VIZCAYA
MUSEUM & GARDENS

Vizcaya Museum and Gardens
3251 South Miami Avenue
Miami, Florida 33129
Tel 305-250-9133
Fax 305-285-2004
www.vizcayamuseum.org

miamidade.gov

Date: January 2, 2013

To: Ileana Quintana, SPEE Construction Manager, RER

From: Joel Hoffman, Executive Director, Vizcaya Museum and Gardens

Subject: **Public Shoreline Stabilization of the Northeast Garden Area**
MCC 7360/Project Number MCC-HG-001-13

On behalf of Vizcaya Museum and Gardens, I respectfully request an exemption from CSBE measures on the above-referenced project, which involves seawall construction and coastal forest restoration at the northeast end of Vizcaya's property. This project is partially funded by the Florida Inland Navigation District with a construction budget of approximately $188,000, plus 10% contingency allowance. All elements of the construction require specialized trades that are not represented adequately or at all within the active pool of CSBE contractors.

Anticipated MCC License Type and Budget for Each Project Section:

MCC License Type	Approximate Budget Value
Sea Wall / Small Docks	$120,000
Landscaping	$61,000
Furnishings and Signage	$7,000
Total	**$188,000**

Justification of Exemption:

- **Sea Wall / Small Docks Contractor:** This section includes trenching within a wetland area and installing a galvanized steel reinforced concrete sea wall; required to protect a historic garden area from storm surge and seasonal tidal flooding. There are inadequate active CSBE contractors within the County vendor classification.

- **Landscaping:** Exotic tree species must be removed on the site as they are contributing to erosion and flooding. The site will then be replanted with native species. It is an estuarine ecosystem with mangroves present, so a landscape contractor with prior, verifiable experience working within these constraints is required per PERA requirements. There are

no active landscape CSBE contractors within the County vendor system currently, particularly with this experience.

- **Furnishings and Signage:** To meet plan permitting requirements, the signs must be custom made for this site, and ordered from vendors that are not represented among the CSBE trades.

Thank you in advance for your timely consideration of this request. Upon your review, please contact me to discuss further. If you find it necessary to survey within trades for current eligibility, I would appreciate the opportunity to review such communications before they are sent. You may reach me at 305-860-8422.

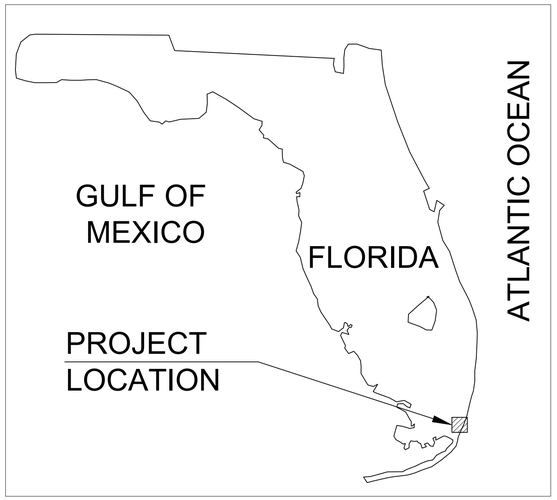
CC: Leigh Heinlein, Capital Projects Manager, Vizcaya Museum and Gardens
Ian Simpkins, Chief Horticulturist, Vizcaya Museum and Gardens

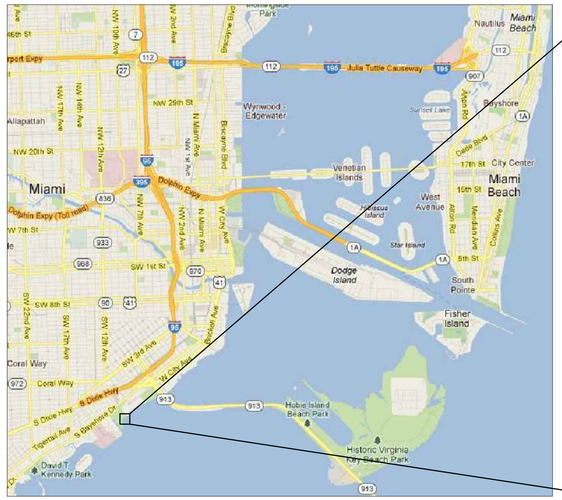
PUBLIC SHORELINE STABILIZATION OF THE NORTHEAST GARDEN AREA

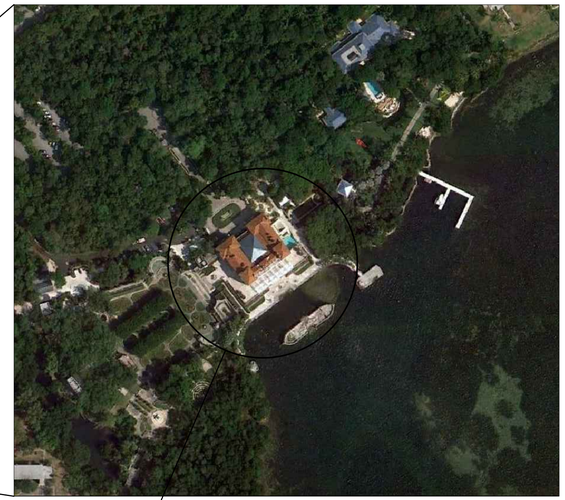
MIAMI-DADE COUNTY, FLORIDA

VIZCAYA MUSEUM & GARDENS

MIAMI-DADE COUNTY







PROJECT LOCATION

INDEX OF DRAWINGS	
SHEET	DESCRIPTION
S-1.0	COVER SHEET
S-1.1	GENERAL NOTES
S-2.0	EXISTING CONDITIONS
S-2.1	EXCAVATION PLAN
S-3.0	CONCRETE WALL PLAN
S-3.1	RETURN WALL PLAN & ELEVATION
S-3.2	CONCRETE WALL SECTIONS & DETAILS
S-3.3	EXPANSION JOINT DETAILS

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CERTIFICATE OF AUTHORIZATION # 29062

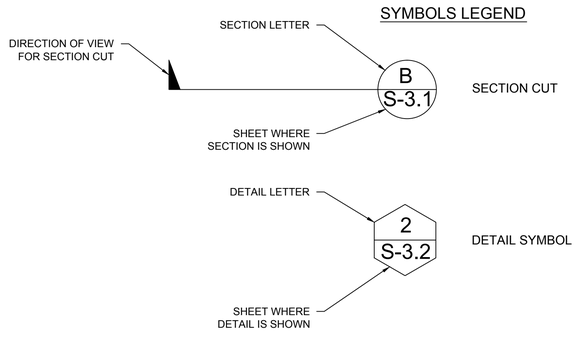
GENERAL NOTES:

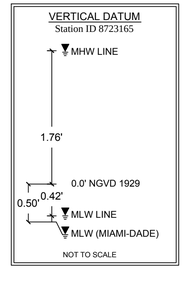
1. The work consists of providing all construction, labor, equipment, material and operations in connection with the construction of bulkhead improvements as shown on these drawings.
2. Topographic survey by Manuel G. Vera & Associates, Inc. Elevations are in feet and referenced to NGVD 29.
3. Any discrepancies in the plans with the field conditions shall be brought to the immediate attention of the Engineer. Construction shall not continue until the Engineer has addressed the discrepancies.
4. The contractor shall take all necessary precautions to protect existing structures, historic elements, and landscaping in the project vicinity.
5. All new structural work including concrete and reinforcement shall be accurately field measured and dimensions verified by the Contractor prior to ordering materials. Contractor shall be prepared to make field adjustments to accurately fit the new work to existing conditions.
6. No construction shall commence until all required permits and approvals have been secured and the contractor has been issued Notice to Proceed.
7. Attention is directed to the fact that these plans may have been changed in size by reproduction. This should be considered when obtaining scaled data.
8. Layout and Testing. All construction stakeout shall be performed by and paid for by the contractor under the supervision of a surveyor registered in the state of Florida. All testing and inspection for concrete materials and pile driving shall be in accordance with FDOT specifications and shall be performed by an independent testing laboratory.
9. Concrete Specification for Concrete Wall:
   - 9.1. Forms for this work shall be made of either wood or metal. They shall be straight and free of warp or bends. They shall have sufficient strength and rigidity, when staked, to resist the pressure of the concrete without springing. If wooden forms are used, they shall be of adequate section and shall have a flat surface on top. Forms shall have a depth at least equal to the vertical dimensions for the depth of the concrete being deposited against them. Forms for the wall shall be placed and set to lines, grades, and elevations as shown on the drawings. One segment of wall shall be poured and finished prior to beginning the next segment.
   - 9.2. The wall forms shall be secured on the prepared surface so as to resist the pressure of the concrete without springing. When ready for the concrete to be deposited, they shall not vary from the approved line and grade, and shall be kept so until the concrete has set.
   - 9.3. All faces adjacent to the forms shall be spaded so that after the forms are removed, the surface of the faces will be smooth, even, and free of honeycomb. No concrete shall be poured during unfavorable weather or sea conditions. All steel reinforcing shall be rinsed with fresh water prior to placing the concrete. Steel shall be placed as shown in the plans. All steel shall have a minimum of 3 inches concrete cover, unless otherwise noted. No chairs or other metal shall protrude from surface of concrete.
   - 9.4. Just prior to placing the concrete the sub-grade, and any wooden forms shall be moistened with fresh water. The concrete shall be placed in the forms and tamped in place so that all honeycombs will be eliminated and sufficient mortar brought to a smooth even finish by means of a float.
   - 9.5. Concrete shall be a minimum of 5,000 PSI compressive strength at 28 days. Water cement ratio (W/C) shall be less than or equal to 0.4. Provide mix design for a Class IV concrete for an extremely aggressive (marine) environment in accordance with FDOT specifications. Provide sufficient amount of fly ash to the cement content. Contractor shall provide mix design to Engineer for approval 10 days prior to concrete placement.
   - 9.6. When surface finishing is completed, the wall shall be protected against wave splash for two days and cured per applicable paragraphs of Section 400-16 of the FDOT Standard Specifications. Curing shall occur for at least 7 days.
   - 9.7. Wall sections not constructed according to these specifications shall be removed and replaced properly at the expense of the contractor.
   - 9.8. The top and faces of the finished wall shall be true, straight, and of uniform width, free from humps, sags, or other irregularities except as specified in the plans. When a straightedge 10 feet long is laid on top or face of the wall the surface shall not vary more than 0.01 feet from the edge of the straightedge, except at grade changes or curves. The contractor shall replace any deficient wall segments.
   - 9.9. Concrete Formworkers and Finishers:
     The contractor shall supply a sufficient number of experienced concrete formworkers and finishers in order to complete the work. A concrete foreman who has a thorough understanding of the plans, specifications, and referenced specifications shall supervise all formworkers and finishers. No sub-standard workmanship will be accepted.
   - 9.10. Concrete Transportation:
     Concrete delivered from a ready mix plant shall be transported in accordance to FDOT Section 345-13. Concrete that is not placed in the form within the specified time limits will be rejected and not included in the work. Contractor shall bear all costs for rejected concrete. Concrete shall not be placed in the forms until the reinforcing steel placement has been approved by the Engineer.
   - 9.11. Reinforced Concrete Materials Testing:
     One randomly selected piece of reinforcing steel shall be tested for tensile yield strength by an independent testing lab. The results shall supplied to the Engineer. The Contractor shall have an independent testing laboratory test the concrete at a rate of 1 test per pour segment of concrete used in the work. The test shall include 7, 14, and 28 day compressive strength tests. The results shall be supplied to the Engineer. The tests shall be in accordance with ASTM C31, C39, and C617.
   - 9.12. Expansion and construction joints shall be placed in wall at locations indicated on the plans. Alterations to these joints shown will require approval by the Engineer. Expansion joints shall be filled with 3/4-inch thick pre-molded joint filler conforming to the provisions in Section 932 of the FDOT Standard Specifications. The joint filler shall be shaped to the cross-section of the concrete wall and shall extend through the wall. Provide ¾” chamfer on all exposed edges. Place stirrups 3” from each side of joint. Allow 48 hours between adjacent pours.
10. Steel Reinforcement. All steel reinforcement shall conform to ASTM A615, Grade 60. Lap splices for No. 4 reinforcing steel shall be minimum 29". Lap splices not specifically dimensioned on the drawings shall be in accordance with ACI 318-08, Class B.
11. Environmental Permits. FDEP, USACE, and Miami-Dade County PERA permits cover the project. Contractor shall adhere to all conditions of the permits and exemptions.
12. Contractor is responsible for providing proper clearance and protection to all overhead wires and obstructions.
13. Tidal Elevations. Published tidal elevations are shown in the construction plans. Contractor may need to adjust his work plan to account for actual water levels and changing water levels. The site may be subject to variable wave and surge conditions and it is the responsibility of the contractor to provide temporary support for marine structures and shoreline during construction. Tidal data obtained from Miami, Biscayne Bay Florida Station ID 8723165 (PID AC2177).
14. Utilities. Known utilities are shown in the plans. Contractor shall call Sunshine 1-800-432-4770, prior to construction. Contractor responsible for locating all present utilities prior to construction.
15. Backfill
    - 15.1. Install wall in accordance with the plans prior to placing any backfill.
    - 15.2. Compact ground surface with medium weight roller to a minimum compaction of 95% of modified dry proctor maximum dry density (AASHTO t-180).
    - 15.3. Use light, walk behind compaction equipment adjacent to wall to prevent over stress and/or damage.
16. Contractor's Submittals:
    - 16.1. Construction Means & Methods Plan
    - 16.2. Schedule for completion of work with tasks and durations defined
    - 16.3. Concrete Mix Design
    - 16.4. Reinforcing Steel
    - 16.5. Silt Fence Specifications
    - 16.6. Water Stop
    - 16.7. Dowels and Sleeve
    - 16.8. Expansion Joint Material(s)
    - 16.9. Others as specified
17. Design Criteria:
    - 17.1. Storm Surge up to +7.3 feet NGVD, Federal Emergency Management Agency (FEMA) 50-year return period event.
    - 17.2. Wave load of 260 lb/ft acting at elevation +4.7 feet NGVD.

ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACI	AMERICAN CONCRETE INSTITUTE
ADD'L	ADDITIONAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
C/L	CENTER LINE
CBS	CONCRETE BLOCK STRUCTURE
CONT	CONTINUOUS
CY	CUBIC YARD
ELEV	ELEVATION
EXIST	EXISTING
EXP	EXPANSION
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FT	FOOT
LB	POUND
LF	LINEAR FEET
LONG	LONGITUDINAL
MHW	MEAN HIGH WATER
MIN	MINIMUM
MLW	MEAN LOW WATER
NAVD	NORTH AMERICAN VERTICAL DATUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
Ø	DIAMETER
OC	ON CENTER
PERA	PERMITTING, ENVIRONMENT AND REGULATORY AFFAIRS
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RADIUS
SF	SQUARE FEET
SPEC	SPECIFICATION
STD	STANDARD
TYP	TYPICAL
USACE	UNITED STATES ARMY CORPS OF ENGINEERS
W/C	WATER/CEMENT RATIO

SYMBOLS LEGEND





PROJECT

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VIZCAYA MUSEUM & GARDENS
MIAMI-DADE COUNTY, FLORIDA

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CERTIFICATE OF AUTHORIZATION # 29062

SEAL

JASON R. CUMMINS, P.E. 71538

ISSUE	DATE	SUBMISSION / REVISION
2	7/3/12	90% SUBMITTAL
1	3/22/12	PROGRESS SET

CC PROJECT NO.	13600
DRAWN	JRC
CHECKED	JAC
SCALE	AS SHOWN

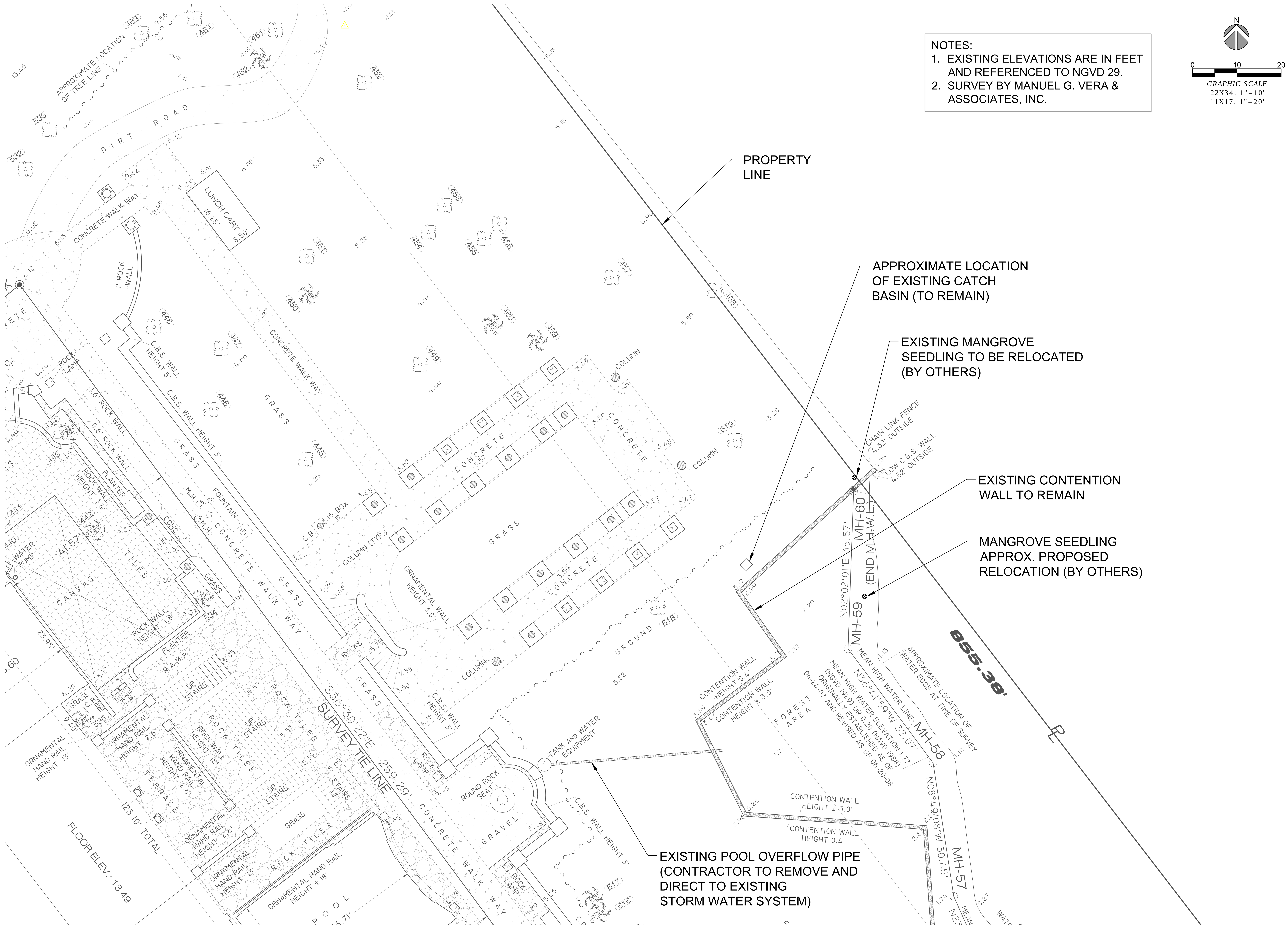
SHEET TITLE

GENERAL NOTES

SHEET 2 OF 8

S-1.1

NOTES:
1. EXISTING ELEVATIONS ARE IN FEET AND REFERENCED TO NGVD 29.
2. SURVEY BY MANUEL G. VERA & ASSOCIATES, INC.



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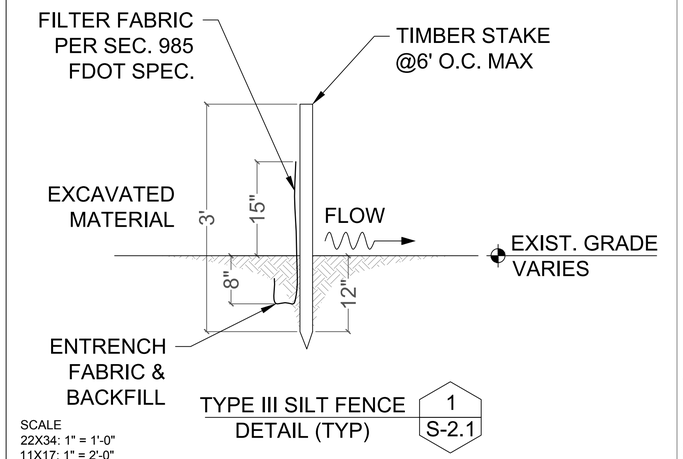
SHEET TITLE
EXISTING CONDITIONS

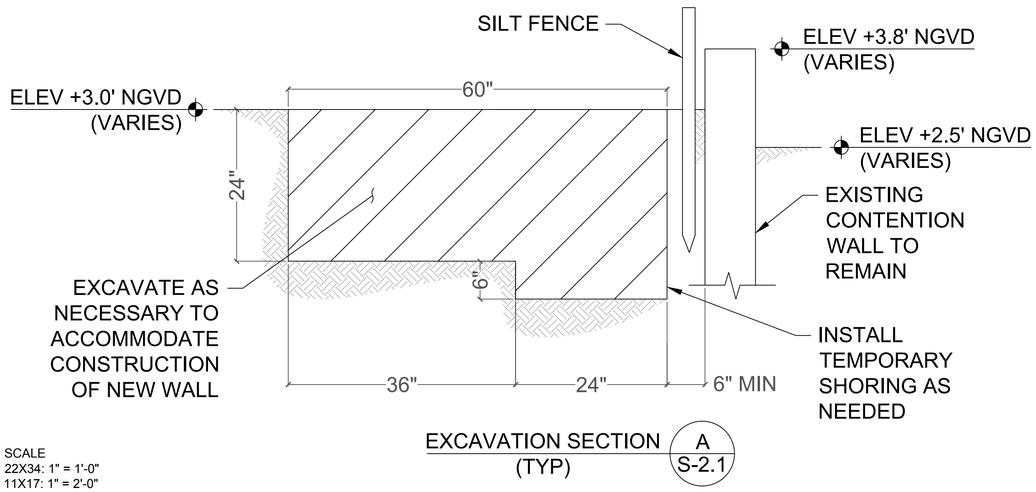
SHEET 3 OF 8

S-2.0



TYPE III SILT FENCE DETAIL (TYP) 1 / S-2.1

SCALE
22X34: 1" = 1'-0"
11X17: 1" = 2'-0"



EXCAVATION SECTION (TYP) A / S-2.1

SCALE
22X34: 1" = 1'-0"
11X17: 1" = 2'-0"

APPROXIMATE QUANTITIES			
ITEM	LENGTH (LF)	AREA (SF)	VOLUME (CY)
EXCAVATION	185	900	85
SILT FENCE	330	-	-

N

0 10 20

GRAPHIC SCALE
22X34: 1"=10'
11X17: 1"=20'

TEMPORARY SPOIL SITE FOR EXCAVATED MATERIAL ENCLOSED WITH SILT FENCE OR ENGINEER APPROVED EQUIVALENT 1 / S-2.1

PROPERTY LINE

EXCAVATION FOOTPRINT. EXCAVATE MATERIAL PRIOR TO CONSTRUCTING NEW WALL. ALL MATERIAL SHALL REMAIN ON-SITE TO BE RE-USED.

EXISTING CONTENTION WALL TO REMAIN

INSTALL SILT FENCE PRIOR TO EXCAVATION 1 / S-2.1

NOTES:
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SCALE	AS SHOWN

SHEET TITLE
EXCAVATION PLAN

SHEET 4 OF 8

S-2.1

APPROXIMATE QUANTITIES			
ITEM	LENGTH (LF)	AREA (SF)	VOLUME (CY)
CONCRETE WALL	185	-	-

N

0 6 12

GRAPHIC SCALE
22X34: 1"=6'
11X17: 1"=12'

NOTES:
1. CONTRACTOR SHALL PROVIDE SMOOTH ROUNDED CORNERS ON ALL EXPOSED VERTICAL FACES OF NEW CONCRETE WALL.

COORDINATE TABLE FL STATE PLANE - EAST ZONE (901)			
Point #	DESCRIPTION	EASTING	NORTHING
1	C/L STEM	916181.96	513620.04
2	C/L STEM	916202.55	513635.91
3	C/L STEM	916222.65	513629.95
4	C/L STEM	916240.06	513643.02
5	C/L STEM	916230.00	513657.22
6	C/L STEM	916258.41	513682.87
7	C/L STEM	916221.78	513730.39

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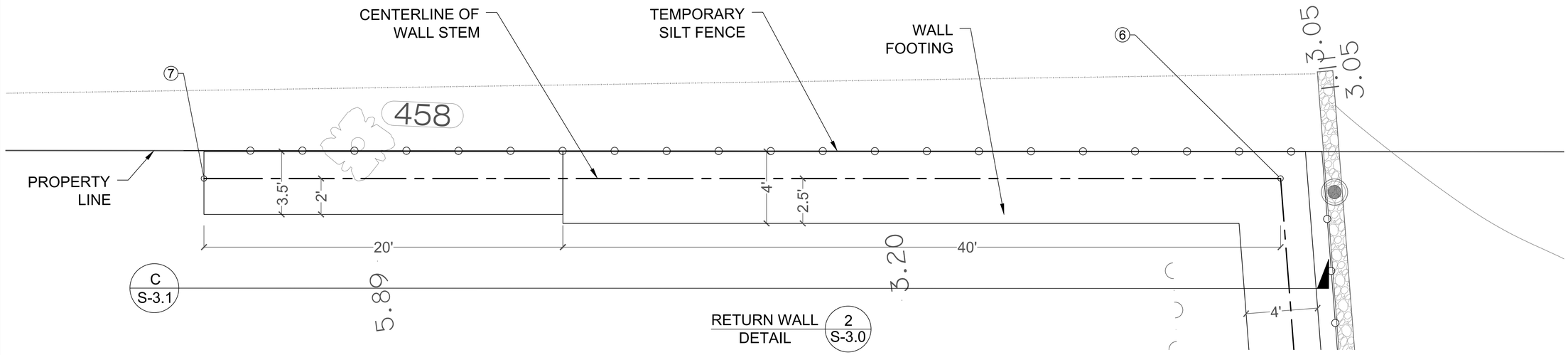
SCALE	AS SHOWN

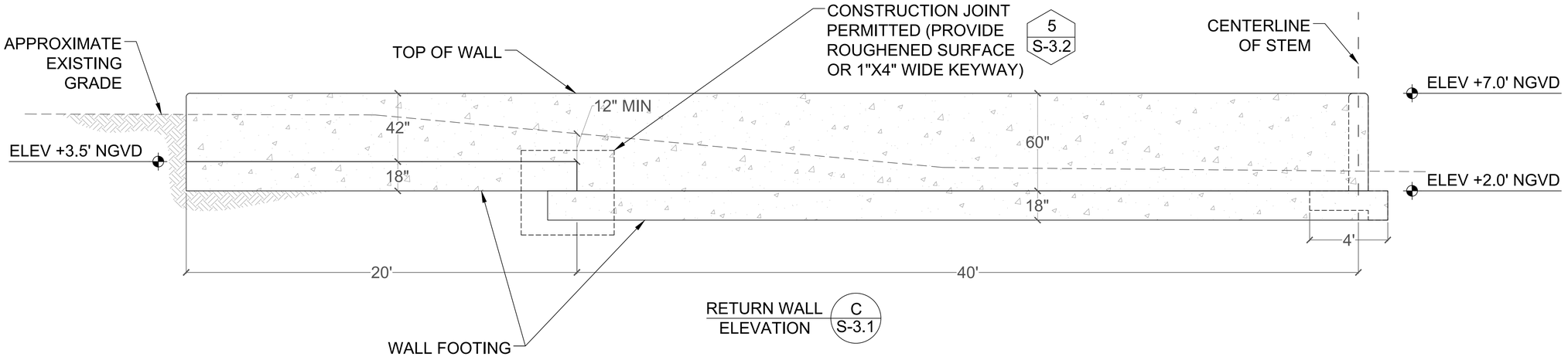
SHEET TITLE
CONCRETE WALL PLAN

SHEET 5 OF 8

S-3.0



GRAPHIC SCALE
22X34: 1"=3'
11X17: 1"=6'



SCALE
22X34: 1" = 3'-0"
11X17: 1" = 6'-0"

NOTES:
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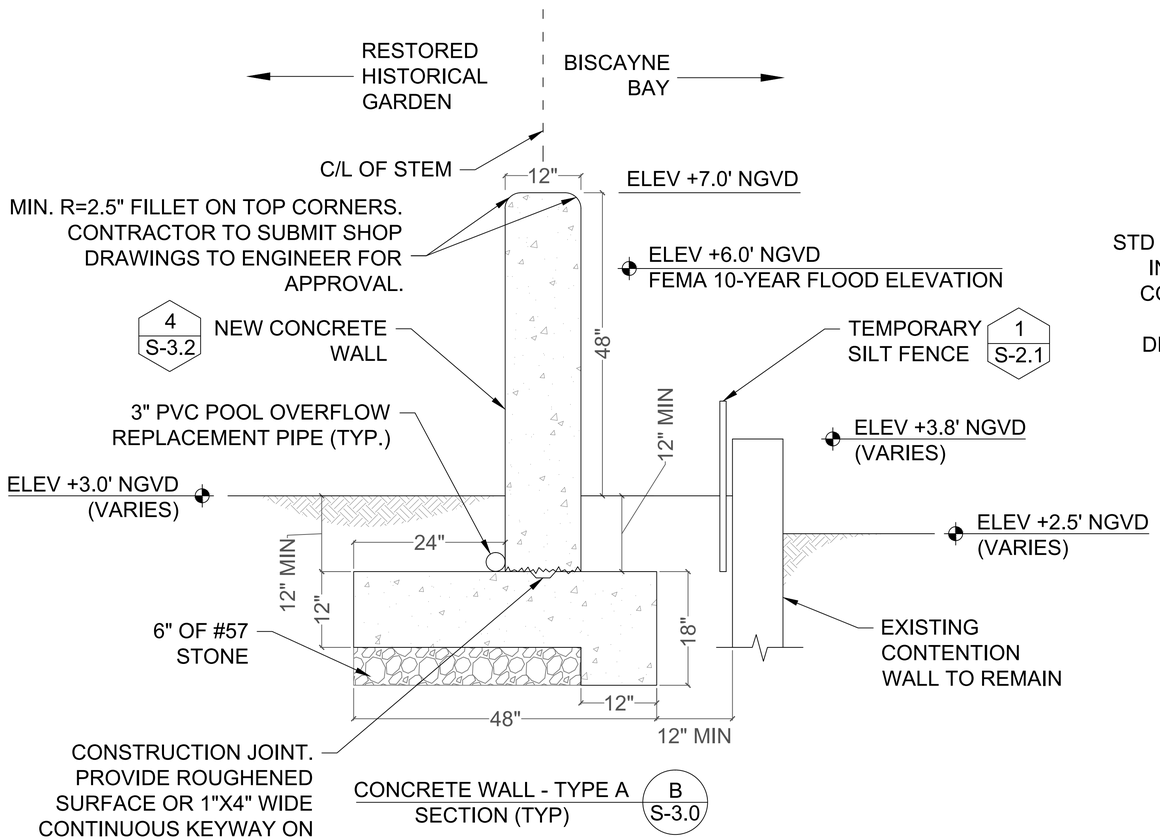
CHECKED	JAC
SCALE	AS SHOWN

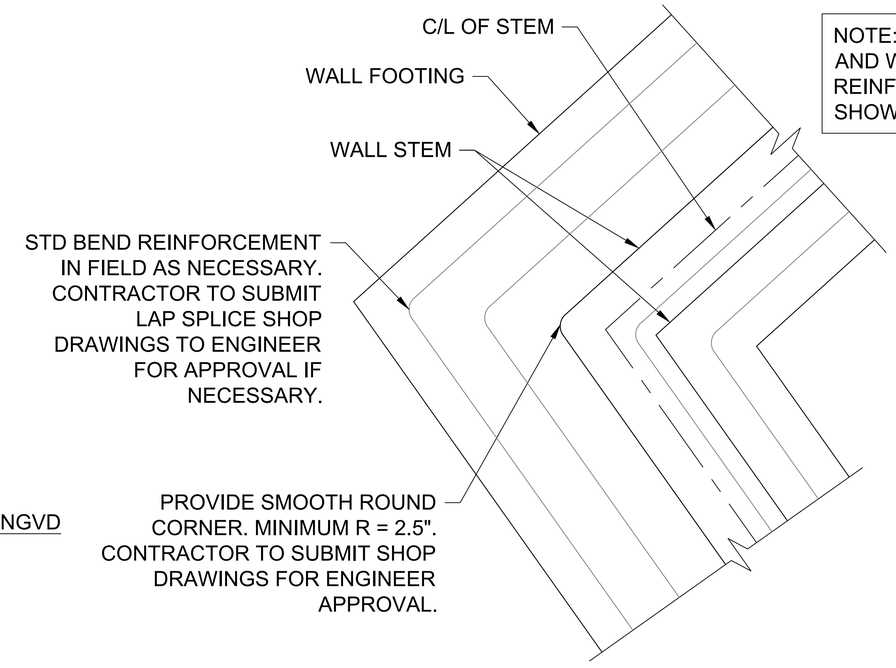
SHEET TITLE
RETURN WALL DETAIL & ELEVATION

SHEET 6 OF 8

S-3.1

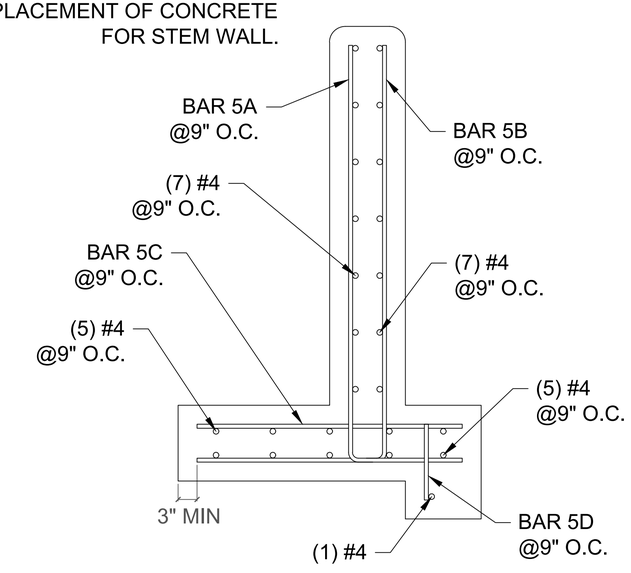


CONCRETE WALL - TYPE A SECTION (TYP) — B / S-3.0



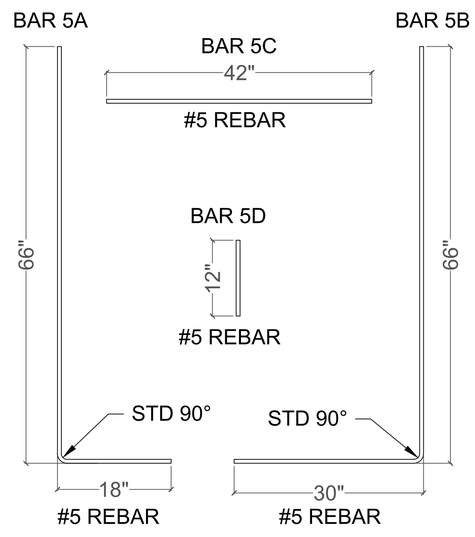
NOTE: TRANSVERSE AND WALL STEM REINFORCEMENT NOT SHOWN FOR CLARITY

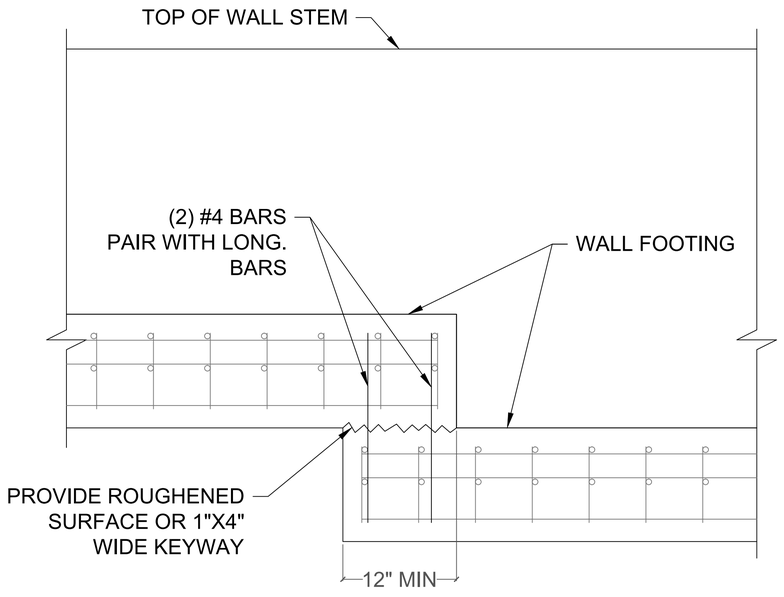
WALL CORNER DETAIL (TYP) — 3 / S-3.0



REINFORCEMENT - TYPE A DETAIL (TYP) — 4 / S-3.2

BENDING DIAGRAM





RETURN WALL CONSTRUCTION JOINT DETAIL (TYP) — 5 / S-3.1

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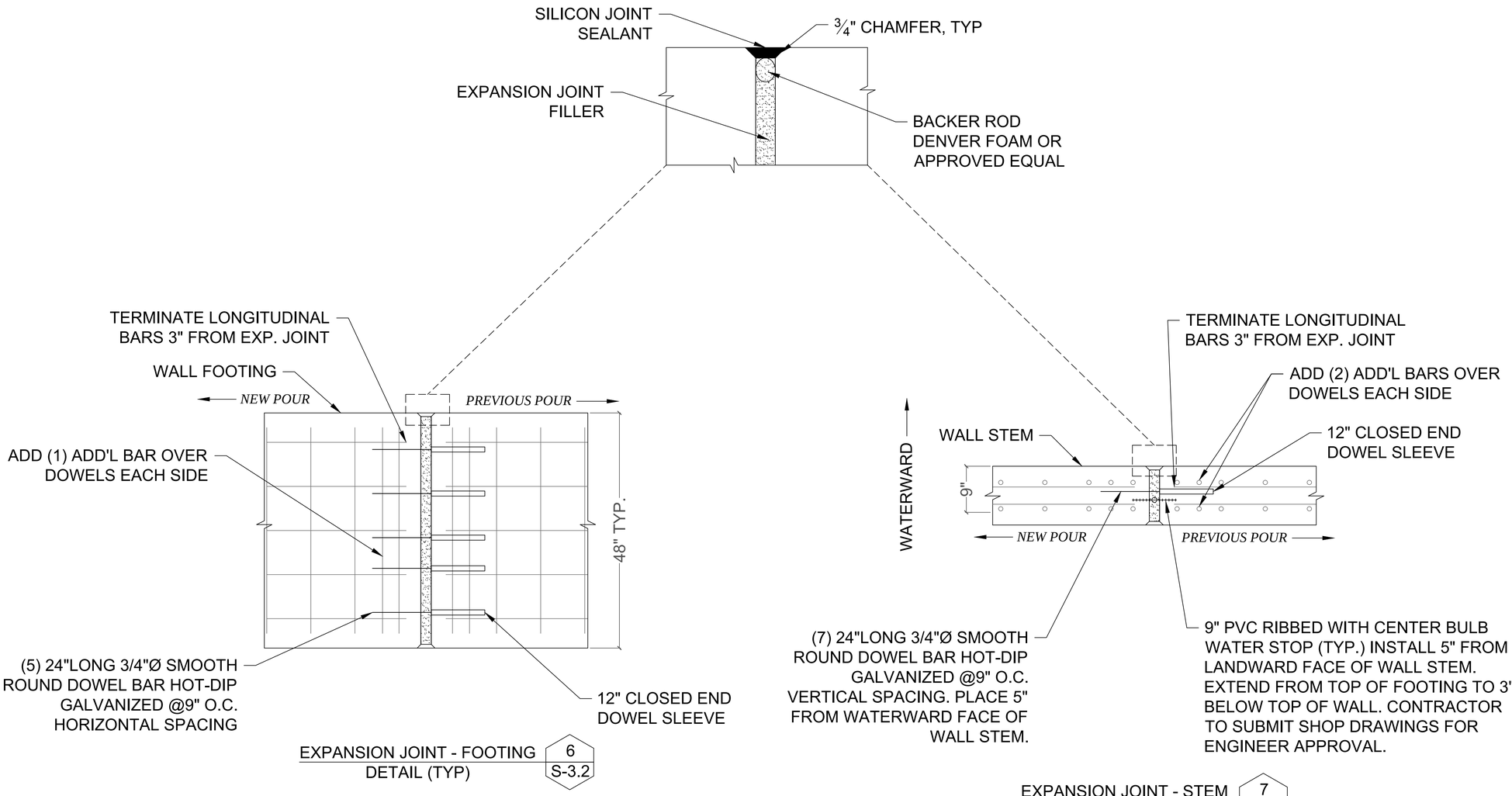
SCALE	AS SHOWN

SHEET TITLE
CONCRETE WALL SECTIONS & DETAILS

SHEET 7 OF 8

S-3.2



EXPANSION JOINT - FOOTING DETAIL (TYP) — 6 / S-3.2

EXPANSION JOINT - STEM DETAIL (TYP) — 7 / S-3.2

SCALE
22X34: 1" = 1'-0"
11X17: 1" = 2'-0"

PROJECT
PUBLIC SHORELINE STABILIZATION OF THE NORTHEAST GARDEN AREA
VIZCAYA MUSEUM & GARDENS
MIAMI-DADE COUNTY, FLORIDA

CLIENT
VIZCAYA MUSEUM & GARDENS
3251 SOUTH MIAMI AVENUE
MIAMI, FL 33129

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CERTIFICATE OF AUTHORIZATION # 29062

SEAL
JASON R. CUMMINS, P.E. 71538

ISSUE	DATE	SUBMISSION / REVISION
2	7/3/12	90% SUBMITTAL
1	3/22/12	PROGRESS SET

CC PROJECT NO.	13600
DRAWN	JRC
CHECKED	JAC
SCALE	AS SHOWN

SHEET TITLE
EXPANSION JOINT DETAILS

SHEET 8 OF 8

S-3.3