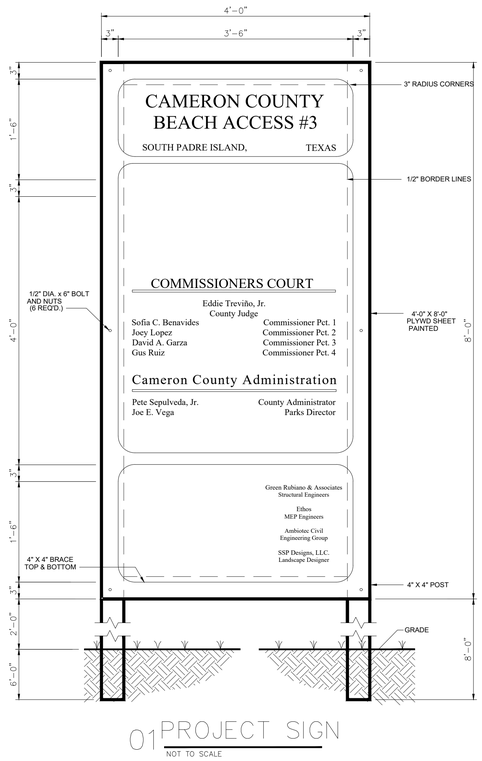
RFP No. 250501

CAMERON COUNTY
BEACH ACCESS #3
PHASE II IMPROVEMENTS

SOUTH PADRE ISLAND — TEXAS



01 PROJECT SIGN
NOT TO SCALE

COMMISSIONERS COURT

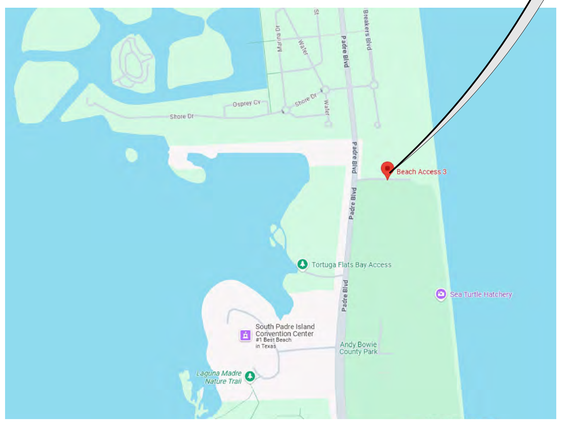
Eddie Treviño, Jr.
County Judge

Sofia C. Benavides	Commissioner Pct. 1
Joey Lopez	Commissioner Pct. 2
David A. Garza	Commissioner Pct. 3
Gus Ruiz	Commissioner Pct. 4

Cameron County Administration

Pete Sepulveda, Jr.	County Administrator
Joe E. Vega	Parks Director

PROJECT SITE:
County Beach Access #3,
South Padre Island, TX 78597



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PB2.01 TOLL BOOTH PLUMBING WASTE & VENT PLAN
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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT — GABRIEL GOMEZ — 23629 — STATE OF TEXAS

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: April 2025
Scale: As Noted
Proect Architect:ᴀ Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: COVER

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956-230-3435

RFP No. 250501

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.



Figure 303.2
Vertical Change in Level

Figure 303.2 Vertical Change in Level

303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

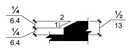


Figure 303.3 Beveled Change in Level

Figure 303.3
Beveled Change in Level

304 Turning Space

304.3.1 Circular Space. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.

304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

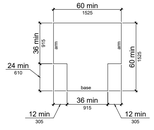


Figure 304.3.2
T-Shaped Turning Space

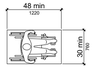


Figure 305.3
Clear Floor or
Ground Space

Figure 305.3 Clear Floor or Ground Space

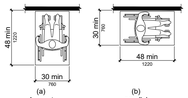


Figure 305.5
Position of Clear Floor or Ground Space

Figure 305.5 Position of Clear Floor or Ground Space

305.7.1 Forward Approach. Alcoves shall be 36 inches (915 mm)wide minimum where the depth exceeds 24 inches (610 mm).



Figure 305.7.1
Maneuvering Clearance
in an Alcove,
Forward Approach

Figure 305.7.1 Maneuvering Clearance in an Alcove, Forward Approach

305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

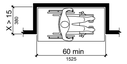


Figure 305.7.2 Maneuvering Clearance in an Alcove, Parallel Approach

306 Knee and Toe Clearance

306.2 Toe Clearance.

306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm) above the finish floor or ground shall be considered toe clearance and shall comply with 306.2.

306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an element.

306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element.

306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.

306.2.5 Width. Toe clearance shall be 30 inches (760 mm) wide minimum.

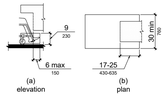


Figure 306.2 Toe Clearance

306.3 Knee Clearance.

306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground shall be considered knee clearance and shall comply with 306.3.

306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the finish floor or ground.

306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.

306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.

306.3.5 Width. Knee clearance shall be 30 inches (760 mm) wide minimum.

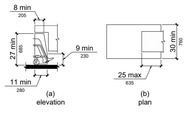


Figure 306.3 Knee Clearance

307 Protruding Objects

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.

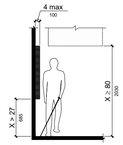


Figure 307.2 Limits of Protruding Objects

308 Reach Ranges

Children's Reach Ranges

Forward or Side Reach	High (maximum)	Low (minimum)
Ages 3 and 4	36 in (915 mm)	20 in (510 mm)
Ages 5 through 8	40 in (1015 mm)	18 in (455 mm)
Ages 9 through 12	44 in (1120 mm)	16 in (405 mm)

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

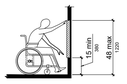


Figure 308.2.2 Obstructed High Forward Reach

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.

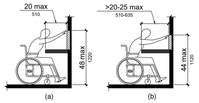
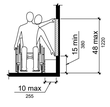


Figure 308.3.1 Unobstructed Side Reach

308.3 Side Reach.

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.



308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

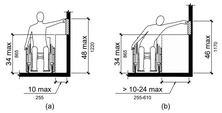


Figure 308.3.2 Obstructed High Side Reach

309 Operable Parts

309.2 Clear Floor Space. A clear floor or ground space complying with 305 shall be provided.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in 308.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

CHAPTER 4: ACCESSIBLE ROUTES

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

Advisory 402.2 Components. Walking surfaces must have running slopes not steeper than 1:20, see 403.3. Other components of accessible routes, such as ramps (405) and curb ramps (406), are permitted to be more steeply sloped.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

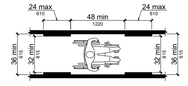


Figure 403.5.1 Clear Width of an Accessible Route

403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

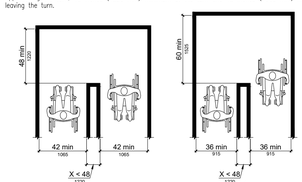


Figure 403.5.2 Clear Width at Turn

403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum.

404 Doors, Doorways, and Gates

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

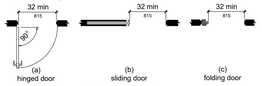


Figure 404.2.3 Clear Width of Doorways

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

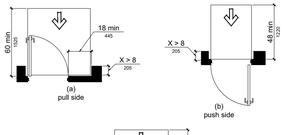


Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.

2. Sliding or folding doors: 5 pounds (22.2 N) maximum.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

404.3 Automatic and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with 404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10 (incorporated by reference, see "Referenced Standards" in Chapter 1). Low-energy and power-assisted doors shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

404.3.2 Maneuvering Clearance. Clearances at power-assisted doors and gates shall comply with 404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with 404.2.4.

404.3.7 Revolving Doors, Revolving Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

405 Ramps

405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum.

405.7 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

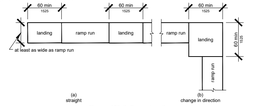


Figure 405.7 Ramp Landings

501 General

501.1 Scope. The provisions of Chapter 5 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

502 Parking Spaces

502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 Vehicle Spaces. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

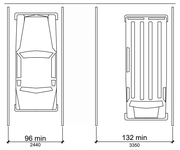


Figure 502.2 Vehicle Parking Spaces

502.3 Access Aisle. Access aisles serving parking spaces shall comply with 502.3. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

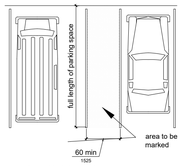


Figure 502.3 Parking Space Access Aisle

502.3.1 Width. Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) wide minimum.

502.3.2 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

502.3.4 Location. Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

502.4 Floor or Ground Surfaces. Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

502.5 Vertical Clearance. Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

502.6 Identification. Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches (1525 mm) minimum above the finish floor or ground surface measured to the bottom of the sign.

502.7 Relationship to Accessible Routes. Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

503 Passenger Loading Zones

503.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) wide minimum and 20 feet (6100 mm) long minimum.

503.3 Access Aisle. Passenger loading zones shall provide access aisles complying with 503 adjacent to the vehicle pull-up space. Access aisles shall adjoin an accessible route and shall not overlap the vehicular way.

503.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) wide minimum.

503.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

503.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

602 Drinking Fountains

602.2 Clear Floor Space. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

EXCEPTION: A parallel approach complying with 305 shall be permitted at units for children's use where the spout is 30 inches (760 mm) maximum above the finish floor or ground and is 3 1/2 inches (90 mm) maximum from the front edge of the unit, including bumpers.

602.3 Operable Parts. Operable parts shall comply with 309.

602.4 Spout Height. Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.5 Spout Location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.

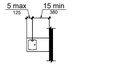


Figure 602.5 Drinking Fountain Spout Location

602.6 Water Flow. The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

602.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

603 Toilet and Bathing Rooms

603.2 Clearances. Clearances shall comply with 603.2.

603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room.

603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.

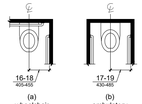


Figure 604.2 Water Closet Location

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.



Figure 604.3.1 Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

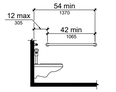


Figure 604.5.1 Side Wall Grab Bar at Water Closets Figure 604.5.2 Rear Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

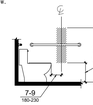


Figure 604.7 Dispenser Outlet Location

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

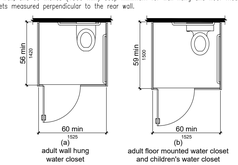


Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

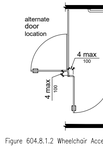


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm)deep

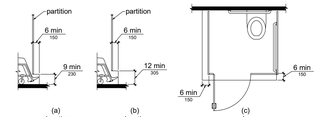


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

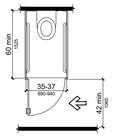


Figure 604.8.2 Ambulatory Accessible Toilet Compartment

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.

604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.

604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5.

604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605 Urinals

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

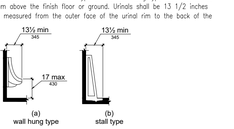


Figure 605.2 Height and Depth of Urinals

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided.

605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

607 Bathtubs

607.2 Clearance. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory complying with 606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

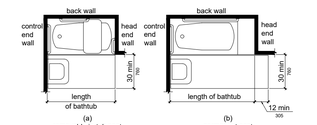


Figure 607.2 Clearance for Bathtubs

607.3 Seat. A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with 610.

607.4 Grab Bars. Grab bars for bathtubs shall comply with 609 and shall be provided in accordance with 607.4.1 or 607.4.2.

607.4.1 Bathtubs With Permanent Seats. For bathtubs with permanent seats, grab bars shall be provided in accordance with 607.4.1.

CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

No.	REVISIONS	BY

GMS ARCHITECTS

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Brownsville TX 78526
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REGISTERED ARCHITECT
JOSE ANTONIO GUERRERO
STATE OF TEXAS
23625

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: April 2025
Scale: As Noted
Project Architect: Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: ADA-1

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RFP No. 250501

607.4.1.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (380 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

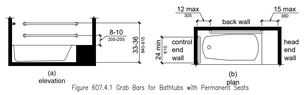


Figure 607.4.1 Grab Bars for Bathtubs with Permanent Seats

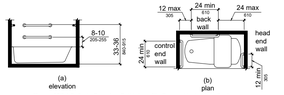


Figure 607.4.2 Grab Bars for Bathtubs with Removable In-Tub Seats

607.4.2 Bathtubs Without Permanent Seats. For bathtubs without permanent seats, grab bars shall comply with 607.4.2.

607.4.2.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 24 inches (610 mm) long minimum and shall be installed 24 inches (610 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

607.4.2.3 Head End Wall. A grab bar 12 inches (305 mm) long minimum shall be installed on the head end wall at the front edge of the bathtub.



Figure 607.5 Bathtub Control Location

607.5 Controls. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Controls shall comply with 309.4.

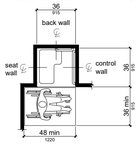
607.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

607.7 Bathtub Enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.

608 Shower Compartments

608.2 Size and Clearances for Shower Compartments. Shower compartments shall have sizes and clearances complying with 608.2.

608.2.1 Transfer Type Shower Compartments. Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (915 mm) wide minimum by 48 inches (1220 mm) long minimum measured from the control wall shall be provided.

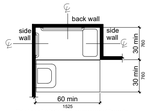


Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.1 Transfer Type Shower Compartment Size and Clearance

608.2.2 Standard Roll-In Type Shower Compartments. Standard roll-in type shower compartments shall be 30 inches (760 mm) wide minimum by 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches (1525 mm) wide minimum entry on the face of the shower compartment.

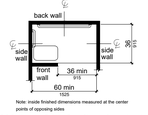
608.2.2.1 Clearance. A 30 inch (760 mm) wide minimum by 60 inch (1525 mm) long minimum clearance shall be provided adjacent to the open face of the shower compartment.



Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.2 Standard Roll-In Type Shower Compartment Size and Clearance

608.2.3 Alternate Roll-In Type Shower Compartments. Alternate roll-in type shower compartments shall be 36 inches (915 mm) wide and 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (915 mm) wide minimum entry shall be provided at one end of the long side of the compartment.



Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.3 Alternate Roll-In Type Shower Compartment Size and Clearance

608.3 Grab Bars. Grab bars shall comply with 609 and shall be provided in accordance with 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor.

608.3.1 Transfer Type Shower Compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (455 mm) from the control wall.

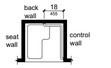


Figure 608.3.1 Grab Bars for Transfer Type Showers

608.3.2 Standard Roll-In Type Shower Compartments. Where a seat is provided in standard roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall opposite the seat. Grab bars shall not be provided above the seat. Where a seat is not provided in standard roll-in type shower compartments, grab bars shall be provided on three walls. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

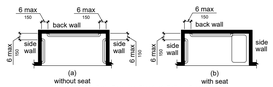


Figure 608.3.2 Grab Bars for Standard Roll-In Type Showers

608.3.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

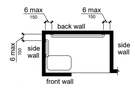


Figure 608.3.3 Grab Bars for Alternate Roll-In Type Showers

608.4 Seats. A folding or non-folding seat shall be provided in transfer type shower compartments. A folding seat shall be provided in roll-in type showers required in transient lodging guest rooms with mobility features complying with 806.2. Seats shall comply with 610.

608.5 Controls. Controls, faucets, and shower spray units shall comply with 309.4.

608.5.1 Transfer Type Shower Compartments. In transfer type shower compartments, the controls, faucets, and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm) maximum from the centerline of the seat toward the shower opening.

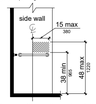


Figure 608.5.1 Transfer Type Shower Compartment Control Location

608.5.2 Standard Roll-In Type Shower Compartments. In standard roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be installed on the back wall adjacent to the seat wall and shall be located 27 inches (685 mm) maximum from the seat wall.

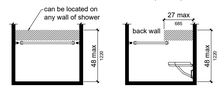


Figure 608.5.2 Standard Roll-In Type Shower Compartment Control Location

608.5.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower

bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be located on the side wall

shower spray unit shall be installed on the side wall farthest from the compartment entry.

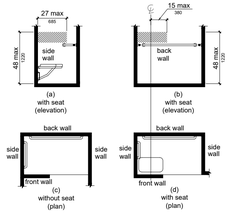


Figure 608.5.3 Alternate Roll-In Type Shower Compartment Control Location

608.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Shower spray units shall deliver water that is 120°F (49°C) maximum.

608.7 Thresholds. Thresholds in roll-in type shower compartments shall be 1/2 inch (13 mm) high maximum in accordance with 303. In transfer type shower compartments, thresholds 1/2 inch (13 mm) high maximum shall be beveled, rounded, or vertical.

608.8 Shower Enclosures. Enclosures for shower compartments shall not obstruct controls, faucets, and shower spray units or obstruct transfer from wheelchairs onto shower seats.

609 Grab Bars

609.1 General. Grab bars in toilet facilities and bathing facilities shall comply with 609.

609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2.

609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

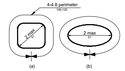


Figure 609.2.2 Grab Bar Non-Circular Cross Section

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.

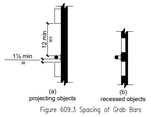


Figure 609.3 Spacing of Grab Bars

609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

610 Seats

610.2 Bathtub Seats. The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement. Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.

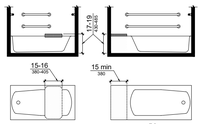


Figure 610.2 Bathtub Seats

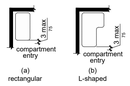


Figure 610.3 Extent of Seat

610.3 Shower Compartment Seats. Where a seat is provided in a standard roll-in shower compartment, it shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. Where a seat is provided in an alternate roll-in type shower compartment, it shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry. In transfer-type showers, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. Seats shall comply with 610.3.1 or 610.3.2.

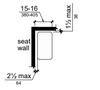


Figure 610.3.1 Rectangular Shower Seat

610.3.1 Rectangular Seats. The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1 1/2 inches (38 mm) maximum from the adjacent wall.

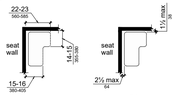


Figure 610.3.2 L-Shaped Shower Seat

610.3.2 L-Shaped Seats. The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches maximum (585 mm) from the main seat wall.

610.4 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

611 Washing Machines and Clothes Dryers

611.2 Clear Floor Space. A clear floor or ground space complying with 305 positioned for parallel approach shall be provided. The clear floor or ground space shall be centered on the appliance.

611.3 Operable Parts. Operable parts, including doors, lint screens, and detergent and bleach compartments shall comply with 309.

611.4 Height. Top loading machines shall have the door to the laundry compartment located 36 inches (915 mm) maximum above the finish floor. Front loading machines shall have the bottom of the opening to the laundry compartment located 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".



Figure 703.2.5 Height of Raised Characters

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width minimum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

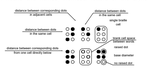


Figure 703.3.1 Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

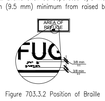


Figure 703.3.2 Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

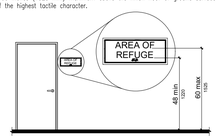


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

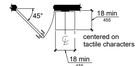


Figure 703.4.2 Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.



Figure 703.6.1 Pictogram Field
dark-on-light.

703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

705 Detectable Warnings

705.1 General. Detectable warnings shall consist of a surface of truncated domes and shall comply with

705.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inches (36 mm) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch (5.1 mm).

705.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inch (17 mm) minimum, measured between the most adjacent domes on a square grid.

705.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

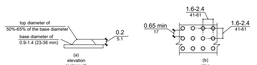


Figure 705.1 Size and Spacing of Truncated Domes

705.2 Platform Edges. Detectable warning surfaces at platform boarding edges shall be 24 inches (610 mm) wide and shall extend the full length of the public use areas of the platform.

CHAPTER 9: BUILT-IN ELEMENTS

902 Dining Surfaces and Work Surfaces

902.2 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for a forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided.

902.3 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

902.4 Dining Surfaces and Work Surfaces for Children's Use. Accessible dining surfaces and work surfaces for children's use shall comply with 902.4.

902.4.1 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided, except that knee clearance 24 inches (610 mm) minimum above the finish floor or ground shall be permitted.

902.4.2 Height. The tops of tables and counters shall be 26 inches (660 mm) minimum and 30 inches (760 mm) maximum above the finish floor or ground.

903 Benches

903.2 Clear Floor or Ground Space. Clear floor or ground space complying with 305 shall be provided and shall be positioned at the end of the bench seat and parallel to the short axis of the bench.

903.3 Size. Benches shall have seats that are 42 inches (1065 mm) long minimum and 20 inches (510 mm) deep minimum and 24 inches (610 mm) deep maximum.

903.4 Back Support. The bench shall provide for back support or shall be affixed to a wall. Back support shall be 42 inches (1065 mm) long minimum and shall extend from a point 2 inches (51 mm) maximum above the seat surface to a point 18 inches (455 mm) minimum above the seat surface. Back support shall be 2 1/2 inches (64 mm) maximum from the rear edge of the seat measured horizontally.

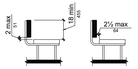


Figure 903.4 Bench Back Support

903.5 Height. The top of the bench seat surface shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the finish floor or ground.

903.6 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

903.7 Wet Locations. Where installed in wet locations, the surface of the seat shall be slip resistant and shall not accumulate water.

904 Check-Out Aisles and Sales and Service Counters

904.1 General. Check-out aisles and sales and service counters shall comply with the applicable requirements of 904.

904.2 Approach. All portions of counters required to comply with 904 shall be located adjacent to a walking surface complying with 403.

904.3 Check-Out Aisles. Check-out aisles shall comply with 904.3.

904.3.1 Aisle. Aisles shall comply with 403.

904.3.2 Counter. The counter surface height shall be 38 inches (965 mm) maximum above the finish floor or ground. The top of the counter edge protection shall be 2 inches (51 mm) maximum above the top of the counter surface on the aisle side of the check-out counter.



Figure 904.3.2 Check-Out Aisle Counters

904.3.3 Check Writing Surfaces. Where provided, check writing surfaces shall comply with 902.3.

904.4 Sales and Service Counters. Sales counters and service counters shall comply with 904.4.1 or 904.4.2. The accessible portion of the counter top shall extend the same depth as the sales or service counter top.

904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.

904.4.2 Forward Approach. A portion of the counter surface that is 30 inches (760 mm) long minimum and 36 inches (915 mm) high maximum shall be provided. Knee and toe space complying with 306 shall be provided under the counter. A clear floor or ground space complying with 305 shall be positioned for a forward approach to the counter.

904.5 Food Service Lines. Counters in food service lines shall comply with 904.5.

904.5.1 Self-Service Shelves and Dispensing Devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall comply with 308.

904.5.2 Tray Slides. The tops of tray slides shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

904.6 Security Glazing. Where counters or teller windows have security glazing to separate personnel from the public, a method to facilitate voice communication shall be provided. Telephone handset devices, if provided, shall comply with 704.3.

CAMERON COUNTY PHASE II - BEACH ACCESS 3 IMPROVEMENTS

No.	REVISIONS	BY

GMS ARCHITECTS

1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

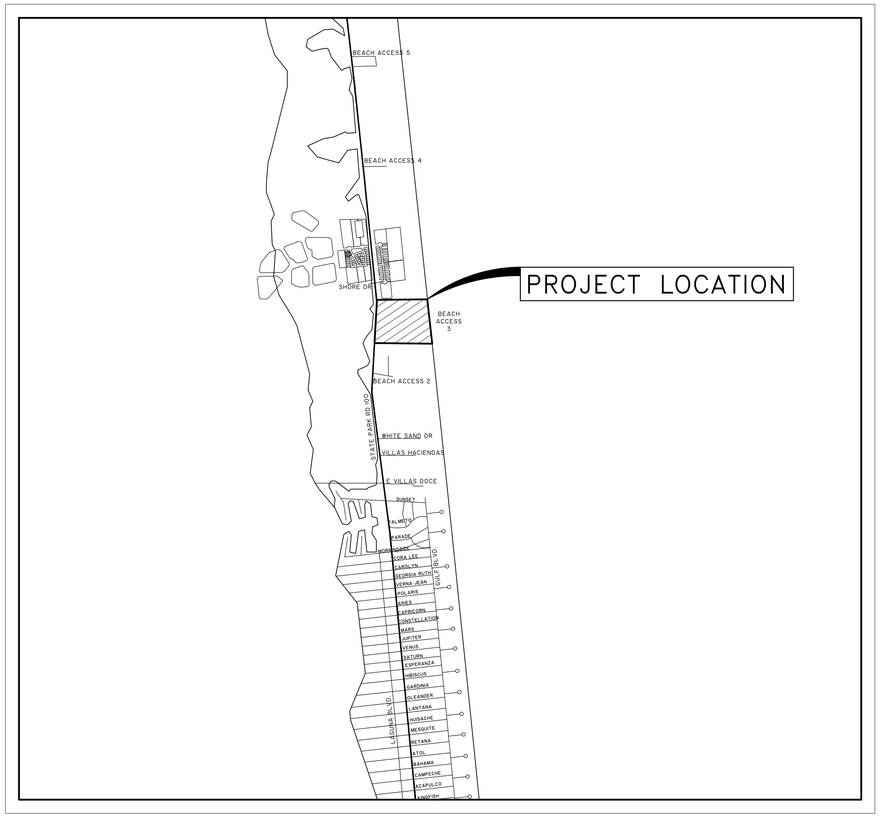


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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: April 2025
Scale: As Noted
Project Architect: Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: ADA-2

RFP No. 250501

CONSTRUCTION PLANS
FOR
CAMERON COUNTY
ISLA BLANCA
BEACH ACCESS #3
SOUTH PADRE ISLAND, TEXAS



VICINITY MAP
SCALE: 1"=2000'

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8	PAVING AND DRAINAGE DETAILS
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10	SANITARY DETAILS

APRIL 2025

PREPARED BY AMBIOTEC CIVIL ENGINEERING GROUP, INC.

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TBPE FIRM No. F-4128
TBPLS REG No. 10005500

VICENTE MENDEZ
78858
LICENSED PROFESSIONAL ENGINEER
4/9/25

SOUTH PADRE ISLAND
BEACH ACCESS #3
PREPARED FOR: CAMERON COUNTY

COVER SHEET

SCALE: N.T.S.	DATE: APR. 2025
DESIGN BY: K. SALDIVAR	
DRAWN BY: J. ROBLES	
CHECKED BY: K. SALDIVAR	
APPROVED BY: V.MENDEZ	
PROJECT NO.: 3581	

SHEET
1
OF 10

Apr 09, 2025 - 2:07pm
G:\3581 Gomez Mendez Saenz Beach Access No 3\Due Eng\3581 - 01 Cover Sheet.dwg

GENERAL NOTES

* PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL SCHEDULE A PRECONSTRUCTION CONFERENCE BETWEEN THE OWNER & THE CONSULTING ENGINEER, CONTRACTOR, LMWD AND ALL OTHER AFFECTED PARTIES.

* CONTRACTOR TO KEEP ACCESS PUBLIC ROADS OPEN AT ALL TIMES FOR EMPLOYEES. AREA USED FOR CONTRACTOR'S PERSONNEL PARKING, MATERIAL STORAGE, STOCKPILE, MATERIAL FABRICATION, AND RELATED CONSTRUCTION USES ARE NOT TO INTERFERE WITH NORMAL TRAFFIC.

* CONTRACTOR TO GIVE NOTICE IN WRITING TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.

* CONTRACTOR SHALL PERSONALLY ENSURE THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN BE ISSUED ONLY TO CONTRACTOR SHALL BE OBTAINED AT NO EXPENSE TO THE OWNER.

* UTILITY NOTE: THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED UPON RECORD INFORMATION ONLY, AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, HORIZONTAL AND VERTICAL OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, EXISTING OR ABANDONED. NO SEPARATE PAY. THE INFORMATION SHOWN CONCERNING TYPE AND LOCATIONS OF UNDERGROUND AND OVERHEAD UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UTILITIES. THE CONTRACTORS INFORMATION SHALL BE CONDUCTED TO PREVENT UNNECESSARY INTERFERENCE WITH ANY EXISTING UTILITY SYSTEM INFRASTRUCTURE. IF THE CONTRACTOR'S WORK REQUIRES INTERRUPTION, THE CONTRACTOR MUST COORDINATE WITH AFFECTED UTILITY COMPANIES 48 HOURS IN ADVANCE.

* THROUGHOUT THE CONSTRUCTION, AND AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR IS TO ENSURE THAT DRAINAGE OF STORM WATER RUNOFF IS NOT BLOCKED. MAINTAIN DRAINAGE OF SITE DURING ALL PHASES OF CONSTRUCTION. DO NOT BLOCK DRAINAGE FROM ADJACENT AREAS NOR ADD FLOW TO ADJACENT AREAS.

* THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION IN A PARTICULAR AREA.

* DAMAGES DONE TO EXISTING UTILITIES, POWER POLES, FENCES, SIGNS, MAILBOXES, DRIVEWAYS, CULVERTS, PAVEMENT, DRAINAGE SYSTEMS, ETC., SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER. DRIVEWAYS SHALL BE REPAIRED ON A LIKE FOR LIKE BASIS.

* THE CONTRACTOR SHALL HAVE A PERSON ON CALL 24 HOURS A DAY TO TAKE CARE OF MAINTENANCE ITEMS-CONSTRUCTION AREA, SIGNS ETC. THIS PERSON SHALL HAVE AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR IN EMERGENCY CONDITIONS. THE PERSON SHALL BE STATIONED CLOSE ENOUGH TO BE ON SITE WITHIN 1/2 HOUR OF NOTIFICATION. THE PERSON SHALL BE IDENTIFIED IN WRITING PRIOR TO THE START OF CONSTRUCTION. THE ON-SITE REPRESENTATIVE SHALL HAVE ACCESS TO ALL EQUIPMENT AND MATERIAL AND HAVE FULL AUTHORITY NECESSARY TO CORRECT ANY PROBLEMS. DEFICIENCIES, OR EMERGENCIES WHICH MAY ARISE. DURING NON-WORKING HOURS, AND DURING THE ABSENCE OF THE SUPERINTENDENT.

* EXCESS SPOIL PRODUCED DURING PREPARATION OF THE SUB-GRADE SHALL BE PLACED SPREAD AND COMPACTED ON-SITE IN AREAS AS INSTRUCTED BY THE ENGINEER TO ACHIEVE ADEQUATE GRADING. ANY UNUSABLE MATERIAL WILL BECOME THE PROPERTY OF THE CONTRACTOR TO BE PROPERLY DISPOSED OF AT HIS EXPENSE OR TO HIS ADVANTAGE.

* THE CONTRACTOR WILL PROVIDE HIS OWN CONSTRUCTION STAKING.

* CONTRACTOR TO MATCH EXISTING PAVEMENT, SIDEWALK RAMPS AND CURB & GUTTER PAVEMENT OR ANY OTHER IMPROVEMENTS WHERE APPLICABLE.

* ALL CONCRETE AND ASPHALT DRIVEWAYS ADJUSTED, DAMAGED, OR REPLACED DURING CONSTRUCTION MUST BE SAW-CUT AT A STRAIGHT, NEAT LINE, BEFORE REPAIRING.

* ABANDONED LINES FOUND DURING CONSTRUCTION SHALL BE REMOVED (UNLESS SPECIFIED OTHERWISE). NO SEPARATE PAY. THIS WORK SHALL BE SUBSIDIARY TO OTHER WORK.

* THE CONTRACTOR SHALL PLACE BARRICADES, FLAG-MEN, ETC. ON THIS PROJECT IN COMPLIANCE WITH THE PROCEDURE OUTLINED IN THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS." (PART IV TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS, LATEST REVISION). UPON COMPLETION OF THE WORK, ALL SIGNS SHALL BE REMOVED BY THE CONTRACTOR.

* REFERENCE POINTS: THE ENGINEER WILL ESTABLISH HORIZONTAL AND VERTICAL CONTROLS ONLY (REFERENCE POINTS AND BENCHMARKS AS SHOWN ON THE CONSTRUCTION PLANS.) THE CONTRACTOR MUST NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO STARTING WORK ON ANY SECTION OR PART OF THE WORK WHERE CONTROLS HAVE NOT BEEN ESTABLISHED OR ARE NOT IDENTIFIABLE OR VISIBLE TO THE CONTRACTOR. THE ENGINEER WILL UPON SUCH ADVANCE NOTICE WILL REPLACE ANY CONTROL POINTS THAT HAVE BEEN DESTROYED BY OTHERS PRIOR TO BEGINNING OF CONTRACTORS OPERATIONS. AFTER CONTROL POINTS ARE ESTABLISHED AND / OR IDENTIFIED AS OUTLINED ABOVE, MAINTENANCE OF SUCH CONTROL POINTS SHALL BE RESPONSIBILITY OF THE CONTRACTOR. ANY RE-STAKING REQUIRED FOR ANY REASON THEREAFTER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL PROVIDE ALL OTHER CONSTRUCTION STAKING (CUT STAKES, BLUE TOPPING, INTERMEDIATE STRING LINE CONTROL, ETC.) REQUIRED TO VERIFY GRADES, DEPTHS THICKNESSES, AND ALIGNMENT OF THE VARIOUS ITEMS OF CONSTRUCTION.

* AS BUILT DRAWINGS: THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SET OF AS-BUILT PLANS SHOWING NOTES TO ANY CHANGES TO THE DESIGN PLANS. THIS INFORMATION, SIGNED BY ALL INSPECTORS, WILL BE SUBMITTED TO THE ENGINEER AT THE END OF CONSTRUCTION. THE PROJECT'S FINAL ACCEPTANCE AND FINAL PAYMENT WILL NOT BE APPROVED UNTIL THE CONTRACTOR HAS SUBMITTED THE REQUIRED INFORMATION NEEDED BY THE ENGINEER FOR AS-BUILT DRAWINGS.

* CONCRETE CURB AND GUTTER, PIPE STRUCTURES, ETC. WHICH MUST BE REMOVED IN ORDER TO CONSTRUCT THE PROPOSED IMPROVEMENTS WILL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED AND PROPERLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS IN THE CONTRACT.

* MATERIALS CERTIFICATION AND TESTING: CONTRACTOR SHALL PROVIDE SUPPLIERS CERTIFICATION FOR ALL PROJECT MATERIALS (CONCRETE, HYDRATED LIME, LIME-STONE BASE MATERIAL, PRE-CAST INLETS, PIPES, ETC.) THAT SUCH MATERIALS DO MEET PROJECT SPECIFICATIONS PRIOR TO DELIVERY ON-SITE. CONTRACTOR SHALL PROVIDE HOT MIX ASPHALTIC CONCRETE DESIGN FROM A REPUTABLE COMMERCIAL TESTING LABORATORY.

* STANDARD WORK HOURS: THE STANDARD WORK HOURS FOR THE OWNER IS 8:00 AM TO 5:00 PM, MONDAY THROUGH FRIDAY. SHOULD THE CONTRACTOR ELECT TO WORK ON SATURDAY, SUNDAYS OR HOLIDAYS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING OVERTIME CHARGES FOR THE OWNER'S PERSONNEL INVOLVED. THESE CHARGES WILL BE AT COST AND WILL BE CALCULATED EITHER AT TIME AND A HALF OR DOUBLE TIME, AS APPLICABLE TO THE PARTICULAR DAY BEING WORKED. PRE-APPROVAL SHALL BE OBTAINED FROM THE ENGINEER OR ENGINEER'S REPRESENTATIVE BY COMPLETING AND SIGNING A OWNER'S FORM ENTITLED "CONSTRUCTION INSPECTORS OVERTIME COMPENSATION AUTHORIZATION", 48 HRS. PRIOR TO COMMENCING ANY OVERTIME WORK. ANY WORK DONE OUTSIDE THE STANDARD WORKDAY, WITHOUT PRIOR AUTHORIZATION, SHALL BE CONSIDERED UNAUTHORIZED WORK. THE CONTRACTOR IS REQUIRED TO PAY THE OVERTIME WAGES OF THE OWNER INSPECTORS THAT WORK OVERTIME MONDAYS THROUGH FRIDAYS AT TIME AND A HALF. THE CONTRACTOR IS RESPONSIBLE FOR THE OVERTIME WAGES OF THE OWNER INSPECTORS THAT WORK HOLIDAYS AT DOUBLE TIME. MINIMUM HOURS WILL BE BILLED TO CONTRACTOR FOR CALLOUTS OR FOR INSUFFICIENT NOTICE OF TWO (2) HOURS.

CONCRETE MIX DESIGN

* CLARIFICATION: ALL CONCRETE USED ON THIS PROJECT SHALL CONTAIN A MINIMUM 4.5 SACKS OF CEMENTITIOUS MATERIAL PER CUBIC YARD OF CONCRETE. THE CEMENTITIOUS MATERIAL SHALL BE PORTLAND CEMENT OR A BLEND OF PORTLAND CEMENT AND FLY ASH. THE PERCENTAGE OF FLY ASH IN THE CEMENTITIOUS MATERIAL SHALL NOT EXCEED 23%. ALL CONCRETE WORK SHALL CONTAIN 1.5 POUNDS OF FIBER MESH PER CUBIC YARD.

* ALL EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH CURING COMPOUND RESIN BASE ASTM C 309 TYPE 2 WITH PIGMENTED TINT OF FUGITIVE DYE.

* IN ADDITION TO THE ABOVE REQUIREMENTS, ALL CONCRETE SHALL TEST TO A MINIMUM 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. (OR AS SHOWN ON PLANS).

* EXPANSION JOINTS WILL BE PLACED AT CURB RETURNS, INLETS AND AT THE END OF EACH POUR WITH INTERVALS NOT TO EXCEED 60 FT. JOINTS SHALL CONSIST OF 1/2" PRE-MOLDED EXPANSION JOINT MATERIAL WITH 3, 36" X 1/2" DOWELS, ONE END GREASED AND WRAPPED. CARE MUST BE TAKEN THAT DOWELS ARE STRAIGHT AND LAID PARALLEL WITH CURB AND NO CONCRETE PLUGS OR OTHER MATERIAL BE ALLOWED THROUGH THE DOWEL HOLES OR EXPANSION MATERIAL WHICH WOULD PREVENT THE JOINT FROM OPERATION AS AN EXPANSION JOINT. EXPANSION JOINT MATERIALS SHALL BE PRE-MOLDED ASPHALT IMPREGNATED EXPANSION JOINT MATERIAL CONFORMING WITH ASTM D 994 (NOT WOOD FIBER TYPE)

* DUMMY JOINTS (SAW CUT JOINTS) SHALL BE 2" DEEP AND PLACED AT MAXIMUM 15 FT. INTERVALS.

* WHEN CONNECTING TO EXISTING CURB AND GUTTER, THE CONTRACTOR SHALL DRILL AND DOWEL TWO, # 6 X 16" TIE BARS A MINIMUM OF 6" DEEP INTO EXISTING CURB AND GUTTER SECTION.

PAVING NOTES:

CRUSHED LIMESTONE:

THE CRUSHED LIMESTONE MATERIALS SHALL BE AS SPECIFIED BY "ITEM 247 FLEXIBLE BASE TYPE A GRADE 1." TEXAS DEPARTMENT OF TRANSPORTATION, 2014 STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES SHALL MEET THE REQUIREMENTS AS FOLLOWS:

* TYPE A MATERIAL SHALL BE CRUSHED STONE PRODUCED FROM OVERSIZE QUARRIED AGGREGATE, SIZED BY CRUSHING AND PRODUCED FROM A NATURALLY OCCURRING SINGLE SOURCE. CRUSHED GRAVEL OR UNCRUSHED GRAVEL SHALL NOT BE ACCEPTABLE FOR TYPE A MATERIAL. NO BLENDING OF SOURCES AND/OR ADDITIVE MATERIALS WILL BE ALLOWED IN TYPE A MATERIAL.

* TRIAXIAL CLASS 1: MINIMUM COMPRESSIVE STRENGTH, 45 AT OPSI LATERAL PRESSURE AND 175 AT 15 PSI LATERAL PRESSURE.

RETAINED ON SQUARE SIEVE NUMBER	PERCENT RETAINED
1-3/4" (44 MM)	0
7/8" (22.23 MM)	10-35
3/8" (9.5 MM)	30-50
NUMBER 4 (4.75 MM)	45-65
NUMBER 40 (0.425 MM)	70-85

MATERIAL PASSING THE NUMBER 40 SIEVE SHALL BE KNOWN AS "BINDER MATERIAL" AND SHALL MEET THE FOLLOWING REQUIREMENTS:

MAXIMUM LIQUID LIMIT (LL)	=	35
MAXIMUM PLASTICITY INDEX (PI)	=	10
WET BALL MILL (MAX)	=	40
CALIFORNIA BEARING RATIO (MIN)	=	100

ALL AGGREGATE RETAINED ON THE NUMBER 10 SIEVE SHALL BE COMPRISED OF ONLY CRUSHED LIMESTONE.

THE CONTRACTOR SHALL NOT PLACE CRUSHED LIMESTONE ON THE ROAD BED UNTIL THE ENGINEER HAS ACCEPTED THE SHAPED AND COMPACTED SUBGRADE.

THE CONTRACTOR MUST MAINTAIN THE ROAD BED FREE OF HOLES, RUTS AND DEPRESSIONS AND IN CONDITION TO RECEIVE THE CRUSHED LIMESTONE.

THE CONTRACTOR UPON REQUEST SHALL PROVIDE CERTIFICATION THAT THE MATERIAL SUPPLIED MEETS THE ABOVE REQUIREMENTS PRIOR TO DELIVERY TO THE JOB SITE. SAMPLES FOR TESTING OF THE MATERIAL MUST BE TAKEN PRIOR TO THE COMPACTION OPERATIONS.

CRUSHED LIMESTONE: GRADE 3

IF TYPE A, GRADE 1 CRUSHED LIMESTONE IS NOT AVAILABLE, CONTRACTOR MAY USE TXDOT 2014 SPECIFICATION ITEM 247, GRADE 3 FLEXIBLE BASE MATERIALS. (ALANZA BASE BY VULCAN OR APPROVED EQUAL)

ACCEPTANCE, SAMPLING, AND TESTING OF BITUMINOUS MIXTURE (COMPACTION)

* EXTRACTION AND GRADATION ANALYSIS: PER 500 TONS OR WHICHEVER IS GREATER.

* DENSITY AND DEPTH TESTING: PER 500 FEET OF PAVING REPAIR. MINIMUM DENSITY ACCEPTED: 92% OF AVERAGE MAXIMUM THEORETICAL DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D 2041.

CORES OR SAWED SAMPLES TAKEN FROM THE PAVEMENT SHALL BE USED TO DETERMINE THE FIELD DENSITY. DENSITY OF THE CORED OR SAWED SAMPLES SHALL BE DETERMINED IN ACCORDANCE WITH ASTM 2725. THE SAME SPECIMEN SHALL BE USED FOR DETERMINING BOTH THE MAXIMUM THEORETICAL DENSITY AND THE FIELD DENSITY.

SPECIMENS TO BE USED FOR FIELD DENSITY DETERMINATION SHALL BE DONE USING HEAT. IF HEATING IS NECESSARY, THE SPECIMEN SHOULD BE HEATED TO THE LOWEST TEMPERATURE REQUIRED FOR PROPER PREPARATION OF THE SAMPLE; THE USE OF NUCLEAR FIELD DENSITY DETERMINATION SHALL NOT BE USED AS A BASIS FOR ACCEPTANCE WITH RESPECT TO DENSITY :

* HVEEM STABILITY SHALL NOT BE LESS THAN 30%. STABILITY TEST SHALL BE TAKEN TWICE DAILY.

* RETAINED STABILITY WHEN TESTED IN ACCORDANCE WITH ASTM D 1075 SHALL NOT BE <70%

* NO MORE THAN 2½" FINISHED THICKNESS HMAC PAVEMENT SHALL BE LAID AT ANY GIVEN TIME. UNLESS APPROVAL IS OBTAINED AHEAD BY THE OWNER / ENGINEER.

LEGEND

EXISTING

P	POST
C	CLEANOUT
	LIGHTPOLE
	DISTRIBUTION POWERPOLE
	PALM TREE
	TREE
	WATER VALVE
	IRRIGATION CONTROL VALVE
	WATER BIB
	FIRE HYDRANT
	SPRINKLER
M	MANHOLE
M	MAILBOX
	SIGN
T	TELEPHONE PEDESTAL
E	ELECTRIC BOX
EM	ELECTRIC METER
	FLOOD LAMP
	ELECTRICAL TRANSFORMER
C	CABLE TV PEDESTAL
UTL	UNDERGROUND TELEPHONE LINE
UE	UNDERGROUND ELECTRIC LINE
OE	OVERHEAD ELECTRIC DISTRIBUTION LINE
FO	FIBER OPTICS LINE
Y	BANK LINE
BA	BANK LINE DESCRIPTION WITH ELEVATION
BU	BUILDING DESCRIPTION WITH ELEVATION
CC	CONCRETE DESCRIPTION WITH ELEVATION
FL	FLOW LINE DESCRIPTION WITH ELEVATION
FF	FINISH FLOOR DESCRIPTION WITH ELEVATION
GUT	GUTTER DESCRIPTION WITH ELEVATION
PLR	PLANTER DESCRIPTION WITH ELEVATION
RCP	REINFORCED CONCRETE PIPE
SE	SPOT ELEVATION
WK	SIDEWALK DESCRIPTION WITH ELEVATION
	EXIST. CONCRETE PAVEMENT
	EXIST. ASPHALTPAVEMENT
+0.00	ELEVATION
W 12"	EXISTING WATERLINE
W	EXISTING WATER METER
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING DRAIN DITCH
M	EXISTING MANHOLE

PROPOSED

	BANK LINE
0.0%	GRADE TO DRAIN SLOPE
	SWALE WITH DIRECTION
	HATCH FOR REMOVAL ITEMS
	PROP. ASPHALT PAVEMENT
	PROP. CONCRETE PAVEMENT
TW=32.22	PROP. TOP OF SIDEWALK
TC=32.22	PROP. TOP OF CURB
FL=32.22	PROP. FLOW LINE
FG=32.22	PROP. FINISH GRADE
TP=32.22	PROP. TOP OF PAVEMENT
F.F.=27.30	FINISH FLOOR ELEVATION
EXIST.	EXISTING
CONC.	CONCRETE
TYP.	TYPICAL
PROP.	PROPOSED
TEMP.	TEMPORARY
O.C.	ON CENTER
O.C.E.W.	ON CENTER EACH WAY
C-C	CENTER TO CENTER
R.O.W.	RIGHT-OF-WAY
C.F.	CUBIC FEET
C.Y.	CUBIC YARDS
MIN.	MINIMUM
MAX.	MAXIMUM
INCL.	INCLUDING
LF	LINEAR FEET
EL	ELEVATION
MEP	MECHANICAL, ELECTRICAL & PLUMBING
HMAC	HOT MIX ASPHALT CONCRETE
W/	WITH
F.H.	FIRE HYDRANT
P.S.I.	POUNDS PER SQUARE INCH
A.D.A.	AMERICANS WITH DISABILITIES ACT
	PROPOSED WATERLINE
	PROPOSED WATER VALVE
	PROPOSED TEE
	PROPOSED REDUCER
	PROPOSED FIRE HYDRANT
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED DRAIN DITCH
	PROPOSED MANHOLE

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TBPLS REG No. 10055500

VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER

SOUTH PADRE ISLAND BEACH ACCESS #3

PREPARED FOR: CAMERON COUNTY

GENERAL NOTES

SCALE: N.T.S.
DATE: APR. 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 3581

SHEET 2 OF 10

Apr 09, 2025 - 2:07pm
G:\3581 Gomez Mendez Sasen Beach Access No. 3\Dwg Eng\3581 - 02 General Notes.dwg

RFP No. 250501

PROPERTY LINE

N 89°24'00" E-778.50'

WOOD FRAME FOR WALK

N

NOTES

EXIST. ASPHALT TO BE REMOVED.

EXIST. CONCRETE TO BE REMOVED.

PROPERTY LINE

N 01°34'37" E-193.85'
L=193.93'
R=2009.86'

N=16580653.51
E=1420073.58

SEPTIC TANK/ LIFT STATION? TOP=7.65 FL=4.27

EXIST. SEPTIC TANK TO BE REMOVED

3" PVC

2" PVC

2" PVC

N=16580626.40
E=1420169.66

EXIST. CONCRETE TO BE REMOVED

N=16580599.96
E=1420087.98

N=16580592.46
E=1420188.28

N=16580588.63
E=1420316.01

5.53± ACRES

STATE PARK ROAD 100

EXIST. 328 LF 6" WATER LINE (DIGITIZED)

EXISTING CONCRETE SIDEWALK

OE

FO

LIMITS OF CONSTRUCTION

EXIST. SIDEWALK TO REMAIN

N=16580534.23
E=1419986.10

REMOVE 7.5 LF OF EXIST. SIDEWALK SAWCUT IN A NEAT STRAIGHT LINE
N=16580518.80
E=1420034.66

N=16580551.77
E=1420146.93

EXIST. GRAVEL TO BE REMOVED

APPROX. LOCATION OF EXIST. MANHOLE TO BE REMOVED

EXIST. SANITARY SEWER MH

EXIST. POSTS TO BE REMOVED

EXIST. BUILDING TO BE REMOVED

UTL

EXIST. CONC. MEDIAN TO BE REMOVED

SAWCUT EXIST. ASPHALT PAVEMENT IN A NEAT STRAIGHT LINE

N 04°20'28" E-107.66'

EXIST. ASPHALT TO BE REMOVED

BEACH ACCESS #3

N=16580506.61
E=1420381.57

EXIST. WOODEN WALKWAY

EXIST. FIRE HYDRANT

EXIST. SWALE TO BE REGRADED

N=16580469.22
E=1420379.34

N=16580473.50
E=1420140.57

EXIST. 384 LF 8" WATER LINE (DIGITIZED)

EXIST. 381 LF 6" WATER LINE (DIGITIZED)

REMOVE 7 LF OF EXIST. SIDEWALK SAWCUT IN A NEAT STRAIGHT LINE
N=16580467.04
E=1420036.87

EXIST. SIDEWALK TO REMAIN

S 89°22'22" W-824.50'

LIMITS OF CONSTRUCTION

N=16580412.59
E=1419975.94

EXIST. SANITARY MH TOP=7.37 FL=4.03

8"PVC

TBM-BAI
"X"CUT ON BOLT ON TOP FIRE HYDRANT
N=16580469.9530'
E=1420204.7928'
EL=8.82'

TBM 1 - SET ONE-HALF INCH IRON PIN
EL =12.73
N=16580423.48
E=1420371.59

Apr 09, 2025 - 2:07pm

G:\3581 Gomez Mendez Saenz Beach Access No. 3\Dwg Esp\3581 - 03 Topo Demo.dwg

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VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER

SOUTH PADRE ISLAND
BEACH ACCESS #3

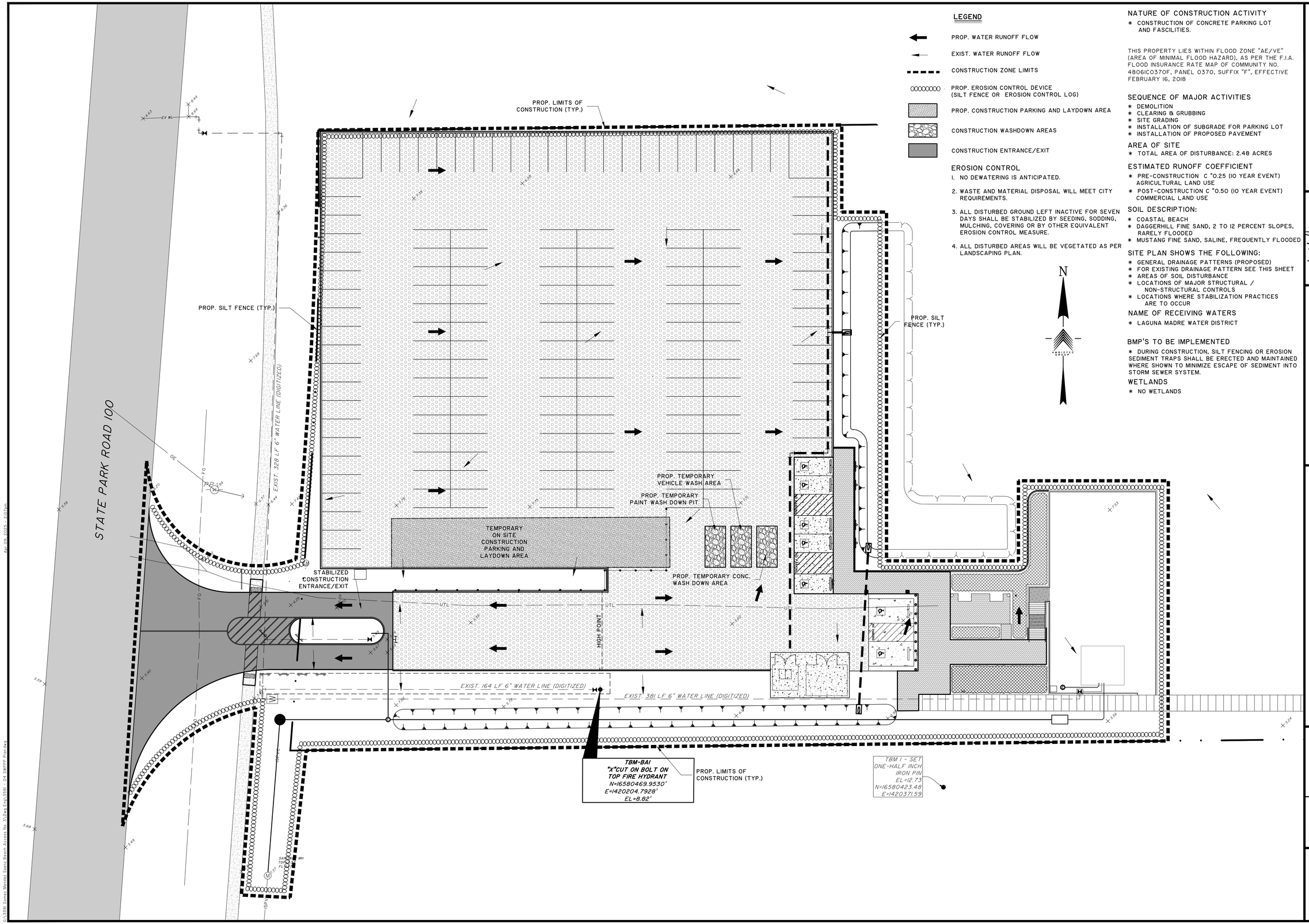
PREPARED FOR: CAMERON COUNTY

EXISTING TOPO/DEMO

SCALE: 1"=20'
DATE: APR 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 3581

SHEET
3
OF 10

RFP No. 250501



LEGEND

- PROP. WATER RUNOFF FLOW
- EXIST. WATER RUNOFF FLOW
- CONSTRUCTION ZONE LIMITS
- PROP. EROSION CONTROL DEVICE (SILT FENCE OR EROSION CONTROL LOG)
- PROP. CONSTRUCTION PARKING AND LAYDOWN AREA
- CONSTRUCTION WASHDOWN AREAS
- CONSTRUCTION ENTRANCE/EXIT

EROSION CONTROL

1. NO DEWATERING IS ANTICIPATED.
2. WASTE AND MATERIAL DISPOSAL WILL MEET CITY REQUIREMENTS.
3. ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN DAYS SHALL BE STABILIZED BY SEEDING, SODDING, MULCHING, COVERING OR BY OTHER EQUIVALENT EROSION CONTROL MEASURE.
4. ALL DISTURBED AREAS WILL BE VEGETATED AS PER LANDSCAPING PLAN.

NATURE OF CONSTRUCTION ACTIVITY

* CONSTRUCTION OF CONCRETE PARKING LOT AND FASCILITIES.

THIS PROPERTY LIES WITHIN FLOOD ZONE "AE/VE" (AREA OF MINIMAL FLOOD HAZARD), AS PER THE F.I.A. FLOOD INSURANCE RATE MAP OF COMMUNITY NO. 480610370F, PANEL 0370, SUFFIX "F", EFFECTIVE FEBRUARY 16, 2018

SEQUENCE OF MAJOR ACTIVITIES

* DEMOLITION
* CLEARING & GRUBBING
* SITE GRADING
* INSTALLATION OF SUBGRADE FOR PARKING LOT
* INSTALLATION OF PROPOSED PAVEMENT

AREA OF SITE

* TOTAL AREA OF DISTURBANCE: 2.48 ACRES

ESTIMATED RUNOFF COEFFICIENT

* PRE-CONSTRUCTION C "0.25 (10 YEAR EVENT) AGRICULTURAL LAND USE
* POST-CONSTRUCTION C "0.50 (10 YEAR EVENT) COMMERCIAL LAND USE

SOIL DESCRIPTION:

* COASTAL BEACH
* DAGGERHILL FINE SAND, 2 TO 12 PERCENT SLOPES, RARELY FLOODED
* MUSTANG FINE SAND, SALINE, FREQUENTLY FLOODED

SITE PLAN SHOWS THE FOLLOWING:

* GENERAL DRAINAGE PATTERNS (PROPOSED)
* FOR EXISTING DRAINAGE PATTERN SEE THIS SHEET
* AREAS OF SOIL DISTURBANCE
* LOCATIONS OF MAJOR STRUCTURAL / NON-STRUCTURAL CONTROLS
* LOCATIONS WHERE STABILIZATION PRACTICES ARE TO OCCUR

NAME OF RECEIVING WATERS

* LAGUNA MADRE WATER DISTRICT

BMP'S TO BE IMPLEMENTED

* DURING CONSTRUCTION, SILT FENCING OR EROSION SEDIMENT TRAPS SHALL BE ERECTED AND MAINTAINED WHERE SHOWN TO MINIMIZE ESCAPE OF SEDIMENT INTO STORM SEWER SYSTEM.

WETLANDS

* NO WETLANDS

AMBIOTEC
CIVIL ENGINEERING GROUP, INC.
5420 Paredes Line Road
Brownsville, Texas 78526
Fax (956)548-9399
(956)548-9333
TBPE FIRM No. F-4128
TBPLS REG No. 10005500

VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER 4/4/25

SOUTH PADRE ISLAND BEACH ACCESS #3

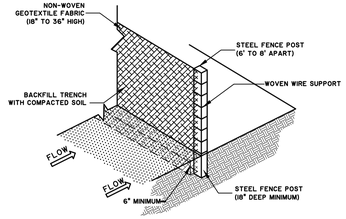
PREPARED FOR: CAMERON COUNTY

MINIMUM EROSION CONTROL MEASURES

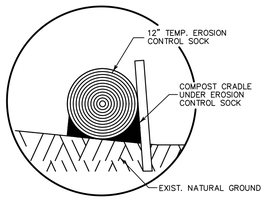
SCALE: 1"=20'	DATE: APR. 2025
DESIGN BY: K. SALDIVAR	
DRAWN BY: J. ROBLES	
CHECKED BY: K. SALDIVAR	
APPROVED BY: V.MENDEZ	
PROJECT NO.: 3581	

SHEET 4 OF 10

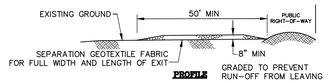
Apr 09, 2025 - 9:07am
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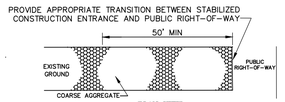


SILT FENCE DETAIL



COMPOST CRADLE
NTS



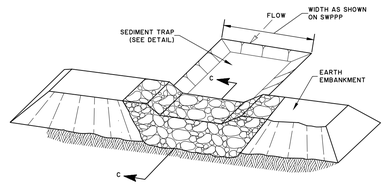


CONSTRUCTION NOTES:
1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMMODATE A TRUCK WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.
6. STABILIZED CONSTRUCTION EXIT SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

STABILIZED CONSTRUCTION EXIT
NTS

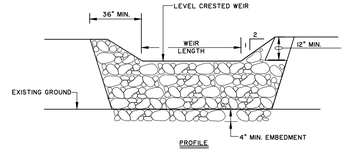
TEMPORARY STABILIZATION

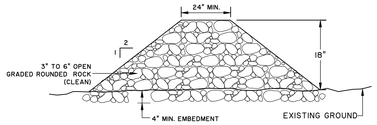
ANY AREA LEFT DISTURBED FOR MORE THAN 21 DAYS SHALL BE TEMPORARILY REVEGETATED WITH SEED AT THE DIRECTION OF THE ENGINEER.



ROCK FILTER DAM AT SEDIMENT TRAP

TYPICAL SEDIMENT TRAP W/ ROCK FILTER DETAIL
NTS

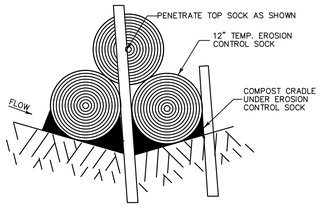




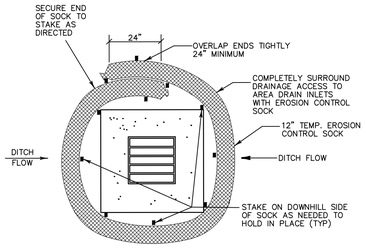
SECTION C-C

SEDIMENT TRAP NOTES:
1. THE TRAP SHOULD BE CLEANED WHEN THE CAPACITY HAS BEEN REDUCED BY 5 OR THE SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1', WHICHEVER IS LESS.
2. CLEANING AND REMOVAL OF ACCUMULATED SEDIMENT DEPOSITS IS INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.

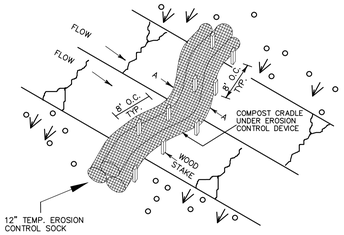
ROCK FILTER DAM NOTES:
1. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
2. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO EXISTING GROUND.
3. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).



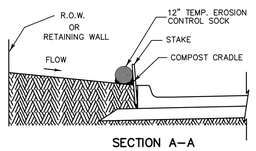
DITCH LINE SEDIMENT TRAP A-A
NTS



TYPE 'C' INLET SEDIMENT TRAP
NTS



DITCH LINE SEDIMENT TRAP
NTS



SECTION A-A

BACK OF CURB INLET SEDIMENT TRAP
NTS

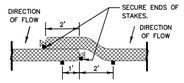
SEDIMENT BASIN & TRAP USAGE GUIDELINES

A SEDIMENT TRAP MAY BE USED TO PRECIPITATE SEDIMENT OUT OF RUNOFF DRAINING FROM AN UNSTABILIZED AREA.

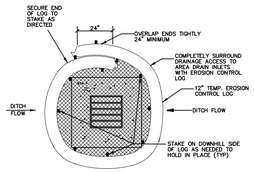
TRAPS: THE DRAINAGE AREA FOR A SEDIMENT TRAP SHOULD NOT EXCEED 5 ACRES. THE TRAP CAPACITY SHOULD BE 1800 CF/ACRE (0.5" OVER THE DRAINAGE AREA).

SEDIMENT TRAPS SHOULD BE PLACED IN THE FOLLOWING LOCATIONS:
1. IMMEDIATELY PRECEDING DRAIN INLETS
2. JUST BEFORE THE DRAINAGE ENTERS A WATER COURSE
3. JUST BEFORE THE DRAINAGE LEAVES THE RIGHT OF WAY
4. JUST BEFORE THE DRAINAGE LEAVES THE CONSTRUCTION LIMITS WHERE DRAINAGE FLOWS AWAY FROM THE PROJECT

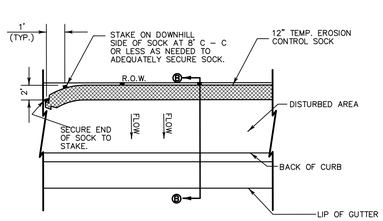
THE TRAP SHOULD BE CLEANED WHEN THE CAPACITY HAS BEEN REDUCED BY 5 OR THE SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1', WHICHEVER IS LESS. CLEANING AND REMOVAL OF ACCUMULATED SEDIMENT DEPOSITS IS INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.



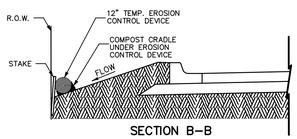
LAP DETAIL
NTS



DROP INLET SEDIMENT TRAP

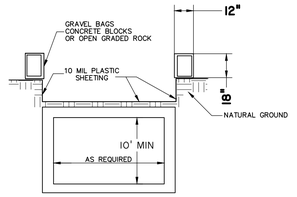


PLAN VIEW
NTS



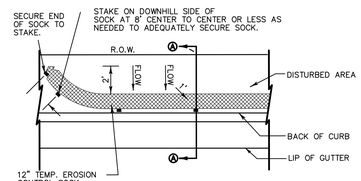
SECTION B-B

RIGHT-OF-WAY SEDIMENT TRAP
NTS

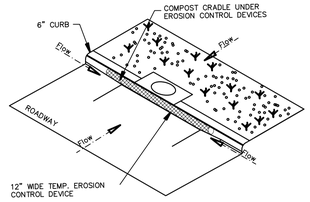


CONCRETE WASH OUT DETAIL
NTS

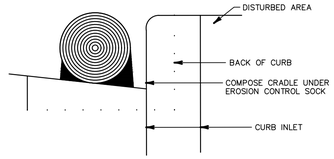
1. THE EXCAVATION FOR THE CONCRETE TRUCK WASHOUT SHALL BE A MINIMUM OF 10 FEET WIDE AND OF SUFFICIENT LENGTH AND DEPTH TO ACCOMMODATE 7 GALLONS OF WASHOUT WATER AND CONCRETE PER TRUCK PER DAY AND/OR 50 GALLONS OF WASHOUT WATER AND CONCRETE PER PUMP TRUCK PER DAY.
2. IN THE EVENT THAT THE CONCRETE TRUCK WASHOUT IS CONSTRUCTED ABOVE GROUND, IT SHALL BE 10 FEET WIDE AND 10 FEET LONG, WITH THE SAME REQUIREMENTS FOR CONTAINMENT AS DESCRIBED IN ITEM 1.
3. THE CONTAINMENT AREA SHALL BE LINED WITH 10 MIL PLASTIC SHEETING WITHOUT HOLES OR TEARS, WHERE THERE ARE SEAMS, THESE SHALL BE SECURED ACCORDING TO MANUFACTURERS' DIRECTIONS.
4. THE BERM CONSISTING OF GRAVEL BAGS, CONCRETE BLOCKS OR OPEN GRADED ROCK SHALL BE NO LESS THAN 18 INCHES HIGH AND NO LESS THAN 12 INCHES WIDE.
5. THE PLASTIC SHEETING SHALL BE OF SUFFICIENT SIZE SO THAT IT WILL OVERLAP THE TOP OF THE CONTAINMENT AREA AND BE WRAPPED AROUND THE GRAVEL BAGS, CONCRETE BLOCKS OR OPEN GRADED ROCK AT LEAST 2 TIMES.
6. THE GRAVEL BAGS OR CONCRETE BLOCK SHALL BE PLACE ABUTTING EACH OTHER TO FORM A CONTINUOUS BERM AROUND THE OUTER PERIMETER OF THE CONTAINMENT AREA.
7. THE WASHOUT MATERIAL IN THE CONTAINMENT AREA SHALL NOT EXCEED 50% OF CAPACITY AT ANY TIME.
8. SOLIDS SHALL BE REMOVED FROM CONTAINMENT AREA AND DISPOSED OF PROPERLY. ANY DAMAGE TO THE PLASTIC SHEETING SHALL BE REPAIRED OR SHEETING REPLACED BEFORE THE NEXT USE.



PLAN VIEW
NTS



CURB INLET SEDIMENT TRAP
NTS



GENERAL NOTES

1. LENGTHS OF EROSION CONTROL SOCKS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED. MAXIMUM LENGTH OF SOCKS SHALL BE 30' FOR 12" DIAMETER SOCKS.
2. UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE SOCK WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
3. STUFF SOCKS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE DENSITY THAT WILL HOLD SHAPE WITHOUT EXCESSIVE DEFORMATION.
4. STAKES SHALL BE 2" X 2" WOOD 4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE SOCK.
5. COMPOST CRADLE MATERIAL IS INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.

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CIVIL ENGINEERING GROUP, INC.
5420 Paredes Line Road
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TBPLS REG No. 10055500

4/4/25
VICENTE MENDEZ
78858
LICENSED PROFESSIONAL ENGINEER

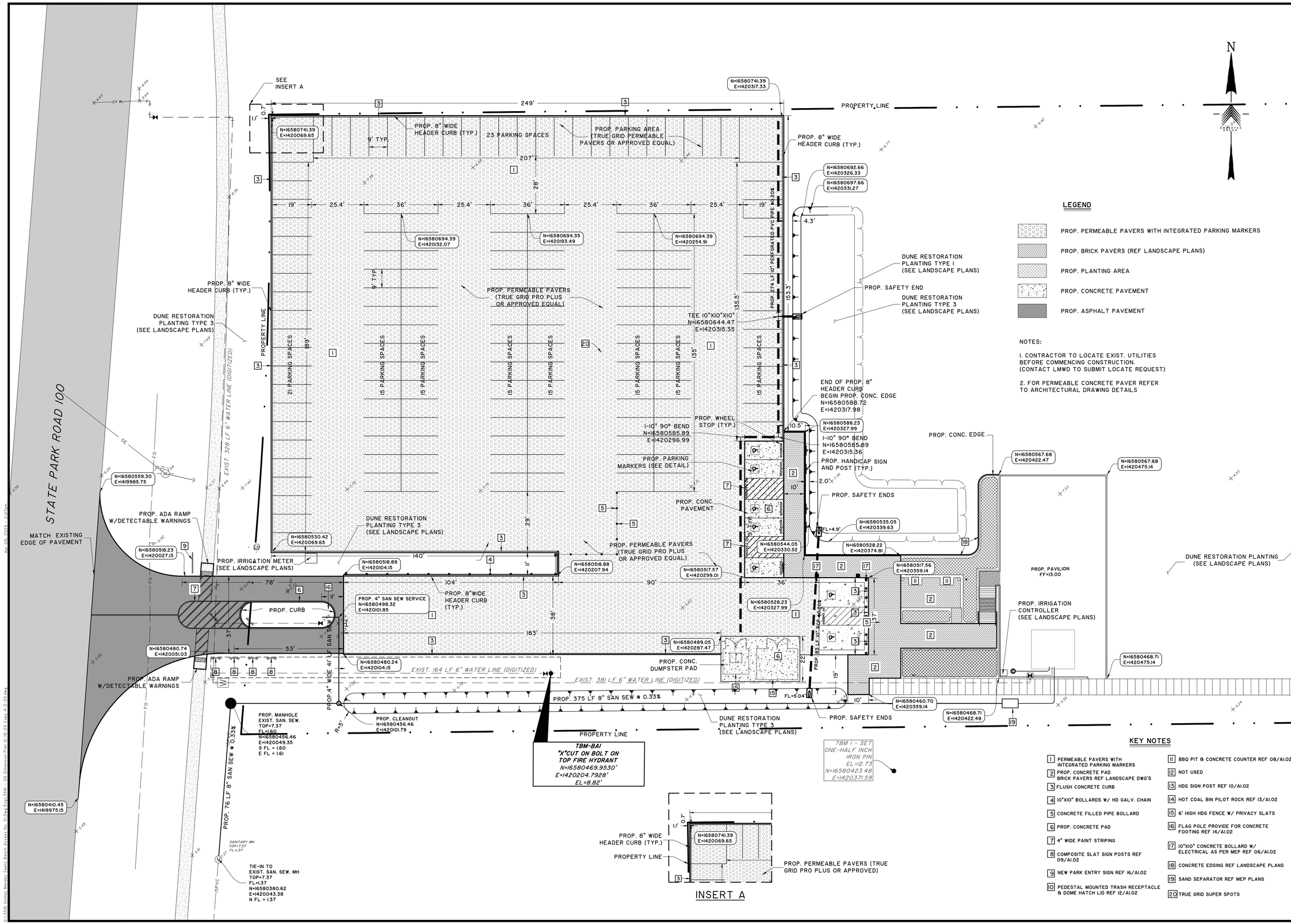
SOUTH PADRE ISLAND
BEACH ACCESS #3
PREPARED FOR: CAMERON COUNTY

SWPPP DETAILS

SCALE: N.T.S.
DATE: APR. 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 3581

SHEET
5
OF 10

Apr 09, 2025 - 2:07pm
G:\3581 Gomez Mendez Searl Beach Access No 3\Dwg Encl\3581 - 05 SWPPP Details.dwg



LEGEND

- PROP. PERMEABLE PAVERS WITH INTEGRATED PARKING MARKERS
- PROP. BRICK PAVERS (REF LANDSCAPE PLANS)
- PROP. PLANTING AREA
- PROP. CONCRETE PAVEMENT
- PROP. ASPHALT PAVEMENT

NOTES:

1. CONTRACTOR TO LOCATE EXIST. UTILITIES BEFORE COMMENCING CONSTRUCTION. (CONTACT LMWD TO SUBMIT LOCATE REQUEST)

2. FOR PERMEABLE CONCRETE PAVER REFER TO ARCHITECTURAL DRAWING DETAILS

KEY NOTES

1. PERMEABLE PAVERS WITH INTEGRATED PARKING MARKERS
2. PROP. CONCRETE PAD BRICK PAVERS REF LANDSCAPE DWG'S
3. FLUSH CONCRETE CURB
4. 10"X10" BOLLARDS W/ HD GALV. CHAIN
5. CONCRETE FILLED PIPE BOLLARD
6. PROP. CONCRETE PAD
7. 4" WIDE PAINT STRIPING
8. COMPOSITE SLAT SIGN POSTS REF 09/A1.02
9. NEW PARK ENTRY SIGN REF 16/A1.02
10. PEDESTAL MOUNTED TRASH RECEPTACLE & DOME HATCH LID REF 12/A1.02
11. BBQ PIT & CONCRETE COUNTER REF 08/A1.02
12. NOT USED
13. HDG SIGN POST REF 10/A1.02
14. HOT COAL BIN PILOT ROCK REF 13/A1.02
15. 6' HIGH HDG FENCE W/ PRIVACY SLATS
16. FLAG POLE PROVIDE FOR CONCRETE FOOTING REF 14/A1.02
17. 10"X10" CONCRETE BOLLARD W/ ELECTRICAL AS PER MEP REF 06/A1.02
18. CONCRETE EDGING REF LANDSCAPE PLANS
19. SAND SEPARATOR REF MEP PLANS
20. TRUE GRID SUPER SPOTS

AMBIOTEC
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TBPLS REG No. 10005500

VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER

SOUTH PADRE ISLAND BEACH ACCESS #3

PREPARED FOR: CAMERON COUNTY

UTILITY & DIMENSION PLAN

SCALE: 1"=20' | DATE: APR. 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 358I

SHEET 6 OF 10

G:\358I Gomez Mendez Sanez Beach Access No. 3\Dwg Exp\358I - 06 Dimension Plan (2-in-1)-24 Copy 4-2-25.dwg
Apr 09, 2025 - 2:07pm

RFP No. 250501

STATE PARK ROAD 100

EXIST. 328 LF 6" WATER LINE (DIGITIZED)

LIMITS OF GRADING

DUNE RESTORATION PLANTING TYPE 3 (SEE LANDSCAPE PLANS)

PROP. PERMEABLE PAVERS (TRUE GRID PRO PLUS OR APPROVED EQUAL)

PROP. 274 LF 10" PERFORATED PVC PIPE @ -0.20%

DUNE RESTORATION PLANTING TYPE I (SEE LANDSCAPE PLANS)

DUNE RESTORATION PLANTING TYPE 3 (SEE LANDSCAPE PLANS)

TIE-INTO EXIST. SIDEWALK & MATCH EXIST GRADES

MATCH PROP. EDGE OF PAVEMENT TO EX. CONC. WALKWAY

PROP. ASPHALT PAVEMENT

MATCH TO EXIST. EDGE OF PAVEMENT

TIE-INTO EXIST. SIDEWALK & MATCH EXIST GRADES

HIGH POINT

GRADE TO DRAIN

EXIST. 164 LF 6" WATER LINE (DIGITIZED)

EXIST. 381 LF 6" WATER LINE (DIGITIZED)

PROPOSED SWALE

DUNE RESTORATION PLANTING TYPE 3 (SEE LANDSCAPE PLANS)

DUNE RESTORATION PLANTING (SEE LANDSCAPE PLANS)

PROP. PAVILION FF=13.00

SANITARY MH TOP=7.37 FL=1.37

TBM-BAI
"X"CUT ON BOLT ON TOP FIRE HYDRANT
N=16580469.9530'
E=1420204.7928'
EL=8.82'

TBM 1 - SET ONE-HALF INCH IRON PIN
EL=12.73
N=16580423.48
E=1420371.59

TW=10.00	PROP. TOP OF SIDEWALK
TC=10.00	PROP. TOP OF CURB
FL=10.00	PROP. FLOW LINE
FG=10.00	PROP. FINISH GRADE
TP=10.00	PROP. TOP OF PAVEMENT

N

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Brownsville, Texas 78526 (956)548-9333
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TBPLS REG No. 10005500

VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER 4/9/25

SOUTH PADRE ISLAND BEACH ACCESS #3

PREPARED FOR: CAMERON COUNTY

GRADING PLAN

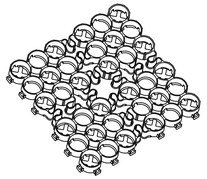
SCALE: 1"=20' | DATE: APR. 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 3581

SHEET 7 OF 10

Apr 09, 2025 - 2:08pm
G:\3581 Gonez Mendez Saenz Beach Access No. 3\Dwg Exp\3581- 07 Grading Plan.dwg

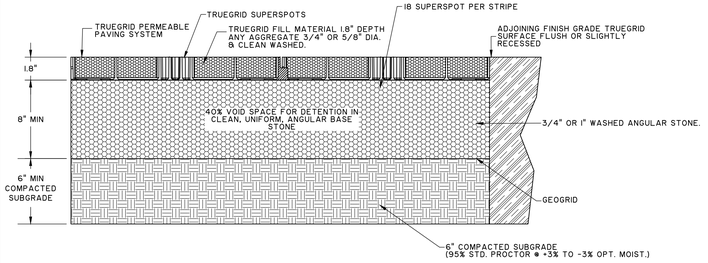
NOTES:

1. SUB-BASE DEPTH AND PREPARATION IS DEPENDENT ON SITE CONDITIONS PLUS LOADING REQUIREMENTS.
2. TRUEGRID PRO PLUS PRODUCTS DESIGNED FOR LOAD CAPACITIES OF 120,000 LBS PER SQ. FT. TRUEGRID PRODUCTS STRENGTHEN WITH FILL MATERIAL.
3. TRUEGRID PRO PLUS PRODUCTS ARE SUFFICIENTLY RATED FOR H-20 /HS-20 LOADING AND GREATER.
4. GEOGRID IS REQUIRED BETWEEN SUB-GRADE & SUB-BASE FOR CERTAIN SOILS AND SITE SPECIFIC REQUIREMENTS.
5. INCREASE SUB-BASE DEPTH FOR INCREASED STORM WATER DETENTION.
6. NO STAKING NECESSARY WITH TRUEGRID PRO PLUS WHEN SLOPE IS BELOW 10 DEGREES. ASSESS PROJECT, AS NEEDED.
7. FINAL ENGINEERED CROSS SECTION AGGREGATES AND DEPTH SHOULD ALLOW FOR EXPECTED INFILTRATION RATES, STORAGE CAPACITIES, OUTLET FLOW RATES, AND OTHER SITE SPECIFIC CONDITIONS AND LOAD REQUIREMENTS.
8. THIS CROSS SECTION IS FOR INFORMATION ONLY.

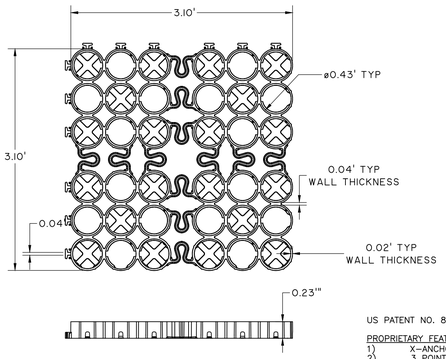


TRUEGRID BLOCK REFERENCE VIEW

PREASSEMBLED & DELIVERED IN 4' X 4' SHEET. RECONFIGURED AS NEEDED. NO EXTRA TOOLING OR ACCESSORIES REQUIRED



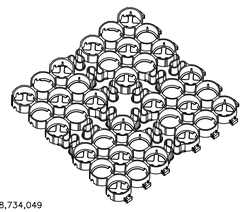
GRAVEL FILL MEDIUM LOAD TRUEGRID PRO PLUS



TRUEGRID PRO PLUS 24" X 24" X1.8"

NOTE:

CONTRCATOR SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR THE INSTALLMENT OF THE TRUE GRID PRO PLUS



US PATENT NO. 8,734,049

PROPRIETARY FEATURES:
1) X-ANCHORS (NO STAKING NEEDED)
2) 3 POINT MALE/FEMALE LOCKING TABS
3) S-FLEX JOINTS (BUILT IN EXPANSION JOINTS FOR SOIL MOVEMENT AND SEASONAL CHANGES)
4) HOOP STRENGTH DESIGN

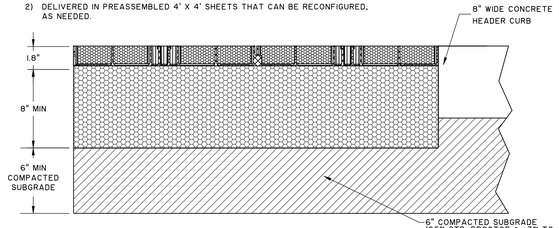
OTHER:
1) 100 % POST-CONSUMER RECYCLED HDPE.
2) DELIVERED IN PREASSEMBLED 4' X 4' SHEETS THAT CAN BE RECONFIGURED, AS NEEDED.

TRUEGRID PRO PLUS 24" X 24" X1.8"

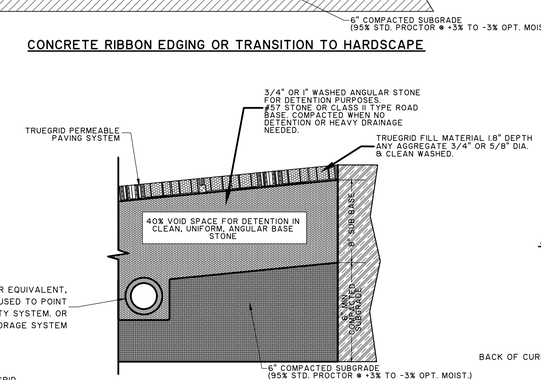
US PATENT NO. 8,734,049

PROPRIETARY FEATURES:
I) X-ANCHORS (NO STAKING NEEDED)
2) 3 POINT MALE/FEMALE LOCKING TABS
3) S-FLEX JOINTS (BUILT IN EXPANSION JOINTS FOR SOIL MOVEMENT AND SEASONAL CHANGES)
4) HOOP STRENGTH DESIGN

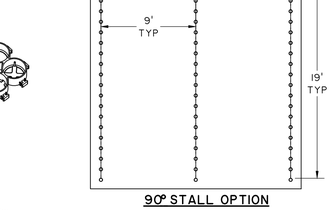
OTHER:
I) 100 % POST-CONSUMER RECYCLED HDPE.
2) DELIVERED IN PREASSEMBLED 4' X 4' SHEETS THAT CAN BE RECONFIGURED, AS NEEDED.



CONCRETE RIBBON EDGING OR TRANSITION TO HARDSCAPE



TRUEGRID GRAVEL FILL INSTALLATION PERFORATED PIPE

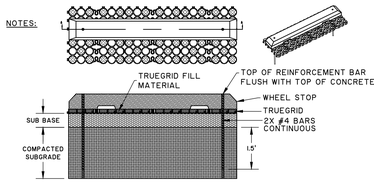


90° STALL OPTION

TRUEGRID PRO PLUS 24" X 24" X1.8" US PATENT NO. 8,734,049

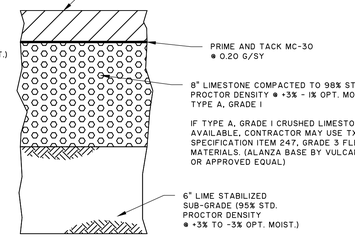
PROPRIETARY FEATURES:
I) X-ANCHORS (NO STAKING NEEDED)
2) 3 POINT MALE/FEMALE LOCKING TABS
3) S-FLEX JOINTS (BUILT IN EXPANSION JOINTS FOR SOIL MOVEMENT AND SEASONAL CHANGES)
4) HOOP STRENGTH DESIGN OTHER:
I) 100 % POST-CONSUMER RECYCLED HDPE.
2) DELIVERED IN PREASSEMBLED 4' X 4' SHEETS THAT CAN BE RECONFIGURED, AS NEEDED.

NOTES:



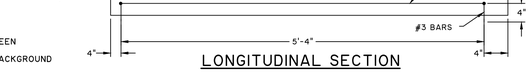
SECTION A-A

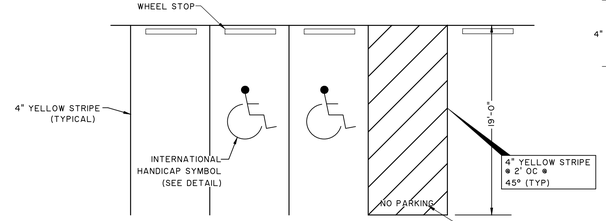
TRUEGRID WHEEL STOP INSTALLATION



ASPHALT PAVEMENT SECTION

NTS





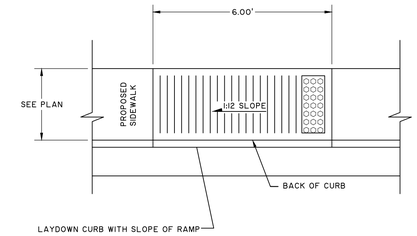
NOTES:

1. ALL WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS

2. 2% MAX. SLOPE IN ALL DIRECTION IN AREAS OF HANDICAP PARKING SPACES

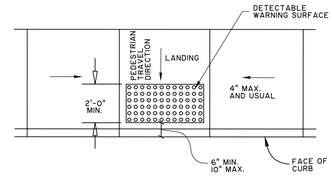
STRIPING FOR 90° PARKING

N.T.S.



H. C. RAMP

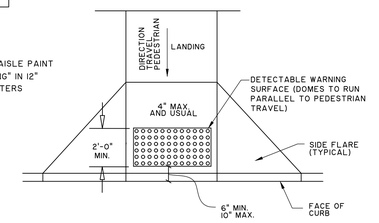
NTS



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE

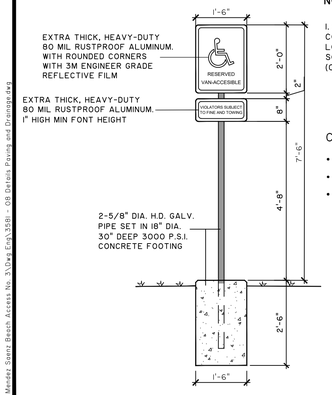
NTS

DETECTABLE WARNING PAVER



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN

NTS



NOTE:

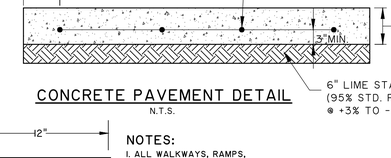
1. SIGNAGE TO BE DESIGNED AND CONSTRUCTED TO WITHSTAND WIND LOAD PRESSURES OF 35 PSF AS PER SOUTH PADRE ISLAND CITY ORDINANCE (CH. 15, SEC. 15-10)

COLORS:

- LEGEND AND BORDER - GREEN
- WHITE SYMBOL ON BLUE BACKGROUND
- BACKGROUND - WHITE

HANDICAP SIGN

NTS

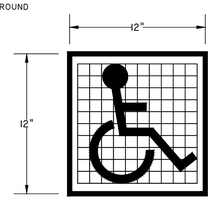


NOTE:

1. MATCH TOP OF PROPOSED ASPHALT.
2. CONSTRUCTION JOINTS SHALL BE CONSTRUCTED EVERY 10' WITH EXPANSION JOINTS EVERY 40'.
3. CONTRACTOR SHALL MATCH EXISTING ELEVATIONS

CONCRETE PAVEMENT DETAIL

N.T.S.



NOTES:

1. ALL WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS

2. 2% MAX. SLOPE IN ALL DIRECTION IN AREAS OF HANDICAP PARKING SPACES

GRID FOR LAYOUT ONLY ONE SQUARE EQUALS 1"

SYMBOL OF ACCESSIBLITY DETAIL

NTS



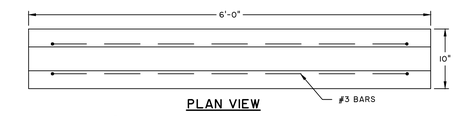
COLORS:

- LEGEND AND BORDER - GREEN
- WHITE SYMBOL ON BLUE BACKGROUND
- BACKGROUND - WHITE

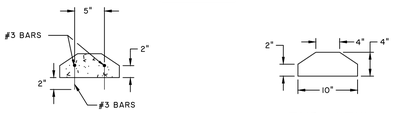
HANDICAP SIGN

NTS

NOTE:
ALL CONCRETE SHALL BE CLASS 'A'



PLAN VIEW



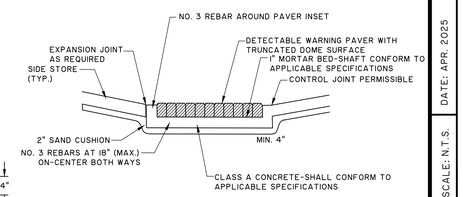
CROSS SECTION

END VIEW

LONGITUDINAL SECTION

WHEEL STOP DETAIL

N.T.S.



SECTION "A-A"

NTS

DETECTABLE WARNINGS

NTS

AMBIOTEC
CIVIL ENGINEERING GROUP, INC.
5420 Paredes Line Road
Brownsville, Texas 78526
(956)548-9389
Fax (956)548-9333
TBPE FIRM No. F-4128
TBPLS REG No. 10005500

4/4/25

VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER

SOUTH PADRE ISLAND BEACH ACCESS #3

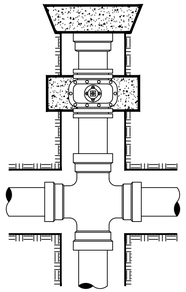
PREPARED FOR: CAMERON COUNTY

PAVING DETAILS

SCALE: N.T.S. | DATE: APR 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 358I

SHEET 8 OF 10

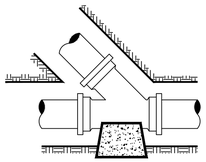
Apr 09, 2025 - 2:08pm
G:\358I Gomez Mendez Saenz Beach Access No. 3\Dwg Exp\358I - 08 Details Paving and Drainage.dwg



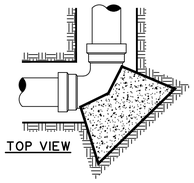
TOP VIEW

THRUST BLOCK DETAILS

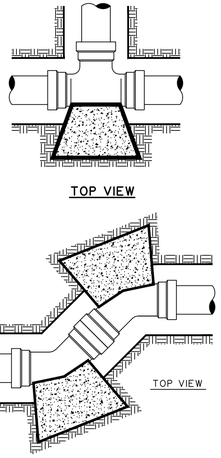
NOT TO SCALE



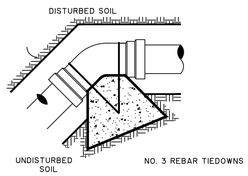
TOP VIEW



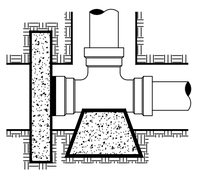
TOP VIEW



TOP VIEW



VERTICAL VIEW



TOP VIEW

ALL MJ FITTINGS WILL REQUIRE RESTRAINERS (MEGA LUGS) WITH THRUST BLOCKS

NOTES ON THRUST BLOCKING

1. ALL BLOCKING SHALL BE AGAINST UNDISTURBED HAND DUG SOIL AND SHALL BE CONCRETE HAVING A MINIMUM 28 DAY STRENGTH OF 2000 LBS. PER SQUARE INCH.

2. THRUST CALCULATIONS TO BE BASED ON THRUST DUE TO WATER PRESSURE AT 100 % OF TEST PRESSURE. THRUST = 2 AP SIN I/2 ø WHERE A = AREA OF PIPE, P = WATER PRESSURE, ø= DEFLECTION ANGLE.

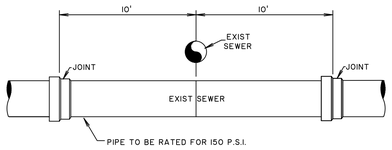
3. VERTICAL UPLIFT BLOCKS SHALL BE DESIGNED ON THE BASIS OF 150 LBS. PER CU. FT. FOR CONCRETE AND SOIL AT 120 LBS. PER CU. FT. OVER THE AREA OF BLOCK.

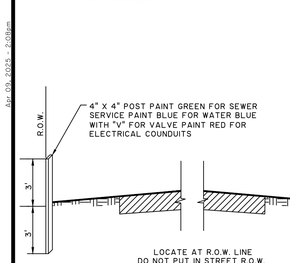
4. VERTICAL DOWN THRUST BLOCKS SHALL BE DESIGNED ON THE BASIS OF 2000 LBS. PER SQ. FT. ALLOWABLE SOIL BEARING PRESSURE. DIMENSION MAY BE DECREASED WITH APPROVAL OF THE ENGINEER IF MEASURED SOIL CONDITIONS PERMIT. IN POOR SOIL CONDITIONS, BLOCK DIMEMSIONS SHALL BE INCREASED IN PROPORTION TO ALLOWABLE BEARING VALUE.

5. THRUST BLOCKS ON HORIZONTAL BENDS, TEES, CROSSES, AND REDUCERS SHALL BE SIZED BASED ON 24000 LBS. PER SQ. FT. OF BLOCKING SURFACE AREA IN CONTACT WITH UNDISTURBED SOIL, BLOCK DIMENSIONS MAY BE DECREASED WITH APPROVAL OF THE ENGINEER IF MEASURED SOIL CONDITIONS PERMIT. IN POOR SOIL CONDITIONS, BLOCK DIMENSIONS SHALL BE INCREASED IN PROPORTION TO THE ALLOWABLE BEARING VALUE.

6. ALL BLOCKING SHALL HAVE A MINUMUM SOIL COVER OF 1 FT.

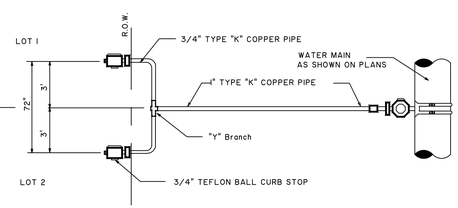
7. ADDITIONAL REINFORCING MAY BE REQUIRED FOR HORIZONTAL BLOCKING TO HANDLE UNUSUAL SHEAR LOADING CONDITIONS.





SERVICE MARKING FOR NO CURB

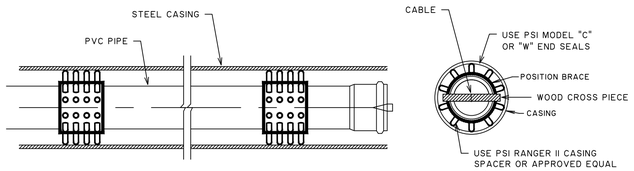
NOT TO SCALE



TYPICAL DOUBLE SERVICE CONNECTION

NOT TO SCALE

NOTE:
1. USE 3/4" TYPE "K" COPPER PIPE FOR SINGLE SERVICE CONNECTION.
2. USE SERVICE CLAMP OR FACTORY THREADED COUPLING FOR 1" SERVICE CONNECTIONS.
3. SERVICES SHALL BE INSTALLED ACCORDING TO TYPICAL PIPE BEDDING DETAIL.

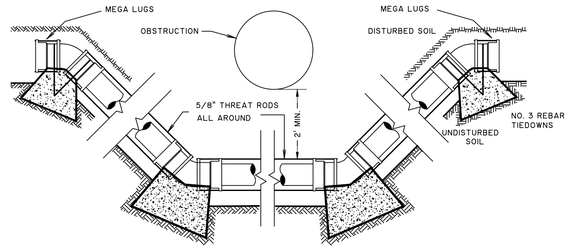


PVC PIPE CASING & SKIDS

NOT TO SCALE

STEEL CASING WALL THICKNESS CHART	
MINIMUM THICKNESS	DIAMETER OF CASING PIPE
1/4"	12" OR LESS
5/16"	OVER 12"-18"
3/8"	OVER 18"-22"
7/16"	OVER 22"-28"
1/2"	OVER 28"-34"
9/16"	OVER 34"-42"
5/8"	OVER 42"-48"
OVER 48" MUST BE APPROVED BY B.P.U.B.	
NOTE: THIS CHART IS ONLY FOR SMOOTH STEEL CASING PIPES WITH MINIMUM YIELD STRENGTH OF 35,000 PSI	

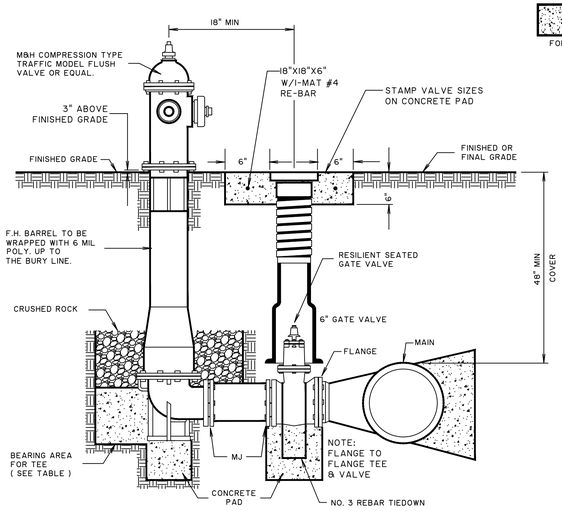
NOMINAL PIPE SIZE	CASING SIZE	NO. OF SKIDS
6"	12"	4
8"	16"	4
12"	20"	4
16"	24"	5



ADJUSTMENTS

NOT TO SCALE

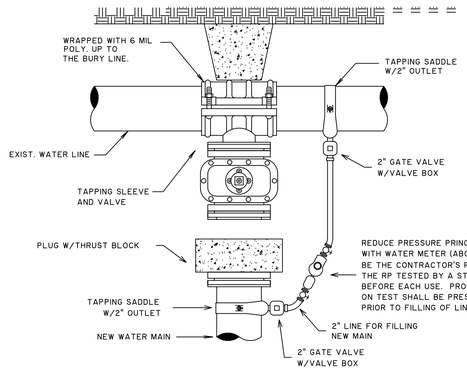
SPECIAL CONDITION LINE ADJUSTMENTS
5/8" GALV. ALL THREAT RODS WITH EYELET BOLTS FOR ASSEMBLY WITH THRUST BLOCKS



FIRE HYDRANT

NOT TO SCALE

VALVE & BOX



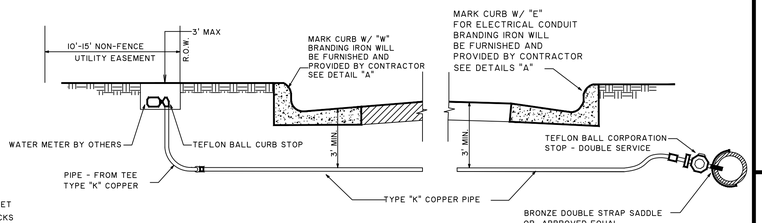
METHOD FOR FILLING AND FLUSHING NEW WATER LINES

NOT TO SCALE

NOTE:

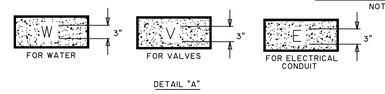
WATER USAGE FOR ALL INITIAL TESTING WILL NOT BE BILLED TO THE CONTRACTOR. ANY RE-TESTING NEEDED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR INCLUDING PAYMENT OF ADDITIONAL WATER NEEDED. CONTRACTOR WILL BE ALLOWED TO FLUSH THE WATERLINE INITIALLY FOR A MAXIMUM OF 12-24 HRS. OR AS DETERMINED BY THE ENGINEER. IF FLUSHING IS DETERMINED TO BE LONGER, THE ENGINEER WILL BE REQUIRED TO SUPPLY THE PROPER DOCUMENTATION AND CALCULATIONS TO SUPPORT SUCH FINDINGS.

AMOUNT OF FLOW TO BE USED FOR FLUSHING WILL BE MONITORED AND REGULATED BY THE BPUB INSPECTORS. CONTRACTOR WILL NOT BE ALLOWED TO TIE-IN TO EXISTING WATER LINE UNTIL ALL TEST ON NEW LINES HAVE BEEN COMPLETED AND APPROVED.



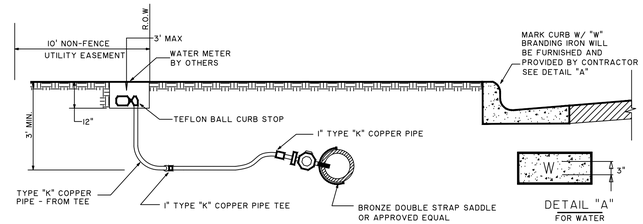
TYPICAL LONG SERVICE

NOT TO SCALE



DETAIL "A"

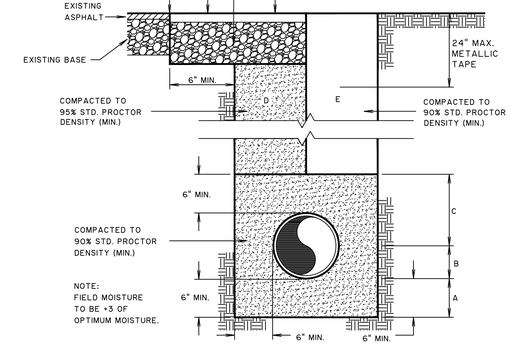
NOTE:
1. USE 3/4" TYPE "K" COPPER PIPE FOR SINGLE SERVICE CONNECTION
2. 36" MIN. COVER FOR 3/4" THRU 2" SERVICES
3. MARK CURB W/"V" AT WATER VALVE LOCATIONS, BRANDING IRON WILL BE FURNISHED AND PROVIDED BY CONTRACTOR



TYPICAL SHORT SERVICE

NOT TO SCALE

NOTE:
1. USE 3/4" TYPE "K" COPPER PIPE FOR SINGLE SERVICE CONNECTION



TYPICAL PIPE BEDDING AND TRENCH BACKFILL DETAIL

NOT TO SCALE

A SAND BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE (MIN. THICKNESS = 6").

B SAND BACKFILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE (4" LIFTS, HAND TAMPED).

C SAND BACKFILL PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE (6" LIFTS, HAND TAMPED).

D SAND BACKFILL, CLASS "A" (6" LIFTS, MECHANICAL COMPACTION).

E EARTH BACKFILL, CLASS "B" (12" LIFTS, MECHANICAL COMPACTION).

FOUNDATION PREPARATION (WELLPOINTS, GRAVEL OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.

BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO 95% STD. PROCTOR DENSITY. THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 6". STRUCTURE BACKFILL MATERIAL SHALL BE SAND, APPROVED SITE SOIL, OR OTHER APPROVED SUBSTITUTE.

AMBIOTEC
CIVIL ENGINEERING GROUP, INC.
5420 Paredes Line Road
Brownsville, Texas 78526
Fax (956)548-9399
(956)548-9333
TBPE FIRM No. F-4128
TBPLS REG No. 10005500

VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER 4/4/25

SOUTH PADRE ISLAND BEACH ACCESS #3

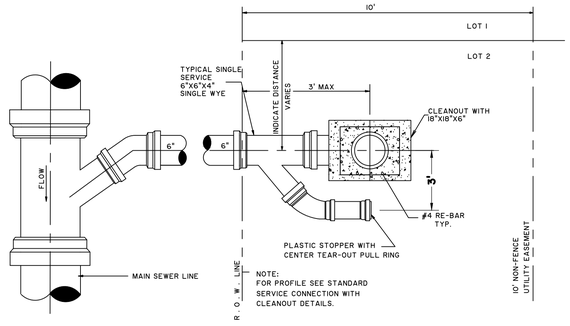
PREPARED FOR: CAMERON COUNTY

WATER DETAILS

SCALE: N.T.S. | DATE: APR. 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 3581

SHEET 9 OF 10

G:\3581 Gomez Mendez Suenz Beach Access No. 3\Dwg Eng\3581 - 08 Details Paving and Drainage.dwg Apr 09, 2025 - 2:08pm



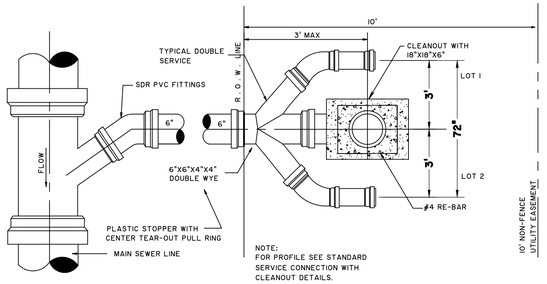
NOTE:
FOR PROFILE SEE STANDARD SERVICE CONNECTION WITH CLEANOUT DETAILS.

PLAN - SINGLE SERVICE

NOT TO SCALE

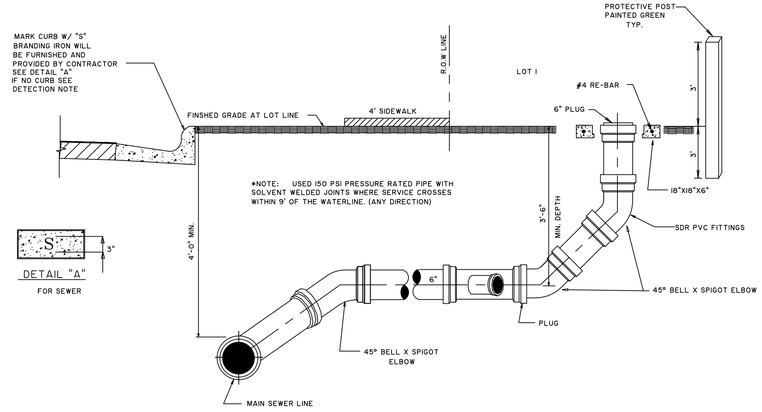
*NOTE: CONTRACTOR SHALL COORDINATE WITH INSPECTOR ON THE LOCATION OF ALL SERVICE LATERALS.

DETECTION NOTE:
A SOUND DETECTION REFLECTOR "STU-DEC-TA-CAL" BY FRIFFOLYN, INC. OR AN APPROVED SUBSTITUTE , WILL BE FASTENED TO THE END OF EACH SERVICE CONNECTION AND EXTENDED TO BE VISIBLE ABOVE FINAL GRADE TO FACILITATE LOCATING SERVICE STUBS.



NOTE:
FOR PROFILE SEE STANDARD SERVICE CONNECTION WITH CLEANOUT DETAILS.

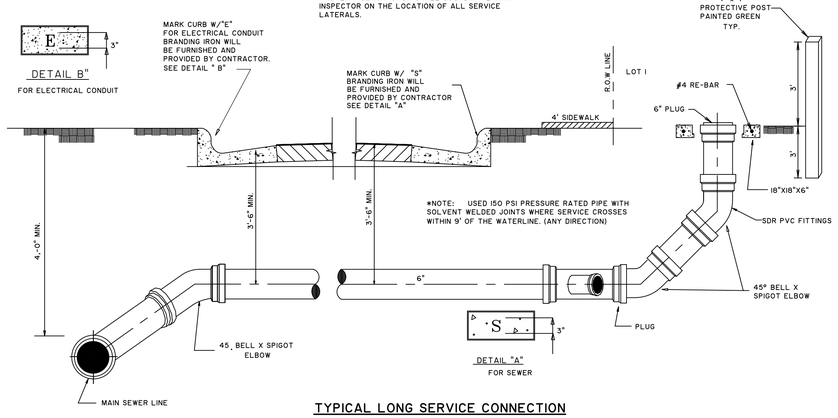
PLAN - DOUBLE SERVICE NEW DEVELOPMENT



TYPICAL SHORT SERVICE CONNECTION WITH STANDARD CLEANOUT

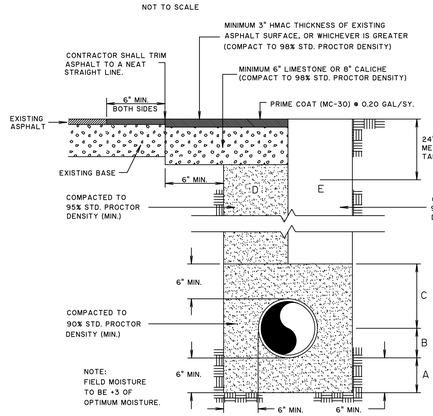
NOT TO SCALE

*NOTE: CONTRACTOR SHALL COORDINATE WITH INSPECTOR ON THE LOCATION OF ALL SERVICE LATERALS.



TYPICAL LONG SERVICE CONNECTION WITH STANDARD CLEANOUT

NOT TO SCALE



TYPICAL PIPE BEDDING AND TRENCH BACKFILL DETAIL

NOT TO SCALE

A SAND BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE (MIN. THICKNESS = 6").

B SAND BACKFILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPIE (4" LIFTS, HAND TAMPED).

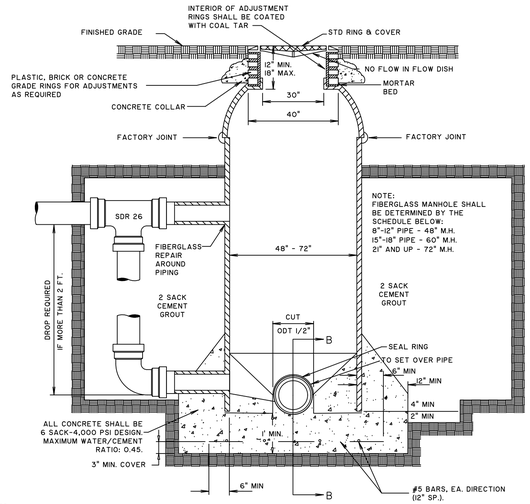
C SAND BACKFILL PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE (6" LIFTS, HAND TAMPED).

D SAND BACKFILL, CLASS "A" (6" LIFTS, MECHANICAL COMPACTION).

E EARTH BACKFILL, CLASS "B" (12" LIFTS, MECHANICAL COMPACTION).

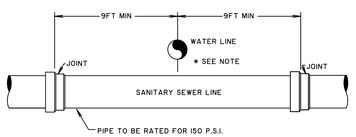
FOUNDATION PREPERATION (WELLPOINTS, GRAVEL OR CEMENT STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS STABLE.

BACKFILL AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO 95% STD. PROCTOR DENSITY. THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 6". STRUCTURE BACKFILL MATERIAL SHALL BE SAND, APPROVED SITE SOIL, OR OTHER APPROVED.



TYPICAL FIBERGLASS MANHOLE WITH DROP STRUCTURE SECTION A-A

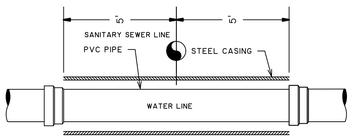
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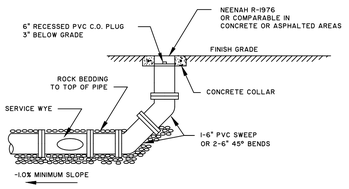


TYPICAL WATER & SEWER LINE CROSSING

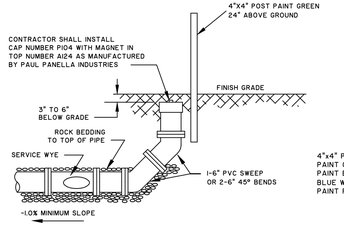
NOT TO SCALE

* NOTE:
2 FT. MIN. ELEVATION SEPARATION BETWEEN WATER AND SEWER MAINS. IF UNABLE, ENCASEMENT REQUIRED. ENCASEMENT CAN BE STEEL CASING OR CONCRETE PIPE.

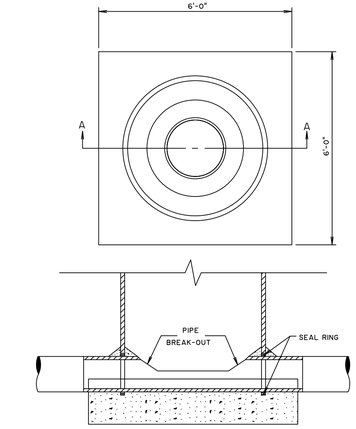




CLEANOUT IN PAVEMENT



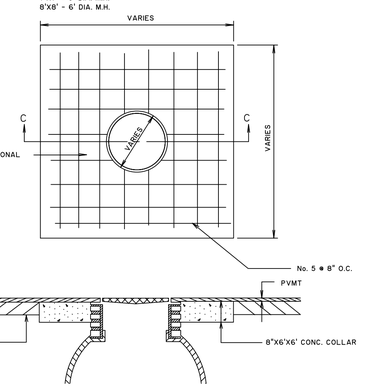
CLEANOUT IN LANDSCAPED AREA

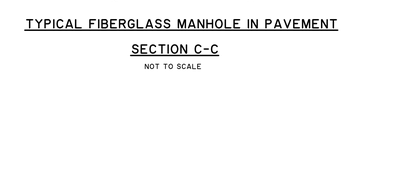


SECTION B-B

NOT TO SCALE

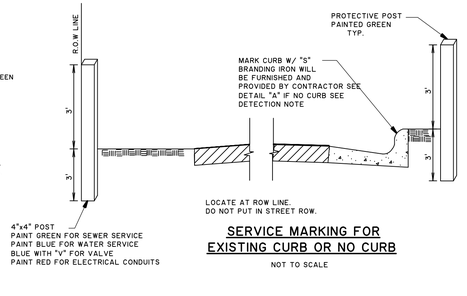
NOTES:
6'X6' - 4' DIA. M.H.
7'X7' - 5' DIA. M.H.
8'X8' - 6' DIA. M.H.





TYPICAL FIBERGLASS MANHOLE IN PAVEMENT SECTION C-C

NOT TO SCALE



SERVICE MARKING FOR EXISTING CURB OR NO CURB

NOT TO SCALE

AMBIOTEC
CIVIL ENGINEERING GROUP, INC.
5420 Paredes Line Road
Brownsville, Texas 78526
Fax (956)548-9399
(956)548-9333
TBPE FIRM No. F-4128
TBPLS REG No. 10005500

VICENTE MENDEZ 78858 LICENSED PROFESSIONAL ENGINEER 4/4/25

SOUTH PADRE ISLAND BEACH ACCESS #3

PREPARED FOR: CAMERON COUNTY

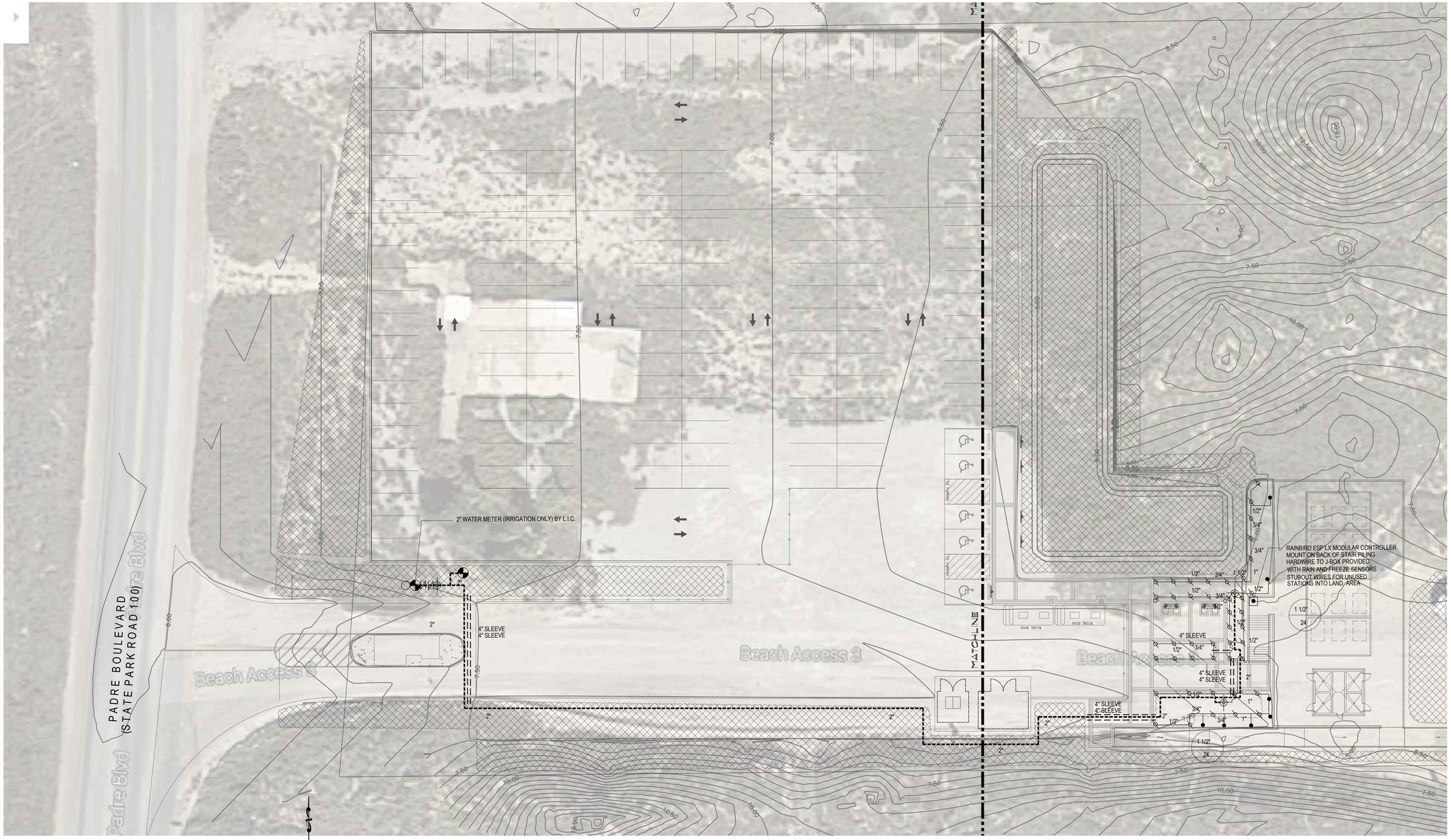
SANITARY DETAILS

SCALE: N.T.S. | DATE: APR. 2025
DESIGN BY: K. SALDIVAR
DRAWN BY: J. ROBLES
CHECKED BY: K. SALDIVAR
APPROVED BY: V.MENDEZ
PROJECT NO.: 3581

SHEET 10 OF 10

G:\3581 Gomez Mendez Saenz Beach Access No. 3\Dwg Encl\3581 - 08 Details Paving and Drainage.dwg Apr 09, 2025 - 2:09pm

RFP No. 250501



1 IRRIGATION PLAN

SCALE: 1" = 20'-0"

IRRIGATION LEGEND

- RAINBIRD R-VAN SERIES ROTARY NOZZLE 12" POP UP
- RAINBIRD 1404 BUBBLER HEAD
- RAINBIRD QUICK COUPLER VALVE (33-DLRC) QUICK COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE ZONE THAT ACTIVATES MASTER VALVE AND ACTIVATES THE QUICK COUPLERS, LABEL ON COLORED ZONING DIAGRAM - LOCATED ALONG MAINLINE 200' SPACING
- RAINBIRD PEB SERIES ELECTRIC VALVE
- CONTROLLER (ESP-LX WITH RAIN/FREEZE SENSOR)
- WATER METER (AS SIZED)
- BACKFLOW PREVENTER (AS SIZED)
- TEMPORARY IRRIGATION
- CLASS 200 PVC LATERAL PIPING
- CLASS 200 PVC MAINLINE
- SCH. 40 PVC SLEEVING (AS SIZED)
- VALVE SIZE GPM

DESIGN PRESSURE 60 PSI

ELECTRICAL SPLICES AT EACH VALVE AND CONTROLLER ONLY.

IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) MC-178/ P.O.BOX 13087, AUSTIN, TX 78711-3087. TECQ'S WEBSITE IS: www.tceq.state.tx.us

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
789 E. WASHINGTON ST.
BROWNSVILLE, TX 78575
TEL (956) 547-9788
FAX (956) 547-9877
www.sspdesign.com

No.	REVISIONS	BY

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

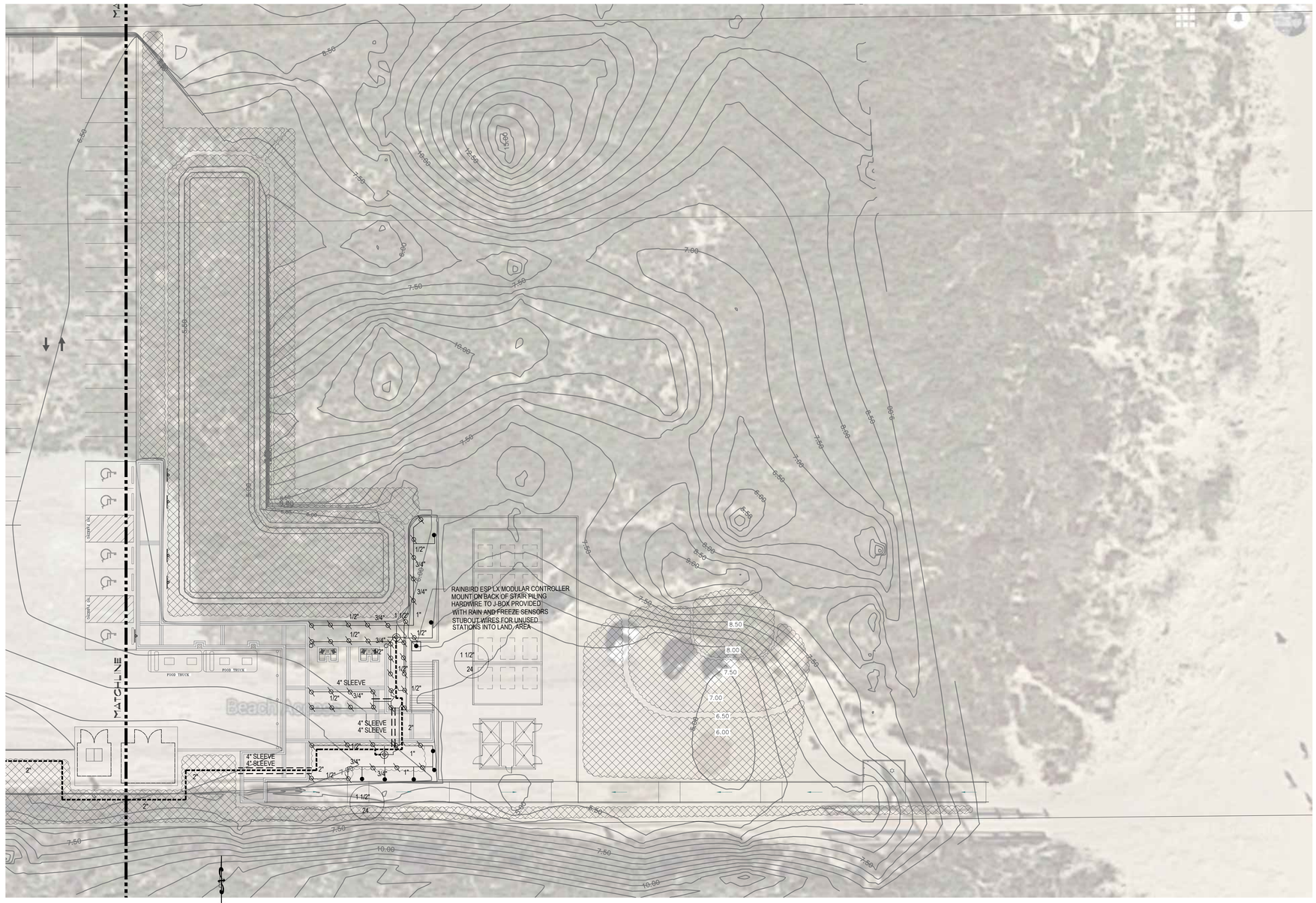
CAMERON COUNTY
BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
PRINTED NAME
REGISTERED LANDSCAPE ARCHITECT
7/15/21

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: July 15, 2021
Scale: As Noted
Project Architect: Roan G. Gomez, AIA
Drawn By: PLM
Job No.
Sheet: L1.01

RFP No. 250501



1 IRRIGATION ZONING PLAN
SCALE: 1" = 20'-0"

W — E

IRRIGATION LEGEND

- RAINBIRD R-VAN SERIES ROTARY NOZZLE 12" POP UP
- RAINBIRD 1404 BUBBLER HEAD
- RAINBIRD QUICK COUPLER VALVE (33-DLRC) QUICK COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE ZONE THAT ACTIVATES MASTER VALVE AND ACTIVATES THE QUICK COUPLERS, LABEL ON COLORED ZONING DIAGRAM - LOCATED ALONG MAINLINE 200' SPACING
- RAINBIRD PEB SERIES ELECTRIC VALVE
- CONTROLLER (ESP-LX WITH RAIN/FREEZE SENSOR)
- WATER METER (AS SIZED)
- BACKFLOW PREVENTER (AS SIZED)
- TEMPORARY IRRIGATION

- CLASS 200 PVC LATERAL PIPING
- CLASS 200 PVC MAINLINE
- SCH. 40 PVC SLEEVING (AS SIZED)
- VALVE SIZE
  GPM

DESIGN PRESSURE 60 PSI

ELECTRICAL SPLICES AT EACH VALVE AND CONTROLLER ONLY.

IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) MC-178/ P.O.BOX 13087, AUSTIN, TX 78711-3087. TECQ'S WEBSITE IS: www.tceq.state.tx.us

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No.	REVISIONS	BY

GMS ARCHITECTS
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Brownsville TX 78526
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fax (956) 546-0196

CAMERON COUNTY
BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
ANTHONY L. GARFIELD
REGISTERED
7/15/21

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: July 15, 2021
Scale: As Noted
Project Architect: Roan G. Gomez, AIA
Drawn By: PLM
Job No.
Sheet: L1.02

RFP No. 250501

IRRIGATION LEGEND

- RAINBIRD R-VAN SERIES ROTARY NOZZLE 12" POP UP
- RAINBIRD 1404 BUBBLER HEAD
- RAINBIRD QUICK COUPLER VALVE (33-DLRC) QUICK COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE ZONE THAT ACTIVATES MASTER VALVE AND ACTIVATES THE QUICK COUPLERS, LABEL ON COLORED ZONING DIAGRAM - LOCATED ALONG MAINLINE 200' SPACING
- RAINBIRD PEB SERIES ELECTRIC VALVE
- CONTROLLER (ESP-LX WITH RAIN/FREEZE SENSOR)
- WATER METER (AS SIZED)
- BACKFLOW PREVENTER (AS SIZED)
- CLASS 200 PVC LATERAL PIPING
- CLASS 200 PVC MAINLINE
- SCH. 40 PVC SLEEVING (AS SIZED)
- VALVE SIZE / GPM
- TEMPORARY IRRIGATION

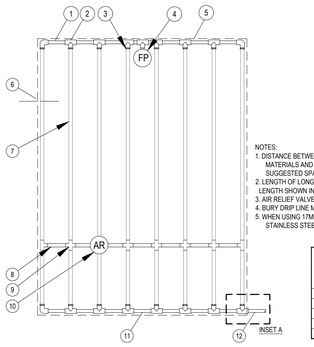
DESIGN PRESSURE 60 PSI

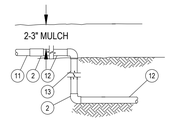
ELECTRICAL SPLICES AT EACH VALVE AND CONTROLLER ONLY.

IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) MC-178/ P.O.BOX 13087, AUSTIN, TX 78711-3087. TECQ'S WEBSITE IS: www.tceq.state.tx.us

IRRIGATION NOTES

1. All equipment numbers reference Rainbird equipment catalog unless otherwise indicated.
2. LAWN SPRAY HEADS are RVAN installed as per detail.
3. SHRUB SPRAY HEADS are RVAN installed as per detail.
4. ELECTRIC CONTROL VALVES shall be PEB installed as per detail shown. Size valves as shown on plans. Valves shall be installed in valve boxes large enough to permit manual operation, removal of solenoid and/or valve cover without any earth excavation. (Refer to Specifications)
5. AUTOMATIC CONTROLLER shall be installed at location shown. Power (120V) shall be located in a junction box within five feet (5') of controller location. Power supply and junction box to be provided by General Contractor.
6. All 24 volt valve wiring is to be UF 14 single conductor. All wire splices are to be permanent and waterproof. (Refer to Specifications)
7. SLEEVES shall be supplied and installed by Irrigation Contractor. Sleeve material shall be Schedule 40. Bore under existing pavement as required. Sizes as indicated on plans.
8. Ten days prior to start of construction, contractor shall verify static water pressure. If static pressure is less than 50 PSI, do not start work until notified to do so by SSP Design.
9. All mainline and lateral piping shall have a minimum of 12 inches of cover. All piping under paving shall have a minimum of 18 inches of cover. (Refer to Specifications).
10. The irrigation contractor shall coordinate installation of the system with the landscape contractor so that all plant material will be watered in accordance with the intent of the plans and specifications.
11. The irrigation contractor shall select the proper arc and radius for each nozzle to insure 100% and proper coverage of all lawn areas and plant material. All nozzles in parking lots and planting beds shall be low angle to minimize overspray on pavement surfaces. No water will be allowed to spray on building.
12. The irrigation contractor shall warranty all system components for a period of one year plus 20 days. (Refer to Specifications).
13. See specifications for further instructions and project requirements. Contractor shall follow specification section 328000 - Site Irrigation for any discrepancies between plans and specifications.





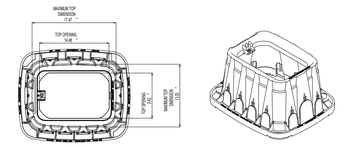
NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFS DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCORVANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
4. BURY DRIP LINE MIN. 1" BELOW SOIL LEVEL THAN ADD 2" MULCH.
5. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLARVIS BE INSTALLED ON EACH FITTING

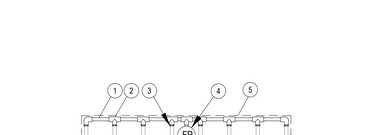
XFS Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (GPH)		Nominal Flow (GPH)		Nominal Flow (GPH)	
psi	0.6	0.9	0.6	0.9	0.6	0.9
15	205	194	307	273	448	343
20	291	220	408	313	514	394
30	350	266	494	378	622	478
40	396	302	560	428	705	541
50	434	333	614	470	775	594

1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL)
4. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFS FLUSH POINT" OR "XFS FLUSH POINT WITH BALL VALVE"
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
7. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
8. RAIN BIRD XF SERIES BLANK TUBING
9. BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFF-TEE OR RAIN BIRD XFD-CROSS (TYPICAL)
10. ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION PVC SUPPLY HEADER
11. PVC DRIP MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
12. PVC SCH 40 RISER PIPE
13.

4 XFS SUB-SURFACE DRIPLINE
END FEED LAYOUT INST. N.T.S.



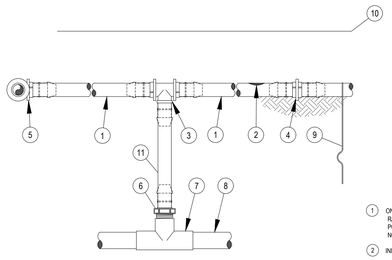


ALL VALVE BOXES SHALL HAVE FILTER FABRIC AND 4" OF GRAVEL AT BASE

3 REMOTE CONTROL VALVE
NOT TO SCALE

ALL VALVE BOXES SHALL BE RAINBIRD VB-STD OR APPROVED EQUAL
ALL VALVE BOXES SHALL HAVE FILTER FABRIC AND 4" OF GRAVEL AT BASE

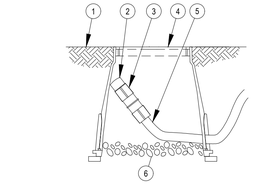
5 VALVE BOX (VB-STD)
NOT TO SCALE



NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. SAVE YOUR HANDS. USE THE RAIN BIRD FITTINS-TOOL XF INSERTION TOOL FOR FITTING ASSEMBLY.

1. ON SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
2. INLINE DRIP EMITTER OUTLET, SEE PLANS FOR DRIPLINE OUTLET SPACING.
3. BARB TEE 17x17x17mm RAIN BIRD XFF-TEE
4. BARB COUPLING 17x17mm RAIN BIRD XFF-COUP
5. BARB ELBOW 17x17mm RAIN BIRD XFF-ELBOW
6. BARB MALE ADAPTER 17mm X 1/2" RVT RAIN BIRD XFF-MA-050 17mm X 3/4" RVT RAIN BIRD XFF-MA-075
7. PVC TEE SxSxT
8. PVC LATERAL SUPPLY HEADER
9. TIE DOWN STAKE: RAIN BIRD TDS-050 WITH BEND (TYPICAL)
10. MULCH
11. RAIN BIRD XF SERIES BLANK TUBING LENGTH AS REQUIRED

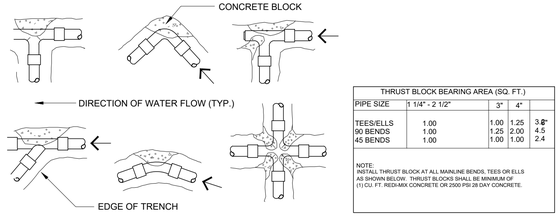
6 IRRIGATION SYSTEMS
SUB-HEADER INST. N.T.S.



1. FINISH GRADE
2. FLUSH CAP FOR EASY FIT CORVRESSION FITTINGS: POTABLE:RAIN BIRD MDCFCAP NON-POTABLE: RAIN BIRD MDCFPCAP
3. EASY FIT COUPLING: RAIN BIRD MDCFCOUP
4. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
5. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
6. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL WITH FILTER FABRIC AT BASE

NOTE:
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

1 DRIPLINE
NOT TO SCALE

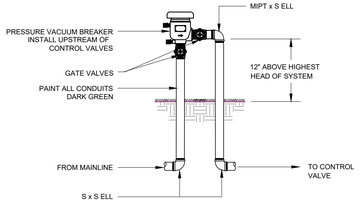


THRUST BLOCK BEARING AREA (SQ. FT.)

PIPE SIZE	1 1/4" - 2 1/2"	3"	4"	
TEES/ELLS	1.00	1.00	1.25	3.8"
90 BENDS	1.00	1.25	2.00	4.5
45 BENDS	1.00	1.00	1.00	2.4

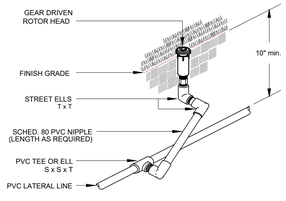
NOTE:
INSTALL THRUST BLOCK AT ALL MAINLINE BENDS, TEES OR ELLS AS SHOWN BELOW. THRUST BLOCKS SHALL BE MINIMUM OF (1) CU. FT. REDI-MIX CONCRETE OR 2500 PSI 28 DAY CONCRETE.

2 THRUST BLOCK DETAIL
NOT TO SCALE



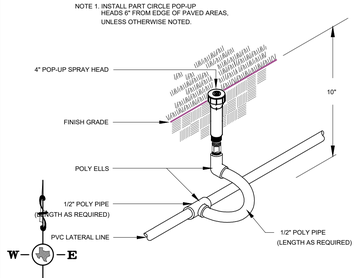
7 PRESSURE VACUUM BREAKER
NOT TO SCALE

NOTE: 1. KBI OR LASSCO SWING JOINT
2. INSTALL PART CIRCLE POP-UP HEADS 6" FROM EDGE OF PAVED AREAS.

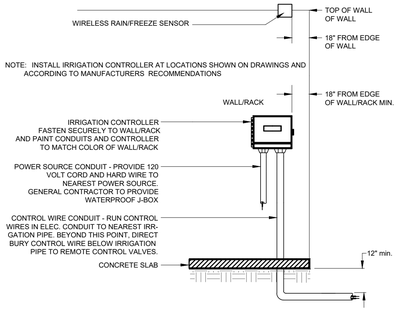


8 ROTOR POP-UP
NOT TO SCALE

NOTE 1. INSTALL PART CIRCLE POP-UP HEADS 6" FROM EDGE OF PAVED AREAS, UNLESS OTHERWISE NOTED.



9 LAWN POP-UP HEAD
NOT TO SCALE



NOTE: INSTALL IRRIGATION CONTROLLER AT LOCATIONS SHOWN ON DRAWINGS AND ACCORDING TO MANUFACTURERS RECOMMENDATIONS

10 WALL/RACK MOUNTED CONTROLLER
NOT TO SCALE

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NOTARY PUBLIC
STATE OF TEXAS
NOTARY ID 12961-8
COMMISSION EXPIRES
7/15/21

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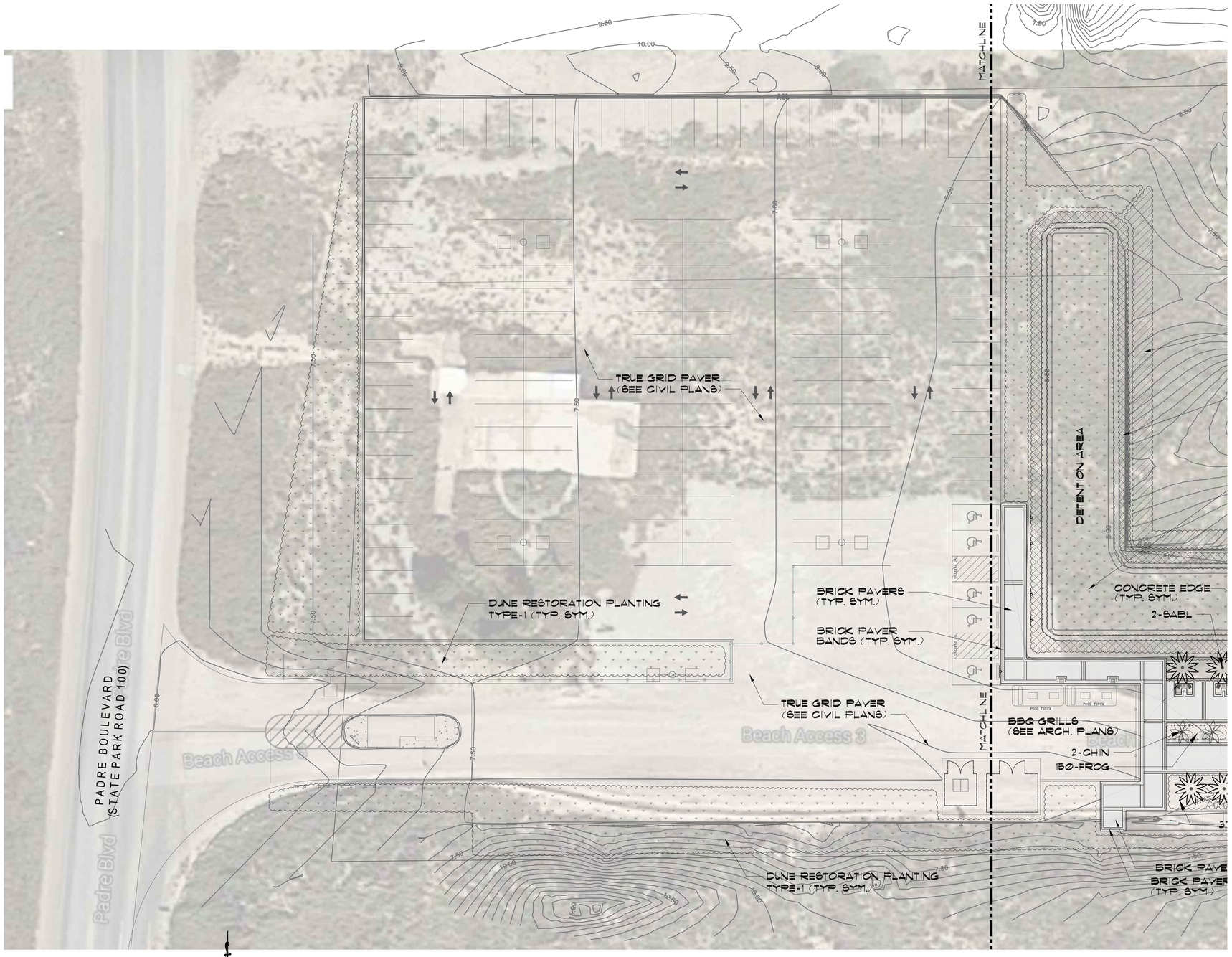
Date: July 15, 2021
Scale: As Noted
Proect Architect.s: Roan G. Gomez, AIA
Dran By:a PLM
Job No.
Sheet: L1.03

RFP No. 250501

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1 LANDSCAPE PLAN

SCALE: 1" = 20'-0"

N
W — E

NOTE:

THIS PROJECT INCLUDES DUNE RESTORATION PLANTING UTILIZING NATIVE DUNE SPECIES THAT MUST BE PRE ORDERED AND CONTRACT GROWN. DUNE RESTORATION PLANTING REQUIRES A DUNE RESTORATION SPECIALIST TO MEET STATE GUIDELINES AND APPROVALS. SUBMIT NAME/NUMBER OF DUNE SPECIALIST SUB CONTRACTOR TO SSP FOR APPROVAL
CONTACT : STEVE MERCER (910) 431-3814 OR APPROVED EQUAL

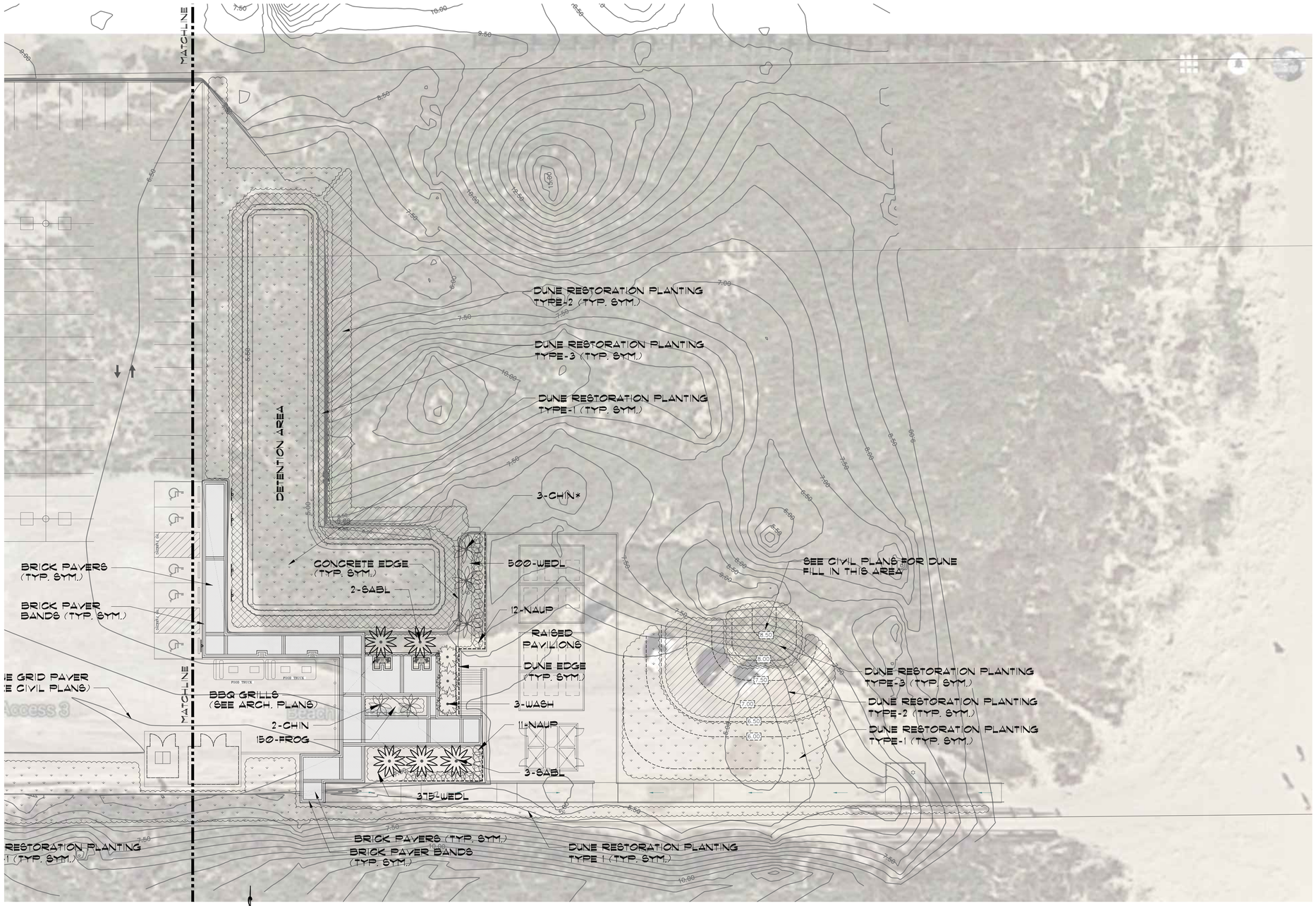
NOTES:
REFER TO CIVIL PLANS/SPECS FOR SAND FENCING, DUNE GRADING AND STABILIZATION.
CONTRACTOR TO INSTALL TEMPORARY IRRIGATION AND WATER/LEACH DUNES DAILY AT LEAST 14 DAYS PRIOR TO PLANTING.

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Date:	July 15, 2021
Scale:	As Noted
Project Architect:	Roan G. Gomez, AIA
Drawn By:	PLM
Job No.	
Sheet:	L2.01

RFP No. 250501



1 LANDSCAPE PLAN

SCALE: 1" = 20'-0"

W — E

NOTE:

THIS PROJECT INCLUDES DUNE RESTORATION PLANTING UTILIZING NATIVE DUNE SPECIES THAT MUST BE PRE ORDERED AND CONTRACT GROWN. DUNE RESTORATION PLANTING REQUIRES A DUNE RESTORATION SPECIALIST TO MEET STATE GUIDELINES AND APPROVALS. SUBMIT NAME/NUMBER OF DUNE SPECIALIST SUB CONTRACTOR TO SSP FOR APPROVAL
CONTACT : STEVE MERCER (910) 431-9814 OR APPROVED EQUAL

NOTES:
REFER TO CIVIL PLANS/SPECS FOR SAND FENCING, DUNE GRADING AND STABILIZATION.

CONTRACTOR TO INSTALL TEMPORARY IRRIGATION AND WATER/LEACH DUNES DAILY AT LEAST 14 DAYS PRIOR TO PLANTING.

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Drawn By:	PLM
Job No.	
Sheet:	L2.02

RFP No. 250501

LANDSCAPE CONSTRUCTION NOTES

1. WORK UNDER THIS CONTRACT INCLUDES SITE REVIEW AND COORDINATION WITH EXISTING CONDITIONS, SITE CLEANUP, EXCAVATION, BED PREP, TILLING, DUNE RESTORATION, PLANTING, STAKING, BRICK PAVERS, IRRIGATION, MAINTENANCE, AND GUARANTEE.
2. LANDSCAPE CONTRACTOR SHALL FIELD VERIFY ALL QUANTITIES AND DIMENSIONS PRIOR TO BIDDING. QUANTITIES SHOWN IN SCHEDULE ARE FOR CONVENIENCE ONLY.
3. NOTIFY SSP DESIGN PRIOR TO BID OF ANY DISCREPANCIES IN DRAWINGS/DETAILS OR INSUFFICIENT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
4. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. SPOTTING OF ALL UTILITIES IS REQUIRED.
5. NOTIFY AND MEET WITH SSP DESIGN PRIOR TO ANY CONSTRUCTION FOR VERIFICATION/INTERPRETATION OF PLANS.
6. LANDSCAPE CONTRACTOR SHALL VERIFY ALL PROPERTY BOUNDARIES AND LIMITS OF WORK WITH GENERAL CONTRACTOR/CIVIL ENGINEER. DO NOT BEGIN LANDSCAPE CONSTRUCTION UNTIL ALL BOUNDARIES, EASEMENTS AND RIGHTS-OF-WAY HAVE BEEN VERIFIED IN THE FIELD.
7. LANDSCAPE CONTRACTOR SHALL STAKE OUT ALL BEDS, TREES, PALM LOCATIONS PRIOR TO INSTALLATION FOR APPROVAL BY SSP DESIGN.
8. LANDSCAPE CONTRACTOR TO COORDINATE WITH SSP DESIGN TO ENSURE PROPER PLACEMENT OF PLANT MATERIAL AND IRRIGATION EQUIPMENT.
9. LANDSCAPE CONTRACTOR TO INSTALL EDGING AS SHOWN ON PLANS/DETAILS.
10. NOTIFY SSP DESIGN PRIOR TO PLANTING OPERATIONS FOR APPROVAL OF ALL PLANT MATERIAL ON SITE. ANY PLANT MATERIAL NOT APPROVED BY SSP DESIGN WILL BE SUBJECT TO REJECTION.
11. IRRIGATION CONTRACTOR SHALL SUPPLY AND INSTALL COMPLETE AUTOMATIC IRRIGATION SYSTEM INCLUDING WATER METER, BACKFLOW DEVICE, CONTROLLER, MAINLINE, SLEEVES, LATERALS, AND POP-UP HEADS, TO COVER ALL LANDSCAPE AREAS PER PLANS/DETAILS. IRRIGATION SYSTEM SHALL BE INSTALLED BY A TEXAS LICENSED IRRIGATOR ONLY.
12. LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS/WEEDS BY HERBICIDING PRIOR TO BED PREP AND SOIL REPLACEMENT.
13. LANDSCAPE CONTRACTOR SHALL REMOVE 12" OF EXST'G SOIL WITHIN ALL BED AREAS AND REPLACE WITH IMPORTED TOP SOIL/PREMIUM COMPOST MIX.
14. LANDSCAPE CONTRACTOR SHALL CONSTRUCT 6"X36" WATERING BASINS AROUND ALL TREES/PALMS WITH A MIN. 2" LAYER OF MULCH.
15. LANDSCAPE CONTRACTOR SHALL LOOSEN / GRADE ALL BED AREAS PRIOR TO PLANTING TO ENSURE PROPER DRAINAGE AND UNIFORM SURFACE.
16. LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS AND WEEDS BY HERBICIDING, DISKING, FLOATING AND LIGHT GRADING OF ENTIRE PROJECT AREA PRIOR TO PLANTING.
17. LANDSCAPE CONTRACTOR SHALL ESTABLISH AND MAINTAIN ALL PLANT MATERIAL FOR 90 DAYS AFTER 'SUBSTANTIAL COMPLETION' AND SHALL GUARANTEE ALL TREES/PALMS FOR A PERIOD OF ONE YEAR.
18. IRRIGATION CONTRACTOR SHALL GUARANTEE ALL SYSTEM COMPONENTS FOR A PERIOD OF ONE YEAR.
19. SEE SPECIFICATIONS FOR FURTHER INSTRUCTIONS/REQUIREMENTS.

PLANT SCHEDULE (SITE)

CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
	PALMS					
CHIN	LIVISTONA CHINENSIS	CHINESE FAN PALM	B/B	4-6' HEIGHT	AS.	2
CHIN*	LIVISTONA CHINENSIS	CHINESE FAN PALM	B/B	10-12' HEIGHT	AS.	3
SABL	SABAL TEXANA	TEXAS SABAL PALM	B/B	8-10' TRUNK	AS.	5
WASH	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	B/B	20-25'' TRUNK	AS.	3
	SHRUBS					
NAUP	SCAEVOLA FRUTESCENS	NAUPAKA	3 GAL	18"HT-BUSHY	AS.	23
	GROUND COVERING					
FROG	PHYLA STRIGILLOSA	SILKY LEAF FROG FRUIT	4" POTS		12" O.C.	150
WEDL	WEDELIA TRILOBATA	WEDELIA	4" POTS	12"HT-BUSHY	12" O.C.	875

PLANT SCHEDULE (DUNE RESTORATION)

CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
	DUNE PLANTS					
(TYPE 1) BITT	PANICUM AMARUM	BITTER PANICUM	2"	TRAYS/CUTTINGS	12" O.C.	17,000
(TYPE 2) OATS	UNIOLA PANICULATA	SEA OATS	2"	TRAYS/CUTTINGS	12" O.C.	2,425
(TYPE 3) RAIL	IPOMOEA PES-CAPRAE	RAILROAD VINE	2"	TRAYS/CUTTINGS	48" O.C.	400

NOTE:
THIS PROJECT INCLUDES DUNE RESTORATION. PLANTING UTILIZING NATIVE DUNE SPECIES THAT MUST BE FREE ORDERED AND CONTRACT GROUN. DUNE RESTORATION PLANTING REQUIRES DUNE RESTORATION SPECIALIST TO MEET STATE GUIDELINES AND APPROVALS. SUBMIT NAME/NUMBER OF DUNE SPECIALIST SUB CONTRACTOR TO SSP FOR APPROVAL
CONTACT : STEVE MERCER (910) 431-9814 OR APPROVED EQUAL

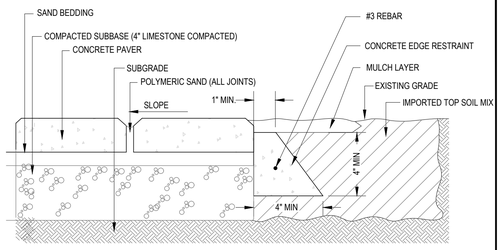
MATERIAL SCHEDULE

DESCRIPTION	NOTES	QUANTITY
PREMIUM COMPOST	2" LAYER PREMIUM COMPOST (EARTHWISE ORGANICS MIX) (NOT FOR DUNE AREA)	10 C.Y.
SCREENED TOP SOIL	8" FOR ALL PLANTING BEDS (NOT FOR DUNE AREA)	44 C.Y.
MULCH (HARDWOOD)	2" MIN. FOR ALL PLANTING BEDS AND WATERING BASINS (TEXAS NATIVES HARDWOOD)	165 BAGS (2 C.F.)
HERBICIDE	ALL PLANTING BED AREAS AS SPECIFIED	1,800 S.F.
FERTILIZER	ALL PLANT MATERIAL PER DETAILS	-
PLANTING TABLETS	PER DETAILS / AS SPECIFIED	-
PRE-EMERGENT	ALL PLANTING BED AREAS AS SPECIFIED	1,800 S.F.
DUNE EDGE	24" 'DEEP ROOT' ROOT BARRIER UB 24-2 TO RETAIN SAND AS PER PLANS/DETAILS	140 L.F.
CONCRETE EDGE	6 X 12" CONCRETE EDGE WITH RE-BAR AS PER PLANS/DETAILS	85 L.F.
GUYING / STAKING	ALL TREES/PALMS PER DETAILS	-
IRRIGATION SYSTEM	COMPLETE AUTOMATIC IRRIGATION SYSTEM BY LICENSED CONTR. PER PLAN/SPECS	-

NOTE: CONTRACTORS MUST REVIEW TECHNICAL SPECIFICATIONS FOR ADDITIONAL PRODUCT INFORMATION AND PROJECT REQUIREMENTS.

MATERIAL SCHEDULE HARDSCAPE

DESCRIPTION	NOTES	QUANTITY
BRICK PAVERS	4x8" 60 MM PAVESTONE 'HOLLANDSTONE' BRICK PAVERS (LIGHT BROWN/TAN)	2,075 S.F.
BRICK PAVER BAND	4x8" 60 MM PAVESTONE 'HOLLANDSTONE' BRICK PAVERS BAND (DARK BROWN)	930 S.F.

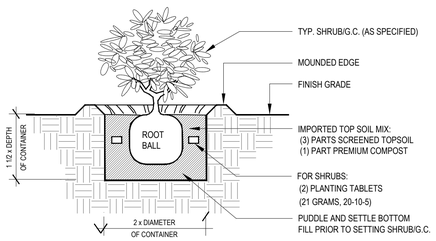


GENERAL SPECIFICATIONS

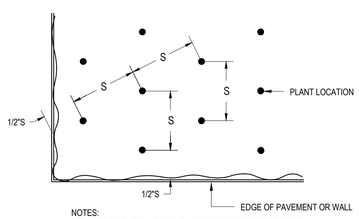
INSTALLATION
1. EXCAVATE UNSUITABLE, UNSTABLE OR UNCONSOLIDATED SUBGRADE MATERIAL AND COMPACT THE AREA WHICH HAS BEEN CLEARED. THEN BACKFILL AND LEVEL WITH DENSE GRADED AGGREGATE SUITABLE FOR SUBBASE MATERIAL (4" OF COMPACTED LIMESTONE)
2. PLACE BEDDING COURSE OF WASHED CONCRETE SAND CONFORMING TO THE GRADING REQUIREMENTS OF ASTM C33 TO A UNIFORM DEPTH OF 1" TO 1 1/2" (25-38MM) SCREEDED TO THE GRADE AND PROFILE REQUIRED.
3. INSTALL PAVERS WITH JOINTS APPROXIMATELY 1/8" (3MM). (PAVERS WITH SPACER RIBS AUTOMATICALLY PROVIDE MINIMUM JOINT WIDTH.)
4. WHERE REQUIRED, CUT PAVERS WITH AN APPROVED CUTTER TO FIT ACCURATELY, NEATLY AND WITHOUT DAMAGED EDGES.
5. TAMP PAVERS WITH A PLATE COMPACTOR, UNFORMILY LEVEL, TRUE TO GRADE AND FREE OF MOVEMENT.
6. FILL JOINTS WITH POLYMERIC SAND BINDER (SANDLOCK OR APPROVED EQUAL.)
7. SEAL ALL PAVERS WHEN THOROUGHLY DRY. USE TECHNISEAL 'NATURAL LOOK (N)', MATTE FINISH PENETRATING PAVER SEALER, PRODUCT CODE 60304120

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. CONFIRM COLOR AND SIZE WITH OWNER PRIOR TO INSTALLATION
4. CONTRACTOR TO PROVIDE 6'x6' MOCKUP OF PAVING TO INCLUDE FIELD PATTER, BORDER PATTERN COLORS AND EDGE RESTRAINT.

1 PAVING INSTALLATION DETAIL
NOT TO SCALE

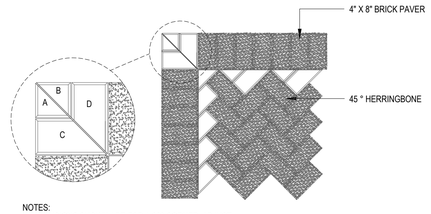


2 SHRUB/G.C. PLANTING DETAIL
NOT TO SCALE

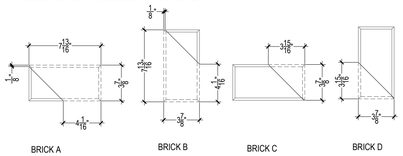


NOTES:
1. S = SPACING, (REFER PLANT LIST FOR AMOUNT OF SPACING.)
2. USE SPACING LAYOUT FOR SHRUBS, GROUNCOVERS AND ANNUALS.

3 TRIANGULAR PLANT SPACING DIAGRAM
NOT TO SCALE



NOTES:
1. DIMENSIONS SHOWN ARE FOR A 90° CORNER. ADJUST DIMENSIONS ACCORDINGLY FOR OTHER ANGLED CORNERS.
2. ALL MITER CUTS TO BE EVEN AND CONSISTENT.

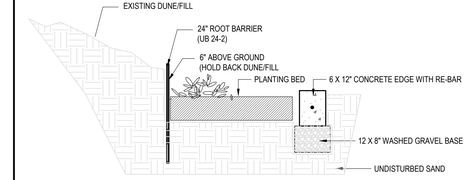


4 PAVER DETAIL - 90° MITER
NOT TO SCALE

5 PALM PLANTING DETAIL
NOT TO SCALE

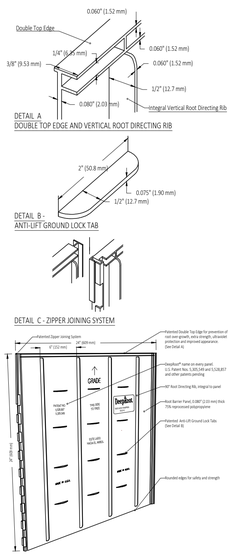
PAVING NOTES

1. CONTRACTOR SHALL REVIEW AND COORDINATE WITH EXISTING CONDITIONS. LOCATE AND PROTECT ALL UNDERGROUND UTILITIES, DRAINS, ELECTRICAL, ETC.
2. CONTRACTOR TO FOLLOW CIVIL ENGINEER'S GRADING/DRAINAGE PLANS. ENSURE PROPER DRAINAGE AWAY FROM ALL BUILDINGS TO DRAIN INLETS PER GRADING/DRAINAGE PLANS.
3. CONTRACTOR SHALL STAKE OUT ALL PAVING AREAS FOR SSP APPROVAL PRIOR TO STARTING ANY PAVING WORK.
4. CONTRACTOR SHALL STRIP/REMOVE EXISTING UNSUITABLE SOIL/SOD/GRASS IN AL PAVER AREAS.
5. CONTRACTOR SHALL SUPPLY/INSTALL SELECT FILL, SUB-BASE, MOISTURE CONDITION, AND COMPACT SUB GRADE TO 95% PROCTOR DENSITY.
6. CONTRACTOR SHALL SUPPLY/APPLY PRE-EMERGENT HERBICIDE TO SUB-BASE OF ALL PAVER AREAS. USE 'RONSTAR' PRE-EMERGENT HERBICIDE OR APPROVED EQUAL.
7. CONTRACTOR SHALL SUPPLY/INSTALL PAVERS AS INDICATED IN SCHEDULE
8. CONTRACTOR SHALL CUT/MITRE ALL RADII AND CORNERS USING MASONRY SAW AS DETAILED.
9. CONTRACTOR SHALL SUPPLY/INSTALL CONCRETE EDGE RESTRAINT AS DETAILED.
10. CONTRACTOR SHALL FILL/SWEEP AL JOINTS WITH MIXTURE OF JOINT SAND AND 'SANDLOCK' JOINT STABILIZER. MI. 3-4 LBS. OF 'SANDLOCK' PER 100 LBS OF JOINT SAND. SWEEP ADDITIONAL 'SANDLOCK' ONTO FINAL SURFACE AND INTO AL JOINTS THEN SATURATE WITH WATER TO ACTIVATE STABILIZER.
11. CONTRACTOR SHALL NOTIFY SSP BEFORE INSTALLATION FOR INSPECTIONS/APPROVALS OF AL WORK.
12. CONTRACTOR SHALL WARRANTY ALL MATERIALS AND LABOR FOR A PERIOD OF TWO YEARS. WARRANTY INCLUDED RE-SANDING IF REQUIRED, HERBICIDE TREATMENT AND REPAIR OF ALL SUBGRADE FAILURES IF REQUIRED.



6 DUNE/CONCRETE EDGE DETAIL
NOT TO SCALE

24" DeepRoot® Tree Root Barrier
UB 24-2 Specifications



7 DUNE EDGE DETAIL
NOT TO SCALE

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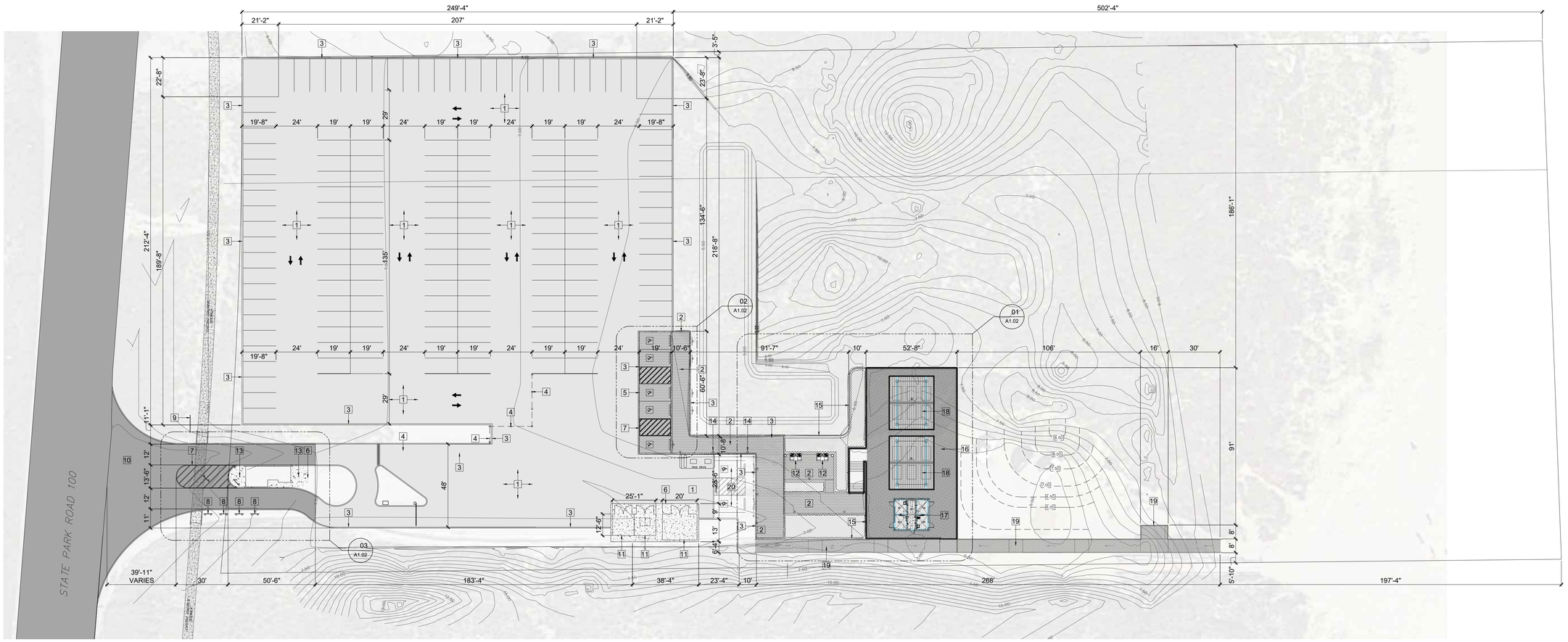
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Scale: As Noted
Project Architect: Roan G. Gomez, AIA
Drawn By: PLM
Job No.
Sheet: L3.01

RFP No. 250501



01 SITE PLAN

NORTH

SCALE : 1=30

NOTES:

GENERAL NOTES:

1. REFER TO CIVIL AND MECHANICAL DRAWINGS FOR ADDITIONAL WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. GENERAL CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO EXISTING ASPHALT DRIVE.

LEGEND

- INDICATES PERMEABLE SURFACING REF. CIVIL FOR ADDITIONAL INFORMATION
- INDICATES ASPHALT REF. CIVIL FOR ADDITIONAL INFORMATION

KEYED IMPROVEMENT NOTES:

1. TRU-GRID PERMEABLE PAVERING WITH INTEGRATED PARKING MARKERS AS SPEC. REF CIVIL
2. PERMEABLE BRICK PAVERS WITH PARKING MARKERS AS SPECIFIED
3. FLUSH CONCRETE CURB REF CIVIL.
4. 10"X10"BOLLARDS W/ HD GALV CHAIN
5. HANDICAP PARKING SPACES. REFER TO SHEET A1.02.
6. CONCRETE PAVING AS PER CIVIL & STRUCTURAL.
7. 4" WIDE PAINT STRIPING.REF CIVIL
8. COMPOSITE SLAT SIGN POSTS REF 09/A1.03
9. NEW PARK ENTRY SIGN REF 14/A1.03
10. ASPHALT PAVING. REFER TO CIVIL DRAWINGS
11. 6' HIGH HDG FENCE W/ PRIVACY SLATS PROVIDE LOCKING MECHANISM AND FOOT BOLTS FOR GATE REF 11/A1.03
12. BBQ PIT & CONCRETE COUNTER REF 08/A1.03
13. FLAG POLE PROVIDE FOR CONCRETE FOOTING REF 01/A1.03
14. 10"X10" CONCRETE BOLLARD W/ ELECTRICAL AS PER MEP REF 06/A1.03
15. CONCRETE EDGING REF LANDSCAPE DWGS
16. COMPOSITE PLATFORM REF STRUCTURAL DWGS
17. RESTROOM BUILDING. REFER TO SHEET A2.01
18. PICNIC SHELTER. REFER TO SHEET A2.01
19. EXISTING COMPOSITE DUNE WALK OVER TO REMAIN
20. EXISTING PERMEABLE BRICK PAVERS AND EDGING TO REMAIN
21. TIRE STOP REF. 15/A1.03

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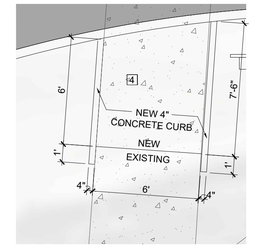
CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

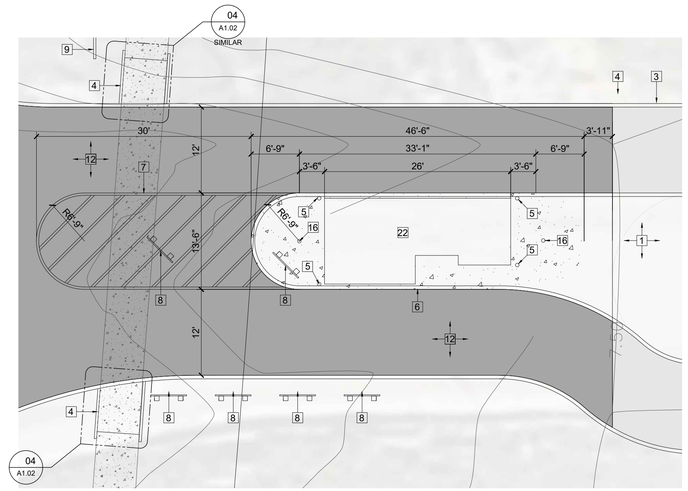
REGISTERED ARCHITECT
ROAN GABRIEL GOMEZ
23625
STATE OF TEXAS

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Architects-Planners
Interior Designers

Date:	April 2025
Scale:	As Noted
Proect Architect:A	Roan G. Gomez, AIA
Drawn By:	J. Alvarado
Job No.	Beach Access #3
Sheet:	A1.01

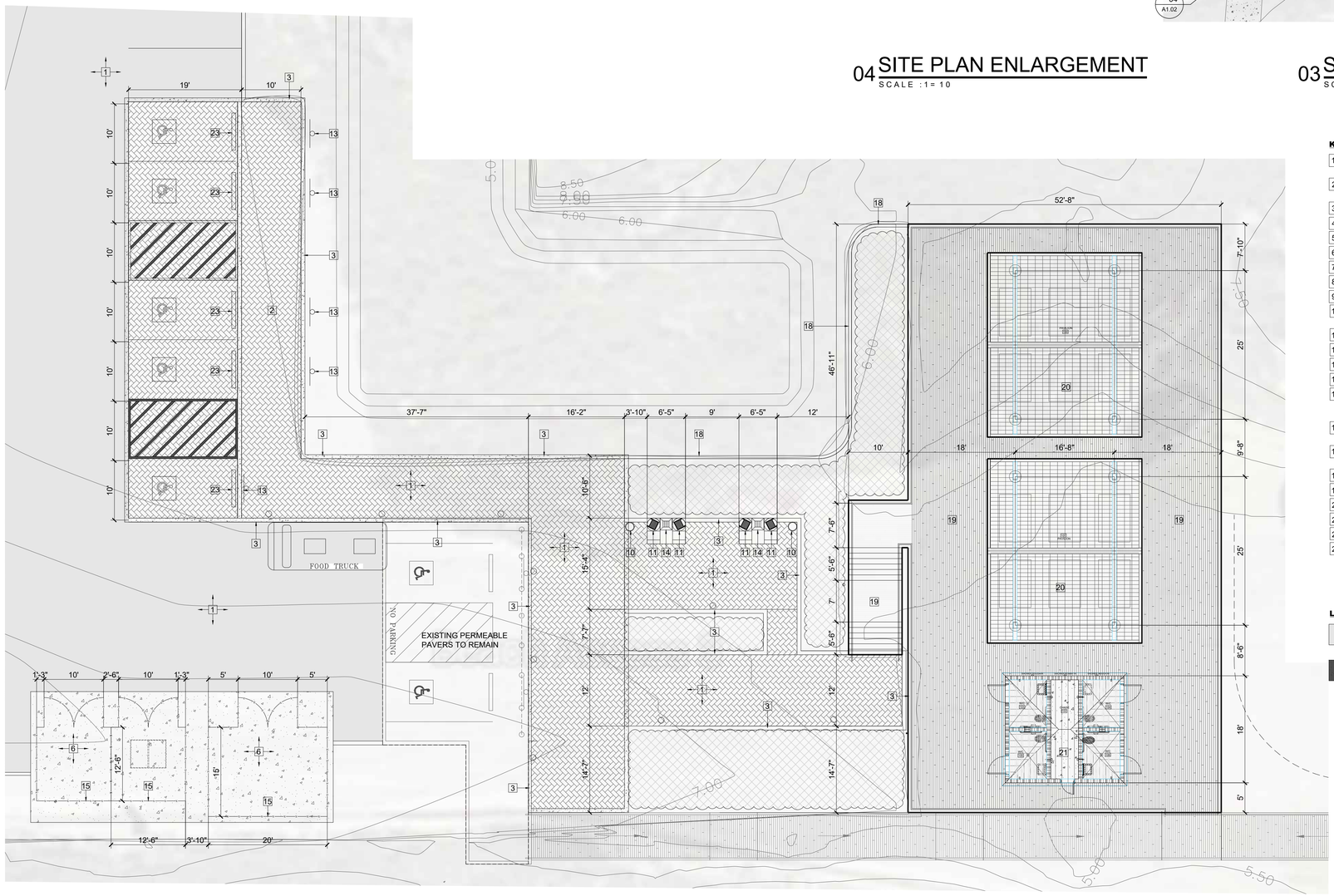
RFP No. 250501





04 SITE PLAN ENLARGEMENT
SCALE : 1= 10

03 SITE PLAN ENLARGEMENT
SCALE : 1= 10



KEYED IMPROVEMENT NOTES:

1. GEO-GRID PERMEABLE PAVERS WITH INTEGRATED PARKING MARKERS AS SPEC. REF CIVIL
2. PERMEABLE BRICK PAVERS WITH INTEGRATED MARKERS AS SPECIFIED.
3. FLUSH CONCRETE CURB REF CIVIL.
4. CONCRETE HANDICAP RAMP WITH CURBS
5. CONCRETE FILLED PIPE BOLLARD - PAINTED.
6. CONCRETE PAVING AS PER CIVIL & STRUCTURAL.
7. 4" WIDE PAINT STRIPING.REF CIVIL
8. COMPOSITE SLAT SIGN POSTS REF 09/A1.03
9. NEW PARK ENTRY SIGN REF 14/A1.03
10. PEDESTAL MOUNTED TRASH RECEPTACLE & DOME HATCH LID REF 12/A1.03
11. BBQ PIT & CONCRETE COUNTER REF 08/A1.03
12. ASPHALT PAVING REFER TO CIVIL DRAWINGS
13. HDG SIGN POST REF 10/A1.03
14. HOT COAL BIN PILOT ROCK REF 13/A1.03
15. 6' HIGH HDG FENCE W/ PRIVACY SLATS PROVIDE LOCKING MECHANISM AND FOOT BOLTS FOR GATE REF 11/A1.03
16. FLAG POLE PROVIDE FOR CONCRETE FOOTING REF 01/A1.03
17. 10"X10" CONCRETE BOLLARD W/ ELECTRICAL AS PER MEP REF 06/A1.03
18. CONCRETE EDGING REF LANDSCAPE DWGS
19. COMPOSITE PLANKS REF STRUCTURAL DWGS
20. PICNIC PAVILION REFER TO SHEET A2.01
21. TOILET BUILDING. REFER TO SHEET A2.01
22. TOLL BOOTH. REFER TO SHEET B2.01
23. TIRE STOP REF. 15/A1.03

LEGEND

INDICATES PERMEABLE SURFACING REF. CIVIL FOR ADDITIONAL INFORMATION

INDICATES ASPHALT REF. CIVIL FOR ADDITIONAL INFORMATION

PARTIAL
02 SITE PLAN ENLARGEMENT
SCALE : 1= 10

PARTIAL
01 SITE PLAN ENLARGEMENT
SCALE : 1= 10

No.	REVISIONS	BY

GMS ARCHITECTS
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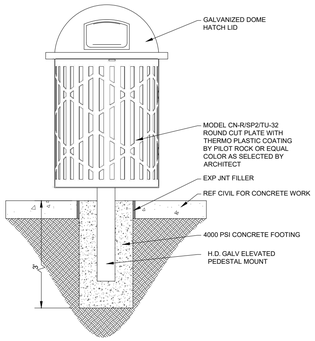
CAMERON COUNTY PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT ROAN GABRIEL GOMEZ 23605 STATE OF TEXAS

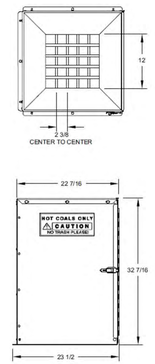
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Date: April 2025
Scale: As Noted
Proect Architect: Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: A1.02

RFP No. 250501

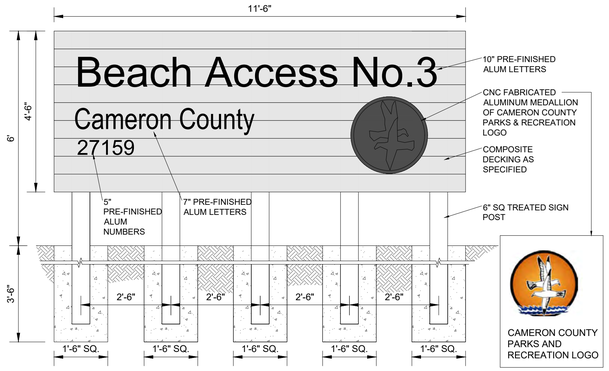


12 TRASH RECEPTACLE
SCALE :3/4 " = 1'=0"

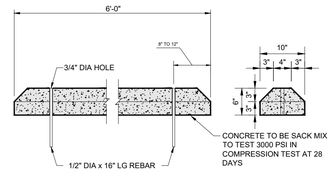


13 HOT COAL BIN
SCALE :NTS

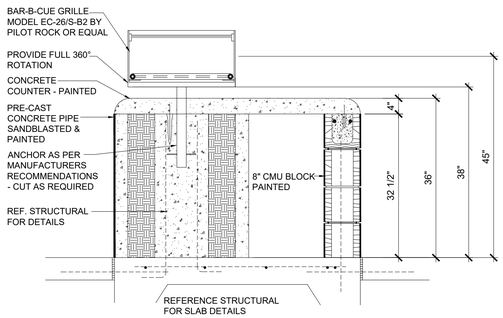
NOTE: MODEL HCB/B1 HOT COAL BIN DISPOSAL BY PILOT ROCK OR EQUAL INCLUDE GALVANIZED STEEL COLLECTION CAN 31 GALLON CAPACITY



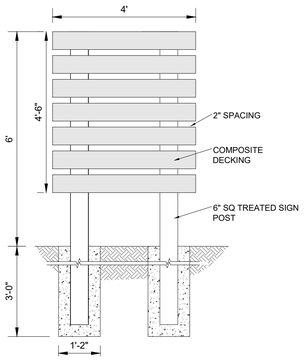
14 COMPOSITE DECK SIGN POST
SCALE :1/2 " = 1'=0"



15 CONCRETE TIRE STOP
SCALE: NTS

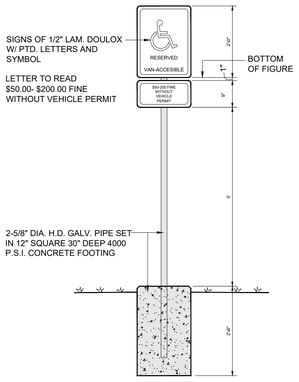


08 BBQ STATION DETAIL
SCALE :3/4 " = 1'=0"

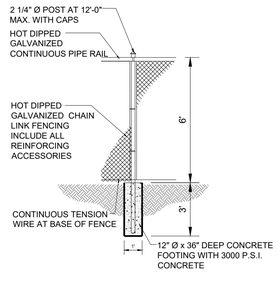


09 COMPOSITE SLAT SIGN POST
SCALE :1/2 " = 1'=0"

COORDINATE WITH OWNER FOR SIGNAGE TO BE POSTED ON SIGN POST

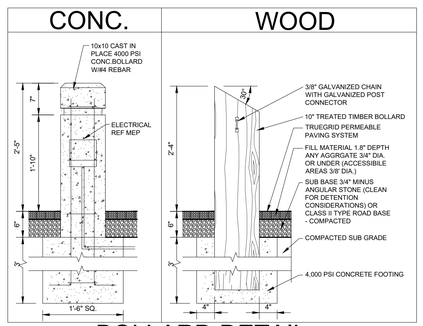


10 SIGN ANCHOR DETAIL
SCALE :1/2 " = 1'=0"

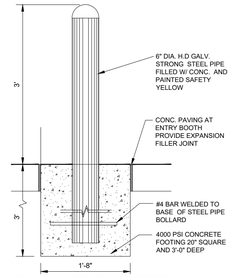


11 FENCE DETAIL
SCALE :1/2 " = 1'=0"

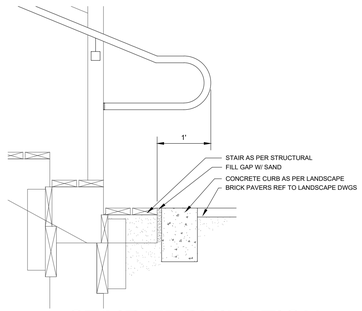
PROVIDE PRIVACY SLATS AT ALL FENCING



06 BOLLARD DETAIL
SCALE :3/4 " = 1'=0"



05 BOLLARD DETAIL
SCALE :3/4 " = 1'=0"



04 STAIR TERMINATION
SCALE :1" = 1'=0"

CameronCounty ★ Parks and Recreation

2025

Cameron County Beach Access #3

Gomez Mendez Saenz, Inc. — Architects
Ambiotec — Civil Engineers
GRA Engineering — Structural Engineers
Ethos Engineering — MEP Engineers
SSP Design — Landscaping
xxxxxxxxxxxxxxxx — General Contractor

COMMISSIONERS COURT

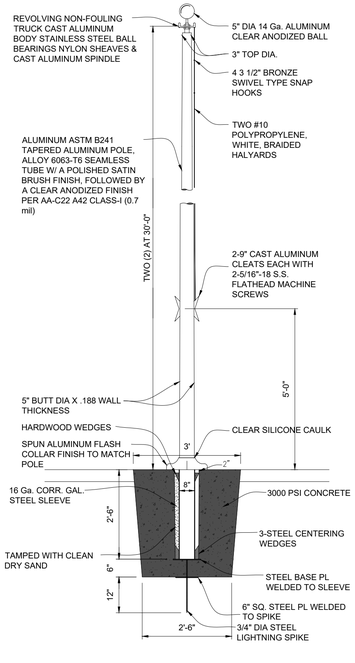
Eddie Treviño, Jr.
County Judge

Sofia C. Benavides — Commissioner Pct. 1
Joey Lopez — Commissioner Pct. 2
David A. Garza — Commissioner Pct. 3
Gus Ruiz — Commissioner Pct. 4

Cameron County Administration

David A. Garcia — County Administrator
Xavier E. Villarreal — Deputy County Administrator
Joe E. Vega — Parks Director
Jaime R. Lopez — Deputy Parks Director
Danny Villarreal — Construction Manager

02 PLAQUE LAYOUT
20" X 30" BRONZE PLAQUE TIMES NEW ROMAN FONT
PROVIDE PROOF PRIOR TO FABRICATION



01 FLAG POLE DETAIL
SCALE: 1/2" = 1'-0" REFER TO PLANS FOR LOCATIONS

No.	REVISIONS	BY

GMS ARCHITECTS
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Brownsville TX 78526
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fax (956) 546-0196

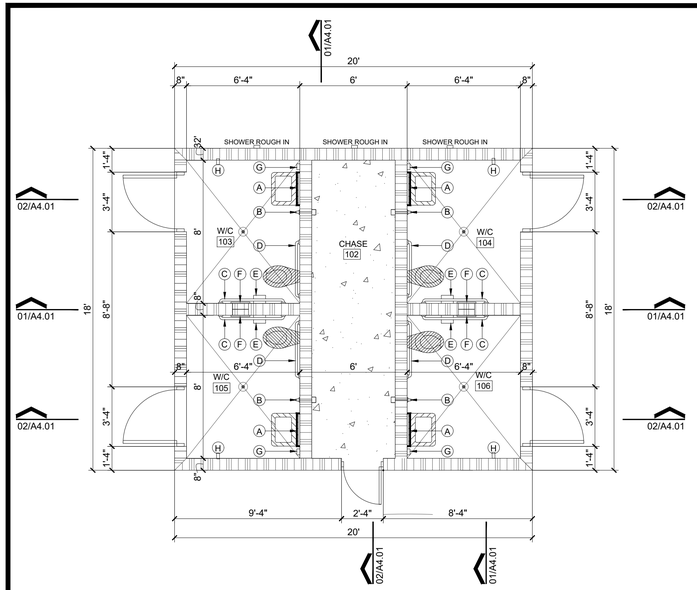
CAMERON COUNTY PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT ROAN GABRIEL SAENZ 23625 STATE OF TEXAS

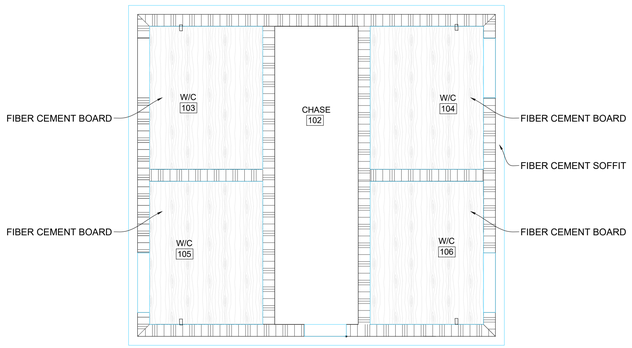
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Interior Designers

Date: April 2025
Scale: As Noted
Proect Architect: Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: A1.03

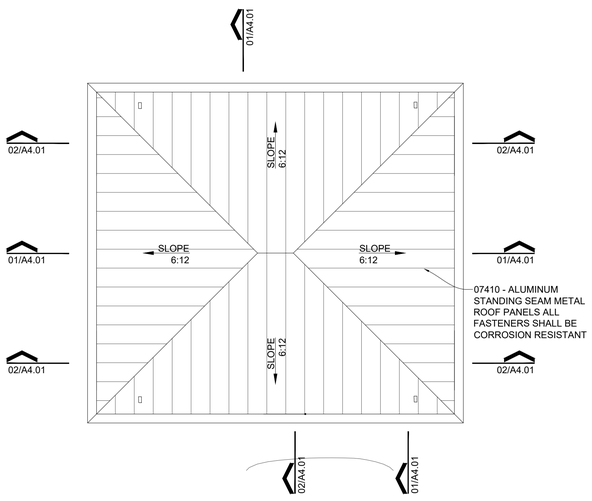
RFP No. 250501



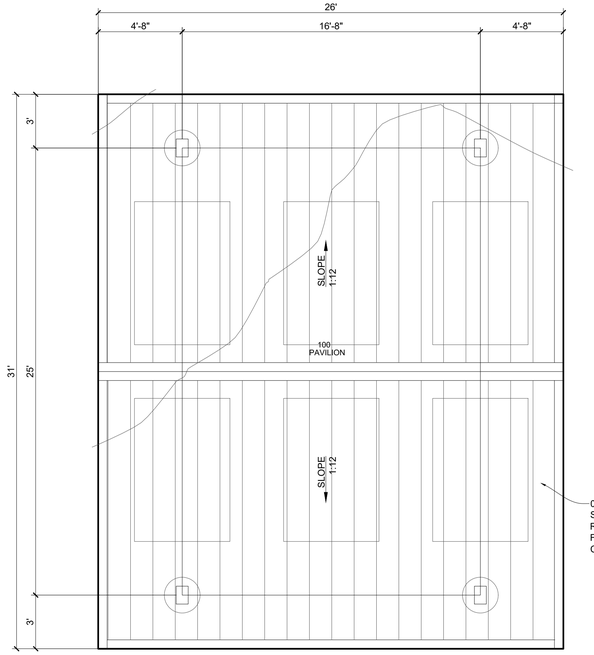
01 R.R. FLOOR PLAN
SCALE : 1/4" = 1'=0"



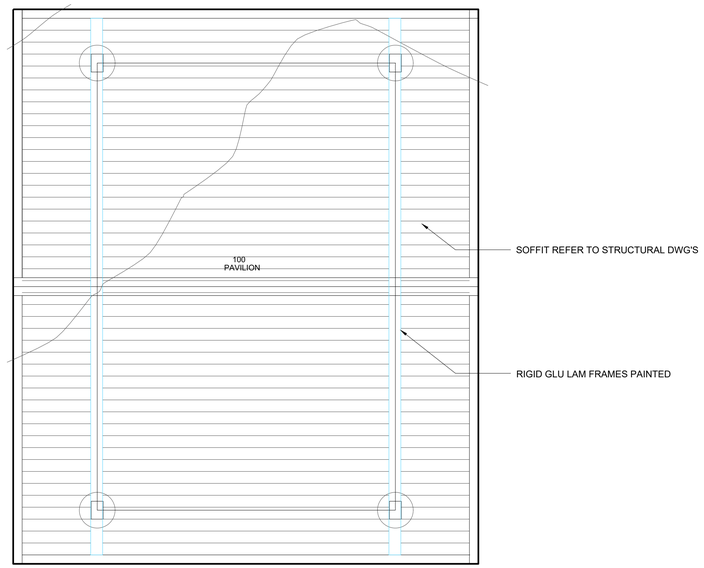
02 R.R REFLECTED CEILING PLAN
SCALE : 1/4" = 1'=0"



03 R.R. ROOF PLAN
SCALE : 1/4" = 1'=0"



04 TYPICAL PAVILION ROOF PLAN
SCALE : 1/4" = 1'=0"



05 TYPICAL PAVILION RCP PLAN
SCALE : 1/4" = 1'=0"

ALL WALLS TO BE PAINTED UNLESS NOTED OTHERWISE

ROOM FINISH SCHEDULE

THIS SCHEDULE BASED ON PLAN NORTH ORIENTATION

ROOM	ROOM NAME	BASE	FLR.	WALLS N	WALLS S	WALLS E	WALLS W	CLG.	CLG. HEIGHTS	REMARKS
100	PAVILION		DECK					FCMNT/PTD		
101	PAVILION		DECK					FCMNT/PTD		
102	CHASE		CONC	CMU/PTD	CMU/PTD	CMU/PTD	CMU/PTD	FCMNT/PTD		
103	WATER CLOSET	CT	CT	CT	CT	CT	CT	FCMNT/PTD		FULL HEIGHT WAINSCOT
104	WATER CLOSET	CT	CT	CT	CT	CT	CT	FCMNT/PTD		FULL HEIGHT WAINSCOT
105	WATER CLOSET	CT	CT	CT	CT	CT	CT	FCMNT/PTD		FULL HEIGHT WAINSCOT
106	WATER CLOSET	CT	CT	CT	CT	CT	CT	FCMNT/PTD		FULL HEIGHT WAINSCOT

FINISH LEGEND:

DECK	COMPOSITE DECKING REF STRUCTURAL
PTD	PAINTED
CMU/PTD	CONC. MASONRY UNIT PAINTED
C.T.	CERAMIC TILE
CONC.	CONC W/ BROOM FINISH
FCMNT	FIBER CEMENT BOARD

WALL TYPE LEGEND

INDICATES 8" CMU WALL

ACCESSORY LEGEND

No.	NAME
A	FRAMELESS MIRROR MOD # B-1556
B	HAND DRYER FASTAIRE MODEL HD04/118-4
C	42" LONG GRAB BAR MOD # B-6806 SERIES
D	36" LONG GRAB BAR MOD # B-6806 SERIES
E	TOILET TISSUE DISPENSER MOD # B-2890
F	RECESSED SANITARY NAPKIN DISPOSAL MOD # B-354
G	LIQUID SOAP DISPENSER WALL MOUNT MOD # B-2111
H	COAT HOOK WITH BUMPER B-212

NOTE:
1. ALL FASTENERS TO BE STAINLESS STEEL
2. PROVIDE SILICONE SEALANT AT TOP AND SIDES OF ALL WALL MOUNTED FIXTURES

No.	REVISIONS	BY

GMS ARCHITECTS
1150 Paredes Line Rd.
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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT ROAN GABRIEL GOMEZ 23625 STATE OF TEXAS

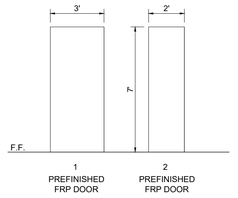
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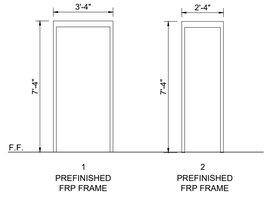
DOOR SCHEDULE

DOOR NO.	DOOR MATL.	DOOR W	DOOR H	DOOR T	FRAME MATL.	FRAME W	FRAME H	FRAME T	HDWR	DETAIL JAMB	DETAIL HEAD	DETAIL SILL	REMARKS
1	FRP	3'-0"	7'-0"	1 3/4"	HM	3'-4"	7'-4"			02/A3.01	01/A3.01	03/A3.01	
2	FRP	2'-0"	7'-0"	1 3/4"	HM	2'-4"	7'-4"			02/A3.01	01/A3.01	03A3.01	



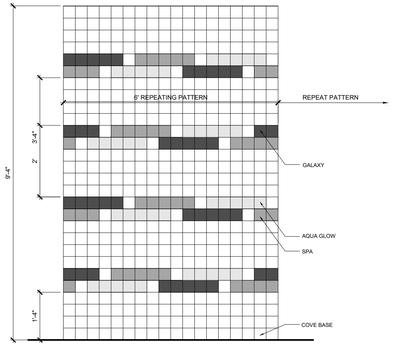
DOOR ELEVATIONS

SCALE 1/4" = 1'-0"



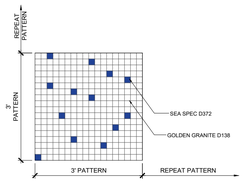
DOOR FRAME ELEVATIONS

SCALE 1/4" = 1'-0"



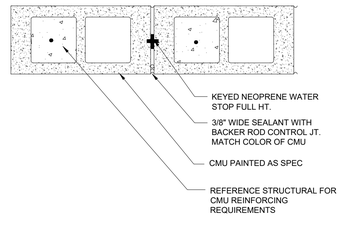
09 CT WALL TILE PATTERN

SCALE : 1/2" = 1'=0"



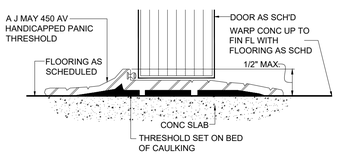
10 CT FLOOR TILE PATTERN

SCALE : 1/2" = 1'=0"



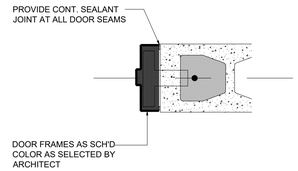
04 TYP CTRL JNT

SCALE : 1-1/2" = 1'=0"



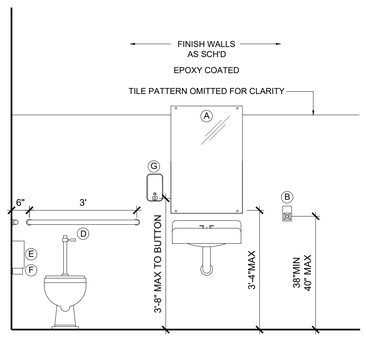
03 THRESHOLD DETAIL

SCALE : 1-1/2" = 1'=0"



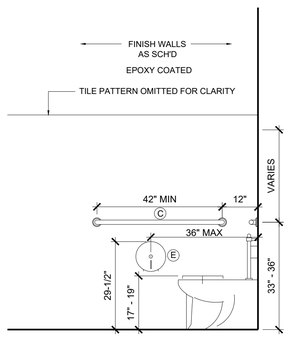
02 DOOR JAMB DETAIL

SCALE : 1-1/2" = 1'=0"



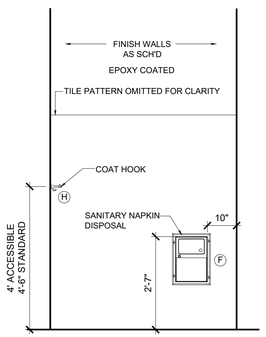
07 LAV /TOILET ELEVATION

SCALE : 1/2" = 1'=0"



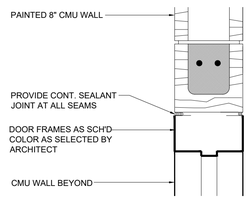
06 TOILET ELEVATION

SCALE : 1/2" = 1'=0"



05 NAPKIN ELEVATION

SCALE : 1/2" = 1'=0"



01 DOOR HEAD DETAIL

SCALE : 1-1/2" = 1'=0"

No.	REVISIONS	BY

GMS ARCHITECTS

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fax (956) 546-0196

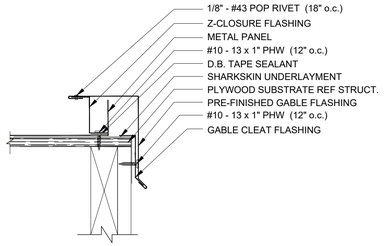
CAMERON COUNTY PHASE II - BEACH ACCESS 3 IMPROVEMENTS

ROAN GABRIEL GOMEZ 23625 REGISTERED ARCHITECT STATE OF TEXAS

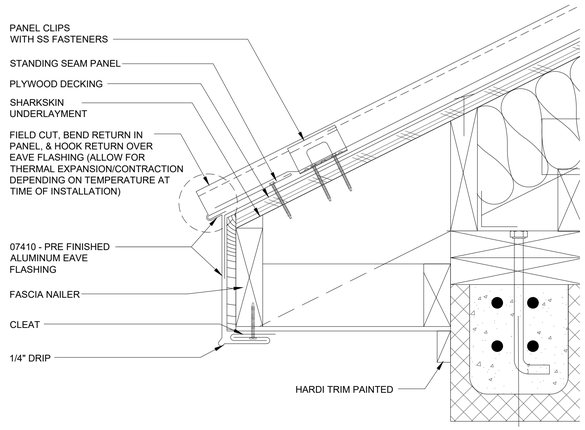
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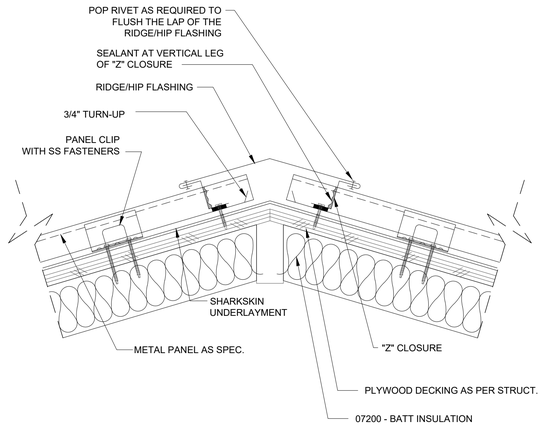
RFP No. 250501



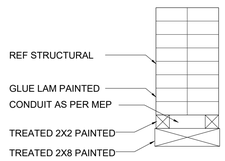
06 WALL SECTION
SCALE :3" = 1'=0"



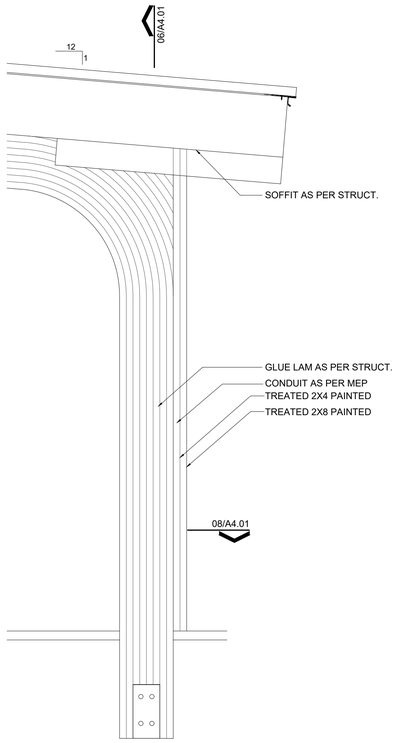
05 WALL SECTION
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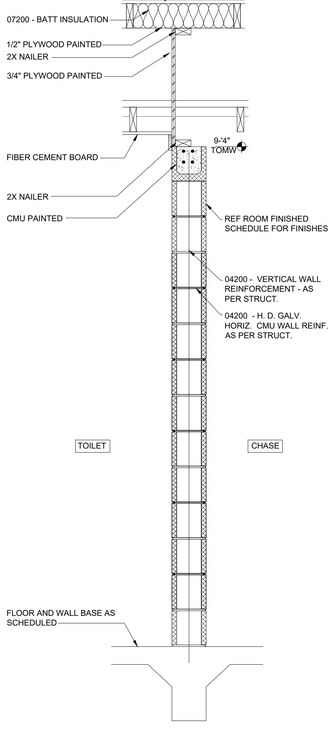
04 WALL SECTION
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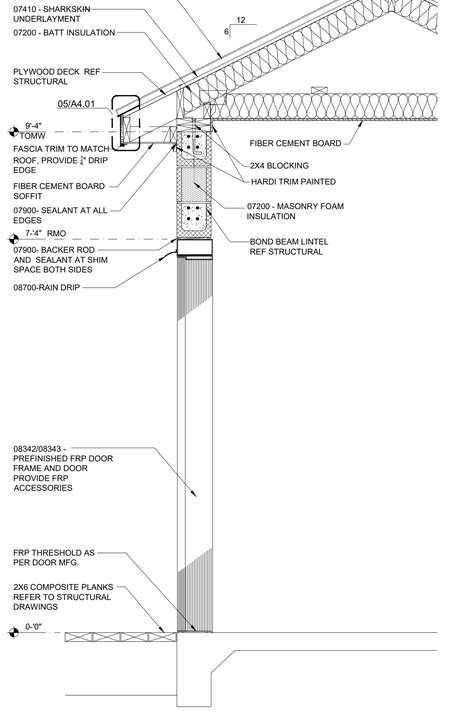
08 PLAN DETAIL
SCALE :1/4" = 1'=0"



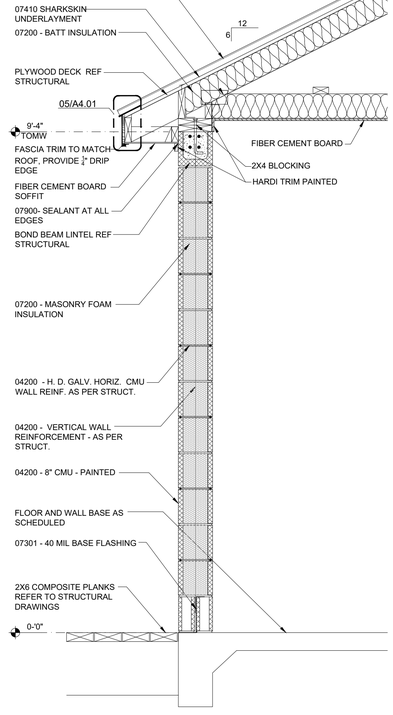
07 SECTION DETAIL
SCALE :3/4" = 1'=0"



03 WALL SECTION
SCALE :3/4" = 1'=0"



02 WALL SECTION
SCALE :3/4" = 1'=0"



01 WALL SECTION
SCALE :3/4" = 1'=0"

No.	REVISIONS	BY

GMS ARCHITECTS
1150 Paredes Line Rd.
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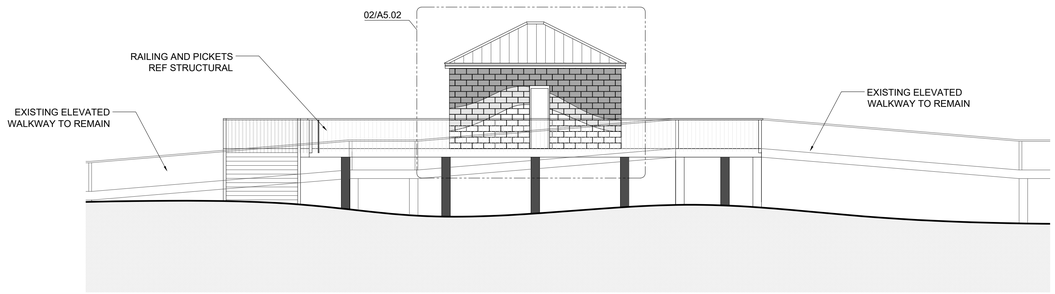
CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT
BRIAN GABRIEL GOMEZ
23612
STATE OF TEXAS

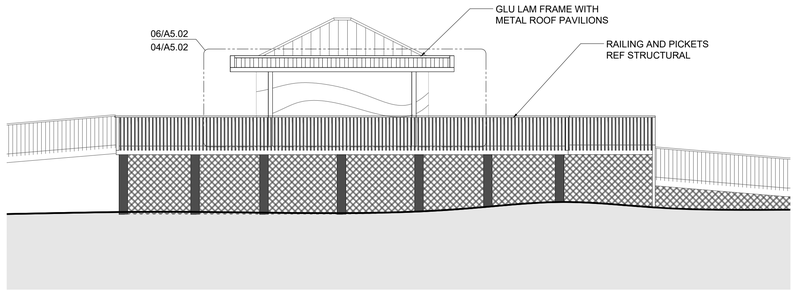
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Architects-Planners
Interior Designers

Date: April 2025
Scale: As Noted
Proect Architect:a Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: A4.01

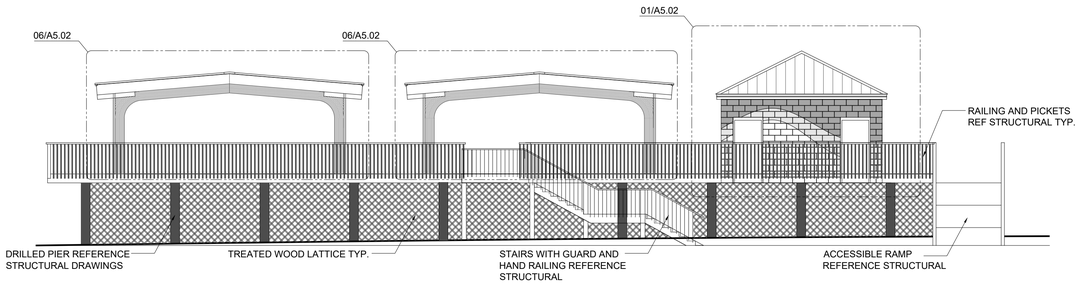
RFP No. 250501



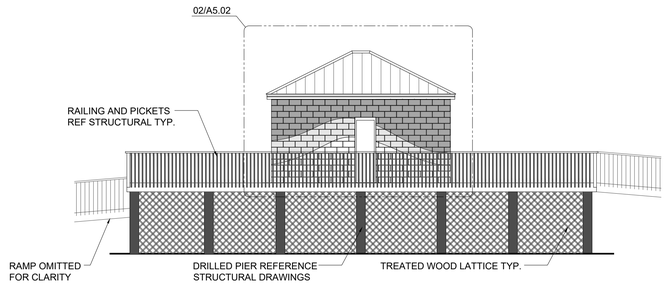
01 OVERALL SOUTH ELEVATION
SCALE : NOT TO SCALE



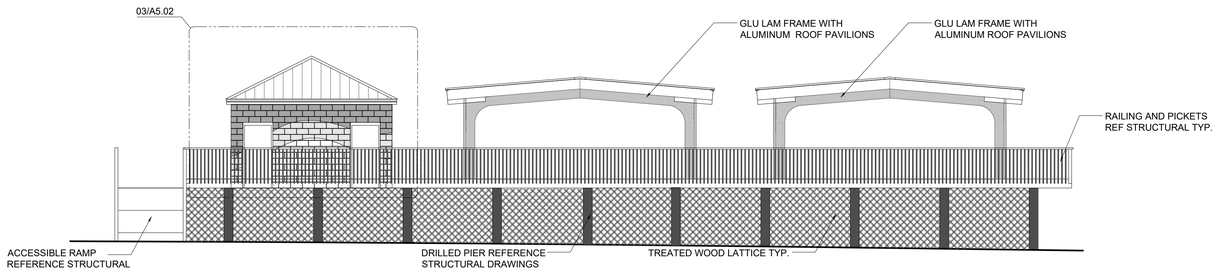
02 OVERALL NORTH ELEVATION
SCALE : NOT TO SCALE



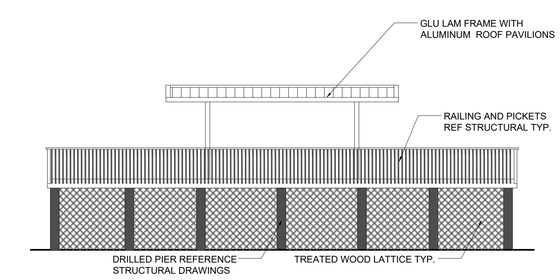
03 WEST ELEVATION
SCALE : 1/8" = 1'=0"



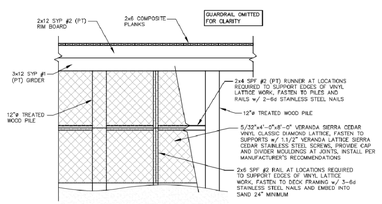
04 SOUTH ELEVATION
SCALE : 1/8" = 1'=0"



05 EAST ELEVATION
SCALE : 1/8" = 1'=0"



06 NORTH ELEVATION
SCALE : 1/8" = 1'=0"



07 LATTICE DETAIL
NOT TO SCALE

No.	REVISIONS	BY

GMS ARCHITECTS

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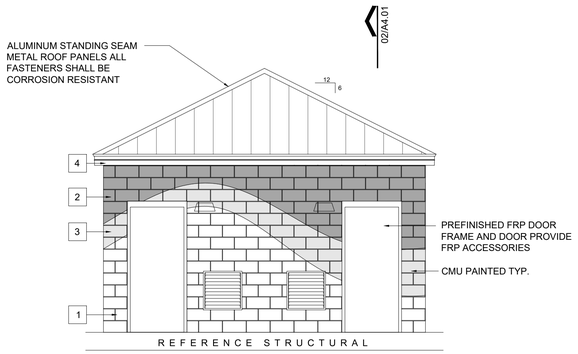
CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT
ROAN GABRIEL GOMEZ
23625
STATE OF TEXAS

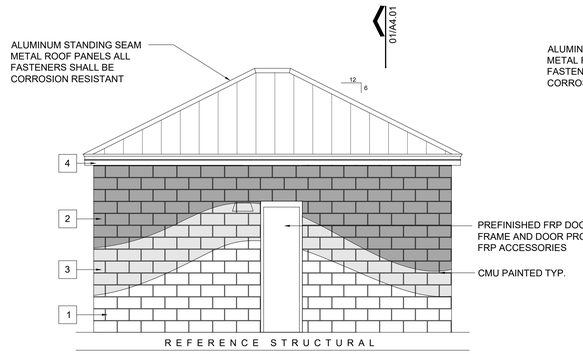
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Architects-Planners
Interior Designers

Date:	April 2025
Scale:	As Noted
Proect Architect:	Roan G. Gomez, AIA
Drawn By:	J. Alvarado
Job No.	Beach Access #3
Sheet:	A5.01

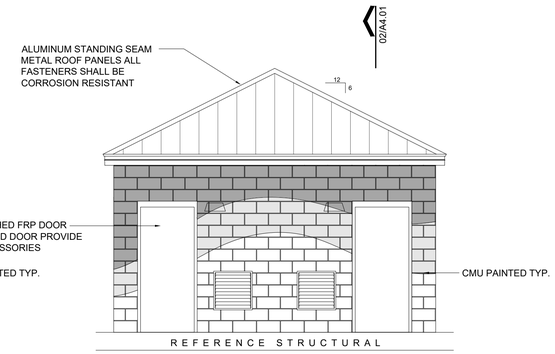
RFP No. 250501



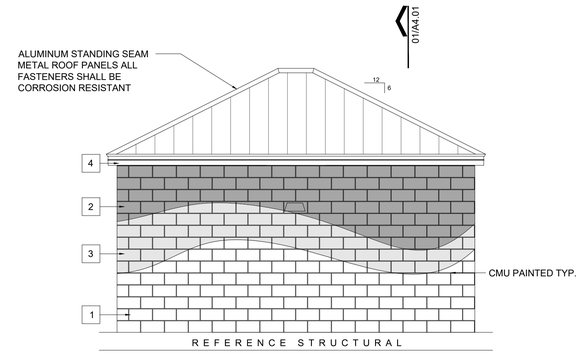
01 WEST ELEVATION
SCALE :1/4" = 1'=0"



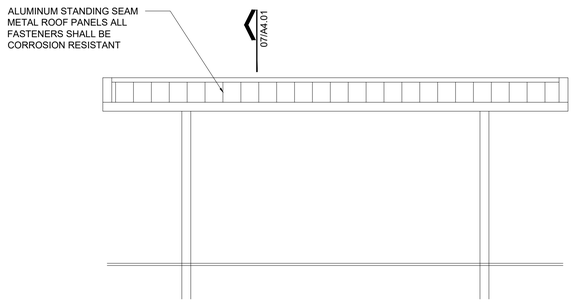
02 SOUTH ELEVATION
SCALE :1/8" = 1'=0"



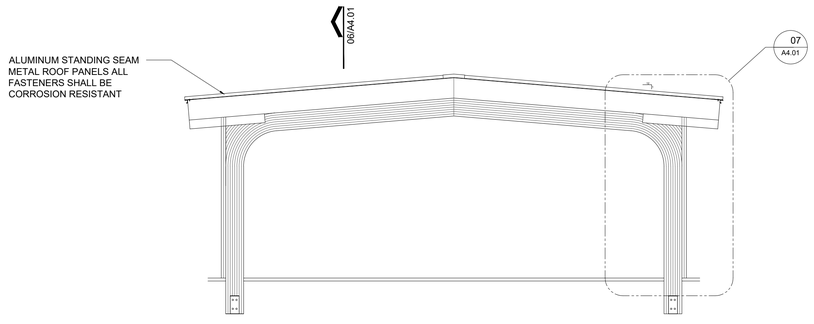
03 EAST ELEVATION
SCALE :1/8" = 1'=0"



04 NORTH ELEVATION
SCALE :1/8" = 1'=0"



05 NORTH/SOUTH ELEVATION
SCALE :1/4" = 1'=0"



06 EAST/WEST ELEVATION
SCALE :1/4" = 1'=0"

PAINT LEGEND	
1	NAPPERY SW 6386
2	BLUEBLOOD SW6966
3	CALYPSO SW6950
4	RHINESTONE SW7656

NOTE:

- CEILINGS & EXPOSED WOOD TRUSSES TO BE PAINTED NAPPERY
- ALL INTERIOR WALLS TO BE PAINTED NAPPERY
- FASCIA TO BE PAINTED RHINESTONE
- SOFFIT TO BE PAINTED RHINESTONE

No.	REVISIONS	BY

GMS ARCHITECTS
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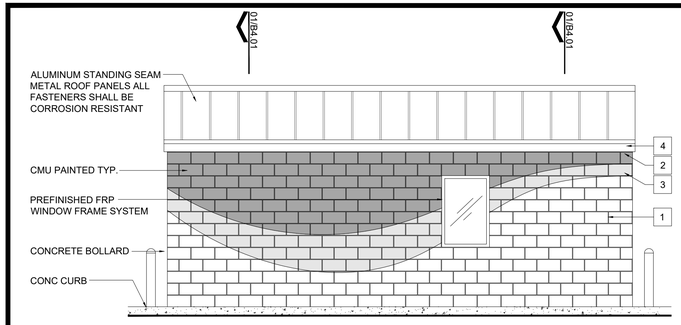
CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS



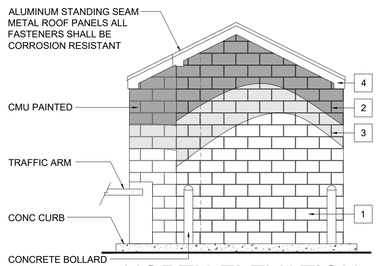
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Date: April 2025
Scale: As Noted
Proect Architect:+ Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: A5.02

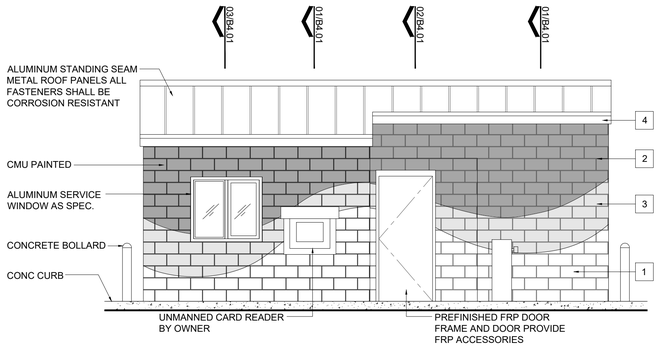
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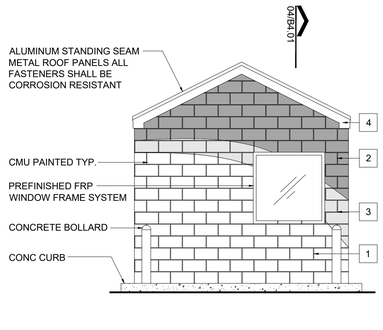
12 EAST ELEVATION
SCALE : 1/4" = 1'=0"



11 NORTH ELEVATION
SCALE : 1/4" = 1'=0"



10 WEST ELEVATION
SCALE : 1/4" = 1'=0"



09 SOUTH ELEVATION
SCALE : 1/4" = 1'=0"

PAINT LEGEND

1	NAPPERY SW 6386
2	BLUEBLOOD SW6966
3	CALYPSO SW6950
4	RHINESTONE SW7656

NOTE:

- CEILINGS & EXPOSED WOOD TRUSSES TO BE PAINTED NAPPERY
- ALL INTERIOR WALLS TO BE PAINTED NAPPERY
- FASCIA TO BE PAINTED RHINESTONE
- SOFFIT TO BE PAINTED RHINESTONE

FINISH LEGEND:

PTD	PAINTED
CMU/PTD	CONC. MASONRY UNIT PAINTED
EPOXY	EPOXY
CONC.	CONC W/ BROOM FINISH
FCMNT	FIBER CEMENT BOARD

ALL WALLS TO BE PAINTED UNLESS NOTED OTHERWISE

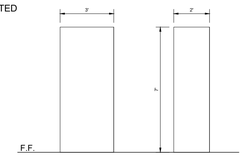
ROOM FINISH SCHEDULE

THIS SCHEDULE BASED ON PLAN NORTH ORIENTATION

ROOM	ROOM NAME	BASE	FLR.	WALLS N	WALLS S	WALLS E	WALLS W	CLG.	CLG. HEIGHTS	REMARKS
B100	ENTRY		CONC.	CMU/PTD	CMU/PTD	CMU/PTD	CMU/PTD	FCMNT/PTD	8'-0"	
B101	TOLL BOOTH	RUBBER	EPOXY	CMU/PTD	CMU/PTD	CMU/PTD	CMU/PTD	FCMNT/PTD	8'-10"	EPOXY W/ AGGREGATE
B102	EQUIPMENT ROOM	RUBBER	EPOXY	CMU/PTD	CMU/PTD	CMU/PTD	CMU/PTD	FCMNT/PTD	8'-10"	EPOXY W/ AGGREGATE
B103	TOILET	CT	CT	CMU/PTD	CMU/PTD	CMU/PTD	CMU/PTD	FCMNT/PTD	8'-10"	6'-0" CT WAINSCOT

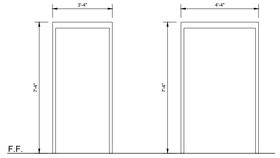
DOOR SCHEDULE

DOOR NO.	DOOR MATL.	DOOR W	DOOR H	DOOR T	FRAME MATL.	FRAME W	FRAME H	FRAME T	HDWR	DETAIL JAMB	DETAIL HEAD	DETAIL SILL	REMARKS
1	FRP	3'-0"	7'-0"	1 3/4"	HM	3'-4"	7'-4"			02/A3.01	01/A3.01	05/A3.02	
2	FRP	3'-0"	7'-0"	1 3/4"	HM	3'-4"	7'-4"			02/A3.01	01/A3.01	05/A3.02	
3	FRP	2'-0"	7'-0"	1 3/4"	HM	4'-4"	7'-4"			02/A3.01	01/A3.01	05/A3.02	



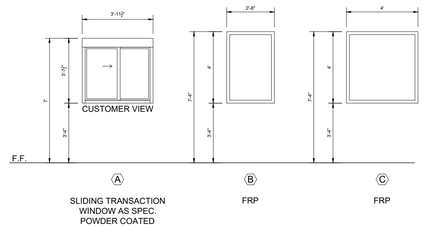
DOOR ELEVATIONS

SCALE 1/4" = 1'-0"



DOOR FRAME ELEVATIONS

SCALE 1/4" = 1'-0"



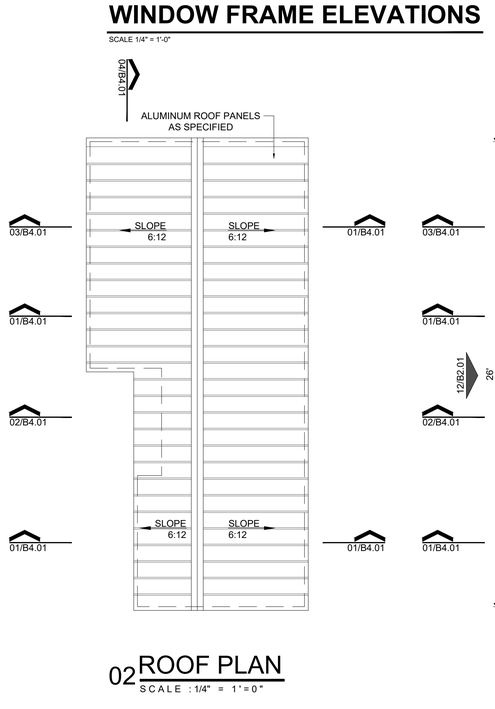
WINDOW FRAME ELEVATIONS

SCALE 1/4" = 1'-0"

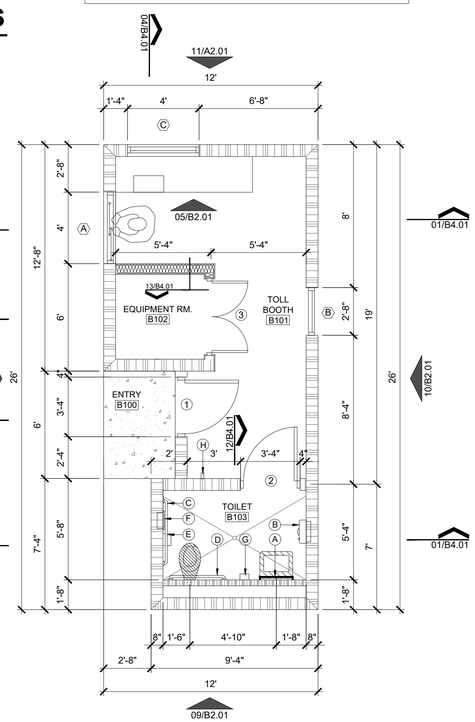
ACCESSORY LEGEND

No.	NAME
Ⓐ	SS CHANNEL FRAME MIRROR MOD # B-165-1836
Ⓑ	HAND DRYER REFERENCE MEP
Ⓒ	42" LONG GRAB BAR MOD # B-6806 SERIES
Ⓓ	36" LONG GRAB BAR MOD # B-6806 SERIES
Ⓔ	TOILET TISSUE DISPENSER MOD # B-2890
Ⓕ	RECESSED SANITARY NAPKIN DISPOSAL MOD # B-354
Ⓖ	LIQUID SOAP DISPENSER WALL MOUNT MOD # B-2111
Ⓗ	COAT HOOK WITH BUMPER B-212

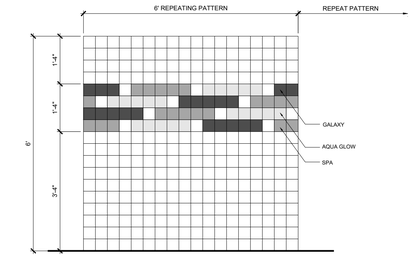
NOTE:
1. ALL FASTENERS TO BE STAINLESS STEEL
2. PROVIDE SILICONE SEALANT AT TOP AND SIDES OF ALL WALL MOUNTED FIXTURES



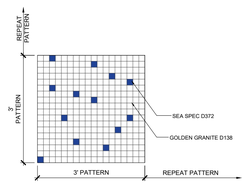
02 ROOF PLAN
SCALE : 1/4" = 1'=0"



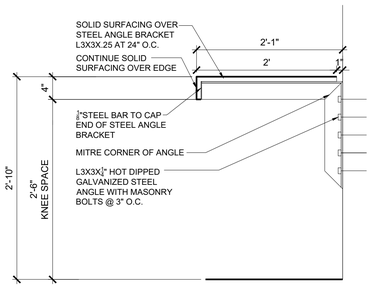
01 FLOOR PLAN
SCALE : 1/4" = 1'=0"



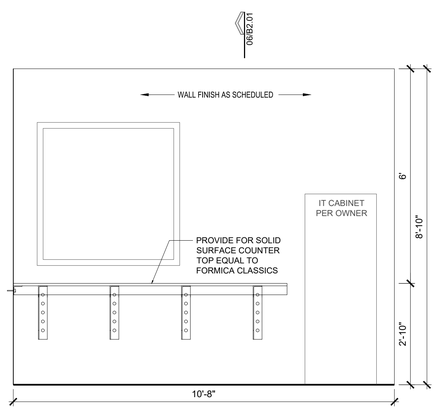
08 CT WALL TILE PATTERN
SCALE : 1/2" = 1'=0"



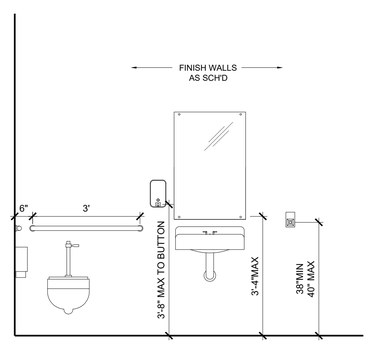
07 CT FLOOR TILE PATTERN
SCALE : 1/2" = 1'=0"



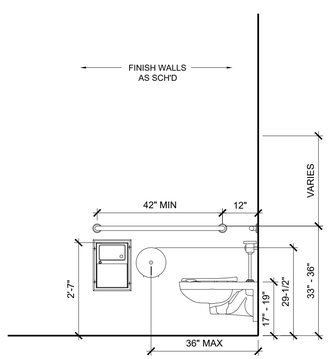
06 COUNTER SECTION
SCALE : 1" = 1'=0"



05 COUNTER ELEVATION
SCALE : 1/2" = 1'=0"



04 LAV /TOILET ELEVATION
SCALE : 1/2" = 1'=0"



03 TOILET ELEVATION
SCALE : 1/2" = 1'=0"

No.	REVISIONS	BY

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
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fax (956) 546-0196

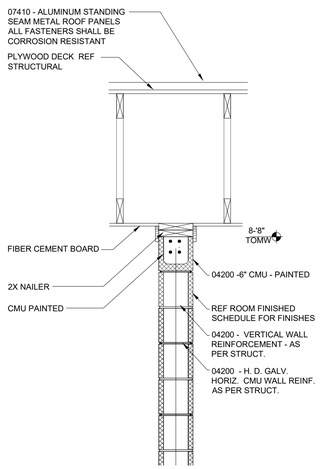
CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT ROAN GABRIEL GOMEZ 23629 STATE OF TEXAS

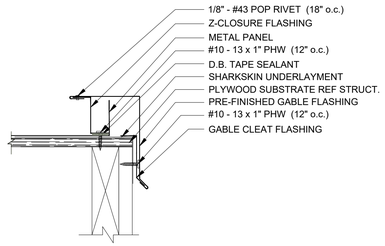
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Interior Designers

Date:	April 2025
Scale:	As Noted
Proect Architect:	Roan G. Gomez, AIA
Drawn By:	J. Alvarado
Job No.	Beach Access #3
Sheet:	B2.01

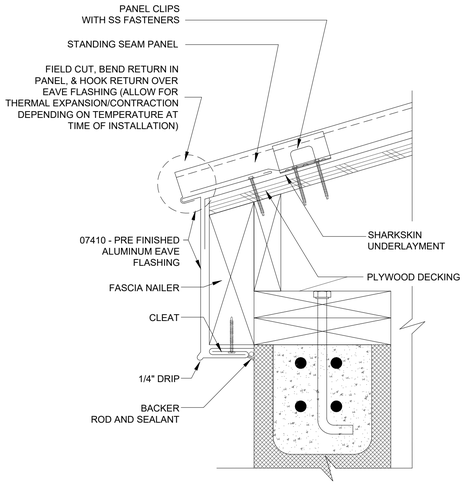
RFP No. 250501



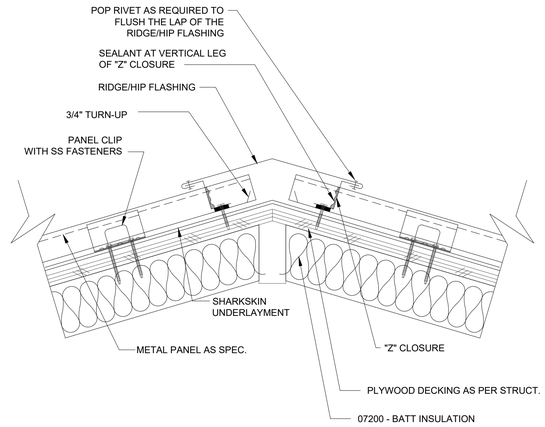
12 SECTION DETAIL
SCALE : 3/4" = 1'=0"



07 SECTION DETAIL
SCALE : 3" = 1'=0"

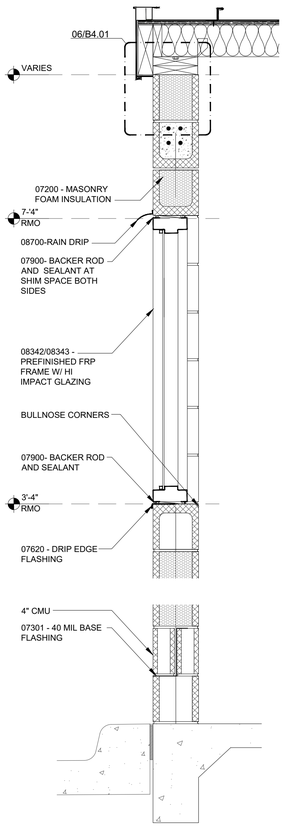


06 SECTION DETAIL
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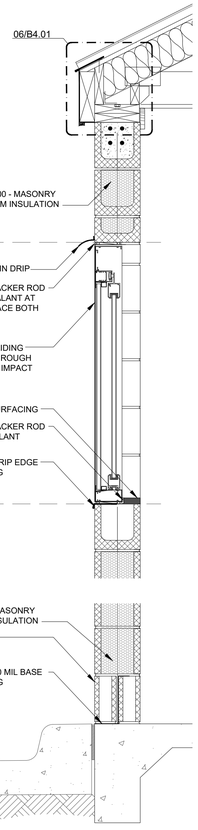


05 RIDGE CAP DETAIL
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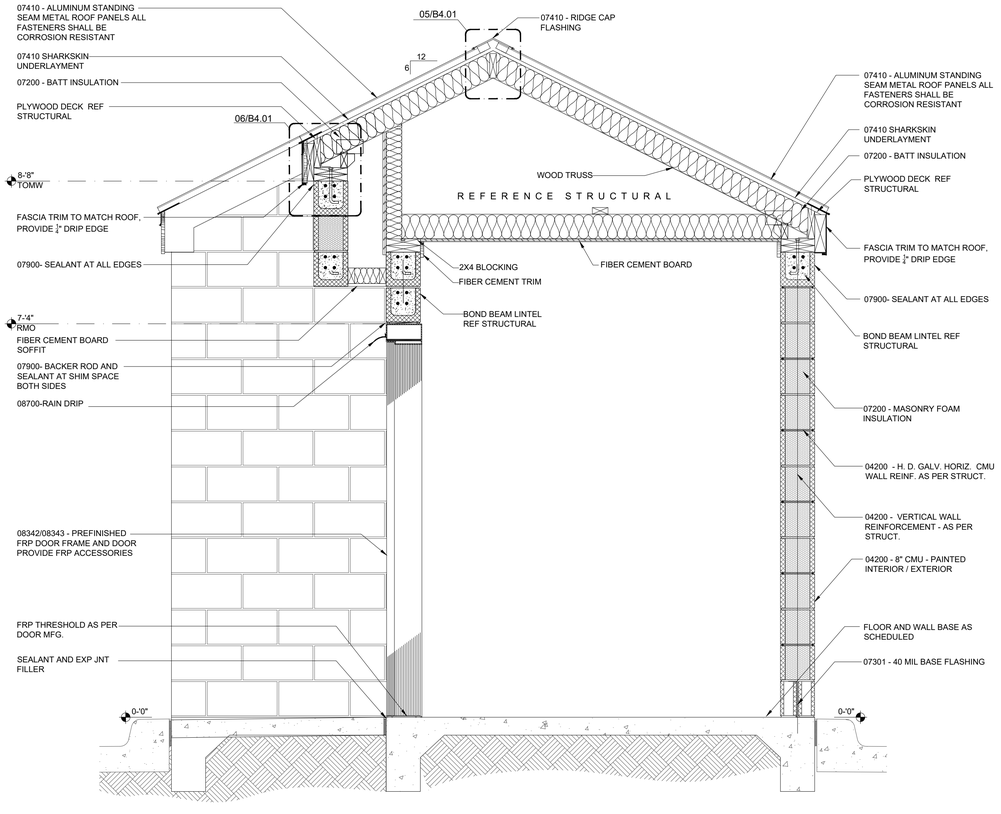
11 TYP CTRL JNT
SCALE : 1-1/2" = 1'=0"



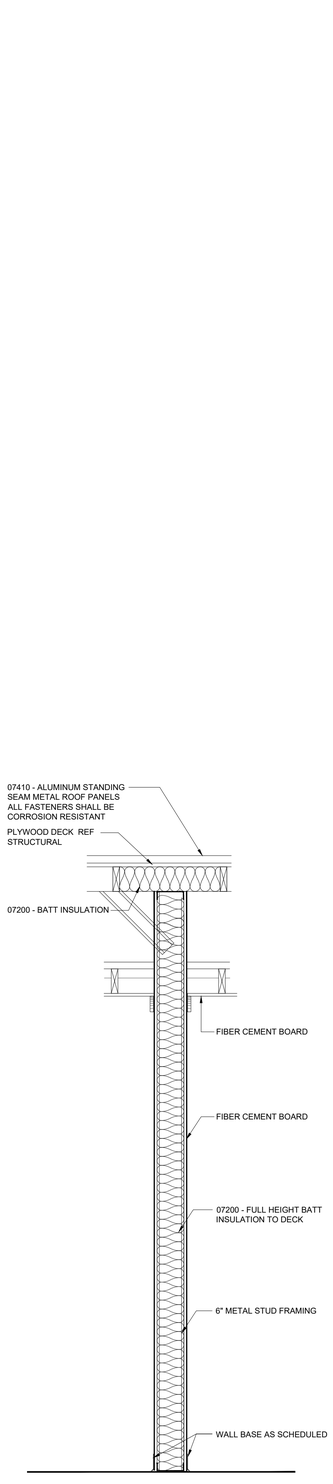
04 SECTION DETAIL
SCALE : 1" = 1'=0"



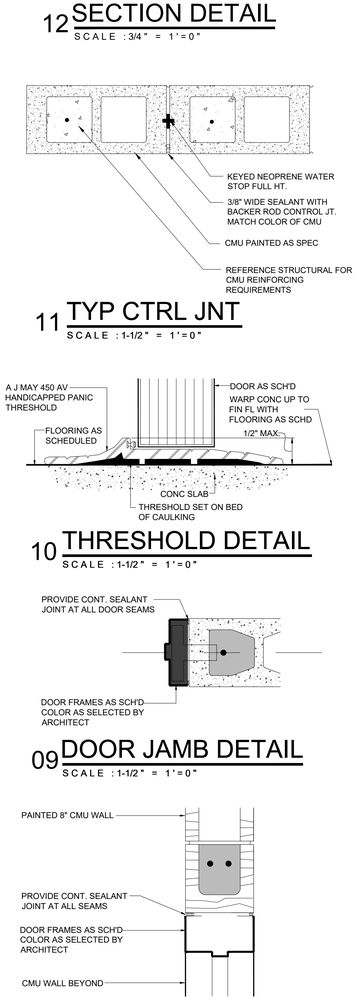
03 SECTION DETAIL
SCALE : 1" = 1'=0"



02 WALL SECTION
SCALE : 3/4" = 1'=0"



13 INTERIOR SECTION
SCALE : 3/4" = 1'=0"



10 THRESHOLD DETAIL
SCALE : 1-1/2" = 1'=0"

09 DOOR JAMB DETAIL
SCALE : 1-1/2" = 1'=0"

08 DOOR HEAD DETAIL
SCALE : 1-1/2" = 1'=0"

GMS ARCHITECTS
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No.	REVISIONS	BY

CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

REGISTERED ARCHITECT ROAN GABRIEL GOMEZ 23625 STATE OF TEXAS Registered

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: April 2025
Scale: As Noted
Proect Architect:A Roan G. Gomez, AIA
Drawn By: J. Alvarado
Job No. Beach Access #3
Sheet: B4.01

RFP No. 250501

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 & MECHANICAL 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 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).

DESIGN CRITERIA

1. BASIS FOR DESIGN AND CODE COMPLIANCE

   A. GOVERNING BUILDING CODE.....IBC 2018 EDITION

2. WIND DESIGN (ASCE 7–16)
   DESIGN WIND SPEED.....150 MPH
   RISK CATEGORY.....II
   WIND EXPOSURE CATEGORY.....D
   INTERNAL PRESSURE COEFFICIENT (GCpi).....VARIES
   Kzt.....1.0
   Kd.....0.85

3. GRAVITY DESIGN
   ROOF:
   DEAD LOAD.....SELF–WEIGHT OF STRUCTURE & ROOFING SYSTEM
   LIVE LOAD.....20 PSF

   FLOOR LIVE LOAD:
   RESTROOMS, RINSE STATION..... 50 PSF
   PLAZA, WALKOVERS..... 100 PSF

4. BREAKING WAVE LOADS ON CROSSOVER STRUCTURE

   A. BASE FLOOD ELEVATION ..... ELEV 13.00' MSL

   B. ASSUMED GROUND ELEVATION AT STORM SURGE ..... ELEV –3.00' MSL

   C. COEFFICIENT OF DRAG FOR BREAKING WAVES FOR DRILLED PIER Cd = 1.75

   D. DYNAMIC PRESSURE COEFFICIENT FOR VERTICAL SURFACE CATEGORY II, Cp = 2.8

5. THESE BUILDINGS ARE DESIGNED TO MEET ASCE 7–16 WIND PRESSURES. ALL COMPONENTS AND CLADDINGS (E.G. WINDOWS, DOORS, ARCHITECTURAL SIDINGS AND ROOFING); MUST MEET MINIMUM WIND CODE REQUIREMENTS. IN ADDITION AS ADOPTED BY THE TEXAS DEPARTMENT OF INSURANCE, ALL EXTERIOR OPENINGS IN THE LOWER 60 FEET OF THE BUILDING SHALL BE IMPACT RESISTANT MEETING ASTM E 1996 FOR LARGE MISSILES OR PROTECTED WITH AN IMPACT RESISTANT COVERING.

6. THE GENERAL CONTRACTOR MUST SUBMIT COMPONENT AND CLADDING WIND PRESSURE & IMPACT RESISTANCE RATINGS AND REQUIRED ATTACHMENT PROCEDURES TO THE STRUCTURAL ENGINEER FOR REVIEW. SUBMITTAL INFORMATION SHALL INCLUDE A THIRD PARTY TESTING REPORT OF THE PROPOSED ASSEMBLY; REFERENCE EXTERIOR COMPONENTS & CLADDINGS NOTES FOR ADDITIONAL REQUIREMENTS. THE GENERAL CONTRACTOR SHALL CONTACT THE STRUCTURAL ENGINEER TO COORDINATE AND SCHEDULE REQUIRED PERIODIC INSPECTION OF EXTERIOR COMPONENTS AND CLADDINGS.

7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONSTRUCTION SERVICES AS NEEDED TO SATISFY THE REQUIREMENTS OF THE DRAWINGS, THE SPECIFICATIONS, THE REFERENCED BUILDING CODE AND THE TEXAS DEPARTMENT OF INSURANCE WINDSTORM INSPECTION PROGRAM. ALL CONSTRUCTION ADMINISTRATION COSTS ASSOCIATED WITH SUBMITTAL PREPARATION, SUBMITTAL REVIEW, INSPECTION COORDINATION, INCLUDING ALL GENERAL CONDITIONS, OVERHEAD AND PROFIT, SHALL BE INCLUDED IN THE GENERAL CONTRACTOR'S BID.

FOUNDATION DESIGN CRITERIA

FOUNDATION DESIGN IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, AND IS BASED ON THE GEOTECHNICAL REPORT NO. 328–1668 PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC., HARLINGEN, TEXAS, DATED JULY 8, 2016, AND REPORT MEMORANDUM NO. 328–1668A DATED NOVEMBER 4, 2016.

A. DRILLED PIERS & DRIVEN PILES ARE SIZED BASED ON THE ALLOWABLE VALUES BELOW:

ELEVATION DEPTH BELOW MEAN SEA LEVEL (FEET MSL)	ALLOWABLE UNIT SKIN FRICTION (KSF)	ALLOWABLE END BEARING (KSF)	ALLOWABLE LATERAL PASSIVE RESISTANCE (KSF/FT)
0 TO –3 MSL	NEGLECT	NEGLECT	NEGLECT
–3 TO –5 MSL	0.08	NEGLECT	0.15–0.36
–5 TO –10 MSL	0.12	NEGLECT	0.36–0.89
–10 TO –13 MSL	0.21	NEGLECT	0.89–1.20
–13 TO –33 MSL	0.24	2.64	1.20

2. GROUNDWATER WAS ENCOUNTERED AS SHALLOW AS APPROXIMATELY +2.50' MSL ELEVATION DURING DRILLING OPERATIONS (MAY FLUCTUATE WITH SEASON). CONTRACTOR SHALL DETERMINE ACTUAL GROUNDWATER LEVELS AT THE TIME OF THE CONSTRUCTION ACTIVITIES.

3. THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE RETAINED TO PERFORM TESTING AND INSPECTIONS DURING INSTALLATION OF DRIVEN PILES AND DRILLED PIERS AS REQUIRED BY SPECIFICATIONS AND GENERAL STRUCTURAL NOTES.

DRILLED PIERS

1. CONCRETE MIX FOR ALL DRILLED PIERS SHALL BE DESIGNED TO ACHIEVE MINIMUM OF 4,000 PSI 28–DAY COMPRESSIVE STRENGTH WHEN PLACED WITH A SEVEN (7) INCH (±1) INCH SLUMP.

2. INSTALL ALL PIERS AT THE LOCATIONS AND TO THE DEPTHS INDICATED ON THE DRAWINGS. BID SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL AND GENERAL CONDITIONS REQUIRED FOR INSTALLATION OF STRAIGHT SHAFT DRILLED PIERS WITH CASING, AS SHOWN ON THE DRAWINGS.

3. IF DIRECTED BY THE ARCHITECT/ENGINEER, PIERS SHALL BE ADJUSTED IN THE FIELD AS REQUIRED TO MEET DESIGN REQUIREMENTS.

4. PRIOR TO DEVELOPMENT OF THE PIER REINFORCEMENT SUBMITTALS, THE GENERAL CONTRACTOR, FOUNDATION CONTRACTOR, DRILLER, AND THE GEOTECHNICAL ENGINEER SHALL HAVE A PRE–CONSTRUCTION MEETING TO DISCUSS THE CONTRACTOR'S PROPOSED PIER INSTALLATION PROCEDURES. AT THE MEETING, THE CONTRACTOR NEEDS TO PERFORM A "TEST" PIER TO DETERMINE CURRENT SUBSURFACE WATER LEVELS AND THE CONSTRUCTABILITY OF THE DRILLED PIERS SPECIFIED. THE TEST PIER WILL NEED TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER OF RECORD FOR APPROVAL OF THE PROPOSED INSTALLATION PROCEDURES AND/OR ISSUANCE OF ADDITIONAL RECOMMENDATIONS, AS REQUIRED.

5. ALL PIERS SHALL BE CENTERED ON BEAMS UNLESS OTHERWISE SHOWN.

6. DRILL PIER SHAFTS TO THE EXACT SIZE SHOWN. SHAFTS SHALL BE BORED PLUMB WITH A TOLERANCE OF TWO INCHES (2"). INSTALL OFFSET STAKES ON OPPOSITE SIDES OF THE PIER AND USE TO MAINTAIN THE PIER CENTERS AND TO CHECK THE PIER PLUMBNESS. EXCAVATION BOTTOMS SHALL HAVE A MAXIMUM OF ONE INCH (1") OF LOOSE DIRT AND TWO INCHES (2") OF GROUND WATER IMMEDIATELY PRIOR TO PLACING CONCRETE. IF MACHINE CLEANING IS NOT SATISFACTORY TO GEOTECHNICAL ENGINEER, HAND CLEANING WILL BE REQUIRED.

DRILLED PIERS CONTINUED:

7. EACH PIER SHAFT AND DRILLING OPERATIONS SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL PERSONNEL TO ENSURE PROPER BEARING AT SCHEDULED ELEVATION AND TO VERIFY STRATAS NOTED IN THE GEOTECHNICAL REPORT. INSPECTIONS SHALL ALSO VERIFY PIER SHAFT DIAMETER, DEPTH, REINFORCEMENT SIZE, QUANTITIES AND LOCATIONS. INSPECTION REPORTS SHALL BE TRANSMITTED TO ENGINEER WITHIN 3 DAYS OF INSPECTION.

8. PROVIDE SUITABLE ACCESS AND LIGHTING FOR INSPECTION OF THE EXCAVATIONS FOR CLEANLINESS AND FOR CORRECTNESS OF DIMENSIONS AND ALIGNMENT.

9. DUE TO SUBSURFACE STRATIGRAPHY AND WATER LEVELS ENCOUNTERED DURING DRILLING OPERATIONS, IF THE CONTRACTOR CANNOT INSTALL A PIER AT THE SPECIFIED LOCATION OR DEPTH, THE ENGINEER MUST BE CONTACTED IMMEDIATELY FOR FURTHER INSTRUCTIONS.

10. FOR STRAIGHT SHAFT DRILLED PIERS, CASINGS ARE REQUIRED FOR USE TO CONTROL THE EXCAVATION PROCESS. CASING MUST TERMINATE IN CLAYEY SOILS, SHOULD BE METAL WITH AMPLE STRENGTH TO WITHSTAND HANDLING STRESSES, CONCRETE AND EARTH PRESSURES, AND SHALL BE WATERTIGHT.

11. PRECAUTIONS SHOULD BE TAKEN DURING THE PLACEMENT OF THE PIER REINFORCEMENT AND CONCRETE TO PREVENT LOOSE EXCAVATED MATERIAL FROM FALLING INTO THE EXCAVATION.

12. PLACEMENT OF CONCRETE SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER EXCAVATION IS COMPLETE, REINFORCING CAGE IS PLACED AND INSPECTED, AND APPROVED. THE CONCRETE SHOULD NOT BE ALLOWED TO RICOCHET OFF THE WALLS OF THE PIER EXCAVATION NOR OFF OF THE REINFORCING STEEL. PLACEMENT OF CONCRETE SHALL COMPLY WITH AMERICAN CONCRETE INSTITUTE (ACI) 318–05 CODE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 336.3R–14 ENTITLED "SUGGESTED DESIGN AND CONSTRUCTION PROCEDURES FOR PIER FOUNDATIONS", U.S. DEPARTMENT OF TRANSPORTATION–FEDERAL HIGHWAY ADMINISTRATION PUB. NO. FHWA–IF–99–025 "MANUAL ON DRILLED SHAFTS: CONSTRUCTION PROCEDURES AND DESIGN METHODS" AND ADSC: THE INTERNATIONAL ASSOCIATION OF FOUNDATION DRILLING CONTRACTORS PUB. NO. ADSC–TL–4, AUGUST 1999.

13. NO PIER EXCAVATION SHALL BE LEFT OPEN OVERNIGHT WITHOUT CONCRETING.

14. FOR LIGHT POLE DRILLED PIERS, THE CONTRACTOR SHALL COORDINATE POLE BASE PLATE/ANCHOR BOLT DIMENSIONS WITH POLE SUPPLIER PRIOR TO PLACING PIERS. CONFLICTS SHALL BE COORDINATED WITH ENGINEER.

CONCRETE

1. 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.

2. 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 4,000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL MEET ASTM C150, TYPE II (MODERATE).

4. A MAXIMUM OF 23% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.5 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). CONCRETE FOR PIERS SHALL BE DESIGNED TO ACHIEVE SPECIFIED STRENGTH WHEN PLACED WITH A SEVEN (7) INCH (±1) SLUMP. AGGREGATE SHALL BE WELL–GRADED, 1" MAXIMUM. 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 50 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. THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND CONDITIONS BEFORE WORK COMMENCES. ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF CONFLICTS OR DISCREPANCIES.

8. STANDARD PROTECTIVE COVER OF REINFORCING BARS SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.

9. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315, LATEST EDITION.

10. REINFORCING SHALL BE CHAIRED AND TIED TO PROHIBIT MOVEMENT DURING CONCRETE PLACEMENT.

11. NO JOINTS WILL BE PERMITTED IN SLABS, COLUMNS, OR BEAMS UNLESS APPROVED BY THE ENGINEER.

12. PROVIDE 2 TOP & BOTTOM CORNER BARS AT ALL DISCONTINUOUS BEAMS AND CORNERS. CORNER BARS SHALL BE 6'–0" IN LENGTH (3'–0" LEGS). SIZE OF THE CORNER BARS SHALL MATCH THE SIZE OF THE GRADE BEAM REINFORCING AS SHOWN BY STRUCTURAL DRAWINGS.

13. MAINTAIN A MINIMUM OF ONE AND ONE–HALF (1–1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).

14. BARS SCHEDULED OR DETAILED "CONT." SHALL BE LAPPED 62 BAR DIAMETERS (36 INCHES MINIMUM) UNLESS OTHERWISE NOTED.

15. WHERE CONCRETE IS TO HAVE UNEXPOSED SURFACES, THE FORMS MAY BE CONSTRUCTED OF #2 LUMBER OR BETTER. WHERE SURFACES ARE EXPOSED, SUCH AS FOR FINISH PAINTING OR STUCCO DASH, THE FORMS SHALL BE COMMERCIAL STANDARD DOUGLAS FIR, MOISTURE–RESISTANT CONCRETE FORM PLYWOOD; MINIMUM 5–PLY AND AT LEAST 9/16" THICK, OR FORMS LINED WITH COMMERCIAL STANDARD DOUGLAS FIR, CONCRETE FORM EXTERIOR, 3–PLY, NOT LESS THAN 1/4" THICK. WHERE CONCRETE IS EXPOSED, A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.

16. COLUMN FORMS & BEAM SIDE FORMS MAY BE REMOVED NO SOONER THAN FORTY–EIGHT (48) HOURS AFTER CONCRETE PLACEMENT. BEAM BOTTOM FORMS & SHORING MAY BE REMOVED AFTER CONCRETE COMPRESSIVE STRENGTH REACHES 3,500 PSI OR GREATER.

17. CONSTRUCT FORMS SO THAT JOINTS ARE LEAKPROOF. MAINTAIN FORMS SUFFICIENTLY RIGID TO PREVENT DEFORMATION UNDER LOAD.

18. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

19. 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.

CONCRETE CONTINUED:

20. 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'

21. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.

22. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. SUBMITTALS SHALL BE TRANSMITTED AS A SINGLE ELECTRONIC FILE (PDF FORMAT). ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

23. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS. ENGINEER REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY OF ERRORS IN DIMENSIONS SHOWN ON SHOP DRAWINGS. FABRICATION AND PLACEMENT SHALL BE FROM REVIEWED DRAWINGS ONLY.

24. ENGINEER TO BE NOTIFIED (48) HOURS PRIOR TO PLACEMENT OF CONCRETE TO SCHEDULE REQUIRED OBSERVATIONS.

WOOD PILES

1. PRIOR TO PILE PLACEMENT, THE CONTRACTOR SHALL PROVIDE THE ENGINEER DATA REGARDING THE PROPOSED HAMMER AND CUSHION SYSTEM.

2. PILES SHALL BE ASTM D–25, CLASS "B" TREATED, PEELED SOUTHERN YELLOW PINE. PILES SHALL BE PRESSURE TREATED ACCORDING TO AWPA MANUAL STANDARDS WITH A MINIMUM RETENTION OF 2.5 POUNDS PER CUBIC FOOT OF CHROMATED COPPER ARSENATE.

3. PILES SHALL HAVE A MINIMUM BUTT DIAMETER OF 12 INCHES AND A MINIMUM TIP DIAMETER OF 8 INCHES.

4. A 8 INCH DIAMETER PILOT HOLE MAY BE DRILLED TO A DEPTH OF 15 FEET ABOVE THE FINAL TIP ELEVATION TO FACILITATE PILE DRIVING. JETTING ALONG SIDE OF PILES IS NOT PERMITTED.

5. PILES SHALL BE DRIVEN WITH A DYNAMIC HAMMER HAVING AN EFFECTIVE DRIVING ENERGY OF 18,000 TO 48,000 FT/LBS/BLOW.

6. 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.

7. 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.

8. 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.

9. PILES SHALL BE PROPERLY ALIGNED PRIOR TO DRIVING AND HELD WITH FIXED LEADS. REALIGNMENT ONCE DRIVING HAS COMMENCED IS NOT PERMITTED.

ROUGH CARPENTRY

1. ROUGH CARPENTRY SHALL COMPLY WITH THE PROVISIONS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE AND THE NATIONAL DESIGN STANDARD, SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPWS).

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 AND PLYWOOD REQUIRED TO BE PRESERVATIVELY TREATED SHALL BEAR AN APPROVED AWPB QUALITY MARK.

4. FRAMING LUMBER MOISTURE CONTENT SHALL NOT EXCEED 19 PERCENT AT TIME OF INSTALLATION.

5. MATERIALS

   A. FRAMING LUMBER

USE–ITEM	LUMBER SPECIES	MINIMUM GRADE	GRADING AGENCY
ROOF RAFTERS	SOUTHERN PINE	#1	SPIB
FLOOR GIRDERS	SOUTHERN PINE	#1	SPIB
FLOOR JOISTS	SOUTHERN PINE	#2	SPIB
NAILERS, BLOCKING	SOUTHERN PINE	#2	SPIB

   * MEMBERS IN CONTACT WITH MASONRY OR CONCRETE, AND MEMBERS EXPOSED TO MOISTURE SHALL BE PRESSURE TREATED.

   B. PLYWOOD

USE–ITEM	THICKNESS	EXPOSURE	APA SPAN RATING
ROOF SHEATHING	3/4"	1	48/24

   C. FASTENERS

COMMON NAIL	SHANK DIAMETER	HEAD DIAMETER	LENGTH
20d	0.192"	0.406"	4"
16d	0.162"	0.344"	3.1/2"
10d	0.148"	0.312"	3"
8d	0.131"	0.281"	2.1/2"

   1. THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL BE AS SHOWN ON PLAN BUT NOT LESS THAN SPECIFIED IN THE IBC 2018 TABLE 2304.10.1.

   2. ALL NAILS AND BOLTS SHALL BE STAINLESS STEEL TYPE 316.

6. FRAMING MEMBERS SHALL BE CONTINUOUS LENGTH WITHOUT SPLICING. SPLICES IN HORIZONTAL MEMBERS SHALL OCCUR ONLY OVER BEARING POINTS. LAP MEMBERS TO PROVIDE FULL BEARING FOR EACH MEMBER, UNLESS DETAILED OTHERWISE.

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. RAFTERS SHALL NOT BE NOTCHED AT THE END SUPPORTS OR THE MIDDLE 1/3 OF THE RAFTER SPAN.

9. RAFTERS ARE PERMITTED TO BE NOTCHED IN THE TOP OR BOTTOM OF THE RAFTERS AT THE OUTER 1/3 OF THE SPAN. NOTCHES SHALL NOT EXCEED IN DEPTH 1/6 THE ACTUAL RAFTER DEPTH AND SHALL NOT EXCEED IN LENGTH 1/3 THE ACTUAL FASTER DEPTH.

10. RAFTERS ARE PERMITTED TO BE BORED TO A DIAMETER NOT GREATER THAN 1/3 THE ACTUAL RAFTER DEPTH AND NOT BE CLOSER THAN 2 INCHES FROM THE TOP OR BOTTOM EDGE OF THE RAFTER.

11. CONTRACTOR SHALL ENSURE NAILS ARE PROPERLY DRIVEN. NAILS SHALL BE DRIVEN FLUSH WITH THE EXTERIOR SURFACE OF PLYWOOD. OVERDRIVEN NAILS SHALL BE REPLACED OR NAILS SHALL BE PLACED BETWEEN THE OVERDRIVEN NAILS.

12. SHEATHING SHALL BE INSTALLED CONTINUOUS OVER TWO OR MORE SPANS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND JOINTS STAGGERED. A 1/8" SPACE SHALL BE PROVIDED AT PANEL EDGES AND END JOINTS UNLESS RECOMMENDED OTHERWISE BY THE MANUFACTURER.

ROUGH CARPENTRY CONTINUED:

13. SHEATHING SHALL BE ATTACHED TO STRUCTURE AS SPECIFIED ON SHEATHING NAILING SCHEDULES.

14. PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS AT BEARING LOCATIONS AND AT MID–SPAN OF SPANS GREATER THAN 8'–0", OR AS NOTED ON PLANS. BLOCKING TO MATCH SIZE OF FRAMING MEMBER.

15. ALL METAL ANCHORS, HOLD DOWNS AND ETC., SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE" OR APPROVED EQUIVALENT, AND BE STAINLESS STEEL TYPE 316.

16. ENGINEER SHALL BE CONTACTED FOR FRAMING INSPECTIONS PRIOR TO INSTALLING OF CEILINGS, WALL SHEATHING, WALL FINISHES, AND/OR ROOF COVERINGS (INCLUDING BUILDING PAPER).

WOODEN TRUSS NOTES

1. TRUSSES SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF TEXAS. DESIGN SHALL MEET OR EXCEED LOAD REQUIREMENTS SPECIFIED ON THE PLANS.

2. SHOP DRAWINGS SHALL BEAR THE ENGINEER'S SEAL AND BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL. SHOP DRAWINGS SHALL BE SUBMITTED BY ELECTRONIC FORMAT (PDF). SHOP DRAWINGS SHALL CONTAIN THE FOLLOWING INFORMATION FOR EACH TYPE AND SIZE OF TRUSS ASSEMBLY TO BE PROVIDED:

   A. TRUSS LAYOUT PLAN

   B. DETAIL OF TRUSS

   C. SPECIES, SIZE, AND GRADE OF LUMBER USED

   D. CONNECTOR PLATE SIZES AND ORIENTATION

   E. LOAD AND CODE DESIGN INFORMATION

   F. BEARING POINT REACTIONS

3. TRUSS SHALL BE DESIGNED USING COMPONENTS AND CLADDING WIND PRESSURE CALCULATED USING THE DESIGN CRITERIA PROVIDED. FOR TRUSSES RECEIVING LOAD FROM OTHER TRUSSES, SUCH AS GIRDER TRUSSES AND HIPJACKS, MAIN WIND FORCE RESISTING SYSTEM (MWFRS) WIND PRESSURES SHALL BE USED FOR TRUSS DESIGN. TRUSS ENGINEER SHALL PROVIDE TRUSS REACTIONS USING MWFRS WIND PRESSURES TO ENGINEER OF RECORD.

4. TRUSSES SHALL BE SHOP MANUFACTURED AND HAVE WOOD WEBS AND CHORDS. ALL LUMBER USED IN THE FABRICATION OF TRUSSES SHALL BE STRESS GRADED AND SHALL BE OF THE SPECIES, SIZE, AND GRADE SPECIFIED IN THE TRUSS DESIGN.

5. CONNECTOR PLATES SHALL BE STAMPED FROM 16, 18, OR 20 GAUGE, STAINLESS STEEL TYPE 316. BOTH PLATE WIDTH AND PLATE LENGTH MUST EQUAL OR EXCEED THAT SPECIFIED IN THE TRUSS DESIGN.

6. TRUSSES SHALL BE FABRICATED IN ACCORDANCE WITH THE TRUSS DESIGN FROM ACCURATELY CUT WOOD MEMBERS CLAMPED IN RIGID FIXTURES DURING ASSEMBLY TO INSURE TIGHT–FITTING JOINTS AND UNIFORMITY IN COMPLETED TRUSS UNITS. CONNECTOR PLATES ARE TO BE PRESSED INTO THE WOOD MEMBERS ON BOTH SIDES OF THE TRUSS AT EACH JOINT SO THAT FULL PENETRATION OF THE TEETH IS OBTAINED WITHOUT CRUSHING THE OUTER SURFACE OF THE WOOD.

7. TRUSSES SHALL BE INSTALLED PLUMB, ADEQUATELY BRACED, IN THE PROPER ORIENTATION, AND AT THE SPACING SPECIFIED IN THE TRUSS DESIGN.

8. CUTTING OF TRUSS MEMBERS OR FIELD ALTERATION OF ANY TRUSS IS NOT PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE STRUCTURAL ENGINEER.

9. MAXIMUM ROOF TRUSS DEFLECTION UNDER TOTAL LOAD AND LIVE LOAD SHALL BE L/240 AND L/360, RESPECTIVELY.

10. TRUSS SPACING SHOWN ON FRAMING PLANS IS SCHEMATIC. TRUSSES WILL NEED TO BE SPACED AS REQUIRED TO MEET LOAD REQUIREMENTS AND DEFLECTION LIMITS.

11. FABRICATOR SHALL COORDINATE WITH CONTRACTOR AS REQUIRED TO LOCATE REQUIRED DUCT OPENINGS IN THE TRUSSES.

12. FABRICATOR SHALL PROVIDE LATERAL BRACING REQUIREMENTS, AND HANDLING AND ERECTION RECOMMENDATIONS.

WOOD COMPOSITE DECKING

1. NOMINAL SIZE OF WOOD COMPOSITE DECKING MATERIAL FOR PLANKS SHALL BE 2"x6" BOARD.

2. WOOD COMPOSITE DECKING BOARD SHALL BE TREX TRANSCEND 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 TYPE 316.

5. 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 CONTRACTOR AND MANUFACTURER SHALL SUBMIT TO THE ENGINEER THE FOLLOWING FOR REVIEW AND EVALUATION:

   A. PRODUCT DATA INCLUDING SPECIFICATIONS, PRODUCT HANDLING, AND INTALLATION INSTRUCTION.

   B. MANUFACTURER'S STANDARD COLOR SAMPLES ON ACTUAL PRODUCT PIECES FOR COLOR SELECTION BY OWNER.

GLUED–LAMINATED TIMBER

1. GLUED–LAMINATED TIMBER (GLULAM) SHALL BE MANUFACTURED TO THE STANDARDS SET FORTH IN THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) 117 STANDARD SPECIFICATION FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES.

2. GLULAM MEMBERS SHALL BE MANUFACTURED BY AN AITC– OR APA–LISCENED FIRM. MEMBERS SHALL BE FACTORY GLUED STRUCTURAL UNITS MADE FROM SOLID LUMBER LAMINATIONS OF A SINGLE SPECIES; DO NOT USE LAMINATED VENEER LUMBER. GLULAM MEMBERS SHALL BE MADE WITH WET–USE ADHESIVE COMPLYING WITH ASTM D2559.

3. FACTORY MARK EACH PIECE WITH AITC A190.1 OR APA–EWS QUALITY MARK. THE PRODUCTS DELIVERED SHALL BE FREE FROM MANUFACTURING ERRORS OR DEFECTS IN WORKMANSHIP AND MATERIAL.

4. GLULAM MEMBERS SHALL BE PROPERLY STORED PRIOR TO INSTALLATION IN ACCORDANCE WITH THE PROVISION IN AITC 111. THEY SHALL BE PROTECTED FROM THE WEATHER AND HANDLED WITH CARE SO THEY ARE NOT DAMAGED. DAMAGED MEMBERS SHALL BE REPLACED LIKE–AND–KIND AT THE CONTRACTOR'S EXPENSE.

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PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
HERIBERTO CAMAZOS
103459
LICENSED PROFESSIONAL ENGINEER
4/4/25

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GENERAL STRUCTURAL NOTES

GLUED–LAMINATED TIMBER CONTINUED:

5. GLUED–LAMINATED TIMBER PRODUCTS SHALL BE AS FOLLOWS:
   A. SPECIES AND BEAM STRESS CLASSIFICATION: AS REQUIRED TO MEET DELEGATED DESIGN CRITERIA AND SPECIFIED FRAME GEOMETRY AND MAXIMUM DEPTHS. REFERENCE DRAWINGS FOR FRAME DIMENSIONS.
   B. END SEALER: MANUFACTURER'S STANDARD, TRANSPARENT, COLORLESS WOOD SEALER THAT IS EFFECTIVE IN RETARDING THE TRANSMISSION OF MOISTURE AT CROSS–GRAIN CUTS AND IS COMPATIBLE WITH INDICATED FINISH.
   C. PENETRATING SEALER: MANUFACTURER'S STANDARD, TRANSPARENT, PENETRATING WOOD SEALER.
6. FABRICATE HORIZONTAL AND INCLINED MEMBERS OF LESS THAN 1:1 SLOPE WITH EITHER CIRCULAR OR PARABOLIC CAMBER EQUAL TO 1/500 OF SPAN.
7. GLULAM MEMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS. ERECT MEMBERS TRUE AND PLUMB, AND WITH UNIFORM, CLOSE–FITTING JOINTS. LIFT MEMBERS WITH PADDED SLINGS AND PROTECT CORNERS WITH WOOD BLOCKING.
8. TEMPORARY CONSTRUCTION LOADS THAT CAUSE STRESSES BEYOND DESIGN LIMITS ARE NOT PERMITTED. SAFETY BRACING IS TO BE PROVIDED BY THE INSTALLER TO KEEP THE BEAMS STRAIGHT AND PLUMB AS REQUIRED, AND TO ENSURE ADEQUATE LATERAL SUPPORT OF THE MEMBERS AND THE ENTIRE SYSTEM UNTIL THE BEAMS ARE PROPERLY ANCHORED INTO PLACE. PENETRATIONS THROUGH ANY GLULAM MEMBER IS NOT PERMITTED, UNLESS AS PERMITTED BY THE MANUFACUTURER.
9. AVOID CUTTING AFTER FABRICATION, UNLESS AS STATED IN THE DRAWINGS. WHERE FIELD FITTING IS UNAVOIDABLE, COMPLY WITH MANUFACTURER'S REQUIREMENTS FOR SHOP FABRICATION.
10. IF END–CUTTING A MEMBER TO LENGTH IS REQUIRED, SEAL END IMMEDIATELY AFTER CUTTING. APPLY A SATURATION COAT OF END SEALER TO ENDS AND OTHER CROSS–CUT SURFACES, KEEPING SURFACES FLOOD COATED FOR NOT LESS THAN 10 MINUTES.
11. AFTER FABRICATING, SANDING, AND END–COAT SEALING, APPLY A HEAVY SATURATION COAT OF PENETRATING SEALER ON SURFACES OF EACH UNIT.
12. REPAIR DAMAGED SURFACES AFTER COMPLETING ERECTION. REPLACE DAMAGED STRUCTURAL GLUED–LAMINATED TIMBER IF REPAIRS ARE NOT APPROVED BY THE ENGINEER.
13. DO NOT REMOVE WRAPPINGS ON INDIVIDUALLY WRAPPED MEMBERS UNTIL THEY NO LONGER SERVE A USEFUL PURPOSE, INCLUDING PROTECTION FROM WEATHER, SUNLIGHT, AND DAMAGE FROM WORK OF OTHER TRADES. COORDINATE WRAPPING REMOVAL WITH FINISHING WORK; RETAIN WRAPPING WHERE IT CAN SERVE AS A PAINTING SHIELD.

STRUCTURAL STEEL

1. TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.
2. ALL STRUCTURAL STEEL SHALL BE STAINLESS STEEL TYPE 316.
3. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
4. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316.
5. REFER TO ARCHITECTURAL & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.
6. ALL MEMBERS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.
7. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D–1.1).
8. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1–72 CODE AND SERIES E 70XX.
9. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.
10. AFTER ERECTION, PRIME WELDS, ABRASIONS AND SURFACES NOT PRIMED. USE PRIMER CONSISTENT WITH STEEL FINISH.
11. FIELD WELDS AND BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED BY A QUALIFIED INDEPENDENT INSPECTOR. THE INSPECTOR SHALL PROVIDE A WRITTEN REPORT TO THE STRUCTURAL ENGINEER.
12. A SINGLE ELECTRONIC FILE (PDF FORMAT) SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL COMPONENTS AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
13. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.
14. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR FRAMING OBSERVATIONS BEFORE FRAMING IS CONCEALED.

FASTENERS

1. CAST–IN–PLACE AND POST–INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST–INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED.
2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.
3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.
4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:
   A. KWIK BOLT III (ICC–ES ESR–2302) BY HILTI (CONCRETE)
   B. KWIK BOLT III (ICC–ES–ESR–1385) BY HILTI (MASONRY)
   C. STRONG–BOLT 2 (ICC–ES ESR–3037) BY SIMPSON STRONG–TIE (CONCRETE)
   D. WEDGE–ALL ANCHOR (ICC–ES ESR–1396) BY SIMPSON STRONG–TIE (MASONRY)
5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:
   A. HSL–3 (ICC–ES ESR–1545) BY HILTI (CONCRETE)

FASTENERS CONTINUED:

6. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:
   A. KWIK HUS–EZ (ICC–ES ESR–3027) BY HILTI (CONCRETE)
   B. KWIK HUS–EZ (ICC–ES ESR–3056) BY HILTI (MASONRY)
   C. TITEN HD (ICC–ES ESR–2713) BY SIMPSON STRONG–TIE (CONCRETE)
   D. TAPCON ANCHORS (ICC–ES ESR–1671) (MASONRY)
   E. POWERS WEDGE BOLT (ICC–ES ESR–1678) (MASONRY)
7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:
   A. HDA (ICC–ES ESR–1546) BY HILTI (CONCRETE)
   B. TORQ–CUT (ICC–ES ESR–2705) BY SIMPSON STRONG–TIE (CONCRETE)
8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:
   A. X–U (ICC–ES ESR–2269) BY HILTI (CONCRETE/MASONRY)
   B. POWDER ACTUATED FASTENERS (ICC–ES ESR–2138) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)
9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC–ES AC308. ACCEPTABLE PRODUCTS:
   A. HIT–RE 500–V3 (ICC–ES ESR–3814) BY HILTI (CONCRETE)
   B. HIT–HY 270 (ICC–ES ESR–4143) BY HILTI (MASONRY)
   C. SET–3G (ICC–ES ESR–4057) BY SIMPSON STRONG–TIE (CONCRETE)
   D. SET–3G (ICC–ES ESR–4844) BY SIMPSON STRONG–TIE (MASONRY)
10. J–BOLTS, BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL TYPE 316. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J–BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.
11. HEADED ANCHOR RODS SHALL BE STAINLESS STEEL TYPE 316.
12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC–ES OR IAPMO–ES) REPORT.
13. ALL FASTENERS AND ANCHORS SHALL BE STAINLESS STEEL TYPE 316.

CONCRETE MASONRY:

1. THE **GENERAL CONTRACTOR, PROJECT SUPERINTENDENT, TESTING LABORATORY AND THE MASONRY FOREMAN** SHALL MEET PRIOR TO THE START OF MASONRY WORK TO REVIEW PROJECT REQUIREMENTS AND PROCEDURES.
2. AN INDEPENDENT TESTING LAB SHALL VERIFY PLACEMENT OF VERTICAL REINFORCING IN WALLS AND HORIZONTAL REINFORCING IN BOND BEAMS AND LINTELS PRIOR TO PLACEMENT OF GROUT. INDEPENDENT TESTING LAB SHALL PROVIDE CONTINUOUS VISUAL OBSERVATIONS OF GROUTING PROCEDURES, REBAR PLACEMENT, SITE MIXING OF MORTAR, INSTALLATION OF EMBEDED STEEL CONNECTORS, AND GENERAL PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS. INSPECTION REPORTS ARE TO BE GENERATED DAILY BY THE TESTING LAB. INSPECTION SUMMARY REPORTS SHALL BE EMAILED TO THE STRUCTURAL ENGINEER IN ELECTRONIC (PDF) FORMAT.
3. ALL CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING CODES AND THE AMERICAN CONCRETE INSTITUTE (ACI 530–13/ ASCE 5–13/ TMS 402–16). DESIGN IS BASED ON MASONRY COMPRESSIVE STRENGTH ($f'm$) OF 2,000 PSI.
4. HOT AND COLD WEATHER CONSTRUCTION PROCEDURES SHALL BE UTILIZED AS REQUIRED BY THE SPECIFICATIONS AND ACI 530.1.
5. HOLLOW CONCRETE MASONRY UNITS SHALL BE DOMESTIC LIGHTWEIGHT MOISTURE CONTROLLED TYPE I UNITS, CONFORMING TO ASTM C–90.
6. MASONRY UNITS SHALL HAVE A MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 2,000 PSI (NET AREA) WHEN TESTED IN ACCORDANCE WITH ASTM C–140, "METHODS OF SAMPLING AND TESTING CONCRETE MASONRY UNITS".
7. MORTAR PROPORTIONS FOR REINFORCED MASONRY SHALL BE ESTABLISHED PER ASTM C270 PROPORTION SPECIFICATIONS, TYPE S USING MASONRY CEMENT. FIELD TESTS OF MORTAR SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY IN ACCORDANCE WITH ASTM C780 AT A RATE OF ONE TEST PER 2,000 SF OF WALL SURFACE TO DETERMINE BATCH–TO–BATCH UNIFORMITY OF MORTAR. REFERENCE SPECIFICATIONS FOR NON REINFORCED MASONRY.
8. GROUT FOR ALL REINFORCED HOLLOW MASONRY UNIT WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI WITH A MAXIMUM 3/8" AGGREGATE. A MID RANGE WATER REDUCING AGENT SUCH AS "POLYHEED" (MASTER BUILDERS) SHALL BE USED. SLUMP TO BE BETWEEN 8 AND 11 INCHES. **ALL GROUT SHALL BE PUMPED.** PLACING OF GROUT TO FOLLOW AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS REGARDING **LOW & HIGH LIFT GROUTING.** MAXIMUM LIFT OF GROUT SHALL NOT EXCEED 5'–0" UNLESS APPROVED BY THE ENGINEER PRIOR TO START OF GROUTING. GROUT TO BE TESTED BY A QUALIFIED TESTING LABORATORY AT A RATE OF ONE TEST PER 25 CY OF GROUT IN ACCORDANCE WITH ASTM C1019.
9. REINFORCING STEEL SHALL CONFORM TO ASTM A–615, GRADE 60. ALL BAR REINFORCING SHALL BE LAPPED 48 BAR DIAMETERS (MIN). BARS SHALL BE PLACED WITHIN 1/2" (CENTERLINE OF BAR TO FACE OF MASONRY) OF LOCATION SHOWN IN STRUCTURAL PLANS. BARS SHALL BE HELD IN POSITION DURING GROUTING WITH BAR POSITIONERS. POSITIONERS SHALL BE LOCATED AT THE BOTTOM AND TOP OF THE WALL AND AT 8 TO 10 FOOT INTERVALS. BARS SPLICED BY NON–CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE–FIFTH THE REQUIRED LENGTH OF LAP NOR MORE THAN 8 INCHES.
10. VERTICAL BARS SHALL EXTEND TO THE TOP OF THE PARAPET WALL OR BOND BEAM WHEN A 16" DEEP BEAM IS SPECIFIED. HOOKED DOWELS SHALL BE PROVIDED AT ROOF BOND BEAMS (W/O PARAPETS) LESS THAN 16" DEEP. DOWELS SHALL BE 30" LONG WITH 12" HOOKS.
11. ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH 9 GA. HOT DIPPED GALVANIZED HORIZONTAL WIRE REINFORCEMENT (LADDER TYPE) EMBEDDED IN MORTAR JOINTS AT 16" O.C. NOMINAL WIDTH OF JOINT REINFORCING SHALL EQUAL WALL THICKNESS. (INTERIOR WALLS MAY BE MILL GALVANIZED). WIRE REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION A–82, AND SHALL BE LAPPED AT LEAST 8" WITH AT LEAST ONE CROSS WIRE WITHIN THE LAP. JOINT REINFORCING SHALL BE INSTALLED IN THE FIRST AND SECOND MORTAR BED JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS. WIRE REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
12. EXTERIOR WALLS SHALL BE BONDED WITH CONCRETE MASONRY UNITS AT BUILDING CORNERS.
13. ONE GROUTED #5 BAR SHALL BE PROVIDED AROUND THE PERIMETER OF ALL WALL OPENINGS AND AT BUILDING CORNERS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.
14. NEATLY TOOL INTERIOR AND EXTERIOR JOINTS IN MASONRY TO FORM A SLIGHTLY CONCAVE PROFILE WHEN MORTAR IS THUMBPRINT HARD UNLESS SHOWN OTHERWISE. ALL MORTAR JOINTS SHALL BE TOOLED THE ENTIRE HEIGHT OF WALL.

CONCRETE MASONRY CONTINUED:

15. BOND BEAMS SHALL BE REINFORCED WITH TWO CONTINUOUS #5 BARS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS. REINFORCING SHALL BE CONTINUOUS AT ALL CORNERS AND INTERSECTING WALLS. (PROVIDE CORNER BARS). WHERE SIDE WALL AND END WALL BOND BEAMS DO NOT COURSE CONTINUE THE LOWER BOND BEAM AROUND THE BUILDING CORNER TO THE FIRST VERTICAL REINFORCED CELL.
16. CONTROL JOINTS SHALL BE CONSTRUCTED WITH SLOTTED MASONRY UNITS AND FACTORY MOLDED JOINT FILLER. JOINTS SHALL BE CAULKED WITH AN APPROVED MATERIAL. JOINTS SHALL BE PROVIDED AT MAXIMUM SPACING OF 22 FT. AND AT ALL LOCATIONS WHERE COLUMNS ARE PLACED IN CMU CELLS. (EXTERIOR AND INTERIOR WALLS). JOINT LOCATIONS, IF NOT SHOWN ON PLANS, SHALL BE COORDINATED WITH ARCHITECT.
17. CONTROL JOINTS **SHALL NOT** EXTEND THROUGH BOND BEAMS UNLESS INDICATED ON THE STRUCTURAL PLANS.
18. CONTROL JOINTS IN CMU WALLS SHALL NOT BE LOCATED CLOSER THAN 2'–0" FROM AN EDGE OF OPENING WITHOUT REVIEW OF STRUCTURAL ENGINEER.
19. LINTELS OVER ALL OPENINGS IN INTERIOR MASONRY PARTITIONS, NOT OTHERWISE COVERED, ARE TO BE OF STANDARD CMU LINTEL BLOCK WITH THICKNESS EQUAL TO WALL THICKNESS. DEPTH SHALL BE 8" FOR OPENINGS UP TO 6'–0", REINFORCED WITH TWO #5's, LOCATED 2–1/2" ABOVE THE BOTTOM EXTERIOR FACE OF THE UNIT.

EXTERIOR COMPONENTS & CLADDINGS

ALL EXTERIOR COMPONENT AND CLADDING SYSTEMS (E.G. WINDOWS, CURTAIN WALLS, STOREFRONTS, DOORS, ARCHITECTURAL SIDINGS, METAL WALL AND ROOF PANELS, ROOFING SYSTEMS, SKYLIGHTS) MUST MEET MINIMUM WIND CODE REQUIREMENTS. CONTRACTOR MUST SUBMIT COMPONENT AND CLADDING ASSEMBLY WIND PRESSURE AND IMPACT RESISTANCE TESTING RATINGS AND REQUIRED ATTACHMENT PROCEDURES TO STRUCTURAL ENGINEER FOR REVIEW. ROOF TOP MECHANICAL EQUIPMENT AND THEIR SUPPORT COMPONENTS, AND ANCHORING OF THESE ITEMS TO THE STRUCTURE, SHALL BE DELEGATED DESIGN TO BE PERFORMED BY THE EQUIPMENT'S MANUFACTURER, TO MEET THE WIND PRESSURES CALCULATED PER ASCE 7–05 SECTION 6.5.15.1, USING THE WIND DESIGN PARAMETERS LISTED ON THE GENERAL STRUCTURAL NOTES DESIGN CRITERIA.

1. TESTED ASSEMBLIES
   A. THE CONTRACTOR SHALL INSTALL PROJECT SPECIFIC ASSEMBLIES THAT HAVE BEEN TESTED AND MEET THE APPLICABLE PERFORMANCE REQUIREMENTS LISTED BELOW. PROJECT ASSEMBLIES SHALL BE INSTALLED IN SAME MANNER AS TESTED ASSEMBLIES INCLUDING SYSTEM COMPONENTS, REINFORCEMENT, GLAZING, HARDWARE, ANCHORS AND FASTENING LOCATIONS, SEALANTS & ALL ACCESSORIES, AS APPLICABLE.
2. ASSEMBLY PERFORMANCE REQUIREMENTS
   A. STRUCTURAL PERFORMANCE: TESTED ASSEMBLY THAT PASSES STRUCTURAL PERFORMANCE REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH THE APPLICABLE PERFORMANCE STANDARD(S) LISTED BELOW, AT A MINIMUM OF THE POSITIVE AND NEGATIVE DESIGN WIND–LOAD PRESSURES INDICATED ON THE STRUCTURAL DRAWINGS. TESTED ASSEMBLY SHALL BE NO SMALLER IN WIDTH AND LENGTH THAN ASSEMBLY INDICATED FOR USE ON THE PROJECT AND SHALL MATCH PROJECT ASSEMBLY INCLUDING ALL COMPONENTS AND SUBSTRATE(S).
   B. WINDBORNE–DEBRIS–IMPACT RESISTANCE: TESTED ASSEMBLY THAT PASSES LARGE–MISSILE IMPACT PROTECTION TESTING REQUIREMENTS ACCORDING TO ASTM E 1996 WHEN TESTED ACCORDING TO ASTM E 1886. TESTED ASSEMBLY SHALL BE NO SMALLER IN WIDTH AND LENGTH THAN ASSEMBLY INDICATED FOR USE ON THE PROJECT AND SHALL MATCH PROJECT ASSEMBLY INCLUDING ALL COMPONENTS AND SUBSTRATE(S).
3. ASSEMBLY PERFORMANCE STANDARDS
   A. ASTM E 330 – STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF EXTERIOR WINDOWS, DOORS, SKYLIGHTS AND CURTAIN WALLS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE
   B. ASTM E 1592 – STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF SHEET METAL ROOF AND SIDING SYSTEMS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE
   C. ASTM E 1886 – STANDARD TEST METHOD FOR PERFORMANCE OF EXTERIOR WINDOWS, CURTAIN WALLS, DOORS, AND STORM SHUTTERS IMPACTED BY MISSILE(S) AND EXPOSED TO CYCLIC PRESSURE DIFFERENTIALS
   D. ASTM E 1996 – STANDARD SPECIFICATION FOR PERFORMANCE OF EXTERIOR WINDOWS, CURTAIWALLS, DOORS AND IMPACT PROTECTIVE SYSTEMS IMPACTED BY WINDBORNE DEBRIS IN HURRICANES
   E. FM 4450 – APPROVAL STANDARD FOR CLASS 1 INSULATED STEEL DECK ROOFS
   F. FM 4470 – APPROVAL STANDARD FOR SINGLE–PLY, POLYMER–MODIFIED BITUMEN SHEET, BUILT–UP ROOF (BUR) AND LIQUID APPLIED ROOF ASSEMBLIES FOR USE IN CLASS 1 AND NONCOMBUSTIBLE ROOF DECK CONSTRUCTION
   G. FM 4474 – AMERICAN NATIONAL STANDARD FOR EVALUATING THE SIMULATED WIND UPLIFT RESISTANCE OF ROOF ASSEMBLIES USING STATIC POSITIVE AND/OR NEGATIVE DIFFERENTIAL PRESSURES
   H. UL 580 – STANDARD FOR TESTS FOR UPLIFT RESISTANCE OF ROOF ASSEMBLIES
   I. UL 1897 – STANDARD FOR UPLIFT TESTS FOR ROOF COVERING SYSTEMS

EXTERIOR COMPONENTS & CLADDINGS CONTINUED:

4. ASSEMBLY SUBMITTALS
   A. SUBMITTALS SHALL CONSIST OF PROJECT SPECIFIC SHOP DRAWINGS AND ASSEMBLY TEST REPORTS, AS DESCRIBED BELOW. SUBMITTALS SHALL BE COMPLETE, CLEAR AND LEGIBLE; INCOMPLETE SUBMITTALS WILL BE REJECTED.
   B. SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING ITEMS:
      1) SYSTEM DESCRIPTION INCLUDING MANUFACTURER'S NAME AND SPECIFIC PRODUCT MODEL NUMBER, NAME OR DESIGNATION.
      2) MANUFACTURER'S PRODUCT DATA/TECHNICAL INFORMATION AND DETAILS.
      3) SYSTEM LAYOUT PLANS, ELEVATIONS, CROSS–SECTIONS AND DETAILS AS APPLICABLE TO THE PROJECT.
      4) DESCRIPTION OF SYSTEM'S ASSEMBLY COMPONENTS (E.G. ROOF LAYERS, FRAME MEMBERS, REINFORCEMENT, DOOR TYPE, GLAZING, HARDWARE, ANCHORS AND FASTENING LOCATIONS, SEALANTS, ACCESSORIES). ALL COMPONENTS SHALL MATCH THOSE SPECIFIED ON ASSEMBLY TEST REPORTS.
      5) SHOP DRAWINGS SHALL INDICATE THE SYSTEM ATTACHMENT METHOD INCLUDING ANCHOR TYPE AND FASTENER LOCATIONS FOR EACH DIFFERENT TYPE OF SUBSTRATE. SYSTEM ATTACHMENT SHALL BE PER ASSEMBLY TEST REPORTS.
      6) ASSEMBLY TEST REPORTS OFTEN PROVIDE OPTIONS FOR MATERIALS AND FASTENING METHODS. SHOP DRAWINGS SHALL BE SPECIFIC TO THE MATERIAL OR METHOD THAT THE CONTRACTOR IS PROPOSING TO INSTALL ON THE PROJECT.
      7) CROSS–REFERENCING BETWEEN THE SHOP DRAWINGS AND THE ASSEMBLY TEST REPORTS IS ENCOURAGED, BUT THE SHOP DRAWINGS SHALL BE DETAILED ENOUGH TO STAND INDEPENDENT OF THE TEST REPORTS.
   C. ASSEMBLY TEST REPORTS SHALL INCLUDE THE FOLLOWING ITEMS:
      1) PERFORMANCE RATINGS BASED ON EVALUATION OF COMPREHENSIVE TESTING IN ACCORDANCE WITH THE APPLICABLE PERFORMANCE STANDARD(S) LISTED ABOVE.
      2) TESTING AND DEVELOPMENT OF REPORTS SHALL BE PERFORMED BY A QUALIFIED THIRD–PARTY TESTING AGENCY.
      3) TEST REPORTS SHALL BE SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
      4) TEST REPORTS SHALL BE RECENT TO INCLUDE THE MOST CURRENT SYSTEM MANUFACTURER'S COMPONENTS AND AVAILABLE FASTENERS AND ACCESSORIES. EXPIRED TEST REPORTS SHALL BE REJECTED.
      5) TEST REPORTS SHALL BE SUBMITTED FOR EACH DIFFERENT TYPE OF ASSEMBLY ON THE PROJECT INCLUDING VARIATIONS OF SYSTEM COMPONENTS AND SUBSTRATES.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2018. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2018.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
PERFORM CLASSIFICATION AND TESTING OF SELECT FILL MATERIALS		X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF SELECT FILL	X	
PRIOR TO PLACEMENT OF SELECT FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

REQUIRED VERIFICATION AND INSPECTION OF PIER FOUNDATIONS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS OF EACH PIER	X	
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM PIER DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END BEARING STRATA CAPACITY	X	
FOR CONCRETE PIERS, PERFORM ADDITIONAL INSPECTIONS AS REQUIRED FOR CONCRETE CONSTRUCTION		

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STATE OF TEXAS
ROBERTO CANIZOS
103450
LICENSED
PROFESSIONAL ENGINEER
4/4/25

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Sheet: GENERAL STRUCTURAL NOTES S1.2

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GENERAL STRUCTURAL NOTES

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE AT THE TIME OF SAMPLING FRESH CONCRETE FOR MAKING SPECIMENS FOR STRENGTH TESTS PER ACI 318	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES	X	
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
ERECTION OF PRECAST CONCRETE MEMBERS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS: AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT	FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC-ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE, WHICHEVER IS MORE STRINGENT	

REQUIRED VERIFICATION AND INSPECTION OF WOOD CONSTRUCTION

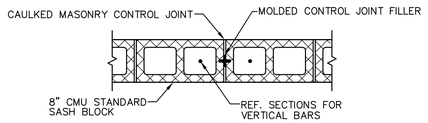
VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
LUMBER SPECIES & GRADE		X
ROOF SHEATHING NAIL FASTENING		X
WALL SHEATHING NAIL FASTENING		X
FLOOR SHEATHING NAIL FASTENING		X
HOLD DOWN ANCHORS (2nd FLR & FOUNDATION)	X	
HURRICANE STRAPS & TIES		X
BUILT-UP WOOD STUD PACKS & HEADERS		X
ROOF AND FLOOR TRUSS INSTALLATION		X
TRUSS LAYOUT / PLACEMENT		X
TRUSS BEARING		X

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

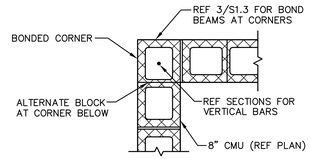
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		X
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X

REQUIRED LEVEL 1 SPECIAL INSPECTION OF MASONRY CONSTRUCTION (OCCUPANCY CATEGORY I, II, III)

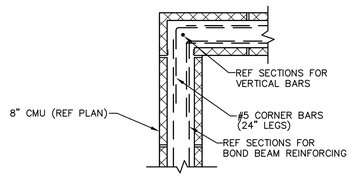
INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
PROPORTIONS OF SITE-PREPARED MORTAR		X
PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X
LOCATION OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
THE INSPECTION PROGRAM SHALL VERIFY:		
SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X
TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION		X
SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT		X
PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X
PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
GROUT SPACE IS CLEAN		X
PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
CONSTRUCTION OF MORTAR JOINTS		X
GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	X	
PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	X	
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBITTALS SHALL BE VERIFIED		X



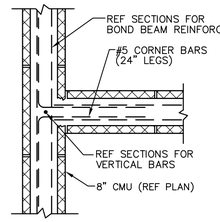
1 TYPICAL CRACK CONTROL JOINT



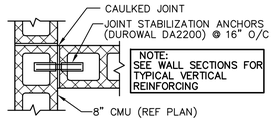
2 BONDED CORNER



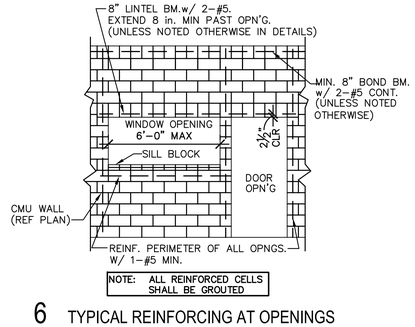
3 BOND BEAM AT EXTERIOR CORNERS



4 TYPICAL BOND BEAM AT INTERSECTING WALL



5 TYPICAL UNBONDED WALL INTERSECTION



6 TYPICAL REINFORCING AT OPENINGS
(NONLOADBEARING INTERIOR WALLS ONLY)

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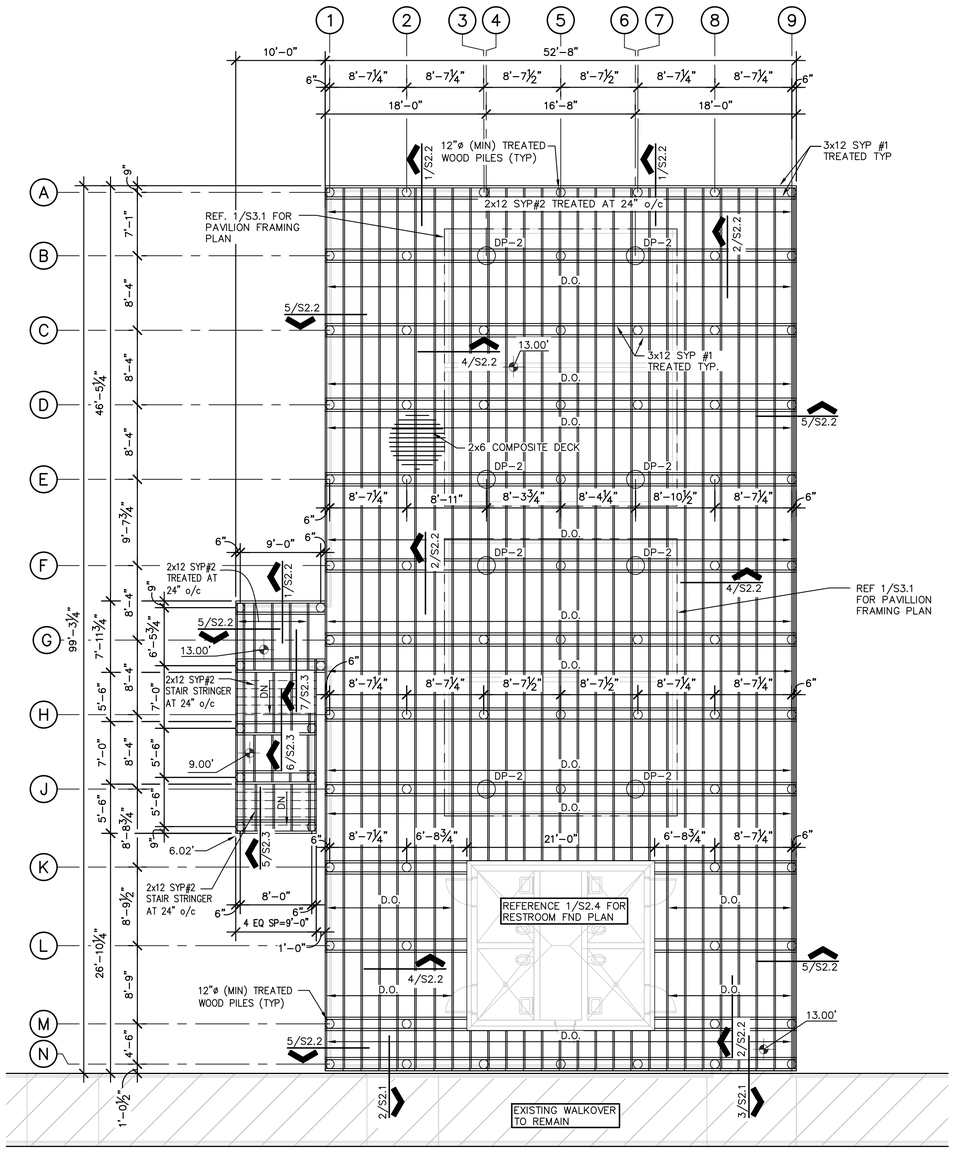
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1 PLAZA FRAMING PLAN

1/8" = 1'-0"

N

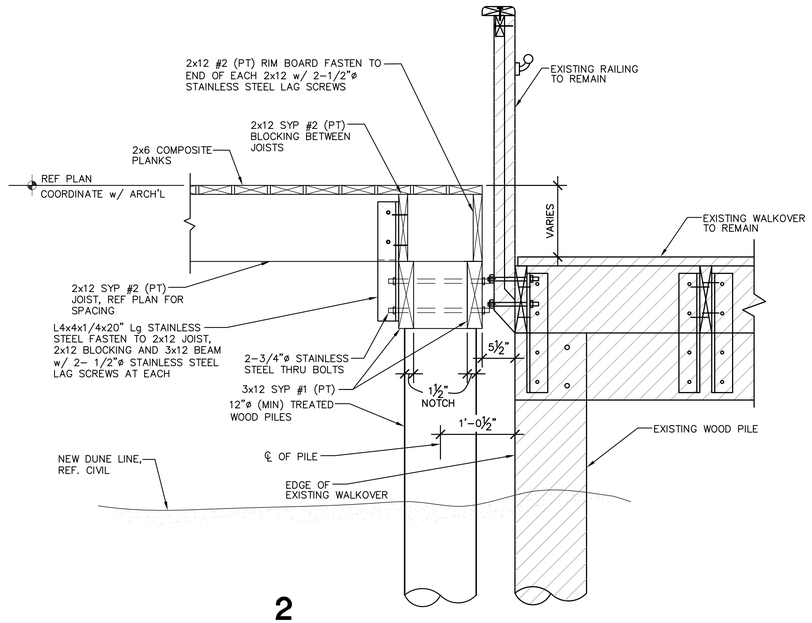
PLAN NORTH

NOTES:

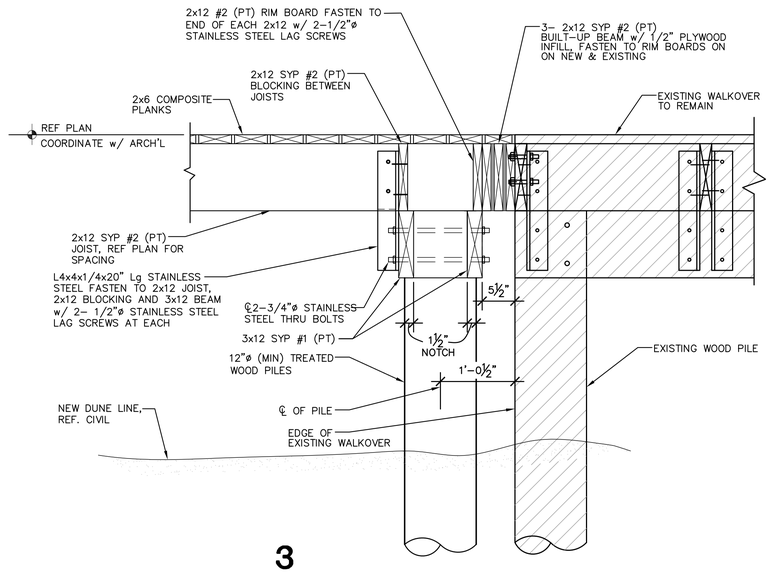
1. ALL LUMBER SHALL BE PRESSURE TREATED WITH WOOD PRESERVATIVES AND SHALL BEAR AN APPROVED AWPB QUALITY MARK. WOOD PRESERVATIVES SHALL BE FREE OF ARSENIC AND CHROMIUM.
2. ALL PILES SHALL BE EMBEDED BELOW MEAN SEA LEVEL AS STATED BELOW, REF. CIVIL DRAWINGS FOR GRADING PLAN:

DIAMETER	TOTAL LENGTH	BEARING DEPTH BELOW MEAN SEA LEVEL (FEET MSL)
12"	VARIES	−20.00'

3. FLOOR DECKING SHALL BE 2x6 TREX TRANSCEND COMPOSITE PLANKS MANUFACTURED BY TREX COMPANY, INC., OR APPROVED EQUIVALENT.
4. REFERENCE 6/S2.4 FOR DRILLED PIER SCHEDULE & PROFILE.



2



3

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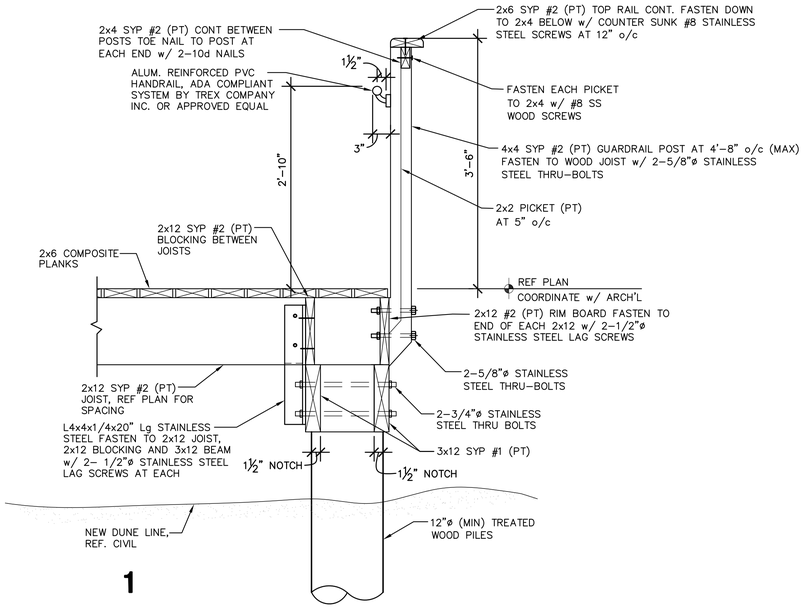
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	S2.1

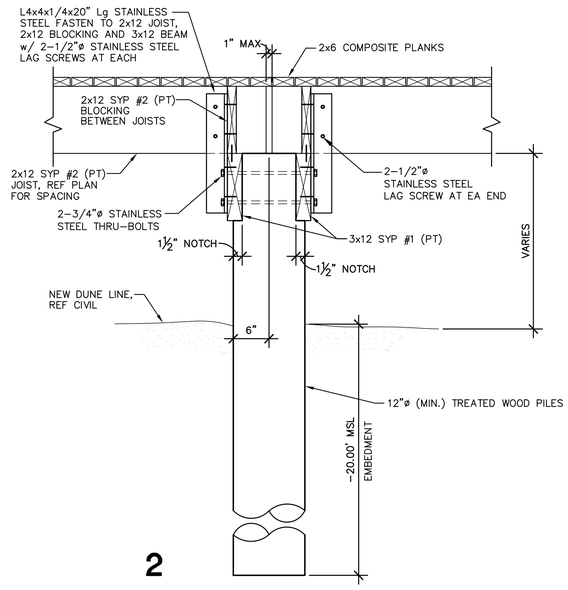
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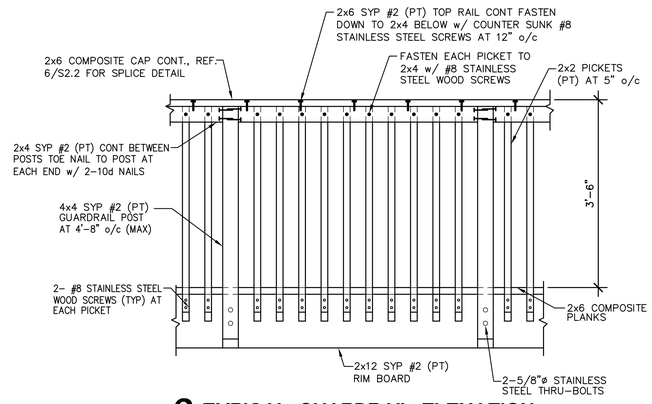
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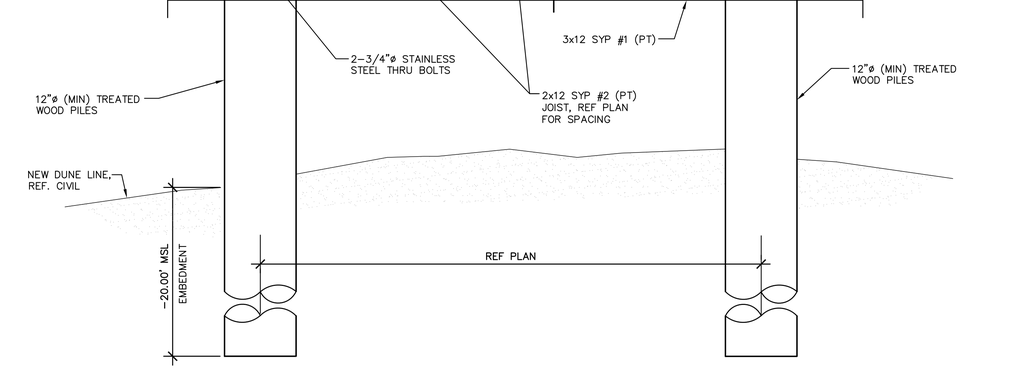
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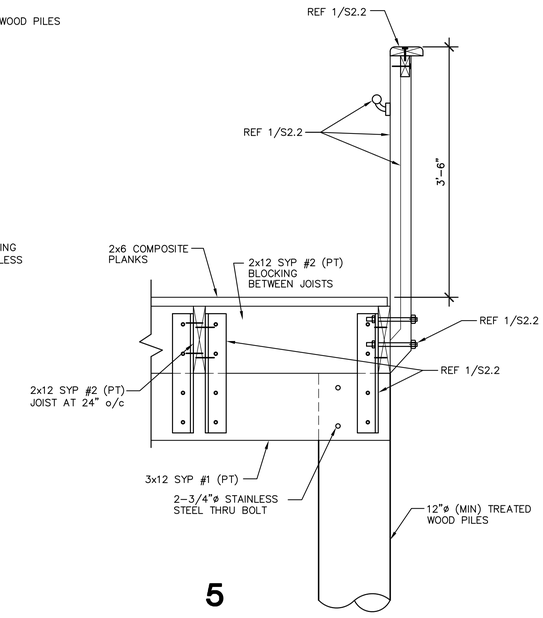
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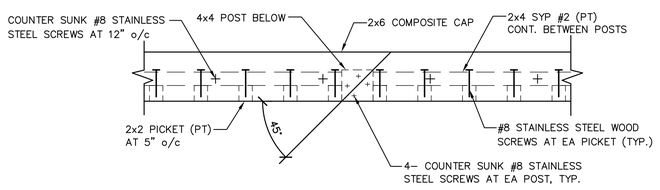
3 TYPICAL GUARDRAIL ELEVATION



4



5



6 2x6 GUARDRAIL SPLICE DETAIL
1.1/2" = 1'-0"

NOTES:

1. SECURE DECK PLANKS PER MANUFACTURER'S RECOMMENDATIONS.

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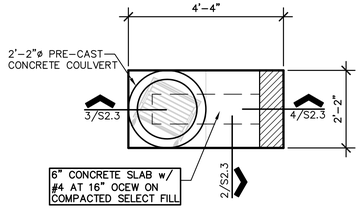
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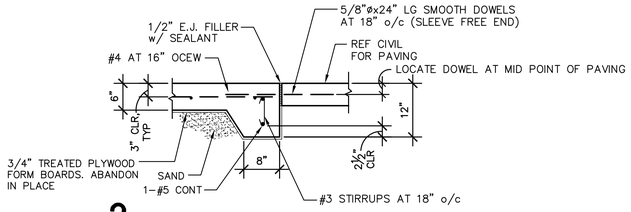
1 BARBECUE GRILL FOUNDATION PLAN

1/2" = 1'-0"

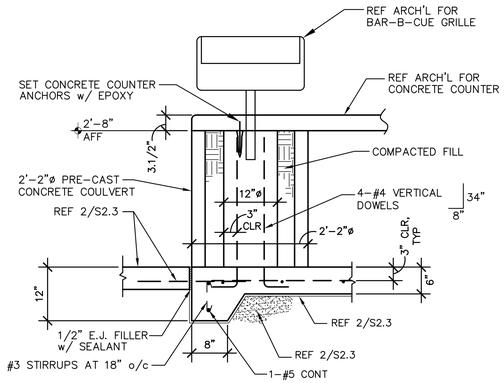


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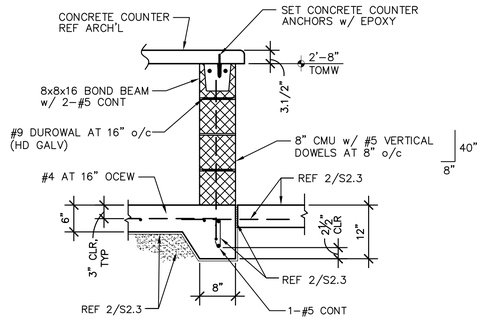
1. COORDINATE LOCATION & ORIENTATION w/ ARCHITECTURAL SITE PLAN.
2. ▨ INDICATES 8" CMU w/ #5 VERTICAL BARS AT 8" o/c.



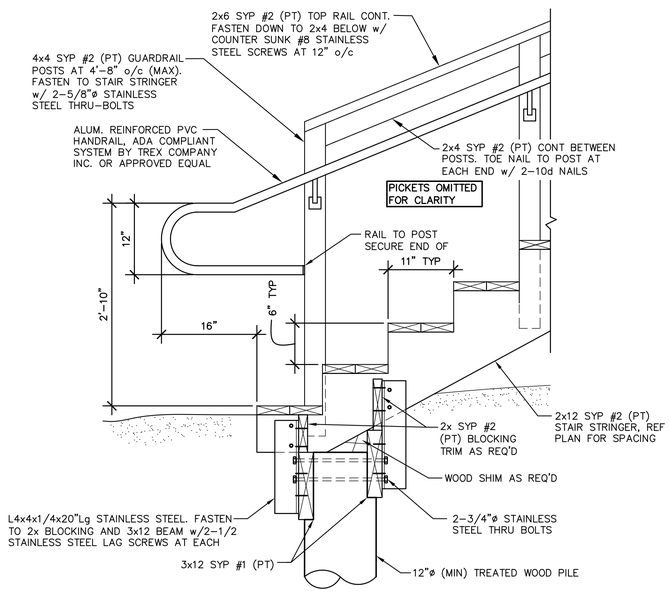
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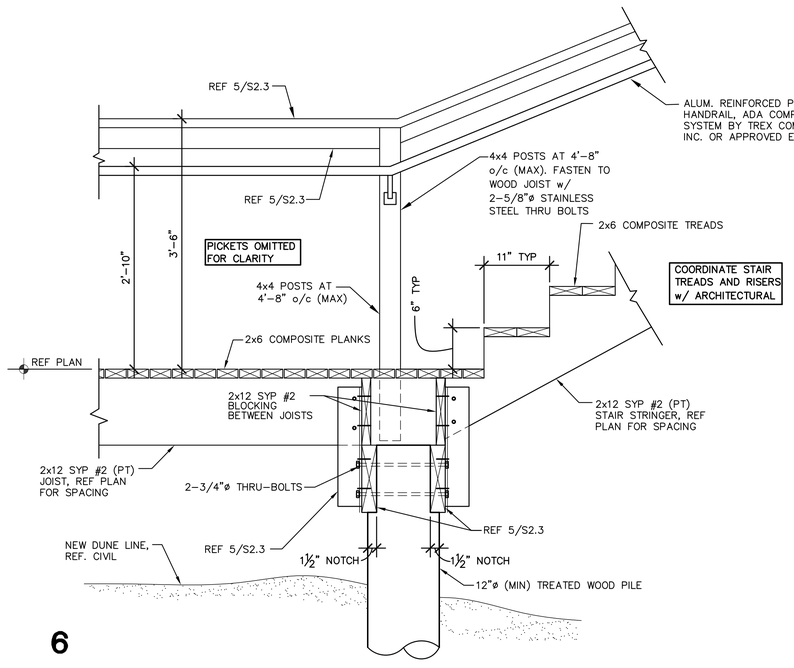
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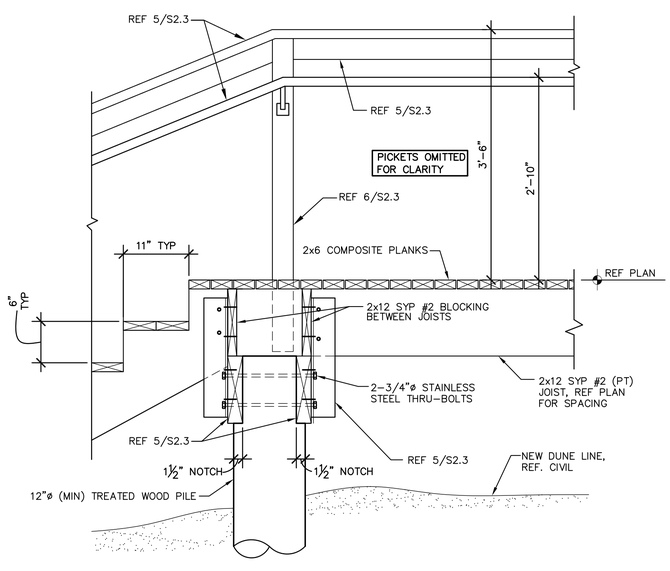
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6



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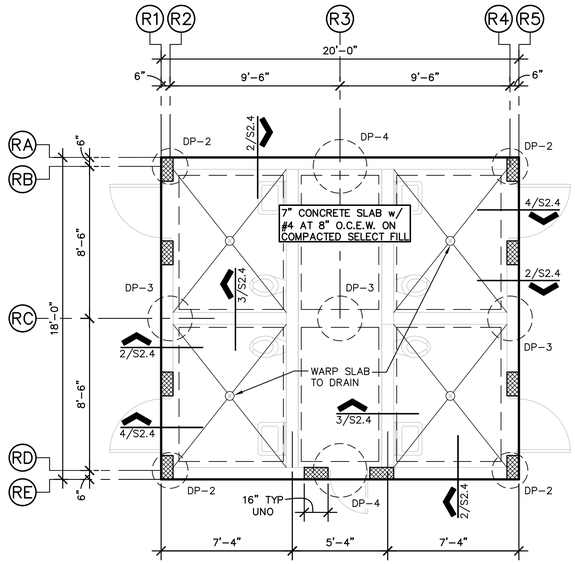
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No.	REVISIONS	BY



1 RESTROOM FOUNDATION PLAN

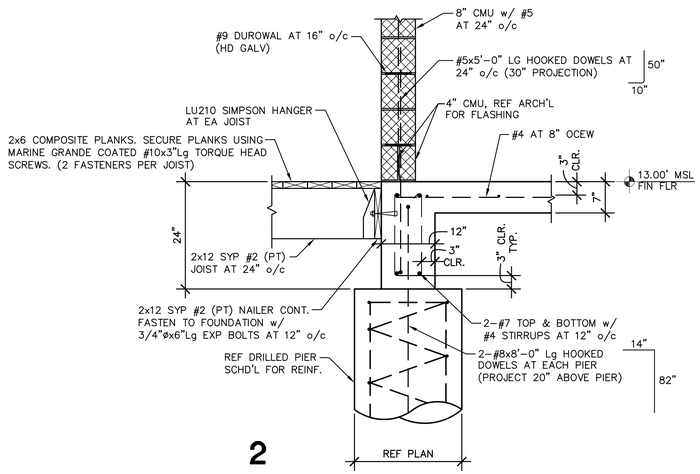
1/4" = 1'-0"

N

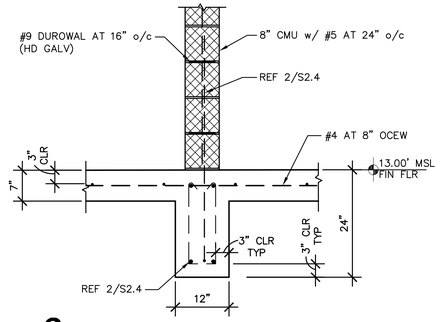
PLAN NORTH

NOTES:

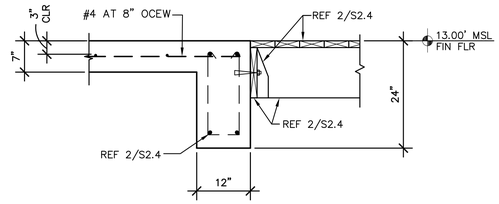
1. ALL SLABS & BEAMS ARE SUSPENDED. REFER TO SECTIONAL DETAILS FOR REINFORCEMENT.
2. SPLICE JOINTS FOR TOP BARS FOR REINFORCED CONCRETE SLABS AND BEAMS SHALL BE LOCATED AT MIDDLE THIRD OF THE SPAN OF SLABS OR BEAMS.
3. SPLICE JOINTS FOR BOTTOM BARS FOR REINFORCED CONCRETE SLAB AND BEAMS SHALL BE LOCATED AT SUPPORTS.
4. CONSTRUCTION JOINTS OF CONCRETE BEAMS/SLABS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN. CONTRACTOR TO SUBMIT PROPOSED LOCATION OF CONSTRUCTION JOINTS TO ARCHITECT/ENGINEER FOR APPROVAL.
5. LAPPING OF SPLICE BARS AT SPLICE JOINTS SHALL BE 62 BAR DIAMETER OR A MINIMUM OF 36" LONG.
6. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER (O.D.) SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
7. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
8. A SINGLE CONDUIT (MAX 3" O.D.) MAY BE PLACED WITHIN THE BEAM CAGE. ALL CONDUIT IN BEAM CAGES TO BE TIED TO STIRRUPS MINIMUM OF 4" FROM HORIZONTAL BARS.
9. PLUMBING LINES PASSING THROUGH BEAMS SHALL BE SLEEVED. BEAMS SHALL BE DEEPENED AND BENT REBAR PROVIDED IF LOCATION OF DRAIN LINES REQUIRES CUTTING BOTTOM BARS. REF DETAIL 7/S2.4.
10. REFERENCE PLUMBING DRAWINGS FOR EXACT LOCATION OF FLOOR DRAINS AND OTHER SLAB PENETRATIONS.
11. ▨ INDICATES 8" CMU WALL w/ 1-#5 VERTICAL BARS AT 8" O/C.
12. ALL LUMBER IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED WITH WOOD PRESERVATIVES AND SHALL BEAR AN APPROVED AWPB QUALITY MARK. WOOD PRESERVATIVES SHALL BE FREE OF ARSENIC AND CHROMIUM.
13. REFERENCE 6/S2.4 FOR DRILLED PIER SCHEDULE & PROFILE.



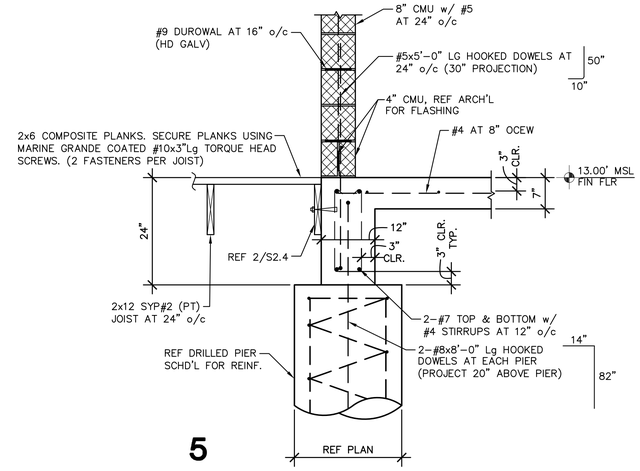
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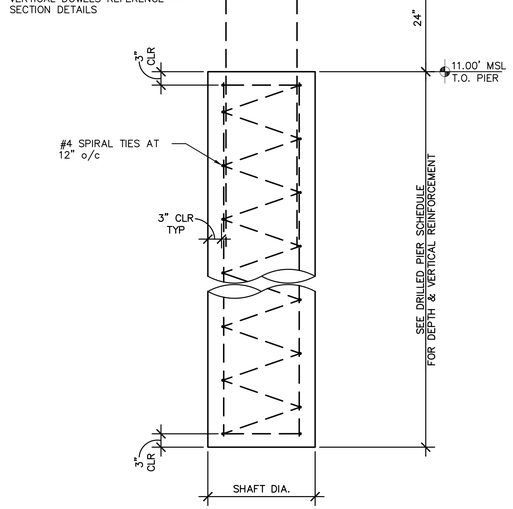
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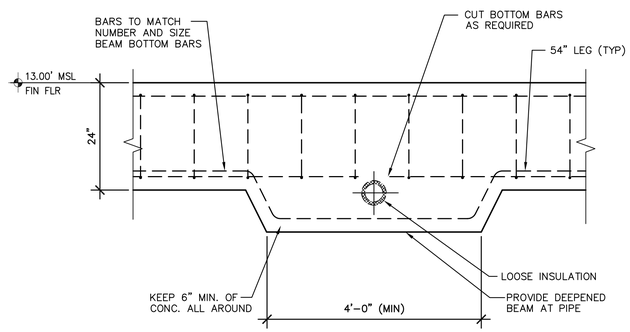


5



6 DRILLED PIER PROFILE

DRILLED PIER SCHEDULE			
MARK	SHAFT DIA. (INCHES)	VERTICAL REINFORCING	BEARING DEPTH BELOW MEAN SEA LEVEL (FEET MSL)
DP-1	18"	8-#7	-33.00'
DP-2	24"	8-#8	-33.00'
DP-3	30"	10-#8	-33.00'
DP-4	36"	12-#8	-33.00'



7 TOP OF SLEEVE INTERRUPTS REINFORCING

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fax (956) 546-0196

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HERMINIO CANIZOS
103450
LICENSED
PROFESSIONAL ENGINEER
4/4/25

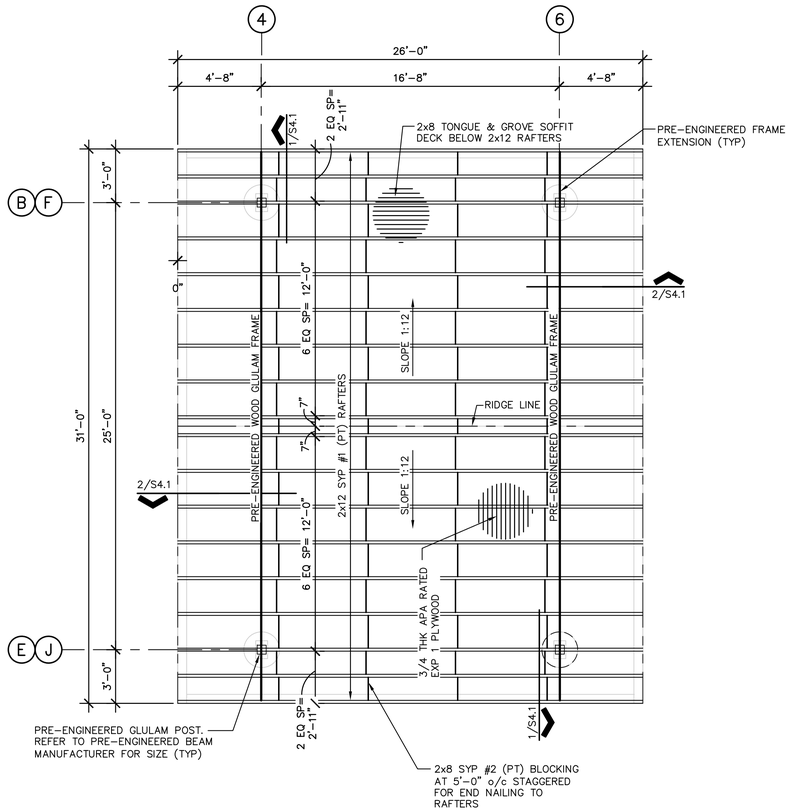
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Sheet:	RESTROOM FOUNDATION PLAN AND DETAILS S2.4

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1 PAVILION ROOF FRAMING PLAN

1/4" = 1'-0" — 2 REQUIRED

N

PLAN NORTH

NOTES:

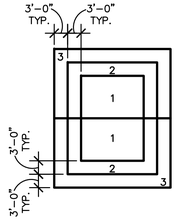
1. REFERENCE ARCHITECTURAL & CIVIL FOR ORIENTATION & LOCATION.
2. SOFFIT SHEATHING SHALL BE 2x8 TONGUE & GROOVE DECKING.
3. REFERENCE SOFFIT SHEATHING NAILING SCHEDULE FOR PROPER TONGUE & GROOVE ATTACHMENT.
4. ROOF SHEATHING SHALL BE 3/4" THK A.P.A. RATED EXP 1 PLYWOOD.
5. REFERENCE ROOF SHEATHING NAILING SCHEDULE FOR PROPER PLYWOOD ATTACHMENT.
6. REFERENCE 3/S4.1 FOR PAVILION GLULAM FRAME PROFILE.

SOFFIT SHEATHING NAILING SCHEDULE
10d NAILS AT 6" o/c ALONG EDGE OF TONGUE & GROOVE DECKING AT PRE-ENGINEERED TIMBER RAFTER BEAMS

ALL 10d NAILS TO MEET MINIMUM LENGTH/ DIAMETER BELOW.
LENGTH 3"
DIAMETER 0.148"

ROOF SHEATHING NAILING SCHEDULE
16d NAILS AT 4" o/c PERIMETER OF SHEET AND 6" o/c AT INTERIOR SUPPORTS.

ALL 16d NAILS TO MEET MINIMUM LENGTH/ DIAMETER BELOW.
LENGTH 3.1/2"
DIAMETER 0.162"



BEACH ACCESS #3 PAVILION
ROOF DESIGN WIND PRESSURE DIAGRAM

DESIGN WIND PRESSURE FOR ROOF COMPONENTS & CLADDING	
ZONE	P- (UPLIFT)
1	-30 PSF
2	-46 PSF
3	-46 PSF

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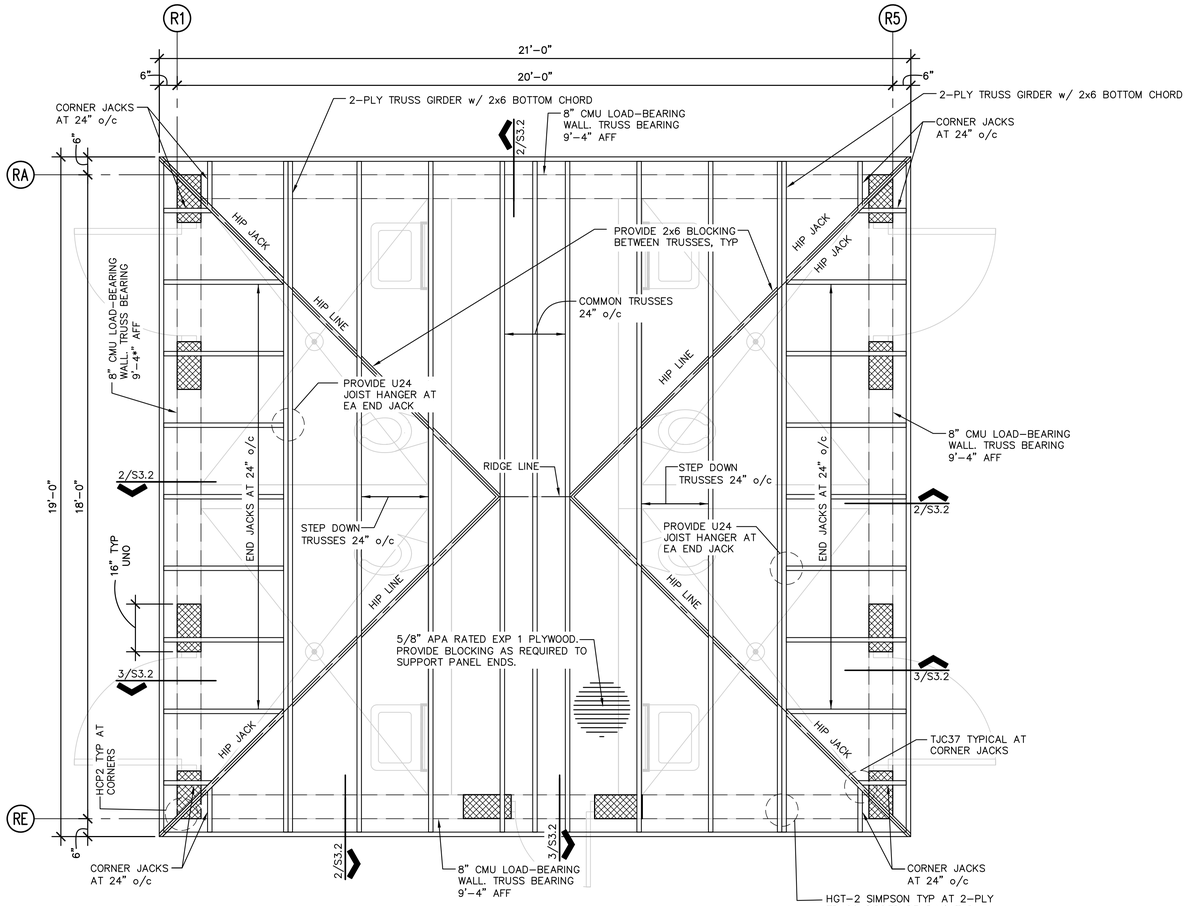
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S3.1

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1 ROOF FRAMING PLAN

1/2" = 1'-0" RESTROOM FACILITY

N
PLAN NORTH

NOTES:

1. ROOF SHEATHING SHALL BE 5/8" APA RATED EXPOSURE 1. SPAN RATED 32/16 UNLESS NOTED OTHERWISE.
2. REFERENCE ROOF SHEATHING NAILING SCHEDULE FOR PROPER PLYWOOD ATTACHMENT.
3. ALL HURRICANE TIES SHALL BE H10A (SIMPSON OR APPROVED EQUAL). INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
4. ALL TRUSSES SHALL BE SPACED AT 24" o/c, UNLESS NOTED OTHERWISE.
5. FACTORY BUILT TRUSSES SHALL BE DESIGNED FOR:

TOP CHORD	BOTTOM CHORD
DL 10 PSF	DL 10 PSF
LL 20 PSF	LL 10 PSF

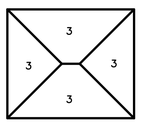
   A. IN ADDITION TO THE SPECIFIED DEAD AND LIVE LOADS, THE FACTORY BUILT TRUSSES MUST BE DESIGNED TO WITHSTAND THE WIND PRESSURES AS DETERMINED BY ASCE 7-16 FOR A Vult=150 MPH WIND 3 SECOND GUST, RISK FACTOR 11, WITH A TERRAIN EXPOSURE D FOR AN ENCLOSED BUILDING.

   B. MAX. DEAD LOAD TO BE CONSIDERED SHALL RESULT IN A NET UPLIFT OF -60 PSF ON TOP CHORD. LOAD REDUCTION FOR APPLICABLE BUILDING CODE LOAD COMBINATIONS SHALL BE APPLIED.

   C. BOTTOM CHORD LIVE LOAD IS TO BE CONSIDERED NON-CONCURRENT WITH ROOF LIVE LOAD.

6. TOP OF PLATE ELEVATION (TOP) SHALL BE 9'-7" UNLESS NOTED OTHERWISE.
7. COORDINATE LOCATION & ORIENTATION OF BUILDING w/ ARCHITECTURAL SITE PLAN.
8. ▒ INDICATES 8" CMU WALL w/ #5 VERTICAL BARS AT 8" o/c. REF PLAN FOR LIMIT.

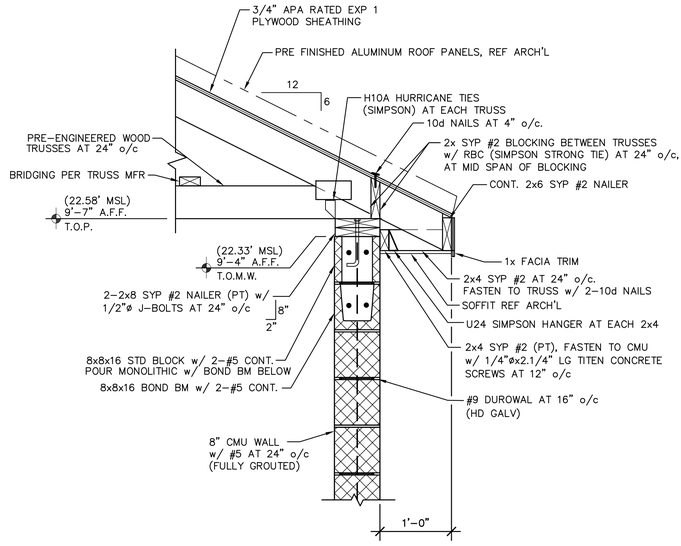
ROOF SHEATHING NAILING SCHEDULE
8d NAILS AT 6" o/c PERIMETER OF SHEET AND 12" o/c AT INTERIOR SUPPORTS



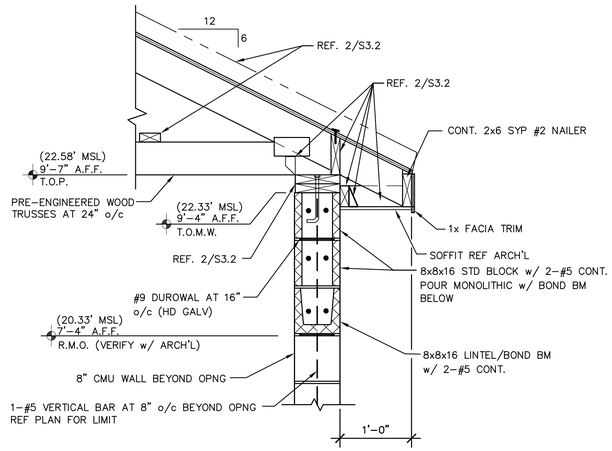
BEACH ACCESS 3
RESTROOM FACILITY
ROOF DESIGN WIND PRESSURE DIAGRAM

DESIGN WIND PRESSURE FOR ROOF COMPONENTS & CLADDING	
ZONE	P- (UPLIFT)
3	-66 PSF

DOORS & WINDOWS MAXIMUM DESIGN WIND PRESSURES
P+ = +36 PSF TOWARDS THE SURFACE
P- = -48 PSF AWAY FROM THE SURFACE



2 NOTE: ALL BLOCK SHALL BE INTEGRAL COLOR, SCORED-FACE CMU. REFERENCE ARCHITECTURAL FOR REQUIREMENTS.



3 NOTE: ALL BLOCK SHALL BE INTEGRAL COLOR, SCORED-FACE CMU. REFERENCE ARCHITECTURAL FOR REQUIREMENTS.

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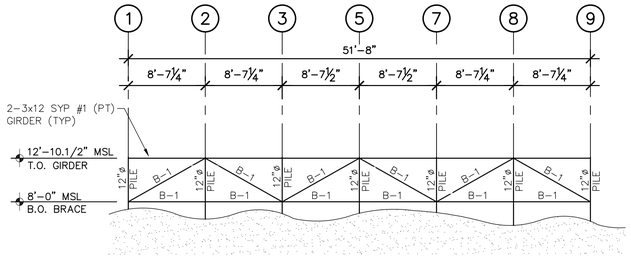
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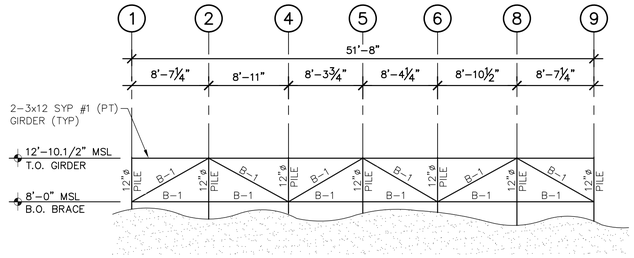
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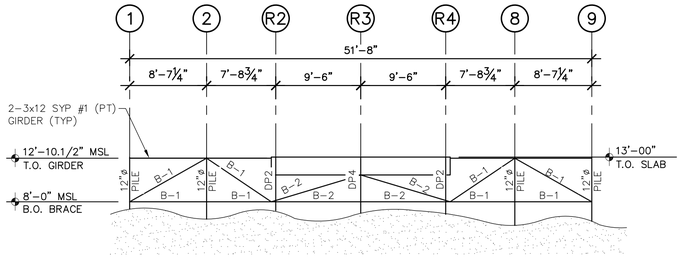
FRAME 1

(TYPICAL AT GRIDS A, C, D, G, H, N)



FRAME 2

(TYPICAL AT GRIDS B, E, F, J)



FRAME 3

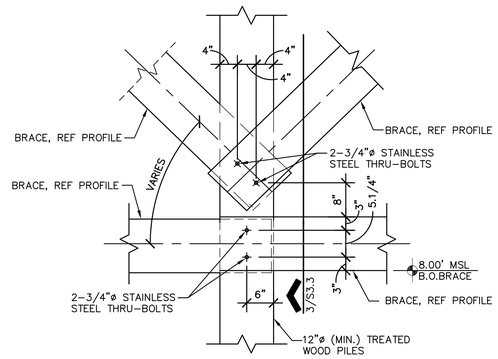
(TYPICAL AT GRIDS K, M, SIM L)

1 FRAME PROFILES

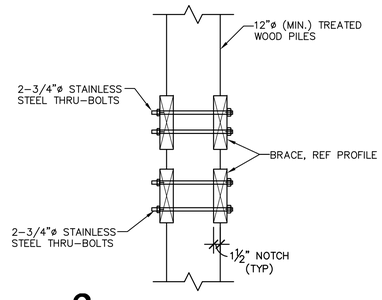
1/8" = 1'-0"

NOTES:

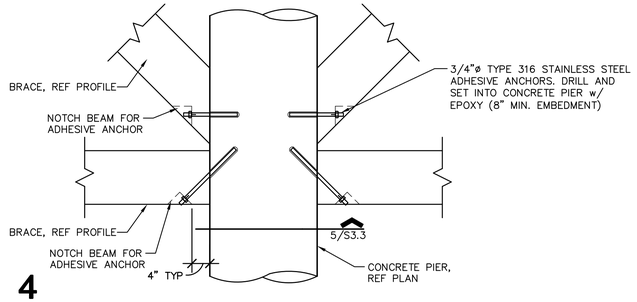
1. B-1 = 3x12 SYP #1 (PT) BRACE
2. B-2 = 2-3x12 SYP #1 (PT) BRACE. FASTEN BRACE PLIES TO EACH OTHER w/ 3/4"ø TYPE 316 STAINLESS STEEL LAG SCREWS AT 6" o/c (STAGGERED NS AND FS).
3. REFERENCE S2.1 FOR DRILLED PIER SCHEDULE



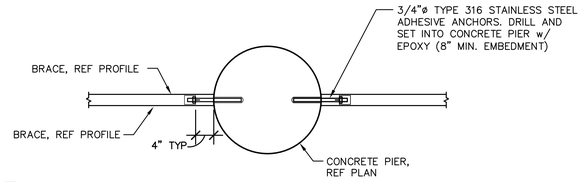
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3



4



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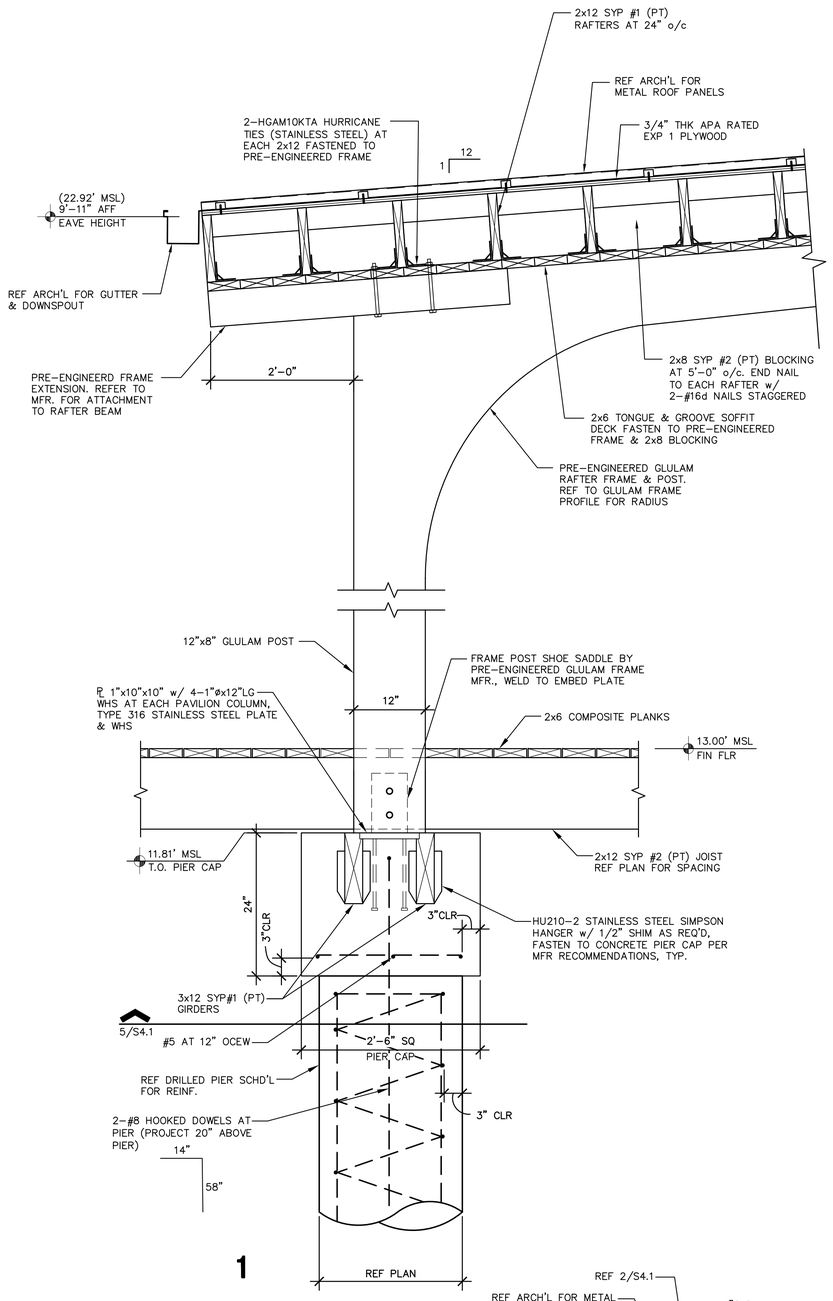
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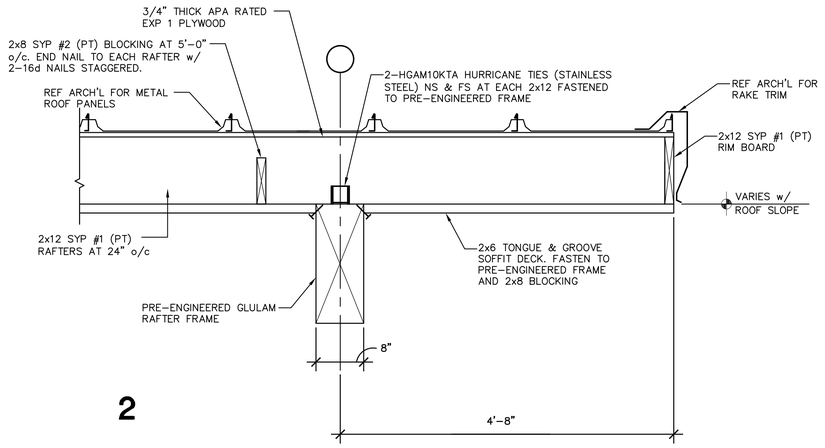
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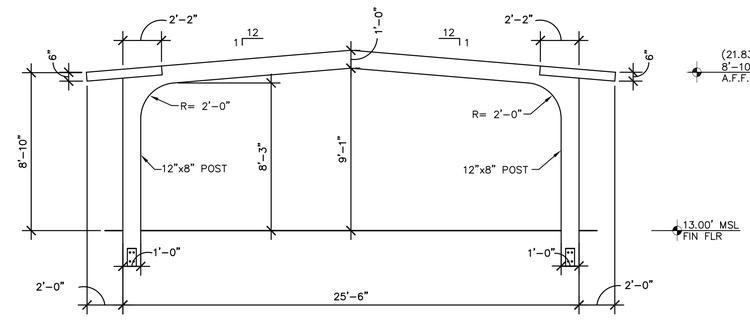
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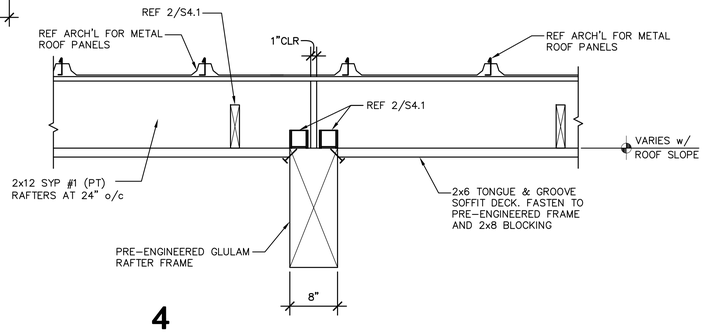


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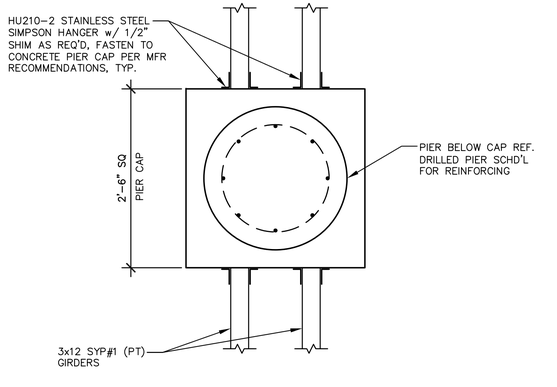


3 PAVILION GLULAM FRAME PROFILE

1/4" = 1'-0"



4



5

NOTE: PROVIDE SIMILAR CONCRETE PIER CAP AT ALL FLOOR GIRDER TO PIER CONNECTION LOCATIONS

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TOLL BOOTH 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 & MECHANICAL 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 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).

DESIGN CRITERIA

1. BASIS FOR DESIGN AND CODE COMPLIANCE

   A. GOVERNING BUILDING CODE.....IBC 2018 EDITION

2. WIND DESIGN (ASCE 7-16)
   DESIGN WIND SPEED.....150 MPH
   RISK CATEGORY.....II
   WIND EXPOSURE CATEGORY.....D
   INTERNAL PRESSURE COEFFICIENT (GCpi).....VARIES
   Kzt.....1.0
   Kd.....0.85

3. GRAVITY DESIGN
   ROOF:
   DEAD LOAD.....SELF-WEIGHT OF STRUCTURE & ROOFING SYSTEM
   LIVE LOAD.....20 PSF

   FLOOR LIVE LOAD:
   RESTROOMS, RINSE STATION..... 50 PSF
   PLAZA, WALKOVERS..... 100 PSF

4. BREAKING WAVE LOADS ON CROSSOVER STRUCTURE

   A. BASE FLOOD ELEVATION ..... ELEV 13.00' MSL

   B. ASSUMED GROUND ELEVATION AT STORM SURGE ..... ELEV -3.00' MSL

   C. COEFFICIENT OF DRAG FOR BREAKING WAVES FOR DRILLED PIER Cd = 1.75

   D. DYNAMIC PRESSURE COEFFICIENT FOR VERTICAL SURFACE CATEGORY II, Cp = 2.8

5. THESE BUILDINGS ARE DESIGNED TO MEET ASCE 7-05 WIND PRESSURES. ALL COMPONENTS AND CLADDINGS (E.G. WINDOWS, DOORS, ARCHITECTURAL SIDINGS AND ROOFING); MUST MEET MINIMUM WIND CODE REQUIREMENTS. IN ADDITION AS ADOPTED BY THE TEXAS DEPARTMENT OF INSURANCE, ALL EXTERIOR OPENINGS IN THE LOWER 60 FEET OF THE BUILDING SHALL BE IMPACT RESISTANT MEETING ASTM E 1996 FOR LARGE MISSILES OR PROTECTED WITH AN IMPACT RESISTANT COVERING.

6. THE GENERAL CONTRACTOR MUST SUBMIT COMPONENT AND CLADDING WIND PRESSURE & IMPACT RESISTANCE RATINGS AND REQUIRED ATTACHMENT PROCEDURES TO THE STRUCTURAL ENGINEER FOR REVIEW. SUBMITTAL INFORMATION SHALL INCLUDE A THIRD PARTY TESTING REPORT OF THE PROPOSED ASSEMBLY; REFERENCE EXTERIOR COMPONENTS & CLADDINGS NOTES FOR ADDITIONAL REQUIREMENTS. THE GENERAL CONTRACTOR SHALL CONTACT THE STRUCTURAL ENGINEER TO COORDINATE AND SCHEDULE REQUIRED PERIODIC INSPECTION OF EXTERIOR COMPONENTS AND CLADDINGS.

7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONSTRUCTION SERVICES AS NEEDED TO SATISFY THE REQUIREMENTS OF THE DRAWINGS, THE SPECIFICATIONS, THE REFERENCED BUILDING CODE AND THE TEXAS DEPARTMENT OF INSURANCE WINDSTORM INSPECTION PROGRAM. ALL CONSTRUCTION ADMINISTRATION COSTS ASSOCIATED WITH SUBMITTAL PREPARATION, SUBMITTAL REVIEW, INSPECTION COORDINATION, INCLUDING ALL GENERAL CONDITIONS, OVERHEAD AND PROFIT, SHALL BE INCLUDED IN THE GENERAL CONTRACTOR'S BID.

FOUNDATION DESIGN CRITERIA

FOUNDATION DESIGN IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, AND IS BASED ON THE GEOTECHNICAL REPORT NO. 328-1668 PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC., HARLINGEN, TEXAS, DATED JULY 8, 2016, AND REPORT MEMORANDUM NO. 328-1668A DATED NOVEMBER 4, 2016.

A. DRILLED PIERS & DRIVEN PILES ARE SIZED BASED ON THE ALLOWABLE VALUES BELOW:

ELEVATION DEPTH BELOW MEAN SEA LEVEL (FEET MSL)	ALLOWABLE UNIT SKIN FRICTION (KSF)	ALLOWABLE END BEARING (KSF)	ALLOWABLE LATERAL PASSIVE RESISTANCE (KSF/FT)
0 TO -3 MSL	NEGLECT	NEGLECT	NEGLECT
-3 TO -5 MSL	0.08	NEGLECT	0.15-0.36
-5 TO -10 MSL	0.12	NEGLECT	0.36-0.89
-10 TO -13 MSL	0.21	NEGLECT	0.89-1.20
-13 TO -33 MSL	0.24	2.64	1.20

2. GROUNDWATER WAS ENCOUNTERED AS SHALLOW AS APPROXIMATELY +2.50' MSL ELEVATION DURING DRILLING OPERATIONS (MAY FLUCTUATE WITH SEASON). CONTRACTOR SHALL DETERMINE ACTUAL GROUNDWATER LEVELS AT THE TIME OF THE CONSTRUCTION ACTIVITIES.

3. THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE RETAINED TO PERFORM TESTING AND INSPECTIONS DURING INSTALLATION OF DRIVEN PILES AND DRILLED PIERS AS REQUIRED BY SPECIFICATIONS AND GENERAL STRUCTURAL NOTES.

DRILLED PIERS

1. CONCRETE MIX FOR ALL DRILLED PIERS SHALL BE DESIGNED TO ACHIEVE MINIMUM OF 4,000 PSI 28-DAY COMPRESSIVE STRENGTH WHEN PLACED WITH A SEVEN (7) INCH (±1) INCH SLUMP.

2. INSTALL ALL PIERS AT THE LOCATIONS AND TO THE DEPTHS INDICATED ON THE DRAWINGS. BID SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL AND GENERAL CONDITIONS REQUIRED FOR INSTALLATION OF STRAIGHT SHAFT DRILLED PIERS WITH CASING, AS SHOWN ON THE DRAWINGS.

3. IF DIRECTED BY THE ARCHITECT/ENGINEER, PIERS SHALL BE ADJUSTED IN THE FIELD AS REQUIRED TO MEET DESIGN REQUIREMENTS.

4. PRIOR TO DEVELOPMENT OF THE PIER REINFORCEMENT SUBMITTALS, THE GENERAL CONTRACTOR, FOUNDATION CONTRACTOR, DRILLER, AND THE GEOTECHNICAL ENGINEER SHALL HAVE A PRE-CONSTRUCTION MEETING TO DISCUSS THE CONTRACTOR'S PROPOSED PIER INSTALLATION PROCEDURES. AT THE MEETING, THE CONTRACTOR NEEDS TO PERFORM A "TEST" PIER TO DETERMINE CURRENT SUBSURFACE WATER LEVELS AND THE CONSTRUCTABILITY OF THE DRILLED PIERS SPECIFIED. THE TEST PIER WILL NEED TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER OF RECORD FOR APPROVAL OF THE PROPOSED INSTALLATION PROCEDURES AND/OR ISSUANCE OF ADDITIONAL RECOMMENDATIONS, AS REQUIRED.

5. ALL PIERS SHALL BE CENTERED ON BEAMS UNLESS OTHERWISE SHOWN.

6. DRILL PIER SHAFTS TO THE EXACT SIZE SHOWN. SHAFTS SHALL BE BORED PLUMB WITH A TOLERANCE OF TWO INCHES (2"). INSTALL OFFSET STAKES ON OPPOSITE SIDES OF THE PIER AND USE TO MAINTAIN THE PIER CENTERS AND TO CHECK THE PIER PLUMBNESS. EXCAVATION BOTTOMS SHALL HAVE A MAXIMUM OF ONE INCH (1") OF LOOSE DIRT AND TWO INCHES (2") OF GROUND WATER IMMEDIATELY PRIOR TO PLACING CONCRETE. IF MACHINE CLEANING IS NOT SATISFACTORY TO GEOTECHNICAL ENGINEER, HAND CLEANING WILL BE REQUIRED.

DRILLED PIERS CONTINUED:

7. EACH PIER SHAFT AND DRILLING OPERATIONS SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL PERSONNEL TO ENSURE PROPER BEARING AT SCHEDULED ELEVATION AND TO VERIFY STRATAS NOTED IN THE GEOTECHNICAL REPORT. INSPECTIONS SHALL ALSO VERIFY PIER SHAFT DIAMETER, DEPTH, REINFORCEMENT SIZE, QUANTITIES AND LOCATIONS. INSPECTION REPORTS SHALL BE TRANSMITTED TO ENGINEER WITHIN 3 DAYS OF INSPECTION.

8. PROVIDE SUITABLE ACCESS AND LIGHTING FOR INSPECTION OF THE EXCAVATIONS FOR CLEANLINESS AND FOR CORRECTNESS OF DIMENSIONS AND ALIGNMENT.

9. DUE TO SUBSURFACE STRATIGRAPHY AND WATER LEVELS ENCOUNTERED DURING DRILLING OPERATIONS, IF THE CONTRACTOR CANNOT INSTALL A PIER AT THE SPECIFIED LOCATION OR DEPTH, THE ENGINEER MUST BE CONTACTED IMMEDIATELY FOR FURTHER INSTRUCTIONS.

10. FOR STRAIGHT SHAFT DRILLED PIERS, CASINGS ARE REQUIRED FOR USE TO CONTROL THE EXCAVATION PROCESS. CASING MUST TERMINATE IN CLAYEY SOILS, SHOULD BE METAL WITH AMPLE STRENGTH TO WITHSTAND HANDLING STRESSES, CONCRETE AND EARTH PRESSURES, AND SHALL BE WATERTIGHT.

11. PRECAUTIONS SHOULD BE TAKEN DURING THE PLACEMENT OF THE PIER REINFORCEMENT AND CONCRETE TO PREVENT LOOSE EXCAVATED MATERIAL FROM FALLING INTO THE EXCAVATION.

12. PLACEMENT OF CONCRETE SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER EXCAVATION IS COMPLETE, REINFORCING CAGE IS PLACED AND INSPECTED, AND APPROVED. THE CONCRETE SHOULD NOT BE ALLOWED TO RICOCHET OFF THE WALLS OF THE PIER EXCAVATION NOR OFF OF THE REINFORCING STEEL. PLACEMENT OF CONCRETE SHALL COMPLY WITH AMERICAN CONCRETE INSTITUTE (ACI) 318-05 CODE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 336.3R-14 ENTITLED "SUGGESTED DESIGN AND CONSTRUCTION PROCEDURES FOR PIER FOUNDATIONS", U.S. DEPARTMENT OF TRANSPORTATION-FEDERAL HIGHWAY ADMINISTRATION PUB. NO. FHWA-IF-99-025 "MANUAL ON DRILLED SHAFTS: CONSTRUCTION PROCEDURES AND DESIGN METHODS" AND ADSC: THE INTERNATIONAL ASSOCIATION OF FOUNDATION DRILLING CONTRACTORS PUB. NO. ADSC-TL-4, AUGUST 1999.

13. NO PIER EXCAVATION SHALL BE LEFT OPEN OVERNIGHT WITHOUT CONCRETING.

14. FOR LIGHT POLE DRILLED PIERS, THE CONTRACTOR SHALL COORDINATE POLE BASE PLATE/ANCHOR BOLT DIMENSIONS WITH POLE SUPPLIER PRIOR TO PLACING PIERS. CONFLICTS SHALL BE COORDINATED WITH ENGINEER.

CONCRETE

1. 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.

2. 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 4,000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL MEET ASTM C150, TYPE II (MODERATE).

4. A MAXIMUM OF 23% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.5 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). CONCRETE FOR PIERS SHALL BE DESIGNED TO ACHIEVE SPECIFIED STRENGTH WHEN PLACED WITH A SEVEN (7) INCH (±1) SLUMP. AGGREGATE SHALL BE WELL-GRADED, 1" MAXIMUM. 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 50 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. THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND CONDITIONS BEFORE WORK COMMENCES. ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF CONFLICTS OR DISCREPANCIES.

8. STANDARD PROTECTIVE COVER OF REINFORCING BARS SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.

9. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315, LATEST EDITION.

10. REINFORCING SHALL BE CHAIRED AND TIED TO PROHIBIT MOVEMENT DURING CONCRETE PLACEMENT.

11. NO JOINTS WILL BE PERMITTED IN SLABS, COLUMNS, OR BEAMS UNLESS APPROVED BY THE ENGINEER.

12. PROVIDE 2 TOP & BOTTOM CORNER BARS AT ALL DISCONTINUOUS BEAMS AND CORNERS. CORNER BARS SHALL BE 6'-0" IN LENGTH (3'-0" LEGS). SIZE OF THE CORNER BARS SHALL MATCH THE SIZE OF THE GRADE BEAM REINFORCING AS SHOWN BY STRUCTURAL DRAWINGS.

13. MAINTAIN A MINIMUM OF ONE AND ONE-HALF (1-1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).

14. BARS SCHEDULED OR DETAILED "CONT." SHALL BE LAPPED 62 BAR DIAMETERS (36 INCHES MINIMUM) UNLESS OTHERWISE NOTED.

15. WHERE CONCRETE IS TO HAVE UNEXPOSED SURFACES, THE FORMS MAY BE CONSTRUCTED OF #2 LUMBER OR BETTER. WHERE SURFACES ARE EXPOSED, SUCH AS FOR FINISH PAINTING OR STUCCO DASH, THE FORMS SHALL BE COMMERCIAL STANDARD DOUGLAS FIR, MOISTURE-RESISTANT CONCRETE FORM PLYWOOD; MINIMUM 5-PLY AND AT LEAST 9/16" THICK, OR FORMS LINED WITH COMMERCIAL STANDARD DOUGLAS FIR, CONCRETE FORM EXTERIOR, 3-PLY, NOT LESS THAN 1/4" THICK. WHERE CONCRETE IS EXPOSED, A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.

16. COLUMN FORMS & BEAM SIDE FORMS MAY BE REMOVED NO SOONER THAN FORTY-EIGHT (48) HOURS AFTER CONCRETE PLACEMENT. BEAM BOTTOM FORMS & SHORING MAY BE REMOVED AFTER CONCRETE COMPRESSIVE STRENGTH REACHES 3,500 PSI OR GREATER.

17. CONSTRUCT FORMS SO THAT JOINTS ARE LEAKPROOF. MAINTAIN FORMS SUFFICIENTLY RIGID TO PREVENT DEFORMATION UNDER LOAD.

18. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

19. 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.

CONCRETE CONTINUED:

20. 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'

21. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.

22. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. SUBMITTALS SHALL BE TRANSMITTED AS A SINGLE ELECTRONIC FILE (PDF FORMAT). ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

23. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS. ENGINEER REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY OF ERRORS IN DIMENSIONS SHOWN ON SHOP DRAWINGS. FABRICATION AND PLACEMENT SHALL BE FROM REVIEWED DRAWINGS ONLY.

24. ENGINEER TO BE NOTIFIED (48) HOURS PRIOR TO PLACEMENT OF CONCRETE TO SCHEDULE REQUIRED OBSERVATIONS.

ROUGH CARPENTRY

1. ROUGH CARPENTRY SHALL COMPLY WITH THE PROVISIONS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE AND THE NATIONAL DESIGN STANDARD, SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPWS).

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 AND PLYWOOD REQUIRED TO BE PRESERVATIVELY TREATED SHALL BEAR AN APPROVED AWPB QUALITY MARK.

4. FRAMING LUMBER MOISTURE CONTENT SHALL NOT EXCEED 19 PERCENT AT TIME OF INSTALLATION.

5. MATERIALS

   A. FRAMING LUMBER

USE-ITEM	LUMBER SPECIES	MINIMUM GRADE	GRADING AGENCY
ROOF RAFTERS	SOUTHERN PINE	#1	SPIB
FLOOR GIRDERS	SOUTHERN PINE	#1	SPIB
FLOOR JOISTS	SOUTHERN PINE	#2	SPIB
NAILERS, BLOCKING	SOUTHERN PINE	#2	SPIB

   * MEMBERS IN CONTACT WITH MASONRY OR CONCRETE, AND MEMBERS EXPOSED TO MOISTURE SHALL BE PRESSURE TREATED.

   B. PLYWOOD

USE-ITEM	THICKNESS	EXPOSURE	APA SPAN RATING
ROOF SHEATHING	3/4"	1	48/24

   C. FASTENERS

COMMON NAIL	SHANK DIAMETER	HEAD DIAMETER	LENGTH
20d	0.192"	0.406"	4"
16d	0.162"	0.344"	3.1/2"
10d	0.148"	0.312"	3"
8d	0.131"	0.281"	2.1/2"

   1. THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL BE AS SHOWN ON PLAN BUT NOT LESS THAN SPECIFIED IN THE IBC 2018 TABLE 2304.10.1.

   2. ALL NAILS AND BOLTS SHALL BE STAINLESS STEEL TYPE 316.

6. FRAMING MEMBERS SHALL BE CONTINUOUS LENGTH WITHOUT SPLICING. SPLICES IN HORIZONTAL MEMBERS SHALL OCCUR ONLY OVER BEARING POINTS. LAP MEMBERS TO PROVIDE FULL BEARING FOR EACH MEMBER, UNLESS DETAILED OTHERWISE.

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. RAFTERS SHALL NOT BE NOTCHED AT THE END SUPPORTS OR THE MIDDLE 1/3 OF THE RAFTER SPAN.

9. RAFTERS ARE PERMITTED TO BE NOTCHED IN THE TOP OR BOTTOM OF THE RAFTERS AT THE OUTER 1/3 OF THE SPAN. NOTCHES SHALL NOT EXCEED IN DEPTH 1/6 THE ACTUAL RAFTER DEPTH AND SHALL NOT EXCEED IN LENGTH 1/3 THE ACTUAL FASTER DEPTH.

10. RAFTERS ARE PERMITTED TO BE BORED TO A DIAMETER NOT GREATER THAN 1/3 THE ACTUAL RAFTER DEPTH AND NOT BE CLOSER THAN 2 INCHES FROM THE TOP OR BOTTOM EDGE OF THE RAFTER.

11. CONTRACTOR SHALL ENSURE NAILS ARE PROPERLY DRIVEN. NAILS SHALL BE DRIVEN FLUSH WITH THE EXTERIOR SURFACE OF PLYWOOD. OVERDRIVEN NAILS SHALL BE REPLACED OR NAILS SHALL BE PLACED BETWEEN THE OVERDRIVEN NAILS.

12. SHEATHING SHALL BE INSTALLED CONTINUOUS OVER TWO OR MORE SPANS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND JOINTS STAGGERED. A 1/8" SPACE SHALL BE PROVIDED AT PANEL EDGES AND END JOINTS UNLESS RECOMMENDED OTHERWISE BY THE MANUFACTURER.

13. SHEATHING SHALL BE ATTACHED TO STRUCTURE AS SPECIFIED ON SHEATHING NAILING SCHEDULES.

14. PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS AT BEARING LOCATIONS AND AT MID-SPAN OF SPANS GREATER THAN 8'-0", OR AS NOTED ON PLANS. BLOCKING TO MATCH SIZE OF FRAMING MEMBER.

15. ALL METAL ANCHORS, HOLD DOWNS AND ETC., SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE" OR APPROVED EQUIVALENT, AND BE STAINLESS STEEL TYPE 316.

16. ENGINEER SHALL BE CONTACTED FOR FRAMING INSPECTIONS PRIOR TO INSTALLING OF CEILINGS, WALL SHEATHING, WALL FINISHES, AND/OR ROOF COVERINGS (INCLUDING BUILDING PAPER).

WOODEN TRUSS NOTES

1. TRUSSES SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF TEXAS. DESIGN SHALL MEET OR EXCEED LOAD REQUIREMENTS SPECIFIED ON THE PLANS.

2. SHOP DRAWINGS SHALL BEAR THE ENGINEER'S SEAL AND BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL. SHOP DRAWINGS SHALL BE SUBMITTED BY ELECTRONIC FORMAT (PDF). SHOP DRAWINGS SHALL CONTAIN THE FOLLOWING INFORMATION FOR EACH TYPE AND SIZE OF TRUSS ASSEMBLY TO BE PROVIDED:

   A. TRUSS LAYOUT PLAN

   B. DETAIL OF TRUSS

   C. SPECIES, SIZE, AND GRADE OF LUMBER USED

   D. CONNECTOR PLATE SIZES AND ORIENTATION

   E. LOAD AND CODE DESIGN INFORMATION

   F. BEARING POINT REACTIONS

3. TRUSS SHALL BE DESIGNED USING COMPONENTS AND CLADDING WIND PRESSURE CALCULATED USING THE DESIGN CRITERIA PROVIDED. FOR TRUSSES RECEIVING LOAD FROM OTHER TRUSSES, SUCH AS GIRDER TRUSSES AND HIPJACKS, MAIN WIND FORCE RESISTING SYSTEM (MWFRS) WIND PRESSURES SHALL BE USED FOR TRUSS DESIGN. TRUSS ENGINEER SHALL PROVIDE TRUSS REACTIONS USING MWFRS WIND PRESSURES TO ENGINEER OF RECORD.

4. TRUSSES SHALL BE SHOP MANUFACTURED AND HAVE WOOD WEBS AND CHORDS. ALL LUMBER USED IN THE FABRICATION OF TRUSSES SHALL BE STRESS GRADED AND SHALL BE OF THE SPECIES, SIZE, AND GRADE SPECIFIED IN THE TRUSS DESIGN.

5. CONNECTOR PLATES SHALL BE STAMPED FROM 16, 18, OR 20 GAUGE, STAINLESS STEEL TYPE 316. BOTH PLATE WIDTH AND PLATE LENGTH MUST EQUAL OR EXCEED THAT SPECIFIED IN THE TRUSS DESIGN.

6. TRUSSES SHALL BE FABRICATED IN ACCORDANCE WITH THE TRUSS DESIGN FROM ACCURATELY CUT WOOD MEMBERS CLAMPED IN RIGID FIXTURES DURING ASSEMBLY TO INSURE TIGHT-FITTING JOINTS AND UNIFORMITY IN COMPLETED TRUSS UNITS. CONNECTOR PLATES ARE TO BE PRESSED INTO THE WOOD MEMBERS ON BOTH SIDES OF THE TRUSS AT EACH JOINT SO THAT FULL PENETRATION OF THE TEETH IS OBTAINED WITHOUT CRUSHING THE OUTER SURFACE OF THE WOOD.

7. TRUSSES SHALL BE INSTALLED PLUMB, ADEQUATELY BRACED, IN THE PROPER ORIENTATION, AND AT THE SPACING SPECIFIED IN THE TRUSS DESIGN.

8. CUTTING OF TRUSS MEMBERS OR FIELD ALTERATION OF ANY TRUSS IS NOT PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE STRUCTURAL ENGINEER.

9. MAXIMUM ROOF TRUSS DEFLECTION UNDER TOTAL LOAD AND LIVE LOAD SHALL BE L/240 AND L/360, RESPECTIVELY.

10. TRUSS SPACING SHOWN ON FRAMING PLANS IS SCHEMATIC. TRUSSES WILL NEED TO BE SPACED AS REQUIRED TO MEET LOAD REQUIREMENTS AND DEFLECTION LIMITS.

11. FABRICATOR SHALL COORDINATE WITH CONTRACTOR AS REQUIRED TO LOCATE REQUIRED DUCT OPENINGS IN THE TRUSSES.

12. FABRICATOR SHALL PROVIDE LATERAL BRACING REQUIREMENTS, AND HANDLING AND ERECTION RECOMMENDATIONS.

FASTENERS

1. CAST-IN-PLACE AND POST-INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST-INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED.

2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.

3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.

4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)

   B. KWIK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)

   C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)

   D. WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)

5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:

   A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)

6. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)

   B. KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)

   C. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)

   D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)

   E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)

7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)

   B. TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)

8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY)

   B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)

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STATE OF TEXAS
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4/4/25

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TOLL BOOTH GENERAL STRUCTURAL NOTES

FASTENERS CONTINUED:

9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC–ES AC308. ACCEPTABLE PRODUCTS:
   A. HIT–RE 500–V3 (ICC–ES ESR–3814) BY HILTI (CONCRETE)
   B. HIT–HY 270 (ICC–ES ESR–4143) BY HILTI (MASONRY)
   C. SET–3G (ICC–ES ESR–4057) BY SIMPSON STRONG–TIE (CONCRETE)
   D. SET–3G (ICC–ES ESR–4844) BY SIMPSON STRONG–TIE (MASONRY)
10. J–BOLTS, BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL TYPE 316. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J–BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.
11. HEADED ANCHOR RODS SHALL BE STAINLESS STEEL TYPE 316.
12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC–ES OR IAPMO–ES) REPORT.
13. ALL FASTENERS AND ANCHORS SHALL BE STAINLESS STEEL TYPE 316.

CONCRETE MASONRY

1. THE **GENERAL CONTRACTOR, PROJECT SUPERINTENDENT, TESTING LABORATORY AND THE MASONRY FOREMAN** SHALL MEET PRIOR TO THE START OF MASONRY WORK TO REVIEW PROJECT REQUIREMENTS AND PROCEDURES.
2. AN INDEPENDENT TESTING LAB SHALL VERIFY PLACEMENT OF VERTICAL REINFORCING IN WALLS AND HORIZONTAL REINFORCING IN BOND BEAMS AND LINTELS PRIOR TO PLACEMENT OF GROUT. INDEPENDENT TESTING LAB SHALL PROVIDE CONTINUOUS VISUAL OBSERVATIONS OF GROUTING PROCEDURES, REBAR PLACEMENT, SITE MIXING OF MORTAR, INSTALLATION OF EMBEDDED STEEL CONNECTORS, AND GENERAL PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS. INSPECTION REPORTS ARE TO BE GENERATED DAILY BY THE TESTING LAB. INSPECTION SUMMARY REPORTS SHALL BE EMAILED TO THE STRUCTURAL ENGINEER IN ELECTRONIC (PDF) FORMAT.
3. ALL CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING CODES AND THE AMERICAN CONCRETE INSTITUTE (ACI 530–13/ ASCE 5–13/ TMS 402–16). DESIGN IS BASED ON MASONRY COMPRESSIVE STRENGTH (f'm) OF 2,000 PSI.
4. HOT AND COLD WEATHER CONSTRUCTION PROCEDURES SHALL BE UTILIZED AS REQUIRED BY THE SPECIFICATIONS AND ACI 530.1.
5. HOLLOW CONCRETE MASONRY UNITS SHALL BE DOMESTIC LIGHTWEIGHT MOISTURE CONTROLLED TYPE I UNITS, CONFORMING TO ASTM C–90.
6. MASONRY UNITS SHALL HAVE A MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 2,000 PSI (NET AREA) WHEN TESTED IN ACCORDANCE WITH ASTM C–140, "METHODS OF SAMPLING AND TESTING CONCRETE MASONRY UNITS".
7. MORTAR PROPORTIONS FOR REINFORCED MASONRY SHALL BE ESTABLISHED PER ASTM C270 PROPORTION SPECIFICATIONS, TYPE S USING MASONRY CEMENT. FIELD TESTS OF MORTAR SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY IN ACCORDANCE WITH ASTM C780 AT A RATE OF ONE TEST PER 2,000 SF OF WALL SURFACE TO DETERMINE BATCH–TO–BATCH UNIFORMITY OF MORTAR. REFERENCE SPECIFICATIONS FOR NON REINFORCED MASONRY.
8. GROUT FOR ALL REINFORCED HOLLOW MASONRY UNIT WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI WITH A MAXIMUM 3/8" AGGREGATE. A MID RANGE WATER REDUCING AGENT SUCH AS "POLYHEED" (MASTER BUILDERS) SHALL BE USED. SLUMP TO BE BETWEEN 8 AND 11 INCHES. **ALL GROUT SHALL BE PUMPED.** PLACING OF GROUT TO FOLLOW AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS REGARDING **LOW & HIGH LIFT GROUTING.** MAXIMUM LIFT OF GROUT SHALL NOT EXCEED 5'–0" UNLESS APPROVED BY THE ENGINEER PRIOR TO START OF GROUTING. GROUT TO BE TESTED BY A QUALIFIED TESTING LABORATORY AT A RATE OF ONE TEST PER 25 CY OF GROUT IN ACCORDANCE WITH ASTM C1019.
9. REINFORCING STEEL SHALL CONFORM TO ASTM A–615, GRADE 60. ALL BAR REINFORCING SHALL BE LAPPED 48 BAR DIAMETERS (MIN). BARS SHALL BE PLACED WITHIN 1/2" (CENTERLINE OF BAR TO FACE OF MASONRY) OF LOCATION SHOWN IN STRUCTURAL PLANS. BARS SHALL BE HELD IN POSITION DURING GROUTING WITH BAR POSITIONERS. POSITIONERS SHALL BE LOCATED AT THE BOTTOM AND TOP OF THE WALL AND AT 8 TO 10 FOOT INTERVALS. BARS SPLICED BY NON–CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE–FIFTH THE REQUIRED LENGTH OF LAP NOR MORE THAN 8 INCHES.
10. VERTICAL BARS SHALL EXTEND TO THE TOP OF THE PARAPET WALL OR BOND BEAM WHEN A 16" DEEP BEAM IS SPECIFIED. HOOKED DOWELS SHALL BE PROVIDED AT ROOF BOND BEAMS (W/O PARAPETS) LESS THAN 16" DEEP. DOWELS SHALL BE 30" LONG WITH 12" HOOKS.
11. ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH 9 GA. HOT DIPPED GALVANIZED HORIZONTAL WIRE REINFORCEMENT (LADDER TYPE) EMBEDDED IN MORTAR JOINTS AT 16" O.C. NOMINAL WIDTH OF JOINT REINFORCING SHALL EQUAL WALL THICKNESS. (INTERIOR WALLS MAY BE MILL GALVANIZED). WIRE REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION A–82, AND SHALL BE LAPPED AT LEAST 8" WITH AT LEAST ONE CROSS WIRE WITHIN THE LAP. JOINT REINFORCING SHALL BE INSTALLED IN THE FIRST AND SECOND MORTAR BED JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS. WIRE REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
12. EXTERIOR WALLS SHALL BE BONDED WITH CONCRETE MASONRY UNITS AT BUILDING CORNERS.
13. ONE GROUTED #5 BAR SHALL BE PROVIDED AROUND THE PERIMETER OF ALL WALL OPENINGS AND AT BUILDING CORNERS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.
14. NEATLY TOOL INTERIOR AND EXTERIOR JOINTS IN MASONRY TO FORM A SLIGHTLY CONCAVE PROFILE WHEN MORTAR IS THUMBPRINT HARD UNLESS SHOWN OTHERWISE. ALL MORTAR JOINTS SHALL BE TOOLED THE ENTIRE HEIGHT OF WALL.
15. BOND BEAMS SHALL BE REINFORCED WITH TWO CONTINUOUS #5 BARS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS. REINFORCING SHALL BE CONTINUOUS AT ALL CORNERS AND INTERSECTING WALLS. (PROVIDE CORNER BARS). WHERE SIDE WALL AND END WALL BOND BEAMS DO NOT COURSE CONTINUE THE LOWER BOND BEAM AROUND THE BUILDING CORNER TO THE FIRST VERTICAL REINFORCED CELL.
16. CONTROL JOINTS SHALL BE CONSTRUCTED WITH SLOTTED MASONRY UNITS AND FACTORY MOLDED JOINT FILLER. JOINTS SHALL BE CAULKED WITH AN APPROVED MATERIAL. JOINTS SHALL BE PROVIDED AT MAXIMUM SPACING OF 22 FT. AND AT ALL LOCATIONS WHERE COLUMNS ARE PLACED IN CMU CELLS. (EXTERIOR AND INTERIOR WALLS). JOINT LOCATIONS, IF NOT SHOWN ON PLANS, SHALL BE COORDINATED WITH ARCHITECT.
17. CONTROL JOINTS **SHALL NOT** EXTEND THROUGH BOND BEAMS UNLESS INDICATED ON THE STRUCTURAL PLANS.
18. CONTROL JOINTS IN CMU WALLS SHALL NOT BE LOCATED CLOSER THAN 2'–0" FROM AN EDGE OF OPENING WITHOUT REVIEW OF STRUCTURAL ENGINEER.
19. LINTELS OVER ALL OPENINGS IN INTERIOR MASONRY PARTITIONS, NOT OTHERWISE COVERED, ARE TO BE OF STANDARD CMU LINTEL BLOCK WITH THICKNESS EQUAL TO WALL THICKNESS. DEPTH SHALL BE 8" FOR OPENINGS UP TO 6'–0", REINFORCED WITH TWO #5's, LOCATED 2–1/2" ABOVE THE BOTTOM EXTERIOR FACE OF THE UNIT.

EXTERIOR COMPONENTS & CLADDINGS

ALL EXTERIOR COMPONENT AND CLADDING SYSTEMS (E.G. WINDOWS, CURTAIN WALLS, STOREFRONTS, DOORS, ARCHITECTURAL SIDINGS, METAL WALL AND ROOF PANELS, ROOFING SYSTEMS, SKYLIGHTS) MUST MEET MINIMUM WIND CODE REQUIREMENTS. CONTRACTOR MUST SUBMIT COMPONENT AND CLADDING ASSEMBLY WIND PRESSURE AND IMPACT RESISTANCE TESTING RATINGS AND REQUIRED ATTACHMENT PROCEDURES TO STRUCTURAL ENGINEER FOR REVIEW. ROOF TOP MECHANICAL EQUIPMENT AND THEIR SUPPORT COMPONENTS, AND ANCHORING OF THESE ITEMS TO THE STRUCTURE, SHALL BE DELEGATED DESIGN TO BE PERFORMED BY THE EQUIPMENT'S MANUFACTURER, TO MEET THE WIND PRESSURES CALCULATED PER ASCE 7–05 SECTION 6.5.15.1, USING THE WIND DESIGN PARAMETERS LISTED ON THE GENERAL STRUCTURAL NOTES DESIGN CRITERIA.

1. TESTED ASSEMBLIES
   A. THE CONTRACTOR SHALL INSTALL PROJECT SPECIFIC ASSEMBLIES THAT HAVE BEEN TESTED AND MEET THE APPLICABLE PERFORMANCE REQUIREMENTS LISTED BELOW. PROJECT ASSEMBLIES SHALL BE INSTALLED IN SAME MANNER AS TESTED ASSEMBLIES INCLUDING SYSTEM COMPONENTS, REINFORCEMENT, GLAZING, HARDWARE, ANCHORS AND FASTENING LOCATIONS, SEALANTS & ALL ACCESSORIES, AS APPLICABLE.
2. ASSEMBLY PERFORMANCE REQUIREMENTS
   A. STRUCTURAL PERFORMANCE: TESTED ASSEMBLY THAT PASSES STRUCTURAL PERFORMANCE REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH THE APPLICABLE PERFORMANCE STANDARD(S) LISTED BELOW, AT A MINIMUM OF THE POSITIVE AND NEGATIVE DESIGN WIND–LOAD PRESSURES INDICATED ON THE STRUCTURAL DRAWINGS. TESTED ASSEMBLY SHALL BE NO SMALLER IN WIDTH AND LENGTH THAN ASSEMBLY INDICATED FOR USE ON THE PROJECT AND SHALL MATCH PROJECT ASSEMBLY INCLUDING ALL COMPONENTS AND SUBSTRATE(S).
   B. WINDBORNE–DEBRIS–IMPACT RESISTANCE: TESTED ASSEMBLY THAT PASSES LARGE–MISSILE IMPACT PROTECTION TESTING REQUIREMENTS ACCORDING TO ASTM E 1996 WHEN TESTED ACCORDING TO ASTM E 1886. TESTED ASSEMBLY SHALL BE NO SMALLER IN WIDTH AND LENGTH THAN ASSEMBLY INDICATED FOR USE ON THE PROJECT AND SHALL MATCH PROJECT ASSEMBLY INCLUDING ALL COMPONENTS AND SUBSTRATE(S).
3. ASSEMBLY PERFORMANCE STANDARDS
   A. ASTM E 330 – STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF EXTERIOR WINDOWS, DOORS, SKYLIGHTS AND CURTAIN WALLS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE
   B. ASTM E 1592 – STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF SHEET METAL ROOF AND SIDING SYSTEMS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE
   C. ASTM E 1886 – STANDARD TEST METHOD FOR PERFORMANCE OF EXTERIOR WINDOWS, CURTAIN WALLS, DOORS, AND STORM SHUTTERS IMPACTED BY MISSILE(S) AND EXPOSED TO CYCLIC PRESSURE DIFFERENTIALS
   D. ASTM E 1996 – STANDARD SPECIFICATION FOR PERFORMANCE OF EXTERIOR WINDOWS, CURTAI WALLS, DOORS AND IMPACT PROTECTIVE SYSTEMS IMPACTED BY WINDBORNE DEBRIS IN HURRICANES
   E. FM 4450 – APPROVAL STANDARD FOR CLASS 1 INSULATED STEEL DECK ROOFS
   F. FM 4470 – APPROVAL STANDARD FOR SINGLE–PLY, POLYMER–MODIFIED BITUMEN SHEET, BUILT–UP ROOF (BUR) AND LIQUID APPLIED ROOF ASSEMBLIES FOR USE IN CLASS 1 AND NONCOMBUSTIBLE ROOF DECK CONSTRUCTION
   G. FM 4474 – AMERICAN NATIONAL STANDARD FOR EVALUATING THE SIMULATED WIND UPLIFT RESISTANCE OF ROOF ASSEMBLIES USING STATIC POSITIVE AND/OR NEGATIVE DIFFERENTIAL PRESSURES
   H. UL 580 – STANDARD FOR TESTS FOR UPLIFT RESISTANCE OF ROOF ASSEMBLIES
   I. UL 1897 – STANDARD FOR UPLIFT TESTS FOR ROOF COVERING SYSTEMS
4. ASSEMBLY SUBMITTALS
   A. SUBMITTALS SHALL CONSIST OF PROJECT SPECIFIC SHOP DRAWINGS AND ASSEMBLY TEST REPORTS, AS DESCRIBED BELOW. SUBMITTALS SHALL BE COMPLETE, CLEAR AND LEGIBLE; INCOMPLETE SUBMITTALS WILL BE REJECTED.
   B. SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING ITEMS:
      1) SYSTEM DESCRIPTION INCLUDING MANUFACTURER'S NAME AND SPECIFIC PRODUCT MODEL NUMBER, NAME OR DESIGNATION.
      2) MANUFACTURER'S PRODUCT DATA/TECHNICAL INFORMATION AND DETAILS.
      3) SYSTEM LAYOUT PLANS, ELEVATIONS, CROSS–SECTIONS AND DETAILS AS APPLICABLE TO THE PROJECT.
      4) DESCRIPTION OF SYSTEM'S ASSEMBLY COMPONENTS (E.G. ROOF LAYERS, FRAME MEMBERS, REINFORCEMENT, DOOR TYPE, GLAZING, HARDWARE, ANCHORS AND FASTENING LOCATIONS, SEALANTS, ACCESSORIES). ALL COMPONENTS SHALL MATCH THOSE SPECIFIED ON ASSEMBLY TEST REPORTS.
      5) SHOP DRAWINGS SHALL INDICATE THE SYSTEM ATTACHMENT METHOD INCLUDING ANCHOR TYPE AND FASTENER LOCATIONS FOR EACH DIFFERENT TYPE OF SUBSTRATE. SYSTEM ATTACHMENT SHALL BE PER ASSEMBLY TEST REPORTS.
      6) ASSEMBLY TEST REPORTS OFTEN PROVIDE OPTIONS FOR MATERIALS AND FASTENING METHODS. SHOP DRAWINGS SHALL BE SPECIFIC TO THE MATERIAL OR METHOD THAT THE CONTRACTOR IS PROPOSING TO INSTALL ON THE PROJECT.
      7) CROSS–REFERENCING BETWEEN THE SHOP DRAWINGS AND THE ASSEMBLY TEST REPORTS IS ENCOURAGED, BUT THE SHOP DRAWINGS SHALL BE DETAILED ENOUGH TO STAND INDEPENDENT OF THE TEST REPORTS.
   C. ASSEMBLY TEST REPORTS SHALL INCLUDE THE FOLLOWING ITEMS:
      1) PERFORMANCE RATINGS BASED ON EVALUATION OF COMPREHENSIVE TESTING IN ACCORDANCE WITH THE APPLICABLE PERFORMANCE STANDARD(S) LISTED ABOVE.
      2) TESTING AND DEVELOPMENT OF REPORTS SHALL BE PERFORMED BY A QUALIFIED THIRD–PARTY TESTING AGENCY.
      3) TEST REPORTS SHALL BE SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
      4) TEST REPORTS SHALL BE RECENT TO INCLUDE THE MOST CURRENT SYSTEM MANUFACTURER'S COMPONENTS AND AVAILABLE FASTENERS AND ACCESSORIES. EXPIRED TEST REPORTS SHALL BE REJECTED.
      5) TEST REPORTS SHALL BE SUBMITTED FOR EACH DIFFERENT TYPE OF ASSEMBLY ON THE PROJECT INCLUDING VARIATIONS OF SYSTEM COMPONENTS AND SUBSTRATES.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2018. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2018.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
PERFORM CLASSIFICATION AND TESTING OF SELECT FILL MATERIALS		X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF SELECT FILL	X	
PRIOR TO PLACEMENT OF SELECT FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

REQUIRED VERIFICATION AND INSPECTION OF PIER FOUNDATIONS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS OF EACH PIER	X	
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM PIER DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END BEARING STRATA CAPACITY	X	
FOR CONCRETE PIERS, PERFORM ADDITIONAL INSPECTIONS AS REQUIRED FOR CONCRETE CONSTRUCTION		

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE AT THE TIME OF SAMPLING FRESH CONCRETE FOR MAKING SPECIMENS FOR STRENGTH TESTS PER ACI 318	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES	X	
VERIFICATION OF IN–SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST–TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
ERECTION OF PRECAST CONCRETE MEMBERS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST–IN–PLACE, POST–INSTALLED, MECHANICAL AND EPOXY SET ANCHORS: AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC–ES EVALUATION REPORT	FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC–ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE, WHICHEVER IS MORE STRINGENT	

REQUIRED VERIFICATION AND INSPECTION OF WOOD CONSTRUCTION

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
LUMBER SPECIES & GRADE		X
ROOF SHEATHING NAIL FASTENING		X
WALL SHEATHING NAIL FASTENING		X
FLOOR SHEATHING NAIL FASTENING		X
HOLD DOWN ANCHORS (2nd FLR & FOUNDATION)	X	
HURRICANE STRAPS & TIES		X
BUILT–UP WOOD STUD PACKS & HEADERS		X
ROOF AND FLOOR TRUSS INSTALLATION		X
TRUSS LAYOUT / PLACEMENT		X
TRUSS BEARING		X

REQUIRED LEVEL 1 SPECIAL INSPECTION OF MASONRY CONSTRUCTION (OCCUPANCY CATEGORY I, II, III)

INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
PROPORTIONS OF SITE–PREPARED MORTAR		X
PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X
LOCATION OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
THE INSPECTION PROGRAM SHALL VERIFY:		
SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X
TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION		X
SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT		X
PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X
PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
GROUT SPACE IS CLEAN		X
PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
CONSTRUCTION OF MORTAR JOINTS		X
GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	X	
PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	X	
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBITTALS SHALL BE VERIFIED		X

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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
HERIBERTO CANIZOS
103450
LICENSED PROFESSIONAL ENGINEER
4/4/25

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Interior Designers

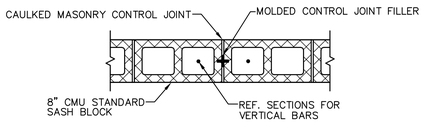
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Scale: As Noted
Checked By: A.V.
Drawn By: G.R.
Job No. 192-571
Sheet: TOOL BOOTH GENERAL STRUCTURAL NOTES
SB1.2

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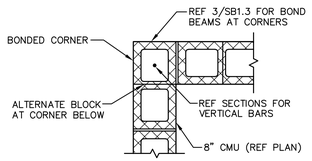
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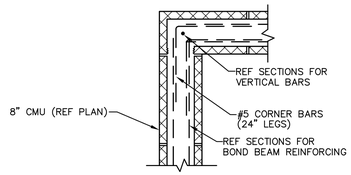
TOLL BOOTH GENERAL STRUCTURAL DETAILS



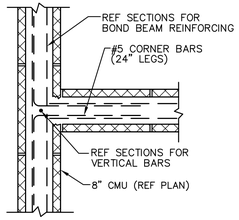
1 TYPICAL CRACK CONTROL JOINT



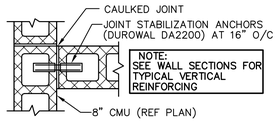
2 BONDED CORNER



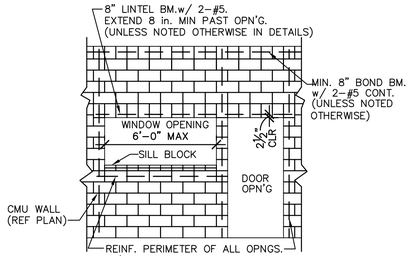
3 BOND BEAM AT EXTERIOR CORNERS



4 TYPICAL BOND BEAM AT INTERSECTING WALL



5 TYPICAL UNBONDED WALL INTERSECTION



6 TYPICAL REINFORCING AT OPENINGS
(NONLOADBEARING INTERIOR WALLS ONLY)

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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
HERIBERTO CAVAZOS
103459
PROFESSIONAL ENGINEER
4/4/25

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Architects-Planners
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Date:	04-04-25
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Drawn By:	G.R.
Job No.	192-571
Sheet:	TOOL BOOTH GENERAL STRUCTURAL NOTES

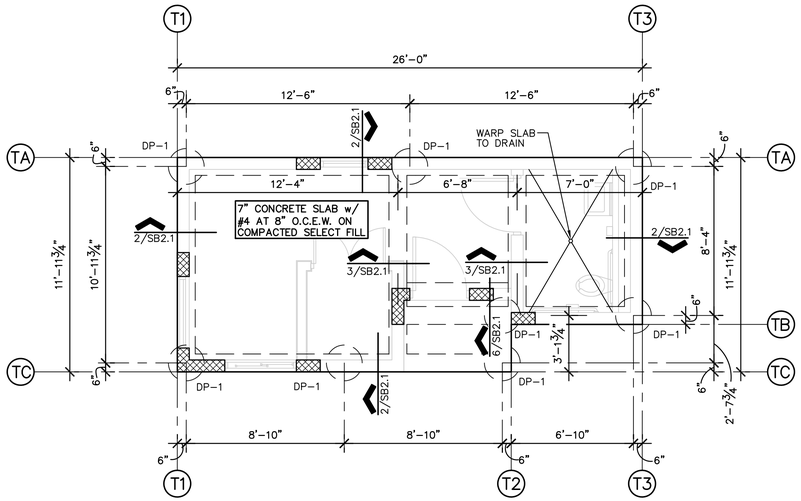
SB1.3

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1 FOUNDATION PLAN

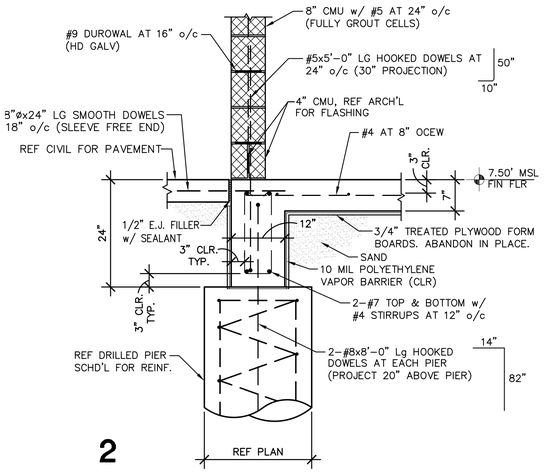
1/4" = 1'-0" TOLL BOOTH

N

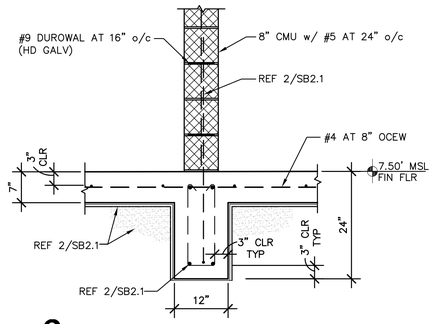
PLAN NORTH

NOTES:

1. ALL SLABS & BEAMS ARE SUSPENDED. REFER TO SECTIONAL DETAILS FOR REINFORCEMENT.
2. SPLICE JOINTS FOR TOP BARS FOR REINFORCED CONCRETE SLABS AND BEAMS SHALL BE LOCATED AT MIDDLE THIRD OF THE SPAN OF SLABS OR BEAMS.
3. SPLICE JOINTS FOR BOTTOM BARS FOR REINFORCED CONCRETE SLAB AND BEAMS SHALL BE LOCATED AT SUPPORTS.
4. CONSTRUCTION JOINTS OF CONCRETE BEAMS/SLABS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN. CONTRACTOR TO SUBMIT PROPOSED LOCATION OF CONSTRUCTION JOINTS TO ARCHITECT/ENGINEER FOR APPROVAL.
5. LAPPING OF SPLICE BARS AT SPLICE JOINTS SHALL BE 62 BAR DIAMETER OR A MINIMUM OF 36" LONG.
6. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER (O.D.) SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
7. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
8. A SINGLE CONDUIT (MAX 3" O.D.) MAY BE PLACED WITHIN THE BEAM CAGE. ALL CONDUIT IN BEAM CAGES TO BE TIED TO STIRRUPS MINIMUM OF 4" FROM HORIZONTAL BARS.
9. PLUMBING LINES PASSING THROUGH BEAMS SHALL BE SLEEVED. BEAMS SHALL BE DEEPENED AND BENT REBAR PROVIDED IF LOCATION OF DRAIN LINES REQUIRES CUTTING BOTTOM BARS. REF DETAIL 5/SB2.1.
10. REFERENCE PLUMBING DRAWINGS FOR EXACT LOCATION OF FLOOR DRAINS AND OTHER SLAB PENETRATIONS.
11. ▨ INDICATES 8" CMU WALL w/ 1-#5 VERTICAL BARS AT 8" O/C.



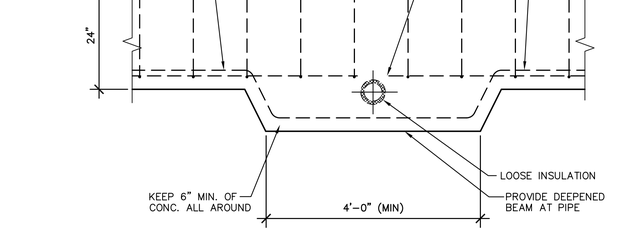
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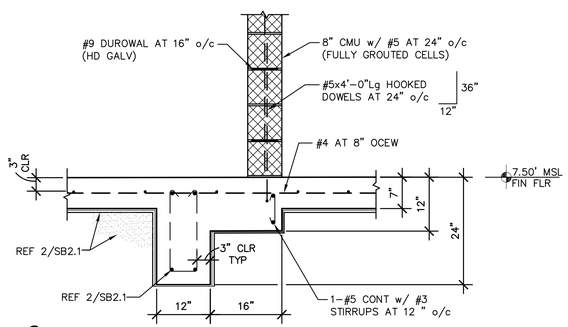
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4 DRILLED PIER PROFILE

DRILLED PIER SCHEDULE			
MARK	SHAFT DIA. (INCHES)	VERTICAL REINFORCING	BEARING DEPTH BELOW MEAN SEA LEVEL (FEET MSL)
DP-1	24"	8-#8	-33.00'



5 TOP OF SLEEVE INTERRUPTS REINFORCING



6

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CAMERON COUNTY PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
HERMENTO CANIZON
103450
LICENSED
PROFESSIONAL ENGINEER
4/4/25

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Interior Designers

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Drawn By:	G.R.
Job No.	192-571
Sheet:	TOLL BOOTH FOUNDATION PLAN AND DETAILS SB2.1

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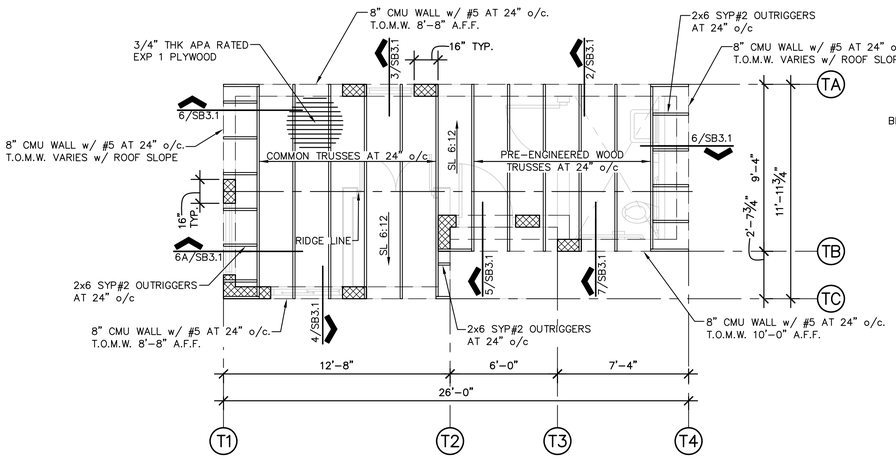
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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS



1 ROOF FRAMING PLAN

1/4" = 1'-0" TOLL BOOTH

N

PLAN NORTH

NOTES:

1. ROOF SHEATHING SHALL BE 3/4" APA RATED EXPOSURE 1. SPAN RATED 48/24.
2. REFERENCE ROOF SHEATHING NAILING SCHEDULE FOR PROPER PLYWOOD ATTACHMENT.
3. ALL HURRICANE TIES SHALL BE SIMPSON STRONG-TIE STAINLESS STEEL TYPE 316 OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
6. FACTORY BUILT TRUSSES: COMMON TRUSSES AND STEP DOWN TRUSSES SHALL BE DESIGNED FOR:

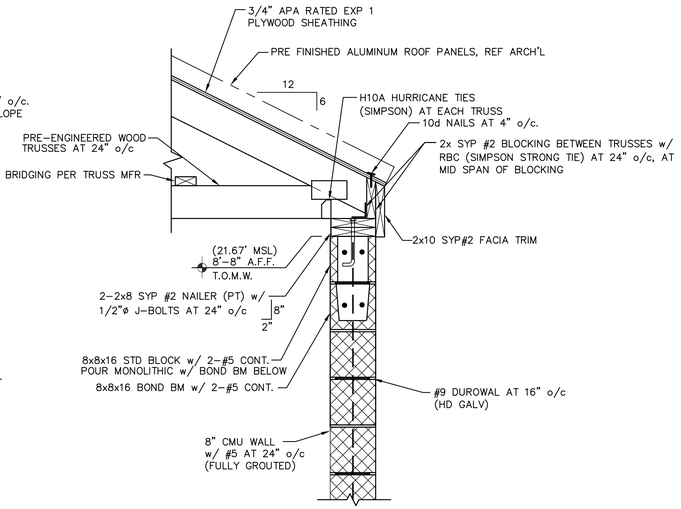
TOP CHORD	BOTTOM CHORD
DL 10 PSF	DL 10 PSF
LL 20 PSF	LL 10 PSF

IN ADDITION TO THE SPECIFIED DEAD AND LIVE LOADS, THE FACTORY BUILT TRUSSES MUST BE DESIGNED TO WITHSTAND THE WIND PRESSURES AS DETERMINED BY ASCE 7-16 FOR A 150 MPH WIND (3 SECOND GUST) WITH AN RISK FACTOR=II, EXPOSURE D USE AN INTERNAL PRESSURE COEFFICIENT FOR AN ENCLOSED BUILDING.

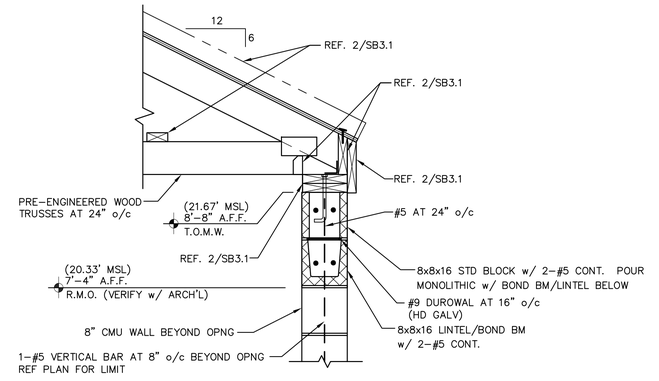
5. ▨ INDICATES 8" CMU WALL w/ 1-#5 VERTICAL BARS AT 8" o/c.

ROOF SHEATHING NAILING SCHEDULE
10d NAILS AT 4" o/c ALONG EDGE OF SHEET AND 6" o/c AT INTERIOR SUPPORTS

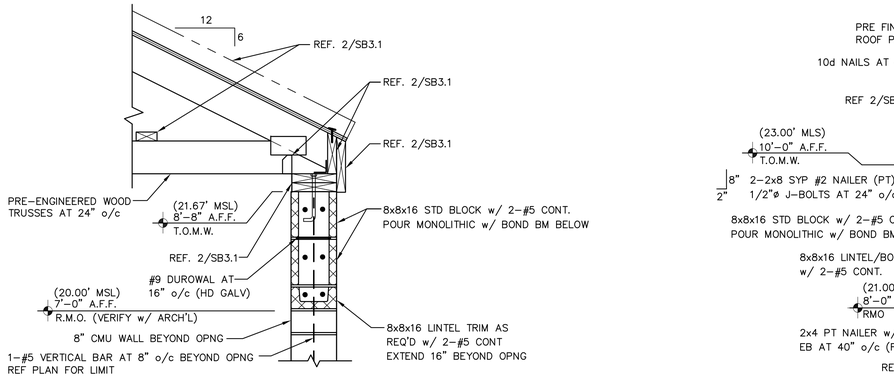
ALL 10d NAILS TO MEET MINIMUM LENGTH/DIAMETER BELOW
LENGTH 3"
SHANK DIAMETER 0.148"



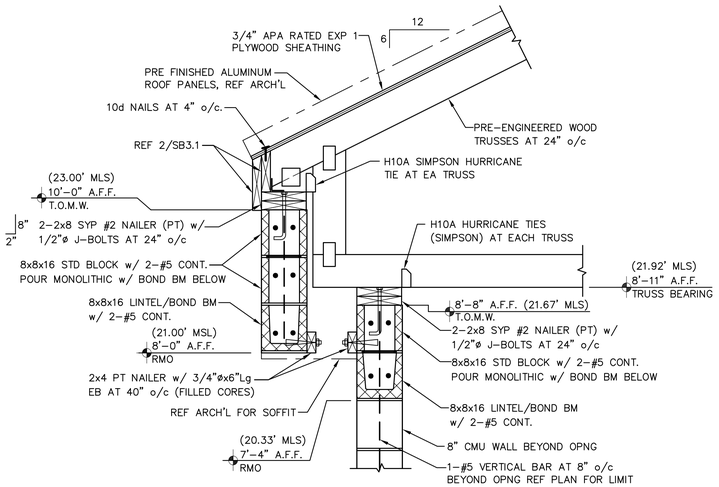
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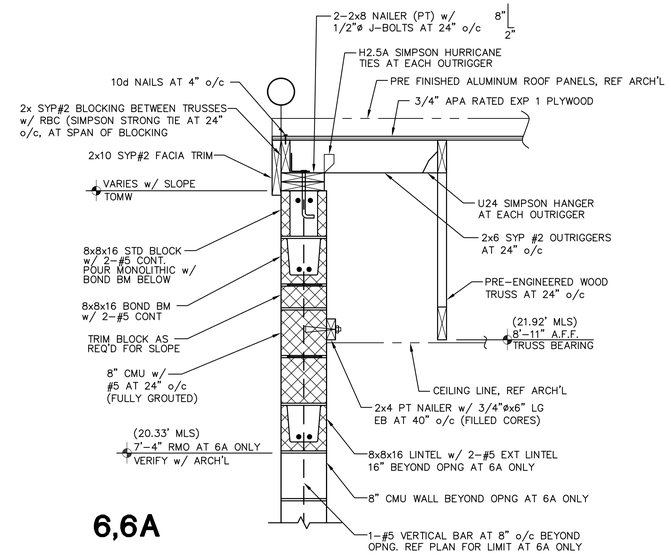
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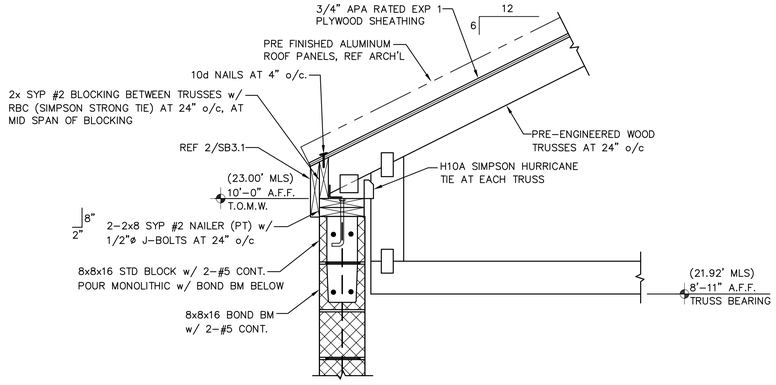
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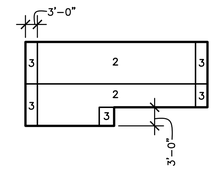
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6,6A



7



BEACH ACCESS #3 TOLL BOOTH
DESIGN WIND PRESSURE DIAGRAM

DESIGN WIND PRESSURE FOR ROOF COMPONENTS & CLADDING	
ZONE	P- (UPLIFT)
2	-81 PSF
3	-95 PSF

DOORS, WINDOWS & EXTERIOR CLADDINGS
MAXIMUM DESIGN WIND PRESSURES
P+ = +36 PSF TOWARDS THE SURFACE
P- = -48 PSF AWAY FROM THE SURFACE

STATE OF TEXAS
HERMINIO CANIZON
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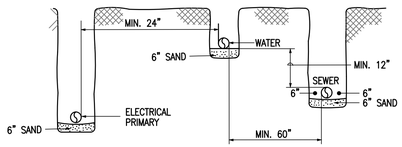
RFP No. 250501

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

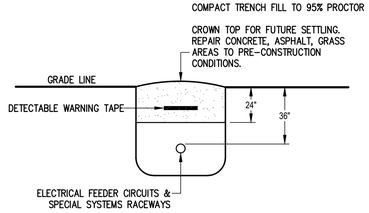
MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



02 TRENCHING DETAIL
SCALE :NONE

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

CROWN TOP FOR FUTURE SETTLING. REPAIR CONCRETE, ASPHALT, GRASS AREAS TO PRE-CONSTRUCTION CONDITIONS.



03 BURIAL DETAIL FOR ELECTRICAL RACEWAYS
SCALE :NONE

PLUMBING KEYED NOTES:

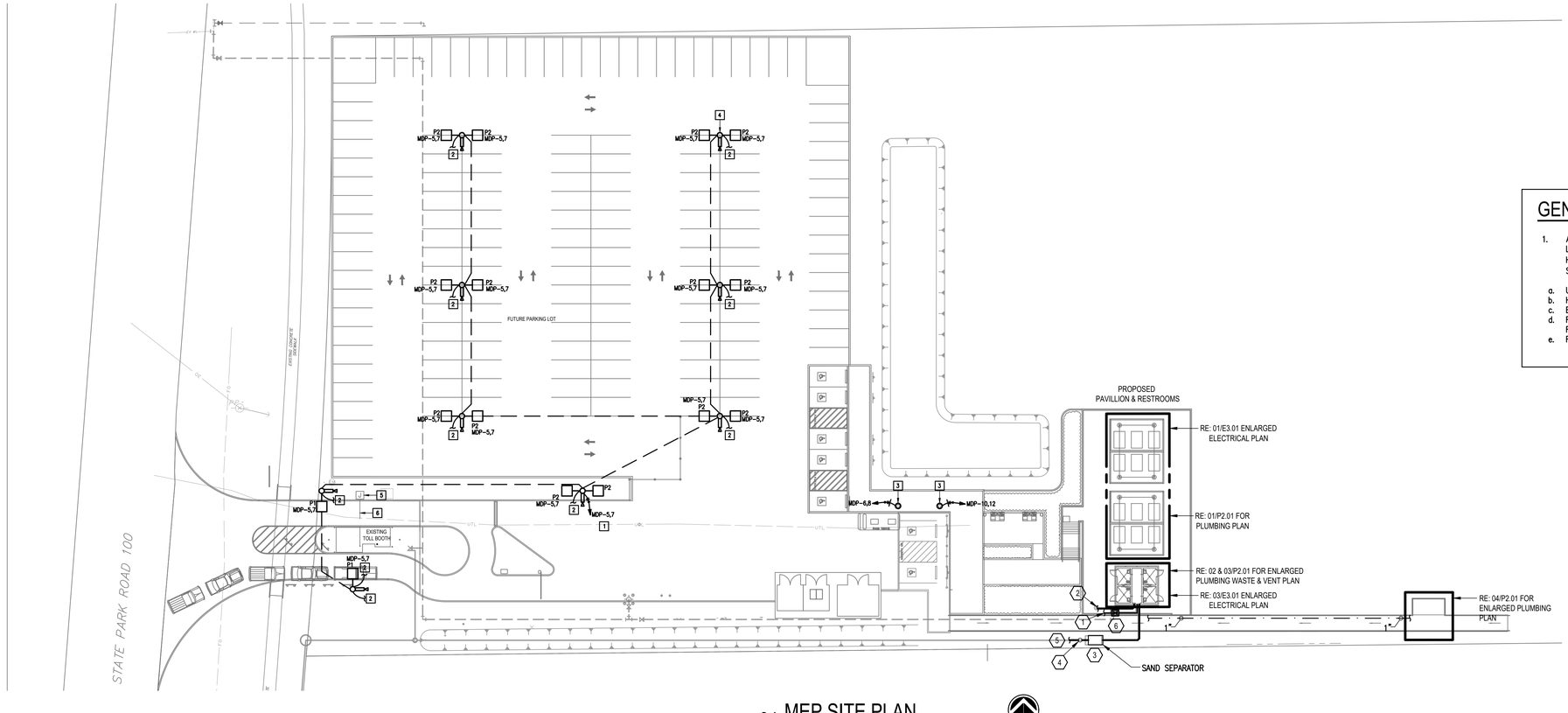
1. PROVIDE 1-1/2" UNDERGROUND DOMESTIC WATER LINE. SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
2. PROVIDE 4" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
3. APPROXIMATE LOCATION OF SAND SEPARATOR. PROVIDE TIGHT-SEAL COVERS. PRIOR TO INSTALLATION COORDINATE PIPING SLOPE, TRENCHING AND BACKFILLING WITH CIVIL. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR TO AVOID CONFLICT WITH CURBS AND SIDEWALKS. SEE ASSOCIATED DETAIL ON DETAIL SHEET FOR MODEL No. & MANUFACTURER.
4. PROVIDE SAMPLE WELL AS PER DETAIL.
5. SANITARY SEWER LINE TO MANHOLE. REFER TO CIVIL PLANS FOR CONTINUATION.
6. PROVIDE LINE SIZE VALVE IN QUAZITE BOX.

ELECTRICAL KEYED NOTES:

1. SWITCH EXTERIOR POLE LIGHTS THROUGH LIGHTING CONTACTOR "LC1". BRANCH CIRCUIT: 1" – 2#8 & #10G. SEE CORRESPONDING LIGHTING CONTACTOR SCHEDULE.
2. PROVIDE 1" RACEWAY WITH PULLWIRE (CCTV). TERMINATE AT TOLL BOOTH COMMUNICATIONS PULLBOX.
3. PROVIDE SPECIAL RECEPTACLE (14-50R) FOR FOOD TRUCK ELECTRICAL. INSTALL RECEPTACLE FLUSH MOUNTED IN CONCRETE BOLLARD. SEE ARCHITECTURAL DRAWINGS.
4. PROVIDE POLE MOUNTED LIGHTS AS SCHEDULED.
5. EXISTING CCTV COMMUNICATIONS PULLBOX.
6. EXISTING CCTV 2-2" RACEWAYS.

GENERAL NOTES:

1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.
   a. UNISTRUT – PVC COATED
   b. HARDWARE – STAINLESS STEEL 316.
   c. ELECTRICAL GEAR ENCLOSURE – REINFORCED FIBERGLASS.
   d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
   e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.COORDINATE WORK
2. AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
3. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
4. COORDINATE ELECTRICAL AND PLUMBING WITH GENERAL CONSTRUCTION.
5. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
6. FIELD VERIFY/SPOT EXACT LOCATIONS AND EXISTING CONDITIONS OF EXISTING PLUMBING, AND ELECTRICAL. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND WORKABLE SYSTEMS. SHOULD BIDDER FIND OMISSIONS OR DISCREPANCIES IN THE PLANS, BIDDER SHALL NOTIFY THE ENGINEER PRIOR TO THE BID DATE AND A WRITTEN CLARIFICATION WILL BE ISSUED.
7. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. CONTRACTORS ARE REQUIRED TO SEARCH AND INVESTIGATE FOR EXISTING UTILITIES BEFORE EXCAVATING.
8. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
9. PROVIDE J-BOXES (POLYMER CONCRETE) AS REQUIRED FOR PULL WIRING.
10. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
11. PERFORM ALL WORK PER LATEST VERSION OF NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
12. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
13. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
14. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
15. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
16. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
17. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
18. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING PHASE.
19. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
20. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
21. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
22. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
23. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
24. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
25. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
26. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
27. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
28. REFER TO THE TECHNICAL DRAWINGS FOR LOCATIONS, HEIGHTS, BACK BOXES, RACEWAYS AND WIREWAYS TO BE PROVIDED IN ADDITION TO THE ELECTRICAL DRAWINGS.



01 MEP SITE PLAN
SCALE :1" = 30'-0"

NORTH

GENERAL NOTES:

1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.
   a. UNISTRUT – PVC COATED
   b. HARDWARE – STAINLESS STEEL 316.
   c. ELECTRICAL GEAR ENCLOSURE – REINFORCED FIBERGLASS.
   d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
   e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.

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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
04.10.2025

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Dran By:a	C.G.
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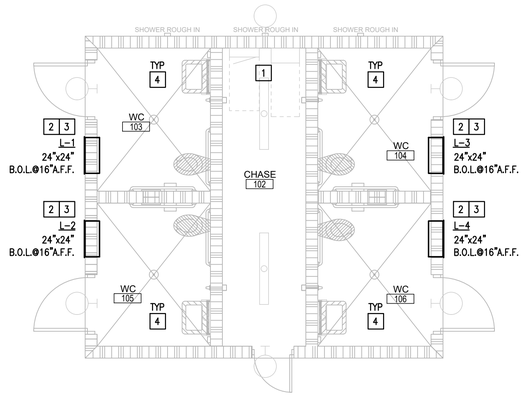
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TEXAS REGISTERED
ENGINEERING FIRM
F-15998

RFP No. 250501

LOUVER SCHEDULE

MARK	SERVES	CFM RANGE	FACE SIZE (W X H)	MIN. FREE AREA (FT2)	RUSKIN MODEL NUMBER	NOTES
L-1	RR 103	GENERAL VENTILATION	24 X 24	1.56	EME520MD	ALL
L-2	RR 105	GENERAL VENTILATION	24 X 24	1.56	EME520MD	ALL
L-3	RR 104	GENERAL VENTILATION	24 X 24	1.56	EME520MD	ALL
L-4	RR 106	GENERAL VENTILATION	24 X 24	1.56	EME520MD	ALL

NOTES:
1. PRIOR TO ORDERING, COORDINATE LOUVER FINISH AND EXACT FACE SIZE WITH ARCHITECT.
2. PROVIDE STAINLESS STEEL BIRD SCREEN AND HARDWARE.
3. PROVIDE FACTORY APPLIED KYNAR 500 FINISH.
4. PROVIDE WITH TDI PRODUCT EVALUATION REPORT.



02 MECHANICAL PLAN
SCALE :1/4" = 1'=0"

NORTH

MECHANICAL PLAN KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYP.)
2. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYP.)
3. PROVIDE LOUVER AS SCHEDULED.
4. ARCHITECT TO PROVIDE 20% OF FREE OPEN AREA FOR CROSS VENTILATION PURPOSES IN RESTROOMS.

CODES & ORDINANCES:

1. GENERAL:
   a. UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS, PERFORM ALL WORK PER APPLICABLE VERSION OF INTERNATIONAL BUILDING CODES, AND LOCAL CODES AND ORDINANCES.
   b. PRIOR TO SUBMITTING PROPOSAL, NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
2. PERMITS:
   a. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
   b. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
3. APPROVALS AND INSPECTIONS:
   a. OBTAIN APPROVAL FROM CITY FIRE DEPARTMENT AND BUILDING AND SAFETY DEPARTMENT PRIOR TO INSTALLATION OF ANY FIRE RELATED ITEMS.
   b. COORDINATE PRESSURE TESTS, INSPECTIONS AND APPROVAL FOR ALL SYSTEMS WITH PERMITTING OFFICER, OWNER AND ENGINEER.

GENERAL NOTES:

1. CONTRACT RELATED:
   a. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
   b. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
   c. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.

COORDINATION:

1. GENERAL:
   a. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND MECHANICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
   b. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR. COORDINATE MECHANICAL WITH OTHER TRADES SUCH AS PLUMBING, ELECTRICAL AND STRUCTURAL WORK. COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
   c. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.
   d. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.
   e. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
2. SITE:
   a. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.
3. ARCHITECTURAL AND STRUCTURAL:
   a. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF CONSTRUCTION, INCLUDING BEAMS, FLOOR AND WALL PENETRATIONS, CHASES, AND REFLECTED CEILING PLANS. VERIFY OPENING SIZES WITH EQUIPMENT FURNISHED.
   b. SLEEVE ALL EXTERIOR WALL AND GRADE BEAM PENETRATIONS. GRADE BEAM PENETRATIONS SHALL BE MADE WITHIN MIDDLE 1/3 OF VERTICAL SPAN OF BEAM.
   c. SEAL AROUND DUCTS AND PIPING AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
4. SPATIAL COORDINATION:
   a. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
   b. SPACES ABOVE CEILING ARE CONGESTED. DESIGN INTENT IS THAT UTILITIES BE INSTALLED TIGHT AGAINST CEILING STRUCTURE TO EXTENT POSSIBLE, WHILE RETAINING ADEQUATE MAINTENANCE ACCESS PER CODES.
   c. IN CASE OF CONFLICTS, ITEMS SHALL BE ARRANGED ACCORDING TO THE FOLLOWING PRIORITIES: LIGHTING, FIRE PROTECTION, HVAC. PROVIDE OFFSETS/RISES/DROPS REQUIRED TO RESOLVE CONFLICTS WITH OTHER UTILITIES, AND TO ACCOMMODATE ALL UTILITIES ABOVE CEILINGS.
   d. IN GENERAL, REROUTE SMALLER DUCTS/PIPES THROUGH JOISTS TO RESOLVE CONFLICTS WITH LARGER. PERFORM REROUTING IN MOST EFFICIENT MANNER POSSIBLE, AND IN ACCORDANCE WITH INDUSTRY STANDARDS.
   e. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.
   f. IN GENERAL ROUTE DUCTS/PIPES IN MOST EFFICIENT MANNER POSSIBLE, AND IN ACCORDANCE WITH INDUSTRY STANDARDS.
   g. SEE ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL PANELS TO AVOID DUCTWORK AND PIPING RUNNING OVER THESE AREAS. COORDINATE WITH ELECTRICAL CONTRACTOR.
   h. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH OTHER TRADES TO AVOID CONFLICT AND ADJUST LOCATION IF NEEDED WITHOUT COMPROMISING AIR DEVICES PERFORMANCE.
5. CONTROLS:
   a. REFER TO SPECIFICATIONS FOR CONTROL COMPONENTS AND DEVICES TO BE COORDINATED WITH MECHANICAL WORK.
   b. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LOW VOLTAGE POWER AND COMMUNICATIONS. REFERENCE SPECIFICATIONS FOR CONTROL WORK.
   c. DRAWINGS SHOW GENERAL LOCATION OF SENSORS (T, RH). UNLESS NOTED OTHERWISE, INSTALL SENSORS AT 48" ABOVE FINISHED FLOOR. WIRING SHALL BE IN CONCEALED WALLS. IN CASE OF CONFLICTS WITH FURNITURE, WINDOWS, ETC., COORDINATE EXACT LOCATION WITH ARCHITECT AND ENGINEER.

DUCTWORK:

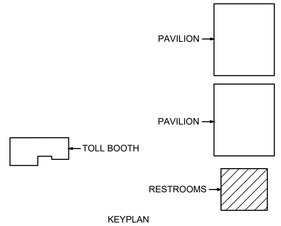
1. DUCTWORK GENERAL:
   a. DRAWINGS ARE DIAGRAMMATIC IN NATURE. FOR CLARITY SAKE, MOST DUCT OFFSETS/RISES/DROPS ARE NOT SHOWN. WHERE DUCTS PENETRATE WALLS, INSTALL THEM PERPENDICULAR TO WALL.
   b. b. RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED STEEL. SIZES SHOWN ARE INSIDE CLEAR DIMENSION, UNLESS NOTED OTHERWISE.
   c. VERIFY BOTTOM OF DUCT ELEVATION AND COORDINATE WITH OTHER TRADES.
   d. CONSTRUCT AND LEAKAGE TEST ALL DUCTWORK BASED ON SPECIFICATIONS AND SMACNA REQUIREMENTS, WHICHEVER IS MORE STRINGENT. COORDINATE PRESSURE CLASSES WITH EQUIPMENT SCHEDULES.
   e. FLEXIBLE DUCTS MAXIMUM LENGTH SHALL NOT EXCEED 6 FEET. USE OF FLEXIBLE DUCTWORK IS LIMITED TO AREAS WITH AN ACCESSIBLE SUSPENDED CEILING. PINCHED DUCT WILL HAVE TO BE REPLACED.
   f. IN AREAS WHERE DUCT CONFLICTS CANNOT BE AVOIDED, ROUTE SMALLER DUCTS THROUGH ROO JOISTS.
   g. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH ELECTRICAL, IF NEEDED. RELOCATE DIFFUSER TO ADJACENT TILE.
   h. PROVIDE ACCESS DOORS (NOT SHOWN IN DRAWINGS) FOR INSPECTION OF DUCT MOUNTED EQUIPMENT SUCH AS FIRE/SMOKE DAMPERS, MANUAL BALANCING DAMPERS AND TURNING VANES. IN AREAS WITH HARD CEILING COORDINATE ACCESS DOOR LOCATIONS AND CEILING ACCESS PANELS WITH OTHER TRADES.
2. DUCTWORK INSULATION:
   a. INSULATION ON DUCT SHOULD TO BE PROPERLY TAPED AND MASTICS MUST BE APPLIED ON SEAMS AND JOINTS AND AT ENDS ADJACENT TO DUCT FLANGES AND FITTINGS. FOR DUCT SIDES WITH DIMENSIONS LARGER THAN 18 INCHES, APPLY ADDITIONAL PINS AND CLIPS TO HOLD INSULATION TIGHTLY AGAINST SURFACE AT CROSS BRACING.
   b. INSULATE ALL EXHAUST DUCTWORK 10 FEET FROM EXTERIOR OPENING.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	G.	GROUND	NO	NORMALLY OPEN
B.	BOTTOM	GA.	GAGE	NTS	NOT TO SCALE
BOP	BOTTOM OF PIPE	GALV.	GALVANIZED	OA	OUTSIDE AIR
BOTT.	BOTTOM	GRND.	GROUND	RM.	ROOM
CLG.	CEILING	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	SA	SUPPLY AIR
CONC.	CONCRETE			SS	STAINLESS STEEL
COND.	CONDUIT	LVG.	LEAVING	T.O.L.	TOP OF LOUVER
DMPR.	DAMPER	MECH	MECHANICAL	TS	TEMPERATURE SENSOR
				UG	UNDERGROUND
				UNO	UNLESS OTHERWISE NOTED

MECHANICAL SYMBOLS LEGEND

12x12	DUCT SIZE: FIRST FIGURE IS SIDE SHOWN
(12x12)	BELOW DUCT SIZE: FIRST FIGURE IS SIDE SHOWN
	DIRECTION OF FLOW-RETURN
	DIRECTION OF FLOW-SUPPLY



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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
PROFESSIONAL ENGINEER
04.10.2025

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Architects-Planners
Interior Designers

Date: April 10, 2025
Scale: As Noted
Proect Architect:a Roan G. Gomez, AIA
Dran By:a
Job No. 25v53
Sheet: M2.01

RFP No. 250501

SCOPE OF WORK:

1. GENERAL: THE "CAMERON COUNTY BEACH ACCESS 3 IMPROVEMENTS" CONSISTS OF NEW SINGLE STORY BUILDINGS, APPROXIMATE SQUARE FOOTAGE 268 FT2 (TOLL BOOTH) AND 360 FT2 (RESTROOM BUILDING). THESE BUILDING WILL GENERALLY BE OPERATED FROM 8:00AM TO 6:00PM. (7 DAYS A WEEK).
2. ELECTRICAL: PROVIDE ALL MATERIALS AND LABOR ASSOCIATED WITH COMPLETE OPERATIONAL ELECTRICAL DISTRIBUTION SYSTEM. MAJOR ITEMS OF WORK INCLUDE, BUT ARE NOT LIMITED TO:
   (a) ELECTRICAL SERVICE:
   (i) PROVIDE A NEW UNDERGROUND ELECTRICAL SERVICE; IT SHALL CONSIST OF UNDERGROUND ELECTRICAL RACEWAYS AND CONCRETE PAD FOR UTILITY FURNISHED TRANSFORMER.
   (ii) UTILITY COMPANY SHALL PROVIDE MEDIUM VOLTAGE CONDUCTORS AND PAD TRANSFORMER.
   (b) LIGHTING SYSTEMS: INTERIOR AND EXTERIOR LIGHTING SYSTEM SHALL CONSIST OF LED TYPE.
   (c) LIGHTING CONTROLS: PROVIDE AS NOTED ON PLANS. IT'S THE INTENT FOR THEM TO AUTOMATICALLY CONTROL THE LUMINAIRES IN THEIR RESPECTIVE AREAS.
   (d) POWER SYSTEMS: PROVIDE MISCELLANEOUS DUPLEX RECEPTACLES, RECEPTACLES FOR COMPUTER TERMINALS AND POWER FOR H.V.A.C. AND PLUMBING EQUIPMENT.
   (e) INTRUSION DETECTION: IT SHALL CONSIST OF A CONTROL PANEL, KEYPADS, DURESS BUTTON, MOTION DETECTOR, GLASS BREAKS, OUTDOOR HORN AND MAGNETIC CONTACTS AS NOTED ON DRAWINGS.
   (f) CCTV SYSTEM AND DATA PROCESSING EQUIPMENT: PROVIDE ROUGH-INS ONLY. CABLING, CONNECTORS, PATCH PANELS, CAMERAS, RACKS, ETC. BY OWNER.
   (g) TRAFFIC CONTROL SYSTEM: PROVIDE CONNECTIONS FOR EQUIPMENT, MOTORS, ARM, LOOPS, ELECTRONIC EYES, ETC.

LIGHTING SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	SURFACE/WRAPAROUND LIGHT FIXTURE	– – – –
	SURFACE/WRAPAROUND EMERGENCY LIGHT FIXTURE CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	– – – –
	SURFACE/WRAPAROUND LIGHT FIXTURE	– – – –
	WALL MOUNT LIGHT FIXTURE – TYPE AS NOTED	– – – –

NOTES:
1.) REFERENCE LIGHT FIXTURE SCHEDULE FOR ALL MOUNTING HEIGHTS.

LIGHTING WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
S	SINGLE POLE TOGGLE SWITCH – HUBBELL MODEL #HBL1221X	48"AFF
S_{VSD}	VACANCY DIMMING WALL SENSOR SWITCH – LUTRON MODEL #MS-Z101-WH. PROVIDE 0-10V SIGNAL WIRE IN RACEWAY FROM SWITCH TO EACH CONTROLLED LIGHT FIXTURE.	48"AFF
S_{VS}	VACANCY WALL SENSOR SWITCH – LUTRON MODEL #MS-OPS6M2-DV-WH.	48"AFF
S_T	1P TOGGLE SWITCH-THERMAL TYPE – SQUARE "D" CLASS 2510 W/ RED PILOT LIGHT & HANDLE GUARD/LOCK OFF	AS REQUIRED
PC	DIGITAL OUTDOOR PHOTO CELL	AS REQUIRED

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DUPLEX TAMPER RESISTANT RECEPTACLE – HUBBELL MODEL #BR20XTR	18"AFF
:AC	DUPLEX RECEPTACLE TAMPER RESISTANT – HUBBELL MODEL #8300XTR MOUNT @ +4" HORIZONTALLY ABOVE COUNTER BACKSPLASH (U.N.O.)	4"ACB
:GFCI	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTRST20X	18"AFF
GFCI WICP	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTWRST20X AND WHILE IN USE WEATHERPROOF COVER – HUBBELL MODEL #WP26EH	18"AFF
	JUNCTION BOX W/ BLANK COVERPLATE	AS REQUIRED
	POLYMER CONCRETE PULL BOX W/ LOGO COVER – SEE DETAIL	AS REQUIRED
S_T	1P TOGGLE SWITCH-THERMAL TYPE – SQUARE "D" CLASS 2510 W/ RED PILOT LIGHT & HANDLE GUARD/LOCK OFF	AS REQUIRED

NOTES:
1.) U.N.O. INDICATES UNLESS NOTED OTHERWISE.
18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
AC INDICATES 4" ABOVE COUNTER TO BOTTOM OF DEVICE.

GENERAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DISCONNECT SWITCH – NON FUSED	AS REQUIRED
	EQUIPMENT CONNECTION	AS REQUIRED
	ELECTRICAL PANELBOARD – SURFACE MOUNTED	AS REQUIRED
— — —	UNDERGROUND RACEWAY	AS REQUIRED
———	CONCEALED RACEWAY	AS REQUIRED
	CONDUIT OR EMT HOMERUN TO PANELBOARD CONCEALED IN WALLS OR ABOVE CEILING. LONG CROSSMARKS DENOTE NUMBER OF "HOT" CONDUCTORS SHORT CROSSMARKS INDICATE NEUTRALS AND DOTS INDICATE NUMBER OF GROUND CONDUCTORS. ARROW INDICATES HOME RUN TO ELECTRICAL PANEL.	AS REQUIRED

SPECIAL SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DATA OUTLET – PROVIDE BACK BOX WITH 1" RACEWAY WITH PULL WIRE STUBBED BACK TO DATA RACK – SEE DETAIL.	18"AFF
	TRAFFIC CONTROL ARM MONITOR – PROVIDE BACK BOX WITH 1" RACEWAY WITH PULL WIRE STUBBED BACK TO DATA RACK – SEE DETAIL.	48"AFF

NOTES:
1.) 18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

INTRUSION DETECTION SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
HUB	HOLD UP BUTTON – PROVIDE BACK BOX WITH 1/2" RACEWAY WITH PULL WIRE STUBBED BACK TO INTRUSION PANEL – SEE DETAIL.	18"AFF
	INTRUSION DETECTION PANEL	AS REQUIRED
MD	INTRUSION DETECTION MOTION DETECTOR – FULL COVERAGE TYPE	8'-0"AFF
KP	INTRUSION DETECTION KEYPAD PROVIDE WITH STI COVER – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	48"AFF
GB	INTRUSION DETECTION GLASS BREAK SENSOR	CLG.
S WP	INTRUSION DETECTION OUTDOOR SIREN – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	7'-0" AFF
DC	INTRUSION DETECTION DOOR MAGNETIC CONTACT – PROVIDE WITH 1/2"C AND PULLWIRE.	– – – –

NOTES:
1.) 18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

CCCTV SYSTEM SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	CAMERA – PROVIDE BACK BOX WITH 1" RACEWAY WITH PULL WIRE STUBBED BACK TO DATA RACK.	7'-0"AFF

NOTES:
1.) PRIOR TO ANY ROUGH-IN COORDINATE EXACT LOCATION OF BACK BOXES WITH OWNER/CCTV SYSTEM SUPPLIER.

ABBREVIATIONS:

A	AMPS	EF	EXHAUST FAN	MECH	MECHANICAL
ABC	ABOVE CEILING LINE	EXT.	EXTERNAL OR EXTERIOR	MS	MOTOR STARTER
AC	ABOVE COUNTER BACKSPLASH	FCU	FAN COIL UNIT	NTS	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	G.	GROUND	PH	PHASE
B.	BOTTOM	GA.	GAGE	RM.	ROOM
BC	BELOW BOTTOM OF COUNTER	GALV.	GALVANIZED	SS	STAINLESS STEEL
BLC.	BELOW CEILING LINE	GRND.	GROUND	TYP	TYPICAL
C.	CONDUIT OR COMMON	HP	HORSEPOWER	UG	UNDERGROUND
CLG.	CEILING	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	UNO	UNLESS OTHERWISE NOTED
COND.	CONDUIT			V	VOLTS
CU.	COPPER	IG	ISOLATED GROUND	W	WIRE
DISC.	DISCONNECT	INT.	INTRUSION DETECTION		

GENERAL NOTES:

1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.

   a. UNISTRUT – PVC COATED
   b. HARDWARE – STAINLESS STEEL 316.
   c. ELECTRICAL GEAR ENCLOSURE – REINFORCED FIBERGLASS.
   d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
   e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.

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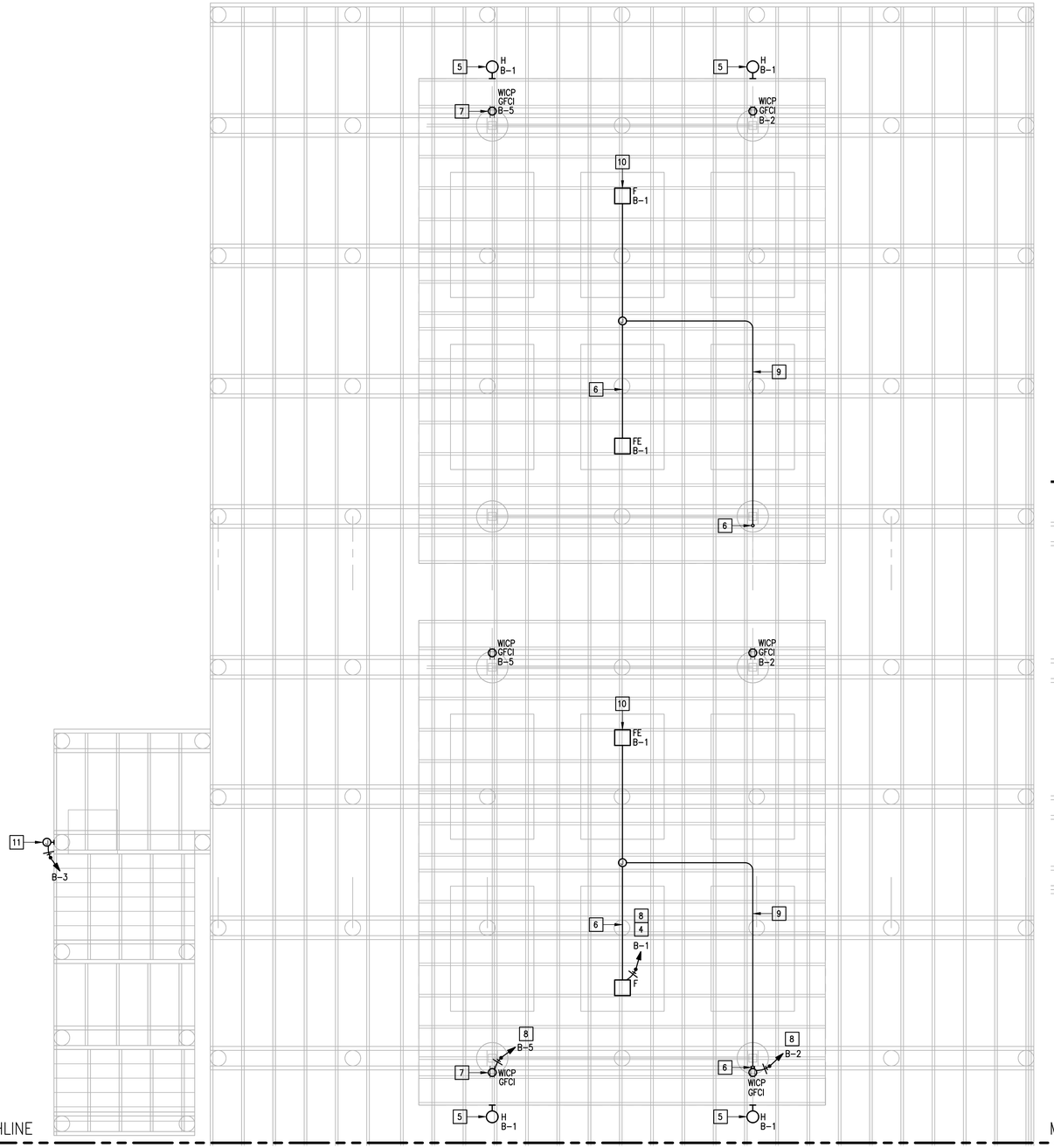
RFP No. 250501

KEYED NOTES:

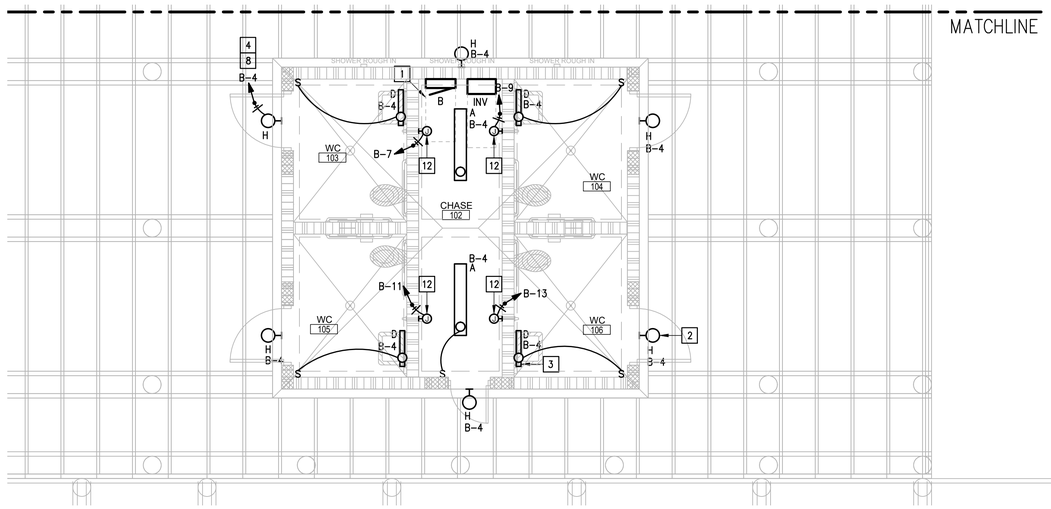
1. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE ELECTRICAL GEAR. COORDINATE WITH OTHER TRADES.
2. WALL MOUNT LIGHT FIXTURE TYPE "HE" AT X'-X" AFF TO CENTER OF FIXTURE – TYPICAL.
3. WALL MOUNT LIGHT FIXTURE TYPE "D" AT 7'-6" AFF TO CENTER OF FIXTURE – TYPICAL.
4. SWITCH EXTERIOR PLAZA LIGHTS THROUGH LIGHTING CONTACTOR "LC2" AND EMERGENCY INVERTER. BRANCH CIRCUIT: 3/4" – 2#10 & #10G. SEE CORRESPONDING LIGHTING CONTACTOR SCHEDULE.
5. WALL MOUNT TO WOOD TRUSS. CONCEAL BACK BOX AND RACEWAY FROM BEHIND.
6. PROVIDE ALL PAVILION RACEWAYS AND BOXES CONCEALED WITHIN CHASES, STRUCTURAL BEAMS AND SOFFITS. THERE SHALL BE NO EXPOSED RACEWAYS – TYPICAL
7. PROVIDE SURFACE MOUNTED AT 8'-0"AFF – TYPICAL. ALL RACEWAYS SHALL BE CONCEALED – SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
8. ROUTE HOMERUN BELOW PLAZA FLOOR TO POWER SOURCE.
9. PAVILION BRANCH CIRCUIT RACEWAY PATH – TYPICAL.
10. MOUNT LIGHT FIXTURE TYPE "F" CEILING – TYPICAL.
11. CONNECT IRRIGATION CONTROLLER AT STAIRCASE PILING 6'-0" ABOVE FINISHED GRADE. COORDINATE EXACT LOCATION WITH LANDSCAPE CONTRACTOR.
12. PROVIDE RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE FASTAIRE: HD04/1118-4 (NO SUBSTITUTIONS). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT AT +40" A.F.F. (PUSH BUTTON). LOCATE MOTOR IN CHASE AND VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS – SEE DETAIL.

GENERAL NOTES:

1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.
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   d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
   e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.
2. ELECTRICAL BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
3. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
4. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
5. PAINT ALL EXPOSED RACEWAYS, HANGERS, BOXES, SUPPORTS AND ACCESSORIES IN INTERIOR AND EXTERIOR AREAS. COORDINATE PAINT TYPE, COLOR, AND SCOPE WITH ARCHITECT
6. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
7. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.
8. THE INTENT IS FOR ALL ELECTRICAL RACEWAYS TO BE CONCEALED WITHIN WALLS. NOT EXPOSED RACEWAY ARE ALLOWED. PROVIDE UNDERGROUND RACEWAYS AND HOMERUNS AS NECESSARY.



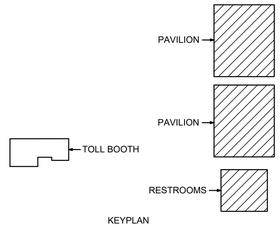
01 LIGHTING & ELECTRICAL PLAN
SCALE :1/4" = 1'-0"



02 LIGHTING & ELECTRICAL PLAN
SCALE :1/4" = 1'-0"

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LUMINAIRE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE 1	LUMENS	HOURS	LUMEN MAINTENANCE
A	LED	VANDAL RESISTANT WRAPAROUND	DRIVER	WALL	LUMIAIRE LED: VPF8 4FT MIN1 50W 40K MVOLT OP WHT	50	120V 1P 2W	PROVIDE A WHITE FINISH.	5483	L70	130,000
D	LED	VANDAL RESISTANT WRAPAROUND	DRIVER	WALL	KENALL: FNL6 24 MW PP 1-45L40K DCC 120	27	120V 1P 2W	PROVIDE UL LISTED FOR DAMP LOCATIONS. PROVIDE A MATTE WHITE FINISH.	2480	L70	80,000
F	AMBER LED	CEILING SQUARE	DRIVER	CEILING	VISIONAIRE: PGA-1-T5-32LC-3-A-UNV-CM-BZ	35	120V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS. PROVIDE A BRONZE FINISH.	1314	L70	100,000
FE	AMBER LED	CEILING SQUARE	DRIVER	CEILING	VISIONAIRE: PGA-1-T5-32LC-3-A-UNV-CM-BZ-EBPL	35	120V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS AND WITH AN EMERGENCY BATTERY PACK. PROVIDE A BRONZE FINISH.	1314	L70	100,000
H	AMBER LED	WALL PACK	DRIVER	WALL	VISIONAIRE: PGAS-1 T2 32LC 5 TS UNV WM WH	52	120V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS. PROVIDE A WHITE FINISH.	2210	L70	100,000
P1	AMBER LED	FLOOD LIGHT	DRIVER	POLE	VISIONAIRE: BLX-II-8-T3-128LC-5-A-UNV UPMA-R-GY NAFCO: AL-RTFA-25-0000-SD-LAB-NA-SPL25-GR-P2-SPL-EHH	211	240V 2P 2W	PROVIDE 25'-0" ROUND TAPERED FIBERGLASS POLE RATED FOR 140MPH 3-SECOND GUST WINDS. PROVIDE A GREY FINISH. PROVIDE KNOCK OUT AT 20'-0" FOR CCTV CAMERA.	26991	L70	100,000
P2	AMBER LED	FLOOD LIGHT	DRIVER	POLE	VISIONAIRE: BLX-II-8-T5W-128LC-5-A-UNV-UPMA-R-GY NAFCO: AL-RTFA-25-0000-SD-LAB-NA-SPL25-GR-P2-SPL-EHH	211	240V 2P 2W	PROVIDE 25'-0" ROUND TAPERED FIBERGLASS POLE RATED FOR 140MPH 3-SECOND GUST WINDS. PROVIDE A GREY FINISH. PROVIDE KNOCK OUT AT 20'-0" FOR CCTV CAMERA.	27131	L70	100,000

GENERAL NOTES:
1. OTHER LIGHT FIXTURE MANUFACTURERS OTHER THAN THOSE LISTED ON THIS SCHEDULE ARE REQUIRED TO OBTAIN PRIOR APPROVAL BY SUBMITTING CUT SHEETS OF THEIR SUBSTITUTIONS AT LEAST 10 DAYS PRIOR TO BID. CUT SHEETS SHALL INDICATE/HIGHLIGHT PHOTOMETRIC CURVES, EFFICIENCY & CONSTRUCTION FOR DIRECT COMPARISON WITH SPECIFIED FIXTURES.
2. EXTRA MATERIALS: SEE SPECIFICATIONS.
3. EMERGENCY BATTERY PACKS SHALL BE COMPLETE FACTORY INSTALLED WITH NI-CAD BATTERY, CHARGER INDICATING LIGHT, ELECTRONIC CIRCUITRY, 1400 LUMENS OUTPUT, 90 MINUTES DURATION & FIVE FULL YEARS WARRANTY.



01 LIGHT FIXTURE TYPE "A"
SCALE : NOT TO SCALE



02 LIGHT FIXTURE TYPE "D"
SCALE : NOT TO SCALE



03 LIGHT FIXTURE TYPE "F" & "FE"
SCALE : NOT TO SCALE



04 LIGHT FIXTURE TYPE "H"
SCALE : NOT TO SCALE



05 LIGHT FIXTURE TYPE "P1" & "P2"
SCALE : NOT TO SCALE

GENERAL NOTES:

1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.

a. UNISTRUT – PVC COATED
b. HARDWARE – STAINLESS STEEL 316.
c. ELECTRICAL GEAR ENCLOSURE – REINFORCED FIBERGLASS.
d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.

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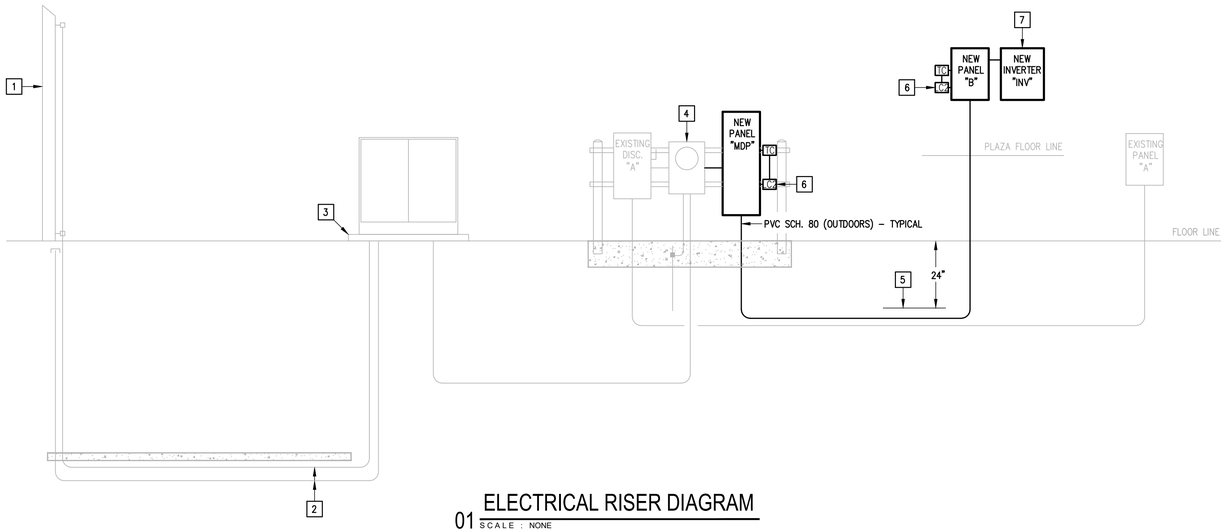
CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
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REGISTERED ARCHITECT
04.10.2025

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Date: April 10, 2025
Scale: As Noted
Proect Architect:a Roan G. Gomez, AIA
Dran By:a C.G.
Job No. 25v53
Sheet: E4.01

RFP No. 250501



01 ELECTRICAL RISER DIAGRAM
SCALE : NONE

ELECTRICAL RISER DIAGRAM KEYED NOTES:

1. EXISTING ELECTRIC UTILITY DIP POLE.
2. EXISTING ELECTRIC PRIMARY RACEWAYS.
3. EXISTING UTILITY TRANSFORMER CONCRETE PAD.
4. EXISTING ELECTRIC UTILITIES METER 120/240V/1P/3W.
5. PROVIDE CONTINUOUS DETECTABLE UNDERGROUND WARNING TAPE.
6. PROVIDE LIGHTING CONTACTOR AND TIME CLOCK. SEE SCHEDULE.
7. PROVIDE 350VA EMERGENCY LIGHTING INVERTER MYERS MODEL NO. LV-2-R-1-X-20-02

FEEDER SCHEDULE:

FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
60	1" – 3#6 & #6G	B
200	2" – 3#3/0 & #6G	MDP

SIZING METHOD: COPPER 75°C

LTG. CONTACTOR SCHEDULE "LC1":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1	AREA LIGHTING	240	20	1	MDP-17
2	AREA LIGHTING	240	20	1	MDP-19
3	AREA LIGHTING	240	20	1	MDP-21
4	AREA LIGHTING	240	20	1	MDP-23
5	SPARE	120	20	1	–
6	SPARE	120	20	1	–

NOTES:
1. CONTACTOR SCHEDULE CONTROLLED BY TIME CLOCK.
2. PROVIDE 20A, 120V, 6-POLE, NEMA 4X REINFORCED FIBERGLASS, SURFACE MOUNT, MECHANICALLY HELD LIGHTING CONTACTOR.

LTG. CONTACTOR SCHEDULE "LC2":

POLE	LOAD	VOLTS	AMPS	POLE	CIRCUIT
1	PAVILION LIGHTING	120	20	1	B-1
2	SHOWERS & TOILETS LIGHTING	120	20	1	B-4
3	SPARE	120	20	1	–
4	SPARE	120	20	1	–

NOTES:
1. CONTACTOR SCHEDULE CONTROLLED BY TIME CLOCK.
2. PROVIDE 20A, 120V, 6-POLE, NEMA 4X REINFORCED FIBERGLASS, SURFACE MOUNT, MECHANICALLY HELD LIGHTING CONTACTOR.

MDP

ROOM OUTDOORS — VOLTS 240/120V 2P 3W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 400 — MAIN BKR 400
FED FROM UTILITY METER — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B
1	20/2	SPACE	0		2	60/2	PANEL B	3.28	
3	|			0	4	|			2.58
5	20/2	POLE LIGHTING	1.69		6	50/2	*FUTURE FOOD TRUCK RECEPTACLE	4.8	
7	|			1.69	8	|			4.8
9	20/2	SPARE	0		10	50/2	*FUTURE FOOD TRUCK RECEPTACLE	4.8	
11	|			0	12	|			4.8
13	60/2	SPARE	0		14	50/2	SPARE	0	
15	|			0	16	|			0
17	150/2	SPD	0		18	50/2	SPARE	0	
19	|			0	20	|			0
21	20/1	SPACE	0		22	50/2	SPARE	0	
23	20/1	SPACE		0	24	|			0
25	20/1	SPACE	0		26	20/1	SPACE	0	
27	20/1	SPACE		0	28	20/1	SPACE		0
29	20/1	SPACE	0		30	20/1	SPACE	0	
							TOTAL CONNECTED KVA BY PHASE	14.6	13.9

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	4.38	5.48	(125%)	RECEPTACLES	4.86	4.86	(50%>10)
				NONCONTINUOUS	19.2	19.2	(100%)
				TOTAL LOAD		29.5	
				BALANCED LOAD		123 A	

1. PROVIDE A NEMA 4X REINFORCED FIBERGLASS ENCLOSURE.
2. PROVIDE WITH AND INTEGRAL SPD RATED FOR 200KA PER PHASE.

*PROVIDE GFCI TYPE

B

ROOM CHASE 102 — VOLTS 240/120V 2P 3W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 100 — MAIN BKR 60
FED FROM MDP — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B
1	20/1	LIGHTING	0.404		2	20/1	RECEPT.	0.54	
3	20/1	IRR. CONTROLLER		0.18	4	20/1	LIGHTING		0.604
5	20/1	RECEPT.	0.54		6	20/1	SPARE	0	
7	20/1	HAND DRYER		0.9	8	20/1	SPARE		0
9	20/1	HAND DRYER	0.9		10	20/1	SPARE	0	
11	20/1	HAND DRYER		0.9	12	20/1	SPARE		0
13	20/1	HAND DRYER	0.9		14	20/1	SPARE	0	
15	20/1	SPACE		0	16	20/1	SPARE		0
17	20/1	SPACE	0		18	50/2	SPD	0	
19	20/1	SPACE		0	20	|			0
							TOTAL CONNECTED KVA BY PHASE	3.28	2.58

	CONN KVA	CALC KVA			CALC KVA
LIGHTING	1.01	1.26	(125%)	TOTAL LOAD	6.12
RECEPTACLES	4.86	4.86	(50%>10)	BALANCED LOAD	25.5 A

1. PROVIDE WITH AND INTEGRAL SPD RATED FOR 80KA PER PHASE.

GENERAL NOTES:

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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
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04.10.2025

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Date:	April 10, 2025
Scale:	As Noted
Proect Architect:	Roan G. Gomez, AIA
Dran By:	C.G.
Job No.	25v53
Sheet:	E5.01

RFP No. 250501

GENERAL NOTES:

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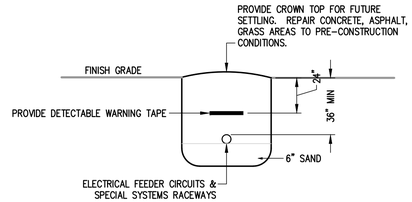
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NOTE: ATTACH NAMEPLATES TO ALL ELECTRICAL GEAR AS NOTED ON SPECIFICATIONS

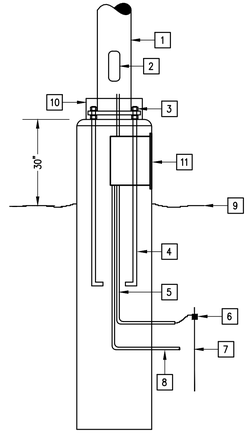
01 EQUIPMENT IDENTIFICATION LABEL DETAIL

SCALE : NOT TO SCALE



02 BURIAL DETAIL FOR ELECTRICAL RACEWAYS

SCALE : NOT TO SCALE



KEYED NOTES:

1. PROVIDE LIGHT POLE WITH HAND HOLE AND A 3/4" KNOCK OUT AT 20'-0" FOR CCTV – SEE SCHEDULE.
2. PROVIDE HANDHOLE COVER.
3. PROVIDE DOUBLE NUTS FOR ADJUSTMENT OF POLE VERTICAL ALIGNMENT.
4. PROVIDE ANCHOR BOLTS AS REQUIRED BY POLE MANUFACTURER FURNISHING POLE (MAX. 24" DIAM. BOLT CIRCLE).
5. PROVIDE 1/2" RACEWAY – #8G.
6. PROVIDE CADWELD CONNECTION.
7. PROVIDE 3/4" X 10' COPPER CLAD GROUND BAR.
8. PROVIDE RACEWAYS FOR POWER AND CCTV EACH 24" BELOW GRADE.
9. GRADE LINE OR PARKING LOT SURFACE.
10. PROVIDE BASE COVER.
11. PROVIDE RECESSED J-BOX, CARLON MODEL E1212C24.

03 LIGHT POLE FOUNDATION DETAIL

SCALE : NOT TO SCALE

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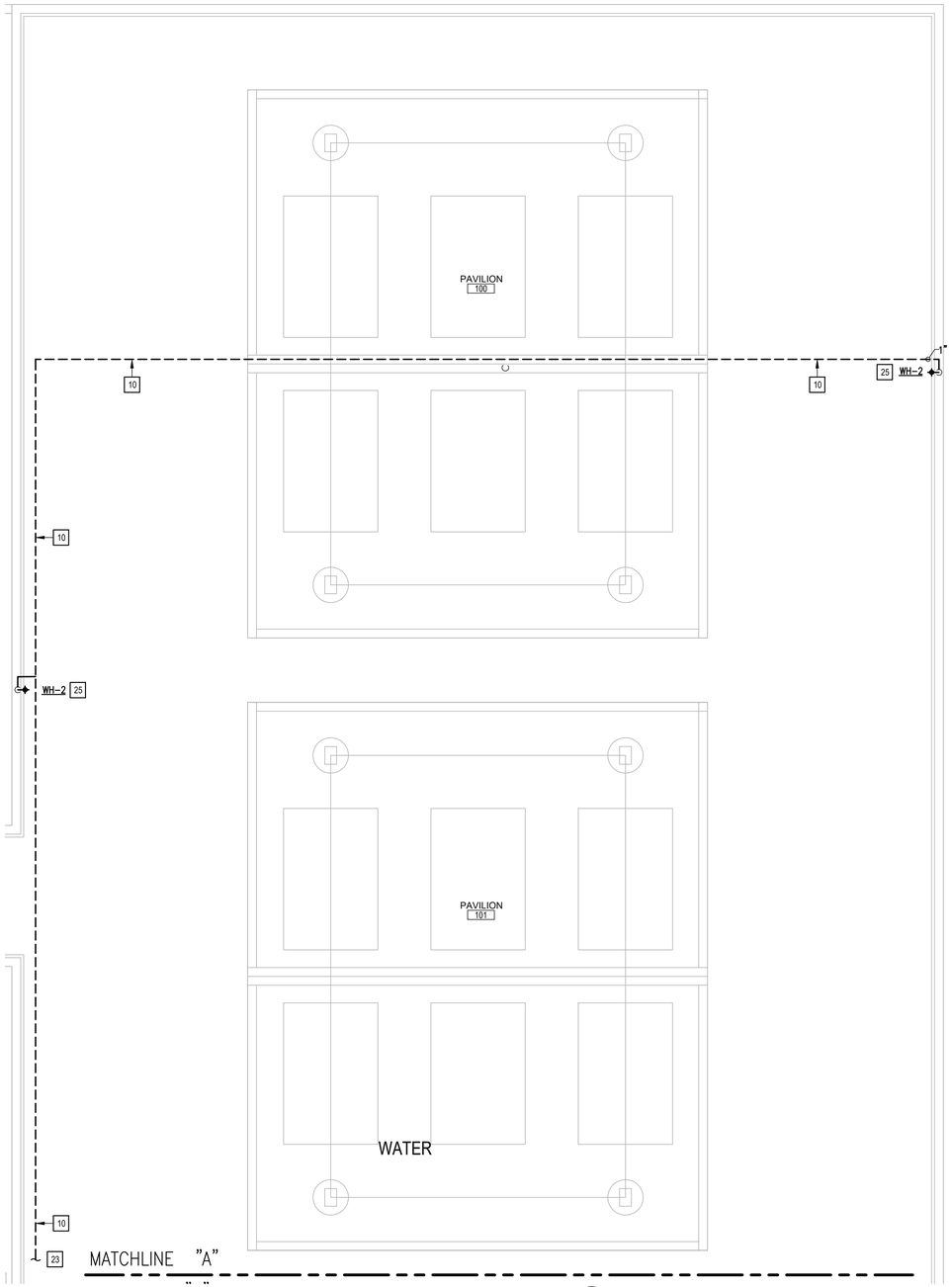
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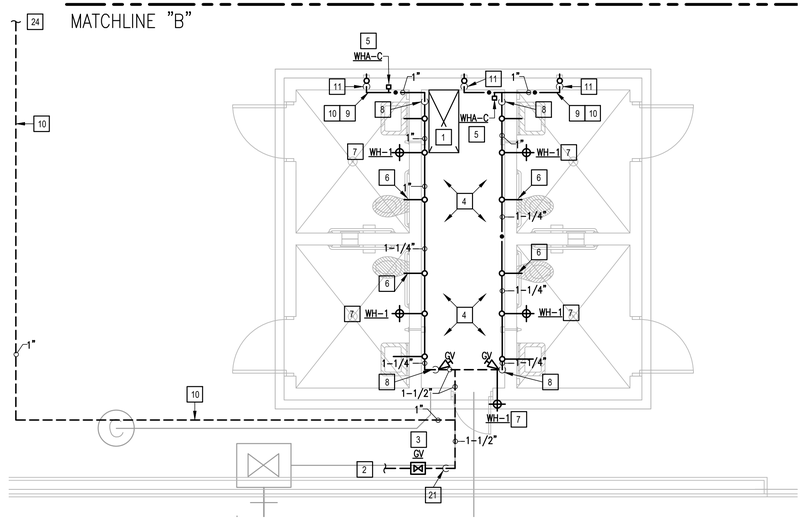
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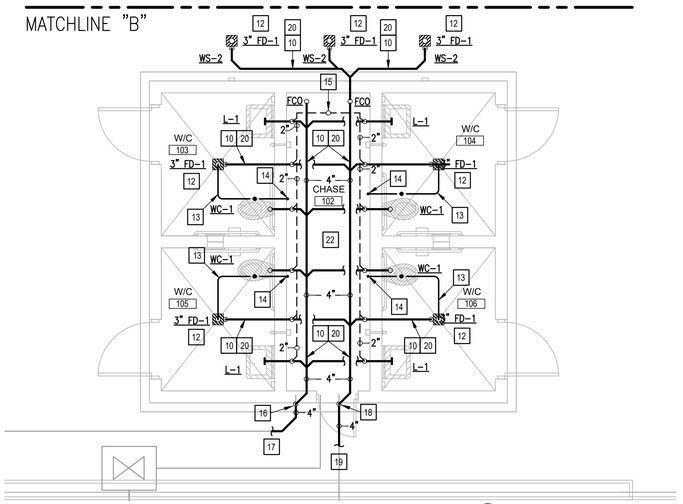
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01 PLUMBING PLAN
SCALE : 1/4" = 1'-0"
NORTH



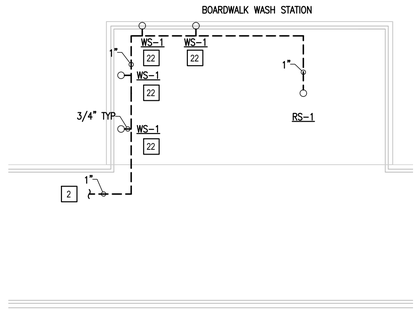
02 WASTE & VENT PLAN
SCALE : 1/4" = 1'-0"
NORTH



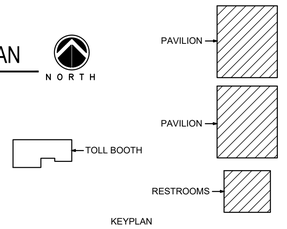
03 WASTE & VENT PLAN
SCALE : 1/4" = 1'-0"
NORTH

KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER THIS AREA.
2. REFER TO MEP SITE PLAN FOR UTILITIES CONTINUATION.
3. PROVIDE GATE VALVE IN QUAZITE BOX. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
4. SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL.
5. PROVIDE WATER HAMMER ARRESTOR (WHB), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
6. INSTALL FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM FOR ALL ADA WATER CLOSET.
7. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA – TYPICAL.
8. PIPE RISE IN CHASE.
9. RUN DOMESTIC WATER PIPE ABOVE FIBER CEMENT BOARD IN ATTIC SPACE.
10. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
11. PROVIDE WATER LINE INSIDE WALL FOR SHOWER AT THIS LOCATION. PROVIDE PIPING FOR SHOWER VALVE AND SHOWER HEAD AT 48" AND 72" A.F.F. RESPECTIVELY. PROVIDE STAINLESS STEEL ACCESS PANEL WITH STEEL SCREWS TO COVER THE ROUGH-IN.
12. PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
13. 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. RUN PIPING INSIDE WALL AND UNDER FLOOR SLAB.
14. CONNECT TO WATER CLOSET (WC) FLUSH VALVE TRAP-PRIMER. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
15. PROVIDE 3" VENT UP TO 3" VENT THRU ROOF.
16. 4" SANITARY SEWER PIPE DOWN AT THIS APPROXIMATE LOCATION. REFER TO STRUCTURAL PLANS FOR MORE INFORMATION.
17. 4" SANITARY SEWER UNDERGROUND.
18. 4" SANITARY WASTE PIPE DOWN AT THIS APPROXIMATE LOCATION. REFER TO STRUCTURAL PLANS FOR MORE INFORMATION.
19. 4" SANITARY WASTE UNDERGROUND TO SAND SEPARATOR.
20. RUN SANITARY SEWER PIPE UNDER DECK.
21. 1-1/2" DOMESTIC WATER UP AGAINST COLUMN AT THIS LOCATION. REFER TO STRUCTURAL PLANS FOR MORE INFORMATION.
22. PROVIDE WASH STATION AS SCHEDULED. PROVIDE CEDAR WOOD ENCLOSURE TO CONCEAL WATER LINE. COORDINATE WORK WITH WOOD RAILING CONTRACTOR. REFER TO DETAIL SHEET FOR MORE INFORMATION.
23. REFER TO 02/THIS SHEET FOR CONTINUATION.
24. REFER TO 01/THIS SHEET FOR CONTINUATION.
25. PROVIDE DECK HYDRANT AS SCHEDULED. ENSURE PIPE IS CONCEALED BEHIND PICKETS. SEE ASSOCIATED DETAIL ON DETAIL SHEET.



04 PLUMBING PLAN
SCALE : 1/4" = 1'-0"
NORTH



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PLUMBING SYMBOLS LEGEND

—•—•—	COLD WATER SUPPLY	WCO	WALL CLEANOUT
—••—	HOT WATER SUPPLY		*GATE VALVE (GV)
----G----G----	GAS LINE		*BALL VALVE
	SOIL & WASTE LINE - ENLARGED PLANS		VALVE IN RISER TYPE AS NOTED
- - - - - - - -	VENT LINE - ENLARGED PLANS	WC	WATER CLOSET
—AW—	ACID WASTE LINE - ENLARGED PLANS	UR	URINAL
—GW—	GREASE WASTE LINE - ENLARGED PLANS	L	LAVATORY
—F—	FIRE SPRINKLER LINE	SK	SINK
FCO	FLOOR CLEANOUT	EDF	ELECTRIC DRINKING FOUNTAIN
FCO-2	FLOOR CLEANOUT - 2 WAY	MSB	MOP SERVICE BASIN
FD FD	FLOOR DRAIN (FD) WITH DEEP SEAL TRAP	EESHR	EMERGENCY EYE/SHOWER
HDC	HUB DRAIN WITH DEEP SEAL TRAP	TP	TRAP PRIMER
	FLOOR SINK	EWH	ELECTRIC WATER HEATER
YCO	YARD CLEANOUT	VTR	VENT THRU ROOF
YCO-2	YARD CLEANOUT - 2 WAY	CO	CLEANOUT
WH	WALL HYDRANT	A.F.F.	ABOVE FINISH FLOOR
	TRAP PRIMER	ADT	ACID DILUTION TANK
	*WATER HAMMER	GT	GREASE TRAP

* PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA.

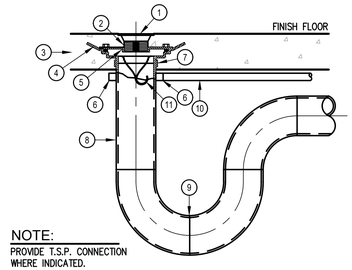
GENERAL NOTES:

1. ALL PLUMBING WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.
2. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
3. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH THE WORK OF OTHER TRADES. COORDINATE WITH MECHANICAL, ELECTRICAL AND STRUCTURAL FOR PROPER CLEARANCES.
4. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION WORK.
5. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR.
6. SLEEVE ALL OUTSIDE WALLS, FOUNDATION GRADE BEAMS, INTERIOR WALL PENETRATIONS, AND FIRE SEAL ALL PENETRATION THROUGH FIRE WALLS AND FLOORS WHETHER SHOWN ON PLANS OR NOT.
7. PROVIDE MINIMUM 15' OF SEPARATION BETWEEN HVAC INTAKES AND VENT THRU ROOFS.
8. RECORD INVERT ELEVATIONS OF ALL YARD CLEAN OUT (YCO) ON "AS-BUILT" DRAWINGS.
9. PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.
10. PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.
11. PROVIDE ANY BACKFLOW PREVENTION DEVICE REQUIRED BY CODE OR LOCAL AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY AND LOCAL AGENCIES AND INCLUDE COST IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.
12. REFER TO PLUMBING FIXTURE ROUGH-IN SCHEDULE FOR INDIVIDUAL PIPE CONNECTIONS TO FIXTURES.
13. PRIOR TO POURING FOUNDATION AND ERECTING CMU WALLS, COORDINATE INSTALLATION OF PLUMBING FIXTURE CARRIERS WITH GENERAL CONTRACTOR.
14. METAL STUDS AT DRY WALLS SHALL NOT BE CUT THRU HORIZONTAL DIRECTION. COORDINATE WITH DRY WALL CONTRACTOR
15. PIPE HANGERS AND SUPPORTS THAT NEED TO BE INSTALLED ON Z-PURLINS SHALL BE CLAMPED, CONNECTED OR ATTACHED TO THE WEB OF THE Z-PURLIN. DO NOT CLAMP, CONNECT OR ATTACH HANGERS AND SUPPORTS TO THE FLANGE OF THE Z-PURLIN.

PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS WASTE	VENT	CW	HW	NOTES	REMARKS
WC-1	ACORN 1680-ADA-M316-HET-FVH-SW	17" HIGH, WALL MOUNTED, LOW CONSUMPTION FLUSH VALVE, MARINE GRADE TYPE 316 STAINLESS STEEL, VANDAL RESISTANT, WATER CLOSET WITH ELONGATED TOILET BOWL, INTEGRAL CONTOURED SEAT, CREVICE-FREE SELF-DRAINING FLUSHING RIM WITH FULLY ENCLOSED TRAP, MAINTAIN 3-1/2" SEAL AND PASS A 2-1/8" BALL. SIPHON JET ACTION BOWL. 1.28GPF, CONCEALED FLUSH VALVE, WALL MOUNT PUSHBUTTON, WALL SLEEVE AND MOUNTING HARDWARE. FOR ADULT ADA MOUNTING	4"	2"	1"	–	1,2,3,4	17" TO TOP OF SEAT
L-1	ACORN 1652LRB-ADA-M316-1-DMS-03M-LW1-SW	18" X 18" WALL MOUNTED, MARINE GRADE TYPE 316 STAINLESS STEEL, VANDAL RESISTANT, LAVATORY, FAST DRAIN WITH SELF-DRAINING SOAP DISHES, DECK MOUNTED SPOUT, SINGLE TEMPERATURE PNEUMATIC METERING VALVE, LAV MOUNTED PUSHBUTTON , GRID STRAINER, CHROME PLATED SUPPLY STOPS WITH FLEXIBLE RISER, THRU-WALL EXTENSION WITH CONCEALED P-TRAP, WALL SLEEVE AND MOUNTING HARDWARE. FOR ADULT ADA MOUNTING.	2"	2"	1/2"	–	4	34" FROM FLOOR TO RIM
RS-1	ACORN 767-LD-FS6-M316-6'0"-1.6GPM	OUTDOOR BOTTOM SUPPLY COLUMN SHOWER WITH 6 SHOWER & FOOT HEADS, MARINE GRADE TYPE 316 STAINLESS STEEL BODY AND VANDAL RESISTANT FASTENERS, RECESS MOUNTED SOLID STAINLESS STEEL PUSHBUTTONS, LEAD-FREE METERING VALVES, STAINLESS STEEL NON-USER ADJUSTABLE SHOWER HEADS. FACTORY ASSEMBLED AND TESTED. INSTALL AND ANCHOR AS PER MANUFACTURES RECOMMENDATION.	–	–	3/4"	–	4	
WS-1	ACORN 536-PBH-M316	OUTDOOR BUILT-IN FOOT SHOWER. MARINE GRADE TYPE 316 STAINLESS STEEL EXPOSED PARTS, VANDAL RESISTANT, SOLID STAINLESS STEEL PUSHBUTTON, LEAD-FREE METERING VALVE, STAINLESS STEEL NON-USER ADJUSTABLE SHOWER HEAD.	–	–	3/4"	–	4	MOUNTED WITHIN CUSTOM CEDAR ENCLOSURE. SEE ARCHITECTURAL
WS-2	ACORN 536-PBH-M316	OUTDOOR BUILT-IN SHOWER. MARINE GRADE TYPE 316 STAINLESS STEEL EXPOSED PARTS, VANDAL RESISTANT, SOLID STAINLESS STEEL PUSHBUTTON, LEAD-FREE METERING VALVE, STAINLESS STEEL NON-USER ADJUSTABLE SHOWER HEAD.	–	–	3/4"	–	4,5	MOUNTED WITHIN CUSTOM CEDAR ENCLOSURE. SEE ARCHITECTURAL
WH-1	ZURN # Z1300 HYDRANT	ENCASED ANTI-SIPHON WALL HYDRANT, BRONZE, NON-TURNING OPERATING ROD STOP VALVE IN SUPPLY, KEY OPERATED CONTROL VALVE, STAINLESS STEEL BOX WITH HINGED COVER.	–	–	3/4"	–	4	
WH-2	ZURN # Z1300 HYDRANT	ENCASED ANTI-SIPHON WALL HYDRANT, BRONZE, NON-TURNING OPERATING ROD STOP VALVE IN SUPPLY, KEY OPERATED CONTROL VALVE, STAINLESS STEEL BOX WITH HINGED COVER.	–	–	1"	–	4	1" INLET & 1" OUTLET
FD-1	ZURN # ZN415B-P	BODY ASSEMBLY WITH TYPE B STRAINER, DURA COATED CAST IRON BODY WITH BOTTOM OUTLET INVERTED MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH TRAP PRIMER CONNECTION.	3"	2"	–	–	4	

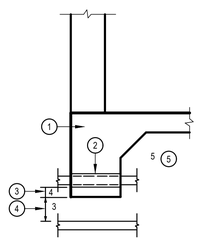
NOTES:
1. INSTALL FLUSH VALVE ON THE WIDE SIDE OF STALL.
2. REFER TO PLUMBING PLAN FOR FIXTURES THAT WILL REQUIRE TRAP PRIMER CONNECTIONS. PROVIDE SLOAN VBF-72 OR APPROVED EQUAL.
3. PROVIDE ADA APPROVED LEVERS & FLUSH VALVE HANDLES FOR ALL ADA PLUMBING FIXTURES.
4. MANUFACTURER AND MODEL NUMBER ARE "OR APPROVED EQUAL".
5. INSTALL SHOWER HEAD AT 6'-0" A.F.F.



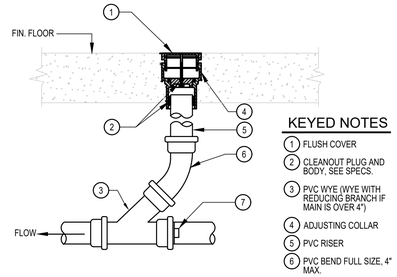
KEYED NOTES
1. N.S. STRAINER.
2. ADJUSTABLE DRAIN HEAD.
3. CONCRETE.
4. MEMBRANE.
5. FLASHING COLLAR.
6. TRAP PRIMER FITTING PROVISION.
7. S.S. "NO-HUB" ASSEMBLY.
8. PIPE SIZE AS INDICATED ON PLAN.
9. DEEP SEAL P-TRAP.
10. 1/2" SOFT DRAWN COPPER FROM TRAP PRIMER. ENCASE PIPING INSIDE MASONRY WALL OR UNDER SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL.
11. PROVIDE PROSET TRAP GUARD.

01 FD-1 FLOOR DRAIN WITH TRAP PRIMER DETAIL
SCALE : NOT TO SCALE

KEYED NOTES
1. GRADE BEAM.
2. GALV. SCH.40 STEEL SLEEVE. SIZE PER SPECS. CENTER PIPE IN SLEEVE.
3. PIPING PASSING HORIZ. THROUGH GRADE BEAM SHALL BE LOCATED NO LESS THAN 6" ABOVE BOTTOM OF BEAM.
4. PIPING PASSING HORIZ. UNDER GRADE BEAM SHALL BE LOCATED A MINIMUM OF 6" BELOW BEAM. PROVIDE A SLEEVE.
5. COORDINATE LOCATIONS OF PIPING IN 3,4,5, ABOVE AS RELIEVING ARCHES OR ADDITIONAL CONCRETE MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF BEAM.

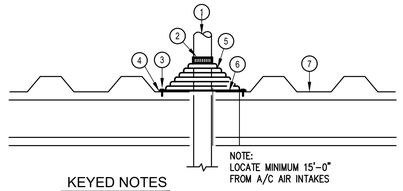


02 GRADE BEAM SLEEVE DETAIL
SCALE : NOT TO SCALE



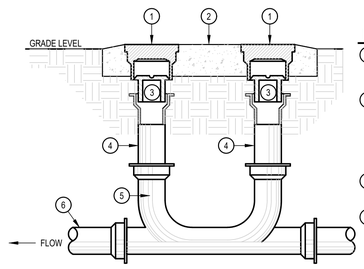
KEYED NOTES
1. FLUSH COVER
2. CLEANOUT PLUG AND BODY, SEE SPECS.
3. PVC WYE (WYE WITH REDUCING BRANCH IF MAIN IS OVER 4")
4. ADJUSTING COLLAR
5. PVC RISER
6. PVC BEND FULL SIZE, 4" MAX.
7. PLUG IF END OF LINE

03 FLOOR CLEANOUT DETAIL
SCALE : NOT TO SCALE



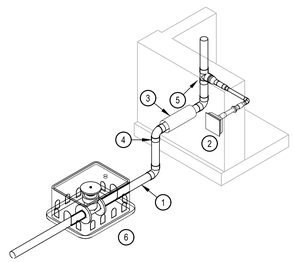
KEYED NOTES
1. VENT THRU ROOF (VTR) SEE PLAN FOR SIZES.
2. SLOT SCREWDRIVER TO PRESS INTO TIGHT ANGLES.
3. FASTENERS TO FINISH SEALING PRESS INTO TIGHT ANGLES.
4. SEALANT BETWEEN FLASHING AND ROOF PANEL.
5. ULTRAVIOLET RESISTANT E.P.D.M. OR APPROVED EQUAL.
6. ALUM. BASE BENDS TO FORM CONTOUR OF METAL ROOF.
7. METAL ROOF.

04 VENT THRU ROOF DETAIL
SCALE : NOT TO SCALE



KEYED NOTES
1. PROVIDE "HEAVY DUTY" NICKLE BRONZE COVER FOR ALL EXTERIOR CLEANOUTS.
2. 48"X24"X8" DEEP CONCRETE CLEANOUT BOX (BOX IS INDEPENDANT OF PIPE AND THEREFORE IS FREE TO MOVE WITH THE SETTLEMENT OF GRADE)
3. CLEANOUT FITTING ZURN ZN-1400-4 (SEE SPECS).
4. SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED. SHORT LENGTH OF C.I. PIPE FURNISHED WITH CLEANOUT BOX.
5. DOUBLE 2-WAY CLEANOUT.
6. SEWER LINE.

05 2-WAY YARD CLEANOUT DETAIL
SCALE : NOT TO SCALE



KEYED NOTES
1. TYPE "L" COPPER.
2. WALL HYDRANT-INSTALL LOW ENOUGH TO DRAIN RISER. (WITH LOOSE KEY TYPE).
3. SLEEVE.
4. PROVIDE 1" CLOSED-CELL INSULATION WITH ALUMINUM METAL JACKET ON EXPOSED PIPING.
5. TEE.
6. VALVE INSIDE QUAZITE BOX.

06 WATER ENTRANCE DETAIL
SCALE : NOT TO SCALE

No.	REVISIONS	BY

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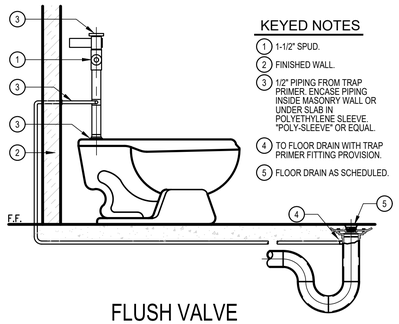
CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

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Architects-Planners
Interior Designers

Date: April 10, 2025
Scale: As Noted
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Sheet: P3.01

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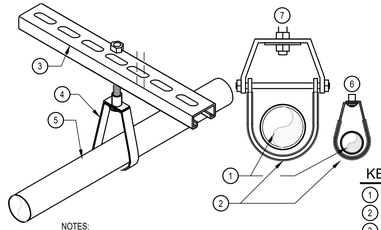


KEYED NOTES

1. 1-1/2" SPUD.
2. FINISHED WALL.
3. 1/2" PIPING FROM TRAP PRIMER. ENCASE PIPING INSIDE MASONRY WALL OR UNDER SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL.
4. TO FLOOR DRAIN WITH TRAP PRIMER FITTING PROVISION.
5. FLOOR DRAIN AS SCHEDULED.

01 FLUSH VALVE TRAP PRIMER DETAIL

SCALE : NOT TO SCALE



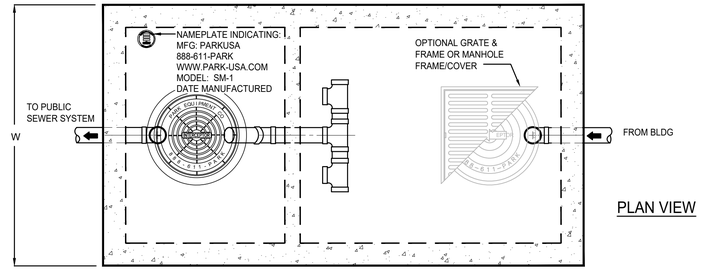
NOTES:
1. PROVIDE PLASTIC COATED HANGERS
2. MODEL: B3100C OR APPROVED EQUAL FOR CLEVIS
3. HANGERS. MODEL: B3172C OR APPROVED EQUAL FOR BAND HANGERS.

KEYED NOTES

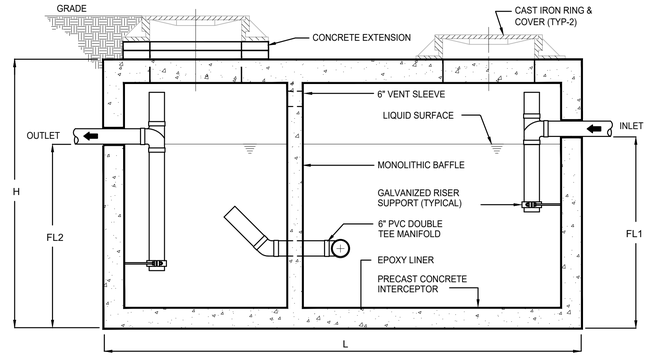
1. SCHEDULED PIPE.
2. PLASTIC COATING.
3. UNI-STRUT.
4. PIPE HANGER.
5. DOMESTIC WATER LINE, DRAIN LINE FROM AHU'S.
6. BAND HANGER.
7. CLEVIS HANGER.

02 DOMESTIC WATER LINE PIPING SUPPORT DETAIL

SCALE : NOT TO SCALE



PLAN VIEW



SAND-MUD INTERCEPTOR SCHEDULE							
MODEL NO.	CAPACITY USGal	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
SM-500	500	9,500	7'-10"	4'-4"	4'-6"	3'-3"	3'-0"

ELEVATION

Specifications

CONCRETE : Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor, first stage of wall and baffle with sectional riser to required depth. (Monolithic baffle required, slide-in type is not acceptable).

REINFORCEMENT: Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

C.I. CASTINGS: Manhole frames, covers or grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30. Manhole shall be nominal 24 inch diameter and be traffic duty.

Engineering Data

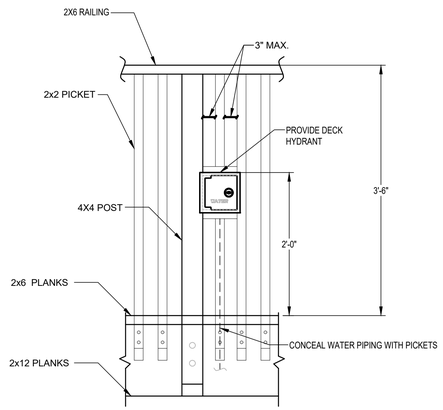
The sand & mud interceptor is structurally & hydraulically engineered to conform to regional plumbing codes recommended in most cities. Consult with local authorities for specific application requirements.

Shop drawings shall include complete structural & buoyancy calculations certified by a licensed professional engineer.

Consult with Park Environmental for exact excavation dimensions & shipping information.

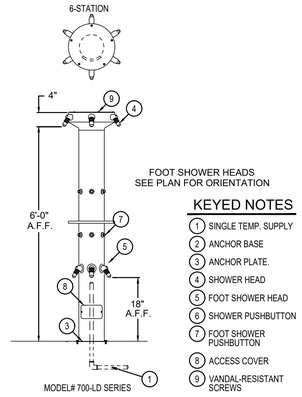
05 SAND SEPARATOR DETAIL

SCALE : NOT TO SCALE



03 DECK HYDRANT DETAIL

SCALE : NOT TO SCALE

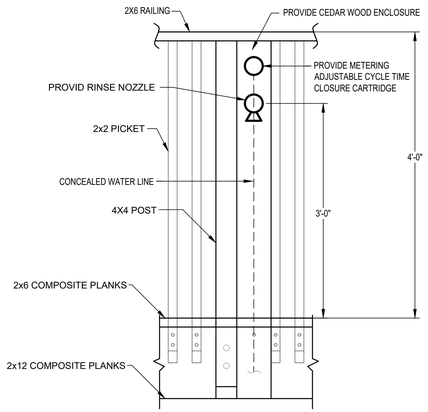


KEYED NOTES

1. SINGLE TEMP. SUPPLY
2. ANCHOR BASE
3. ANCHOR PLATE.
4. SHOWER HEAD
5. FOOT SHOWER HEAD
6. SHOWER PUSHBUTTON
7. FOOT SHOWER PUSHBUTTON
8. ACCESS COVER
9. VANDAL-RESISTANT SCREWS

04 6 - STATION SHOWER COLUMN WITH FOOT WASH DETAIL

SCALE : NOT TO SCALE



06 WASH STATION DETAIL

SCALE : NOT TO SCALE

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CAMERON COUNTY PHASE II - BEACH ACCESS 3 IMPROVEMENTS

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Interior Designers

Date: April 10, 2025
Scale: As Noted
Proect Architect: Roan G. Gomez, AIA
Drawn By: D.G.
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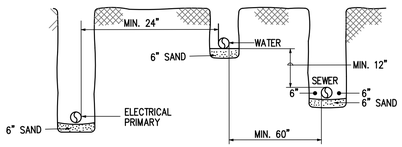
RFP No. 250501

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



02 TRENCHING DETAIL
SCALE : NONE

PLUMBING KEYED NOTES:

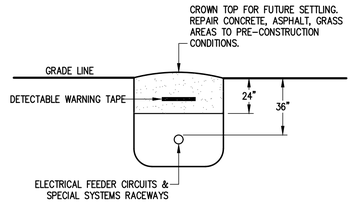
1. PROVIDE 1-1/2" UNDERGROUND DOMESTIC WATER LINE AND VALVE IN QUAZITE BOX. SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
2. PROVIDE 4" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.

ELECTRICAL KEYED NOTES:

1. EXISTING ELECTRIC 1ø UTILITY OVERHEAD SERVICE LINES.
2. EXISTING ELECTRIC UTILITY POWER POLE WITH NEW RISER DIP POLE.
3. PROVIDE UNDERGROUND PRIMARY ELECTRIC LINE.
4. PROVIDE ELECTRIC UTILITY PAD MOUNT TRANSFORMER CONCRETE PAD.
5. PROVIDE NEW ELECTRIC UTILITY METER AND DISTRIBUTION EQUIPMENT MOUNTED ON FREE STANDING UNISTRUT RACK.
6. PROVIDE UNDERGROUND FEEDER.
7. PROVIDE 12"X12" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "COMMUNICATIONS" COVER LOGO – SEE DETAIL.
8. PROVIDE 2-2" RACEWAYS WITH GALVANIZED PULLWIRE FOR FUTURE CCTV CAMERA CABLING.
9. PROVIDE 4" TELEPHONE RACEWAY WITH PULLWIRE TO EXISTING TELEPHONE PEDESTAL. ROUTE TO BUILDING & TERMINATE IN M.D.F. ROOM. PRIOR TO TRENCHING COORDINATE TERMINATION POINT WITH UTILITY COMPANY.

GENERAL NOTES:

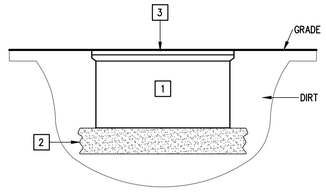
1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.
   a. UNISTRUT – PVC COATED
   b. HARDWARE – STAINLESS STEEL 316.
   c. ELECTRICAL GEAR ENCLOSURE – REINFORCED FIBERGLASS.
   d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
   e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.COORDINATE WORK
2. AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
3. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
4. COORDINATE ELECTRICAL AND PLUMBING WITH GENERAL CONSTRUCTION.
5. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
6. FIELD VERIFY/SPOT EXACT LOCATIONS AND EXISTING CONDITIONS OF EXISTING PLUMBING, AND ELECTRICAL. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND WORKABLE SYSTEMS. SHOULD BIDDER FIND OMISSIONS OR DISCREPANCIES IN THE PLANS, BIDDER SHALL NOTIFY THE ENGINEER PRIOR TO THE BID DATE AND A WRITTEN CLARIFICATION WILL BE ISSUED.
7. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. CONTRACTORS ARE REQUIRED TO SEARCH AND INVESTIGATE FOR EXISTING UTILITIES BEFORE EXCAVATING.
8. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
9. PROVIDE J-BOXES (POLYMER CONCRETE) AS REQUIRED FOR PULL WIRING.
10. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
11. PERFORM ALL WORK PER LATEST VERSION OF NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
12. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
13. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
14. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
15. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
16. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
17. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
18. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING PHASE.
19. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
20. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
21. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
22. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
23. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
24. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
25. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
26. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
27. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
28. REFER TO THE TECHNICAL DRAWINGS FOR LOCATIONS, HEIGHTS, BACK BOXES, RACEWAYS AND WIREWAYS TO BE PROVIDED IN ADDITION TO THE ELECTRICAL DRAWINGS.



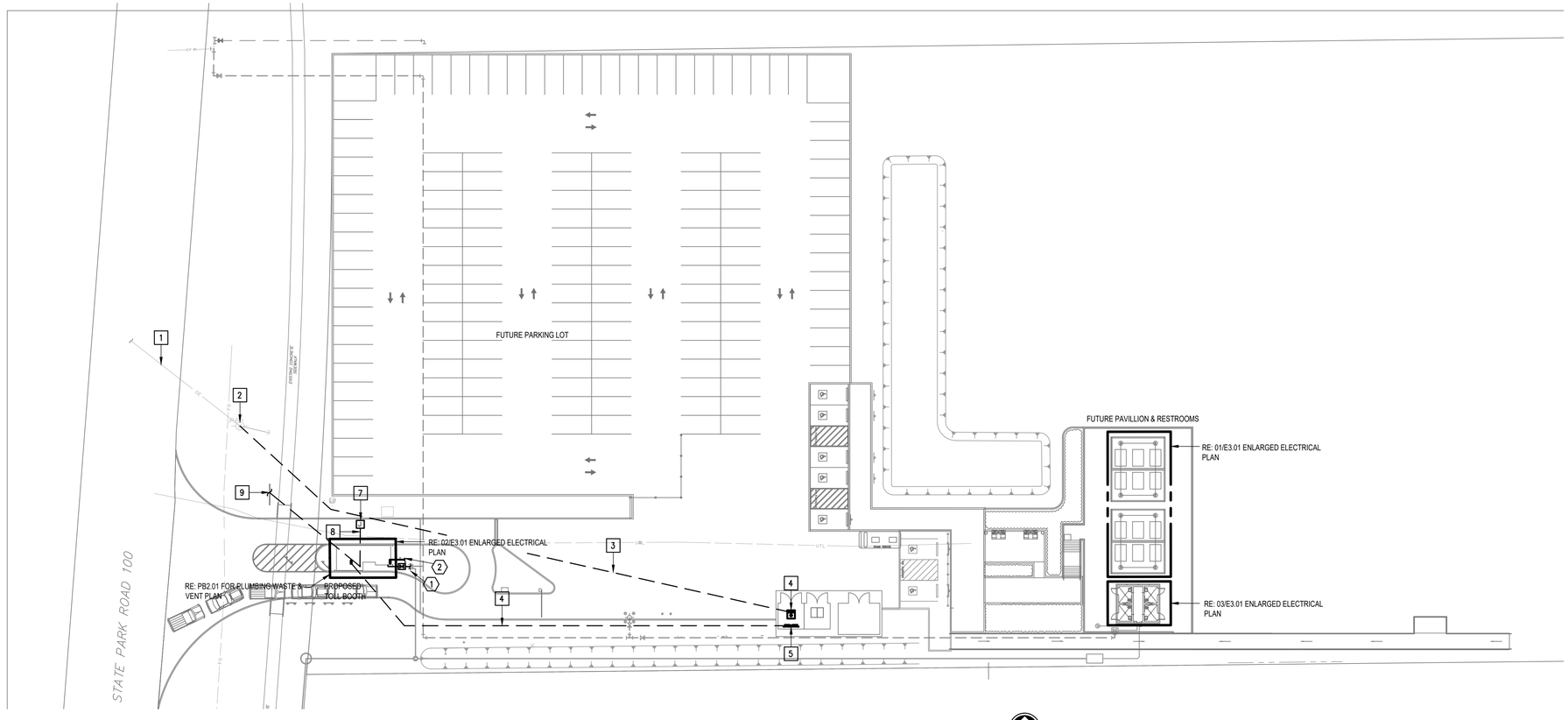
03 BURIAL DETAIL FOR ELECTRICAL RACEWAYS
SCALE : NONE

KEYED NOTES:

1. PROVIDE POLYMER CONCRETE PULL BOX TIER 22 RATED. COMPLYING WITH ANSI/SCTE 77 AND NEC 314.30.
2. PROVIDE 8" OF GRAVEL OR CRUSHED ROCK.
3. PROVIDE ONE PIECE LOCKING COVER WITH LOGO TIER 22 RATED. INSTALL COVER LEVEL WITH GRADE.



04 POLYMER CONCRETE PULLBOX DETAIL
SCALE : NONE



01 MEP SITE PLAN
SCALE : 1" = 30'-0"

NORTH

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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

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Date:	April 10, 2025
Scale:	As Noted
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CODES & ORDINANCES:

1. GENERAL:
   a. UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS, PERFORM ALL WORK PER APPLICABLE VERSION OF INTERNATIONAL BUILDING CODES, AND LOCAL CODES AND ORDINANCES.
   b. PRIOR TO SUBMITTING PROPOSAL, NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
2. PERMITS:
   a. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
   b. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
3. APPROVALS AND INSPECTIONS:
   a. OBTAIN APPROVAL FROM CITY FIRE DEPARTMENT AND BUILDING AND SAFETY DEPARTMENT PRIOR TO INSTALLATION OF ANY FIRE RELATED ITEMS.
   b. COORDINATE PRESSURE TESTS, INSPECTIONS AND APPROVAL FOR ALL SYSTEMS WITH PERMITTING OFFICER, OWNER AND ENGINEER.

GENERAL NOTES:

1. CONTRACT RELATED:
   a. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
   b. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
   c. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.

COORDINATION:

1. GENERAL:
   a. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND MECHANICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
   b. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR. COORDINATE MECHANICAL WITH OTHER TRADES SUCH AS PLUMBING, ELECTRICAL AND STRUCTURAL WORK. COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
   c. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.
   d. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.
   e. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
2. SITE:
   a. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.
3. ARCHITECTURAL AND STRUCTURAL:
   a. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF CONSTRUCTION, INCLUDING BEAMS, FLOOR AND WALL PENETRATIONS, CHASES, AND REFLECTED CEILING PLANS. VERIFY OPENING SIZES WITH EQUIPMENT FURNISHED.
   b. SLEEVE ALL EXTERIOR WALL AND GRADE BEAM PENETRATIONS. GRADE BEAM PENETRATIONS SHALL BE MADE WITHIN MIDDLE 1/3 OF VERTICAL SPAN OF BEAM.
   c. SEAL AROUND DUCTS AND PIPING AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
4. SPATIAL COORDINATION:
   a. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
   b. SPACES ABOVE CEILING ARE CONGESTED. DESIGN INTENT IS THAT UTILITIES BE INSTALLED TIGHT AGAINST CEILING STRUCTURE TO EXTENT POSSIBLE, WHILE RETAINING ADEQUATE MAINTENANCE ACCESS PER CODES.
   c. IN CASE OF CONFLICTS, ITEMS SHALL BE ARRANGED ACCORDING TO THE FOLLOWING PRIORITIES: LIGHTING, FIRE PROTECTION, HVAC. PROVIDE OFFSETS/RISES/DROPS REQUIRED TO RESOLVE CONFLICTS WITH OTHER UTILITIES, AND TO ACCOMMODATE ALL UTILITIES ABOVE CEILINGS.
   d. IN GENERAL, REROUTE SMALLER DUCTS/PIPES THROUGH JOISTS TO RESOLVE CONFLICTS WITH LARGER. PERFORM REROUTING IN MOST EFFICIENT MANNER POSSIBLE, AND IN ACCORDANCE WITH INDUSTRY STANDARDS.
   e. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.
   f. IN GENERAL ROUTE DUCTS/PIPES IN MOST EFFICIENT MANNER POSSIBLE, AND IN ACCORDANCE WITH INDUSTRY STANDARDS.
   g. SEE ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL PANELS TO AVOID DUCTWORK AND PIPING RUNNING OVER THESE AREAS. COORDINATE WITH ELECTRICAL CONTRACTOR.
   h. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH OTHER TRADES TO AVOID CONFLICT AND ADJUST LOCATION IF NEEDED WITHOUT COMPROMISING AIR DEVICES PERFORMANCE.
5. CONTROLS:
   a. REFER TO SPECIFICATIONS FOR CONTROL COMPONENTS AND DEVICES TO BE COORDINATED WITH MECHANICAL WORK.
   b. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LOW VOLTAGE POWER AND COMMUNICATIONS. REFERENCE SPECIFICATIONS FOR CONTROL WORK.
   c. DRAWINGS SHOW GENERAL LOCATION OF SENSORS (T, RH). UNLESS NOTED OTHERWISE, INSTALL SENSORS AT 48" ABOVE FINISHED FLOOR. WIRING SHALL BE IN CONCEALED WALLS. IN CASE OF CONFLICTS WITH FURNITURE, WINDOWS, ETC., COORDINATE EXACT LOCATION WITH ARCHITECT AND ENGINEER.

EQUIPMENT:

1. EQUIPMENT INSPECTION:
   a. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
   b. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY EQUIMENT CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
   c. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
2. EQUIPMENT ACCESS:
   a. PROVIDE MANUFACTURER RECOMMENDED AND CODE ENFORCED CLEARANCES AROUND EQUIPMENT. MAINTAIN 36" CLEAR IN FRONT OF VAV BOX CONTROLLER, ELECTRIC HEATERS, ETC.
3. EQUIPMENT INSTALLATION:
   a. PROVIDE SPRING HANGER TYPE VIBRATION ISOLATORS TO SUPPORT SUSPENDED AHUS, FANS AND OTHER POWERED VIBRATING EQUIPMENT. PROVIDE FLEXIBLE DUCT CONNECTORS.
   b. COMPLETELY WEATHERPROOF ALL EQUIPMENT, DUCTS, PIPES AND OTHER DEVICES AND MATERIALS INSTALLED OUTSIDE THE BUILDING, IN PARKING AREA, OR OTHERWISE EXPOSED TO WEATHER. AS A MINIMUM, WEATHERPROOFING SHALL INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING: JACKETING FOR ALL PIPING INSULATION, VALVES AND ACCESSORIES RATED FOR OUTDOOR SERVICE, ELECTRICAL ENCLOSURES NEMA 4X-SS.
   c. AFFIX ID TAGS TO ALL MECHANICAL EQUIPMENT PER SPECIFICATIONS.
4. PLUMBING:
   a. PROVIDE CODE RECOMMENDED CLEARANCE OR MINIMUM 10' BETWEEN EXHAUST FANS DISCHARGES, PLUMBING VENTS AND AIR INTAKES. COORDINATE LOCATIONS WITH PLUMBING CONTRACTOR.
   b. PROVIDE INSULATED AND TRAPPED CONDENSATE DRAIN LINES FROM ALL AIR CONDITIONING EQUIPMENT AND TERMINATE TO NEAREST FLOOR DRAIN OR OTHER APPROVED RECEPTACLES. COORDINATE DRAINS WITH PLUMBING.
5. ELECTRICAL:
   a. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ELECTRICAL CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
   b. DUE TO VARIATIONS IN EQUIPMENT CHARACTERISTICS BY DIFFERENT EQUIPMENT SUPPLIERS, MECHANICAL EQUIPMENT ULTIMATELY PROVIDED MAY DIFFER IN HORSEPOWER OR AMPERAGE REQUIREMENTS FROM THAT SPECIFIED IN THESE DRAWINGS. COORDINATE WITH GENERAL CONTRACTOR PRIOR TO BIDDING, AND PRIOR TO SUBMITTALS AND ORDERING EQUIPMENT, TO ENSURE THAT EQUIPMENT ELECTRICAL REQUIREMENTS ARE CONVEYED TO ELECTRICAL CONTRACTOR. IT IS SOLELY CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPATIBILITY ISSUES ARE COORDINATED.

DUCTWORK:

1. DUCTWORK GENERAL:
   a. DRAWINGS ARE DIAGRAMMATIC IN NATURE. FOR CLARITY SAKE, MOST DUCT OFFSETS/RISES/DROPS ARE NOT SHOWN. WHERE DUCTS PENETRATE WALLS, INSTALL THEM PERPENDICULAR TO WALL.
   b. b. RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED STEEL. SIZES SHOWN ARE INSIDE CLEAR DIMENSION, UNLESS NOTED OTHERWISE.
   c. VERIFY BOTTOM OF DUCT ELEVATION AND COORDINATE WITH OTHER TRADES.
   d. CONSTRUCT AND LEAKAGE TEST ALL DUCTWORK BASED ON SPECIFICATIONS AND SMACNA REQUIREMENTS, WHICHEVER IS MORE STRINGENT. COORDINATE PRESSURE CLASSES WITH EQUIPMENT SCHEDULES.
   e. FLEXIBLE DUCTS MAXIMUM LENGTH SHALL NOT EXCEED 6 FEET. USE OF FLEXIBLE DUCTWORK IS LIMITED TO AREAS WITH AN ACCESSIBLE SUSPENDED CEILING. PINCHED DUCT WILL HAVE TO BE REPLACED.
   f. IN AREAS WHERE DUCT CONFLICTS CANNOT BE AVOIDED, ROUTE SMALLER DUCTS THROUGH ROO JOISTS.
   g. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH ELECTRICAL, IF NEEDED. RELOCATE DIFFUSER TO ADJACENT TILE.
   h. PROVIDE ACCESS DOORS (NOT SHOWN IN DRAWINGS) FOR INSPECTION OF DUCT MOUNTED EQUIPMENT SUCH AS FIRE/SMOKE DAMPERS, MANUAL BALANCING DAMPERS AND TURNING VANES. IN AREAS WITH HARD CEILING COORDINATE ACCESS DOOR LOCATIONS AND CEILING ACCESS PANELS WITH OTHER TRADES.
2. DUCTWORK INSULATION:
   a. INSULATION ON DUCT SHOULD TO BE PROPERLY TAPED AND MASTICS MUST BE APPLIED ON SEAMS AND JOINTS AND AT ENDS ADJACENT TO DUCT FLANGES AND FITTINGS. FOR DUCT SIDES WITH DIMENSIONS LARGER THAN 18 INCHES, APPLY ADDITIONAL PINS AND CLIPS TO HOLD INSULATION TIGHTLY AGAINST SURFACE AT CROSS BRACING.
   b. INSULATE ALL EXHAUST DUCTWORK 10 FEET FROM EXTERIOR OPENING.

ABBREVIATIONS

A	AMPS	ENT.	ENTERING	NO	NORMALLY OPEN
ACCU	AIR COOLED CONDENSING UNIT	EXT.	EXTERNAL OR EXTERIOR	NTS	NOT TO SCALE
ACT	ACTUATOR	FCU	FAN COIL UNIT	OA	OUTSIDE AIR
AFF	ABOVE FINISHED FLOOR	FD	FIRE DAMPER	PH	PHASE
AHU	AIR HANDLING UNIT	FPI	FINS PER INCH	RA	RETURN AIR
B.	BOTTOM	G.	GROUND	RAG/RG	RETURN AIR GRILLE
BAS	BUILDING AUTOMATION SYSTEM	GA.	GAGE	RM.	ROOM
BOP	BOTTOM OF PIPE	GALV.	GALVANIZED	SA	SUPPLY AIR
BOTT.	BOTTOM	GPM	GALLONS PER MINUTE	SD	SUPPLY AIR DIFFUSER
CLG.	CEILING	GRND.	GROUND	SS	STAINLESS STEEL
COMB.	COMBINATION	HP	HORSEPOWER	TAB	TESTING & BALANCING
CONC.	CONCRETE	HS	HUMIDITY SENSOR	T.O.L.	TOP OF LOUVER
COND.	CONDUIT	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	TS	TEMPERATURE SENSOR
CW	CITY WATER			TSTAT	THERMOSTAT
DDC	DIRECT DIGITAL CONTROLS	LVG.	LEAVING	UG	UNDERGROUND
DMPR.	DAMPER	MECH	MECHANICAL	UNO	UNLESS OTHERWISE NOTED
DISC.	DISCONNECT	MOT. STRTR.	MOTOR STARTER	V	VOLTS
EAG/EG	EXHAUST AIR GRILLE	MS	MOTOR STARTER	VAV	VARIABLE AIR VOLUME
EMS	ENERGY MANAGEMENT SYSTEM	NC	NORMALLY CLOSED	VFD	VARIABLE FREQUENCY DRIVE

MECHANICAL SYMBOLS LEGEND

12x12	DUCT SIZE: FIRST FIGURE IS SIDE SHOWN	T	THERMOSTAT
(12x12)	BELOW DUCT SIZE: FIRST FIGURE IS SIDE SHOWN	RH	SPACE HUMIDITY SENSOR
	DIRECTION OF FLOW-RETURN	RH	DUCT HUMIDITY SENSOR
	DIRECTION OF FLOW-SUPPLY	C	SPACE CARBON DIOXIDE SENSOR
FD	FIRE DAMPER	SP	STATIC PRESSURE SENSOR
8"ø	FLEXIBLE DUCT	C	DUCT CARBON DIOXIDE SENSOR
EG-X / cfm	EXHAUST AIR GRILLE		
RG/TG-X / cfm	RETURN AIR/TRANSFER AIR GRILLE		
SD-X / cfm	SUPPLY AIR DIFFUSER		
	SIDE TAP WITH DAMPER		
	BACKDRAFT DAMPER		

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CAMERON COUNTY
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04.10.2025

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Interior Designers

Date: April 10, 2025
Scale: As Noted
Proect Architect:a Roan G. Gomez, AIA
Dran By:a
Job No. 25v53
Sheet: MB2.01

RFP No. 250501

MINI-SPLIT INDOOR UNIT SCHEDULE

MARK	MATCHED TO	LOCATION	CFM	ESP IN WG	MCA	ELECT. V-P-H	COOLING TOTAL BTU/H	COOLING EAT DB/WB	HEATING TOTAL BTU/H @47F RATED	WT (LBS)	NOTES	MANUFACTURER & MODEL NUMBER
WAC-1	HP-WAC-1	SEE PLAN	436	-	N/A	230-1-60	12,000	80/67	13,500	20.9	ALL	DAIKIN FTXF12AXVJU

NOTES:
1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS. AND SUBSTITUTION PROCEDURES.
2. FILTER SECTION SHALL BE WIRE FRAME SECTION.
3. PROVIDE MOUNTING BRACKET
4. PROVIDE WALL MOUNTED AND WIRED 7-DAY PROGRAMMABLE T-STAT IN LIEU OF WIRELESS REMOTE.
5. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.
6. PROVIDE BUILT-IN/INTEGRAL CONDENSATE PUMP POWERED BY THE MINI-SPLIT SYSTEM, ASPEN PUMP MINI AQUA (230V) OR APPROVED EQUAL.

MINI-SPLIT OUTDOOR UNIT SCHEDULE

MARK	SERVING	TOTAL BTU/H	COND DB	ELECTRIC V-PH-HZ	COOLING ARI SEER COND	HEATING HSPF	HEATING COP	MCA	MOCP	WEIGHT (LBS)	NOTES	MANUFACTURER MODEL NUMBER
HP-WAC-1	WAC-1	12,000	95	230-1-60	21.00	10.2	3.8	9.36	15	60	ALL	DAIKIN RXF12AXVJU

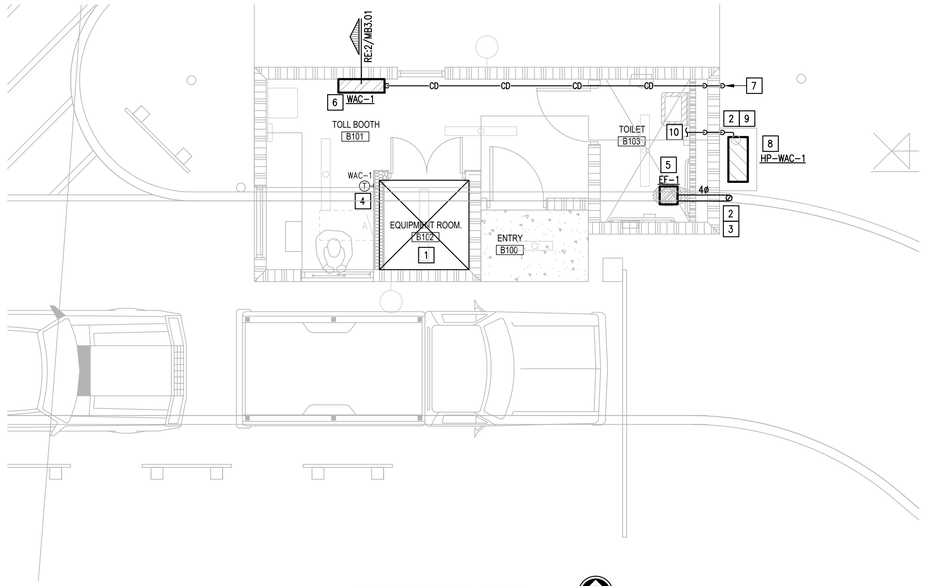
NOTES:
1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS. AND SUBSTITUTION PROCEDURES.
2. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS. PROVIDE ALUMINUM METAL JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.
3. EER SHALL EXCEED IECC MINIMUM EFFICIENCY AT ARI CONDITIONS.
4. PROVIDE EVAPORATOR DEFROST CONTROLLER FOR MINIMUM CIRCUIT.
5. PROVIDE INVERTER DRIVEN COMPRESSOR FOR IMPROVED HUMIDITY CONTROL.
6. PROVIDE CONTROL WIRING FROM OUTDOOR UNIT TO INDOOR UNITS. CONDUITS TO BE PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
7. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.
8. BOLT UNIT DOWN TO CONCRETE PAD.

EXHAUST FAN SCHEDULE

MARK	SERVING	TYPE	ELECTR. V/H/P	CFM	INPUT WATTS	MOTOR HP	E.S.P. IN. H20	SOUND IN SONES	MANUFACTURER & MODEL NUMBER	WEIGHT (LBS)	CONTROL NOTES	NOTES
EF-1	TOILET 116	CEILING MOUNTED	120/60/1	75	48.6	-	0.4	1.3	LOREN COOK GC-186	20	A	1-6

NOTES:
1. PROVIDE FACTORY MOUNTED DISCONNECT.
2. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL." REFER TO SPECIFICATIONS.
3. PROVIDE FIELD-INSTALLED FAN SPEED CONTROLLER. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.
4. PROVIDE FAN WITH ALL ALUMINUM BACKDRAFT DAMPER.
5. PROVIDE DELUXE ALUMINUM GRILLE.
6. PROVIDE SPRING TYPE VIBRATION ISOLATORS FROM MANUFACTURER.

CONTROL NOTES:
A. FAN SHALL BE OPERATED BY A WALL SWITCH VIA THE OCCUPANCY SENSOR PROVIDED BY DIV.26 COORDINATE WITH ELECTRICAL

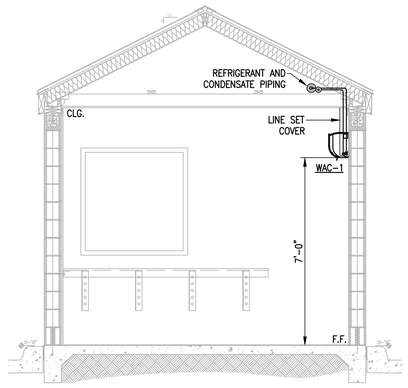


01 MECHANICAL PLAN
SCALE :1/4" = 1'=0"

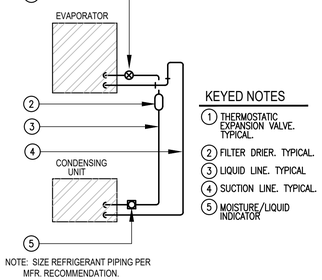
NORTH

MECHANICAL PLAN KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYP.)
2. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYP.)
3. PROVIDE EXHAUST SCH80 PVC PIPE TERMINATION TO EXTERIOR. MOUNT EXHAUST TERMINATION AT 8'-0" A.F.F. TO CENTER OF PIPE. PROVIDE WITH ELBOW DOWN AT EXTERIOR. PROVIDE INSECT SCREEN. PAINT EXPOSED PVC PIPE, COORDINATE FINISH WITH ARCHITECT. SEE ASSOCIATED DETAIL ON THIS SHEET.
4. PROVIDE PROGRAMMABLE THERMOSTAT. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
5. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
6. PROVIDE WALL MOUNTED EVAPORATOR UNIT (WAC) PER SCHEDULE. CONTRACTOR SHALL LOCATE UNIT AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS/REQUIREMENTS. FURNISH UNIT WITH ACCESSORIES PER SCHEDULE.
7. ROUTE COPPER CONDENSATE PIPING FROM MINI-SPLIT EVAPORATOR TO DRYWELL. SECURE VERTICAL PIPE TO WALL AS NECESSARY. PROVIDE FITTINGS TO TRANSITION FROM PLASTIC TUBING TO COPPER PIPE. VERIFY TUBING AND PIPE SIZES WITH MANUFACTURER.
8. PROVIDE AIR COOLED CONDENSING UNIT AND INSULATED REFRIGERANT PIPING PER SCHEDULE AND SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND MOUNT UNIT ON 4" CONCRETE HOUSEKEEPING PAD (PROVIDED BY STRUCTURAL). PAD SHALL BE MINIMUM 6" LARGER THAN EQUIPMENT FOOTPRINT ON ALL SIDES. REFRIGERANT PIPING SHOWN IS STRICTLY SCHEMATIC, VERIFY NUMBER OF CIRCUITS AND PIPE SIZES WITH MANUFACTURER'S DATA. SECURE EQUIPMENT TO CONCRETE SLAB. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
9. PROVIDE 1" INSULATION & ALUMINUM METAL JACKET ON EXPOSED REFRIGERANT LINES.
10. ROUTE REFRIGERANT PIPING TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. PROVIDE REFRIGERANT LINE SUPPORTS.

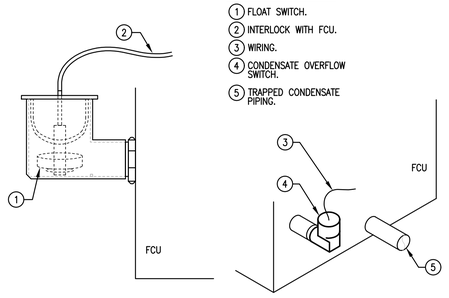


02 MECHANICAL ELEVTION
SCALE :3/8" = 1'=0"

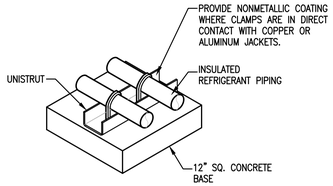


NOTE: SIZE REFRIGERANT PIPING PER MFR. RECOMMENDATION.

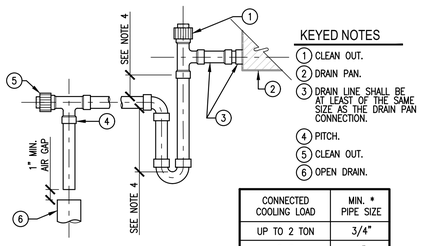
03 REFRIGERANT PIPING DETAIL
SCALE : NOT TO SCALE



04 CONDENSATE OVERFLOW SWITCH DETAIL
SCALE : NOT TO SCALE



05 REFRIGERANT PIPING SUPPORT DETAILS
SCALE : NOT TO SCALE

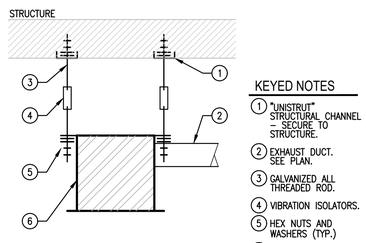


NOTES:
1. MANUALLY PRIME TRAP BEFORE START UP.
2. SUPPORT DRAIN LINES TO PREVENT SAG.
3. ALLOW SUFFICIENT SPACE BELOW PAN FOR TRAP AND PITCH TO DRAIN.
4. COORDINATE WITH MANUFACTURER OF AHU.

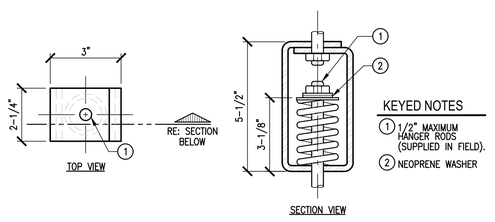
CONNECTED COOLING LOAD	MIN. * PIPE SIZE
UP TO 2 TON	3/4"
2-5	1"
5-30	1-1/4"
30-50	1-1/2"
50-160	2"
160-300	3"
300-430	4"

* NOT SMALLER THAN OUTLET SIZE.

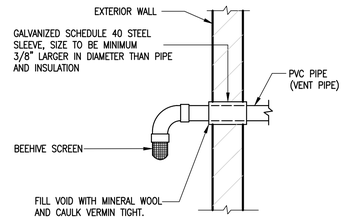
06 CONDENSATE DRAIN DETAIL
SCALE: NOT TO SCALE



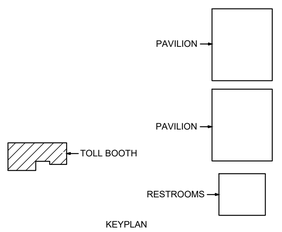
07 EXHAUST FAN FAN MOUNTING DETAIL
SCALE : NOT TO SCALE



08 SPRING ISOLATION HANGER
SCALE : NOT TO SCALE



09 EXHAUST THRU WALL DETAIL
SCALE : N.T.S.



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CAMERON COUNTY PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
04.10.2025

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Date: April 10, 2025
Scale: As Noted
Proect Architect:x Roan G. Gomez, AIA
Dran By:x
Job No. 25v53
Sheet: MB3.01

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RFP No. 250501

LIGHTING SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	SURFACE/WRAPAROUND LIGHT FIXTURE	– – – –
	SURFACE/WRAPAROUND EMERGENCY LIGHT FIXTURE CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	– – – –
	SURFACE/WRAPAROUND LIGHT FIXTURE	– – – –
	WALL MOUNT LIGHT FIXTURE – TYPE AS NOTED	– – – –

NOTES:

1.) REFERENCE LIGHT FIXTURE SCHEDULE FOR ALL MOUNTING HEIGHTS.

LIGHTING WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
S	SINGLE POLE TOGGLE SWITCH – HUBBELL MODEL #HBL1221X	48"AFF
S_{VSD}	VACANCY DIMMING WALL SENSOR SWITCH – LUTRON MODEL #MS–Z101–WH. PROVIDE 0–10V SIGNAL WIRE IN RACEWAY FROM SWITCH TO EACH CONTROLLED LIGHT FIXTURE.	48"AFF
S_{VS}	VACANCY WALL SENSOR SWITCH – LUTRON MODEL #MS–OPS6M2–DV–WH.	48"AFF
S_T	1P TOGGLE SWITCH–THERMAL TYPE – SQUARE "D" CLASS 2510 W/ RED PILOT LIGHT & HANDLE GUARD/LOCK OFF	AS REQUIRED
PC	DIGITAL OUTDOOR PHOTO CELL	AS REQUIRED

NOTES:

1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DUPLEX TAMPER RESISTANT RECEPTACLE – HUBBELL MODEL #BR20XTR	18"AFF
GFCI	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTRST20X	18"AFF
GFCI WICP	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTWRST20X AND WHILE IN USE WEATHERPROOF COVER – HUBBELL MODEL #WP26EH	18"AFF
	JUNCTION BOX W/ BLANK COVERPLATE	AS REQUIRED
J	POLYMER CONCRETE PULL BOX W/ LOGO COVER – SEE DETAIL	AS REQUIRED

NOTES:

1.) U.N.O. INDICATES UNLESS NOTED OTHERWISE.
18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
AC INDICATES 4" ABOVE COUNTER TO BOTTOM OF DEVICE.

GENERAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DISCONNECT SWITCH – NON FUSED	AS REQUIRED
	EQUIPMENT CONNECTION	AS REQUIRED
	ELECTRICAL PANELBOARD – SURFACE MOUNTED	AS REQUIRED
— — —	UNDERGROUND RACEWAY	AS REQUIRED
———	CONCEALED RACEWAY	AS REQUIRED
	CONDUIT OR EMT HOMERUN TO PANELBOARD CONCEALED IN WALLS OR ABOVE CEILING. LONG CROSSMARKS DENOTE NUMBER OF "HOT" CONDUCTORS SHORT CROSSMARKS INDICATE NEUTRALS AND DOTS INDICATE NUMBER OF GROUND CONDUCTORS. ARROW INDICATES HOME RUN TO ELECTRICAL PANEL.	AS REQUIRED

SPECIAL SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DATA OUTLET – PROVIDE BACK BOX WITH 1" RACEWAY WITH PULL WIRE STUBBED BACK TO DATA RACK – SEE DETAIL.	18"AFF
	TRAFFIC CONTROL ARM MONITOR – PROVIDE BACK BOX WITH 1" RACEWAY WITH PULL WIRE STUBBED BACK TO DATA RACK – SEE DETAIL.	48"AFF

NOTES:

1.) 18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

INTRUSION DETECTION SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
HUB	HOLD UP BUTTON – PROVIDE BACK BOX WITH 1/2" RACEWAY WITH PULL WIRE STUBBED BACK TO INTRUSION PANEL – SEE DETAIL.	18"AFF
	INTRUSION DETECTION PANEL	AS REQUIRED
MD	INTRUSION DETECTION MOTION DETECTOR – FULL COVERAGE TYPE	8'–0"AFF
KP	INTRUSION DETECTION KEYPAD PROVIDE WITH STI COVER – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	48"AFF
GB	INTRUSION DETECTION GLASS BREAK SENSOR	CLG.
S WP	INTRUSION DETECTION OUTDOOR SIREN – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	7'–0" AFF
DC	INTRUSION DETECTION DOOR MAGNETIC CONTACT – PROVIDE WITH 1/2"C AND PULLWIRE.	– – – –

NOTES:

1.) 18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

CCCTV SYSTEM SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	CAMERA – PROVIDE BACK BOX WITH 1" RACEWAY WITH PULL WIRE STUBBED BACK TO DATA RACK – SEE DETAIL.	AS REQUIRED

NOTES:

1.) PRIOR TO ANY ROUGH–IN COORDINATE EXACT LOCATION OF BACK BOXES WITH OWNER/CCTV SYSTEM SUPPLIER.

ABBREVIATIONS:

A	AMPS	EF	EXHAUST FAN	MECH	MECHANICAL
ABC	ABOVE CEILING LINE	EXT.	EXTERNAL OR EXTERIOR	MS	MOTOR STARTER
AC	ABOVE COUNTER BACKSPLASH	FCU	FAN COIL UNIT	NTS	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	G.	GROUND	PH	PHASE
B.	BOTTOM	GA.	GAGE	RM.	ROOM
BC	BELOW BOTTOM OF COUNTER	GALV.	GALVANIZED	SS	STAINLESS STEEL
BLC.	BELOW CEILING LINE	GRND.	GROUND	TYP	TYPICAL
C.	CONDUIT OR COMMON	HP	HORSEPOWER	UG	UNDERGROUND
CLG.	CEILING	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	UNO	UNLESS OTHERWISE NOTED
COND.	CONDUIT			V	VOLTS
CU.	COPPER	IG	ISOLATED GROUND	W	WIRE
DISC.	DISCONNECT	INT.	INTRUSION DETECTION		

GENERAL NOTES:

1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.

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b. HARDWARE – STAINLESS STEEL 316.
c. ELECTRICAL GEAR ENCLOSURE – REINFORCED FIBERGLASS.
d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.

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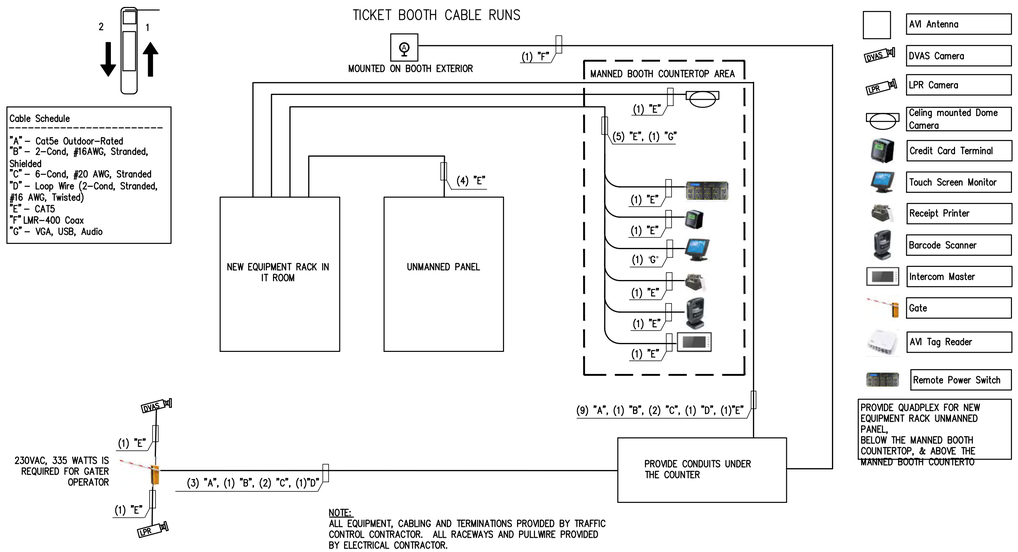
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Proect Architect:a: Roan G. Gomez, AIA
Dran By:a: C.G.
Job No.: 25v53
Sheet: EB2.01



02 TRAFFIC CONTROL DETAIL

SCALE : NONE

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	HP/KW	FLA	MCA	MOCP	VOLTAGE	DISCONNECT	BRANCH CIRCUIT
WAC-1	–	–	–	–	240V/1PHASE	1) THERMAL SWITCH	1/2" – 2#12 & #12G
HP-WAC-1	–	–	9.36	15	240V/1PHASE	30A, 2PNF, 240V, NEMA 4X REINFORCED FIBERGLASS	1/2" – 2#12 & #12G

NOTE: LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL ON EQUIPMENT, BELOW DUCTWORK OR PLUMBING LINES.
1) POWER OBTAINED FROM OUTDOOR UNIT.

EXHAUST FAN CONNECTION SCHEDULE:

DESIGNATION	HP/WATTS	FLA	VOLTAGE	CONNECTION FOR EACH	BRANCH CIRCUIT
EF-1	48.6 W	0.5	120V/1PHASE	CONNECT AT CEILING. INTERLOCK SWITCHING W/ LIGHTING WALL SWITCH VACANCY SENSOR.	1/2" – 2#12 & #12G

1) PROVIDE COMBINATION MOTOR STARTER, SOLID STATE PROTECTION, HAND OFF–AUTO–OFF SWITCH, START–STOP PB. MECHANICAL INTERLOCK AUXILIARY CONTACT, PHASE FAILURE/UNDER VOLTAGE RELAY, NEMA 4X SS ENCLOSURE.

LUMINAIRE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE 1	LUMENS	HOURS	LUMEN MAINTENANCE
A	LED	VANDAL RESISTANT WRAPAROUND	DRIVER	WALL	LUMIAIRE LED: VPF8 4FT MIN1 50W 40K MVOLT OP WHT	50	120V 1P 2W	PROVIDE A WHITE FINISH.	5483	L70	130,000
AE	LED	EXTERIOR WRAPAROUND	DRIVER	WALL	LUMIAIRE LED: VPF8 4FT MIN1 50W 40K MVOLT OP WHT EMB310	50	120V 1P 2W	PROVIDE A WHITE FINISH & WITH AN EMERGENCY BATTERY PACK.	5483	L70	130,000
BE	AMBER LED	TURTLE FRIENDLY WRAPAROUND	DRIVER	WALL	BEGHELLI: BS100LED–A–2–SA–120–277V–JM–SS	30	120V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS AND WITH AN EMERGENCY BATTERY PACK.	860	L70	100,000

GENERAL NOTES:
1. OTHER LIGHT FIXTURE MANUFACTURERS OTHER THAN THOSE LISTED ON THIS SCHEDULE ARE REQUIRED TO OBTAIN PRIOR APPROVAL BY SUBMITTING CUT SHEETS OF THEIR SUBSTITUTIONS AT LEAST 10 DAYS PRIOR TO BID. CUT SHEETS SHALL INDICATE/HIGHLIGHT PHOTOMETRIC CURVES, EFFICIENCY & CONSTRUCTION FOR DIRECT COMPARISON WITH SPECIFIED FIXTURES.
2. EXTRA MATERIALS: SEE SPECIFICATIONS.
3. EMERGENCY BATTERY PACKS SHALL BE COMPLETE FACTORY INSTALLED WITH NI–CAD BATTERY, CHARGER INDICATING LIGHT, ELECTRONIC CIRCUITRY, 1400 LUMENS OUTPUT, 90 MINUTES DURATION & FIVE FULL YEARS WARRANTY.



03 LIGHT FIXTURE TYPE "A", "AE"

SCALE : NOT TO SCALE

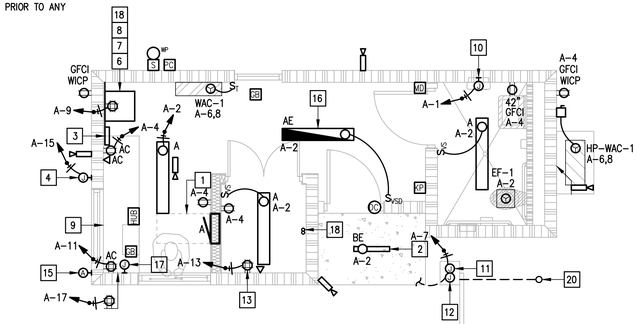


04 LIGHT FIXTURE TYPE "BE"

SCALE : NOT TO SCALE

KEYED NOTES:

1. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE ELECTRICAL GEAR. COORDINATE WITH OTHER TRADES.
2. PROVIDE LIGHT FIXTURE TYPE "BE" SURFACE MOUNT TO SOFFIT. SWITCH VIA PHOTO CELL.
3. PROVIDE INTRUSION DETECTION PANEL; BRANCH CIRCUIT: 1/2" – 2#12 #12G, A–5. WALL MOUNT 12"BLC.
4. CONNECT SIGNAGE.
5. PROVIDE 4–1" RACEWAYS WITH GALVANIZED PULLWIRE. STUB–UP 18"AFF BELOW COUNTER.
6. CONNECT OWNER PROVIDED WALL MOUNT DATA RACK. PROVIDE QUADPLEX RECEPTACLE 12" BELOW CEILING.
7. PROVIDE 3/4" X 2' X 3', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A–D INT–APA). MOUNT AT 12" BLC.
8. PROVIDE GROUND BUS BAR. PROVDE A #4 BARE COPPER GROUND CONDUCTOR BOND/CLAMPED TO STRUCTURE STEEL.
9. PROVIDE GROMMETS THROUGH THE COUNTER TOP TO ACCESS WIRING DEVICES BELOW.
10. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE EXCEL: XL–SB (NO SUBSTITUTIONS) WITH ADA RECESS KIT. BRANCH CIRCUIT: 1/2" – 2#12 & #12G. MOUNT AT +37" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
11. CONNECT TRAFFIC CONTROL ARM; BRANCH CIRCUIT: 1/2" – 2#12 & #12G. COORDINATE EXACT LOCATION WITH TRAFFIC CONTROL CONTRACTOR PRIOR TO ANY ROUGH–IN.
12. PROVIDE J–BOX AND 1" RACEWAY WITH WIRING FOR TRAFFIC CONTROL ARM CONTROL. TERMINATE RACEWAY AT ABOVE COUNTER WIREWAY.
13. CONNECT UNMANNED PANEL (COLLECTION EQUIPMENT).
14. STUB–UP CCTV RACEWAYS 18"AFF. SEE SITE PLAN.
15. PROVIDE 1" RACEWAY WITH PULLWIRE FOR AVI ANTENNA TERMINATED UNDER COUNTER (AVI TAG READER). PROVIDE BACKBOX, STAINLESS STEEL UNISTRUCT SUPPORT AND 2" PIPE SUPPORT AT 7'–0"AFF. COORDINATE EXACT LOCATION WITH TRAFFIC CONTROL CONTRACTOR PRIOR TO ANY ROUGH–IN.
16. CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH – TYPICAL.
17. PROVIDE 18"W X 4"H X 2.5"D WIREWAY FLUSH MOUNTED 4" ABOVE COUNTER WITH 4–2" RACEWAY STUBBED–UP ABOVE CEILING AND TERMINATED AT BEHIND DATA RACK WIREWAY.
18. PROVIDE 18"W X 4"H X 2.5"D WIREWAY FLUSH MOUNTED BEHIND DATA RACK.
19. STUB–UP TELEPHONE AND CCTV RACEWAYS AT THIS LOCATION AND CONTINUE ABOVE CEILING AND TERMINATE AT DATA RACK.
20. PROVIDE 4" SCH. 40 ALUMINUM PIPE AND CAP EXTENDING 8'–0" ABOVE ROADWAY FINISHED GRADE. PROVIDE A 1" RACEWAY FROM PIPE AND TERMINATE AT GATE OPERATOR. COORDINATE EXACT LOCATION WITH TRAFFIC CONTROL CONTRACTOR PRIOR TO ANY ROUGH–IN.



01 LIGHTING & ELECTRICAL PLAN

SCALE :1/4" = 1'-0"

NORTH

GENERAL NOTES:

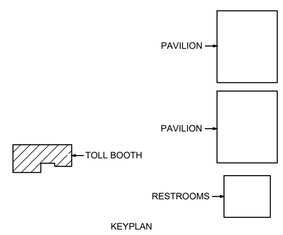
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d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.

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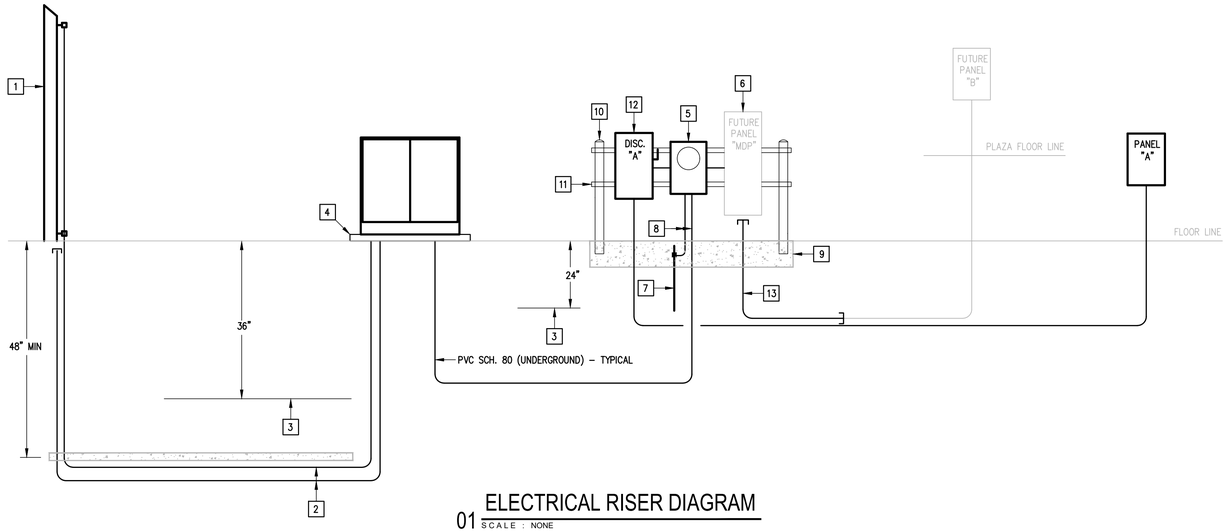
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01 ELECTRICAL RISER DIAGRAM
SCALE : NONE

ELECTRICAL RISER DIAGRAM KEYED NOTES:

1. PROVIDE ELECTRIC UTILITY DIP POLE.
2. PROVIDE(2) 4"PVC CONDUITS WITH 4" RED CONCRETE TOPPING. PROVIDE LONG SWEEP RADIUS ELBOWS.
3. PROVIDE CONTINUOUS DETECTABLE UNDERGROUND WARNING TAPE.
4. PROVIDE UTILITY TRANSFORMER CONCRETE PAD – SEE DETAIL.
5. PROVIDE ELECTRIC UTILITIES METER 120/240V/1P/3W.
6. MAIN DISTRIBUTION PANEL WITH MAIN BREAKER.
7. SEE GROUNDING RISER DIAGRAM.
8. 1.25" – 1#6.
9. 2'WIDE X 6'LONG X 2'DEEP (4" ABOVE GRADE) CONCRETE FOOTING WITH #4 REBAR WELDED ON TO 4" DIA. STEEL PIPE.
10. 4" DIA. X 6' (ABOVE GROUND) HOT DIP GALVD. STEEL PIPE WITH CAP.
11. 3 1/4" X 1 5/8", 12 GAUGE UNISTRUT, HOT DIP GALVD. AFTER FABRICATION.
12. PROVIDE 100A, 2P2F, 100AF, 240V, S/N, NEMA 4X REINFORCED FIBERGLASS DISCONNECT.
13. PROVIDE 2" RACEWAY WITH GALVANIZED PULLWIRE AND CAP ENDS.

FEEDER SCHEDULE:

FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
100	1.25" – 3#2 & #8G	A
400	4" – 3#600KCMIL	METER

SIZING METHOD: COPPER 75°C

02 GROUNDING RISER DIAGRAM
SCALE : NONE

GROUNDING RISER KEYED NOTES:

1. 3/4"X 10' COPPER CLAD GROUND RODS – TYPICAL.
2. INSTALL IN A TRIANGULAR PATTERN.
3. #4 BARE COPPER GROUND CONDUCTOR.
4. #1/0 BARE COPPER GROUND CONDUCTOR.

A

ROOM TOLL BOOTH | VOLTS 240/120V 2P 3W | AIC 10,000
MOUNTING FLUSH | BUS AMPS 100 | MAIN BKR 100
FED FROM UTILITY METER | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B
1	20/1	HAND DRYER	1.5		2	20/1	EF-1, LIGHTING	0.28	
3	20/1	SPACE		0	4	20/1	RECEPT, RECEPT.		0.9
5	20/1	INTRUSION DETECTION PNL	0.1		6	15/2	* HP-WAC-1, WAC-1	1.13	
7	20/1	TRAFFIC CONTROL ARM		0.5	8	|			1.13
9	20/1	DATA RACK	0.36		10	20/2	SPACE	0	
11	20/1	QUAD RECEPT		0.36	12	|			0
13	20/1	UNMANNED PANEL	0.36		14	20/1	SPACE	0	
15	20/1	SIGNAGE		0.1	16	20/1	SPACE		0
17	20/1	QUAD RECEPT	0.36		18	20/1	SPACE	0	
19	20/1	SPARE		0	20	20/1	SPACE		0
21	20/2	SPARE	0		22	50/2	SPD	0	
23	|			0	24	|			0
							TOTAL CONNECTED KVA BY PHASE	4.09	2.99

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.33	0.413	(125%)	RECEPTACLES	3.84	3.84	(50%>10)
LARGEST MOTOR	2.24	0.56	(25%)	CONTINUOUS	0.1	0.125	(125%)
MOTORS	0.05	0.05	(100%)	NONCONTINUOUS	0.5	0.5	(100%)
				COOLING	2.25	2.25	(100%)
				TOTAL LOAD		7.74	
				BALANCED LOAD		32.2 A	

1. PROVIDE WITH AND INTEGRAL SPD RATED FOR 80KA PER PHASE. *PROVIDE HACR TYPE

GENERAL NOTES:

1. ALL ELECTRICAL MATERIALS (OUTDOORS), INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, PANELBOARDS, SAFETY SWITCHES, HARDWARE (316 SS), SUPPORTING APPURTENANCES, ETC. SHALL BE SUITABLE FOR MARINE/COASTAL TYPE INSTALLATIONS.

a. UNISTRUT – PVC COATED
b. HARDWARE – STAINLESS STEEL 316.
c. ELECTRICAL GEAR ENCLOSURE – REINFORCED FIBERGLASS.
d. RACEWAYS ABOVE GROUND – PVC SCHEDULE 80, SUNLIGHT RESISTANT.
e. RACEWAYS BELOW GROUND – PVC SCHEDULE 40.

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No.	REVISIONS	BY

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CAMERON COUNTY
PHASE II - BEACH ACCESS 3 IMPROVEMENTS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
PROFESSIONAL ENGINEER
04.10.2025

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Architects-Planners
Interior Designers

Date: April 10, 2025
Scale: As Noted
Proect Architect:A Roan G. Gomez, AIA
Dran By:A C.G.
Job No. 25v53
Sheet: EB4.01

RFP No. 250501

GENERAL NOTES:

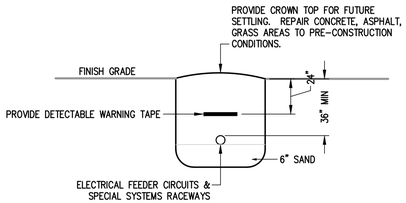
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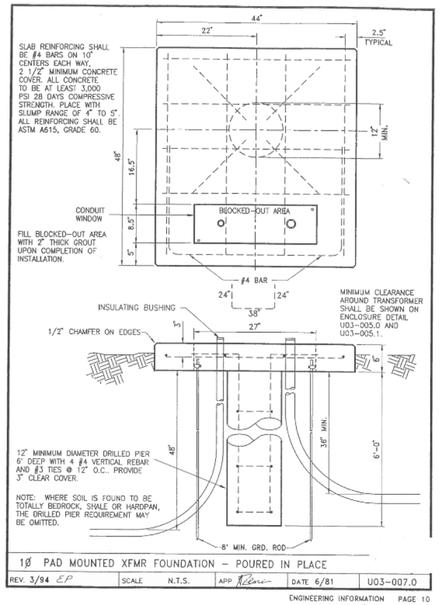


NOTE: ATTACH NAMEPLATES TO ALL ELECTRICAL GEAR AS NOTED ON SPECIFICATIONS

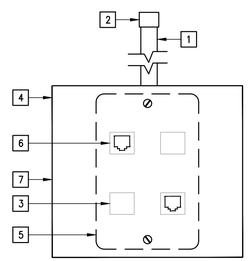
01 EQUIPMENT IDENTIFICATION LABEL DETAIL
SCALE : NOT TO SCALE



02 BURIAL DETAIL FOR ELECTRICAL RACEWAYS
SCALE : NOT TO SCALE



04 AEP TRANSFORMER CONCRETE PAD DETAIL
SCALE : NOT TO SCALE



KEYED NOTES:

1. PROVIDE 1" EMT STUBBED ABOVE CLG.
2. PROVIDE INSULATING BUSHING
3. PROVIDE BLANK FILLER COVER
4. PROVIDE COVERPLATE
5. PROVIDE STEEL MUD RING
6. CATEGORY SIX JACK – PROVIDED BY OWNER
7. PROVIDE 4"X4"X2-5/8" DEEP BOX

03 TYPICAL DATA/TELEPHONE OUTLET DETAIL
SCALE : NOT TO SCALE

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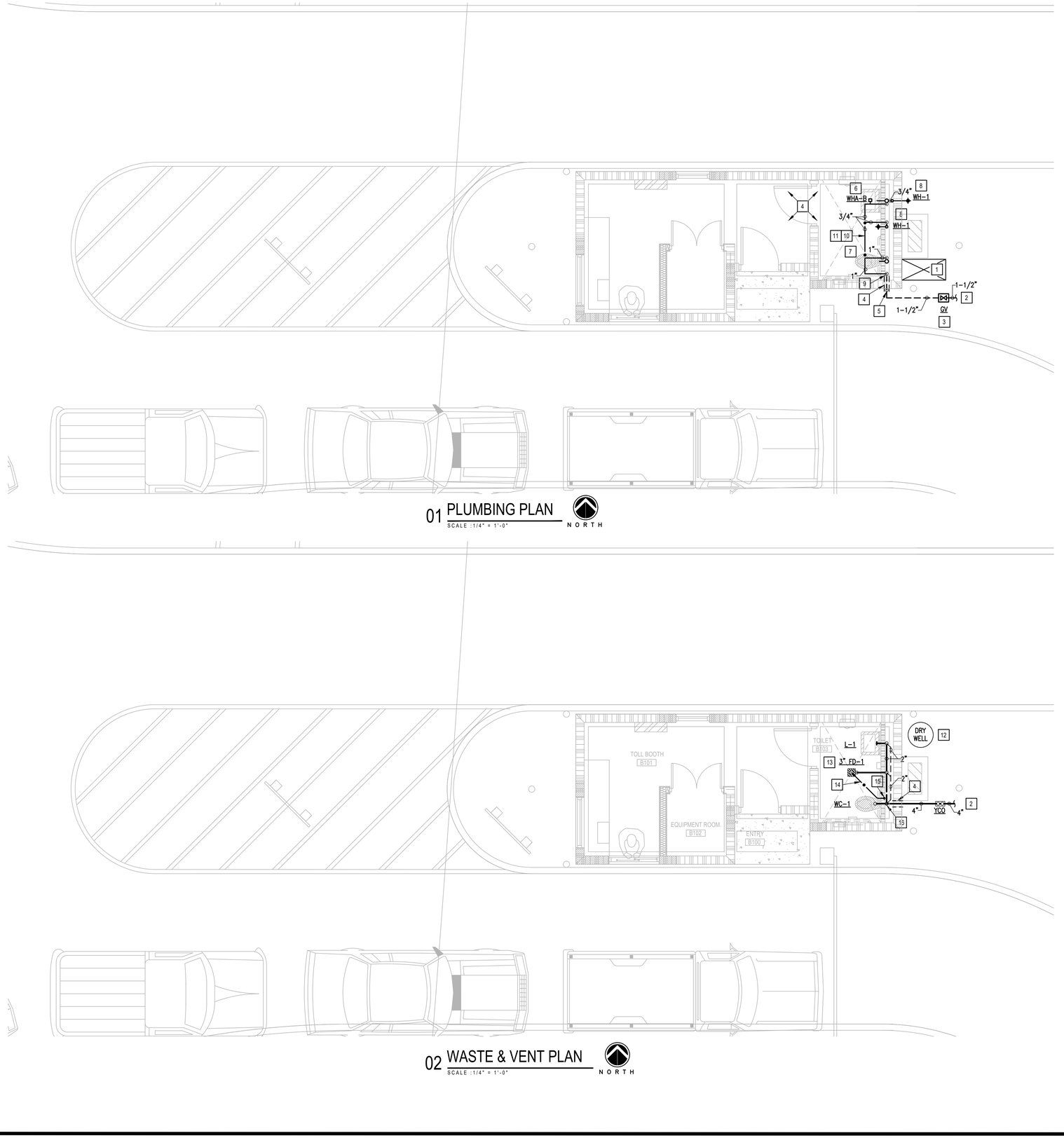
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01 PLUMBING PLAN

SCALE :1/4" = 1'-0"

NORTH

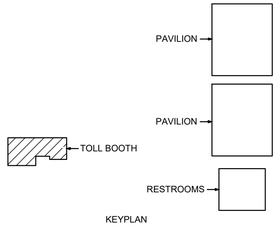
02 WASTE & VENT PLAN

SCALE :1/4" = 1'-0"

NORTH

KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER THIS AREA.
2. REFER TO MEP SITE PLAN FOR UTILITIES CONTINUATION.
3. PROVIDE GATE VALVE IN QUAZITE BOX. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
4. SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL.
5. PROVIDE 1" CLOSER-CELL INSULATION WITH METAL JACKET ON EXPOSED PIPING. PENETRATE EXTERIOR WALL AS LOW AS POSSIBLE. TURN DOWN TO UNDERGROUND.
6. PROVIDE WATER HAMMER ARRESTOR (WHB), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
7. INSTALL FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM FOR ALL ADA WATER CLOSET.
8. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA – TYPICAL.
9. PIPE RISE IN CHASE.
10. RUN DOMESTIC WATER PIPE ABOVE CEILING IN ATTIC SPACE.
11. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
12. PROVIDE DRYWELL TO SERVE CONDENSATE FROM MINI SPLIT INDOOR UNIT (WAC). ROUTE COPPER CONDENSATE LINE TO DRYWELL. COORDINATE WORK WITH MECHANICAL CONTRACTOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET PB3.01.
13. PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
14. 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. ROUTE PIPING IN WALL AND UNDERNEATH POLYETHYLENE VAPOR BARRIER. PIPING SHALL NOT BE EMBEDDED IN THE CONCRETE FLOOR SLAB. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL. (TYPICAL)
15. CONNECT TO WATER CLOSET (WC) FLUSH VALVE TRAP-PRIMER. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
16. PROVIDE 3" VENT UP TO 3" VENT THRU ROOF.



KEYPLAN

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PLUMBING SYMBOLS LEGEND

	COLD WATER SUPPLY	WCO	WALL CLEANOUT
	HOT WATER SUPPLY		*GATE VALVE (GV)
G G	GAS LINE		*BALL VALVE
	SOIL & WASTE LINE - ENLARGED PLANS		VALVE IN RISER TYPE AS NOTED
	VENT LINE - ENLARGED PLANS	WC	WATER CLOSET
AW	ACID WASTE LINE - ENLARGED PLANS	UR	URINAL
GW	GREASE WASTE LINE - ENLARGED PLANS	L	LAVATORY
F	FIRE SPRINKLER LINE	SK	SINK
FCO	FLOOR CLEANOUT	EDF	ELECTRIC DRINKING FOUNTAIN
FCO-2	FLOOR CLEANOUT - 2 WAY	MSB	MOP SERVICE BASIN
FD FD	FLOOR DRAIN (FD) WITH DEEP SEAL TRAP	EESHR	EMERGENCY EYE/SHOWER
HD	HUB DRAIN WITH DEEP SEAL TRAP	TP	TRAP PRIMER
	FLOOR SINK	EWH	ELECTRIC WATER HEATER
YCO	YARD CLEANOUT	VTR	VENT THRU ROOF
YCO-2	YARD CLEANOUT - 2 WAY	CO	CLEANOUT
WH	WALL HYDRANT	A.F.F.	ABOVE FINISH FLOOR
	TRAP PRIMER	ADT	ACID DILUTION TANK
	*WATER HAMMER	GT	GREASE TRAP

* PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA.

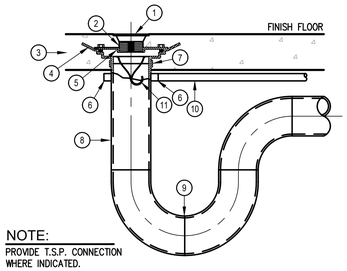
GENERAL NOTES:

1. ALL PLUMBING WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.
2. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
3. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH THE WORK OF OTHER TRADES. COORDINATE WITH MECHANICAL, ELECTRICAL AND STRUCTURAL FOR PROPER CLEARANCES.
4. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION WORK.
5. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR.
6. SLEEVE ALL OUTSIDE WALLS, FOUNDATION GRADE BEAMS, INTERIOR WALL PENETRATIONS, AND FIRE SEAL ALL PENETRATION THROUGH FIRE WALLS AND FLOORS WHETHER SHOWN ON PLANS OR NOT.
7. PROVIDE MINIMUM 15' OF SEPARATION BETWEEN HVAC INTAKES AND VENT THRU ROOFS.
8. RECORD INVERT ELEVATIONS OF ALL YARD CLEAN OUT (YCO) ON "AS-BUILT" DRAWINGS.
9. PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.
10. PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.
11. PROVIDE ANY BACKFLOW PREVENTION DEVICE REQUIRED BY CODE OR LOCAL AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY AND LOCAL AGENCIES AND INCLUDE COST IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.
12. REFER TO PLUMBING FIXTURE ROUGH-IN SCHEDULE FOR INDIVIDUAL PIPE CONNECTIONS TO FIXTURES.
13. PRIOR TO POURING FOUNDATION AND ERECTING CMU WALLS, COORDINATE INSTALLATION OF PLUMBING FIXTURE CARRIERS WITH GENERAL CONTRACTOR.
14. PIPE HANGERS AND SUPPORTS THAT NEED TO BE INSTALLED ON Z-PURLINS SHALL BE CLAMPED, CONNECTED OR ATTACHED TO THE WEB OF THE Z-PURLIN. DO NOT CLAMP, CONNECT OR ATTACH HANGERS AND SUPPORTS TO THE FLANGE OF THE Z-PURLIN.

PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS WASTE	VENT	CW	HW	NOTES	REMARKS
WC-1	ACORN 2120-ADA-M316-HET-FVL-BCN	17" HIGH, FLOOR MOUNTED, LOW CONSUMPTION FLUSH VALVE, MARINE GRADE TYPE 316 STAINLESS STEEL, VANDAL RESISTANT, WATER CLOSET WITH ELONGATED TOILET BOWL, INTEGRAL CONTOURED SEAT, CREVICE-FREE SELF-DRAINING FLUSHING RIM WITH FULLY ENCLOSED TRAP, MAINTAIN 3-1/2" SEAL AND PASS A 2-1/8" BALL, SIPHON JET ACTION BOWL, 1.28GPF, TOP EXPOSED FLUSH VALVE. FOR ADULT ADA MOUNTING	4"	2"	1"	-	1,2,4,5	17" TO TOP OF SEAT
L-1	ACORN 1652LRB-ADA-M316-1-DMS-03M-LW1-SW	18" X 18" WALL MOUNTED, MARINE GRADE TYPE 316 STAINLESS STEEL, VANDAL RESISTANT, LAVATORY, FAST DRAIN WITH SELF-DRAINING SOAP DISHES, DECK MOUNTED SPOUT, SINGLE TEMPERATURE PNEUMATIC METERING VALVE, LAV MOUNTED PUSHBUTTON , GRID STRAINER, CHROME PLATED SUPPLY STOPS WITH FLEXIBLE RISER, THRU-WALL EXTENSION WITH CONCEALED P-TRAP, WALL SLEEVE AND MOUNTING HARDWARE. FOR ADULT ADA MOUNTING.	2"	2"	1/2"	-	-	34" FROM FLOOR TO RIM
WH-1	ZURN # Z1300 HYDRANT	ENCASED ANTI-SIPHON WALL HYDRANT, BRONZE, NON-TURNING OPERATING ROD STOP VALVE IN SUPPLY, KEY OPERATED CONTROL VALVE, STAINLESS STEEL BOX WITH HINGED COVER.	-	-	3/4"	-	-	
FD-1	ZURN # ZN415B-P	BODY ASSEMBLY WITH TYPE B STRAINER, DURA COATED CAST IRON BODY WITH BOTTOM OUTLET INVERTED MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH TRAP PRIMER CONNECTION.	3"	2"	-	-	-	

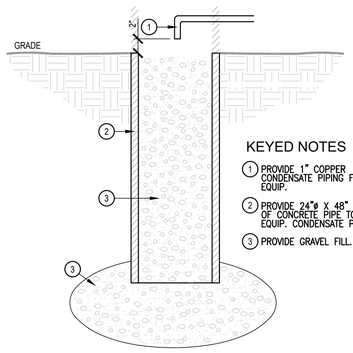
NOTES:
1. INSTALL FLUSH VALVE ON THE WIDE SIDE OF STALL.
2. REFER TO PLUMBING PLAN FOR FIXTURES THAT WILL REQUIRE TRAP PRIMER CONNECTIONS. PROVIDE SLOAN VBF-72 OR APPROVED EQUAL.
3. PROVIDE ADA APPROVED LEVERS & FLUSH VALVE HANDLES FOR ALL ADA PLUMBING FIXTURES.
4. MANUFACTURER AND MODEL NUMBER ARE "OR APPROVED EQUAL".



NOTE:
PROVIDE T.S.P. CONNECTION WHERE INDICATED.

KEYED NOTES
1. N.S. STRAINER.
2. ADJUSTABLE DRAIN HEAD.
3. CONCRETE.
4. MEMBRANE.
5. FLASHING COLLAR.
6. TRAP PRIMER FITTING PROVISION.
7. S.S. "NO-HUB" ASSEMBLY.
8. PIPE SIZE AS INDICATED ON PLAN.
9. DEEP SEAL P-TRAP.
10. 1/2" SOFT DRAWN COPPER FROM TRAP PRIMER. ENCASE PIPING INSIDE MASONRY WALL OR UNDER SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL.
11. PROVIDE PROSET TRAP GUARD.

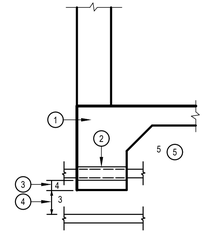
01 FD-1 FLOOR DRAIN WITH TRAP PRIMER DETAIL
SCALE : NOT TO SCALE



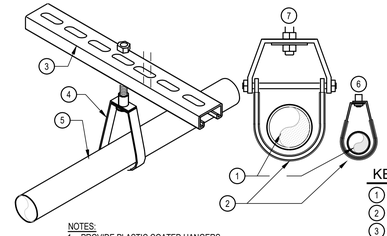
KEYED NOTES
1. PROVIDE 1" COPPER CONDENSATE PIPING FROM EQUIP.
2. PROVIDE 24"ø X 48" LENGTH OF CONCRETE PIPE TO SERVE EQUIP. CONDENSATE PIPING.
3. PROVIDE GRAVEL FILL.

02 DRY WELL DETAIL
SCALE : NOT TO SCALE

KEYED NOTES
1. GRADE BEAM.
2. GALV. SCH.40 STEEL SLEEVE. SIZE PER SPECS. CENTER PIPE IN SLEEVE.
3. PIPING PASSING HORIZ. THROUGH GRADE BEAM SHALL BE LOCATED NO LESS THAN 6" ABOVE BOTTOM OF BEAM.
4. PIPING PASSING HORIZ. UNDER GRADE BEAM SHALL BE LOCATED A MINIMUM OF 6" BELOW BEAM. PROVIDE A SLEEVE.
5. COORDINATE LOCATIONS OF PIPING IN 3,4,5, ABOVE AS RELIEVING ARCHES OR ADDITIONAL CONCRETE MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF BEAM.



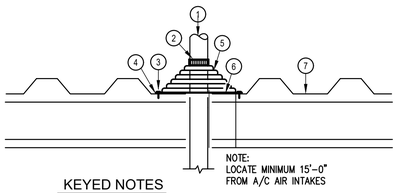
03 GRADE BEAM SLEEVE DETAIL
SCALE : NOT TO SCALE



NOTES:
1. PROVIDE PLASTIC COATED HANGERS
2. MODEL: B3100C OR APPROVED EQUAL FOR CLEVIS
3. HANGERS. MODEL: B3172C OR APPROVED EQUAL FOR BAND HANGERS.

KEYED NOTES
1. SCHEDULED PIPE.
2. PLASTIC COATING.
3. UNI-STRUT.
4. PIPE HANGER.
5. DOMESTIC WATER LINE, DRAIN LINE FROM AHU'S.
6. BAND HANGER.
7. CLEVIS HANGER.

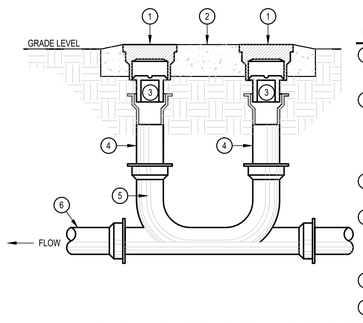
04 DOMESTIC WATER LINE PIPING SUPPORT DETAIL
SCALE : NOT TO SCALE



NOTE:
LOCATE MINIMUM 15'-0" FROM A/C AIR INTAKES

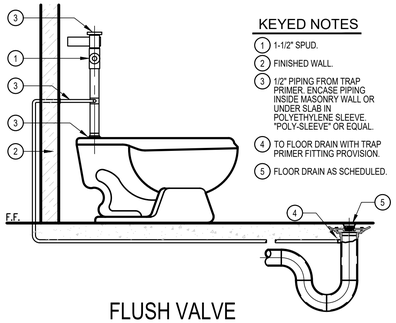
KEYED NOTES
1. VENT THRU ROOF (VTR) SEE PLAN FOR SIZES.
2. SLOT SCREWDRIVER TO PRESS INTO TIGHT ANGLES.
3. FASTENERS TO FINISH SEALING PRESS INTO TIGHT ANGLES.
4. SEALANT BETWEEN FLASHING AND ROOF PANEL.
5. ULTRAVIOLET RESISTANT E.P.D.M. OR APPROVED EQUAL.
6. ALUM. BASE BENDS TO FORM CONTOUR OF METAL ROOF.
7. METAL ROOF.

05 VENT THRU ROOF DETAIL
SCALE : NOT TO SCALE



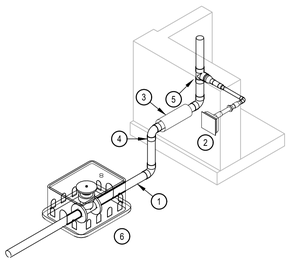
KEYED NOTES
1. PROVIDE "HEAVY DUTY" NICKLE BRONZE COVER FOR ALL EXTERIOR CLEANOUTS.
2. 48"X24"X8" DEEP CONCRETE CLEANOUT BOX (BOX IS INDEPENDANT OF PIPE AND THEREFORE IS FREE TO MOVE WITH THE SETTLEMENT OF GRADE)
3. CLEANOUT FITTING ZURN ZN-1400-4 (SEE SPECS).
4. SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED. SHORT LENGTH OF C.I. PIPE FURNISHED WITH CLEANOUT BOX.
5. DOUBLE 2-WAY CLEANOUT.
6. SEWER LINE.

06 2-WAY YARD CLEANOUT DETAIL
SCALE : NOT TO SCALE



KEYED NOTES
1. 1-1/2" SPUD.
2. FINISHED WALL.
3. 1/2" PIPING FROM TRAP PRIMER. ENCASE PIPING INSIDE MASONRY WALL OR UNDER SLAB IN POLYETHYLENE SLEEVE "POLY-SLEEVE" OR EQUAL.
4. TO FLOOR DRAIN WITH TRAP PRIMER FITTING PROVISION.
5. FLOOR DRAIN AS SCHEDULED.

07 FLUSH VALVE TRAP PRIMER DETAIL
SCALE : NOT TO SCALE



KEYED NOTES
1. TYPE "L" COPPER.
2. WALL HYDRANT-INSTALL LOW ENOUGH TO DRAIN RISER. (WITH LOOSE KEY TYPE).
3. SLEEVE.
4. PROVIDE 1" CLOSED-CELL INSULATION WITH ALUMINUM METAL JACKET ON EXPOSED PIPING.
5. TEE.
6. VALVE INSIDE QUAZITE BOX.

08 WATER ENTRANCE DETAIL
SCALE : NOT TO SCALE

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