

APPENDIX H
STRUCTURAL DEMOLITION LIST

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The Gift Shop

The gift shop (site map # 1) is attached to, and shares a common wall with, the two-story administrative office part (site map # 2) of this building complex. This one-story building is separated from the restaurant (site map # 3) by a covered walkway that parallels the restroom area. The building has a concrete foundation, two bathrooms, a flat roof composed of gravel over tar. The area of the building is estimated at approximately 3,780 square feet. Building and wall composition is approximately 50% brick, 30% glass, and 20% wood.



The Administration Office

The administration office (site map # 2) on the eastern end of the main complex is a two-story building that shares a common wall with the gift shop. The concrete foundation is approximately 1,620 sq. ft. The area of the building is estimated at approximately 2,970 sq. ft. There are two bathrooms, and a flat roof with gravel over tar with a 4" overhang on both stories. The walls are brick with large glass windows on the second story. Building and wall composition is approximately 65% brick, 30% glass and 5% wood.



The Restaurant/(Public Restroom Area)

The large section of the main conference center building complex (site map # 3) consists of an out-of-use restaurant with kitchen, and a large public restroom area (in use). The restroom part is connected to the gift shop by a covered walkway, and has 16 stalls in the men's area and 8 stalls in the women's area. A small part of the restaurant has a flat roof with gravel over tar. The larger part has a pitched roof composed of tin. The concrete foundation is approx. 11,000 sq. ft. The area of the building is estimated at approx. 11,280 sq. ft. Building and wall composition is approx. 50% glass, 30% wood, 15% brick and stone and 5% stucco.



Turtle Building

The Turtle Building (site map # 4) is a corrugated metal building located east of the boardwalk entrance and the cutter boat ramp. This building in the biology research area has a roof made of tin, and appears to have no foundation. The building is 15 ft. wide and 30 ft. long. The area of the building is approx. 450 sq. ft.



Tent Pavilion

The Tent Pavilion (site map # 5) is located between The Landing and the cutter boat ramp. The structure consists of a large concrete foundation, poles and canvas. The tent part is simply a large canvas roof covering. The tent poles appear to be removable. The concrete foundation measures approximately 70 ft. wide by 85 ft. long, for a total area of approx. 5,950 sq. ft.



The Landing

The Landing (site map # 6) is a two-story office-type wooden structure located at the edge of Spring Lake. There is a large bathroom area (6 toilets), and the pitched roof has composition shingles. The concrete foundation is estimated at approx. 1,700 sq. ft. Building and wall composition is approx. 85% wood and 15% glass. The area of the building, excluding the balcony, is estimated at approx. 3,820 sq. ft.



Skyline Ride Structure

Fifteen steel-reinforced concrete circular, inverted mushroom-shaped forms (site map # 7) all joined together to form a canopy over skyline ride's steel cable-works apparatus. Steel-reinforced poles support the structure. The concrete floor slab covers an area estimated at approx. 700 sq. ft. The area of the structure is estimated at approx. 675+ sq. ft.



Shed (900 ft. north of Dam)

This building (site map # 30) is located on the west bank of Spring Lake, approx. 900 ft. north of Joe's Crab Shack. It is a corrugated metal building with a concrete foundation. The shed measures 20.3 ft. wide by 10 ft. high by 47.2 ft. long. The area of the building is approx. 958 sq. ft. There is good access to this site via Ed JL Green Drive.



Covered Bridge

This is a rectangular wooden walk-thru covered bridge (site map # 24) located between the river and The Texana Village building. It has a wooden shingle roof, and does not have a foundation. The structure is approximately 95% wood and 5% brick. The area of the building is estimated at approx. 357 sq. ft.



Submarine Theatre

The submarine theatre (site map # 25) is a cylindrical-shaped, tube-type structure partially submerged in the water. It is approx. 120 ft. long by 12 ft. wide by 15 ft. high. The structure is made of steel, and has a surface area estimated at approx. 1,440 sq. ft. Whether or not it had a foundation was undeterminable, due to most of the structure being underwater. It reportedly was sunk in place by filling the bottom of the steel tube (2 to 4 ft.) with many cubic yards of concrete. The submarine has elevation arms that are operational. The submarine contains two ballast tanks, a pump, and valves to pump water in and out of the submarine.



Storage Shed

This is a storage building (site map # 26) located at the rear of the Texana Village. It is a wooden structure with no foundation, and a composition-shingle roof. The building measures 45 ft. wide by 70 ft. long by 8 ft. high. The area of the building is approx. 3,150 sq. ft.



Texana Village Building Foundation

This was a wooden building (site map # 13) located next to the Covered Bridge structure. The building has already been demolished by SWT. The storage-type building has a concrete foundation. The area of the concrete foundation is estimated at 1,381 sq. ft.



Skyline Tower # 15A (on the grounds)

There are two steel tower structures (site map # 15A & # 15B) on the grounds that support the shutdown sky ride. The towers are near the submarine theatre, and are situated within approx. 10 ft. of each other. Both towers are made of welded steel. Attached to each tower are two 1" steel cables and two small electrical cables. Both towers taper down to an estimated half-size before they reach the top. Depth and size of the structures below ground were not determined. Tower #1 (site map # 15A) is 75 ft. tall from ground level. The base of the steel tower itself measures 4.3' by 3.1'. The visible bottom concrete base is 6' by 7' by 4'(H).

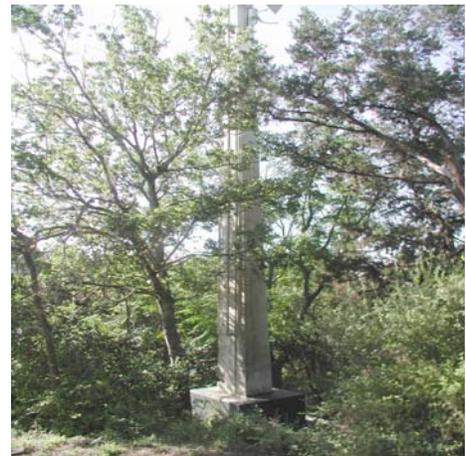


Skyline Tower # 15B (on the grounds)

The second tower (site map #15 B) is 75 ft. tall from ground level. It has a visible concrete base of 6' by 7' by 2.2' (H). The base of the steel tower itself is 3.2' by 4.4'.

Skyline Tower # 16A (on the hill)

There are two steel tower structures (site map # 16A & # 16B) on the hill that support the shutdown sky ride. These two towers are on the west side of Spring Lake. Both towers are made of welded steel. The tower rises approx. 48 ft. above the concrete. Attached to each tower are two 1" steel cables and two small electrical cables. Both towers taper down to an estimated half-size before they reach the top. The base of the steel tower itself measures 3.1' by 2.1'. The lower concrete base is 14.1' by 9' by 3' (avg. H). The upper concrete base is 6' by 5.3' by 2.8' (H).



Skyline Tower # 16B (on the hill)

Skyline Tower # 16B is located approx. 90' further up the hill from Tower # 16A. It rises approx. 40 ft. above the concrete. The base of the steel tower itself measures 2.9' by 1.65'. The lower concrete base is 14.1' by 10' by 2' (H). The upper concrete base is 6' by 5.3' by 2.8' (H).



Skyline Ride Structure (on the hill)

The skyline ride structure (site map # 19) houses the end of the skyline ride on the hill. It has an approximate area of 2,244 sq. ft. The building consists of one open end, with 3 stonewalls. The stonewalls are 1.4' (W) by 9.3' (H), for a total length of 119'. The concrete foundation measures 68' by 33'. There is a flat wooden roof with tin on top. The bolted steel lift structure covers an area approx. 63' by 11'. An elaborate fence is outside the building composed of wrought iron and stone columns. The stone columns measure 1.4' (W) by 6' (H), with 3 corner stone squares. There is approx. 56' of fence.



Vendor Building

The vendor building (site map # 19A) is on the hill near the northern skyline ride structure. It is a wooden building with no foundation. It measures approx. 23.3' (L) by 10.6' (W). It has a tin roof.



Observation Tower Ticket Booth

The observation tower ticket booth (site map # 42) is located on the hill adjacent to the observation tower. It has a concrete foundation and a tin roof. The building is approx. 50% wood, 30% stone, and 20% glass. It measures approx. 12' (W) by 10' (L) by 8.8' (H). It has a pitched roof approx. 4.2' in height.



Observation Tower

On the hill is the observation tower (site map # 42a.). The tower consists of a steel tower, a doughnut-shaped observation ring, and an operations basement. The steel tower is approx. 185' in height, has a diameter of 6.5', and the estimated thickness of the steel is 1". The ring is a seating carriage approx. 10' in height, with a diameter of approx. 30.5'. The circumference of the observation ring is approx. 85'. The basement foundation houses electric motors and hydraulic operational controls. The concrete basement is approx. 30.5' (L) by 30.5' (W) by 6.5' (H). It could not be determined how deep the concrete was below ground.



Fountain Structure

The fountain structure (site map # 43) consists of a piping system previously used for a water fountain in the lake. There are approximately 12 pipes from the shoreline stonework structure to the fountain structure. The piping system and the fountain are located in a shallow area of the lake, approx. 1' to 4' deep. The piping may be 2" diameter metal.



Information regarding Other Structures to be Demolished

Benches Area (Asphalt)

Site Map Bldgs. # 11, # 12 and # 14, border the open seating area of The Texana Village (site map # 11A). It contains metal supports that were previously used for 34 wooden benches. The open area is estimated at approx. 725 sq. ft., and is approx. 85% covered with asphalt.



Fences

The project area contains many segments of wooden fences. All fences were made of 1" thick material, with about three 2" by 6" braces. There are approximately: 80 ft. of 10 ft. high, 375 ft. of 8 ft. high, 125 ft. of 7 ft. high, and 55 ft. of 6 ft. high fences. Note: allow at least 25% for missed wooden fences, because there were too many to be extremely accurate.



Parking Lot

The parking lot (site map # 27) at the project area has 6" curbs and gutters. Their total length is estimated at approx. 4,660 ft. The total area of the parking lot is estimated at approx. 75,250 sq. ft. The total volume of parking lot asphalt to be removed is estimated at approx. 929 cubic yards.



Sidewalks

The project area contains many segments of connecting sidewalks. Some are concrete and some are asphalt. The total area covered by sidewalks is estimated at approx. 62,572 sq. ft. The total volume of the sidewalks is estimated at approx. 676 cubic yards.



Octagonal Structure

Outside building # 3 (Restaurant/Public Restrooms on the site map) is an octagonal-shaped wooden structure (site map # 17). It measures 7.3' by 8' by 3.3' (H), with a 4' high center.



Stone Pump Houses

In front of the Diver's Locker (site map # 8) are two small stone square pump houses (site map # 18). One stone structure measures approx. 10' by 11' by 3.6' (H). The other stone structure measures approx. 8' by 8' by 4' (H), with an upper inset area measuring approx. 6.11' by 5.3'.



Stonework Structure

On the south side of the Diver's Locker building (site map # 8) is a stonework structure (site map # 23) near the water's edge. The stone structure measures approx. 16' (L) by 12' (W) by 3.3' (H). It has a flat tin roof. It has a concrete slab foundation measuring 16' by 12'.



Concrete Columns

At the entrance of the gift shop (site map # 1) there are 16 concrete columns (site map # 20). They each measure 1.65' by 1.65' by 8.2'(H).



Ticket Booth

The ticket booth (site map # 21) is located near building # 3. It is a small 6-sided wooden structure. Each side appears to be approx. 5.6' (W) by 9' (H). The booth appears to have a 4-sided 3' (H) pitched composition shingle roof. The structure appears to have no foundation.



Concrete Debris

Concrete debris (site map # 33) is located on the east bank of the slew, across from the boardwalk. There are 4 concrete slabs in this area totaling a surface area of approx. 469 sq. ft. The largest concrete slab is approx. 2.6' (H) by 18.2' (W) by 15.7' (L). One concrete slab is 2' (H) by 6' (W) by 3.10' (L). A third rectangular slab is 1' (H) by 10.7' (W) by 8.6' (L). The fourth slab is circular in shape, with a height of 2.6', and a diameter of 8.5'



Sunken Structure

Located below water in Spring Lake to the west of the submarine theatre lies a sunken structure (site map # 29). The submerged structure, which consists of metal and concrete, is full of water and rests on the lake bottom. SWT says that the structure is smaller than the submarine theatre. Dimensions are estimated at 80' (L) by 10' (W) by 13' (H).



Miscellaneous Sunken Material

Located below water to the south of the sunken structure lies some miscellaneous sunken material, (site map # 44). The sunken material includes a volcano structure, lily pads, and other diver training structures. The volcano structure is a metal wall, with estimated dimensions of 50' (L) by 8' (W) by 15' (H). The concrete lily pads are approx. 8' in diameter, with a 2' thickness.



Steel Tank

There is a steel tank (site map # 45) located behind the Diver's Locker building. The tank is on legs, and it is approx. 14' in length. It has a diameter of 5'. Shown in the photo is the building that stands adjacent to the steel tank. The tank is located on the north side of the building.



Concrete Debris in Texana Village Area

In the Texana Village area there is some concrete debris (site map # 46) that was previously used for a small pond and waterfall display. It consists of a concrete pond area, and a concrete mound area. The concrete mound area is approx. 12.3' (W) by 9.8' (L) by 4' (H). The concrete pond debris is elliptical-shaped with a height of 1.3', and concrete 1' thick. It is contained in an area approx. 22.5' (W) by 9.5' (L).



Structures addressed by SWT

Kyle City Jail

According to our information, SWT will coordinate the relocation of the Kyle City Jail and Equipment Shack. The Kyle City Jail (site map # 22) is a historically significant structure located within The Texana Village.



Saloon/Barbershop/General Store

This was a wooden replica of turn-of-the-century architecture in The Texana Village area (site map # 11). The rectangular-shaped building housed replicas of a saloon, barbershop, and a general store. It had a roof of flat tin over wood, and a wooden foundation of approx. 1,815 sq. ft. The area of the building was approx. 1,815 sq. ft., and is composed of 90% wood, and 10% glass.



Equipment Shack

The Equipment Shack (site map # 9A) is a storage building that sits behind the Diver's Locker building.



Salamander Sampling Site

The Salamander Sampling Site (site map # 34) sits in the water in Spring Lake in an environmentally sensitive area. SWT and the U.S. Fish & Wildlife Service will coordinate the repair and replacement of the Salamander Sampling Site.



Blacksmith Shop

This is a wooden replica of a blacksmith shop (site map # 12) in The Texana Village Area. It has no foundation and a tin roof. The area of the building is approx. 434 sq. ft.



Structures to Remain in Place

SWT indicated that the following structures on the old Aquarena Springs grounds would remain in place:

<u>Site Map #</u>	<u>Structure Name</u>
8.	Diver's Locker
9B.	Golf Cart Shed
10.	Boat Docks
14.	Endangered Species Building
14A.	Storefronts of Endangered Species Building
28.	Spring House and Cabin
31.	Cutter Boat Ramp and Loading Device
32.	Glass Bottom Boat Structure
35.	Ferry Dock
36.	River Theatre
37.	Small Gift Shop (on the hill)
38.	Inn
39.	Pool
40.	Cabana
41.	Burleson Cabin

From: Mr. Sears, Cost Estimating Section

Subject: Spring Lake Sam Marcos Structural Removal Write-up

1. Method of Removal: Sunken Structure:

There are no as-built drawings. The lake averages approximately 20 feet in depth in this area. Even divers probably can't inspect the structure visually. This is because of a dense growth of aquatic plants, which grow from the water surface to the bottom of the lake. A special machine would likely need to be utilized to remove the plant growth.

Tentatively, would suggest the following:

Assemble an equipment barge made by joining three 8' x 40' x 5' deep, deck barges. Mount a 45 to 60 ton crane on these barges to lift the sunken structure. Assemble another deep, deck barge of the same size as above. When the structure is brought to the surface, it should be placed on this group of barges for disassembly and the barges would then be pulled to shore. The crane will transport the pieces to trucks and the debris would be hauled to an offsite disposal area. A large, industrial outboard motor would probably be adequate to maneuver the barges, since very little maneuvering should be required. The best location for loading and offloading the barges, crane, and debris would be at the "Landing Site" area. This site has good bank slope and adequate water depth to load and unload equipment and debris. Following demolition of the "Landing Site" structure, the shoreline may need to be strengthened with a temporary barge ramp to protect the shoreline.

2. Miscellaneous Sunken Material

The previously discussed equipment and methods would be used for this work. In addition, underwater disassembly, cutting, etc. would require the use of divers. Divers would probably be used on all the underwater work.

3. Submarine Theater

The submarine theater was used to lower dozens of people seated in the structure to a point 6' to 8' below the water surface so that the people could observe the underwater shows. The theater structure was filled with concrete 2' to 4' deep beneath the seats to provide the weight (ballast) necessary to sink the theater.

The cost of removing this structure was estimated previously. It was to be cut free of its anchorage, floated to a reasonably flat, or level, area downstream of its present location, dug out of the water with large bull-dozer, cut apart, loaded on trucks and hauled to disposal.

There was concern that this method would damage the lake bottom and the bank. An alternate method was devised to raise the structure from the water using a floating barge and crane and then place it onto 3 or more 8' x 40' x 5' floating barges for ballast removal and disassembly of the structure. The pieces would then be transported to the shoreline, unloaded to trucks, and

hailed to a disposal site. The equipment and methods discussed in section #1 (above) would also be used for the submarine theatre removal.

4. Observation Tower:

The seating section is a large do-nut shaped car of approximately 30' in diameter. The hole in the middle is about 6' in diameter. The car has been lowered to the ground, and it should stay there until it is disassembled.

The tower is 185' high and may weigh approximately 150,000 pounds. Shell thickness, which may vary with height above ground, kind and amount of internal bracing, are not known, but is estimated at approximately 1.0-inch diameter. It is anticipated that there may be a cable draw works inside the shell of the tower.

It is anticipated that a very large crane with a boom probably exceeding 200' in length would be used to disassemble the tower starting at the top of the tower. The tower would be cut into sections and lowered to the ground with the crane. The pieces would be loaded onto trucks and hauled to an offsite disposal area.

5. Cable Car Towers

The towers for the cable car ride will be disposed of with the same equipment and method used to remove the observation tower.

End