECTING THE PRUNING OF TREES IN A CANOPY STREET.
  - (3. UTILITY PRUNING SHOULD ONLY PROVIDE MINIMUM SAFE CLEARANCE TO PROTECT ENERGIZED POWER LINES WITH CONSIDERATION FOR THE COMBINED MOVEMENT OF THE CONDUCTORS NEAR TREES IN SEVERE WEATHER, THE SPECIES OF THE TREE, AND THE VOLTAGE OF THE CONDUCTOR.
  - (4. THE CITY RECOGNIZES THAT FLORIDA POWER AND LIGHT (FPL) HAS A RIGHT AND RESPONSIBILITY, AS PROVIDED BY FLORIDA STATE STATUTE AND ELECTRIC TARIFF RULES, TO CLEAR VEGETATION AWAY FROM POWER LINES IN ORDER TO ENSURE THE SAFE TRANSMISSION OF ELECTRICITY TO CUSTOMERS AND THE ABOVE-LISTED PROVISIONS ARE INTENDED TO BE COOPERATIVE EFFORTS BETWEEN THE CITY AND FPL. THIS SECTION DOES NOT APPLY TO THE EXTENT PREEMPTED BY F.S § 163.3209.

**LOCATION OF CITY TREES.** ALL CITY TREES THAT MAY BE DISTURBED BY PROPOSED ACTIVITIES MUST BE PHYSICALLY LOCATED ON-SITE AND SHOWN ON THE SITE PLAN SUBMITTED FOR ANY PROJECT OR SITE DEVELOPMENT AND AS A PART OF THE TREE REMOVAL REQUEST IN THE TREE ALTERATION PERMIT APPLICATION PROCESS.

**DRIP LINE PRESERVATION .** DURING DEVELOPMENT, CONSTRUCTION ACTIVITY, AND UTILITY CONSTRUCTION, THE CRITICAL ROOT ZONE OF A CITY TREE MUST SHALL BE PROTECTED FROM ACTIVITIES THAT MAY DISTURB OR INJURE THE TREE (SUCH AS CUT AND FILL ACTIVITIES, BUILDING PAD PLACEMENTS, ROAD BED CONSTRUCTION, CONSTRUCTION MATERIAL STORAGE, DRIVING OR PARKING OF EQUIPMENT, TRENCHING, ETC.). THE PERMIT APPLICANT MAY PROVIDE SPECIFIC ARBORICULTURAL ANALYSIS TO DEMONSTRATE THAT THERE IS NO LIKELIHOOD OF ADVERSE IMPACT TO A CITY TREE; HOWEVER, THE DEPARTMENT WILL MAKE THE SOLE DETERMINATION OF WHERE TREE PROTECTION BARRIERS MUST BE PLACED AROUND A TREE.

**CANOPY AND ROOT PRUNING.** WHEN ACTIVITIES DISTURB THE AREA WITHIN THE DRIP LINE OF A CITY TREE, OR WHEN PRUNING MUST BE PERFORMED ON THE CROWN OF A CITY TREE, THE FOLLOWING ARBORICULTURAL TECHNIQUES ARE REQUIRED:

- (1. WHEN THE TREE ROOTS WITHIN THE DRIP LINE MAY BE DISTURBED, THE AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS WHERE THE ACTIVITY IMPACTS THE ROOTS. ROOT PRUNING MUST BE COMPLETED BY AN ISA CERTIFIED ARBORIST. ROOTS CAN BE PRUNED BY UTILIZING TRENCHING EQUIPMENT THAT IS SPECIFICALLY DESIGNED FOR THIS PURPOSE OR BY HAND DIGGING A TRENCH AND PRUNING ROOTS WITH A CHAIN SAW, PRUNING SAW OR OTHER EQUIPMENT DESIGNED FOR TREE PRUNING. ROOTS WITHIN THE DRIP LINE MUST BE PRUNED TO A DEPTH OF 12 INCHES BELOW EXISTING GRADE OR TO THE DEPTH OF THE DISTURBANCE IF LESS THAN 12 INCHES FROM THE EXISTING GRADE. WHEN UNDERGROUND UTILITIES ARE TO BE INSTALLED THROUGH THE DRIP LINE, ROOT PRUNING REQUIREMENTS MAY BE WAIVED IF THE LINES ARE INSTALLED VIA TUNNELING OR DIRECTIONAL BORING AS OPPOSED TO TRENCHING.
- (2. ALL PRUNING OF CITY TREES MUST CONFORM TO THE CURRENT ANSI A300 STANDARDS AND BE COMPLETED BY AN ISA CERTIFIED ARBORIST. THERE WILL BE NO STUB CUTS, OR LIONS-TAILING OF THE CROWN OF THE TREE.
- (3. IT WILL BE A VIOLATION OF THIS SECTION TO PERFORM THE TECHNIQUES OF TOPPING OR OTHER PRUNING TECHNIQUES THAT REMOVE THE VERTICAL LEADER STEMS OR OTHER PRUNING THAT RESULTS IN AN UNNECESSARY REDUCTION OF SHADE OF CITY TREES IN THE PERMIT AREA.

**TREE PROTECTION BARRIER REQUIREMENTS.** DURING DEVELOPMENT ACTIVITIES OR ANY OTHER POTENTIAL DISTURBANCE THAT WILL IMPACT THE AREA WITHIN THE DRIP LINE OF ANY CITY TREE, PROTECTIVE BARRIERS MUST BE PLACED AROUND EACH CITY TREE, BY THE APPLICANT, TO PREVENT THE DESTRUCTION OR DAMAGING OF ROOTS, STEMS, OR CROWNS OF SUCH TREES. BARRIERS MUST REMAIN IN PLACE AND INTACT UNTIL THE WORK IS COMPLETED, HOWEVER, BARRIERS MAY BE REMOVED TEMPORARILY TO ACCOMMODATE CONSTRUCTION NEEDS, PROVIDED THE CITY APPROVES THE TEMPORARY REMOVAL IN WRITING AND THAT THE MANNER AND PURPOSE FOR SUCH TEMPORARY REMOVAL WILL NOT HARM THE TREE. THE CITY RESERVES THE RIGHT TO DENY THE TEMPORARY REMOVAL OF TREE PROTECTION BARRIERS. THE FOLLOWING ARE THE MINIMUM REQUIREMENTS FOR PROTECTIVE BARRIERS:

- (1) PROTECTIVE POSTS MUST BE PLACED SO AS TO PROTECT ALL AREAS WITHIN THE DRIP LINE BOUNDARY FOR EACH CITY TREE AFFECTED, EXCEPT IN RIGHT-OF-WAY OR UTILITY PLACEMENT AREAS WHERE SPACE TO INSTALL THE BARRICADE MAY BE LIMITED, POSTS MAY BE PLACED SO AS TO PROTECT A MINIMUM OF 50 PERCENT OF THE AREA WITHIN THE DRIP LINE APPROVED BY THE CITY MANAGER.
- (2) POSTS MUST BE A MINIMUM OF TWO INCHES BY FOUR INCHES, OR LARGER, WOODEN POST, TWO-INCH OUTER DIAMETER OR LARGER, OR OTHER POST MATERIAL OF EQUIVALENT SIZE; WILL BE CONNECTED WITH A MINIMUM OF AT LEAST A ONE INCH BY FOUR-INCH WOODEN BOARD RAIL; AND WILL BE CLEARLY FLAGGED. THE MAXIMUM DISTANCE ALLOWED BETWEEN UPRIGHT POSTS IS EIGHT FEET. WOODEN POSTS AND BOARDS MUST BE PAINTED FOREST GREEN ONCE INSTALLED.
- (3) POSTS MUST BE IMPLANTED DEEP ENOUGH INTO THE GROUND TO BE STABLE AND EXTEND A MINIMUM HEIGHT OF FOUR FEET ABOVE THE GROUND.
- (4) WHERE DEVELOPMENT ACTIVITY IS PERMITTED WITHIN 50 PERCENT OF THE RADIUS WITHIN THE AREA OF THE DRIP LINE OF A CITY TREE (AS MEASURED BY THE LONGEST RADIUS FROM TRUNK TO DRIP LINE), THE DEPARTMENT MAY REQUIRE ADDITIONAL TREE PROTECTION PROVISIONS BE INCORPORATED IN THE ACTIVITY PERMIT.
- (5) NO STORAGE OR MOVEMENT OF EQUIPMENT, MATERIAL, DEBRIS, OR FILL SOIL IS ALLOWED WITHIN THE DRIP LINE OF ANY CITY TREE.
- (6) NO EQUIPMENT WILL BE CLEANED, OR WASTE MATERIALS SUCH AS PAINTS, OILS, SOLVENTS, ASPHALT, CONCRETE, MORTAR, OR ANY OTHER MATERIAL WILL BE STORED, WITHIN THE DRIP LINE OF ANY CITY TREE.
- (7) NO DAMAGING WIRES, SIGNS OR PERMITS WILL BE FASTENED TO ANY CITY TREE UNLESS APPROVED BY THE DEPARTMENT.
- (8) SILT BARRIERS, HAY BALES, OR SIMILAR EFFECTIVE EROSION SILT CONTROL BARRIERS WILL BE REQUIRED IN ANY AREA WHERE EROSION OR SILTATION MAY CAUSE DAMAGE TO CITY TREES AS DETERMINED SOLELY BY THE DEPARTMENT.
- (9) WHEN ELEVATION CHANGES ARE PROPOSED WITHIN THE DRIP LINE OF ANY CITY TREE, THE APPLICANT WILL BE REQUIRED TO INSTALL RETAINING WALLS OR DRAIN TILES. THE APPLICANT WILL HAVE THE CHOICE OF THE TYPE OR DESIGN. THESE ROOT PROTECTION MEASURES MUST BE IN PLACE PRIOR TO THE DEPOSITION OF FILL, OR EXCAVATION OF SOIL FROM THE DRIP LINE.
- (10) SHOULD A PRIVATE PARTY CONDUCT WORK WITHIN THE DRIP LINE OF A CITY TREE AND FAIL TO INSTALL THE REQUIRED TREE PROTECTION BARRIER, THE CITY RESERVES THE RIGHT TO INSTALL THE REQUIRED TREE PROTECTION BARRIER AND CHARGE THE PRIVATE PARTY CONDUCTING THE WORK FOR THE CITY'S MATERIALS AND LABOR ASSOCIATED WITH THE INSTALLING OF THE BARRICADE. A SAMPLE TREE PROTECTION BARRICADE IS SET OUT BELOW.

**INSPECTIONS.** THE DEPARTMENT WILL CONDUCT PERIODIC INSPECTIONS OF THE SITE DURING THE PERMITTED ACTIVITY IN ORDER TO ENSURE COMPLIANCE WITH THIS SECTION.

- (a) THE CITY MANAGER IS AUTHORIZED TO ALLOW A VARIATION FROM THE STRICT REQUIREMENTS OF THIS SECTION WHERE AN EQUIVALENT OR SUPERIOR METHOD OF PRESERVING A TREE IS CLEARLY DEMONSTRATED.

(ORD. NO. 17-13971 , § 1, 6-7-2017; ORD. NO. 20-14460 , § 1, 3-4-2020)



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GREGORY W. CORNING, P.E.  
 FLORIDA PE LICENSE NO. 79293

90% / DESIGN & PERMITTING (NOT FOR CONSTRUCTION)

PROJECT:  
**CITY OF NAPLES  
 LAKES RESTORATION**



CLIENT:  
**CITY OF NAPLES  
 PUBLIC WORKS  
 DEPARTMENT**  
 295 RIVERSIDE DRIVE  
 NAPLES, FL 34102

WSP PROJECT NO:  
**600843.03**

REVISIONS			
NO.	DATE	BY	APPROVED
A	3/24/23	MV	GC
B	6/7/23	GB	GC
C	8/4/23	GB	GC
D	9/27/23	GB	GC

DESIGNED BY:	D. ATWATER
DRAWN BY:	M. VIVES
CHECKED BY:	T. G. DAVIES
APPROVED BY:	G. CORNING
DATE:	September 27, 2023

SHEET TITLE:  
**DESIGN DETAILS  
 (3 OF 3)**

SHEET NUMBER:	REV. #
C-503	D
SHEET 17 OF 17 SHEETS	