RESTROOM FEASIBILITY STUDY

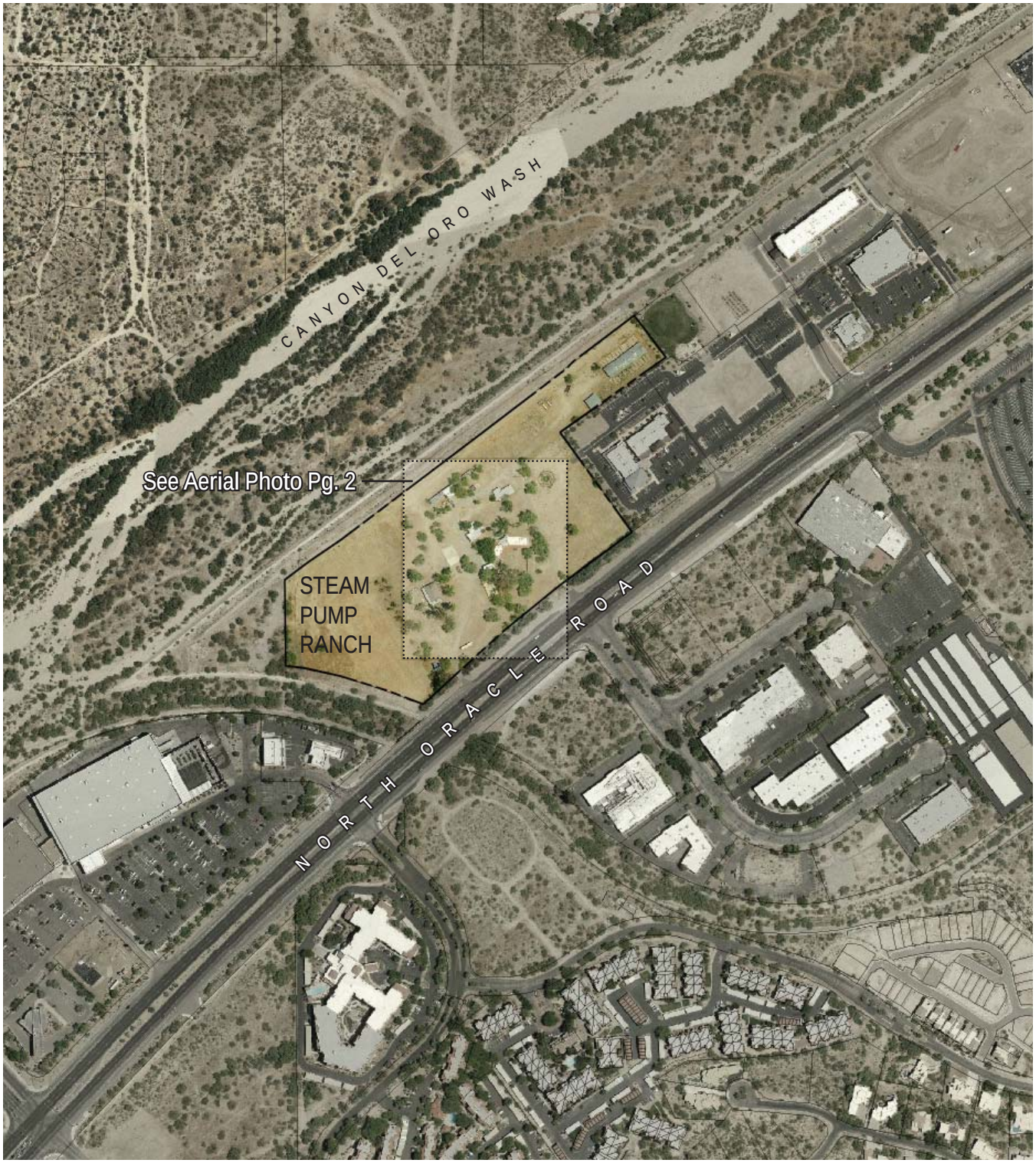
STEAM PUMP RANCH

DECEMBER 23, 2011

Sakellar Associates
ARCHITECTS AND PLANNERS, INC.

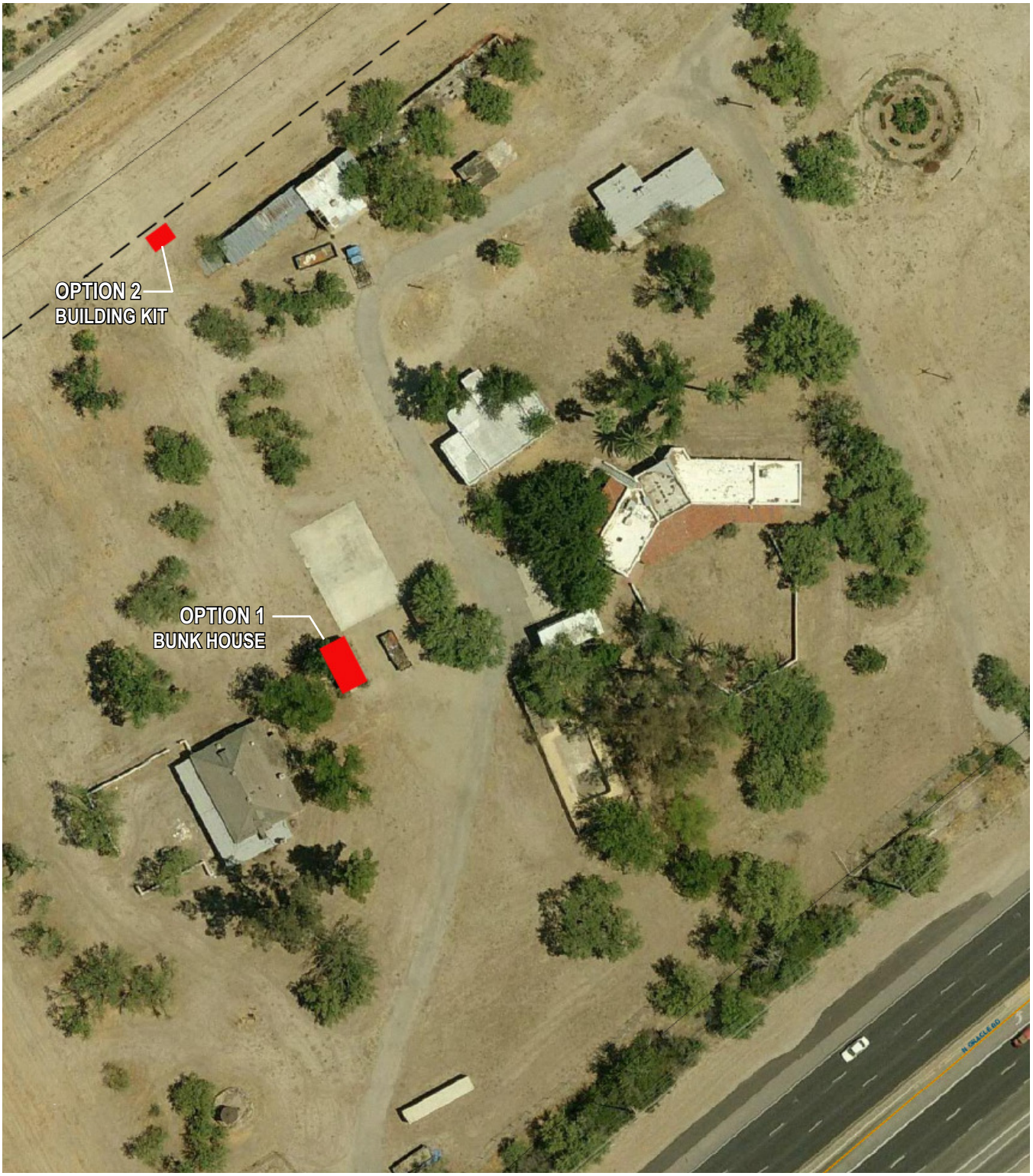
INDEX

LOCATION MAP



AERIAL PHOTOGRAPH

OPTIONS 1 & 2



SUMMARY

	OPTION 1 BUNK HOUSE	OPTION 2 BUILDING KIT
GROSS FLOOR AREA	340 SF	110 SF
SCHEDULE	7 Months	5 Months
BUILDING COST	$53,672	$100,000
SITE COST	$26,130	$20,980
GC OH, P, TAX, BOND	$27,931	$30,245
CONTINGENCY	$16,160	$15,123
CONSTRUCTION COST	$123,893	$166,348

View of chicken coop looking east.

OPTION 1 PROJECT SCOPE
RENOVATION OF SOUTH BUNK HOUSE

SITE / UTILITIES

A. Water: The main water line runs parallel to the north-east property line with a shut-off valve located on the driveway between the Steam Pump Ranch and the Steam Pump Village Retail Center. An existing 2 inch water line runs south-west through the property with an unknown termination point, and it will be extended approximately 500 ft. to the proposed restroom location.

B. Sewer: An existing 8" PVC sewer line runs parallel to the northwest property line within the 50 ft. utility easement. An approximately 250 ft. of 4 inch private sewer line provided from the proposed location to the existing manhole number 4115-04.

C. Electric power: There is no electrical power to the existing bunkhouse. It is proposed to provide power through an underground line from an existing power pole located approximately 300 ft. west of the structure,

D. Accessibility: An exterior concrete slab around the structure will be installed to provide ADA access from the existing parking.

Water connection on north property line.


Existing sewer along west property line.


Existing power pole for electrical connection.

OPTION 1 PROJECT SCOPE

RENOVATION OF SOUTH BUNK HOUSE

BUILDING

The bunkhouse located directly east of the Leiber House is proposed to be renovated as a toilet facility.

The existing bunkhouse is a 350 sq. ft. mud adobe structure, and is currently unoccupied. The exterior adobe walls are deteriorated and in poor condition, the exterior windows and entry door frames are damaged by termites.

The existing roof structure is in good condition, and it appears that a new roofing has been installed recently.
This option is proposing to renovate the existing structure to allocate two single user toilets. The exterior walls need to be renovated by removing the existing stucco finish, restore and stabilize the adobe walls with blocks fabricated on site, and refinish the exterior surfaces with cement stucco. The existing fenestrations will be treated with new windows and the existing door will be replaced. A couple of new doors will be installed to provide access to the proposed restrooms. A new porch will be added, consisting of an attached wood framed structure to the north of the building with a steel deck roof covering. Also an exterior concrete slab at the storage and restroom entries will be provided for accessibility.

The bunkhouse interior will be rehabilitated to allocate two ADA accessible restrooms and a storage room. The interior of the structure is in poor condition, and the concrete slab is fractured and unsettled. For the proposed use the existing slab will be replaced with a new concrete slab and all the interior will be gutted. The perimeter walls are to be furred out with steel framing with batt insulation, and it will support the load of the existing roof structure. The interior partitions consist of steel frame, batt insulation and gypsum board finish, the ceilings will be framed and finished with gypsum board. The interior floor finish is the exposed colored concrete, a ceramic tile wainscot of 5 feet high will be applied to the wet walls of the restrooms.

South bunk house looking west.

Bunk house condition above ceiling.

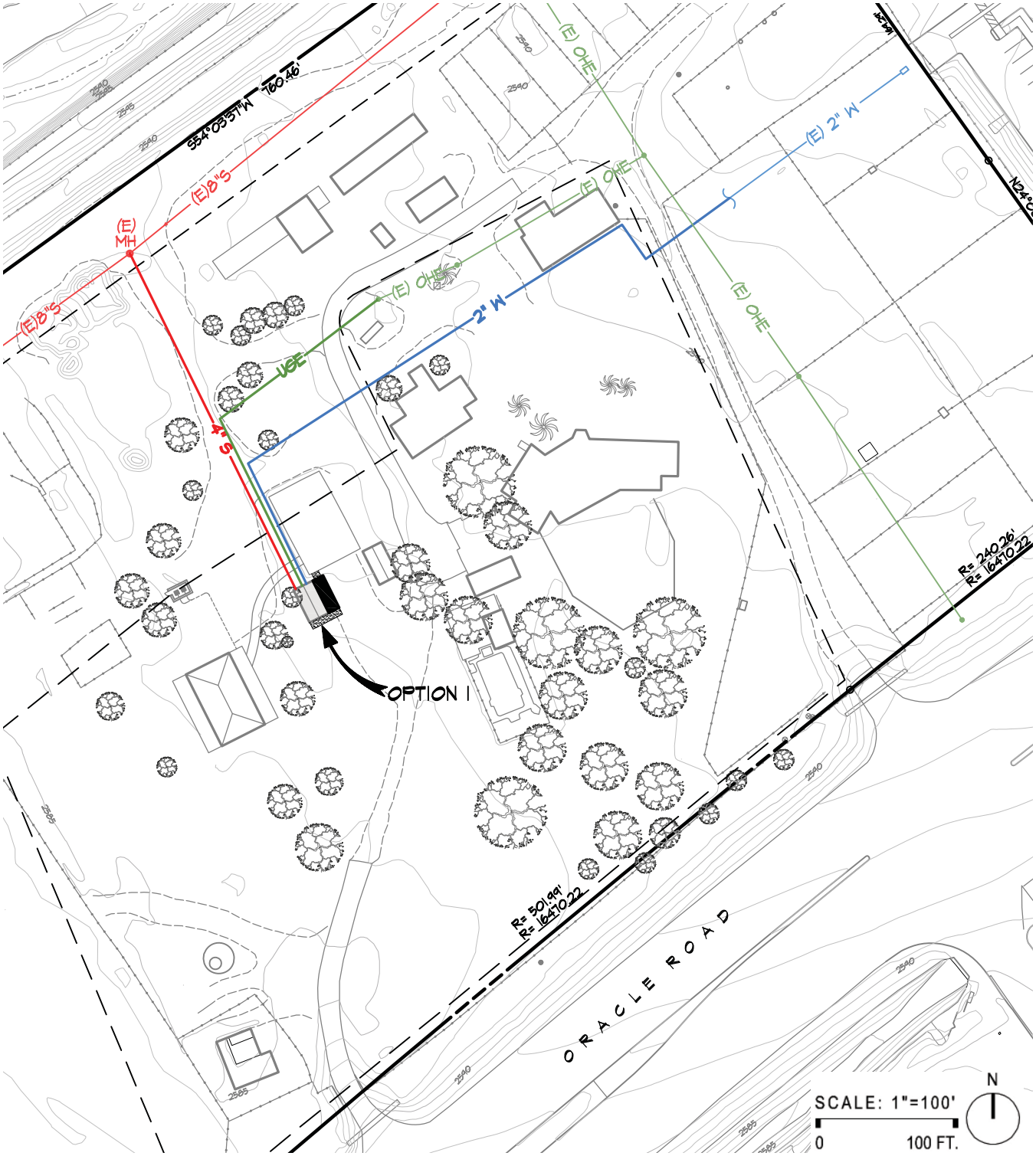
OPTION 1 CONSTRUCTION COST ANALYSIS

RENOVATION OF SOUTH BUNK HOUSE

Div.	Item	Qty.	Unit	Unit Cost	Subtotal
1.01	Site - Concrete sidewalk w/ integral color	330	SF	8.00	$2,640.00
1.02	Site - 2" PVC Water line	490	LF	16.00	$7,840.00
1.03	Site - Backflow preventer	1	LS	2,000.00	$2,000.00
1.04	Site - 4" sewer line	255	LF	30.00	$7,650.00
1.05	Site - Electrical underground	300	LF	20.00	$6,000.00
	Subtotal				$26,130.00
2.01	Demolition - Concrete Slab	285	SF	5.00	$1,425.00
2.02	Demolition - Interior Partitions 9' Ht	23	LF	5.00	$115.00
2.03	Demolition - Plumbing Fixtures & Piping	3	EA	200.00	$600.00
2.04	Demolition - Framed ceiling	285	SF	0.85	$242.25
2.05	Demolition - Windows	4	EA	150.00	$600.00
2.06	Demolition - Electrical	1	LS	500.00	$500.00
2.07	Demolition - Stucco finish	1	LS	1,000.00	$1,000.00
3.01	4" Concrete Slab w/ int. color & 4" base	300	SF	7.00	$2,100.00
3.02	Concrete Toe-down	71	LF	50.00	$3,550.00
4.01	Adobe restoration	695	SF	2.50	$1,737.50
5.01	Metal Stud Framing	820	SF	5.00	$4,100.00
5.02	Miscellaneous structural steel	1	LS	1,000.00	$1,000.00
5.03	Steel Deck (Porch)	215	SF	5.00	$1,075.00
5.04	Toilet grab bars	6	EA	40.00	$240.00
6.01	Rough carpentry	1	LS	1,000.00	$1,000.00
6.02	Wood Framing (Porch)	215	SF	15.00	$3,225.00
6.03	Plywood sheathing	215	SF	5.00	$1,075.00
7.01	Walls insulation	825	SF	1.00	$825.00
7.02	Roof insulation	280	SF	1.10	$308.00
8.01	Windows	3	EA	1,000.00	$3,000.00
8.02	Door and Frame	3	EA	1,200.00	$3,600.00
9.01	Sand float stucco finish	695	SF	4.00	$2,780.00
9.02	Gypsum Wall Board Walls	850	SF	4.75	$4,037.50
9.03	Gypsum Wall Board Ceiling	260	SF	2.50	$650.00
9.04	Exterior Paint	695	SF	1.20	$834.00
9.05	Interior Paint	1,110	SF	1.00	$1,110.00
9.06	Ceramic Tile Base	20	LF	2.50	$50.00
9.07	Ceramic Tile 5ft. ht. Wainscot	162	SF	6.50	$1,053.00
10.01	ADA signage	1	LS	300.00	$300.00
10.02	Toilet Accessories	1	LS	750.00	$750.00
22.01	Plumbing - Water closet	2	EA	1,300.00	$2,600.00
22.02	Plumbing - Lavatories	2	EA	1,100.00	$2,200.00
22.03	Plumbing - Water Fountain	1	EA	1,500.00	$1,500.00
22.04	1500 Tank Water Heater	1	EA	500.00	$500.00
23.01	Exhaust Fans	285	SF	4.00	$1,140.00
16.01	Electrical	285	SF	10.00	$2,850.00
	Subtotal				$53,672
	Subtotal Site & Buiding				$79,802
	General Contractor GC, OH & P, Tax, Bonds & Ins. @			35%	$27,931
	Contingency @			15%	$16,160
	Construction Total				$123,893

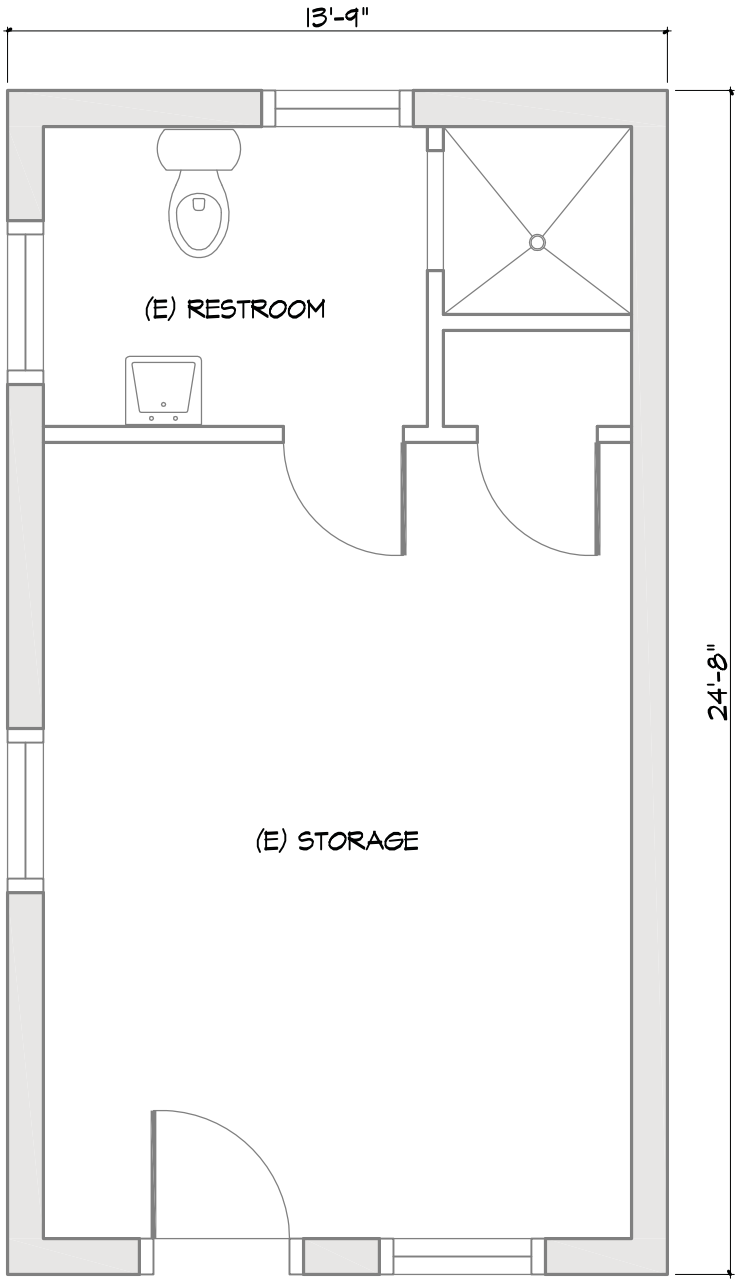
OPTION 1 SITE/UTILITY PLAN

RENOVATION OF SOUTH BUNK HOUSE



OPTION 1 EXISTING FLOOR PLAN

RENOVATION OF SOUTH BUNK HOUSE



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SCALE: 1/4"=1'-0"

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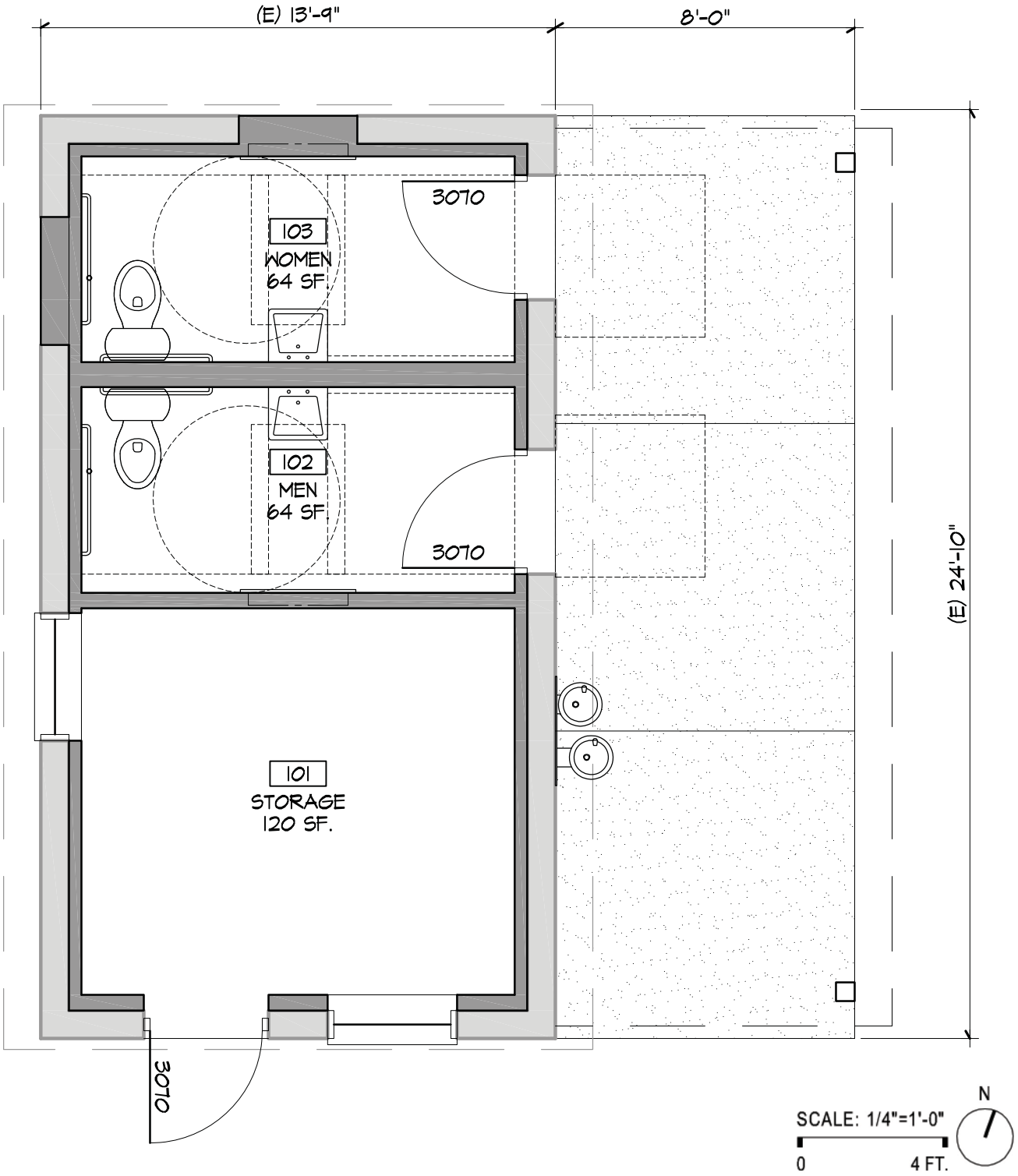
OPTION 1 FLOOR PLAN

RENOVATION OF SOUTH BUNK HOUSE

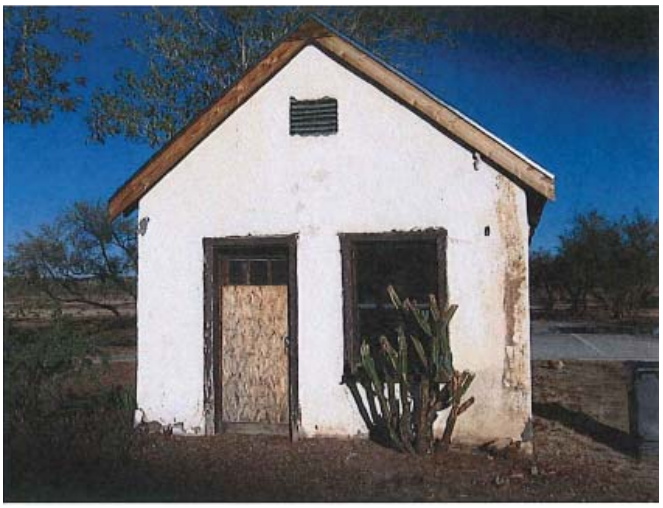


OPTION 1 STRUCTURAL ANALYSIS
RENOVATION OF SOUTH BUNK HOUSE

GENERAL

The following report contains Schneider Structural Engineers professional opinions regarding the general structural integrity of the (2) existing adobe structures located on the Steampump Ranch property. The purpose of this review is to study the feasibility of converting these structures to restroom buildings.

As requested, we visually reviewed the structure at the location referenced above. The site visit was performed on November 23, 2011. A Schneider Structural representative, David N. Gibbens, arrived at the site at about 8:30 a.m. and left the site at about 10:15 a.m. The structure is a wood framed roof, mud and straw adobe masonry walled single story structure with an unreinforced interior concrete slab.



East elevation

OBSERVATIONS

The following items were observed and/or issues discussed:

1. The mud adobe walls are in relatively poor condition with some regions, all near the grade level, where the adobe blocks have disintegrated. It is noted, and expected for a building of this age, that the walls all have some degree of tilt and they are slightly out-of plumb

2. Headers for adobe wall openings were noted to be of wood which was common at the time of construction. The structural wood lintels which were visible appeared to be in acceptable condition while the mullions/bucks for the existing windows were eaten by termites.

3. The wood roof framing appeared to be in acceptable condition with the rafter's consisting of rough sawn 2x6's and the ceiling cross ties either as 2x4 nominal cross ties or rough sawn 2x6's.

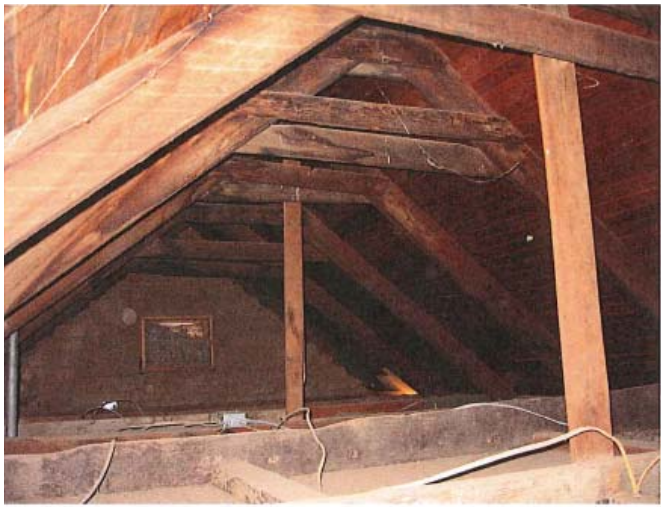
North elevation

STRUCTURAL ANALYSIS, CONT.

RENOVATION OF SOUTH BUNK HOUSE

4. The floor slabs are in poor conditions, completely cracked up, and are differentially settling.

5. There are trees planted within a foot of these building walls which appear to be causing some movement and/or upheaval to the walls.



Interior rafter view.;

Option A:

Based on the generally acceptable condition of the superstructure, we would recommend that these buildings be salvaged by performing the following:

1. Repair the exterior adobe walls by replacing deteriorated adobe areas. Repoint and/or reapply adobe mortar where mortar has deteriorated. This work should be performed by an adobe restoration expert. Stabilize the adobe and replaster as required to seal the adobe from water damage.

2. Remove exterior trees that are within 5' of the exterior envelope. If this is not performed then root upheaval causing wall damage will continue.

3. Remove and replace the entire interior concrete slab. Provide a 4" aggregate base course; hand compacted, below a new 4" thick concrete slab reinforced with 4 lbs/ cubic yard of macrofibers.

Existing intact wood header with termite damage.

Option B:

If the authority having jurisdiction determines that converting these existing buildings to restrooms constitutes a change of occupancy and therefore this triggers that these building

STRUCTURAL ANALYSIS, CONT.
RENOVATION OF SOUTH BUNK HOUSE

comply with current codes then we recommend the following:

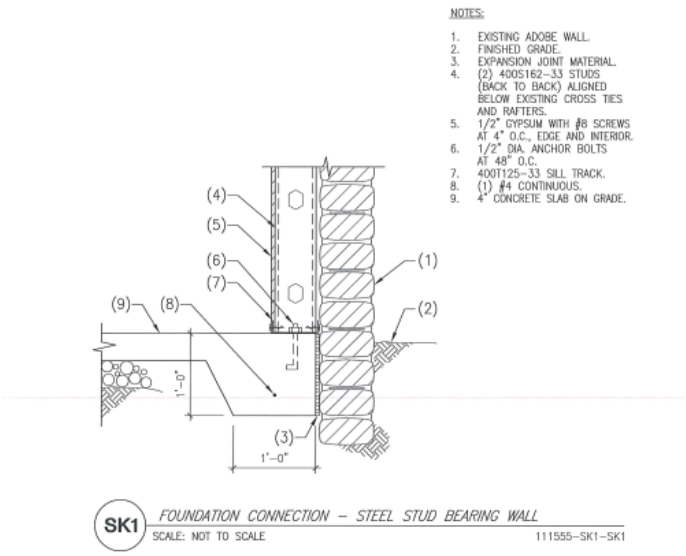
1. Repair and stabilize the exterior adobe walls by repointing and/or reapplying adobe mortar as needed. Replacing currently collapsed wall regions is not necessary structurally, but may be desirable architecturally.

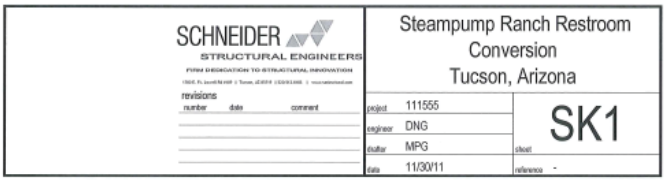
2. Remove exterior trees that are within 5' of the exterior envelope. If this is not performed then root upheaval causing wall damage will continue.

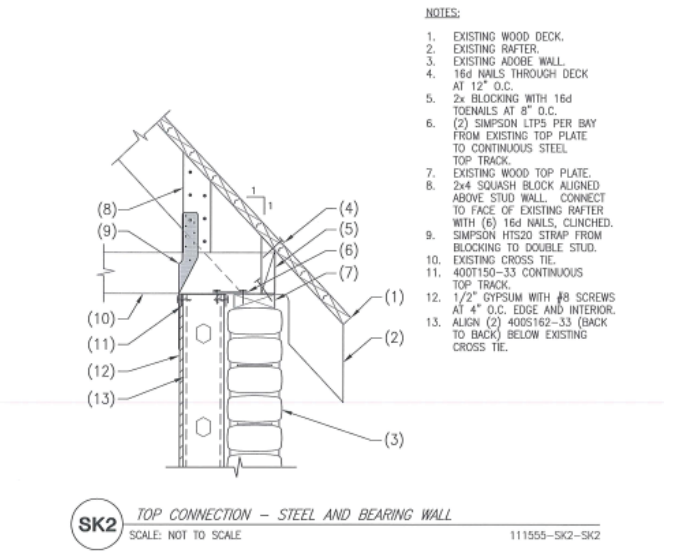
3. Build an interior steel stud bearing wall, with a new reinforced concrete slab and footing. This will be built on the inside face of the existing adobe walls and will be designed to support the roof structure in place. See sketches SK1 and SK2 attached for details of this construction.

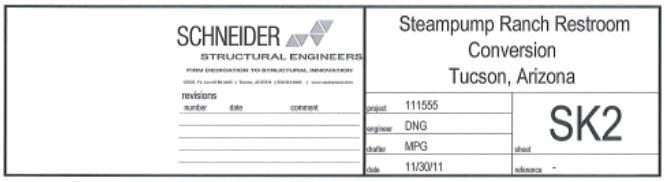
4. Remove and replace the entire interior concrete slab. Provide a 4" aggregate base course, hand compacted, below a new 4" thick concrete slab reinforced with 4lbs/ cubic yard of macrofibers.

Schneider Structural Engineers services have been performed with the appropriate care and judgment that can be reasonably expected from similar professionals in this area. The opinions noted in this report are based upon limited visual observations only. No calculations or physical testing was performed to determine the structural adequacy or code compliance of the structure. Schneider Structural Engineers does not express or imply any warranty of the structure, nor do we guarantee that we have observed all areas of the existing structure or identified all deficiencies. Certain assumptions regarding existing conditions have been made which cannot be verified without expending additional sums of money or damaging additional portions of the building.









OPTION 2 PROJECT SCOPE

BUILDING KIT RESTROOM FACILITY

SITE / UTILITIES

A. Water: The main water line runs parallel to the north-east property line with a shut-off valve located on the driveway between the Steam Pump Ranch and the Steam Pump Village Retail Center. An existing 2 inch water line runs south-west through the property with an unknown termination point, and will be extended approximately 500 ft. to the proposed restroom location.

B. Sewer: An existing 8" PVC sewer line runs parallel to the northwest property line within the 50 ft. utility easement. An approximately 35 ft. of 4 inch private sewer line provided from the proposed location to the existing manhole number 4115-04.

C. Electric power: It is proposed to provide power through an underground line from an existing power pole located approximately 200 ft. east of the proposed location.

D. Accessibility: A 5 ft. wide color concrete walkway approximately 175 ft. long will be installed from the existing parking lot to the proposed location to provide accessibility.

Proposed location of building kit.

Example of building kit restroom.

BUILDING

A 110 Sq. Ft. prefabricated toilet facility kit is proposed to be installed northwest of the existing pad, just outside the 50 ft. utility easement. The 2 single user toilet kit includes full steel reinforced concrete foundations and meet all ADA accessibility guidelines.

The structure finishes will match the style of the existing buildings on site. Exterior walls will be finished with stucco over concrete block and covered with a steel metal deck.

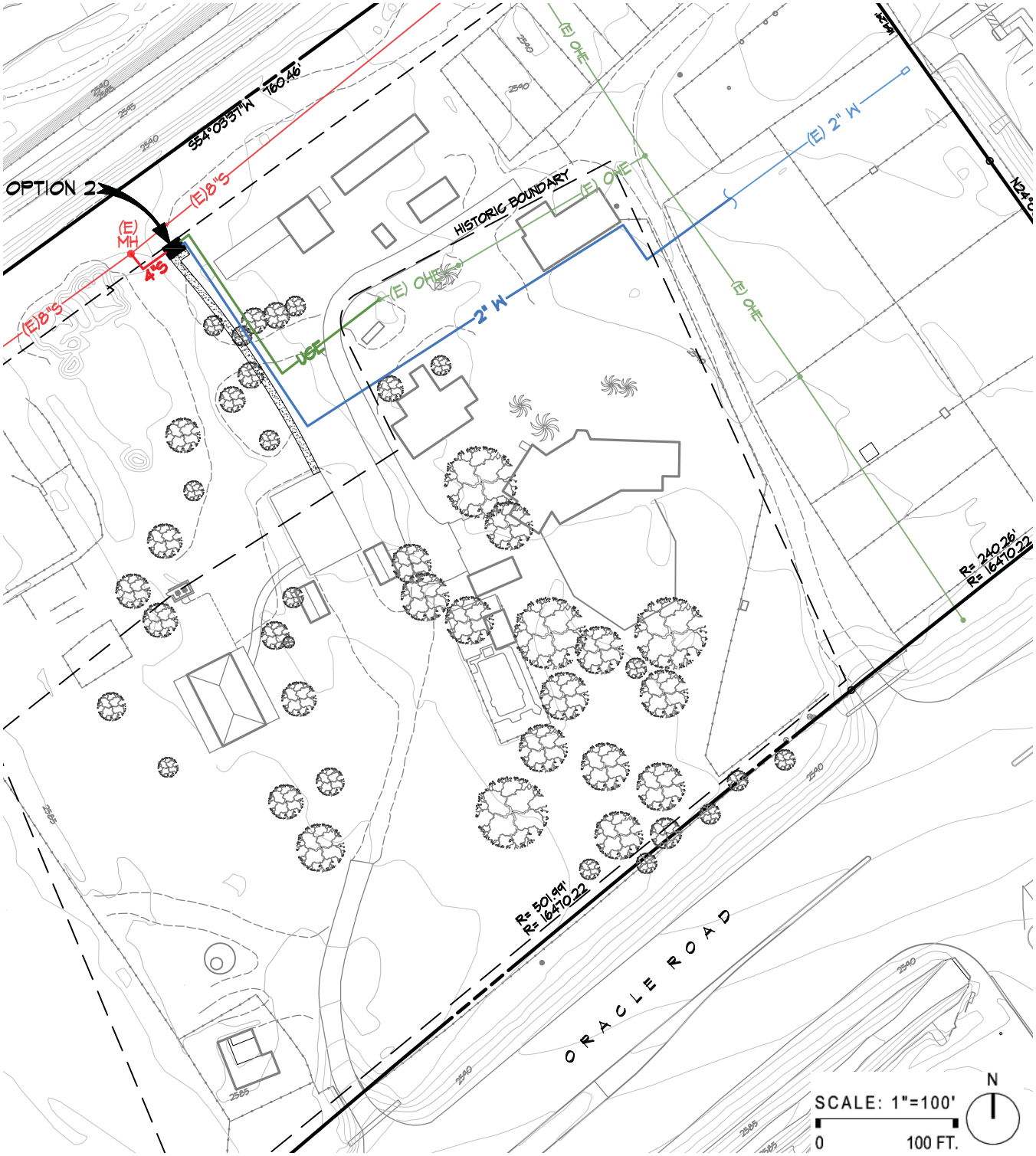
OPTION 2 CONSTRUCTION COST ANALYSIS

BUILDING KIT RESTROOM FACILITY

Div.	Item	Qty.	Unit	Unit Cost	Subtotal
1.01	Site - Concrete sidewalk w/ integral color	925	SF	8.00	$7,400.00
1.02	Site - 2" Water line	530	LF	16.00	$8,480.00
1.03	Site - Backflow preventer	1	LS	2,000.00	$2,000.00
1.04	Site - 4" sewer line	35	LF	30.00	$1,050.00
1.05	Site - Electrical underground	205	LF	10.00	$2,050.00
	Subtotal				$20,980.00
2.01	Prefabricated Restroom-Kit	1	EA	100,000.00	$100,000.00
	Subtotal				$120,980
	General Contractor GC, OH & P, Tax, Bonds & Ins. @			25%	$30,245
	Contingency @			10%	$15,123
	Construction Total				$166,348
	Total				**$166,348**

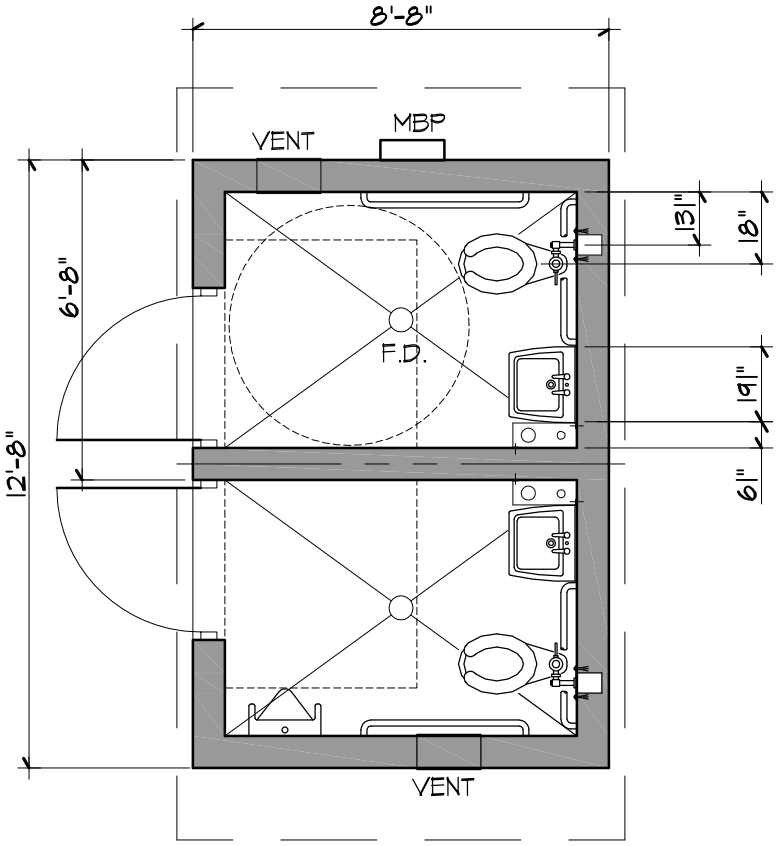
OPTION 2 SITE/UTILITY PLAN

BUILDING KIT RESTROOM FACILITY



OPTION 2 FLOOR PLANS & ELEVATIONS

BUILDING KIT RESTROOM FACILITY



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SCALE: 1/4"=1'-0"

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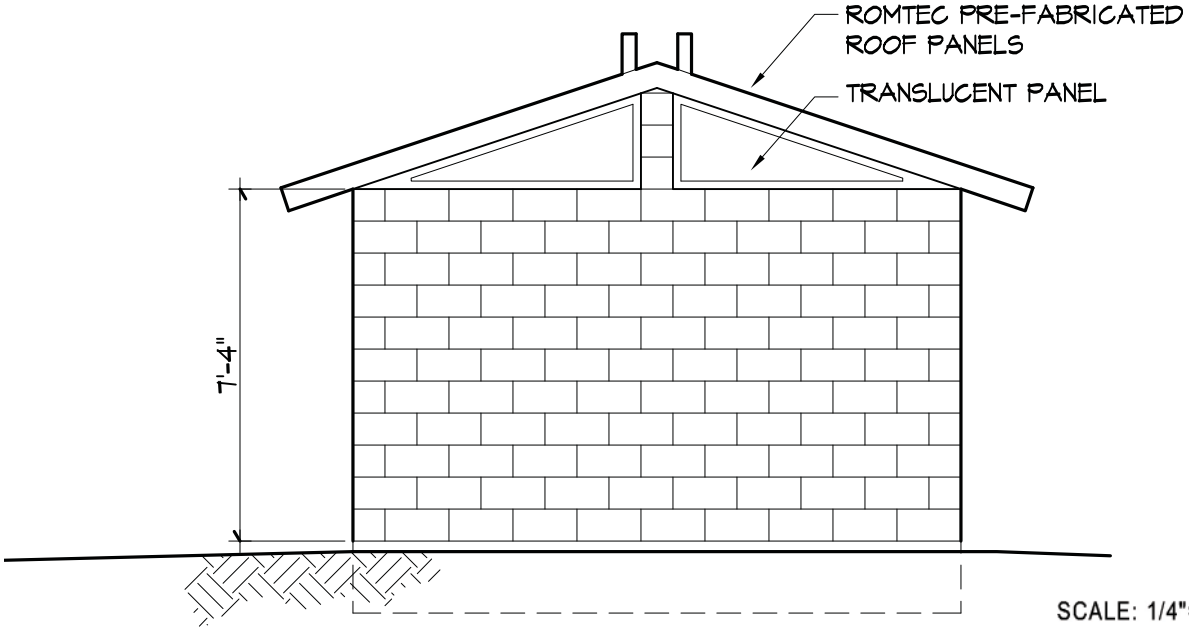

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OPTION 2 FLOOR PLANS & ELEVATIONS

BUILDING KIT RESTROOM FACILITY