South Padre Island Beach Walkovers

AT:

Aquarius Circle Beach Access #18
Good Hope Circle Beach Access #21
South Padre Island, Texas
OWNER:

City of South Padre Island 4601 Padre Blvd South Padre Island, Texas

PROJECT & STRUCTURAL ENGINEER: GREEN, RUBIANO & ASSOCIATES 1220 WEST HARRISON HARLINGEN, TEXAS 78550 P: 956-428-4461

P: 956-428-4461 F: 956-428-0287

SCOPE OF WORK PLANS SHEET INDEX:

CS1.0 COVER SHEET

AS1.0 SITE AERIALS AND GENERAL NOTES
D1.0 DEMOLITION PLAN - AQUARIUS CIRCLE

A1.0 SITE PLAN - AQUARIUS CIRCLE
A1.1 SITE PLAN - GOOD HOPE CIRCLE

A1.2 DETAILS
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S1.1 GENERAL STRUCTURAL NOTES
S2.1 WALKOVER PLAN AND ELEVATIONS-

AQUARIUS CIRCLE

S2.2 WALKOVER PLAN AND ELEVATIONS-

GOOD HOPE CIRCLE

S2.3 FRAMING DETAILS S2.4 FRAMING DETAILS South





NOT TO SCALE

CIVIL ENGINEER:

MEJIA & ROSE, INCORPORATED 1643 WEST PRICE ROAD

BROWNSVILLE, TEXAS 78520

P: 956-544-3022 F: 956-544-3068

CIVIL PLANS SHEET INDEX:

C1 TOPOGRAPHIC SURVEY - AQUARIUS CIRCLE
C2 UTILITY AND HORIZONTAL CONTROL PLAN -

AQUARIUS CIRCLE

GRADING PLAN - AQUARIUS CIRCLE

C4 TOPOGRAPHIC SURVEY - GOOD HOPE CIRCLE
C5 GRADING AND UTILITY PLAN - GOOD HOPE CIRCLE

GOOD HOPE CIRCLE -



AQUARIUS CIRCLE

GREEN, RUBIANO & ASSOCIATES

1220 WEST HARRISON
HARLINGEN, TEXAS 78550
PH: (956)428-4461 FAX: (956)428-02

SEAL



PROJECT

BEACH WALKOVERS
AT AQUARIUS AND
GOOD HOPE CIRCLES

SOUTH PADRE ISLAND, TEXAS

CLIENT

CITY OF SOUTH PADRE ISLAND



TEXAS

P: 956-761-3044 F: 956-761-3898

MARK	DATE	DESCRIPTION

PROJECT NO.	1065-06
DATE	05-27-11
DRAWN BY	RV, RC
CHECKED BY	НО
SCALE	AS SHOWN
SHEET TITLE	

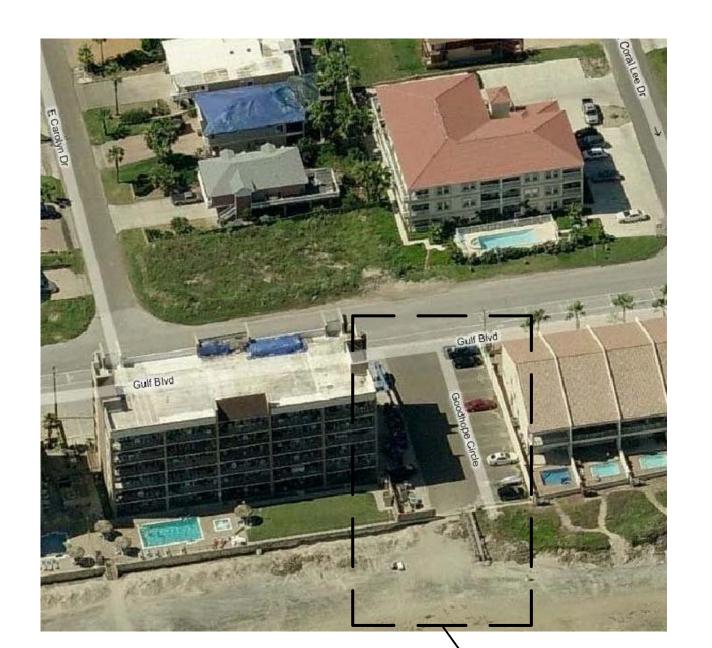
COVER SHEET

SHEET NO.

CS1.0







REF. A1.1 FOR SITE PLAN AT **GOOD HOPE CIRCLE**



SCOPE OF PROJECT

SCOPE OF WORK IS DEFINED BY THE DRAWINGS AND SPECIFICATIONS, INCLUDES ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, PERMITTING AND FEES TO ACCOMPLISH THE WORK. THE SCOPE INCLUDES, BUT IS NOT LIMITED TO:

- 1. IMPROVEMENTS & EXPANSION OF PARKING LOT AT AQUARIUS CIRCLE.
- 2. INSTALLATION OF NEW BEACH WALKOVER STUCTURE AT AQUARIUS CIRCLE.
- 3. PARKING LOT IMPROVEMENTS AT GOOD HOPE CIRCLE.
- 4. INSTALLATION OF NEW BEACH WALKOVER STRUCTURE AT GOOD HOPE CIRCLE.

CODE COMPLIANCE

- 1. ALL WORK PREFORMED SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE. FEDERAL, AND LOCAL CODES, ORDINANCES, AND LAWS, INCLUDING THE INTERNATIONAL BUILDING CODE 2006
- 2. ALL DEMOLITION MATERIAL SHALL BE PROPERLY DISPOSED OF IN A LANDFILL MEETING ALL FEDERAL, STATE, AND LOCAL REGULATORY REQUIREMENTS. CONTRACTOR SHALL PROVIDE PROPER DOCUMENTATION FROM LANDFILL INDICATING PROPER DISPOSAL OF DEMOLITION MATERIAL.

COORDINATION

1. THE CONTRACTOR SHALL COORDINATE WORK BETWEEN ALL TRADES. ANY CONFLICTS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO THE WORK BEING INSTALLED. FAILURE TO DO SO WILL MAKE THE CONTRACTOR RESPONSIBLE FOR THE COST OF THE WORK.

EXISTING CONDITIONS

- 1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE NEW CONSTRUCTION TO EXISTING CONDITIONS.
- 2. IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.

- ACQUAINT THEMSELVES WITH THE EXISTING CONDITIONS.
- 4. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES, INCLUDING STORM SEWER SYSTEM LINES, WASTE WATER LINES, IRRIGATION LINES, ETC., PRIOR TO MOBILIZATION AND COMMENCEMENT OF WORK. CONTACT ALL CITY OF SOUTH PADRE ISLAND MUNICIPALITIES AS REQUIRED TO LOCATE UNDERGROUND UTILITIES. ANY COSTS TO REPAIR DAMAGES IF UTILITIES ARE NOT PROPERLY IDENTIFIED, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

DOCUMENTATION OF PRE-CONSTRUCTION PHOTOGRAPHS

1. THE CONTRACTOR SHALL PHOTOGRAPH AND/OR VIDEO DOCUMENT AND TAKE WRITTEN NOTES OF EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF THE WORK ON THE SITE. COPIES OF ALL DOCUMNTATION TO BE PRESENTED TO THE OWNER/ENGINEER PRIOR TO COMMENCING WORK.

PROTECTION OF EXISTING ADJACENT BUILDINGS

- 1. CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS NOT TO DAMAGE ADJACENT BUILDINGS DURING DEMOLITION.
- 2. THE CONTRACTOR SHALL TAKE PROPER PRECAUTION TO PROTECT ALL ADJACENT EXISTING TREES, LANDSCAPING, SITE LIGHTING, SIDEWALKS, AND SITE FEATURES FROM DAMAGE THROUGHOUT COURSE OF WORK. IF DAMAGED DURING THE COURSE OF THE WORK, REPAIR TO PRE-CONSTRUCTION CONDITION PRIOR TO COMPLETION OF THE

<u>SAFETY</u>

PROJECT.

- 1. PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.
- 2. CONTRACTOR SHALL MAINTAIN OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION, INCLUDING, BUT NOT LIMITED TO ADEQUATE PROTECTION, BARRICADES.
- 3. PEDESTRIAN PROTECTION REQUIREMENTS: PROVIDE CANOPY AND/OR BARRICADES AT SIDEWALKS AND OTHER PUBLICLY ACCESSIBLE AREAS WHICH MAY BE SUBJECT TO FALLING DEBRIS FROM THE WORK. COORDINATE ACCESS REQUIREMENTS WITH OWNER. BARRICADES AND CANOPY SHALL MEET OR EXCEED THE APPLICABLE REQUIREMENTS OF FEDERAL, STATE AND LOCAL LAWS, CODES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. AS A MINIMUM, CANOPY SHALL COMPLY WITH SECTION 3306, "PROTECTION OF PEDESTRIANS" OF THE 2006 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC). UPON COMPLETION OF REMOVAL OF CANOPY AND BARRICADES, LEAVE PROPERTY IN GOOD CONDITION AS IT WAS PRIOR TO COMMENCEMENT OF WORK.
- 4. ALL CONSTRUCTION MATERIALS SHALL BE LOCKED-UP OR PLACED INSIDE A LOCKED CONSTRUCTION FENCE TO ENSURE MATERIALS DO NOT BECOME WINDBORNE OR CAUSE INJURY TO RESIDENTS, VISITORS OR PUBLIC.

TEMPORARY FACILITIES

1. COORDINATE LOCATION AND PLACEMENT OF FIELD OFFICE, MATERIAL STORAGE, PORTABLE TOILET, DUMPSTERS, ETC. WITH OWNER PRIOR TO CONSTRUCTION.

USE OF THE PREMISES

- 1. EQUIPMENT ACCESS TO BE SCHEDULED WITH OWNERS REPRESENTATIVE 48 HOURS IN ADVANCE.
- 2. TYPICAL HOURS OF WORK: 7:00 AM 7:00 PM MONDAY SUNDAY, UNLESS ARRANGEMENTS MADE WITH OWNER'S REPRESENTATIVE. PRIOR TO COMMENCING WORK, COORDINATE HOURS OF WORK WITH THE OWNER TO MINIMIZE IMPACT TO THE SITE'S DAY-TO-DAY OPERATIONS.
- 3. MAINTAIN PUBLIC ACCESS FOR THE DURATION OF THE PROJECT, OR AS REQUIRED BY OWNER.
- 4. AN ON-SITE STORAGE AREA IS TO BE ESTABLISHED DURING CONSTRUCTION. STORAGE IS TO BE PROTECTED IN A SECURE WEATHERPROOF LOCATION TO PREVENT DAMAGE TO
- 5. PROVIDE REGULAR SITE CLEAN UP. STORE MATERIALS IN A NEAT AND ORDERLY
- 6. DO NOT PLACE LOADS ON THE EXISTING ADJACENT STRUCTURES OR STORE DEMOLISHED MATERIALS ON THE STRUCTURES IN A MANNER THAT WILL DAMAGE THEM.
- 7. WORKERS SHALL BE PROPERLY DRESSED AND DISPLAY APPROPRIATE BEHAVIOR AT ALL TIMES IN CONSTRUCTION AND ADJACENT AREAS.
- 8. REPAIR/RESTORE DAMAGED LAWN OR OTHER LANDSCAPING AT COMPLETION OF THE WORK AT NO COST TO OWNER.

SITE MAINTENANCE

- 2. MAINTAIN SITE IN A CLEAN AND ORDERLY CONDITION. AREAS USED AS PATHWAYS TO TRANSPORT MATERIALS OR TO REMOVE TRASH THAT ARE NOT DIRECTLY UNDER CONSTRUCTION ARE TO BE KEPT CLEAN. THIS SHALL INCLUDE BUT NOT BE LIMITED TO DUSTING, SWEEPING AND MOPPING.

FIRE PROTECTION

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE PROTECTION AND FIRE WATCH DURING ALL CONSTRUCTION OPERATIONS.
- 2. NO SMOKING SHALL BE PERMITTED AT THE SITE. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY FIRE EXTINGUISHERS UNTIL SUBSTANTIAL COMPLETION.

HAZARDOUS MATERIALS ABATEMENT/ MANAGEMENT

1. THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR DESIGN, REMOVAL OF, OR TESTING FOR ASBESTOS/LEAD, OR FOR ABATEMENT /MANAGERIAL TREATMENTS, MONITORING, AND LEGAL DISPOSAL OF MATERIALS, AND SHALL INCLUDE COSTS THEREOF IN THE BID.



GREEN. RUBIANO & ASSOCIATES

CONSULTING STRUCTURAL ENGINEERS HARLINGEN, TEXAS 78550

PH: (956)428-4461 FAX: (956)428-0287 FIRM REGISTRATION #F-4145



PROJECT

BEACH WALKOVERS AT AQUARIUS AND **GOOD HOPE CIRCLES**

SOUTH PADRE ISLAND, **TEXAS**

CITY OF SOUTH PADRE ISLAND



SOUTH PADRE ISLAND. **TEXAS**

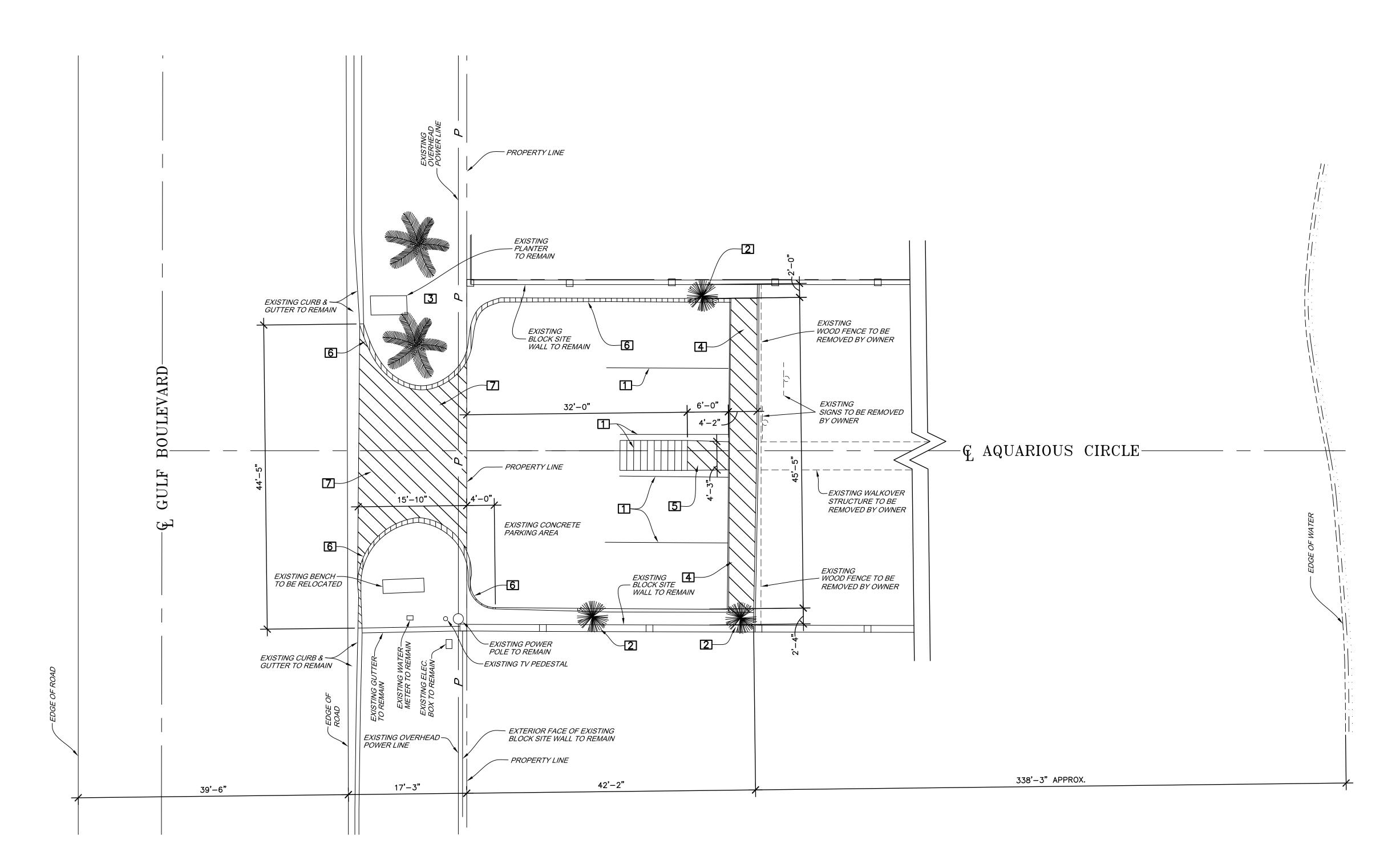
> P: 956-761-3044 F: 956-761-3898

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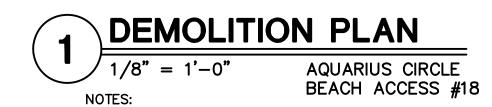
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SITE AERIALS AND GENERAL NOTES

SHEET NO.



CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.





- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO GOVERNING LOCAL, STATE OR FEDERAL REGULATIONS.
- 2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO DETERMINE DEMOLITION REQUIREMENTS AT THIS PROJECT. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL THE DEMOLITION REQUIREMENTS TO COMPLETE THIS PROJECT.
- 3. GENERAL CONTRACTOR SHALL LOCATE AND LABEL ALL UTILITIES BEFORE COMMENCEMENT OF DEMOLITION & CONSTRUCTION ACTIVITIES. UTILITIES SHALL BE CLEARLY MARKED SO THAT ANY SUBCONTRACTOR VISITING THIS SITE CAN EASILY IDENTIFY UTILITIES.
- 4. GENERAL CONTRACTOR SHALL REPAIR ANY AREA DAMAGED DURING CONSTRUCTION TO THE SATISFACTION OF THE OWNER.
- 5. GENERAL CONTRACTOR SHALL COORDINATE WITH ENGINEER ITEMS THAT ARE UNCLEAR PRIOR TO ANY DEMOLITION.
- 6. INDICATES DEMOLITION AREA.
- 7. VERIFY WITH OWNER WHICH PLANTS ARE TO REMAIN UNDISTURBED, WHICH ARE TO BE SALVAGED AND RELOCATED, AND WHICH ARE TO BE REMOVED AND DISCARDED.

DEMOLITION KEYED NOTES

- 1 EXISTING PARKING STRIPING TO BE REMOVED
- 2 EXISTING SHRUB TO BE REMOVED & RETURNED TO OWNER
- 3 EXISTING TREES & LANDSCAPED AREA TO REMAIN
- 4 EXISTING CONCRETE SIDEWALK TO BE DEMOLISHED & REMOVED
- 5 EXISTING CONCRETE RAMP TO BE DEMOLISHED & REMOVED
 6 EXISTING CONCRETE CURB TO BE DEMOLISHED & REMOVED
- 7 EXISTING CONCRETE ENTRY TO BE DEMOLISHED & REMOVED
 - EMOTING CONCRETE ENTRY TO BE DEMOCIONED & NEMOVED

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BEACH WALKOVERS
AT AQUARIUS AND
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SOUTH PADRE ISLAND, TEXAS

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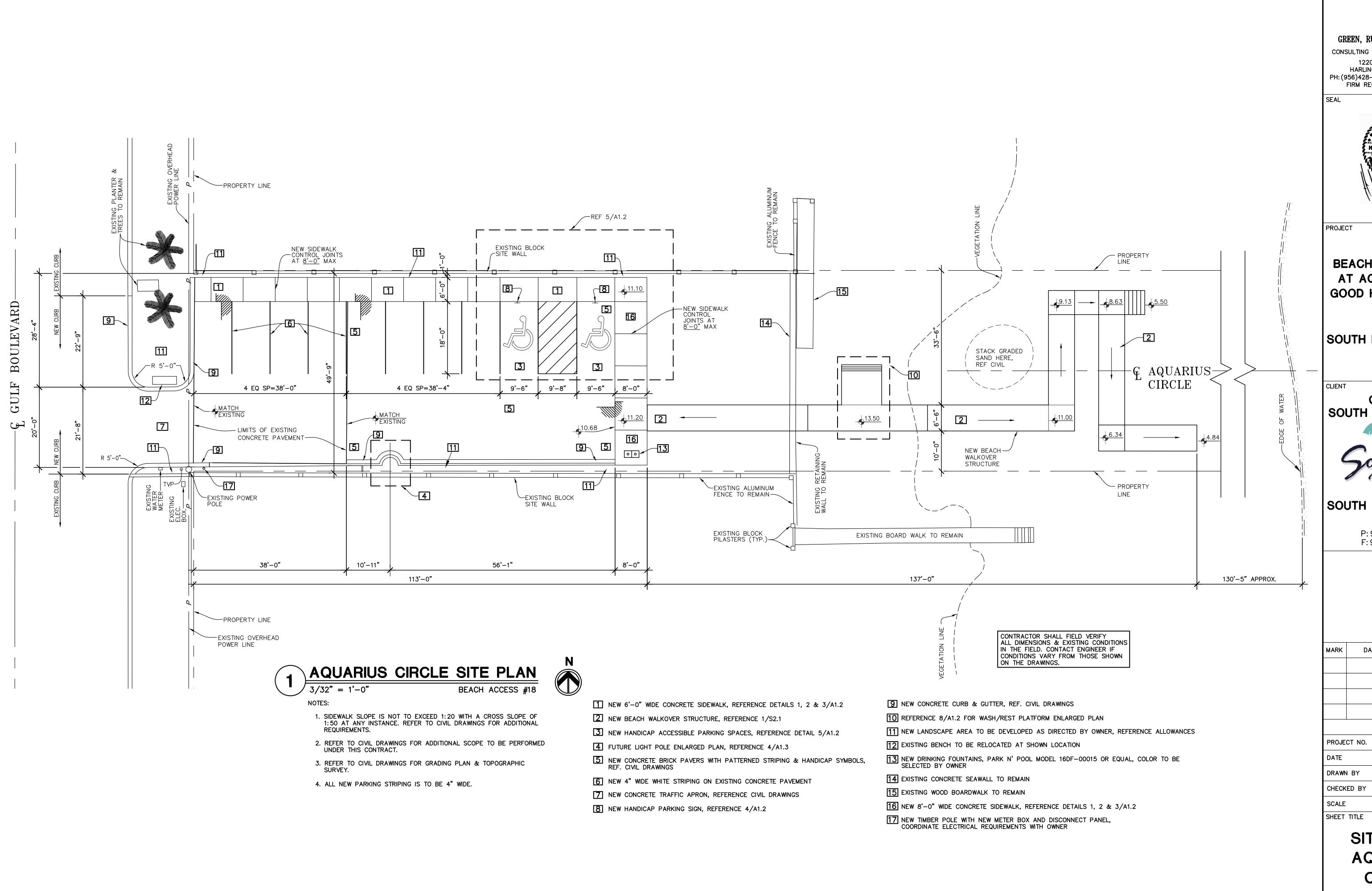
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DEMOLITION PLAN AQUARIUS CIRCLE

SHEET NO.

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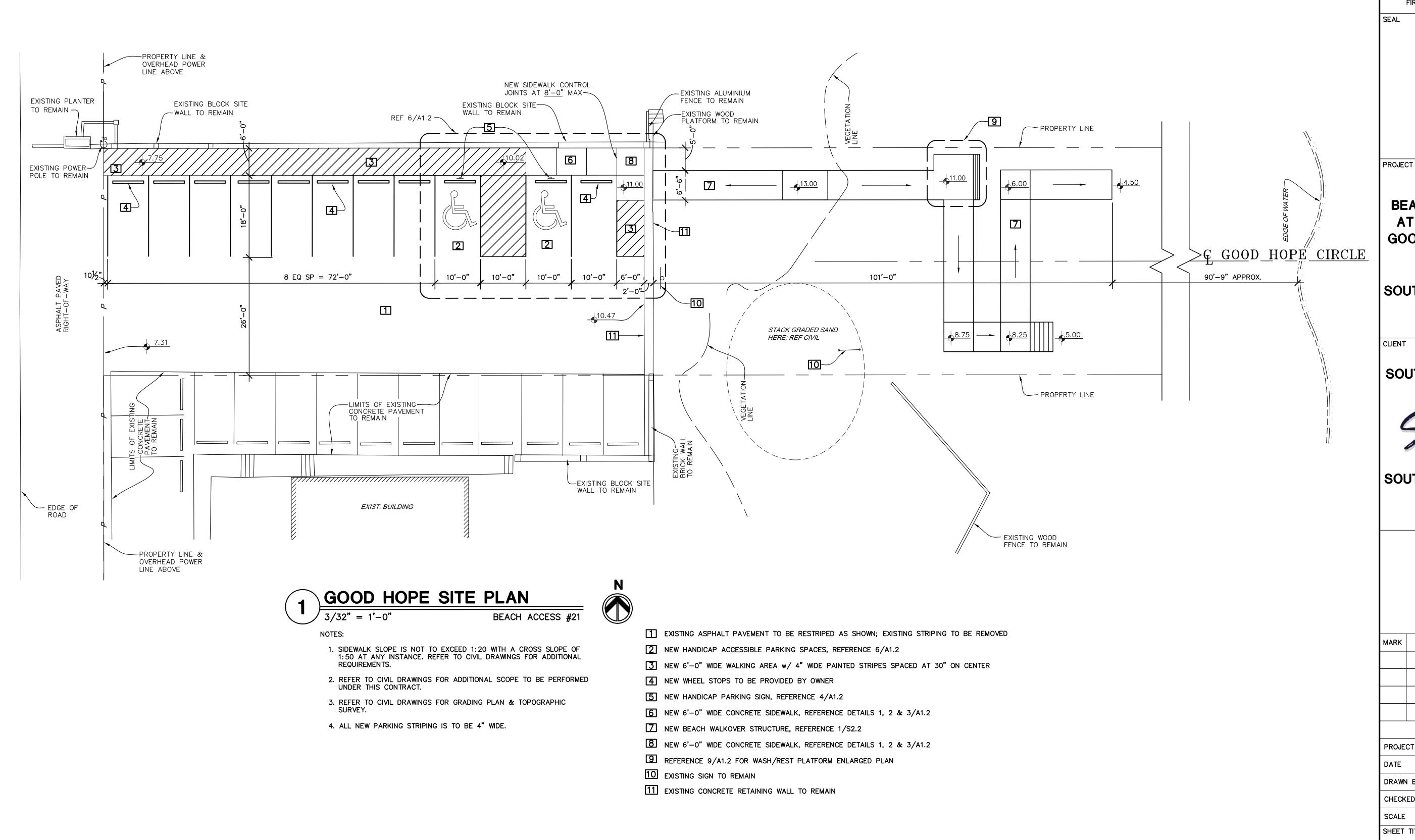
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SITE PLAN AQUARIUS CIRCLE

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BEACH WALKOVERS AT AQUARIUS AND GOOD HOPE CIRCLES

SOUTH PADRE ISLAND, **TEXAS**

CITY OF SOUTH PADRE ISLAND



SOUTH PADRE ISLAND, **TEXAS**

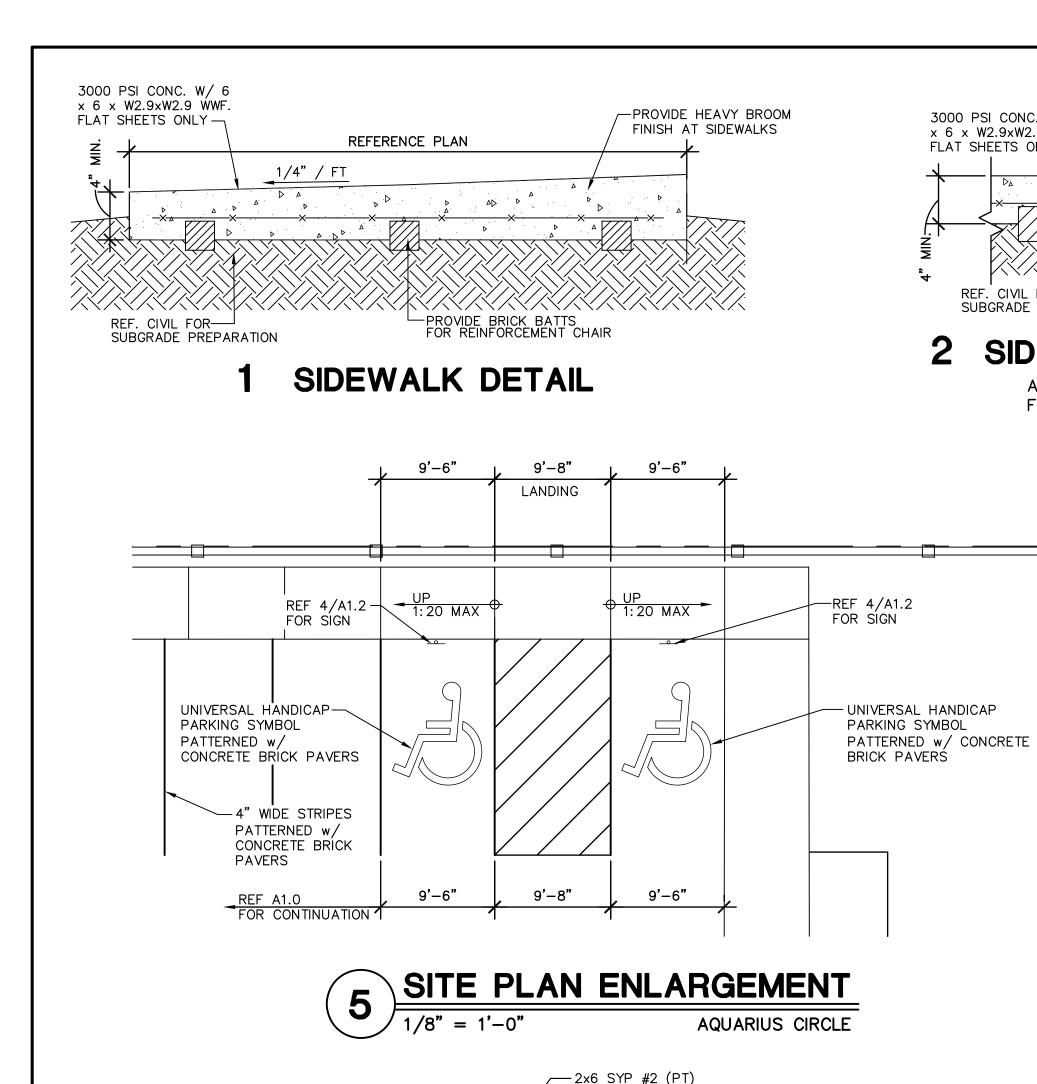
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SITE PLAN GOOD HOPE CIRCLE

SHEET NO.



4x4 SYP #2 (PT) HANDRAIL— POST AT 4'-8" o/c.

FASTEN TO FLOOR
JOIST w/ 2- 5/8"ø
STAINLESS STEEL THRU-BOLTS

2x6 SYP #2 (PT) — AT 4'-8" o/c

2x2 PICKET AT 6" o/c-

4x4 SYP #2 (PT) POST-AT 4'-8" O/C.

1- 5/8"ø STAINLESS STEEL-

NEW DUNE LINE,— REF. CIVIL

7 BENCH DETAIL

3x12 CONT SYP #2-

3x12 SYP #2 (PT)—

1½" NOTCH~

THRU-BOLT AT 4'-8" o/c

— 2x4 SYP #2 (PT) CONT

-2x6 SYP #2 (PT) CONT AT 12" o/c

2x6 SYP #2 (PT) CONT

-2x6 COMPOSITE PLANKS

- 2x12 BLOCKING SYP #2

(PT) BETWEEN JOISTS

└─2x12 SYP #2 (PT)

- 2-1/2"Ø STAINLESS STEEL LAG SCREWS AT EA END

L4x4x1/4x20"Lg STAINLESS STEEL FASTEN TO 2"x12" JOIST w/

2-1/2"ø STAINLESS STEEL LAG

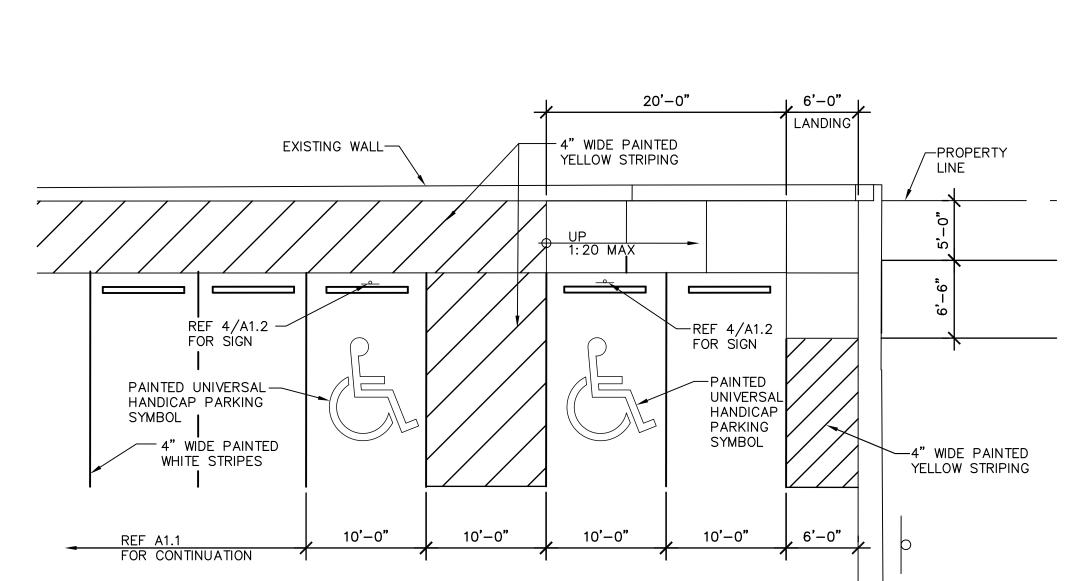
SCREWS AND TO 3"x12" BEAM

w/ 2-1/2"ø STAINLESS STEEL

---- 12"ø TREATED WOOD PILE

LAG SCREWS, TYP.

-4x4 SYP #2 (PT) AT 4'-8" o/c



3000 PSI CONC. W/ 6-

SUBGRADE PREPARATION

3 SIDEWALK EXP. JT. DETAIL

SITE PLAN ENLARGEMENT

GOOD HOPE CIRCLE

 \times 6 \times W2.9 \times W2.9 WWF.

FLAT SHEETS ONLY

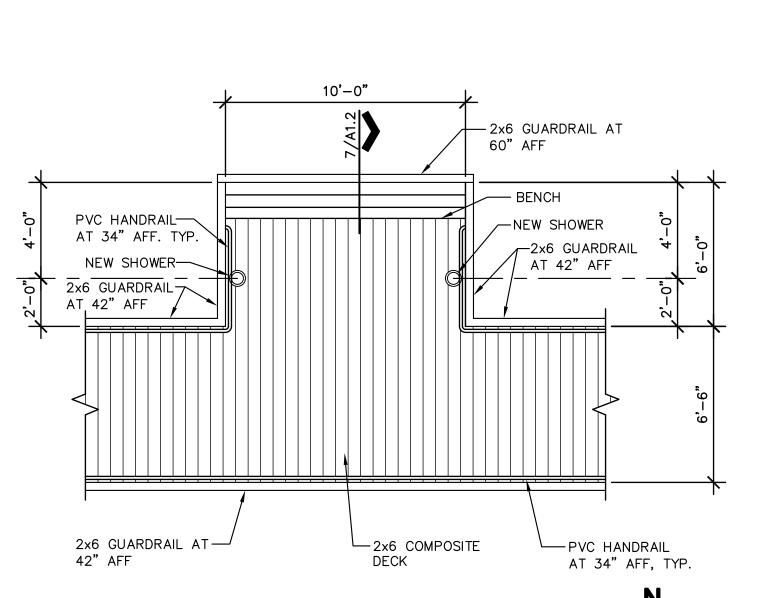
__E.J. FILLER w/ SEALANT

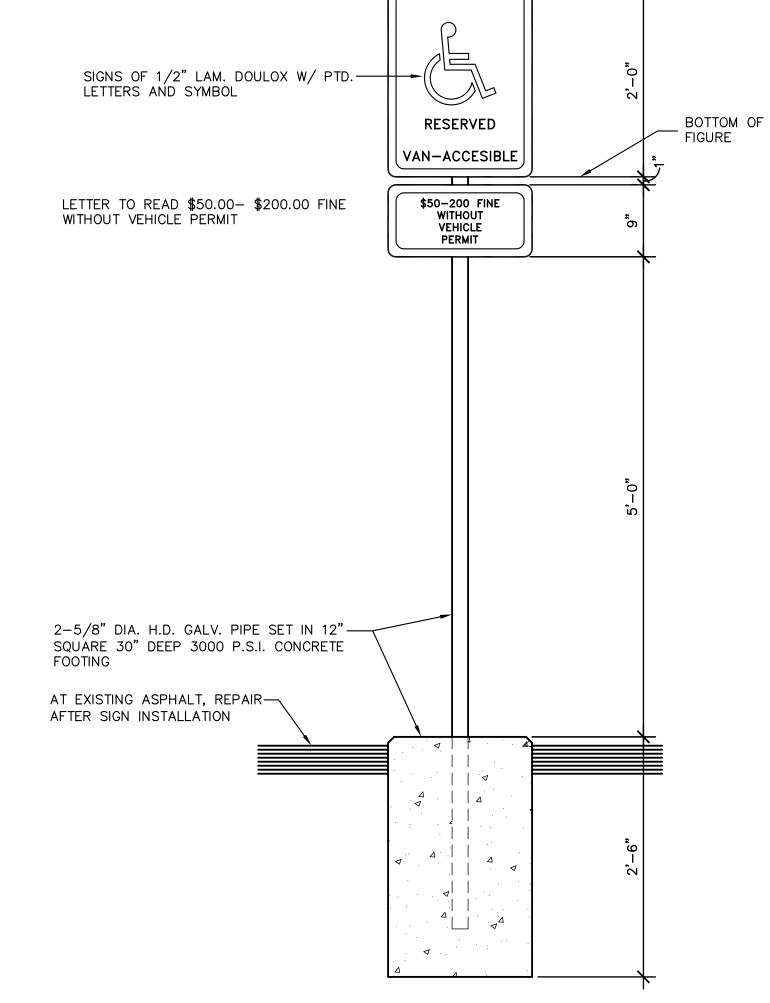
No. 3 DOWELS AT 24"

O.C. 2'-0" LONG

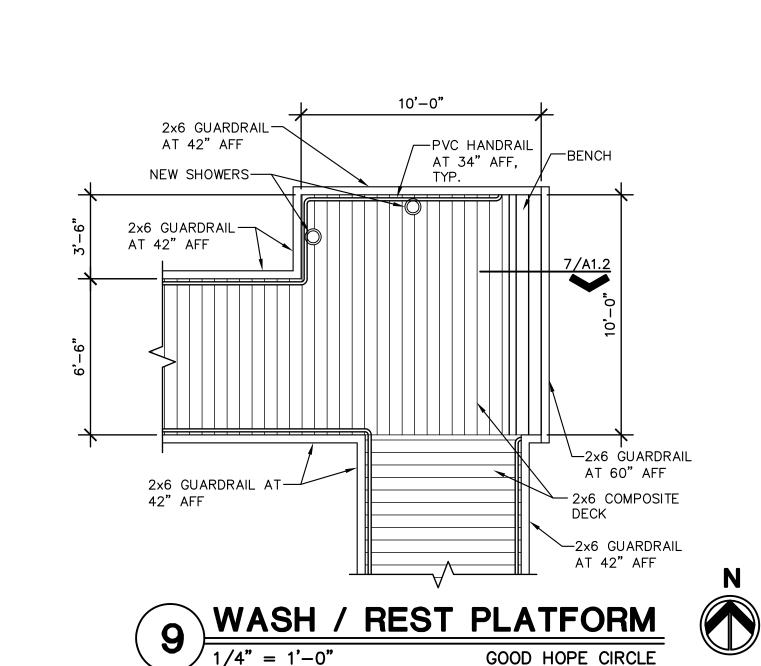
-PROVIDE HEAVY BROOM

FINISH AT SIDEWALKS

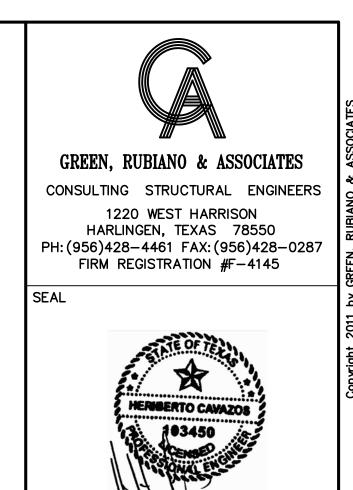








1. SHOWERS ARE ADD ALTERNATE, REFERENCE ALTERNATE SCHEDULE. SHOWERS TO BE PARK N' POOL MODEL 75SH-001 OR EQUAL. COLOR TO BE SELECTED BY OWNER.



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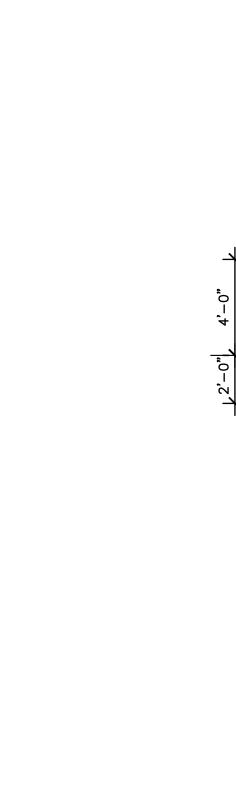
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3000 PSI CONC. W/ 6 — x 6 x W2.9xW2.9 WWF.

REF. CIVIL FOR— SUBGRADE PREPARATION

SIDEWALK CONTROL JT.

ALL CONTROL JOINTS SHALL BE

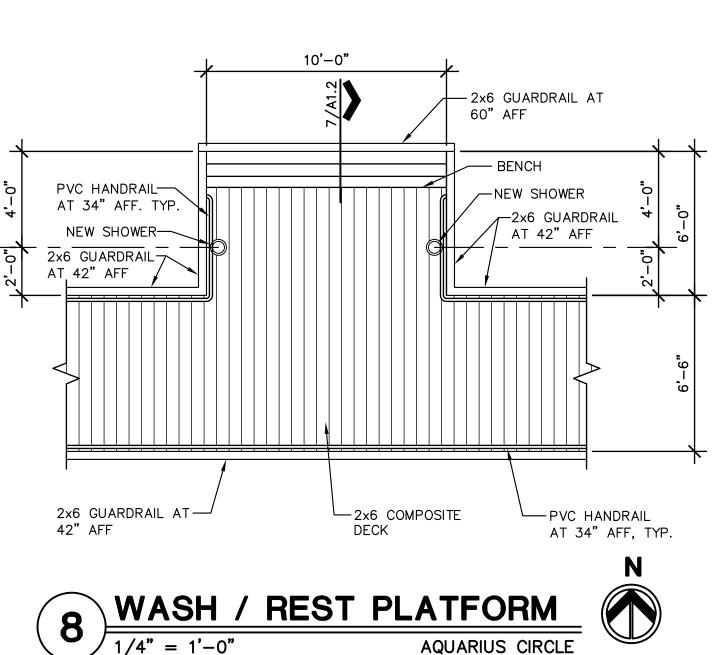
FILLED WITH SONOLASTIC SL-1

FLAT SHEETS ONLY

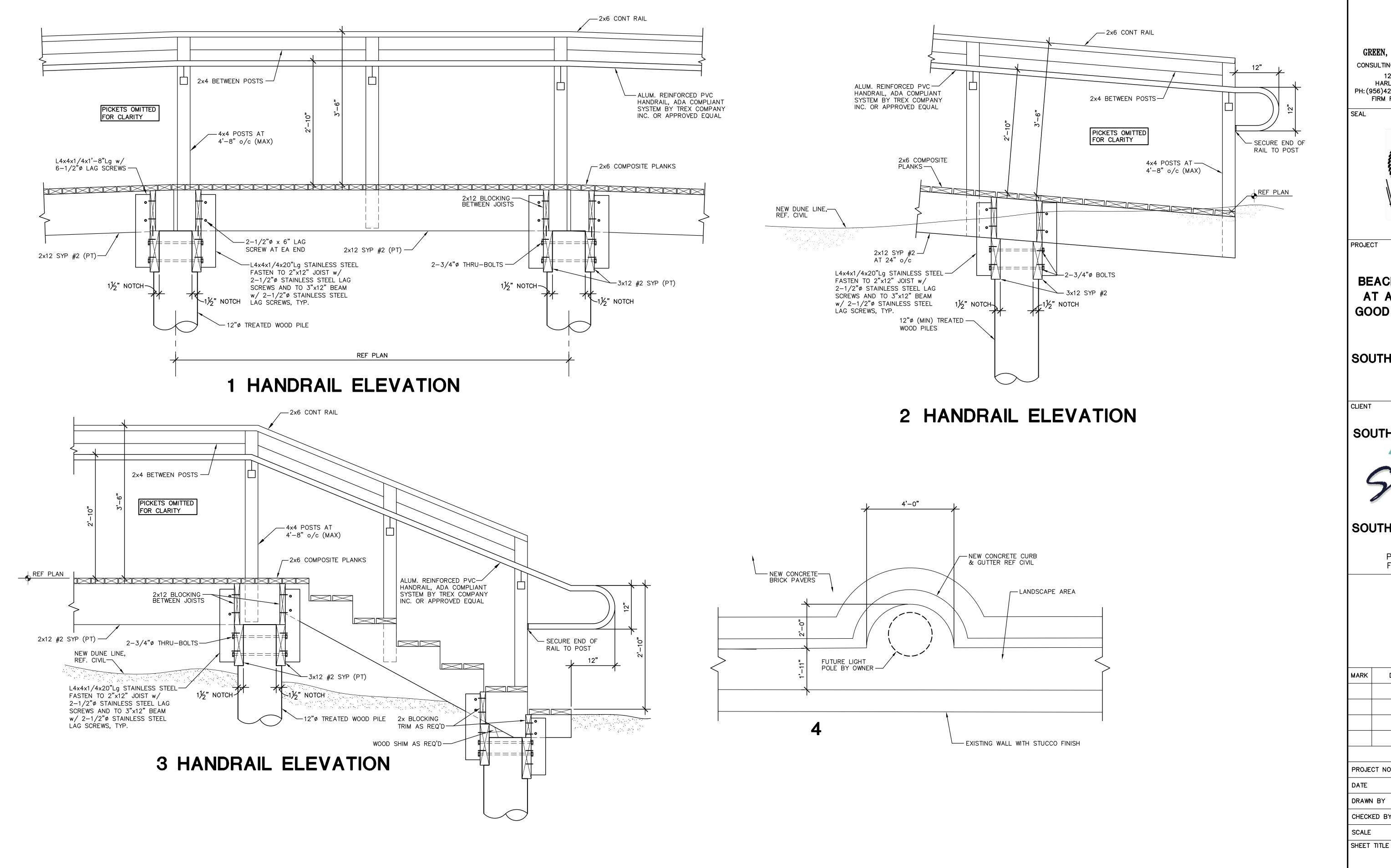
-PROVIDE HEAVY BROOM

PROVIDE BRICK BATTS FOR REINFORCEMENT

FINISH AT SIDEWALKS



1. SHOWERS TO BE PARK N' POOL MODEL 75SH-001 OR EQUAL. COLOR TO BE SELECTED BY OWNER.



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GENERAL STRUCTURAL NOTES

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & CIVIL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2009 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).

DESIGN CRITERIA

- LIVE LOAD 100 PSF
- 2. WIND LOAD: BASED ON ASCE 7-05 REQUIREMENTS FOR 140 MPH WIND.
- 3. IMPORTANCE FACTOR 1.00
- 4. EXPOSURE FACTOR C
- 5. FOUNDATION DESIGN IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, AND IS BASED ON VALUES RECOMMENDED IN TABLE 1806.2 PRESUMPTIVE LOAD BEARING VALUES, AS LISTED BELOW:
- END BEARING CAPACITY (WOOD PILES) 1,500 PSF
- SKIN FRICTION (WOOD PILES) 130 PSF
- 6. A GEOTECHNICAL ENGINEER SHALL BE RETAINED TO PERFORM TESTING AND INSPECTION DURING PLACEMENT OF WOOD PILES AS REQUIRED TO VERIFY PRESUMPTIVE LOAD—BEARING VALUES NOTED ABOVE.

WOOD PILES

- 1. MAXIMUM DESIGN LOAD OF EACH PILE IS 6.0 KIPS.
- 2. PRIOR TO PILE PLACEMENT, THE CONTRACTOR SHALL PROVIDE THE ENGINEER DATA REGARDING THE PROPOSED HAMMER AND CUSHION SYSTEM.
- 3. PILES SHALL BE ASTM D-25, CLASS "C" TREATED, PEELED SOUTHERN YELLOW PINE OR DOUGLAS FIR. PILES SHALL BE CREOSOTED ACCORDING TO AWPA MANUAL STANDARDS C-3 WITH A MINIMUM RETENTION OF 12 POUNDS PER CUBIC FOOT
- 4. PILES SHALL HAVE A MINIMUM BUTT DIAMETER OF 12 INCHES AND A MINIMUM TIP DIAMETER OF 8 INCHES.
- 5. A 8 INCH DIAMETER PILOT HOLE MAY BE DRILLED TO A DEPTH OF 5 FEET ABOVE THE FINAL TIP ELEVATION TO FACILITATE PILE DRIVING. JETTING ALONG SIDE OF PILES IS NOT PERMITTED.
- 6. PILES SHALL BE DRIVEN WITH A DYNAMIC HAMMER HAVING AN EFFECTIVE DRIVING ENERGY OF 18,000 TO 48,000 FT/LBS/BLOW.
- 7. ADEQUATE CUSHIONING MATERIAL SHALL BE PROVIDED BETWEEN THE PILE DRIVER CAP AND THE PILE HEAD. A SOFTWOOD CUSHION WITH A THICKNESS OF 6 TO 12 INCHES IS PREFERRED.
- 8. THE PILE DRIVING HELMET OR CAP SHALL BE SUFFICIENTLY LOOSE AROUND THE PILE BUTT SO AS NOT TO DEVELOP TORSIONAL STRESSES IN THE PILE DURING INSTALLATION, HOWEVER THE HELMET SHOULD BE CAPABLE OF CONTROLLING PILE ALIGNMENT.
- 9. THE ENTIRE HAMMER-CUSHION-PILE SYSTEM SHOULD BE COMPATIBLE AND CAPABLE OF DRIVING PILES TO THE DESIGN PENETRATIONS WITHOUT DAMAGING PILES. BLOW COUNTS CONSISTENTLY IN EXCESS OF 50 BLOWS/FOOT ARE NOT IN LINE WITH GOOD PRACTICE.
- 10. PILES SHALL BE PROPERLY ALIGNED PRIOR TO DRIVING AND HELD WITH FIXED LEADS. REALIGNMENT ONCE DRIVING HAS COMMENCED IS NOT PERMITTED.

CONCRETE (SIDEWALKS)

- ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. #301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318. LATEST EDITION.
- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.
- 3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28
- 4. A MAXIMUM OF 25% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.6 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). AGGREGATE SHALL BE WELL-GRADED, 1" MAXIMUM FOR THE SLAB ON GRADE, 1" MAXIMUM FOR CAST-IN-PLACE BEAMS AND ABOVE GRADE SLABS. COARSE AGGREGATE SHALL MEET ASTM C33, GRADATION #57. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO FURNISH MIX DESIGNS FOR ALL CLASSES OF CONCRETE. A SAMPLE OF FOUR CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 YD3 OF CONCRETE. ONE CYLINDER SHALL BE TESTED AT 7 DAYS AND TWO AT 28 DAYS. THE FOURTH CYLINDER MAY BE DISPOSED OF AFTER 45 DAYS IF NOT USED.
- 5. ADMIXTURES CONTAINING WATER SOLUBLE CHLORIDE IONS GREATER THAN 0.06% BY WEIGHT OF CEMENT SHALL NOT BE USED.
- 6. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60. #3 BARS MAY BE GRADE 40.
- 7. WELDED WIRE FABRIC MATS SHALL BE ASTM A185.
- 3. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

WHERE CAST AGAINST DIRT OR FILL	3	IN
EXPOSED TO EARTH OR WEATHER	2	١N
SLABS AND WALLS	1	١N
OTHER 1–1	/2	١N

- 9. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.
- 10. SLAB MAT TO BE SUPPORTED BY MASONRY BRICK BATTS (MIN OF 1/2 BRICK)
 SPACED AT 4 FEET ON CENTER EACH WAY (MAX). BEAM CAGES SUPPORTED BY
 BATTS AT 4 FEET ON CENTER.
- 11. MAINTAIN A MINIMUM OF ONE AND ONE—HALF (1-1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).
- 12. BARS SCHEDULED OR DETAILED "CONT" SHALL BE LAPPED 40 BAR DIAMETERS (24 INCHES MINIMUM) UNLESS OTHERWISE NOTED.
- 13. WHERE CONCRETE IS TO HAVE UNEXPOSED SURFACES, THE FORMS MAY BE CONSTRUCTED OF #2 LUMBER OR BETTER. WHERE SURFACES ARE EXPOSED, A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OF OTHER DEFECTS.
- 14. EXPOSED SURFACES OF CONCRETE AT THE PERIMETER OF THE FOUNDATION SHALL BE FORMED WITH 2X10 #2 LUMBER OR BETTER. A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.
- 15. CONSTRUCT FORMS SO THAT JOINTS ARE LEAKPROOF. MAINTAIN FORMS SUFFICIENTLY RIGID TO PREVENT DEFORMATION UNDER LOAD.
- 16. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.
- 17. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:
 - A.) COARSE AGGREGATE SHALL BE GRADED FROM A MAXIMUM OF 1" DOWN
 - B.) MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.
 - C.) MAXIMUM WATER CEMENT RATIO SHALL BE 7-1/2 GALLONS PER SACK OF CEMENT. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAY BE USED.
 - D.) MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES SHALL NOT EXCEED 2/3.
 - E.) REFER TO A.C.I. #301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.
 - F.) IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.
 - G.) SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.
- 18. FLOOR FINISH (TOLERANCES)
 - A.) STEEL TROWEL FINISH 1/8" IN 10'
 - B.) FLOAT FINISH 1/4" IN 10'
 - C.) SCRATCH FINISH 1/2" IN 10'
 - D.) IN ALL INSTANCES MINIMUM SLAB THICKNESS SHALL BE PROVIDED. COORDINATE SLAB FINISH REQUIREMENTS WITH ARCHITECTURAL PLANS/SPECIFICATIONS. REFERENCE ARCHITECTURAL PLANS AND/OR SPECIFICATIONS FOR CONCRETE FINISHES.
- 19. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS.
 PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.
- 20. ENGINEER TO BE NOTIFIED 48 HOURS PRIOR TO PLACEMENT OF FOUNDATION AND OF STRUCTURAL CONCRETE TO SCHEDULE REQUIRED OBSERVATIONS.

FASTENERS

- 1. ADHESIVE ANCHORS SHALL BE "HILTI HIT-RE 500-SD ADHESIVE ANCHORS" PROVIDED BY HILTI OR APPROVED EQUAL.
- . FASTENERS DIAMETER AND LENGTH ARE NOTED ON THE PLANS.
- 3. ALL FASTENERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMENDATIONS.
- 4. ALL FASTENERS SHALL BE STAINLESS STEEL.

ROUGH CARPENTRY SPECIFICATIONS AND NOTES

- ROUGH CARPENTRY SHALL COMPLY WITH THE PROVISIONS OF THE 2009 EDITION OF THE INTERNATIONAL BUILDING CODE.
- 2. ALL LUMBER USED FOR LOAD SUPPORTING PURPOSES SHALL BE IDENTIFIED BY THE GRADE MARK OF AN APPROVED LUMBER GRADING OR INSPECTION BUREAU OR AGENCY.
- 3. ALL LUMBER SHALL BE PRESERVATIVELY TREATED AND SHALL BEAR AN APPROVED AWPB QUALITY MARK. THE QUALITY MARK SHALL BE ON A STAMP OR LABEL AFFIXED TO THE PRESERVATIVE—TREATED WOOD, AND SHALL INCLUDE THE FOLLOWING INFORMATION:
 - A. IDENTIFICATION OF TREATING MANUFACTURER.
 - B. TYPE OF PRESERVATIVE USED.
 - C. MINIMUM PERSERVATIVE RETENSION (pcf).
 - D. END USE FOR WHICH THE PRODUCT IS TREATED.
 - E. AWPA STANDARD TO WHICH THE PRODUCT WAS TREATED.
 - F. IDENTITY OF THE ACCREDITED INSPECTION AGENCY.
- 4. FRAMING LUMBER MOISTURE CONTENT SHALL NOT EXCEED 19 PERCENT AT TIME OF INSTALLATION.
- 5. MATERIALS
- A. FRAMING LUMBER

<u>USE-IIEM</u>	LUMBER SPECIES	MINIMUM GRADE
JOISTS, BEAMS	SOUTHERN PINE	#2
PLANKS	2x6 WOOD COMPOSITE DECKING	SEE MFR REQUIREMENT

- B. FASTENERS1. NAILS AND BOLTS SHALL BE STAINLESS STEEL.
- 5. VERTICAL FRAMING MEMBERS SHALL BE CONTINUOUS LENGTH WITHOUT SPLICING. SPLICES IN HORIZONTAL MEMBERS SHALL OCCUR ONLY OVER BEARING POINTS. LAP MEMBERS WHICH BEAR ON PLATES TO PROVIDE FULL BEARING FOR EACH
- 7. STRUCTURAL MEMBERS WHOSE STRENGTH IS IMPAIRED BY IMPROPER CUTTING, DRILLING, OR EXCESSIVE DEFECTS SHALL BE REPLACED OR REINFORCED IN A MANNER ACCEPTABLE TO THE ENGINEER.
- 8. PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS AT BEARING LOCATIONS AND AT MID OPENING OF SPANS GREATER THAN 8'-0" OR AS NOTED. BLOCKING TO MATCH SIZE OF FRAMING MEMBER.
- 9. ALL METAL HANGERS, ETC., SHALL BE STAINLESS STEEL.

WOOD COMPOSITE DECKING MATERIAL FOR PLANKS

- 1. NOMINAL SIZE OF WOOD COMPOSITE DECKING MATERIAL FOR PLANKS SHALL BE 2"x6" BOARD.
- 2. WOOD COMPOSITE DECKING BOARD MANUFACTURED BY TREX COMPANY, INC., OR EQUIVALENT COMPOSITE DECKING BOARDS MAY BE USED SUBJECT TO REVIEW AND EVALUATION OF THE ENGINEER.
- 3. WOOD COMPOSITE DECKING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS, PROCEDURES AND REQUIREMENTS.
- 4. ALL FASTENERS SHALL BE MADE OF STAINLESS STEEL.
- DECKING SHALL BE DESIGNED AND INSTALLED TO LIMIT BENDING DEFLECTION UNDER TOTAL LOAD TO LESS THAN OR EQUAL TO L/360. DESIGN LIVE LOAD IS 100 PSF.
- 6. THE CONTRATOR AND MANUFACTURER SHALL SUBMIT TO THE ENGINEER THE FOLLOWING FOR REVIEW AND EVALUATION:
- A. PRODUCT DATA INCLUDING SPECIFICATIONS, PRODUCT HANDLING, AND INTALLATION INSTRUCTION.



GREEN, RUBIANO & ASSOCIATES

CONSULTING STRUCTURAL ENGINEERS

1220 WEST HARRISON HARLINGEN, TEXAS 78550 PH: (956)428-4461 FAX: (956)428-0287 FIRM REGISTRATION #F-4145



PROJECT

BEACH WALKOVERS
AT AQUARIUS AND
GOOD HOPE CIRCLES

SOUTH PADRE ISLAND, TEXAS

LIENT

CITY OF SOUTH PADRE ISLAND



SOUTH PADRE ISLAND, TEXAS

> P: 956-761-3044 F: 956-761-3898

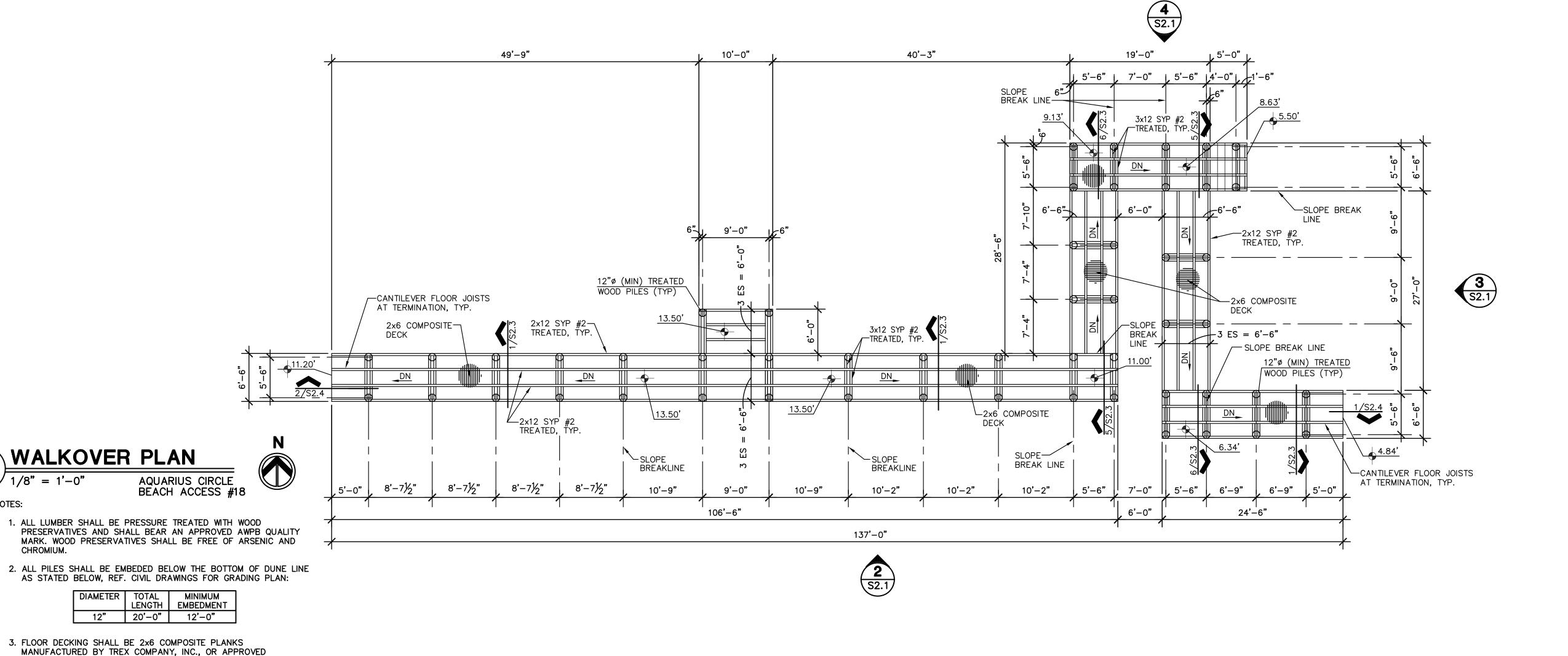
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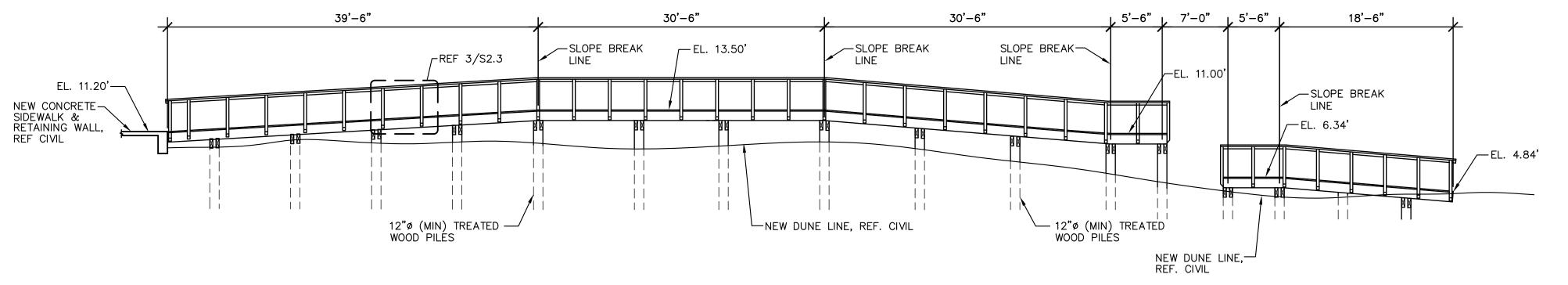
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CHECKED BY	НО
SCALE	AS SHOWN
SHEET TITLE	

GENERAL STRUCTURAL NOTES

SHEET NO.

S1.1



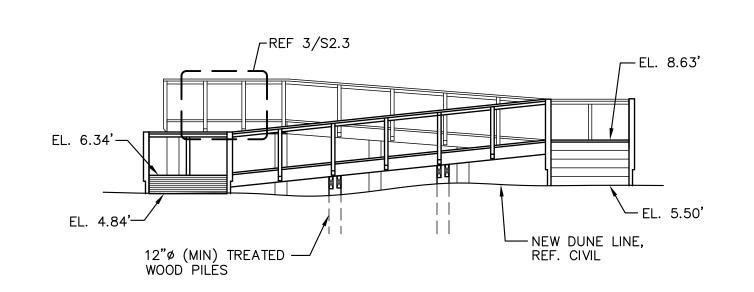




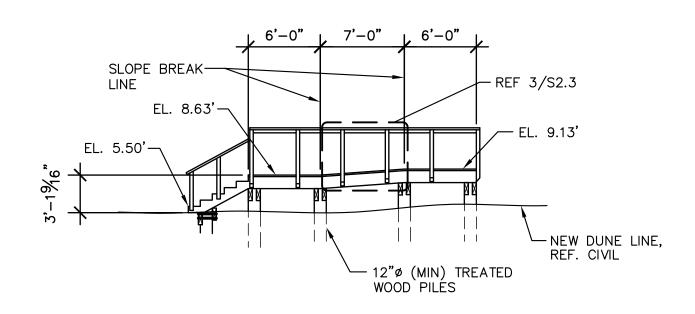
NOTES:

CHROMIUM.

EQUIVALENT.







	WALKOVER	ER ELEVATION		
4	1/8" = 1'-0"	AQUARIUS CIRCLE BEACH ACCESS #18		



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SEAL



PROJECT

BEACH WALKOVERS AT AQUARIUS AND GOOD HOPE CIRCLES

SOUTH PADRE ISLAND, **TEXAS**

CLIENT

CITY OF SOUTH PADRE ISLAND



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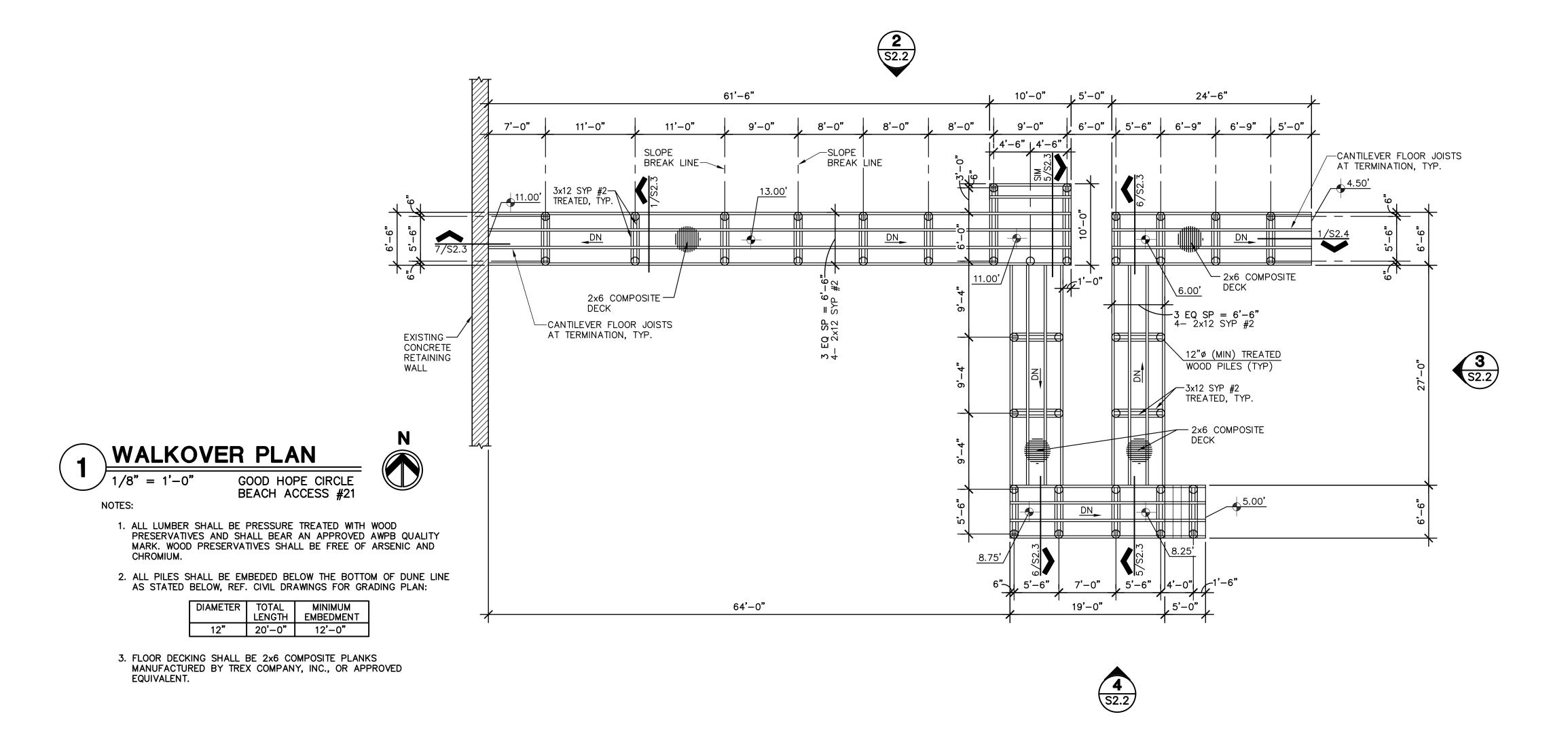
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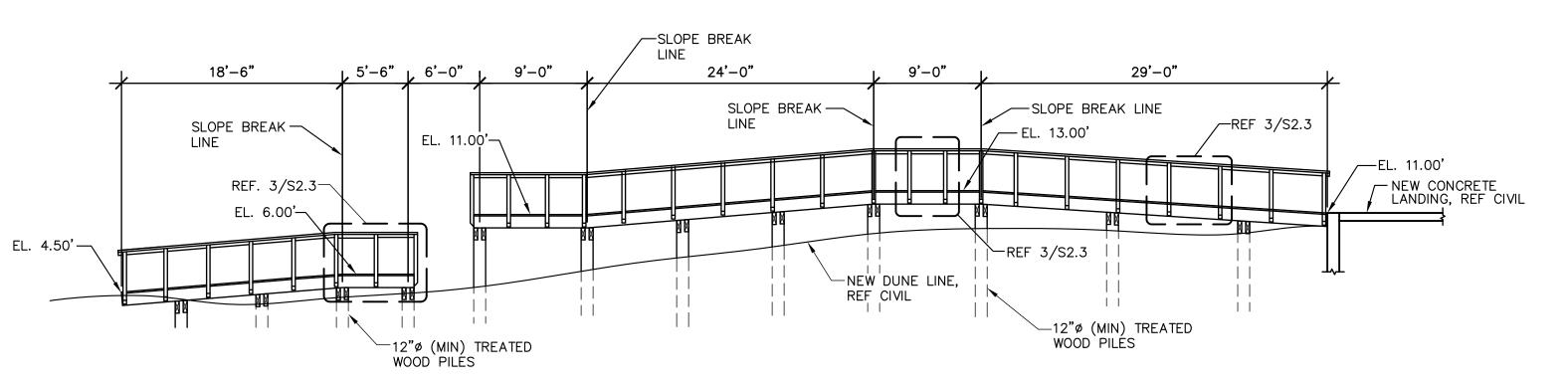
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SCALE	AS SHOWN
SHEET TITLE	

WALKOVER PLANS AND ELEVATIONS AQUARIUS CIRCLE

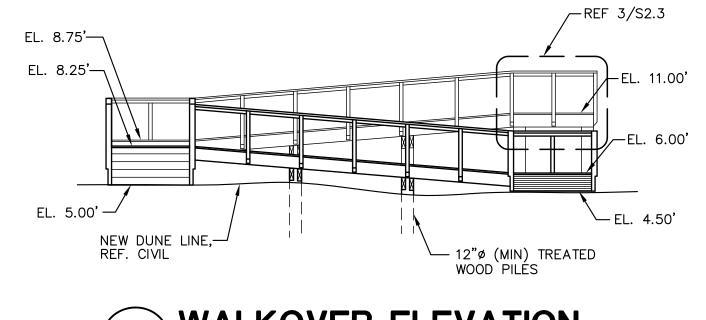
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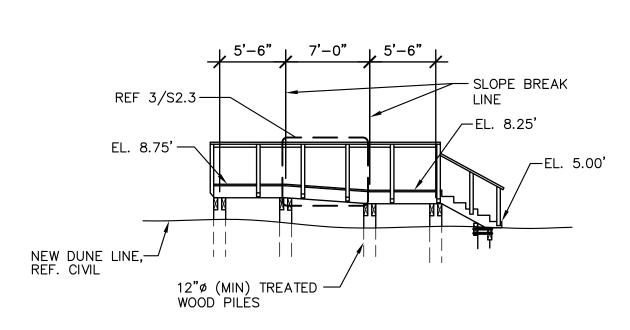












	WALKOVER	OVER ELEVATION	
4	1/8" = 1'-0"	GOOD HOPE CIRCLE BEACH ACCESS #21	



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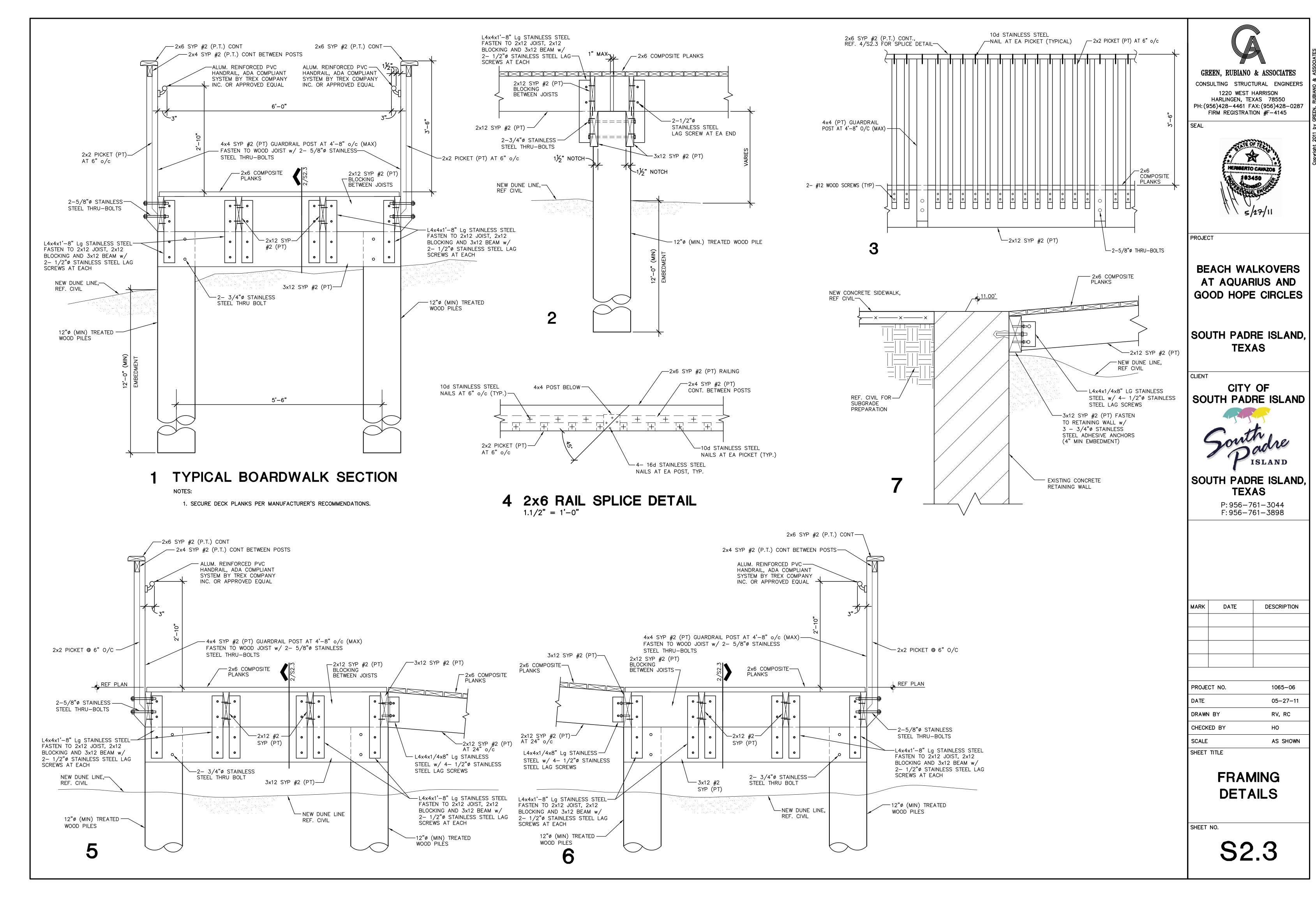
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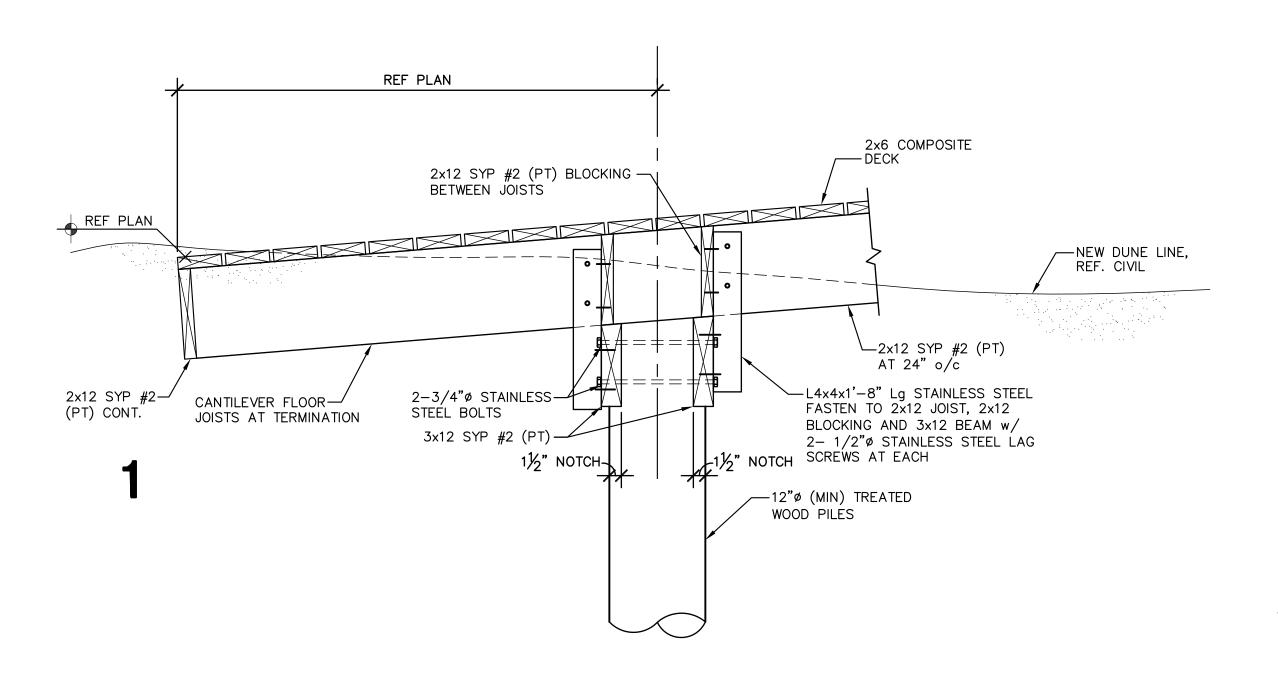
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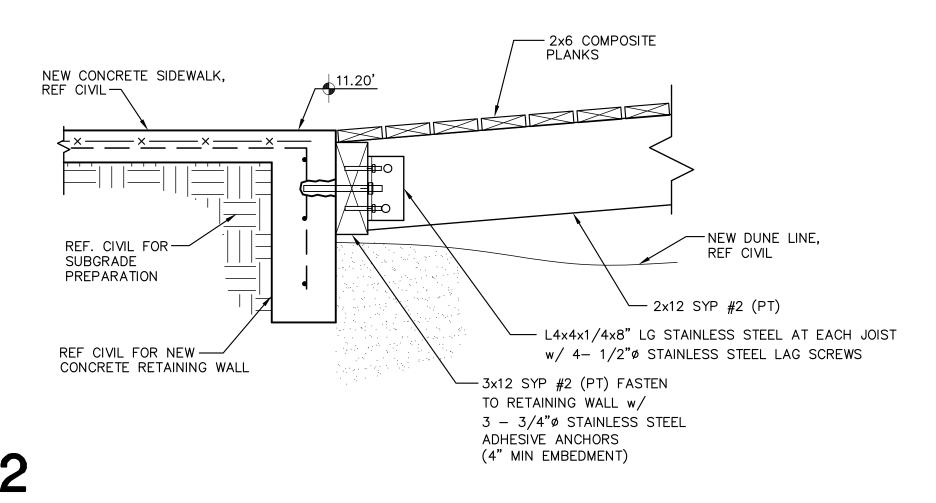
WALKOVER PLANS
AND ELEVATIONS
GOODHOPE CIRCLE

SHEET NO.

S2.2







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PROJECT

BEACH WALKOVERS AT AQUARIUS AND GOOD HOPE CIRCLES

SOUTH PADRE ISLAND, **TEXAS**

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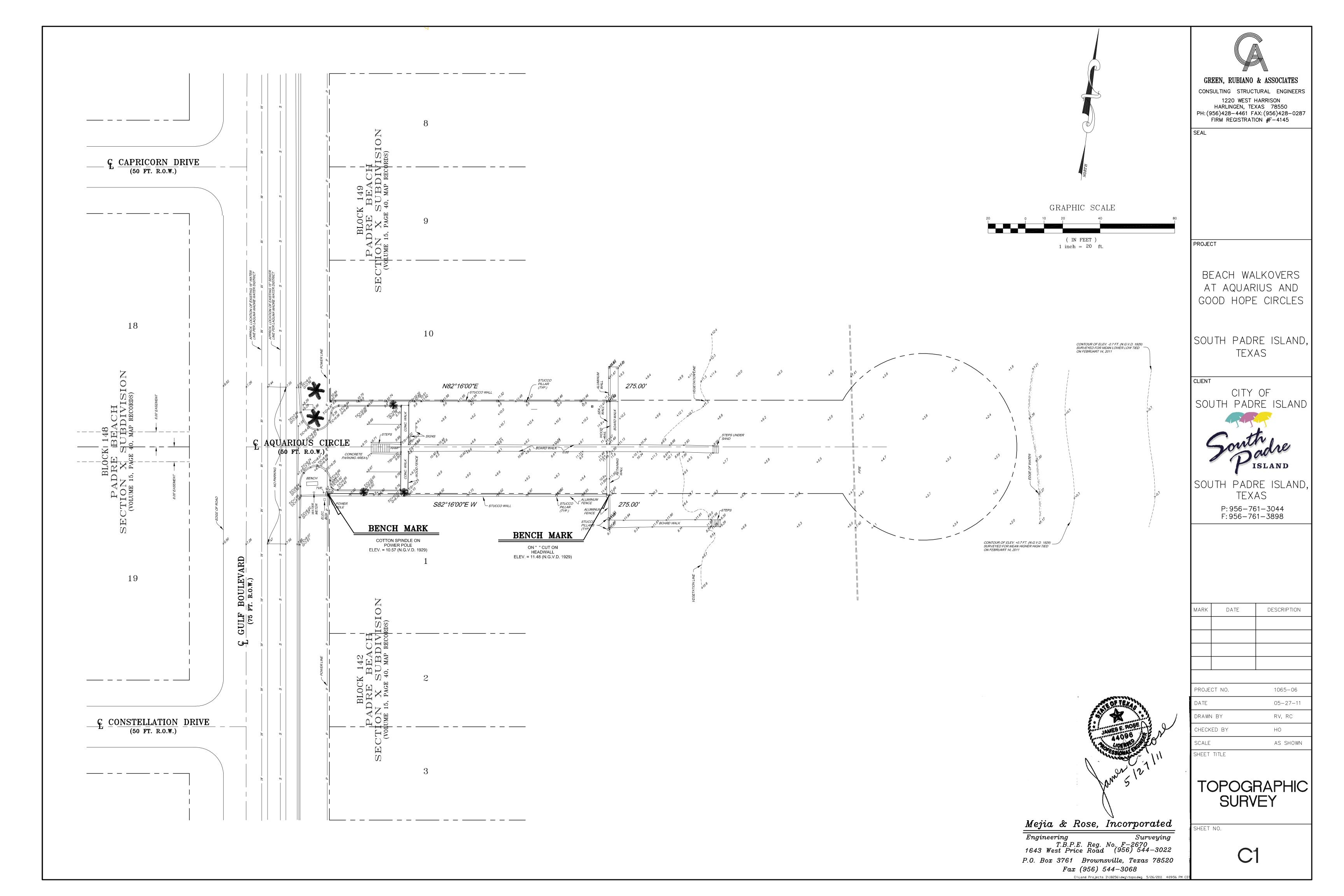
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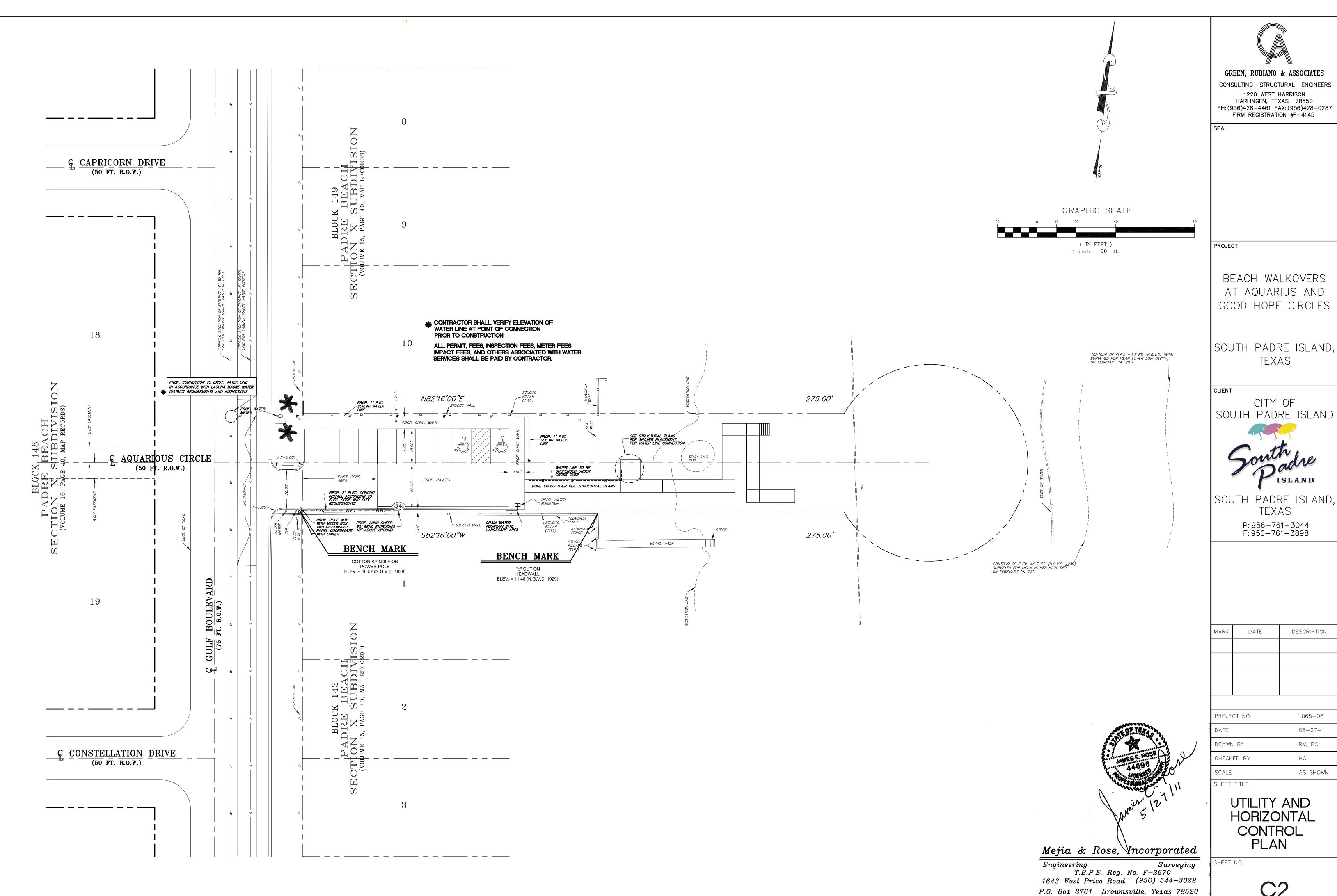
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FRAMING DETAILS

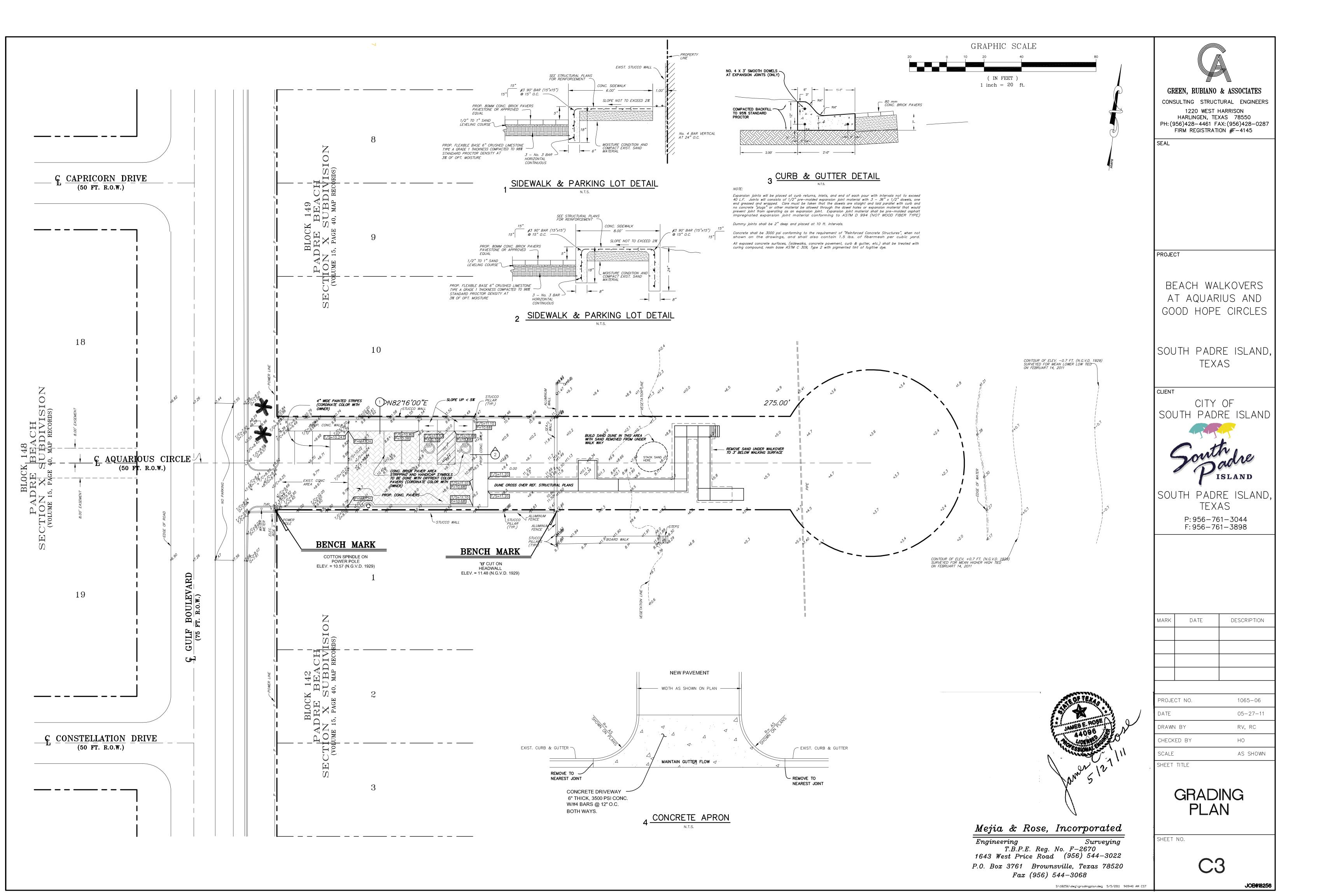
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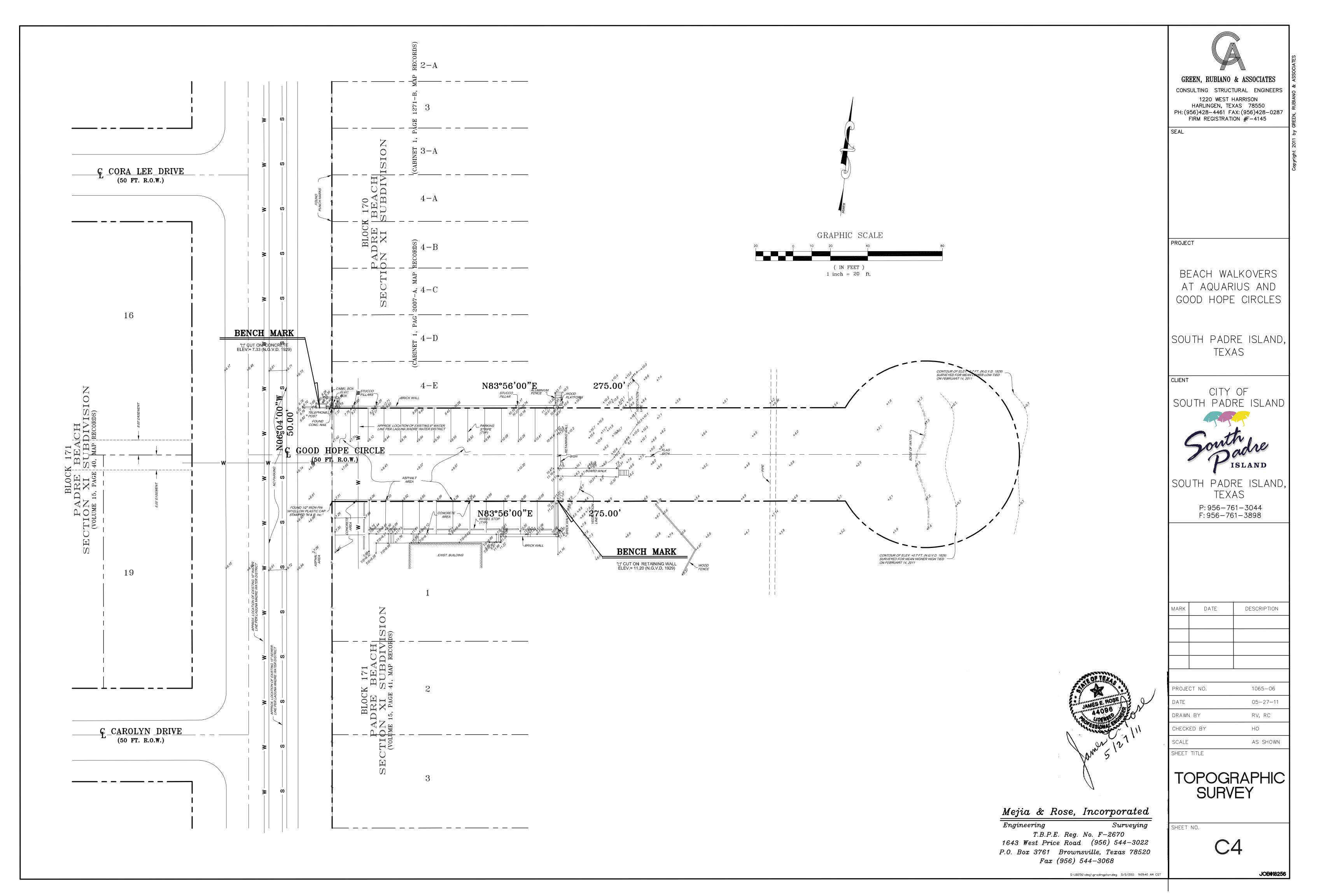
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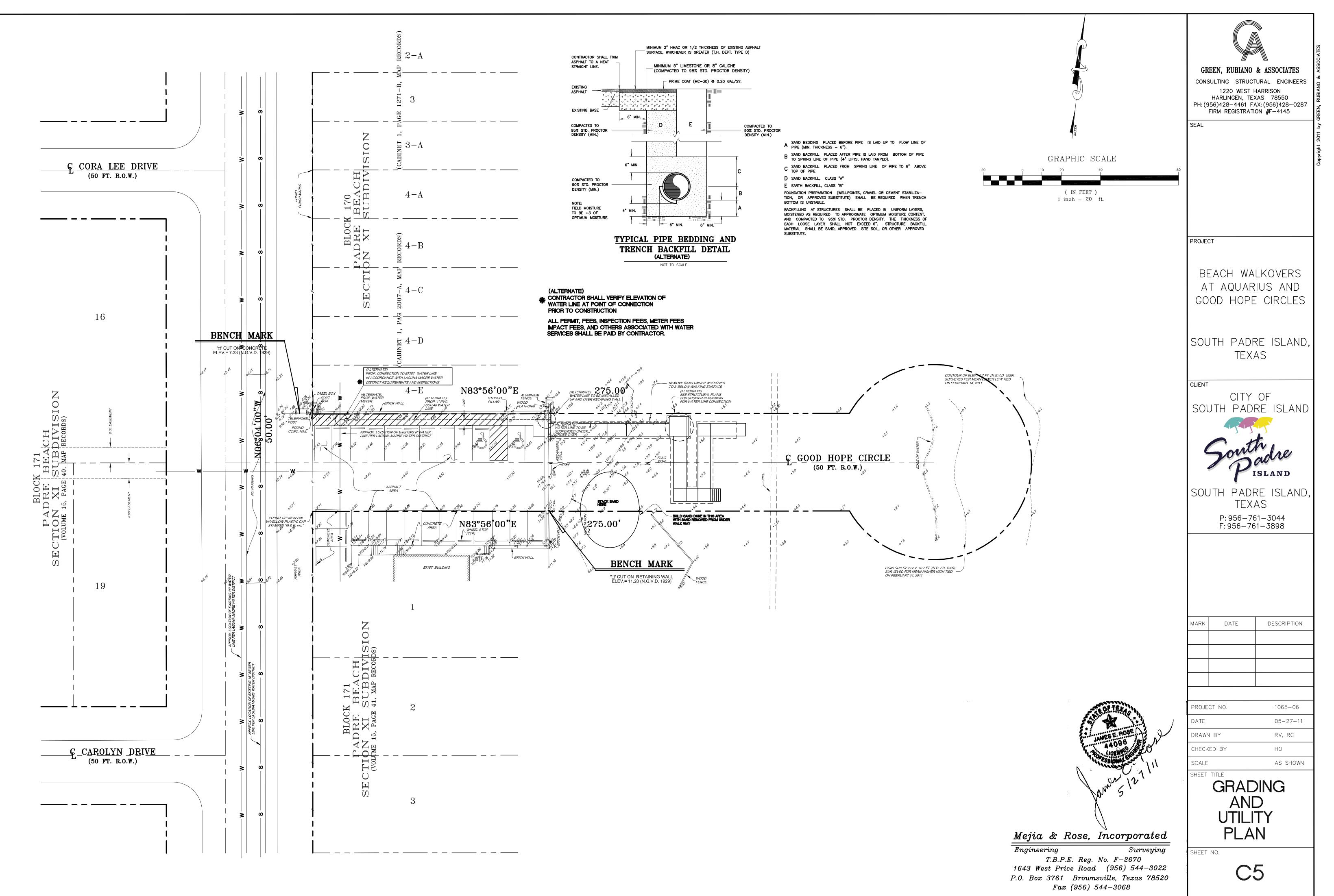




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