



# Staff Report

PLANNING DIVISION  
COMMUNITY & ECONOMIC DEVELOPMENT

**To:** Salt Lake City Planning Commission  
**From:** Tracy Tran, (801)535-7645 or [tracy.tran@slcgov.com](mailto:tracy.tran@slcgov.com)  
**Date:** January 13, 2016  
**Re:** PLNPCM2015-00942 and PLNPCM2015-00943 – 2570 S and 2564 S Wilshire Circle Over Height Walls

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## Special Exception

**PROPERTY ADDRESS:** 2564 S and 2570 S Wilshire Cir  
**PARCEL ID:** 16-23-302-025 and 16-23-302-024  
**MASTER PLAN:** Sugar House  
**ZONING DISTRICT:** R-1/7000 Single Family Residential District

**REQUEST:** Mitch Maio, owner of the property located at 2570 S Wilshire Circle, and Gary Keck, owner of a property located at 2564 S Wilshire Circle, is requesting a Special Exception for an over height wall at the rear of each of their properties. The maximum height of a wall allowed along the rear yard is 6 feet (6'). The applicant is requesting authorization to build a precast concrete sound wall up to 8 feet (8') tall along the southern property lines. The proposed wall is approximately 98 feet (98') in length for each property. The applicants are requesting the additional wall height to reduce noise levels and light pollution associated with proximity to Interstate-80. In addition, the applicants would like the 8' wall for security reasons. The Planning Commission has final decision making authority for Special Exceptions.

**RECOMMENDATION:** Based on the findings listed in the staff report, it is the Planning Staff's opinion that the projects generally meets the applicable standards for a special exception for additional fence height and therefore recommends that the Planning Commission approve the requests.

### ATTACHMENTS:

- A. Vicinity Map
- B. Applicant Materials
- C. Site Photographs
- D. Zoning Standard for Fence Height
- E. Analysis of Standards
- F. Public Process and Comments
- G. Motions

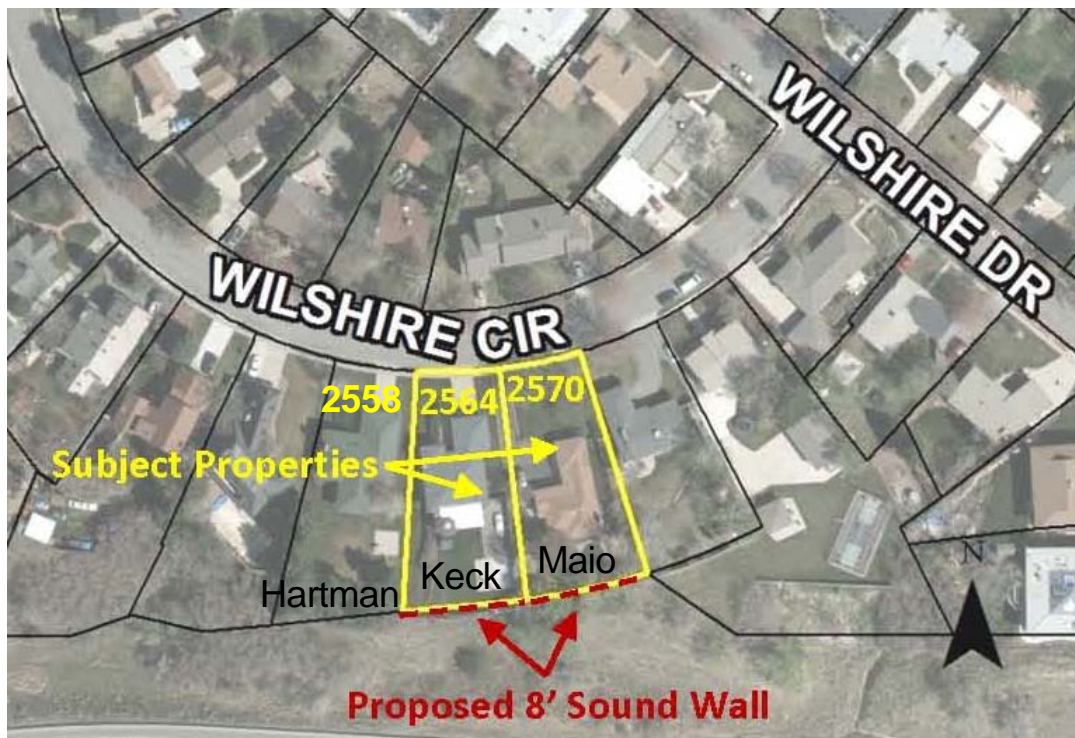
**PROJECT DESCRIPTION:** This is a request by Mitch Maio and Gary Keck, property owners of 2570 S and 2564 S Wilshire Circle, respectively, for a special exception for an 8' sound wall located at the rear (south) of the property. The southern portion of the property borders

Interstate 80 (I-80) and the purpose of the requested additional fence height is to reduce noise and light related to proximity to I-80. In addition, the applicants have stated that they have found homeless camps on the other side of the existing fence along I-80 and a taller wall will make trespassing more difficult onto the properties.

The 2570 S (Maio) property currently contains an existing chain link fence. Mitch Maio has stated that the principal structure on his property is located closer to the freeway than the other properties located near him so the noise from I-80 is even more apparent on his property. The placement of the homes on the property can be seen in the aerial photo below. The 2564 S (Keck) property currently contains a 6' wood fence. The Keck's have stated that the noise from the freeways have also increased since the freeway speeds have increased. In both cases, the property owners would like to construct an 8' sound wall to help with the noise, light, and security issues. Please see *Attachment B* for complete narratives from the applicants.

The proposed sound wall will be made of pre-cast concrete, which is commonly found near freeways. The subject properties are located within the R-1/7,000 – Single Family Residential Zoning District. The property owners located directly west of these properties (Hartman – 2558 S Wilshire Circle) are opposed to both proposals, stating that an eight foot (8') tall wall would block the southeastern views of the Olympus Cove and Millcreek Canyon areas that can be seen from their rear deck. Please see *Attachment F* for public comments.

Along with narratives explaining the need and reasoning for an 8 foot tall wall, the applicants have provided information regarding precast concrete walls, noise barriers, common sound levels, and decibel measurements that can be found within *Attachment B*.



**KEY ISSUES:**

The key issues listed below have been identified through the analysis of the project, and public input.

**Issue 1: Elevation to a Planning Commission Hearing**

**Section 21A.52.040(5)(b)** of the Salt Lake City Municipal Code states that: *“The planning director or the planning director's designee may refer any application to the planning*

*commission due to the complexity of the application, the significance in change to the property or the surrounding area.”*

This application has been elevated to a Planning Commission hearing based on the fact that public feedback was received that is not supportive of the project and staff is seeking to provide a forum for any concerns to be heard.

### **Issue 2: Noise/Light Reduction and Security v. Views**

Consideration should be made regarding the impact of an eight foot (8') wall and its effectiveness against the impact of the potential views lost. Under the City Ordinance, a Special Exception for a taller wall may be granted in the circumstance to provide security and address negative impacts of noise and light (21A.52.030(A)(3)(e)). There is no question that the proximity to I-80 brings about additional noise to the area. No wall will eliminate all the noise, but a sound wall will help reduce some of the noise. In addition, the applicant (Keck) has stated that an eight foot wall (8') will block line of sight light pollution from headlights, while a six foot (6') wall will not. In regards to security, an eight foot (8') wall likely will be more difficult to climb than a six foot (6') wall. Though a wall is likely more difficult to climb than the existing fences on the properties. An eight foot (8') wall will help with the issues stated above, but it will bring a loss of some views to the adjacent west properties.



The pictures to the right show a view looking southeast from the Hartman deck (about 1 foot above grade). In this instance, the majority of the view from the neighbor's property to Olympus Cove and Millcreek Canyon would be maintained with only a negligible impact. The view of the developed portions of Olympus Cove may be blocked, but the views of the undeveloped portions of the mountains would not be impacted by an eight foot (8') tall fence. It is also worth noting that although an eight foot (8') wall may block a portion of the views, the property owners at any time could plant trees anywhere within their property that could eventually block all the views of the mountains.



### **Issue 3: Character of the Neighborhood**

An eight foot (8') wall at the rear of these properties will not affect the overall neighborhood and streetscape. It appears that the rear yards of the properties in this neighborhood that

abut I-80 contain a mix of fences, walls, or vegetation only. There is not a consistent style in regards to the character of the rear yards in the neighborhood.

**NEXT STEPS:**

**Approve with Staff's Recommendation**

If approved, each applicant will be able to construct an eight foot (8') fence in the south (rear) yard of the property. In order to build an eight foot (8') fence in south rear yard, each applicant will need to apply for a building permit. Fences that are over six feet (6') in height may require additional engineering work as well. This will be determined by the Division of Building Services. Engineering review ensures that the wall will not cause injury to people or property if it were to fail due to natural forces.

**Deny**

If denied, each applicant will only be able to apply for a building permit to construct a six foot (6') tall fence in the south rear yard of the subject properties.

**Approve with Conditions**

The Planning Commission can approve the fence, but also impose conditions of approval in order to ensure that the fence complies with the applicable standards for this Special Exception. The Planning Commission may modify the potential motion (Attachment I) to include any conditions of approval. The plans submitted for building permits will be reviewed by Planning Staff for compliance with the conditions imposed by the Planning Commission.

*The Planning Commission may consider a different motion for each application.*

# ATTACHMENT A: VICINITY MAP

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# **ATTACHMENT B: APPLICANT MATERIALS**

**From:** [Rebecca Bishop](#)  
**To:** [Tran, Tracy](#); [Mitch Maio](#)  
**Subject:** EPA information and Gary's explanation  
**Date:** Monday, December 28, 2015 10:32:30 AM  
**Attachments:** [Keck Wall Justification.pdf](#)

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We hope this information helps to explain the need for the 8 ft. sound fence.  
Becky and Gary

[EPA press release - April 2, 1974]

Noise levels requisite to protect public health and welfare against hearing loss, annoyance and activity interference were identified today by the Environmental Protection Agency. These noise levels are contained in a new EPA document, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety."

One of the purposes of this document is to provide a basis for State and local governments' judgments in setting standards. In doing so the information contained in this document must be utilized along with other relevant factors. These factors include the balance between costs and benefits associated with setting standards at particular noise levels, the nature of the existing or projected noise problems in any particular area, the local aspirations and the means available to control environmental noise.

The document identifies a 24-hour exposure level of 70 decibels as the level of environmental noise which will prevent any measurable hearing loss over a lifetime. Likewise, levels of 55 decibels outdoors and 45 decibels indoors are identified as preventing activity interference and annoyance. These levels of noise are considered those which will permit spoken conversation and other activities such as sleeping, working and recreation, which are part of the daily human condition.

The levels are not single event, or "peak" levels. Instead, they represent averages of acoustic energy over periods of time such as 8 hours or 24 hours, and over long periods of time such as years. For example, occasional higher noise levels would be consistent with a 24-hour energy average of 70 decibels, so long as a sufficient amount of relative quiet is experienced for the remaining period of time.

Noise levels for various areas are identified according to the use of the area. Levels of 45 decibels are associated with indoor residential areas, hospitals and schools, whereas 55 decibels is identified for certain outdoor areas where human activity takes place. The level of 70 decibels is identified for all areas in order to prevent hearing loss.

## **Justification for the Proposed 8' Fence ("Wall") Bordering the Southern Property line at 2564 Wilshire Circle (the Keck Property)**

**Background.** Recently my neighbor (to the East, Mitch Maio, 2570 Wilshire Circle) and I submitted a request to construct an 8' fence along the southern boundary of our two properties, just north of the chain link fence which marks the boundary of the I-80 highway property. The reason for this request for an exception to the 6 foot rule was to help block, to the extent reasonably possible, the considerable noise which we experience from the I-80 and I-215 highways which are directly behind, and just southeast, respectively, of our two properties. My neighbor to the West, (Erik Hartman) has filed an objection to both walls, saying this will obstruct his view.

**Description of reasons for the requested exception.** My wife Becky and I purchased this property 20 years ago, in November of 1995. At that time, there was considerable noise emanating from the freeway directly behind our house, but we felt it was something we could live with. Since that time, the noise level has increased significantly, due to a number of factors. First of all, both I-80 and I 215 have undergone considerable expansion in this area, and traffic has increased dramatically over those 20 years. Secondly, speed limits have been ratcheted up to the present level of 70 mph, with most traffic actually moving considerably faster. In this regard, I would note that the entrance from Foothill drive to I-80 westbound runs directly behind our property, within about 20-30 feet south of the highway fence, giving rise to a steady string of cars accelerating to merge onto the freeway. This has resulted in greatly increased noise as the speed limits have increased.

There is another and more serious reason for this request now. For most of the time during those 20 years we have lived here, Mitch Maio was not the owner of the property next door to us, instead, it was owned by an elderly couple, Bill and Marilyn Stevenson, both of whom are now deceased. During that time, the back yard of the property (which runs up to the highway fence) was an overgrown veritable jungle of all types of vegetation including many trees, bushes of various types, and a great deal of vegetation that had simply grown up wild in the area. This protected the home on that property from much of the noise coming from I 80 and I 215 and it protected our home from almost all of the noise coming from I 215, as well as the headlights coming from the cars on I 215 as they merged onto I-80 westbound. Since this vegetation has been removed over the past year or so by the new owner, the noise that we experience has increased dramatically, and a new issue of light pollution from the headlights that were previously invisible to us has arisen. While these lights were previously invisible to us, we now have line-of-sight to this portion of I-215 that was previously hidden from view. This means line of sight for both the headlights and the sound, of course. ***Particulary relevent to our request is the fact that while the requested 8' walls will block this line of sight access from our home to this newly revealed source of sound and headlights, a 6' wall will not.***

***Moreover, an 8' wall will be considerably more effective in blocking the highway noise from I-80 which is immediately behind our property.*** Unfortunately, it is not possible to say in advance precisely how much more effective the 8' fence would be than an 6' fence, although the federal government website dealing with noise reduction by highway walls says simply that "higher is better". If one were dealing with totally flat ground, a simple point source of sound on that ground, and a receiver



on the other side, a reduction of about 2dB would be expected for the higher wall. However, this situation is far more complex and cannot be modeled that simply. Experience shows that an 8' wall of the desired (dense) material can provide a reduction of about 50% in the level of highway noise on the two sides of the wall. Note that this 8' wall is about 2.5 feet above the receiver if the receiver is a 6' tall individual. Use of a 6' wall, that is if our request for an exception were denied, would place the top of the wall only about 6" above the receiver (the ears of that same 6' tall man). Especially given the diffuse source of the noise to be blocked, it should be apparent that the 8' wall makes much more sense even if a precise quantitative prediction of the noise reduction is not possible. *Indeed, the planning commission seems to recognize that an 8' wall is more effective in blocking highway noise, as this is one of the justifications for an exception to the 6' rule that is listed in the material that we were provided.*

This would appear to be confirmed by the choices made in constructing existing sound barriers around the valley. In driving around the valley, one can observe many sound walls, mainly constructed by the state. I have not observed any 6' sound walls, almost all of these walls appear to be 8' in height. Presumably this height strikes a good overall balance between blocking highway noise and not obstructing the mountain views we enjoy here. It seems highly doubtful that the state would incur the greater expense of constructing these 8' walls if 6' walls were similarly effective.

**Response to Objections from Erik Hartman.** I have become aware of two objections from our neighbor to the west, who objects to the construction of BOTH walls. The first is that the construction of these will impair his view of Olympus Cove. The second, which he has raised to me personally, is that the proposed wall will not be effective in blocking the highway noise. The main reasoning in his objection, revealed in personal discussion, is that a sound wall is not effective "when you are on a hillside". He stated that the source of this information was an architect friend of his.

I would totally agree with his friend, i.e., that when a home is located on a hillside above a highway, a sound wall of any reasonable height, at almost any point on the hill and down to the roadside, will be totally ineffective in blocking the sound from the highway. *However, this is because the highway (and thus the sound coming from the highway) maintains a line of sight access to the home.*

The situation at our property is totally different, we are NOT on a hillside, as Erik seems to think we are. The ground of our property is roughly level from north to south, and there is a "hill" or berm which goes down the freeway behind us. The plane described by the rough level of my back yard to the level of the roadway below is a distance of about 25 vertical feet or so. This is very different than a "hillside" situation that Erik is using to argue that the sound wall will be ineffective. He has also argued to me that any wall should be placed down next to the roadway rather than atop the berm as we propose. However, the federal web site on such walls shows many photographs of sound barriers in almost exactly our situation being positioned at the top of the berm rather than alongside the roadway. There are no photographs showing a configuration like Erik proposes. Of course, we cannot construct walls on state property anyhow.

The second issue raised is one of blocking the view from his property; I believe that he mentioned Olympus Cove. There is really no view from the house on his property, it is blocked by the

very large pine trees which line the southern border of his property. When outside, he does have a view of Mount Olympus by looking over our back yard towards the mountain. That view will not be impacted in the slightest by raising the height of the fence by just 2', the only "view" lost by this is that of a small portion of the top of the other side of "the gulley". If he wants to improve his view, he could best do that by trimming or removing some of the trees which are presently blocking the view from his property. It should also be noted that Eric is less impacted by the highway noise than we are because his home is farther removed from the highway than is ours. Finally, due to the lower elevation of his home than ours, he also is not impacted by the noise and headlights from I-215.

**From:** Mitch Maio  
**To:** Tran, Tracy  
**Subject:** Re: PLNPCM2014-00942  
**Date:** Tuesday, December 22, 2015 1:20:25 PM

Yes, sorry Tracy! I thought I sent these to you but I guess I hadn't. These are just a few links that have some information that helps put things in context.

First, a video from one of the local precast concrete fence companies, used repeatedly by UDOT and other local agencies to install soundproof fencing along noisy roads/power stations. The video makes the claim that a concrete fence reduces traffic noise pollution by 10 decibels (cuts the sound in half) and that adding more height is a better way to increase the noise reduction.

<https://www.youtube.com/watch?v=OP69I-SDRXk#action=share>

Second, an article from Wikipedia on sound transmission. This article shows that STC rating of 50 (like the fence we are installing) results in people being able to hear the following: "Very loud sounds such as musical instruments or a stereo can be faintly heard; 99% of population not annoyed" [https://en.wikipedia.org/wiki/Sound\\_transmission\\_class](https://en.wikipedia.org/wiki/Sound_transmission_class)

Next is an infographic showing common levels of sound levels. We are currently in the 85-90 range.

<http://www.chsl.org/soundchart.php>

Finally, here is a link to the federal highway Noise Barrier Design Handbook

([http://www.fhwa.dot.gov/environment/noise/noise\\_barriers/design\\_construction/design/design03.cfm#ec3.4](http://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/design/design03.cfm#sec3.4)). Table 3 shows that light/dense concrete (like the fence we are installing) results in Transmission loss of 40+ decibels. In other words, according to the infographic above we would experience a drop from 85 dB (heavy traffic) to 40-45 dB (quiet radio/light traffic). Section 3.3.4 of this Handbook also shows clearly that trying to reduce the sound with trees or shrubs (which would not require a permit and could be planted without regard to neighbor's views or related concerns) would require vegetation 15 ft. high and 100 ft. wide. Not only would this be less efficient at blocking the noise (5 dB reduction with shrubs as opposed to 10 dB reduction for concrete wall), but it would require a barrier at least twice as tall as the fence we are currently planning to install, thus completely blocking the view of any adjoining neighbor. There is also some really complicated math/modeling in Section 3.4 that states the obvious in nearly indecipherable terms: The sound attenuation is greater (better at blocking sound) when the source (freeway) and the receiver (my house) are below the height of the barrier (the fence). In simple terms, the sound waves have to travel up and over the barrier to reach my property - the higher the barrier, the more difficult it is for the noise to "turn" and head down to my property.

In addition to these things, there are personal concerns. I have found "hobo camps" on the other side of the fence and Becky has had homeless people jump the fence and cross through her property into the neighborhood. An 8 foot fence would undoubtedly be more difficult to climb than would a 6 foot fence. And my property is closer to the freeway than is any other. My house is set back on the property such that the front of my house is in line with the back wall of my neighbors houses. In other words, my entire house is closer to the noise than any part of my neighbors' houses. Also, the freeway is at its closest behind my property line, as the freeway then travels down (elevation) and away (turns to the southwest) from our houses. I would estimate that the back wall of my house is twice as close to the freeway than is the back wall of the house of my neighbors just 2 doors west of me (the Hartmans). Clearly the freeway noise is a greater concern the closer to the freeway the property is located.

I hope this helps, Tracy. I'm sorry I didn't send it to you earlier. Have a great holiday and I'll look forward to talking with you in the new year.

mitch

On Tue, Dec 22, 2015 at 11:55 AM, Tran, Tracy <[Tracy.Tran@slcgov.com](mailto:Tracy.Tran@slcgov.com)> wrote:

Hi Mitch,

Do you have additional materials you'd like to submit for the proposed 8' sound wall application?

TRACY TRAN  
Principal Planner  
PLANNING DIVISION  
COMMUNITY *and* ECONOMIC DEVELOPMENT  
SALT LAKE CITY CORPORATION  
TEL [801-535-7645](tel:801-535-7645)  
FAX [801-535-6174](tel:801-535-6174)  
[WWW.SLCGOV.COM](http://WWW.SLCGOV.COM)

**From:** [Rebecca Bishop](#)

**To:** [Tran, Tracy](#)

**Subject:** Photo of wall at 2552 Wilshire Circle and fence damage from November 2015

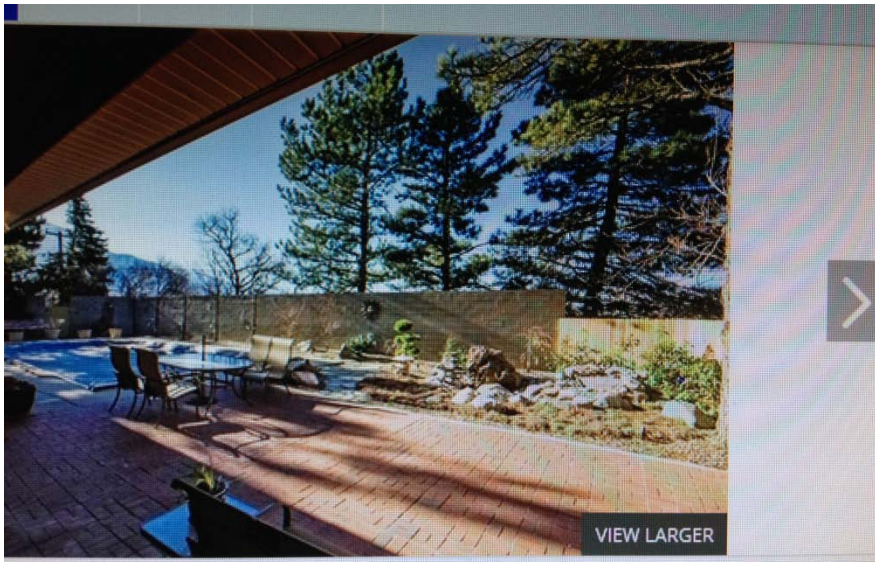
**Date:** Sunday, December 20, 2015 9:16:23 AM

Tracy,

I found there is a wall two doors down at 2552 Wilshire Circle.

Also attached is a photo of the wind damage. The wind tore the panels from the fence posts.

Becky



## **Special Exceptions Permit – Project Description**

Due to excessive freeway noise, we are preparing to install a precast concrete soundwall (identical to those on the side of the freeway) as a back fence to the following properties<sup>1</sup>:

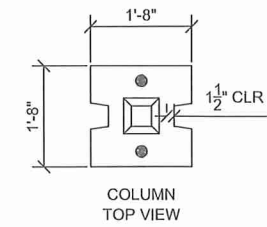
1. 2570 South Wilshire Circle (Mitch Maio property)
2. 2564 South Wilshire Circle (Gary E. Keck property)

This type of fencing has proven to reduce sound levels significantly, with most estimates placing the reduction at 10 dbs (correlative to an approximately 50% reduction in noise). In an attempt to block as much noise as we can, we would like to install an 8 ft. tall fence. Due to the geography of our lots, we do not, nor will we ever, have neighbors behind our property lines (on the other side of the fence). In addition, the additional 2 ft. of height for our proposed fence will have minimal/negligible impact on views from the respective lots or from adjoining lots.

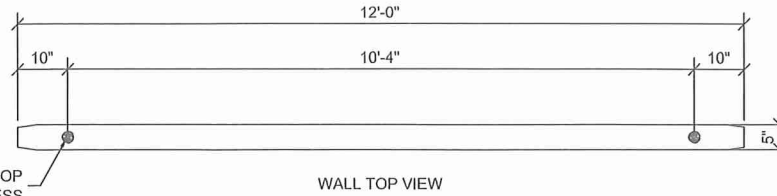
We are in the process of completing a full survey of our respective properties, which survey should be completed by 11/24/15. Once the survey is complete, we will be ready to install the fence as soon as the Special Exceptions are granted. The installation, as I understand it, is a 2-step process: First, the installer will come to the properties and dig and pour the footings for the fence posts; Second, the installer will return once the footings have set and install the concrete posts and fence panels. Access for this installation will occur entirely on the Maio and Keck properties – no other properties will be impacted.

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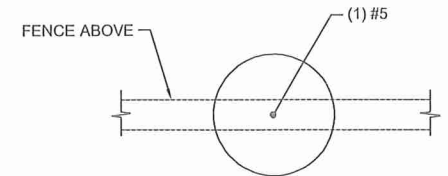
<sup>1</sup> Each property owner identified below has submitted an individual application for Special Exceptions Permit.



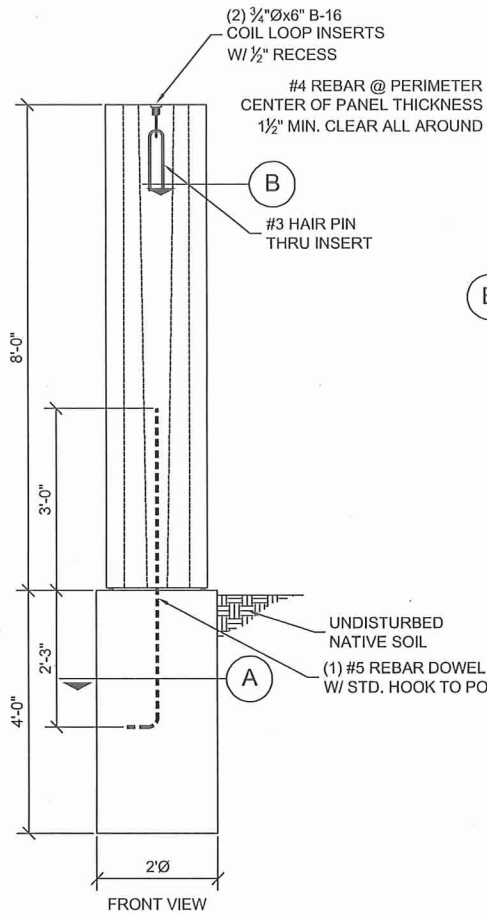
(2) 3/4"Øx6" B-16 COIL LOOP INSERTS W/ 1/2" RECESS



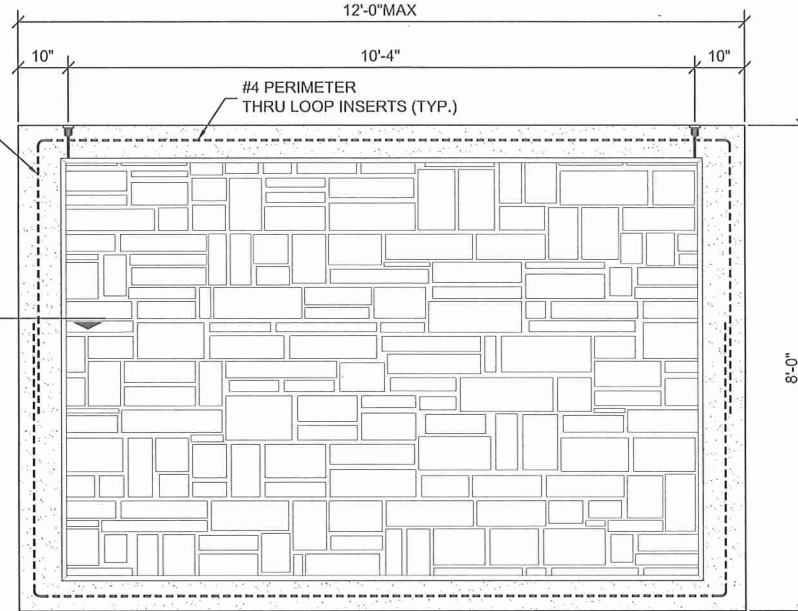
WALL TOP VIEW



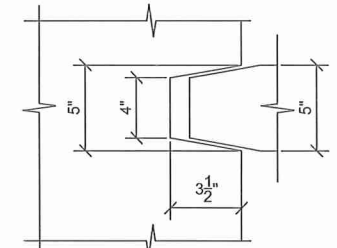
SECTION A



FRONT VIEW



WALL FRONT VIEW



SECTION B

NOTES:

1. POST AND PANEL CONCRETE TO BE 5000 PSI.
2. FOOTING CONCRETE TO BE 3000 PSI.
3. MINIMUM SOIL LATERAL BEARING ALLOWABLE: 150 PSF/FT. OF DEPTH BELOW GRADE
4. MINIMUM ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF.
5. DIMENSIONS MAY BE REDUCED TO FIT PROJECT REQUIREMENTS.
6. GROUT BETWEEN POST AND FOOTING TO BE 2500 PSI.

TYP. 8' PANEL, PIER & POST

CONCRETE

$f_c = 5,000$ PSI	$f_{ct} = 2,500$ PSI
SLUMP: 4"-9"	FPU: N/A
FINISH: PATTERN	MIX: TBD
WEIGHT: 150 LBS. PCF.	AIR: 5%
VOLUME: TBD	SHIPPING WT: TBD



16500 SOUTH 500 WEST  
BLUFFDALE, UTAH 84065  
PHONE: (801) 571-5041  
FAX: (801) 676-0115

SHEET TITLE:	CHECKED BY:
SOUND WALL	R.B.
DRAWN BY:	SHEET #
J.A.	
DATE:	
3-1-10	F-4.2

Decibel data report can be found here.



**PROJECT NUMBER:** 30160-09-08173  
**PAGE:** 1 of 4  
**DATE:** September 4, 2009

662 Cromwell Avenue Telephone : (651) 645-3601  
 Saint Paul, MN 55114 Toll Free : (888) 645-TEST  
 USA Telefax : (651) 659-7348  
 Website : www.storksmt.com

Investigative Chemistry Geotechnical Construction Materials  
 Non Destructive Testing Failure Analysis Product Evaluation  
 Metallurgical Analysis Materials Testing Welder Qualification

**SOUND TRANSMISSION CLASS TESTING  
 LEDGE STONE PANEL**

**Prepared for:**  
**FANCON, INC**  
**Attn: Mr. Don Elliott**  
**6111 West Highway 13**  
**Savage, MN 55378**

**Client Reference Number: 134966**

**Prepared By:**



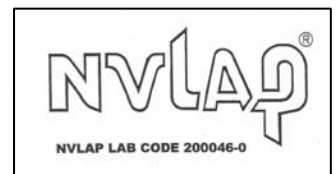
**Mathew N. Botz**  
**Project Manager**  
**Product Testing Department**  
**(651) 659-7353**

**Reviewed By:**



**Kyle T. Hall**  
**Sr. Engineering Technician**  
**Product Testing Department**

**The test results contained in this report pertain only to the samples submitted for testing and not necessarily to all similar products.**



PROJECT NUMBER: 30160-09-08173

PAGE: 2 of 4

DATE: September 4, 2009

**AIRBORNE SOUND TRANSMISSION LOSS (STC) ASTM E90****INTRODUCTION:**

This report presents the sound transmission results conducted on a Ledge Stone concrete panel. The testing and data analysis were completed on September 2, 2009.

This report must not be reproduced except in full with the approval of Stork Twin City Testing Corporation. The data in this report relates only to the items tested.

Stork Twin City Testing Corporation has been accredited by the U.S. Department of Commerce and the National Institute of Standards and Technology (NIST, formerly NBS) under their National Voluntary Laboratory Accreditation Program (NVLAP) for conducting ASTM E90 test procedure. This report may not be used to claim product endorsement by NVLAP, NIST or any agency of the U.S. Government.

**SUMMARY OF RESULTS:****Sound Transmission Class (STC)**

<i>Sound Transmission Class (STC) Test</i>				<b>Test Results</b>		
<b>Test #</b>	<b>Sample Identification</b>	<b>Weight (lbs)</b>	<b>Weight (psf)</b>	<b>STC</b>	<b>Def.</b>	<b>OITC</b>
<b>1</b>	<b>Ledge Stone</b> 6" Thick Concrete Panel with Stone Facing	1205	60.3	<b>50</b>	<b>22</b>	<b>45</b>

Refer to **TEST DATA** on page 4 for additional test results.

**SPECIMEN DESCRIPTION:** (Also see "Test Results")

The specimen was identified by the client as Ledge Stone, a Concrete Panel manufactured by Fabcon, Inc. The panel measured 48" x 60" x 6" nominal thickness. The front and rear surfaces had a natural stone appearance.

**Concrete Panel in Test Wall**

PROJECT NUMBER: 30160-09-08173

PAGE: 3 of 4

DATE: September 4, 2009

**TEST METHODS:****Sound Transmission Test**

ASTM:E90(04), "Laboratory Measurement of Airborne Sound Transmission of Building Partitions," was followed in every respect. The STC value was obtained by applying the Transmission Loss (TL) values to the STC reference contour of ASTM: E413(04), "Determination of Sound Transmission Class." The actual transmission loss at each frequency was calculated by the following equations:

$$TL = NR + 10 \log S - 10 \log A_2$$

where: TL = Transmission Loss (dB)  
 NR = Noise Reduction (dB)  
 S = Surface area common to both sides (sq. ft.)  
 A<sub>2</sub> = Sound absorption of the receiving room with the sample in place (sabins)

**OITC Procedure**

ASTM:E1332(03), "Determination of Outdoor-Indoor Transmission Class", was followed in every respect. Basically, the OITC was calculated by using the sound transmission loss values in the 80 to 4000 Hz range as measured in accordance with ASTM E-90(04). These transmission loss data are then used to determine the A-weighted sound level reduction of the specimen for the reference source spectrum specified in Table 1 of ASTM E1332(03). The appropriate calculations were made to determine the OITC value. The source room has a volume of 2948-ft<sup>3</sup> (83-m<sup>3</sup>) and the termination room has a volume of 5825-ft<sup>3</sup> (165-m<sup>3</sup>).

The temperatures and relative humidity of the termination room met the requirements of the standard during and after the test. All frequencies met the requirements for 95% confidence established by the standard.

The panel was tested in Stork's Filler wall that was previously tested to a STC of 66.

**TEST EQUIPMENT:**

<u>Manufacturer</u>	<u>Model</u>	<u>Description</u>	<u>S/N</u>
Norwegian Electronics	NE830	Real Time Analyzer	10722
Brüel & Kjær	3923	Rotating Microphone Boom	815424
Norsonic (Source Rm)	1230	Pressure Condenser Microphone	26361
Brüel & Kjær (Term Rm)	4192	Pressure Condenser Microphone	2360314

**REMARKS:**

The samples will be retained for 14-days then discarded unless notified otherwise by client.

F:\Product\MMFILES\MNB\2009 REPORTS MNB\08173-Fabcon.doc

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**Materials Technology**

PROJECT NUMBER: 30160-09-08173

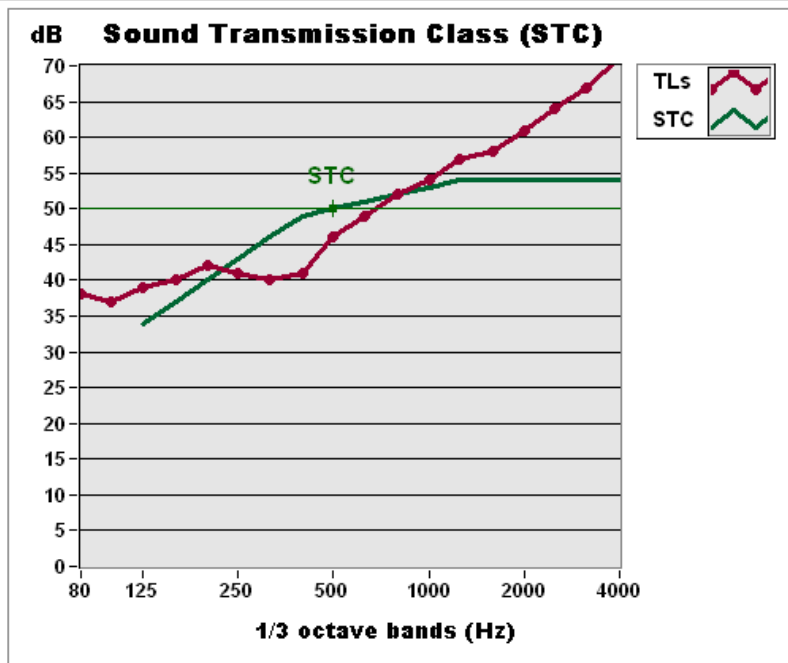
PAGE: 4 of 4

DATE: September 4, 2009

**TEST RESULTS:**

Filename <b>test #1</b>	<b>ASTM E90 - Laboratory Sound Transmission Class</b>				
Project Folder <b>08173 Fabcon</b>	Client <b>Fabcon Inc.</b>	Product <b>Ledge Stone</b>	Model #	Quantity <b>1</b>	Comment
Sample Size - Wt. <b>48.0 in x 60.0 in x 6" - 1205 lbs</b>	Sample Description <b>Fabcon Inc. 4' x 5' x 6" Concrete Slab, Stone Pattern on both sides</b>				
Time Stamp <b>Thu, Sep 03, 2009 - 8:45 AM</b>					

F (Hz)	TLs	95% CI	def
80	38	2.9	-
100	37	1.1	-
125	39	1.3	0
160	40	1.5	0
200	42	0.8	0
250	41	0.5	2
315	40	0.4	6
400	41	0.4	8
500	46	0.4	4
630	49	0.3	2
800	52	0.2	0
1000	54	0.2	0
1250	57	0.2	0
1600	58	0.2	0
2000	61	0.2	0
2500	64	0.1	0
3150	67	0.2	0
4000	71	0.3	0



**STC = 50 def: 22**  
**OITC: 45**

Temp (°C) R.H. (%) ATM (mbar)  
**22.1 52 1005**

## **ATTACHMENT C: SITE PHOTOGRAPHS**

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*Maio property (2570 S Wilshire Circle) looking southeast*



*Maio property looking southwest*



*Keck property (2564 S Wilshire Circle) looking south and existing 6' wood fence*



*Keck Property looking southeast, Maio property is immediately east*



*Keck property looking southwest, Hartman property is located immediately west*



*Hartman property (2558 S Wilshire Circle) looking southeast, 6' wood fence is on the Keck property, view of Olympus Cove/Millcreek Canyon areas can be seen in the background*



*Hartman property looking immediately south*





*Photo sent from the deck of the Hartman property, views of Olympus Cove/Millcreek Canyon can be seen in the distance*



*The below photo conceptually estimates the impact of an 8 foot wall*



## **ATTACHMENT D: ZONING STANDARD FOR FENCE HEIGHT**

### **21a.40.120: Regulation of Fences, Walls, and Hedges**

#### **Zoning Standards for Fence Height:**

The zoning ordinance regulates fence height. For rear yards, side yards, and corner side yards fences are allowed up to 6 feet in height.

<b>Regulation</b>	<b>Zone Regulation</b>	<b>Proposal</b>	<b>Complies</b>
Rear Yard Fence Height	6 feet (6')	8 feet (8')	No; Special Exception requested

## ATTACHMENT E: ANALYSIS OF STANDARDS

### 21A.52.030: Special Exceptions Authorized

**(A)(3)** Additional height for fences, walls or similar structures may be granted to exceed the height limits established for fences and walls in chapter 21A.40 of this title if it is determined that there will be no negative impacts upon the established character of the affected neighborhood and streetscape, maintenance of public and private views, and matters of public safety. Approval of fences, walls and other similar structures may be granted under the following circumstances subject to compliance with other applicable requirements:

Standard	Finding	Rationale
21A.52.030: Special Exceptions Authorized <b>(A)(3) Additional height for fences, walls or similar structures may be granted to exceed the height limits established for fences and walls in chapter 21A.40 of this title if it is determined that there will be no negative impacts upon the established character of the affected neighborhood and streetscape, maintenance of public and private views, and matters of public safety. Approval of fences, walls and other similar structures may be granted under the following circumstances subject to compliance with other applicable requirements:</b>	<b>Complies in part/ Does not comply in part</b>	An eight foot (8') wall on the 2564 S Wilshire Circle (Keck) property will impact the views of the adjacent west property (2558 S Wilshire Circle – Hartman property). The additional two feet may likely take out the base views of the homes located in the Olympus Cove/Millcreek Canyon area looking southeast, but the views of the mountains will be maintained. An eight (8') wall on the 2570 S Wilshire Circle (Maio) property may affect the view of property directly west (the Keck property), but it does not seem likely that the southeast views from the Hartman property will be affected by an eight foot (8') wall.  An eight foot (8') wall at the rear of these properties will not affect the overall neighborhood and streetscape. It appears that the rear yards of the properties in this neighborhood that abut I-80 contain a mix of fences, walls, or vegetation only. There is not a consistent style in regards to the character of the rear yards in the neighborhood. The proposed eight foot (8') walls are located in the rear of the property so the overall character of the streetscape will not be affected.
<b>a. Exceeding the allowable height limits; provided, that the fence, wall or structure is constructed of wrought iron, tubular steel or other similar material, and that the open, spatial and nonstructural area of the fence, wall or other similar structure constitutes at least eighty percent (80%) of its total area.</b>	N/A	Sections a through h of this section list the instances where an over height fence may be approved. Only one of these instances needs to be applicable to request an over height fence. This standard is not applicable.
<b>b. Exceeding the allowable height limits within thirty feet (30') of the intersection of front property lines on any corner lot; unless the city's traffic engineer determines that permitting the additional height would cause an unsafe traffic condition.</b>	N/A	This standard is not applicable.
<b>c. Incorporation of ornamental features or architectural embellishments which extend above the allowable height limits.</b>	N/A	This standard is not applicable.

<b>d. Exceeding the allowable height limits, when erected around schools and approved recreational uses which require special height considerations</b>	N/A	This standard is not applicable.
<b>e. Exceeding the allowable height limits, in cases where it is determined that a negative impact occurs because of levels of noise, pollution, light or other encroachments on the rights to privacy, safety, security and aesthetics</b>	<b>Complies</b>	The zoning ordinance allows for a six foot (6') tall rear yard fence/wall. Due to the proximity to the freeway and the noise and lights that are associated with the freeway, the property owners would like to mitigate those impacts with an eight foot wall. In addition, the property would like a taller wall for security issues to suspected transients from trespassing. Exceeding the height limits to address noise, light, and security issues complies with this standard.
<b>f. Keeping within the character of the neighborhood and urban design of the city</b>	<b>Complies</b>	An eight foot (8') fence in the rear yard would not be an unusual feature in the neighborhood. The rear properties in the neighborhood that about I-80 appear to contain a mix of fences, walls, and vegetation/trees. A taller sound wall adjacent to a freeway is not uncommon to see. The proposed wall will maintain the character of the neighborhood and the urban design of the city.
<b>g. Avoiding a walled-in effect in the front yard of any property in a residential district where the clear character of the neighborhood in front yard areas is one of open spaces from property to property</b>	N/A	This standard is not applicable
<b>h. Posing a safety hazard when there is a driveway on the petitioner's property or neighbor's property adjacent to the proposed fence, wall or similar structure.</b>	N/A	This standard is not applicable.

**21a.52.060: General Standards and Considerations for Special Exceptions:** No application for a special exception shall be approved unless the planning commission or the planning director determines that the proposed special exception is appropriate in the location proposed based upon its consideration of the general standards set forth below and, where applicable, the specific conditions for certain special exceptions.

<b>Standard</b>	<b>Finding</b>	<b>Rationale</b>
<b>A. Compliance With Zoning Ordinance And District Purposes: The proposed use and development will be in harmony with the general and specific purposes for which this title was enacted and for which the regulations of the district were established.</b>	<b>Complies</b>	The purpose statement of the R-1/7,000 Single-family Residential zoning district does not address fences directly. However, it is inherent of residential property boundaries to be demarked by fences. The zoning ordinance addresses this by providing standards for fences in residential zoning districts.  As to compatibility with district purposes, a fence in the rear (south) yard would provide a "safe and comfortable place to live and play" by providing a sound wall that would help buffer the noise and light from I-80.
<b>B. No Substantial Impairment Of Property Value: The proposed use and development will not substantially</b>	<b>Complies</b>	The proposed eight foot fence height in the rear of the property that borders I-80 will not change the character of the

<p><b>diminish or impair the value of the property within the neighborhood in which it is located.</b></p>		<p>neighborhood and existing development patterns. Although it was not apparent whether or not there were other eight foot fences in the neighborhood, it is not uncommon to see sound walls on properties located next to freeways.</p>
<p><b>C. No Undue Adverse Impact: The proposed use and development will not have a material adverse effect upon the character of the area or the public health, safety and general welfare.</b></p>	<p><b>Complies</b></p>	<p>The proposed sound wall is meant to help alleviate noise, light, and security issues due to the proximity to I-80. The subject properties abut I-80. Allowing for an additional two feet for the sound wall will not have an adverse affect on the character of the area, the public health, safety and general welfare. The rear properties in the area contain a mix of fences, walls, and vegetation/trees that vary in height. The character of the area will not change with an eight foot wall. An addition of a wall may help buffer some of the noise and light from the freeway, which may have a good effect upon public health, safety, and general welfare.</p>
<p><b>D. Compatible With Surrounding Development: The proposed special exception will be constructed, arranged and operated so as to be compatible with the use and development of neighboring property in accordance with the applicable district regulations.</b></p>	<p><b>Complies</b></p>	<p>Although it is not clear whether there are other eight foot (8') rear walls/fences in the area, a taller rear sound wall is not uncommon to see on properties located adjacent to freeways. The rear properties in the neighborhood that abut I-80 appear to contain a mix of fences, walls, and vegetation/trees so there is not a general compatibility regarding property demarcation.</p>
<p><b>E. No Destruction Of Significant Features: The proposed use and development will not result in the destruction, loss or damage of natural, scenic or historic features of significant importance.</b></p>	<p><b>Complies</b></p>	<p>An eight foot (8') wall may impact a portion of the scenic views for the properties located directly west of the subject properties. Though a portion of a view of neighborhoods located southeast of the properties may be lost, the overall view of the mountains will be maintained. The loss of a portion of the neighborhood views are not of significant importance. The majority of the views of the mountains looking southeast will be maintained. There is no foreseen destruction of any significant features.</p>
<p><b>F. No Material Pollution Of Environment: The proposed use and development will not cause material air, water, soil or noise pollution or other types of pollution.</b></p>	<p><b>Complies</b></p>	<p>There is no foreseen material pollution of the environment.</p>
<p><b>G. Compliance With Standards: The proposed use and development complies with all additional standards imposed on it pursuant to this chapter.</b></p>	<p><b>Generally Complies</b></p>	<p>In addition to the general special exception standards, the fence must comply with the standards in section 21A.52.030.A.3. See analysis above.</p>

(Ord. 15-13, 2013)

# **ATTACHMENT F: PUBLIC PROCESS AND COMMENTS**

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## **Public Process:**

- Notice of application letters sent to abutting property owners on November 19, 2015
- Public hearing notice mailed on December 29, 2015
- Public hearing notice posted on the City and State websites on December 29, 2015
- Public hearing sign posted on properties on December 30, 2015

## **Public Comments:**

Staff has received calls and an email from the property owners located at 2558 S Wilshire Circle who oppose these proposals. This property is located immediately west of the Keck property (2564 S Wilshire Circle). Comments from the calls include:

- Opposing to both petitions
- Walls will not do much for the noise from I-80
- Bought the property knowing that it is located next to I-80
- Walls will block their views of the lights from Millcreek Canyon/Olympus Cove area
- They bought their property because of the views

Additional written public comments can be found below:

**From:** Comcast  
**To:** Tran, Tracy  
**Subject:** Re: Petition PLNPCM2015-00942 and -00943  
**Date:** Tuesday, November 24, 2015 4:23:49 PM

---

Thank you. I would add that I would and could have bought a house in the neighborhood without the view in 2001 for about \$40,000 to \$60,000 less had my house not had the view it does. We looked at at least 2 others, each of which was comparable in size and layout, on Wilshire Drive. They were significantly lower priced. I bought this house believing that the Keck's fence could be no higher than 6 feet and would have a residential look like it now does, and not an industrial look. I bought it for the expansive view from our deck. I am extremely worried about the proposal and the damages we will suffer if it is allowed to go forward.

Sent from my iPhone

> On Nov 24, 2015, at 2:59 PM, Tran, Tracy <Tracy.Tran@slcgov.com> wrote:

>

> Yes, notices will be mailed out in advance if there is a public hearing scheduled.

>

> -----Original Message-----

> From: Comcast [REDACTED]

> Sent: Monday, November 23, 2015 5:24 PM

> To: Tran, Tracy

> Subject: Re: Petition PLNPCM2015-00942 and -00943

>

> Thank you. Can you let me know if there will be a hearing or some other chance to explain my concerns?

>

> Sent from my iPhone

>

>> On Nov 23, 2015, at 4:14 PM, Tran, Tracy <Tracy.Tran@slcgov.com> wrote:

>>

>> Hi Ms. Hartman,

>>

>> Thank you for your comments. I will take your concerns into consideration.

>>

>> TRACY TRAN

>> Principal Planner

>>

>> PLANNING DIVISION

>> COMMUNITY and ECONOMIC DEVELOPMENT

>> SALT LAKE CITY CORPORATION

>>

>> TEL 801-535-7645

>> FAX 801-535-6174

>>

>> WWW.SLCGOV.COM

>>  
>> -----Original Message-----  
>> From: Comcast [REDACTED]  
>> Sent: Saturday, November 21, 2015 12:03 PM  
>> To: Tran, Tracy  
>> Subject: Petition PLNPCM2015-00942 and -00943  
>>  
>> I received a notice about an 8 foot concrete wall to be built on the south property lines of the Maio and Keck residences. We live next to and immediately west of the Kecks. While we don't know exactly where they want to place the wall, we suspect it will be where an existing 6 foot wood fence now stands.  
>>  
>> I am very sorry, but I object to the proposed wall on the Keck property as it will negatively impact our view of Olympus Cove and Millcreek Canyon from our back deck and yard. I measured, and when sitting on our deck, I estimate we will lose about one half of the view of the cove and canyon mouth - virtually all of the pretty lights in the evening near the canyon, the trees on the west side of I-215 and south side of I-80, and just the open feeling we now have. Nor do we believe that such a wall will reduce much noise from I-80 as their back yard is quite open and the sound will still come over and from the side of the proposed wall.  
>>  
>> I invite you to visit and see what I mean. I have attached a photo of our current view, but the impact has to be seen to be understood.  
>>  
>> You can reach me at [REDACTED] or by email.



**From:** [Jonathan Skarda](#)  
**To:** [Tran, Tracy](#)  
**Subject:** Wilshire Circle Sound Wall  
**Date:** Thursday, December 31, 2015 3:41:42 PM

---

Tracy,

I just received notice of a request for special exceptions allowing construction of sound walls for two proposed properties on Wilshire Circle.

As a nearby owner I am in favor allowing the property owners to proceed. If you anticipate any objections, please let me know.

Jonathan Skarda  
2765 E Wilshire Dr





**From:** [Jan Brittain](#)  
**To:** [Tran, Tracy](#); [REDACTED]  
**Subject:** Wilshire over height Walls  
**Date:** Wednesday, January 06, 2016 11:16:14 AM

---

I am in favor of allowing the construction of 8' sound walls along the rear of 2570 Wilshire Circle and 2564 Wilshire Circle.

The wall behind the Barlows at 2580 Wilshire Circle is visible from I-80 and has been tagged and painted over many times. I can't tell if the Maio and Keck sound walls will be visible or if they are far enough back or have enough shrubbery to hide them. I am only commenting to make this issue known and let the property owners know that this could be a problem and that they might want to consider solutions before construction.

**Jan Brittain**

[REDACTED]

## **ATTACHMENT G: MOTIONS**

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### **Staff Recommendation:**

Based on the findings listed in the staff report, it is Planning Staff's opinion that the project generally meets the applicable standards for a special exception for additional fence height and therefore recommends that the Planning Commission approve the request.

### **Potential Motions:**

#### **Consistent with Staff Recommendation:**

Based on the testimony, plans presented, and the following findings, I move that the Planning Commission approve the special exceptions for additional fence height requested at 2570 S. Wilshire Circle and 2564 S Wilshire Circle, petitions PLNPCM2015-00942 and PLNPCM2015-00943.

#### **Not Consistent with Staff Recommendation:**

Based on the testimony, plans presented and the following findings, I move that the Planning Commission deny petition PLNPCM2015-00942 and PLNPCM2015-00943, requests for a special exception to allow an over height fence located at approximately 2570 S Wilshire Circle and 2564 S Wilshire Circle.

*The Planning Commission may consider a different motion for each application.*