



Town of Chino Valley

MEETING NOTICE TOWN COUNCIL

**STUDY SESSION/RETREAT
TUESDAY, JANUARY 31, 2017
9:00 A.M.**

**Council Chambers
202 N. State Route 89
Chino Valley, Arizona**

AGENDA

- 1) CALL TO ORDER; ROLL CALL
- 2) Presentation and discussion regarding use of space at the Community Center, located at 1527 N. Road 1 East. (Chris Bartels, Utility Supervisor)
- 3) Presentation and discussion regarding septage receiving at the Town's Wastewater Treatment Plant (WWTP). (Michael Lopez, Public Works Director/Town Engineer)
- 4) Presentation and discussion regarding a summary of potential funding alternatives to finance the improvement of Town roads. (Joe Duffy, Finance Director)
- 5) Presentation and discussion regarding the roles of the Parks and Recreation Advisory Board and the Mayor's Ad Hoc Old Home Manor Recreational Committee. (Ruth Mayday, Development Services Director)
- 6) Presentation and discussion regarding the Town's Old Home Manor Industrial Park. (Ruth Mayday, Development Services Director)
- 7) Presentation and discussion regarding Code Compliance. (Cecilia Grittman, Interim Town Manager)
- 8) Presentation and discussion regarding Town assets, including fixed assets, land, and assets financed with debt, and future equipment needs. (Joe Duffy, Finance Director)
- 9) Presentation and discussion regarding the re-establishment of a Community Services Department that includes Parks and Recreation. (Cecilia Grittman, Interim Town Manager)

- 10) Presentation and discussion regarding the proposed motor sports project at Old Home Manor. (Ruth Mayday, Development Services Director)
- 11) Discussion regarding future study session topics. (Cecilia Grittmann, Town Manager)
- 12) ADJOURNMENT

Dated this 26th day of January, 2017.

By: **Jami C. Lewis, Town Clerk**

The Town of Chino Valley endeavors to make all public meetings accessible to persons with disabilities. Please call 636-2646 (voice) or 711 (Telecommunications Arizona Relay Service) 48 hours prior to the meeting to request a reasonable accommodation to participate in this meeting.

Supporting documentation and staff reports furnished to the Council with this agenda are available for review on the Town website at <http://www.chinoaz.net/agendacenter>, and in the Public Library and Town Clerk's Office.

CERTIFICATION OF POSTING

The undersigned hereby certifies that a copy of this notice was duly posted at Chino Valley South Campus, Chino Valley Post Office, and Chino Valley North Campus in accordance with the statement filed by the Town Council with the Town Clerk.

Date: _____ Time: _____ By: _____
Jami C. Lewis, Town Clerk



TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 2)

Meeting Date: 01/31/2017
Contact Person: Chris Bartels, Utility Supervisor
 Phone: 928-636-2646 x-1233
Department: Public Works
Estimated length 20 minutes
of Staff Presentation:
Physical location of item: Community Center, located at 1527 N. Road 1 East

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding use of space at the Community Center, located at 1527 N. Road 1 East. (Chris Bartels, Utility Supervisor)

SITUATION & ANALYSIS:

The Community Center, located at 1527 N Road 1 East, south of the Town's Aquatic Center, has not been occupied for several years. Staff would like to entertain discussion with the Council regarding the use of the space as there has been demand for both the use of offices at the Community Center as well as for service clubs, specifically the Boys and Girls Club, to occupy the non-office space of the Community Center.

Some of the talking points regarding the Community Center:

1. Council's perception of the use of the Community Center - should the Community Center be used for Recreational Purposes?
2. The Boys and Girls Club - using Chino Valley's Community Center as the base
3. Offices for Parks and Recreation employees

Attachments

Community Center - Current & Future Uses

Community Center Facility Current Conditions and Future Uses

- Not utilized to its fullest potential for several years
- Facility Attributes
 - o 4004 square feet
 - o 3 distinct spaces
 - Zone A: 1500 sq. ft. general assembly area dividable by partition curtain
 - Zone B: 1500 sq. ft. 3 offices, storage, kitchen and restrooms
 - Zone C: 1000 sq. ft. 2 offices and general assembly area
- Current Conditions and Occupancy
 - o Building is structurally sound
 - o Mechanical needs:
 - 3 HVAC replacements
 - Minor electrical repairs
 - Minor plumbing repairs
 - o Redecoration needs:
 - Flooring
 - Paint – interior and exterior
 - Window coverings
 - o Kitchen remodel:
 - Renovate commercial kitchen?
 - Convert to warming kitchen?
 - o Exterior needs:
 - Grading and drainage around the building
 - Parking
 - o Occupancy:
 - Parks Department Staff
 - Youth sports board meeting and registration events
 - Community musical, arts and craft groups
- Discussion Points with Council
 - o Determination of long term use of the Community Center
 - Dedicated use for parks, recreational and community services purposes?
 - o Future Uses and Occupancy
 - Relocate Recreational Services Staff to Community Center Facility
 - Boys and Girls Club
 - Long term lease options and Town support
 - Programming
 - Facility Management
 - Community Service Organizations

Reorganization of Community Services

- Scope of Community Services
- Parks and Recreation: Transition from Public Works to Community Services
 - o 5 Step Transition Program
 1. Engage Stakeholder
 - Managers
 - Parks and Recreation Staff
 - PRAB
 - Community Service Organizations
 - Event Organizers
 2. Review Vision and Mission
 - Review your departmental mission
 - Review your key constituents and stakeholders and their needs.
 - Identify goals or outcomes you need to accomplish to move toward this vision
 3. Identify Current Processes
 - Identify current core functions
 - o Identify reasons for the change and how it will support and add value to the department.
 - o Compare Departmental data to known benchmarks and identify performance gaps, i.e. gaps between actual vs. desired performance.
 - o Identify your opportunities for cost reduction, improved efficiency, and/or increased effectiveness and set improvement targets which may include:
 - Elimination of non-value added processes that do not further your departmental vision and mission.
 - Standardization, simplification, and enhanced use of technology.
 - o Prioritize the change work that lies ahead: develop a reasonable timeframe considering impact on service providers and end users.
 4. Redesign Processes
 5. Develop the Implementation Plan
- Parks and Recreation Facilities, Event and Programming
 - o Facilities
 1. See Attachment
 - o Events
 1. Parks and Recreation Events
 - 4th of July co-supported by local Community Service Organizations.
 - The Chino Mudder
 - Halloween Trick or Treat in Memory Park
 - Chino Family Christmas

2. Parks and Recreation Supported Events

- Yavapai Cup Soccer Tournament
- Chino Valley Easter Egg Hunt
- Chino Grinder
- Children's Library Summer Program
- 4th of July co-supported by local Community Service
- Senior Center Car Show
- Chino National Night Out
- Territorial Days
- Chino Family Christmas
-

o Programming

1. Aquatics

- Swim lessons
- Aqua-aerobics
- Junior Lifeguarding

- Current Staffing and Budgeting
- Future Needs and Projects
 - o Parks and Recreation Needs Assessment
 - o Community Center Park Playground Rehab
 - o Dog Park Shade Structure / Seating / Landscaping
 - o Memory Park Playground Rehab
 - o Memory Park Bathroom Remodel
 - o Community Center Walking Trail Ramada's, Landscaping and Lighting
 - o Center Street Park Development



TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 3)

Meeting Date: 01/31/2017

Contact Person: Michael Lopez, Public Works Director/Town Engineer
Phone: 928-636-2646 x-1226

Department: Public Works

Estimated length 30 minutes

of Staff Presentation:

Physical location of item: WWTP - Rodeo Drive

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding septage receiving at the Town's Wastewater Treatment Plant (WWTP). (Michael Lopez, Public Works Director/Town Engineer)

Attachments

Final Septage Receiving Study

Technical Memorandum
Chino Valley Wastewater Treatment Plant
Septage Receiving Study

Prepared for:



Town of Chino Valley
Public Works Department
1982 Voss Drive
Chino Valley, AZ 86323

Prepared by:

Kimley»Horn

1129 Iron Springs Road
Prescott, AZ 86305
(928) 458-7121

December 2016



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TECHNICAL MEMORANDUM

To: Michael Lopez, P.E.
Public Works Director / Town Engineer
Town of Chino Valley

From: Ray Montoya, P.E.
Bob Owens, P.E.
Kimley-Horn and Associates, Inc.

Date: December 15, 2016

Subject: Chino Valley Wastewater Treatment Plan
Septage Receiving Study and Recommendations

1. PURPOSE

The purpose of this memorandum is to present the results of the study conducted related to potentially adding liquid-stream septage to the Town of Chino Valley Wastewater Treatment Plant (WWTP). Specifically, analysis was performed to determine the overall ability of the existing facility to treat both the influent sewage and liquid-stream septage utilizing the existing treatment process. This study focused on the ability of the wastewater facility to accept and treat offsite hauled liquid-stream septic tank waste, potential impacts to the existing operation, and an overall management strategy for septage receiving operations.

2. BACKGROUND

The Town of Chino Valley currently operates and maintains a 0.50 million gallons per day (mgd) membrane bioreactor (MBR) wastewater treatment facility. The existing facility was constructed in 2004 and includes headworks with fine screening and grit removal; anoxic, aeration, and membrane filtration; follow-on ultraviolet disinfection; and offsite disposal. The facility, treating commercial and residential raw sewage, was originally designed to allow phased expansion, and has the ability to increase capacity up to 1.0 mgd. The current installed mechanical equipment capacity is rated for 0.50 mgd, and reported flows obtained from the facility indicate the plant is currently treating approximately 0.25 mgd. With the ongoing replacement of all 4,000 individual filters currently underway, immediate improvement in overall performance has been reported by the Town's staff due to this upgrade.

The treatment facility is located within the Town of Chino Valley, as shown in *Figure 1 - Project Location*. Raw sewage from an offsite lift station and force main is delivered to the treatment plant, and no flow equalization is provided.



Figure 1 - Project Location

Residential and commercial flows outside of the existing service area currently utilize septic systems. The Town has begun to establish a long-term plan to eliminate individual septic systems, improve the existing sewage collection system, and provide expanded service at the treatment facility in the future. As previously stated, the facility was designed to allow for future expansion and has adequate space and land for additional growth. In addition, the original design included the co-treatment of septage waste as a dedicated Septage Dump Station was included in the constructed improvements. For reference, the overall physical layout of the existing facility and the associated footprint is provided in *Figure 2 - Facility Overview*.

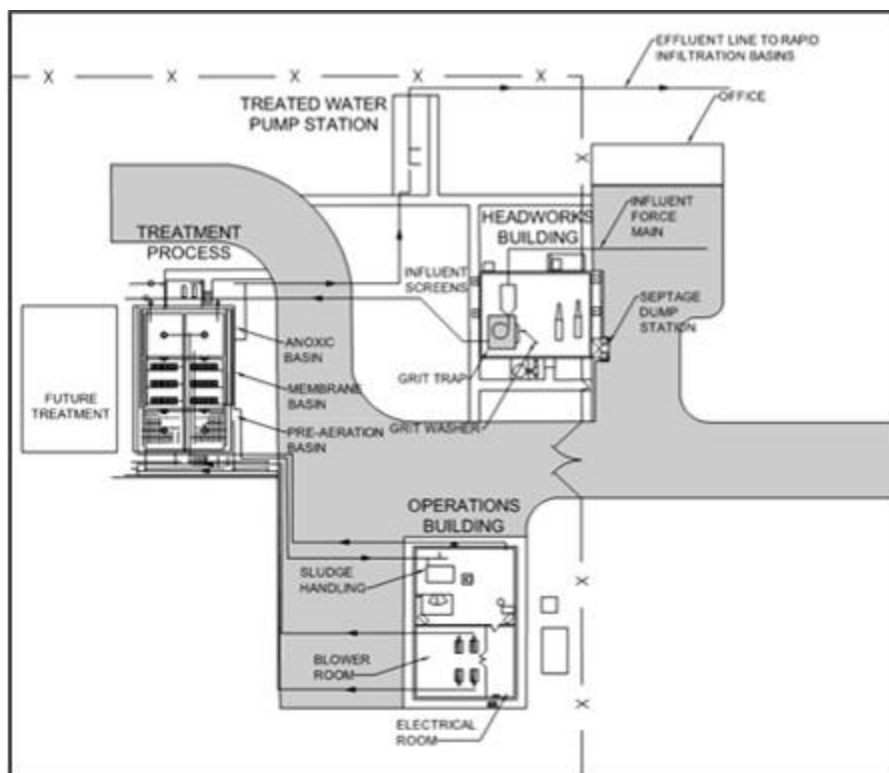


Figure 2 - Facility Overview

Based on discussion with Town staff, previous attempts to include septage waste had negative impacts on the facility requiring significant chemical cleaning of the membrane filters to reverse the almost immediate fouling experienced. While the septage waste was introduced at the dedicated Septage Dump Station as designed, the treatment process and installed equipment reacted adversely to this and essentially ceased to operate. Therefore, the Town has since prohibited septage waste from being introduced to the influent or headworks area of the treatment process.

The original performance parameters for this facility are listed below in *Table 1 - Chino Valley WWTP Design Criteria*.

Table 1 - Chino Valley WWTP Design Criteria

Design Parameter	Value
Average Daily Flow	0.50 mgd
Influent Biochemical Oxygen Demand (BOD ₅)	250 mg/L
Influent Total Suspended Solids (TSS)	220 mg/L
Influent Total Kjeldahl Nitrogen (TKN)	50 mg/L
Effluent Biochemical Oxygen Demand (BOD ₅)	< 5 mg/L
Effluent Total Suspended Solids (TSS)	< 5 mg/L
Effluent Total Nitrogen	< 8 mg/L
Chino Valley Septage Addition	2,000 gpd

The Town was approached by a regional commercial septic pumping/hauling company to inquire about potentially treating a portion of their liquid-stream waste at the Chino Valley WWTP. Therefore, analysis was conducted to determine if this facility could treat both the influent sewage and liquid-stream septage utilizing the existing treatment process, or what, if any, modifications would be required to accomplish this co-treatment in the future.

3. EVALUATION

The plant currently receives approximately half of the 0.50 mgd capacity based on design parameters and strength of influent raw wastewater. The unused capacity can be allocated for other sources of waste other than the collection system which is directly connected to the plant headworks. A potential option to use this un-allocated treatment capacity would be to allow non-sewered septage waste to be hauled and discharged into the facility. By analyzing the processes that are part of the plant and identifying any potential bottlenecks existing with either physical or treatment components, the addition of septage waste at this facility can be evaluated.

3.1 Existing Facility

Based on data obtained from Town staff, to include Arizona Department of Environmental Quality (ADEQ) Self-Monitoring Report Form (SMRF) and influent and effluent laboratory data, the plant is currently operating within acceptable limits and treatment performance is within the permitted values. Current replacement of existing fouled filters has shown a marked improvement on process flow, and all 4,000 separate filters are scheduled to be replaced this year which should restore the full hydraulic capacity to the facility. Information from laboratory

testing at all three (3) points of compliance are included in *Table 2 - Chino Valley WWTP POC Results*, tested in March 2016.

Table 2 - Chino Valley WWTP POC Results

Point of Compliance Grab Sample Results	
POC 1 (Monitoring Well)	
Fecal Coliform, MF	< 1
Total Nitrogen	5.34 mg/L
Total Kjeldahl Nitrogen (TKN)	< 1
POC 2 (Monitoring Well)	
Fecal Coliform, MF	< 1
Total Nitrogen	6.28 mg/L
Total Kjeldahl Nitrogen (TKN)	< 1
POC 3 (UV Disinfection)	
Fecal Coliform, MF	2
Total Nitrogen	3.19 mg/L
Total Kjeldahl Nitrogen (TKN)	1.64 mg/L

On a preliminary basis, there are two process elements that have been considered potentially critical to the ability of the plant, in its current status, to accept at least one or multiple daily loads of septage; the aeration blowers and the membranes. Other process units such as the headworks are more flow based in size and capacity. The aeration blowers are directly related to the daily mass of substrate (BOD and TKN) and the membranes are limited to a complex of several variables such as the mixed liquor suspended solids concentration and indirectly a result of the substrate and flow volume. The aeration diffusers have a wide range of air flux rate and can perform well at the upper end of their range. Study of the capacity of the existing blowers was conducted to evaluate their ability to supply enough air for current operation as well as hauled liquid-stream septage.

3.2 Effects of Septage Loads

Based on the existing influent nitrogen load of 35 mg/L from the lift station, and addition of liquid-stream septage was evaluated against the current capacity of the aeration blowers. The process calculations are of those two process units under a range of conditions, depending on several assumed process factor values. The calculations are formatted as a "sensitivity analysis" to find limiting values on several process factors which might limit the addition of one or more daily septage waste loads being introduced into the plant process train. The results of our calculations are presented in *Table 3 - Calculated Results* below.

Table 3 - Calculated Results

Process Unit	Process Parameter	Process Capacity	Plant Flow Capacity
Aeration Blowers	Air Supply for biological stabilization	1,300 lb/day of NH ₃ and BOD	0.50 mgd
Bio-reactor	F:M (food to microorganism ratio)	0.07 lb of substrate per day to pounds of biomass	0.50 mgd
Bio-reactor	Mixed liquor	19,000 pounds of biomass	0.50 mgd
Vacuum pumps	Flow	0.50 mgd	0.50 mgd
Bio membranes	Permeate flux rate	0.50 mgd	0.50 mgd

Septic waste characterization:

- Volume per load: 5,000 gallons per day
- BOD concentration: 1,000 mg/L
- NH₃ concentration: 112 mg/L

Plant influent wastewater characterization:

- Flow: 500,000 gallons per day (0.50 mgd)
- BOD concentration: 250 mg/L
- NH₃ concentration: 68 mg/L

Membrane capacity:

- Number of membranes: 4,000 (2,000 upper level and 2,000 lower level)
- Surface area per membrane: 5.14 (each side) SF
- Rated flux rate: 9.8 (upper) and 15.2 (lower) gpd/SF

Biological kinetics:

- Max mixed liquor concentration: 8,000 mg/L
- Maximum F:M 0.07

Table 4 - ACFM Requirements per Septage Load below, summarizes aeration requirements based on plant flow and potential septage loads of 5,000 gallons per day. This is based on liquid-stream septage and not raw unfiltered septage, with the laboratory tested NH₃ levels of 112 mg/L.

Table 4 - ACFM Requirements per Septage Load

	Number of Septage Loads per Day				
	1	2	3	4	5
Plant Flow, mgd	Blower Requirement, ACFM				
0.25	423	445	467	490	512
0.30	475	497	518	540	562
0.35	526	548	570	591	613
0.40	578	600	621	643	664
0.45	630	651	673	694	715
0.50	681	703	724	746	767

Blower Capacity, ACFM = 1,024 ACFM at 1,750 rpm

Blower Capacity, ACFM = 566 ACFM at 1,170 rpm

3.3 Receiving Septage Loads

Final consideration is related to onsite capacity to receive hauled septage on a daily basis. The original design included a dedicated Septage Dump Station, and design criteria included the addition of 2,000 gallons per day of raw septage. The location for the hauled septage receiving station is located along the southern wall of the Headworks Facility. The septage would then enter the headworks via the wet well located along the eastern perimeter of the Headworks building. This is depicted in *Figure 3 - Headworks Building*.

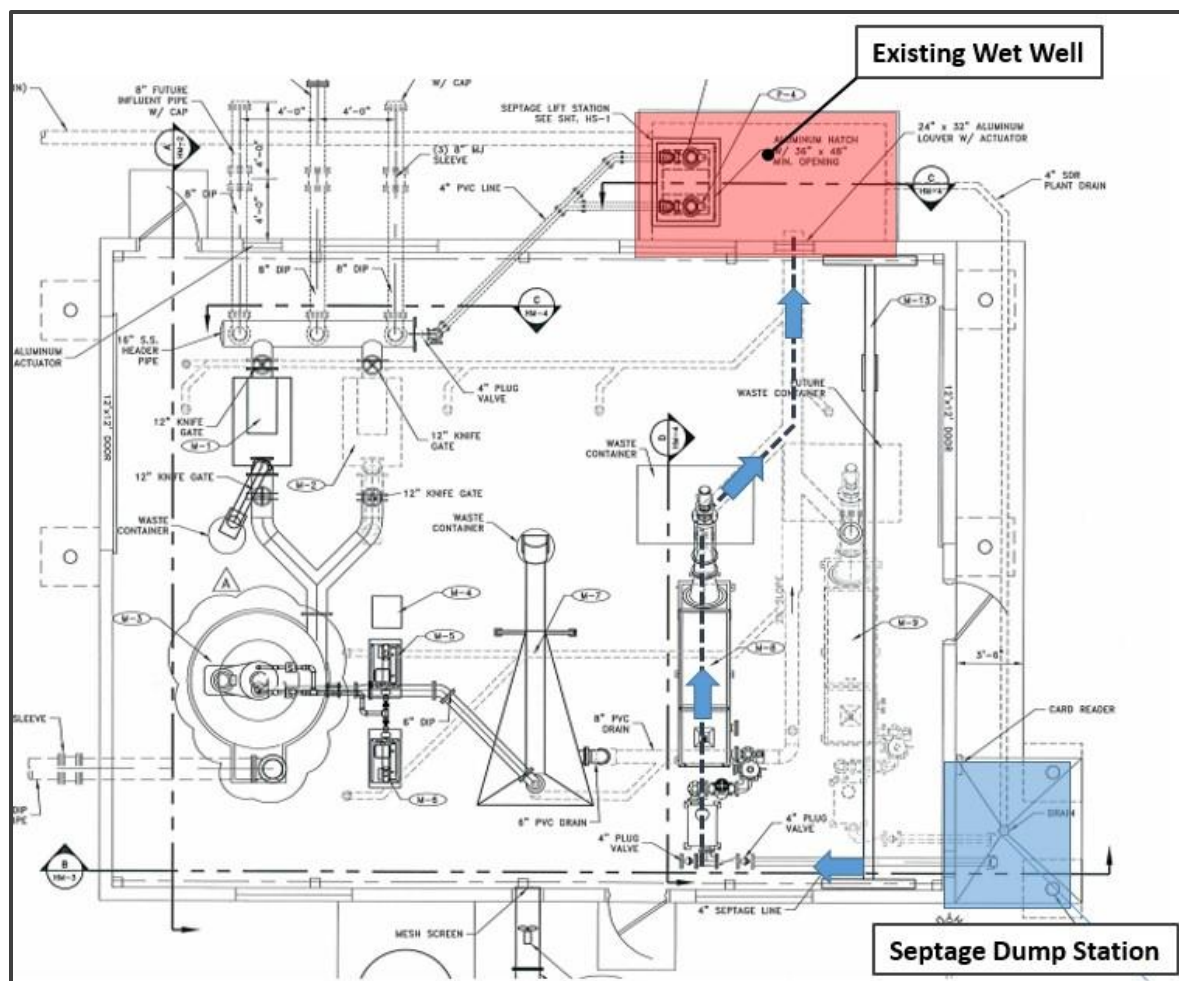
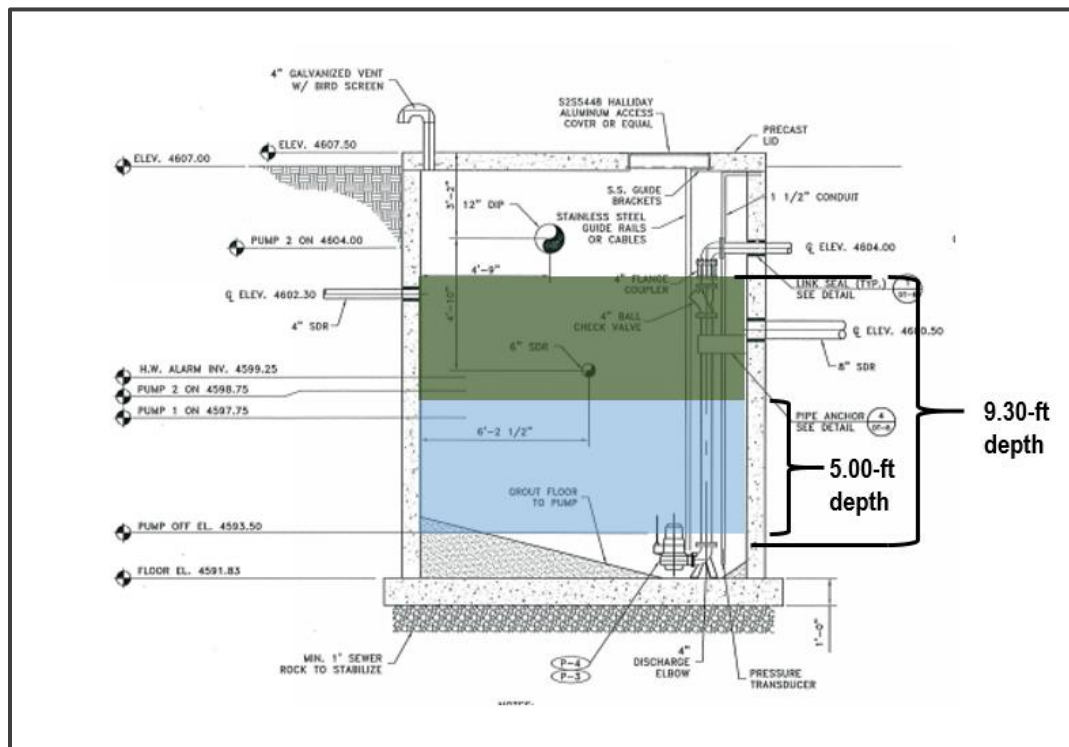


Figure 3 - Headworks Building

Review of the available capacity within the existing wet well, along with pump configuration and alarm/float operations provides the following information:

- Design Capacity: 2,000 gpd
- Wet Well Dimensions: 6-ft wide x 12-ft long x 15-ft deep
- Liquid Depth
 - 5.00-ft provides 2,693 gallons
 - 5.50-ft provides 2,962 gallons
 - 5.75-ft provides 3,097 gallons (*high water alarm elevation*)
 - 9.30-ft provides 5,008 gallons



4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Treatment Capacity

The plant can currently operate biologically with septage waste being accepted for processing based on the design criteria of the plant and the current reported data for the plant influent and the septage waste stream regarding the substrate (NH₃ and BOD) concentrations. As the plant influent flow increases from the present level of 0.25 mgd to the design level of 0.50 mgd, the number of septage loads that will be acceptable would decrease.

The results show that the blowers and the aeration diffusers are adequate for several daily loads of septage waste at the present plant loading rate of 0.25 mgd. The precise blower speed is still unknown, so the more conservative value of 1,170 rpm was presented in the previous results. Since the blowers are connected to the motors in a belt-sheave configuration, further clarification is required to determine actual speed of the aeration blowers.

4.2 Hydraulic Capacity and Operations

The ability of the facility to accept liquid stream septage is currently prevented by the limited operating volume of the existing waste basin. The facility shortfall identified is related to the septage loading station, which was originally designed to accept 2,000 gpd. This concrete basin can only provide approximately 3,000 gallons in storage volume.

Regardless of the biological limitation and hydraulic limitation, the remaining factor in the ability to process the proposed septage loads will be the increase in operating costs and more significantly the increase in maintenance costs. Examples of these costs would include:

- Power consumption (increased operation of wet well and blowers)
- Replacement frequency of aeration diffusers
- Periodic frequency of handling, cleaning, and replacement of membranes

4.3 Interim Recommendations

We understand that the Town desires to accept hauled liquid stream septage as long as it does not adversely affect the existing treatment operation. Depending on the commercial liquid-stream septage delivery capabilities, our recommendation is to allow one (1) septage load per day. With no modification to the existing wet well, we recommend the original designed capacity of 2,000 gpd of liquid-stream septage only, in order to allow the plant biokinetics to change and create a new biology in the bioreactor. The plant staff will determine what the best operating mixed liquor suspended solids will be to provide stable operation.

In addition, we recommend the Town of Chino Valley require the commercial septage haul company provide regular (bi-monthly) laboratory test results to ensure NH₃ concentrations do not exceed the values used in this analysis (112 mg/L). We recommend any septage that has not been pre-screened or exceeds the evaluated levels of NH₃ not be allowed to enter the facility for treatment. As an example of pre-screened septage, the proposed commercial hauler, JT's Septic, provided the photo below.



Figure 5 - Pre-Screened Liquid Septage Waste

4.4 Long-Term Recommendation – Additional Septage Storage

To take advantage of the current available treatment capacity, additional onsite storage capacity is required, allowing additional liquid-stream septage receiving and handling at the facility. Ingress/egress for large septic hauling truck access while minimizing disruption to existing operations is vital, as well as security and limiting access to onsite treatment process equipment. Therefore, any long-term recommendation for additional storage would include site selection requirements allowing for haul truck turn radius and ease of access. This allows for even less-experienced drivers to navigate vehicles around the treatment facility with little interference to the ongoing operations. Key parameters for allowing commercial septic waste haul disposal include the following:

- Establish Septage Disposal Operations Plan
- Dedicate Receiving/Discharge Area
- Well Defined Haul Truck Routes onsite
- Additional Treatment Requirements (not required when receiving only liquid-stream septage)

- Established Hours of Operation
- Pre-Approved Licensed Haulers
- Established Pre-Testing
- Established Fees and Billing

4.5 Long-Term Recommendation – Addition of Equalization Basin

The existing facility is fed directly by the offsite lift station with no flow equalization present. Therefore, as the offsite wet well fills and lift station pumps begin to deliver sewage, the facility is required to handle these as surges or peaks as a normal operating condition. Typically, a properly sized Equalization Basin is utilized to mitigate peak influent flows and provides for a steady delivery of pre-screened sewage to the downstream treatment processes. This allows the operators greater flexibility in maintenance and helps to optimize treatment performance since the plant is not always adjusting to flow surges as a normal state. Equalization Basins are usually located downstream of the Headworks area, contain aeration and effluent pump flow control, and are sized based on the ultimate flow of the plant. Removing large solids from the incoming sewage along with the addition of aeration helps in minimizing nuisance odors, and keeps cleaning and wash-down intervals down as well.

An approach to significantly improve current operations and maintenance, provide flexibility for the Operational Staff, and provide additional capacity for accepting liquid-stream septage loads would be the addition of a new Equalization Basin. Sizing for this basin would be as follows, as well as possible site locations for the largest volume capacity.

Current Plant Design Capacity of 0.50 mgd

- | | |
|-------------------|-----------------------|
| • EQ Basin Sizing | 20% of Plant Capacity |
| • EQ Basin Volume | 100,000 gallons |
| • Floor Slope | 12:1 |
| • Aeration/Mixing | Course Air Diffusers |

Ultimate Plant Design Capacity of 1.0 mgd

- | | |
|-------------------|-----------------------|
| • EQ Basin Sizing | 20% of Plant Capacity |
| • EQ Basin Volume | 200,000 gallons |
| • Floor Slope | 12:1 |
| • Aeration/Mixing | Coarse Air Diffusers |

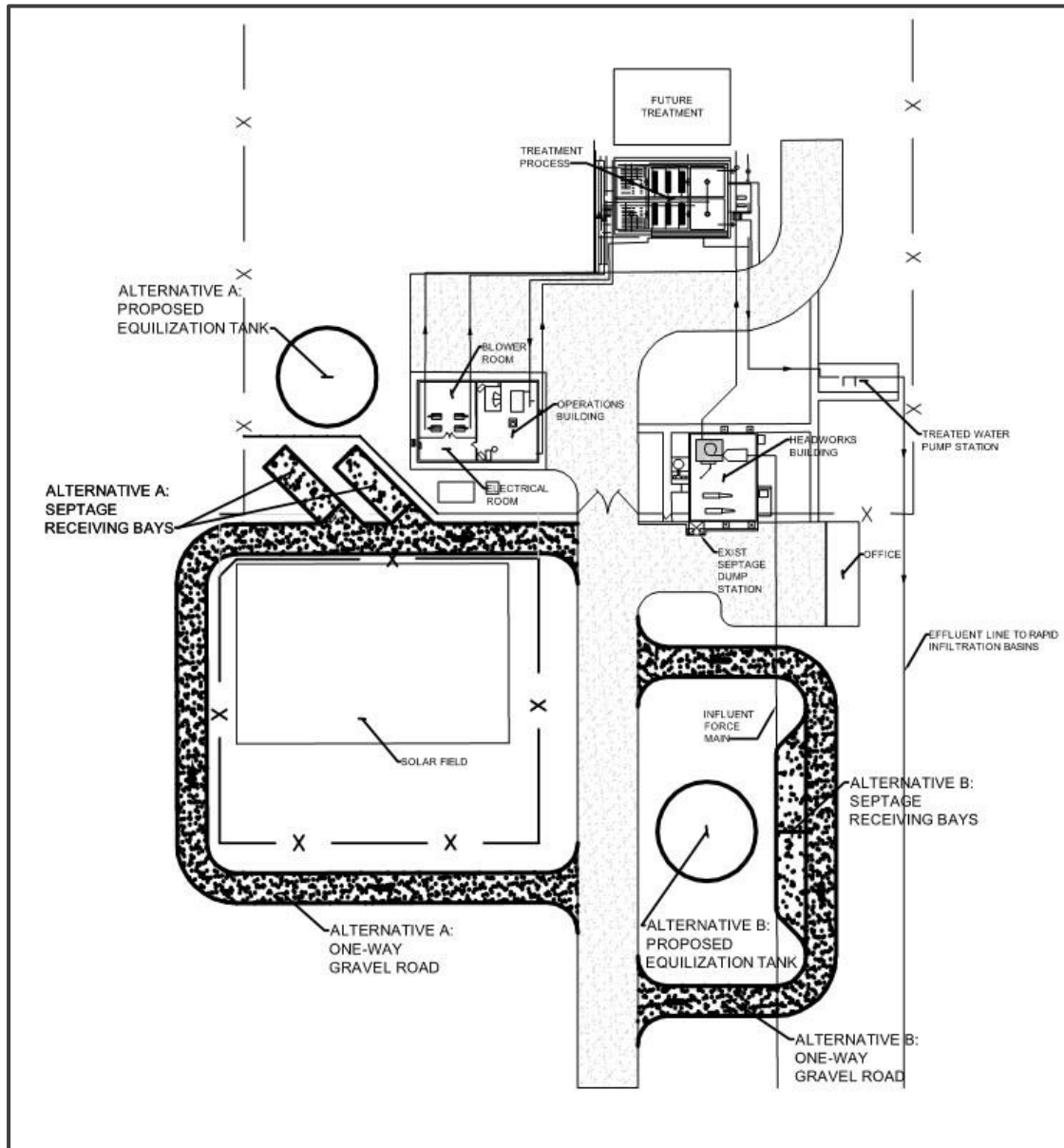


Figure 6 - Site Options for 200,000-gallon Equalization Basin



Date: December 1, 2016
Proj Manager : Ray Montoya, PE
Project Location : Chino Valley WWTP
Project Description : Equalization Basin

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
0001	Sitework, Prep and Clearing	LS	1	\$28,000.00	\$28,000.00
0002	Concrete Tank Pad	LS	1	\$8,000.00	\$8,000.00
0003	100,000 Gallon Steel Tank and Lining	EA	1	\$130,000.00	\$130,000.00
0004	Pumps, Submerged	EA	3	\$20,000.00	\$60,000.00
0005	Mechanic Piping Installation	LS	1	\$20,000.00	\$20,000.00
0006	Electrical Control and Instrumentation	LS	1	\$10,000.00	\$10,000.00
0007	Aeration/Mixing System	EA	1	\$8,000.00	\$8,000.00
0008	Incidentals	FA	1	\$10,000.00	\$10,000.00
CONSTRUCTION COST SUBTOTAL:					\$274,000.00

Construction Administration (15%)	\$41,100
Design/Permitting (10% of construction cost + contingencies)	\$30,140
Taxes	\$0
Contingencies (10%)	\$27,400
TOTAL PROJECT COST	\$372,640



Date: December 1, 2016

Proj Manager : Ray Montoya, PE

Project Location : Chino Valley WWTP

Project Description : Equalization Basin

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
0001	Sitework, Prep and Clearing	LS	1	\$40,000.00	\$40,000.00
0002	Concrete Tank Pad	LS	1	\$15,000.00	\$15,000.00
0003	200,000 Gallon Steel Tank and Lining	EA	1	\$175,000.00	\$175,000.00
0004	Pumps, Submerged	EA	3	\$20,000.00	\$60,000.00
0005	New Electrical and Mechanical Equipment and Installation	LS	1	\$45,000.00	\$45,000.00
0006	Instrumentation and Control	LS	1	\$15,000.00	\$15,000.00
0007	Aeration/Mixing System	EA	1	\$12,000.00	\$12,000.00
0008	Incidentals	FA	1	\$12,000.00	\$12,000.00
CONSTRUCTION COST SUBTOTAL:					\$374,000.00

Construction Administration (15%)	\$56,100
Design/Permitting (10% of construction cost + contingencies)	\$41,140
Taxes	\$0
Contingencies (10%)	\$37,400
TOTAL PROJECT COST	\$508,640

$$ACFM = SCFM \times \frac{P_s - (RH_s \times PV_s)}{P_b - (RH_a \times PV_a)} \times \frac{T_a}{T_s} \times \frac{P_b}{P_a}$$

$$SCFM = 287$$

$$P_s = \text{STANDARD PRESSURE (PSIA) @ ELEV} = 0 \text{ FT} \\ = 14.7 \text{ psi}$$

$$P_b = \text{ATMOSPHERIC PRESSURE (PSIA)} \\ = 14.4 \text{ psi}$$

$$P_a = \text{ACTUAL PRESSURE @ ELEV} = 4,600 \text{ FT} \\ = 12.5 \text{ psi}$$

$$RH_s = \text{STANDARD RELATIVE HUMIDITY} \\ = 0.36$$

$$RH_a = \text{ACTUAL RELATIVE HUMIDITY} \\ = 0.10 \text{ (ARIZONA)}$$

$$PV_s = \text{SATURATED VAPOR PRESSURE @ STD TEMPERATURE} \\ = 0.3391$$

$$PV_a = \text{SATURATED VAPOR PRESSURE @ ACTUAL TEMPERATURE} \\ = 0.9503 \text{ @ } 100^\circ\text{F}$$

$$T_s = \text{STANDARD TEMPERATURE} = ^\circ\text{F} + 460 \\ = 520$$

$$T_a = \text{ACTUAL TEMPERATURE} = 100 + 460 \\ = 560$$

$$ACFM = 287 \times \frac{14.7 - (0.36 \times 0.3391)}{14.4 - (0.10 \times 0.9503)} \times \frac{560}{528} \times \frac{14.4}{12.5}$$

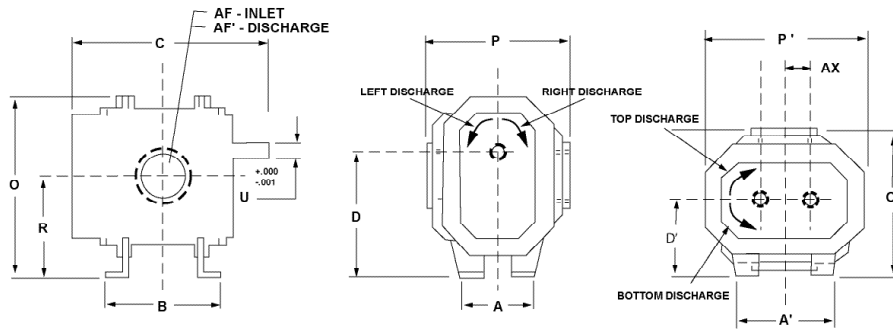
$$= 287 \times \frac{14.7 - 0.1221}{14.4 - 0.0950} \times (1.06)(1.15)$$

$$= 287 \left(\frac{14.578}{14.305} \right) (1.22)$$

$$= 287 (1.019)(1.22)$$

$$\underline{ACFM = 357}$$

$ACFM : SCFM = 1.24$



For further information contact

Howden Roots
900 W. Mount St.
Connersville
Indiana
USA
47331

Tel: +1 765 827 9200

+1 800 55 ROOTS

Web: www.howden.com

Frame size	Speed RPM	4 PSI		6 PSI		8 PSI		10 PSI		12 PSI		15 PSI		18 PSI		MAX VACUUM		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	"HG	CFM	BHP
404	1750	148	3.6	139	5.3	130	6.9	123	8.6	116	10.3	-	-	-	-	14.0	114	5.8
	2950	280	6.8	271	9.5	262	12.3	255	15.1	248	17.9	239	22	-	-	15.0	240	10.8
	4000	396	10.4	386	14.1	378	17.8	370	21.5	364	25.2	355	30.7	347	36.2	16.0	350	15.8
406	1750	225	5.4	210	7.9	198	10.5	187	13	177	15.5	-	-	-	-	14.0	173	8.8
	2950	426	10.0	411	14.2	398	18.4	387	22.6	377	26.8	363	33.2	-	-	15.0	365	16.2
	4000	601	15.1	586	20.7	574	26.3	562	31.9	552	37.5	539	45.9	526	54.3	16.0	531	23.7
409	1750	338	8.0	315	11.8	296	15.6	279	19.4	264	23.2	-	-	-	-	14.0	259	13.2
	2950	638	14.7	615	21	596	27.3	579	33.6	564	39.9	544	49.3	-	-	15.0	546	24.2
	4000	900	21.9	878	30.3	859	38.7	842	47	827	55.4	806	68	788	80.5	16.0	796	35.2
412	1750	450	10.6	420	15.7	394	20.7	372	25.8	352	30.8	-	-	-	-	14.0	344	17.6
	2950	849	19.4	819	27.8	794	36.2	772	44.6	752	52.9	724	65.5	-	-	15.0	728	32.1
	4000	1199	28.8	1169	39.9	1144	51.1	1121	62.2	1101	73.4	1074	90.1	-	-	16.0	1060	46.6
418	1750	675	15.9	630	23.5	592	31.1	559	38.7	-	-	-	-	-	-	14.0	501	25.7
	2950	1275	28.9	1230	41.5	1192	54.1	1159	66.7	-	-	-	-	-	-	15.0	1092	48.1
	4000	1800	42.8	1755	59.5	1717	76.3	1684	93.0	-	-	-	-	-	-	16.0	1591	69.8
612	1170	501	12.4	459	18.5	423	24.5	391	30.5	363	36.5	-	-	-	-	13.0	373	19.4
	1750	843	19.4	801	28.4	765	37.4	734	46.4	705	55.4	666	68.9	-	-	15.0	669	33.8
	3000	1581	37.7	1538	53.1	1503	68.5	1471	84	1442	99.4	1404	122.6	1369	145.7	16.0	1382	63.8
616	1170	671	16.6	614	24.6	566	32.6	524	40.6	486	48.6	-	-	-	-	13.0	501	25.7
	1750	1128	25.6	1072	37.5	1024	49.4	982	61.3	943	73.2	-	-	-	-	14.0	929	41.7
	3000	2115	49.0	2058	68.8	2010	88.6	1968	108.4	1930	128.2	1878	157.9	-	-	16.0	1850	81.8
624	1170	1006	25.1	921	37.1	849	49.1	786	61.1	-	-	-	-	-	-	13.0	751	38.8
	1750	1693	39.3	1608	57.2	1536	75.0	1473	92.8	-	-	-	-	-	-	14.0	1394	63.0
	3000	3173	77.6	3088	107.3	3016	137.1	2953	166.8	-	-	-	-	-	-	16.0	2777	124.8

Notes:

1. Pressure ratings based on inlet air at standard pressure of 14.7 psia, standard temperature of 68° F, and specific gravity of 1.0.
2. Vacuum ratings based on inlet air at standard temperature of 68°F, discharge pressure of 30" Hg and specific gravity of 1.0.

Frame Size	A	A'	B	C	Drive shaft location		O	O'	P	P'	R	U	Keyway	AF inlet diameter	AF discharge diameter	AX	Approx. net Wt (lbs)
					D	D'											
404	8.00	11.00	8.75	18.50	11.25	7.50	16.63	13.50	12.00	15.25	9.00	1.500	.375 x .188	3.0 NPT	3.0 NPT	2.25	200
406	8.00	11.00	10.75	20.50	11.25	7.50	16.63	13.50	12.00	15.25	9.00	1.500	.375 x .188	4.0 NPT	4.0 NPT	2.25	230
409	8.00	11.00	13.75	23.50	11.25	7.50	16.63	13.00	11.00	15.25	9.00	1.500	.375 x .188	4.0 NPT	4.0 NPT	2.25	270
412	8.00	11.00	16.75	26.50	11.25	7.50	16.63	13.00	11.00	15.25	9.00	1.500	.375 x .188	6.0 FLG	6.0 FLG	2.25	330
418	8.00	11.00	22.75	32.50	11.25	7.50	16.63	13.00	11.00	15.25	9.00	1.500	.375 x .188	8.0 FLG	8.0 FLG	2.25	410
612	11.00	17.00	16.75	28.24	15.00	9.00	22.13	18.00	18.00	20.00	12.00	2.000	.500 x .250	8.0 FLG	8.0 FLG	3.00	575
616	10.00	16.00	20.75	32.44	15.00	9.00	22.00	16.25	14.50	20.00	12.00	2.000	.500 x .250	8.0 FLG	8.0 FLG	3.00	650
624	10.00	16.00	28.75	40.44	15.00	9.00	22.00	16.25	14.50	20.00	12.00	2.000	.500 x .250	10.0 FLG	10.0 FLG	3.00	775

Notes: 1. All dimensions are in inches. 2. Do not use for construction.

CHINO VALLEY WATER RECLAMATION

Influent:

Flow, mgd
BOD, mg/l
BOD, lb/day
NH3, mg/l
NH3, lb/day

0.25
250
521.25
68
141.78

Septage:

Loads per day
Vol. per load, gal

1
5,000

BOD, mg/l
BOD, lb/day
NH3, mg/l
NH3, lb/day

988
41,1996
112
4,6704

Combined:

Flow, mgd
BOD, lb/day
BOD, mg/l
NH3, lb/day
NH3, mg/l

0.255
562.4496
264.47
146.4504
68.86

Aeration Air
Required:

Total O2, lb/day
Depth of submergence, feet
Transfer efficiency, %/ft.
Transfer efficiency, %
O2 supplied, lb/day
O2 to Air %
Air needed, lb/day
Elevation, ft (MSL)
Weight of air, lb/SCF
SCF of air per day
SCFM
ACFM:SCFM
ACFM
ACFM Available from a single blower

935.46 Sum of O2 for both plant flow and septage
10.5
1.50% * assumed - with newer diffusers installed this might even be conservative
15.75%
5.939
19.5%
30,459 (O2 divided by the O2 percentage)
4600
0.06200 at this elevation
491,270
341
1,240 Conversion factor
423
1,170 rpm = 566 ACFM, 1,750 rpm = 1,024 SCFM, 3,000 rpm = 2,010 ACFM
1,024

Summer:

Temperature, F
Temperature, Absolute
O2, percentage
Weight of air, lb/CF
O2, lb/CF
SCF/day
SCFM (1,440 minutes)
SCFM (0.8 duty)
Pa
Rh

100 * mean summer high temp
19.50%
0.0620 AT 4,600 ft elevation

Plant Flow, mgd	Number of Septage Loads per Day				
	1	2	3	4	5
Blower Requirement, ACFM					
0.25	423	445	467	490	512
0.30	475	497	518	540	562
0.35	526	548	570	591	613
0.40	578	600	621	643	664
0.45	630	651	673	694	715
0.50	681	703	724	746	767

Blower Capacity, ACFM = 1,024 ACFM at 1,750 rpm
Blower Capacity, ACFM = 566 ACFM at 1,170 rpm

ACFM = $\frac{Ps - (Rh_s \times Pvs)}{SCFM \times \frac{Ps - (Rh_a \times Pva)}{Pa}}$

Ps = Standard pressure (PSIA) i.e. 14.7 psia
 Pb = Atmospheric Pressure (PSIA) i.e. 14.4 psia
 Pa = Actual pressure (PSIA) i.e. 14.2 psia
 Rhs = Standard relative humidity 0.36 (ALWAYS)
 Rha = Actual relative humidity i.e. 0.1 (this is Arizona, dude!)

Pvs = saturated vapor pressure at standard temperature, 0.3391 (ALWAYS)
 Pva = saturated vapor pressure at actual temperature, i.e. 0.9503 ---at 100 F
 Ts = Standard temperature = F + 460 ===528 (ALWAYS)
 Ta = Temperature actual = F + 460 = 100 + 460 = 560 (Arizona, again!)



TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 4)

Meeting Date: 01/31/2017
Contact Person: Joe Duffy, Finance Director
Phone: 928-636-2646 x-1211
Department: Finance
Estimated length 30 minutes
of Staff Presentation:
Physical location of item: Town of Chino Valley

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding a summary of potential funding alternatives to finance the improvement of Town roads. (Joe Duffy, Finance Director)

Attachments

Infrastructure Study Session-Roads
Consultant Scope and Fee

Infrastructure study session

Michael – Streets

Rough numbers

- In-house Double Chip - \$78k/mile
- In-House Double Chip w/In-House Base Rebuild - \$99k/mile
- Contract Double Chip - \$51k/mile
- Contract Double Chip w/In-House Base Rebuild - \$85k/mile
- Piggyback w/Yav. County, Single Chip - 23k/mile
- Pavement, 2.5-inch - \$200k/mile
- Pavement, 2.5 inch w/In-House Base Rebuild - \$246k/mile
- Contract Pavement 2.5-inch w/Base Rebuild - \$305k/mile

Existing conditions of public ways and ROW

- Dirt Roads – 38.30 miles, Typically, Chino Valley’s unsurfaced roads consist of 6”-12” of aggregate base course with no bituminous surfacing. Water, rutting, wash boarding, fugitive dust, and a need for frequent blading are the most common issues relating to dirt roads
- Chip Sealed Roads - 78.13 miles, Chino Valley constructs many of its roadways to a fairly low engineering section. Many streets in the Town are simply a chip sealed surface over the native dirt. Over the years, many streets have had as many as 8 layers of chip seal laid on top of each other. Approximately 70% of the chip sealed streets have an aggregate base material under the many layers of chip seal
- Asphalt Roads - 36.28 miles, Roads constructed within the more recently developed subdivisions have a more typical engineered roadway section. Typically, these roads have 4”-8” of aggregate base course under 2”-4” of an asphaltic concrete surface. Some of these subdivisions have received a chip seal surface over the existing asphalt many years ago and now are in need of some additional maintenance.

Development of a surface mgt. plan

- Current Plan,
- **“Policy for Prioritization of Roadways for The Town’s Annual Roadway Resurfacing Program”**. The Public Works Department proposed, with concurrence from the Roads and Streets Committee, to use a three-tiered evaluation that will be applied to Town roadways to prioritize the roadways for purposes of resurfacing or reconstruction. The conditions to be evaluated are:
 -
 - *Overall roadway condition;*
 - *Number of residences or businesses that are serviced by the roadway; and*
 - *Traffic volumes (when such data is available).*
 -
- Overall condition of the roadway will be determined by the Public Works Department based on its database that includes an overall ranking of Town roadways. This overall ranking is based on the roadway surface condition, alligating, transverse and longitudinal cracking, shoving, rutting, and condition of the shoulders. Many of the chip seal surfaced streets have a current rating ranging from 5 to 9 meaning complete reconstruction of the roadway is recommended.
- The number of residences that are served by the roadway are the immediate homes within the actual neighborhood that the roadway services. This type of roadway is typically called a residential roadway as opposed to other roads that are defined as collector or arterial street.

- Traffic volume data is collected annually by the Public Works Department. Typically, this data is collected for the major collector and arterial streets. Local residential streets are not included in the normal traffic counting program but such data sometimes becomes available
-
- Proposed Future Plan
- Utilize the short list of Engineering Consultants to assess and develop a long range road maintenance program.

Rough costs for a maintenance plan

- Typically a roadway surfaced with chip seal will last approximately 7-10 years before resurfacing is required. Whereas a roadway constructed out of asphaltic concrete has a life span of approximately 20-25 years with routine maintenance. The funds necessary to maintain just the existing 74.45 miles of chip seal roadways range from \$335,000 to \$475,000 based on the lifecycle of 7-10 years before resurfacing is required. To include a chip seal once every 10 years over the 30.83 miles of asphalt surfaced roads requires an additional \$150,000, bringing the necessary funds to maintain just the 105.28 miles of surfaced streets to a range of \$485,000 to \$625,000
-

Using a range of solutions

- Piggybacking", County Work,
- Paving intersections
- Crack sealing and single chip seal

Anticipated needs in near future (next 5 years) –

- Transition to asphalt
- Annual chip seal (single and/or double) program.
- Annual crack seal program

Long term perspective:

- Ongoing investment

Obstacles

- Funding



October 12, 2016
3122.21310.00

Town of Chino Valley
Public Works Department
1982 Voss Drive
Chino Valley, Arizona 86323

Subject: Roadway Assessment and Pavement Preservation Plan
Proposal for Engineering Services

Dear Mr. Michael Lopez, P.E.:

We appreciate this opportunity to submit a proposal to provide engineering services for the Roadway Assessment and Pavement Preservation Plan being implemented by you for the Town of Chino Valley.

The Town of Chino Valley manages and maintains over 130 miles of public roadways. The roadways are constructed typically of three treatments; asphalt concrete, asphalt chip seal, and unpaved dirt/gravel. The conditions of the roadways vary significantly from new pavements to deteriorated pavements with a high number of cracks and potholes. It is DOWL's understanding that the Town's goal is to assess the Town maintained roadways and develop a pavement preservation plan to upgrade and maintain the pavement. The Town would like also like to assess if there is long term cost savings in converting dirt/gravel and chip seal roadways to asphalt concrete pavement.

DOWL has provided similar assessment services to many clients for a wide range of infrastructure, including but not limited to, roadways, traffic signs, roadway safety features, and drainage structures. We will use this experience to provide you with an assessment of the Town of Chino Valley's roadways that will allow you to plan and budget for future improvements and preserve the Town's roadway assets.

We understand that we will be working directly for the Town and that you will be our primary contact for this project. We look forward to working with you and the other team members to bring the project forward successfully, on time and within budget.

SCOPE OF WORK

Based upon our understanding of your goals for this project and the assumptions listed below, we propose to perform these services:

- **Initial Data Collection and Rating System**

Information Database

A database of the roads maintained by the Town of Chino Valley will be developed in Microsoft Excel. Each road will be broken into segments with lengths dependent upon the features and conditions of the roadway. This database will be developed prior to assessing the conditions of the roadways; therefore, the actual segments may change when the actual condition of the roadways are determined. Initially the roadways will be categorized by material type; asphalt concrete, asphalt chip seal, or dirt/gravel and then divided into segments using features such as driveway spacing, speed limits, and/or pavement width. If available, we will also work with you to compile the as-built data for the roadways mainly to determine the thickness of the existing pavement and the year the pavement was last constructed.



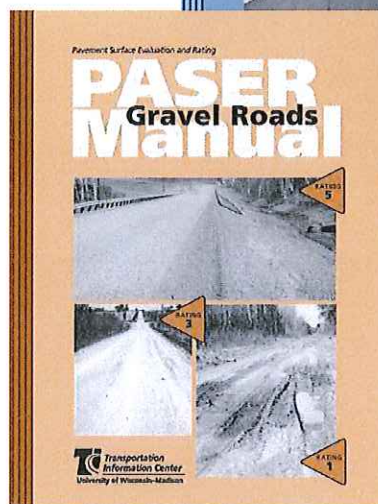
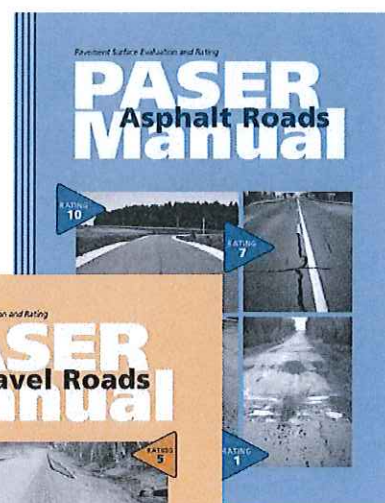
In summary, prior to assessing the condition of the roadways the database will list, with as much information as available, every Town maintained roadway broken into segments and each segment will list the pavement width, pavement thickness, speed limit, functional classification, estimated average daily traffic (ADT), estimated percentage of truck/bus traffic, and year constructed. Additional information may be added if determined during more detailed discussions with the Town.

Rating System

Each Town maintained roadway will be assigned a rating as part of the roadway assessment. It is our understanding that the Town already has a basic rating system. We will work with you to

either use the existing rating system, modify the rating system to meet the Town's goals, or work with you to develop a new rating system. There are many rating systems that could be considered to evaluate the pavement conditions. One example is the Pavement Surface Evaluation and Rating (PASER) developed by the University of Wisconsin-Madison. This rates the pavement on a scale of 1 to 10 and also suggests the possible maintenance required for each rating. Below is a summary of the asphalt PASER rating system which could be utilized for the Town of Chino Valley or a variation of it. There is also a gravel PASER rating system that could be utilized for the dirt/gravel roadways.

<u>Rating</u>	<u>Condition</u>	<u>Suggested Maintenance</u>
10	Excellent	None
9	Excellent	None
8	Very Good	Little to None
7	Good	Crack Sealing/ Patching
6	Good	Sealcoating
5	Fair	Sealcoating
4	Fair	Overlay
3	Poor	Overlay
2	Very Poor	Reconstruction
1	Failed	Reconstruction



• Pavement Assessment

Using the segment breakout and rating system developed in the task described above, we will assess the Town's maintained roadway network. We anticipate this task taking up to three days of field review, including travel time. The assessment will include visually evaluating each roadway

segment to document the extents of the surface defects, deformations, cracks, and potholes. Specific items that will be documented if observed are raveling, flushing, polishing, rutting,





distortion, transverse cracks, reflective cracks, slippage cracks, longitudinal cracks, block cracks, alligator cracks, patches, and potholes. Depending on the conditions of the pavements, the roadway segments from the initial phase may be modified. The goal is for each segment to be relatively consistent in pavement condition as well as having

similar features along the roadway segment (i.e. speed limit, driveway spacing, and pavement width).

- **Pavement Assessment Report**

Once the pavement evaluations have been completed a report will be developed, compiling the data collected in the initial phase and the evaluation phase. This report will list each roadway segment determined during the evaluation phase with the designated rating. A map with color coded roadways will be included in the report for the ease of visualizing the conditions of the roadway network. The initial data collected will be summarized in the report as well. The report will discuss the overall condition of the Town's roadway network as well as specific issues that may be occurring. A comparison of asphalt concrete, asphalt chip seal, and dirt/gravel will also be included in the report. With input from you, we will develop a method to compare the three types of treatments which will be used to develop a prioritization list for maintenance and possible pavement replacement as described in the subsequent phase.



- **Pavement Maintenance/Replacement Program and Report**

Using the designated pavement ratings and the method developed to compare the three roadway treatments, we will work with you to develop a pavement maintenance/replacement program for the Town of Chino Valley's roadway network. The developed program will be prepared in report form and will include general recommended improvements to the Town's roadways as well as

timelines to implement these improvements. General recommendations may be crack sealing, sealcoating, chip seal, overlays, or reconstruction. We will develop cost estimates for each recommendation and the costs will be based on maintaining or replacing the existing pavement at its current width and location. Pavement widening or other new improvements will not be considered as part of the cost estimation. Recommendations and costs will also be prepared to upgrade certain roadways from dirt/gravel to asphalt chip seal or asphalt concrete and from asphalt chip seal to asphalt concrete. A prioritization list will be developed based on condition of the pavements, the usage of the roadway, and the current roadway treatment to assist the Town in developing future pavement maintenance and replacement budgets.



- **Roadside Safety Review (Alternate 1)**

In conjunction with the pavement assessment we can complete and document a roadside safety assessment. This can be beneficial to the Town when considering pavement improvements. Safety items that would be reviewed would include roadside slopes, objects within the roadway clear zone according to the American Association of State Highway and Transportation Officials (AASHTO), and existing safety treatments such as guardrail. Pavement preservation can affect the effectiveness of some safety features. For instance, if an overlay is applied to an existing roadway with existing guardrail, the rail height may not meet the required height per AASHTO. By documenting the existing safety features the Town may better plan for items such as these. In addition, roadways with safety concerns might be moved higher on a replacement list than just pavement assessment alone would designate. The data collected from the safety assessment would be included in the pavement assessment report.

- **Roadside Drainage Review (Alternate 2)**

Similar to the roadside safety review, a drainage review could also be completed in conjunction with the roadside safety assessment. As part of the drainage review we would document existing culverts and ditches along the Town's roadway network. The condition of the culverts and ditches

would be included in the pavement assessment report. Specific items that would be reviewed would be the condition of the ditch (e.g. overgrown or recently cleaned), approximate size of the ditch, type of culvert (e.g. metal or concrete), length of culvert, and diameter of culvert. This would be strictly an inventory of drainage features and conditions. There would be no hydrologic or hydraulic analysis completed as part of this task.

COMMUNICATIONS

DOWL's Project Manager and Engineer of Record will be Eric Neal, P.E. Eric will be your primary point of contact on all engineering matters concerning this project. Abbreviated verbal status reports will be given to you at occasional intervals. The report will inform you of any anticipated changes in project scope, fees, or schedules, and any foreseeable problems associated with the design and/or construction of the project. If you have any questions or concerns, please feel free to call or email Eric at eneal@dowl.com.

We believe we have reasonably described the scope of services involved. However, it is always possible for unanticipated conditions to arise during the work that could indicate a change in the scope or budget may be necessary. If that should occur, we would discuss it with you at that time and obtain the Client's agreement for an equitable adjustment to our contract. Revisions to work completed, or in progress requested by the owner or the owner's agents, through no fault of Consultant, will be considered extra services for which additional compensation is due.

ASSUMPTIONS

This proposal is based on the following assumptions and qualifications. If further investigation into the project discloses conditions other than those assumed, we will advise you and assist in making appropriate adjustments to the scope of work and budget:

- Only available ADT's will be reviewed, no new traffic counts will be conducted by DOWL.
- Only available as-built information will be reviewed, no cores will be taken of the asphalt to determine thicknesses.
- Pavement assessment will be done by visualizing the surface only.

DELIVERABLE PRODUCTS

- Pavement Assessment Report
- Pavement Replacement Report

SCHEDULE

We understand that you want to start immediately on this project. We have personnel available to begin immediately. In order to complete the project by the end of the calendar year (2016), we should begin work as soon as possible. No delays, lengthy reviews, or changes can be allowed. We will make every effort to meet a reasonable schedule.

FEE PROPOSAL

We propose to furnish the above-described services for a total lump sum fee of **\$29,730.00**. This total fee consists of the following components:

Phase Description

Initial Data Collection and Rating System	\$7,030
Pavement Assessment	\$7,170
Pavement Assessment Report	\$6,240
Pavement Replacement Program and Report	\$9,290
TOTAL	\$29,730
Roadside Safety Review (Alternate 1)	\$4,080
Roadside Drainage Review (Alternate 2)	\$5,280
TOTAL with Alternates	\$39,090

The proposed Lump Sum fee does not include reimbursable direct project expenses. A monthly statement will be provided showing the approximate percentage completion of each of these phases. Payment will be expected within 30 days.

Town of Chino Valley Roadway Assessment
October 12, 2016
Page 8

Additional work requested at T&M:

Project Manager	\$190/hr
Traffic Engineer	\$150/hr
CAD Tech.....	\$105/hr

We trust this provides adequate information for evaluating our proposal and we look forward to working with you on this project. If you have any questions concerning this proposal, please don't hesitate to contact our office.

Sincerely,
DOWL



Project Manager
Eric Neal, P.E.

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TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 5)

Meeting Date: 01/31/2017
Contact Person: Ruth Mayday, Development Services Director
 Phone: 928-636-4427 x-1217
Department: Development Services
Estimated length 30 minutes
of Staff Presentation:
Physical location of item: N/A

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding the roles of the Parks and Recreation Advisory Board and the Mayor's Ad Hoc Old Home Manor Recreational Committee. (Ruth Mayday, Development Services Director)

SITUATION & ANALYSIS:

Talking points regarding the two boards:

1. PRAB Board - role, purpose, number of members, scope of what they are working on
2. Mayor's OHM Recreational Committee - role, purpose, number of members, scope of what they are working on
3. Is there overlap and duplication between the two? (members and purposes/roles?)
4. Can we get to a shared vision / purpose and shared resources from a governing perspective? Should one board be disbanded?
5. Should additional recreational activities proposed for OHM be vetted through the PRAB Board?

Attachments

No file(s) attached.

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TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 6)

Meeting Date: 01/31/2017
Contact Person: Ruth Mayday, Development Services Director
 Phone: 928-636-4427 x-1217
Department: Development Services
Estimated length 30 minutes
of Staff Presentation:
Physical location of item: Old Home Manor Industrial Park

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding the Town's Old Home Manor Industrial Park. (Ruth Mayday, Development Services Director)

SITUATION & ANALYSIS:

Discussion points:

1. Proposal for master plan for the Industrial Park
2. Possible future grant opportunities and best use of future funds

In June of 2007, E + I Architects proposed an ambitious development plan for Old Home Manor that would essentially create a new Town Center for Chino Valley. While some aspects of the plan have come to fruition (i.e., Yavapai College, softball fields) much of the plan did not materialize; like many other projects, it fell to the wayside when the economy collapsed in 2007/2008.

Since that time, Council and staff have been working on alternatives for development of the land. Significant progress has been made in funding infrastructure improvements to create an industrial park that would provide jobs for residents of Chino Valley and surrounds; construction is anticipated to complete in mid-2018.

While specific acreage has been identified as OHMIP, planning within that boundary has been minimal. Staff has reached out to two (2) consultants on the Public Works "short list" and asked for scope and fee documentation for master planning services; the initial proposals (with fees) are provided herewith for Council review.

Also under consideration is whether the Town should retain ownership of all property within the boundary of OHMIP and lease sites for industrial users, sell the property to developers and/or industrial (end) users, or some combination of the two. Staff has enlisted Rounds Consulting to provide a cost/benefit analysis of sale vs. lease of the land; a draft of the analysis is also attached to this item. Once Council has determined whether to lease, sell, or provide either option, drafting of the necessary legal documents can begin.

Future funding for additional improvements could originate with several sources: EDA, ACA, and USDA all offer economic development grants that could be used; a Community Facilities District (CFD) could be formed; other special taxing districts may also be a useful tool. Legislation to establish "Reimbursement Zones" (similar to Tax Increment Financing [TIF] districts) could also be created to provide either direct funding for bonds or leverage for larger grants from federal entities such as the EDA and USDA.

Both EPS Group and Dowl Engineering will be presenting their proposals to the ED committee on February 21, 2017. After a recommendation is made, staff intends to enter into a contract with the consultant selected and begin development of the plan. A matrix has been developed to facilitate comparison of the two proposals.

At the same time, consideration of recreational facilities has also been underway. The proposed motor sports track (if approved) will encompass approximately 40 acres, while the Chino Valley Equestrian Association has leased approximately 60 acres for its facility. With two shooting ranges already established on the east end of OHM, best practices in planning (and plain old common sense) would suggest congregating the recreational uses on the east end of the facility. Expansion of infrastructure is problematic as municipal water and sewer services are not widely available within OHM; electricity is available at limited sites, and no natural gas service is provided.

Staff strongly suggests Council carefully consider and balance demand for recreational uses with future expansion of the industrial park. Recently, staff responded to a Prospect Information Form from the ACA for a company that needed 500 acres for a headquarters and manufacturing facility (250+ jobs). While it would be possible to assemble a combination of town-owned and privately-owned land to meet the acreage requirement, the low cost of industrial land provides the Town with a competitive advantage when siting large projects such as this.

Attachments

Old Home Manor Master Plan
Old Master Plan
Proposal -Dowl
Proposal - EPS
Cost/Benefit Analysis Outline



Concept Summary

- Civic Facilities**
 - 100,000 sq ft town hall
 - 100,000 sq ft library
 - 100,000 sq ft police/public safety
 - 100,000 sq ft municipal office
 - 100,000 sq ft community hospital
- Arts District**
 - 100,000 sq ft theatre
 - 100,000 sq ft arts district
 - 100,000 sq ft cultural icon
- Recreation**
 - 100,000 sq ft golf resort
 - 100,000 sq ft golf course (18)
 - 100,000 sq ft peavine recreation station
- Research + Development**
 - 100,000 sq ft research + development
 - 100,000 sq ft multifamily residential (student)
- Urban Residential**
 - 100,000 sq ft urban residential
 - 100,000 sq ft high intensity commercial
 - 100,000 sq ft relat. core
 - 100,000 sq ft low intensity commercial
- Future Residential**
 - 100,000 sq ft (future residential)

Old Home Manor Conceptual Master Plan
Town of Chino Valley, Arizona



Exhibit A

Scope of Work – Old Home Manor Industrial Park – Chino Valley, AZ

SCOPE OF WORK – OLD HOME MANOR INDUSTRIAL MASTER PLAN

Task 1: Project Initiation, Coordination and Meetings

It is expected that the scope of work will be completed over the course of a 6-month period. It is anticipated that bi-monthly project team conference calls will occur over this period. It is also assumed that the consultant will prepare for and attend three meetings in Chino Valley with the client over the course of the project. The first meeting will be to obtain all available site data and to hold a project kickoff meeting with the client. The second meeting will allow the consultant to present land use master plan alternatives to the City. It is anticipated that a final meeting will be held to present a final land use alternative to the City. The consultant will prepare for, attend and manage team meetings throughout this period. The consultant will prepare and manage the project schedule over this period.

Deliverables:

- Client Meeting 1 - Project kickoff meeting in Chino Valley
- Client Meeting 2 – Presentation of master plan alternatives
- Client Meeting 3 – Presentation of final alternative
- Preparation and attendance at 16, 1-hour project team conference calls
- Project schedule

Task 2: Existing Conditions Plan

Consultant will collect all available site data to prepare an existing conditions plan of the site to be used as a basis for the development of master plan alternatives. It is assumed that a site survey *will not be conducted at this stage* and that this map will be created by assembling available geographic information systems (GIS) data and other locally-created digital mapping sources provided by the client. The consultant will also conduct a high-level environmental reconnaissance of the site and will identify any protected features of note that could affect the master plan design.

Deliverables:

- Existing Conditions Plan

Task 3: Master Plan Alternatives

Using guiding principles prepared by the client and information from the City's market consultant regarding the specific industry profiles that are desired for recruitment, the consultant will prepare up to three alternative master plans for the site. These plans will be diagrammatic and conceptual in nature only. It is assumed that the master plan will illustrate lots for future development and that industrial development site plans will not be prepared at this stage of the process.

Deliverables:

- Three alternative master plan concepts

Task 4: Special Studies

Task 4a. Traffic Impact Analysis

An analysis of the transportation system will be conducted to identify public and private street connectivity needs to serve the master plan area. The study will identify off-site infrastructure improvements in the study area that could potentially be triggered by the industrial business park. The study will also review and make recommendations for road classifications and circulation requirements within the industrial park.

Deliverables:

- Traffic Impact Technical Memorandum

Task 4b. Environmental Analysis

The consultant will provide an environmental reconnaissance assessment of the site to identify any regulated environmental features that could affect site development. This reconnaissance will consist of a desktop survey of available mapped resources and review of mapped resources provided by the state historic preservation office (SHPO). Consultant will also conduct a site visit to scan for protected resource areas. If any features of concern are identified that would require specific delineation and environmental reporting, such efforts would be conducted under a separate scope of work.

Deliverables:

- Technical memorandum summarizing and identifying any known protected environmental features

Task 4c. Utility Master Plan Analysis

The consultant will prepare a technical memorandum that provides a summary of existing water, sanitary sewer, stormwater and private utilities surrounding the site area and will include descriptions of preliminary capital facility improvements necessary for sanitary sewer, water and stormwater service for the preferred land use alternative. Preliminary cost estimates for these utility capital facility improvements will be included with this technical memorandum. Additionally, consultant will identify known sources of funding from the state to support economic development and the provision of infrastructure to the site. This task includes coordination with local private utility providers who will provide an assessment of the service requirements to proposed master plan area.

Deliverables:

- Existing Conditions Analysis –Water
- Existing Conditions Analysis – Sewer
- Existing Conditions Analysis – Stormwater
- Existing Conditions Analysis – Private utilities
- Preliminary Sanitary Sewer Master Plan
- Preliminary Water System Master Plan
- Preliminary Stormwater Master Plan

Task 5: Final Master Plan and Prospectus

After input from the client on the master plan alternatives, consultant will prepare a final preferred master plan alternative. The consultant will include this master plan in a 4-page “prospectus” document that will serve as a marketing pamphlet for the City to begin market the proposed project. It is assumed that the client will provide one round of review of this document.

Deliverables:

- Draft 4-page marketing prospectus
- Final 4-page marketing prospectus

Task 7: Design Guidelines

Consultant will research and provide client with examples of industrial business park design guidelines for the client to consider for incorporation into the local development code. Consultant will conduct a review and audit of the

existing development code to identify and provide a table of code provisions that the City should consider adopting or modifying to address the desired design guidelines.

Deliverables

- Research and provide up to three examples of industrial park design guidelines
- Draft Technical Memorandum with Summary of Suggested Design Guidelines
- Final Technical Memorandum with Summary of Suggested Design Guidelines

Task 8: Phasing and Cost Estimates

Upon client selection of a preferred master plan, consultant will prepare a phasing plan for the buildout of the master plan, including approximate infrastructure costs by phase.

Deliverables

- Technical Memorandum with phasing plan and infrastructure costs by phase



September 28, 2016

Ms. Ruth Mayday
Development Services Director
Town of Chino Valley
1982 Voss Drive, #201
Chino Valley, AZ 86323

Re: Town of Chino Valley Old Home Manor Industrial Park
Proposal for Master Planning / Specific Area Plan Documentation Services

Dear Ruth:

Thank you for meeting with Jackie Guthrie and me to discuss the proposed scope of work and the City's priorities. We have revised the scope of services to reflect the initial phase of work and revised the tasks as discussed. We appreciate the opportunity to visit the site with you and James Gardner to further understand your goals for future development. Again, we appreciate your invitation and are honored to propose our fees for Master Planning Services for the Old Home Manor Industrial Park in Chino Valley, Arizona. The intent of this proposal is to describe the full scope of professional services that will be provided to the Town of Chino Valley, while further defining the initial phases. Our specific scope of work for this project will include the following phases of work:

SCOPE OF SERVICES

Project Understanding

We understand that there is an immediate need for Master Planning / Specific Area Plan Documentation services for the Old Home Manor Industrial Park. EPS Group, Inc. and our sub-consultants are prepared to assist the Town of Chino Valley in developing the project within the Master Planning / Specific Area Plan Documentation phases, specifically for the Old Home Manor Industrial Park. Additionally, we recognize that EPS Group, in concert with the Town of Chino Valley will lead the consultant team within these phases of work.

A. Master Plan Documentation

Upon receipt of a signed contract and any preliminary written information from the Town of Chino Valley that may prove important to the direction of this specific project, the Master Planning process will precede forward and the preparation of the Master Plan documents will begin for the Old Home Manor Industrial Park. The development of a complete Master Plan Development Package and supporting documentation for the approximate 200-acre Industrial Park will provide the Town of Chino Valley the documentation, design guidelines, analysis, development standards and processes for tenant leases and for full development purposes. We anticipate the following tasks would be required:

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PHASE I

Task 1 – Project Start-Up/Project Kick-off Meeting Fixed Fee: \$3,450

Obtain and assemble all necessary base sheets and relevant project information. Specifically, the work included is as follows:

- Review the current Land Use Conceptual Map for Old Home Manor, existing conditions and any other preliminary information and confirm the level of expectations for the Master Planning process with the Town of Chino Valley.
- Review and confirm any budget/cost parameters for the Master Plan and all future site improvements for the Industrial Park.
- Review and confirm project schedule including key milestones and deadlines.
- Discuss and confirm the communication protocol and process for information distribution and dissemination.
- Discuss and confirm roles and responsibilities of each discipline.

Task 2 – Conceptual Plans/Lot Layout Fixed Fee: \$15,800

EPS Group will prepare conceptual plans/lot layouts for the industrial site in accordance to the research findings and anticipated market demand. The selected conceptual plan will serve as the basis for the Conceptual Master Plan. The following will be accomplished:

- Prepare base maps from Topographic Survey Maps with 2' contours as provided by Chino Valley.
- Consultant will prepare two Conceptual Land Use Plans for the property. Each plan will identify the following:
 - a. Placement of light, medium, and heavy industrial uses.
 - b. Vehicular and Pedestrian Access, including primary, secondary and tertiary entrances.
 - c. Connectivity with the surrounding community including trail connections and future vehicular access.
 - d. Drainage areas.
 - e. Lot layouts.
 - f. Site data table.
- The conceptual layouts will utilize lot sizes as determined during research, economic development analysis and discussion with the Town of Chino Valley.
- The Conceptual Plans will be reviewed with the Town and a final Conceptual Master plan will be prepared based on these final comments and discussions.

Deliverables:

1. Conceptual Land Use / Lot Layout Plans



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Task 3 - Meetings and CoordinationFixed Fee: \$5,050

EPS Group will participate in team meetings with the Town of Chino Valley to ensure that proper communication is being received by team members and the Town during each phase of work. For this Master Planning Phase of work we are anticipating four (4) visits to the Town of Chino Valley to review the progress of the Master Planning efforts at 30%, 60%, 90% and 100% Completion of the documents.

PHASE II

Task 4 – Planning/Architectural and Material GuidelinesFixed Fee: \$24,520

EPS Group will prepare specific design guidelines and criteria for the Planning, Architecture and Materials for the Old Home Manor Industrial Project. City Code standards will be incorporated where adequate to meet city vision (i.e. parking, landscape). The following will be accomplished:

- Develop Project Design Principles for the Industrial Park.
- Develop Site Planning Guidelines, which will include the following:
 - a. Site Grading
 - b. Setback Requirements
 - c. Definition of Building Envelopes
 - d. Open Space
 - e. Walls/Fencing/Screening Guidelines
 - f. Storage, Waste and Refuse Guidelines
 - g. Loading and Service Area Guidelines
 - h. Vehicular Circulation and Parking Guidelines
 - i. Pedestrian and Bicycle Circulation Guidelines
 - j. Site Utilities Guidelines
 - k. Nuisance Guidelines
 - l. Permitted Uses
- Develop Architectural Guidelines, which will include the following:
 - a. Architectural Character
 - b. Renderings for Proposed Buildings
 - c. Typical Building Layout
 - d. Site Specifications
 - e. Color/Materials Palettes
- Develop Landscape Guidelines, which will include the following:
 - a. Overview and General Requirements
 - b. Landscape Character
 - c. Color/Materials Palettes
 - d. Landscape Easements
 - e. Frontage Areas
 - f. Non-Frontage Areas
 - g. Irrigation



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h. Parcel Maintenance

Deliverables:

1. Project Narrative
2. Project Design Principles
3. Site Planning Guidelines
4. Architectural Guidelines
5. Landscape Guidelines

PHASE III

Task 5 – Traffic Circulation Plan

Fixed Fee: \$7,460

EPS Group will provide an Existing Circulation Plan, a Proposed Circulation Plan and will conduct a traffic circulation evaluation for the approximate 203-acre Industrial Site. The following will be accomplished:

- Prepare an Existing Circulation Plan that will include on-site roadways and major adjacent circulation routes to study and evaluate overall solutions for proposed traffic circulation for the surrounding area as necessary.
- Prepare a Proposed Circulation Plan based on the information and fact gathering from the existing conditions, as well as, the Conceptual Master Plans generated above. Future and proposed pedestrian and multi-use trails will also be identified and explored.
- Provide policy information and design recommendations for the access road extensions and sharing of same access road extensions between property owners/occupants.
- Estimate new traffic generated by the proposed development on the adjacent road network at the proposed access driveways.
- Distribute and assign the new traffic generated by the site to the local access intersections. A total of five (5) site access intersections are estimated for this task.
- Evaluate the existing and anticipated roadway circulation based upon the anticipated new trips to the adjacent roadway network for the purposes of determining recommended roadway cross sections for adequate traffic operation.
- Prepare a letter, including appendix, documenting the procedures, conclusions, and recommendations of the study. A draft letter will be provided for review prior to submittal to the Town of Chino Valley.

The collection of traffic count data is not anticipated as part of this scope. If traffic counts are required, they will be collected under a separate agreement and fee.

Deliverables:

1. Existing Conditions Traffic Circulation Plan
2. Proposed Traffic Circulation Plan
3. Supplemental Traffic Recommendations/Findings



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PHASE IV

Task 6 – Signage Plan

Fixed Fee: \$19,960

EPS Group will provide a Comprehensive Sign Plan for the Industrial Site. The following will be accomplished:

- Develop Project Logo
- Prepare an overall Comprehensive Sign Plan.
- Develop Project Signage and details including, Sign Schedule, Sign Location Map, Project Entry Sign, Primary Identification Signs, Project Direction Signs, Marketing Development Signs, Leasing Signs and Signage Setbacks.
- Develop Project Identification and Design Standards for the Industrial Park including, Typographic Samples, Arrow Styles, Color Samples and finishes.
- Develop Signage Guidelines for CC & R's documentation.

Deliverables:

1. Project Logo for Town of Chino Valley Old Home Manor Industrial Park
2. Comprehensive Sign Plan
3. Sign Schedule
4. Project Signage details
5. Signage Standards, Typographic Samples, Colors and Finishes
6. Signage Design Guidelines

PHASE V

Task 7 – Landscape Plan

Fixed Fee: \$14,920

EPS Group will provide an overall Landscape Master Plan for the Industrial Site, which will show roadways, vehicular access, thematic entry features, architectural elements, decorative pavements, industrial lots, pedestrian walkways, sidewalks, multi-use trails, retention basin landscape, streetscape landscaping, site amenities and open space areas, perimeter landscaping, site walls and fencing. The following will be accomplished:

- Prepare an Illustrative Landscape Master Plan as described above.
- Prepare a Thematic Street Tree Exhibit.
- Develop a Landscape Plant Palette for the Industrial Site in standards with the Arizona Department of Water Resources (ADWR) Plant Palette Guidelines.
- Prepare Entry and Specialty Area Enlargement Plans.
- Prepare a Landscape Wall Plan and Wall Character Details.
- Prepare Materials Imagery Boards for all Landscape Materials, Walls, Decorative Mulches, Pavements, Plants and Trees.

Deliverables:

1. Illustrative Landscape Master Plan
2. Thematic Street Tree Exhibit
3. Landscape Plant Palette



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4. Entry and Specialty Area Enlargement Plans
5. Landscape Wall Plan and Wall Character Details
6. Material Imagery Boards

Task 8 – Lighting Plan and Specification Fixed Fee: \$8,370

EPS Group and its Lighting Consultant will provide an overall Lighting Master Plan for the Industrial Site, which will show all street pole, pedestrian, accent, landscape and monument/signage lighting, as well as, lighting specifications for the overall project and the specific industrial uses. The following will be accomplished:

- Provide written lighting requirements, restrictions and Guidelines for light, medium and heavy industrial uses.
- Provide Dark Sky Ordinance Standards.
- For lighting specifications, provide color, material palettes and design components that will provide character consistent with Town history.
- Provide an overall lighting master plan and specifications for the master plan.
- Provide all of the above listed items in a format to be incorporated into the CC&R's.

Deliverables:

1. Lighting Master Plan
2. Lighting Specifications and Character
3. Lighting Requirements, Restrictions and Guidelines

PHASE VI

Task 9 – Grading & Drainage Master Plan (Optional Task) Fixed Fee: \$14,250

EPS Group will prepare the Grading & Drainage Master Plan for the on-site improvements at Old Home Manor Industrial Master Planned Development. The Plan will address the following:

- The on-site drainage patterns, drainage areas, retention volumes required, retention volumes provided, estimated storm drain facilities and how offsite drainage flows will be addressed.
- The report will provide a general analysis of the entire master planned areas and will establish the design criteria that will be adhered to in the subsequent final design stages.
- A report documenting findings and results of modeling.

The Grading & Drainage Master Plan will be based on the Old Home Manor Land Use Conceptual Map provided by the Client and modified as part of this project. Any changes to the Grading & Drainage Master Plan due to changes to the finalized Land Use Plan will be considered "Additional Services," as described herein, and will be billed on an hourly basis per the current rate schedule attached.



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It is understood that the analysis of offsite drainage patterns will be performed by the Town of Chino Valley and that off-site improvements including sizing and location for channels and/or culverts will not be required and will not be included in this study. Addressing any new review comments from the Client, Agencies, or Sub-consultants after the third review shall be provided as "Additional Services" as defined herein. The information used to prepare this Master Plan is limited to that which is readily available. Any field measurements will be considered "Additional Services" as defined herein.

Deliverables:

1. Grading & Drainage Master Plan

PHASE VII

Task 10 – Domestic Water Master Plan (Optional Task) Fixed Fee: \$13,655

EPS Group will prepare the Domestic Water Master Plan for the on-site improvements at Old Home Manor Industrial Master Planned Development. The Plan will address the following:

- The conceptual location and size of all necessary domestic water system components to provide domestic water service and fire service for the project. Phasing of the Project will be addressed and lines will be located and sized to provide redundancy as required by the Town.
- The conceptual location for connection to the existing Town of Chino Valley Water System Lines.
- An Implementation or phasing plan for the construction of the domestic water system.
- A flow and pressure analysis of the proposed on-site system which includes a simulation of the system operation for each pressure zone within the development using a computer model with average day demands, maximum day demands with estimated fire flow, and peak hour demands.
- A report documenting findings and results of modeling.

The Domestic Water Master Plan will be based on the Old Home Manor Land Use Conceptual Map provided by the Client and modified as part of this project. Any changes to the Domestic Water Master Plan due to changes to the finalized Land Use Plan will be considered "Additional Services," as described herein, and will be billed on an hourly basis per the current rate schedule attached.

It is anticipated that off-site improvements including sizing and location for the booster pumps, storage tank, wells, and treatment requirements will not be required and will not be included in this study. Addressing any new review comments from the Client, Agencies, or Sub-consultants after the third review shall be provided as "Additional Services" as defined herein. The information used to prepare this Master Plan is limited to that which is readily available. Any field measurements or pressure testing will be considered "Additional Services" as defined herein.



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Deliverables:

1. Domestic Water Master Plan

PHASE VIII

Task 11 – Wastewater Master Plan (Optional Task) Fixed Fee: \$11,705

EPS Group will prepare the Wastewater Master Plan for the on-site improvements at Old Home Manor Industrial Master Planned Development. The master plan will address the following:

- The conceptual location and size, type and capacity of the necessary wastewater collection and transmission facilities needed to serve the project with wastewater demand generation factors based upon land use.
- The conceptual capacity of wastewater treatment system components needed to serve the project with wastewater demand generation factors based upon land use.
- The conceptual location for connection to the existing Town of Chino Valley Wastewater System Lines.
- A flow analysis of the proposed on-site system utilizing peak day flows.
- The calculations necessary to substantiate the selection of the sizes and capacities of the wastewater collection and transmission facilities, wastewater treatment capacity.
- A report documenting findings and results of modeling.
-

The Wastewater Master Plan will be based on the Old Home Manor Land Use Conceptual Map provided by the Client and modified as part of this project. Any changes to the Domestic Water Master Plan due to changes to the finalized Land Use Plan will be considered "Additional Services," as described herein, and will be billed on an hourly basis per the current rate schedule attached.

It is anticipated that offsite improvements to the Town of Chino Valley wastewater system will not be required for this project and are not included in this study. This Master Plan does not address treatment method and expansion for effluent disposal method and expansion. The information used to prepare this Master Plan is limited to that which is readily available. Any field measurements will be considered "Additional Services" as defined herein.

Deliverables:

1. Wastewater Master Plan

PHASE IX

Task 12 - ALTA/NSPS Land Title Survey Phase 1/Aerial Mapping Fixed Fee: \$16,610

EPS Group will prepare a boundary survey to the 2016 Minimum Standards of an ALTA/NSPS Land Title Survey and will include Table A items 1, 4, 8 and 15 thereof, specifically for Phase 1 of the project, which is



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approximately 203-acres. A current Title Report for the property, along with copies of the Documents listed in Schedule B Exclusions, will be required in order to process the Survey.

- With regard to Table A Item 15, photogrammetric mapping will be the technology used for showing the locations of those features not otherwise necessary to be located to an appropriate and acceptable accuracy relative to a nearby boundary. The entire 885 +/- acre site will be flown with this task, but only those areas needed for the survey will be analyzed and compiled for 3D data. The data analysis for future phases of the project will be done under a separate task. A rectified ortho photo will be provided of the entire 885 acre site.

The ALTA survey will not indicate contour lines or vertical grades. This information will be compiled in a separate basemap for use with design. No formal topographic survey drawing will be prepared.

Elevations will be per Town of Chino Valley Datum.

Task 13 – Supplemental Topographic Survey/Utility Mapping Fixed Fee: \$3,560

EPS Group will order record drawings for existing utilities in the vicinity from the appropriate agencies for all 885 acres. This information will be added to the topographic basemap for the 203 acre Phase 1 property to supplement the data collected from the aerial mapping task. Sewer manhole inverts will be collected for those manholes being utilized as part of the planning/engineering design. Inverts for specific structures and other specific features as needed for planning/engineering design will be located as part of this task.

Note: This fee may need to adjust based on the design needs for this project.

Task 14 – ALTA/NSPS Land Title Survey Phase 2/Aerial Mapping (Optional Task)
Fixed Fee: \$28,800

EPS Group will prepare a boundary survey to the 2016 Minimum Standards of an ALTA/NSPS Land Title Survey and will include Table A items 1, 4, 8 and 15 thereof, specifically for Phase 2 of the project, which is approximately 682-acres. A current Title Report for the property, along with copies of the Documents listed in Schedule B Exclusions, will be required in order to process the Survey.

- With regard to Table A Item 15, photogrammetric mapping will be the technology used for showing the locations of those features not otherwise necessary to be located to an appropriate and acceptable accuracy relative to a nearby boundary. The entire 885 +/- acre site will be flown with this task. The analysis and compilation will be performed under this task for only the Phase 2 portion of the survey.



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The ALTA survey will not indicate contour lines or vertical grades. This information will be compiled in a separate basemap for use with design. No formal topographic survey drawing will be prepared.

Elevations will be per Town of Chino Valley Datum.

Task 15 – Supplemental Topographic Survey/Utility Mapping (Optional Task) Fixed Fee: \$4,000

EPS Group will utilize the record drawings for existing utilities that were obtained during the Phase 1 task for this project and add that information to the topographic basemap for the 682 acre Phase 2 property to supplement the data collected from the aerial mapping task. Sewer manhole inverts will be collected for those manholes being utilized as part of the planning/engineering design. Inverts for specific structures and other specific features as needed for planning/engineering design will be located as part of this task.

Note: This fee may need to adjust based on the design needs for this project.

Task 16 – Legal Descriptions (Optional Task) Fixed Fee: \$750 Each

EPS Group will provide legal descriptions and exhibits for the project. Each legal description and exhibit will be billed at a fixed fee rate of \$750 after receiving authorization from the Client to proceed.

B. Zoning/Planned Area Development (PAD) Overlay

Upon review and approval of the Master Plan Documentation and supporting information by the Town of Chino Valley, the preparation of the Zoning and Planned Area Development (PAD) Overlay documents, supplemental information gathering process will take place. The development of a complete Rezoning and PAD Package for the Old Home Manor Industrial Park will provide the Town of Chino Valley the documentation for the zoning submittal approval process including public participation/neighborhood meeting procedures. We anticipate the following tasks would be required:

Task 1 – Zoning/PAD Overlay Fixed fee: \$19,110

EPS Group will prepare a Planned Area Development (PAD) overlay and rezoning application package in accordance to the Town of Chino Valley requirements. The following tasks will be conducted:

- EPS Group will visit the site and surrounding area to understand the context of the proposed development including site conditions, constraints, and surrounding uses. Consultant will research various data sources that are pertinent to the property and review existing ordinances, codes, and other adopted or proposed plans, including the Town of Chino Valley General Plan, design guidelines and PAD zoning development standards to understand the potential for development.



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- Attend a Pre-Application meeting with the Town of Chino Valley staff to discuss constraints, Town services, and available utilities, potential requirements to be imposed on the property, future road improvements and the Town's vision for the property.
- Prepare applications and necessary submittal documents in accordance with the Town of Chino Valley requirements for the purpose of obtaining zoning, to include:
 - a. Completed Application
 - b. Vicinity Map
 - c. Survey Map (from Previous Task)
 - d. Location Map with Boundary/Dimensions
 - e. Legal Description (from Previous Task)
 - f. Conceptual Master Plan (Based on Conceptual Planning Task) specifying the intended land uses (IE light, medium and heavy industrial uses) types of structures and intensity, primary points of access and major interior street alignments, setbacks, building envelopes, typical landscaping and screening treatments.
 - g. Existing and proposed zoning
 - h. Site Area, net/gross, feet/acres
 - i. Narrative description of request to include development standards, setbacks, building height, intensity and parking requirements.
 - j. Schedule of development
- Coordinate posting of public notice sign on property (Cost of sign responsibility of Owner). Coordinate project work with the Town and other consultants as may be identified during the process.

Deliverables:

1. Planned Are Development (PAD) Overlay and Rezoning Package
2. Existing and Proposed Zoning Exhibit
3. Schedule of Development
4. Narrative Description and Supporting Documentation

Task 2 – Neighborhood Meeting/Notifications Fixed Fee: \$3,830

EPS Group will prepare the neighborhood notification package, schedule and conduct neighborhood meeting based upon the Town of Chino Valley requirements. EPS Group will act as the Town's representative to include coordination with designated sign company, preparation for the meeting, facilitation of the meeting and documentation of meeting notes to the Town.

Task 3 – Meetings and Coordination Fixed Fee: \$8,400

EPS Group will attend coordination meetings in the Town of Chino Valley during the Zoning and PAD Overlay task. This task assumes six (6) total visits to the Town of Chino Valley, which includes three (3) Town staff meetings, one (1) neighborhood meeting and two (2) public hearings.



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C. Covenants, Codes, and Restrictions (CC & R's)

The general objective for this phase of work is to provide complete documentation for the Covenants, Codes, and Restrictions (CC & R's) for the Old Home Manor Industrial Park. Specific tasks may include the following tasks:

Task 1 – Covenants, Codes, and Restrictions Documentation Fixed Fee: \$25,740

EPS Group will provide final documentation, exhibits, narratives, text approval procedures for the Covenants, Codes, and Restrictions (CC & R's) for the approximate 200-acre Industrial Site. The following will be accomplished:

- Through the use of an experienced attorney as a consultant, BFSO Law will prepare a comprehensive set of Covenants, Conditions and Restrictions (CC & R's) for the project that will impose mutual and beneficial restrictions, covenants, conditions, development standards, and easements to promote a uniform plan of development for the project. BFSO Law will also advise the Town of Chino Valley on the proper structure and formation of all entities necessary to implement the CC & R's and related covenants and restrictions.
- Produce Design Review and Approval Procedures including:
 - a. Procedures
 - b. Site Plan / Specific Lot Layout Design Submittal
 - c. Schematic Plan Submittal
 - d. Final Plan Submittal
 - e. Effect of Approval of Applicant's Submissions
 - f. Town of Chino Valley Approval
- Utilizing the exhibits, illustrations, narratives and information from the Master Planning phase above, EPS Group will compile the information into a complete document for the use within the CC & R's. This will include the following:
 - a. Introduction
 - b. Design Review and Approval Procedures (from Above)
 - c. Site Planning Guidelines
 - d. Architectural Guidelines
 - e. Landscape Guidelines
 - f. Signage Guidelines
 - g. Site Lighting Guidelines
 - h. Construction
 - i. Approved Plant List
 - j. Zoning Summary by Parcel
 - k. Exhibits

Deliverables:

1. Covenants, Codes and Restrictions Document (8 ½" x 11")



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Town of Chino Valley
Old Home Manor Industrial Park

September 28, 2016

Task 2 – Meetings and Coordination Fixed Fee: \$4,080

EPS Group will participate in team meetings with the Town of Chino Valley to ensure that proper communication is being received by team members and the Town during each phase of work. For this Phase of work, we are anticipating two (2) visits to the Town of Chino Valley to review the progress of the Covenants, Codes and Restrictions Documentation efforts at Draft Review and Final Review stages of the overall Document.

D. Development Assistance

The general objective for this phase of work is to provide the Town of Chino Valley assistance within the Development Execution phase of work. Specific tasks may include the following tasks:

Task 1 – Cost/Benefit Analysis of Property Fixed Fee: \$7,430

EPS Group will provide a Cost/Benefit Analysis of lease versus sale of the property. Specific Task may include:

- Recommendations for maximizing promotion and intensity of development of the industrial park.
- Investigate the possibilities to combine with promotion of Old Home Manor recreational parks/facilities.
- Investigate the possibilities of the use of Yavapai College Facility and Job Training Programs.

Deliverables:

1. Cost/Benefit Analysis of Property Report (8 ½" x 11")

Task 2 – Tax/Financial Incentives Investigation Fixed Fee: \$5,410

EPS Group will investigate Tax and other financial incentive opportunities for the Town of Chino Valley and for the Development of the Industrial Park. BFSO Law will act as legal counsel and advise EPS Group and the Town of Chino Valley with respect to the statutory and regulatory framework of such tax and other financial incentives on the federal, state and local level.

Deliverables:

1. Tax/Financial Incentives Investigation Report (8 ½" x 11")

Task 3 – Templates for Lease/Sales Documents Fixed Fee: \$5,410

EPS Group will prepare Templates for lease and sale documents with advisements to the Town of Chino Valley on restrictions of use based on grant funding. BFSO Law will work with EPS Group to ensure that the lease and sale Templates comply with Arizona law.



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Town of Chino Valley
Old Home Manor Industrial Park

September 28, 2016

Deliverables:

1. Template for Lease Document (8 ½" x 11")
2. Template for Sales Document (8 ½" x 11")

Task 4 – Private Development Partnership Guidance Fixed Fee: \$5,410

EPS Group will investigate and provide guidance to the Town of Chino Valley on Partnerships with private development interests west of Jerome Junction Road through Improvement Districts, CFDs, etc. BFSO Law will act as legal counsel and advise EPS Group and the Town of Chino Valley with respect to the legal requirements of such partnerships.

Deliverables:

1. Private Development Partnership Report (8 ½" x 11")

Task 5 – Building Permit Template Fixed Fee: \$3,470

EPS Group will prepare a Template for a Building Permit in both Word and PDF formats for the Town of Chino Valley, specific to Old Home Manor Industrial Park.

Deliverables:

1. Building Permit Template (8 ½" x 11")

Task 6 – Tenant Impact/Benefit Analysis Fixed Fee: \$4,410

EPS Group will prepare a tool to measure the impact/benefit of each tenant, by investigating the Economic Impact Study completed by Elliott Pollack and other means of information/Analysis to measure these important factors.

Deliverables:

1. Tenant Impact/Benefit Analysis Report (8 ½" x 11")

Task 7 – Meetings and Coordination Fixed Fee: \$5,790

EPS Group will participate in team meetings with the Town of Chino Valley to ensure that proper communication is being received by team members and the Town during each phase of work. For this Phase of work, we are anticipating four (4) visits to the Town of Chino Valley to discuss the above Development Assistance tasks.

Conditions and Exclusions

1. No design or documentation for any planning outside the areas described as the scope of work within this proposal.
2. This scope of work and fees do not include any work associated with the following: Storm Water Pollution Prevention Plan, Public Street Improvements, Map of Dedication, Legal Descriptions not otherwise indicated, Agricultural Irrigation facilities relocations, Offsite or Public sewer or water lines, Construction Plans of Documents, Construction Specifications, Construction



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Town of Chino Valley
Old Home Manor Industrial Park

September 28, 2016

- related certifications, Preparation of As-Builts, Geotechnical Investigations / Reports, environmental Investigations / Reports, Mechanical Engineering or Calculations or any other items not specifically indicated in the scope of work.
3. No engineering of construction documentation for site retaining walls, water feature(s), sculptures, shade structures and site lighting not otherwise indicated.
 4. No review of certificates for payment for accuracy and completeness.
 5. No formal Traffic Study.
 6. No plant field survey for the property that identifies all trees and major plantings by name, size, character and health.
 7. Construction Permitting Fees are not included within this scope of work.

Project Team

EPS Group typically organizes projects in a team format with key responsibilities divided between each discipline. The key team members for this project are listed below:

Project Manager: Brandon Squire, PE

Brandon will serve as the Project Manager and will be responsible for leading the design, consultant team and management efforts associated with the work. His responsibilities will include the coordination of EPS Group in-house design team as well as regular communication and coordination with the Town of Chino Valley and all members of the consultant team.

Planner/LA: Tom Snyder, RLA, ASLA

Tom will serve as the Project Planner/Landscape Architect and will be responsible for leading the design and planning efforts on a conceptual and tactical level. He will have primary responsibility for the overall content and quality of the work prepared by EPS Group. He will attend presentation meetings at critical junctures within the project.

Project Planner: Jackie Guthrie, AICP

Jackie will serve as the Project Planner and will be responsible for leading the planning efforts within the rezoning / Planned Area Development overlay efforts. She will also be leading the facilitation of the Neighborhood Meetings/Notifications, as well, as the efforts within the Site Planning Guidelines.

Civil Engineer: Dan ("Ox") Auxier, PE

Ox will serve as the Civil Engineer and will be responsible for providing professional expertise and will lead any grading and drainage design with other team members within the Land Development Department.

Legal Survey: Mary Kennedy, RLS

Mary will serve as the Legal Survey Manager and will be responsible for leading her team within the Survey efforts within the ALTA/NPS Land Title Survey, Supplemental Topographic Survey/Utility Mapping and any Legal Descriptions for the Old Home Manor Industrial Park project.



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Town of Chino Valley
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September 28, 2016

Traffic Engineer: Eric Maceyko, PE, PTOE
Eric will serve as the Traffic Engineer and will be responsible for providing evaluation and professional expertise within the Traffic Circulation Plans and the documentation phase of work.

Project Schedule

A Project Schedule graphically showing key deadlines, milestones and deliverables for each phase of work will be generated and given to all team members as well as the Town of Chino Valley, during the initial kick-off meeting for the project. This schedule will be a touchstone for all team members for all productivity and key project events.

Compensation and Fees

Compensation for these services shall be on a fixed fee basis, plus reimbursable materials and expenses, unless otherwise noted. Proposed fees are as follows:

Phase	Proposed Fee
A. Master Plan Documentation	\$ 119,700
B. Zoning/Planned Area Development Overlay	\$ 31,340
C. Covenants, Codes and Restrictions	\$ 29,820
D. Development Assistance	\$ 37,330
Total	\$ 218,190

Compensation for these *OPTIONAL* services shall be on a fixed fee basis, plus reimbursable materials and expenses, unless otherwise noted. Proposed fees are as follows:

Optional Tasks	Proposed Fee
1. ALTA/NSPS Land Title Survey Phase 2/Aerial Mapping	\$ 28,800
2. Supplemental Topographic Survey/Utility Mapping	\$ 4,000
3. Legal Descriptions (\$750 Each)	\$ 750
4. Grading & Drainage Master Plan	\$ 14,250
5. Domestic Waster Master Plan	\$ 13,655
6. Wastewater Master Plan	\$ 11,705
Total	\$ 73,160

Reimbursable Expenses are in addition to compensation for basic services. Reimbursable Expenses incurred by EPS Group Inc. and any consultants directly related to the project such as, but not limited to, travel, photography, and printing charges shall be billed at cost plus ten percent (10%).



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Town of Chino Valley
Old Home Manor Industrial Park

September 28, 2016

Services in addition to those described above are to be compensated on a Time & Materials basis. Additional services will include redesign of previously approved work, major revisions to program and/or expansion of scope of work. Whenever practical, changes, additions, or modifications to the scope of work shall be authorized by a written change order request; however, the absence of such written change order shall not act as a bar to payment of fees due to EPS

Group, provided the change was in fact approved and ordered by the client.

If the Scope of Work changes or a fixed fee is agreed upon, the agreement shall be modified accordingly or suspended by a new proposal or contract.

Standard Terms/Conditions and hourly billing rates are included with this proposal. If this proposal is acceptable, please sign below and return the original copy. Our receipt will constitute a notice to proceed.

If you should have any questions, please do not hesitate in contacting me at (480) 503-2250. We welcome the opportunity to be of service to you and to your team for the Old Home Manor Industrial Park.

By: _____



Brandon Squire, PE
Senior Project Manager
EPS Group Inc.

Date: 9/28/2016

Accepted

By: _____

Date: _____

For: _____

Title: _____





Date: January 26, 2017

From: Rounds Consulting Group, Inc.
350 S. Mill Avenue
Suite B-202
Tempe, AZ 85281

To: Ruth Mayday
Town of Chino Valley
1982 Voss Drive
Department 203
Chino Valley, AZ 86323

Re: Update of Analysis of the Old Home Manor Industrial Park – Outline

This memo, prepared for the Town of Chino Valley (Town), by Rounds Consulting Group, Inc. (RCG), outlines the method of analysis, and project progress, of the Old Home Manor Industrial Park (OHMIP) review. Tasks of the analysis include:

- Research and interviews to estimate the anticipated lease rate and sales price of the OHMIP property.
- A fiscal impact analysis of a sale versus a lease of the OHMIP property.

The possible impact scenarios will be placed in a more formal document in February. This later report will also include additional detail on the research and impact calculations.

Lease v. Sale – Clarified Project and Tasks

The Town's OHMIP property is approximately 240 acres of the 800 acre Old Home Manor property. The site is currently undergoing efforts by the Town to construct supporting infrastructure improvements. Additionally, the Town is currently seeking potential developers and tenants.

RCG is in the process of conducting research and interviews on market preferences, comparable sales, and anticipated price of a lease or sale of the OHMIP property. Supporting information and perspective is also being sought from the Town. A review of how infrastructure improvements would impact sale versus a lease of the property is also being conducted. The Town will recommend local brokers/development professionals for interview purposes while

Rounds Consulting Group, Inc.

350 S. Mill Ave, Suite B-202, Tempe AZ 85281 | Direct: 602-739-0844

www.roundsconsulting.com



RCG is arranging additional interviews from the metro area that are familiar with the region. ***It is anticipated the interviews will occur late January/early February. Web based research has already occurred.***

Fiscal Impact

The lease versus sale issue is only relevant based on the product being developed. The analysis will compare the Town revenues generated by the sale of the property (one-time sale revenue and long term property tax revenue) versus the revenues generated by the lease of the property (lease revenues) but in the context of an example project. Thus, a model of an example project has already been developed for the Town and development timing at sale versus lease revenue scenarios will be completed upon feedback from the interviews.

The fiscal impact example that will be used in the review will be for a 50-person manufacturing facility locating on the site. The model will need to be extended for additional years (possibly 20) since development timing, based on land lease versus sale, will vary.



TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 7)

Meeting Date: 01/31/2017
Contact Person: Cecilia Grittman, Acting Town Manager
Department: Town Manager
Estimated length of Staff Presentation: 30 minutes
Physical location of item: N/A

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding Code Compliance. (Cecilia Grittman, Interim Town Manager)

SITUATION & ANALYSIS:

Talking points regarding Code Compliance:

1. Staffing levels
2. Scope of Code Compliance
3. Code Compliance, how they receive and process complaints
4. Council's priorities regarding Code Compliance, how do we handle code complaints that go through Council members?

Attachments

No file(s) attached.

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TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 8)

Meeting Date: 01/31/2017
Contact Person: Joe Duffy, Finance Director
 Phone: 928-636-2646 x-1211
Department: Finance
Estimated length 30 minutes
of Staff Presentation:
Physical location of item: N/A

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding Town assets, including fixed assets, land, and assets financed with debt, and future equipment needs. (Joe Duffy, Finance Director)

SITUATION & ANALYSIS:

Some of the talking points regarding Town assets:

1. Town's fixed asset records and policies.
2. Town's land ownership.
3. Town assets financed with debt.
4. Future equipment needs.

Staff will provide several handouts during the agenda item.

Attachments

No file(s) attached.

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TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 9)

Meeting Date: 01/31/2017
Contact Person: Cecilia Grittman, Acting Town Manager
Department: Town Manager
Estimated length 30 minutes
of Staff Presentation:
Physical location of item: N/A

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding the re-establishment of a Community Services Department that includes Parks and Recreation. (Cecilia Grittman, Interim Town Manager)

SITUATION & ANALYSIS:

Talking points about Community Services:

1. Town Organizational Chart
2. Scope of Community Services to include Library, Senior Services, and Parks and Recreation
3. Transition of Parks and Recreation from Public Works (Chris Bartels) to Scott Bruner
4. Recreational Commitments on an annual basis
5. What events does Recreation support?
6. What events/activities does Recreation partner with? What resources do we expend in the partnership?
7. Recreation budget - what does it support?
8. Council's thoughts about the direction of recreation programming vs. other needs of the Town.

Attachments

Community Services

Community Center Facility Current Conditions and Future Uses

- Not utilized to its fullest potential for several years
- Facility Attributes
 - o 4004 square feet
 - o 3 distinct spaces
 - Zone A: 1500 sq. ft. general assembly area dividable by partition curtain
 - Zone B: 1500 sq. ft. 3 offices, storage, kitchen and restrooms
 - Zone C: 1000 sq. ft. 2 offices and general assembly area
- Current Conditions and Occupancy
 - o Building is structurally sound
 - o Mechanical needs:
 - 3 HVAC replacements
 - Minor electrical repairs
 - Minor plumbing repairs
 - o Redecoration needs:
 - Flooring
 - Paint – interior and exterior
 - Window coverings
 - o Kitchen remodel:
 - Renovate commercial kitchen?
 - Convert to warming kitchen?
 - o Exterior needs:
 - Grading and drainage around the building
 - Parking
 - o Occupancy:
 - Parks Department Staff
 - Youth sports board meeting and registration events
 - Community musical, arts and craft groups
- Discussion Points with Council
 - o Determination of long term use of the Community Center
 - Dedicated use for parks, recreational and community services purposes?
 - o Future Uses and Occupancy
 - Relocate Recreational Services Staff to Community Center Facility
 - Boys and Girls Club
 - Long term lease options and Town support
 - Programming
 - Facility Management
 - Community Service Organizations

Reorganization of Community Services

- Scope of Community Services
- Parks and Recreation: Transition from Public Works to Community Services
 - o 5 Step Transition Program
 1. Engage Stakeholder
 - Managers
 - Parks and Recreation Staff
 - PRAB
 - Community Service Organizations
 - Event Organizers
 2. Review Vision and Mission
 - Review your departmental mission
 - Review your key constituents and stakeholders and their needs.
 - Identify goals or outcomes you need to accomplish to move toward this vision
 3. Identify Current Processes
 - Identify current core functions
 - o Identify reasons for the change and how it will support and add value to the department.
 - o Compare Departmental data to known benchmarks and identify performance gaps, i.e. gaps between actual vs. desired performance.
 - o Identify your opportunities for cost reduction, improved efficiency, and/or increased effectiveness and set improvement targets which may include:
 - Elimination of non-value added processes that do not further your departmental vision and mission.
 - Standardization, simplification, and enhanced use of technology.
 - o Prioritize the change work that lies ahead: develop a reasonable timeframe considering impact on service providers and end users.
 4. Redesign Processes
 5. Develop the Implementation Plan
- Parks and Recreation Facilities, Event and Programming
 - o Facilities
 1. See Attachment
 - o Events
 1. Parks and Recreation Events
 - 4th of July co-supported by local Community Service Organizations.
 - The Chino Mudder
 - Halloween Trick or Treat in Memory Park
 - Chino Family Christmas

2. Parks and Recreation Supported Events

- Yavapai Cup Soccer Tournament
- Chino Valley Easter Egg Hunt
- Chino Grinder
- Children's Library Summer Program
- 4th of July co-supported by local Community Service
- Senior Center Car Show
- Chino National Night Out
- Territorial Days
- Chino Family Christmas
-

o Programming

1. Aquatics

- Swim lessons
- Aqua-aerobics
- Junior Lifeguarding

- Current Staffing and Budgeting
- Future Needs and Projects
 - o Parks and Recreation Needs Assessment
 - o Community Center Park Playground Rehab
 - o Dog Park Shade Structure / Seating / Landscaping
 - o Memory Park Playground Rehab
 - o Memory Park Bathroom Remodel
 - o Community Center Walking Trail Ramada's, Landscaping and Lighting
 - o Center Street Park Development



TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 10)

Meeting Date: 01/31/2017
Contact Person: Ruth Mayday, Development Services Director
 Phone: 928-636-4427 x-1217
Department: Development Services
Estimated length 30 minutes
of Staff Presentation:
Physical location of item: Old Home Manor

Information

AGENDA ITEM TITLE:

Presentation and discussion regarding the proposed motor sports project at Old Home Manor. (Ruth Mayday, Development Services Director)

SITUATION & ANALYSIS:

David Brinkley approached the Town in mid-2016 with a plan to develop a motor sports facility at OHM. The plan was vetted by the Old Home Manor Ad Hoc committee in July, then forwarded to staff for review. Mr. Brinkley also facilitated a visit to a similar facility in the greater Phoenix area on September 24, 2016; Ruth Mayday, Councilmembers Cuka and Mendoza, Mayor Marley, and CVEA member Danielle Feller attended the races.

Mr. Brinkley submitted a site plan and preliminary drawings for review in August of 2016; staff met with Mr. Brinkley and provided initial comments. Mr. Brinkley then requested more detail; staff provided that detail for him during a Feasibility Meeting in October.

Council considered the project in concept during its regular meeting on October 11, 2016. Council was made aware that the Town's lease with Yavapai College provided a "first right of refusal" to the College for any motor sports activities proposed within Old Home Manor. As of January 24, 2017, the College had not scheduled the project for review by the governing body.

An economic impact analysis was generated by Alexandria Wright, Director of the Regional Economic Development Center. (The report is attached for review) If the track were to provide concessions, seven (7) jobs would be created, resulting in an estimated \$460,000 in added wages and \$795,000 in sales. Of the sales generated, the Town would receive \$32,000 in additional tax revenue. During the proposed operation (June through August) only the track in Show Low offers similar racing opportunities, which may provide additional tourism (and tourism dollars) to the Chino Valley area.

This project is not without drawbacks, however. In addition to increased noise, the proposed use will also increase traffic on East Perkinsville Road, and consume 40,000 gallons of water per weekend, or 1.12 million gallons per racing season. Both the noise and the traffic impacts may negatively affect

surrounding properties; the impact on the Town's water supply should be considered as well. The Town may need to pledge a portion of its water portfolio to the project, and consideration should be given to the return on investment (ROI) for the 3.5 AF of water required.

Attached to this summary are the memos provided by Michael Lopez, Public Works Director, and Ruth Mayday, Development Services Director, outlining the requirements for the proposed project. Both Lopez and Mayday agree that these impacts (traffic, noise, water) warrant further study. Standard practice is for the developer to pay for these studies; staff recommends this approach.

Staff suggests the following steps:

1. A decision or more specific direction is required from Yavapai College. The College has requested a presentation to the governing board regarding the specifics of the project; staff is not clear whether YC wants to hear from the Town, the applicant, or both.
2. Require the applicant to obtain PAD zoning at his expense. This will enable staff to tie performance measures to zoning rather than a development agreement, which may expire prior to the completion of improvements.
3. Require the applicant to provide a Traffic Impact Analysis, a Noise Impact study, and a water use study (performed by Arizona registrants) for review and approval by staff.
4. Conduct a series of Neighborhood Meetings to provide the public numerous opportunities to provide input.

These actions should provide enough additional information to craft an agreement that ensures that the Town's interests have been preserved.

Attachments

Talking Points

Speedway Development Plan

UDO Requirements - Speedway

Engineering Requirements - Speedway

OHM Engineering Drawings

Motor Sports – Talking Points

1. Role of Yavapai College – what should the Town’s next steps be?
2. Technical Review considerations – R Mayday, M Lopez
3. Review of Financial Impact Study by Yavapai College
4. Additional studies for consideration
 - a. Traffic Impact Analysis
 - b. Noise
 - c. Dust
 - d. Real Estate Value
5. Other Considerations
 - a. Lease Term
 - b. Racing Schedule
 - c. Additional activities added on
 - d. Other considerations

DRAWINGS FOR THE
CONSTRUCTION OF
PROPOSED

Old Home Speedway

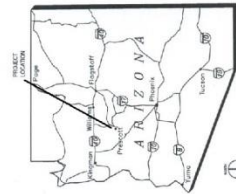
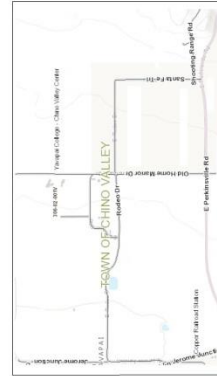
Old Home Manor

TOWN OF CHINO VALLEY
ARIZONA



AUGUST 2016

OLD HOME



LOCATION MAP
SHEET

OLD HOME SPEEDWAY
SHEET PAGE

General Notes:

All Earthwork conducted at the site is the responsibility of the Developer.

Construction and Operation water is to be provided through the Town of Chino Valley facilities.

Construction and Operation water may be non-portable. Signs indicating such will be provided by the Developer.

Storm-water releases shall be no greater than pre-development conditions.

Appropriate environmental safeguards shall be imposed to minimize and/or reduce contamination of the project site.

Due to the lack of access to sanitary sewer, sanitary conveniences in the form of porta-johns or store and pump facilities shall be utilized until such time permanent facilities become available.

All trash, rubbish and garbage generated on or by the site is the responsibility of the developer/operator to dispose of properly.

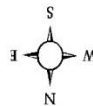
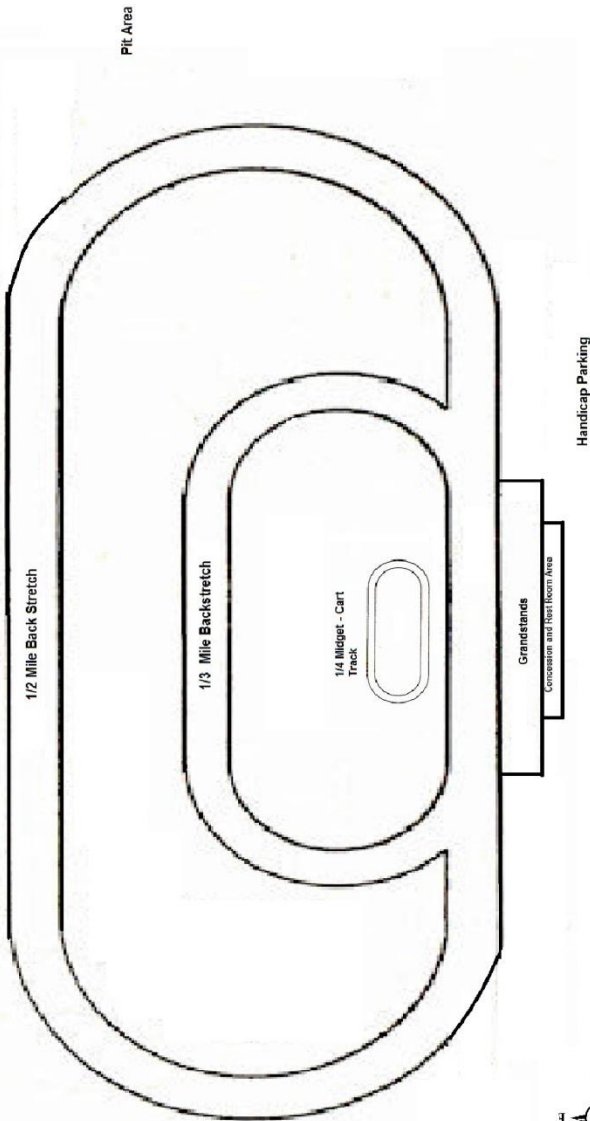
Access to electrical power may not be available. As such the developer shall provide his own power, and is responsible for his own electrical system.

Lighting for the facility shall include such casual lighting as is required to provide safe ingress and egress during night time operations.

The facility shall include parking, seating and comfort stations as required to comply with Americans Disability Act provisions.

Facility spectator safety facilities, such as fences, walls, clear zones, signage and other shall comply with industry standards and are subject to improvement as technology improves.

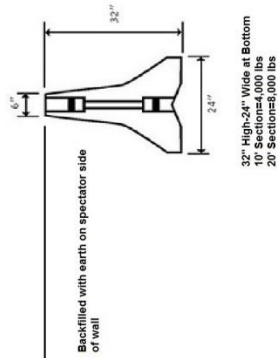
The Developer is solely responsible for the design, construction, maintenance and improvement of the facilities. The Town of Chino Valley is not expected to provide such expertise, and with the exception of imminent threat of life, or safety shall not have any responsibility in the design, review or inspection for the safety features of the facility.



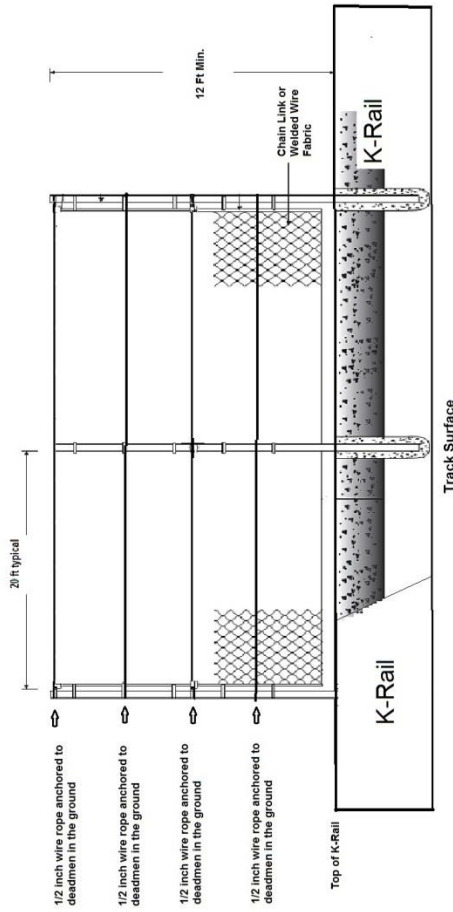
Track Dimensions	Straight Length	Turn Length	Overall Track Width	Radius	Inside Diameter	Outside Diameter	Overall Length	Front Straight	Back Straight	Corner
1/2 Mile - Pole	500	864	2640	1.68	1.68	1.68	1.68			
1/2 Mile - Outside	500	974	620	310	974	2894				
1/3 Mile - Pole	300	1160	185	370	1760	1.68	8			
1/3 Mile - Outside	300	440	220	440	1962					

Typical Details

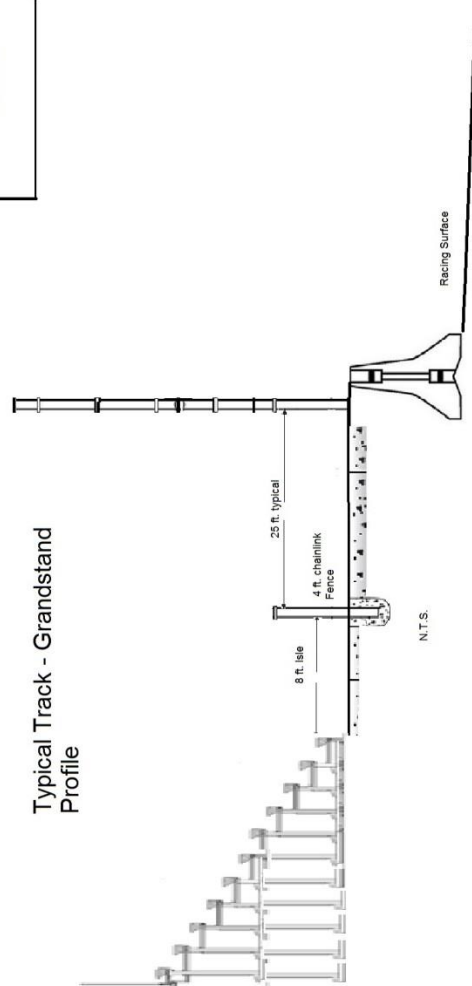
Track Crash Wall Detail

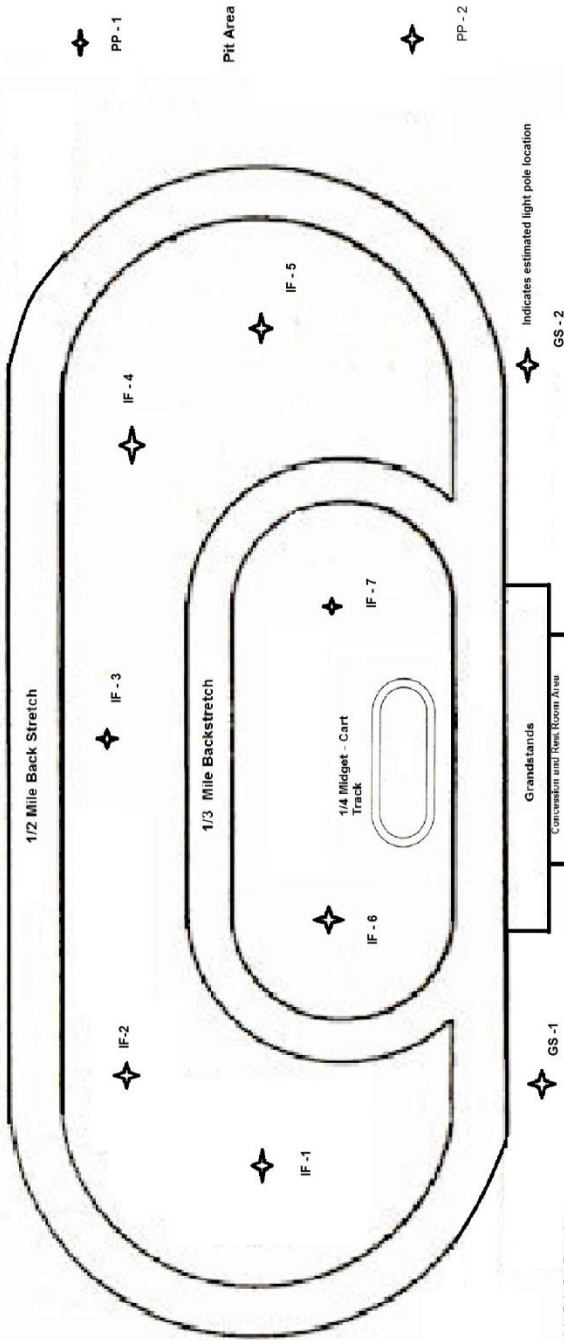


Crash Fence Typical Detail

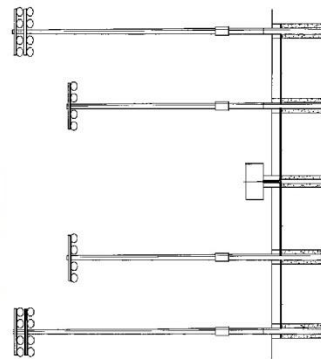


Typical Track - Grandstand Profile

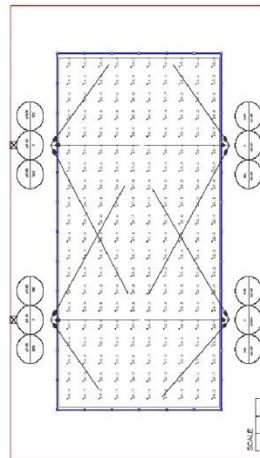




Typical Light Pole Configuration
Height Vary - 60FT - 40ft.



Handicap Parking



Typical Light Pattern Configuration

General Parking Area -

Track Lighting Summary				
Pole Lighting	# Pole	Height - Ft	Lamps	Type
P-1	40	40	4 HPS	400
P-2	40	40	4 HPS	400
Track Lighting				
GS-1	60	12 MH	1500	1500
GS-2	60	12 MH	1500	1500
IF-1	60	10 MH	1500	1500
IF-2	60	10 MH	1500	1500
IF-3	60	10 MH	1500	1500
IF-4	60	10 MH	1500	1500
IF-5	60	10 MH	1500	1500
IF-6	60	8 MH	1500	1500
IF-7	60	8 MH	1500	1500

GS - 2

Indicates estimated light pole location



MEMORANDUM

To: David Brinkley/Old Home Speedway
 From: Ruth Mayday, Development Services Director
 Re: Old Home Manor Speedway Feasibility Meeting #2
 Date: November 16, 2016

Following are my comments with respect to the above referenced project. This is intended to be a general guideline; please refer to specific sections of the Unified Development Ordinance (UDO) for additional information.

Signage (4.21)

- 1) Sign permits are required and are by separate application from the PAD and/or Conditional Use.
- 2) Signs shall be located a minimum of five feet (5') from property lines, and shall not project over any street, right-of-way, or other public property.
- 3) Wall signage: 1 square foot for each lineal foot of building frontage upon which the sign is displayed, not to exceed 200 sf in aggregate.
- 4) One (1) freestanding monument sign not to exceed 8' in height and an area 32 square feet.
- 5) Directional signage shall not exceed six (6) square feet in area and three feet (3') in height.
- 6) Total aggregate signage shall not exceed 232 square feet for a single tenant sign.
- 7) Temporary signs are allowed for a 30-day period, on-site only. Special event signage may be allowed for a maximum of ten (10) consecutive days with approval by the Development Services Director; at least 30 day period between special events.

Off-Street Parking and Loading (4.22)

- 1) Standard parking stall is 10 feet X 20 feet (200 sf). Drive aisles are a minimum of 24' wide.
- 2) Improved private access way shall be provided between a public or private street and parking areas.
- 3) Driveways must be 100' from a collector/arterial intersection and 50' from a local street intersection. Commercial and industrial driveways shall have a minimum 200' separation, center line to center line.
- 4) All required parking and loading spaces, maneuvering areas, driveways, and fire lanes shall be paved with asphaltic concrete over an a.b. base, or concrete or masonry to a thickness and structure to support the type and intensity of vehicular traffic generated by the proposed use. The Town Engineer may also approve alternatives such as chip seal.
- 5) Commercial development without a building shall be surfaced in a manner and extent approved by the Town Engineer.
- 6) All parking areas must be at least ten (10) feet from front property lines and five (5) feet from rear and side property lines.
- 7) Parking areas shall be screened from street view and residential development by a berm and/or wall (min. 3' in height), with landscaping.



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- 8) Number of spaces required (4,000 spectators): One (1) stall for every three (3) patron seats = 1,333 stalls. Large parking lots shall be divided into a series of smaller lots of approximately 150 spaces each, separated by landscape islands at least ten feet in width and 500 square feet in area. Handicapped parking will require 52 stalls of the 1,333 parking stalls; dimensions are 11'x20' with a 5' aisle.
- 9) Total area for parking, including drive lanes: acres (assumes 4,000 spectators)

Parking Calculation

Stall Size = 200 sf (10x20)

Drive lane width = 24'

Stalls required: 1 per 3 seats

Assumes 4,000 seats = 1,333 parking stalls

	SF	Acres
150 stalls X 200 sf	30,000	0.69
4 drive Aisles 480'x24'	46,080	1.057851
2 drive aisles 216'X24	10,368	0.238017
Landscape area	500	0.011478
TOTAL	86,948	2.00

150 stall segments = 9 782,532 17.96

Outdoor Lighting (4.24)

- 1) All lighting is to be Dark Sky compliant; no light trespass on adjoining properties; all fixtures shielded to reflect light downward.
- 2) Illumination for outdoor recreational facilities must conform to the shielding requirements of Table 4.24A, except when such shielding would interfere with the intended activity. (baseball, softball, football)
- 3) No outdoor recreation facility shall be illuminated after 11:00 pm except to conclude an event in progress prior to 11:00 pm.



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**TABLE 4.24A
LAMP SOURCE AND SHIELDING STANDARDS**

Fixture/Lamp Type	Shielded	Filtered
Low Pressure Sodium	Partially	None
High Pressure Sodium	Fully	None
Metal Halide	Fully	Yes
Fluorescent	Fully	Yes
Quartz	Fully	None
Incandescent 100W or greater per fixture	Fully	None
Incandescent less than 100W	None	None
Mercury Vapor	Fully	Yes
Fossil Fuel	None	None
Glass Tubes filled with Neon, Argon or Krypton	None	None
Other Sources	As approved by the Zoning Administrator	

Landscape Requirements (4.26)

- 1) A landscape plan shall be submitted at the time of application and shall include:
 - a) Designer name and address
 - b) North arrow, scale, date of preparation and revisions
 - c) Name of project and address
 - d) Vicinity Map
 - e) Sheet numbers
 - f) Location of all proposed and existing buildings, structures, and pavement
 - g) Location and dimensions of all property lines
 - h) Location of all existing or proposed water features and drainage facilities
 - i) Location of 100-year floodplain, if applicable
 - j) Location, size, and common name of any existing trees or shrubs to remain on site.
 - k) Location of all landscaping proposed for the site including trees, shrubs, ground cover, etc.
 - l) Location of all existing or proposed signs, walls, fences, earthen berms, (1 foot contours)
 - m) Sight visibility triangle
 - n) Location of all existing or proposed sidewalks, bike trails, pedestrian paths, etc.



MEMORANDUM

- o) Plant list for all existing or proposed trees or shrubs on-site
 - p) Location of all existing or proposed curb lines and cuts for streets, parking lots, and parking islands
 - q) Any additional information as determined by the ZA to be necessary
 - r) Proposed inert ground cover/dust control
- 2) Landscaping shall not hinder the vision of motorists and pedestrians necessary for safe movement; will not interfere with or damage existing or proposed utilities and drainage features.
 - 3) All plant materials shall be maintained in a healthy, vigorous, neat, and orderly condition. Plants shall be replaced as necessary or as directed by the ZA, and kept free of refuse and debris.
 - 4) Landscape strip: 10' wide along street frontage(s); 5' along side and rear property lines. Refuse disposal areas shall be screened on all sides, including a solid gate for access.
 - 5) Minimum landscaping pattern: one tree per 20 lineal feet; four shrubs per 400 sf,
 - 6) Parking lots: One curbed island (180 sf) per 15 stalls in each row; 50% coverage with live plant material. Curbs will be of concrete or functionally equivalent.
 - 7) Size of plant material: Trees: 75% min 15 gal; 25% 24" box or greater. Shrubs: min. 5 gallon.
 - 8) Alternative compliance: submit plan to Zoning Administrator for approval. Appeal to Board of Adjustment.

Landscape Calculation

10 feet on Road frontages		1 Tree/20lf	4 shrubs/400 sf
N/S = 1,312 lf	13,120	656	131.20
E/W = 1,225 lf	12,250	613	122.50
TOTAL	25,370	1269	254
15 Gal Trees		951.38	
24" box		317.125	
5 gal. shrub			254

Landscape islands	# islands	Total area (sf)
1 island per 15 stalls	89	15,996



MEMORANDUM

Building Setbacks (3.18 Public Lands)

Minimum setbacks: 50 feet
 Min. setback for buildings: 50 feet or Section 4.28, whichever is greater
 Maximum building height: 35 feet
 All outdoor storage shall be screened with a six (6) foot screening fence.

Zoning and Land Use

The subject parcel is zoned PL (Public Land), the purpose of which is “to allow those government uses which are necessary to serve the public in particular locations of the town and to distinguish them from private uses.” Currently, the UDO allows for motor sports as a conditional use in the I (Industrial) zoning district (3.17.3 (G)); however, as the PL zoning district permits “Other uses approved by the Town Council.” (3.18.2(H)), Council has the ability to approve this use.

Given the impact that a motor sports facility would have on the community, staff would ordinarily recommend a Conditional Use Permit (CUP). In this instance, staff does not have the latitude to do so as it does in other zoning districts; nor does the existing code allow for motor sports in the PL zoning district (except by virtue of the ability granted to it in 3.18.2(H) of the UDO).

Finally, a CUP allows only for the imposition of additional conditions to mitigate the impact of a specific use on adjacent property owners. It does not allow for any flexibility or relief from development standards. It is staff's opinion that proceeding with a Planned Area Development (PAD) overlay would allow for the flexibility required for siting this use and mitigating its impact, not only through relief from some requirements, but the imposition of additional conditions that would attenuate any negative effects from the proposed project.

The Land Use Designation for the subject property is Employment Park/Commercial/ Recreation/Education/Public Services. The motorsports use would be appropriate within a Commercial context.

Planned Area Development (PAD): Application fee: \$800/\$20 per lot

- 1) Neighborhood meeting: minimum 30 days before Public Hearing at Planning & Zoning
 - a) Post property
 - b) Send letters to all property owners within 300' of property boundary
 - c) Publish notice in paper of general circulation
- 2) Planning & Zoning Commission:
 - a) Post property
 - a) Send letters to all property owners within 300' of property boundary
 - b) Publish notice in paper of general circulation



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- 3) Town Council
 - a) At discretion of mayor
 - b) After recommendation of Planning & Zoning Commission

Development Agreement/Conditions of Zoning

ARS §9-500.05 authorizes the Town to enter into Development Agreements (DA's) with developers; conditions or stipulations of zoning can also be applied through a PAD. It is likely that the Town will seek to enter into such an agreement in conjunction with this project, or stipulate zoning to ensure the Town's development goals and standards are met.



TOWN OF CHINO VALLEY

MEMORANDUM

DATE: December 6, 2016

TO: David Brinkley

Cc: Ruth Mayday, Development Services Director
Jim Shinost, Plans Examiner
Joann Brookins, Customer Service Supervisor

FROM: Michael Lopez, P.E., Town Engineer

SUBJECT: Old Home Speedway Review

Thank you for submitting to the Town of Chino Valley for review. Below are the Engineering Department's comments for the Old Home Speedway Review Parcel 306-20-001C.

Comments:

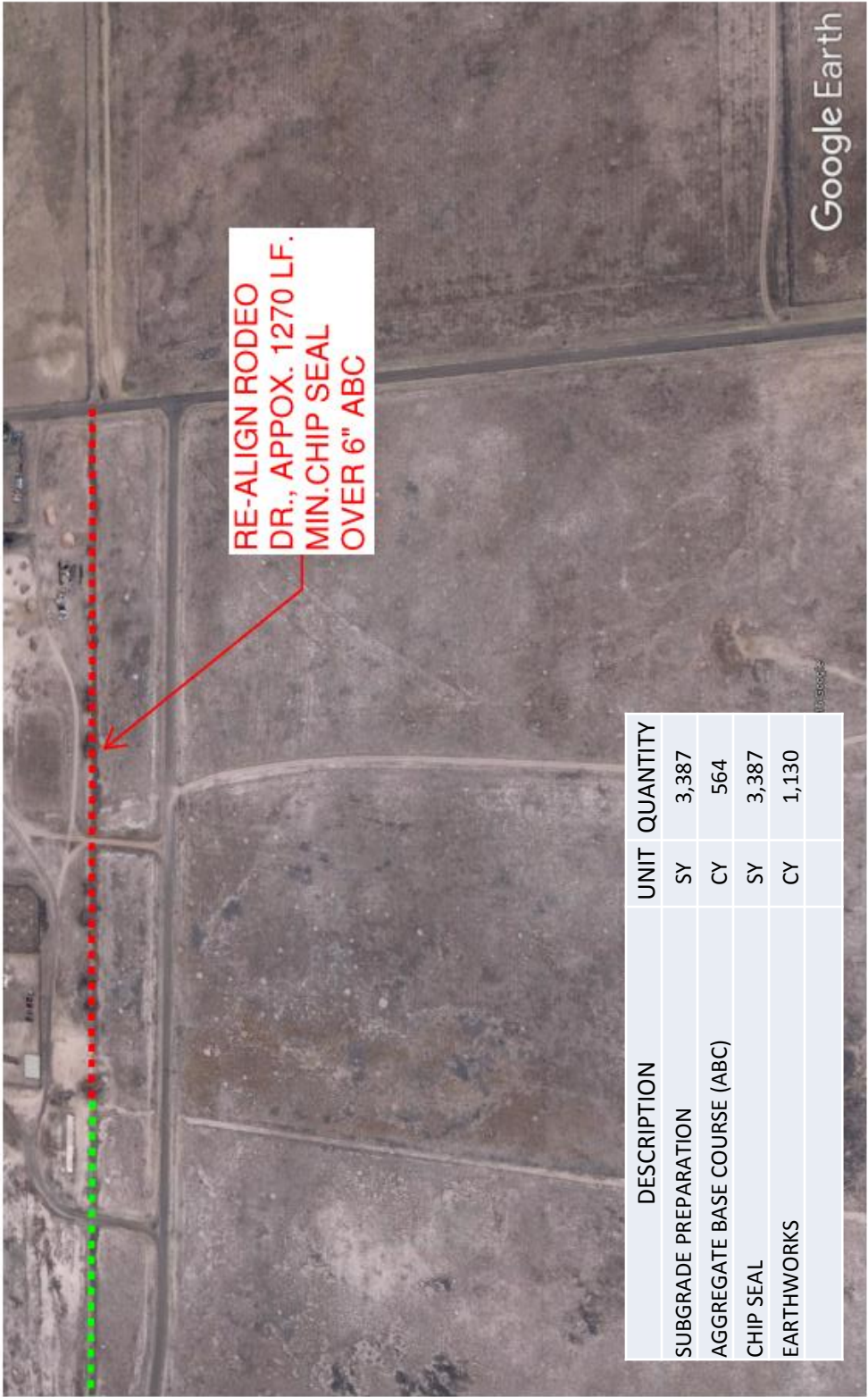
1. Paved parking and drive isles required (UDO 4.22).
 2. Minimum driveway width is 40-feet per the Town of Chino Valley Unified Development Ordinance (UDO, 4.22.5.C).
 3. Engineered Drainage and Grading Report/Plans required for permit.
 4. Onsite and offsite Civil Engineering plans required.
 5. Utility Plans will be required.
 6. Geotechnical Report will be required.
 7. Traffic Control Plan and/or Analysis will be required.
 8. Please provide SWPP measures as required by the Arizona Department of Environmental Quality (ADEQ).
 9. Please note that all drainage improvements shall be completed per the approved plans prior to the issuance of a building Certificate of Occupancy.
 10. Boundary survey
- These comments based on information provided for the review process and are subject to change based on final plan and report submittals.



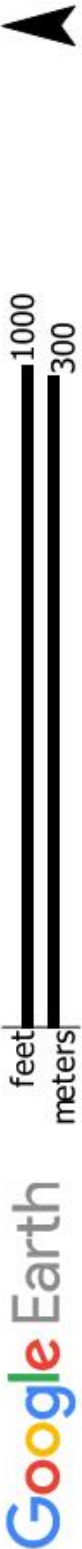
Description	Quantity	Unit		
8" C900 PVC	870	Feet		
2" Water Service	1	Each		
Blow off assembly	1	Each		
Line valves	2	Each		

PROPOSED WATER SYSTEM EXPANSION
CHINO VALLEY SPEEDWAY

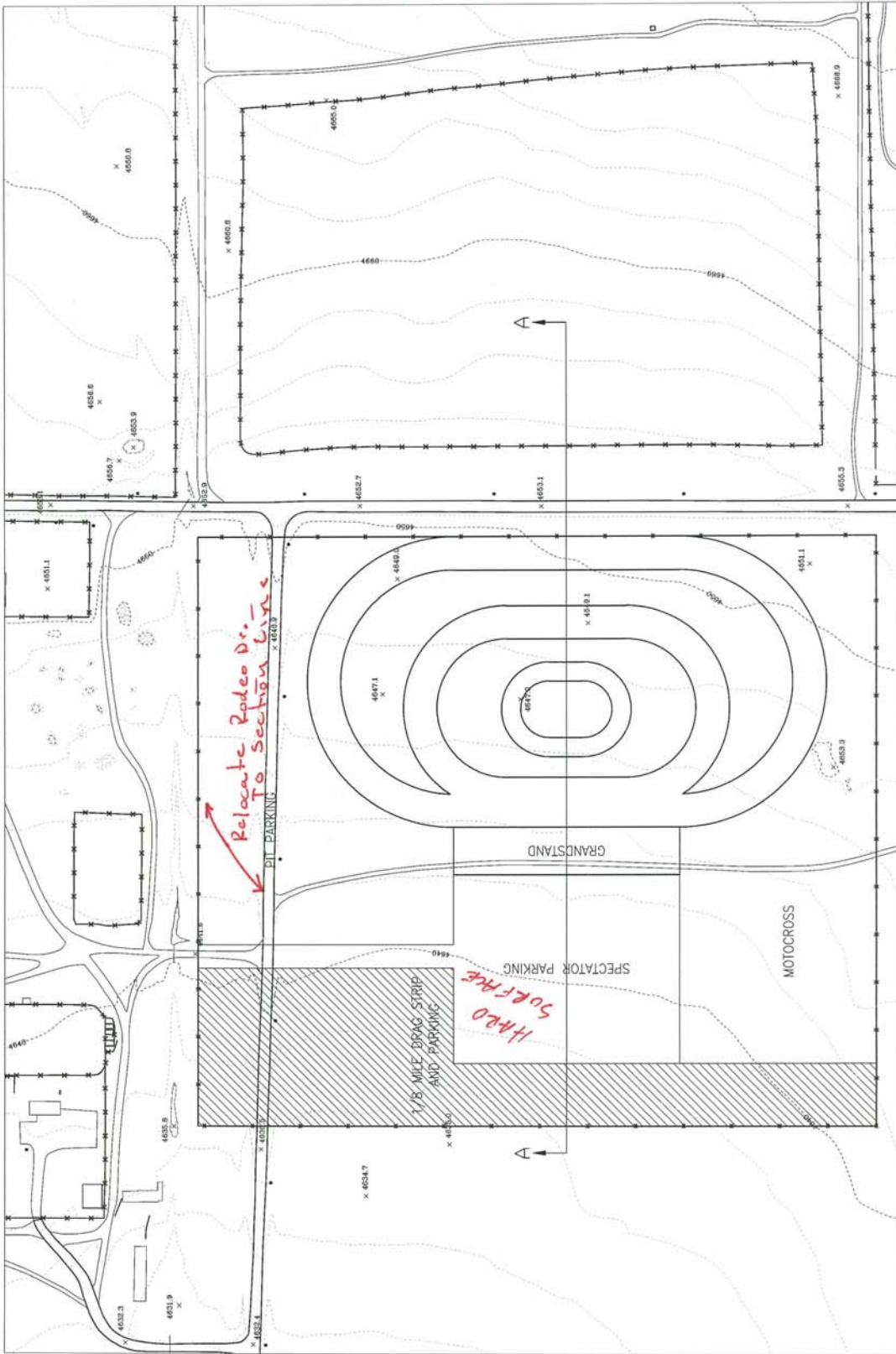
YAVAPAI COLLEGE CHINO VALLEY
WATER SYSTEM
SYSTEM ID: AZ 04 13-251
(not to scale)



DESCRIPTION	UNIT	QUANTITY
SUBGRADE PREPARATION	SY	3,387
AGGREGATE BASE COURSE (ABC)	CY	564
CHIP SEAL	SY	3,387
EARTHWORKS	CY	1,130

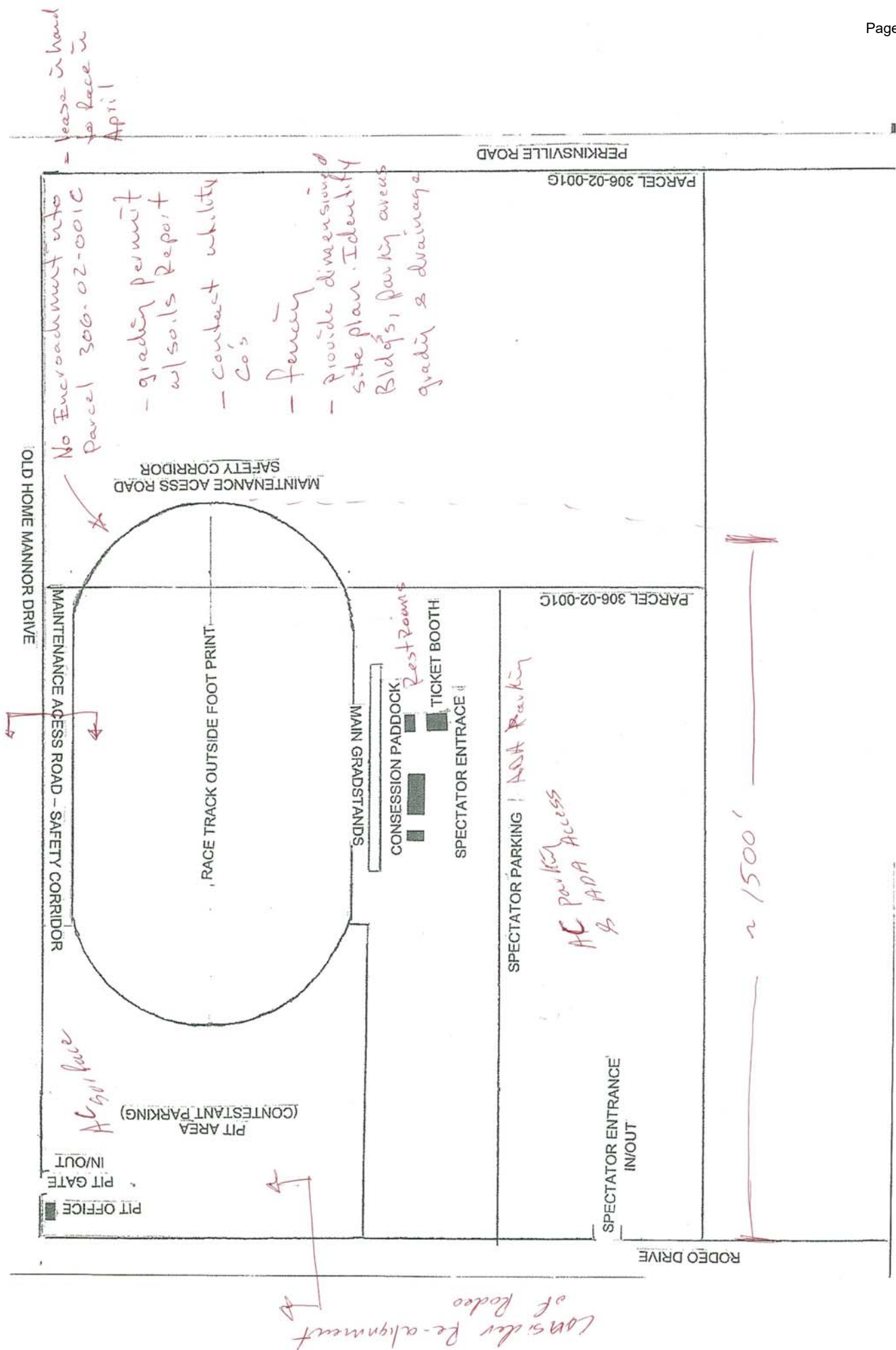


OLD HOME SPEEDWAY



- Detailed Site Plan
- Traffic Control Plan
- Grading & Drainage Plan and Report?
- Pic vs. Post Detention
- Geotechnical Report? - Fill - Road
- Civil Plans
 - Rodeo Dr. Profile
 - water line Profile
 - Road Sections (TYP)
 - Detailed Site Plan

OLD HOME SPEEDWAY			
SITE PLAN			
DESIGN	DRAWN	CHECK	REVIEW
DATE	DATE	DATE	DATE
11-14-16	11-14-16	11-14-16	11-14-16
WISE ENGINEERING, INC.			
1420 S. 10TH AVE.			
PRESCOTT, ARIZONA 86301			
(928) 771-1120			
FAX 771-1120			
SHEET NO. 1 OF 1			



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TOWN OF CHINO VALLEY COUNCIL AGENDA ITEM STAFF REPORT

Town Council Study Session

Item No. 11)

Meeting Date: 01/31/2017
Contact Person: Jami Lewis, Town Clerk
Phone: 928-636-2646 x-1208
Department: Town Clerk
**Estimated length
of Staff Presentation:**
Physical location of item: N/A

Information

AGENDA ITEM TITLE:

Discussion regarding future study session topics. (Cecilia Grittman, Town Manager)

SITUATION & ANALYSIS:

Council may introduce any topics that they would like to have presented or discussed at future study sessions.

Attachments

Current Study Session Schedule

STUDY SESSION SCHEDULE AS OF 1/25/2017

Meeting Date	Description	Department	Staff
2/21/17	Customer Service/Utilities code changes	Town Manager	Cecilia Grittman
	Dog ordinance revisions	Council	Jami Lewis
3/21/17	Quarterly report from Chamber of Commerce	Town Manager	Cecilia Grittman
4/18/17			
5/16/17			
6/20/17			
7/18/17			
8/22/17			
9/19/17			
10/17/17			
11/21/17			
12/19/17			
Date Unassigned	Declaration of Road 1 East as an in-house project	Public Works	Michael Lopez