Development Review (Minor) Staff Approval

238-SA-2017

S & V Cover

APPLICATION INFORMATION			
LOCATION:	9325 E Shea Bl	APPLICANT:	Martin Sandino
PARCEL:	217-36-001M	COMPANY:	Ms Architecture & Planning LLC
Q.S.:	28-50	ADDRESS:	12212 N Paradise Village Pkwy Scottsdale, Az
CODE VIOLATION #:		PHONE:	602-413-7985
Request: to install a patio cover over existing patio area.			

STIPULATIONS

1. Architectural elements, including dimensions, materials, form, color, and texture, shall be constructed to be consistent with the building elevations submitted by Martin Sandino AIA, with a city staff date of 9/1/17.
2. The location and configuration of all site improvements shall be consistent with the site plan submitted by Martin Sandino AIA, with a city staff date of 9/1/17.
3. With the final plans submittal, the roof decking shall be demonstrated to be a solid surface.
4. All lighting on the patio area must be under the patio roof deck.
5. All patio lighting must have shrouds.

CONSTRUCTION DOCUMENT PLAN REVIEW SUBMITTAL REQUIREMENTS

Submit one copy of this approval letter, and a completed Owner/Builder form if applicable, and a permit application along with the following plan set(s) to the One-Stop-Shop for review:

PERMIT APPLICATION: ☒ **Completed Permit Application.** The permit application may be obtained or completed online at the following weblink:

http://www.scottsdaleaz.gov/assets/ScottsdaleAZ/Building/APP_Permit_Commercial.pdf

(Please complete the permit application online prior to arriving at the City to submit your construction documents)

ARCHITECTURAL: ☒ 4 sets of architectural plans (including structural information) and 1 additional site plan and elevation.

Expiration of Development Review (Minor) Approval

This approval expires two (2) years from date of approval if a permit has not been issued, or if no permit is required, work for which approval has been granted has not been completed.

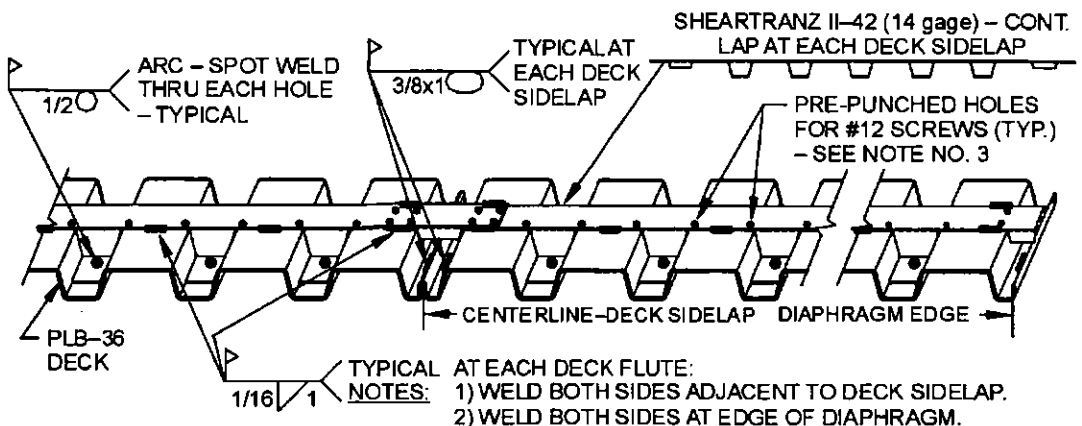
Staff Signature: Cori McClay DATE: 9/1/17

Doris McClay

Planning and Development Services
7447 East Indian School Road, Suite 105, Scottsdale, Arizona 85251 Phone: 480-312-7000 Fax: 480-312-7088
City of Scottsdale's Website: www.scottsdaleaz.gov

FIGURE 7–DETAILS FOR SHEARTRANZ® II-42 FOR PLB™-36 & SHEARTRANZ® II FOR HSB®-36 DECK

SECTION 1:



NOTE: CONTINUOUS RIB IN TOP FLANGE OF SHEARTRANZ II-42 **NOT** SHOWN FOR CLARITY.

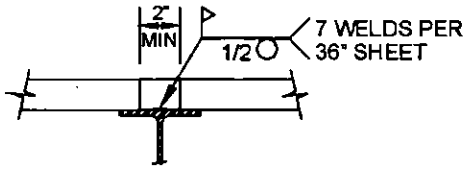
NOTES: AT EACH DECK FLUTE:
1) WELD BOTH SIDES ADJACENT TO DECK SIDELAP.
2) WELD BOTH SIDES AT EDGE OF DIAPHRAGM.

ALTERNATE TO WELD ATTACHMENT:
3) #12 SCREWS THRU PRE-PUNCHED HOLES AT LOCATIONS SHOWN ARE PERMITTED TO REPLACE WELD.

SHEARTRANZ® II–42 FOR PLB™–36 DECK WITH PUNCHLOK® SYSTEM
with VSC SIDELAP CONNECTIONS (VSC)

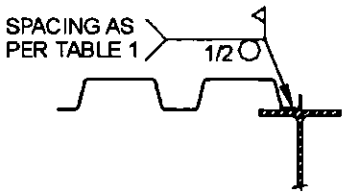
TYPICAL DETAILS

(Apply to either system.)

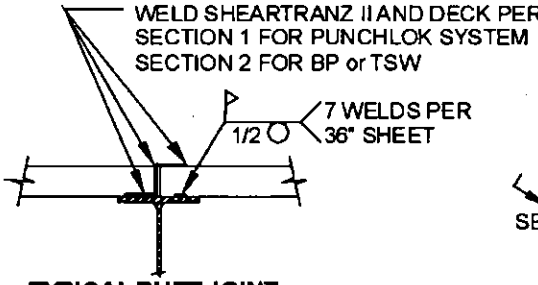


NOTE: LAP DECK MIN. 2" AT END LAPS.

TYPICAL INTERIOR SUPPORT

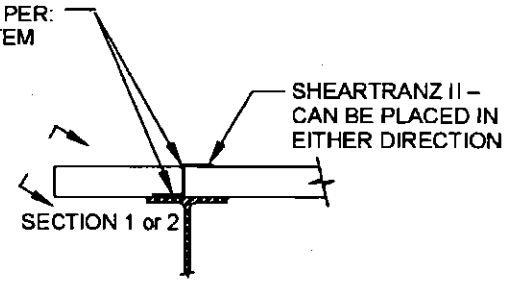


ATTACHMENT AT PARALLEL SUPPORTS



TYPICAL BUTT JOINT

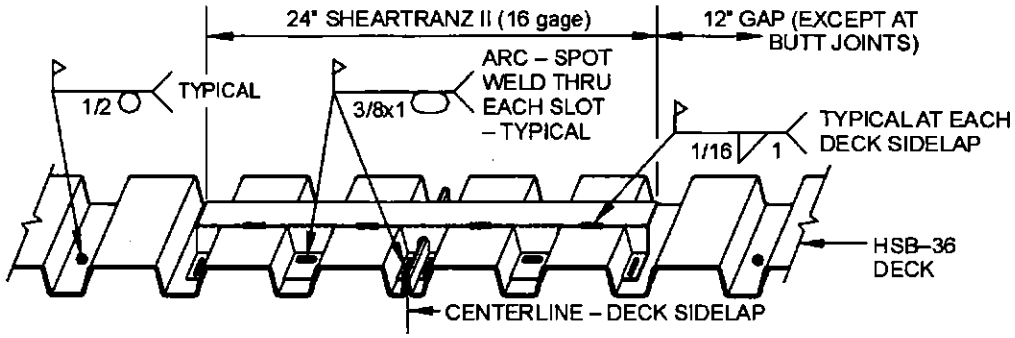
SHEARTRANZ II CONTINUOUS AT BUTT JOINTS. WELD TOP FLANGE OF SHEARTRANZ II TO BOTH PIECES OF DECK AT BUTT JOINTS.



DETAIL AT DIAPHRAGM PERIMETER

DECK MAY BE CANTILEVERED OR STOP AT BEAM

SECTION 2:



SHEARTRANZ® II FOR HSB®–36 DECK
with BUTTON PUNCHED (BP) OR TOP SEAM WELD (TSW) SIDELAPS

Pre-Application Request

Purpose:

The purpose of the Pre-Application submittal, and meeting, is for the applicant and city staff to discuss a proposed Development Application, and the information and process that is necessary for city staff to process the proposal.

In accordance with the Zoning Ordinance, no development application shall be accepted before a Pre-Application has been submitted, and a Pre-Application meeting has been conducted with city staff, unless the Pre-Application meeting has been waived by the Zoning Administrator.

Submittal:

The completed Pre-Application Request form and all required materials and fees should be submitted in person to the One-Stop-Shop located at 7447 East Indian School Road; or, may they be submitted digitally at following website: https://eservices.scottsdaleaz.gov/eServices/PreApps/Default.aspx

All checks shall be payable to "City of Scottsdale."

Scheduling

After the Pre-Application submittal has been accepted at the One-Stop-Shop, a staff member will contact the Applicant within five (5) Staff Working Days to schedule a Pre-Application meeting with the assigned staff member(s). Generally, a Pre-Application meeting is scheduled within five (5) to fifteen (15) Staff Working Days from the date of the submittal.

Project Name: S & V PATIO COVER

Property's Address: 9323 E. SHEA BLVD. **APN:** 217-36-001M

Property's Zoning District Designation: C-3

Property Details:

☐ Single-Family Residential ☐ Multi-Family Residential ☑ Commercial ☐ Industrial ☐ Other

Has a 'Notice of Compliance' been issued? ☐ Yes ☑ No If yes, provide a copy with this submittal

Owner: 94 HUNDRED SHEA	**Applicant:** MARTIN SANDINO
Company:	**Company:** MS ARCHITECTURE + PLANNING LLC
Address: 9375 E. SHEA BLVD.	**Address:** 12212 N. PARADISE VILLAGE PKWY.
Phone: 480-214-9500 **Fax:** 480-214-9501	**Phone:** 602-413-7985 **Fax:** N/A
E-mail: DR[illegible]@94HUNDREDSHEA.COM	**E-mail:** M.SANDINO.ARCH@GMAIL.COM
Owner Signature	Applicant Signature

Official Use Only Submittal Date: 7/20/17 Application No.: 523 -PA- 2017

Project Coordinator: _____

STRUCTURAL CALCULATION OF NEW PATIO

Subject Building
S&V Restaurant
9323 E Shea Blvd Scottsdale AZ 85258
Prepared for:
Martin Sandino
(Architect)

Email: m.sandino.arch@gmail.com
Phone: 602-413-7985

STRUCTURAL CALCULATION

July 17, 2017th

Arizona Professional Structural Engineer License #41083, Expires: 06/30/2019
Arizona Professional Civil Engineer License #38789, Expires 3/31/2018

Prepared by:
Arizona Structural Design & Inspections
2650 S Yucca St, Chandler AZ 85286
(480)577-5423
Email: kamal@azstructural.com
www.azstructural.com

Re: Structural Calculations of Patio
Subject Building: 9323 E Shea Blvd Scottsdale AZ 85258
Type of Work: Structural Calculations
Builder: Not Known

Dear Mr. Sandino
Based on your request an inspection was done on July 9th and structural calculation was performed to design a light weight independent steel covered patio in front of existing building.

INTRODUCTION AND SCOPE

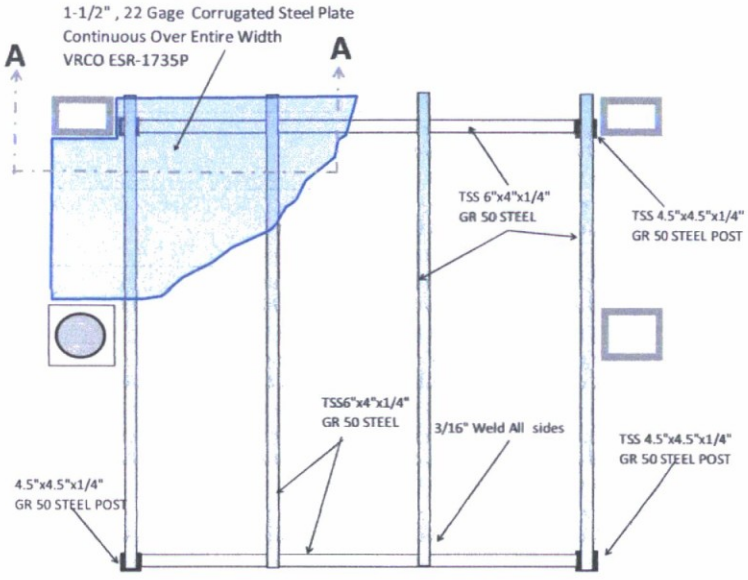
The purpose of this report is to provide structural details for an approximate 24'x24' covered patio including beams, posts and foundations.
No surface materials were removed and no soil test was provided by the owner. This report is not an exhaustive technical evaluation. The report is not to be considered a guarantee of other parts of the existing building, no warranty is implied and the maximum liability for the Engineer is limited to the paid cost of this inspection.
For the result of this structural evaluation refer to "**CONCLUSIONS**".
The structural calculation was performed by and reports within by:
Seyed Kamal Mirtalaei, PhD, PE, SE.
It is the responsibility of a Professional Engineer to design major structural systems based on the scope of the work explained earlier. The Engineer is not, however, responsible for conditions that were not within the scope of this service.

DESIGN ASSUMPTIONS

Structural design is based on IBC-2012 with following loading condition:
Roof Live Load: 20 PSF
Roof Dead Load 20 PSF
Ultimate Wind Speed: 115 PSF
SEISMIC PERFORMANCE CATEGORY "A"

MATERIAL SPECIFICATION

STRUCTURAL STEEL
WIDE FLANGE SHAPES: ASTM A-992 (FY 50 KSI).
BASE PLATES: ASTM A-36 (FY 36 KSI).
STRUCTURAL TUBING, HSS SHAPES: ASTM A-500, GRADE C (FY 50 KSI).
CORRUGATED METAL PLATES, VERCO PLB-36 45KSI, ESR CERT: ESR-1735P.
(CORRUGATED PLATE SHOULD BE CONTINUOUS OVER ENTIRE WIDTH TO SUPPORT THE OVERHANGS)
ANCHOR RODS: ASTM F-1554 GRADE 55, U.N.O.
CONSIDERATION OF MEMBER THICKNESS, HOLES, CUTS, COPES AND THE EFFECTS OF
WELDS INDICATED ARE MINIMUMS. DESIGN WELDS WITH CONSIDERATION FOR DESIGN LOADING. INCREASE WELD SIZE OR PREHEAT STEEL BASED ON SUPPORT THICKNESS
REINFORCED CONCRETE
STEEL REINFORCEMENT TO BE 60,000 PSI TENSILE STRENGTH
CONCRETE TO WITH MIN 3000 PSI 28-DAYS COMPRESSIVE STRENGTH



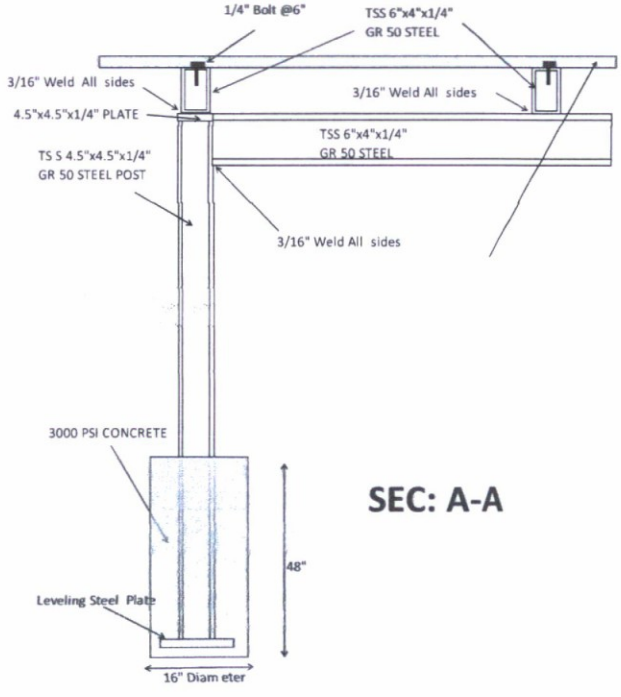


Fig 1 Steel patio structure details

CONCLUSIONS

A new covered patio about 24'x24' was designed for the subject building. Steel material was selected for this structure. Structural calculation is presented in the appendix of this report. The new structure should be constructed by a licensed contractor. Construction observation is not part of this service.

Thanks,
Kamal Mirtalaei, PhD, PE, SE

July 17th, 2017

Arizona Professional Structural Engineer License #41083, Expires: 06/30/2019
Arizona Professional Civil Engineer License #38789, Expires 3/31/2018

Prepared by:
Arizona Structural Design & Inspections
2650 S Yucca St, Chandler AZ 85286
(480)577-5423
Email: kamal@azstructural.com
www.azstructural.com

Photo 1 Existing open area with trellis

Photo 2 Existing open area for covered patio

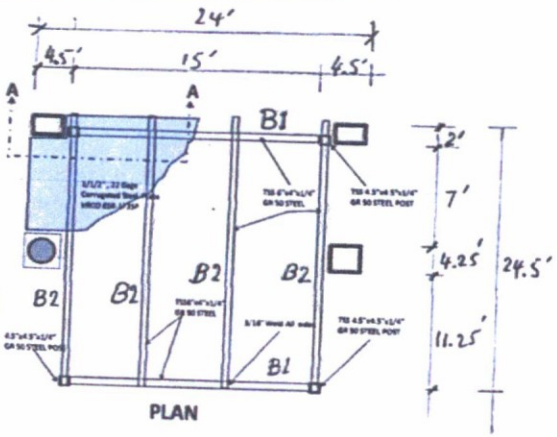
Photo 1 Existing trellis to remain above the new covered patio

STRUCTURAL DETAILS AND CALCULATIONS

S & V Patio Structure
9323 E Shea Blvd. Scottsdale AZ 85258

Design specification: IBC 2012

Roof Live Load: 20 psf } Total
Dead Load: 10 psf } 30 psf



Beams B2: uniform Load: $5' \times 30 = 150^{lb/ft}$

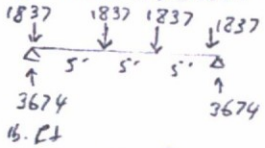
$M = \frac{1}{8}(150)(24.5)^2 = 11254^{lb.ft}$

$S_{req} = \frac{M}{0.6F_y} = \frac{11,254 \times 12}{0.6 \times 50,000} = 4.5^{in^3}$ GR50 (6.25^{in^3} GR36)

Use TSS 6"x4"x¼", $S = 7.36^{in^3} > 4.5^{in^3}$

B2 Reaction: $\frac{1}{2}(24.5')(150) = 1837$

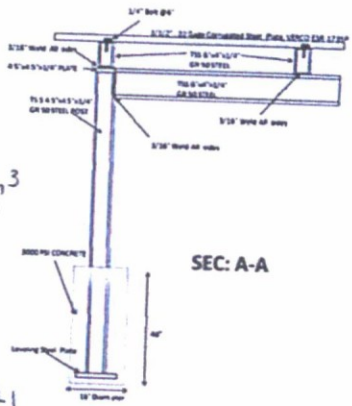
Beams B1



$M = 1837 \times 5 = 9185^{lb.ft}$

$S_{req} = \frac{9185 \times 12}{0.6 \times 50000} = 3.67^{in^3}$ GR50 (5.1^{in^3} GR36)

Use TSS 6"x4"x¼", $S = 7.36^{in^3} > 5.1 > 3.67^{in^3}$



Posts:

$P = \frac{1}{4}(24' \times 24.5') \times 30 = 4410^{lb}$

$A_{req} = \frac{4410}{0.6 \times 50,000} = 0.147^{in^2}$ GR50 (0.20^{in^2} GR36)

Use 4.5"x4.5"x¼" $A = 4.09^{in^2} > 0.20^{in^2} > 0.147^{in^2}$ OK

Foundations

Use 16" Diameter $A = 1.4\ ft^2$,

At 4' depth bearing Capacity: 2000 psf

Skin friction ≈ 100 psf

Total resistance $= 1.4 \times 2000 + 100^{psf} \times \pi(\frac{16"}{12})(4') = 2800 + 1675 = 4475^{lb}$ (16.7)

$4475 > 4410$ OK

Using 20" Diam. (1500 psf Bearing Cap. 75 psf Skin Cap)

Total Resist $= 2.18 \times 1500 + 75^{psf} \times \pi(\frac{20"}{12})(4') = 3270 + 1567 = 4837^{lb} > 4410$ (20.9)

OK