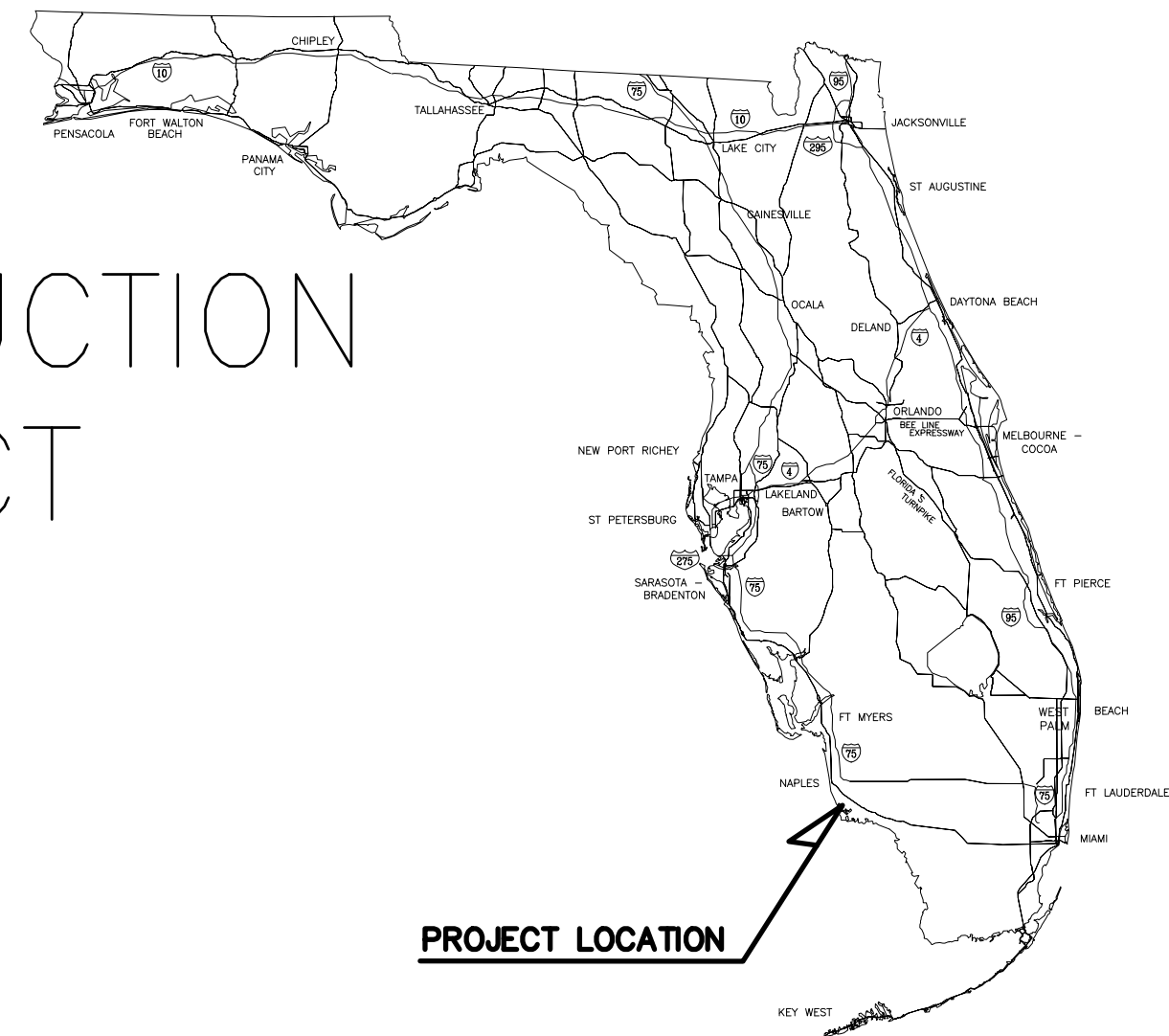


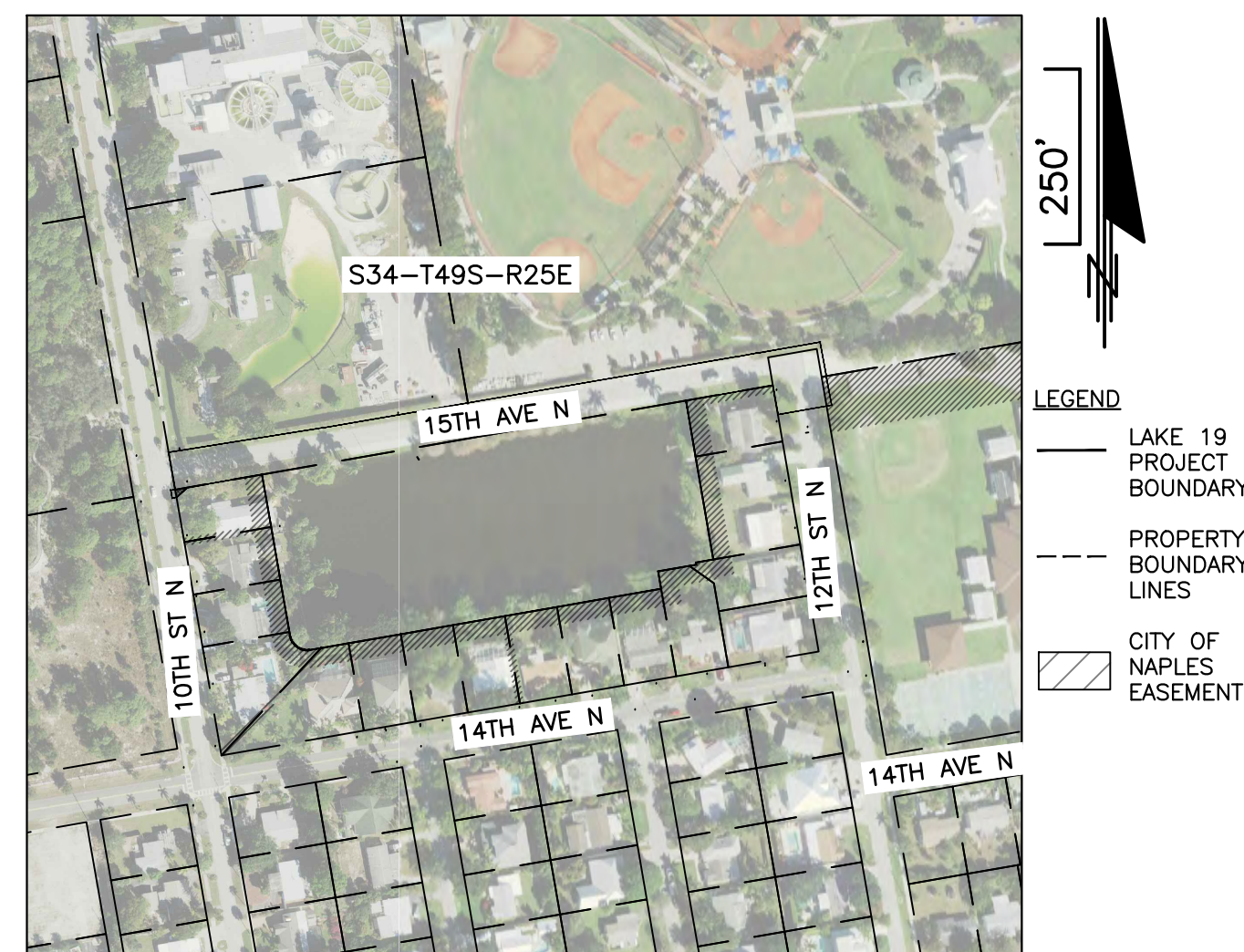
GENERAL SCOPE OF SITE WORK FOR 100 PERCENT DESIGN PERMITTING AND CONSTRUCTION LAKES 11, 19, AND 31 RESTORATION PROJECT COLLIER COUNTY, NAPLES, FLORIDA

LOCATED IN
SECTIONS 3, 4, 34, TOWNSHIPS 49, 50 SOUTH, RANGE 25 EAST
COLLIER COUNTY, NAPLES, FLORIDA

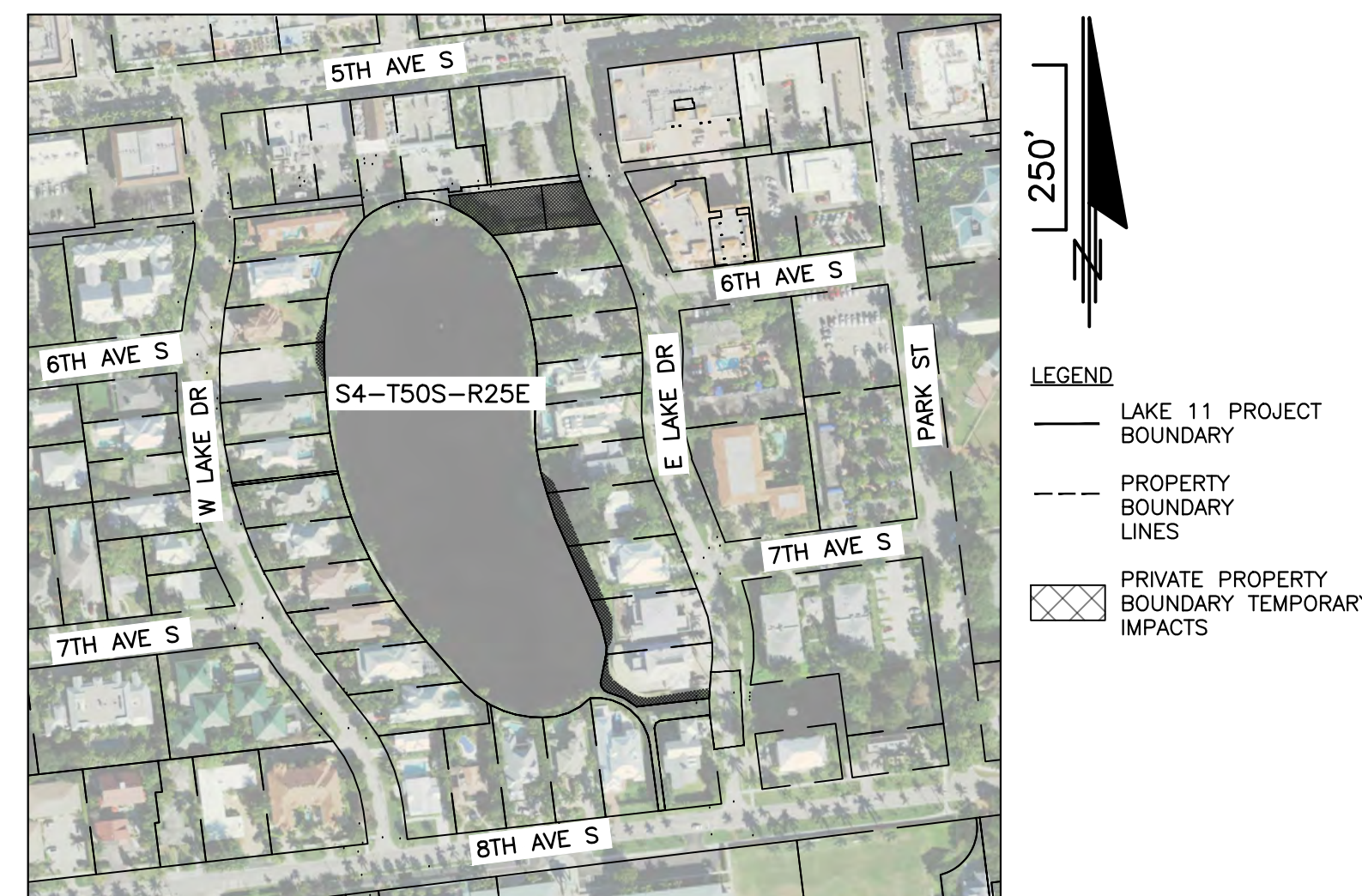


SHEET INDEX:

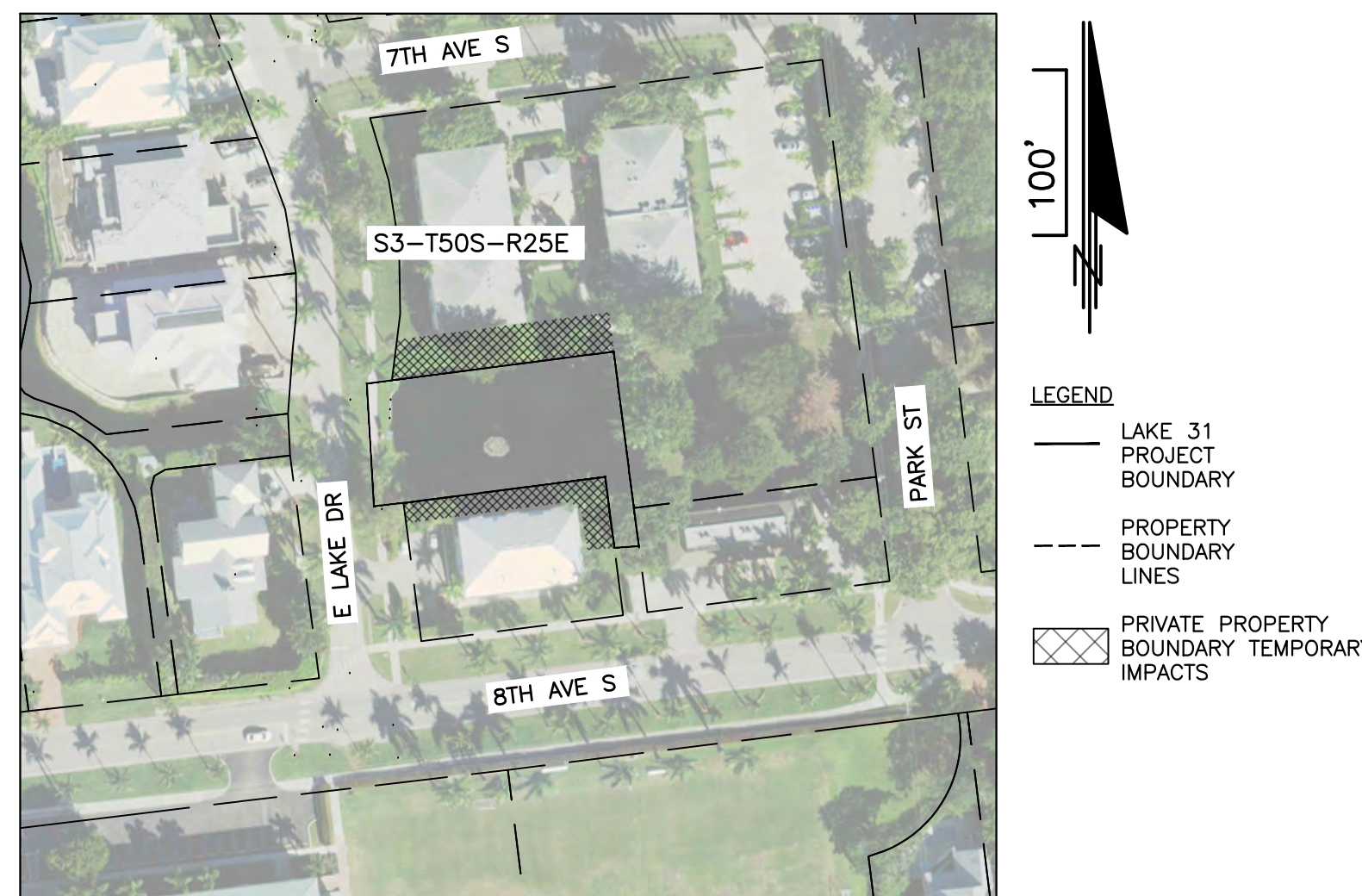
C100	COVER SHEET
C110	GENERAL NOTES
C210	EXISTING SITE PLAN - LAKE 19
C211	EXISTING SITE PLAN - LAKE 11
C212	EXISTING SITE PLAN - LAKE 31
C220	PROPOSED SITE PLAN STAGE I: MUCK REMOVAL AND LITTORAL SHELVES - LAKE 19
C221	PROPOSED SITE PLAN STAGE II: PUBLIC OUTREACH AMENITIES - LAKE 19
C222	PROPOSED SITE PLAN STAGE I: MUCK REMOVAL AND LITTORAL SHELVES - LAKE 11
C223	PROPOSED SITE PLAN STAGE I: TREATMENT WETLAND RESTORATION - LAKE 31
C230	EROSION AND SEDIMENT CONTROL PLAN - LAKE 19
C231	EROSION AND SEDIMENT CONTROL PLAN - LAKE 11
C232	EROSION AND SEDIMENT CONTROL PLAN - LAKE 31
C310	EAST-WEST CROSS SECTION LOCATIONS - LAKE 19
C311	EAST-WEST CROSS SECTION DETAIL I - LAKE 19
C312	EAST-WEST CROSS SECTION DETAIL II - LAKE 19
C320	EAST-WEST CROSS SECTION LOCATIONS - LAKE 11
C321	EAST-WEST CROSS SECTION DETAIL I - LAKE 11
C322	EAST-WEST CROSS SECTION DETAIL II - LAKE 11
C323	EAST-WEST CROSS SECTION DETAIL III - LAKE 11
C324	EAST-WEST CROSS SECTION DETAIL IV - LAKE 11
C330	EAST-WEST CROSS SECTION LOCATIONS - LAKE 31
C331	EAST-WEST CROSS SECTION DETAIL I - LAKE 31
C340	NORTH-SOUTH CROSS SECTION LOCATIONS - LAKE 19
C341	NORTH-SOUTH CROSS SECTION DETAIL I - LAKE 19
C342	NORTH-SOUTH CROSS SECTION DETAIL II - LAKE 19
C343	NORTH-SOUTH CROSS SECTION DETAIL III - LAKE 19
C350	NORTH-SOUTH CROSS SECTION LOCATIONS - LAKE 11
C351	NORTH-SOUTH CROSS SECTION DETAIL I - LAKE 11
C352	NORTH-SOUTH CROSS SECTION DETAIL II - LAKE 11
C353	NORTH-SOUTH CROSS SECTION DETAIL III - LAKE 11
C360	NORTH-SOUTH CROSS SECTION LOCATIONS - LAKE 31
C361	NORTH-SOUTH CROSS SECTION DETAIL I - LAKE 31
C410	PLANTING PLAN I - LAKE 19
C411	PLANTING PLAN II - LAKE 11
C412	PLANTING PLAN III - LAKE 31
C420	DETAILED GRADING PLAN I - MULTIPURPOSE TRAIL - LAKE 19
C421	DETAILED GRADING PLAN II - MULTIPURPOSE TRAIL - LAKE 19
C430	DETAILED GRADING PLAN III - STORMWATER MODIFICATIONS - LAKE 19
C431	DETAILED GRADING PLAN IV - STORMWATER MODIFICATIONS - LAKE 11
C510	DESIGN DETAILS I
C520	DESIGN DETAILS II
C530	DESIGN DETAILS III



LAKE 19 SITE MAP



LAKE 11 SITE MAP



LAKE 31 SITE MAP

1. CALL SUNSHINE STATE ONE CALL OF FLORIDA, 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.
2. 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.
3. RESPECT AND PROTECT THE MARKS DURING THE PROJECT, IF MARKS ARE DESTROYED, REQUEST A NEW LOCATE TICKET.
4. DIG SAFELY, USING EXTREME CAUTION WHEN DIGGING WITHIN 24 INCHES ON EITHER SIDE OF THE MARKS TO AVOID HITTING THE BURIED UTILITY LINES.

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

TERRY HUTCHISON

CITY COUNCIL

MICHAEL MCCABE
GARY PRICE
TED BLANKENSHIP
PAUL PERRY
RAYMOND CHRISTMAN

CITY MANAGER

CHARLES CHAPMAN

STREETS AND STORMWATER DIRECTOR

GREGG STRAKALUSE, P.E.

PLANS PREPARED FOR:

CITY OF NAPLES
STREETS AND STORMWATER DEPARTMENT
295 RIVERSIDE DRIVE NAPLES, FLORIDA 34102
PHONE: 239-213-5016 FAX: 239-213-5010

PLANS PREPARED BY:

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

wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.
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MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:

City of
Naples Florida

WOOD PROJECT No:
6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
COVER SHEET

SHEET NUMBER:	REV. #
C100	
SHEET 1 OF 42 SHEETS	

NOTES:

A. GENERAL

1. PROJECT LOCATIONS:

- 1.1. LAKE 19 – LAT: 26° 9'55.83"N LONG: 81°47'45.30"W
- 1.2. LAKE 11 – LAT: 26° 8'22.48"N LONG: 81°48'0.50"W
- 1.3. LAKE 31 – LAT: 26° 8'18.71"N LONG: 81°47'54.59"W

2. 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, RECONTOURING LAKE BOTTOM AND CONSTRUCTING LITTORAL SHELVES, AND PUBLIC OUTREACH AMENITIES.

3. THE TYPES OF SOIL DISTURBANCE ACTIVITIES INCLUDE: HYDRAULIC DREDGING, GRADING, EXCAVATING AND COMPACTING.

4. THE CONTRACTOR SHALL COMPLETE THE LAKES IN THE FOLLOWING ORDER:

- 4.1. LAKE 11
- 4.2. LAKE 31
- 4.3. LAKE 19

5. SEQUENCE OF MAJOR ACTIVITIES:

- (1) INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND MAINTAIN THROUGHOUT PROJECT.
- (2) CONSTRUCT HYDRAULIC DREDGING AND DEWATERING STAGING AREAS
- (3) DREDGE ORGANIC MATERIAL, DEWATER, AND HAUL OFFSITE.
- (4) CONSTRUCT FEATURES ACCORDING TO ENGINEERING DESIGN PLANS AND TECHNICAL SPECIFICATIONS.
- (5) STABILIZE AREAS AS NEEDED.
- (6) OBTAIN FINAL APPROVAL, REMOVE EROSION AND SEDIMENTATION CONTROLS AND STABILIZE ANY AREA DISTURBED BY THEIR REMOVAL.

6. AREA ESTIMATES:

- 6.1. LAKE 19 AND CITY ROADS PLATTED BOUNDARY = 4.76 ACRES
- 6.2. LAKE 11 AND CITY ROADS PLATTED BOUNDARY = 5.30 ACRES
- 6.3. LAKE 31 AND CITY ROADS PLATTED BOUNDARY = 0.28 ACRES

7. 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.

8. 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.

9. THE CONTRACTOR SHALL USE CAUTION TO PROTECT WILDLIFE AND ECOSYSTEM THROUGH THE PROJECT DURATION.

10. 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.

11. 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

- 1. CONTRACTOR SHALL INSTALL PRIOR TO AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS.
- 2. 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.
- 3. 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.
- 4. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION OF CITY OF NAPLES DESIGNATED REPRESENTATIVE.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON ESTABLISHMENT OF PERMANENT VEGETATION OR PROJECT COMPLETION, AS DIRECTED BY THE CITY'S REPRESENTATIVE.
- 9. SILT FENCE AND TURBIDITY BARRIERS SHALL MEET THE REQUIREMENTS OF FDOT DESIGN STANDARDS 2017-18, INDEX NO. 104.
- 10. 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.
- 11. ANY UNCOVERED DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 20 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

C. DEWATERING

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

D. EXISTING INFRASTRUCTURE

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

E. EXISTING UTILITIES

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



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GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11,19 & 31
RESTORATION**
APPLICANT:



WOOD PROJECT No:
6788-20-3223

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NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:	REV. #
C110	
SHEET 2 OF 42 SHEETS	

E

D

C

B

A

wood.

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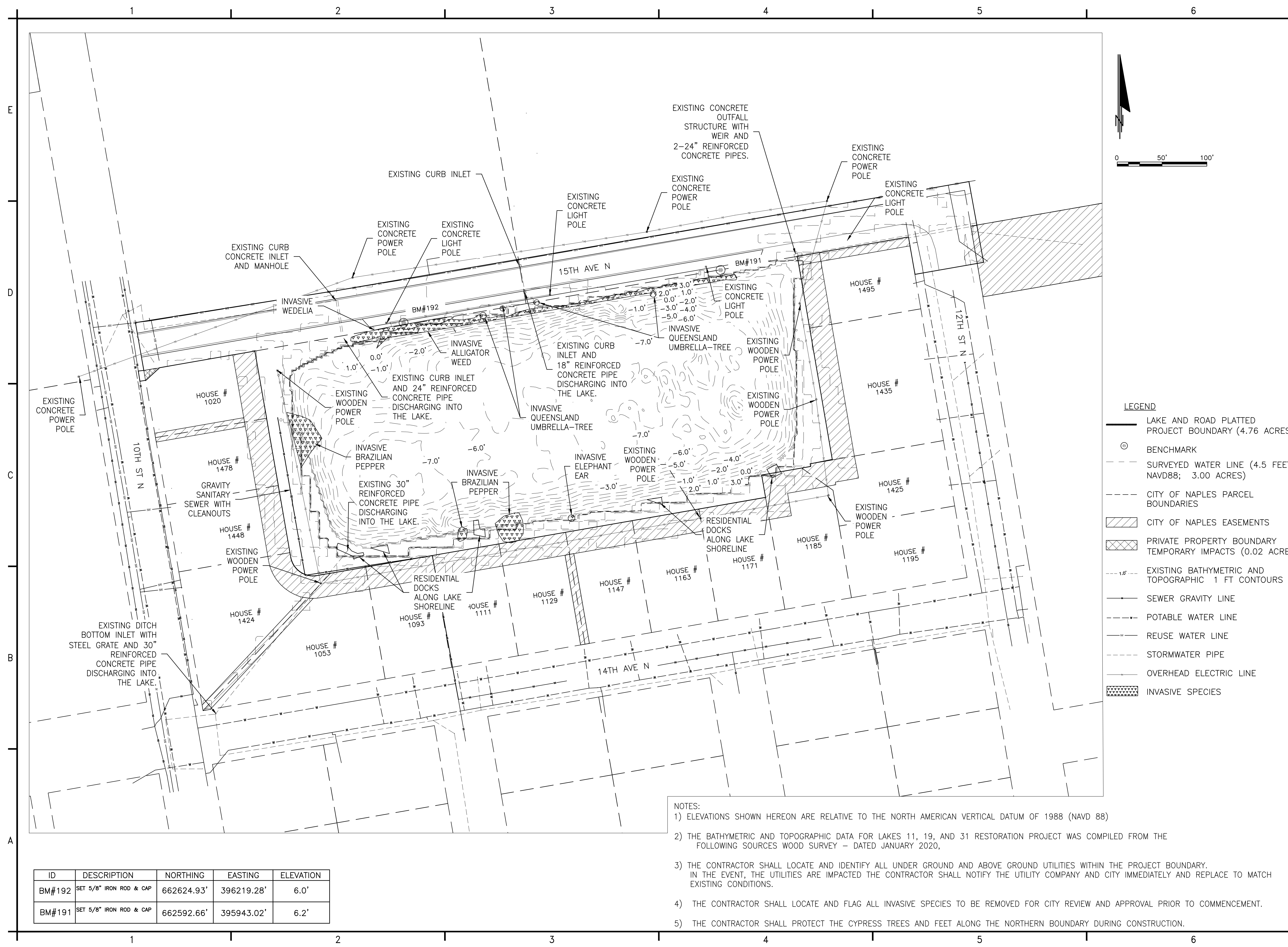
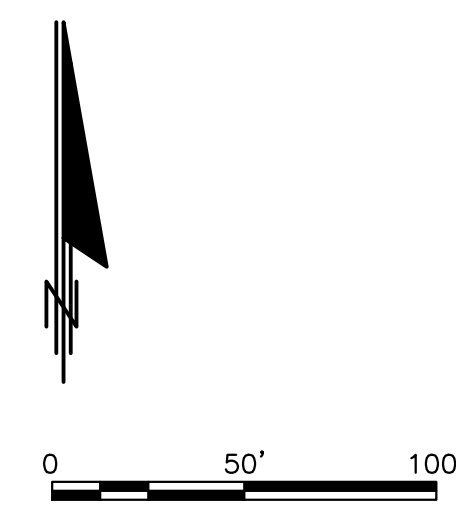
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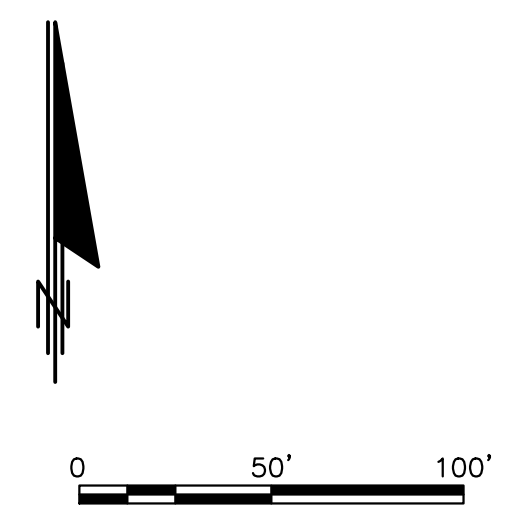
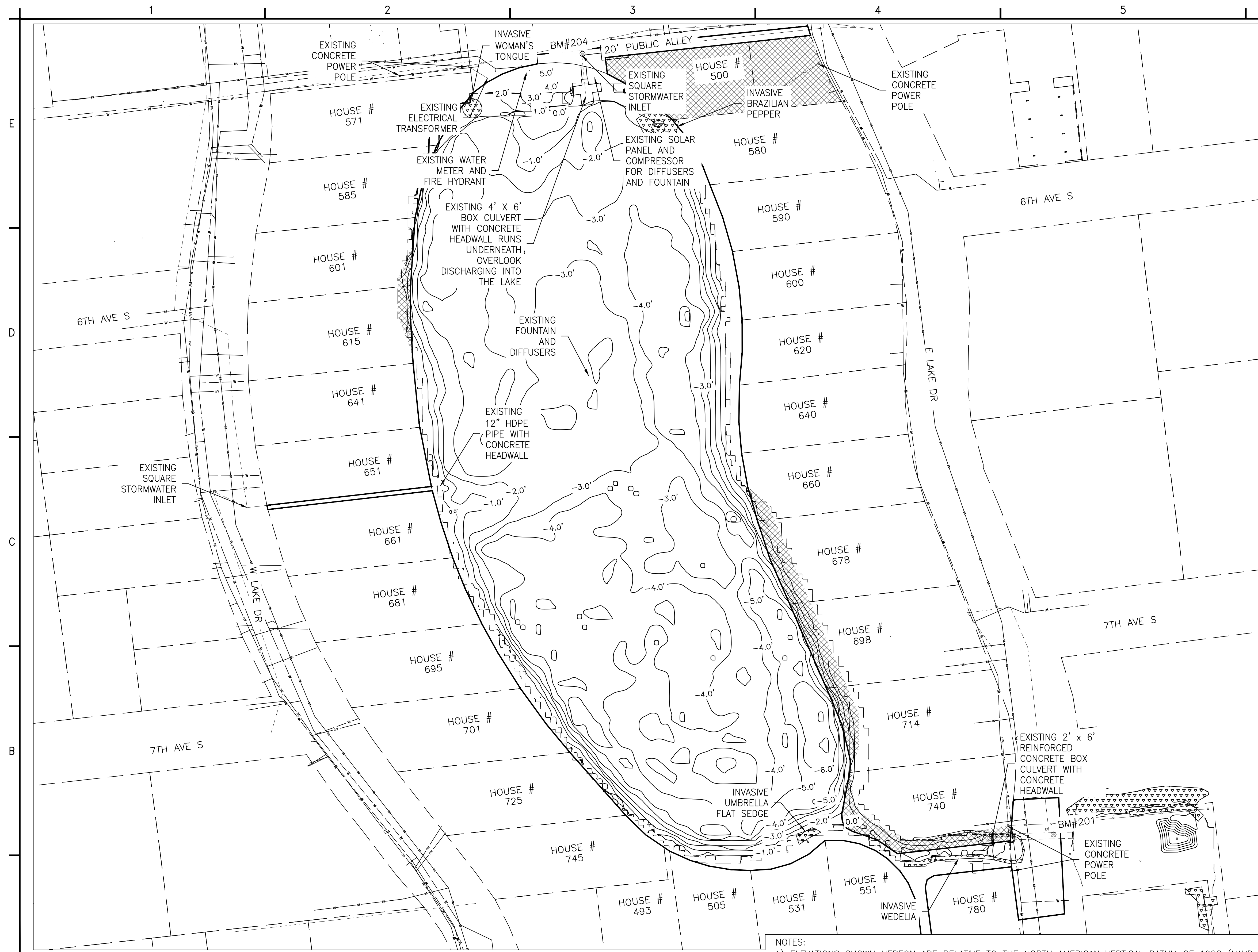
SHEET TITLE:
**EXISTING SITE PLAN
- LAKE 19**

SHEET NUMBER:	REV. #
C210	
SHEET 3 OF 42 SHEETS	



- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - 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 LOCATE AND FLAG ALL INVASIVE SPECIES TO BE REMOVED FOR CITY REVIEW AND APPROVAL PRIOR TO COMMENCEMENT.
 - THE CONTRACTOR SHALL PROTECT THE CYPRESS TREES AND FEET ALONG THE NORTHERN BOUNDARY DURING CONSTRUCTION.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#192	SET 5/8" IRON ROD & CAP	662624.93'	396219.28'	6.0'
BM#191	SET 5/8" IRON ROD & CAP	662592.66'	395943.02'	6.2'



LEGEND

- LAKE AND ROAD PLATTED PROJECT BOUNDARY (5.30 ACRES)
- BENCHMARK
- SURVEYED WATER LINE (2.0 FEET NAVD88; 4.99 ACRES)
- CITY OF NAPLES PARCEL BOUNDARIES
- PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.48 ACRES)
- EXISTING BATHYMETRIC AND TOPOGRAPHIC 1 FT CONTOURS
- SEWER GRAVITY LINE
- POTABLE WATER LINE
- REUSE WATER LINE
- STORMWATER PIPE
- OVERHEAD ELECTRIC LINE
- INVASIVE SPECIES AREA

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'
BM#204	SET 5/8" IRON ROD & CAP	657635.89'	393659.64'	4.7'

- NOTES:**
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wood.
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 MIAMI LAKES, FL 33014
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GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
 APPLICANT:



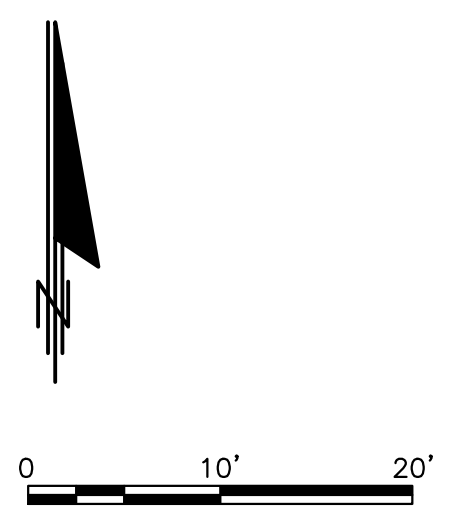
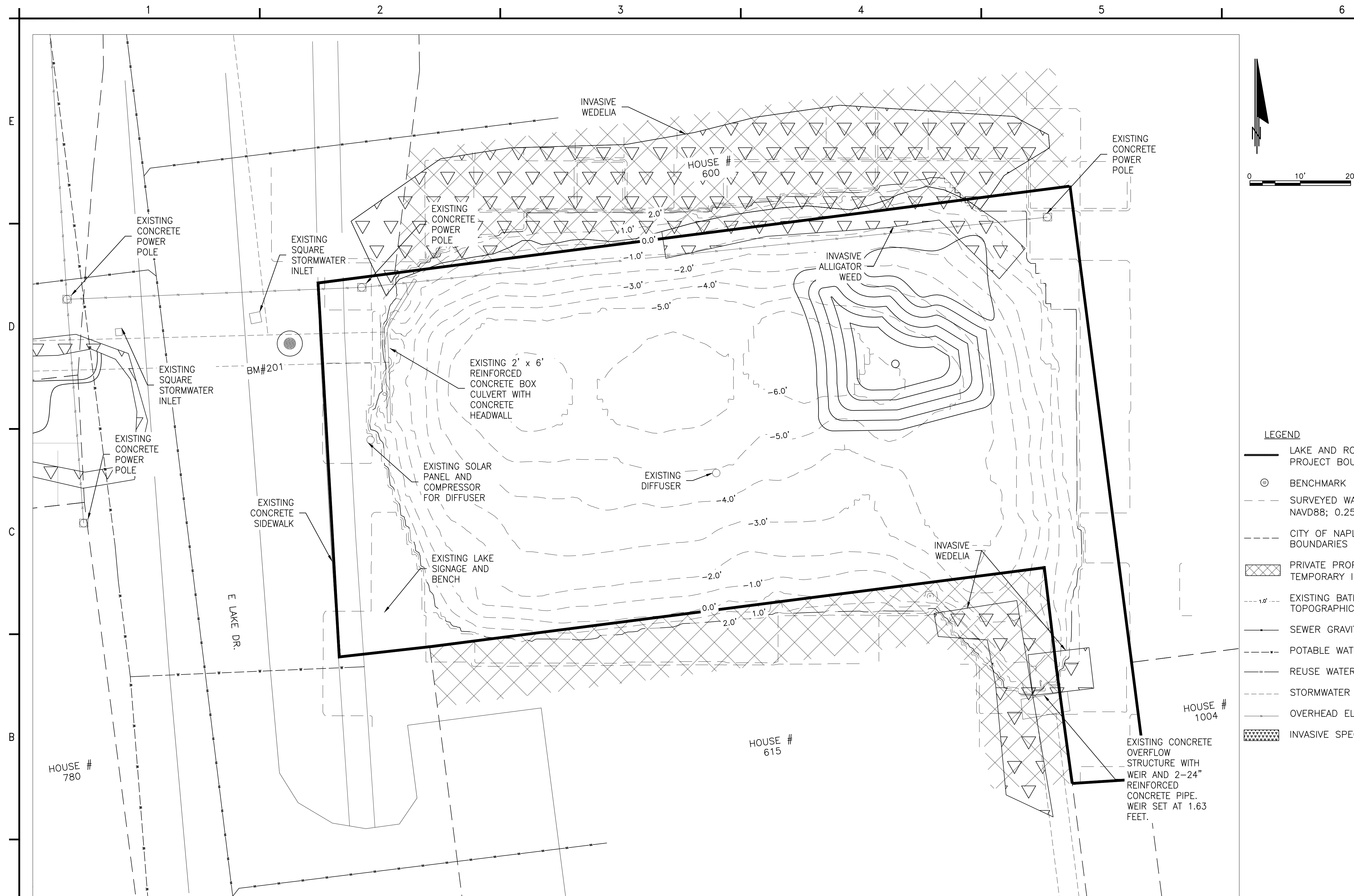
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DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
EXISTING SITE PLAN - LAKE 11

SHEET NUMBER:	REV. #
C211	
SHEET 4 OF 42 SHEETS	



LEGEND

- LAKE AND ROAD PLATTED PROJECT BOUNDARY (0.28 ACRES)
- ⊙ BENCHMARK
- - - SURVEYED WATER LINE (2.0 FEET NAVD88; 0.25 ACRES)
- - - CITY OF NAPLES PARCEL BOUNDARIES
- ▨ PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.12 ACRES)
- - - 1.0' EXISTING BATHYMETRIC AND TOPOGRAPHIC 1 FT CONTOURS
- SEWER GRAVITY LINE
- - - POTABLE WATER LINE
- - - REUSE WATER LINE
- - - STORMWATER PIPE
- OVERHEAD ELECTRIC LINE
- ▨ INVASIVE SPECIES AREA

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DATE:	01/30/2020

SHEET TITLE:
EXISTING SITE PLAN - LAKE 31

SHEET NUMBER:	REV. #
C212	
SHEET 5 OF 42 SHEETS	

- NOTES:
- 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
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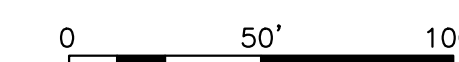
ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'

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APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**PROPOSED SITE PLAN
STAGE I: MUCK REMOVAL
AND LITTORAL SHELVES
- LAKE 19**

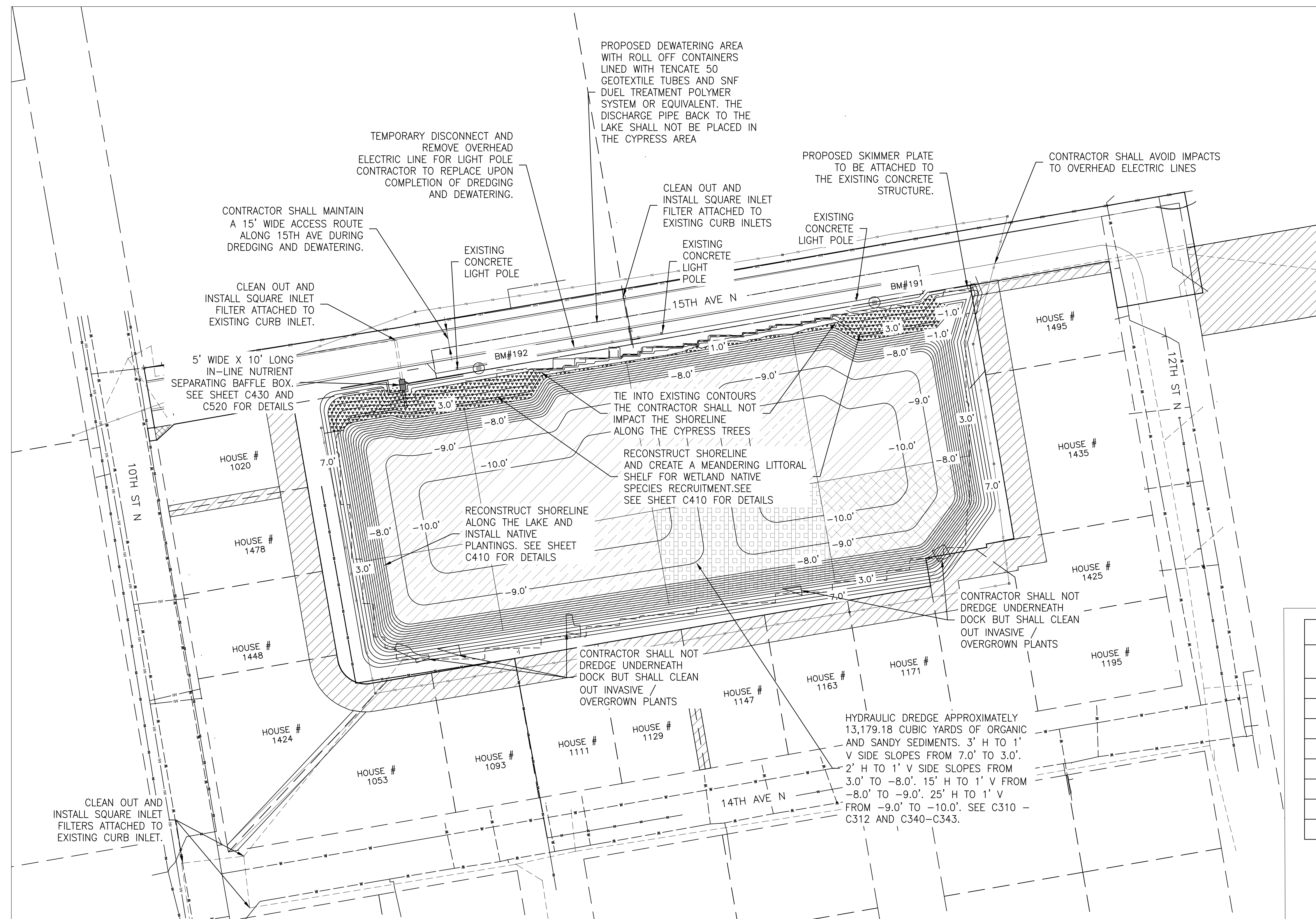
SHEET NUMBER:	REV. #
C220	
SHEET 6 OF 42 SHEETS	



LEGEND

- LAKE AND ROAD PLATTED PROJECT BOUNDARY (4.76 ACRES)
- ⊙ BENCHMARK
- - - SURVEYED WATER LINE (4.5 FEET NAVD88; 3.00 ACRES)
- - - CITY OF NAPLES PARCEL BOUNDARIES
- ▨ CITY OF NAPLES EASEMENTS
- ▩ PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.002 ACRES)
- - - PROPOSED CONTOURS
- ▨ PROPOSED LITTORAL SHELF
- SEWER GRAVITY LINE
- - - POTABLE WATER LINE
- REUSE WATER LINE
- - - STORMWATER PIPE
- OVERHEAD ELECTRIC LINE

SEDIMENT REMOVAL AREAS	
AREA #	LEGEND
1	▨
2	▨
3	▨
4	▨
5	▨
6	▨
7	▨
8	▨



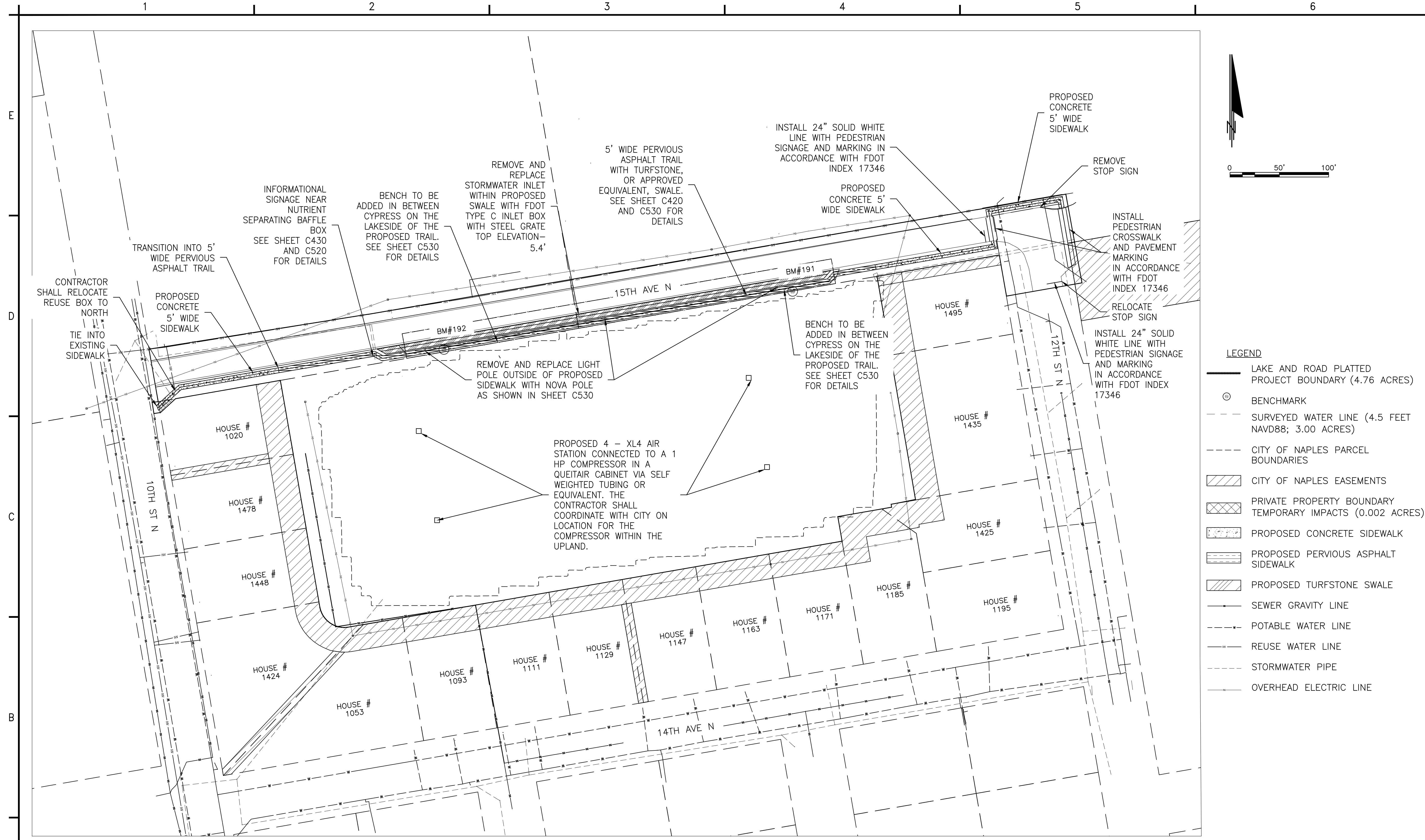
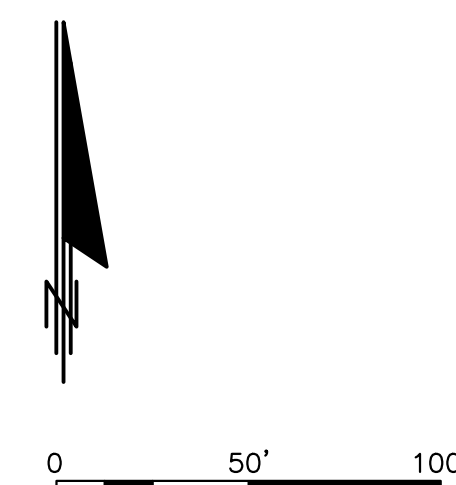
NOTES:

- 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- 2) THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCE WOOD SURVEY - DATED JANUARY 2020.
- 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 TAKE CAUTION AROUND THE EXISTING DOCKS TO REDUCE IMPACTS AND TIE INTO EXISTING CONTOURS WITH A MINIMUM OF 3' HORIZONTAL AND 1' VERTICAL IN ALL AREAS WITHIN THE PROJECT.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#192	SET 5/8" IRON ROD & CAP	662624.93'	396219.28'	6.0'
BM#191	SET 5/8" IRON ROD & CAP	662592.66'	395943.02'	6.2'

wood.

ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588



- LEGEND**
- LAKE AND ROAD PLATTED PROJECT BOUNDARY (4.76 ACRES)
 - ⊙ BENCHMARK
 - - - SURVEYED WATER LINE (4.5 FEET NAVD88; 3.00 ACRES)
 - - - CITY OF NAPLES PARCEL BOUNDARIES
 - ▨ CITY OF NAPLES EASEMENTS
 - ▩ PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.002 ACRES)
 - ▤ PROPOSED CONCRETE SIDEWALK
 - ▥ PROPOSED PERVIOUS ASPHALT SIDEWALK
 - ▧ PROPOSED TURFSTONE SWALE
 - SEWER GRAVITY LINE
 - - - POTABLE WATER LINE
 - - - REUSE WATER LINE
 - - - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
APPLICANT:



WOOD PROJECT No:
6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

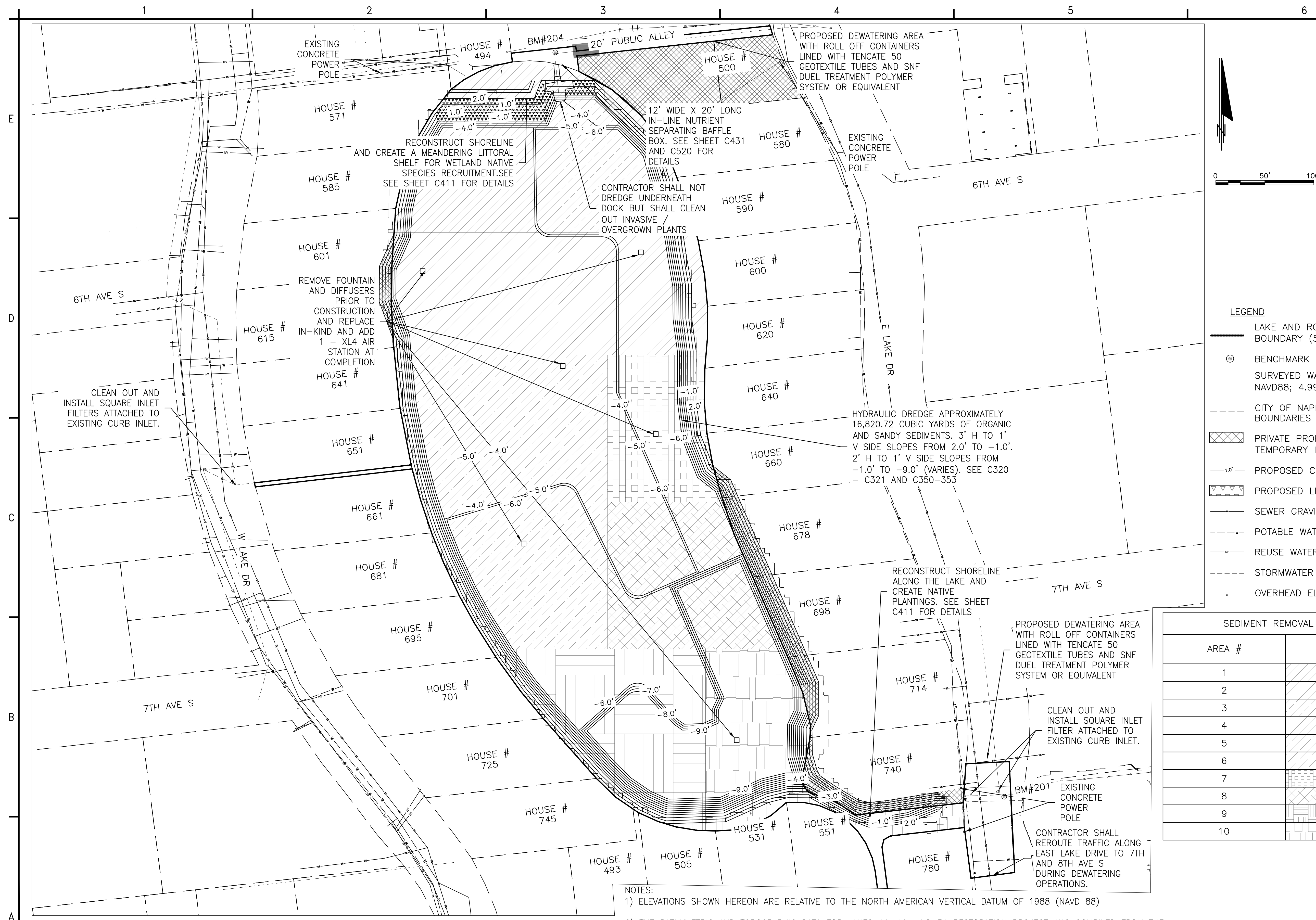
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
PROPOSED SITE PLAN STAGE II: PUBLIC OUTREACH AMENITIES - LAKE 19

SHEET NUMBER:	REV. #
C221	
SHEET 7 OF 42 SHEETS	

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#192	SET 5/8" IRON ROD & CAP	662624.93'	396219.28'	6.0'
BM#191	SET 5/8" IRON ROD & CAP	662592.66'	395943.02'	6.2'

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCE WOOD SURVEY - DATED JANUARY 2020.
 - 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.



LEGEND

- LAKE AND ROAD PLATTED PROJECT BOUNDARY (5.30 ACRES)
- BENCHMARK
- SURVEYED WATER LINE (2.0 FEET NAVD88; 4.99 ACRES)
- CITY OF NAPLES PARCEL BOUNDARIES
- PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.48 ACRES)
- 1.0' PROPOSED CONTOURS
- PROPOSED LITTORAL SHELF
- SEWER GRAVITY LINE
- POTABLE WATER LINE
- REUSE WATER LINE
- STORMWATER PIPE
- OVERHEAD ELECTRIC LINE

SEDIMENT REMOVAL AREAS	
AREA #	LEGEND
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

- NOTES:**
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - 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 TAKE CAUTION AROUND THE EXISTING DOCKS TO REDUCE IMPACTS AND TIE INTO EXISTING CONTOURS WITH A MINIMUM OF 3' HORIZONTAL AND 1' VERTICAL IN ALL AREAS WITHIN THE PROJECT.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'
BM#204	SET 5/8" IRON ROD & CAP	657635.89'	393659.64'	4.7'

wood.
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
 APPLICANT:



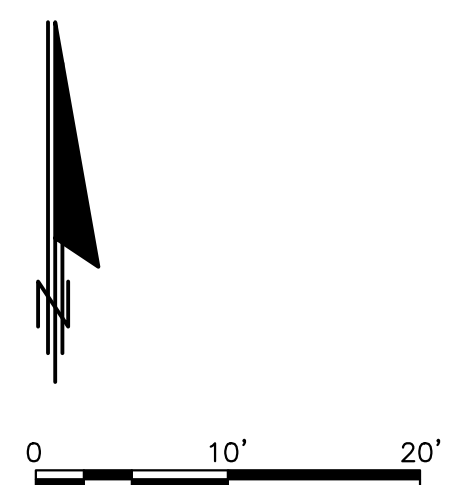
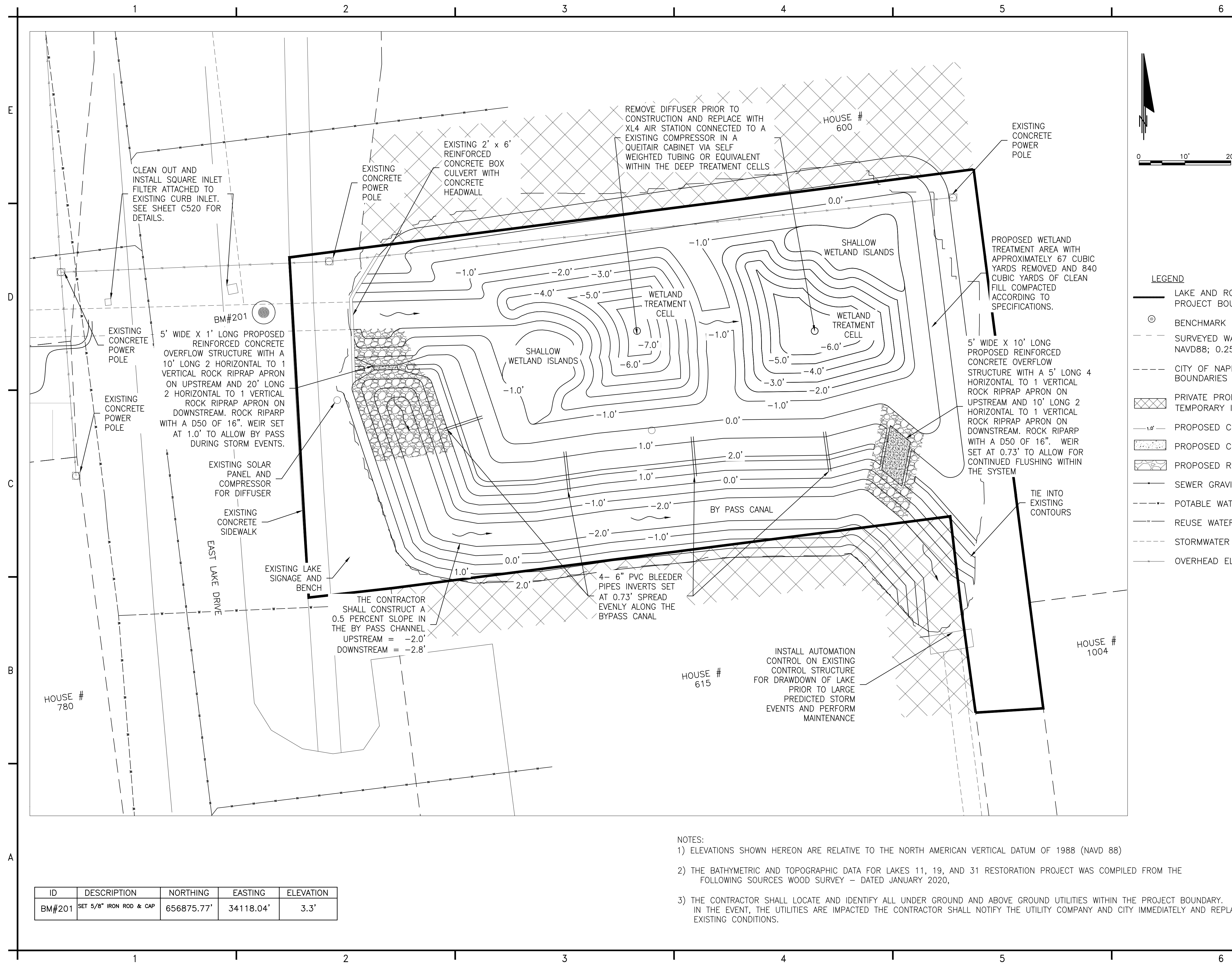
WOOD PROJECT No:
 6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
PROPOSED SITE PLAN STAGE I: MUCK REMOVAL AND LITTORAL SHELVES - LAKE 11

SHEET NUMBER:	REV. #
C222	
SHEET 8 OF 42 SHEETS	



LEGEND

- LAKE AND ROAD PLATTED PROJECT BOUNDARY (0.28 ACRES)
- BENCHMARK
- SURVEYED WATER LINE (2.0 FEET NAVD88; 0.25 ACRES)
- CITY OF NAPLES PARCEL BOUNDARIES
- PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.12 ACRES)
- PROPOSED CONTOURS
- PROPOSED CONCRETE WEIR
- PROPOSED ROCK RIPRAP
- SEWER GRAVITY LINE
- POTABLE WATER LINE
- REUSE WATER LINE
- STORMWATER PIPE
- OVERHEAD ELECTRIC LINE

wood.
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
 APPLICANT:



WOOD PROJECT No:
 6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
PROPOSED SITE PLAN STAGE I: TREATMENT WETLAND RESTORATION - LAKE 31

SHEET NUMBER:	REV. #
C223	
SHEET 9 OF 42 SHEETS	

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - 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.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'

wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:



WOOD PROJECT No:
6788-20-3223

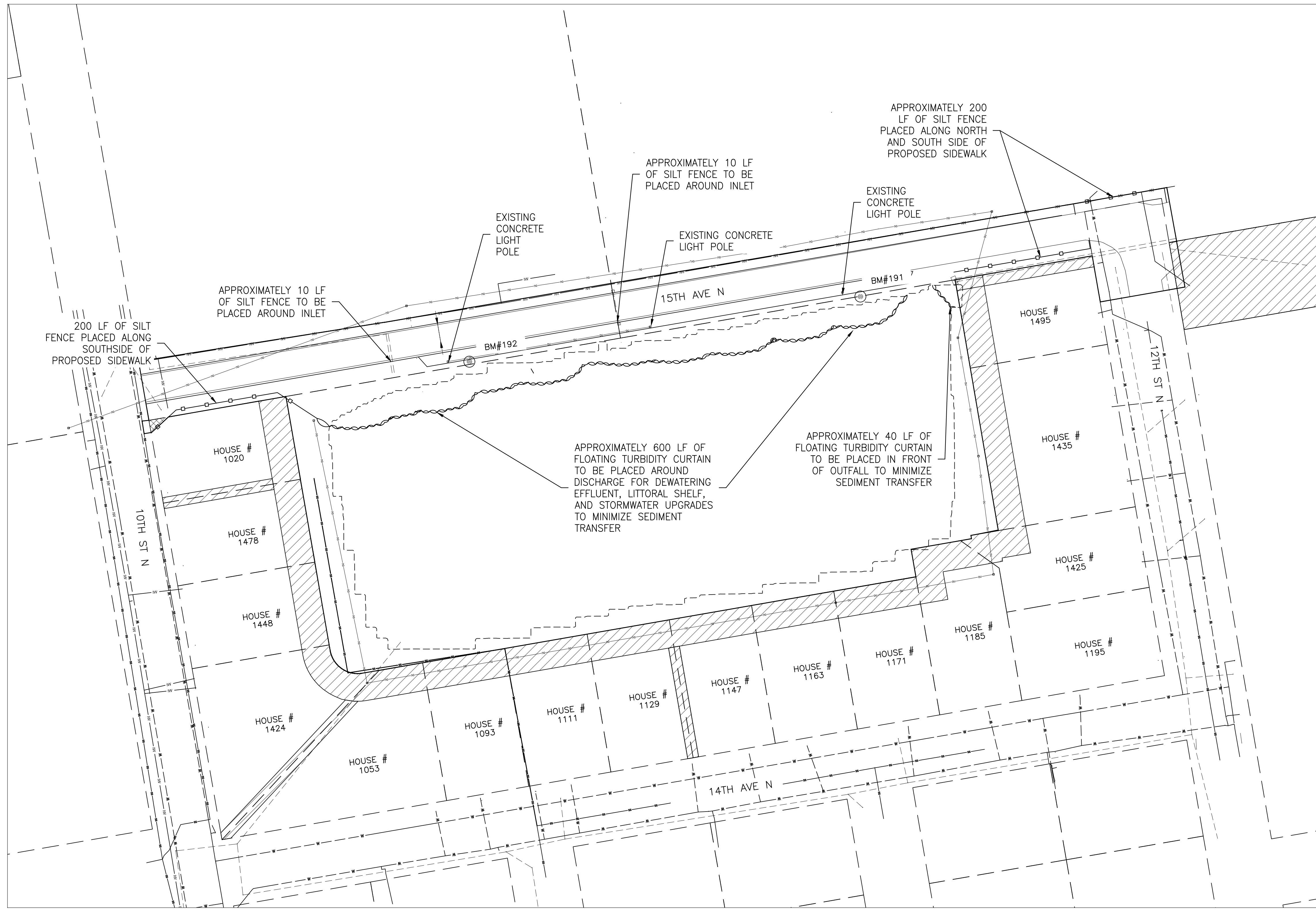
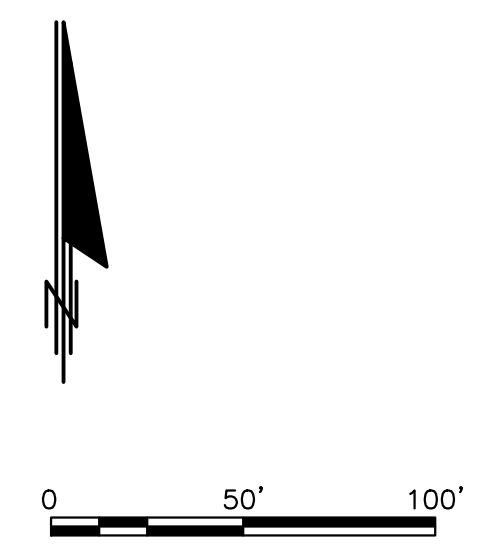
REVISIONS

NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EROSION AND SEDIMENT
CONTROL PLAN
- LAKE 19**

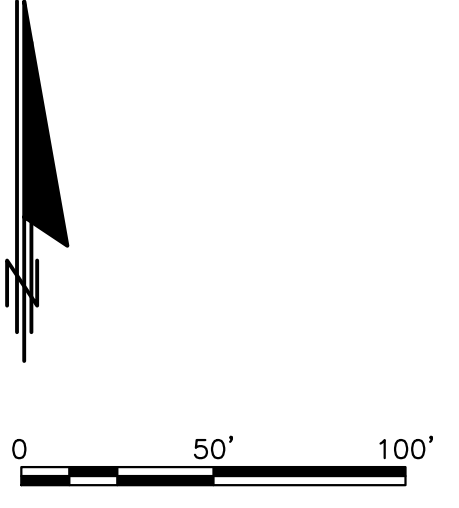
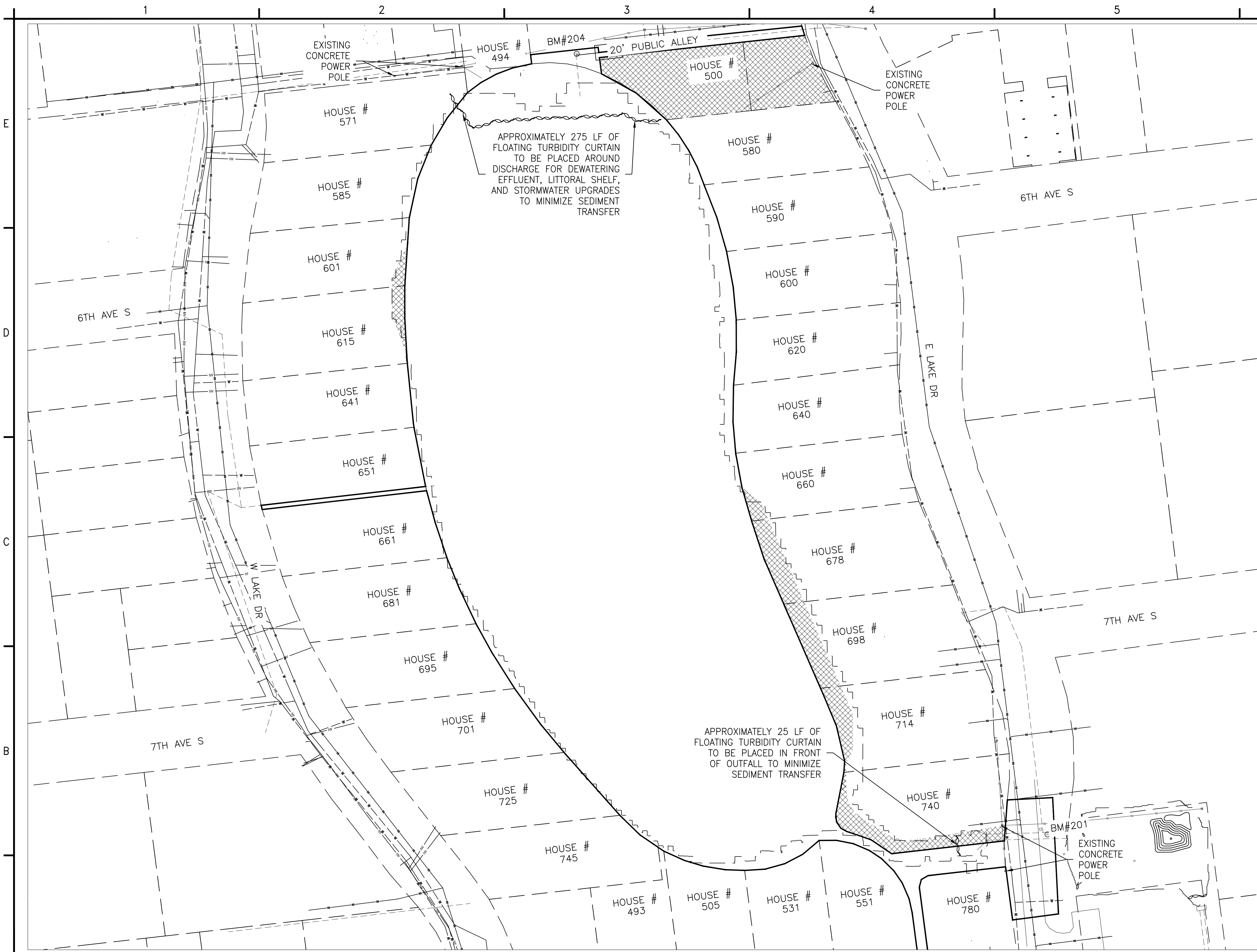
SHEET NUMBER:	REV. #
C230	
SHEET 10 OF 42 SHEETS	



- LEGEND**
- LAKE AND ROAD PLATTED PROJECT BOUNDARY (4.76 ACRES)
 - ⊙ BENCHMARK
 - - - SURVEYED WATER LINE (4.5 FEET NAVD88; 3.00 ACRES)
 - - - CITY OF NAPLES PARCEL BOUNDARIES
 - ▨ CITY OF NAPLES EASEMENTS
 - ▩ PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.002 ACRES)
 - ⊞ FLOATING TURBIDITY CURTAIN
 - SILT FENCE
 - SEWER GRAVITY LINE
 - - - POTABLE WATER LINE
 - REUSE WATER LINE
 - - - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

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.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#192	SET 5/8" IRON ROD & CAP	662624.93'	396219.28'	6.0'
BM#191	SET 5/8" IRON ROD & CAP	662592.66'	395943.02'	6.2'



LEGEND

- LAKE AND ROAD PLATTED PROJECT BOUNDARY (5.30 ACRES)
- BENCHMARK
- SURVEYED WATER LINE (2.0 FEET NAVD88; 4.99 ACRES)
- CITY OF NAPLES PARCEL BOUNDARIES
- PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.48 ACRES)
- FLOATING TURBIDITY CURTAIN
- SILT FENCE
- SEWER GRAVITY LINE
- POTABLE WATER LINE
- REUSE WATER LINE
- STORMWATER PIPE
- OVERHEAD ELECTRIC LINE

wood.
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
 APPLICANT:



WOOD PROJECT No:
 6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

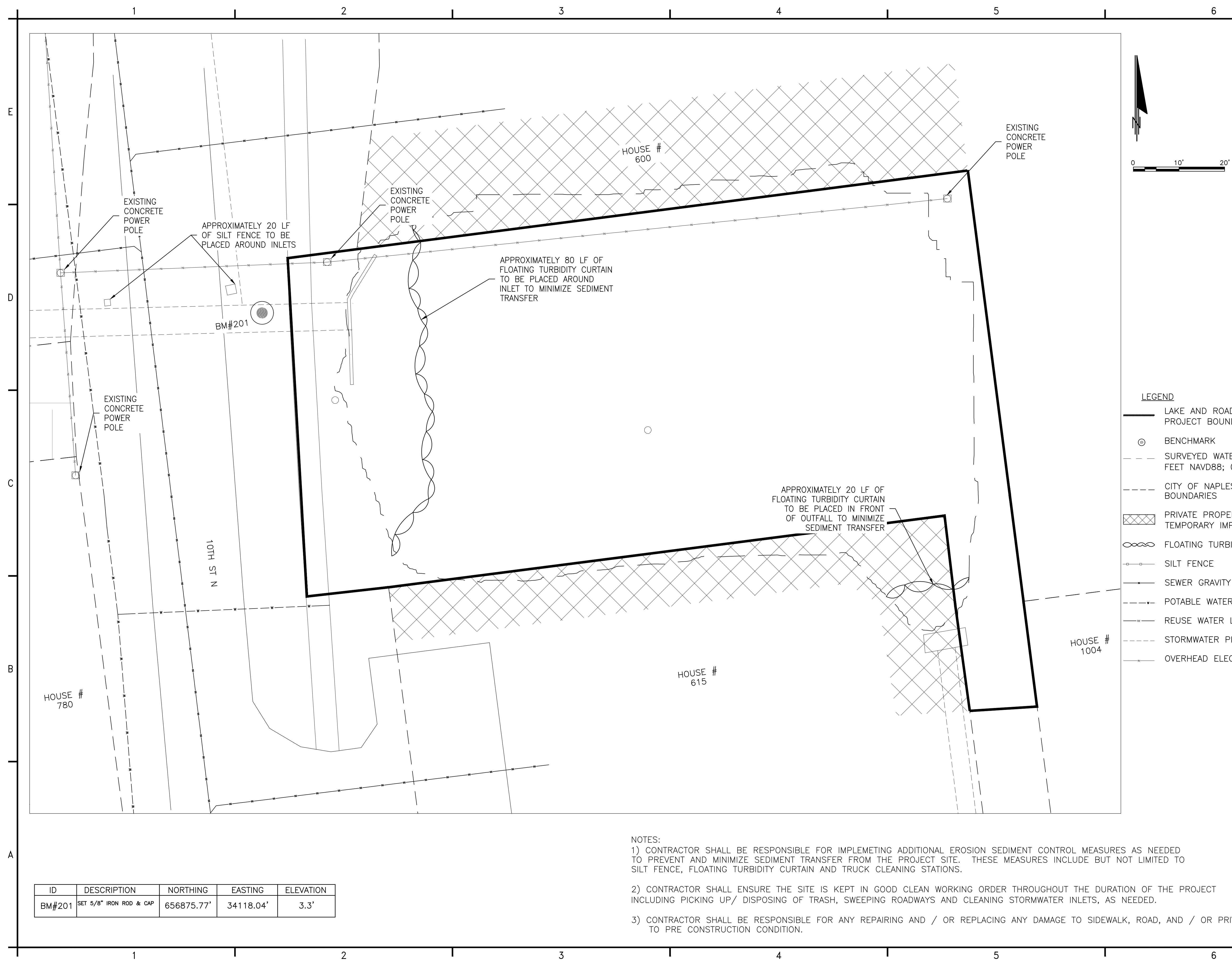
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
EROSION AND SEDIMENT CONTROL PLAN - LAKE 11

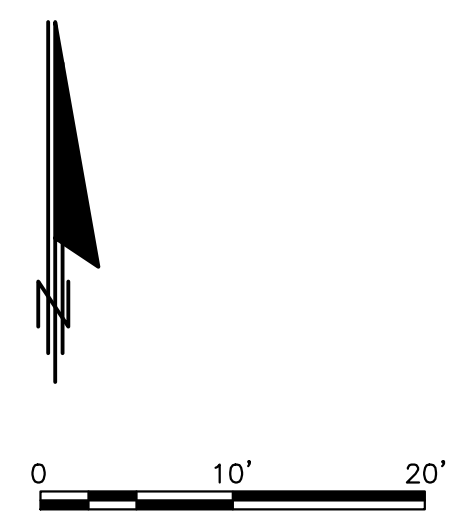
SHEET NUMBER:	REV. #
C231	
SHEET 11 OF 42 SHEETS	

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'
BM#204	SET 5/8" IRON ROD & CAP	657635.89'	393659.64'	4.7'

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.



wood.
 ENVIRONMENT &
 INFRASTRUCTURE
 SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588



GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
 LAKES 11,19 & 31
 RESTORATION**
 APPLICANT:



WOOD PROJECT No:
 6788-20-3223

- LEGEND**
- LAKE AND ROAD PLATTED PROJECT BOUNDARY (0.28 ACRES)
 - ⊙ BENCHMARK
 - - - SURVEYED WATER LINE (2.0 FEET NAVD88; 0.25 ACRES)
 - - - CITY OF NAPLES PARCEL BOUNDARIES
 - ▨ PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.12 ACRES)
 - ∞ FLOATING TURBIDITY CURTAIN
 - SILT FENCE
 - SEWER GRAVITY LINE
 - - - POTABLE WATER LINE
 - - - REUSE WATER LINE
 - - - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EROSION AND SEDIMENT
 CONTROL PLAN
 - LAKE 31**

SHEET NUMBER:	REV. #
C232	
SHEET 12 OF 42 SHEETS	

- 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.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRING AND / OR REPLACING ANY DAMAGE TO SIDEWALK, ROAD, AND / OR PRIVATE PROPERTY TO PRE CONSTRUCTION CONDITION.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'

wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:

City of
Naples Florida

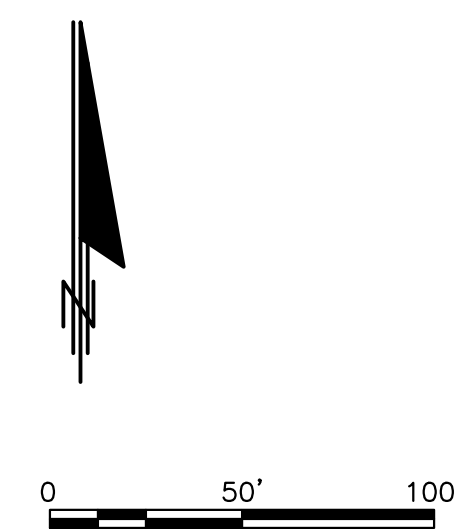
WOOD PROJECT No:
6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
CROSS-SECTION
LOCATIONS - LAKE 19**

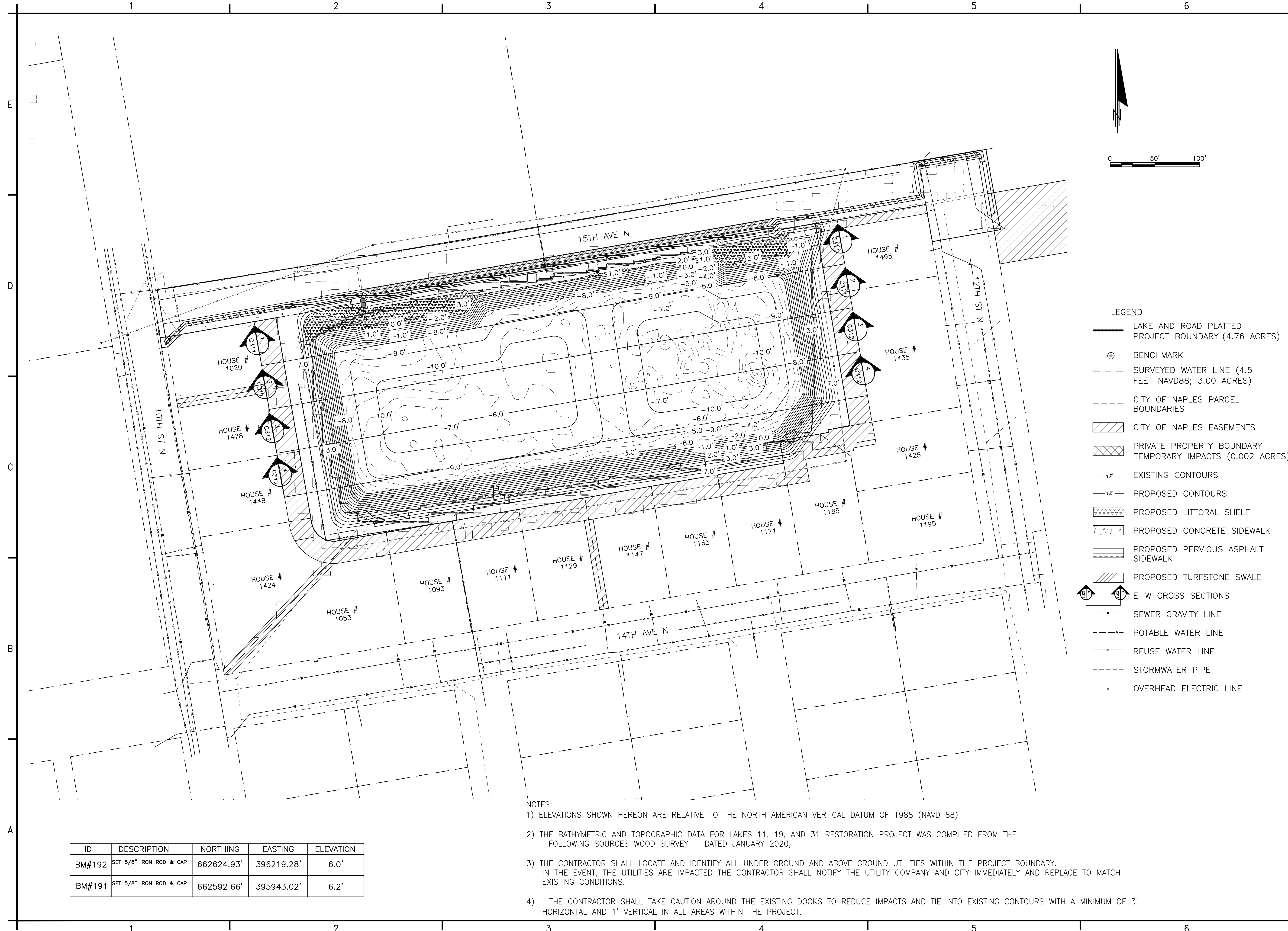
SHEET NUMBER:	REV. #
C310	
SHEET 13 OF 42 SHEETS	



- LEGEND**
- LAKE AND ROAD PLATTED PROJECT BOUNDARY (4.76 ACRES)
 - BENCHMARK
 - SURVEYED WATER LINE (4.5 FEET NAVD88; 3.00 ACRES)
 - CITY OF NAPLES PARCEL BOUNDARIES
 - CITY OF NAPLES EASEMENTS
 - PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.002 ACRES)
 - 1.0' EXISTING CONTOURS
 - 1.0' PROPOSED CONTOURS
 - PROPOSED LITTORAL SHELF
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED PERVIOUS ASPHALT SIDEWALK
 - PROPOSED TURFSTONE SWALE
 - E-W CROSS SECTIONS
 - SEWER GRAVITY LINE
 - POTABLE WATER LINE
 - REUSE WATER LINE
 - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - 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 TAKE CAUTION AROUND THE EXISTING DOCKS TO REDUCE IMPACTS AND TIE INTO EXISTING CONTOURS WITH A MINIMUM OF 3' HORIZONTAL AND 1' VERTICAL IN ALL AREAS WITHIN THE PROJECT.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#192	SET 5/8" IRON ROD & CAP	662624.93'	396219.28'	6.0'
BM#191	SET 5/8" IRON ROD & CAP	662592.66'	395943.02'	6.2'



wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11,19 & 31
RESTORATION**
APPLICANT:



WOOD PROJECT No:
6788-20-3223

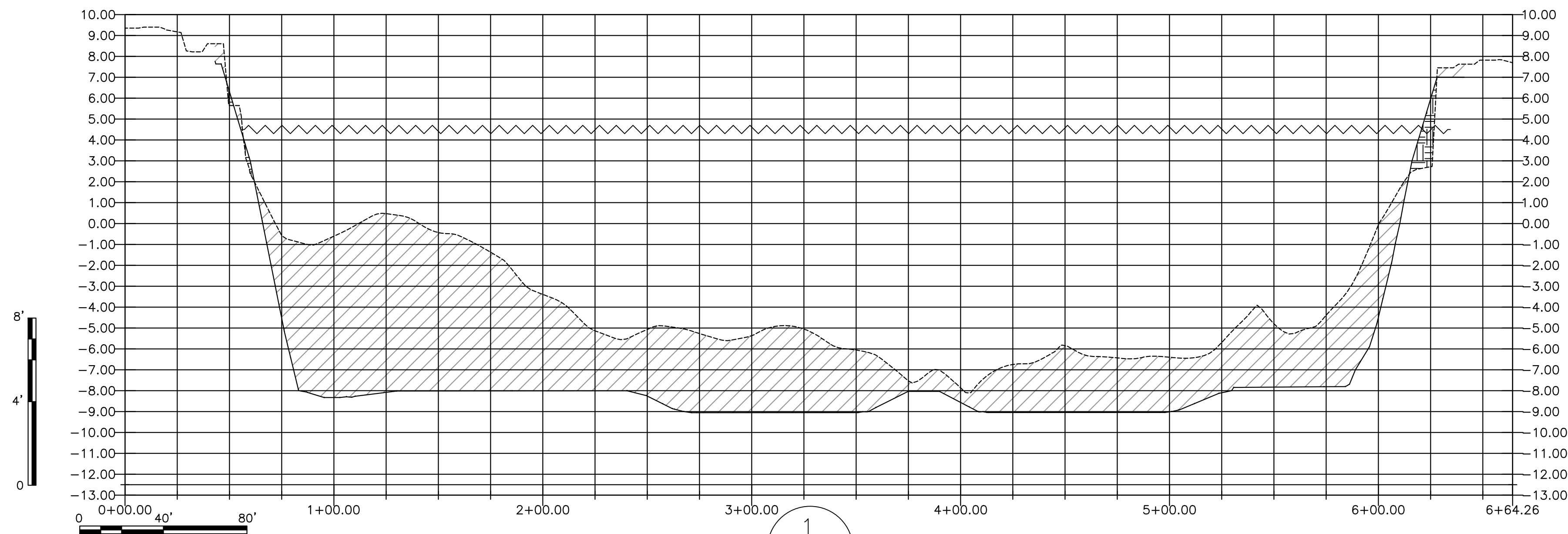
REVISIONS

NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

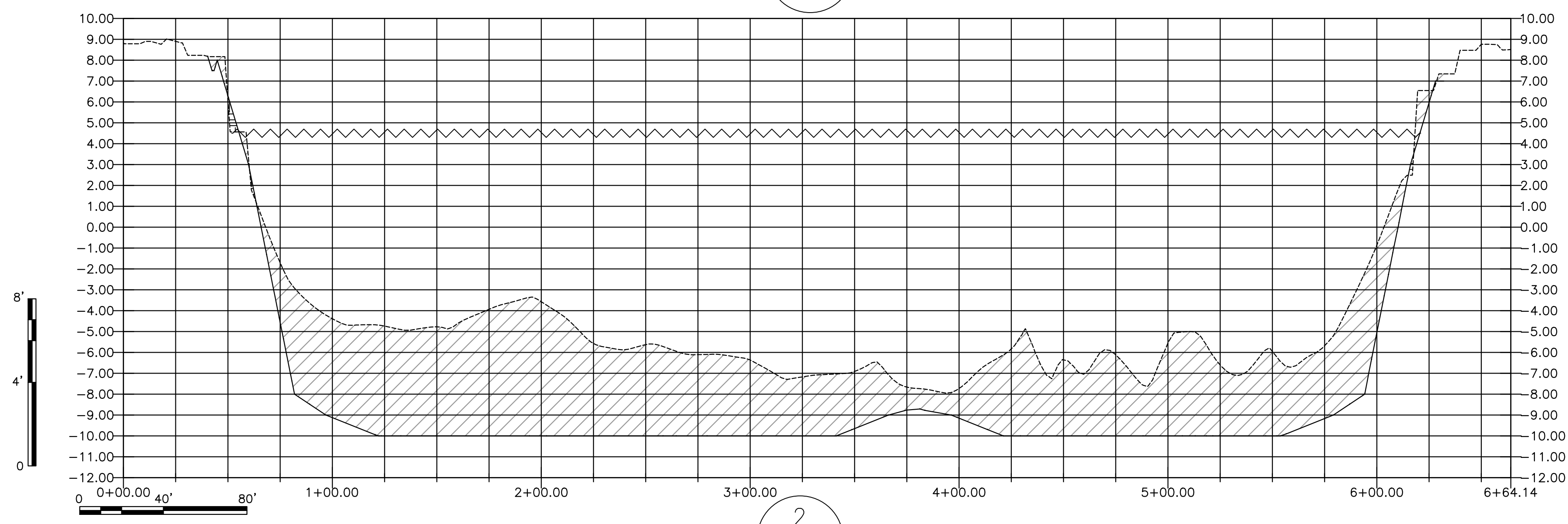
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
CROSS SECTION
DETAIL I - LAKE 19**

SHEET NUMBER:	REV. #
C311	
SHEET 14 OF 42 SHEETS	



1
C310



2
C310

NOTE:
1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.
3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:



WOOD PROJECT No:
6788-20-3223

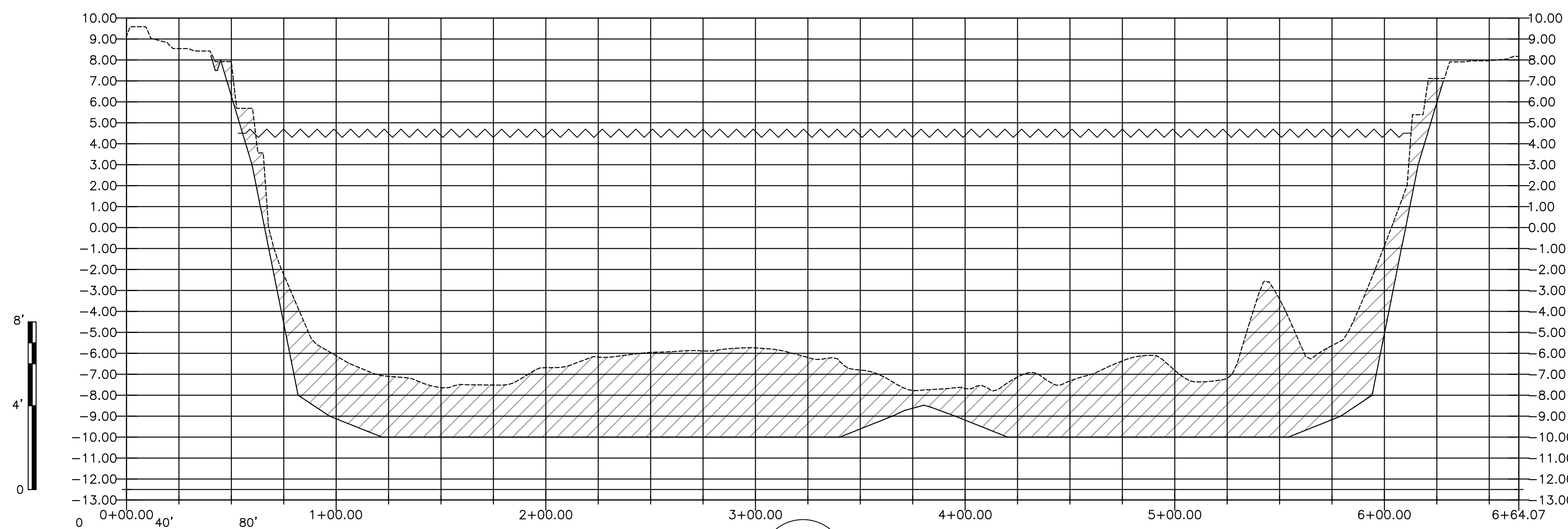
REVISIONS

NO.	DATE	BY	APPROVED
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2	11.23.20	GWC	CAS/TGD

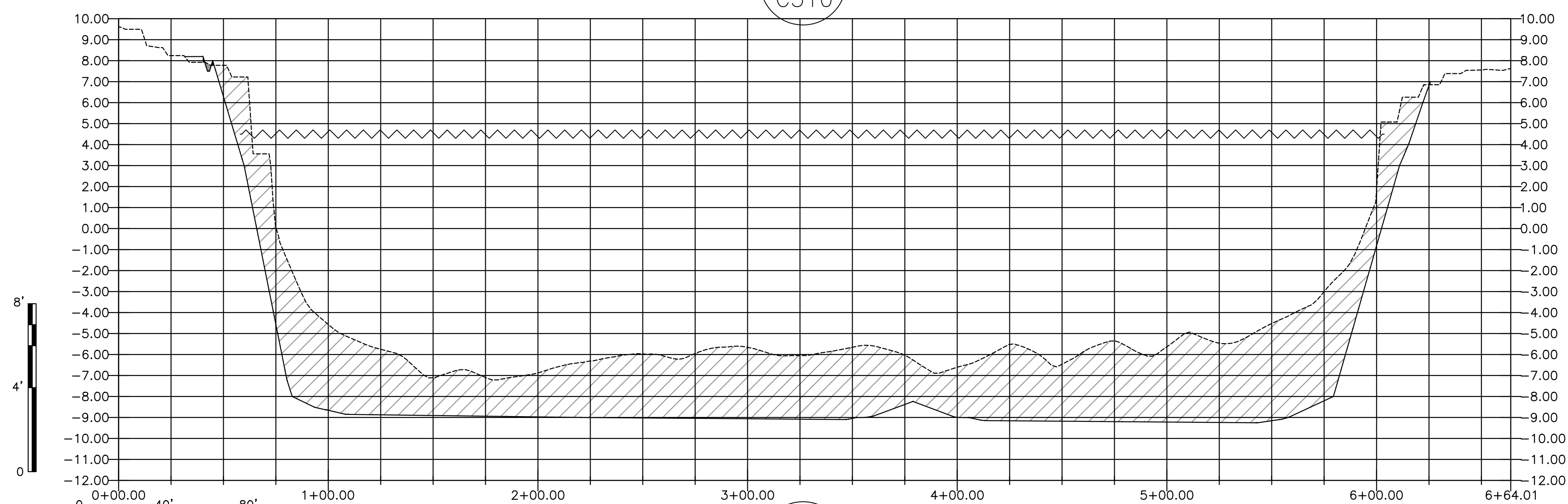
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
CROSS SECTION
DETAIL II - LAKE 19**

SHEET NUMBER:	REV. #
C312	
SHEET 15 OF 42 SHEETS	

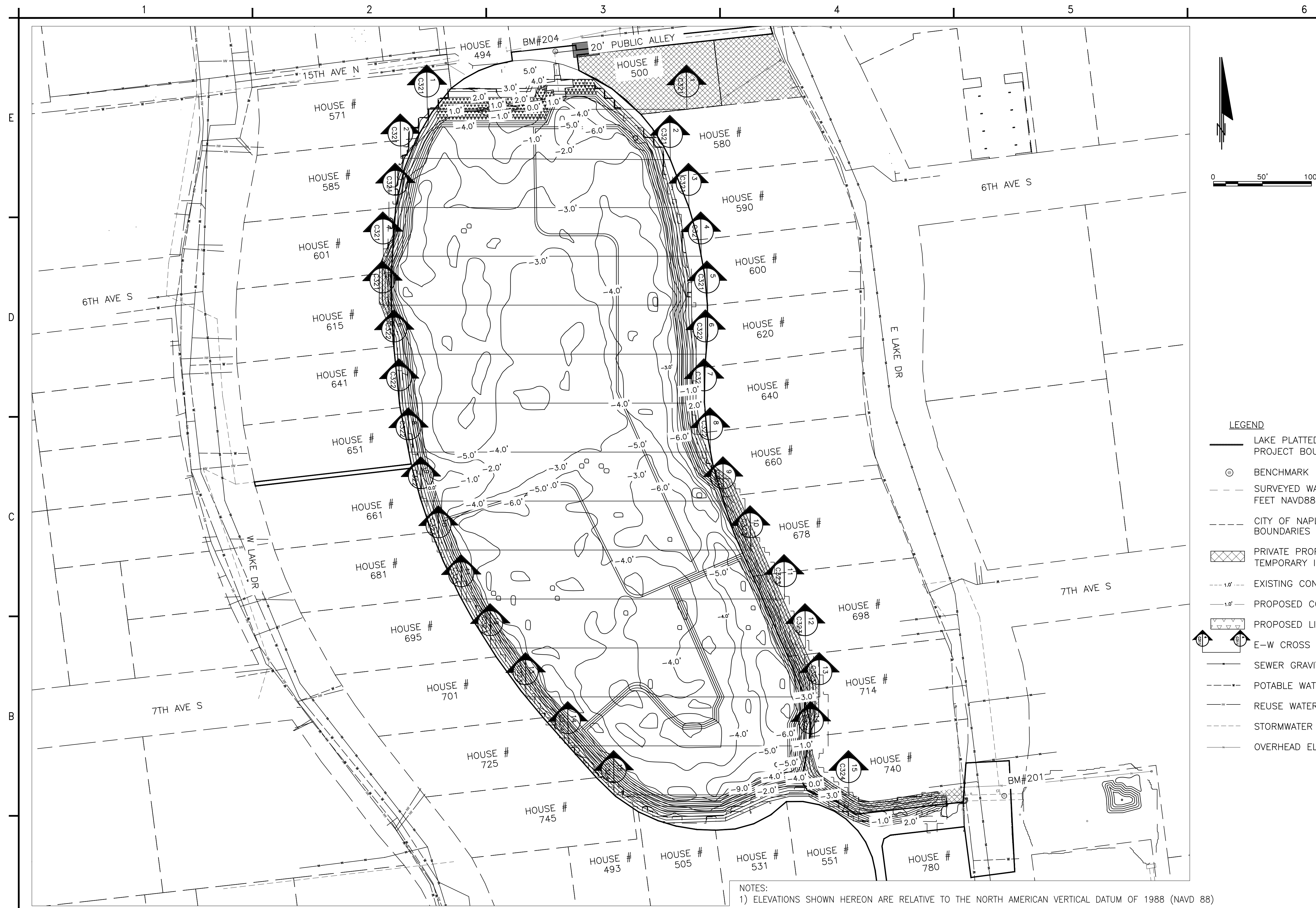


3
C310



4
C310

NOTE:
1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.
3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.



wood.
 ENVIRONMENT &
 INFRASTRUCTURE
 SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
 LAKES 11, 19 & 31
 RESTORATION**
 APPLICANT:



WOOD PROJECT No:
 6788-20-3223

- LEGEND**
- LAKE PLATTED AND ROAD PROJECT BOUNDARY (5.30 ACRES)
 - BENCHMARK
 - SURVEYED WATER LINE (2.0 FEET NAVD88; 4.99 ACRES)
 - CITY OF NAPLES PARCEL BOUNDARIES
 - PRIVATE PROPERTY BOUNDARY
 - TEMPORARY IMPACTS (0.48 ACRES)
 - EXISTING CONTOURS
 - PROPOSED CONTOURS
 - PROPOSED LITTORAL SHELF
 - E-W CROSS SECTIONS
 - SEWER GRAVITY LINE
 - POTABLE WATER LINE
 - REUSE WATER LINE
 - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

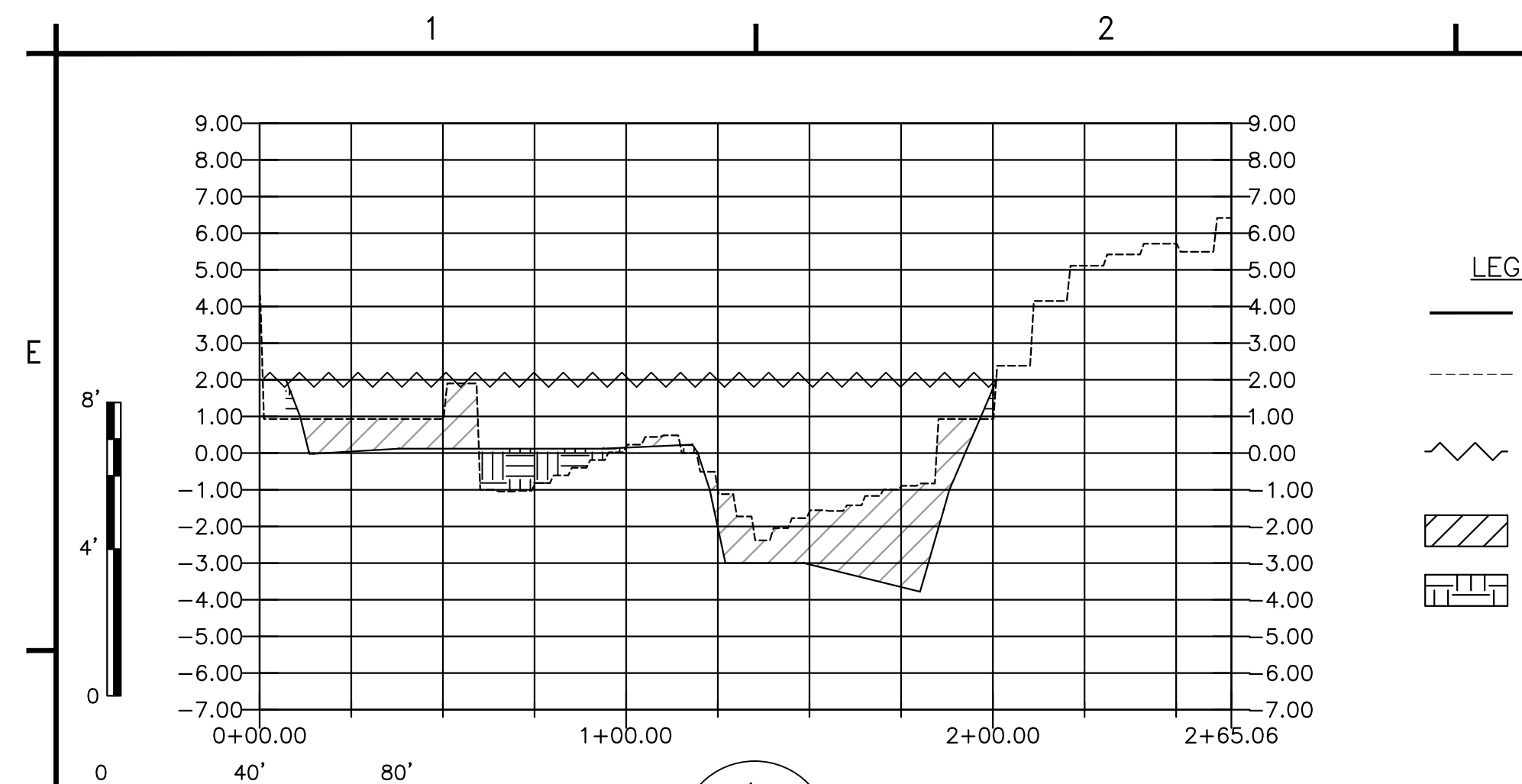
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
 CROSS-SECTION
 LOCATIONS - LAKE 11**

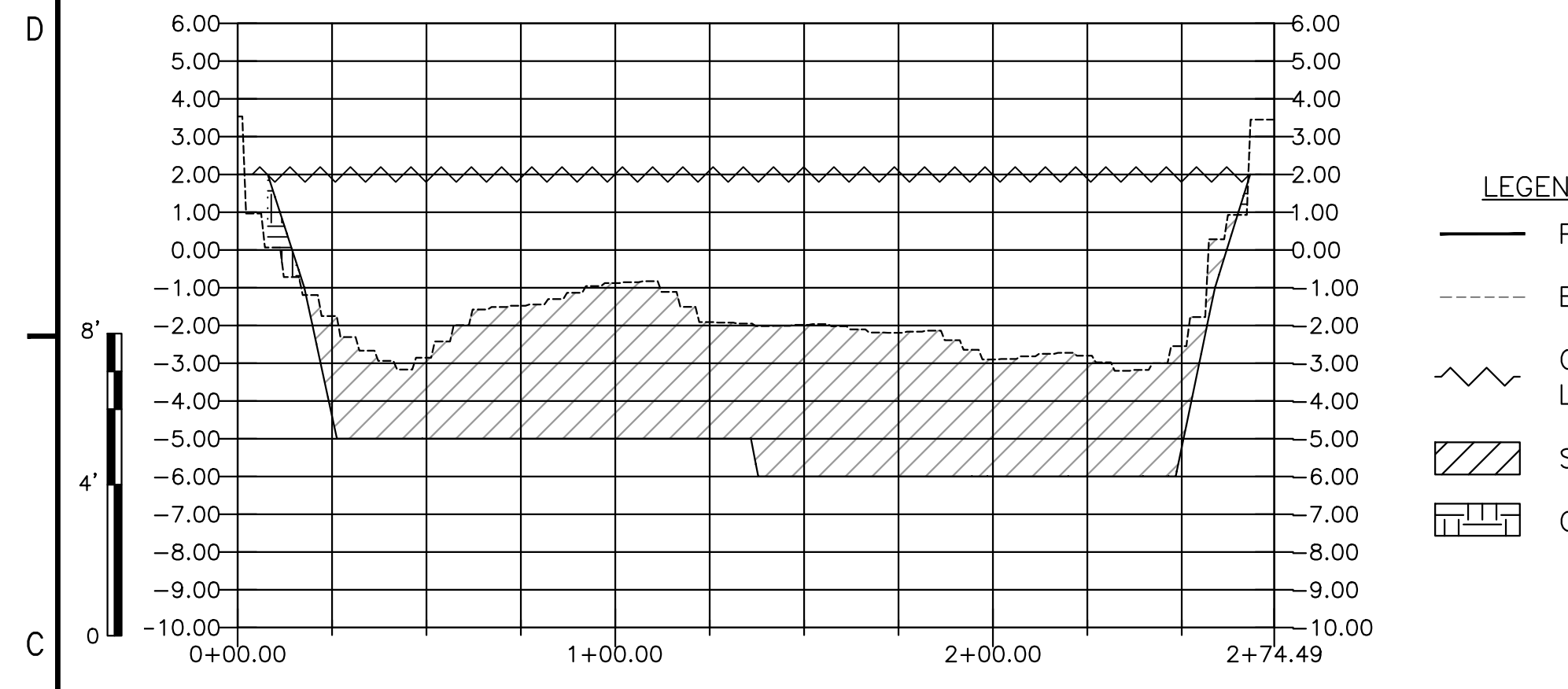
SHEET NUMBER:	REV. #
C320	
SHEET 16 OF 42 SHEETS	

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'
BM#204	SET 5/8" IRON ROD & CAP	657635.89'	393659.64'	4.7'

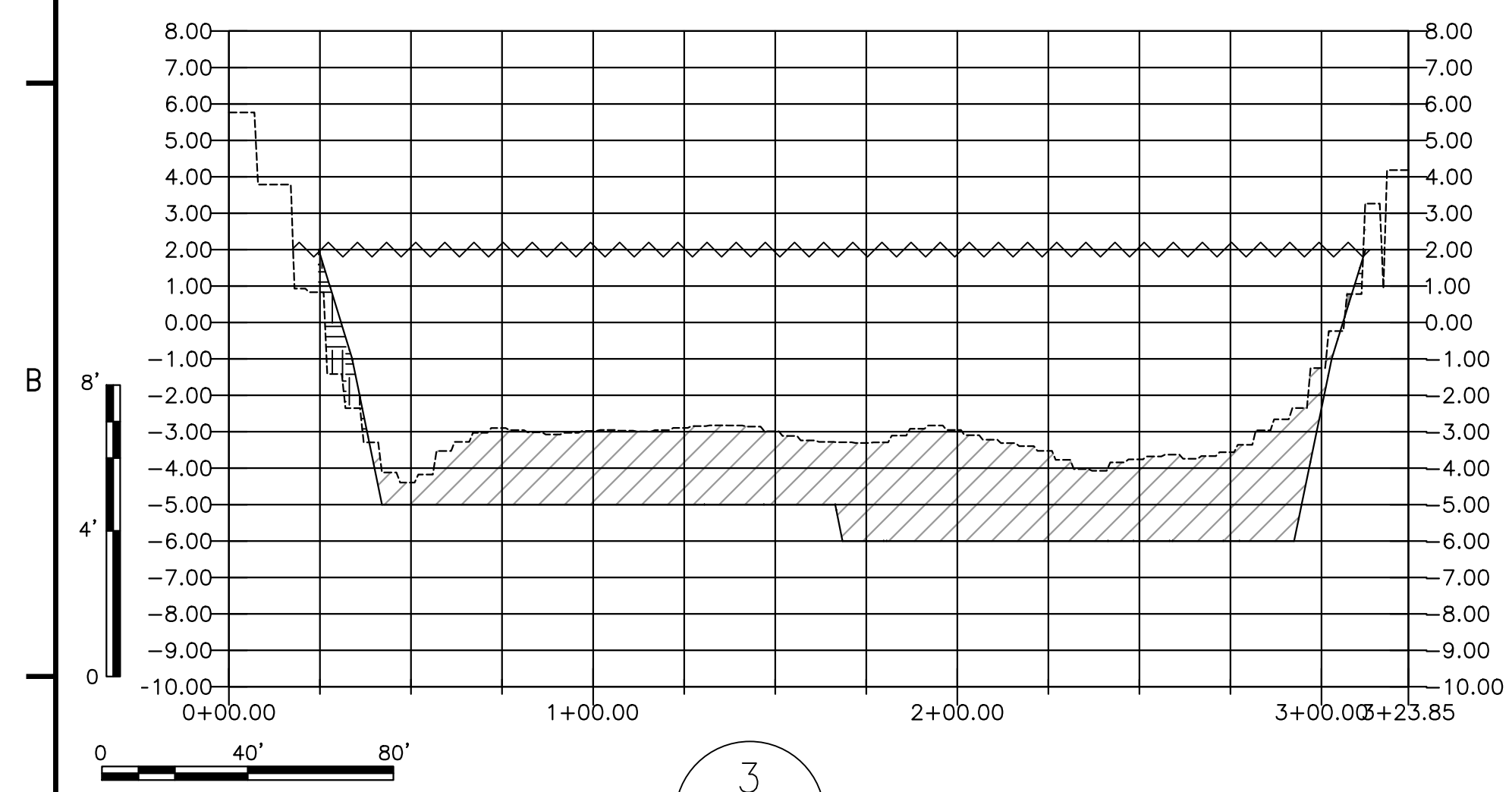
- NOTES:**
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - THE CONTRACTOR SHALL LOCATE AND IDENTIFY 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 TAKE CAUTION AROUND THE EXISTING DOCKS TO REDUCE IMPACTS AND TIE INTO EXISTING CONTOURS WITH A MINIMUM OF 3' HORIZONTAL AND 1' VERTICAL IN ALL AREAS WITHIN THE PROJECT.



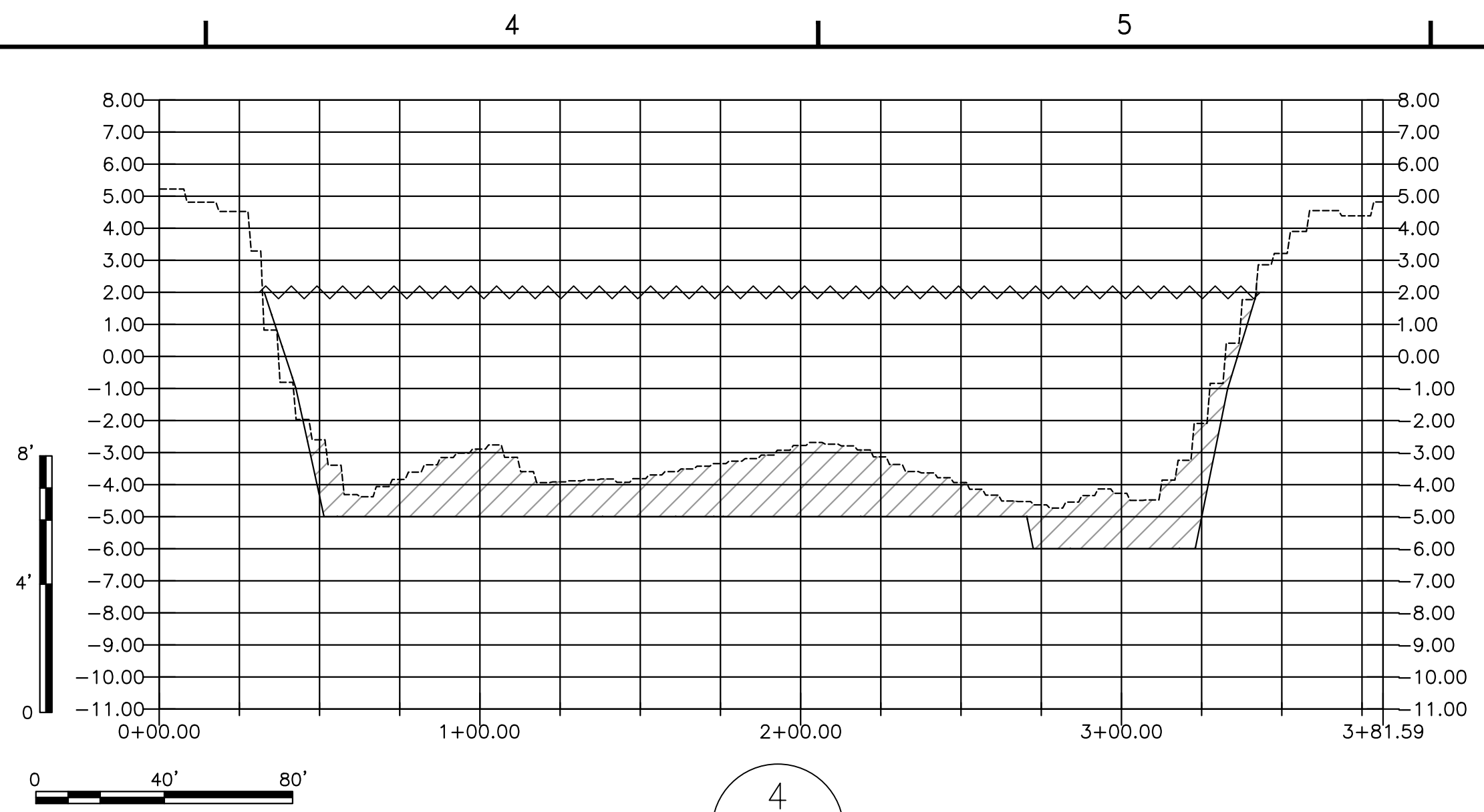
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C320



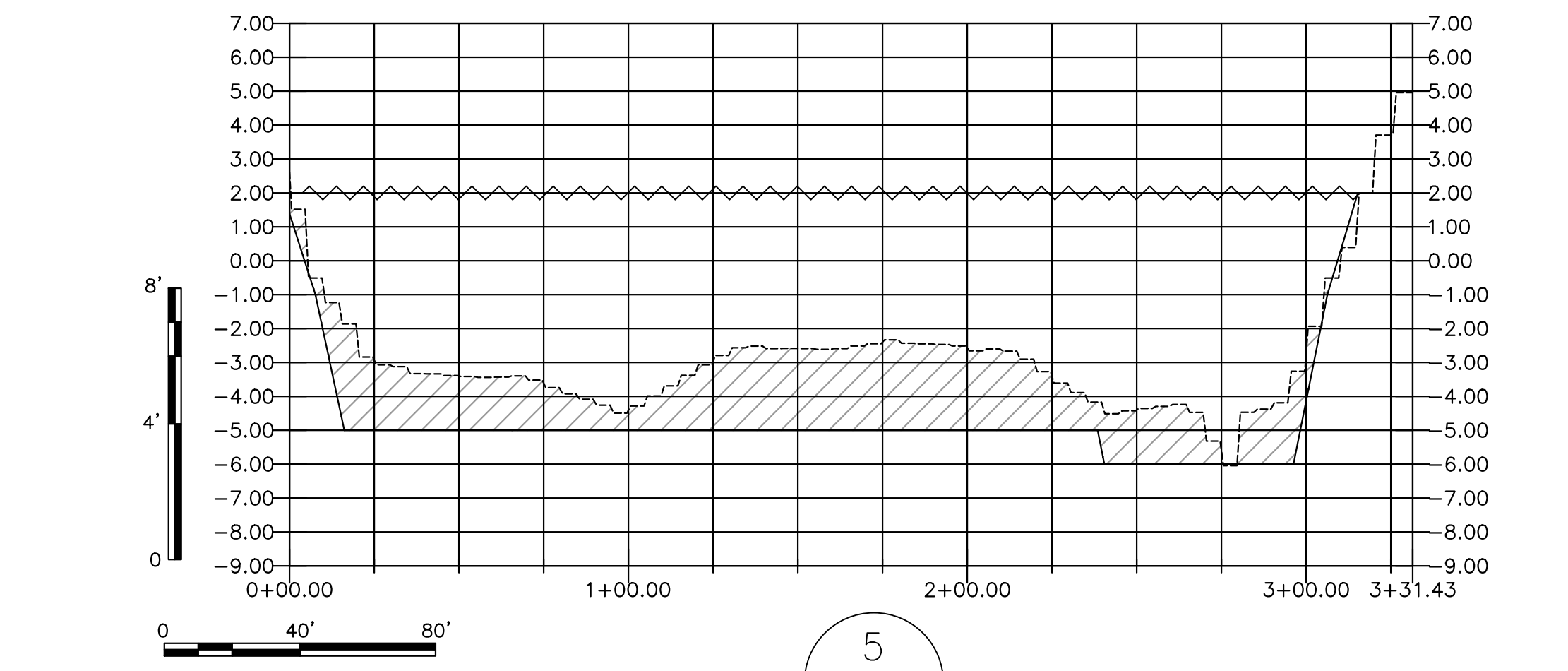
2
C320



3
C320



4
C320



5
C320

NOTE:
 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
 2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLOUDS LARGER THAN 6 INCHES IN SIZE.
 3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

wood.
 ENVIRONMENT &
 INFRASTRUCTURE
 SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
 LAKES 11, 19 & 31
 RESTORATION**
 APPLICANT:



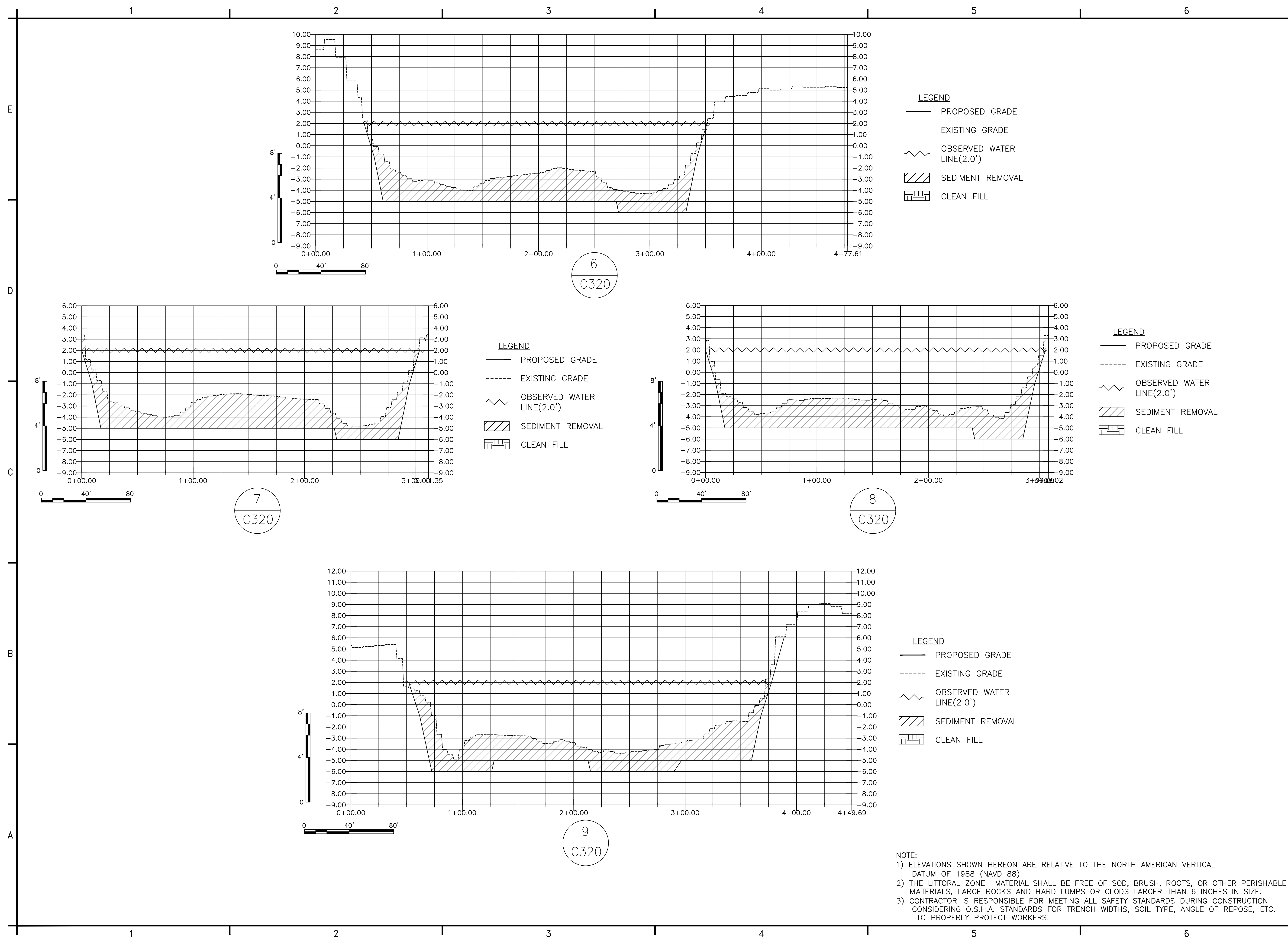
WOOD PROJECT No:
 6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
 CROSS SECTION
 DETAIL I - LAKE 11**

SHEET NUMBER:	REV. #
C321	
SHEET 17 OF 42 SHEETS	



wood.

ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
APPLICANT:

City of *Naples* Florida

WOOD PROJECT No:
6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST CROSS SECTION
DETAIL II - LAKE 11**

SHEET NUMBER:	REV. #
C322	
SHEET 18 OF 42 SHEETS	

NOTE:
1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.
3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

wood.

ENVIRONMENT &
INFRASTRUCTURE
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GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:



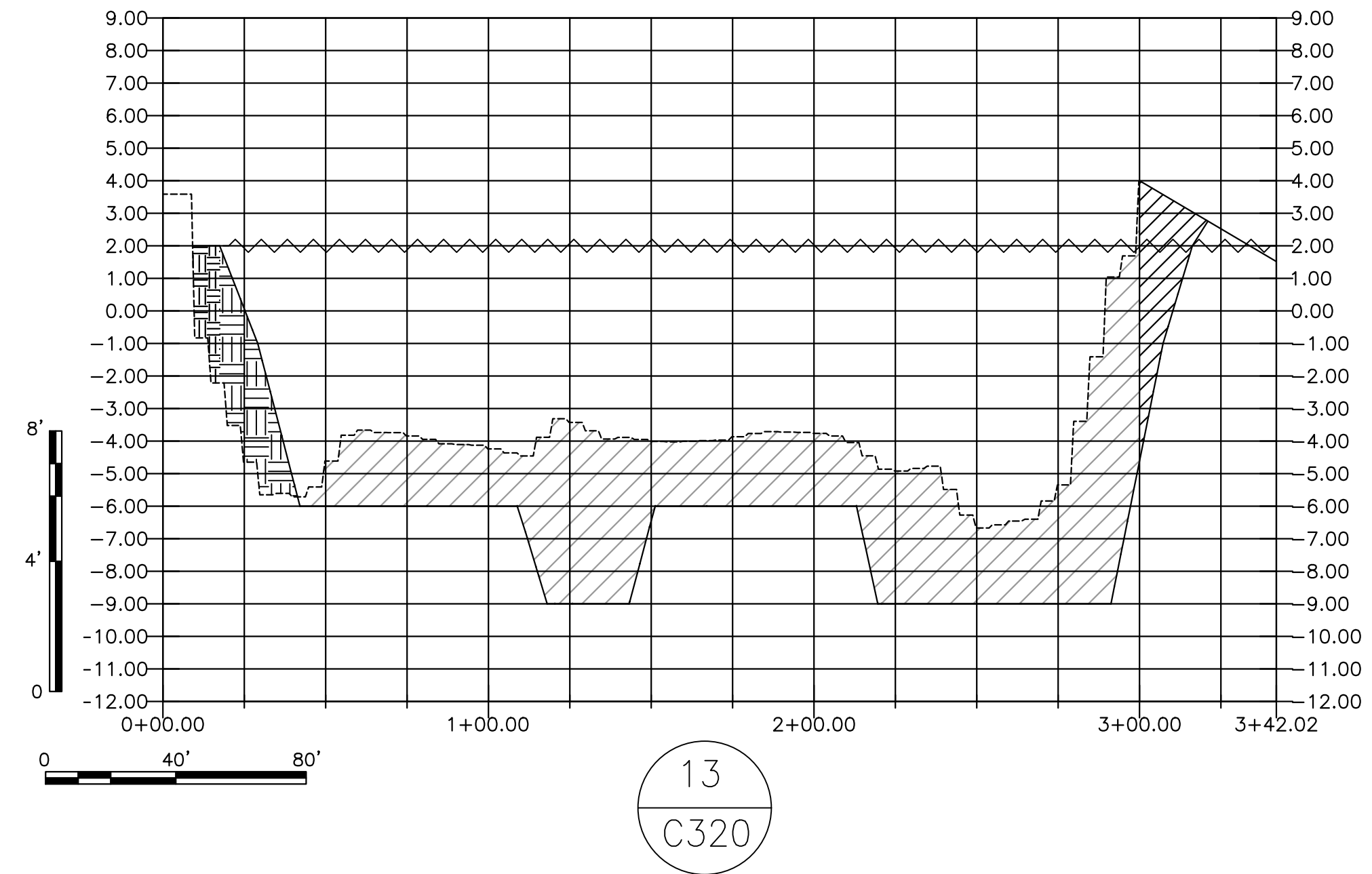
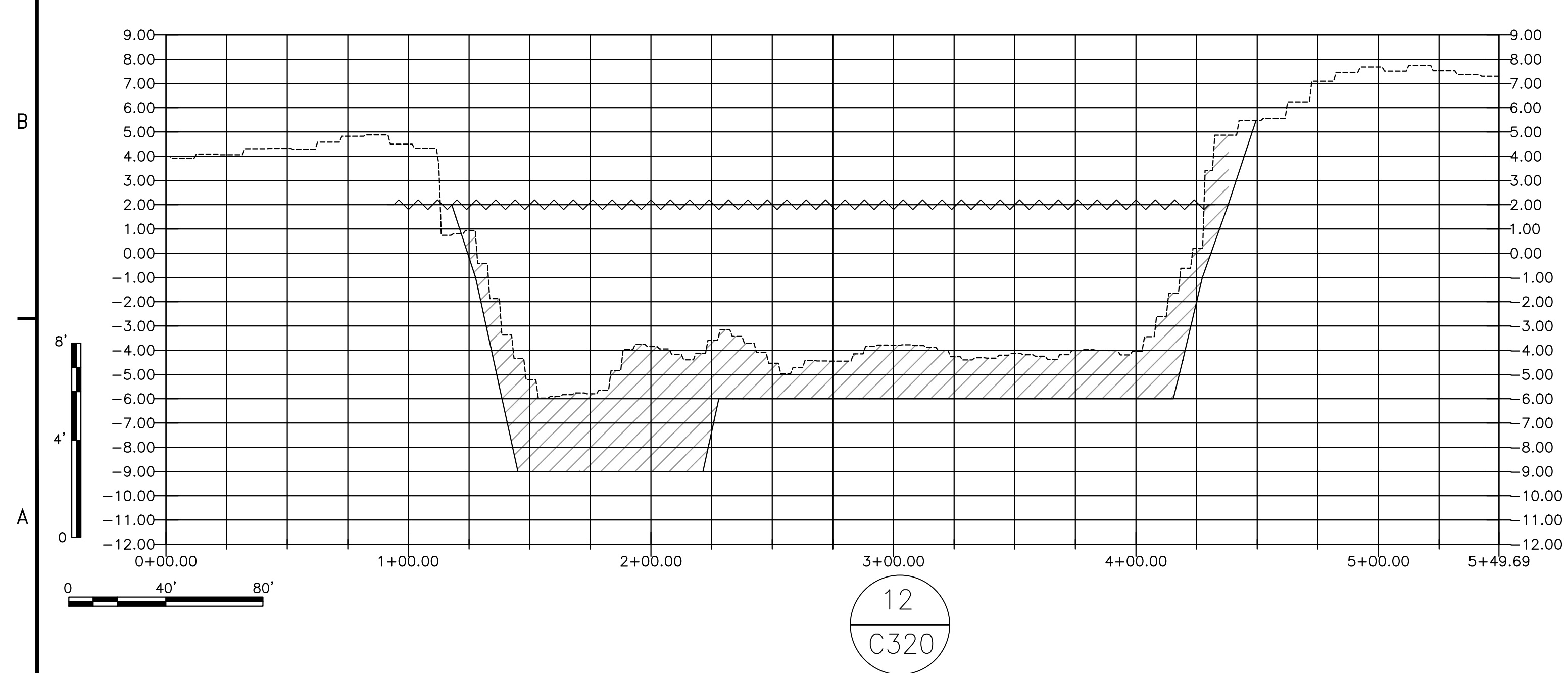
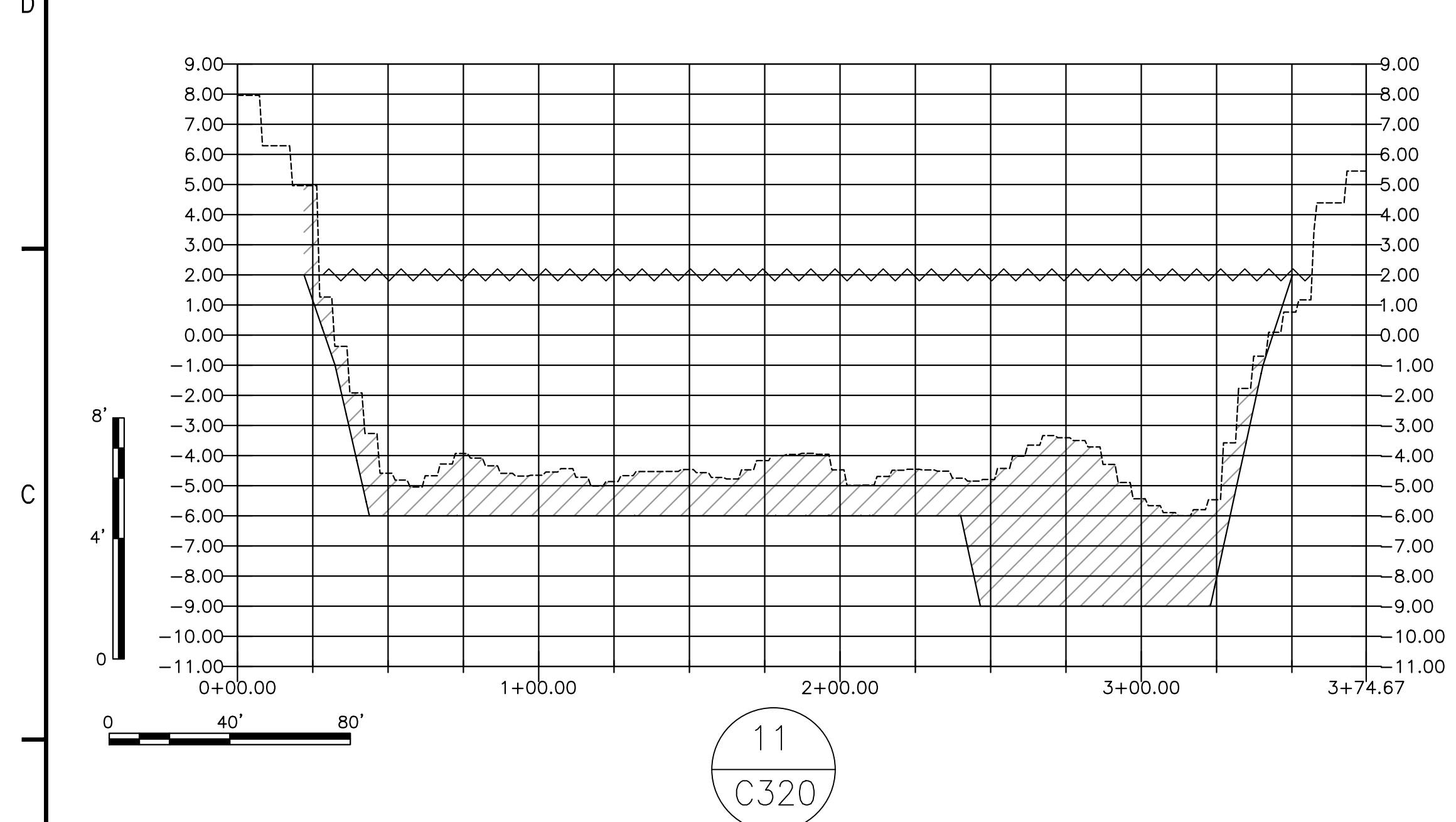
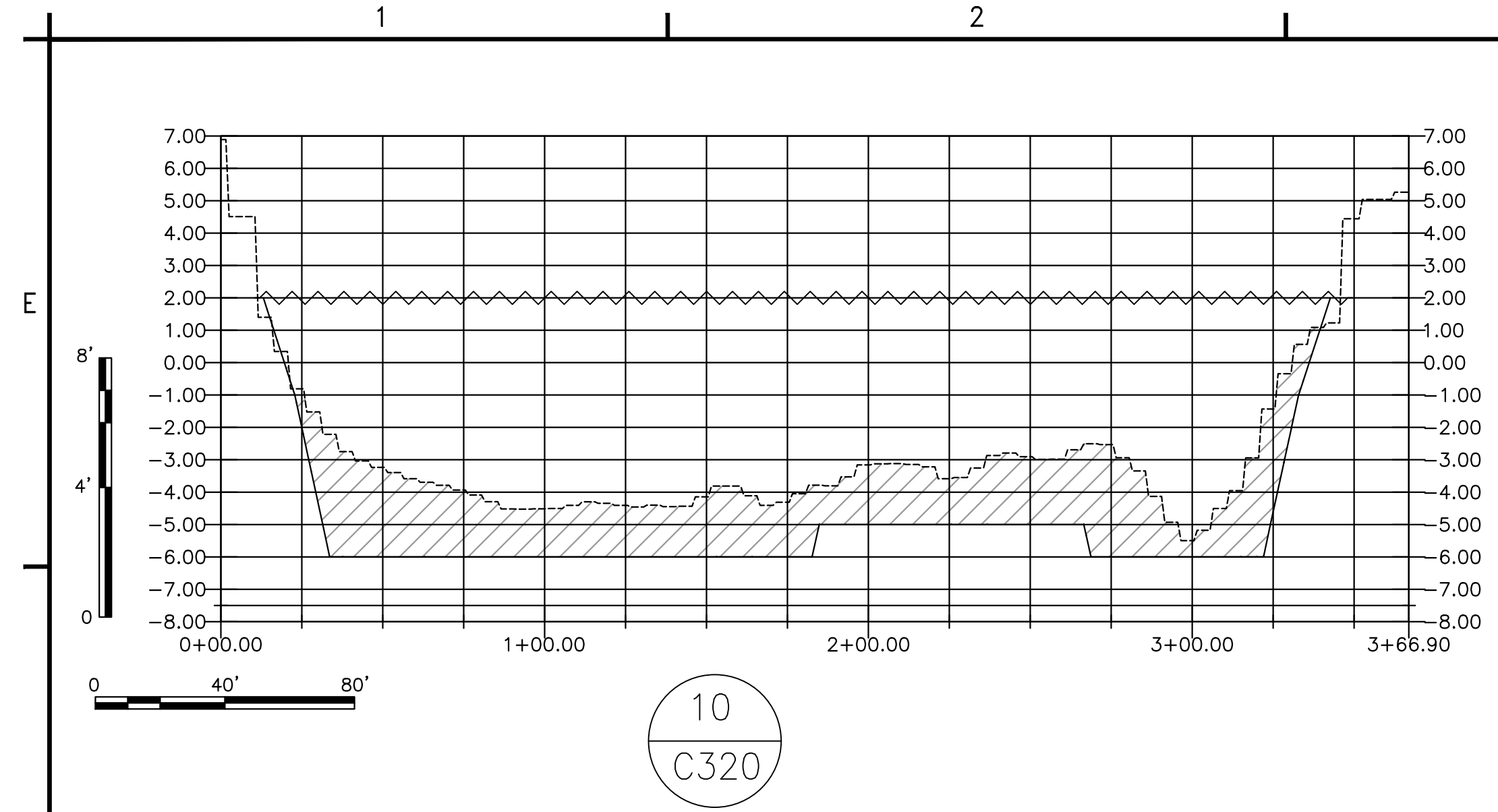
WOOD PROJECT No:
6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
CROSS SECTION
DETAIL III - LAKE 11**

SHEET NUMBER:	REV. #
C323	
SHEET 19 OF 42 SHEETS	



NOTE:
1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.
3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

wood.

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INFRASTRUCTURE
SOLUTIONS, INC.
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MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:

City of
Naples Florida

WOOD PROJECT No:
6788-20-3223

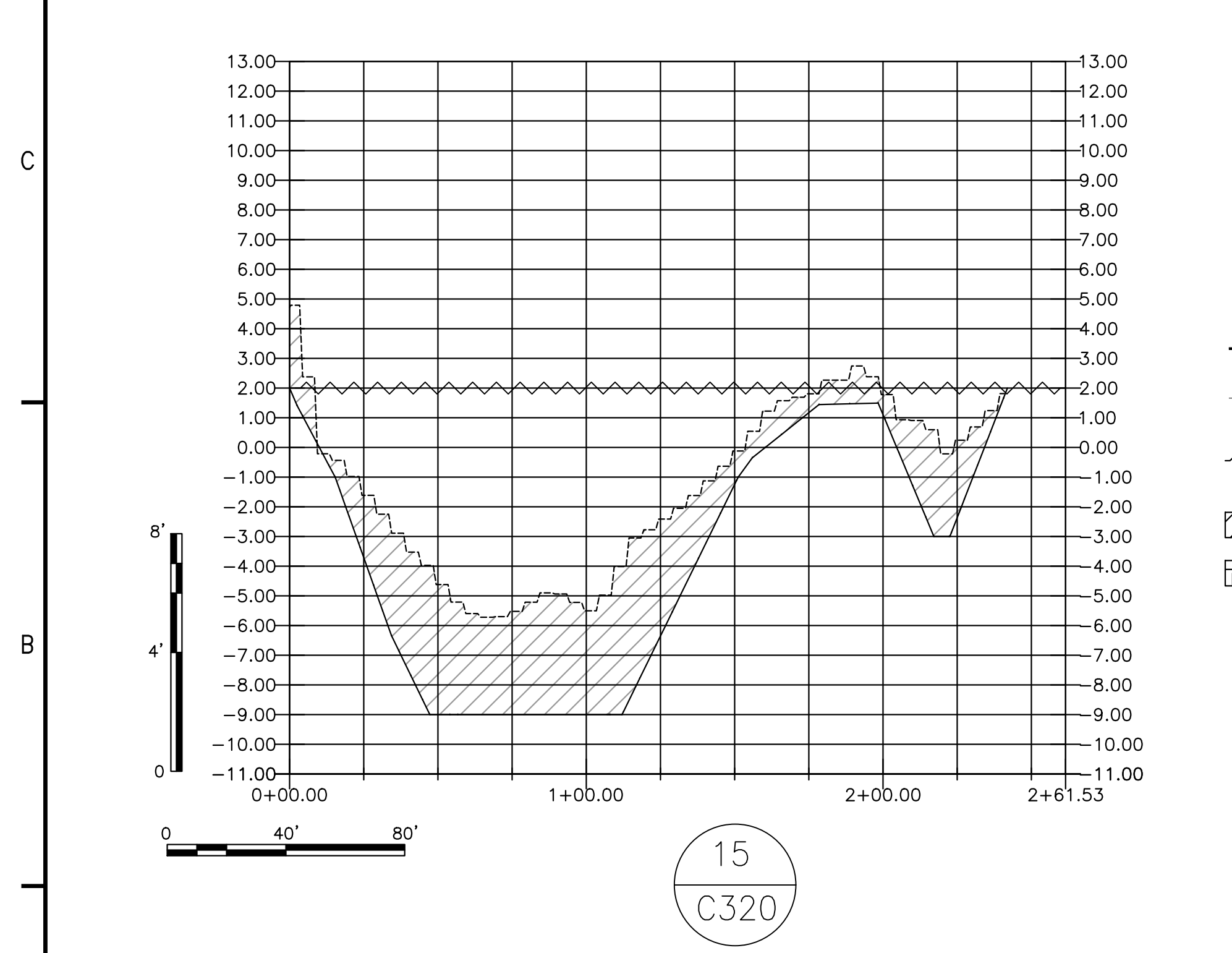
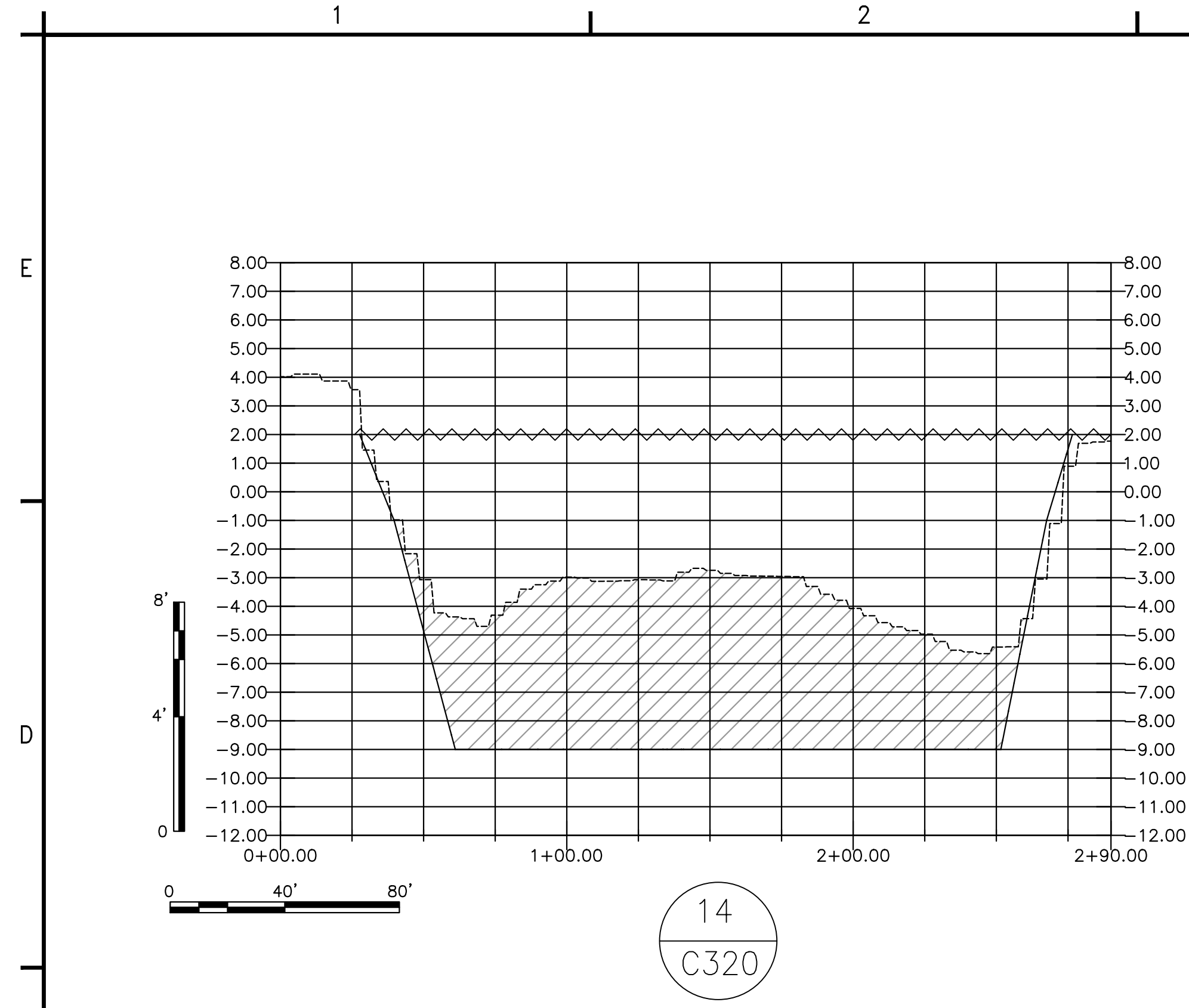
REVISIONS

NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

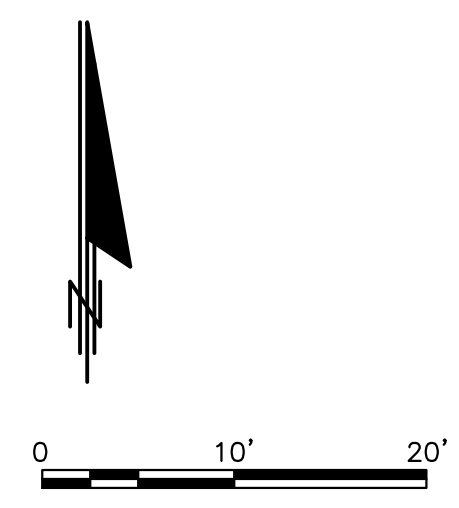
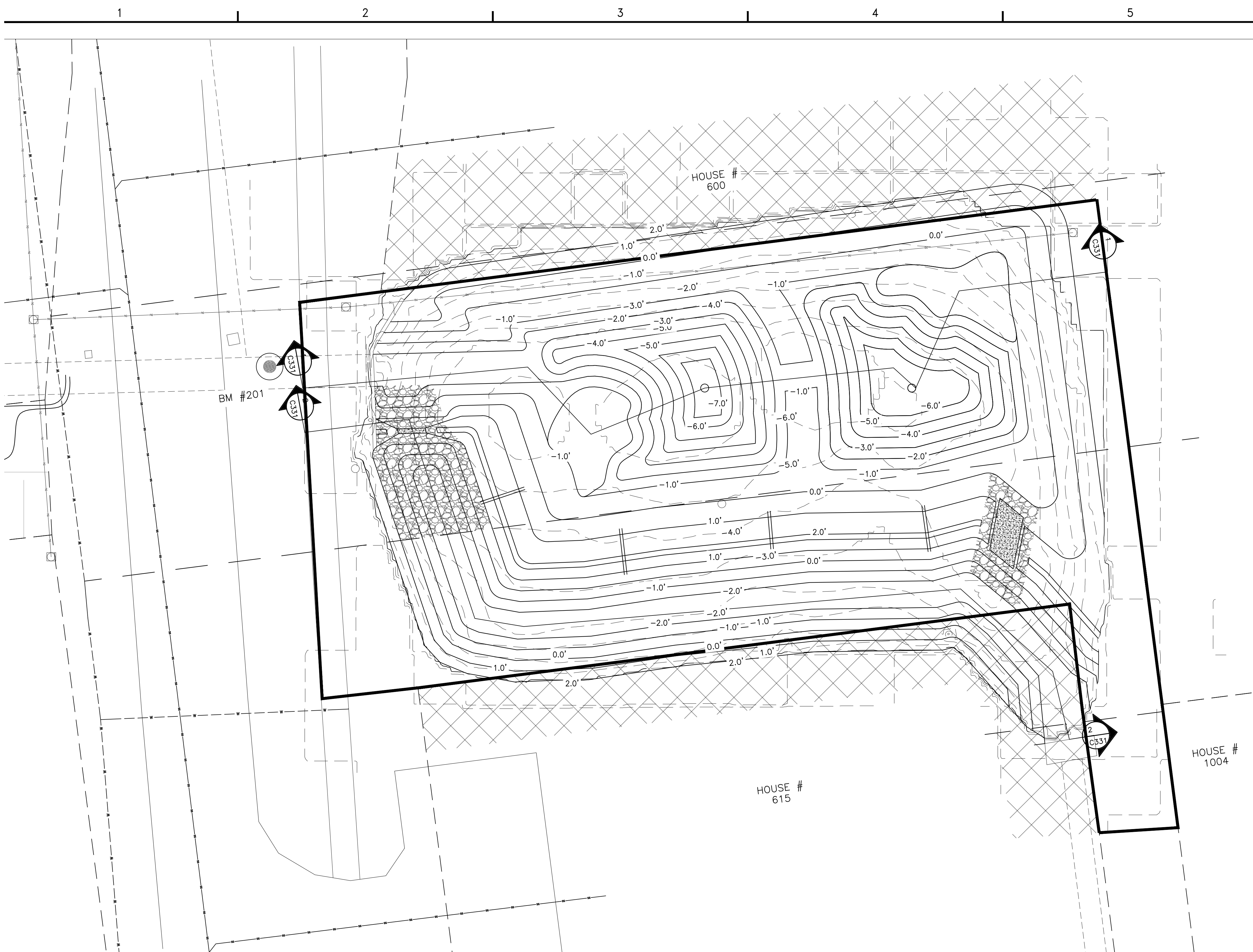
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
CROSS SECTION
DETAIL IV - LAKE 11**

SHEET NUMBER:	REV. #
C324	
SHEET 20 OF 42 SHEETS	



NOTE:
1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLOUDS LARGER THAN 6 INCHES IN SIZE.
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- LEGEND**
- LAKE AND ROAD PLATTED BOUNDARY (0.28 ACRES)
 - BENCHMARK
 - SURVEYED WATER LINE (2.0 FEET NAVD88; 0.25 ACRES)
 - CITY OF NAPLES PARCEL BOUNDARIES
 - PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.12 ACRES)
 - EXISTING CONTOURS
 - PROPOSED CONTOURS
 - E-W CROSS SECTIONS
 - SEWER GRAVITY LINE
 - POTABLE WATER LINE
 - REUSE WATER LINE
 - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

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 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
 APPLICANT:

 WOOD PROJECT No:
 6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

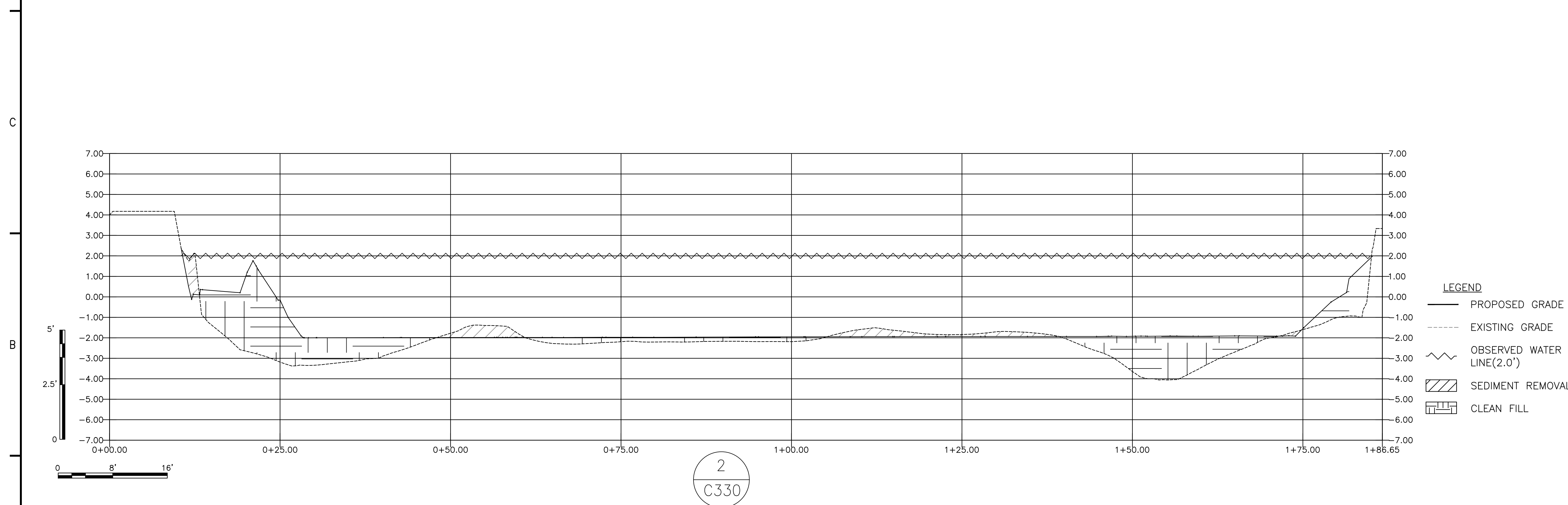
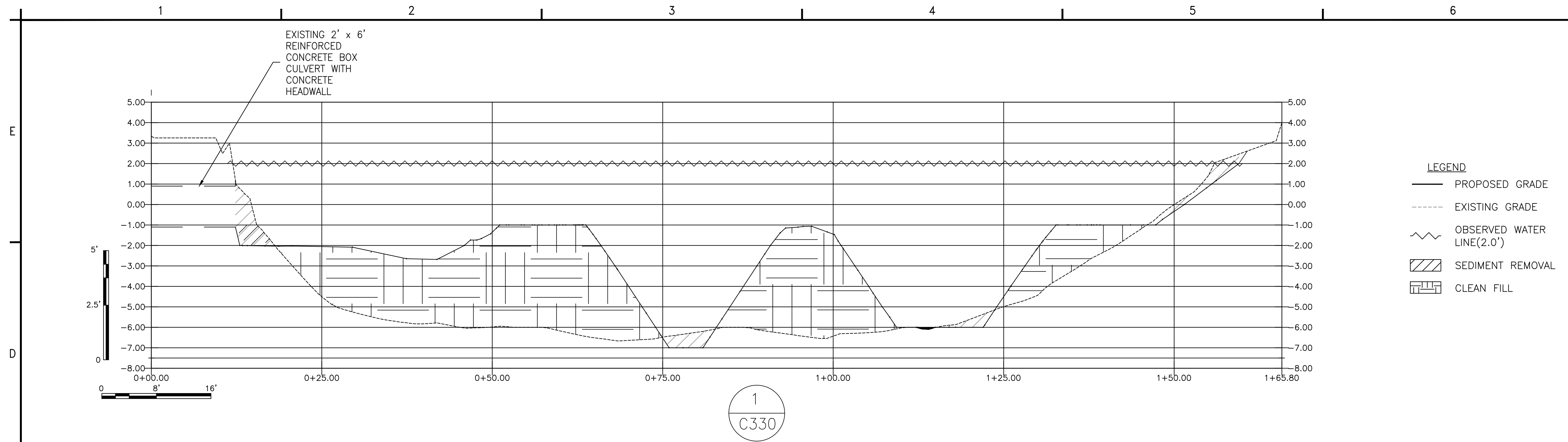
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
EAST-WEST CROSS-SECTION LOCATIONS - LAKE 31

SHEET NUMBER:	REV. #
C330	
SHEET 21 OF 42 SHEETS	

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - 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.

ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#201	SET 5/8" IRON ROD & CAP	656875.77'	34118.04'	3.3'



NOTE:

- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
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wood.

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MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11,19 & 31
RESTORATION**
APPLICANT:



WOOD PROJECT No:
6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

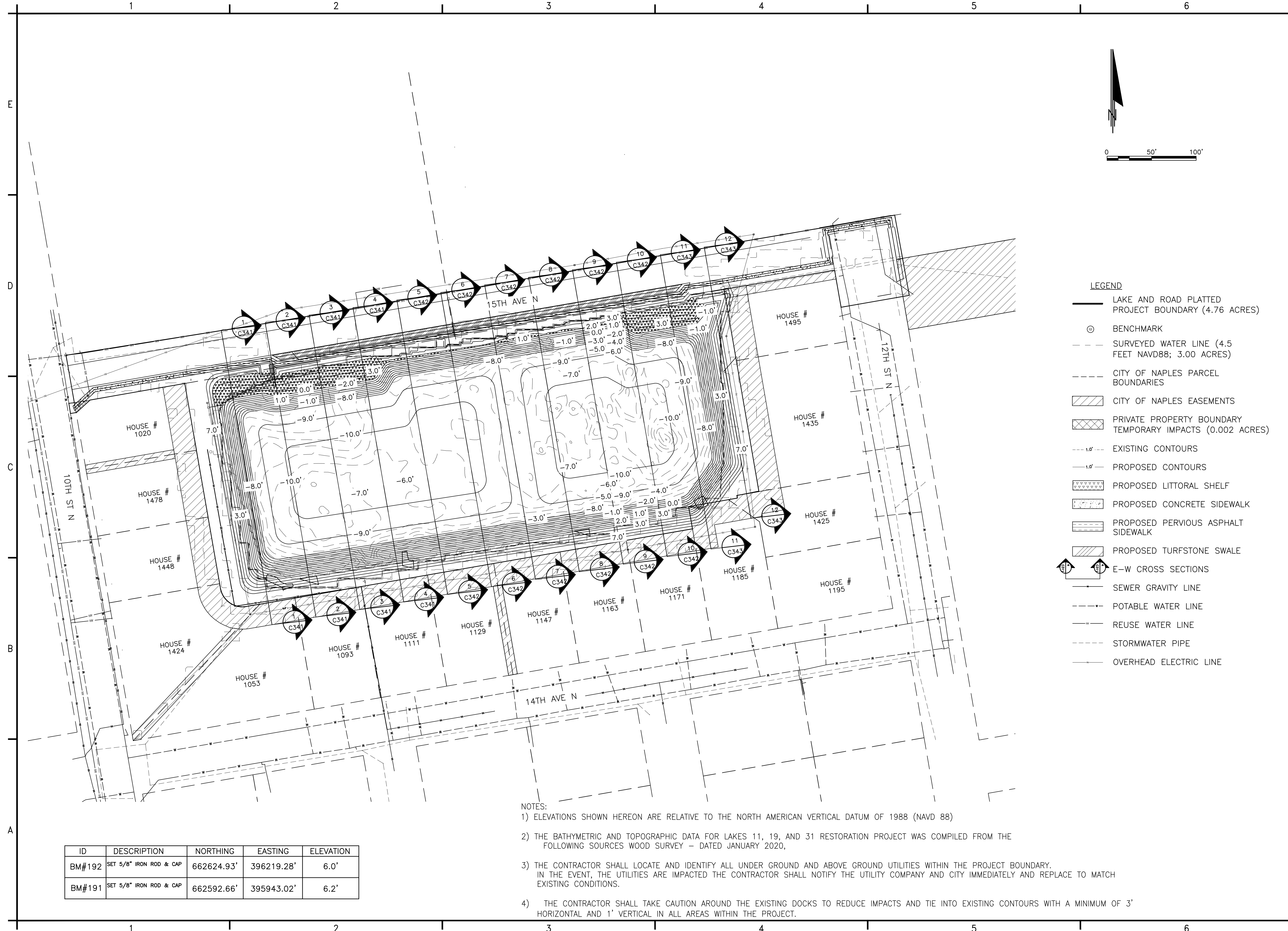
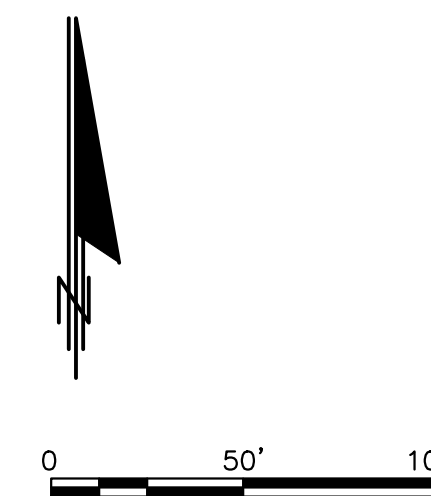
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**EAST-WEST
CROSS SECTION
DETAIL I - LAKE 31**

SHEET NUMBER:	REV. #
C331	
SHEET 22 OF 42 SHEETS	

wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588



- LEGEND**
- LAKE AND ROAD PLATTED PROJECT BOUNDARY (4.76 ACRES)
 - ⊙ BENCHMARK
 - - - SURVEYED WATER LINE (4.5 FEET NAVD88; 3.00 ACRES)
 - - - CITY OF NAPLES PARCEL BOUNDARIES
 - ▨ CITY OF NAPLES EASEMENTS
 - ▩ PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.002 ACRES)
 - - - EXISTING CONTOURS
 - - - PROPOSED CONTOURS
 - ▨ PROPOSED LITTORAL SHELF
 - ▨ PROPOSED CONCRETE SIDEWALK
 - ▨ PROPOSED PERVIOUS ASPHALT SIDEWALK
 - ▨ PROPOSED TURFSTONE SWALE
 - ⊕ E-W CROSS SECTIONS
 - SEWER GRAVITY LINE
 - - - POTABLE WATER LINE
 - REUSE WATER LINE
 - - - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:



WOOD PROJECT No:
6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

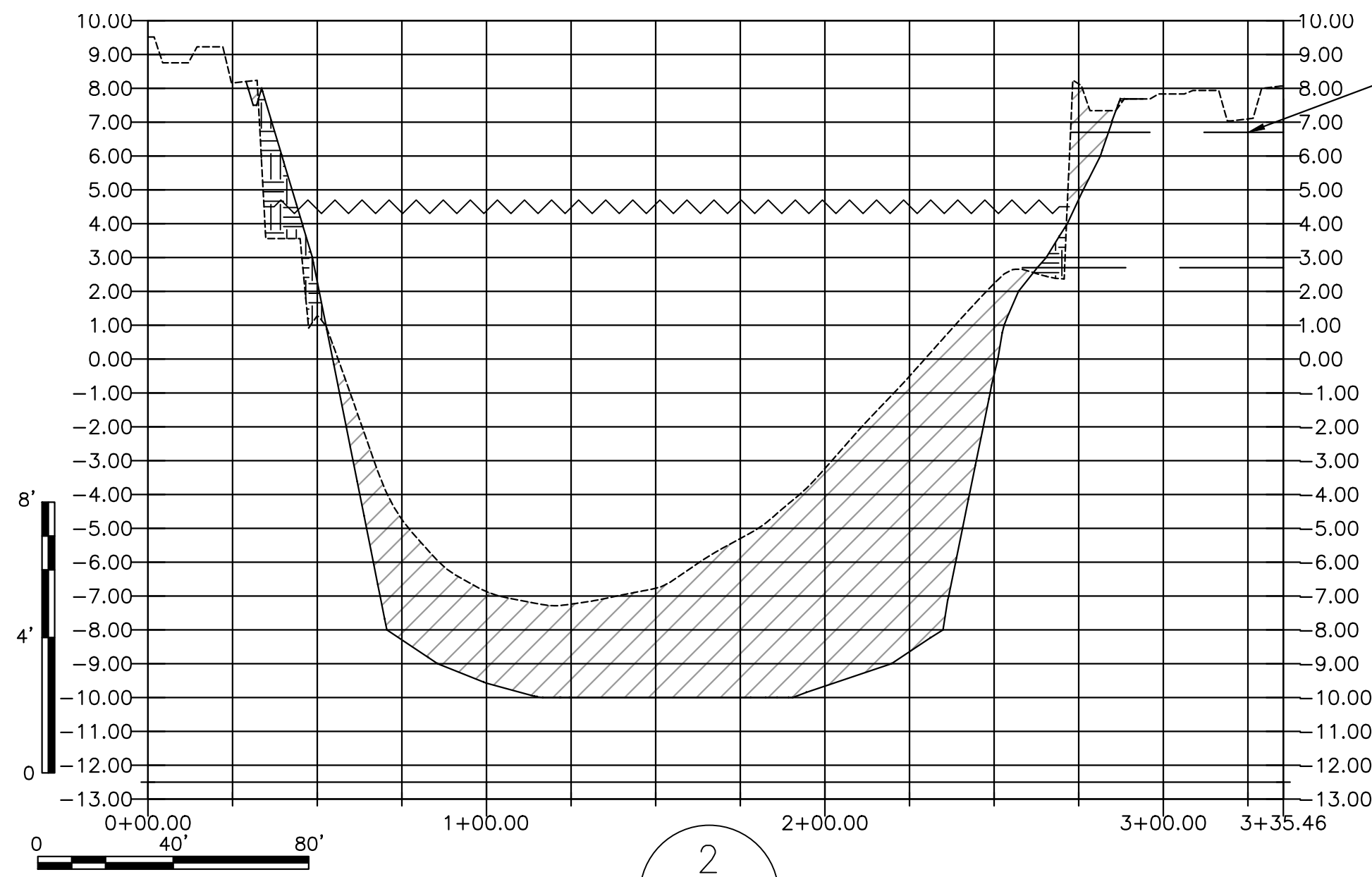
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**NORTH-SOUTH
CROSS-SECTION
LOCATIONS - LAKE 19**

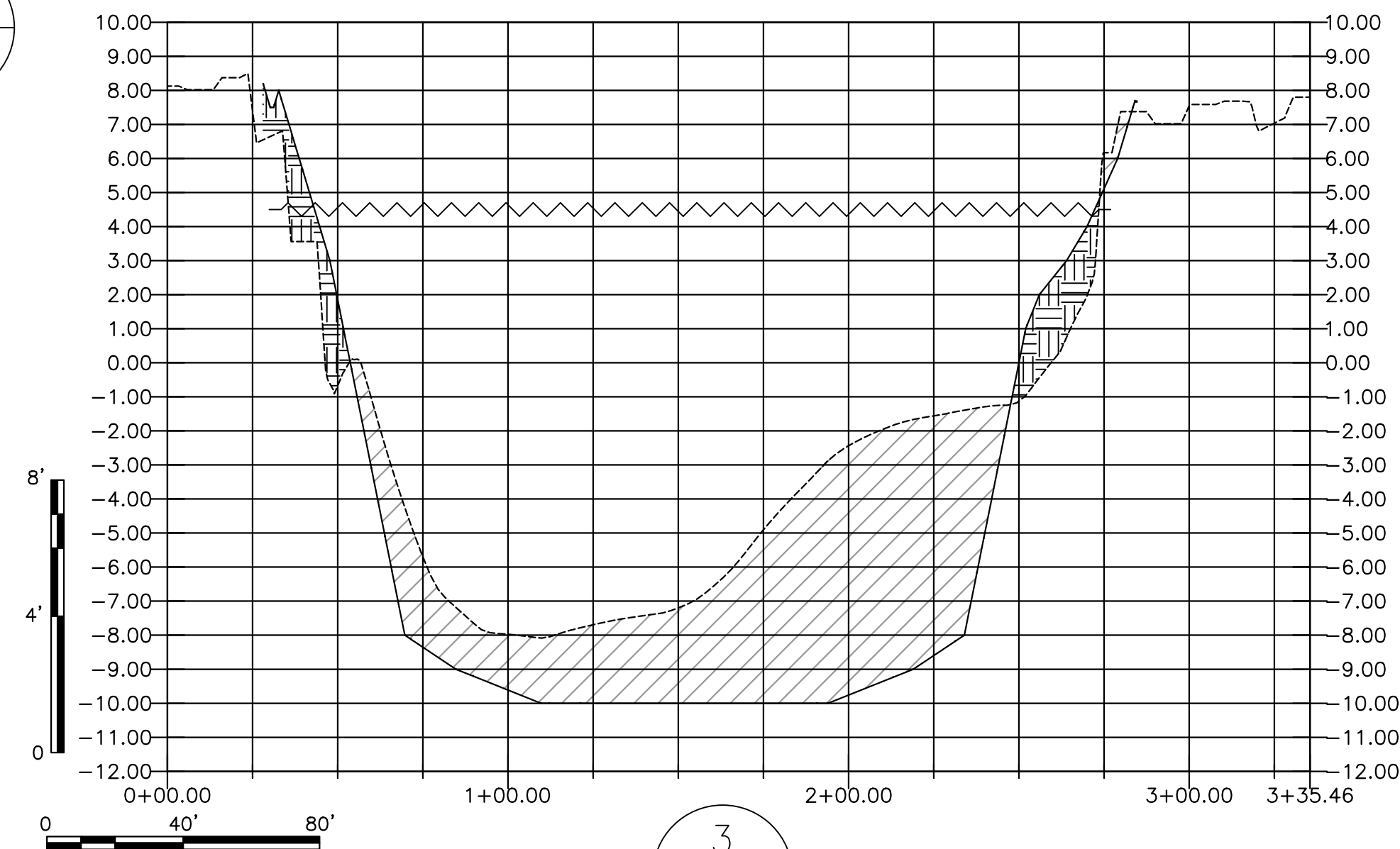
SHEET NUMBER:	REV. #
C340	
SHEET 23 OF 42 SHEETS	

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - 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 TAKE CAUTION AROUND THE EXISTING DOCKS TO REDUCE IMPACTS AND TIE INTO EXISTING CONTOURS WITH A MINIMUM OF 3' HORIZONTAL AND 1' VERTICAL IN ALL AREAS WITHIN THE PROJECT.

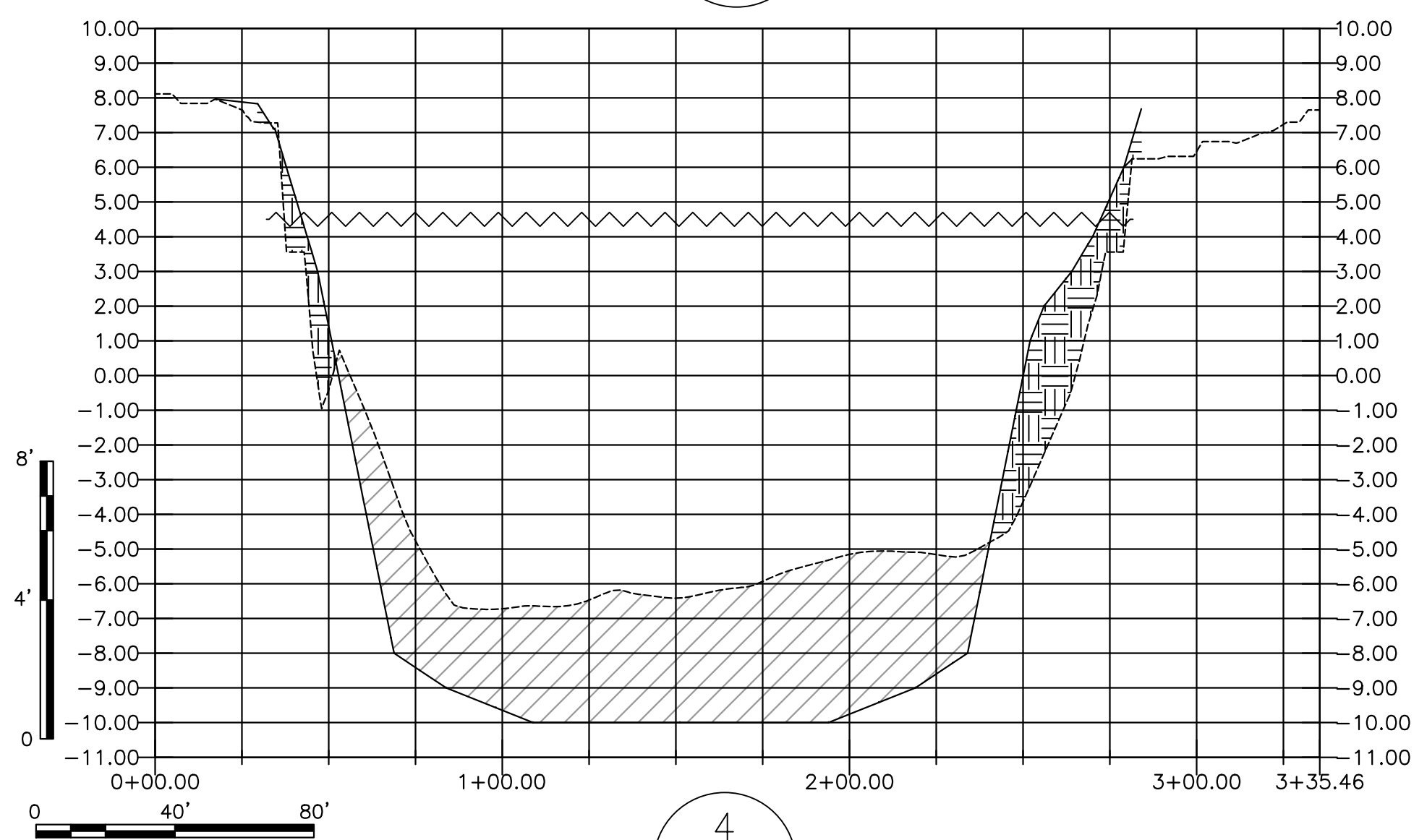
ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM#192	SET 5/8" IRON ROD & CAP	662624.93'	396219.28'	6.0'
BM#191	SET 5/8" IRON ROD & CAP	662592.66'	395943.02'	6.2'



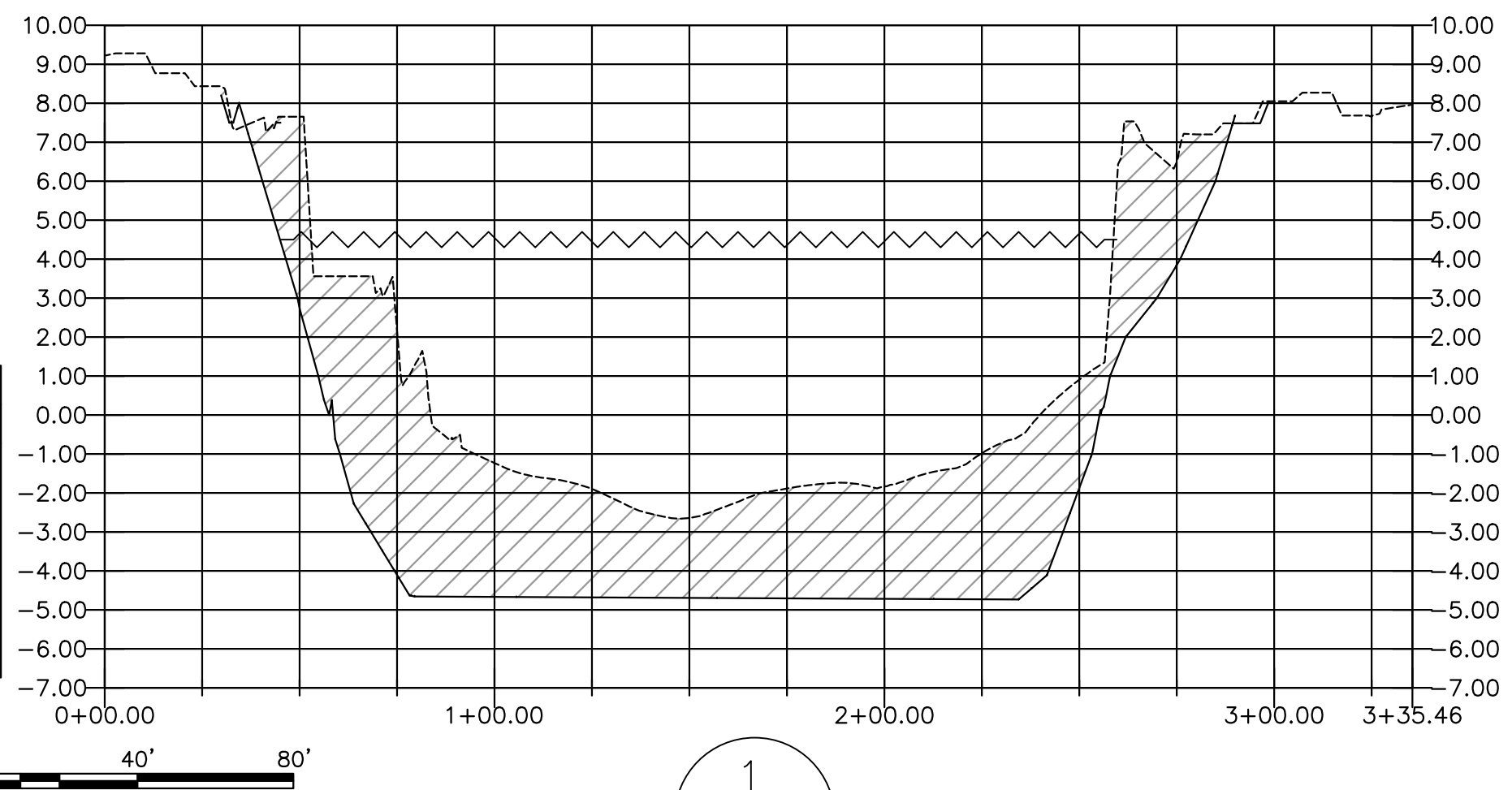
2
C340



3
C340



4
C340



1
C340

NOTE:
 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
 2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLOUDS LARGER THAN 6 INCHES IN SIZE.
 3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

wood.

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 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11,19 & 31 RESTORATION
 APPLICANT:

City of *Naples* Florida

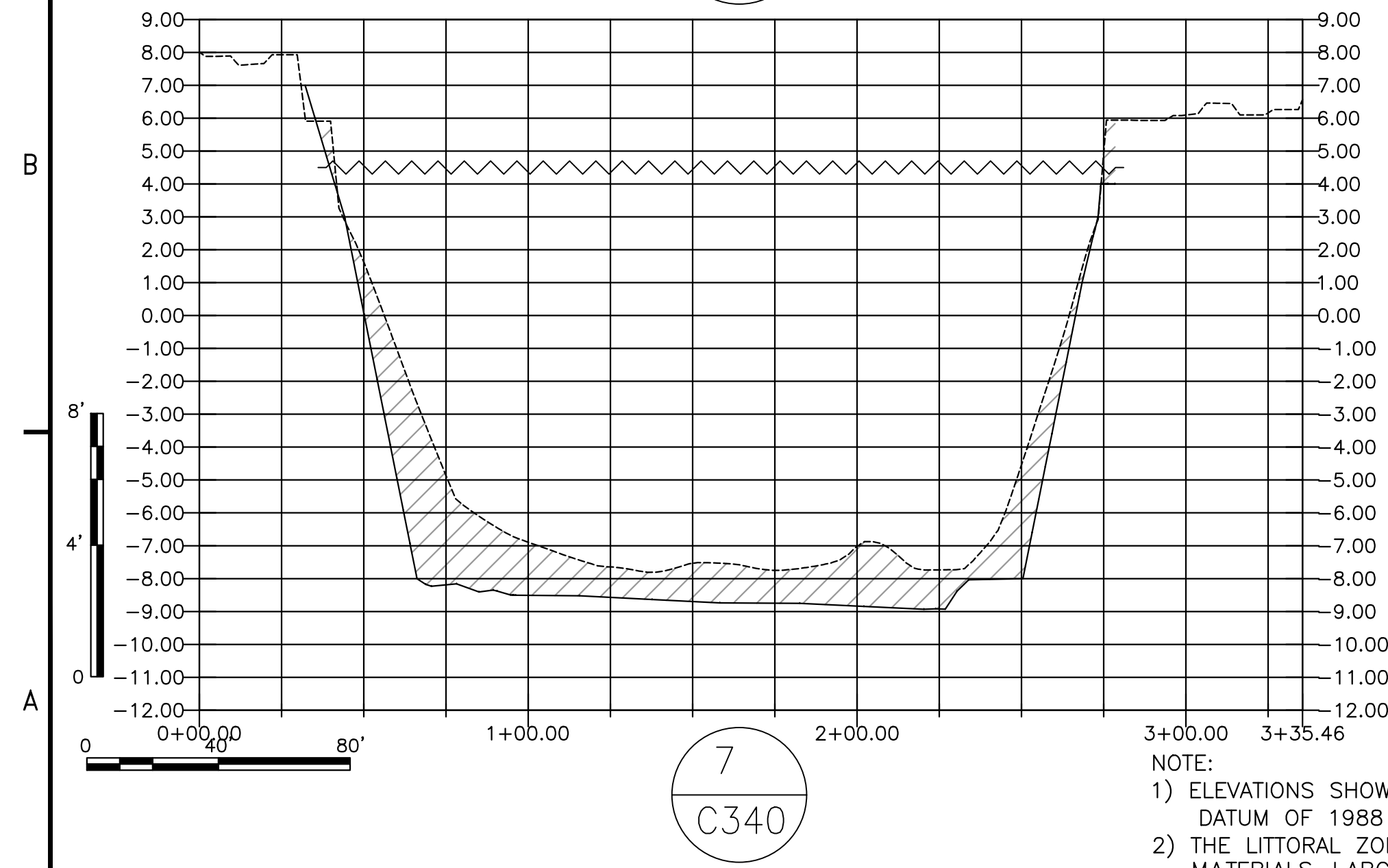
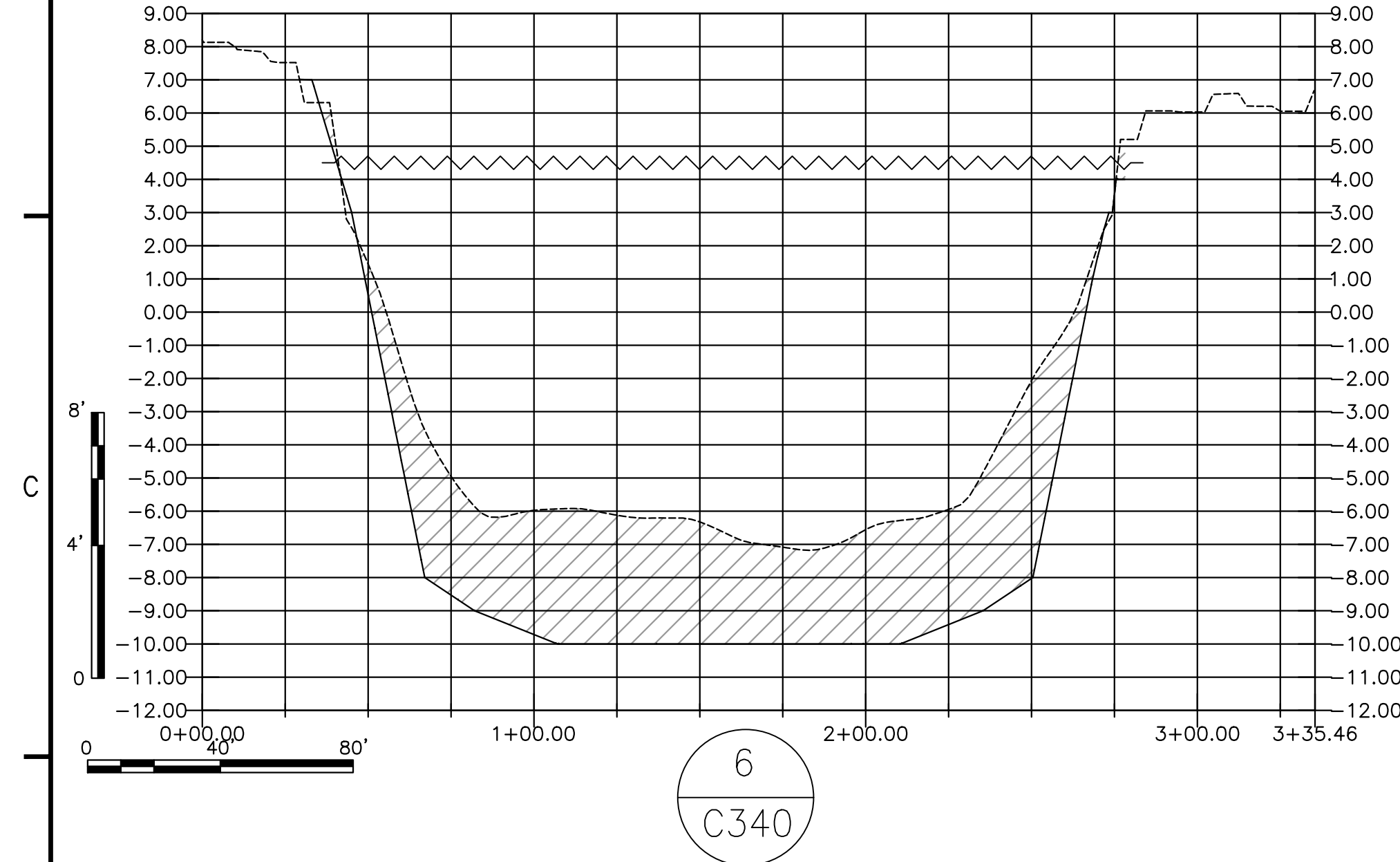
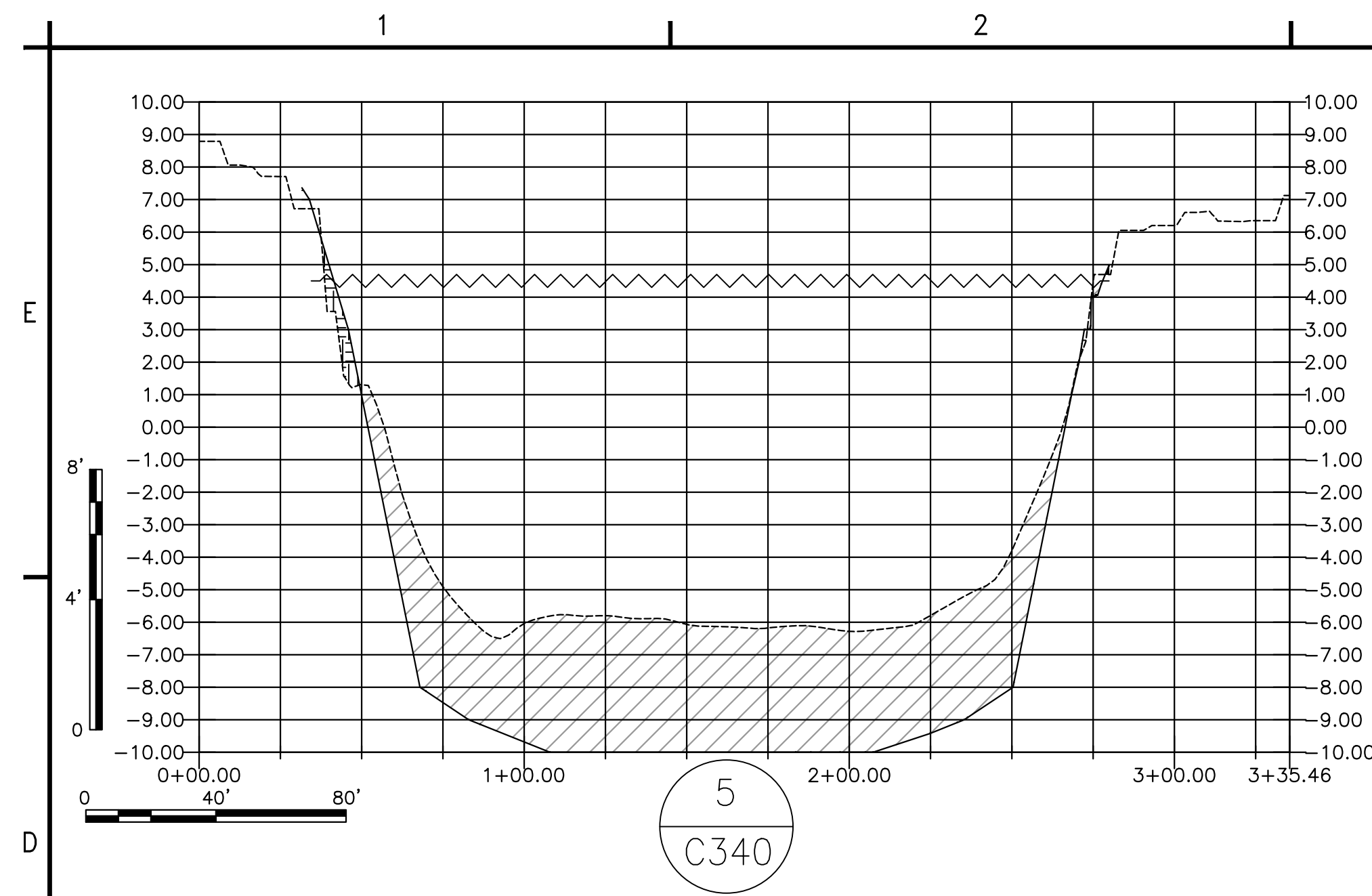
WOOD PROJECT No:
 6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
1	8.13.20	GWC	CAS/TGD
2	11.23.20	GWC	CAS/TGD

DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**NORTH-SOUTH CROSS SECTION
 DETAIL I - LAKE 19**

SHEET NUMBER:	REV. #
C341	
SHEET 24 OF 42 SHEETS	



LEGEND

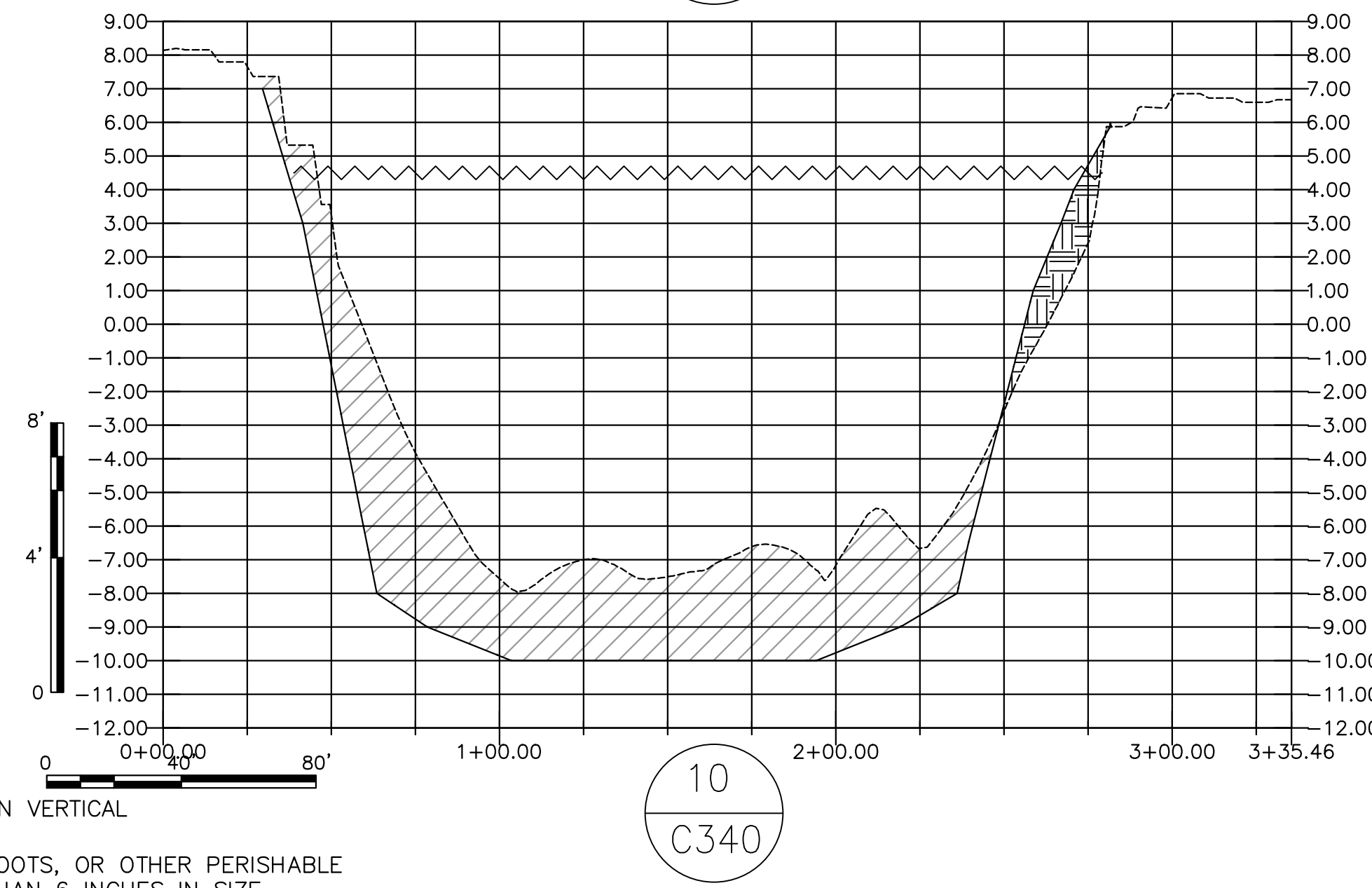
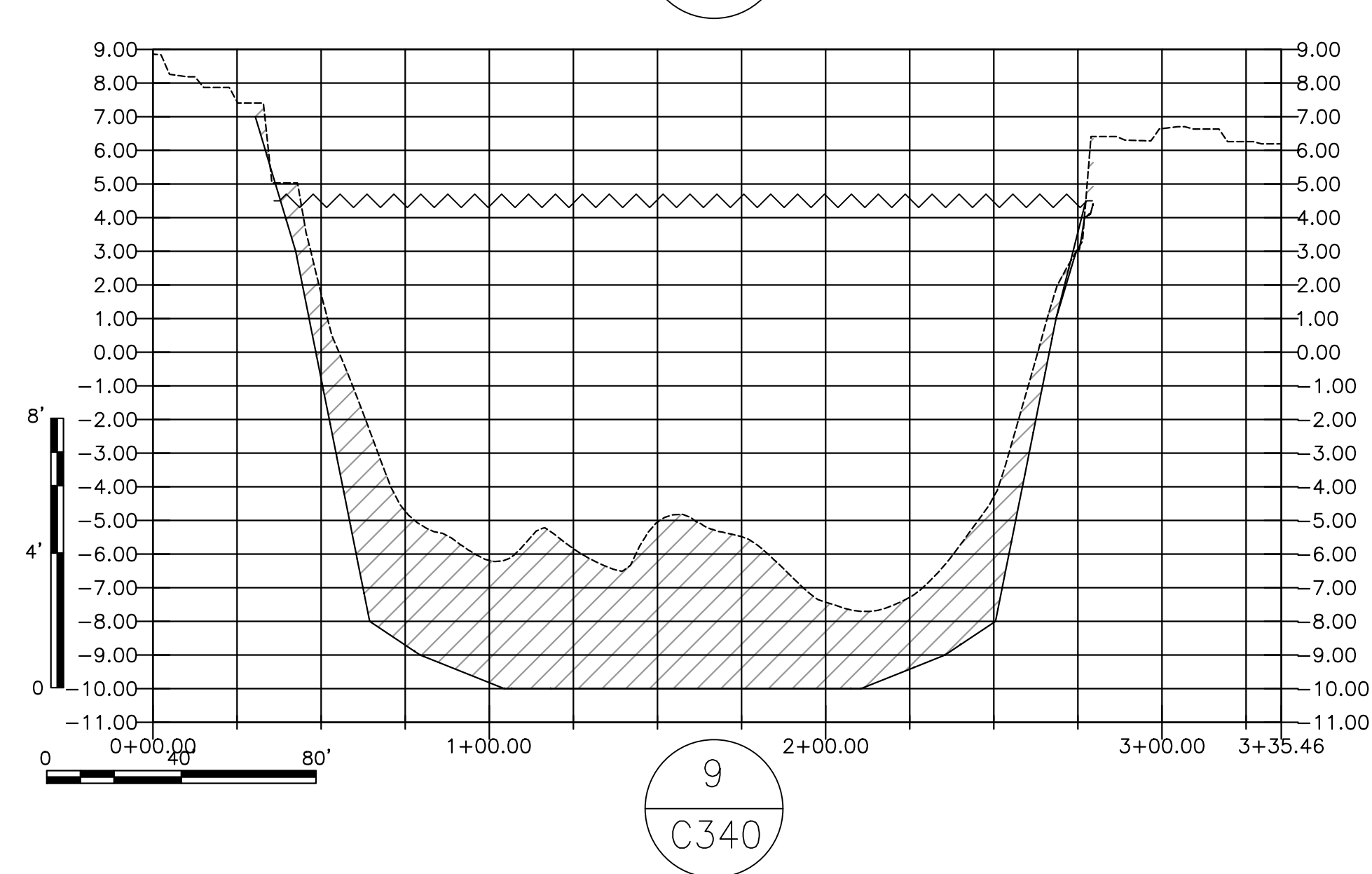
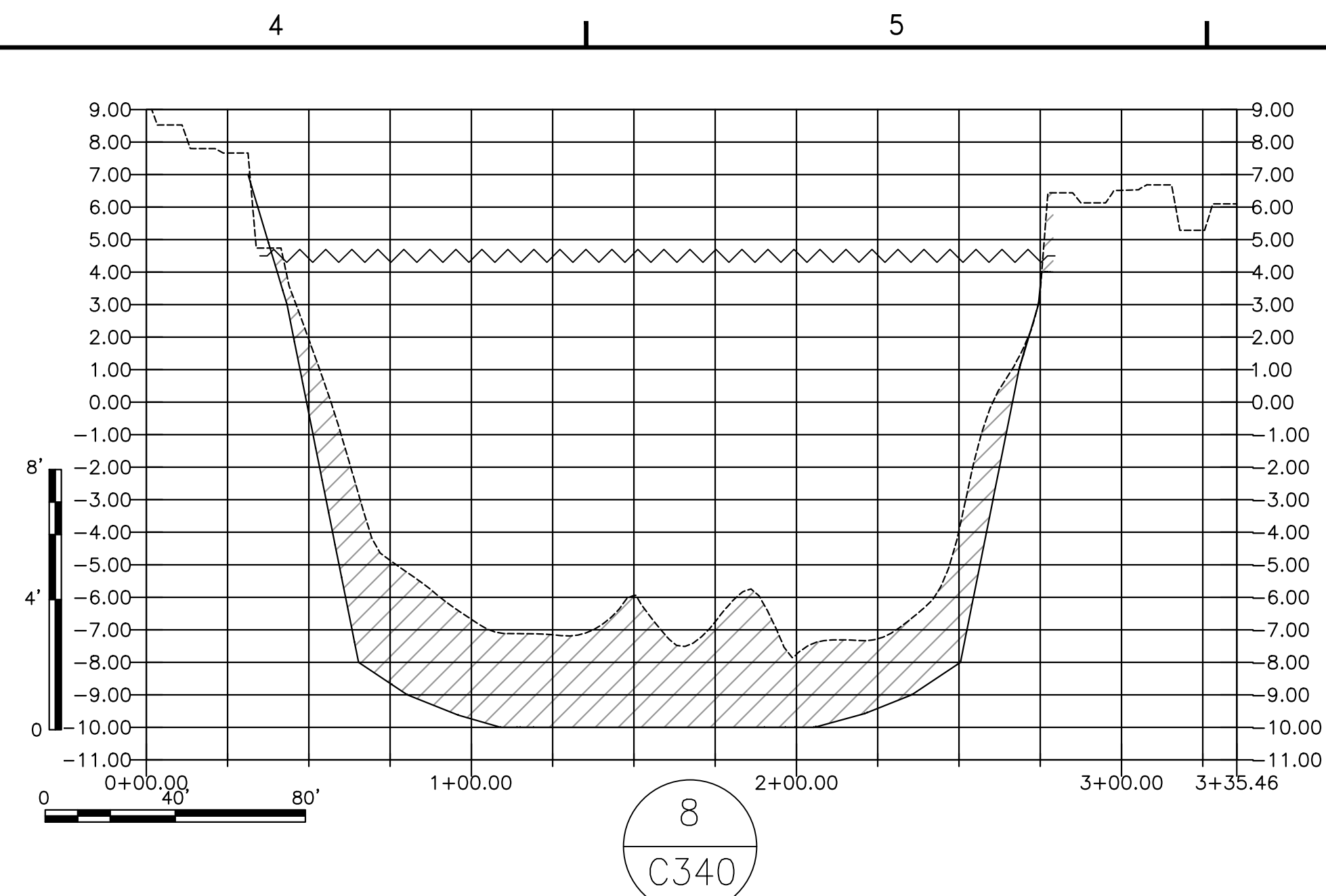
- PROPOSED GRADE
- - - EXISTING GRADE
- ~ OBSERVED WATER LINE(4.5')
- ▨ SEDIMENT REMOVAL
- ▤ CLEAN FILL

LEGEND

- PROPOSED GRADE
- - - EXISTING GRADE
- ~ OBSERVED WATER LINE(4.5')
- ▨ SEDIMENT REMOVAL
- ▤ CLEAN FILL

LEGEND

- PROPOSED GRADE
- - - EXISTING GRADE
- ~ OBSERVED WATER LINE(4.5')
- ▨ SEDIMENT REMOVAL
- ▤ CLEAN FILL



LEGEND

- PROPOSED GRADE
- - - EXISTING GRADE
- ~ OBSERVED WATER LINE(4.5')
- ▨ SEDIMENT REMOVAL
- ▤ CLEAN FILL

LEGEND

- PROPOSED GRADE
- - - EXISTING GRADE
- ~ OBSERVED WATER LINE(4.5')
- ▨ SEDIMENT REMOVAL
- ▤ CLEAN FILL

LEGEND

- PROPOSED GRADE
- - - EXISTING GRADE
- ~ OBSERVED WATER LINE(4.5')
- ▨ SEDIMENT REMOVAL
- ▤ CLEAN FILL

NOTE:
 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
 2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.
 3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

wood.
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
 APPLICANT:



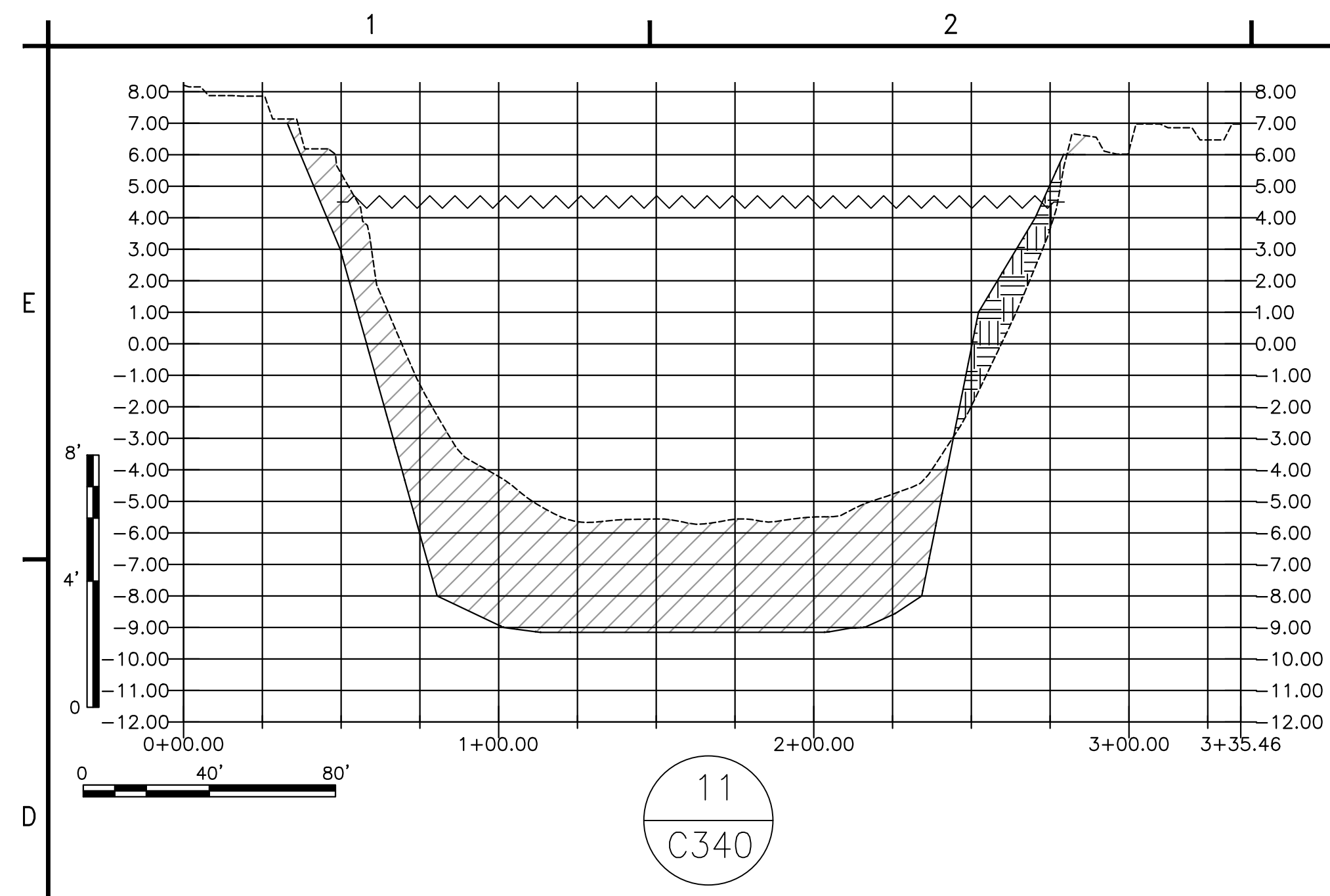
WOOD PROJECT No:
 6788-20-3223

REVISIONS			
NO.	DATE	BY	APPROVED
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2	11.23.20	GWC	CAS/TGD

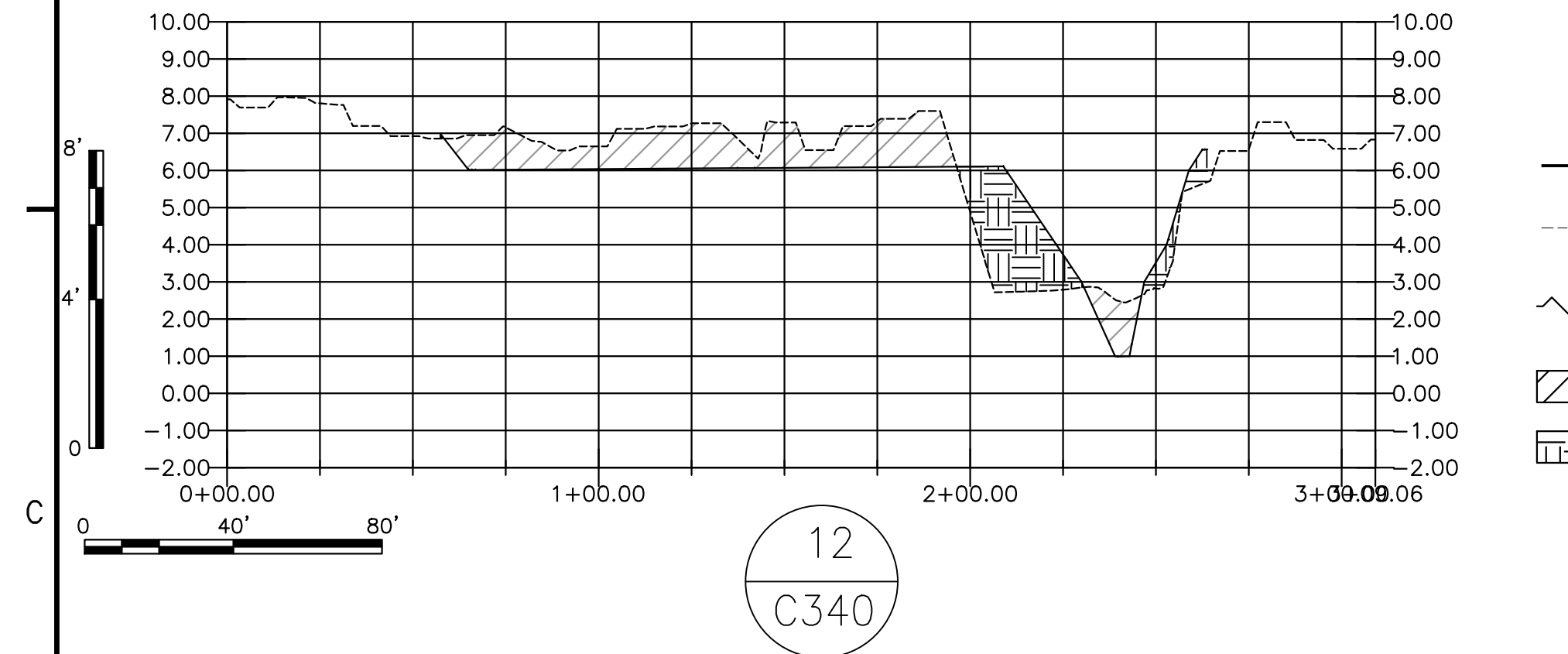
DESIGNED BY:	GWC/CAS
DRAWN BY:	JAM
CHECKED BY:	GWC
APPROVED BY:	CAS
DATE:	01/30/2020

SHEET TITLE:
**NORTH-SOUTH CROSS SECTION
 DETAIL II - LAKE 19**

SHEET NUMBER:	REV. #
C342	
SHEET 25 OF 42 SHEETS	



LEGEND
 — PROPOSED GRADE
 - - - EXISTING GRADE
 ~~~~~ OBSERVED WATER LINE(4.5')  
 [Diagonal Hatching] SEDIMENT REMOVAL  
 [Horizontal Hatching] CLEAN FILL



**LEGEND**  
 — PROPOSED GRADE  
 - - - EXISTING GRADE  
 ~~~~~ OBSERVED WATER LINE(4.5')  
 [Diagonal Hatching] SEDIMENT REMOVAL
 [Horizontal Hatching] CLEAN FILL

NOTE:
 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
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wood.
 ENVIRONMENT &
 INFRASTRUCTURE
 SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
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GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
 LAKES 11, 19 & 31
 RESTORATION**
 APPLICANT:



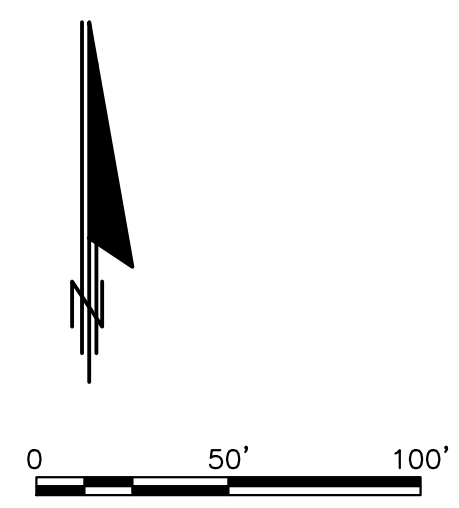
WOOD PROJECT No:
 6788-20-3223

| REVISIONS | | | |
|-----------|----------|-----|----------|
| NO. | DATE | BY | APPROVED |
| 1 | 8.13.20 | GWC | CAS/TGD |
| 2 | 11.23.20 | GWC | CAS/TGD |
| | | | |
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| | |
|--------------|------------|
| DESIGNED BY: | GWC/CAS |
| DRAWN BY: | JAM |
| CHECKED BY: | GWC |
| APPROVED BY: | CAS |
| DATE: | 01/30/2020 |

SHEET TITLE:
**NORTH-SOUTH
 CROSS SECTION
 DETAIL III - LAKE 19**

| | |
|-----------------------|--------|
| SHEET NUMBER: | REV. # |
| C343 | |
| SHEET 26 OF 42 SHEETS | |



- LEGEND**
- LAKE PLATTED AND ROAD PROJECT BOUNDARY (5.30 ACRES)
 - ⊙ BENCHMARK
 - - - SURVEYED WATER LINE (2.0 FEET NAVD88; 4.99 ACRES)
 - - - CITY OF NAPLES PARCEL BOUNDARIES
 - ▨ PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.48 ACRES)
 - - - EXISTING CONTOURS
 - - - PROPOSED CONTOURS
 - ▭ PROPOSED LITTORAL SHELF
 - ↕ N-S CROSS SECTIONS
 - SEWER GRAVITY LINE
 - - - POTABLE WATER LINE
 - - - REUSE WATER LINE
 - - - STORMWATER PIPE
 - OVERHEAD ELECTRIC LINE

wood.
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
 5845 NW 158th ST
 MIAMI LAKES, FL 33014
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
 FLORIDA PE #79293
 ENGINEER OF RECORD

PROJECT:
CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION
 APPLICANT:



WOOD PROJECT No:
 6788-20-3223

| REVISIONS | | | |
|-----------|----------|-----|----------|
| NO. | DATE | BY | APPROVED |
| 1 | 8.13.20 | GWC | CAS/TGD |
| 2 | 11.23.20 | GWC | CAS/TGD |
| | | | |
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|--------------|------------|
| DESIGNED BY: | GWC/CAS |
| DRAWN BY: | JAM |
| CHECKED BY: | GWC |
| APPROVED BY: | CAS |
| DATE: | 01/30/2020 |

SHEET TITLE:
NORTH-SOUTH CROSS-SECTION LOCATIONS - LAKE 11

| | |
|-----------------------|--------|
| SHEET NUMBER: | REV. # |
| C350 | |
| SHEET 27 OF 42 SHEETS | |

| ID | DESCRIPTION | NORTHING | EASTING | ELEVATION |
|--------|-------------------------|------------|------------|-----------|
| BM#201 | SET 5/8" IRON ROD & CAP | 656875.77' | 34118.04' | 3.3' |
| BM#204 | SET 5/8" IRON ROD & CAP | 657635.89' | 393659.64' | 4.7' |

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
 - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
 - 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 TAKE CAUTION AROUND THE EXISTING DOCKS TO REDUCE IMPACTS AND TIE INTO EXISTING CONTOURS WITH A MINIMUM OF 3' HORIZONTAL AND 1' VERTICAL IN ALL AREAS WITHIN THE PROJECT.

wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.
5845 NW 158th ST
MIAMI LAKES, FL 33014
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.
FLORIDA PE #79293
ENGINEER OF RECORD

PROJECT:
**CITY OF NAPLES
LAKES 11, 19 & 31
RESTORATION**
APPLICANT:



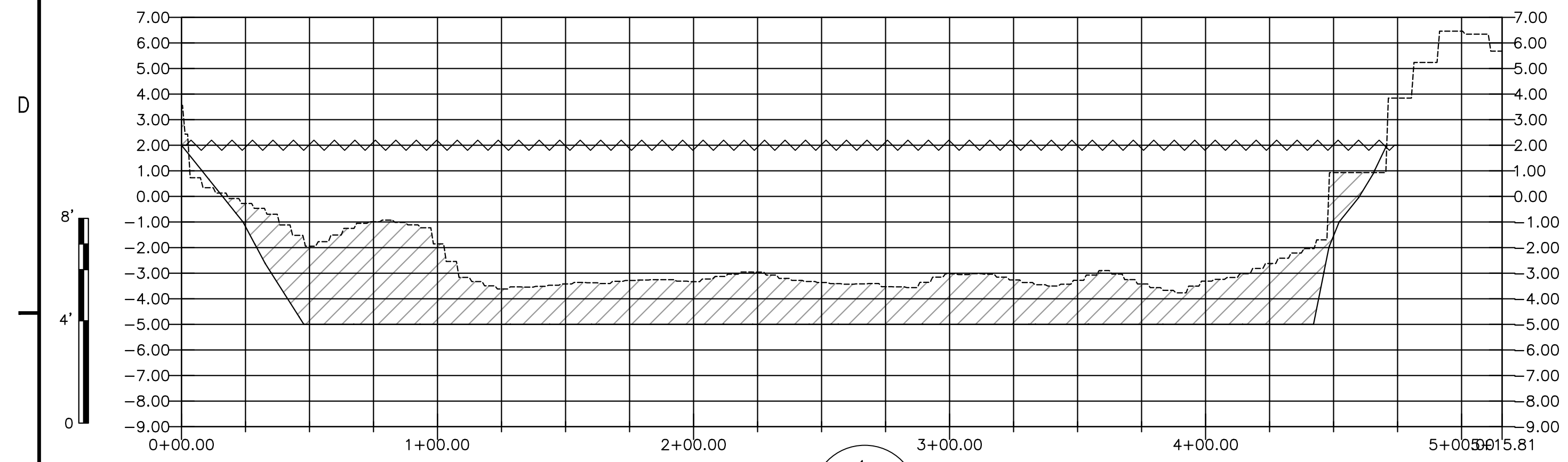
WOOD PROJECT No:
6788-20-3223

| REVISIONS | | | |
|-----------|----------|-----|----------|
| NO. | DATE | BY | APPROVED |
| 1 | 8.13.20 | GWC | CAS/TGD |
| 2 | 11.23.20 | GWC | CAS/TGD |
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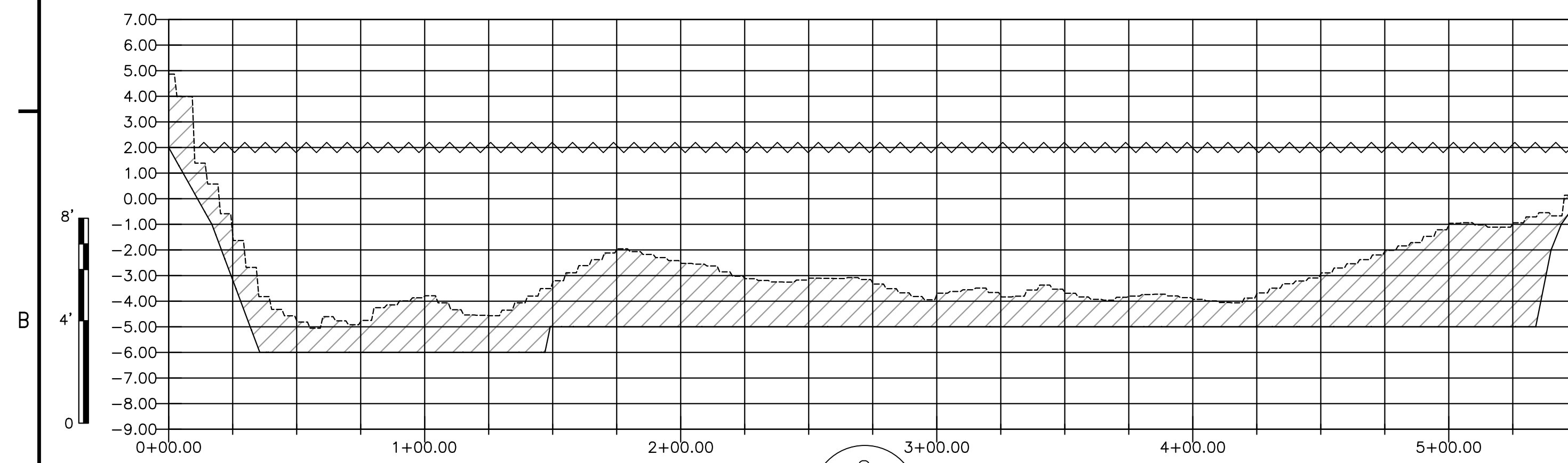
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| DESIGNED BY: | GWC/CAS |
| DRAWN BY: | JAM |
| CHECKED BY: | GWC |
| APPROVED BY: | CAS |
| DATE: | 01/30/2020 |

SHEET TITLE:
**NORTH-SOUTH
CROSS SECTION
DETAIL I - LAKE 11**

| | |
|-----------------------|--------|
| SHEET NUMBER: | REV. # |
| C351 | |
| SHEET 28 OF 42 SHEETS | |

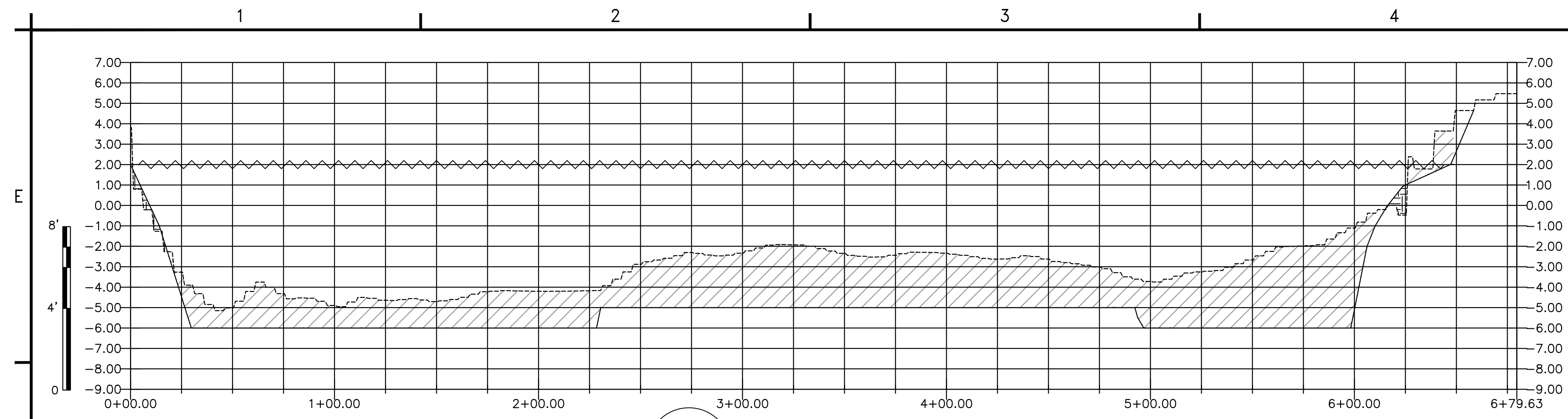


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C350

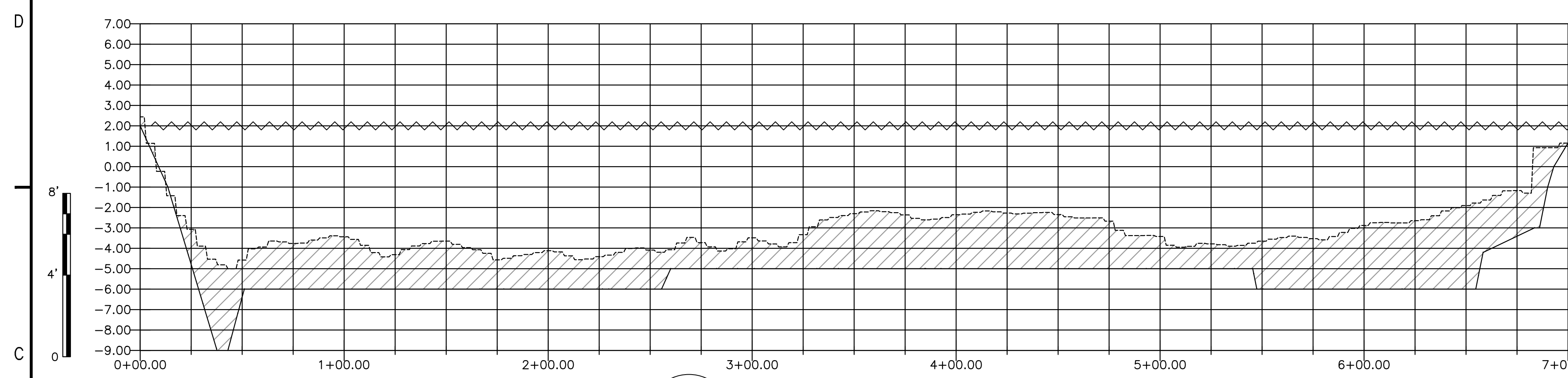


2
C350

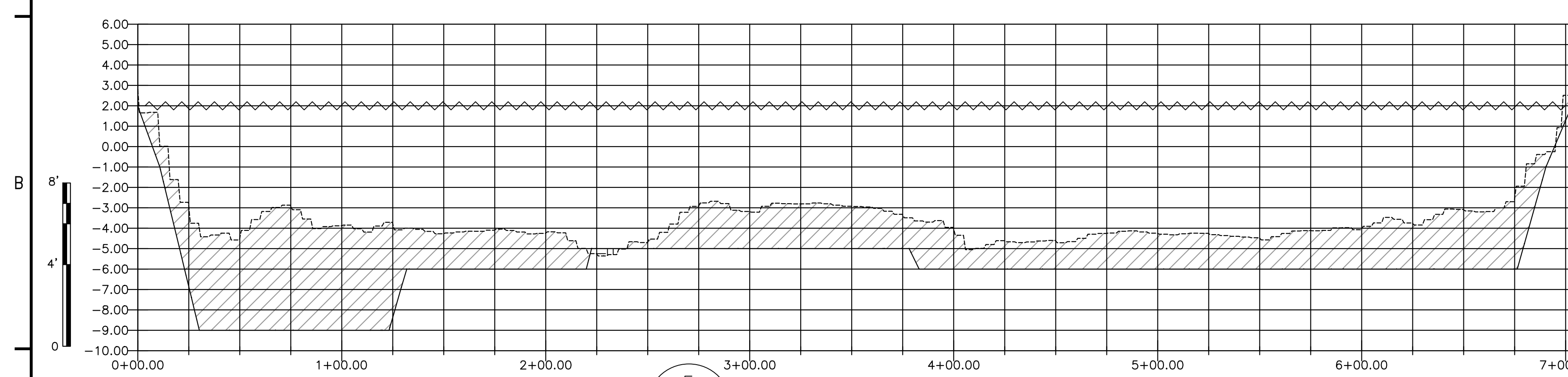
NOTE:
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3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.



3
C350



4
C350



5
C350

NOTE:
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LEGEND
 — PROPOSED GRADE
 - - - EXISTING GRADE
 ~~~~~ OBSERVED WATER LINE(2.0')  
 [Hatched] SEDIMENT REMOVAL  
 [Stippled] CLEAN FILL

LEGEND  
 — PROPOSED GRADE  
 - - - EXISTING GRADE  
 ~~~~~ OBSERVED WATER LINE(2.0')  
 [Hatched] SEDIMENT REMOVAL
 [Stippled] CLEAN FILL

LEGEND
 — PROPOSED GRADE
 - - - EXISTING GRADE
 ~~~~~ OBSERVED WATER LINE(2.0')  
 [Hatched] SEDIMENT REMOVAL  
 [Stippled] CLEAN FILL

**wood.**  
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
 5845 NW 158th ST  
 MIAMI LAKES, FL 33014  
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
 FLORIDA PE #79293  
 ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION**  
 APPLICANT:



WOOD PROJECT No:  
 6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
|           |          |     |          |

|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**NORTH-SOUTH CROSS SECTION  
 DETAIL II - LAKE 11**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| C352                  |        |
| SHEET 29 OF 42 SHEETS |        |



ENVIRONMENT &  
INFRASTRUCTURE  
SOLUTIONS, INC.  
5845 NW 158th ST  
MIAMI LAKES, FL 33014  
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
FLORIDA PE #79293  
ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES  
LAKES 11, 19 & 31  
RESTORATION**  
APPLICANT:



WOOD PROJECT No:  
6788-20-3223

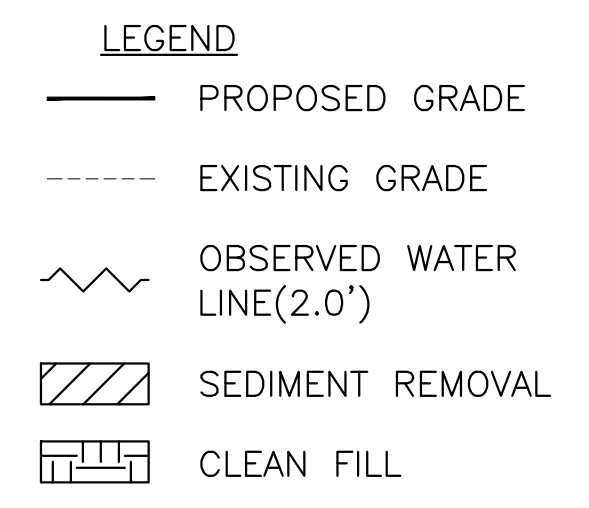
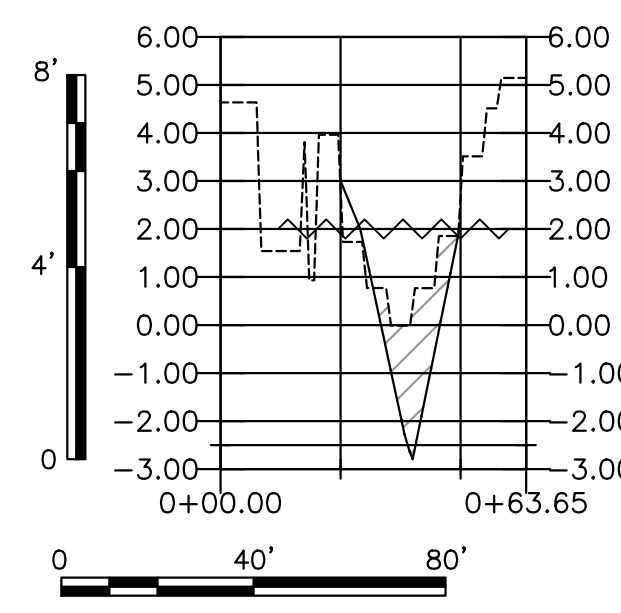
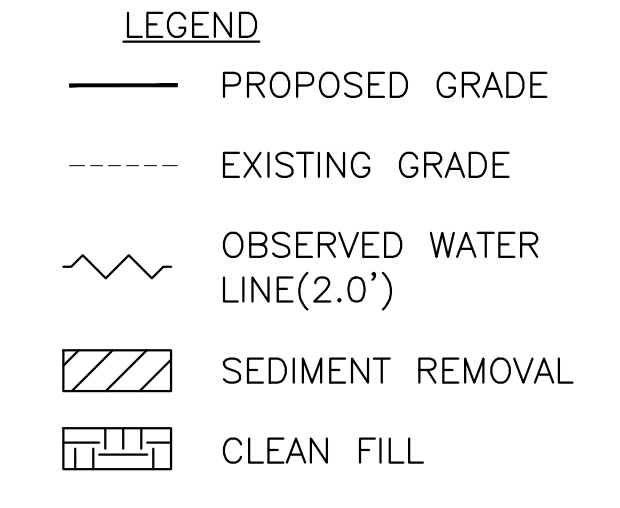
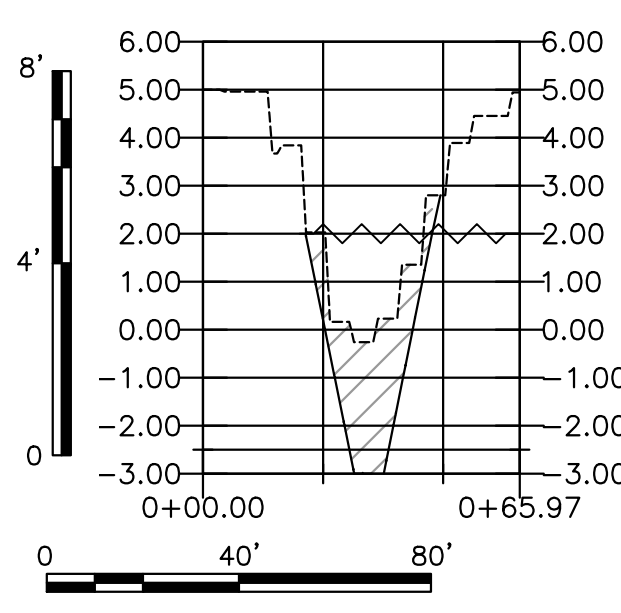
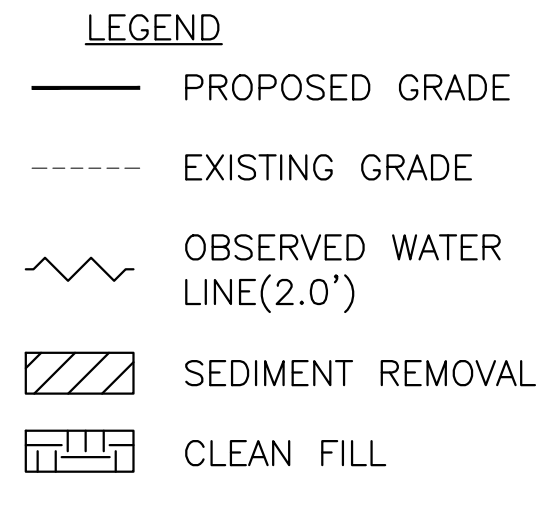
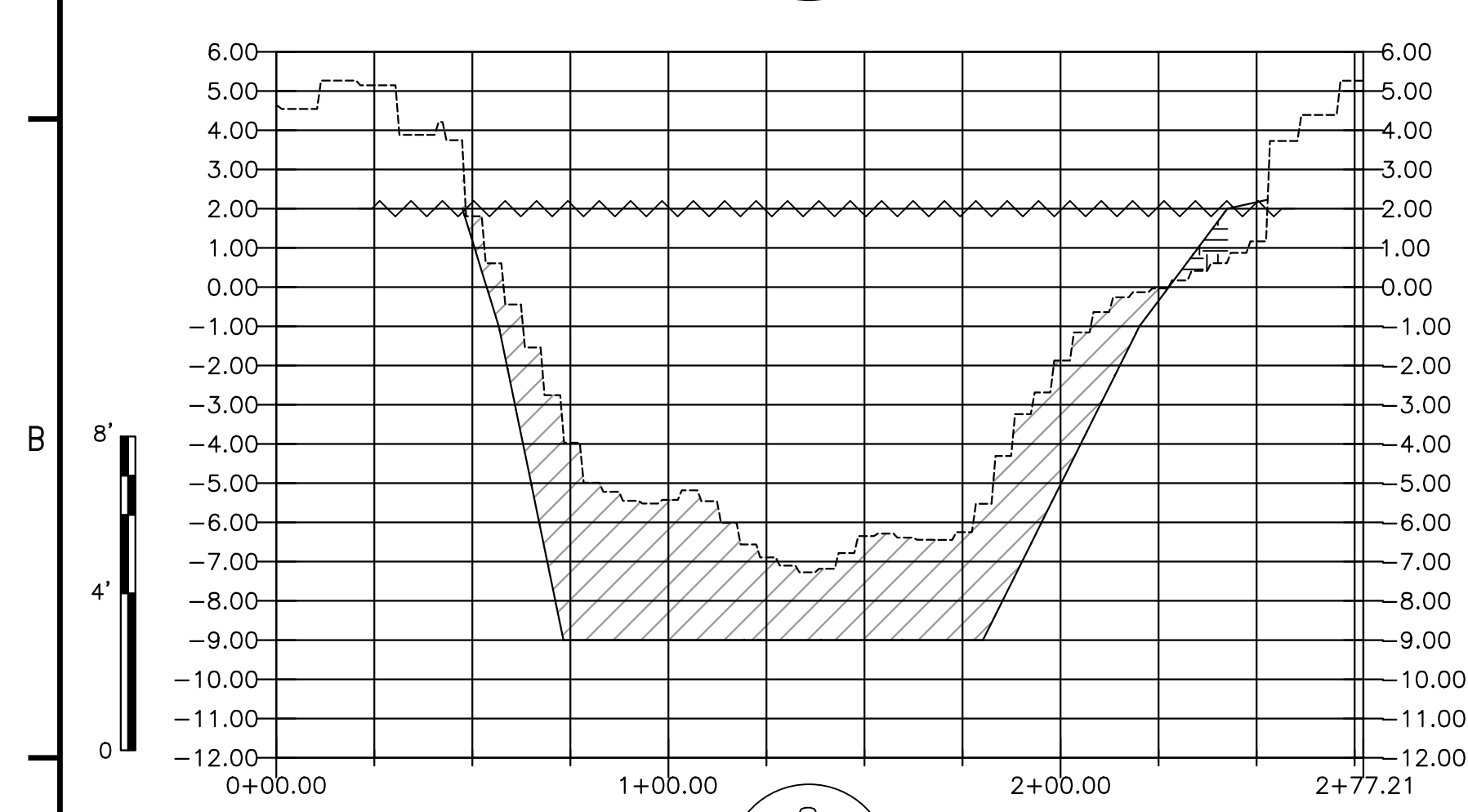
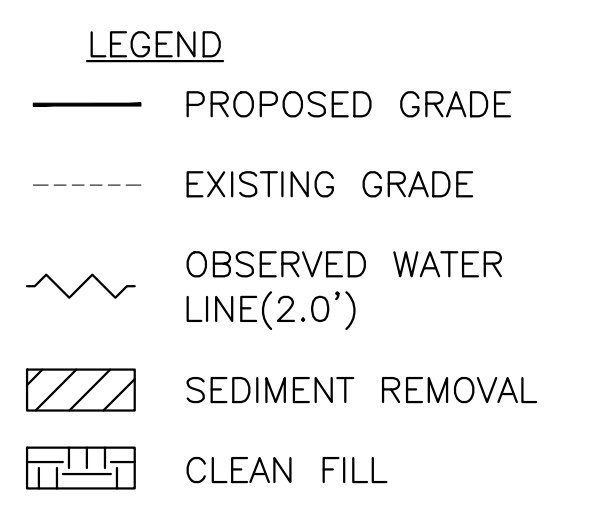
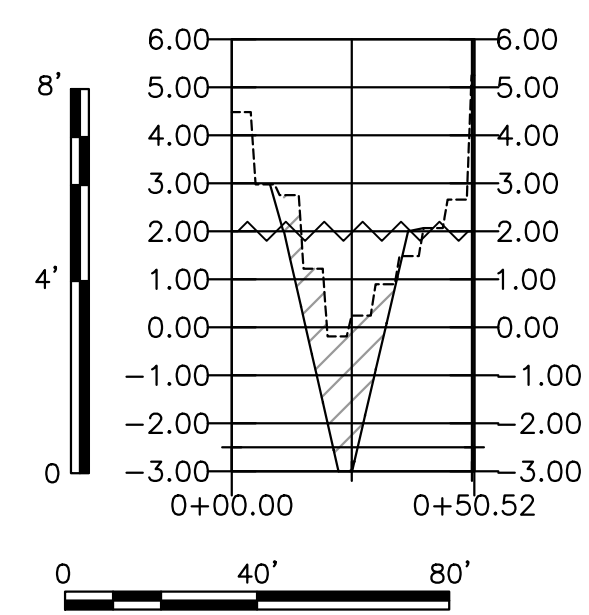
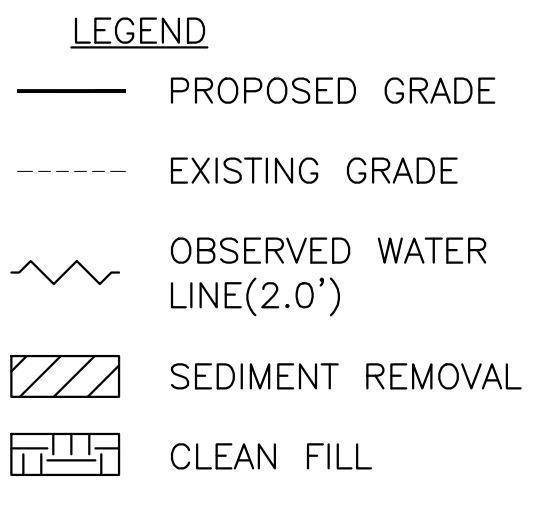
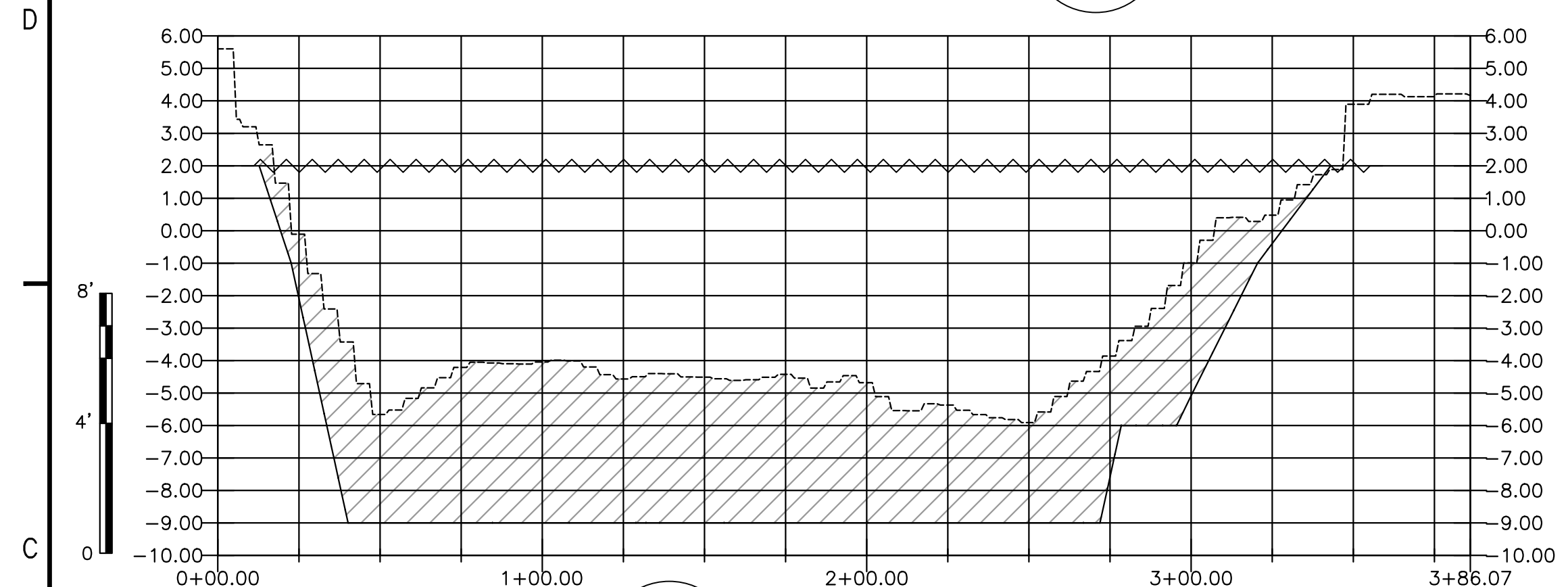
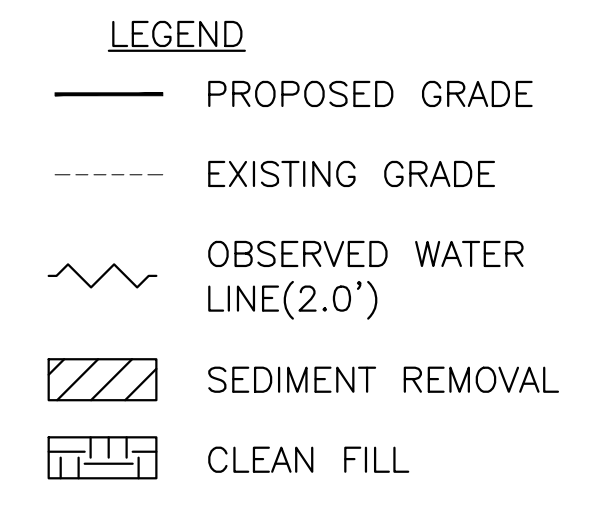
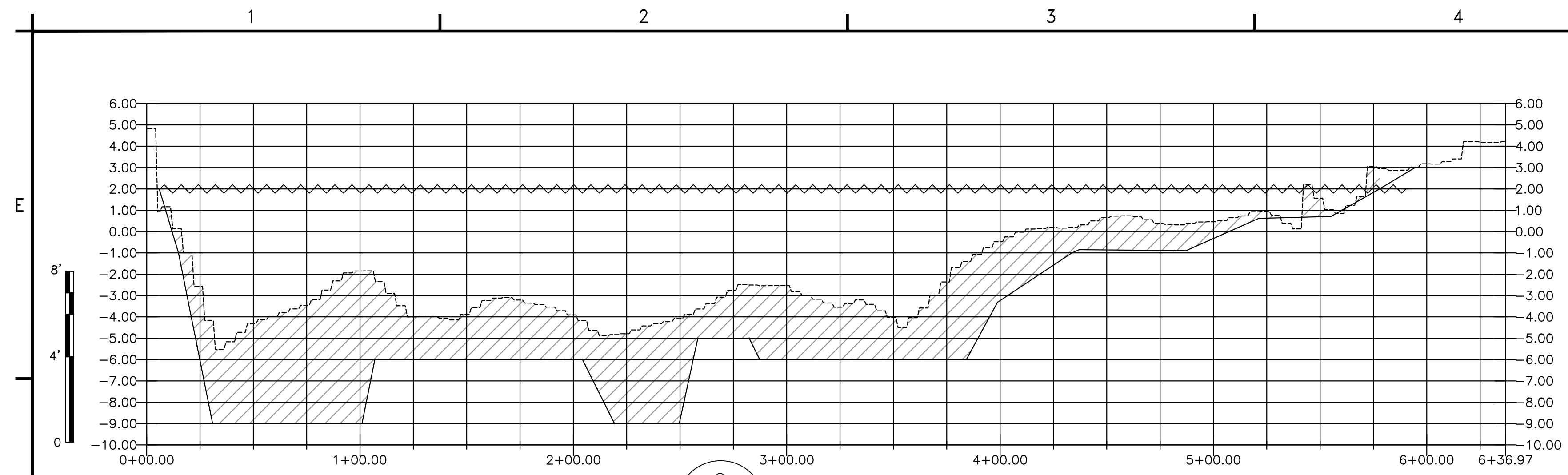
REVISIONS

| NO. | DATE     | BY  | APPROVED |
|-----|----------|-----|----------|
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| 2   | 11.23.20 | GWC | CAS/TGD  |
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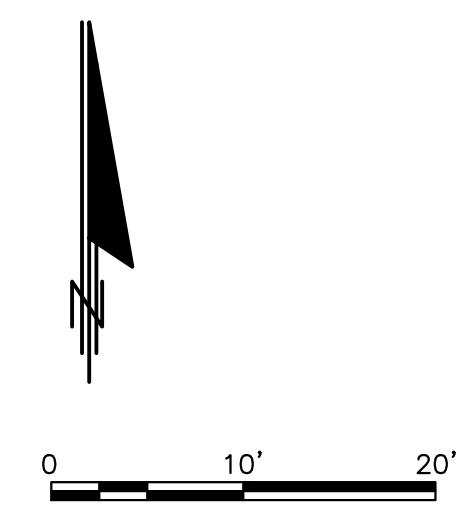
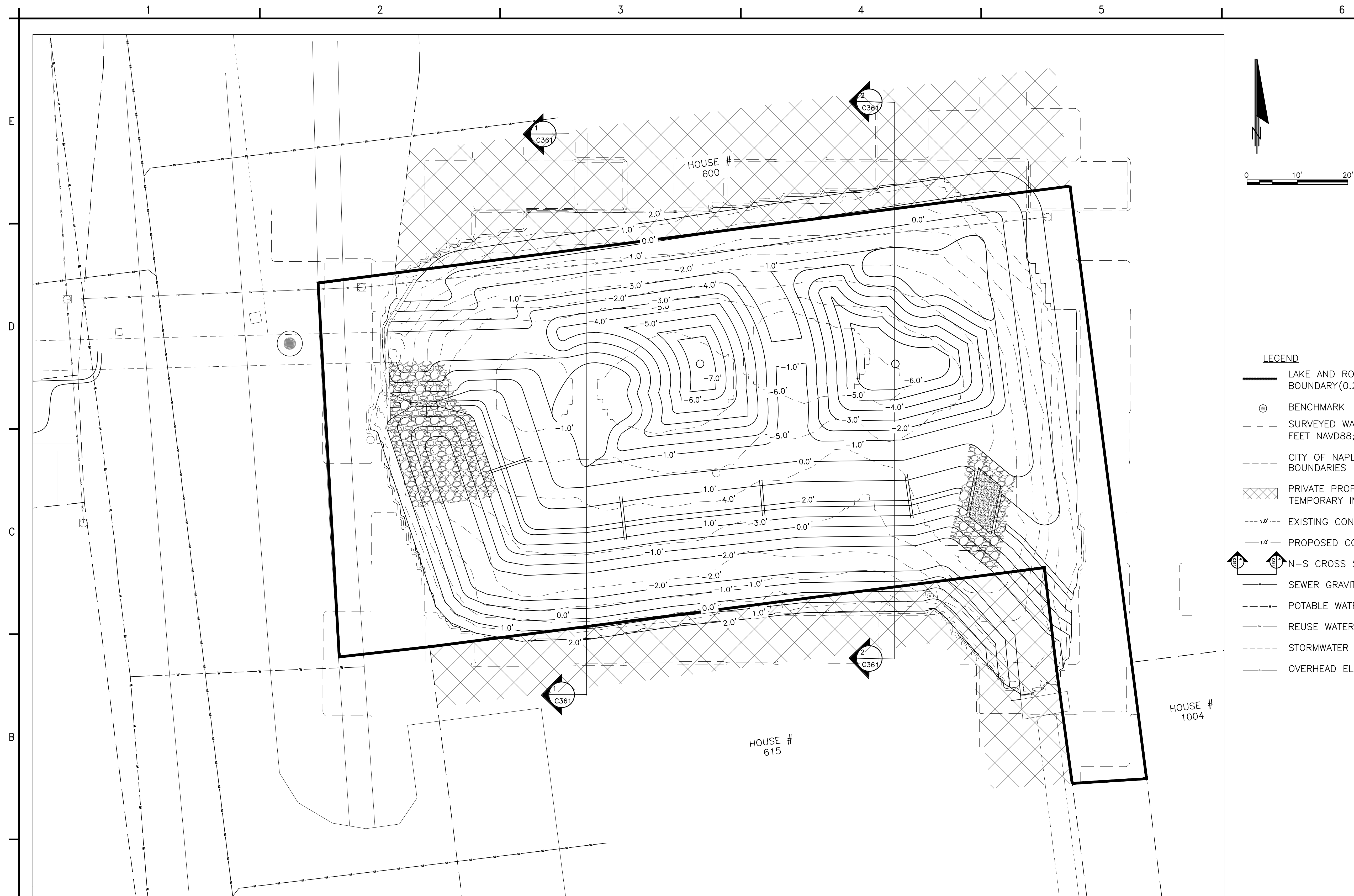
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| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**NORTH-SOUTH  
CROSS SECTION  
DETAIL III - LAKE 11**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| <b>C353</b>           |        |
| SHEET 30 OF 42 SHEETS |        |



NOTE:  
1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).  
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- LEGEND**
- LAKE AND ROAD PLATTED BOUNDARY (0.28 ACRES)
  - BENCHMARK
  - SURVEYED WATER LINE (2.0 FEET NAVD88; 0.25 ACRES)
  - CITY OF NAPLES PARCEL BOUNDARIES
  - PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.12 ACRES)
  - EXISTING CONTOURS
  - PROPOSED CONTOURS
  - N-S CROSS SECTIONS
  - SEWER GRAVITY LINE
  - POTABLE WATER LINE
  - REUSE WATER LINE
  - STORMWATER PIPE
  - OVERHEAD ELECTRIC LINE

**wood.**  
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
 5845 NW 158th ST  
 MIAMI LAKES, FL 33014  
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
 FLORIDA PE #79293  
 ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION**  
 APPLICANT:



WOOD PROJECT No:  
 6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
|           |          |     |          |

|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**NORTH-SOUTH CROSS-SECTION LOCATIONS - LAKE 31**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| C360                  |        |
| SHEET 31 OF 42 SHEETS |        |

- 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 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,
  - 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.

| ID     | DESCRIPTION             | NORTHING   | EASTING   | ELEVATION |
|--------|-------------------------|------------|-----------|-----------|
| BM#201 | SET 5/8" IRON ROD & CAP | 656875.77' | 34118.04' | 3.3'      |

**wood.**

ENVIRONMENT &  
INFRASTRUCTURE  
SOLUTIONS, INC.  
5845 NW 158th ST  
MIAMI LAKES, FL 33014  
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
FLORIDA PE #79293  
ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES  
LAKES 11,19 & 31  
RESTORATION**  
APPLICANT:



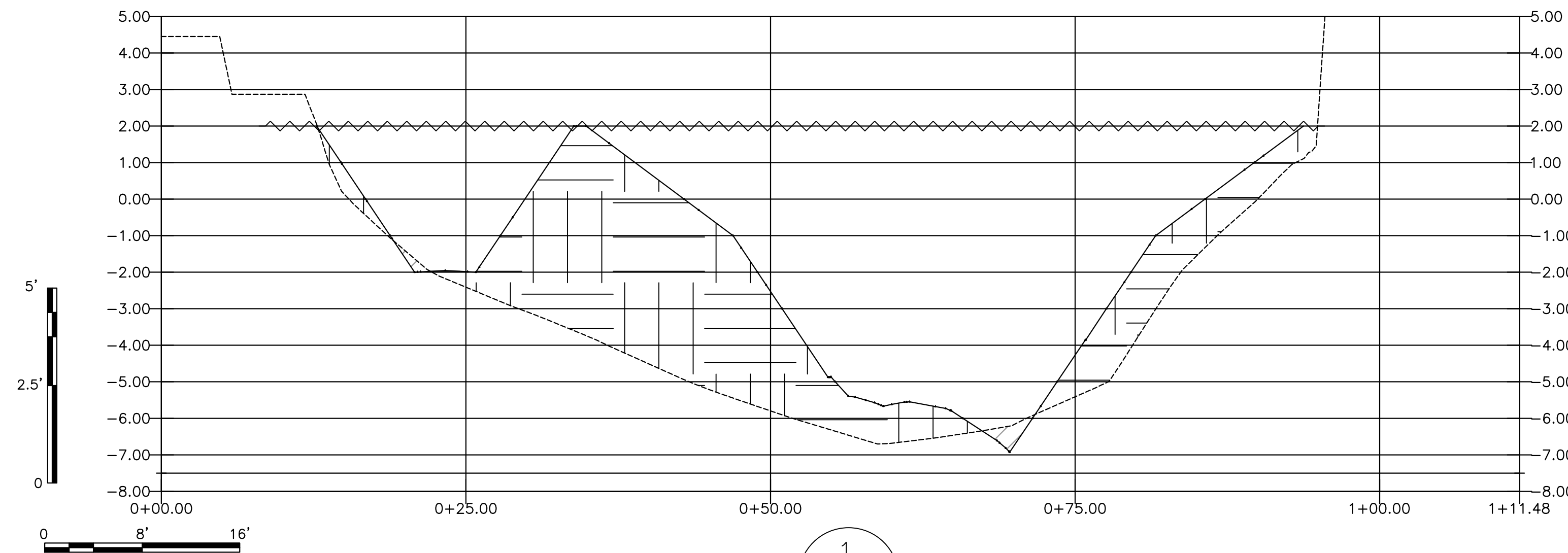
WOOD PROJECT No:  
6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
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| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
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|           |          |     |          |

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| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

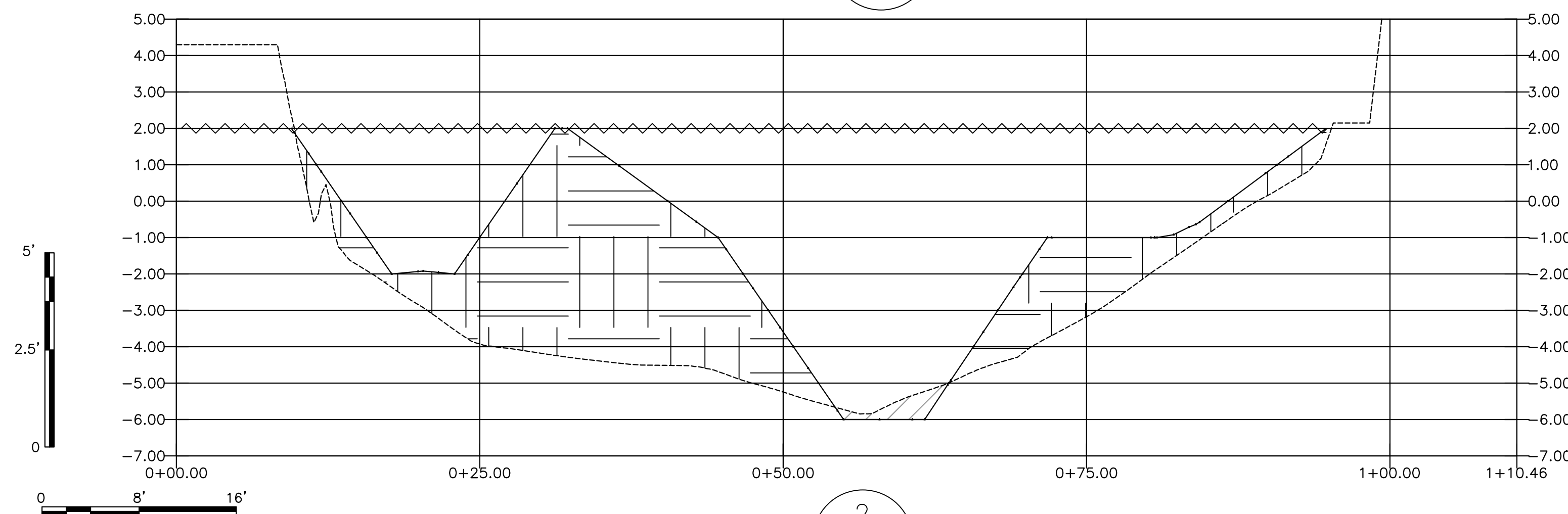
SHEET TITLE:  
**NORTH-SOUTH  
CROSS SECTION  
DETAIL I - LAKE 31**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| <b>C361</b>           |        |
| SHEET 32 OF 42 SHEETS |        |



1  
C360

- LEGEND**
- PROPOSED GRADE
  - - - EXISTING GRADE
  - ~ OBSERVED WATER LINE(2.0')
  - ▨ SEDIMENT REMOVAL
  - ▩ CLEAN FILL



2  
C360

- LEGEND**
- PROPOSED GRADE
  - - - EXISTING GRADE
  - ~ OBSERVED WATER LINE(2.0')
  - ▨ SEDIMENT REMOVAL
  - ▩ CLEAN FILL

NOTE:  
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 2) THE LITTORAL ZONE MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLOUDS LARGER THAN 6 INCHES IN SIZE.  
 3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

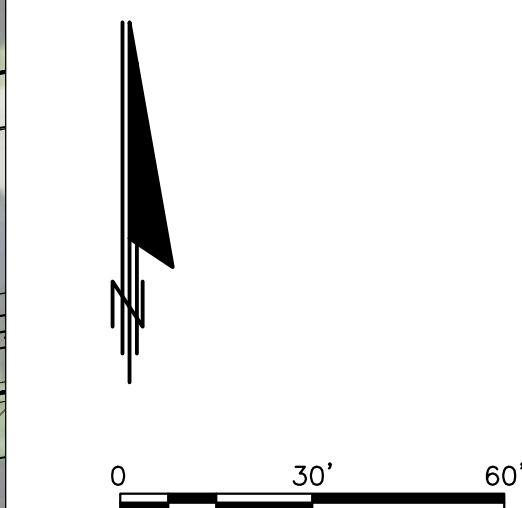


| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
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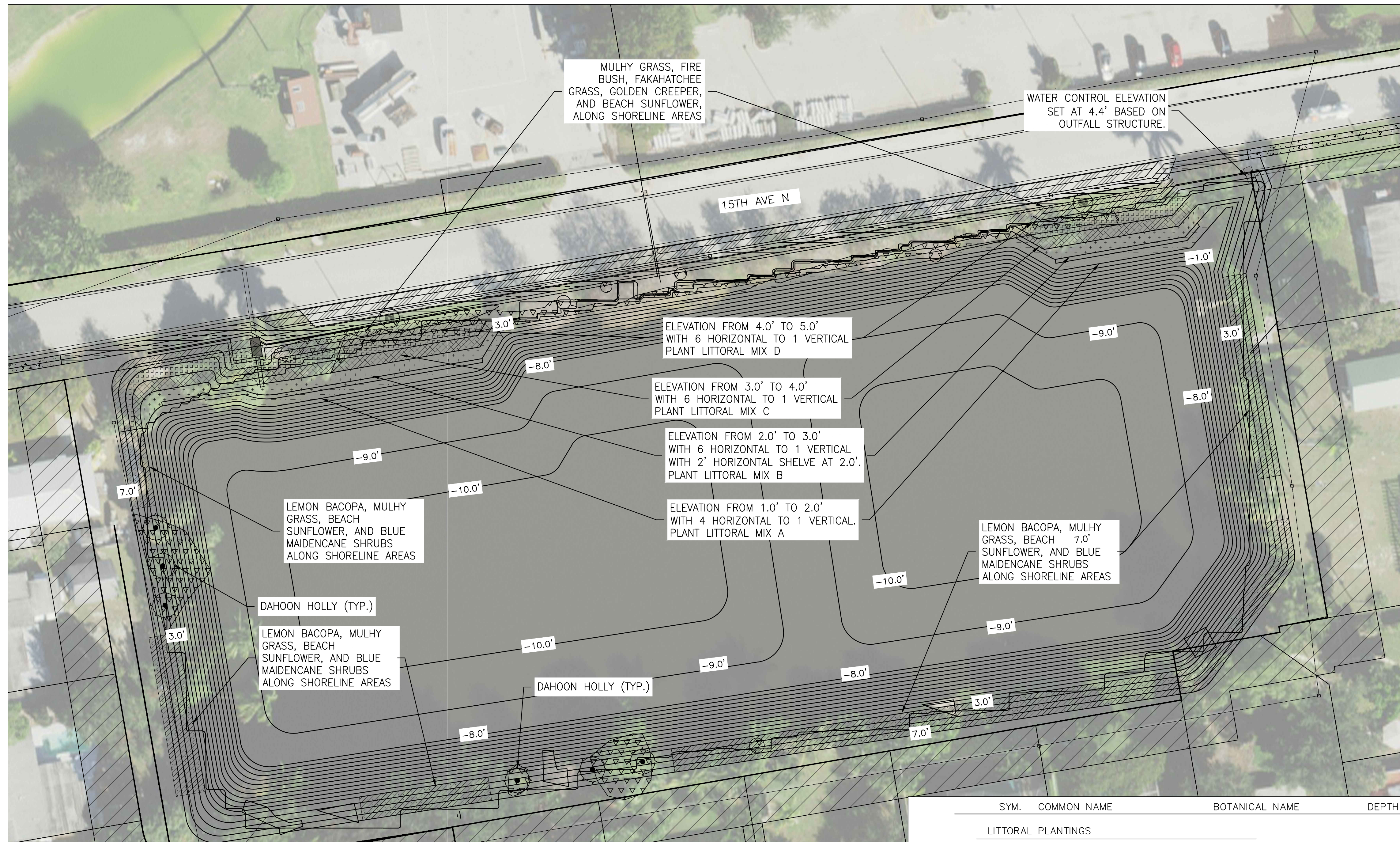
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|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**PLANTING PLAN I - LAKE 19**

|                                     |        |
|-------------------------------------|--------|
| SHEET NUMBER:                       | REV. # |
| <b>C410</b>                         |        |
| SHEET <b>33</b> OF <b>42</b> SHEETS |        |



- LEGEND**
- LAKE AND ROAD PLATTED PROJECT BOUNDARY (4.76 ACRES)
  - ⊙ BENCHMARK
  - - - SURVEYED WATER LINE (4.5 FEET NAVD88; 3.00 ACRES)
  - - - CITY OF NAPLES PARCEL BOUNDARIES
  - [Hatched Box] CITY OF NAPLES EASEMENTS
  - [Cross-hatched Box] PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.002 ACRES)
  - - - PROPOSED CONTOURS
  - [Stippled Box] PROPOSED CONCRETE SIDEWALK
  - [Dotted Box] PROPOSED PERVIOUS ASPHALT SIDEWALK
  - [Diagonal Hatched Box] PROPOSED TURFSTONE SWALE
  - SEWER GRAVITY LINE
  - - - POTABLE WATER LINE
  - - - REUSE WATER LINE
  - - - STORMWATER PIPE
  - OVERHEAD ELECTRIC LINE
  - [Cross-hatched Box] INVASIVE SPECIES

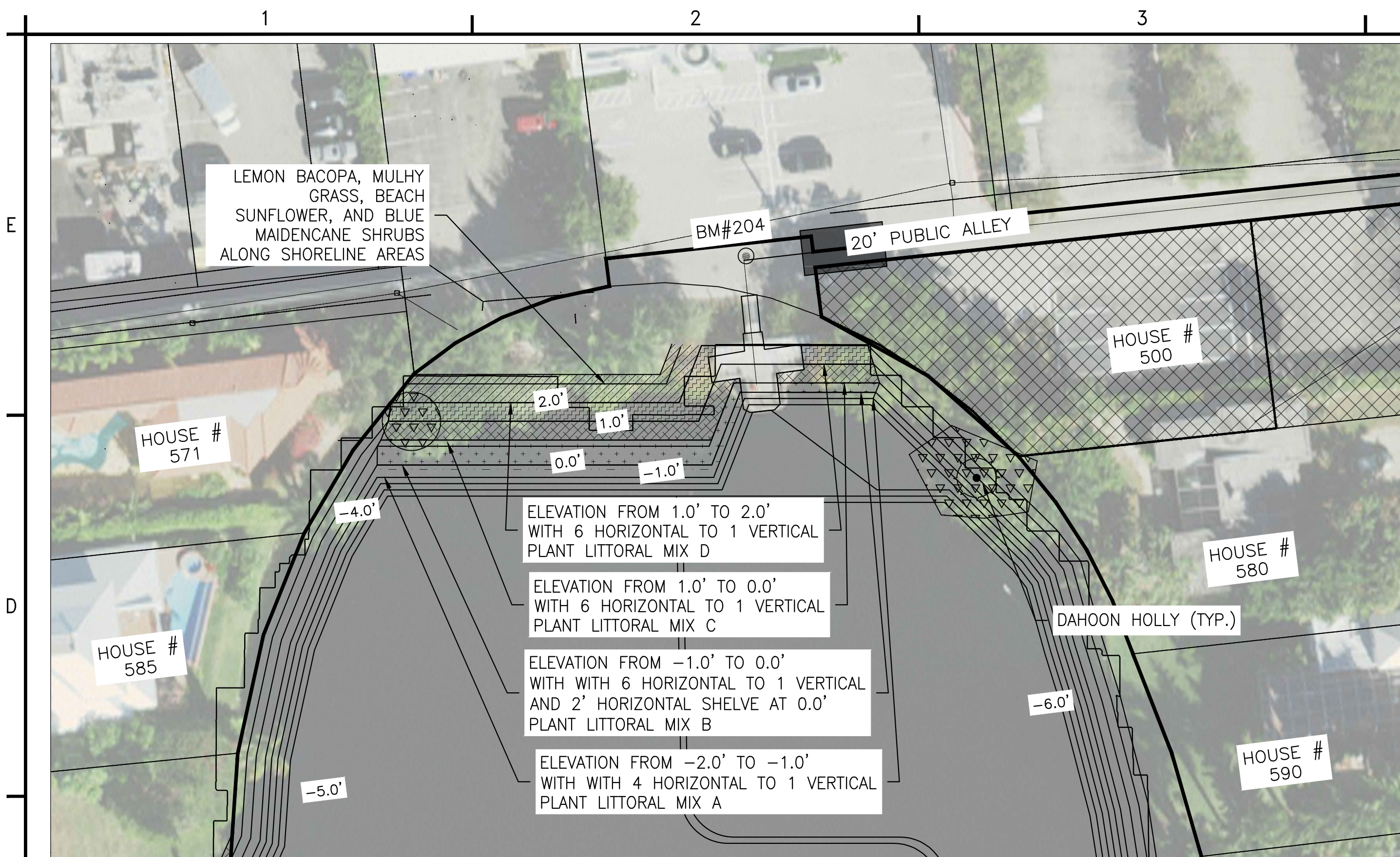


| COMMON NAME         | DESCRIPTION                            | QTY |
|---------------------|----------------------------------------|-----|
| <b>TREES</b>        |                                        |     |
| DAHOON HOLLY        | 2.5" CAL., 10' MIN. HT., 5' MIN. SPRD. | 6   |
| GOLDEN LEATHER FERN | 2.5" CAL., 10' MIN. HT., 5' MIN. SPRD. | 9   |
| <b>GROUND COVER</b> |                                        |     |
| MUHLI GRASS         | 3 GAL., 30" O.C.                       | 24  |
| GOLDEN CREEPER      | 3 GAL., 30" O.C.                       | 5   |
| DWARF FIREBUSH      | 3 GAL., 36" O.C.                       | 5   |
| MARSHHAY GRASS      | 3 GAL., 30" O.C.                       | 18  |
| BEACH SUNFLOWER     | 7 GAL., 4' O.C.                        | 24  |
| LEMON BACOPA        | 1 GAL., 24" O.C.                       | 19  |
| ARGENTINE BAHIA SOD | -                                      | -   |

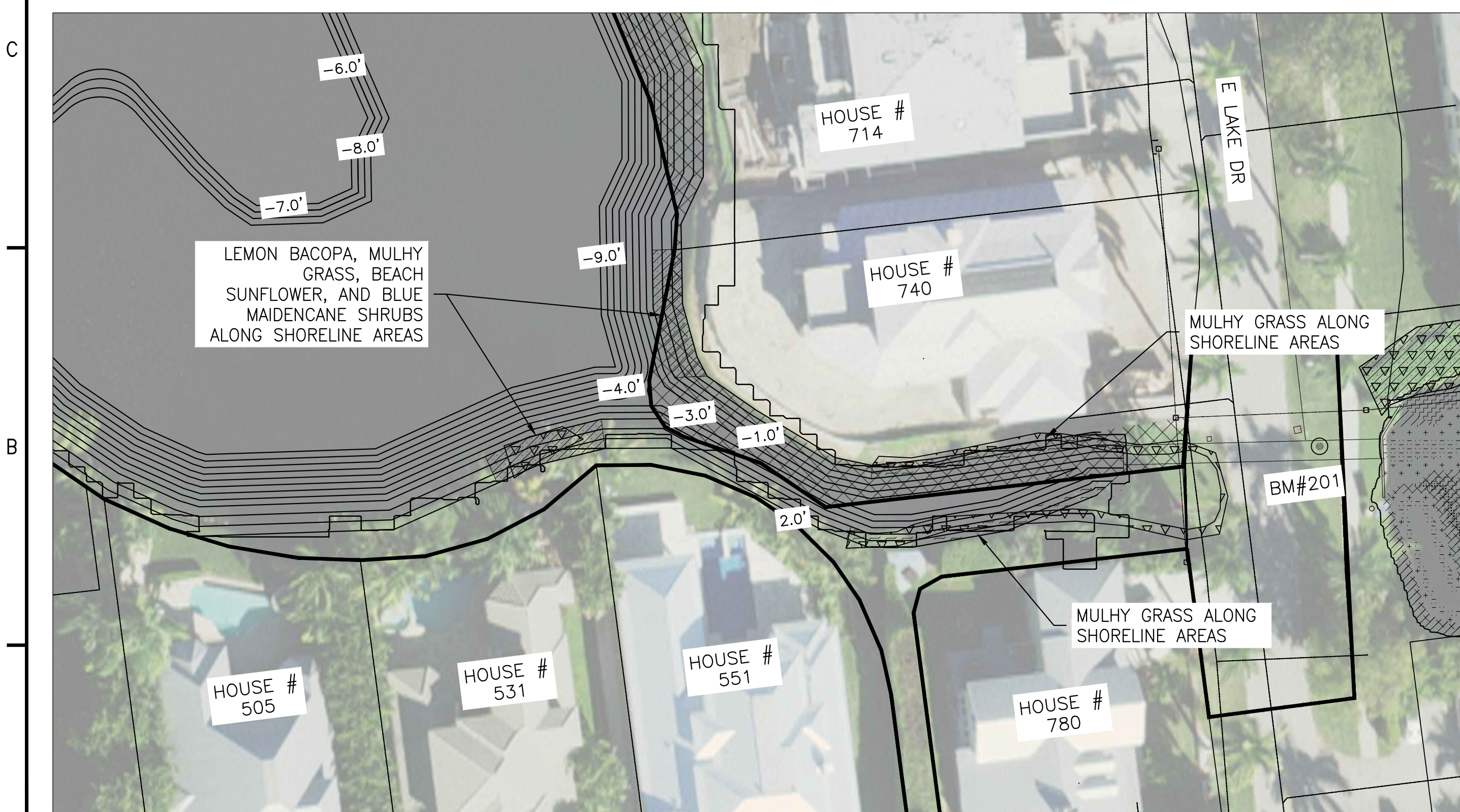
| SYM.                      | COMMON NAME       | BOTANICAL NAME                     | DEPTH                         | QTY        |
|---------------------------|-------------------|------------------------------------|-------------------------------|------------|
| <b>LITTORAL PLANTINGS</b> |                   |                                    |                               |            |
| [Symbol]                  | LA LITTORAL MIX A | FRAGRANT WATERLILY                 | 3-4' BELOW NORMAL WATER LEVEL | 894        |
| [Symbol]                  | LB LITTORAL MIX B | BULLRUSH<br>SPIKERUSH              | 2-3' BELOW NORMAL WATER LEVEL | 232<br>232 |
| [Symbol]                  | LC LITTORAL MIX C | DUCK POTATO<br>BROADLEAF ARROWHEAD | 1-2' BELOW NORMAL WATER LEVEL | 169<br>169 |
| [Symbol]                  | LC LITTORAL MIX D | CINNAMON FERN<br>SWAMP ROSEMALLOW  | 0-1' BELOW NORMAL WATER LEVEL | 169<br>169 |

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
  - THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCE WOOD SURVEY - DATED JANUARY 2020.
  - 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.

| ID     | DESCRIPTION             | NORTHING   | EASTING    | ELEVATION |
|--------|-------------------------|------------|------------|-----------|
| BM#192 | SET 5/8" IRON ROD & CAP | 662624.93' | 396219.28' | 6.0'      |
| BM#191 | SET 5/8" IRON ROD & CAP | 662592.66' | 395943.02' | 6.2'      |

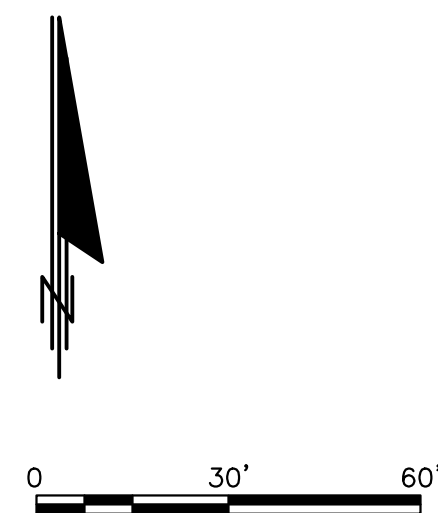


PLAN VIEW #1



PLAN VIEW #2

| ID     | DESCRIPTION             | NORTHING   | EASTING    | ELEVATION |
|--------|-------------------------|------------|------------|-----------|
| BM#201 | SET 5/8" IRON ROD & CAP | 656875.77' | 34118.04'  | 3.3'      |
| BM#204 | SET 5/8" IRON ROD & CAP | 657635.89' | 393659.64' | 4.7'      |



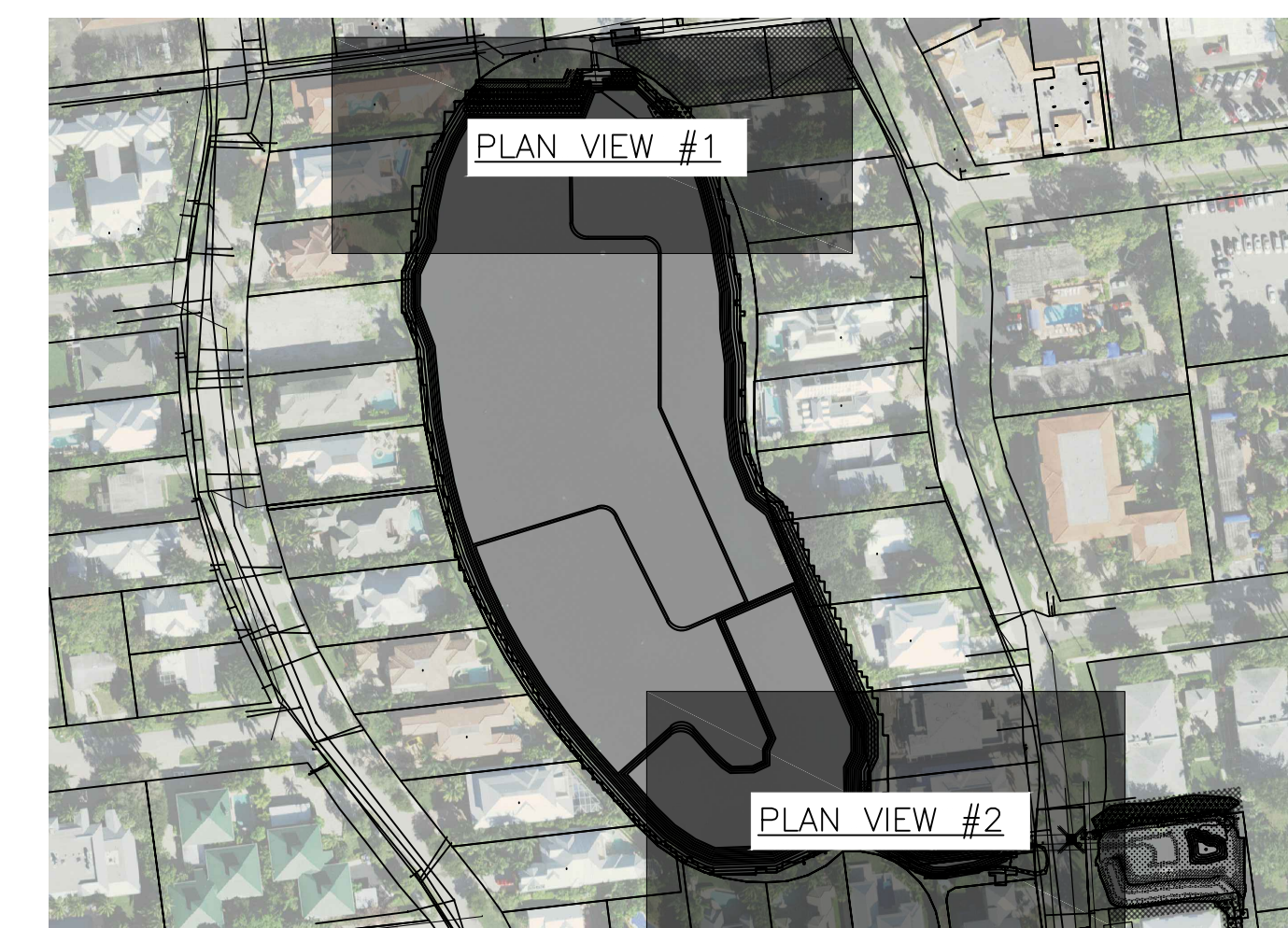
| COMMON NAME         | DESCRIPTION                            | QTY |
|---------------------|----------------------------------------|-----|
| <b>TREES</b>        |                                        |     |
| DAHOON HOLLY        | 2.5" CAL., 10' MIN. HT., 5' MIN. SPRD. | 1   |
| GOLDEN LEATHER FERN | 2.5" CAL., 10' MIN. HT., 5' MIN. SPRD. | 5   |
| <b>GROUNDCOVER</b>  |                                        |     |
| MUHLY GRASS         | 3 GAL., 30" O.C.                       | 8   |
| GOLDEN CREEPER      | 3 GAL., 30" O.C.                       | 2   |
| DWARF FIREBUSH      | 3 GAL., 36" O.C.                       | 2   |
| MARSHHAY GRASS      | 3 GAL., 30" O.C.                       | 6   |
| BEACH SUNFLOWER     | 7 GAL., 4' O.C.                        | 4   |
| LEMON BACOPA        | 1 GAL., 24" O.C.                       | 2   |
| ARGENTINE BAHIA SOD | -                                      | -   |

| SYM.                      | COMMON NAME       | BOTANICAL NAME                     | DEPTH                         | QTY        |
|---------------------------|-------------------|------------------------------------|-------------------------------|------------|
| <b>LITTORAL PLANTINGS</b> |                   |                                    |                               |            |
| [Symbol]                  | LA LITTORAL MIX A | FRAGRANT WATERLILY                 | 3-4' BELOW NORMAL WATER LEVEL | 212        |
| [Symbol]                  | LB LITTORAL MIX B | BULLRUSH<br>SPIKERUSH              | 2-3' BELOW NORMAL WATER LEVEL | 103<br>103 |
| [Symbol]                  | LC LITTORAL MIX C | DUCK POTATO<br>BROADLEAF ARROWHEAD | 1-2' BELOW NORMAL WATER LEVEL | 90<br>90   |
| [Symbol]                  | LC LITTORAL MIX D | CINNAMON FERN<br>SWAMP ROSEMALLOW  | 0-1' BELOW NORMAL WATER LEVEL | 90<br>90   |

**LEGEND**

- [Symbol] LAKE PLATTED AND ROAD PROJECT BOUNDARY (5.30 ACRES)
- [Symbol] BENCHMARK
- [Symbol] SURVEYED WATER LINE (2.0 FEET NAVD88; 4.99 ACRES)
- [Symbol] CITY OF NAPLES PARCEL BOUNDARIES
- [Symbol] PRIVATE PROPERTY BOUNDARY
- [Symbol] TEMPORARY IMPACTS (0.48 ACRES)
- [Symbol] EXISTING CONTOURS
- [Symbol] PROPOSED CONTOURS
- [Symbol] SEWER GRAVITY LINE
- [Symbol] POTABLE WATER LINE
- [Symbol] REUSE WATER LINE
- [Symbol] STORMWATER PIPE
- [Symbol] OVERHEAD ELECTRIC LINE
- [Symbol] INVASIVE SPECIES AREA

- NOTES:
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
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  - 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.



SITE MAP

**wood.**

ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
5845 NW 158th ST  
MIAMI LAKES, FL 33014  
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
FLORIDA PE #79293  
ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES  
LAKES 11, 19 & 31  
RESTORATION**  
APPLICANT:

City of *Naples* Florida

WOOD PROJECT No:  
6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |

|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**PLANTING PLAN II -  
LAKE 11**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| <b>C411</b>           |        |
| SHEET 34 OF 42 SHEETS |        |

LEMON BACOPA, MULHY GRASS, BEACH SUNFLOWER, AND BLUE MAIDENCANE SHRUBS ALONG SHORELINE AREAS

REMOVE DIFFUSER PRIOR TO CONSTRUCTION AND REPLACE WITH XL4 AIR STATION CONNECTED TO A EXISTING COMPRESSOR IN A QUEITAIR CABINET VIA SELF WEIGHTED TUBING OR EQUIVALENT WITHIN THE DEEP TREATMENT CELLS

ELEVATION FROM -1.0' TO -2.0' PLANT LITTORAL MIX A

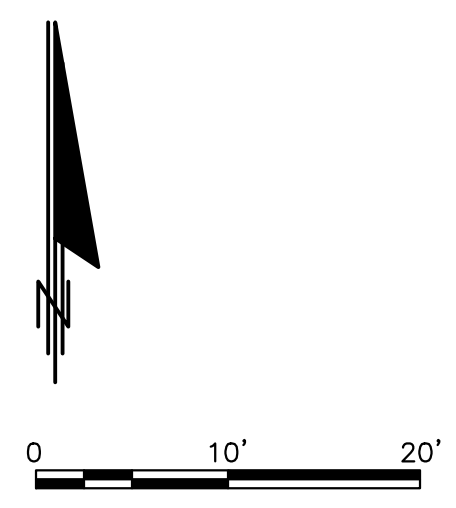
ELEVATION FROM 1.0' TO 0.0' PLANT LITTORAL MIX C

ELEVATION FROM 1.0' TO 2.0' PLANT LITTORAL MIX D

ELEVATION FROM -1.0' TO 0.0' PLANT LITTORAL MIX B

ELEVATION FROM 0.0' TO 1.0' PLANT LITTORAL MIX B

ELEVATION FROM 1.0' TO 2.0' PLANT LITTORAL MIX D



**LEGEND**

- LAKE AND ROAD PLATTED BOUNDARY (0.28 ACRES)
- BENCHMARK
- SURVEYED WATER LINE (2.0 FEET NAVD88; 0.25 ACRES)
- CITY OF NAPLES PARCEL BOUNDARIES
- PRIVATE PROPERTY BOUNDARY TEMPORARY IMPACTS (0.12 ACRES)
- 1.0' PROPOSED CONTOURS
- SEWER GRAVITY LINE
- POTABLE WATER LINE
- REUSE WATER LINE
- STORMWATER PIPE
- OVERHEAD ELECTRIC LINE
- INVASIVE SPECIES AREA
- PROPOSED CONCRETE WEIR
- PROPOSED ROCK RIPRAP

**wood.**  
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
 5845 NW 158th ST  
 MIAMI LAKES, FL 33014  
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
 FLORIDA PE #79293  
 ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION**  
 APPLICANT:



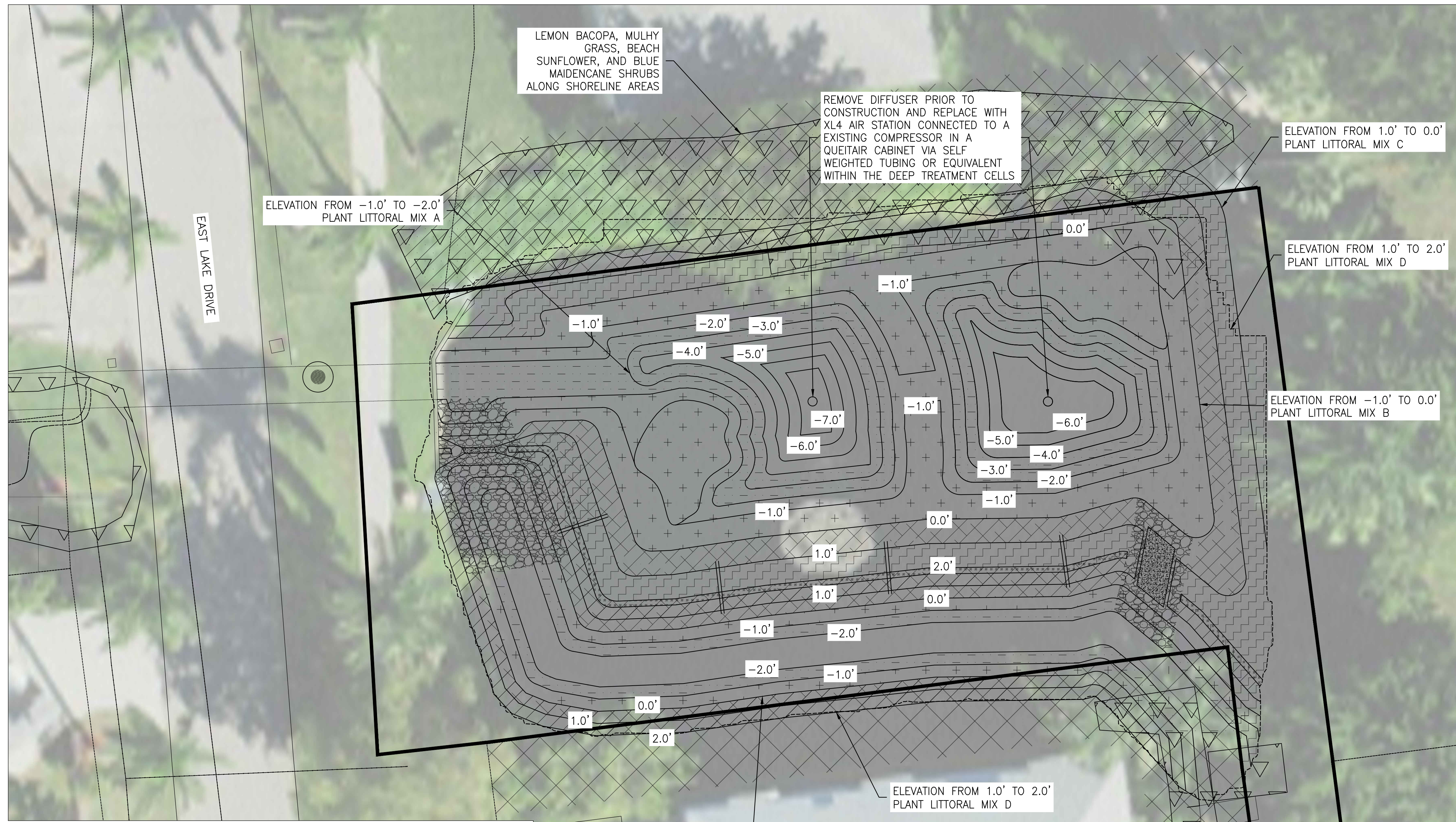
WOOD PROJECT No:  
 6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
|           |          |     |          |

|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**PLANTING PLAN III - LAKE 31**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| C412                  |        |
| SHEET 35 OF 42 SHEETS |        |

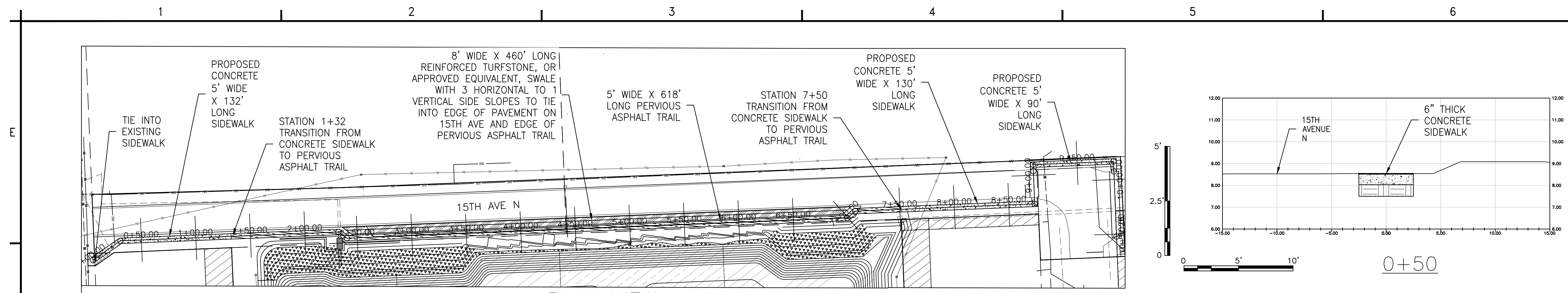


| COMMON NAME         | DESCRIPTION      | QTY |
|---------------------|------------------|-----|
| <b>GROUND COVER</b> |                  |     |
| MULHY GRASS         | 3 GAL., 30" O.C. | 9   |
| GOLDEN CREEPER      | 3 GAL., 30" O.C. | 9   |
| DWARF FIREBUSH      | 3 GAL., 36" O.C. | 9   |
| MARSHHAY GRASS      | 3 GAL., 30" O.C. | 7   |
| BEACH SUNFLOWER     | 7 GAL., 4' O.C.  | 9   |
| LEMON BACOPA        | 1 GAL., 24" O.C. | 7   |
| ARGENTINE BAHIA SOD | -                | -   |

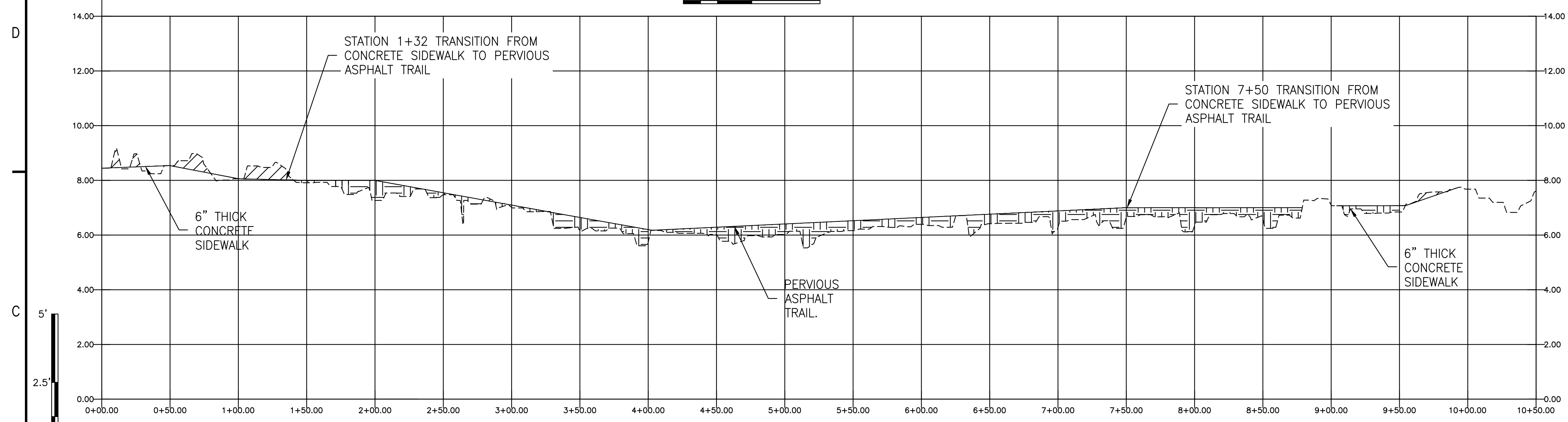
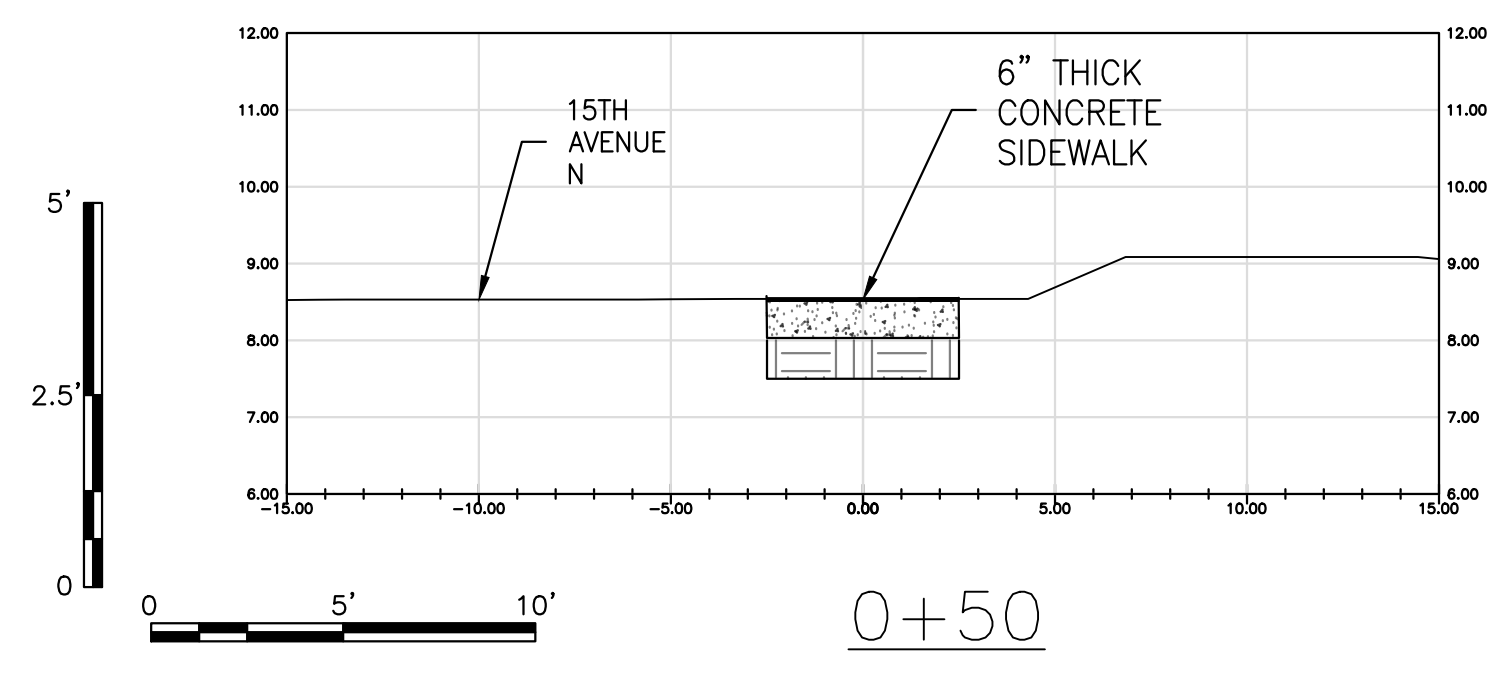
| SYM.                      | COMMON NAME    | BOTANICAL NAME                     | DEPTH                         | QTY               |
|---------------------------|----------------|------------------------------------|-------------------------------|-------------------|
| <b>LITTORAL PLANTINGS</b> |                |                                    |                               |                   |
|                           | LITTORAL MIX A | FRAGRANT WATERLILY                 | 3-4' BELOW NORMAL WATER LEVEL | 1067              |
|                           | LITTORAL MIX B | BULLRUSH<br>SPIKERUSH              | 2-3' BELOW NORMAL WATER LEVEL | 360<br>360        |
|                           | LITTORAL MIX C | DUCK POTATO<br>BROADLEAF ARROWHEAD | 1-2' BELOW NORMAL WATER LEVEL | 150<br>150<br>699 |
|                           | LITTORAL MIX D | CINNAMON FERN<br>SWAMP ROSEMALLOW  | 0-1' BELOW NORMAL WATER LEVEL | 170<br>170        |

NOTES:  
 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)  
 2) THE BATHYMETRIC AND TOPOGRAPHIC DATA FOR LAKES 11, 19, AND 31 RESTORATION PROJECT WAS COMPILED FROM THE FOLLOWING SOURCES WOOD SURVEY - DATED JANUARY 2020,  
 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.

| ID     | DESCRIPTION             | NORTHING   | EASTING   | ELEVATION |
|--------|-------------------------|------------|-----------|-----------|
| BM#201 | SET 5/8" IRON ROD & CAP | 656875.77' | 34118.04' | 3.3'      |

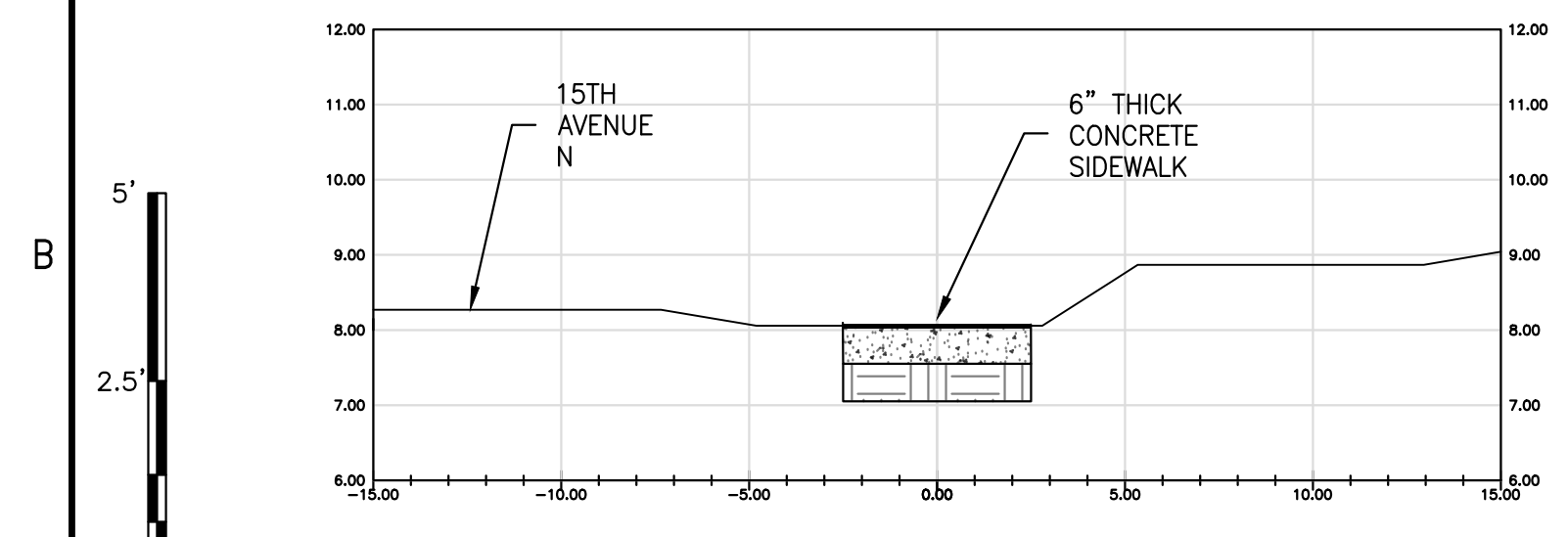


PLAN VIEW

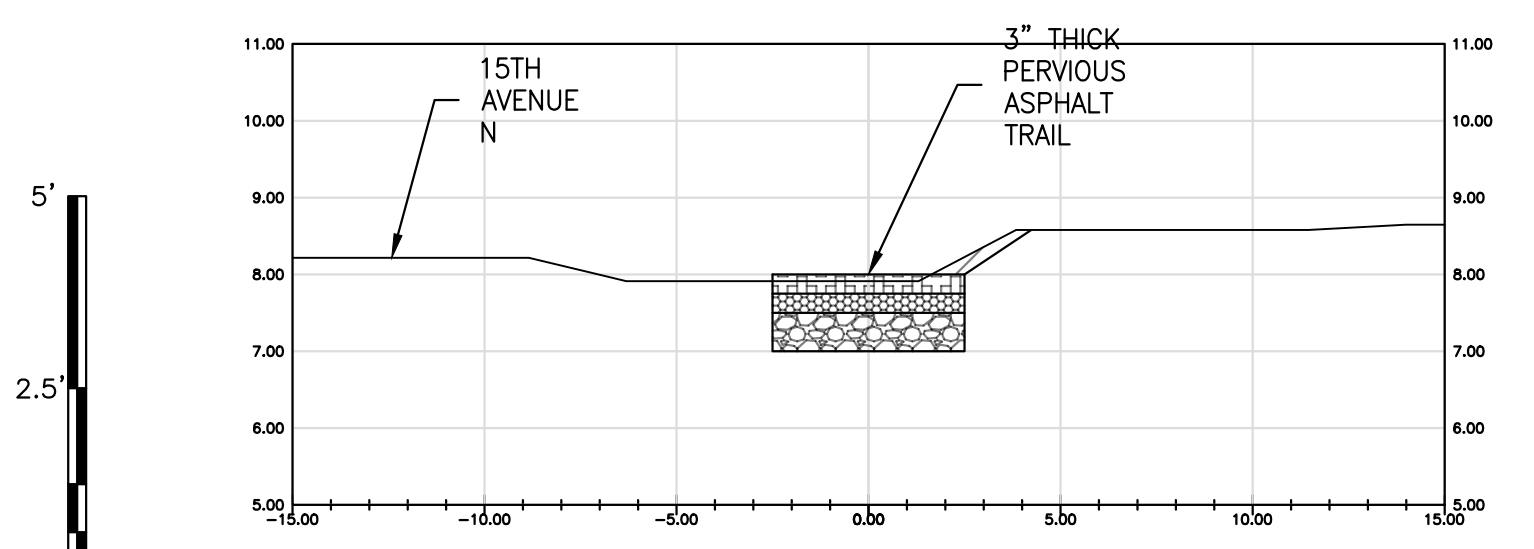


PROFILE

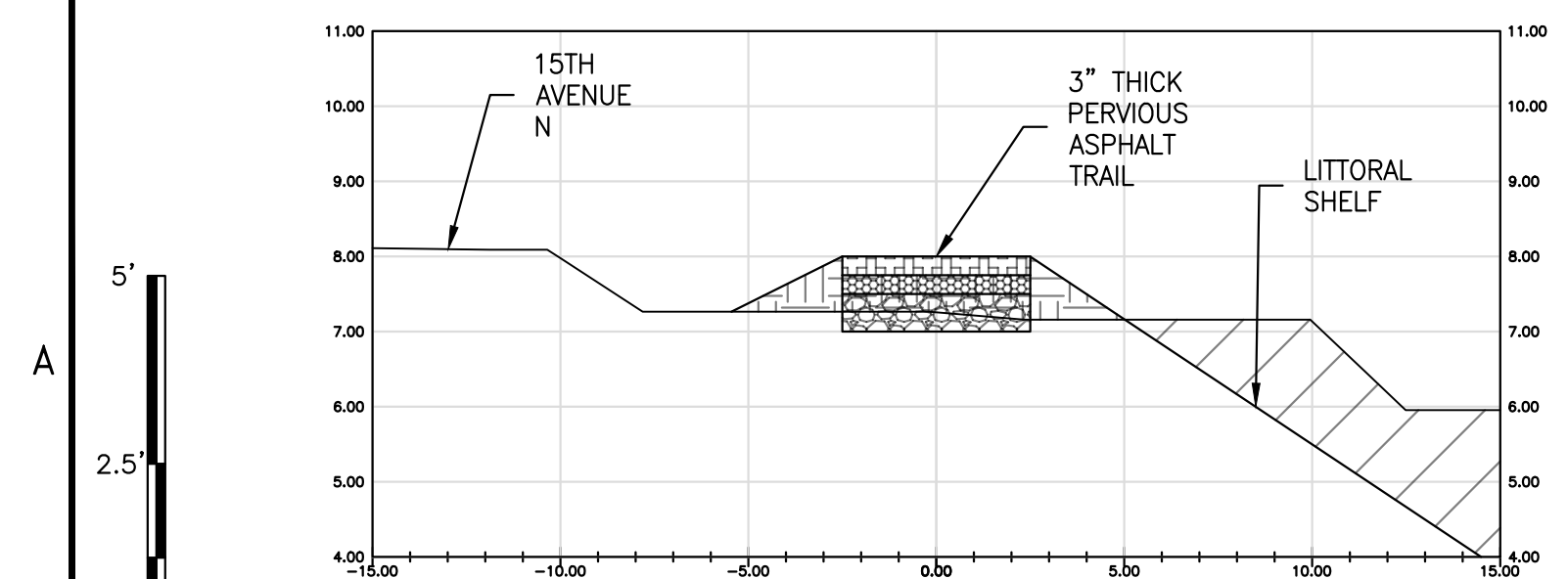
- LEGEND**
- PROPOSED GRADE
  - - - EXISTING GRADE
  - [Hatched Box] CUT
  - [Stippled Box] CLEAN FILL



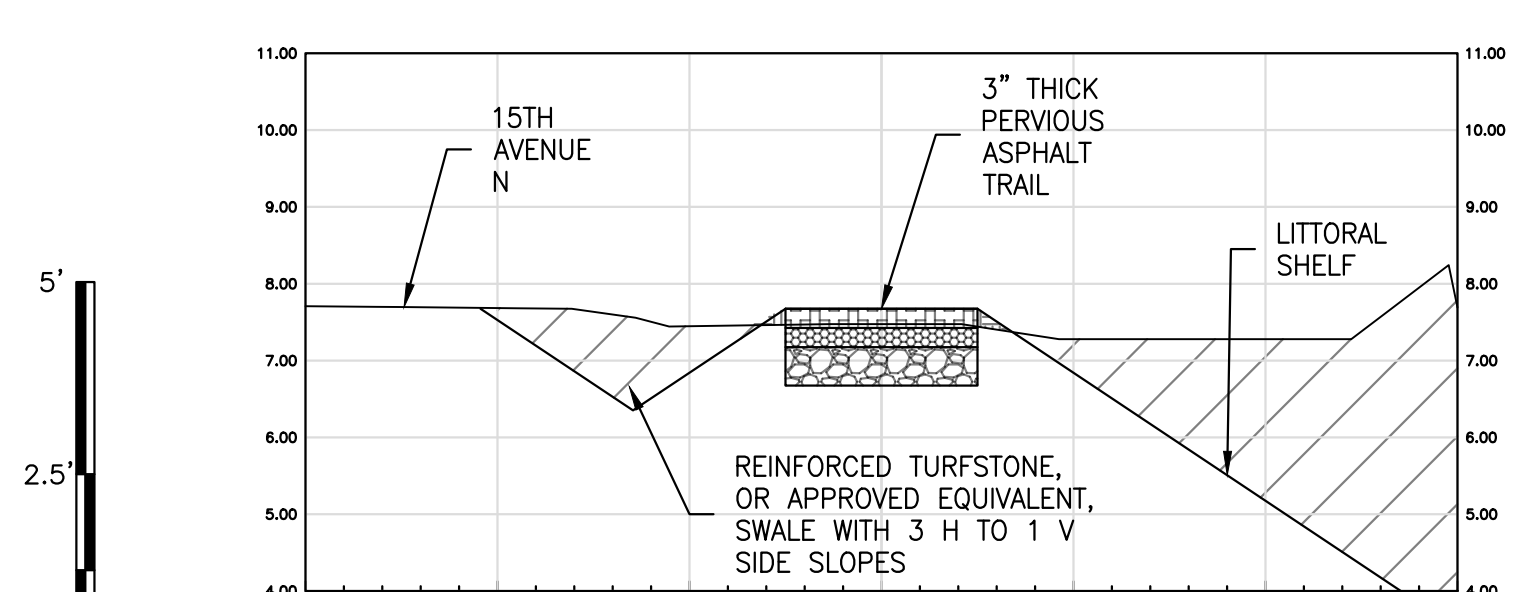
1+00



1+50

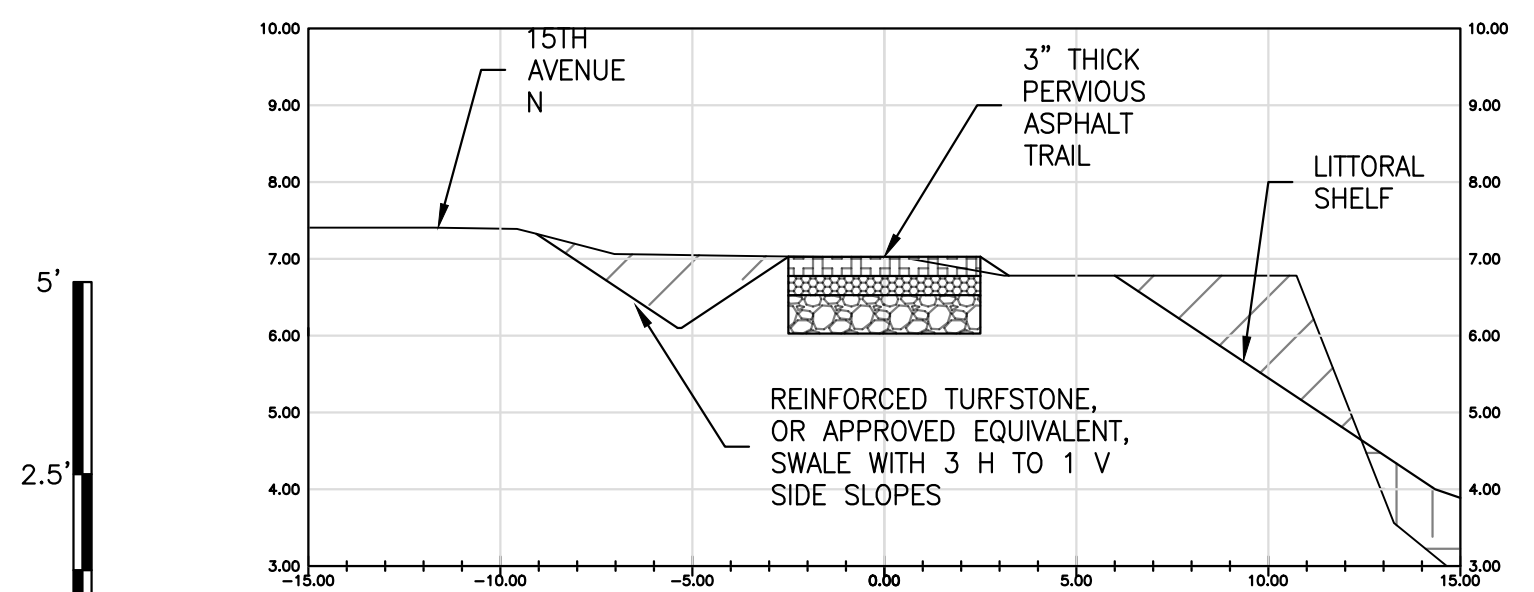


2+00



2+50

NOTE:  
 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).  
 2) THE FILL MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.  
 3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.



3+00

**wood.**  
 ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
 5845 NW 158th ST  
 MIAMI LAKES, FL 33014  
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
 FLORIDA PE #79293  
 ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11,19 & 31 RESTORATION**  
 APPLICANT:



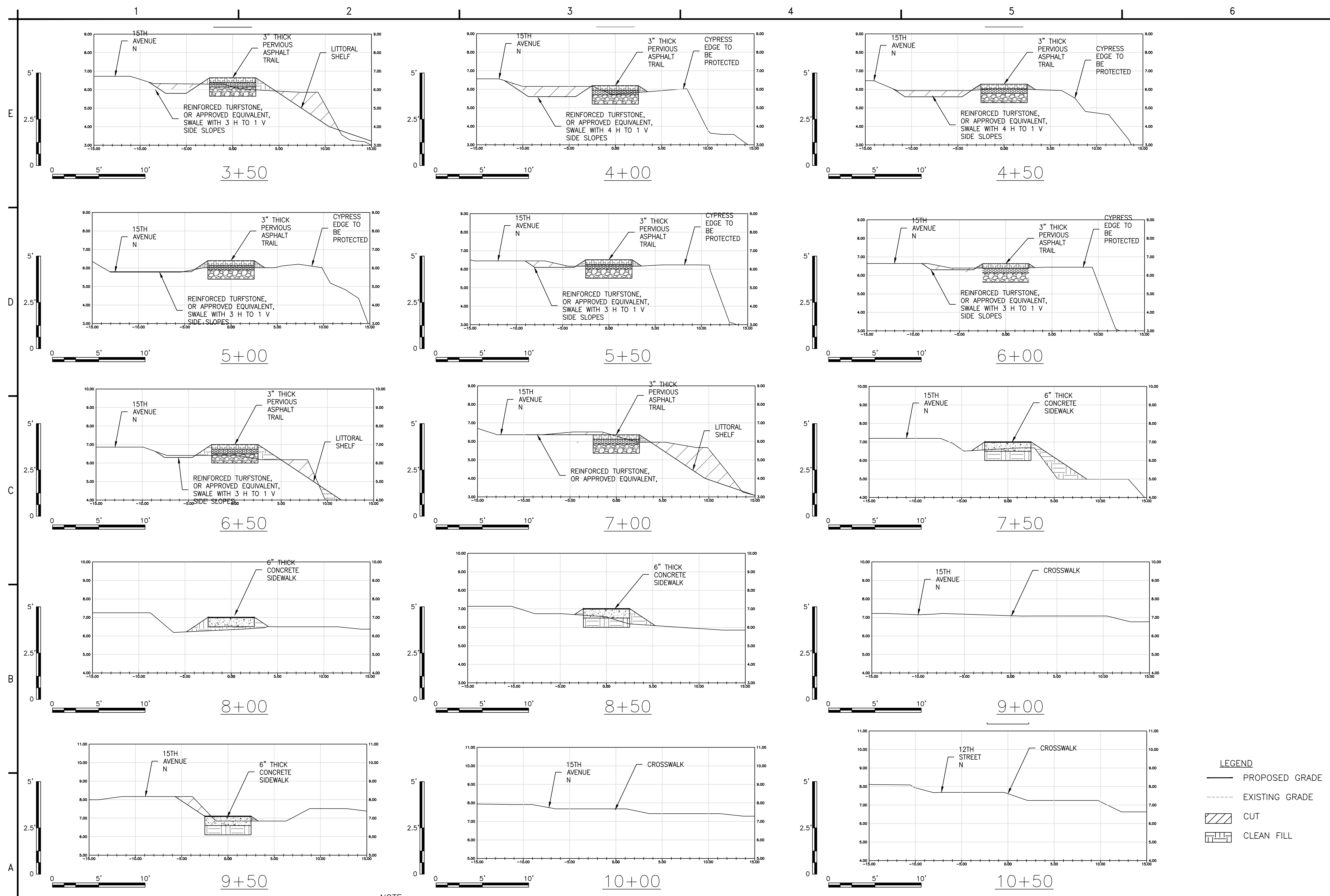
WOOD PROJECT No:  
 6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
|           |          |     |          |

|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**DETAILED GRADING PLAN I - MULTIPURPOSE TRAIL - LAKE 19**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| C420                  |        |
| SHEET 36 OF 42 SHEETS |        |



NOTE:  
 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).  
 2) THE FILL MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.  
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**wood.**  
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 INFRASTRUCTURE  
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GREGORY W. CORNING, P.E.  
 FLORIDA PE #79293  
 ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES  
 LAKES 11, 19 & 31  
 RESTORATION**  
 APPLICANT:



WOOD PROJECT No:  
 6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
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|           |          |     |          |
|           |          |     |          |

|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**DETAILED GRADING  
 PLAN II -  
 MULTIPURPOSE TRAIL  
 - LAKE 19**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| <b>C421</b>           |        |
| SHEET 37 OF 42 SHEETS |        |

**LEGEND**  
 — PROPOSED GRADE  
 - - - EXISTING GRADE  
 [Hatched Box] CUT  
 [Stippled Box] CLEAN FILL

**wood.**

ENVIRONMENT &  
INFRASTRUCTURE  
SOLUTIONS, INC.  
5845 NW 158th ST  
MIAMI LAKES, FL 33014  
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
FLORIDA PE #79293  
ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES  
LAKES 11, 19 & 31  
RESTORATION**  
APPLICANT:

City of  
*Naples* Florida

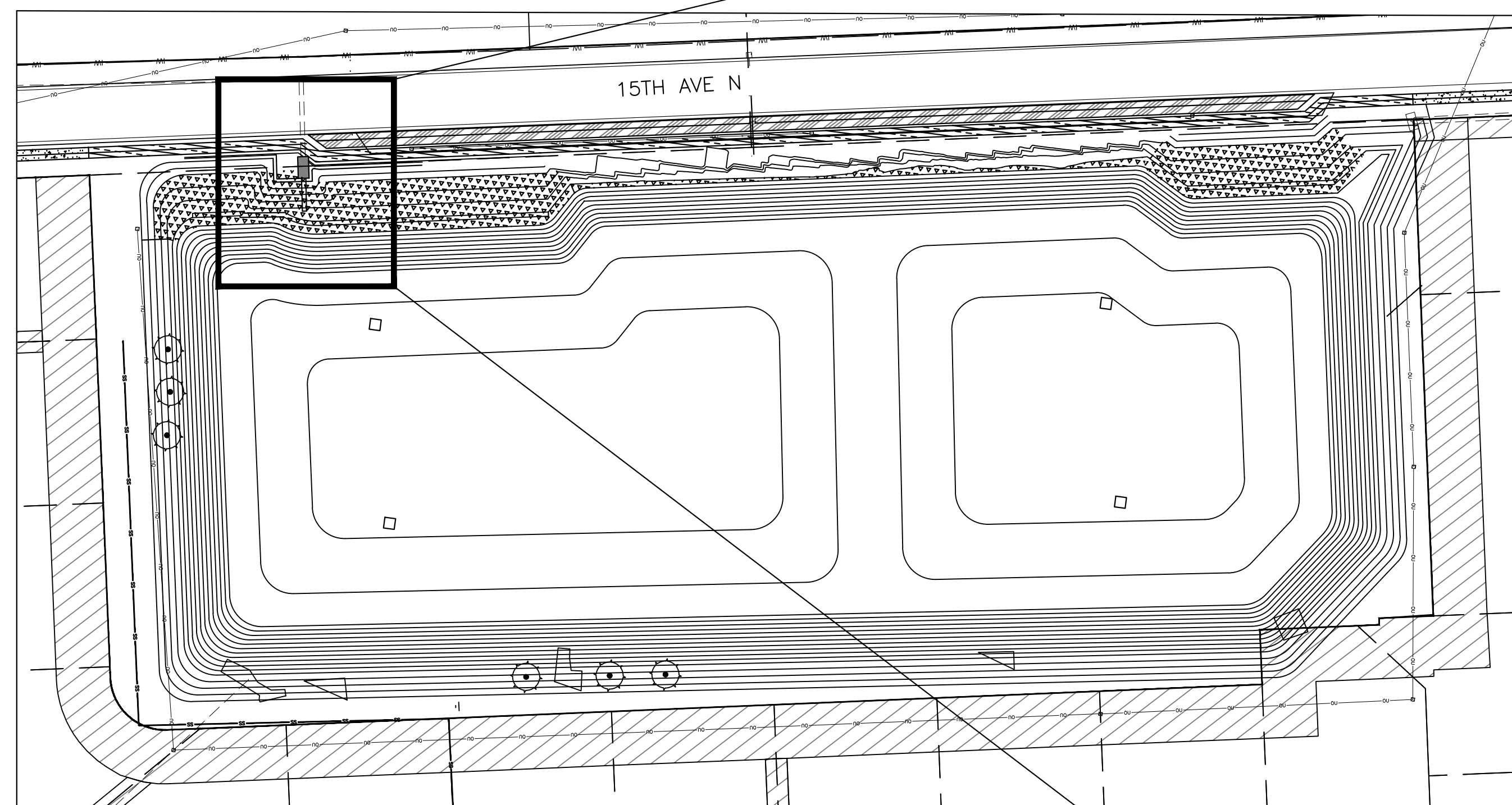
WOOD PROJECT No:  
6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
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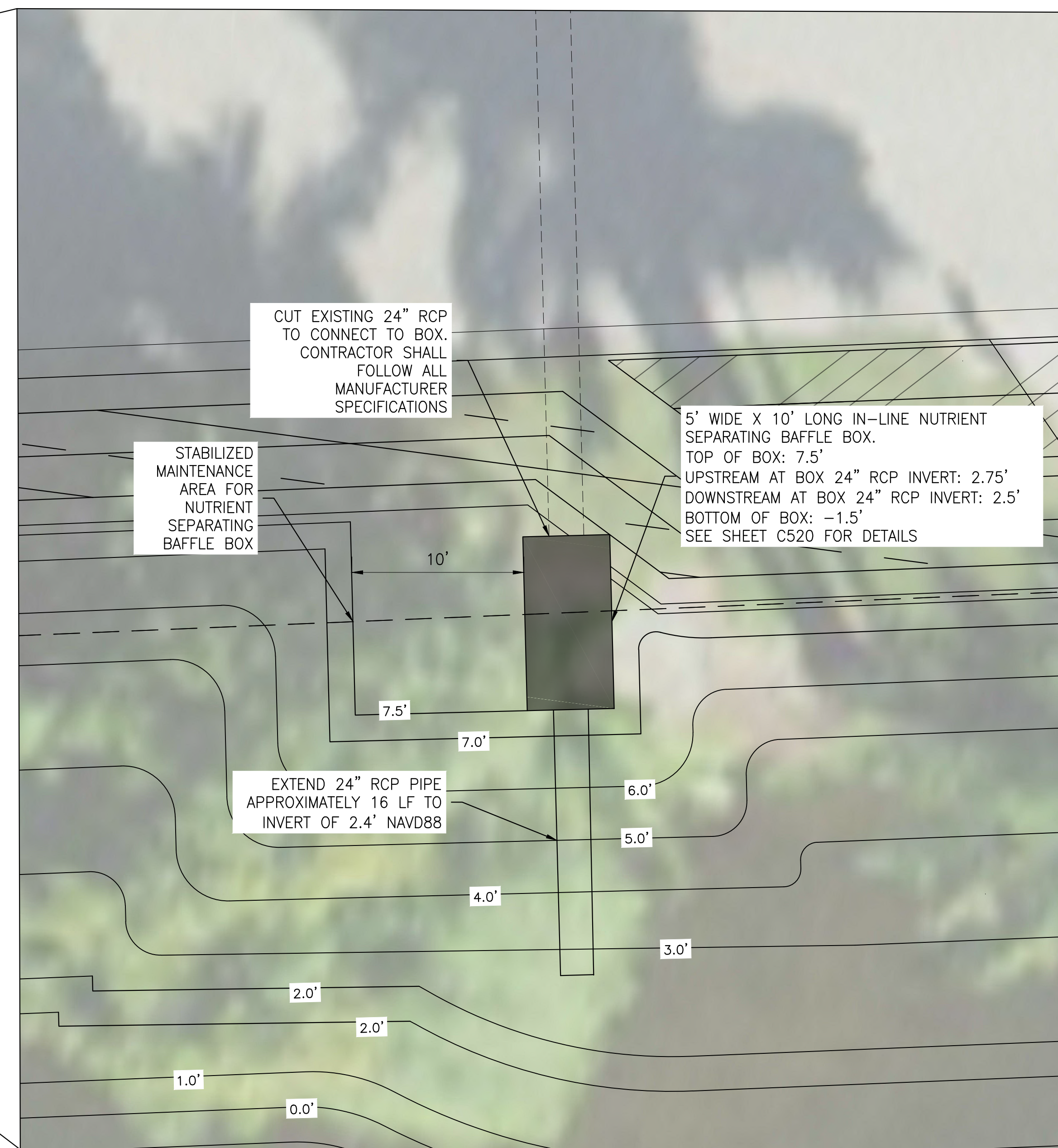
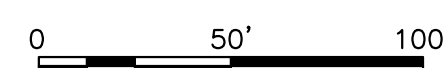
|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**DETAILED GRADING  
PLAN III-STORMWATER  
MODIFICATIONS-  
LAKE 19**

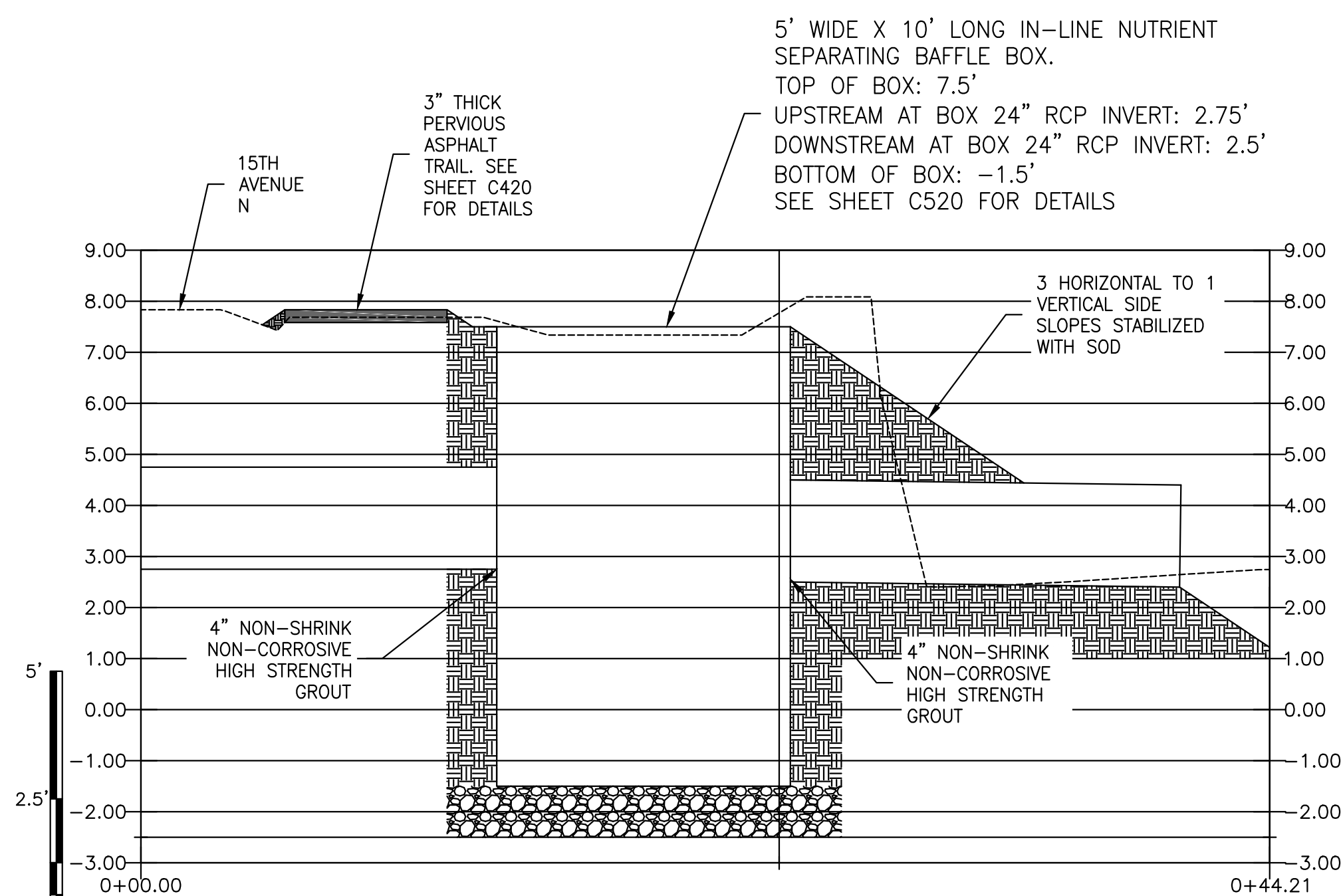
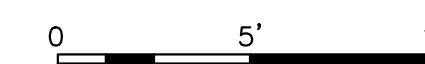
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| SHEET NUMBER:         | REV. # |
| <b>C430</b>           |        |
| SHEET 38 OF 42 SHEETS |        |



**SITE PLAN**



**DETAILED GRADING PLAN**



**DETAILED CROSS SECTION**

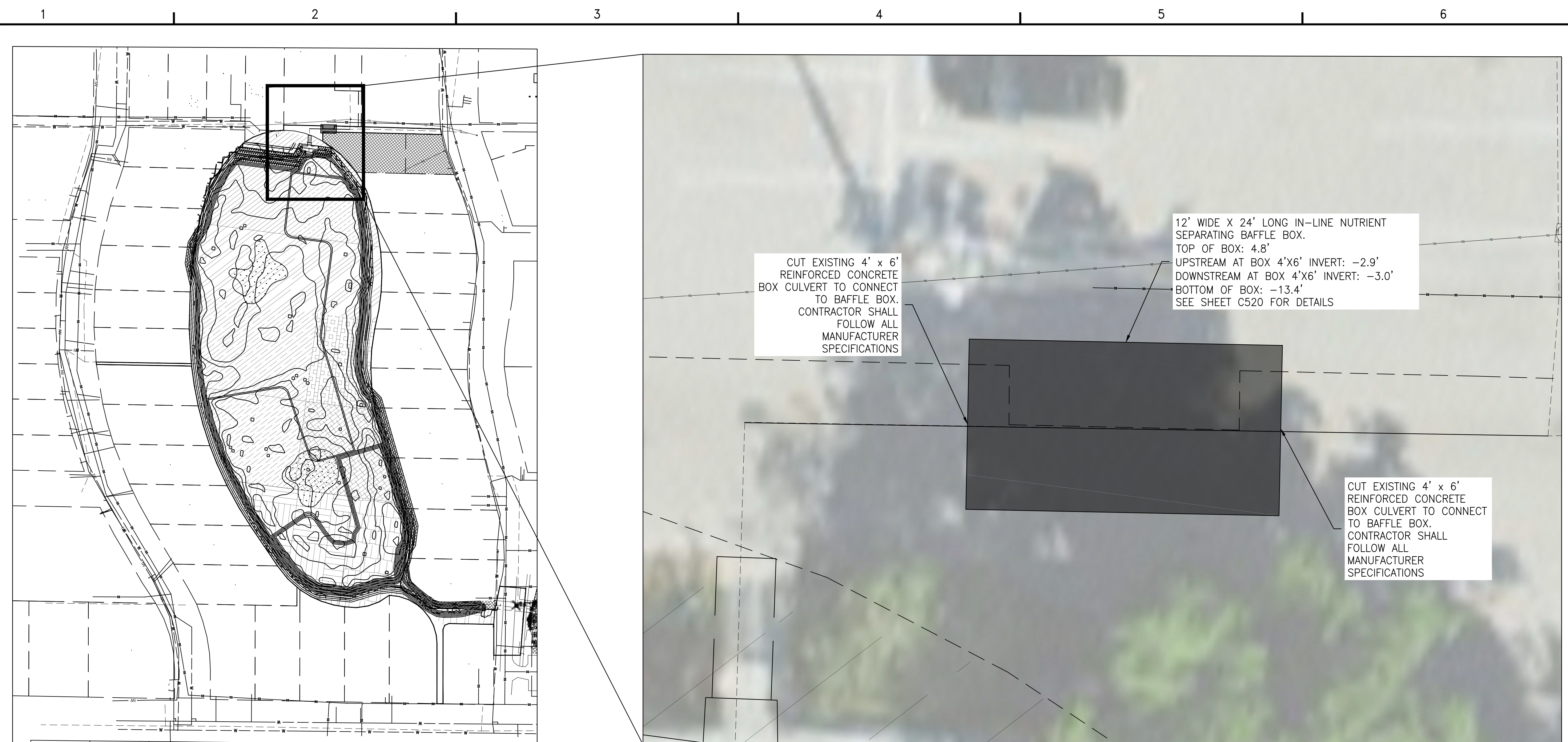


**LEGEND**

- PROPOSED GRADE
- - - EXISTING GRADE
- [Hatched Box] CLEAN FILL
- [Stippled Box] BEDDING STONE

**NOTE:**

- 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- 2) THE FILL MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.
- 3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

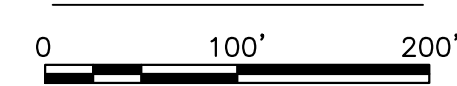


CUT EXISTING 4' x 6' REINFORCED CONCRETE BOX CULVERT TO CONNECT TO BAFFLE BOX. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER SPECIFICATIONS

12' WIDE X 24' LONG IN-LINE NUTRIENT SEPARATING BAFFLE BOX.  
 TOP OF BOX: 4.8'  
 UPSTREAM AT BOX 4'x6' INVERT: -2.9'  
 DOWNSTREAM AT BOX 4'x6' INVERT: -3.0'  
 BOTTOM OF BOX: -13.4'  
 SEE SHEET C520 FOR DETAILS

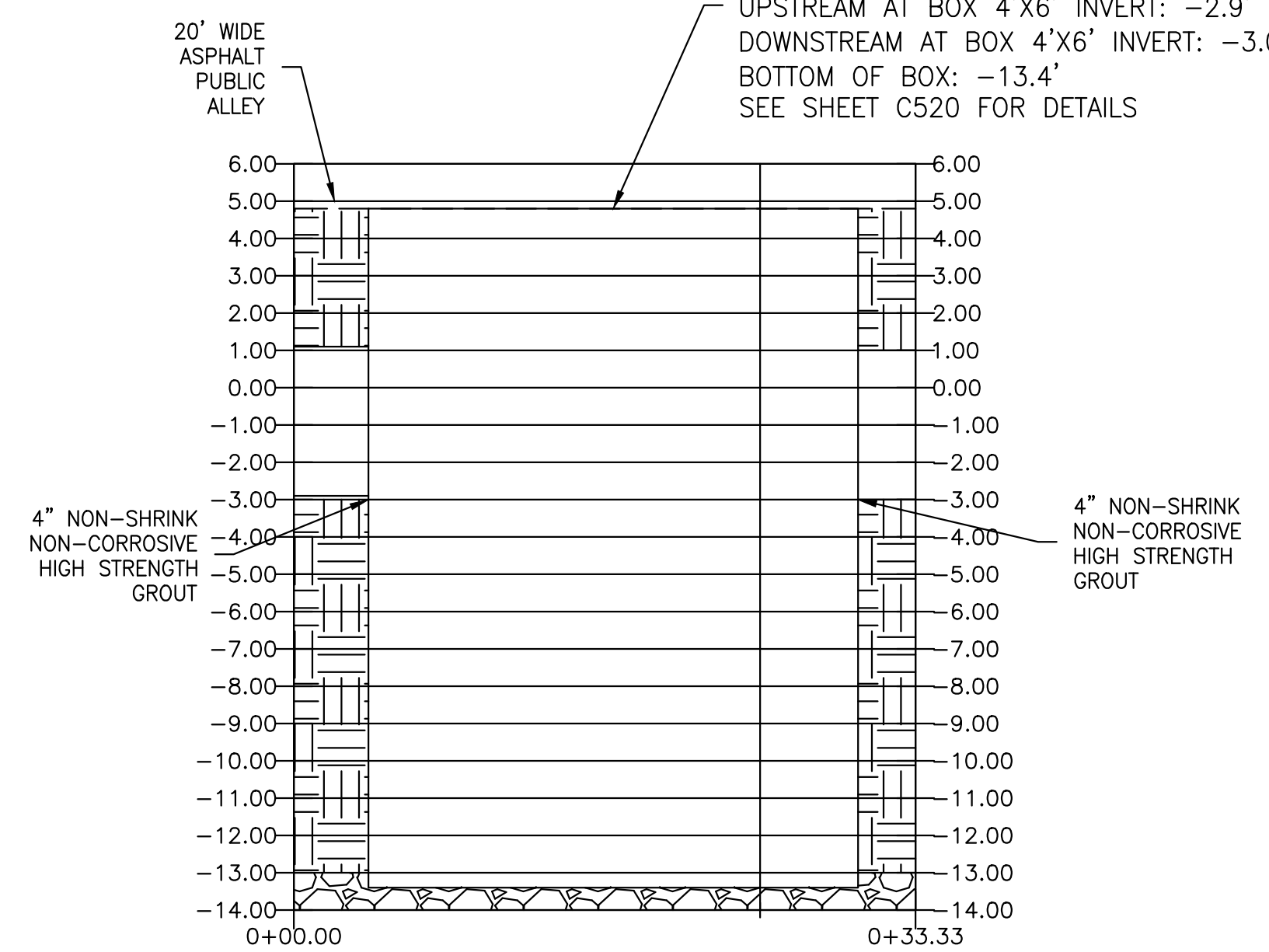
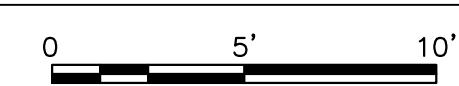
CUT EXISTING 4' x 6' REINFORCED CONCRETE BOX CULVERT TO CONNECT TO BAFFLE BOX. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER SPECIFICATIONS

**SITE PLAN**

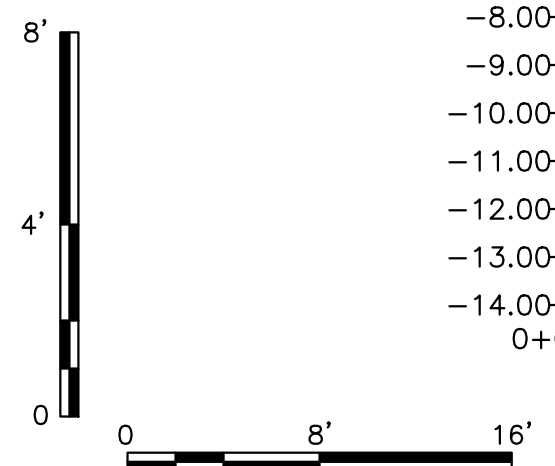


12' WIDE X 24' LONG IN-LINE NUTRIENT SEPARATING BAFFLE BOX.  
 TOP OF BOX: 4.8'  
 UPSTREAM AT BOX 4'x6' INVERT: -2.9'  
 DOWNSTREAM AT BOX 4'x6' INVERT: -3.0'  
 BOTTOM OF BOX: -13.4'  
 SEE SHEET C520 FOR DETAILS

**DETAILED GRADING PLAN**



**DETAILED CROSS SECTION**



- LEGEND**
- PROPOSED GRADE
  - - - - EXISTING GRADE
  - ▨ CLEAN FILL
  - ▩ BEDDING STONE

**NOTE:**

- 1) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- 2) THE FILL MATERIAL SHALL BE FREE OF SOD, BRUSH, ROOTS, OR OTHER PERISHABLE MATERIALS, LARGE ROCKS AND HARD LUMPS OR CLODS LARGER THAN 6 INCHES IN SIZE.
- 3) CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SAFETY STANDARDS DURING CONSTRUCTION CONSIDERING O.S.H.A. STANDARDS FOR TRENCH WIDTHS, SOIL TYPE, ANGLE OF REPOSE, ETC. TO PROPERLY PROTECT WORKERS.

**wood.**

ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
 5845 NW 158th ST  
 MIAMI LAKES, FL 33014  
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
 FLORIDA PE #79293  
 ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11,19 & 31 RESTORATION**  
 APPLICANT:



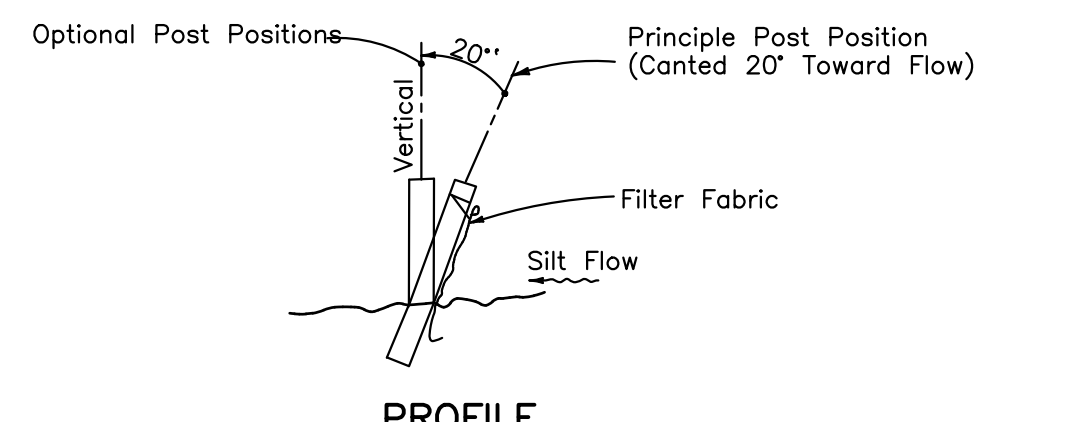
WOOD PROJECT No:  
 6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
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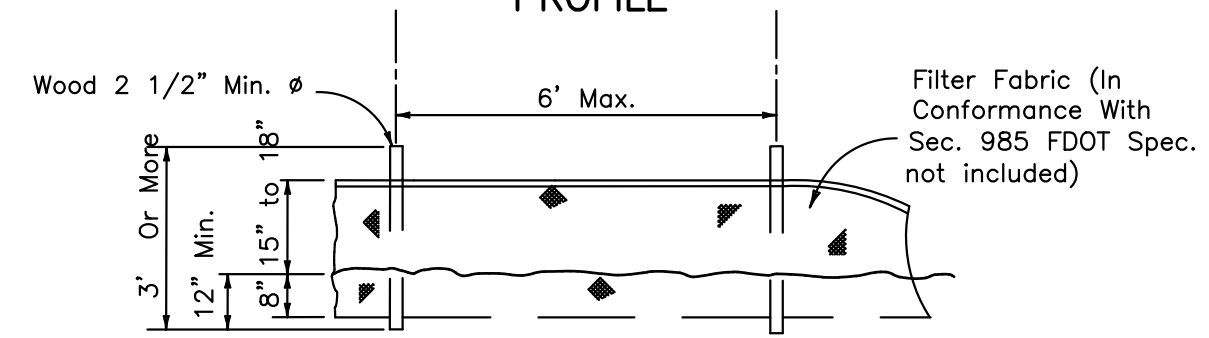
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| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

SHEET TITLE:  
**DETAILED GRADING PLAN IV-STORMWATER MODIFICATIONS-LAKE 11**

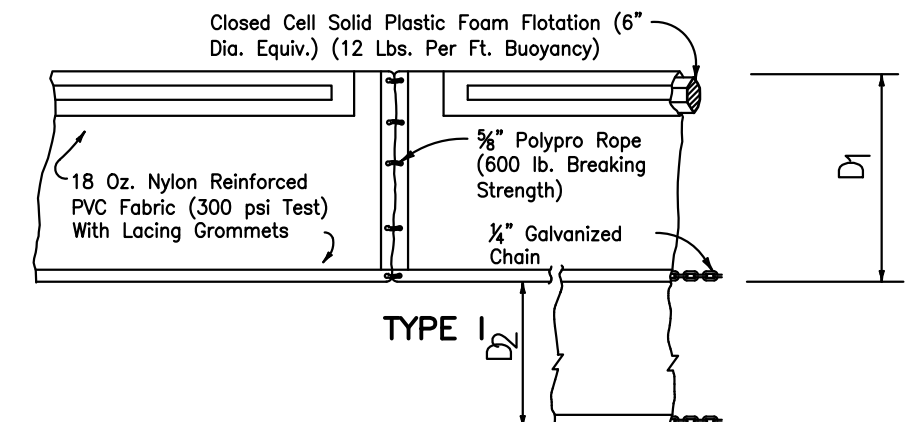
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| SHEET NUMBER:         | REV. # |
| <b>C431</b>           |        |
| SHEET 39 OF 42 SHEETS |        |



PROFILE

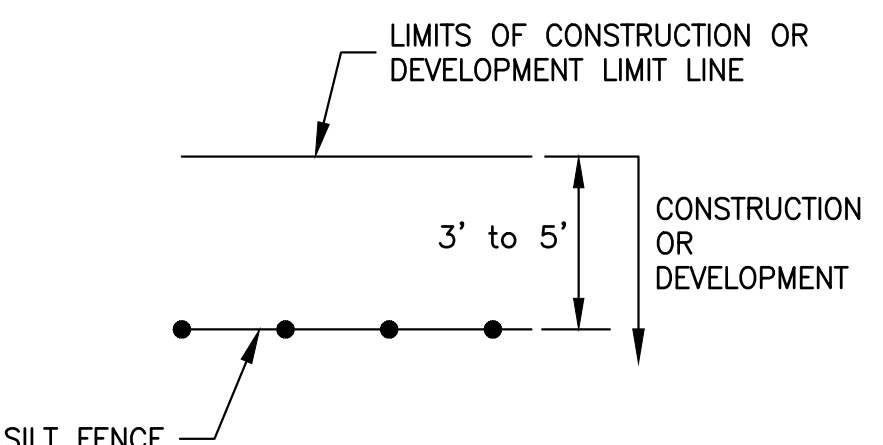


PLAN  
TYPE III SILT FENCE  
N.T.S.

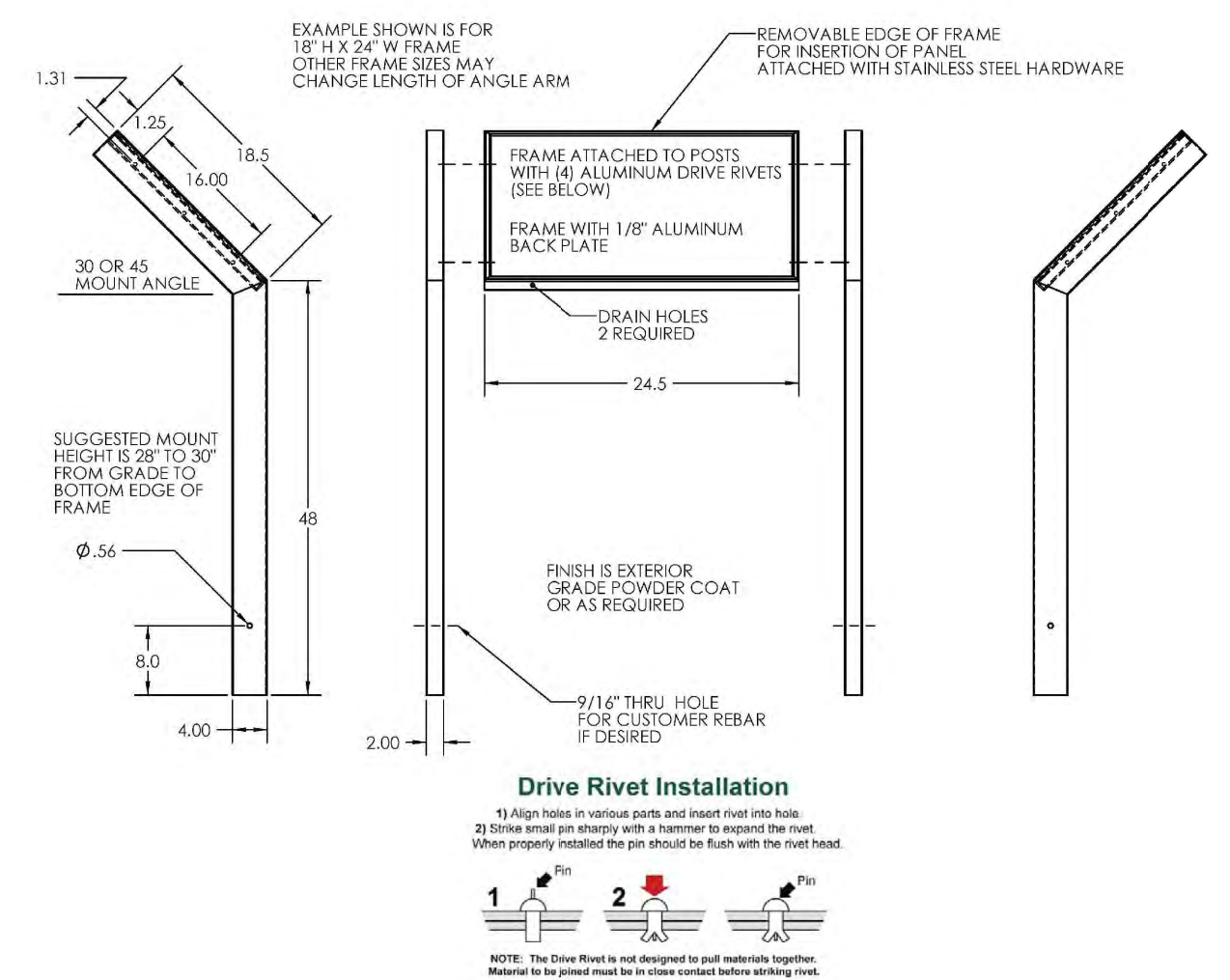


D 1-5' Std. (Single Panel For Depths 5' or Less), D = 2' Std. (Additional Panel For Depths > 5'). Curtain To Reach Bottom Up To Depths Of 10 Feet. Two (2) Panels To Be Used For Depths Greater Than 10 Feet. Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

FLOATING TURBIDITY BARRIERS  
N.T.S.

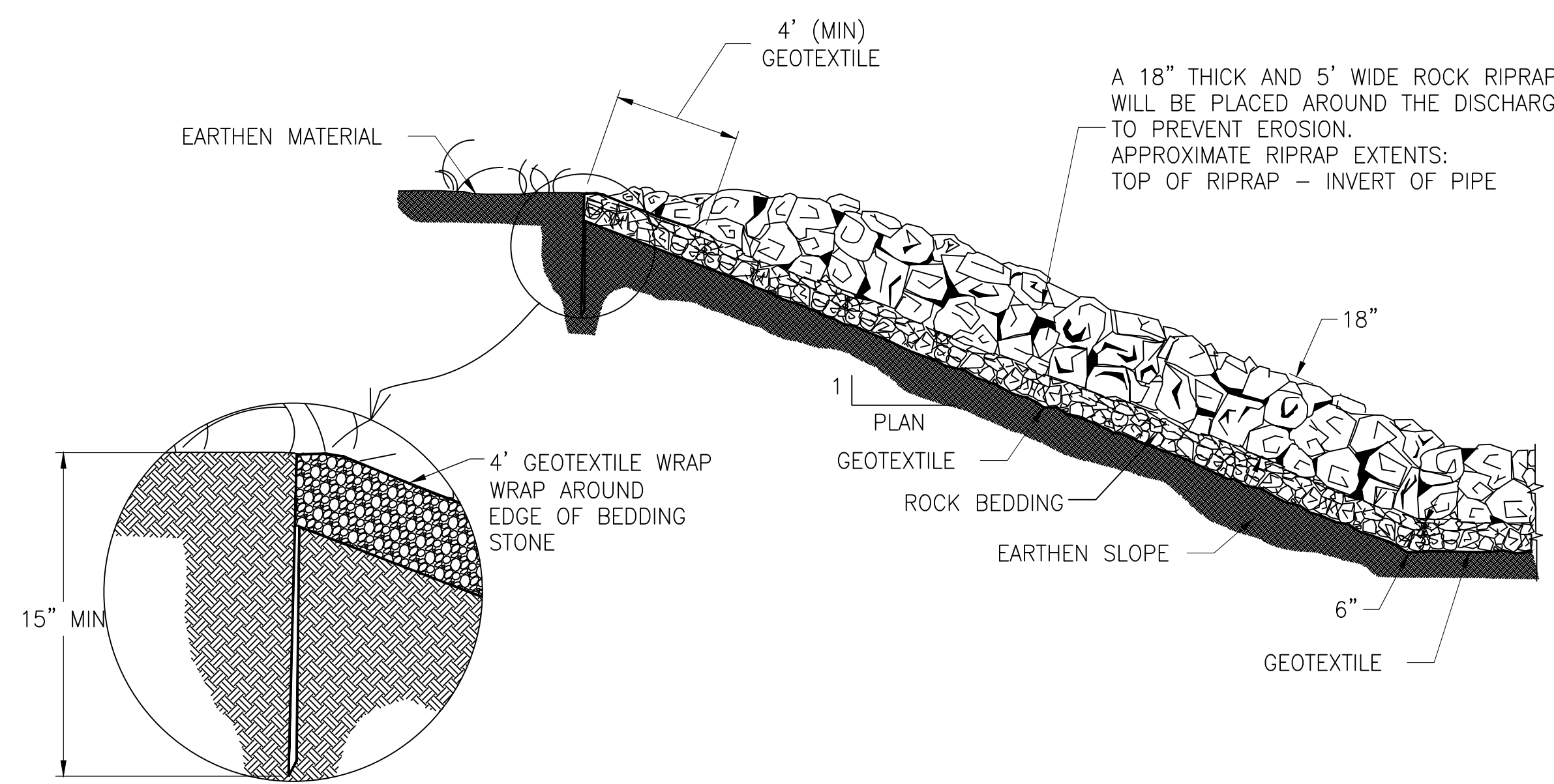


SILT FENCE LOCATION DETAIL  
N.T.S.

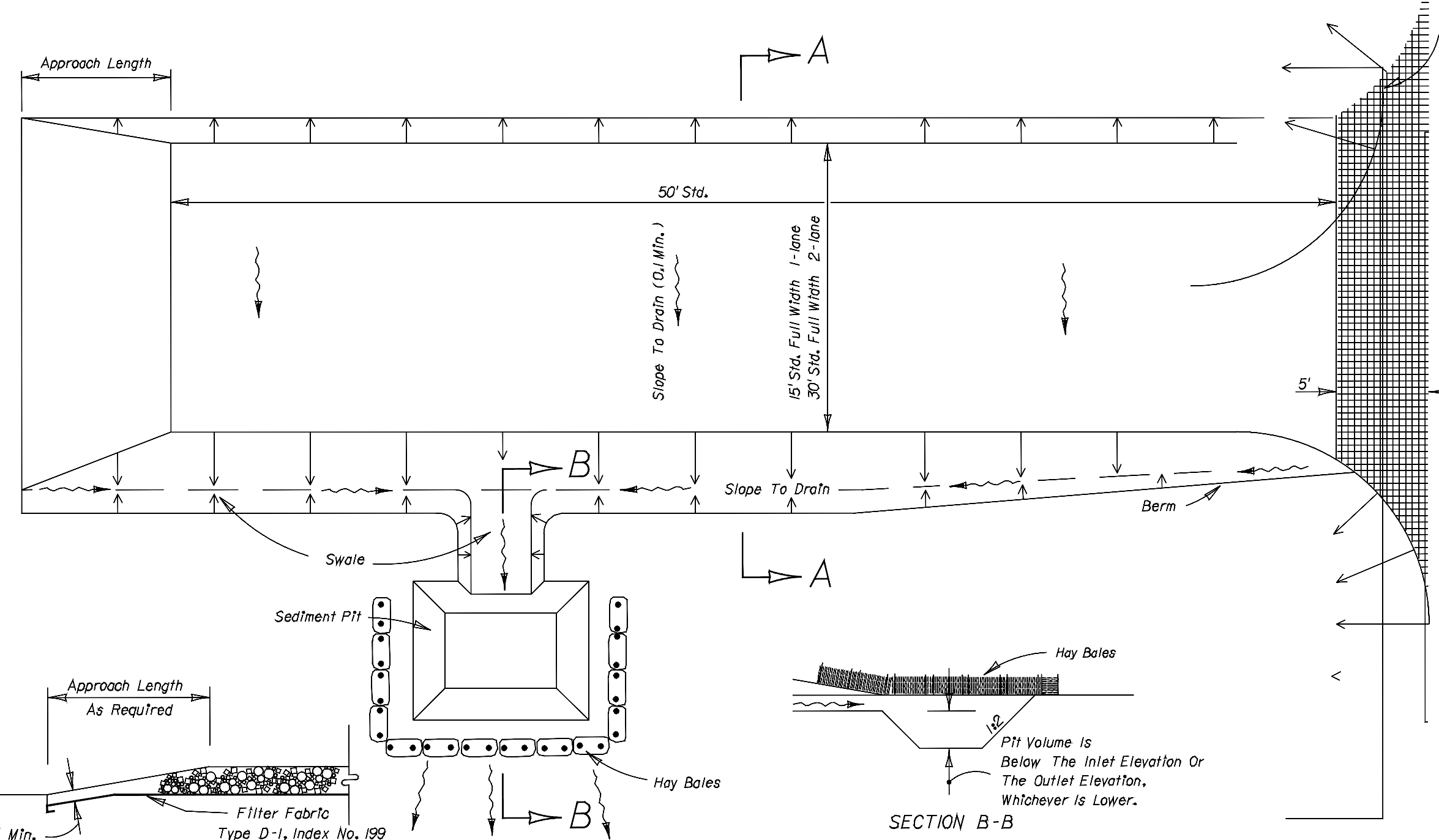


INFORMATIONAL SIGNAGE  
N.T.S.

NOTES:  
1. SIGNAGE GRAPHIC WILL BE SUPPLIED TO THE CONTRACTOR BY THE ENGINEER OF RECORD DURING THE ORDERING PROCESS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD 3 DAYS IN ADVANCE OF ORDERING TO PROCESS THE INFORMATION.



TYPICAL ROCK RIPRAP DETAIL  
N.T.S.



SOIL TRACKING PREVENTION DEVICE "TYPE A"  
N.T.S.

**wood.**  
ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
5845 NW 158th ST  
MIAMI LAKES, FL 33014  
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
FLORIDA PE #79293  
ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11, 19 & 31 RESTORATION**  
APPLICANT:

City of *Naples* Florida

WOOD PROJECT No:  
6788-20-3223

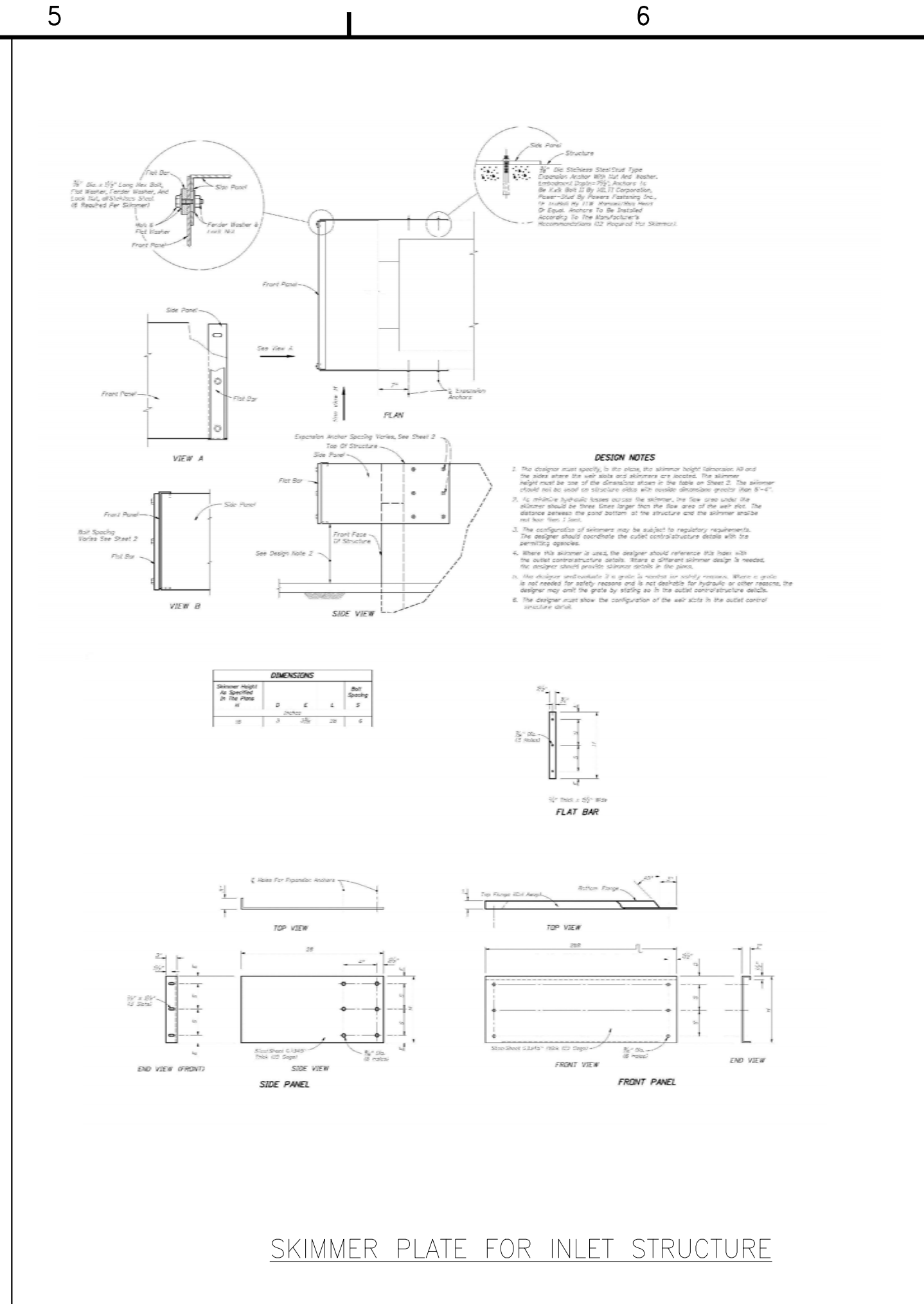
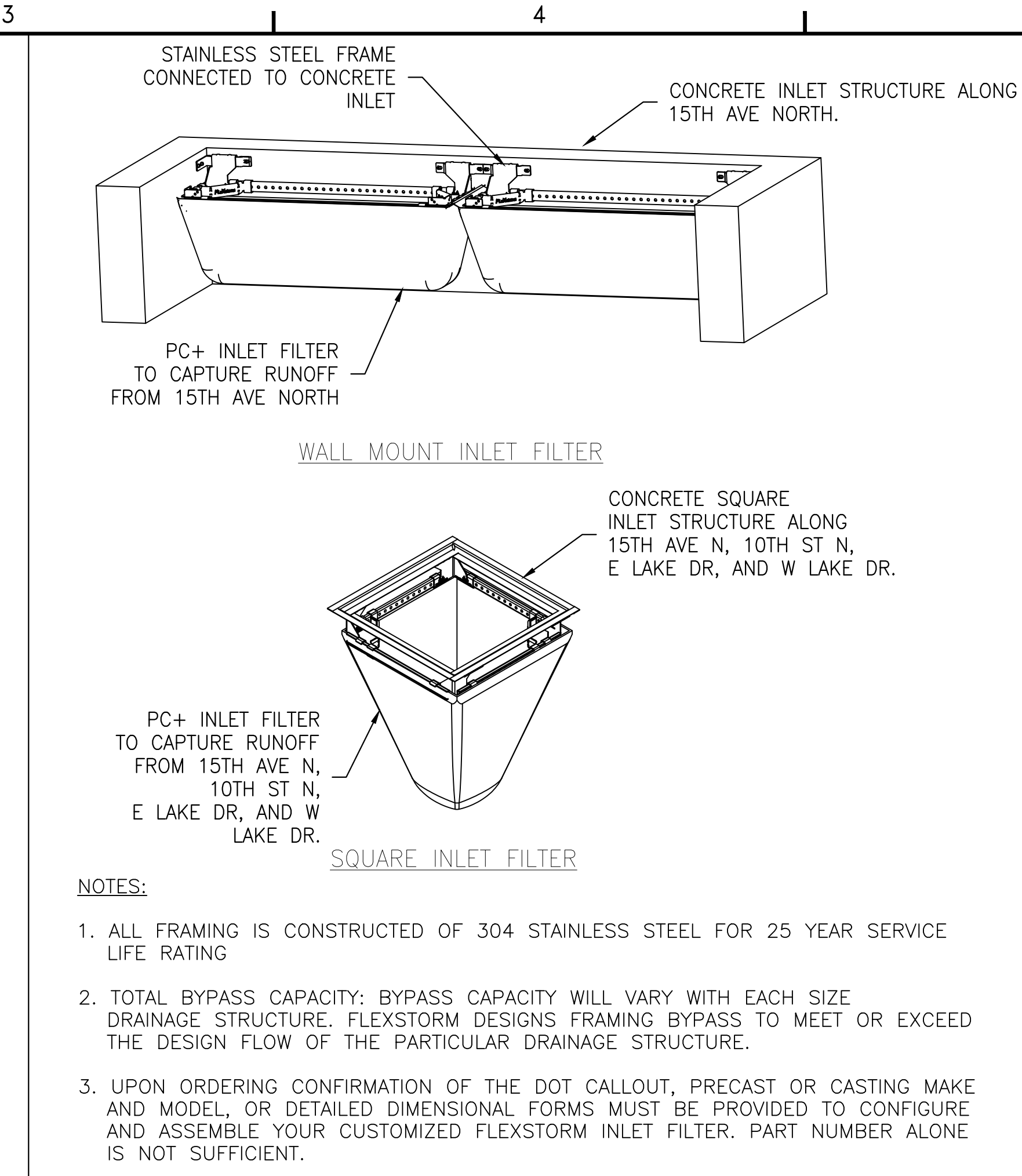
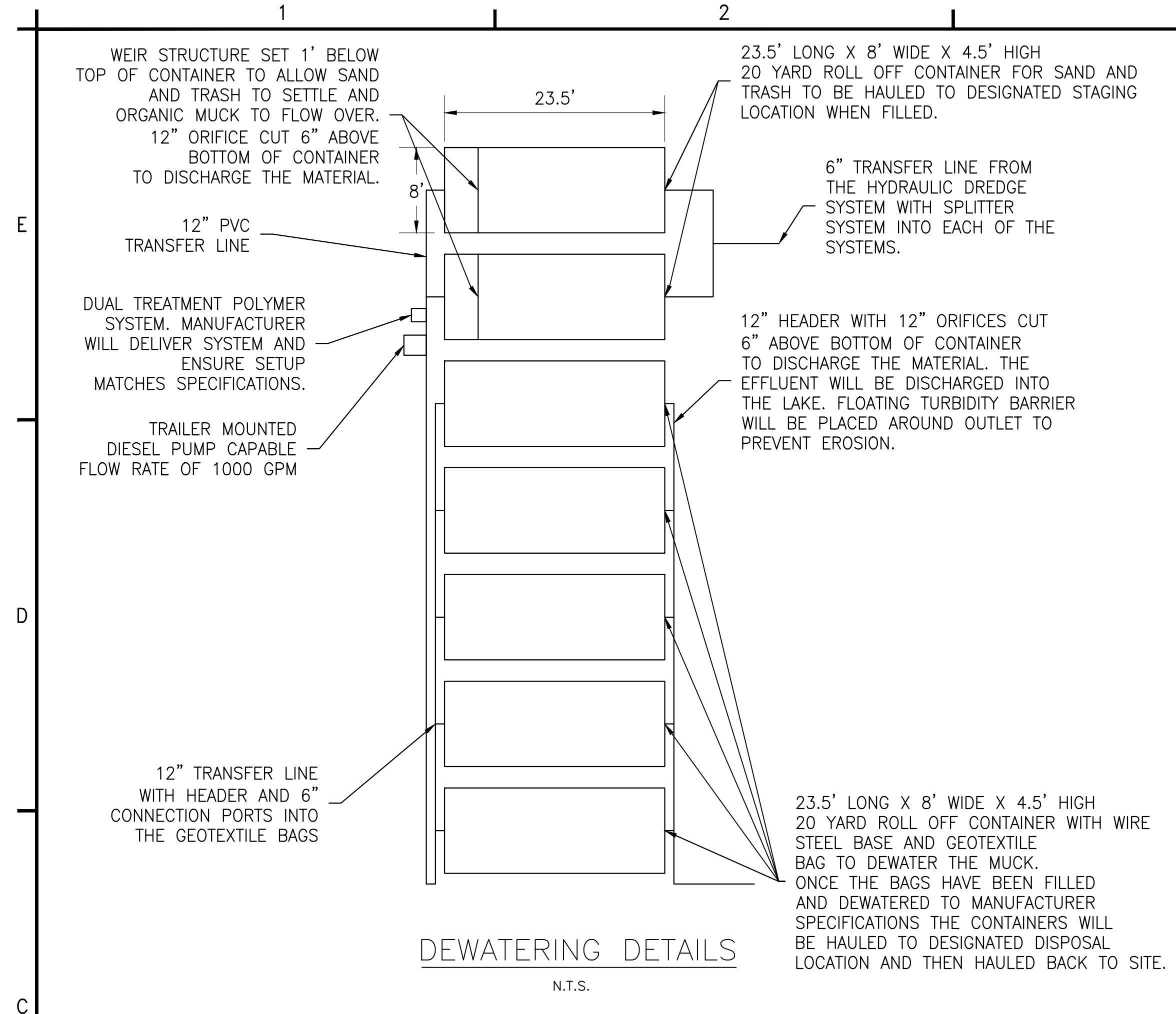
| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
|           |          |     |          |

DESIGNED BY: GWC/CAS  
DRAWN BY: JAM  
CHECKED BY: GWC  
APPROVED BY: CAS  
DATE: 01/30/2020

SHEET TITLE:  
**DESIGN DETAILS I**

SHEET NUMBER: C510  
REV. #  
SHEET 40 OF 42 SHEETS





**wood.**

ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
5845 NW 158th ST  
MIAMI LAKES, FL 33014  
TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
FLORIDA PE #79293  
ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11,19 & 31 RESTORATION**  
APPLICANT:

City of *Naples* Florida

WOOD PROJECT No:  
6788-20-3223

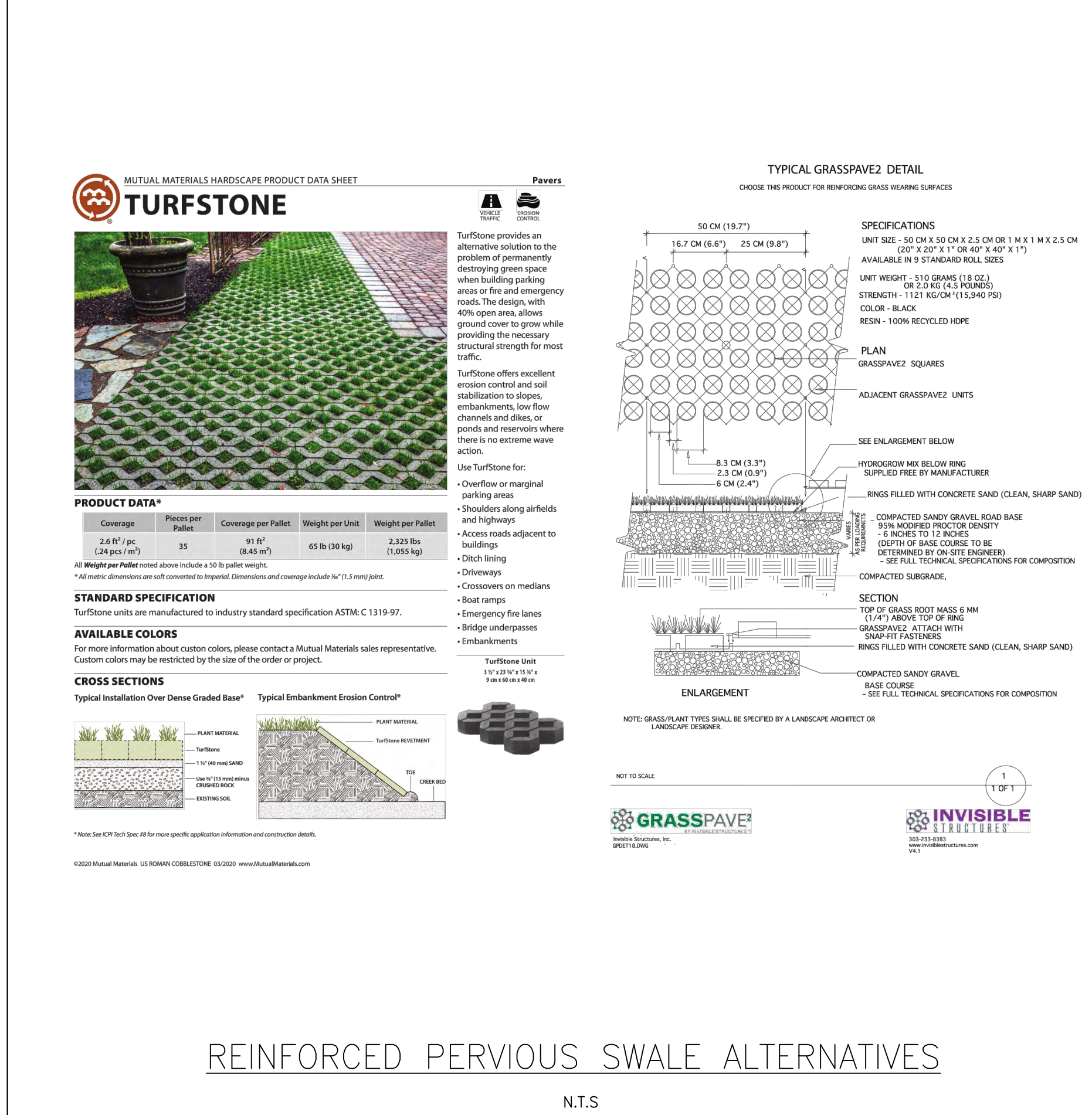
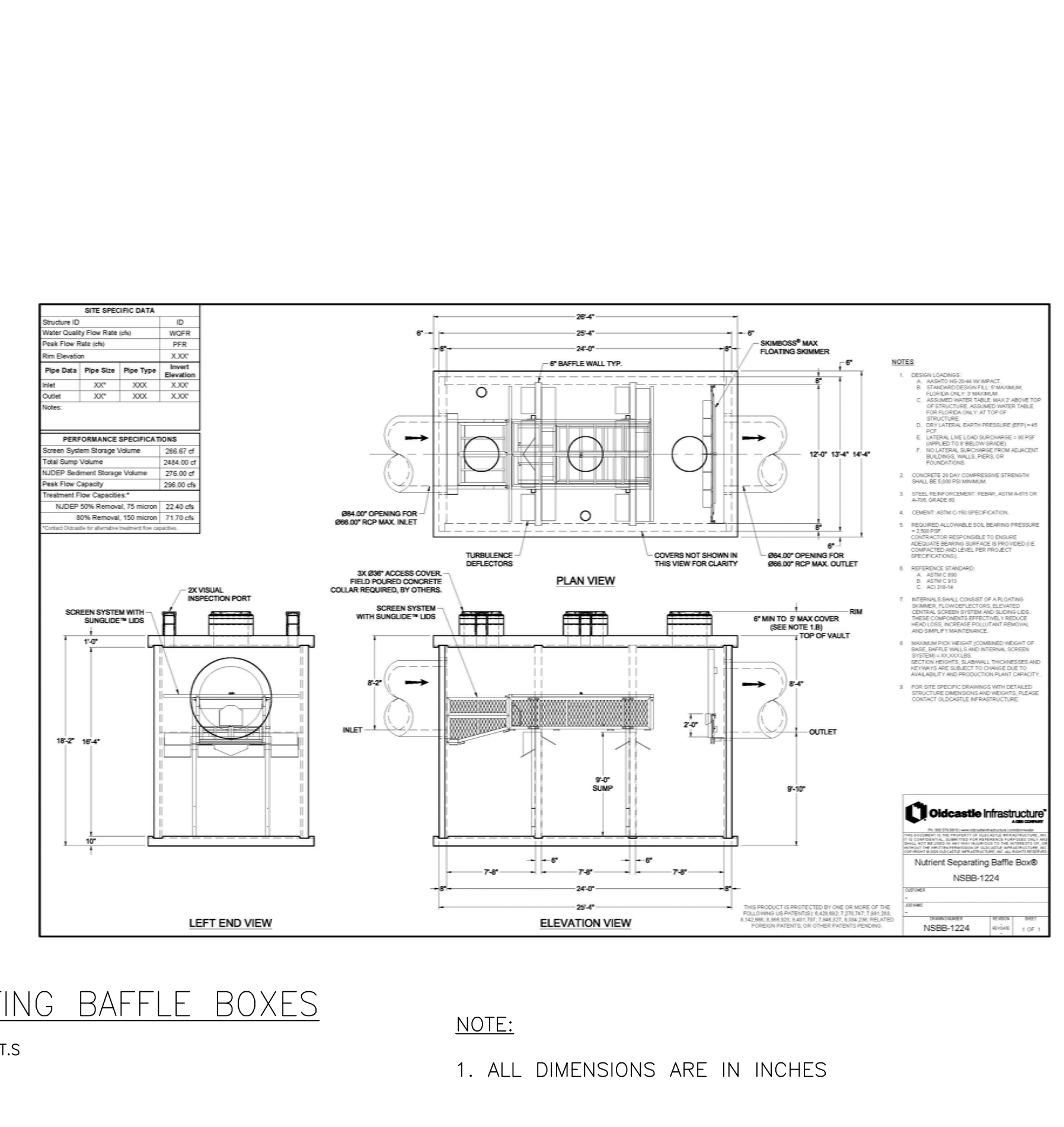
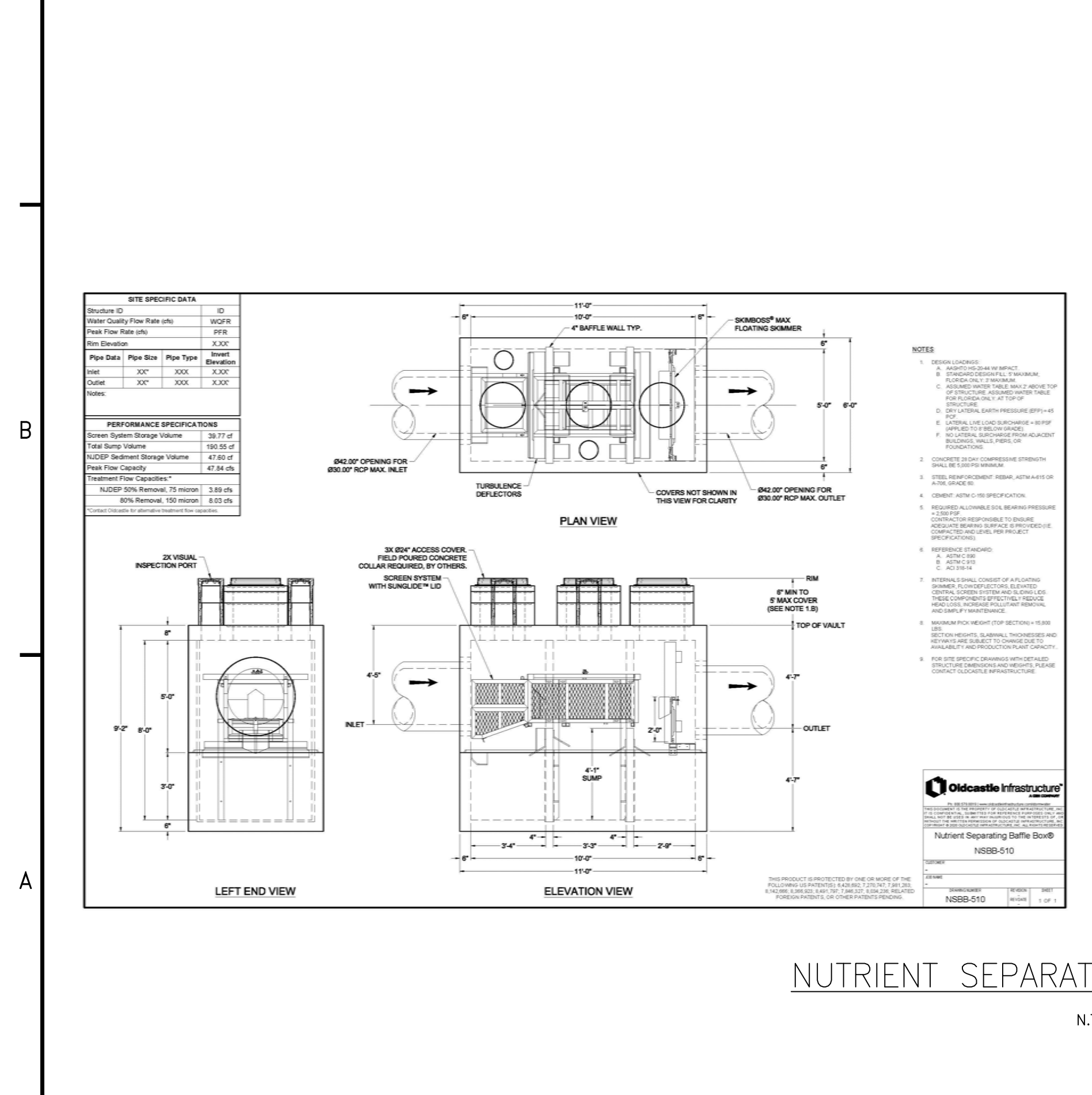
REVISIONS

| NO. | DATE     | BY  | APPROVED |
|-----|----------|-----|----------|
| 1   | 8.13.20  | GWC | CAS/TGD  |
| 2   | 11.23.20 | GWC | CAS/TGD  |

DESIGNED BY: GWC/CAS  
DRAWN BY: JAM  
CHECKED BY: GWC  
APPROVED BY: CAS  
DATE: 01/30/2020

SHEET TITLE:  
**DESIGN DETAILS II**

SHEET NUMBER: C520  
SHEET 41 OF 42 SHEETS



E

D

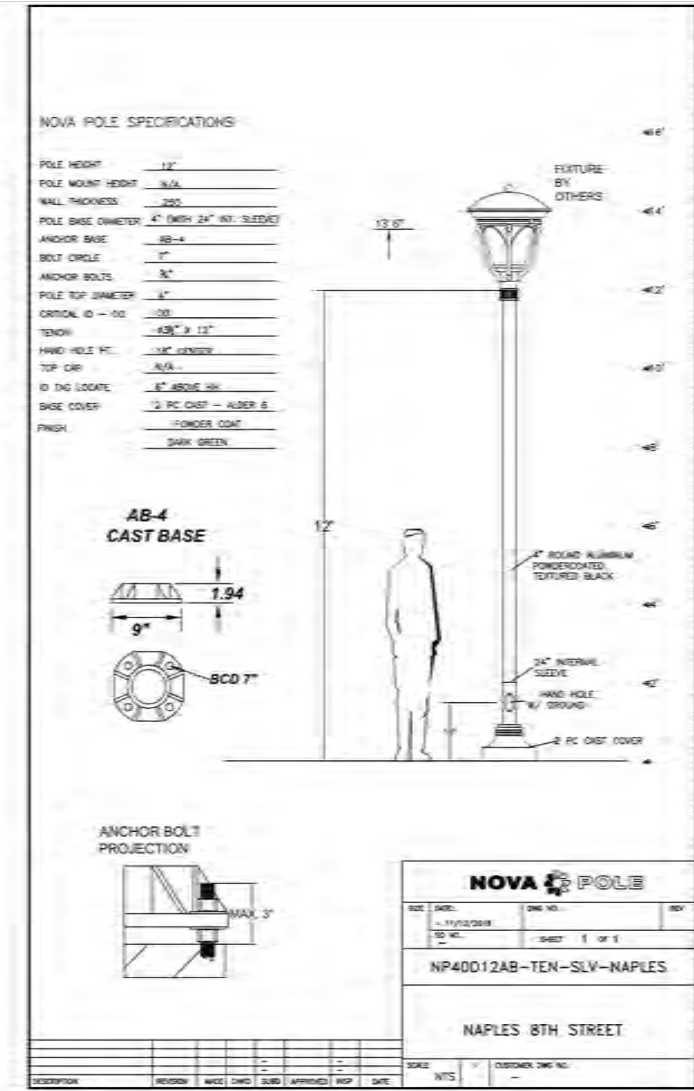
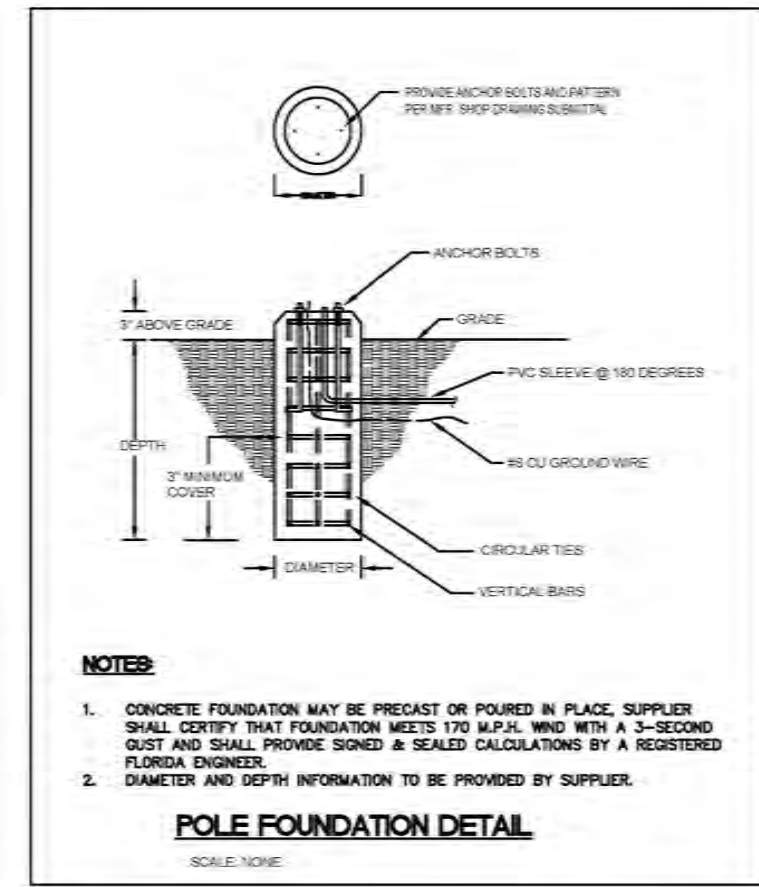
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B

A

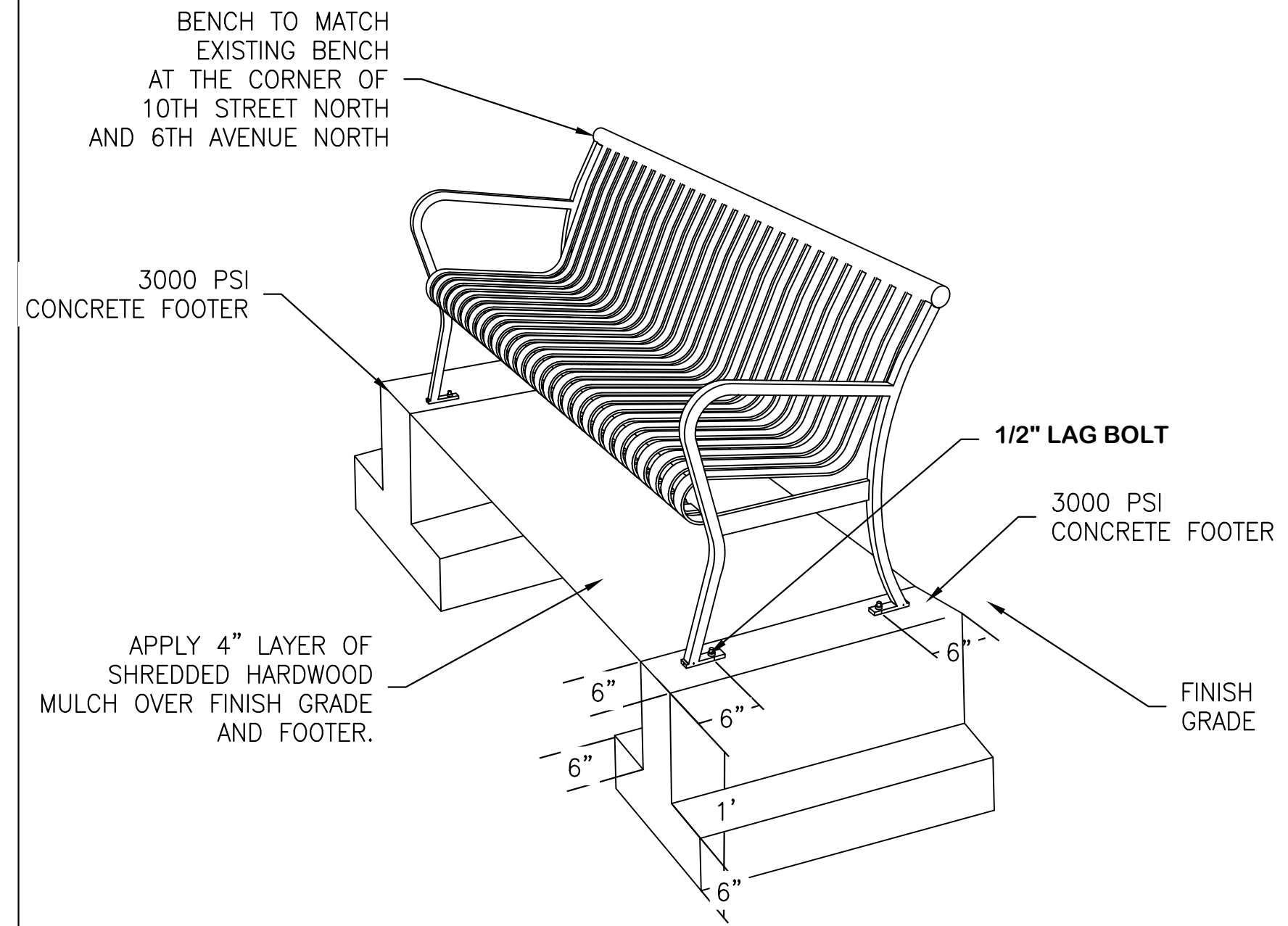
**LIGHTING GENERAL NOTES:**

1. THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE UTILITY OWNER(S) AND ARE SHOWN AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. UTILITIES ARE TO BE ADJUSTED BY OTHERS AS DIRECTED BY THE ENGINEER.
2. THE LOCATION OF THE POLES, CONDUCTORS, CONDUITS, JUNCTION BOXES AND SERVICE POLES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED BY THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITIES.
3. ALUMINUM POLES, LUMINAIRES AND BASES SHALL BE FABRICATED IN ACCORDANCE WITH THE CURRENT EDITION OF ASHOTO'S "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" AND SHALL HAVE BEEN TESTED BY FHWA-APPROVED METHODS. CERTIFICATION FOR TESTS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
4. SUBMITTAL DATA SHALL INCLUDE COMPUTER PRINTOUT SHOWING HORIZONTAL FOOT-CANDLE LEVELS OBTAINED USING THE SUBMITTED LUMINAIRES ON THIS PROJECT. AT FINAL INSPECTION THE CONTRACTOR SHALL VERIFY THE HORIZONTAL FOOT-CANDLE LEVELS ON THE ROADWAY WITH AN APPROVED CURRENTLY CALIBRATED LIGHT METER.
5. INSTALL TRANSIENT VOLTAGE SURGE SUPPRESSORS (TVSS), PROPERLY GROUNDED IN THE POWER (SECONDARY) ENTRANCES.
6. CONDUIT MUST BE PLACED WITHIN THE RIGHT-OF-WAY BUT CAN BE ADJUSTED TO FIT AROUND THE EXISTING AND PROPOSED UTILITIES. WHERE PLANNED LOCATION OF LIGHTING CONDUIT RUNS 30" UNDER PAVEMENT IS FOUND TO CONFLICT WITH UNDERGROUND UTILITIES, THE LIGHTING CONDUIT POSITION SHALL BE ALTERED VERTICALLY OR HORIZONTALLY TO AVOID THE CONFLICT AS RECOMMENDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. A 24" ABSOLUTE MINIMUM DEPTH SHALL BE MAINTAINED WHERE LIGHTING CONDUITS ARE RELOCATED CLOSER THAN 30" BELOW THE GROUND SURFACE AND SHALL BE PLACED IN AN ADDITIONAL 3" PVC SLEEVE OR BACKFILLED WITH A MINIMUM OF 4"x4" OF CONCRETE. COST OF SUCH TREATMENT WILL BE INCIDENTAL TO PAY ITEMS PROVIDED.
7. PREPARE ACCURATELY DIMENSIONED "AS-BUILT" PLANS OF THE FINAL POLE, LOAD CENTER CABINET, PULL BOXES, CABLE AND CONDUIT LOCATIONS. PLANS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER. COST OF SUCH PREPARATION SHALL BE INCIDENTAL TO PAY ITEMS PROVIDED. UPON FINAL ACCEPTANCE OF THE PROJECT, FORWARD A COMPLETE SET OF AS-BUILT PLANS WITH ALL CHANGES MARKED IN RED TO: GREGG STRAKALUSE AT THE CITY OF NAPLES.
8. ALL PULL BOX COVERS SHALL BE MARKED "STREET LIGHTING".
9. ALL SPLICES SHALL BE MADE IN PULL BOXES ONLY WITH COMPRESSION SLEEVES OR SPLIT BOLT CONNECTORS, PROPERLY TAPED AND WATERPROOFED. SPLICES AND CONNECTIONS MADE IN PULL BOXES SHALL BE LIMITED TO THE SERVICE POINT AND CONDUIT JUNCTION WITH MULTI-DIRECTIONAL CONDUITS AS INDICATED ON PLANS. THE CONNECTION MADE AT THESE POINTS SHOULD BE PROPERLY TAPED AND HEAT SHRINK TUBES OR CAPS SHALL BE USED TO WATERPROOF THESE CONNECTIONS.
10. INSPECT ALIGNMENT OF EACH INDIVIDUAL POLE AND FIXTURE AS FOLLOWS:
  - 10.1. POLE ALIGNMENT: WITHIN ONE HALF DEGREE ON VERTICAL +/-, CONFIRM VERTICAL ALIGNMENT, VIEWING FROM ADJACENT SERIES OF POLES, IN BOTH DIRECTIONS.
  - 10.2. FIXTURE ALIGNMENT: WITHIN ONE HALF DEGREE OF HORIZONTAL +/-, USING CALIBRATED LEVEL ALONG BOTH AXES OF CUT-OFF FIXTURE FACE, IN BOTH DIRECTIONS.
11. ALL CONDUITS SHALL BE MANDREL TESTED AND CLEANED. CONDUITS PLACED FOR FUTURE USE SHALL HAVE POLYESTER CORD PULLED IN PLACE AND CAPPED WITH NOTATION INSIDE CONDUIT AS TO LOCATION OF OPPOSITE END. PLACE DUCT MARKER OR PULL BOXES TO MARK ENDS OF EMPTY CONDUITS.
12. LIGHT POLES, PULL BOXES AND LOAD CENTER GROUND MOUNT CABINETS SHALL NOT BE INSTALLED WITHIN AN DITCHES OR AREAS THAT MAY CAUSE WATER INTRUSION.



TYPICAL LIGHT POLES DETAILS

N.T.S.



**NOTES:**

1. BENCH SHALL ADHERE TO THE FOLLOWING MANUFACTURER SPECIFICATIONS:  
 MANUFACTURER: PETERSON MFG. CO., INC.  
 2471 HWY. 30  
 DENISON, IA 51442  
 MODEL: PORTABLE BENCH 72  
 COLOR: DUMOR GREEN #94

**wood.**

ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.  
 5845 NW 158th ST  
 MIAMI LAKES, FL 33014  
 TEL: (305) 826-5588

GREGORY W. CORNING, P.E.  
 FLORIDA PE #79293  
 ENGINEER OF RECORD

PROJECT:  
**CITY OF NAPLES LAKES 11,19 & 31 RESTORATION**  
 APPLICANT:



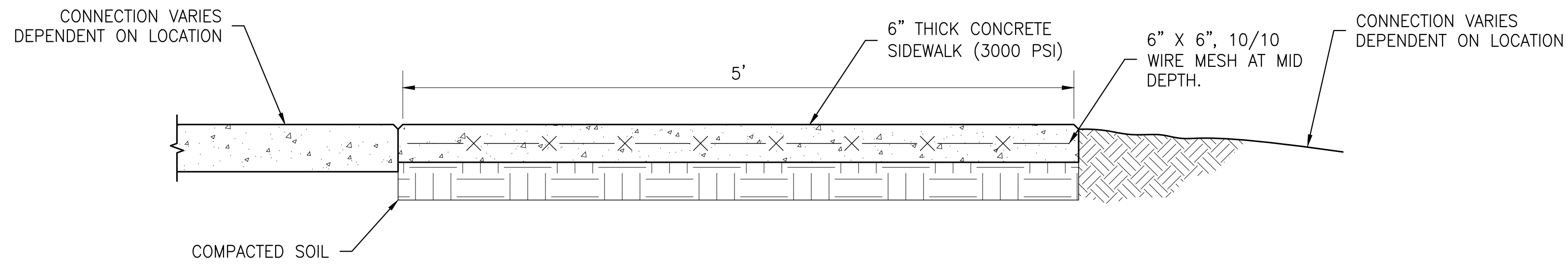
WOOD PROJECT No:  
 6788-20-3223

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| NO.       | DATE     | BY  | APPROVED |
| 1         | 8.13.20  | GWC | CAS/TGD  |
| 2         | 11.23.20 | GWC | CAS/TGD  |
|           |          |     |          |
|           |          |     |          |
|           |          |     |          |
|           |          |     |          |

|              |            |
|--------------|------------|
| DESIGNED BY: | GWC/CAS    |
| DRAWN BY:    | JAM        |
| CHECKED BY:  | GWC        |
| APPROVED BY: | CAS        |
| DATE:        | 01/30/2020 |

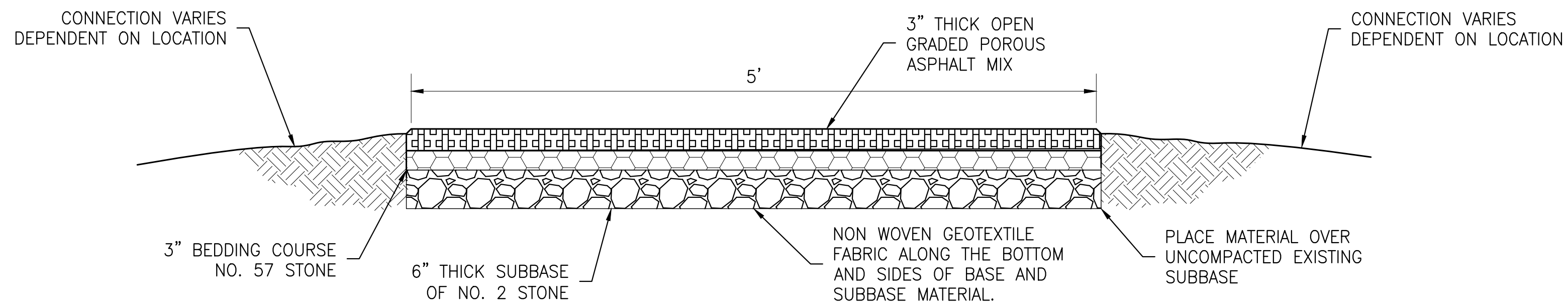
SHEET TITLE:  
**DESIGN DETAILS III**

|                       |        |
|-----------------------|--------|
| SHEET NUMBER:         | REV. # |
| C530                  |        |
| SHEET 42 OF 42 SHEETS |        |



TYPICAL CONCRETE SIDEWALK

N.T.S.



TYPICAL PERVIOUS ASPHALT TRAIL

N.T.S.