



Syracuse City Planning Commission Meeting June 16, 2015

Begins at 6:00 p.m. in the City Council Chambers
1979 West 1900 South, Syracuse, UT 84075

Regular Meeting Agenda

PLANNING COMMISSIONERS

CHAIR

T.J. Jensen

VICE CHAIR

Ralph Vaughan

Curt McCuistion

Dale Rackham

Greg Day

Troy Moultrie

1. **Meeting Called to Order**
 - Invocation or Thought
 - Pledge of Allegiance
 - Adoption of Meeting Agenda
2. **Meeting Minutes:**
June 2, 2015 Regular Meeting and Work Session.
3. **Public Comment**, This is an opportunity to address the Planning Commission regarding your concerns or ideas, regarding items that have not been scheduled for a public hearing on this agenda. Please limit your comments to three minutes.
4. **Major Conditional Use Permit**, Elite Skills, Duane Koski, property located at 3242 S 750 W, R-2 Residential Zone.
5. **Public Hearing**, Rezone A-1 Agriculture to PRD Planned Residential Development, Q-2 LLC, property located at approximately 1600 W 1700 S.
6. **Public Hearing**, Code Amendment, Title 10 pertaining to accessory structures.
7. **Adjourn**

Work Session

1. **Department Business**
2. **Commissioner Reports**
3. **Upcoming Agenda Items**
4. **Discussion Items**
 - a. Presentation by the General Plan Committee
 - b. Title VIII code amendments regarding construction specifications.
 - c. Title X code amendments pertaining to metal buildings in the industrial zone
5. **Adjourn**

NOTE

If you wish to attend a particular agenda item, please arrive at the beginning of the meeting. In compliance with the Americans Disabilities Act, those needing auxiliary communicative aids and services for this meeting should contact the City Office, at 801-614-9626, at least 48 hours prior to the meeting.

CERTIFICATE OF POSTING

This agenda was posted on the Syracuse City Hall Notice Boards, the State Public Notice website at <http://www.utah.gov/pmn/index.html>, and the Syracuse City website at <http://www.syracuseut.com>.



PLANNING COMMISSION

AGENDA

June 16, 2015

Agenda Item # 2 June 2, 2015 Meeting Minutes

Attachments

June 2, 2015	Regular Meeting
June 2, 2015	Work Session

Suggested Motions:|

Grant

I move to approve the meeting minutes dated June 2, 2015 for the regular meeting and work session planning commission meeting, as amended...

Deny

I move to deny the meeting minutes dated June 2, 2015 for the regular meeting and work session planning commission meeting with the finding...

Table

I move to deny the meeting minutes dated June 2, 2015 for the regular meeting and work session planning commission meeting until ...



PLANNING COMMISSION

AGENDA

JUNE 16, 2015

Agenda Item # 4

Major Conditional Use Permit Elite Skills Academy 3242 S 750 W

Factual Summation:

Zone: R-2 Residential
Applicant: Duane & Darcie Koski

Proposed Hours of Operation: Monday-Friday 4:00 pm-8:00 pm
Saturday 9:00 am-6:00 pm
Sunday 11:00 am-4:00 pm

Background:

The request for a home occupation within an existing private gym was reviewed by the Planning Commission on June 2, 2015 and tabled until June 16th, 2015 to address the following items:

1. Propose a noise reduction plan
2. Address the parking
3. Ensure proper ventilation in order to keep gym doors closed during business hours
4. Resolve the music issues
5. Address one instructor and one student at a time
6. Make corrections to their website to reflect these conditions.

Resolution:

1. The Koskis purchased a decibel meter and measured various sound levels in their gym, home and neighborhood. They submitted pictures of the meter readings and the location where the reading was measured. In addition, City staff researched standard decibel levels and found various charts that all coincided very closely. Comparative examples of noise levels can be found in the packet along with a reference to the website that it was taken from. Staff has found that the current accessory structure sufficiently reduces the basketball noise level and that it actually measured lower than typical noises found in a residential neighborhood.
2. The Koskis have started notifying their clients and trainer to use the off-street parking. In addition, they have posted a parking sign on the entrance to the gym. A photo has been included in the packet.
3. The building permit plans on file called out double bubble insulation for the sides, ends and gables of the structure. The Koskis are obtaining quotes for additional insulation. City staff included one in the packet and will put further bids in the drop box when received. City staff feels this is an unreasonable mitigation request.
4. The Koskis have agreed to turn down the music and would be happy to accommodate the neighbors as needed if a problem arises.
5. Darcie Koski already addressed this in the previous meeting. City staff feels it is not unreasonable to have 1-3 students in the gym during the proposed business hours. Swimming lessons, daycare, preschool, gymnastics studios etc all provided in residential neighborhoods are not restricted to 1 at a time. The Koskis primary focus is one-on-one

training, but as Darcie Koski mentioned in the previous meeting, they do have an occasional instance where two siblings will come for training together.

6. The Koskis have submitted a change request to their website editor and are just waiting for the work to be complete. They will notify city staff upon completion.

Additional Research

City Staff has also done some research regarding existing home occupations that have obtained a business license within an approximate two block area of the Koskis.

Information regarding these businesses can be obtained through the Cities Business License Technician, Debbie Rainford. We are also working to identify whether the businesses mentioned in the resident letter are all legally permitted. We have found that at least one is not, and will reach out to the citizens to help bring them into compliance. The list is provided in the packet.

Attachments:

- Aerial
- Photographs-site pictures, off street parking, street parking.
- Sound level readings and photographs
- Existing Home Occupations in an approximate 2 block area.
- Public notice letter
- Community response letters- Please reference the new letter sent following the last meeting submitted by Darin Izatt.
- Insulation Bids

Suggested Motions:

Grant

I move to approve the Major Conditional Use Permit for Elite Skills, home occupation, Duane Koski, located at 3242 S 750 W, R-2 Zone subject to all applicable requirements of the City's municipal codes (and to the condition(s) that...)

Deny

I move to deny the Major Conditional Use Permit for Elite Skills, home occupation, Duane Koski, located at 3242 S 750 W, R-2 Zone, based on...

Table

I move to table discussions pertaining to the Major Conditional Use Permit Elite Skills, home occupation, Duane Koski, located at 3242 S 750 W, R-2 Zone, until....



Conditional Use Permit
Elite Skills Academy
3242 S 750 W

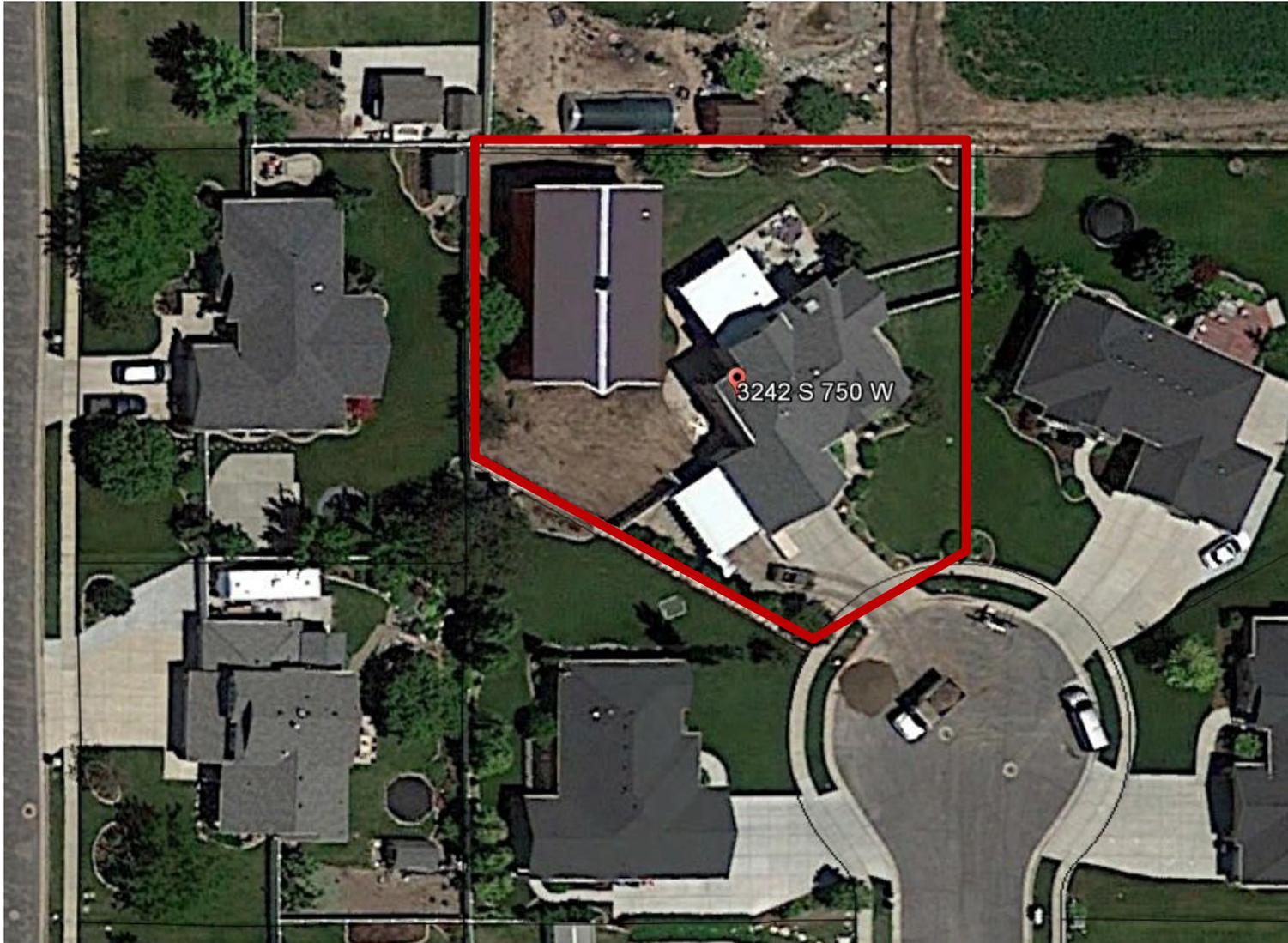




Photo # 1

Koski Residence



Photo # 2
Sideview of Koski Accessory Structure



Photo # 3

Koski Accessory Strucure from the North West

2015/06/02



Photo # 4

Koski Accessory Structure from the South West

2015/06/02



Photo # 5

Koski Accessory Structure from the West

2015/06/02



Photo # 6

Cul-de-sac traffic NOT associated with the Koskis



Photo # 7
Cul-de-sac traffic NOT associated with the Koskis

Photo # 8

Cul-de-sac traffic NOT associated with the Koskis





Photo #9

Traffic submitted by the Spaffords

Identified by Koski as Elite Skills traffic and has been notified to park in the driveway



Photo #10

Traffic submitted by the Spaffords

Identified by Koski as Elite Skills traffic and has been notified to park in the driveway



Photo #12

Traffic submitted by the Spaffords

Identified by Koski as Elite Skills traffic and has been notified to park in the driveway



Koski's Personal Vehicle

Unknown

Koski's Personal Vehicle

Mother-In-Law Vehicle

Family Friend's Vehicle

Koski's Personal Vehicle

Photo #11

Family dinner gathering not associated with Elite Skills Academy
Submitted by the Spaffords

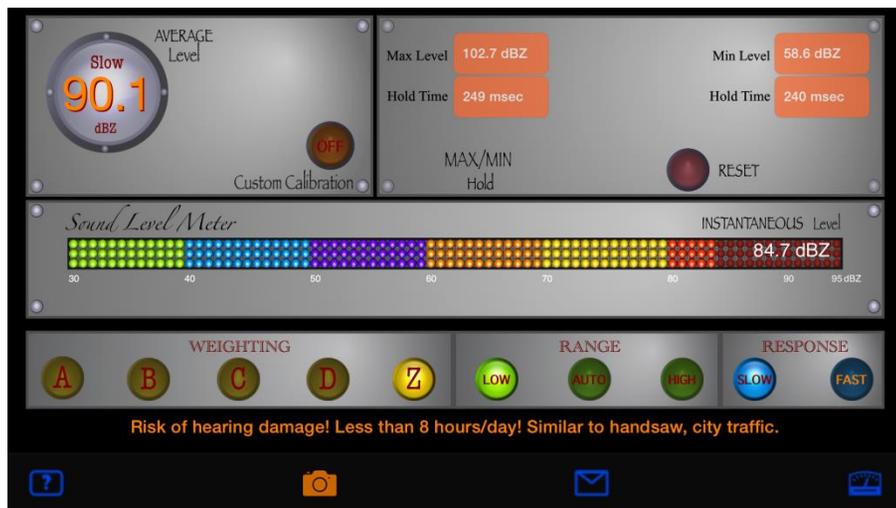


Conditional Use Permit Elite Skills Academy 3242 S 750 W



Average Meter Reading 90.1 dBZ

Neighborhood Children Jumping on a Trampoline

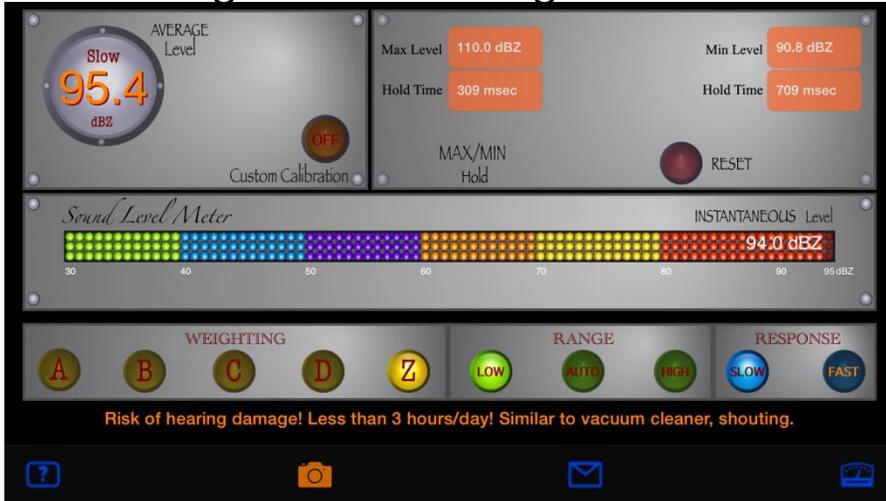




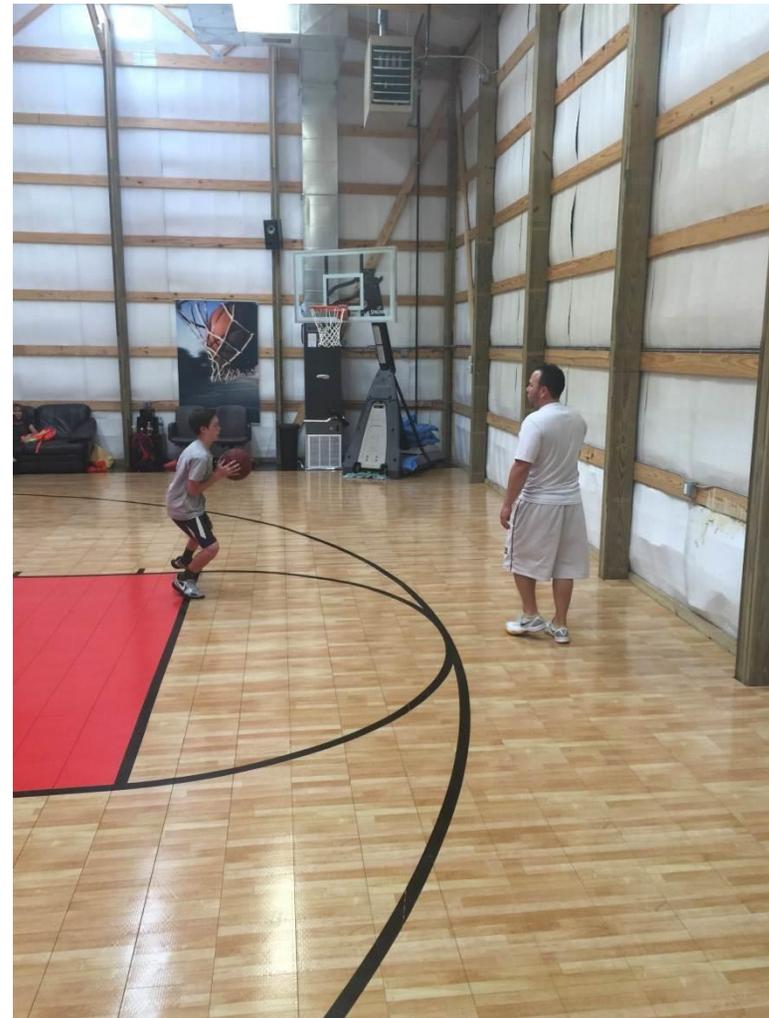
Conditional Use Permit Elite Skills Academy 3242 S 750 W



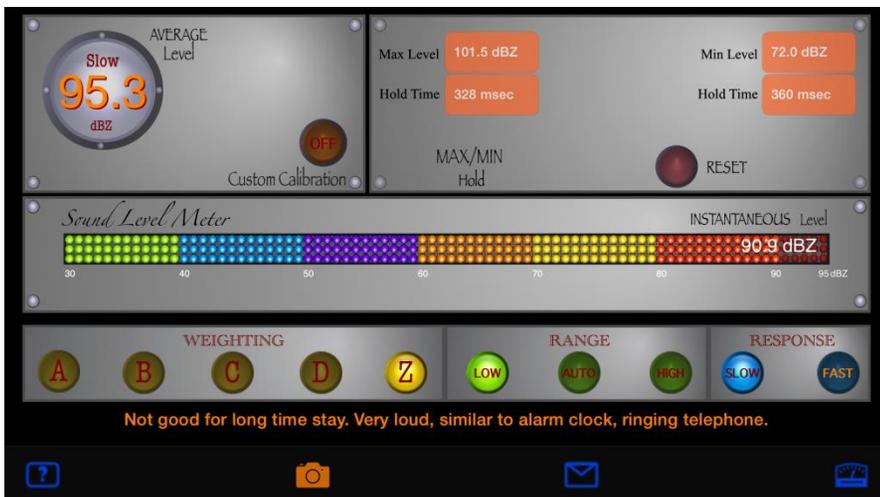
Average Meter Reading 95.4 dBZ



One-on-one Training Inside Gym



Average Meter Reading 95.3 dBZ

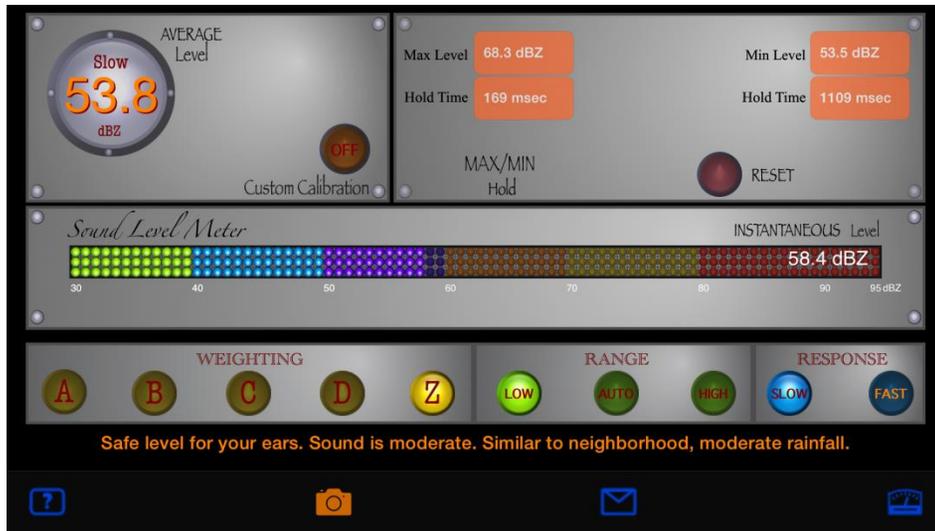




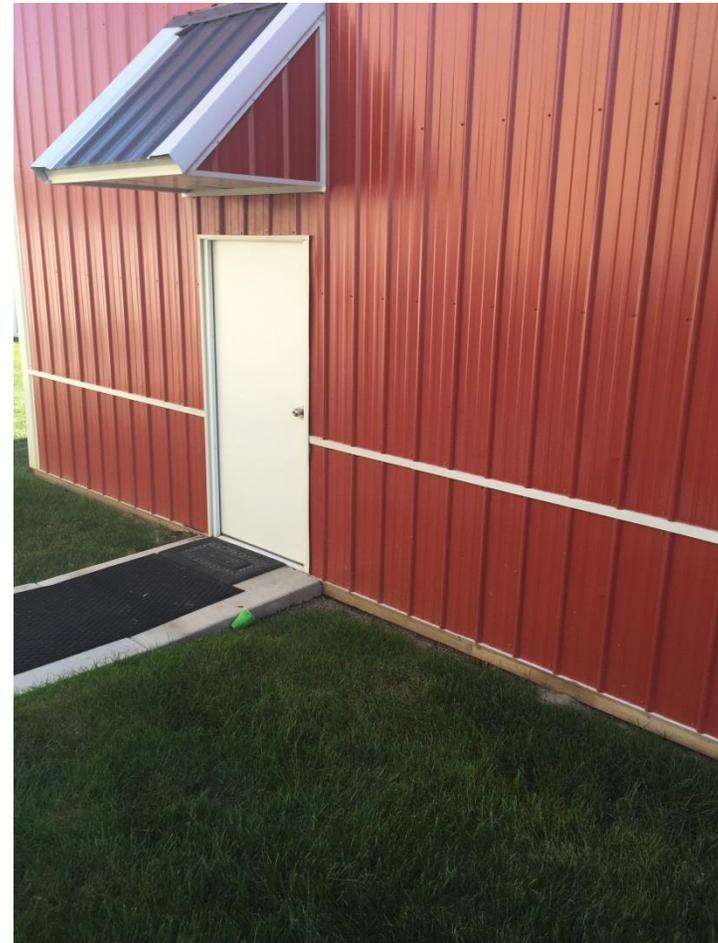
Conditional Use Permit Elite Skills Academy 3242 S 750 W



Average Meter Reading 53.8 dBZ



Koski Back Yard, East Side of the Gym



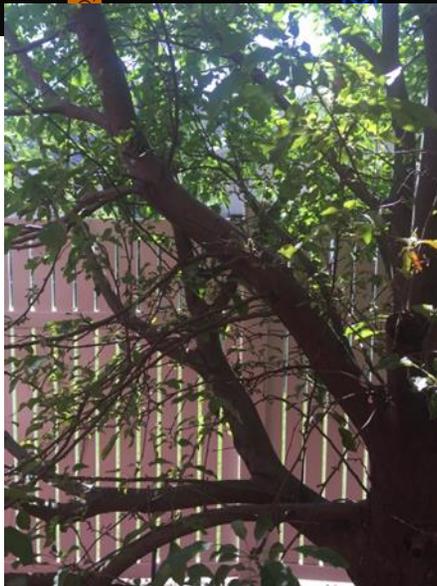


Conditional Use Permit Elite Skills Academy 3242 S 750 W



Average Meter Reading 59.3 dBZ

Koski Backyard West Side of the Gym

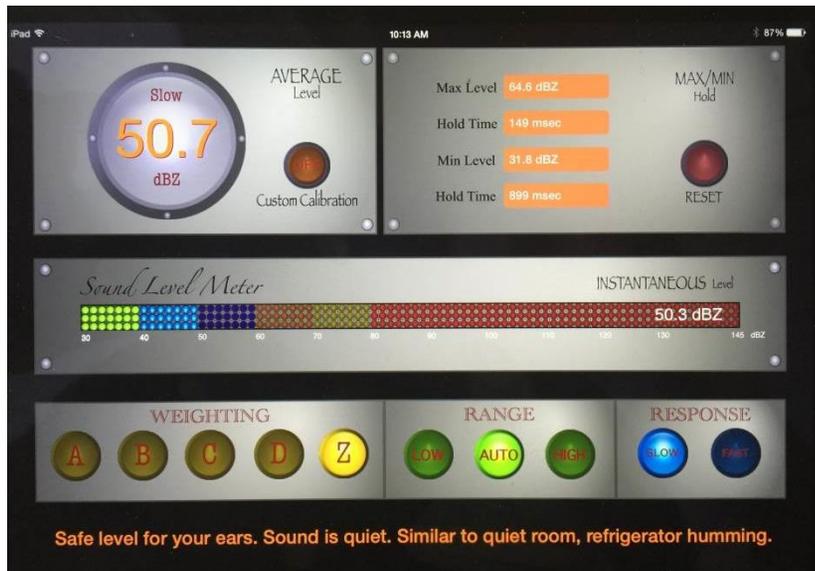




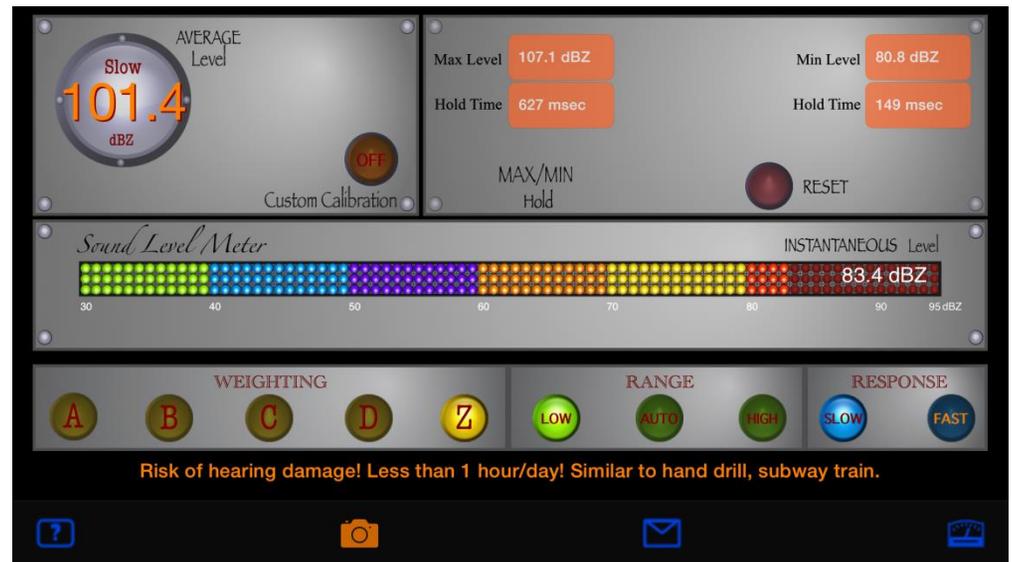
Conditional Use Permit Elite Skills Academy 3242 S 750 W



Average Meter Reading 50.7 dBZ
Measurement taken at 10 a.m. inside the
Koski Kitchen. Only audible noise was the
refrigerator. No basketball at this time.



Average Meter Reading 101.4 dBZ
Barking Dog





Conditional Use Permit Elite Skills Academy 3242 S 750 W



Comparative Examples of Noise Levels		
www.industrialnoisecontrol.com/comparative-noise-examples.htm		
Noise Source	Decibel Level	Decibel Effect
Jet take-off (at 25 meters)	150	Eardrum Rupture
Aircraft Carrier Deck	140	
Military jet aircraft take off from carrier with afterburner at 50 ft (130 dB).	120	
Thunderclap, chain saw. Oxygen torch (121 dB).	120	Painful, 32 times as loud as 70 dB
Steel mill, auto horn at 1 meter. Turbo-fan aircraft takeoff power at 200 ft (118 dB). Riveting machine (110 dB); live rock music (108-114 dB)	110	Average human pain threshold. 16 times as loud as 70 dB.
Jet take-off (at 305 meters), use of outboard motor, power lawn mower, motorcycle, farm tractor, jackhammer, garbage truck. Boeing 707 or DC-8 aircraft at one nautical mile (6080 ft) before landing (106 dB); jet flyover at 1000 ft (103 dB); Bell J-2A helicopter at 100 ft (100 db).	100	8 times as loud as 70 dB. Serious damage possible in 8 hour exposure.
Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing (97 dB); power mower (96 dB); motorcycle at 25 ft (90 dB). Newspaper press (97 dB).	90	4 times as loud as 70 dB. Likely damage 8 hour exposure.
Garbage disposal, dishwasher, average factory, freight train (at 15 meters). Car wash at 20 ft (89 dB); propeller plan flyover at 1000 ft (88 dB); diesel truck 40 mph at 50 ft (84 dB); diesel train at 45 mph at 100 ft (83 dB). Food blender (88 dB); milling machine (85 dB); garbage disposal (80 dB).	80	2 times as loud as 70 dB. Possible damage in 8 hour exposure.
Passenger car at 65 mph at 25 ft (77 dB); freeway at 50 ft from pavement edge 10 a.m. (76 dB). Living room music (76 dB); radio or TV-audio, vacuum cleaner (70 dB).	70	Arbitrary base of comparison. Upper 70s are annoyingly loud to some people.
Conversation in restaurant, office, background music, air conditioning unit at 100 ft.	60	Half as loud as 70 dB. Fairly quiet.
Quiet suburb, conversation at home. Large electrical transformers at 100 ft.	50	One-fourth as loud as 70 dB.
Library, bird calls (44 dB); lowest limit of urban ambient sound.	40	One-eighth as loud as 70 dB.
Quiet rural area.	30	One-sixteenth as loud as 70 dB. Very quiet.
Whisper, rustling leaves.	20	
Breathing	10	Barely audible.

Home Occupation	Address
Aberlene	849 W 2985 S
ASB Office Services	3248 S 750 W
Beachwood Construction, Inc.	3266 S 575 W
Beehive State Home Inspections	3448 S 550 W
Dennis Miller Electric	957 W 3150 S
HB Design	965 W 3050 S
Hart Service and Repair	3220 S 930 W
Jennifers Classic Cuts	885 W 3300 S
L and M Professional Services	3343 S 800 W
Lakeside Billing, Inc.	3250 S 800 W
Life Improved LLC	3056 S 560 W
Lolly Lou	555 W 3150 S
M.A.D. Legal Services	3226 S 575 W
Needle in a Haystack	1308 W 3150 S
Pace Constrution Inc.	3248 S 750 W
Premier Lawn Care & Maintenance	3538 S 575 W
Seely Speech & Language Therapy	3185 S 575 W
Steele & Son's	922 W 2920 S
Strong Sprouts LLC	3246 W 575 W
TKT Construction	744 W 3450 S



SYRACUSE
EST. CITY 1935

Mayor
Terry Palmer

City Council
Brian Duncan
Mike Gailey
Craig Johnson
Karianne Lisonbee
Douglas Peterson

City Manager
Brody Bovero

June 5, 2015

The City has received a Conditional Use Application from Duane Koski, for a home business, Elite Skills Academy, located approximately 3242 S 750 W R-2 Zone. The Planning Commission will consider this request in their regular meeting, beginning at 6 p.m., in the City Hall Council Chambers on **June 16, 2015**.

In accordance with Syracuse City Land Use Ordinance 10-4-050(C), we are providing you notice of this request as a land owner within a 300-foot radius of the subject property. You are welcome to provide comments regarding this request, if you so desire, or submit them in writing to the email or mailing address below.

If you are uncertain as to the impact or ramifications of this proposal and would like more information; please feel free to call or stop in during regular business hours, between 8 a.m. and 5 p.m., Monday through Friday.

Respectfully,

Syracuse City

Community Development Department
Phone and/or Fax: 801-614-9632
Email: jschow@syracuseut.com

jm

Syracuse Planning Commission

With Regard to the Elite Skills Academy

Conditional Use Permit

To Whom It May Concern:

I am a resident at [REDACTED] Syracuse Utah which is part of the Silver Lakes Subdivision. I am within the radius of homes that received a letter from the City of Syracuse regarding a conditional use permit for a small home based business located at the home of Duane and Darcy Koski.

I truly appreciate the pressure that city officials have to deal with for very little or no compensation. The donation of time is immeasurable. We as citizens all benefit from such sacrifices.

I have lived in this neighborhood for 15 years and have a friendships with all but one of the parties that spoke at the meeting on June 2, 2015. I do not know him. I do not live on the street and am less effected by the parking and I do not hear the bouncing of the basketball on their property but I do believe there is a solution for these families.

What I did not see happen last night at the Commission meeting, which is unfortunate, is that the commission did not consider the true numbers. They valued the complaints from those that spoke and maybe those that wrote letters. However, they did not consider the number of adult residents, I think +/- 180 in our (ward) neighborhood and at worst whatever the percentage is that did receive a letter and did not come and speak for or against this business in order to maintain a neutral position.

Those that might have considered speaking in behalf of the Koski's would not want to offend those that spoke (for lack of a better word) "against" the Koskis or wrote a letter "against" the Koskis. There are some great people with church leadership positions that live in that circle of homes including; The former Bishop of +/- 5 years, Jason Spafford, the current Bishop of the past +/- 5 years, Jeff Ferguson, The Current Elders Corium President, Tyler Bodrero, a former Elders Corium President Mike Thompson, and former Bishopric member Jeff Bradford. All of the fore mentioned names are amazing people that I have a personal relationship with as do many others including the Koskis. Some of them spoke or wrote letters and some remained neutral. Those that I have personally spoke to on the block understand the concerns of the aforementioned group as well as that of the Koskis and though they may feel badly for the Koskis many will not speak up for them because they do not want to get in the middle of this and in my opinion they do not want to offend their friends or any of the Church leadership. I know Church should not be mentioned or considered in this civil issue but the bottom line is, we live where we live, in Utah where we go to Church with our neighbors and our friends, sometimes paths cross that is a reality. This is the case here. Many do not want to offend each other or get involved in this ordeal. Duane is and has been willing to sit with anyone that is concerned and discuss options.

My son has trained for Basketball with some of the best trainers in the state, including with some of the Elite Skills Academy staff, but he has never trained at Duane Koskis home location nor has he ever trained with Duane Koski personally. They do off site group and personal one on one training at places like the Syracuse Rec Center, Layton High School, Clearfield Aquatic Center, and Murray High. However, my son and I have an open invitation to use the Koskis gym to shoot around and have fun with my sons any time it is available at no charge, just like my neighbor to the north of me, Ron Snow, who has a large

pool, he lets us swim anytime we want if the pool is available. High level basketball is a small community and Duane has many friends and neighbors he has given an open invitation to use his court. He built it for that purpose. His family loves basketball his personal friends love and play basketball. Is the commission going to choose and limit his friends and what type of friends he has come to his home?

I intended to speak at the meeting but made a conscious decision not to once I saw the demeanor of the commission, mainly the commissioner to audiences far left, I realized it was not going to make a difference at that time. This commissioner seemed to have a predetermined agenda, this might not be the case but he did not seem to listen to the staff or the applicant clearly. If he did listen, he chose not to respect what the applicant stated or what the staff stated regarding the number of trainers and the parking pictures, in my opinion all but called Darcy Koski a liar. She made it very clear that two trainers do not work at the same time. All of the employees of Home Depot do not work every minute of every day yet he kept stating that the web site says they have 4 employees, therefore, misleading the audience and commissioners to believe that all four must work at the same time. They could have ten employees (trainers) or 100. Only one trainer works at that location at a given time. The gym is too small to have multiple trainers and multiple students. That should have been obvious from the staff and applicants comments. They ended the team or group training +/- 1.5 years ago due to parking and space. This point was also made clear by the applicant. The staff showed pictures of the circle from the Koskis that showed that the circle is filled with parking other than that of the Koskis business yet the commission did not address that issues. There are high leadership church positions that live in that circle, they have meetings or gatherings regularly in their homes. They all have family functions, etc. The commission laid it on heavy with regard to the parking for the small business yet said very little to address the parking issues for the size of that circle with regard to the other homes and their excessive use of the on street parking. It was made clear by the applicant that they would rectify any on street parking issues. They have ample parking in their drive way and she said she would educate the trainers and parents.

Other things that seem irrelevant to the law or code that were brought up seem to be personal and in response to the complaints or comments of the neighbors. I do not think the neighbors intended for this to be the case with regard to the first point but it just comes across that way and the Commission did the situation no favor by allowing the discussion to proceed the way it did.

1. The type of people that drop off kids is in question, who works for or lives with the Koski family is in question and both were a topic of discussion and it is just not right. This is their personal home and small business. The neighbors nor the Commission have the right to ask these questions. No one wants to say it but it seems obvious to me that the commission has been led to believe or has chosen to believe that the people that work for the Koskis or train at the koskis facility might be "questionable" people. It is because of their race? Yes, some of them are of Black decent. Just get it out there. The commission even questioned the black SUV as to no one knowing whose it is. It might have been mine. I drive a large black SUV. Do we do back ground checks on all of electricians that work for the residential electric company that has a shop behind their home on 3150, his employees come pick up supplies and check in almost every day or on all of the plumbers that work for Norms Plumbing on 1000 who's employees report to work every morning. Both of these business sit dead center in residential communities. I don't know their staff but I know and love their employer. What about all the day care parents that are not from our neighborhood that drop off and pick up kid's everyday all year long? Or is it

more "QUESTIONABLE" with the Koskis business and staff because they are or maybe of a minority decent. I DO agree that because they work with the youth, a back ground check could be warranted for the staff, similar to a day care or youth coach but as a commission, make it clear that the intent is because of the youth, not because of the comments I heard at the meeting, that we do not know who is coming and going because we do not know that with regard to the other business' either. Not because they look suspicious or shady or questionable. That is flat racist.

2. To think the commission can limit the age of a client is ridiculous. Do we limit the age of people that get their hair cut...I think that says it all?
3. Sound, we live in a residential neighborhood and certainly some restrictions should apply to sound after a certain time. What is that time with regard to business? That is what should be discussed. But to attempt to limit days and times or when they can use their personal court for personal use is not warranted. To tell them to carpet their gym is like telling me to carpet my driveway. The 12 midnight or 2 am comments is not part of his training schedule. It is ridiculous to even think that it might be. It could have been one of his kids sneaking in or something like that and should be handled by communicating as a neighbor.
 - A. Some residents have wood shops as a hobby are we making them sound proof, some teach piano as a business or play as hobby, are we making them close their windows, some have day cares where they have kids running around outside from 7 AM to 6 Pm, do we limit them to 65 decibels? To suggest to limit the sound legally with a mandate seems borderline illegal to me, I am not a lawyer but to place a restriction to a certain amount of sound is questionable.

If the commission asks the Koskis to spend a considerable amount of money and then does not like the results, does the city reimburse that money if they then revoke his conditional use permit. The process was brought up in last night's meeting. Where does it end? How is it different than the day care or the swimming pool or just kids playing basketball on an outside court? I am sure that with good communication the sound can be worked on with the neighbors.

The word RESPECT was used a lot from the commission and the speaker, as I sat listening to this I could only feel bad for the Koskis because they are very respectful good nice people. They would have been happy to sit and talk things through with any of their neighbors as they did with some. If the Commission and the neighbors were to really think about it from the following prospective, maybe none of this would be an issue.

Their sons (at the time ages +/- 8 and 10 years of age) will both be +/- 6 feet 6 inches or taller, they both love basketball. They will both play at a high level in high school and or college if they choose to. That being said, I would assume the Koskis could have built an outdoor concrete basketball (sports court) ¾ to full length with a tennis net, volley ball standards and a basket at both ends where they and their friends could play five on five basketball games, tennis, volleyball, etc. They could have done this for a fraction of the cost of building an indoor facility for their boys to do what they love. They knew their sons would want to live on that outdoor court and the noise may have been consistently and considerably louder. So out of "RESPECT" for the neighbors, they spent a whole lot more resources to put a court inside to make it less noisy for the neighbors. Is it perfect, maybe not but they are great people and they have been and are willing to work with their neighbors. In my opinion the Commission owes them the respect of seeing this for what it is. A basketball court that could be outside being used

by all as often as they wish just as the pool behind my home at my neighbor's house is and I would never question their right to use it, as it the drive way in my front yard where my son has worn out multiple basketballs and multiple hit a ways. The fact that they found an additional use for it that affords them some additional income for their family is awesome and to limit that outside of safety issues with regard to parking, is just not right. In my opinion the court will be used more if it is not on a schedule so to take the business away might only increase the amount the boys use it with their friends.

The following business exist in this same neighborhood. I'd like the commission to let me know if they all these home business accounted for with licenses to run their business. I know and care for all of them but right is right and due process should apply to all people. For now I won't mention names.

1. Piano, music and or voice lessons in their home for many years. Located on 800 West. Very musical family. Awesome people.
2. Outdoor lawn care business with a large trailer located on 800 West. Great guy.
3. A family sells Dotera and has regular meetings in the home. Wonderful family.
4. A residential electric company has a garage behind his home and has ran a business out of it for many years. He is an amazing guy. Located on 3150 South.
5. Multiple day cares.
6. A in home hair salon located on 3150.
7. A residential real estate brokerage located in Walnut Grove.
8. I am sure many others in Syracuse.

I know and care for all of the people mentioned or referenced in this letter, it is not intended to offend, it is intended to educate and save lasting relationships and friendship. I also do not intend to offend the Commission and appreciate the everlasting unappreciated efforts and struggles the Commission deals with. It is just that as a commission, your job is to uphold the code and ordinances within the law. Not your personal opinions or feelings. Please choose your word wisely and with wisdom and respect for all involved. This city allowed this family to invest in this building following all codes and ordinances and the law. I am sure the Koskis want to abide by the law as well and they are willing to sit with the neighbors to address concerns. I will be speaking at the next meeting and I hope that the next two weeks will be productive for the Koskis and their neighbors. They are all good people.

Thank You and Best Regards,

Darin Izatt

████████████████████

████████████████████

Jenny Schow

From: Chariti Moss [REDACTED]
Sent: Tuesday, June 02, 2015 1:08 PM
To: Jenny Schow
Subject: RE: Elite Skills Academy



[REDACTED]

From: Chariti Moss
Sent: Tuesday, June 02, 2015 11:45 AM
To: 'jschow@syracuseut.com'
Subject: Elite Skills Academy

To Whom it May Concern,

As a concerned neighbor of this new business developing 3 doors down from my residence. Elite Skills Academy. I have lived in my house 15 years and it is a very peaceful street.... Not only do we live in a culdesac, it is also a dead end road. Needless to say it is typically very Quiet!! Just how we like it!!

My first concern is safety!! Because it is so Quiet the children tend to cross the street, ride bikes/scooters etc in the road. Not counting the Koski family there are atleast 30 kids that live in this culdesac. (most of them 12 and under). Because the business is all the way in the culde sac and at the end of the road.... I have noticed cars always speed to get to the end. They turn the corner and then gun in past all the housed to get to the business.

If this is something that takes place we need Children at play signs and flags POSTED!!!

Also is there any way we can prevent parking in front of our houses?? Or limit business hours from 8-5 Monday thru Friday???

Also, with all the traffic, you have to have sufficient parking.... Which we are limited in the culdesac. The first time I noticed this Traffic. Was after we were camping came home pulling the trailer and had nowhere to park. There were cars lining the entire Curbs all in the culdesac. Frustrating!!!!

I am all about having a At home business!! But I am concerned about the excess traffic and parking parking parking!!!

I am trying to make it to the meeting tonight!! If not please feel free to ask any questions or call 801-557-4606

Thank you for your time!!

Signed Concerned Neighbor!!

Jenny Schow

From: Ann Ferguson [REDACTED]
Sent: Monday, June 01, 2015 9:03 AM
To: Jenny Schow
Subject: Business Application for Duane Koski home business

We are Jeff and Ann Ferguson and we live [REDACTED] in Syracuse. We sent an email a few weeks ago with concerns about the parking and traffic related to the home business of Duane Koski. We want to make you aware that we have spoken with the Koski's and they have arranged to have all business parking in their driveway. We appreciate their efforts and we are comfortable with this parking situation for their business.

Thank you,
Jeff & Ann Ferguson

Jenny Schow

From: wendy [REDACTED]
Sent: Friday, May 29, 2015 2:40 PM
To: Planning Department; Jenny Schow
Subject: Koski Home Business
Attachments: Parking Log for Elite SkillsBasketball facility.docx; IMG_3081.JPG; IMG_3060.JPG; IMG_3045.JPG; IMG_3184[1].JPG

Dear Syracuse City Planning,

This letter is in support of my initial communication sent to the Syracuse City Business Licensing/Code Enforcement departments on April 10, 2015. This letter will address how the business, Elite Skills Basketball, operating at 3242 S 750 W is in violation of several Syracuse City Codes. Specifically noted are references to Chapter 10.35 of the Home Occupations Code.

10.35.040 Home Occupation - ***“The occupants should conduct such businesses so that neighbors, under normal conditions, would not be aware such businesses exist. [Home occupations](#) are a temporary privilege that the [Land Use Authority](#) can revoke upon a determination that the [home occupation](#) disrupts the residential neighborhood.”***

The business occupies a home in a cul-de-sac and the street 750 W is disrupted with constant traffic. The operations are every day. The traffic includes parking in the street by employees and customers and additional cars picking up and dropping off. It has been noted that drivers on several occasion drive at excessive speeds for the crowded conditions. The limited curb front in the cul-de-sac makes parking very difficult. Most evenings we have to exercise great care when backing out of our driveway to navigate between cars parked in the cul-de-sac. On occasion we have had to ask someone to move their car so we can pull into or back out of our driveway. We have suggested to a few customers to park in a different place, down the street as we are afraid the congestion will cause an accidental backing into a parked car.

The items above illustrates that the business is not being conducted in a way that neighbors are unaware. The location is not suited for all the parked cars and traffic congestion. In addition, this is causing an unsafe environment for the children on the street. The greatest fear is that due to the additional traffic caused by the business operations a child is going to get hurt.

“The occupation may also include the retail sale of products and services at the home with a maximum of two customers per hour. The business owner may increase the number of customers or patrons approved to come to the home per hour by providing sufficient off-street parking and ensuring the home occupation does not adversely affect the neighborhood.”

As noted above most if not all the parking is on the street since there is no off street parking. The home has 3 parking spots in the driveway. One of those is always occupied by the home owner, leaving only two spots (driveway). There is no extra parking available. Seldom do employees or customers park in the home owner’s driveway. There is no extra parking available on site.

To provide an idea and representation of the cars parked on this street, a record of cars and license plates was recorded for 9 days. The daily log is attached. Also included are a few pictures representative of the parking constraints. One reason that parking is an issue is the business caters to all sizes of groups. According to a business flyer and the website, www.eliteskillsbball.com, a group training session can be from 2-5 players or an entire team. In addition, a training session will include at least one employee. This scenario can result in 3-8 individuals parking or dropping off for a training session.

“The home occupation shall not allow employees, other than those living in the dwelling, to come to work at the home or to park vehicles at the home to go to a job site...An additional off-street parking space shall be provided.”

According to their website, www.eliteskillsbball.com, they currently have 4 trainers that can work at this facility. The employee cars are parked on the street in front of my home daily. It begins as early as 9:00 in the morning and will often stay parked until 9:00-10:00 at night and during peak season can be seven days a week

“The home occupation shall generate no greater vehicular traffic or parking than commonly associated with the neighborhood wherein the applicant(s) will conduct business, i.e., heavy trucks, delivery, or similar vehicles, etc. The business shall limit vehicular parking to those living at the dwelling.”

As stated above we are experiencing additional traffic on 750 W that is not common to a neighborhood with a cul-de-sac and the parking has not been limited to those living at the dwelling.

“There shall be complete conformity with all City and state codes including fire, building, plumbing, electrical and health codes, and business license regulations. Appropriate departments will conduct any periodic inspections required by these codes.”

There is a fire hydrant in the cul-de-sac adjacent to the Koski’s driveway. On multiple occasions we have seen cars parked in front of the fire hydrant.

Also it should be noted that Elite Skills Basketball has been in business at this home for over 2 years without a business license or any approval from the city.

It is the responsibility of the planning commission and city ordinance enforcement to accomplish the following:

“Major Home Occupation: The Planning Commission finds that the proposed home occupation will not adversely affect the residential nature and aesthetic quality of the neighborhood; and Any off-street parking displaced by the home occupation is relocated elsewhere on the lot or parcel in compliance with setback standards for the zoning in which the property is located; ”

Therefore we ask that you deny the request for a business license based on the number of violations to Syracuse City Codes listed above. The Home occupation has adversely affected our neighborhood for over 2 years and will continue if a license is granted. The business impact has been increased traffic, congestion, parking issues, and a constant thoroughfare has been created. People choose to live in a cul-de-sac for a reason, they are quiet due to limited traffic flow and congestion. The impact of this business has changed the quiet, kid friendly street and cul-de-sac into anything but that. We ask the city to enforce the codes which were drafted to deal with situations like this. We appreciate your attention to this matter.

Sincerely,

Jason & Wendy Spafford

Parking Log for Elite Skills Basketball facility
 Koski 3242 S 750 W
 April 7-April 16

April 7	10:00am- 5:30pm	Black Chrysler Y81 1PW
	6:00pm- 9:00 pm	Grey Toyota Corolla X58 9AB
	7:00pm-10:00 pm	Honda Civic C461U (Aggie State)
April 8	4:00-9:00	Acura MDX A41 3ME
April 9	4:00-7:00	Blue ? A D12 2
	4:00-8:00	Motorcycle
April 10	2:00-3:00	Toyota Truck 785 NLM
	5:30-8:30	Black Kia D92 8T2
April 11	12:00-7:00	Black Chrysler Y81 1PW
	12:00-6:00	Grey Toyota D76 14B
	4:00-8:00	Toyota Camry D19 1VB
April 12	10:00am -?	Red Saturn C25 4TP
	10:00am-?	Red Jetta A889W (Weber State)
April 13	7:30-12:00	Brown Nissan BEC 7311 AZ
	6:00-?	Honda Van A74 3NC
April 14	9:00am-11:00 am	Blue Corolla
	3:00-5:00	Red Saturn C25 4YP
	3:00-5:00	Gray Toyota Corolla X58 9AB
	5:00-9:00	Gray Civic 246 VZC
	5:00-9:00	Black Suburban
April 15	2:00-?	Silver Audi D08 2TA
	3:00-6:00	Black Chrysler Y81 1PW

	4:00-6:00	Gray Toyota Corolla X58 9AB
	4:00-6:00	Acura MDX A41 3ME
April 16	3:00-4:00	Black Chrysler Y81 1PW
	3:00-4:00	Tan Pontiac
	3:30-5:00	Blue ? A D12 2
	4:00-5:00	White Chrysler C25 47C
	4:00-5:30	Acura A46 7NM
	8:00-?	Q4 Audi X00 3AF
	7:00-?	Ford C68 0CS
April 17	12:30-5:30	Black Chrysler Y81 1PW
	2:00-5:00	Gray Toyota X58 9AB

Please understand this is not a complete list of cars that have parked, just the ones that we have been home to record. This also does not include the numerous cars that drop off their children and drive back down our road to pick them up.

Bradford's letter to Koski's

Hi Duane and Darci,

4-29-15

We are communicating by letter because we have not had success using other means. The phone number we had for you is disconnected, you don't answer the door, and using Darci's e-mail at work doesn't seem appropriate or timely.

We have always loved the Koski's. We have great feelings towards you and your family. However, we are frustrated about the basketball situation. We don't know if you realize that the constant basketball has become a real annoyance to our family. When it was just the boys and their friends it was easier to live with the periodic sound of a basketball and music inside the tin shed. That said, things have been different for some time. We are certain that it is more than just the boys playing ball and the sound rarely stops long enough to give us a real break and let our nerves calm down. Using our back deck has become frustrating. Some nights it has even made it hard to get to sleep especially if we want to leave a window open for fresh air.

Haylee came home from her mission in Atlanta Georgia last Thurs. so we had around 100 people over to our house Sunday to welcome her home and to visit. When we realized on the Friday prior that we hadn't gotten ahold of you to request that you not play basketball from 12:15 – 5:00 p.m. we panicked for a second, then realized that it was going to rain anyway and we would not be able to use the backyard. (Just like Jordan's wedding reception, all big Bradford events get rained out lately ☺!)

Of course, we shouldn't have to reserve quiet time for our backyard so we have discussed a few suggestions that might make things a little less intense.

1. Insulate the tin shed so we wouldn't hear so much of what goes on in there.
2. Provide a working phone number so we could call you and let you know when we do have planned yard events and schedule basketball at an alternative time:
3. Limit the basketball to your family and friends so it's occasional and not constant,
4. Don't play after 10 p.m.
5. Keep the music volume down.

Could you please make these suggestions a matter of discussion in your family and see if there are some ways that we could reduce the impact of your tin shed/ basketball court? Thank you for consideration for these things. Please remember that even though we don't love the sound of constant basketball we do love the Koski's!

Jeff, Shauna & kids

Jackie Manning

From: Debbie Rainford
Sent: Monday, April 13, 2015 7:56 AM
To: Jenny Schow; Jackie Manning
Subject: FW: Form submitted: [Contact Department] in portal [Syracuse City]

Another complaint about Elite Skills Academy.

From: [REDACTED]
Sent: Thursday, April 09, 2015 10:09 PM
To: Debbie Rainford
Subject: Form submitted: [Contact Department] in portal [Syracuse City]

Name: Jeff Ferguson
Email Address: jeffrey.b.ferguson@L-3com.com
Subject: Business run in my cul-de-sac (residential area)

Comment: I am Jeff Ferguson. I live at [REDACTED] My wife, my three children, and I live in this home near the end of a cul-de-sac in a residential zone in Syracuse. One of the neighbors across the street at 3242 South 750 West is running a business from his home and his backyard barn/structure. I am writing this complaint because I am concerned for the safety of my children and the other young children in the area. Many cars come into the cul-de-sac most nights of the week. They park in the street and pull in and out of the street and driveway often. I am concerned for the safety of small children and others who play in the yards and sidewalks and even cross the street while playing. The customers of this business backup too often and I'm afraid an unknowing child will get behind one of them soon. The cars parked often in the street could also cause risk as it makes it harder for children to be seen when residents are backing out of their driveways. In short, there are too many cars for a residential street, especially a cul-de-sac full of children. Thank you for considering my concern. Jeff Ferguson, [REDACTED]

Jason & Wendy Spafford

April 10, 2015

Syracuse City
1979 W 1900 S
Syracuse, Utah 84075
Attn: Business Licensing/Code Enforcement

Re: Business Operating at 3242 S 750 W

To whom it may concern:

It has come to our attention that our neighbor, Mr. Duane Koski, is operating a business out of his home at 3242 S 750 W, Syracuse Utah. Please see the attached flyer and a printout of the website for the business, Elite Skills Basketball. It appears he is using a large gym constructed about two years ago in his back yard to provide basketball training for a fee.

For the past two years the quiet cul-de-sac where we live has changed to a bustling parking lot with many cars coming and going at all times of day and during all the days of the week. To date we have been under the impression that somehow Mr. Koski had obtained a business license and was operating legally. But we have recently learned that he and his company are operating without such license. It is for this reason that we now make a formal complaint to Syracuse City, in an effort to make the City aware of the safety hazards that exists.

There are six homes within 300 feet of the Koski home, all fronting the street, 750 West. There are eleven children under the age of 10 that live in these homes. All are very active and enjoy playing outside. A cul-de-sac is not a place for a business where every hour there are 3-7 new cars arriving and departing to pick up athletes from training. In addition, there are several cars that remain parked on the street for hour upon hour during operation. This is creating an unsafe environment for the children who reside here. Due to safety concerns we ask the City to notify Mr. Koski to immediately desist all business activity until a formal public hearing can be held on the matter. A business like this should not be approved in a residential neighborhood without input from the neighbors that are most affected by the activities. We appreciate your immediate attention to this matter and are open to additional questions or concerns you may have. We can be reached at [REDACTED]

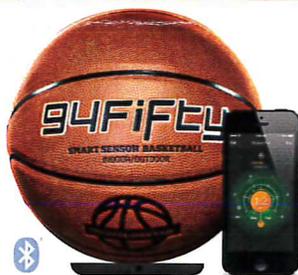
Regards,
Jason & Wendy Spafford



YOU WANT TO DOMINATE ON THE COURT

WE HAVE THE FORMULA TO
MAKE THAT HAPPEN

SUPERIOR TECHNOLOGY = SUPERIOR TRAINING



Real Time Statistics to Improve Dribble Speed, Accuracy and Right / Left Comparison

Improve Speed, Power and Vertical Jump like Never Before

Game Shots in Game Spots at Game Speed

Technology Used by NBA and the Best D-1 College Teams

CALL NOW TO SCHEDULE A FREE TRAINING SESSION!

Schedule Online in Less Than 60 Seconds!

www.eliteskillsbball.com

801-661-3036

**Ages 6+, Boys and Girls
All Skill Levels Welcome**

- ★ One on One / Individual Sessions
- ★ Group Sessions (2-5 players with discounts applying)

The Only Basketball Training Facility of its Kind in Utah



Registered client? [Sign in](#)

The Elite Skills Academy is now offering complimentary online scheduling. Easily see which appointment times are still available and quickly book online in seconds. We anticipate our schedule to fill up quickly due to the increase in demand for our training, so reserve your spot quickly!

New to the Elite Skills Academy? Come in for a FREE complimentary first session. Select the free session below and pick an available appointment slot to reserve your training.

We offer 1 on 1 training, Group training and Team training sessions to meet the needs of all players and coaches. Simply select the option below that best fits your player and pick an available appointment slot to reserve your training today.

Feel free to reach out to us directly at 801-661-3036 if you have any questions. We look forward to seeing you at our new facility!

* Please allow up to 24 hours to cancel an appointment.

Online Scheduling

Select a service to schedule an appointment.

First Session Free (30 mins)

Schedule your complimentary first session for Free today!

[Complimentary Free Express Session \(30 Min\)](#) Free

Your first session at the Elite Skills Academy is on the house! Come experience the difference with NBA level technology and training.

Skills Training for Individuals (1 on 1)

[Individual Skills Training - Complete Session 2nd & 3rd Grade\(1 Hour\)](#) \$50

This Training Session is for Boys and Girls in 2nd-3rd grade.

Individual Skills Training - Complete Session 4th & 5th Grade (1 Hour) \$50

This Training Session is for Boys and Girls in 4th-5th grade.

Individual Skills Training - Complete Session 6th-8th Grade (1 Hour) \$50

This Training Session is for Boys and Girls in 6th-8th grade.

Individual Skills Training - Complete Session 9th Grade - Older (1 Hour) \$50

Looking to make the High-School team? Already made the team and want to play in college? Hone your Shooting, Dribbling, Strength and Skills at the Elite Skills Academy!

Skills Training for Groups (2-6 players)

Group Skills Development (1 Hour) \$25

Group Training offers great benefits for skill development such as added competition, intensity and specialized group drills; plus we offer group training at a discounted rate! We'll group your player with others of similar skill / age for the maximum results.

Skills Training for Teams (minimum 8 players)

Schedule a Team Training Session - We'll come to your facility or you can come to ours! 8 Player Minimum.

Team Training Session (1 Hour)

Bring your team to our facility for a one of a kind team training session. We'll also come to your facility and bring our state of the art technology to you! \$15/player at our facility and \$20/player if we need to travel to you.

Contact

duanekoski@gmail.com

(801) 661-3036

Reviews

Rated based on 6 ratings

[Write a review](#)

Fast results

These kind of workouts will make you improve very fast. It will push you to

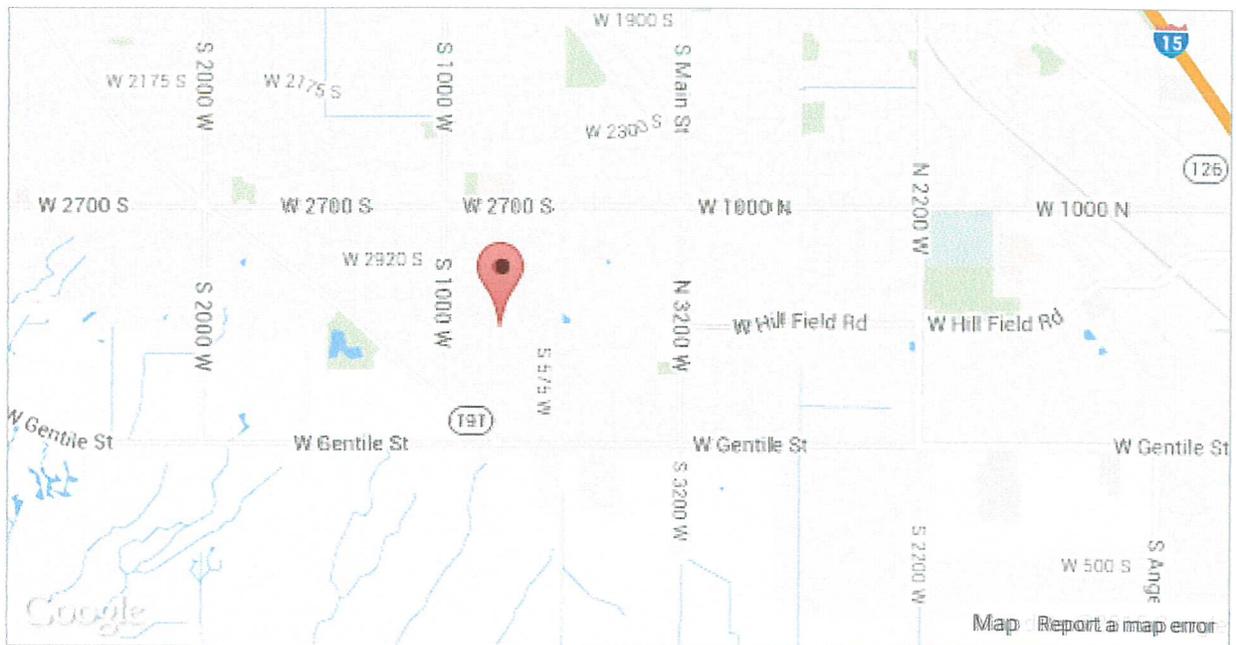
the max, not only does it help you become physically better but your mental...

[More reviews](#)

Location

3242 South 750 West, Syracuse, Utah, 84075

[directions](#)



Hours

Sun 9:00 AM - 8:00 PM
Mon 9:00 AM - 8:00 PM
Tue 9:00 AM - 8:00 PM
Wed 9:00 AM - 8:00 PM
Thu 9:00 AM - 8:00 PM
Fri 9:00 AM - 8:00 PM
Sat 9:00 AM - 8:00 PM

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April 8th, 2015

From:
Shauna Bradford



To whom it may concern,

Please file this letter as an official complaint

In Dec. 2012 my backyard neighbor Duane and Darci Koski, (who live at 3242 South 750 West, Syracuse,) erected a ***very large, red tin shed to use as an indoor basketball court in their backyard.*** We know, and love the Koski family. We try to be conscious of them and were frankly shocked that they would not have talked to us or other neighbors about erecting such a building which would obviously have a big impact on our little community.

The tin shed, which now towers over our yard very close to our back fence, and because of our shallow plot, very close to our house is certainly iconic, ***disruptive and inconvenient.*** People both in, and out of our neighborhood were shocked that such a building could be built in such a ridiculous location. Mayor Nagle, Robert Whitley, and the building inspector who handles permits were all in dismay that it met all the ordinances currently established in Syracuse. Syracuse City allowed the building because they did not have a height ordinance to stop it. It's hard to miss this large red building as you drive into the neighborhood! It actually appears to be in my backyard because it is so close to my house.

The shed not only towers over my house but also the neighbors to the North. They have had to take down a beautiful green house and relocate it to the other end of their yard at great time and expense to themselves so that it will be out of the never ending shadow of this edifice. My garden no longer gets enough sun as well.

Because it is a TIN shed the sound of the ***basketball and the music they listen to while playing there echoes loudly both in and out of the shed and those of us outside the building can hear every bounce of the ball.*** When you're watching a basketball game for an hour or two the sound of a basketball is not a problem as you get involved in the game, but when you are not participating in the game, and instead, in bed trying to sleep, trying to read a book on your couch inside your living room, trying to figure things out on the computer in your kitchen, trying to eat lunch on your back deck, or heaven forbid, trying to enjoy the great outdoors in your very own backyard, and all you can hear hour after hour is the sound of a basketball and the usual accompanying music, it can be very much like a ***torture chamber!*** It was difficult enough when it was just their boys practicing for hours on end, however, as of late, the Koski's have decided their basketball court should be used as a business so people come and go all day long to play the sport and train, from 9 a.m. to 11:45 p.m. giving us ***no significant quiet time.***

Since the Koski's live in a cul-de-sac this causes ***immense parking problems.*** The neighbors really don't have any street parking in the first place because it is a cul-de-sac and has a subsequent fire hydrant. Now they have the additional cars from other boys, men, and coaches parking there all day and night. Also, with the coming and going of all the additional traffic the ***safety of the many children who live on, and play in the cul-de-sac has become a big safety concern.*** Ironically most of the residents in the cul-de-sac purchased homes in that very location for the safety which is normally inherent for their young children in a cul-de-sac. There is also the concern of ***strangers coming and going*** at all hours which is inherent with this business. It creates an uncomfortable situation for the neighbors, and as you can imagine, especially to the neighbors with small children playing freely outside. We moved into a residential neighborhood to avoid the downsides of living in a business district. We have not changed the makeup of our neighborhood, but little by little, Duane and Darci are trying to do just that, and possibly they don't even realize it.

When this edifice first started to go up and we protested, Duane said "Oh, we didn't even think about you and the neighbors!" Well that was obvious. Still to this date I believe they have no idea, how what they are doing, is affecting their

neighbors and community. I have tried to communicate this to them by calling and asking them to not play during specific important times. Koski's have since disconnected their phone and will not answer the door when I knock, that is one reason I am writing this letter. I am sure they are still wonderful people! But they are still "not thinking about their neighbors. I believe that's where ordinances come into play.

Ordinances help everyone in the sand pile play nicely together even though they might not be thinking of each other. I believe the Koski's address is zoned for residential only, not business. ***I hope that the entities within the city that create and enforce these zones and ordinances will do due diligence to keep the integrity of our "residential" neighborhood. I also hope that the entities that make the policies and ordinances that govern the affairs of the city will make every effort to see that parameters are put in place that will prohibit situations of this nature from happening again!***

If they would have been in place two years ago it would have eliminated many difficult situations, and provided a more comfortable, nurturing atmosphere for neighborly interactions! Thank you for your leadership and your diligence in helping Syracuse move forward to become an even better place to live!

Please note that on 2-28-15 I sent an e-mail to the city council members regarding my disappointment that an official height ordinance is still not in place in Syracuse to prevent a situation like this from happening again.

With Respect,

Shauna Bradford


Letter to Bradford's from Doane Koski
in response to their letter dated 4-29-15

Bradford's,

We received your letter. I'm frustrated with the way you have chosen to handle this situation. Originally you tried to get the building permits revoked and complained constantly to the city. Now, you have chosen to take matters up with Syracuse city again as it relates to the small number of kids we train in the gym for profit. You have rallied the neighbours to your cause even soliciting a past Planning committee board member to help guide you through the the process. You have vilified us to all that will listen. You have called the police.

I would love to believe your sentiments on how much you "love" the Koski's. However, frankly I do not.

You have the right to do anything you choose to do in YOUR backyard just as we do. If you have a special occasion and request that we not play basketball in OUR backyard then we will entertain that request.

My response to your requests:

1. I'm happy to provide you with a working phone number. *never did*
2. The basketball being played in my gym is 90% friends and family. We have an ex-ute Glen Dean who lives with us. He and other of my invited guests use the gym most of the time. My sons LOVE basketball. I built the gym for them to be able to play as much as possible. I followed the city's guidelines and did so with their approval. I crossed every T and dotted every I. They are in the gym whenever possible and would actually use it even more if we would let them.

You have tried to cause harm to my lively hood by assuming that the majority of the people in the gym are paying customers. This is completely inaccurate.

3. I would be happy to place a curfew on the gym at 9:30. *although earlier than usual 3:00 p.m. - 10:00 p.m. is our downtime at home.*
4. I will keep the music volume down and enforce a volume limit that would not allow the volume to exceed that limit. (have you complained to the city about the Turkey the Tomsons have? That thing wakes me up EVERY morning. I would assume you haven't, as they are active members of the church.) *manipulative*

However...if the city doesn't approve my conditional use permit because of your efforts I will NOT agree to any of these conditions. I will play in MY gym in MY backyard as much as I am allowed to by law.

As I'm sure you are aware, Darcie works for the largest law firm in Utah. I fully understand what I can and cannot do as it relates to playing basketball in my backyard. If indeed you are

*mix of items
Contradict each
other*

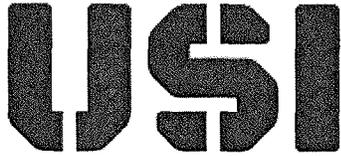
threatening

threat
successful in stopping my conditional use permit through the city, there will be someone playing basketball from sun up to sun down in that gym.

I'm sorry that I cannot echo the fondness you claim to have for the Koski's. I choose to let people's actions do the talking. Judging by your constant complaining to the city, and your efforts to rally the neighbors to your cause, I would say you certainly aren't very fond of the Koski's. Im not very fond of people who say one thing, and do another...

Duane, Darcie, Glen, Aaron, Tim, Jessie, Alex, Kobe, Terry, Scot, Caleb, Aiden and countless other friends who are, and will continue to be welcome quests at my home.

did not address insulating on the noise itself



USI Salt Lake City
 895 West 2600 South
 Salt Lake City, UT 84119
 Phone: 801.972.3737
 Fax: 801.972.1021

Contractors Lic. 369003.5501

Sales Person

Ariel Caprio	
Phone 801-330-8326	Fax 801-972-1021
acaprio@USInc.com	

			6/12/2015
DUANE KOSKI 3242 S 750 W SYRACUSE, UT 84075	Phone 801-661-3036 Fax	Job Address 3242 S 750 W SYRACUSE , UT 84075 Job Description DUANE KOSKI 801-661-3036	

Bid No: BD-31164 V1

TO ACCEPT AN OPTION BELOW, PLEASE INITIAL IN THE CORRESPONDING BOX TO THE RIGHT

Options

Accepted

INSULATION

Option 1: 2" closed spray foam walls and ceiling and 15-minute thermal barrier sprayed over foam

ADD TO BASE PRICE **\$14,560.00**



Estimate and Authorization to Schedule

Duane Koski @

Name on Gas Bill: Duane Koski Name on Electric Bill:
Gas Provider: Questar Electric Provider: Rm
Home Address: 3242 South 750 West City: Synedra State: UT Zip:
Phone: Year Built: Email:
Current R Value: 0 Questar audit done
Electrical Hazards Existing Damage Total SQ. Feet

Install an additional R 38 / 12 in 1925 sq. ft of attic space above home 616. 192. 1.42
Install an additional R 11 5.5 in 3200 sq ft of attic space above Garage (No rebate available) 1080 900 1.32

Areas of home not accessible for install:

Install R60 above attic access door and trim seal on attic access door

Recessed Lighting: Stove Trim: Vents:

Estimate only final cost may vary depending on actual square footage

Total Cost: 10,200 Total Rebates: 1696 / 1092 Amount due on Install: 10200
= 2788

Installer notes:
Called Questar 6/8/15 she said it would qualify for Rebates

All figures represented in this bid are estimated; actual charges may vary due to unforeseen scope of work or incorrect square footage. Pricing per sq. ft. is only guaranteed through install date. If the cost changes due to estimate error, this agreement may be canceled without notice by either party without incurring a charge. Savings are estimated only and are not guaranteed. Signer acknowledges that there is a charge of \$50.00 in the event the install appointment is cancelled without an advance notice of at least two business days.

X / / X / /

Customer Signature

Date

Inspector Signature

Date



PLANNING COMMISSION

AGENDA

June 16, 2015

Agenda Item # 5 **Rezone from A-1 Agriculture to PRD Planned Residential Development**

Factual Summation

Please review the following information. Any questions regarding this agenda item may be directed at Jenny Schow, City Planner.

Subdivision Name:	To be determined
Location:	1600 W 1700 S
Current Zoning:	A-1 Agricultural
General Plan:	PRD Planned Residential
Requested Zoning:	PRD Planned Residential
Total Area:	Development 6.71 Acres
Density Allowed:	40 lots

Attachments:

- Aerial
- Zoning Map
- Public Notice Letter

Summary:

This application is for Planned Residential Development. The adjacent property to the north is zoned R-3, the property to the south is zoned General Commercial and A-1 Agriculture. The applicant has indicated his interest in developing a retirement community.

Suggested Motions:

Grant

I move to recommend approval, to the City Council, to rezone property located at 1600 W 1700 S, from A-1 Agriculture to PRD Planned Residential Development, subject to all applicable requirements of the City's municipal codes (and to the condition(s) that...)

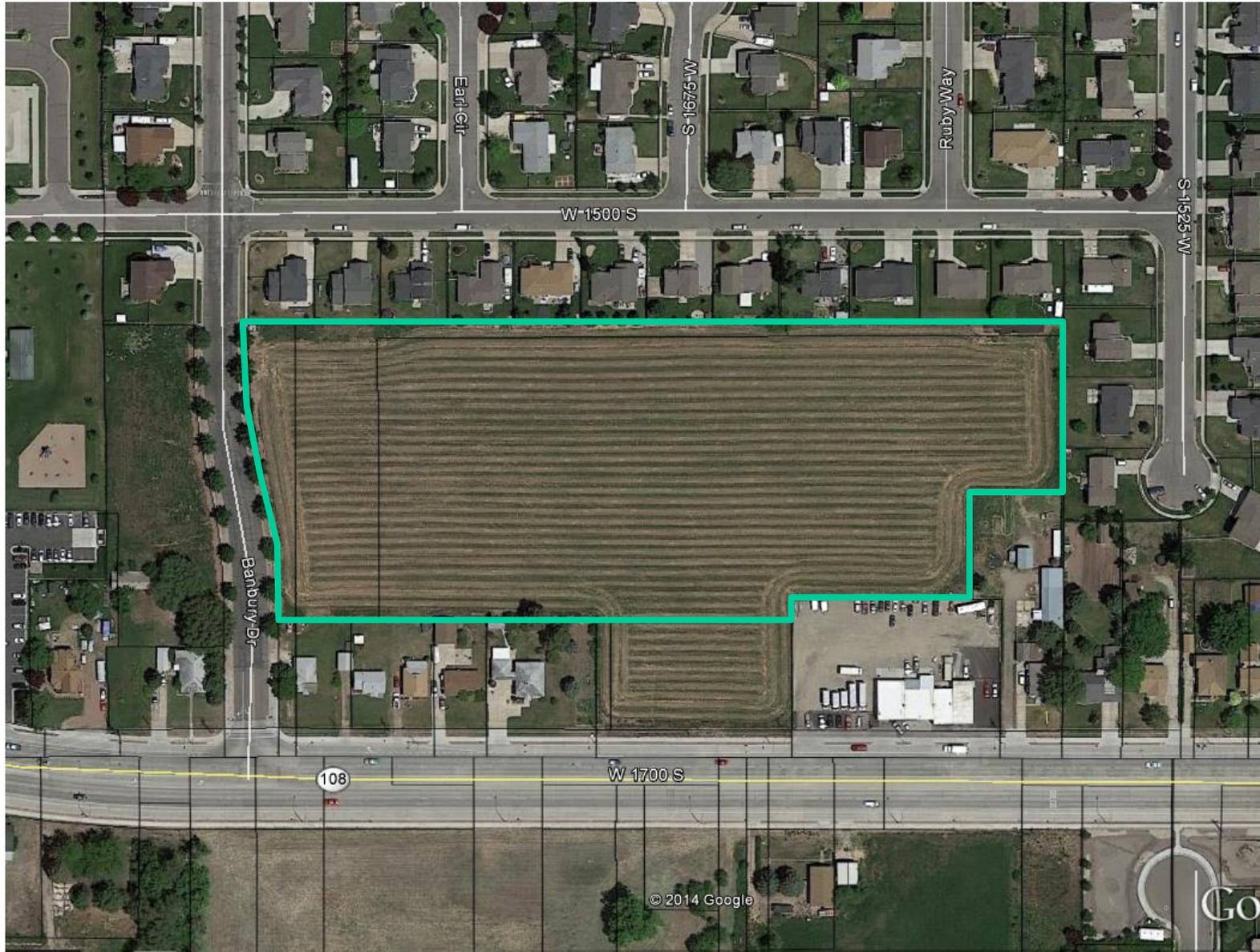
Deny

I move to recommend denial, to the City Council, to rezone property located at 1600 W 1700 S, from A-1 Agriculture to PRD Planned Residential Development, based on...

Table

I move to table discussions pertaining to the rezone request for property located at 1600 W 1700 S, from A-1 Agriculture to PRD Planned Residential Development, until....

Q-2 LLC 1600 W 1700 S





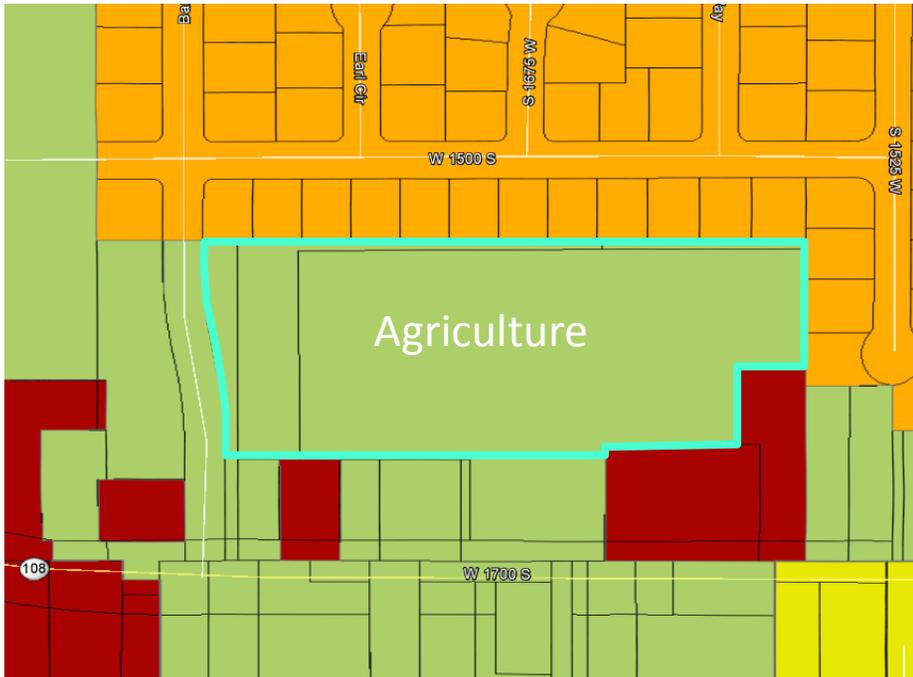
Zoning Request

Q-2 LLC 1600 W 1700 S



Existing Zoning Map

Zoning Request



- | | | | |
|---|------------------------------------|---|--------------------------|
|  | Agriculture A-1 |  | Commercial II |
|  | R-1 (2.90 dwellings per net acre) |  | General Commercial Zone |
|  | R-2 (3.79 dwellings per net acre) |  | Industrial Zone |
|  | R-3 (5.44 dwellings per net acre) |  | Town Center Overlay Zone |
|  | PRD (8.0 dwellings per net acre) |  | Sensitive Overlay Zone |
|  | R-4 (14.52 dwellings per net acre) |  | RDA & EDA Boundary |
|  | Professional Office | | |



Mayor
Terry Palmer

City Council
Brian Duncan
Mike Gailey
Craig Johnson
Karianne Lisonbee
Douglas Peterson

City Manager
Brody Bovero

June 5, 2015

The City has received a Rezone request from General Commercial to Planned Residential Development, requested by Q2 LLC, property located approximately 1600 W 1700 S. The Planning Commission will consider this request in their regular meeting, beginning at 6 p.m., in the City Hall Council Chambers on **June 16, 2015**.

In accordance with Syracuse City Land Use Ordinance 10-4-050(C), we are providing you notice of this request as a land owner within a 300-foot radius of the subject property. This is a Public Hearing, and you are welcome to attend and provide comments regarding this request, if you so desire, or submit them in writing to the email or mailing address below.

If you are uncertain as to the impact or ramifications of this proposal and would like more information; please feel free to call or stop in during regular business hours, between 8 a.m. and 5 p.m., Monday through Friday.

Respectfully,

Syracuse City

Community Development Department
Phone and/or Fax: 801-614-9632
Email: jschow@syracuseut.com

jm



PLANNING COMMISSION

AGENDA

June 16th, 2015

Agenda Item # 6 Code Amendment to Title X pertaining to Accessory Structures.

Public Meeting Outline

Planning Commission Discussions

February 17, 2015

March 17, 2015

April 7, 2015

April 21, 2015 –made motion to forward to City Council

City Council

May 12 – tabled for additional discussion

May 26 – addition discussion during work session – liked draft.

Summary

The Planning Commission has conducted a review of the accessory structure ordinance in Title X of the City Code. The following is a summary of the changes:

- Clarify confusing language throughout
- Remove the fencing requirement
- Change the setback requirements
- Change the allowed height requirements
- Change the pool/hot tub requirements

Attachments

- Red Lined Code Amendments (Proposed in red, strike through to be removed, black is existing text)

Suggested Motions:

Grant

I move to recommend approval, to the City Council, of the code amendments to Title X pertaining to the accessory structures as proposed, (and to the condition(s) that...)

Deny

I move to recommend denial, to the City Council, of the code amendments to Title X pertaining to accessory structures, based on...

Table

I move to table discussion of the code amendments to Title X pertaining to accessory structures until....

Chapter 10.30 General Land Use Regulations

(C) Accessory Buildings and Structures.

(1) General Requirements.

(a) ~~No accessory building or structure shall be erected, located, used, or occupied until the erection of the principal use has commenced. No more than two accessory buildings shall be on any lot, unless it contains a minimum of half an acre. Lots with half an acre or more may qualify for approval of a third accessory building by complying with all other applicable requirements of this chapter. No accessory building may be located within a recorded easement unless authorized by the Land Use Authority~~ **applicable easement holder through written approval.** ~~All accessory buildings located in the street sides of corner lots shall comply with SCC 10.30.050 regarding lot and yard regulations for corner lots.~~

(b) No accessory building or structure may encroach into a front ~~or side yard unless the structure is:~~

(i) ~~Not larger than 200 square feet, which includes any awnings, carports or other attached features to the accessory structure; and~~

(2) Accessory buildings or structures 200 square feet or less shall comply with the following requirements:

(a) ~~Not larger than 200 square feet, which includes any awnings, carports or other attached features to the accessory structure.~~

(i) ~~awnings, carports or other attached features are not considered part of the structure and shall not exceed the size of the accessory building.~~

(ii) ~~(b) Not taller than 10 15 feet; and to the peak of the roof structure.~~

(iii) ~~Concealed or otherwise located behind a privacy fence of at least six feet in height; and~~

(iv) ~~(c) Located at least 10 feet from the primary structure and located at least three feet from any property lines.~~

(2) (3) Accessory buildings or structures greater than 200 square feet or greater shall comply with the following requirements:

(a) Building Permit **and Conditional Use Permit.** ~~Required.~~ ~~Accessory buildings of 200 square feet or greater shall require approval for a~~ **Approval for a** minor conditional use permit and issuance of a building permit **is required prior to construction. Persons**

desiring to construct accessory buildings shall make application to the Land Use Authority or designee for minor conditional use approval as outlined in SCC 10.30.100.

Application shall include the following submittals:

- (i) Site plan showing location of the home, property line, setbacks, location of the proposed buildings, parking spaces, and easements.
- (ii) Elevation drawings showing the roof structure, type of material and design finish of the building, and building structure measurements

(b) ~~Size.~~ ~~Such accessory~~ **Accessory** building or structure shall conform to requirements of subsection (C)(1) of this section and shall not be greater in size than the footprint of the principal structure.

~~(b) Approval. Persons desiring to construct accessory buildings shall make application to the Land Use Authority or designee for conditional use approval as outlined in SCC 10.30.100. Application shall include the following submittals:~~

~~(i) Site plan showing location of the home, property line setbacks, location of the proposed building, parking spaces, easements, and buildings on adjacent properties within 50 feet of the proposed accessory building.~~

~~(ii) Elevation drawings showing the roof structure, type of material and design finish of the building, and building structure measurements.~~

(c) Design. The design, height, and footprint of accessory buildings shall blend aesthetically with the principal building's architecture and design materials.

(d) **Setback.** The building shall be setback from any property line the distance specified in the table below:

Roof Height (feet)	Up to 21	21 + to 24	24 + to 27	27 + to 30
Setback (feet)	5	6	7	8

~~(3) Setback Requirements. Shown in Exhibit 10.30.010 and listed below are the following setback requirements developed to regulate the negative impact accessory structures can have within a development:~~

~~(a) Minimum Setback. In no case shall an accessory building, regardless of size, be any closer than three feet to any property line.~~

~~(b) Walls. Accessory buildings 200 square feet or greater and exceeding 10 feet in height, as measured from the main floor to the top exterior wall plate, shall increase the three foot minimum setback requirement from property line by one foot for every one foot of height above 10 feet.~~

~~(c) Roof. The roof height on an accessory structure that exceeds 50 percent of the wall height, as measured from the top exterior wall plate to the highest point on the roof, shall increase the three foot minimum setback requirement from property line by one foot for every one foot of height above the 50 percent requirement.~~

~~(d) Corner Lot. An accessory building located on the street side of a corner lot shall comply with SCC 10.30.050.~~

(e) Corner Lot. Accessory buildings on corner lots shall be set back a minimum of 20 feet from the street side property line when a driveway accesses the street from the rear or side yard.

~~(e) (f) Other Structures. In no case shall an accessory building be constructed within six feet of a primary structure or within six feet of any structure 200 square feet or greater.~~

(g) Height. The height, as measured from the foundation to the highest point on the roof, shall not exceed the height of the primary structure and in no case shall exceed 30 feet.

(D) Maximum Height Limitations. No maximum height regulations, as stated in this title except for specified exceptions, shall apply to prevent the construction of penthouse or roof structures for the housing of elevators, stairways, tanks, ventilating fans, or similar equipment required to operate and maintain the buildings, and fire or parapet walls, skylights, towers, steeples, flagpoles, chimneys, smoke stacks, water tanks, television masts, silos, or similar structures above the stated height limits; provided, that no space above the height limit shall provide additional floor space.

(E) Additional Height Allowed. Public buildings or structures and churches authorized in a zone may be erected to any height provided the building is set back from each otherwise established setback line at

least one foot for each additional foot of building height above the normal height limit required for the zone in which the building is erected.

(F) Satellite Dish Antennas. For the purpose of this title, satellite dishes may be located on any residential structure or in the rear yard as accessory structures.

(G) Swimming Pools. Any structure intended for swimming, recreational bathing, or wading that is over ~~24~~ 48 inches deep shall require a building permit. The provisions of the adopted International Residential Building Code, Appendix (G), adopted by the City Council, shall govern the design and construction of swimming pools, spas, and hot tubs installed in or on the lot of a one- or two-family dwelling.

(i) All ~~such~~ ponds or pools over 24 inches deep in any residential zone shall ~~be accessory uses and~~ comply with the following conditions and requirements:

(1) It shall not be located closer than eight feet to any property line.

(2) The swimming pool shall be walled or fenced to no less than 4 feet in height to prevent uncontrolled access by children from adjacent properties.

(ii) Hot tubs equipped with a lockable safety cover meeting the ASTM F1346-91 requirements are exempt from the fencing requirement.

(iii) Temporary swimming pools. Pools that do not have water pumps or heating systems and are of temporary nature shall not be left unattended. When said pool is not in use, it must be drained, and stored away from street view. If a temporary pool is left unattended with standing water, the pool shall be fenced to no less than 48 inches in height.

[Ord. 11-02 § 1 (Exh. A); Ord. 10-02 § 1 (Exh. A); Ord. 09-16 § 1 (Exh. A); Ord. 09-10 § 1 (Exh. A); Ord. 08-11 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; Ord. 04-04; Ord. 03-18; Ord. 03-08; Code 1971 § 10-6-010.]



PLANNING COMMISSION

AGENDA

June 16th, 2015

Work Item # 4a

General Plan Committee Report

Summary

The General Plan Sub Committee has been reviewing the General Plan document since June 2014 and is ready to report its findings to the Commission.

Attachments

- General Plan Update Presentation

General Plan Update



SYRACUSE
EST. CITY 1935

General Plan Update Summary

- Updated General Plan format to show:
 - History of the city
 - Current and projected population
 - Where we are today for each content heading
 - Goals for the future
 - Added pictures
- Provided proposed updates to zoning ordinances that are impacted by the changes

General Plan Update Summary (cont.)

- Contents headings:
 - Introduction
 - Community Character and History
 - Land Use
 - Economics
 - Transportation
 - Infrastructure
 - Parks and Recreation
 - Housing
- Some of the headings have their own master plan, for those gave just a summary and referenced the other document

General Plan Updates

- Split General Plan and General Plan Map into two documents
 - General Plan open for review every 5 years (min.)
 - Open period not to exceed 6 months
 - Map open in odd years
 - Open period not to exceed 3 months
 - Open period from January - March
 - Applications for change must be submitted with 10 days of opening
 - 90 Day notice prior to opening

Dwelling Unit Density

- Change from net acre to gross acre
 - Except R-4, not allowed for future developments

Zone	Dwelling units/gross acre	Min. lot size (sq-ft)
A-1	0.4	21,780
R-1	2.3	12,000
R-2	3.0	10,000
R-3	4.0	8,000
PRD	6.0	N/A

Definitions

- “Common Space” means land area with an amenity whose dedicated purpose is shared equally by all the residents of that community or the public.
- “Open Space” means any area of land without human-built structures; such as parks, recreational and natural areas or land not occupied by buildings. Open space does not include curb and gutter, driveways and roadways.

Cluster Changes

- Only allowed in R-1
- Property must be contiguous
- Developer must propose complete development
 - No phases added if more land is purchased, new development
- Minimum lot size 7,000 sq-ft
- Corner setback added (20 ft)
- Park strip width must be 15 feet from curb
 - Road width must remain the same; based on type
- 50% of development must be common space
- Privacy fence around patio only
- 3.5 dwelling units/(1/2 gross acreage)
- Corrected common space and open space based on latest approved definitions
- Patio width cannot be beyond primary structure and not extend beyond half the rear setback.

Syracuse Road Standard

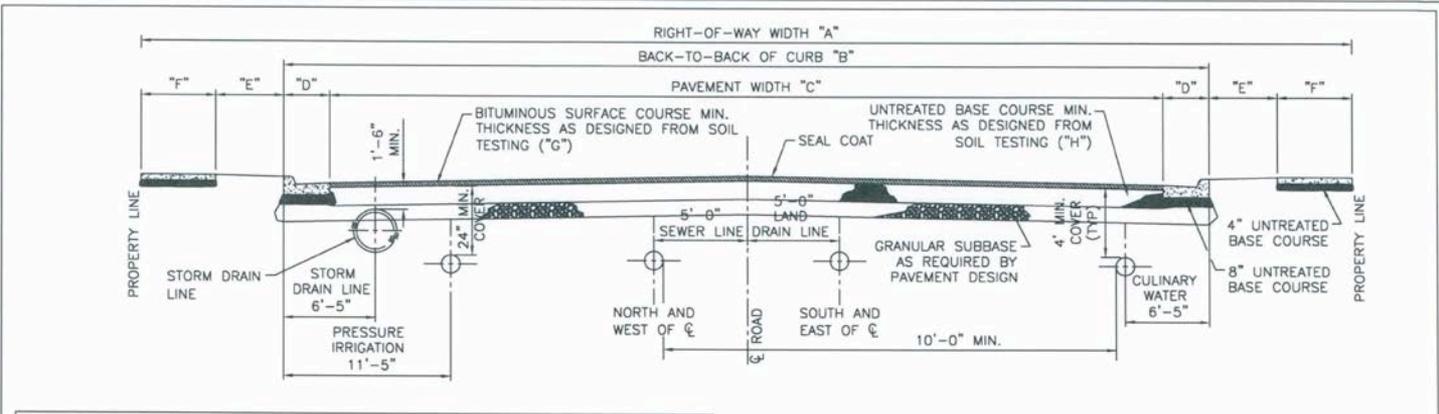
THIS DOCUMENT AND ANY ESTABLISHMENT THEREON ARE PROVIDED AS A SERVICE TO THE CITY OF SYRACUSE. THE CITY ENGINEER SHALL VERIFY THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CITY ENGINEER SHALL NOT BE RESPONSIBLE FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT. THE CITY ENGINEER SHALL NOT BE RESPONSIBLE FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT.

DATE: 01/11/2011
 BY: [Signature]
 CHECKED BY: [Signature]
 DATE: 01/11/2011



DEVELOPMENT STANDARDS
 SYRACUSE CITY CORPORATION
 STANDARD STREET SECTION

SHEET
 3

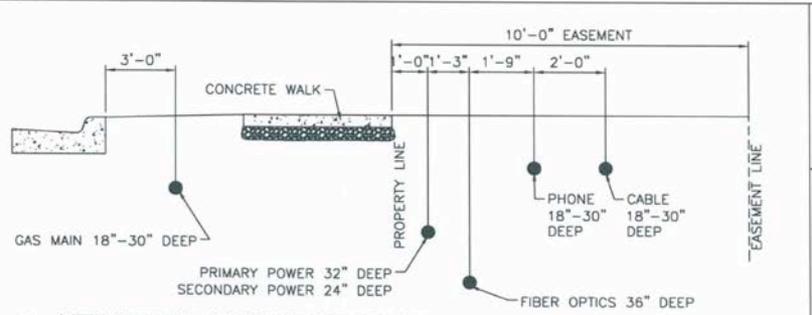


STREET DESIGNATION	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
ARTERIAL	110	91'	86'	2.5'	*3.0'	*4.0'	NOTE 2	NOTE 2
MINOR ARTERIAL	84'	66'	61'	2.5'	*5.0'	4.0'	NOTE 2	NOTE 2
COLLECTOR	66'	50'	45'	2.5'	*4.0'	4.0'	NOTE 2	NOTE 2
LOCAL	60'	40'	35'	2.5'	*6.0'	4.0'	*3"	*10"
LOW VOLUME LOCAL	60'	30'	25'	2.5'	*11.0'	4.0'	*3"	*10"

*MINIMUM REQUIREMENT

- NOTES:**
1. TOP BACK OF CURB ON BOTH SIDES OF ROAD TO BE SAME ELEVATIONS.
 2. THE CITY ENGINEER SHALL VERIFY PAVEMENT DESIGN PRESCRIBED BY SOILS REPORT (SEE SPECIFICATIONS).
 3. COMMERCIAL AND INDUSTRIAL STREET SECTIONS ARE DETERMINED BASED ON A TRAFFIC ANALYSIS FOR THE PARTICULAR USE.
 4. VARIATIONS IN TYPICAL STREET DIMENSIONS MAY BE CONSIDERED BY THE CITY WHERE PHYSICAL CONSTRAINTS OF THE NATURAL LAND OR CREATING ENHANCEMENTS WOULD PREVENT THE ABILITY TO FOLLOW ESTABLISHED DIMENSIONS.

1 STANDARD STREET SECTION
 SCALE: NOT TO SCALE



A UTILITY EASEMENT SECTION
 SCALE: NOT TO SCALE

LOW VOLUME LOCAL STREET DESIGN MAY ONLY BE USED WHEN THE FOLLOWING CRITERIA IS SATISFIED:

1. TRAFFIC VOLUME IS 400 VEHICLES PER DAY OR LESS.
2. PARKING IS PROHIBITED ON THE STREET. OFF STREET PARKING DEMANDS MUST BE SATISFIED.

TYPICAL SURFACE TREATMENT APPLICATIONS

HIGH DENSITY MINERAL BOND SEAL: PARKING LOT, PAVED TRAIL, LOW VOLUME LOCAL, LOCAL STREET
 CHIP & FOG: COLLECTOR, ARTERIAL

A-1 Changes

- Updated density from net acre to gross acre
 - Was .05/net acre, is .04/gross acre
- Updated accessory structure to reflect latest changes
 - 200 square feet or less
 - Greater than 200 square feet
- Removed Cluster information

R-1 Changes

- Updated density from net acre to gross acre
 - Was 2.9/net acre, is 2.3/gross acre
- Updated accessory structure to reflect latest changes
 - 200 square feet or less
 - Greater than 200 square feet
- Increased front yard setback to 30 feet
- Increased minimum lot size to 12,000 square feet
 - Was 10,000 square feet
- Updated Cluster density limit to 3.5/gross acre
 - Was 4.75/ net acre

R-2 Changes

- Updated density from net acre to gross acre
 - Was 3.79/net acre, is 3.0/gross acre
- Updated accessory structure to reflect latest changes
 - 200 square feet or less
 - Greater than 200 square feet

R-3 Changes

- Updated density from net acre to gross acre
 - Was 5.44/net acre, is 4.0/gross acre
- Updated accessory structure to reflect latest changes
 - 200 square feet or less
 - Greater than 200 square feet

Chapter 10.80

CLUSTER SUBDIVISION (MAJOR CONDITIONAL USE)

Sections:

- 10.80.010 Purpose.
- 10.80.020 Development requirements.
- 10.80.030 Permitted uses.
- 10.80.040 Bonus density incentives.
- 10.80.050 Design standards.
- 10.80.060 Approval.
- 10.80.070 Development plan and agreement requirements.

10.80.010 Purpose.

Cluster subdivisions may receive approval for a major conditional use permit in the ~~agriculture and~~ R-1 residential zones. The purpose of this chapter is to encourage open space conservation and imaginative and efficient utilization of land by providing greater flexibility in the location of buildings on the land and the clustering of dwelling units. This will allow the developer to more closely tailor a development project to a specific user group, such as retired persons or equestrian-oriented development. The Land Use Authority shall not grant such a conditional use unless the cluster subdivision meets the regulations of the applicable zone in which it resides, except as may lawfully be modified by City Council approval. The application of cluster concepts is intended to encourage good neighborhood design and preserve open space while ensuring substantial compliance with the intent of the subdivision and land use ordinances. [Ord. 11-13 § 1; Ord. 11-02 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; Ord. 03-08; Code 1971 § 10-16-010.]

10.80.020 Development requirements.

(A) A cluster subdivision shall have a minimum of 10 acres of **contiguous** land area. **The proposed development plan shall include all possible future phases. No additional phases shall be permitted beyond the original concept. Adjacent property developed similarly shall be a separate development and shall meet all requirements independently of any adjacent development.**

(B) The development shall be in single or corporate ownership at the time of application or the subject of an application filed jointly by all owners of the property.

(C) The Land Use Authority shall require that the arrangement of structures and open spaces be developed in such a manner as to prevent any adverse effects on adjacent properties.

(D) The density of dwellings in a cluster subdivision shall not exceed that allowed by the zone in which a project is located, except when the Land Use Authority approves a bonus density. ~~Density is calculated after discounting 20 percent of the property for dedication as public street rights-of-way.~~

(E) Approval of the development plan shall determine lot area, lot width, setbacks, and lot coverage regulations for multifamily structures, with a minimum separation of 16 feet between structures.

Single-family detached lots shall have the following minimum lot standards:

(1) Lot area: ~~6,000~~ 7,000 square feet.

(2) Lot width: 60 feet.

(3) Setbacks:

(a) Front: 15 feet.

(b) Garage: 20 feet.

(c) Side: eight feet (both sides).

(d) Rear: 20 feet.

(e) Corner side lot: 20 feet.

(F) The design and location of public sidewalks within a cluster subdivision may deviate from the standard roadway section in the Syracuse subdivision ordinance typical details if the sidewalk location is within a public use easement or completely within the street right-of-way per City approval.

~~(G) A clear area, 30 feet wide measured from back of curb, shall be maintained along both sides of all streets in a cluster subdivision for the location of utilities.~~ Park strip and sidewalk combination shall be a minimum width of 15 feet from curb. Pavement width and utilities shall

comply with the Street Designation dimension as specified on the Development Standards Standard Street Section.

(H) Every cluster subdivision shall provide open space within the development. Such required open space shall not include streets, driveways, common space, or parking areas, but shall be totally landscaped or utilized as agricultural or recreation areas. Nonagriculture and nonwetlands preserve open space shall be developed for the enjoyment and use of all residents of the development and/or the public.

(I) The developer shall landscape all common space ~~around or adjacent to building lots~~, and a lawfully organized and professionally managed homeowners' association shall maintain said common space from the onset.

(J) Preservation, use, maintenance, and ownership of ~~open~~ common space within the development shall be accomplished through a homeowners' association, or, at the discretion of the City Council, deeding the ~~open~~ common space to Syracuse City.

(K) Due to the nature of cluster subdivisions and the fact that most of the usual dwellings have site restrictions and because the placement of dwellings and other structures on the site may produce a negative impact to surrounding land uses, the location, size, and general footprint of all dwellings and other main buildings shall be shown on the plans submitted for review.

(L) Landscaping, ~~fencing~~, and other improvement plans for cluster development shall be presented to the Land Use Authority for approval along with other required plans for development. The estimated cost of these improvements shall be provided to the City by the developer and, after approval by the City Engineer, such estimated costs shall be included in the bonding requirements for the development.

(M) The proposed development shall not be detrimental to the health, safety, or general welfare of persons residing in the vicinity. [Ord. 13-15 § 1; Ord. 11-13 § 1; Ord. 11-02 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; amended 1999; Code 1971 § 10-16-020.]

10.80.030 Permitted uses.

Uses permitted in the cluster subdivision shall be those uses permitted in the zoning district in which the subdivision is located; provided, that for purposes of this section, the single-family dwelling designation shall

include single-family attached dwellings such as town houses and row houses or zero lot line dwellings. A single structure shall have no more than four attached dwelling units. [Ord. 11-13 § 1; Ord. 11-02 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; Code 1971 § 10-16-030.]

10.80.040 Bonus density incentives.

(A) Bonus Density. The City shall consider additional units per acre for a development that complies with the bonus density requirements. In no case shall the bonus density exceed the maximum allowed for the zone. To calculate the bonus density, add the incentive density to the standard density permitted in the proposed location. **The maximum density is then multiplied one-half (1/2) the gross acreage.** The awarded incentives are shown below:

Zone Density	Incentive Density	Standard Density	Maximum Density
A-1	2.0	0.5	2.5
R-1	1.85 1.2	2.9 2.3	4.75 3.5

(B) Bonus Density Calculations. For a permitted project to develop with a density greater than the zone allows, the density incentives must at a minimum contain items (1) through (4) as outlined below:

	Bonus Density Incentives Open Space Preservation	Bonus
1.	A-1 Zone Fifty (50) percent of the developed land	1.30
	R-1 Zone Twenty-five (25) Fifty percent (50) of the developed land shall be common space	.65 .45
2.	Building Design Standards The placement of restrictive covenants within the subdivision that facilitate superior design elements	.40 .30
3.	Landscaping of Park Strips Planting approved tree species (min. two-inch caliper) every 50 feet in park strips together with moving the sidewalk four five (5) feet closer to the homes	.20 .10
4.	Amenities to Open Space The funding and placement of approved amenities to open space or common areas	.25 .20
5.	Trail System/Walking Paths Development of walking paths connecting to the City’s trail system	.20 .15

6.	Landscaped Entrance Ways The development of entranceways to the subdivision development including subdivision identification signs	.15

(1) Landscaping Plan. The Land Use Authority shall review the conceptual landscaping plan designed in accordance with an approved theme that provides unity and aesthetics to the project. The landscaping plan shall indicate all special features, such as ponds, fountains, signs, walking paths, plant species and size, etc., together with a planting plan.

(2) ~~Open~~ Common Space. Property designated as ~~open~~ common space on the landscaping plan shall be for the full use and enjoyment of all the residents of the development or community at large. The developer shall develop and improve ~~open~~ common space that is not in the ownership of the City or maintain it for agricultural use or grazing. The developer must complete the ~~open~~-common space landscaping prior to approval of the next consecutive phase of subdivision development, or within negotiated phasing per the development agreement. ~~Open~~ Common space that is designated for agricultural use is required to have a recorded perpetual conservation easement and must be zoned A-1, agriculture.

(3) ~~Common~~ Open Space. The developer may identify property within the development that surrounds the dwelling structures as ~~common~~ open space. ~~The developer shall be responsible for developing and maintaining such common space.~~ Property designated as open space shall not be enclosed with fencing. Privacy fencing around a patio is allowed. [Ord. 13-15 § 1; Ord. 11-13 § 1; Ord. 11-02 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; Code 1971 § 10-16-040.]

10.80.050 Design standards.

~~Patios shall not extend beyond the width of the primary structure and shall not extend beyond half the rear setback.~~

A common building theme shall be required and approved by the Planning Commission. The design shall show detail in the unification of exterior architectural style, color, and size of each unit; however, the intent is not to have the design so dominant that all units are identical. [Ord. 11-13 § 1; Ord. 11-02 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; Code 1971 § 10-16-050.]

10.80.060 Approval.

A cluster subdivision is a special type of subdivision approved by major conditional use permit and, as such, shall meet design standards and be subject to all provisions of the Syracuse subdivision ordinance and submitted development plans. [Ord. 11-13 § 1; Ord. 11-02 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; Code 1971 § 10-16-060.]

10.80.070 Development plan and agreement requirements.

(A) Subdivision ordinance requirements shall apply to cluster subdivisions except where negotiated within the development agreement. The developer shall submit a residential development plan of all project phases for City consideration and approval and shall integrate the proposed development plan into a development agreement between the developer and City. The development agreement shall undergo an administrative review process to ensure compliance with adopted City ordinances and standards with approval by the City Council. The ~~subdivider shall develop~~ ~~the~~ property ~~shall be developed~~ in accordance with the development agreement and current City ordinances, including the development requirements as identified within this chapter, in effect on the approval date of the agreement, together with the requirements set forth in the agreement, except when federal, state, county, and/or City laws and regulations, promulgated to protect the public's health, safety, and welfare, require future modifications under circumstances constituting a rational public interest. The Land Use Authority shall use the submitted development plan and agreement with the design amenities and unique development features and merits of the development to determine overall development dwelling-unit density up to a maximum as determined by the bonus density calculations.

(B) The development plan submitted for review shall show the location and building elevations with exterior building materials, size, and general footprint of all dwelling units and other main buildings and amenities.

(C) The development plan submitted for review shall include landscaping, fencing, and other improvement plans for common or open spaces, with the landscaping designed in accordance with an approved theme to provide unity and aesthetics to the project. The plan shall include all special features, such as ponds, fountains, signs, walking paths, inviting entryways, etc., together with a landscape planting plan. ~~Open~~ ~~Common~~ space and recreational areas should be the focal point for the overall design of the development, with various community facilities grouped in places well related to these open spaces and easily accessible to

pedestrians.

(D) The proposed development shall show it will not be detrimental to the health, safety, or general welfare of persons residing adjacent to the proposed development.

(E) A cluster subdivision community shall be of sufficient size, composition, and arrangement to enable its feasible development as a complete unit, professionally managed by a legally established owners' association and governed by enforceable, duly recorded CC&Rs.

(F) Developer shall prepare a budget for the homeowners' association operation and facilities maintenance. Developer shall establish a dedicated operating fund for the collection of home owner dues and shall provide funding for said maintenance for the first three years' operating expenses of the homeowners' association or until developer owns less than 40 percent of the lots. When the developer owns less than 40 percent of the lots, developer shall pay dues on his remaining lots in accordance with the CC&Rs and fee schedule adopted by the homeowners' association. The CC&Rs will provide in the budget a depreciation estimate and provide for the collection of fees sufficient to meet the depreciation of infrastructure under control of the homeowners' association. [Ord. 13-15 § 1; Ord. 11-13 § 1; Code 1971 § 10-16-070.]

Subcommittee Meeting Minutes

Date: June 4, 2015

Location: Syracuse City Building

Minutes recorded by Dale Rackham

Attendees:

Dale Rackham (Chair)

Kenneth Hellewell (Member)

Pat Zaugg (Member)

David Jones (Member)

Gary Pratt (Member)

TJ Jensen

Noah Steele

Minutes:

1. The meetings was held at the Syracuse City building from at 6:30 to 8:30PM on June 4, 2015
2. Discussion on the final draft of the General Plan
3. Discussion on the proposed changes to Cluster
4. Discussion on the proposed changes to A-1
5. Discussion on the proposed changes to R-1
6. Discussion on the proposed changes to R-2
7. Discussion on the proposed changes to R-3
8. Discussion on proposed changes to General Plan Map
9. All the proposed changes have been made and forwarded to the City for discussion at June 16, 2015 Planning Commission meeting



PLANNING COMMISSION

AGENDA

June 2, 2015

Agenda Item # 4B. Code Amendment to Title VIII pertaining to Construction Specifications

Background

City code has not been updated since the City Council adopted the Engineering Standards and Specifications through resolution. Staff is proposing to remove the specifications from code to rectify the conflicts that exist and prevent future occurrences as the specifications are amended. Please see the attached proposal.

Attachments

- Proposed code amendment

Chapter 8.45

CONSTRUCTION SPECIFICATIONS

Refer to the Syracuse City Engineering Standards and Construction Specifications adopted by the City Council through resolution.

Sections:

- 8.45.010 — Earthwork.
- 8.45.020 — Surfacing and paving.
- 8.45.030 — Portland cement concrete.
- 8.45.040 — Steel reinforcement.
- 8.45.050 — Sidewalks.
- 8.45.060 — Curb and gutter.
- 8.45.070 — Excavation and backfill for pipelines.
- 8.45.080 — Culinary water.
- 8.45.090 — Sanitary sewers.
- 8.45.100 — Storm sewers.
- 8.45.110 — Land drains.
- 8.45.120 — Secondary water.
- 8.45.130 — Roadway lighting.

8.45.10 — Earthwork.

(A) General Description. Excavation for street pavement and/or curb and gutter shall consist of the removal of all materials within the lines, grades and slopes shown on the plans or established by the City Engineer, including all earth, stone, loose rock, sand, clay, shale, hard pan, boulders, solid rock, stone blocks, roots, brush, trees, rubbish and all other materials of whatever nature that may be encountered within the lines, grades and slopes above described or that may be required in grading approaches to intersecting streets and alleys or in providing ditches at the ends of pipes, waterways and flumes.

(B) Compaction Control and Testing. Maximum density, as used in these specifications, shall be defined as the maximum density obtained in the laboratory by ASTM D 1557. In-place density test procedures shall be in accordance with ASTM D 2922 and ASTM D 3017.

It shall be the responsibility of the contractor to accomplish the specified compaction for backfill, fill, and other earthwork. It shall be the responsibility of the contractor to control his operations by confirmation tests to verify and confirm that he has complied, and is complying at all times, with the requirements of these specifications concerning compaction, control,

and testing.

The frequency of the contractor's confirmation tests shall be not less than as follows and each test location for trenches shall include tests for each

layer, type, or class of backfill from bedding to finish grade or as required by Inspector.

~~(1) Trenches:~~

~~(a) Open fields: two every 1,000 linear feet;~~

~~(b) Along dirt or gravel roads or off traveled right of way: two every 500 linear feet;~~

~~(c) Crossing paved roads: two locations along each crossing;~~

~~(d) Under pavement cuts or within two feet of pavement edges: one location every 400 linear feet;~~

~~(2) Structural backfill: one every 20 cubic yards;~~

~~(3) Embankment or fill: one every 200 cubic yards;~~

~~(4) Base material: one every 50 cubic yards.~~

Confirmation tests shall be paid by the contractor.

Copies of the test reports shall be submitted promptly to the Inspector. The contractor's tests shall be performed by a soils testing laboratory acceptable to the Inspector.

If compaction fails to meet the specified requirements, the contractor shall remove and replace the backfill at proper density or shall bring the density up to specified level by other means acceptable to the Inspector. Subsequent tests required to confirm and verify that the reconstructed backfill has been brought up to specified density shall be paid by the contractor. The contractor's confirmation tests shall be performed in a manner acceptable to the Inspector. Frequency of confirmation tests for remedial work shall be double that amount specified for initial confirmation tests.

~~(C) Stripping.~~ On all portions of the work, where filling is required, the entire area shall first be stripped of all undesirable materials, as designated by the Inspector. The resulting surface, after the removal of all undesirable material, shall be scarified to the extent designated by the Inspector and brought to a uniform surface by means of graders or other suitable equipment, and shall be completed as provided in these specifications, before any embankment material is placed.

~~(D) Disposal of Excess Material.~~ All excess or undesirable material that may be encountered in the work shall be disposed of by the contractor, in a manner approved by the Inspector, but it shall not be placed on other streets or alleys without the

Inspector's approval nor on private property without the approval of the owner, which approval shall be obtained by the contractor in writing.

~~(E) Embankment.~~ All excavated materials that have been approved by the Inspector for embankment purposes and that are needed for that purpose shall be used at the points designated by the Inspector and in the following manner:

~~(1) The embankment shall be built by depositing approved material, in approximately level, uniform layers, not exceeding six inches in thickness after compacting.~~

~~(2) The material in place at both ends of any embankment, or where net material is placed against material in place, shall be plowed into the new material as the work progresses and shall be thoroughly scarified and worked into the new material and brought to the proper elevation before rolling of the layer being placed is commenced.~~

~~(3) If the material as found in excavation is too wet, as determined by the Inspector, then it shall be permitted to dry out to the extent required before being used in the embankment; or the material may be placed to the proper thickness on the embankment and worked with satisfactory equipment until the quantity of moisture in the material has been reduced to that required for maximum compaction. If the material as found in excavation is too dry, as determined by the Inspector, then it shall be moistened to the extent required and worked with harrows or other suitable equipment until the moisture throughout the material is uniform and contains the proper percentage of moisture, as determined by the Inspector, for proper compaction.~~

~~(4) The embankment shall be built to the lines, grades, and slopes shown on the plans or established by the City Engineer.~~

~~(5) All embankments shall be compacted to 95 percent of maximum density (AASHTO T 99 Test Procedure) unless otherwise specified by the City.~~

~~(F) Excavation Below Subgrade.~~ If soft or otherwise undesirable material is found to exist at and below the subgrade elevation, then such material shall be removed to the extent and in the manner designated by the Engineer.

~~(G) Removal of, Building and/or Rebuilding of Existing Structures.~~ Should it be found necessary to remove, build and/or rebuild existing pipelines;

flumes, monuments, manholes and other structures, or to reset metal covers and frames, etc., then said work shall be done as shown on the approved plans.

(H) Preparation of Subgrade. In excavating the required material, the work shall be so handled as to leave in place sufficient material above the finished subgrade elevation to provide for compaction in building the subgrade to the prescribed elevation.

After the materials have been excavated, as above described, then the subgrade shall be scarified, after which the material shall be accurately graded to the required form of the finished subgrade and rolled with approved rollers to compaction required. If additional moisture is required, in order to produce the compaction required, then the proper quantity shall be applied uniformly, either before or after scarifying. If necessary, the material shall be scarified after the water is applied, in order to obtain uniform distribution of moisture and bring the material to a suitable condition. All rocks, boulders, or other unsuitable material shall be removed. The quantity of material, and its distribution, before rolling, shall be such that when compacted the required form and elevation will be secured. All subgrade shall be compacted to 95 percent of maximum density (AASHTO T 99 Test Procedure).

(I) Completed Subgrade. The completed subgrade shall accurately conform to the lines, grades and slopes shown on the plans or designated by the Engineer and shall be maintained in satisfactory condition by the contractor. No driving or wheeling will be permitted on an unprotected subgrade without the approval of the Inspector.

(J) Sub Base. The depth of sub base material shall be determined by soil exploration and load requirements. Such soil analysis shall be in accordance with acceptable engineering practices. [Code 1971 Appendix § 1.]

8.45.20 Surfacing and paving.

(A) General. This section covers the requirements for bituminous surface paving on roads. All streets shall be surfaced in accordance with the following:

(1) Sub base as determined necessary upon analysis of soil characteristics and loads to be imposed on the pavement structure.

(2) Eight inch minimum crushed gravel base course over prepared subgrade.

(3) Three inch minimum compacted thickness plant mix asphalt surfacing on all streets.

(B) Base Course. Base for all streets shall consist of hard, durable particles or fragments of stone or gravel, screened or crushed to the required size and grading. The material shall be free from balls of clay, alkali, adobe or other deleterious matter, and shall conform to the following gradation when tested in accordance with AASHTO T 27 or ASTM C 136 and AASHTO T 11 or ASTM C 117.

Sieve Size	Percent Passing
1 1/8 inch	100
No. 4	38 - 65
No. 8	25 - 60
No. 30	10 - 40
No. 200	3 - 12

The material shall be deposited and spread in a uniform layer at optimum moisture content, without segregation of size, with such depth that when compacted in layer will have the required thickness.

Each layer shall be compacted for the full width and depth by rolling with a pneumatic roller weighing at least 10 tons. Alternate blading and rolling will be required to provide a smooth, even and uniformly compacted course true to cross-section and grade. Places inaccessible to rolling shall be compacted with mechanically operated hand tampers.

The gravel base shall be compacted to not less than 95 percent maximum dry density as determined by AASHTO T 180. Surfaces shall be true to the established grade with thickness being not less than one fourth inch from the required layer thickness and with the surface elevation varying not more than three eighths inch in 10 feet from the true profile and cross section.

(C) Bituminous Prime Coat. The bituminous prime coat shall consist of an application of hot bituminous material on a previously prepared base course or other surface to be paved. Prior to the application of the prime coat, an inspection of the area to be coated will be made by the Inspector to determine its fitness to receive the bituminous priming material. That portion of the base course

prepared for immediate treatment, if considered excessively dry, shall be lightly sprinkled with water immediately in advance of the application to assure a uniform spread of the bituminous material.

Bituminous material used for the prime coat shall conform to the requirements for RC-250 and shall be applied at a temperature of 175 degrees Fahrenheit to 225 degrees Fahrenheit at a rate of 0.3 to 0.4 gallons per square yard by use of a bituminous distributor.

Immediately following the preparation of the base course, the bituminous material shall be applied by means of a bituminous distributor at the temperature previously specified. The priming material shall be so applied that uniform distribution is obtained at all points of the surface to be primed.

Following the application of prime material, the surface shall be allowed to dry for a period of not less than 48 hours without being disturbed, or for such additional period of time as may be necessary to attain penetration into the base course and drying out or evaporation of the volatiles from prime material. The contractor shall furnish and spread sufficient acceptable sand on all areas which show an excess of bituminous material to effectively blot up and cure the excess.

The primed surface shall be maintained by the contractor until the succeeding layer of pavement has been placed. During this interval, the contractor shall protect the primed surface against damage and shall repair all broken spots.

The bituminous distributor shall be so designed and equipped as to distribute the bituminous material uniformly at even heat on variable widths of

surface at a readily determined and controlled rate with pressure range of 25 to 75 pounds per square inch.

The prime coat shall be applied only when the base course is dry or contains moisture not in excess of that which will permit uniform distribution and the desired penetration. It shall not be applied when atmospheric temperature is below 60 degrees Fahrenheit.

(D) Tack Coat. Transitions of asphalt to concrete or asphalt that exists and is to be paved over shall be tack coated with a Grade SS-1h anionic emulsion at a rate of 0.10 gallons per square yard.

(E) Asphalt Concrete. Asphalt cement shall conform to the requirements for asphalt cement, AR-2000, AASHTO M-266 (AR-40) or ASTM D-3381. Mixing temperature shall be not lower than 275 degrees Fahrenheit, nor higher than 325 degrees Fahrenheit.

Mineral aggregate shall consist of coarse aggregate of crushed stone or gravel composed of hard, durable particles, sand, and a filler as specified in the following. The portion of the material retained on the No. 8 sieve shall be known as coarse aggregate and that portion passing a No. 8 sieve shall be known as fine aggregate. The composite material shall be uniformly graded from coarse to fine and shall meet the requirements of one of the following gradings when tested in accordance with AASHTO T-27 or ASTM C-136. Asphalt concrete shall be as indicated on the plans, but if not indicated shall be two course plant mix. Unless otherwise indicated on the plans, asphalt concrete having an overall thickness of over three inches shall be the two course plant mix.

Plant Mix, Two Course		Plant Mix, Single Course			
		Base, 1-3/4-Inch-Thick			
Seal, 3/4-Inch-Thick Minimum		Minimum		3-Inch-Thick Minimum	
Sieve Size	Percent Passing	Sieve Size	Percent Passing	Sieve Size	Percent Passing
1/2"	100	1-1/4"	100	3/4"	100
3/8"	95-100	1"	87-100	1/2"	75-95
No. 4	50-70	3/4"	75-90	3/8"	65-85
No. 8	35-55	3/8"	55-72	No. 4	50-65
No. 30	15-30	No. 4	40-60	No. 8	35-50
No. 100	5-15	No. 8	30-50	No. 30	15-30

Plant Mix, Two Course			Plant Mix, Single Course		
Seal, 3/4-Inch-Thick Minimum			Base, 1-3/4-Inch-Thick Minimum		
Sieve Size	Percent Passing	Sieve Size	Percent Passing	Sieve Size	Percent Passing
No. 200	3—8	No. 30	15—30	No. 100	5—15
		No. 100	5—15	No. 200	3—8
		No. 200	3—8		

At least 70 percent by weight of each size of aggregate included in the coarse aggregate shall consist of particles which have at least one rough, angular surface produced by crushing.

Coarse aggregate shall have a percentage of wear of not more than 50 at 500 revolutions, as determined by AASHTO T-96 or ASTM C-131.

Plasticity index of the aggregate shall be not more than two as determined by AASHTO T-90 or ASTM D-431B.

Sand may be added to the crusher or pit run product to supply any deficiency in the No. 8 mesh size, and filler may be added to supply any deficiency in No. 200 mesh material. If the aggregate contains an excess of sand, wasting will be required.

Finely powdered limestones, portland cement, or other artificially or naturally powdered mineral dust, acceptable to the Inspector, shall be used for filler.

(F) Construction Methods and Equipment. The methods employed in performing the work, all equipment, tools and machinery and other appliances used in handling the materials and executing the work shall be the responsibility of the contractor. The contractor shall make such changes in the methods employed and in the equipment used as are necessary whenever the bituminous mix being produced does not meet the specifications herein established.

(G) Spreading and Compaction. The bituminous mixtures shall be spread with self-propelled mechanical spreading and conditioning equipment capable of distributing at least a 12-foot width. The mixture shall be spread and struck off in such a manner that the finished surface shall result in a uniform smooth surface. The longitudinal joints in succeeding courses shall be offset at least six inches transversely to avoid a vertical joint through more than one course.

The temperature of the bituminous mix shall be between 250 degrees Fahrenheit and 350 degrees Fahrenheit when placing. At no time will the temperature of the mix exceed 350 degrees Fahrenheit.

After the mixture has been spread the surface shall be rolled in the longitudinal direction commencing at the outside edge or lower side and preceding to the inner or higher side. Each pass of the roller shall overlap the preceding pass at least one-half the width of the roller. Rolling shall be continued until 95 percent of the laboratory density as determined in accordance with ASTM Designation D-1559 for the bituminous mixture being used has been obtained.

Rolling operations shall be conducted in such a manner that shoving or distortion will not develop beneath the roller.

The surface of the pavement, after compaction, shall be uniform and true to the established crown and grade. When tested with a 10-foot straight edge placed parallel to or perpendicular to the centerline of the pavement the surface of the pavement at any point shall not deviate from the lower edge of the straight edge by more than one-quarter of an inch. All high and low spots shall be remedied immediately by removing the wearing course material over the affected areas and replacing it with fresh, hot wearing course and surface finish material and immediately compacting it to conform with the surrounding area.

All traffic shall be kept off the completed surface for a minimum period of 24 hours.

(H) Weather Limitations. No bituminous surface shall be placed when the temperature of the air or road bed is 50 degrees Fahrenheit or below, during rainy weather, when the base is wet or during other unfavorable weather conditions as determined by the Inspector. The air temperature shall be measured in the shade.

~~(I) Restoring Pavements.~~

~~(1) Cutting and Removing. The pavement shall be cut vertically in neat lines with necessary tools by the contractor in such manner as not to damage the adjacent pavement. It shall be cut along straight lines forming the edges of the trench. The portion to be removed shall be broken up in such manner as not to damage the pavement outside the lines of the trench. If any pavement outside the lines of the trench is damaged, it shall be removed and restored as hereinafter provided at the contractor's expense. Concrete driveways, sidewalks and curb and gutter shall be removed in a similar manner. All waste material resulting from the above operations shall be immediately removed from the site of the work and all costs to the contractor for removing and disposing of said material shall be included in the unit prices bid under the appropriate items in the schedule.~~

~~(2) Temporary Pavement. Between street intersections, unless otherwise ordered by the Engineer, the backfilling shall be built up slightly above the surface of the pavement, oiled and maintained in good condition until the contractor is ready to place the new pavement, when the backfilling shall be removed to the subgrade elevation or bottom of the pavement. This work shall be done accurately to the proper elevation and all loose material removed. If any material is removed below the established subgrade elevation, said space shall be filled with similar material to that used for pavement base, at the contractor's expense, after which the new pavement shall be placed according to the City's specifications for the type of pavement that was removed, or such other type as may have been ordered to replace it.~~

~~At street intersections a temporary pavement, satisfactory to the Inspector, shall be placed and maintained in good condition until the contractor is ready to place the new pavement, when it shall be removed accurately to the subgrade elevation of the pavement and the new pavement placed according to the City's specifications for the type of pavement that was removed, or such other type of pavement as may have been ordered to replace it.~~

~~Such temporary bridges as may be required to properly handle the traffic during the progress of the construction shall be built, maintained and removed at the contractor's expense.~~

~~(3) Driveways, Sidewalk or Curb and Gutter. Where a trench is located under private driveways, sidewalk or curb and gutter, the subgrade shall be prepared in the same manner as described for pavement, and the concrete driveway, sidewalk or curb and gutter shall be rebuilt according to the City's specifications on file in the Inspector's office, for the type of driveway, sidewalk or curb and gutter that was removed, or such other type as may have been ordered to replace it.~~

~~(4) Repairing Damaged Pavement, Driveway, Sidewalk or Curb and Gutter. If any pavement, concrete driveway, sidewalk, or curb and gutter has been damaged outside the lines of the trench, while trenching, damaged areas shall be removed along straight lines and at right angles, and all cut surfaces shall be vertical, and removal and rebuilding of the damaged portion shall be done by the contractor at his own expense, and to the full satisfaction of the Engineer.~~

~~(J) Seal Coat.~~

~~(1) Slurry Seal. After allowing newly paved roads to sit for one year, the contractor shall apply a Type II slurry seal coat in accordance with approved specifications and standards. The City, at its option, may allow chip and seal application to satisfy requirements of this section. Slurry seal shall consist of mixing asphalt emulsion, aggregate, and water and spreading the mixture on dedicated roadway surfaces shown on the plat and plans approved by the City, as specified in these specifications and the special provisions, and as directed by the City Inspector.~~

~~(2) The materials for slurry seal immediately prior to mixing shall conform to the following requirements:~~

~~(a) Polymer Modified Asphalt Emulsion. Polymer emulsified asphalt shall be a quick traffic, quick cure (QT-QC) type, shall be a homogeneous brown color throughout and show no separation after thorough mixing, shall break and set on the aggregate within five minutes and shall be ready for cross traffic within 45 minutes. The polymer asphalt emulsion, upon standing undisturbed for a period of 24 hours, shall show no white or milky~~

colored substance on its surface and conform to the requirements in Table I.

Table I		
Test on Emulsion	Test Method	Requirement
Viscosity, SSF, @ 77 degrees F., sec	ASTM D-244	15—90
pH		1—3
Distillation Residue %, Minimum		60
Test on Residue from Distillation Test		
Penetration, 77 degrees F., 100g, 5s	ASTM D-5	40—80
Softening Point (Ring & Ball), degrees F.	ASTM	130+
Ductility, 77 degrees F. (25 degrees C.), 5 em/Min., Minimum	ASTM D-113	25
Fraass Breaking Point (degrees C.) min.	DIN 52012	-18

Water shall be potable, free of harmful soluble salts and shall be of such quality that the asphalt will not separate from the emulsion before the slurry seal is in place in the work.

Aggregate shall consist of sound, durable, crushed stone or crushed gravel and approved mineral filler. The material shall be free from vegetable matter and other deleterious substances. Aggregates shall be 100 percent crushed with no rounded particles, volcanic in origin and black in color. The percentage composition by weight of the aggregate shall conform to the following grading:

Type II Slurry	
Sieve Sizes	Percentage Passing
3/8" (9.5 mm)	100
No. 4 (4.75 mm)	90—100
No. 8 (2.36 mm)	65—90
No. 16 (1.18 mm)	40—70

Type II Slurry (Continued)	
No. 30 (600 μm)	25—50
No. 200 (75 μm)	5—15
Theoretical asphalt content, percent based on dry aggregate	7.5—13.5
Approximate application rate (pounds/square yard)	14—18

[Ord. 04-11; Code 1971 Appendix § 2.]

8.45.30 — Portland cement concrete.

(A) Portland cement shall conform to the “Standard Specifications for Portland Cement,” ASTM designation C-150-56 and subsequent revisions or addendums and shall be Type II. In areas where there is no exposure to sulfates in the soil or ground water, Type I cement is permissible.

(B) A certified analysis of the cement shall be presented to the City Engineer upon request.

(C) Cement content shall not be decreased because of the addition of certain admixtures.

(D) Fine and course aggregates shall conform to the specifications for concrete aggregates, ASTM Designation C-33-57, and subsequent revisions or addendums.

(E) The maximum size of the aggregate shall not be larger than one fifth of the narrowest dimension between forms of the member for which the concrete is to be used, nor larger than three fourths of the minimum clear spacing between reinforcing.

(F) Water used in mixing concrete shall be clean and free from strong acids, alkalis, oils, salts, organic materials, or other deleterious materials.

(G) The concrete shall contain a minimum of 6 bag (94#/bag) cement per cubic yard, and have a minimum compressive strength at 28 days of 4,000 psi maximum water content 0.048. Under no circumstance will a slump in excess of four inches be permitted.

(H) Not less than one test shall be made for each 150 cubic yards of concrete, nor less than one test for each day’s concreting. These tests shall be made at the option of the Inspector.

(I) Proper mixing shall be accomplished either by truck or by stationary mixers.

(J) The place of deposit shall be prepared by adequate forming, proper compaction, necessary

drainage, and sufficiently moistened to minimize loss from the freshly placed concrete.

(K) Forms may be removed when the concrete has sufficient strength to carry its own weight and the loads upon it with safety (approximately 75 percent of design strength or at the discretion of the Engineer).

(L) Finishing shall provide a pleasant appearing surface, as well as a protective coat against weathering effects.

(M) All concrete surfaces shall be cured for a period of seven days by keeping the surface of the concrete continually visibly moist. An acceptable curing compound may be substituted for water where approved by the Inspector.

(N) In all cases the contractor shall assume all responsibility arising from preparing, placing, and the removal of forms, and shall assure himself that the concrete is properly cured to sustain loads before forms are removed.

(O) No frozen materials or materials containing ice shall be used. All concrete materials, forms, fillers and ground with which the concrete is to come in contact shall be free from frost. Whenever the temperature of the surrounding air is below 40 degrees Fahrenheit, all concrete, when placed in forms, shall have a minimum temperature of 55 degrees Fahrenheit, and shall be maintained at a temperature of not less than 40 degrees Fahrenheit for at least 72 hours. Concrete subject to freeze/thaw shall be air entrained to a content of six percent plus one and one-half percent.

(P) The City Inspector reserves the right to forbid the use of material from any plant, pit or source when the character of material, equipment in use or the method of operation is such in his opinion as to make it doubtful that a reasonable uniform class of material will be furnished.

(Q) Transporting, Placing, and Compacting. The transporting equipment shall be such as to deliver the concrete to the place of use without segregation and without undue loss of moisture. If the concrete is being placed in walls or structures more than five feet high, it shall be deposited into final position by means of tremies or similar equipment, and the maximum lateral movement of the concrete from any point of deposit shall not be more than five feet. It shall be deposited in even layers, not more than 24 inches in depth, and each layer shall be thoroughly vibrated preceding lift and next to

the forms to ensure a smooth surface and the removal of air pockets. Particular attention shall also be given to working of the concrete around reinforcing steel and embedded fixtures in such manner as to produce a continuous homogeneous mass filling all corners and eliminating segregation of aggregate and air pockets. An internal vibrator shall be inserted vertically at intervals of 18 inches to 30 inches, depending on the thickness of the concrete. It shall be held in position and gradually withdrawn when air bubbles no longer come to the surface, which will usually require from five to fifteen seconds. All concrete shall be vibrated within 15 minutes after being placed in the forms. The vibrator shall not be permitted to come in contact with the forms, the reinforcing steel or embedded fixtures or to overvibrate the concrete at any point. Concrete shall not be transported laterally by means of vibrators.

(R) Joining New Concrete to Old. In joining new concrete to old, the old concrete shall be thoroughly treated with concrete epoxy preceding the placing of the new concrete. All surface film shall be removed from the old concrete, the surface roughened and thoroughly washed to remove loose particles. The methods employed to prepare the surface of the old concrete shall be approved by the Inspector in advance. A layer of mortar of the same proportions and consistency as the mortar used in the new concrete shall be thoroughly boomed into the surface of the old concrete, immediately before the new concrete is placed, but no pools of water shall be permitted on the surface of the old concrete when the mortar is placed.

(S) An original copy of the concrete batching ticket shall be given to the City Inspector at time of delivery. Ticket is to include the plant designation, ticket number, mix design number, slump, air entrainment, type of concrete, gallons of water added on site, time of leaving plant, time of arrival on site and bag mix. Concrete could be rejected if ticket is not available and does not meet City standards. [Code 1971 Appendix § 3.]

8.45.40 — Steel reinforcement.

(A) General Description. (Specifications shall only apply where the International Building Code as adopted by the State of Utah does not.) All steel bars used for concrete reinforcement shall be grade

60 deformed bars conforming to ASTM A 615 and shall include the supplementary requirements.

(B) ~~Cutting and Bending.~~ All cutting and bending shall be done at the mill or shop unless provisions satisfactory to the Inspector are made for handling this work in the field. The radius of curvature of the bends shall not be less than four diameters. All bending shall be done cold. Heating preparatory to bending will not be permitted. All steel shall conform accurately to the dimensions shown on the plans.

(C) ~~Surface Condition.~~ All steel shall be clean and free from mill scale, flakes of loose rust, cement, concrete, paint, oil, grease or any other foreign material, except that a thin layer of tightly adhering rust may be permitted if approved by the Inspector.

(D) ~~Placing.~~ All reinforcement bars shall be placed accurately, as shown on the plans, wired at intersections and spaced and supported by means of metal chairs, spacers, hangers or other devices approved by the Inspector. The placing of bars on layers of fresh concrete as the work progresses will not be permitted. The reinforcement shall be securely bound together and rigidly held in the required position. Where splices are made, the base shall be tapped 40 diameters or a minimum of 20 inches and tightly wired together.

(E) ~~Inspection.~~ No concrete shall be placed in any reinforced concrete structure until the steel and its placement have been inspected and approved by the Inspector and he has given permission to proceed with the placing of concrete. Any concrete placed in violation hereof shall be rejected and shall be removed by the contractor at his own expense.

(F) ~~Storage and Protection.~~ All reinforcement steel shall be stored in such manner as to be protected from the elements. It shall be stored on skids or other supports approved by the Inspector, and shall be protected against physical damage. No bars that are bent, twisted, kinked or warped shall be used in the work. No bars that have been bent shall be straightened and used in the work.

(G) ~~Welded steel wire fabric shall conform to ASTM Designation A 185. [Code 1971 Appendix § 4.]~~

8.45.50 — Sidewalks.

(A) ~~Excavation.~~ All excavation required for concrete sidewalks and preparation of subgrade shall be made as provided in these specifications and shall include all applicable provisions therein contained. If the sidewalk under construction does not cover the entire area between the curb and the property line, then after the forms have been removed, the depressions along the edges of the sidewalk pavement shall be backfilled with approved material, properly moistened and hand tamped to the satisfaction of the Inspector, and the areas between the sidewalk and the curb and between the sidewalk and the property line shall be finished to a uniform slope, as shown on the plans, with fine material, free from stones and large lumps, and then neatly surfaced with hand rakes. Where the excavation extends into lawns, the sod shall be taken up, carefully preserved and relaid by the contractor.

(B) ~~Subgrade.~~ After having excavated the area as described in subsection (A) of this section, it shall be compacted immediately in advance of placing the base material and shall be maintained in a suitable condition until the base has been placed.

(C) ~~Base Course.~~ The base course shall be composed of natural gravel or crushed gravel placed on the prepared subgrade. The gradation of the aggregate shall be as follows:

Sieve Size	Percent Passing Gradation Band
1 inch	100
1/2 inch	70 — 100
No. 8	40 — 70
No. 16	20 — 40
No. 50	10 — 27
No. 200	4 — 13

The base course shall be placed to a depth of four inches and shall be compacted to 95 percent of maximum laboratory density as determined by AASHTO T 180 Method D. Compaction in conformance with SCC 8.45.010 shall be to the satisfaction of the City Inspector.

(D) ~~Forms.~~ The forms shall comply with all applicable requirements of these specifications. The width of the material shall be equal to the full

depth of the sidewalk pavement and the upper edge shall be set accurately to the required elevation of the finished surface.

~~(E) Resetting Frames and Covers, Etc.~~ Where there are structures existing, within the area of the sidewalk being constructed, such as valve boxes, meter boxes, hydrant boxes, sewer manholes, etc., that require resetting of frames and covers, or the building up or cutting down of the structure to fit the grade of the sidewalk, this work shall be done by and at the expense of the contractor unless otherwise provided in these specifications. Work shall be done to the satisfaction of the Engineer.

~~(F) Class of Concrete to Be Used.~~ In the construction of concrete sidewalks air-entrained concrete and Type II cement shall be used.

The concrete materials and the proportioning, mixing, transporting, placing, protection and curing of the same shall conform to all the applicable requirements of SCC 8.45.030. Vibration will not be required.

~~(G) One Course Sidewalk.~~ The concrete shall be placed on the subgrade, prepared as above described, to the full depth of the sidewalk, as shown on the plans, in one course. The full quantity of concrete required shall be deposited in as near its final position as practical in one operation, and the placing shall be completed with shovels. Spades shall be used along the edges to bring the concrete into uniform and complete contact with the forms. Hand tampers approved by the Engineer shall be used for compacting. A heavy iron shod straight edge shall be used for striking off the concrete at the proper elevation. Wood floats shall be used for bringing the material to a uniform surface, and after the surface has partially set, all edges shall be finished with an approved edging tool having a three-eighths inch radius, and the surface shall then be finished with a wood float or by floating with a steel trowel as directed by the Inspector. On steep grades the surface shall be roughened as directed by the Inspector.

~~(H) Sidewalk Pavement.~~ All concrete sidewalk shall be constructed to the lines, grades and dimensions as shown on the prepared plans, or as directed otherwise by the Engineer. All concrete sidewalk shall be installed by the developer prior to the final warranty inspection. It shall be built four inches thick except at and through driveways. Concrete sidewalk built at and through resident driveways

that are used generally for passenger car traffic shall be six inches in thickness through the entire width of driveway. At driveways, other than resident driveways, such as service stations and at all driveways used for commercial and industrial traffic, the thickness of the sidewalk through the entire driveway shall be as shown on the drawing, or as determined by the Engineer; but in no case shall the thickness of the concrete walk be less than seven inches.

~~(I) Joints.~~ Transverse expansion joints shall be constructed in all concrete sidewalk at intervals of approximately 32 feet. These joints shall be one-half inch in thickness and shall run the full width and depth of the sidewalk pavement. Expansion joints shall also be constructed between the sidewalk and curb, between the sidewalk and buildings abutting said sidewalk, around all poles, hydrants, manhole frames and/or other structures coming within or immediately adjacent to the sidewalk area, and at such other points as shown on the plan or as directed by the Engineer. The width of expansion joint at the above-mentioned locations shall be as shown on the drawing, or as directed by the Engineer, except that the expansion joint abutting curb shall be a special joint one inch wide by eight inches deep. All expansion joints shall extend the full depth of the sidewalk pavement being constructed and shall be constructed at right angles to the centerline and surface of the sidewalk pavement. A metal holder shall be used to hold the expansion joint rigidly and securely in place during the sidewalk construction.

~~(1)~~ The expansion joint filler to be used shall be prepared resilient, nonextruding joint filler conforming to the requirements of ASTM specifications, designation D-544-52T, or as last revised, and as approved by the Engineer, cut or molded to proper dimensions, and it shall be so placed in relation to surface of sidewalk pavement to allow for pouring of joint sealer compound.

~~(2)~~ In addition to the expansion joint all concrete sidewalks shall be marked transversely with a marking tool, at intervals equal to the width of the sidewalk being built, and every third marking shall be a contraction joint. Each contraction joint shall be finished with an edging tool and shall be cut to a depth of one quarter of the sidewalk slab thickness. Additional contraction joints shall be provided as and where shown on the drawing or as

directed by the Engineer, or as further described in the "Detail Specification." Ordinary markings shall not be more than one-quarter inch in depth.

(3) All expansion joints and contraction joints constructed in concrete sidewalks shall be sealed by a hot poured rubberized asphalt joint sealing compound that is resilient and adherent to the concrete to prevent infiltration of water and foreign substances into and through joints. The joint sealing compound used shall first be submitted to the Engineer and approved by him, and the compound shall be handled and placed as directed and to the satisfaction of the Inspector.

(4) All above joint filler and sealer shall be furnished and properly placed at the expense of the contractor, unless otherwise provided in these specifications.

(J) Wasted Concrete. Retempering concrete that has partly set will not be permitted. Concrete that for any reason has been mixed too wet shall be wasted. Concrete that is partly set shall not be used in the work. Waste concrete shall be disposed of by the contractor in a manner satisfactory to the Inspector.

(1) All concrete surfaces not coming in direct contact with the forms shall be struck off with a straight edge to the exact form and elevation required. The surface shall then be finished with a wood float or steel trowel as shown on the plans or as ordered by the Inspector, and the edges shall be finished with an approved edging tool.

(2) If any special type of finish is required on any of the concrete included in this section, detailed requirements will be found in the "Detail Specifications" attached hereto.

(K) Curing. All portland cement concrete shall be cured by acceptable means and approved by the Engineer. The work shall be done in an efficient and systematic manner. The curing period shall not be less than seven days.

(L) Concreting in Cold Weather. If the contractor desires to place concrete in cold weather he shall assume all responsibility for damage that may be caused by freezing or by any other cause, even though permission to proceed may have been given by the Engineer. In no case, however, shall concrete be placed when the temperature is 45 degrees Fahrenheit and falling, unless the contractor has complied with the following requirements and

such additional precautions as he may consider to be necessary or advisable:

(1) Provision shall be made for heating the water and, if necessary, the aggregates also. If the aggregates are heated, it shall preferably be done with steam by means of closed steam coils.

(2) The temperature of the mixed concrete when placed in the forms shall be between 50 degrees Fahrenheit and 70 degrees Fahrenheit, depending on the temperature of the air.

(3) When the concrete has been placed, the forms and concrete shall be covered with tarpaulins or other approved covering and a sufficient number of perforated steam pipes provided under the covering to maintain the temperature needed to ensure proper curing.

(4) The use of any admixture to lower the freezing point of the concrete is forbidden.

(5) No concrete shall be placed upon a frozen subgrade and no frozen materials shall be used in the concrete.

(6) Salamanders shall not be used without special permission from the City Engineer, and if the use of salamanders is permitted, then each salamander shall have a vessel containing water placed on it in order to maintain the necessary humidity to prevent drying of the concrete. Water shall be maintained continuously in the vessel.

(7) The material shall be free from ice, snow and frozen lumps when introduced into mixer.

(M) Concreting in Hot and/or Dry Weather. Whenever the ambient temperature is above 80 degrees Fahrenheit or the humidity is below 10 percent, the City Engineer may, at his discretion, require trial batches to determine the period of initial set. If, in the opinion of the City Engineer, weather conditions are such that the initial set is accelerated, the maximum period specified for mixing, placement and compaction shall be reduced to allow at least 10 minutes time before initial set. The term "initial set" shall be construed as the time in which, in the opinion of the Engineer, the concrete is no longer workable. Necessary steps will be taken at the direction of the Engineer to protect the concrete from undesirable effects of heat. These steps may include:

(1) Spraying forms, reinforcing steel and subgrade to prevent absorption of water from mix.

(2) Erecting sun shades and wind breaks.

~~(3) Protecting slabs before final finishing by covering with waterproof or Visqueen.~~

~~(4) Spraying outside of forms to cool concrete.~~

~~(5) Cooling mixing water.~~

~~(6) Spraying coarse aggregate to reduce temperature.~~

~~(N) Temporary Stoppage of Work. If, for any reason, work is discontinued for a period long enough for the concrete to become set or partially set, then a construction joint shall be provided, preferably at a transverse expansion joint, or if that is impracticable, then at a transverse contraction joint. A bulkhead shall be placed between and at right angles to the side forms and at right angles to the surface of the pavement. It shall extend through the full depth of the pavement and the upper edge shall be set flush with the upper edge of the forms. The concrete shall be finished against this bulkhead to the full depth of the pavement and any excess concrete shall be wasted, and all work shall be done to the satisfaction of the Inspector before work is stopped. [Ord. 04-11; Code 1971 Appendix § 5.]~~

8.45.60 — Curb and gutter.

~~(A) Excavation for Curb and Gutter—Preparation of Subgrade, Base and Backfilling. All excavation and preparation of subgrade and base required for construction of concrete curb and gutter and reinforced concrete shall be as outlined in SCC 8.45.070, as determined by the Engineer. Embankment required under the concrete shall be with approved material compacted to 95 percent of maximum density. Base material will be required as outlined in SCC 8.45.050.~~

~~(B) Construction. Concrete curb and gutter and reinforced concrete drain gutter shall be constructed in conformity with the lines, grades, slopes, form and dimensions shown on the plans or as designated by the Engineer. In the construction of combined curb and gutter, the entire structure will be built simultaneously and no joint or line of cleavage shall be made between the curb and the gutter.~~

~~(C) Class of Concrete. The concrete used for the construction of reinforced concrete drain gutter and concrete curb and gutter shall be air entrained using Type II cement and shall be as outlined in~~

~~SCC 8.45.030. The curb and gutter shall be constructed monolithically.~~

~~(D) Joints. At intervals of 10 feet, joints shall be made by inserting form plates one eighth inch in thickness and shaped to the exact form and dimensions of the curb and gutter. Plates must be smooth and clean. They shall be oiled with mineral oil immediately before using. Any plate that has become warped or damaged shall not be used. They shall be carefully removed after the concrete has set, and any concrete broken out shall be repaired to the satisfaction of the Inspector.~~

~~(1) Expansion joints one half inch thick shall be provided at approximately 50 foot intervals. The expansion joint filler shall be shaped to the exact form and dimensions of the curb and gutter, shall be one half inch in thickness, and shall conform to ASTM Designation D 544-52T, or as last revised, and as approved by the Engineer.~~

~~(2) At the contractor's option, plates a minimum of two inches deep may be substituted for the full depth plates at contraction joints only. A full plate must be used at expansion joints and ends of the constructed section, such as at driveways, curved sections and/or where determined by the Engineer.~~

~~(3) After division plates have been removed and expansion joints have been properly set, then all joints shall be sealed in a manner and with material approved by the Engineer.~~

~~(E) Placing, Compacting and Curing. The method of mixing, placing, compacting, finishing and curing, etc., of the concrete shall conform to all applicable requirements of SCC 8.45.050, as determined by the Inspector.~~

~~(1) Curb and gutter may be placed by an approved slip form method. The slip form machine equipment shall spread, consolidate, screen and float finish the freshly placed concrete in such a manner that a minimum of hand float finishing will be required to provide a dense and homogeneous concrete section.~~

~~The concrete shall be distributed uniformly into final position by the machine without delay and competently placed true to line and grade.~~

~~The contraction joints every 10 feet may be provided by cutting into the fresh concrete to a minimum depth of one and one half inches to create a weakened vertical plane. The edges of such joints shall be tooled with an edger so as to provide~~

a neat, workmanlike appearance. Expansion joints will not be required except at adjacent pavement, walk or structure.

This option shall be so noted in the bid schedule by the contractor when this alternate is used in bidding this item.

~~(F) Reinforced Concrete Drain Gutter. The reinforced concrete drain gutter shall be constructed simultaneously with the adjoining gutters and shall consist of concrete a minimum of eight inches in thickness, unless otherwise shown, and reinforced longitudinally, and shall be built to conform to dimensions, form and to elevations as shown on the plans or as directed by the Engineer.~~

~~The concrete used shall be the same as provided in subsection (C) of this section.~~

~~The methods of placing, spading, compacting, finishing and curing, as provided in subsection (E) of this section shall apply to the construction of the drain gutter.~~

~~Where necessary, in the opinion of the Engineer, gravel shall be placed and thoroughly compacted to form a base for the drain gutter, as directed by the Inspector.~~

~~(G) Protection. The contractor shall protect all curb and gutter and drain gutter from damage from traffic and all other causes until accepted by the City. Should the curb and gutter or drain gutter become damaged by weather, traffic, or during the rolling of the street, or from any other cause, it shall be repaired by reconstructing an entire section, by and at the expense of the contractor and to the satisfaction of the Inspector. [Code 1971 Appendix § 6.]~~

8.45.70 — Excavation and backfill for pipelines.

~~(A) Description. Excavation of trenches for pipelines shall include the excavation of all materials, of whatever nature, except pavement, coming within the designated lines of the trenches, as hereinafter described. It shall include the excavation of all materials required for the construction of manholes, flush tanks, cleanout boxes, meters, pressure regulators and other appurtenances as shown on the drawings or directed by the Engineer. It shall include all excavation required for the removal or lowering of existing pipelines or appurtenances and shall include all necessary clearing and grubbing, all necessary draining, pumping, timbering,~~

~~sheeting and subsequent removal of these materials as directed by the Inspector. It shall include the disposal of all material excavated and the backfilling of the trenches and appurtenant structures as hereinafter provided.~~

~~(B) Subgrade. The subgrade for all pipeline trenches is hereby defined to be the bottom of the trench at the elevation of the outside bottom of the pipe.~~

~~(C) Limits of Excavation. The trench shall be excavated 10 inches wider than the inside diameter of the pipe, except for concrete pipe, for which it shall be excavated 12 inches wider. The sides of the trench shall be vertical and the depth of the trench shall be measured from the existing ground surface to the subgrade of the trench; provided, that on paved streets the depth shall be measured from the bottom of the pavement to the subgrade of the trench. All excavation required for manholes, flush tanks, cleanout boxes, meter boxes, valve boxes, pressure regulators and other appurtenances shall be made and measured as described under "Excavation for Structures"; provided, however, that such measurements shall include only such additional material as is excavated outside the designated lines of the trench.~~

~~(D) Excavation in Rock. If the bottom of the trench for any pipeline is in rock or in material too hard to permit the bed to be properly formed for the pipes, the excavation shall be made not less than four inches below the established subgrade, and the bottom of the trench shall be brought to subgrade with approved material compacted into place as ordered by the Inspector.~~

~~(E) Excavation Other Than Rock. Where the bottom of the trench is composed of material other than rock, care shall be exercised to prevent any disturbance of the material beyond the prescribed lines, and if any material is so disturbed, it shall be tamped back into place in a manner satisfactory to the Inspector.~~

~~(F) Undesirable Material. If any undesirable material is encountered in the bottom of the trench, the contractor shall make such additional excavation as the Inspector may direct, and shall replace it with gravel of a quality that will pack, and said gravel shall be tamped into place in four inch layers to the satisfaction of the Inspector.~~

~~(G) Bridging. The contractor shall construct suitable bridging over the trench at all street inter-~~

sections and at driveways to property abutting the line of the work, and at such other points as may be required. The bridging shall be of sufficient strength to carry the loads required. For public vehicle crossings it shall be capable of supporting a 15-ton truck.

(H) ~~Disposal of Seepage, Storm Water or Sewage.~~ The contractor shall remove all seepage, storm water or sewage that may be found or may accumulate in the excavation during the progress of the work. He shall furnish all labor, pumps and other equipment and appliances necessary therefor, and shall keep all excavations entirely free from water at all times during the construction of the work and until the Inspector shall give instructions to cease pumping.

(I) ~~Tunneling.~~ No tunneling will be permitted unless permission is given in writing by the Inspector.

(J) ~~Protection of Pipes.~~ All water, gas, sewer or other pipes encountered in excavating for the trench or appurtenances shall be supported and protected from injury in a manner satisfactory to the Inspector.

(K) ~~Parking, Lawns, Etc.~~ Where the pipeline or structure is located on, along or across sodded parking, lawns or grass plots, the contractor shall in advance of making the excavation, remove the lawn or sod and give it proper care and attention, and shall replace the same in as nearly the original location and condition as is reasonably possible after the excavation has been backfilled and settled. Where it is necessary to deposit the excavated material on lawns or parking during the process of construction, the contractor shall first spread canvas or similar material of suitable size upon the grass to prevent any of the excavated material from coming in contact with the sod. The excavated material shall be removed as soon as possible in order to avoid injury to the grass and the contractor shall replace, at his own expense, any sod that is damaged.

(L) ~~Trench in Unpaved Street.~~ Where the trench is in an unpaved street, the backfilling shall be slightly rounded over the trench and left to settle for such time as the Inspector may direct, at which time it shall be thoroughly rolled with a five-ton truck loaded to capacity. The entire area of the trench shall be covered at least three times by the tread of the tires, after which any depression or

irregularities shall be smoothed up to the proper elevation and rerolled. The surface over the trench shall be left in a uniformly smooth condition, conforming to the street surface and all excess material shall be removed. During the interval of waiting for settlement of the material in the trench, the contractor shall keep the surface over the trench oiled and shall maintain said surface in good condition until finally completed and accepted.

(M) ~~All backfill operations shall be completed within 10 calendar days from the start of excavation.~~

(N) ~~All backfill material shall be free from cinders, ashes, refuse, organic and frozen material, boulders, stones, or other material that, in the opinion of the City Engineer, is unsuitable.~~

(O) ~~Backfill material under, around, and to one foot over the pipe shall consist of select earth, sand or fine gravel, free from clods, lumps or stones larger than one and one half inches to their maximum dimensions. This shall be limited to three-fourths inch maximum around PVC, ABS or polyethylene lines. In wet or unstable conditions, material in this zone shall be free draining, nonplastic material.~~

(P) ~~Backfill under and around the pipe to the centerline shall be placed in maximum layers of six inches. Bell holes of ample dimensions shall be dug in the bottom of the trench for each pipe. Uniform bearing for each pipe barrel shall be provided for the full length of each pipe. Backfill from the centerline to one foot above the pipe shall be placed and compacted in maximum layers of six inches. Backfilling under improved areas (such as paved streets) shall be placed and compacted in six inch layers. All layers through improved areas will be compacted to not less than 95 percent of the maximum standard proctor density (T-99). Only in the zone from one foot above the pipe to finished subgrade under unimproved areas will the use of wheel compaction be allowed. Adequate testing by the contractor shall be required to satisfy compaction requirements.~~

(Q) ~~All subsequent settling of backfill areas will become the sole responsibility of the contractor for a period of not less than two years following the final approval of the entire project.~~

(R) ~~Impervious backfill shall be required at irrigation canal crossings or other waterway interferences.~~

~~(S) All areas disturbed by excavation and back-filling construction shall be restored to original condition, or better, at the contractor's expense. [Code 1971 Appendix § 7.]~~

8.45.80 Culinary water.

(A) Materials.

~~(1) Fire Hydrants. Fire hydrants shall meet the requirements of the current AWWA Standard Specification C 502 for fire hydrants for ordinary water works service with the following supplementary qualifications:~~

~~(a) Length for depth of trench to be as specified.~~

~~(b) Two hose nozzles two and one half inches in diameter with national standard fire hose thread.~~

~~(c) One steamer nozzle four and one half inches in diameter when ordered with national standard fire hose thread.~~

~~(d) Counter clockwise to open.~~

~~(e) Operating nut pentagon, one and one half inch point to flat.~~

~~(f) All internal parts to be removable from top of hydrant without the use of special tools.~~

~~(g) Operating valve nut shall be within six inches of finished surface grade.~~

~~(2) Flanged Fittings. All flanged fittings shall be in accordance with the current AWWA Specification C 110 for cast iron fittings.~~

~~(3) Check Valves. Standard iron body swing check valves for 150 pound working pressure Crane, Ludlow or equal.~~

~~(4) Dresser Couplings. Latest standard style with rubber gasket for water. For diameters four inches to 14 inches middle ring to be a minimum of one fourth inch thick and five inches long with four and five eighths inch bolts for four inch diameters; six and five eighths inch bolts for six and eight inch diameters and eight and five eighths inch bolts for 10, 12, and 14 inch diameters.~~

~~(5) Steel Pipe. Steel pipe shall conform to the current AWWA Specification C 201.~~

~~(6) Certification of all tests required by the American Water Works Association shall be provided by the manufacturer. The three edge bearing test will be required, upon request of the Engineer.~~

~~(7) All pipe shall be standard lengths except for making connections to valves, fittings, and other such closures.~~

~~(8) Concrete Pipe. Concrete pipe shall conform in quality to the A.C.I. concrete standards. Sufficient proof of loading, bearing and sizing capacity for its intended use shall be required by the City Engineer.~~

~~(9) Cast iron pipe shall conform to the provisions of American Standard Specifications ASA A2.6 or A21.8 for Class 250 bell and spigot pipe with push on joint. Fittings shall be mechanical or push on joints, Class 250 conforming to ASA A21.10 and A21.11. The interior of the pipe and fitting shall have a cement mortar lining conforming to the requirements of ASA A21.4. The outside coating shall be a bituminous coal tar base coating approximately one mil thick.~~

~~(10) Ductile Iron Pressure Pipe. Ductile iron pipe where designated shall be centrifugal spun ductile iron, Class 50 or better. Ductile iron pipe shall have a standard thickness cement liner and shall conform to all requirements for AWWA Standard C 151 for centrifugal spun ductile iron pipe with "push on" or bell and spigot type joints. Required glands, gaskets, bolts and nuts shall be furnished. Pipe shall be coated with bituminous coal tar base, approximately one mil thick. The nominal laying length of the pipe shall be 18 feet. The maximum allowable pipe deflection shall be three degrees per joint with a recommended deflection of two degrees or less per joint. Pipe deflection shall be limited to two degrees at crosses, valves, couplings, and fire hydrants. Except where specifically noted on the plans, ductile iron pipe shall have bell and spigot ends. Ductile iron pipe underground shall be protected against external corrosion by loose polyethylene sleeves in accordance with AWWA C 105.~~

~~(11) PVC Pressure Pipe. PVC Class 900 pipe shall meet the requirements of ASTM D 2241 except that the pipe shall have an outside diameter of ductile iron pipe sizes instead of iron pipe sizes. The PVC pipe shall meet the requirements of the AWWA C 900 with pressure class of 150 and the D.R. of not less than 18. At least 85 percent of the total footage shall be furnished in standard 20 foot lengths.~~

~~(12) Fittings. Fittings for PVC pipe shall be cast iron fittings as specified under cast iron and~~

ductile iron pipe, and be properly sized for the dimensions of the pipe being used. All fittings for joining pipe four inches in diameter and larger shall be of the push-on rubber gasket or mechanical joint type of fitting.

~~(13) Replacement of Damaged Material. Any material that becomes damaged shall be replaced by the subdivider at his own expense.~~

~~(14) Responsibility for Safe Storage. The subdivider shall be responsible for the safe storage of material furnished by or to him, and accepted by him, and intended for the work, until it has been incorporated in the completed project.~~

~~(15) Handling Pipe and Accessories. Pipe, fittings, valves, hydrants, and other accessories shall, at all times, be handled with care to avoid damage. In loading and unloading they shall be lifted by hoists or slid, or rolled on skidways in such manner as to avoid shock. Under no circumstances shall they be dropped. Pipe handled on skidways must not be skidded or rolled against pipe already on the ground. All pipe, fittings, valves and hydrants shall be carefully lowered into the trench piece by piece by means of derrick, ropes or other suitable tools or equipment, in such manner as to prevent damage to pipe or pipe coating. Under no circumstances shall pipe or accessories be dropped or dumped into the trench. Pipe shall be handled in such manner that a minimum amount of damage to the coating will result. Damaged coating shall be repaired in a manner satisfactory to the Engineer.~~

~~(16) Gate valves shall be iron body, bronze mounted, double disc with nonrising stems with design construction to AWWA C-500, and modifications herein. Stem seals shall be double O-ring seals; valves shall open counterclockwise. Provide two inch square wrench nut for key operation. Operating valve nut shall be within six inches of finished surface grade. Install 24 inches of crushed rock from the bell top of the valve to the trench grade below the valve to provide proper drainage. Provide mechanical joint ends, except gate valves for use with fire hydrants.~~

~~(17) Valve boxes shall be buffalo type, sliding type with base as required for the valve size used and of sufficient length for the specified pipe bury. It shall have the word "water" stamped thereon.~~

~~(18) Locating wire and tape shall be provided and installed along PVC pipelines one foot directly above the pipe. The wire shall be 14 gauge 600 volt PVC jacketed wire manufactured for underground services. Wire shall terminate and be exposed in valve boxes as directed by the Public Works Department for easy access. Installation contractor shall install "culinary waterline buried below" tape if pipe color does not meet City requirements.~~

~~(B) Laying Pipe.~~

~~(1) General. All pipe shall be laid and maintained to the required lines and grades, with fittings, valves and hydrants at the required locations, and with joints centered and spigots home, and with all valve and hydrant stems plumb. No deviation shall be made from the required line or grade except with the written consent of the Engineer.~~

~~(2) Permissible Deflections at Joints. Whenever necessary to deflect pipe from a straight line, either in the vertical or horizontal plane to avoid obstructions, to plumb stems, or where long radius curves are permitted, the degree of deflection shall be approved by the Engineer.~~

~~(3) Protecting Underground and Surface Structures. Temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers and other obstructions encountered in the progress of the work shall be furnished by the contractor at his own expense under the direction of the Engineer.~~

~~(4) Deviations Occasioned by Other Utility Structures. Wherever existing utility structures or branch connections leading to main sewers or to main drains, or other conduits, ducts, pipes, or structures present obstruction to the grade and alignment of the pipe, they shall be permanently supported, removed, relocated or reconstructed by the contractor through cooperation with the owner of the utility, structure or obstructure involved. In those instances where their relocation or reconstruction is impracticable, a deviation from line and grade will be ordered, and the change shall be made in the manner directed by the Engineer. Connections to private residences shall be cut and looped around the pipeline.~~

~~(5) Pipe Kept Clean. All foreign matter or dirt shall be removed from the inside of the pipe before it is lowered into its position in the trench,~~

and it shall be kept clean by approved means during and after laying.

~~(6) Bell Ends to Face Direction of Laying. Unless otherwise directed, pipe shall be laid with bell ends facing the direction of laying, and for lines on an appreciable slope, bells shall, at the discretion of the Engineer, face upgrade.~~

~~(7) Preventing Trench Water from Entering Pipe. At times when pipe laying is not in progress, the open ends of pipe shall be closed by approved means, and no trench water shall be permitted to enter the pipe.~~

~~(8) Cutting Pipe. Cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat and workmanlike manner without damage to the pipe.~~

~~(9) Pipe Jointing. Jointing of all pipe shall be as recommended by the manufacturer. All pipes shall be handled in such a way so as to prevent damage to the coating and lining. Refer to backfilling specifications for proper bedding and compaction. Thrust blocking shall be applied at all tees, plugs, caps and at bends deflecting 22.5 degrees or more. Prevention of concrete adhesion by means of 10 mil plastic sheeting to protect valves or pipe material shall be directed by the City Inspector.~~

~~(C) Setting Valve, Hydrant and Fitting.~~

~~(1) Valves. The contractor shall furnish all valves indicated on the plans as called for in these specifications or as called for proper operation of the water system. Valve manufacturer shall provide detailed information as required by the Engineer for evaluating the quality of the valve. The technical information shall include complete dimensions, weights and material lists. No valve will be approved for installation until the required information has been received and approved. Except as otherwise specified, all buried valves shall be painted with two coats of asphalt varnish in accordance with the requirements of AWWA C-500. Gate valves shall be iron body, resilient seat, nonrising stem conforming to AWWA C-509 with double O ring. Valves shall open counter clockwise. Valve ends shall be flanged or mechanical joint as required for the type of pipe used. Maximum shutoff pressure shall be 200 psi.~~

~~(2) Location. Gate valves, hydrants and fittings shall be located as shown on the plans or as directed by the Engineer or Public Works Department Director.~~

~~(3) Valve Boxes and Valve Pits. Cast iron valve boxes shall be firmly supported, and maintained centered and plumb over the wrench nut of the gate valve, with box cover flush with the surface of the finished pavement or at such other levels as may be directed. The valve shall be supported by a concrete pressure block and surrounded with two feet in depth of coarse gravel around the base of the valve.~~

~~(4) Hydrants. Hydrants shall be located in a manner to provide complete accessibility, and in such a manner that the possibility of damage from vehicles or injury to pedestrians will be minimized. Maximum separation distance between fire hydrants shall not be greater than 500 feet. Unless otherwise directed, the setting of any hydrant shall conform to Items 4, 5, 6, and 7.~~

~~(5) Position of Nozzles. All hydrants shall stand plumb, and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle pointing normal to the curb, except that hydrants having hose nozzles at an angle of 45 degrees shall be set normal to the curb. They shall conform to the established grade, with nozzles at least 12 inches above the ground.~~

~~(6) Drainage at Hydrant. A drainage pit two feet in diameter and two feet deep shall be excavated below each hydrant and filled compactly with coarse gravel or broken stone, mixed with coarse sand, under and around the bowl of the hydrant and to a level of six inches above the waste opening. No hydrant drainage pit shall be connected to a sewer.~~

~~(7) Anchorage for Hydrant. The bowl of each hydrant shall be well braced against unexcavated earth at the end of the trench with concrete backing, or it shall be tied to the pipe with suitable rods or clamps.~~

~~(8) Cleaning. Hydrants shall be thoroughly cleaned of dirt or foreign matter before setting.~~

~~(9) Plugging Dead Ends. Standard plugs shall be inserted into the bells of all dead ends of pipe, tees or crosses and spigot ends shall be capped.~~

~~(10) Anchorage of Tees, Tees, and Plugs. Reaction or thrust blocking shall be applied on all pipelines four inches in diameter or larger at all tees, plugs, caps and at bends deflecting 22.5 degrees or more, or movement shall be prevented by attaching suitable metal rods or straps as~~

directed by the Engineer. Thrust block size shall be determined by the subdivider's engineer and shall be shown on the plans.

~~(H) Material for Reaction Blocking. Reaction or thrust blocking shall be of concrete having compressive strength of not less than 2,000 psi. Blocking shall be placed between solid ground and the fitting to be anchored, the area of bearing on pipe and on ground in each instance shall be that required by the Engineer. The blocking shall be so placed that the pipe and fitting joints will be accessible for repair. The pipe shall be protected from the thrust block by a layer of 10 mil plastic.~~

~~(D) Hydrostatic Tests.~~

~~(1) Pressure During Test. After the pipe has been laid and partially backfilled, all newly laid pipe, or any valved section of it shall, unless otherwise specified, be subjected to maximum operating pressure.~~

~~(2) Duration of Pressure Test. The duration of each pressure test shall be at least 30 minutes at 220 psi.~~

~~(3) Procedure. Each valved section of pipe shall be slowly filled with water and the specified test pressure, measured at the point of lowest elevation, shall be applied by means of a pump connected to the pipe in a satisfactory manner. The pump, pipe connections and all necessary apparatus shall be furnished by the contractor.~~

~~(4) Expelling Air Before Test. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made, if necessary, at points of highest elevation, and afterward tightly plugged.~~

~~(E) Cleaning Water Mains. After chlorination, the mains shall be flushed thoroughly. Flushing shall be done after the pressure test is made. It must be understood that such flushing removes only the lighter solids and cannot be relied upon to remove heavy material allowed to get into the main during laying.~~

~~Unless extreme care and thorough inspection is practiced during the laying of water mains, small stones, pieces of concrete, particles of metal, or other foreign material may gain access to mains newly laid or repaired.~~

~~(F) Sterilizing Water Mains.~~

~~(1) General. Disinfection of water mains shall be done in accordance with "Procedure for Disinfecting Water Mains," AWWA C 601-68.~~

The interior of all pipe, fittings and other accessories shall be kept as free as possible from dirt and foreign matter at all times.

~~(2) Chlorination.~~

~~(a) Form of Chlorine and Means of Application. Before being placed in service, all new water mains shall be chlorinated. If the available water is more alkaline than pH 8, the holding time in the main shall be increased at the discretion of the Engineer.~~

~~(b) Form of Applied Chlorine. Either of the following forms of chlorine may be used, subject to the approval of the Engineer:~~

~~(i) Liquid chlorine;~~

~~(ii) Calcium hypochlorite tablets.~~

~~(c) Methods of Chlorine Application.~~

~~(i) Continuous Feed Method. This method is suitable for general application.~~

Table 1
Chlorine Required to Produce 50 mg/l
Concentration in 100 Feet of Pipe by
Diameter

Pipe Size inches	100 Percent Chlorine pounds	1 Percent Chlorine Solutions gallons
4	0.027	0.33
6	0.061	0.73
8	0.108	1.30
10	0.170	2.04
12	0.240	2.88

~~Water from the existing distribution system or other approved sources of supply shall be made to flow at a constant, measured rate into the newly laid pipeline. The water shall receive a dose of chlorine, also fed at a constant, measured rate. The two rates shall be proportioned so that the concentration in the water in the pipe is maintained at a minimum of 50 mg/l available chlorine. To assure that this concentration is maintained, the chlorine residual should be measured at regular intervals in accordance with the procedures described in the current edition of Standard Methods and AWWA M 12 - Simplified Procedures for Water Examination.~~

~~Table 1 gives the amount of chlorine residual required for each 100 feet of pipe of vari-~~

ous diameters. Solutions of one percent chlorine may be prepared with sodium hypochlorite or calcium hypochlorite. The latter solution requires approximately one pound of calcium hypochlorite in eight and one-half gallons of water.

During the application of the chlorine, valves shall be manipulated to prevent the treatment dosage from flowing back into the line supplying the water. Chlorine application shall not cease until the entire main is filled with the chlorine solution. The chlorinated water shall be retained in the main for at least 24 hours, during which time all valves and hydrants in the section treated shall be operated in order to disinfect the appurtenances. At the end of this 24-hour period, the treated water shall contain no less than 25 mg/l chlorine throughout the length of the main.

(ii) ~~Tablet Method.~~ Tablets are placed in each section of pipe and also in hydrants, hydrant branches, and other appurtenances. They shall be attached by an adhesive, except for the tablets placed in hydrants and in the joints between the pipe sections. All the tablets within the main must be at the top of the main. If the tablets are fastened before the pipe section is placed in the trench, their position should be marked on the section to assure that there will be no rotation. In placing tablets in joints, they are either crushed and placed on the inside annular space, or, if the type of assembly does not permit, they are rubbed like chalk on the butt ends of the sections to coat them with calcium hypochlorite.

The adhesive may be Permatex No. 1 or any alternative approved by the Engineer. There shall be no adhesive on the tablet except on the broad side next to the surface to which the tablet is attached.

(iii) ~~Filling and Contact.~~ When installation has been completed, the main shall be filled with water at a velocity of less than one foot/second. This water shall remain in the pipe for at least 24 hours.

Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water.

Table 2
Number of Hypochlorite Tablets Required for Dose of 50 mg/l*

Length of Section Feet	Diameter of Pipe Inches					
	2	4	6	8	10	12
13 or less	1	1	2	2	3	5
18	1	1	2	3	5	6
20	1	1	2	3	5	7
30	1	2	3	5	7	10
40	1	2	4	6	9	14

*Based on 3.75 grams available chlorine per tablet.

(iv) ~~Preventive Measures During Construction.~~ Precautions must be taken to protect pipe interiors, fittings, and valves against contamination. Pipe delivered for construction shall be strung so as to minimize entrance of foreign material. When pipe laying is not in progress, as for example at the close of the day's work, all openings in the pipeline shall be closed by watertight plugs. Joints of all pipe in the trench shall be completed before work is stopped. If water accumulates in the trench, the plugs shall remain in place until the trench is dry.

Note: Delay in placement of delivered pipe invites contamination. The more closely the rate of delivery is correlated to the rate of pipelaying, the less this delay.

If dirt that, in the opinion of the City Engineer or Inspector, will not be removed by the flushing operation enters the pipe, the interior of the pipe shall be cleaned and swabbed as necessary, with a five percent hypochlorite disinfecting solution.

(v) ~~Preventing Reverse Flow.~~ Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water.

(vi) ~~Retention Period.~~ Treated water shall be retained in the pipe long enough to destroy all non-spore-forming bacteria. This period should be at least 24 hours and preferably longer, as may be directed. After the chlorine treated water has been retained for the required time, the chlorine residual

at the pipe extremities and at other representative points should be at least 25 ppm.

~~(vii) Chlorinating Valves and Hydrants. In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipeline is filled with the chlorinating agent.~~

~~(viii) Final Flushing and Test. Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipeline at its extremities until the replacement water throughout its length shall, upon test, be proved comparable to the quality of water served the public from the existing water supply system and approved by the public health authority having jurisdiction. This quality of water delivered by the new main should continue for a period of at least two full days as demonstrated by laboratory examination of samples taken from a tap located and installed in such a way as to prevent outside contamination. Samples should never be taken from an unsterilized hose or from a fire hydrant because such samples seldom meet current bacteriological standards.~~

~~(ix) Repetition of Procedure. Should the initial treatment fail to result in the conditions specified above, the chlorination process shall be repeated until such results are obtained. [Ord. 04-11; Code 1971 Appendix § 8.]~~

8.45.90 — Sanitary sewers.

~~(A) Concrete Sewer Pipe.~~

~~(1) Description. — Sanitary sewers shall include the performance of all operations necessary to lay sewer pipe mains, wye branches, individual sewer mains to manholes, test mains for leaks and all incidental work necessary to complete the work in a satisfactory manner.~~

~~(2) Sewer Pipe. All pipe for the sanitary sewer mains shall be bell and spigot. The type of pipe the contractor proposes to install shall have the approval of the City Engineer before work is commenced. No interchanging of type of pipe will be allowed.~~

~~(3) Nonreinforced Concrete Sewer Pipe. Nonreinforced concrete sewer pipe shall conform to Concrete Sewer Pipe ASTM Designation C-14-56.~~

~~(4) Reinforced Concrete Sewer Pipe. Reinforced concrete sewer pipe shall conform to the requirements for “Reinforced Concrete Sewer~~

~~Pipe: ASTM Designation C-75556.” Cement used in the pipe shall conform to Type 11A (the air entraining agent shall be interground at the mill), low alkali cement, conforming to Federal Specifications, 192a, of ASTM Designation C-15C-53.~~

~~(5) Length of Pipe. Pipe 36 inches in diameter and under shall be at least 36 inches long except specials. Pipe over 36 inches in diameter shall be at least as long as the inside diameter. The maximum length of pipe shall be 24 feet.~~

~~(6) Testing. Random samples of pipe and all fittings and specials such as short radius bands, wyes and toes shall be tested as specified for the type of pipe being used.~~

~~(7) Laying. No pipe shall be laid under any circumstances until the pipe has been tested, and the samples selected have satisfactorily passed the requirements. All pipe shall be laid upgrade from structure, unless otherwise expressly permitted by the Engineer, with the bell end of the pipe upgrade. All pipe shall be laid true to line and grade, with a uniform bearing under the full length of the barrel of the pipe, and suitable excavation shall be made to receive the bell of the pipe. All adjustments to grade shall be made by scraping away or tamping earth under the pipe. Wedging or blocking under the hub will not be permitted. As each unit of pipe is laid a sufficient amount of selected backfill materials shall be carefully placed and thoroughly tamped about the lower portion of the pipe to hold it firmly in position. If adjustment of the position of a length of pipe is required after it has been laid, it shall be removed and rejoined as for a new pipe. When laying is not in progress the ends of the pipelines shall be kept closed to prevent the entrance of foreign material.~~

~~(8) Rubber Gasket Joints. Pipe for rubber gasket joints shall be of the bell and spigot type, detail of the type the contractor proposes to use shall be furnished and must have the approval of the City Engineer before the work is to be commenced. The joint shall be so designed as to provide for self centering and when assembled, to compress the gasket to form a watertight seal. The pipe design and gasket shall be such that movement of the pipe or hydrostatic pressure cannot displace the gasket. In order to assure watertightness the clearance between the inner surface of the bell and the outer surface of the spigot, as well as the dimensional tolerances of this annular space, shall~~

be such that the gasket residual deformation is neither less than 20 percent nor more than 45 percent when the spigot is seated to the full depth of the bell socket.

(9) Rubber Gaskets. The rubber gasket for use on pipe shall be cured in such a manner that any cross section will be dense, homogeneous, and free from porosity and other imperfections. The gasket shall be extruded or molded to the specific size within a tolerance of plus or minus one thirty second of an inch at any cross section of the gasket. The gasket shall be fabricated from a high grade tread type compound. The basic polymer shall be natural rubber, or a copolymer of butadiene styrene synthetic. The compound shall contain no factice and shall have the following characteristics:

Tensile strength, pounds per square inch, minimum	2,300
Elongation at break, percent, minimum	425
Shore durometer (Type A)	40 to 60
Absorption of water, by weight, two days at 70 degrees Celsius, percent maximum	5
Compression set (constant deflection), percent of original deflection, maximum	20
Tensile strength after oxygen bomb aging (48 hours, 158 degrees Fahrenheit, 300 per square inch), percent of tensile strength before aging, minimum	80
Increase in shore durometer hardness after oxygen bomb aging, maximum increase over original shore durometer	8
Acetone, extract, percent, maximum	15

The physical properties of the rubber compound shall be determined by tests performed in accordance with the appropriate section of Federal Specifications ZZ-R-601a, except for shore durometer and compression set. All tests for compression set shall be made in accordance with Method B, ASTM Designation D-395 for compression set of vulcanized rubber under constant deflection. Tests for shore durometer shall be made in accordance with ASTM Designation D-676. The contractor shall furnish certified copies of test reports as evidence of the rubber compound used in

all rubber gaskets before any gaskets are used to join pipes. All rubber shall be stored in as cool a place as practicable, preferably at 70 degrees or less, and in no case shall the rubber for joints be stored exposed to the direct rays of the sun. All rubber gaskets shall be stored so as to permit free circulation of air about the rubber.

In all cases during the laying of the pipe extreme care must be taken to see that the rubber gaskets are properly fitted in place and at all times are free from twisting and unusual displacement.

(B) Poly (VinylChloride) Sewer Pipe (PVC).

(1) General. This specification covers requirements for PVC pipe and fittings to be furnished for sanitary sewer.

Pipe and fittings produced to the standards below should be installed in accordance with ASTM recommended practice D-2321, underground installation of flexible thermoplastic sewer pipe. The plastics nomenclature used in the specifications is in accordance with the definitions given in nomenclature D-883, unless otherwise indicated.

(2) Applicable Documents. PVC sewer pipe furnished under this specification shall meet the following ASTM standards: D-256, Impact Strength; D-638, Tensile Strength and Modulus of Elasticity; D-648, Deflection Temperature under Load of 264 psi; D-1784, Specifications for Rigid Poly (VinylChloride) Compounds and Chlorinated Poly (VinylChloride) Compounds; D-3034 (SDR 35) Type PSP Poly (VinylChloride) (PVC) Sewer Pipe and Fittings. The requirements of this specification are intended to provide pipe fittings suitable for nonpressure drainage of sewage.

(3) Materials. Basic materials of the pipe and fittings shall be PVC plastic having a self classification of 12454-B and shall meet the minimum physical properties and chemical resistance of the PVC compound as defined in ASTM D-1784.

(4) Connection Joints. All sizes and classifications of PVC gravity sewer pipe shall have joints utilizing rubber gaskets for sealing. Gaskets shall meet specifications defined in ASTM D-2000-AA820, ASTM 2000-AA625 and ASTM D-1869.

(5) Workmanship. The pipe and fittings shall be homogeneous throughout and free from visible cracks, holes, foreign inclusions or other injurious defects. The pipe shall be as uniform as commer-

cially practical in color, density, and other physical properties.

~~(6) Requirements.~~—All materials, dimensions, strengths, qualities, and test requirements shall meet the applicable ASTM requirements. All material used shall be new and shall be protected from any long exposure to the sun.

~~(7) Inspections.~~ Inspection of the material shall be made as agreed upon by the purchaser and the seller as part of the purchase contract.

~~(8) Certification.~~ When agreed upon in writing by the purchaser and the seller the certification shall be made the basis of the acceptance of the material. This shall consist of a copy of the manufacturer's test report or a statement by the seller, accompanied by a copy of the test results, that the material has been sampled, tested, and inspected in accordance with the provisions of the specification. Each certification so furnished shall be signed by an authorized agent of the seller or manufacturer. Copies will be furnished to the City.

~~(9) Marking.~~ Pipes in compliance with this standard shall be clearly marked at intervals of five feet or less. The marking on SDR 35 shall be:

- ~~(a) Manufacturer's quality;~~
- ~~(b) Nominal pipe size;~~
- ~~(c) PVC 12454 B;~~
- ~~(d) SDR (Number);~~
- ~~(e) PSP sewer pipe;~~
- ~~(f) Appropriate ASTM number;~~
- ~~(g) Extrusion code.~~

~~(C) Sewer Appurtenances.~~

~~(1) Testing of Gravity Sewer Lines.~~ Gravity sewer lines shall show not more than 200 gallons infiltration per day, per mile of pipe, per inch nominal diameter. In areas where the ground water level is above the top of the pipe for the entire length of the sewer being tested, the infiltration shall be measured into the pipe to determine if it meets infiltration requirements. In areas where the ground water level is below the top of the pipe the contractor shall perform an exfiltration or leakage test to provide the City an indication of the condition of the completed system. After capping and blocking all wyes or tees, the pipe between successive manholes shall be filled with water, including the upstream manholes, to not less than four feet nor more than eight feet above the lowest point of the sewer section being tested. The amount of water level shall be measured, and it shall not

exceed a rate of 200 gallons exfiltration per day, per mile of pipe, per inch nominal diameter. Any one individual section may exceed the rate by one and one half times if the total length does not exceed the above rate. The program of testing must be mutually determined by the Engineer and the contractor. The contractor shall furnish all labor, tools, and equipment necessary to make the tests and to perform any work incidental thereto. The contractor shall take all necessary precautions to prevent any joints from separating, or other damage to the system while the pipelines or their appurtenances are being tested. He shall, at his own expense, correct any excess leakage and repair any damage to the pipe and its appurtenances or to any structures indicated by or resulting from these tests. If any section tested fails the test, it shall be repaired or replaced and retested at the contractor's expense, until the measured leakage is within the allowable limits. Prior to the issuance of building permits and preceding the final warranty release of contingency improvement funding the City will require the developer or his selected contractor to perform a flush cleaning and CCTV video inspection of the sanitary sewer pipes to confirm pipe workmanship and perpetuation of City and American Society of Testing and Materials (ASTM) design and construction requirements. The City may require follow up video inspections to confirm necessary repairs have been completed from previous inspections.

~~(2) Deflection and Air Testing of Sewer Lines.~~ The air test shall be made by attaching an air compressor testing apparatus to any suitable opening, and after closing all other inlets and outlets to the system, forcing air into the system until there is a uniform gauge pressure of five pounds per square inch (34.5 kPa) or sufficient to balance a column of mercury 10 inches (254 mm) in height. The pressure shall be held without introducing additional air for a period of at least 15 minutes. In addition to the air test of the sewer line, a deflection test will also be required. The deflection test shall be made by positioning a multisize and stationary type deflection test gauge within a standard flexible sewer pipe. Each multisize gauge utilized for testing shall be five percent smaller in diameter than the inner walls of the pipe to be tested. The gauge will be placed within the sewer pipe and then vac-

uum pulled from one manhole to the next to locate any deflection problems.

~~(3) Wye Branches. Wye branches or junctions for house connections shall be four inches in diameter, and shall be installed in the sewer at such locations as the Engineer may direct. Wye branches shall be elevated so that the flow line of the wye is level with the centerline of the pipe. Each wye, not used in connecting present laterals, shall be sealed by means of a suitable plug of the same material as the pipe and sealed with joint compound one fourth inch deep over the plug.~~

~~(4) Manholes.~~

~~(a) General. This item shall consist of the construction or installation of concrete manholes of the various types and diameters shown on the plans and at the designated locations. The item shall include: ring and cover, steps, and all other incidentals necessary to fully complete the manholes.~~

~~(b) Precast Manholes. Precast manholes shall consist of sections of rings of tongue and grooved reinforced concrete pipe on a cast in place foundation. Both circular and conical sections shall meet the requirements of "Reinforced Concrete Sewer Pipe (ASTM Specifications C-75)."~~

~~Approved eccentric manholes with rungs will be accepted. Concentric manholes will not be accepted.~~

~~The precast base section shall be recessed on the bottom edge to receive the pipe entering the manhole. The base section shall extend at least two inches into the concrete of the floor. When practical the base section shall be set in position before the floor is poured; in any case the base section shall be imbedded in the floor before the concrete has taken its initial set.~~

~~Joints between sections shall be set in: (i) cement grout; or (ii) asphaltic sewer joint compound. Joints shall be watertight.~~

~~(c) Manhole Covers. The contractor will furnish and install the cast iron frame and cover shown on the plans as a part of the manhole.~~

~~(d) Castings, Quality of Metal. All castings shall be made of good quality cast iron, strong, tough, straight grained and free from flaws, cracks, blow holes or other defects and of exact form and dimensions shown on the plans. They shall be evenly and firmly set and imbedded as to afford the chance of any movement. The seats and bearings of~~

~~all frames and covers shall be machine faced and shall fit evenly and firmly and so made as to be interchangeable. Iron shall conform to "Standard Specifications for Gray Iron Castings" ASTM Specification A-48-48 or Class 30.~~

~~(e) Grade. Necessary adjustment to bring the cover to finished street grade shall be required.~~

~~(f) Manhole Ladders. Manhole ladder steps as shown on manhole plans shall be formed from three fourths inch mild steel bar coated with polyethylene or cast iron rungs.~~

~~(g) Stubs in Manholes. Stubs in manholes shall be flexible rubber boots with stainless steel straps.~~

~~(h) Revisions to Existing Manholes. All work required to revise or modify existing manholes, in connection with this project, as shown on the plans, or as directed by the Engineer, necessary to complete the project shall be done by the contractor and no extra compensation shall be allowed for this work. This work shall include such incidentals as raising manhole floors, providing drop type inverts, new invert openings, etc.~~

~~(5) Service Lines. Any sewer laterals that may be extended beyond the branch in the main by the contractor during the construction shall be subject to all the requirements of these specifications for the construction of the main line sewer. Cementing of joints will be allowed.~~

~~The contractor shall be fully responsible for any leaks in the sewer laterals, to the same extent as if such leaks were in the sewer main.~~

~~Sewer service lines shall be connected into the main line with a tee or other fitting manufactured for this purpose. The lateral shall be placed on a two percent slope and shall have cleanouts every 50 feet, at all changes in direction greater than 45 degrees and at drop connections. In the event the main sewer is deeper than required to connect the service line at two percent slope, the service line shall be taken off on a 45 degree angle and then flattened to the minimum slope to the house or user. Service lines for residential connections shall be four inch. The service line will be installed in the upper half of the main line.~~

~~(6) Workmanship. The contractor, developer, home builder or others responsible for the work shall provide adequate means, acceptable to the City Inspector, to prevent the entrance of for-~~

foreign materials into the sewer lines via the manholes and service laterals.

~~Unless otherwise approved the following means of protection shall be used:~~

~~Before work is started on street grading and paving jobs where there is a possibility of manhole rings and covers being displaced by equipment, the floor of the manhole shall be completely covered with wood planks, adequately secured to prevent displacement. Individual planks shall have a width greater than the diameter of the sewer pipe. Planking shall remain in place during the life of the job. Upon completion of the work any foreign material that may have entered the manhole shall be removed before the planking is removed.~~

~~On resurfacing jobs where it is required that manhole covers be adjusted to new grade, a canvas apron, properly supported or anchored, may be used in lieu of wood planking. In every case such apron or planking shall be in place before the work is started and shall not be removed until the work of adjusting the manhole has been completed.~~

~~(7) Final Sewer Cleaning and Inspection. Prior to final acceptance, all parts of the system shall be completely finished and cleaned by the developer. All accumulated construction debris, rocks, gravel, and other foreign material shall be removed from the sewer system at or near the closest downstream manhole. If necessary the contractor shall use mechanical rodding or bucketing equipment. The City Public Works Department shall complete a smoke test of the system to locate cross connections, illegal connections and infiltration points. The City shall notice the home builder or developer of any illegal connections to the sewer system. The home builder shall undertake correction of cross connections, illegal connections, or infiltrations. This shall include cleaning of the cross connected service pipeline acceptable to the City Public Works Department. [Ord. 04-23; Ord. 04-11; Code 1971 Appendix § 9.]~~

8.45.100 — Storm sewers.

~~(A) Storm Drain Calculations:~~

~~(1) Storm drain calculations will be produced using the rational method.~~

~~(2) Storm drain design shall follow the 0.2 C.F.S. discharge allowable by Davis County and shall be sized for a 10 year storm without deten-~~

~~tion, a 50 year storm with minor detention, and a 100 year storm with major detention.~~

~~(3) Hydraulic calculations shall be submitted which produce the Composite "C."~~

~~(4) Submit copies of the storm intensity/frequency.~~

~~(B) Culvert Pipe and Incidental Construction:~~

~~(1) Material. All pipe required for the storm sewer shall be standard strength, tongue and groove, reinforced concrete culvert pipe. All culvert pipe shall conform to the American Society for Testing Materials Specifications for Reinforced Concrete Culvert Pipe, latest Designation D-76, or as provided in the special provisions.~~

~~Pipe diameters listed in the bid schedule for which no reinforcing requirements have been determined under ASTM specifications shall be reinforced as required for the next diameter larger.~~

~~(2) Length of Pipe. Culvert pipe from 10 inches in diameter to 36 inches in diameter shall be at least 36 inches long. Pipe over 36 inches in diameter shall be at least as long as the inside diameter.~~

~~(3) Testing of Pipe. Every manufacturer furnishing pipe under these specifications shall furnish all facilities necessary to carry out the tests required in these specifications.~~

~~(4) Line and Grade. Line and grade shall be accurately maintained. Laser method is preferred.~~

~~(5) Method of Laying Pipe. The first pipe downstream shall be bedded to established line and grade with the groove upstream. A shallow excavation shall be made underneath the pipe at the joint, this space to be filled with mortar, into which the end of the second pipe beds when laid. The groove end of the first pipe must be thoroughly cleaned with a wet brush and a layer of soft mortar applied to the inside of the groove. The tongue end of the second pipe must be thoroughly cleaned with a wet brush and while in a horizontal position a layer of soft mortar is then inserted into the groove end of the first pipe until the mortar is squeezed out on the interior and exterior surfaces. The interior surface of the pipe joint over 18 inches in diameter shall be brushed smooth and under 18 inches in diameter wiped smooth.~~

~~All concrete culvert pipe shall have gasket joints, which operation shall be carried on several joints behind the laying operation. The outer surface of the pipe must be thoroughly cleaned with a~~

wet brush. As the band is carried up around the lower half of the pipe, an earth support is provided to prevent its falling off. At a point somewhat below spring line of the pipe, this operation may be discontinued. The band on the upper half of the pipe requires no support. Bands shall be at least one half the thickness of the shell of the pipe and for four inches to six inches wide.

~~(6) Rubber Gasket Joints. Gaskets shall conform to ASTM D 412.~~

~~(C) Structures.~~

~~(1) Definition. All items listed in the bidding schedule as cleanout boxes, inlet boxes and junction boxes shall be designated as structures.~~

~~(2) Concrete. Concrete for all structures shall be as outlined in SCC 8.45.030.~~

~~(3) Finishing. Upon removal of the forms, all the tie wire holding the forms shall be cut flush with concrete face and any rough or irregular surfaces found to exist shall immediately be repaired to the satisfaction of the Engineer. Surface not exposed to view need not be finished, unless otherwise shown on the plans. Unless otherwise shown on the plans, exposed surfaces of structures shall be finished to conform to the finish of the adjacent concrete. Surfaces over which asphalt paving is to be placed shall be rodded off to the neat lines. Surfaces exposed in concrete paving shall be given a float finish and surfaces exposed in curb and gutter areas shall be finished as prescribed for curb and gutter. An edging tool shall be used on all exposed corners to properly shape and finish the concrete.~~

~~(D) Waterways.~~

~~(1) Description. Waterways shall include the construction of box culverts and flumes, the finishing and placing of concrete and metal pipe culverts and other types of culverts specified, in street sections, or in ditches paralleling streets, the construction of cleanout boxes and the furnishing and placing of cleanout frames and covers, and the construction of head gates and diversion works and all other work incidental thereto, in accordance with the plans and these specifications.~~

~~(2) Concrete Box Culverts, Flumes and Cleanout Boxes, Etc. Concrete waterways shall be constructed from concrete, to the dimensions and at the locations shown on the plans, or according to the stakes set by the Engineer. The provisions of SCC 8.45.030, Portland cement concrete, shall apply to the construction of waterways. Concrete~~

~~waterways shall be reinforced as shown on the plans.~~

~~(3) Reinforced Concrete Pipe. Reinforced concrete pipe shall meet the requirements of "Standard Specifications for Reinforced Concrete Culvert Pipe ASTM Designation C 76. (Latest ASTM Designation C 76.)"~~

~~(4) Plain concrete pipe shall not be used.~~

~~(5) Corrugated Metal Pipe (CMP). Corrugated metal pipe in quality and sizing shall be in compliance with the regulations and design criteria in "Handbook of Steel Drainage and Highway Construction Products," published by the American Iron and Steel Institute, or as specified on an approved set of plans and shall meet the requirements of AASHTO Specification M 36.~~

~~(6) Placing and Covering. Pipe shall be placed at the locations shown on the plans or as directed by the Engineer and shall be laid true to line and grade. The width of the trench in which the pipe is laid shall be sufficient to permit thorough tamping under the haunches of the pipe. The pipe shall be bedded in an earth foundation of uniform density, and carefully shaped to the proper grade. Where rocks or boulders are encountered in the formation it shall be removed and replaced with granular material to a sufficient depth to provide a uniform cushion under the pipe.~~

~~Where a firm foundation is not encountered at the established grade due to spongy or unstable soil, additional excavation shall be made as directed by the Engineer, and backfilled with suitable material adequately compacted to form a firm foundation for the pipe.~~

~~Select material free from rocks and clods shall be used for backfill and shall be placed in layers not exceeding six inches in thickness and thoroughly compacted by tamping to the finished grade of the street.~~

~~(7) Cleanout Frames and Covers. Cleanout frames and covers shall be furnished and installed at the various locations shown on the plans, or as may be directed by the Engineer.~~

~~(8) Final Cleaning. Prior to final acceptance, all parts of the storm drain system shall be completely finished and cleaned by the developer. All accumulated construction debris, rocks, gravel, and other foreign material shall be removed from the storm drain system at or near the closest downstream manhole or cleanout structure. If necessary~~

~~the contractor shall use mechanical rodding or bucketing equipment.~~

~~(E) Detention Facilities. Detention facilities shall meter water at 0.2 cfs per acre. Detention facilities shall be designed as follows:~~

~~(1) Side slopes shall be 3:1 maximum.~~

~~(2) Designed for 50 year storm or as determined by City Engineer.~~

~~(3) Vehicular maintenance access around the entire basin (minimum 10 foot width).~~

~~(4) Vehicular access to basin.~~

~~(5) Where possible, lot shall provide normal frontage requirements.~~

~~(6) Pressurized irrigation system and land seeping compatible with the surrounding area.~~

~~(7) Flow through design that eliminates a "wet basin."~~

~~(8) Cross slope within basin shall provide adequate drainage.~~

~~(9) Inlet and outlet boxes shall be grated, with extended swale construction extending from outlet structure into the basin to eliminate nuisance flows and water accumulation.~~

~~(10) Where possible, detention basins shall be incorporated into useable park property. [Ord. 04-11; Code 1971 Appendix § 10.]~~

8.45.110 — Land drains.

~~(A) Concrete Pipe.~~

~~(1) Description. Land drains shall include the performance of all operations necessary to lay land drain pipe mains, wye branches, individual land drain mains to manholes, test mains for leaks and all incidental work necessary to complete the work in a satisfactory manner.~~

~~(2) Pipe. All pipe for the land drain mains shall be bell and spigot. The type of pipe the contractor proposes to install shall have the approval of the City Engineer before work commences. No interchanging of type of pipe will be allowed.~~

~~(3) Nonreinforced Concrete Pipe. Nonreinforced concrete land drain pipe shall conform to Concrete Pipe ASTM Designation C 14-56.~~

~~(4) Reinforced Concrete Pipe. Reinforced concrete land drain pipe shall conform to the requirements for "Reinforced Concrete Pipe: ASTM Designation C 75556." Cement used in the pipe shall conform to Type 11A (the air entraining agent shall be interground at the mill), low alkali~~

~~cement, conforming to Federal Specifications, 192a, of ASTM Designation C 15C-53.~~

~~(5) Length of Pipe. Pipe 36 inches in diameter and under shall be at least 36 inches long except specials. Pipe over 36 inches in diameter shall be at least as long as the inside diameter. The maximum length of pipe shall be 24 feet.~~

~~(6) Testing. Random samples of pipe and all fittings and specials such as short radius bands, wyes and toes shall be tested as specified for the type of pipe being used.~~

~~(7) Laying. No pipe shall be laid under any circumstances until the pipe has been tested, and the samples selected have satisfactorily passed the requirements. All pipe shall be laid upgrade from structure, unless otherwise expressly permitted by the Engineer, with the bell end of the pipe upgrade. All pipe shall be laid true to line and grade, with a uniform bearing under the full length of the barrel of the pipe, and suitable excavation shall be made to receive the bell of the pipe. All adjustments to grade shall be made by scraping away or tamping earth under the pipe. Wedging or blocking under the hub will not be permitted. As each unit of pipe is laid a sufficient amount of selected backfill materials shall be carefully placed and thoroughly tamped around the lower portion of the pipe to hold it firmly in position. If adjustment of the position of a length of pipe is required after it has been laid, it shall be removed and rejoined as for a new pipe. When laying is not in progress the ends of the pipe lines shall be kept closed to prevent the entrance of foreign material.~~

~~(8) Rubber Gasket Joints. Pipe for rubber gasket joints shall be of the bell and spigot type, detail of the type the contractor proposes to use shall be furnished and must have the approval of the City Engineer before the work is to be commenced. The joint shall be so designed as to provide for self-centering and when assembled, to compress the gasket to form a watertight seal. The pipe design and gasket shall be such that movement of the pipe or hydrostatic pressure cannot displace the gasket. In order to assure watertightness the clearance between the inner surface of the bell and the outer surface of the spigot, as well as the dimensional tolerances of this annular space, shall be such that the gasket residual deformation is neither less than 20 percent nor more than 45 percent~~

when the spigot is seated to the full depth of the bell socket.

(9) Rubber Gaskets. The rubber gasket for use on pipe shall be cured in such a manner that any cross section will be dense, homogeneous, and free from porosity and other imperfections. The gasket shall be extruded or molded to the specific size within a tolerance of plus or minus one thirty second of an inch at any cross section of the gasket. The gasket shall be fabricated from a high grade tread type compound. The basic polymer shall be natural rubber, or a copolymer of butadiene styrene synthetic. The compound shall contain no fac-tice and shall have the following characteristics:

Tensile strength, pounds per square inch, minimum	2,300
Elongation at break, percent, minimum	425
Shore durometer (Type A)	40 to 60
Absorption of water, by weight, two days at 70 degrees Celsius, percent maximum	5
Compression set (constant deflection), percent of original deflection, maximum	20
Tensile strength after oxygen bomb aging (48 hours, 158 degrees Fahrenheit, 300 per square inch), percent of tensile strength before aging, minimum	80
Increase in shore durometer hardness after oxygen bomb aging, maximum increase over original shore durometer	8
Acetone, extract, percent, maximum	15

The physical properties of the rubber compound shall be determined by tests performed in accordance with appropriate sections of Federal Specifications ZZ R 601a, except for shore durometer and compression set. All tests for compression set shall be made in accordance with method B, ASTM Designation D 395 for compression set of vulcanized rubber under constant deflection. Tests for shore durometer shall be made in accordance with ASTM Designation D 767. The contractor shall furnish certified copies of test reports as evidence of the rubber compound used in all rubber gaskets before any gaskets are used to

join pipes. All rubber shall be stored in as cool a place as practicable, preferably at 70 degrees or less, and in no case shall the rubber for joints be stored exposed to the direct rays of the sun. All rubber gaskets shall be stored so as to permit free circulation of air about the rubber.

In all cases during the laying of the pipe extreme care must be taken to ensure that the rubber gaskets are properly fitted in place and continually free from twisting and unusual displacement.

(B) Poly (Vinyl Chloride) Pipe (PVC).

(1) General. This specification covers requirements for PVC pipe and fittings to be furnished for land drains.

Pipe and fittings produced to the standards below should be installed in accordance with ASTM recommended practice D 2321, underground installation of flexible thermoplastic land drain pipe. The plastics nomenclature used in the specifications is in accordance with the definitions given in nomenclature D 883, unless otherwise indicated.

(2) Applicable Documents. PVC land drain pipe furnished under this specification shall meet the following ASTM standards: D 256, Impact Strength; D 638, Tensile Strength and Modulus of Elasticity; D 648, Deflection Temperature under Load of 264 psi; D 1784, Specifications for Rigid Poly (Vinyl Chloride) Compounds and Chlorinated Poly (Vinyl Chloride) Compounds; D 3034 (SDR 35) Type PSP Poly (Vinyl Chloride) (PVC) Land Drain Pipe and Fittings. The requirements of this specification are intended to provide pipe fittings suitable for nonpressure drainage of sewage.

(3) Materials. Basic materials of the pipe and fittings shall be PVC plastic having a self classification of 12454 B and shall meet the minimum physical properties and chemical resistance of the PVC compound as defined in ASTM D 1784.

(4) Connection Joints. All sizes and classifications of PVC gravity land drain pipe shall have joints utilizing rubber gaskets for sealing. Gaskets shall meet specifications defined in ASTM D 2000 AA820, ASTM 2000 AA625 and ASTM D 1869.

(5) Workmanship. The pipe and fittings shall be homogeneous throughout and free from visible cracks, holes, foreign inclusions or other injurious defects. The pipe shall be as uniform as commer-

cially practical in color, density, and other physical properties.

~~(6) Requirements. All materials, dimensions, strengths, qualities, and test requirements shall meet the applicable ASTM requirements. All material used shall be new and shall be protected from any long exposure to the sun.~~

~~(7) Inspections. Inspection of the material shall be made as agreed upon by the purchaser and the seller as part of the purchase contract.~~

~~(8) Certification. When agreed upon in writing by the purchaser and the seller the certification shall be made the basis of the acceptance of the material. This shall consist of a copy of the manufacturer's test report or a statement by the seller, accompanied by a copy of the test results, that the material has been sampled, tested, and inspected in accordance with the provisions of the specification. Each certification so furnished shall be signed by an authorized agent of the seller or manufacturer. Copies will be furnished to the City.~~

~~(9) Marking. Pipes in compliance with this standard shall be clearly marked at intervals of five feet or less. The marking on SDR 35 shall be:~~

- ~~(a) Manufacturer's quality;~~
- ~~(b) Nominal pipe size;~~
- ~~(c) PVC 12454 B;~~
- ~~(d) SDR (number);~~
- ~~(e) PSP pipe;~~
- ~~(f) Appropriate ASTM number;~~
- ~~(g) Extrusion code.~~

~~(C) Land Drain Appurtenances:~~

~~(1) Testing of Gravity Lines. Gravity land drain lines shall show not more than 200 gallons infiltration per day, per mile of pipe, per inch nominal diameter. In areas where the ground water level is above the top of the pipe for the entire length of the land drain being tested, the infiltration shall be measured into the pipe to determine if it meets infiltration requirements. In areas where the ground water level is below the top of the pipe the contractor shall perform an exfiltration or leakage test to provide the City with an indication of the condition of the completed system. After capping and blocking all wyes or tees, the pipe between successive manholes shall be filled with water, including the upstream manholes, to not less than four feet nor more than eight feet above the lowest point of the land drain section being tested. The amount of water added during the test period from~~

~~the section under test to maintain the water level shall be measured, and it shall not exceed a rate of 200 gallons exfiltration per day, per mile of pipe, per inch nominal diameter. Any one individual section may exceed the rate by one and one half times if the total length does not exceed the above rate. The program of testing must be mutually determined by the Engineer and the contractor. The contractor shall furnish all labor, tools and equipment necessary to make the tests and to perform any work incidental thereto. The contractor shall take all necessary precautions to prevent any joints from separating or other damage to the system while the pipelines or their appurtenances are being tested. The contractor shall, at his own expense, correct any excess leakage and repair any damage to the pipe and its appurtenances, or to any structures indicated by or resulting from these tests. If any section of pipe fails the test, it shall be repaired or replaced and retested at the contractor's expense, until the measured leakage is within the allowable units.~~

~~(2) Air Testing of Lines. The air test shall be made by attaching an air compressor testing apparatus to any suitable opening, and after closing all other inlets and outlets to the system, forcing air into the system until there is a uniform gauge pressure of five pounds per square inch (34.5 kPa) or sufficient to balance a column of mercury 10 inches (254 mm) in height. The pressure shall be held without introducing additional air for a period of at least 15 minutes.~~

~~(3) Wye Branches. Wye branches or junctions for house connections shall be four inches in diameter, and shall be installed in the land drains at such locations as the Engineer may direct. Wye branches shall be elevated so that the flow line of the wye is level with the centerline of the pipe. Each wye, not used in connecting present laterals, shall be sealed by means of a suitable plug of the same material as the pipe and sealed with joint compound one fourth inch deep over the plug.~~

~~(4) Manholes:~~

~~(a) General. This item shall consist of the construction or installation of concrete manholes of the various types and diameters shown on the plans and at the designated locations. The item shall include: ring and cover, steps, and all other incidentals necessary to fully complete the manholes.~~

~~(b) Precast Manholes. Precast manholes shall consist of sections of rings of tongue and grooved reinforced concrete pipe on a cast in place foundation. Both circular and conical sections shall meet the requirements of "Reinforced Concrete Pipe (ASTM Specification C 75)."~~

~~Approved eccentric manholes with rungs will be accepted. Concentric manholes will not be accepted.~~

~~The precast base section shall be recessed on the bottom edge to receive the pipe entering the manhole. The base section shall extend at least two inches into the concrete of the floor. When practical the base section shall be set in position before the floor is poured; in any case the base section shall be imbedded in the floor before the concrete has taken its initial set.~~

~~Joints between sections shall be set in: (i) cement grout; or (ii) asphaltic land drain joint compound. Joints shall be watertight.~~

~~(c) Manhole Covers. The contractor will furnish and install the cast iron frame and cover shown on the plans as part of the manhole.~~

~~(d) Castings, Quality of Metal. All castings shall be made of good quality cast iron, strong, tough, straight grained and free from flaws, cracks, blow holes or other defects and of exact form and dimensions shown on the plans. They shall be evenly and firmly set and imbedded as to afford the chance of any movement. The seats and bearings of all frames and covers shall be machine faced and shall fit evenly and firmly and so made as to be interchangeable. Iron shall conform to "Standard Specifications for Gray Iron Castings" ASTM Specification A 48 48 or Class 30.~~

~~(e) Grade. Necessary adjustment to bring the cover to finished street grade shall be required.~~

~~(f) Manhole Ladders. Manhole ladder steps as shown on manhole plans shall be formed from three fourths inch mild steel bar, coated with polyethylene or cast iron rungs.~~

~~(g) Stubs in Manholes. Stubs shall be flexible rubber boots with stainless steel straps.~~

~~(h) Revisions to Existing Manholes. All work required to revise or modify existing manholes, in connection with the project, as shown on the plans, or as directed by the Engineer, necessary to complete the project shall be done by the contractor and no extra compensation shall be allowed for this work. This work shall include such incidentals as raising manhole floors, providing drop type inverts, new invert openings, etc.~~

~~(5) Service Lines. Any land drain laterals that may be extended beyond the branch in the main by the contractor during construction shall be subject to all the requirements of these specifications for the construction of the main line land drains. Cementing of joints will be allowed.~~

~~All service lines shall be white in color, stubbed 10 feet beyond the property line, tagged and labeled "Land Drain," capped or plugged with a two inch by four inch clearly marking the location of the lateral stub.~~

~~The contractor shall be fully responsible for any leaks in the land drain laterals to the same extent as if such leaks were in the land drain mains.~~

~~Service lines shall be connected into the main line with a tee or other fitting manufactured for this purpose. The lateral shall be placed on a two percent slope and shall have cleanouts every 50 feet, or at all changes in direction greater than 45 percent and at drop connections. In the event the main land drain is deeper than required to connect the service line at a two percent slope, the service line shall be taken from a 45 degree angle and then flattened to the minimum slope to the house or user. Service lines for residential connections shall be four inch. The service line will be installed in the upper half of the main line.~~

~~Roof drainage structures, storm gutters, or other aboveground collection points are prohibited from connecting to or discharging storm water into City underground land drains or field drain main service lines.~~

~~New residential dwellings constructed within subdivisions containing a land drain system are required to make connection via a service lateral stubbed to the dwelling foundation footing and connected to the main land drain line owned by the City.~~

~~(6) Workmanship. The contractor or others responsible for the work shall provide adequate means, acceptable to the City Inspector, to prevent the entrance of foreign materials into the land drain lines via the manholes.~~

~~Unless otherwise approved the following means of protection shall be used:~~

~~(a) Before work is started on street grading and paving jobs where there is a possibility of manhole rings and covers being displaced by~~

equipment, the floor of the manhole shall be completely covered with wood planks, adequately secured to prevent displacement. Individual planks shall have a width greater than the diameter of the land drain pipe. Planking shall remain in place during the life of the job. Upon completion of the work any foreign material that may have entered the manhole shall be removed before the planking is removed.

(b) On resurfacing jobs where it is required that manhole covers be adjusted to a new grade, a canvas apron, properly supported or anchored, may be used in lieu of wood planking. In every case such apron or planking shall be in place before the work is started and shall not be removed until the work of adjusting the manhole has been completed.

(c) Permanent fiberglass catches under land drain lids shall be installed to prevent gravel and dirt from getting into the system.

(7) Final Cleaning. Prior to final acceptance, all parts of the system shall be completely finished and cleaned by the developer. All accumulated construction debris, rocks, gravel, and other foreign material shall be removed from the land drain system at or near the closest downstream manhole. If necessary the contractor shall use mechanical rodding or bucketing equipment. [Ord. 04-11; Code 1971 Appendix § 11.]

8.45.120 — Secondary water.

(A) Materials.

(1) Flanged Fittings. All flanged fittings shall be in accordance with the current AWWA Specification C 110 for cast iron fittings.

(2) Dresser Couplings. Latest standard style with rubber gasket for water. For diameters four inches to 14 inches middle ring to be a minimum of one fourth inch thick and five inches long with four and five eighths inch bolts for four inch diameters; six and five eighths inch bolts for six and eight inch diameters and eight and five eighths inch bolts for 10-, 12-, and 14 inch diameters.

(3) Steel Pipe. Steel pipe shall conform to the current AWWA Specification C 201.

(4) Certification of all tests required by the American Water Works Association shall be provided by the manufacturer. The three edge bearing test will be required, upon request of the Inspector.

(5) All pipe shall be standard lengths except for making connections to valves, fittings, and other such closures.

(6) PVC Pressure Pipe. Pipe shall be standard dimension ration pressure rated PVC pipe (SDR RP PVC) conforming to the latest revision of ASTM D 2241 and the National Bureau of Standards Product Standard PS 22 70. The pipe shall be PVC Class 900 pipe and shall meet the requirements of ASTM D 2241 except that the pipe shall have an outside diameter of ductile iron pipe sizes instead of iron pipe sizes. The PVC pipe shall meet the requirements of the AWWA C 900 with pressure class of 150 and the D.R. of not less than 18. Pipe shall be bell and spigot, twin gasket. At least 85 percent of the total footage shall be furnished in standard 20 foot lengths.

(7) Replacement of Damaged Material. Any material that becomes damaged shall be replaced by the subdivider at his own expense.

(8) Responsibility for Safe Storage. The subdivider shall be responsible for the safe storage of material furnished by or to him, and accepted by him, and intended for the work, until it has been incorporated in the completed project.

(9) Handling Pipe and Accessories. Pipe, fittings, valves, hydrants, and other accessories shall, at all times, be handled with care to avoid damage. In loading and unloading they shall be lifted by hoists or slid, or rolled on skidways in such manner as to avoid shock. Under no circumstances shall they be dropped. Pipe handled on skidways must not be skidded or rolled against pipe already on the ground. All pipe, fittings, and valves shall be carefully lowered into the trench piece by piece by means of derrick, ropes or other suitable tools or equipment, in such manner as to prevent damage to pipe or pipe coating. Under no circumstances shall pipe or accessories be dropped or dumped into the trench. Pipe shall be handled in such manner that a minimum amount of damage to the coating will result. Damaged coating shall be repaired in a manner satisfactory to the Inspector.

(10) Gate valves shall be iron body, bronze mounted, double disc with nonrising stems with design construction to AWWA C 500, and modifications herein. Stem seals shall be double O ring seals; valves shall open counterclockwise. Install 24 inches of crushed rock from the bell top of the valve to the trench grade below the valve to pro-

~~vide proper drainage. Provide two inch square wrench nut for key operation. Operating valve nut shall be within six inches of finished surface grade. Provide mechanical joint ends.~~

~~(1) Valve boxes shall be buffalo type, sliding type with base as required for the valve size used and of sufficient length for the specified pipe bury. It shall have the word "sprinkler" or "irrigation" stamped thereon.~~

~~(B) Laying Pipe.~~

~~(1) General. All pipe shall be laid and maintained to the required lines and grades, with fittings and valves at the required locations. No deviation shall be made from the required line or grade except with the written consent of the Engineer. The contractor will install indicator tape marked "Irrigation Line Buried Below" 12 inches above the top of the irrigation pipe.~~

~~(2) Permissible Deflections at Joints. Whenever necessary to deflect pipe from a straight line, either in the vertical or horizontal plane to avoid obstructions, to plumb stems, or where long radius curves are permitted, the degree of deflection shall be approved by the Engineer.~~

~~(3) Protecting Underground and Surface Structures. Temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers and other obstructions encountered in the progress of the work shall be furnished by the contractor at his own expense under the direction of the Inspector.~~

~~(4) Deviations Occasioned by Other Utility Structures. Wherever existing utility structures or branch connections leading to main sewers or to main drains, or other conduits, ducts, pipes, or structures present obstruction to the grade and alignment of the pipe, they shall be permanently supported, removed, relocated or reconstructed by the contractor through cooperation with the City. In those instances where their relocation or reconstruction is impracticable, a deviation from line and grade will be ordered, and the change shall be made in the manner directed by the Engineer. Connections to private residences shall be cut and looped around the pipeline.~~

~~(5) Pipe Kept Clean. All foreign matter or dirt shall be removed from the inside of the pipe before it is lowered into its position in the trench, and it shall be kept clean by approved means during and after laying.~~

~~(6) Bell Ends to Face Direction of Laying. Unless otherwise directed, pipe shall be laid with bell ends facing the direction of laying, and for lines on an appreciable slope, bells shall, at the discretion of the Engineer, face upgrade.~~

~~(7) Preventing Trench Water from Entering Pipe. At times when pipe laying is not in progress, the open ends of pipe shall be closed by approved means, and no trench water shall be permitted to enter the pipe.~~

~~(8) Cutting Pipe. Cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat and workmanlike manner without damage to the pipe.~~

~~(9) Pipe Jointing. Jointing of all pipe shall be as recommended by the manufacturer. All pipes shall be handled in such a way so as to prevent damage to the coating and lining. Refer to backfilling specifications for proper bedding and compaction. Thrust blocking shall be applied at all tees, plugs, caps and at bends deflecting 22.5 degrees or more. Prevention of concrete adhesion by means of 10 mil plastic sheeting to protect valves or pipe material shall be directed by the City Inspector.~~

~~(10) Pipe shall be laid so as to drain back into the main system when system is out of service. Additional drain lines or blow off valves will be required where gravity draining may not be possible.~~

~~(11) Indicator Tape. Indicator tape shall be placed a minimum of 12 inches above the laid pipe to identify the water line for future excavations. A 12 gauge locator wire shall be installed to aid in locating the pipe for identification. The City Public Works Department shall oversee the connection points of the locator wire.~~

~~(C) Setting Valve and Fitting.~~

~~(1) Location. Gate valves and fittings shall be located as shown on the plans or as directed by the Engineer.~~

~~(2) Valve Boxes and Valve Pits. Cast iron valve boxes shall be firmly supported, and maintained centered and plumb over the wrench nut of the gate valve, with box cover flush with the surface of the finished pavement or at such other level as may be directed. Valve box lid shall be stamped "Sprinkler."~~

~~(3) Plugging Dead Ends. Standard plugs shall be inserted into the bells of all dead ends of~~

pipe, tees or crosses and spigot ends shall be capped.

~~(4) Anchorage of Tees, Tees, and Plugs. Reaction or thrust blocking shall be applied on all pipelines four inches in diameter or larger at all tees, plugs, caps and at bends deflecting 22.5 degrees or more, or movement shall be prevented by attaching suitable metal rods or straps as directed by the Engineer. Thrust block size shall be determined by the subdivider's engineer and shall be shown on the plans.~~

~~(5) Material for Reaction Backing. Reaction or thrust blocking shall be of concrete having compressive strength of not less than 2,000 psi. Blocking shall be placed between solid ground and the fitting to be anchored. The area of bearing on pipe and on ground in each instance shall be that required by the Engineer. The blocking shall be so placed that the pipe and fitting joints will be accessible for repair. The pipe shall be protected from the thrust block by a layer of 10 mil plastic.~~

~~(6) Blow off and drain valves shall be installed on dead end or low elevation point connection lines in accordance with requirements and specifications of the City.~~

~~(D) Hydrostatic Tests.~~

~~(1) Pressure During Test. After the pipe has been laid and partially backfilled, all newly laid pipe, or any valved section of it, shall, unless otherwise specified, be subjected to maximum operating pressure.~~

~~(2) Duration of Pressure Test. The duration of each pressure test shall be at least 30 minutes at 150 psi.~~

~~(3) Procedure. Each valved section of pipe shall be slowly filled with water and the specified test pressure, measured at the point of lowest elevation, shall be applied by means of a pump connected to the pipe in a satisfactory manner. The pump, pipe connections and all necessary apparatus shall be furnished by the contractor.~~

~~(4) Expelling Air Before Test. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made, if necessary, at points of highest elevation, and afterward tightly plugged.~~

~~(E) Cleaning Water Mains. The mains shall be flushed thoroughly. Flushing shall be done after the pressure test is made. It must be understood that such flushing removes only the lighter solids and~~

cannot be relied upon to remove heavy material allowed to get into the main during laying.

Unless extreme care and thorough inspection is practiced during the laying of water mains, small stones, pieces of concrete, particles of metal, or other foreign material may gain access to mains newly laid or repaired. [Ord. 04-11; Code 1971 Appendix § 12.]

8.45.130 — Roadway lighting.

~~(A) General. All outdoor artificial street illuminating devices shall be installed in conformance with the provisions of this section and applicable provisions of the zoning ordinance, subdivision ordinance, and the current electric and electric safety codes adopted by the state of Utah. The spacing and arrangement of street lights will be designed during the preliminary plat or sight plan review phases of a development and shall be a minimum of one light per every 800 feet of roadway, every 400 feet of cul-de-sac depth and at every roadway intersection.~~

~~(B) Approved Materials and Methods of Installation. The provisions of this section are to prevent the use of any material or method of installation not specifically prescribed by this section. The City Council must approve any proposed alternatives.~~

~~(1) Type and Style of Lights. Street lights shall be purchased by the developer and may be either the "Grand Ville" with trim tabs (Series 1) with a 14 foot Charleston pole or "Grande Ville" (Series 2) with a 14 foot Salem pole.~~

~~(2) Lamp Source. High pressure sodium is the lamp source that will be utilized throughout the City for all roadway lighting.~~

~~(3) Deviations. Any material or method of installation not specifically prescribed in this section will be evaluated by the City Council as stated above, for approval based on the following criteria:~~

~~(a) It provides equivalence to the applicable specific requirements of this section.~~

~~(b) It is otherwise satisfactory in complying with the intent of this section.~~

~~(c) The plans, and variants to this section for proposed lighting schemes, will be submitted to the Community Development Department for approval, and shall be sufficiently complete, with all variants from this section noted, to enable the City Council to readily determine whether compliance with the intent of this section will be secured.~~

~~(4) Variances. Any person desiring to install an outdoor lighting fixture in violation of this section may apply to the City Council with recommendation from the Planning Commission for a variance from the regulation in question.~~

~~(C) Roadway Lighting.~~

~~(1) Nondecorative Poles and Heads. Non-decorative poles and heads shall only be utilized in the City where, upon the recommendation of the Planning Commission and approval of the City Council, a specific lighting plan has been approved.~~

~~(a) All roadway pole mounted fixtures shall not be mounted above 30 feet, as measured from the top of the fixture to the adjacent grade of the horizontal plane being lit by the fixture.~~

~~(b) The fixture should house a high pressure sodium lamp, with a cut off lens and no more than 150 watts/pole.~~

~~(2) Decorative Poles and Heads. Decorative poles and heads shall be installed as outlined on plans approved through the Community Development Department.~~

~~(a) All decorative roadway pole mounted fixtures shall not be mounted above 18 feet, as measured from the top of the fixture to the adjacent grade of the horizontal plane being lit by the fixture.~~

~~(b) The fixture should house a high pressure sodium lamp, with no more than 150 watts/pole.~~

~~(c) Decorative roadway application fixtures should utilize highly refractive globes, which have a minimum of 85 horizontal and 345 vertical prisms, to evenly direct the light, and evenly diffuse the light source. The fixture should have the ability to have internal light directing reflectors that can be field installed after fixture installation, to accommodate customization of the lighting output, and/or to redirect unwanted light to the traffic area.~~

~~(d) The fixture should have photometrics, so that when used on a 40 foot wide road and placed on opposing 180 foot spacing, mounted on an 18 foot pole with a Type III distribution and 150 watt HPS head, the following horizontal foot candles should be produced on the roadway (using a 1.85 light loss factor):~~

~~(i) Average maintained equals one foot candle or more.~~

~~(ii) Maintained minimum equals 0.4 foot candles or more.~~

~~(iii) Maximum/minimum — uniformity equals 4.54 or less.~~

~~(e) At 40 feet away from the pole, the roadway should not have less than 0.1 horizontal foot candle minimum maintained at any point on the road and one and one half vertical foot candles, as measured from ground level to six feet above the ground, in the middle of the road.~~

~~(f) The refractor should be made of acrylic, and should be available in Type III and IV distributions, with a reflector in the top to eliminate upright and redirect the light downward toward the surface, and a house light shield. It sets in die cast aluminum polyester powdercoated pod, which will allow easy access to all of the internal electrical components. It should have internal twist lock style photocell receptacle when needed, and quick-release wiring components on the socket, ballast, and igniter, with a ground fault interrupted outlet mounted on the pod. Approved manufacturers are as follows:~~

~~(i) Hadeo — Streetscapes — Refractive Globes UT33A150SE-150HPS style or equal.~~

~~(g) Light posts shall be 16 feet tall, five-inch by three-inch smooth tapered aluminum pole with a 0.125-inch wall thickness. Bolt circle shall be 14 inch diameter, four bolts, 90 degrees apart, with a decorative base 12.75 inches square by 45 inches high, with a three-inch outside diameter fitter. Aluminum is to be polyester powdercoated black.~~

~~(i) Hadeo Streetscapes Posts — 2520 style or equal.~~

~~(3) Road Light Levels. Roadway lighting maximum levels (as measured at the horizontal plane being lit):~~

~~(a) The maximum point should not exceed six foot candles within the circulation area being lit.~~

~~(b) The average light level should not exceed one foot candle within the circulation area being lit.~~

~~(c) No more than one foot candle will be allowed outside of 20 feet of the circulation area being lit.~~

~~(d) No more than 0.05 foot candles will be allowed outside the property lines of the easement.~~

~~(e) No more than 0.01 foot-candles should be allowed to spill on any residential property as a result of another party lighting their own property.~~

~~(D) Wiring.~~

~~(1) Lamp and Pole Wiring. All internal wiring of the lamps shall be accomplished at the manufacturer's facilities. No alterations or modifications shall be accomplished as part of the installation of the lamps.~~

~~(2) Applicable Codes. All underground wiring shall be accomplished in accordance with the current electrical code adopted by the state of Utah.~~

~~(3) Wire or Cable. Wire shall be a minimum eight gauge copper wire and shall have appropriate coatings as required by the current electrical code. Wire and cable placed in conduit or direct burial shall be rated for the applicable use.~~

~~(4) Ground. Pole will be grounded to grounding rod set in the footing as outlined in the standard drawings. Neutral lines shall not be connected to the pole.~~

~~(5) Depth of Bury. Direct burial cable conductors and nonmetallic raceways shall be a minimum of 24 inches below the top back of curb or finished grade, whichever is lower. All cable or conduit shall be inside a raceway where less than 24 inches below the top back of curb or finished grade. Cables, conductors, and raceways shall have their location identified by a warning ribbon that is placed in the trench at least 12 inches above the underground installation.~~

~~(6) Splices and Taps. Buried conductors or cables, either contained in a nonmetallic raceway or direct bury, shall have no splices or taps.~~

~~(7) Backfill. Backfill that contains large rocks, paving materials, cinders, large or sharply angular substances, or corrosive materials that may damage raceway, cables, or conductors or prevent adequate compaction of fill or contribute to corrosion of raceways, cables, or conduits shall not be utilized.~~

~~(8)(1) Raceway Seals. Conduits or raceways through which moisture may contact energized live parts shall be sealed or plugged at both ends. [Ord. 04-11; Ord. 02-19; Code 1971 Appendix § 13.]~~



**PLANNING
COMMISSION AGENDA
June 16, 2015**

Work Session Agenda Item #4c

**Title X: Metal Buildings
Industrial Zone**

Background:

This request is for an amendment to Title X pertaining to Metal Buildings in Industrial Zones. Please see attachments for proposed language.

Attachments:

- Planner Steele's Recommendation
- Commissioner Vaughan's Recommendation

10.28.220 Industrial Architecture

The architectural design of a structure must consider many variables, from the functional use of the building, to its aesthetic design, to its “fit” within the context of existing development. The following **guidelines standards** help buildings achieve the appropriate level of design detail on all facades, avoid blank/uninteresting facades, and provide for the proper screening of equipment and refuse areas.

(A) Architectural Form and Detail

1. If adjacent to a residential zoning district, in addition to the buffer requirements of this code, additional building setbacks of ten feet (10') must be provided adjacent to the residential use to reduce the visual impact of ~~large-scale~~ industrial buildings.
2. The mass and scale of large, box-like industrial buildings are to be reduced through the incorporation of varying building heights and setbacks along the front and street sides **of** building façades.
3. Front and street sides **of** facades of large buildings visible from a public street must include: architectural features such as reveals, windows and openings, changes in color, texture, or material to add interest to the building elevation and reduce its visual mass.
4. Primary building entries must be readily identifiable and well defined through the use of projections, recesses, columns, roof structures, or other design elements.

(B) Color and Materials

1. A comprehensive material and color scheme must be developed for each site. Material and color variations in multi-building complexes must be complementary and compatible among buildings.
2. **Primary Materials. 25 percent of all exterior walls of any building or other improvement must be finished with: brick, architectural block, or natural stone. Exposed cinder block, siding, or vertically ribbed steel wall panels are not permitted. All finish material shall be durable to the effects of weather and soiling.**
3. **All projects are required to submit a sample board containing physical samples of all exterior surface materials, including roofing materials, in all the colors they will be used. Photos alone are not sufficient.**
4. Large expanses of **precast concrete (including cast in place concrete tilt-up panels), insulated metal wall panels, or other smooth materials** must be broken up with reveals and/or changes in texture and color.
5. Bright, contrasting colors should be used for small areas of building accents only.
6. Design and colors of wall signs must be compatible with the main buildings on the site.
7. Materials, design, and colors of monument signs must be compatible with the main buildings on the site.

portion of these pieces of equipment that is not fully shielded is required to be painted a color which is compatible with the roofing or parapet materials.

(E) Massing. Proper massing reduces the impact of the massive bulk created by large buildings that may not otherwise relate in scale to surrounding development. Vertical articulation, horizontal articulation, and multi-planned roof or awnings must be used in designs to mitigate the impact on surrounding development and the overall landscape.

(F) Materials. Quality long-lasting materials are required for all buildings in order to contribute to the aesthetics of the community over the long term.

(Applicable to Commercial Buildings but not Industrial)

(1) A minimum of three colors per elevation is required.

(2) Color utilization should be sensitive to existing development within the vicinity and the natural landscape in which the project is situated.

(3) Primary Materials. Sixty-five percent of all surface materials, not including glass or roofing materials, are required to include a combination of brick, stone, ceramic tile, masonry materials, insulated metal panels, or wood fiber/composite siding. Exposed cinder block is not permitted, except for minimal foundation exposure. Concrete masonry unit, exposed concrete, stucco, vinyl, wood siding, or metal components may be used as accent or secondary materials only.

(4) Exposed tilt-up concrete or insulated metal panels may be used as a primary material on buildings located in the business park zone. Some variation in materials along the base and near the entrances of concrete tilt-ups is required.

(5) All projects are required to submit a sample board containing physical samples of all exterior surface materials, including roofing materials, in all the colors they will be used. Photos alone are not sufficient.

(G) Development Design Pattern Book. The developer is required to provide a development design pattern book to be reviewed by the ARC and then the Planning Commission in conjunction with a subdivision plan and/or site plan application. Where there is a development agreement, the design pattern book will become a part of the agreement. Design pattern books are subject to the following:

(1) Written descriptions with graphic illustrations explaining how the development complements the physical form of the property and how the theme and standards found in this chapter are to be integrated into the design of the development;

(2) Written descriptions with graphic illustrations explaining the proposed conceptual architectural design, building elevations, and other such related design schemes; and

(3) Written descriptions with graphic illustrations that clearly describe proposed open spaces, landscaping ideas, pedestrian pathways, furnishings, lighting and related entryway features and/or amenities.

(H) Pedestrians. All buildings will be designed with an integral focus on encouraging pedestrian activity and social interaction. Additionally, buildings that contain more than one story or that are above 20 feet in height are required to provide a clearly articulated and more detailed base that relates to pedestrians.

(4) The design and location of loading facilities must take into consideration the specific dimensions required for the maneuvering of large trucks and trailers into and out of loading position at docks or in stalls and driveways.

(C) Parking Location.

(1) Parking lots are not to be the dominant visual element at the front of the site. Expansive paved areas located between the street and the building are prohibited.

(2) Large parking areas (over 100 spaces) must be divided into smaller multiple lots and provided with trees located throughout the parking area to reduce the visual impact.

(3) Visitor parking spaces should be located to produce the shortest route of travel to a building entrance.

(4) Pedestrian walkways must provide safe, convenient, and well-defined access between parking areas and the public sidewalk and the main public access to the building.

(5) Pedestrian circulation should be clearly delineated and separate from vehicle circulation. The use of landscaping, walkways, or decorative paving to delineate pedestrian circulation must be used.

[Ord. 13-11 § 1.]

10.28.220 Industrial architecture.

The architectural design of a structure must consider many variables, from the functional use of the building, to its aesthetic design, to its “fit” within the context of existing development. The following guidelines help buildings achieve the appropriate level of design detail on all facades, avoid blank/uninteresting facades, and provide for the proper screening of equipment and refuse areas.

(A) Architectural Form and Detail.

(1) If adjacent to a residential zoning district, in addition to the buffer requirements of this code, additional building setbacks of 10 feet must be provided adjacent to the residential use to reduce the visual impact of large-scale industrial buildings.

(2) The mass and scale of large, box-like industrial buildings are to be reduced through the incorporation of varying building heights and setbacks along the front and street side building facades.

(3) Front and street side facades of large buildings visible from a public street must include architectural features such as reveals, windows and openings, changes in color, texture, or material to add interest to the building elevation and reduce its visual mass.

(4) Primary building entries must be readily identifiable and well defined through the use of projections, recesses, columns, roof structures, or other design elements.

(B) Color and Materials.

(1) A comprehensive material and color scheme must be developed for each site. Material and color variations in multi-building complexes must be complementary and compatible among buildings.

- (2) Large expenses of smooth material (e.g., concrete) must be broken up with reveals or changes in texture and color.
- (3) Bright, contrasting colors should be used for small areas of building accents only.
- (4) Design and colors of wall signs must be compatible with the main buildings on the site.
- (5) Materials, design, and colors of monument signs must be compatible with the main buildings on the site.

(C) Accessory Buildings.

- (1) The design of accessory buildings (e.g., security kiosks, maintenance buildings, and outdoor equipment enclosures) must be incorporated into and be compatible with the overall design of the project and the main buildings on the site.
- (2) Temporary buildings are not to be located where they will be visible from adjoining public streets.
- (3) Modular buildings must be skirted with material and color that is compatible with the modular unit and the main buildings on the site. [Ord. 13-11 § 1.]

10.28.230 Industrial landscape design.

Landscaping has a variety of functions, including softening the hard edges of development, screening unattractive views, buffering less intensive uses, providing shade, and increasing the overall aesthetic appeal of a project.

(A) Landscape Design.

- (1) Landscape design must follow an overall concept and link various site components together.
- (2) Landscaped areas incorporate a three-tiered planting system: (a) grasses, ground covers, or flowers; (b) shrubs or vines; and (c) trees.
- (3) The use of a variety of trees, especially in parking areas and pedestrian open space areas, is required.
- (4) More intense landscaping and special landscape features are to be provided at major focal points, such as entries and pedestrian gathering areas.
- (5) The front, public portions of buildings must be separated from parking areas by landscaping and pedestrian walkways.

(B) Walls and Fences.

- (1) The colors, materials, and appearance of walls and fences, including walls for screening purposes, must be compatible with the overall design character/style of the development.
- (2) Landscaping must be used in combination with walls and fences to visually soften blank surfaces.
- (3) When security fencing is required adjacent to streets, it must consist of wrought iron, tubular

(B) Lot width: as required by site plan review.

(C) Front yard: 15 feet.

(D) Side yards: 20 feet or as required by site plan review.

(E) Rear yard: 20 feet or as required by site plan review.

(F) Building Height. The height of buildings over 35 feet may be equal to the horizontal distance from the nearest zone boundary line. Buildings 35 feet high or less may be located within 20 feet of the zone boundary line. In determining height, exclude chimneys, flagpoles, church towers, and similar structures. The height of buildings shall be established in a format that is compatible with other buildings in the same business park. [Ord. 12-14 § 1; Code 1971 § 10-22-060.]

10.110.070 Distance between buildings.

In this zone, where there is more than one building constructed on a site, there shall be a minimum distance between structures of at least 20 feet. [Ord. 12-14 § 1; Code 1971 § 10-22-070.]

10.110.080 Off-street parking and loading.

Off-street parking and loading shall be provided as specified in Chapter 10.40 SCC. [Ord. 12-14 § 1; Code 1971 § 10-22-080.]

10.110.090 Signs.

Signs allowed in this zone shall be provided as specified in Chapter 10.45 SCC. [Ord. 12-14 § 1; Code 1971 § 10-22-090.]

10.110.100 Design standards.

The Land Use Authority shall approve the required common building theme. The design shall show detail in the unification of exterior architectural style, building materials, and color and size of each unit.

(A) Landscaping. In this zone, the following landscaping requirements shall include:

(1) A sprinkling system and plantings with substantial live plant material for the purpose of buffering, screening, and beautifying the site (plant maturity landscaping should represent, as a minimum standard, compatibility with surrounding developed properties and uses with permanent maintenance by the owner or occupants).

(2) A landscaped area of five feet adjacent to off-street parking within required yard areas providing it does not abut residential zoning or uses (landscaping in areas adjacent to residential uses shall be according to buffering requirements per Chapter 10.30 SCC).

(3) Landscaping installed in all park strips to the same standards as other on-site landscaping as well as a minimum of two trees per every 50 feet of frontage (asphalt, paving stones, or brick or concrete paving in place of landscaping between the sidewalk and curb is prohibited).

(4) Landscape covering at least 15 percent of the development site. Landscaping shall be installed prior to occupancy and maintained in good condition.

(H) All utility transmission lines shall be placed underground. Transformers, meters and similar apparatus shall be at or below ground level and shall be screened from public view by a wall or fence, landscaping, earth berming, or special architectural treatment acceptable to the Planning Commission.

(I) All uses shall be free from objectionable or excessive odor, dust, smoke, noise, radiation or vibration. [Ord. 12-14 § 1; Code 1971 § 10-22-100.]

10.110.110 Architectural Review Committee.

Developments within the business park zone are required to be reviewed by the Architectural Review Committee in accordance with Chapter 10.28 SCC, Architectural Review Committee and Design Standards. [Ord. 13-11 § 1; Ord. 12-14 § 1; Code 1971 § 10-22-110.]

The Syracuse City Code is current through Ordinance 15-04, passed March 10, 2015.

Disclaimer: The City Recorder's Office has the official version of the Syracuse City Code. Users should contact the City Recorder's Office for ordinances passed subsequent to the ordinance cited above.

(c) Odors. No use shall emit odorous gases or other odorous matter in such quantities as to be readily detectable when diluted in the ratio of one volume of odorous air to four volumes of clean air at the points of measurement specified in subsection (B)(2)(a) of this section or at the point of greatest concentration. Any process that may involve the creation or emission of any odors shall provide a secondary safeguard system in order to maintain control should the primary safeguard system fail.

(d) Glare. No use shall permit direct or sky-reflected glare that penetrates beyond the property upon which the light source is located, whether from flood lights or from high-temperature processes such as combustion or welding or otherwise, in a manner constituting a nuisance or hazard.

(e) Fire and Explosion Hazards. All activities and all storage of flammable and explosive materials shall include adequate safety, fire-fighting, and fire suppression equipment and devices standard in the industry to protect against the hazard of fire and explosion. No use shall permit the burning of waste materials in open fires at any point.

(f) Air Pollution. No use shall emit particulate or gaseous pollutants into the air in violation of the Utah State Air Conservation Act, its amendments, or resulting regulations.

(g) Liquid or Solid Wastes. No use shall discharge, at any point, into a public sewer, public waste disposal system, private sewage system, or stream, or into the ground contrary to the Utah State Water Pollution Control Act, its amendments, the subsequent Wastewater Disposal Regulations, or the Utah Code of Solid Waste Disposal Regulations.

(C) Enforcement. The Land Use Administrator shall investigate any purported violation of performance standards; and, if necessary for such investigation, may request the Planning Commission to employ qualified experts. If, after public hearing and due notice, the Planning Commission finds that a violation existed or does exist, it shall order the Land Use Administrator to serve notice that compliance with the performance standards must be achieved within a specified period of time or the plant will be closed. Should the violation of performance standards threaten the public health, convenience, or welfare, the Planning Commission may order the offending plant to cease operation until proper steps are taken to correct the conditions which cause the violation. The violator shall pay for services of any qualified experts, employed by the Planning Commission to advise in establishing a violation, upon establishment of said violation or the City shall pay otherwise. The determination of the existence of dangerous and objectionable elements shall be made at any point; provided, however, the measurements of the noise, vibration, odors, or glare are taken at the lot line of the establishment or use. [Ord. 11-02 § 1 (Exh. A); Ord. 08-07 § 1 (Exh. A); Ord. 06-27; Ord. 06-17; amended 1991; Code 1971 § 10-23-070.]

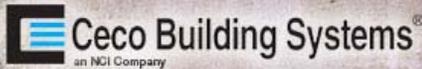
10.120.080 Architectural Review Committee.

Developments within the ID zone are required to be reviewed by the Architectural Review Committee in accordance with Chapter 10.28 SCC, Architectural Review Committee and Design Standards. [Ord. 13-11 § 1.]



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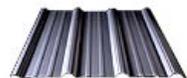
Wall Panel Systems

Standard Wall Panels



[MAP Wall Panels](#)

MAP wall panels have been one of the most dependable panels in the metal building industry for approximately 50 years. These metal wall panels feature 36-inch coverage with 1½-inch deep major ribs at 12 inches on centers, UL 90 with 6-inch blanket insulation, two intermediate minor stiffening ribs and has two pencil ribs in each flat. MAP insulated wall panels are available in our long-lasting Galvalume® finish or can be painted. [View MAP wall panel sample details.](#)



[PBR Wall Panels](#)

The PBR metal wall panel system may be used for roof and wall applications, including wall liner, mansard and soffit panel applications. This panel's deep ribs create an even-shadowed appearance. The area between the ribs is reinforced.



[AVP Wall Panels](#)

The AVP wall paneling system features metal panels for side walls designed to produce a decorative, smooth shadow line, creating a distinctive architectural effect with semi-concealed fasteners. Ribs are 1 ½ inches deep and major corrugations spaced 12 inches on center. AVP wall panels are available in 29, 26, 24, and 22-gauge options. The net coverage of each panel is 3 feet.



[ShadowRib Wall Panels](#)

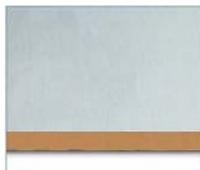
The ShadowRib wall paneling system combines aesthetics, economics and function to bring definition to [metal building systems](#) . ShadowRib is a proven performer and a versatile tool for the designer. It can be used for walls, fascias and equipment screens, and can be applied over light gauge framing, purlins, girts, structural steel and joists. The ShadowRib metal wall panels carry a UL "Class A" fire rating and are ready for application of a variety of insulation methods into the 3" cavity. View [ShadowRib panel sample details.](#)



[PBU Wall Panels](#)

Because of its easy-to-install design, our PBU wall paneling system is especially useful across a variety of applications, including wall panels, liner panels, partition panels, soffit panels and façade panel faces. A utility panel with ¾-inch ribs placed 6 inches apart on centers, our PBU paneling is available in 26- and 24- gauge options.

Insulated Wall Panels



[FWP Insulated Wall Panels](#)

The FWP panel provides a flat profile for a smooth exterior surface that is a great utility for architectural applications. The interior skin has a Mesa profile. The FWP panel is available in 24", 30" and 36" widths. The FWP surface treatment can be stucco or embossed. The insulated panel thickness options are: 2", 2 1/2", 3" and 4". The recommended maximum panel length is 32'-0. Our FWP panel is available with 22 gauge exterior and 26 gauge interior.

[IPP II Insulated Wall Panels](#)

The IPP II panel carries the Mesa profile on both the exterior and interior skins. The uniform appearance is designed for both exterior and interior

See our products in action!

Our metal wall paneling systems can be configured in endless ways to construct strong, attractive buildings that will serve their purpose for generations. To see the possibilities for yourself, view our project gallery of [custom metal buildings.](#)

Have a product question?

We're happy to give you a helpful answer. Simply [contact us](#) for detailed information on any of the products we offer, from steel buildings systems to our wide range of accessories.



installations. The IPP II panel is available in 36" and 42" widths. The IPP II surface treatment can be stucco or embossed. The insulated panel thickness options are: 2", 2 1/2", 3", 4", 5" and 6". The recommended maximum panel length is 40'-0". Our IPP II panel is available with 22, 24, or 26 gauge for both exterior and interior panel skins.



EWF Insulated Wall Panels

The traditional styling and distinct vertical lines of the EWF panel is ideal for custom-designed or conventional building construction, especially commercial and industrial applications. The interior skin employs a Mesa profile. The EWF panel has a 42" width coverage and the surface treatment can be stucco or embossed. The insulated panel thickness options are: 2", 2 1/2", 3", 4", 5" and 6". The recommended maximum panel length is 50'-0". Our EWF panel is available with 22, 24, or 26 gauge for both exterior and interior panel skins.



ESP II Insulated Wall Panels

The exterior skin of the ESP II panel is profiled with minor striations giving it a flat look and providing a linear appearance while blending with the panel side joints. This panel is an excellent alternative to typical flat wall panels. The ESP II panel is available in 36" and 42" widths. The ESP II surface treatment can be stucco or embossed. The insulated panel thickness options are: 2", 2 1/2", 3", and 4". The recommended maximum panel length is 32'-0". Our ESP II panel is available with 22, or 24 gauge exterior and 26 gauge interior panel skins.



CWP Insulated Partition/Ceiling Panels

The CWP panel is designed for interior walls, partitions and ceilings in cooler/freezer applications. This panel is not to be used for the building envelope. The CWP panel coverage is 44 1/2" with identical Stucco-embossed, 26 gauge skins in the Mesa profile. The insulated panel thickness options are: 2", 2 1/2", 3", and 4". The recommended maximum panel length is 40'-0".



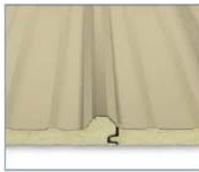
Sonora Insulated Wall Panels

Sonora's exterior skin has a flat profile with an Aztec embossed pattern resembling old world hand plaster. The Sonora panel is available in 30" and 42" widths. The surface treatment is Aztec embossed for the exterior skin with a stucco-embossed interior. The insulated panel thickness options are: 2", 2 1/2", 3", 4", 5" and 6". The recommended maximum panel length is 40'-0". Our Sonora panel is available with 22, or 24 gauge exterior and 22, 24, or 26 gauge interior panel skins.



HWP Insulated Wall Panels

The HWP series lets designers mix multiple panel widths and colors on the same wall. It also allows for continuous corners along with a complete line of aluminum extrusions and accessories to complete the wall system. The HWP panel is available in 30" and 42" widths. The surface treatment is Aztec embossed for the exterior skin with a stucco-embossed interior. The insulated panel thickness options are: 2", 2 1/2", 3", and 4". The recommended maximum panel length is 40'-0". Our HWP panel is available with 22, or 24 gauge exterior and 22, 24, or 26 gauge interior panel skins.



RWP II Insulated Metal Wall Panel

The versatility of the RWP II wall panel offers a multitude of design options. The RWP II can be utilized for roof or wall applications. The standard exterior skin is smooth but can be embossed if requested. The interior skin is roll formed with the Stucco-embossed Mesa profile. The RWP II panel is the only insulated metal panel that utilized a through-fastened attachment.



UNA-FOAM™ Insulated Metal Panels

Firestone's newest addition to our product line is the UNA-FOAM™ insulated metal panel system.

Firestone's insulated metal panels are offered in a variety of profiles, materials types and colors to provide you the flexibility you need when designing your project. Combine our IMPs with our fabricated or rollform panels to achieve a unique design from a single source of metal cladding.

[View/Download the UNA-FOAM Color Chart](#)

[View/Download the UNA-FOAM Sales Sheet](#)

[Flat Profile](#)



[Classic Profile](#)



[Stucco Profile](#)



[Corrugated Profile](#)



[Southwest Profile](#)



[Sonoma Profile](#)



[Striated Profile](#)



NINIGRET NORTH BUSINESS PARK CC&R'S

(iv) All wiring and all appurtenant electrical equipment shall be installed inside the Building, underground or within the Sign.

(v) Sizes shall be in conformance with local zoning requirements.

(b) During the period of development and prior to the completion of the principal Building on each Building Site, the Building Site shall have only one temporary construction sign. After the completion of the principal Building on each Building Site, the availability for sale or lease of all or any part of the principal Building may be advertised by only one temporary marketing sign. Each temporary sign shall conform to the standards set forth in Section 5.7(a) with respect to all signs generally and as set forth in Section 5.7(c) with respect to "Single Tenant Roadway Signs" as shown in Exhibit 5.7-1(a).

(c)(i) Each single-tenant Building may have (1) one or more signs located in proximity to the Building Site's curb-cut that is within a reasonable distance of the intersection of its principal access driveway and the abutting public street ("Roadway Sign"), and (2) one or more additional signs located either (A) between the front of the principal Building on the Building Site and such street or way ("Ground Mounted Sign") or (B) on the front surface of such Building ("Building Mounted Sign"). The Committee shall approve the number and locations of such signs and at its discretion may allow for more than one location of any such signs particularly where the Owner may have exposure to more than one public street.

(ii) Each Building Site may have directional signs designating parking areas, off-street loading areas, entrances and exits and conveying similar information. Two such signs that are visible from the street or from adjacent Building Sites, and a reasonable number of additional signs that are not so visible, shall be permitted on such Building Site.

(d) The Committee may from time to time make changes or modifications to the above requirements to take into account changes in technology or other considerations deemed by the Committee to be in the best interests of the Property and the Owners.

Section 5.8. EXTERIOR CONSTRUCTION, MATERIALS AND COLORS. All exterior walls of any Building or other Improvement must be finished with architectural masonry units, natural stone, precast concrete (including cast in place concrete tilt-up panels), insulated metal, aluminum or glass materials, or their equivalent, along with such other architecturally and aesthetically suitable building materials as shall be approved in writing by the Committee. All finish material shall be maintainable and sealed as appropriate against the effects of weather and soiling. Color shall be harmonious and compatible with colors of the natural surroundings and adjacent Buildings.

Section 5.9. TEMPORARY STRUCTURES. No temporary Buildings or other temporary structures shall be permitted on any Building Site; provided, however, trailers, temporary buildings and the like shall be permitted for construction purposes during the construction period of a permanent Building. The location and nature of such structures shall be placed as inconspicuously as practicable, shall cause no inconvenience to Owners or Occupants of other Building Sites, and shall

METAL BUILDINGS IN SYRACUSE

Prepared by Ralph Vaughan 5Dec2014

Proposed:

Option 1: (most restrictive)

"No Metal Buildings"

No pre-fabricated, corrugated metal buildings shall be permitted. Selective use of exterior metal trim, accent panels, and other high tech architectural use of metal, not to exceed __%, shall be permitted.

Option 2: (moderately restrictive)

"Metal Buildings Permitted but With Non-metal Exterior"

All metal buildings must be designed to have an exterior appearance of conventionally built structures. All exterior surfaces must include either, stucco, plaster, glass, stone, brick or decorative masonry.

Option 3: (somewhat restrictive)

"Metal Buildings Permitted with Non-metal Front Facade"

Any exterior wall of a metal building fronting upon any public or private street, or facing open space or residential areas shall have the appearance of a conventionally built structure.

Option 4: (least restrictive)

"Metal Buildings Subject to Special Use Permit"

Buildings constructed with a metal exterior are permitted subject to granting of a special use permit. No special use permit for a metal building shall be granted unless the Planning Commission makes the finding that the design and exterior architectural treatment of each metal building is compatible with the surrounding area and with buildings constructed with other materials.

Option 5: (no restrictions)

"Metal Buildings Allowed"

Selected Comments from Other Cities' Ordinances:

Farmington

Exterior materials shall be durable, require low maintenance, and be of the same or higher quality as surrounding developments. Buildings shall be designed in a compatible architectural style, and should incorporate the same materials, colors, and landscaping as the primary development.

Layton

Masonry will be required on the exterior of all developments. The minimum area (A) of masonry required (measured in square feet) will be determined by multiplying the outside perimeter (P) by 4 feet of the foundation as follows:

$$P \times 4 = A$$

Alternative materials other than masonry may be used with the approval of the Planning Commission only upon the Commission finding that the proposed building design will create a more attractive project.

Ogden

A building with architectural metal as an exterior material may be permitted without Planning Commission approval if the building facade has a minimum of 60% glazing, or glass, on the facade and the metal enhances the design and provides interest. If architectural metal is to be used as an exterior building material on a building facade with less than 60% glazing, the Planning Commission may review and approve the application if the building has at least 20% glazing and meets the requirements of having two or more different types of architectural metals, staggered rooflines and flat cornices, and has varying depths along the facade.

(Note: Up until 2000, metal buildings were specifically disallowed as a primary building material.)

Roy

Exterior materials shall be compatible with those predominantly used in the surrounding area.

The following materials are prohibited for use on exterior walls:

Unfinished block, unfinished concrete, materials not typical of buildings located within Roy.

Metal buildings shall be prohibited in all commercial zones. Metal buildings in the manufacturing zone may be considered with the incorporation and addition of other building materials such as masonry, stone, stucco, or other non-metal treatments.

Taylorville

The use of metal siding exclusively on any building is prohibited. Metal siding used for accents on any development shall be of the decorative, architectural metal type. The use of corrugated metal siding is prohibited unless used as a decorative element to accent a particular architectural style.

West Valley

No more than 50% of any exterior wall of a commercial building exterior can be metal except as provided below.

At least 50% of the primary facade of any commercial building must be masonry. All other facades of the building must be 35% masonry. For the purposes of this section, masonry shall include stucco, stone, brick and concrete block, Unfinished or gray concrete block is excluded.

Commercial buildings that exceed the building relief, building design and roof treatment minimum standards by at least one treatment may use more than 50% metal or less than required masonry.

Woods Cross

Building exterior materials visible from the public road shall be 85% brick, stone, stucco, glass, colored decorative rock or stone aggregate. Building exterior materials not visible from the public street shall in the least case be painted or covered with a brick veneer or stone aggregate.

Metal buildings may be permitted if the exterior building materials standards and other requirements and the building is approved by the Planning Commission. In determining whether or not a particular metal building is acceptable, the Planning Commission shall consider the following factors:

- a) the visibility of the site from the neighboring residential uses and adjacent streets;
- b) the degree to which the proposed finishes are compatible with the appearance of neighboring industrial structures and uses;
- c) the location of the proposed finishing materials on the building;
- d) the degree to which a particular metal material may be shielded by landscaping or some other feature.