## Appeal against approval of DP2014-1557 at 55-28th Avenue SW

I'm here on behalf of the Erlton Community Association. We fully support Mr. Turner in his appeal against this discretionary development.

As the result of its placement on the lot, roof design and height, ceiling height, and depth, the garage proposed for this development cast such a significant shadow that it covers Mr. Turner's rear yard, and partially that of his east neighbour, Mr. Stanic.

In our May 10th community comment (report pgs. $96 \& 97$ ), we asked for a shadow study, among other items. We even directed the file manager's attention to Section 26(3) so she could fulfil the Authority's basic due diligence requirements by compelling production of this study. Mr. Turner and Mr. Stanic, neighbours to the east of this development, also requested a shadow study (pgs. 99 \& 100) in order to determine the impact of the development on their homes and properties. Despite these multiple requests, no shadow study was ever received. In an email from the file manager (pg. 101), dated November 20, she stated:
"I did not request a shadow study but I did suggest the applicant touch base with the Community Association to discuss the application."

The purpose of asking for the shadow study was to enable all the participants in this file - neighbours, community, and the file manager / Development Authority - to make an informed decision based on facts. Decisions were made in the absence of fact.

Mr. Turner asked for our association's assistance in providing a shadow study and documentation to support it. We are happy to do so. Page A14 of the Low Density Residential Housing Guidelines For Established Communities (pg. 104) provides the detail necessary to enable anyone to construct a shadow study.

The Section 563(3)(a)(i) and (ii) relaxations (pg. 24), along with the zero lot line, the garage ceiling height, and the excessive garage depth are the cause of the shadowing.

These March 21st at 4PM shadow studies (pg. 104) use an angle of 34 degrees and a shadow length of 2.2 times the height of the building at grade. The time of day determines the angle of the shadow line, and the height of the sun above the horizon on a specific day determines the shadow line length to height ratio. Garage height was determined from plan DP5 since it shows the variation in grade along the east wall. The detailed calculations are attached to our submission.

Drawing \#1 shows the shadow cast by the garage, as approved, displayed on plan DP1. This is a massive imposition on the use and enjoyment of Mr. Turner's home, and has a substantial impact on Mr. Stanic's home.

Drawing \#2 shows that changing just the pitch of the roof to $.5 / 12$ to match that of the main building does little to reduce the shadowing except on Mr. Stanic's rear yard.

Drawing \#3 shows that changing both the roof pitch and implementing a 1.2 m setback from the property line again does little to reduce the shadowing except on Mr. Stanic's rear yard.

Drawing \#4 shows that some improvement occurs with a $.5 / 12$ roof pitch, a 1.2 m side setback, and a 6.0 m depth similar to the garages to the east.

Plan DP6, bottom right corner, shows the garage ceiling height as 11 feet 1 inch, or 3.38 m .
Drawing \#5 shows a large improvement when an 8 -foot ceiling height is coupled with a $.5 / 12$ roof pitch, a 1.2 m side setback, and a 6.0 m garage depth. It results in a noticeable reduction in shadowing to the rear yards of both homes.

The first three studies show little improvement in access to sunlight. Studies $4 \& 5$ provide relief when height and depth are modified.

Implementing the changes shown in drawing \#5 would result in each bay measuring 3.6 m in width, 6.0 m in depth, with a 2.44 m ceiling height. To put these measurements in perspective, I drive a 2005 Toyota 4Runner SUV. It is 1.87 m wide, 4.8 m in length, and 1.75 m tall. A Bunt \& Associates Parking Dimensions study, initiated and funded by the City of Calgary, is included in your report to provide further detail. On page 3, the report recommends parking dimensions of 3.0 m width, 5.9 m depth, and 2.1 m ceiling height in residential applications. These are reflected in the LUB rules (pgs. 3 \& 4).

Access to basic parking is a necessity, and we fully support that. The developer, however, is asking for enhanced parking space at the expense of the neighbours. The Authority, by way of relaxation, has expropriated the neighbours' access to sunlight, and conveyed that to the developer to enable him to sell an enhanced parking product as part of his development. Please note - the main building also shadows Mr. Turner's rear yard.

If the garage design were amended to that of drawing \#5, Mr. Turner would have access to a slice of sunlight. That's much better than the nearly no sunlight as proposed and approved.

The decision to allow the existing garage design, by relaxation, failed to consider its impact on adjacent development as described in Land Use Bylaw Section 35(d) and is not based on any sound planning principle as envisioned under Section 35(j).

We support Mr. Turner in his application to deny this development permit or effect substantial changes to the garage to eliminate the negative impact of its design and location on the lot. We strongly support a $0.5 / 12$ roof pitch to match that of the main building, a 1.2 m east property line setback, a reduced garage depth of 6.0 m , and a ceiling height of 8 feet. These changes would mitigate the severe shadowing of the two backyards to the east. It would also allow the gas and electric meters to be moved to the east wall of the garage to improve the visual aspect of the west facade (plan DP5 - upper right), which faces Erlton's major north/south roadway.

Thank you.

The detailed calculations of shadow line lengths are:
A: Plan DP5 shows the south-east corner roof height at 3.86 m above grade.
[2 $3 / 8$ th" $=38 / 16^{\prime \prime} @ 3 / 16^{\prime \prime}$ per foot $=38 / 3=12.66$ feet or $3.86 \mathrm{~m} .3 .86 \mathrm{~m} \times 2.2=8.49 \mathrm{~m}$ shadow $\&$
4.25 cm line length at a scale of 1:200]

A': If the ceiling height of the garage were reduced to 8 feet, the south-east corner roof height would become 9.66 feet or 2.94 m . The shadow length would become $2.94 \mathrm{~m} \times 2.2=6.47 \mathrm{~m} \& 3.23 \mathrm{~cm}$ line length at a scale of 1:200]

B: Plan DP5 shows the roof peak height at 5.69 m above grade.
$\left[3.5 "=56 / 16^{\prime \prime} @ 3 / 16^{\prime \prime}\right.$ per foot $=56 / 3=18.66$ feet or $5.69 \mathrm{~m} .5 .69 \mathrm{~m} \times 2.2=12.52 \mathrm{~m}$ shadow $\& 6.26 \mathrm{~cm}$ at a scale of 1:200]

C: Plan DP5 shows the north-east corner roof height at 5.49 m above grade.
[3 $3 / 8$ th" $=54 / 16^{\prime \prime} @ 3 / 16^{\prime \prime}$ per foot $=54 / 3=18$ feet or $5.49 \mathrm{~m} .5 .49 \mathrm{~m} \times 2.2=12.08 \mathrm{~m}$ shadow $\&$ 6.04 cm line length at a scale of $1: 200$ ]

D: Plan DP5 shows the middle of the roof height at 4.88 m above grade if it were a cottage or flat roof. $\left[3.0^{\prime \prime}=48 / 16^{\prime \prime} @ 3 / 16^{\prime \prime}\right.$ per foot $=48 / 3=16$ feet or $4.88 \mathrm{~m} .4 .88 \mathrm{~m} \times 2.2=10.74 \mathrm{~m}$ shadow \& 5.37 cm line length at a scale of 1:200]

E: Plan DP5 shows the middle of the roof height at 4.67 m above grade if it were a cottage or flat roof with a building depth of 6.0 m .
[2 7/8th" $=46 / 16^{\prime \prime} @ 3 / 16^{\prime \prime}$ per foot $=46 / 3=15.33$ feet or $4.67 \mathrm{~m} .4 .67 \mathrm{~m} \times 2.2=10.27 \mathrm{~m}$ shadow $\&$ 5.14 cm line length at a scale of $1: 200$ ]

E': If the ceiling height of the garage were reduced to 8 feet, the middle of the roof height would become 12.33 feet or 3.76 m . The shadow length would become $3.76 \mathrm{~m} \times 2.2=8.27 \mathrm{~m} \& 4.14 \mathrm{~cm}$ line length at a scale of 1:200.

F: Plan DP5 shows the north-east corner roof height at 5.28 m above grade if it were a cottage or flat roof with a building depth of 6.0 m .
$\left[3.25 "=52 / 16^{\prime \prime} @ 3 / 16^{\prime \prime}\right.$ per foot $=52 / 3=17.33$ feet or $5.28 \mathrm{~m} .5 .28 \mathrm{~mm} \times 2.2=11.62 \mathrm{~m}$ shadow $\&$ 5.81 cm line length at a scale of 1:200]
$\mathrm{F}^{\prime}$ : If the ceiling height of the garage were reduced to 8 feet, the north-east corner roof height would become 14.33 feet or 4.37 m . The shadow length would become $4.37 \mathrm{~m} \times 2.2=9.61 \mathrm{~m} \& 4.81 \mathrm{~cm}$ line length at a scale of 1:200.



470 mm

## 400 mm

 $2.7 \mathrm{~m} \quad 2.3 \mathrm{~m}$ $400 \mathrm{~mm}-3.6 \mathrm{~m} \quad \begin{aligned} & 9.1 \mathrm{~m} \\ & 3.0 \mathrm{~m}\end{aligned}$ $500 \mathrm{~mm}-4.0 \mathrm{~m}-3.5 \mathrm{~m}$ $\begin{array}{cc}250 \mathrm{~mm} & 4.5 \mathrm{~m} \\ 1500 \mathrm{~mm} & 14.0 \mathrm{~m}\end{array}$Removed
Fiemoved
Removed
Removed
Removed
Removed

SHADOW
WITH
.5/12 PITCH.

LANE
$90^{\circ} 19^{\prime} 48^{\prime \prime}$ 15.23



| 1300 mm | 3.6 m | 9.1 m | 1 | Removed |
| :---: | :---: | :---: | :---: | :---: |
| 400 mm | 3.0 m | 3.0 m | 1 | Removed |
| 500 mm | 4.0 m | 3.5 m | 1 | Removed |
| 250 mm | 4.5 m | 6.9 m | 1 | Removed |
| 1500 mm | 14.0 m | 8.8 m | 1 | Removed |


Specifications
5 518.5in
1536m

| On a, ant |  |
| :---: | :---: |
|  |  |
| $\because \cdots$ | 6 tt 1.810 .73 .8 mb |
| : , $3^{*}$ |  |
|  | 5 m .2 m .62 m |
|  |  |

