LINCOLN COUNTY AIP MASTER PLAN ADDENDUM SUNRISE ENGINEERING SUNRISE ENGINEERING, INC. January 2010

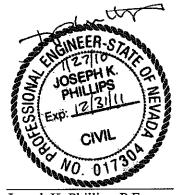
LINCOLN COUNTY, NEVADA ALAMO INDUSTRIAL PARK MASTER PLAN ADDENDUM

January 2010

INCLUDES:

AMMENDED UTILITY AND SITE PLANS AND AMMENDED OPINION OF PROBABLE COSTS

COLINTY COMMISSIONER	Paul Mathews
	George T. Rowe
	Ronda Hornbeck
	Ed Higbee
COUNTY COMMISSIONER	Bill Lloyd
PLANNING DIRECTOR	Clint Wertz
GRANTS ADMINISTRATOR	Phyllis Robistow



Joseph K. Phillips, P.E.
Project Engineer
State of Nevada No. 017304

PREPARED BY:

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> Richard B. Snyder Project Manager

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Page ii





Table of Contents

TABLE OF CONTENTS

SECTION

I.	ADDI	ENDUM
	A.	Preface
	В.	Previously Proposed Site Plan and Basic Utility Plan
		1. Site Grading
		2. Power
		3. Water
		4. Wastewater
		5. Storm Water
		6. Communication
		7. Transportation
	C.	Amended Proposed Site Plan and Basic Utility Plan
		1. Site Grading
		2. Power
		3. Water
		4. Wastewater
		5. Storm Water
		6. Communication
		7. Transportation
		8. Amended Costs
TABI	ES	
	Table	1— Outline of Proposed Amendments
	Table	2—Engineer's Opinion of Probable Cost (Amended Alt. 1)
		3—Engineer's Opinion of Probable Cost (Amended Alt. 1a)

Page iii





SECTION I ADDENDUM

A. PREFACE

Lincoln County, Nevada contracted with Sunrise Engineering, Inc. to prepare a Master Plan for the Alamo Industrial Park to identify and consider existing limiting constraints and to complete a basic site plan and supporting utility infrastructure along with the probable construction costs associated with the proposed Alamo Industrial Park. This Master Plan was completed by Sunrise Engineering in May of 2009. Following the completion of the Master Plan, a subsequent analysis was conducted by the Lincoln County Regional Development Authority (LCRDA) to provide recommendations regarding the disposition of the Alamo Industrial Park. As a result of this analysis, LCRDA gave several recommendations to Lincoln County for potential action regarding the Alamo Industrial Park lands. The Lincoln County Commission requested a change in direction for the Alamo Industrial Park lands in response to the LCRDA analysis which gave rise to this amendment to the original Alamo Industrial Park Master Plan. This amendment is a refinement of the original engineering design in order to reduce the overall cost per improved acre so that the site could be more competitive with other industrial and commercial lands for sale in the region. Cost savings were realized through relaxation of initially proposed development standards and a reduction of construction scope. This amendment considers just Phase 1 of the industrial park from the original plan requirements. It is anticipated that as the industrial park grows and becomes established, previously recommended design standards may be reinstated and Phase 1 minimum standard improvements may be upgraded.

B. PREVIOUSLY PROPOSED SITE PLAN AND BASIC UTILTY PLAN

This section briefly summarizes the proposed site plan and basic utilities in the original Alamo Industrial Park Master Plan from May of 2009 as completed by Sunrise Engineering.

1. Site Grading

The previously proposed site grading was based on an average slope of 2% throughout the planning area. Minimal slope is ideal for industrial parks. The plan was developed to provide a gravity system for both the storm drain and the sewer collection systems. The overall grading plan balanced the cut and fill quantities to reduce the overall site grading costs. The cut and fill quantities were also balanced out for Phase 1 independently. The proposed plan also included finished grading for all pads.

2. Power

The previous power plan included a main overhead transmission line within a 30' easement down the main corridor through the site from Highway 93. This main transmission line would route power to a single substation located in lot 9, which is anticipated to be sufficient enough to serve the entire industrial park. Secondary power lines to the customers in the industrial park will be underground from the substation to each of the buildings. The industrial park would also be equipped with tertiary street lighting.

3. Water

The potable water utilities plan included a 1.5 million gallon tank and transmission lines from the existing well to the tank and from the tank to the industrial park's distribution system. The original plan also included source development of the existing well and a pump control building with associated appurtenances for the well. The





Section 1—Addendum

distribution system within the industrial park is comprised of minimum diameter distribution pipelines, fire hydrants, and service connections. All such improvements were sized according to expected demands on the system.

4. Wastewater

The wastewater collection and transmission system consists of gravity fed sewer lines, manholes and service connections to all future customers. The internal collection system for the industrial park connects into the existing Alamo collection system which is conveyed for treatment at the Alamo wastewater treatment facility. The infrastructure was sized according to expected demands on the system.

5. Storm Water

The storm water collection and conveyance system was comprised of a network of underground pipes, curb inlets, a detention facility and portions of open channel flow consisting of rip rapped sections and defined concrete channels. It was planned that the underground network of pipes would be responsible for collecting all surface flows within the industrial park, both from the surface streets and impermeable lot surfaces. All flows in the industrial park would then be conveyed to a regional detention facility located at the north west corner. This detention facility was sized according to expected flow rates from the design storm and predevelopment release rates.

Additionally, as part of the storm drain facilities it was necessary to route preexisting drainage washes around the industrial park to be passed through existing drainage facilities. This includes riprap sections along the north east corner and eastern boundary of the industrial park and a concrete channel along a portion of the northern boundary of the industrial park.

6. Communication

It was proposed that at the time of construction conduit would be installed for telecommunications and fiber optic lines.

7. Transportation

The transportation improvements included a north and south access to the industrial park from Highway 93 and an internal roadway system. The cross section for the internal roadway system included a 6' sidewalk, 2.5' curb and gutter, ADA ramps, and a 48' pavement section. The pavement section was to be 4" of asphalt on 8" of untreated base course.

B. AMENDED PROPOSED SITE PLAN AND BASIC UTILITY PLAN

This section briefly summarizes the amended proposed site plan and basic utilities items for Phase 1 of the Alamo Industrial Park Master Plan. Adjustments are further summarized in tabular form format in Table 1 on Page 4.

1. Site Grading

The amended site grading includes a reduction in the finished grading of the pads. It is proposed that the pads be roughly graded rather than finished to accommodate any changes to the number of individual pads or lots sold. This will present a cost savings to Lincoln County but the cost for the finished grading will be passed on directly to the customer. It is recommended that in order to prevent potential problems with the grading material and balancing of the cut and fill material that rough grading of the lots be completed. Therefore, rough grading represents the recommended minimum improvements for site grading and lot layout. Since this amendment covers Phase 1 only, the site grading has been reduced to the area directly associated to Phase 1.





Section 1—Addendum

Alternatively, if the County concludes that the cost per sellable acre is still too high, then a second, less preferred, alternative would be to not rough grade the pads, but grade just the roads. This represents a significant cost savings, but these costs will be directly passed on to the customer and balancing the cut and fill material may be a potential problem as discussed previously.

2. Power

The amendment for power improvements includes a change from underground secondary power distribution to overhead secondary power distribution. It is still recommended that secondary power remains underground from the overhead distribution lines to the individual customers. The tertiary street lights have been eliminated.

3. Water

The amendment for the water utility includes the elimination of the storage tank servicing the industrial park. The storage tank initially proposed was required to provide sufficient pressure to the industrial park. Therefore, to increase pressure sufficient for the industrial park, a pressure boosting station will be added to the connection between the Alamo water distribution system and the industrial park system. It may be necessary or more economically advantageous in the future to provide a storage facility for the industrial park and surrounding developments. Since Phase 1 of the industrial park will be supplied with water by the Town's current distribution system and proposed pressure boosting station, the well will not need to be developed along with all its appurtenances. It has also been recommended that it should be the responsibility of the customer for the service connections that they require to the main line. Finally, distribution lines will be positioned 6' off center of the roadway for Phase 1 to accommodate the adjusted pavement section to be discussed in the transportation section.

4. Wastewater

Similar to the water distribution system, the customer will be responsible for the connection to the main wastewater line. Also, the wastewater line will be positioned 6' off center of the roadway for Phase 1 to accommodate the adjusted pavement section to be discussed in the transportation section.

5. Storm Water

The amendment for the storm water improvements includes a change in conveyance and collection techniques. Subsurface storm drain facilities will be replaced with surface drainage channels equipped with check-dams along the edge of the internal roadway system. These channels will collect surface runoff exclusively from the streets. All other runoff from lot improvements will be the responsibility of the owner to collect and retain. This amendment eliminates the subsurface pipe network, storm drain inlets, and regional detention facility. This represents a cost savings to Lincoln County but adds an additional direct cost to the customer to provide onsite storm water facilities. Also, the riprap sections along the northern and eastern boundaries and the channel improvements along the northern boundary will not be required to be completed for Phase 1 since Phase 1 does not encroach on the main natural drainage facilities in the vicinity. As other phases are completed, additional storm water improvements will need to be constructed.

6. Communication

It is proposed that at the time of construction telecommunications will be installed on the power poles.





Section 1-Addendum

7. Transportation

The amendment for transportation improvements includes a change from a 48' wide pavement section to a 24' wide pavement section. Also, curb, gutter and sidewalk have been eliminated, and a surface drainage channel will be constructed in its place as stated in the storm water section. The pavement section has also been reduced from 4" of asphalt on 8" of untreated base course to 3" of asphalt on 6" of untreated base course. It is recommend that even though the transportation cross section has been reduced, the full 66' right of way should be maintained to allow for future expansion of the roadway and installation of the curb, gutter and sidewalks. It is also recommended that the pavement section be laid 2" below grade to allow for lifts to be laid in the future for a cumulative section of 5" of asphalt.

8. Amended Costs

See the Engineer's Opinion of Probable Cost for Amended Alternative 1 and 1a for the associated improvements. Alternative 1 includes rough grading of the lots while Alternative 1a includes grading of the roads only. The cost per sellable acre in the original master plan was \$104,500 per acre. The amended cost per sellable acre is \$65,700 for Alternative 1 and \$48,900 for Alternative 1a.

Table 1 - Outline of Proposed Amendments

Initially Proposed	Addendum	Notes:
Finish Pad Grading	Rough Pad Grading	The owner of the lot will do the final grading of the pad.
Underground Secondary Power Distribution	Overhead Secondary Power Distribution and Underground to Customer	Overhead power throughout the industrial park, but the power should be run from the pole to the customer underground.
Tertiary Street Lights	Eliminated	Could be constructed in the future.
1.5 Million Gallon Water Storage Tank	Pressure Boosting Station	Storage may be needed in the future.
Source Development and Pump Control Building	Connection exclusively to the Alamo water distribution system.	The well located on site will need to be developed in the future as the industrial park or surrounding development grows.
Subsurface Storm Drainage System	Earthen Borrow Ditches and Check-dams	Borrow ditches would collect surface flows from the roadways only and convey flows to the existing wash and culvert to the north.
Full Regional Detention Facil- ity	Eliminated	Onsite drainage retention for each lot allows for this reduction in the regional detention facility.
Open Channel and Riprap Protection	Eliminated	For Phase 1 these improvements aren't necessary, but as later phases are completed these improvement will become necessary.
Curb & Gutter / Sidewalk	Eliminated	Could be constructed in the future.
48' Pavement Section	24' Pavement Section	Retain the full 66' ROW width for a future 48' pavement section, 2.5' curb and gutter, and 6' sidewalk.
Pavement - 4" Asphalt on 8" UBC	Pavement - 3" Asphalt on 6" UBC	Construct the pavements section 2" below grade so that an additional 2" of asphalt can be applied in the future.
Underground Communication lines	Overhead Communication Lines	This improvement will be installed by others.







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Tel: (435) 652-8450 Fax: (435) 652-8416
Engineer's Opinion of Probable Cost - Phase 1 (Amended Alt. 1)

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PROJECT COST \$ 2.						
				TOTA	PROJECT	\$ 2,363,823.00

In providing opinions of probable construction cost, the Client understands that the Engineer has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.

SUNRISE ENGINEERING, INC.
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Tel: (435) 652-8450 Fax: (435) 652-8416
Engineer's Opinion of Probable Cost - Phase 1 (Amended Alt. 1a)

ITEM NO.	ITEM ITEM DESCRIPTION ITEM DESCRIPTION	QTY.	UNITS	UNIT PRICE	TOTAL
	Mobilization Project Sign Materials Sampling & Testing Site Cut & Fill Rough Grading (Amended) Transnortation	1 1 1 19,500	EA LS CY	\$ 47,500.00 \$ 500.00 \$ 5,000.00 \$ 2.00	\$ 47,500.00 \$ 500.00 \$ 5,000.00 \$ 39,000.00
50 90 000	Highway 93 Traffic Control Saw Cutting & Tacking Pavement Section (3" HMA, 6" UBC,etc) Industrial Park Roads Pavement Section (3" HMA, 6" UBC,etc) Fine Grading K Sidewalk	1 4,960 67,500 87,500 87,500	LS SF	\$ 5,000,000 \$ 2,400 \$ 3,30 \$ 0,200	
	2.5' Curb & Gutter ADA Ramp Utilities Water Subsurface Investigation Source Development and Pump Control Building Treatment Facility Storage Capacity		EA E		
22 23 24 25 26	Earthwork Tank Construction Tank (1.5 MG) Tank Appurtenances 10" Water Line & Fittings from Well to Tank 16" Water Line & Fittings from Tank to Planning Area		LS LS LS LF	\$ 35,000.00 \$ 800,000.00 \$ 35,000.00 \$ 22.00 \$ 33.00	S S S S S
28 29 30 31 32 33 34 35 35	Fransmission & Distribution Fransmission & Distribution Fire Hydrant Assembly 8" PVC Line Material, Installation, Fittings, Tracer Wire, Bedding, & Backfill 8" Gate Valve Assembly Misc. Connections, Fittings, & Tie-ins Jack & Bore Under Highway Connection into Existing System Service Connections Wastewater	9 3,450 1 1 1 1 1	EA E		\$ 259,000.00 \$ 62,100.00 \$ 62,100.00 \$ 1,500.00 \$ 10,500.00 \$ 800.00
38 39 40 42 42 44 44 46 46	Substurface Investigation Restore Surface Improvements Patching 3" Asphalt on 6" Base Course Shoring / Trench Boxes 10" Sewer Line, Bedding, & Fittings Manholes Service Connections Service Connections	15 1 100 1 1 3,250 1,400	LF LS SF LS LS LS LS EA EA	\$ 21.00 \$ 120.00 \$ 2.70 \$ 2.500.00 \$ 23.00 \$ 3,400.00 \$ 1,500.00	\$
48 49 50 51 52 53 54 56 56	Collection & Transmission 18" Reinforced Concrete Pipe & Fittings 24" Reinforced Concrete Pipe & Fittings 36" Reinforced Concrete Pipe & Fittings Storm Drain Inlets Check Dams 12" Culvert Under Road Rip Rap for End Section Culvert End Section Detartion Description	100 80 80 5	LF LF EA EA CY CY	\$ 30.00 \$ 35.00 \$ 42.00 \$ 2,000.00 \$ 60.00 \$ 50.00 \$ 50.00 \$ 375.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 2,300.00
59 60 61 61 63	Earthwork Pond Open Channel with Box Culvert Under Road Erosion Control Rip Rap Protection		LS AF LF SF	\$ 5,000.00 \$ 20,000.00 \$ 200.00 \$ 15,00	w w w w
66 68 68 69 70	Substation Transmission Over Head Ptimary and Secondary Power Tertiary Street Lighting Communications Lincoln County Telephone	3,850	LS LF LF EA EA	\$	\$ \$
	Construction Sub-Total Construction Contingency Construction Total	15.0%		\$ 186,000.00	\$ 1,239,700.00 \$ 186,000.00 \$ 1,425,700.00
	Engineering Design Water - Booster Pump Station (FHMA Curve) Engineering Design Transportation - Highway 93 Entries (FHMA Curve) Construction Survey Construction Administration/Observation Storm Water Pollution Prevention Plan (SWPPP) Miscellaneous Services Existing Contract Services (Covered by Grant) Land Acquisition (cost for just phase 1 acreage)		LS LS Est. Est. Est. Est. LS LS Est. Est.	3 1 1 1 1 1 1 1 1	\$ 24,700.00 \$ 22,700.00 \$ 25,000.00 \$ 5,000.00 \$ 20,000.00 \$ 138,300.00
84 In providin	84 In providing opinions of probable construction cost, the Client understands that the Engineer has no control over	xontrol over	TOTAI	Sellable Acres Cost Per Acre Cost Per Acre price of labor, equipmen	\$ 1,761,199.00 36 \$ 48,900.00 at or materials, or over

the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.