

**Appendix C**  
**Infrastructure Phasing Plan & Cost Estimates**  
**MCR Engineering**

## A. Phasing Plan

### North Phase Area

The North portion of the Phasing Plan is currently owned by CenterPoint Properties and is located directly north of the Reilla property (see **Exhibits 3 and 13.0**). In developing the North Phase the following improvements shall be constructed by project developers:

#### Public Roadways:

Airport Way and Roth Road shall be constructed to their ultimate width on the project side of the road (see Airport Way and Roth Road cross sections in **Chapter 2**). The developer of the North Phase shall construct 3 travel lanes in Airport Way closest to the project (one 14-foot local travel lane and two 12-foot travel lanes) as well as one 12-foot travel lane and a 2-foot shoulder on the side opposite the project. The center median shall also be constructed in Airport Way by the developer. The developer shall also construct 2 travel lanes in Roth Road closest to the project (one 14-foot local travel lane and one 12-foot travel lane) as well as one 12-foot travel lane and a 2-foot shoulder on the side opposite the project. The center turn lane shall also be constructed in Roth Road by the developer. The existing traffic signal at Roth/Airport shall be modified for the new road widths. A new traffic signal shall be constructed at Lovelace Road and Airport Way (see **Exhibit 9, Long Range Circulation System.**)

#### Private Roadways:

The main north-south private roadway "F" shall be constructed from Roth Road to the south side of the SSJID storm drainage basin in the Central Phase (see **Exhibit 11**). All other private internal circulation shall be determined depending on site layout and project size and circulation requirements.

#### Water:

Water to service the North Phase for domestic water, fire flow and irrigation shall be from the City of Manteca water system and improvements shall be consistent with the City of Manteca Water Master Plan (see **Exhibit 12.1, Utility Plan-Water**). The Master Plan will be served by a series of 12-inch water mains in a grid pattern to provide adequate water pressure. The North Phase shall extend the existing 12-inch water main from its terminus 600-feet north of Daisywood Drive north to Roth Road. The 12" water main shall then be extended west along Roth Road to the western most border of the Northwest Airport Way Master Plan area. A 12-inch public water main shall be placed in private roadway F (see **Exhibit 11**) and loop back to Airport Way in private roadway G planned between the Reilla and CenterPoint properties. If determined by the City that a well site is needed, the City shall coordinate with the developers of the North Phase to determine the best placement for any required well sites.

All on site domestic water lines, irrigation lines and fire lines shall be private and be required to have proper backflow prevention devices at the connection point to the public water system.

#### Sanitary Sewer:

The sewer line shall be extended north along Airport Way per the City of Manteca Master Sanitary Sewer Plan (see **Exhibit 12.2, Utility Plan-Sewer**). The existing 30-inch sewer line at in Airport Way shall be downsized to a 24-inch line and extended north to Roth Road. This sewer line shall be stubbed to the north of Roth Road and an 8" sewer line shall extend west on Roth Road from the 24-inch Airport Way line to service the western most parcel of the North Phase. A 12-inch sewer line shall be stubbed west at the boundary of Reilla and CenterPoint properties in private roadway "G". The sewer from the North Phase will flow via gravity to the existing Union Ranch Pump Station. All on-site sewer within the North Phase shall be private and shall drain into the public sewer lines within the public roadways. Any sewer on site that will be public-maintained must be placed within a public utility easement.

#### Storm Drainage:

The North Phase will be required to construct a portion of Retention Basin D in order to serve the North Phase (see **Exhibit 12.4, Utility Plan-Storm Drainage**). The main storm drain conveyance feature for the North Phase is the 40-foot wide drainage channel/bio-swale along the west side of the private roadway "F" (see **Exhibit 11**). This drainage channel shall be constructed within the North Phase from Roth Road to Basin D. Storm Drainage from Airport Way and Roth Road shall flow into Basin D via underground piping and this will require Basin D and the piping system to be within a public utility easement.

Basin D will be able to function as a terminal basin until such time as the basin reaches 50 percent capacity. At this point the construction for the storm drain pump station and outfall line into the SSJID facility will be required. On-site storm drainage shall be private with the exception of any line servicing the public roadways or public open space. Low Impact Design Best Management Practices shall be used where feasible in the design of on-site drainage systems. Storm water runoff shall be treated at individual project sites within the North Phase before leaving the site and entering the drainage channel or any other conveyance pipe.

#### SSJID Irrigation:

The North Phase includes the following existing SSJID facilities: Lateral RG and Lateral RJ (see **Figure 12.3, SSJID Irrigation**). Lateral RG shall be relocated to proposed private roadway G between the Reilla and CenterPoint properties and shall be placed within a 30-foot SSJID easement. Lateral RJ shall be removed and the existing pour over box located at Airport Way shall be converted to a back-up structure. The existing RJ pipe shall be plugged at the western most

boundary of Northwest Airport Way Master Plan area to prevent water from the French Camp Outlet Canal seeping into the ground.

#### Dry Utilities:

Connections shall be made to the existing dry utilities present in Airport Way and all of these improvements shall be coordinated with the various public utility companies (Verizon, PG&E, Comcast, etc.)

#### Central Phase Area

The Central portion of the Phasing Plan is currently owned by CenterPoint Properties, Riella Trust and RCCI PTP and is located directly north of SSJID Drain 3 Ditch (see **Exhibit 12.3**) and directly south of the common property line of Reilla Trust and CenterPoint Properties (see **Exhibits 3** and **13.0**). In developing the Central Phase the following improvements shall be constructed by project developers:

#### Public Roadways:

Airport Way shall be constructed to its ultimate width on the project side of the road (see Airport Way cross section in **Chapter 2**). The developer of the Central Phase shall construct 3 travel lanes closest to the project (one 14-foot local lane and two 12-foot travel lanes) as well as one 12-foot travel lane and a 2-foot shoulder on the side opposite the project. The center median shall also be constructed in Airport Way by the developer. The existing traffic signal at Daisywood Drive shall be modified for the new road widths (see **Exhibit 9, Long Range Circulation System**).

#### Private Roadways:

The main north-south private roadway "F" shall be constructed from the Central Phase north border to the north side of the SSJID Drain 3 drainage ditch which also serves as the south boundary line of the Central Phase. Private roadway "G" shall be constructed at the boundary line of Reilla Trust and Centerpoint Properties which is the northern most portion of the Central Phase (see **Exhibit 11**). Daisywood Drive shall be extended west to intersect with the north-south private roadway "F" and a second private roadway "G" shall be constructed along the north border of the RCCI PTP property which is the southern border of Reilla Trust property. See **Exhibit 11** for the location of these private roadways. An internal cross property north-south access roadway, private roadway "J" shall be constructed in the Central Phase parallel to Airport Way as shown in **Exhibit 9**. This roadway will allow vehicular traffic to flow through the Central and South portions of the Master Plan area without accessing Airport Way. The location of this potential access drive shall be determined upon individual project site plan design.

#### Water:

Water to service the Central Phase for domestic water, fire flow and irrigation shall be from the City of Manteca water system and improvements shall be

consistent with the City of Manteca Water Master Plan (see **Exhibit 12.1, Utility Plan-Water**). The Master Plan will be served by a series of 12-inch water mains in a grid pattern to provide adequate water pressure. The Central Phase shall extend the existing 12-inch water main in Airport Way from its terminus point 600 feet north of Daisywood Drive to the northern most boundary of the Reilla Trust property. The 12-inch water main shall then be extended west along private roadway "G" between Reilla Trust and CenterPoint Properties to private roadway "F". A 12-inch public water main shall be placed in private roadway "F" and loop back to Airport Way in private roadway "G" planned between Reilla Trust and RCCI PTP properties. If RCCI PTP decides to participate in the Master Plan, A 12-inch public water main shall be placed in private roadway "F" to connect with the 12-inch main in private roadway "I," thus completing a second loop connecting to Airport Way. If determined by the City that a well site is needed, the City shall coordinate with the developers of the Central Phase to determine the best placement for any required well sites.

All on site domestic water lines, irrigation lines and fire lines shall be private and be required to have proper backflow prevention devices at the connection point to the public water system.

#### Sanitary Sewer:

The sewer line shall be extended north along Airport Way per the City of Manteca Master Sanitary Sewer Plan (see **Exhibit 12.2, Utility Plan-Sewer**). The existing 30-inch sewer line in Airport Way shall be extended to the north boundary of the Central Phase (see **Exhibit 13, Phasing Plan**). A 12-inch sewer line shall be extended and stubbed along private roadway "G" at the Reilla Trust and CenterPoint Properties boundaries. In addition, a 15-inch sewer line shall be extended and stubbed along the south private roadway "G" at the north boundary of the RCCI property (see **Exhibit 12.2**). The sewer from the Central Phase will flow via gravity to the existing Union Ranch Pump Station. All on-site sewer within the Central Phase shall be private and drain into the public sewer lines within the public roadways. Any on-site sewer lines that will be public maintained must be placed within a public utility easement.

#### Storm Drain

Developers in the Central Phase shall be required to construct Basin D and Basin C in order to serve the Central Phase (see **Exhibit 12.3, Utility Plan-Storm Drainage**). The main storm drain conveyance feature for the Central Phase is the 40-foot wide drainage channel along the west side of private roadway "F". This drainage channel shall be constructed within the Central Phase from Basin C to Basin D. Basin C will serve the RCCI property and Basin D will serve the CenterPoint and Reilla properties. Storm drainage from Airport Way shall flow into Basin D and Basin C and this will require the basins and the piping system to be within a public utility easement. Basin D and Basin C will be able to function as terminal basins until such time as the basin reaches 50

percent capacity. At this point the construction of the storm drain pump station and outfall line into the SSJID facility shall be required.

On-site storm drainage shall be private with the exception of any line servicing the public roadways or public open space. Low Impact Design Best Management Practices shall be used where feasible in the design of on-site drainage systems. Storm water runoff shall be treated at individual project sites within the North Phase before leaving the site and entering the drainage channel or any other conveyance pipe.

#### SSJID Irrigation:

The Central Phase includes the following existing SSJID facilities: Drain 3, Lateral RGC and Lateral RG (see **Exhibit 12.4, Utility Plan-Storm Drainage**). Drain 3 shall remain as an open drainage ditch. Any crossings of Drain 3 shall not restrict its flow and shall be approved by SSJID. Lateral RGC shall be replaced in place with a new 30-foot SSJID easement that shall be recorded. Lateral RG shall be re-routed as shown in **Exhibit 12.4** and a new 30-foot SSJID easement recorded.

#### Dry Utilities:

Connections shall be made to the existing dry utilities present in Airport Way and all of these improvements shall be coordinated with the various public utility companies (Verizon, PG&E, Comcast, etc.).

#### South Phase Area

The South Phase is the portion of the Master Plan currently owned by CenterPoint Properties and Ed Cardoza and is located directly south of SSJID Drain 3 (see **Exhibit 13**). In developing the South Phase the following improvements shall be constructed by project developers:

#### Public Roadways:

Airport Way and Lathrop Road shall be constructed to their ultimate width on the project side of the road (see Airport Way and Lathrop Road cross sections in **Chapter 2**). The developer of the South Phase shall construct 3 travel lanes in Airport Way closest to the project (one 14-foot local travel lane and two 12-foot travel lanes) as well as one 12-foot travel lane and a 2-foot shoulder on the side opposite the project. The center median shall also be constructed in Airport Way by the developer. The developer shall also construct 2 travel lanes in Lathrop Road closest to the project (one 14-foot local travel lane and one 12-foot travel lane) as well as one 12-foot travel lane and a 2-foot shoulder on the side opposite the project. The center median shall also be constructed in Lathrop Road by the developer. The existing traffic signal at Lathrop Road and Airport Way shall be modified for the new road widths. A new traffic signal shall be constructed at Lathrop Road and the private north-south roadway A (see **Exhibit 11**).

#### Private Roadways:

The main north-south private roadway "A" shall be constructed from Lathrop Road to the south side of the SSJID Drain 3. The east-west private roadway "I" shall be constructed between the Community Commercial and Light Industrial uses from Airport Way to private roadway "A". All other private internal circulation shall be determined depending on site layout and project size and circulation requirements.

#### Water:

Water to service the South Phase for domestic water, fire flow and irrigation shall be from the City of Manteca water system and improvements shall be consistent with the City of Manteca Water Master Plan (see **Exhibit 12.1**). The Master Plan shall be served by a series of 12-inch water mains in grid pattern to provide adequate water pressure. The South Phase shall connect to the existing 12-inch water main in Airport Way. The 12-inch water main shall then be extended west along Lathrop Road to the western most border of the Northwest Airport Way Master Plan area. A 12-inch water main shall be placed in the north-south private roadway "A" and loop back to Airport Way in private roadway "I" between the Community Commercial and Light Industrial uses (see **Exhibit 12.1**). If determined by the City that a well site is needed, the City shall coordinate with the developers of the North Phase to determine the best placement for any required well sites.

All on-site domestic water lines, irrigation lines and fire lines shall be private and be required to have proper backflow prevention devices at the connection point to the public water system.

#### Sanitary Sewer:

An 18-inch sewer line shall be constructed in Airport Way to connect to the existing pump station located approximately 600-feet south of Daisywood Drive. This line shall be extended to a 12-inch line in east-west private roadway "I" and will serve the South Phase (see **Exhibit 12.2**). The City of Manteca Sewer Master Plan requires the construction of the ultimate 48-inch sewer trunk line in Lathrop Road (see **Exhibit 12.2**). Sewerage from the South Phase will flow via gravity to the existing pump station. All on-site sewer within the North Phase shall be private and drain into the public sewer lines within the public roadways. Any sewer on-site that will be public maintained must be placed within a public utility easement.

#### Storm Drain

Developers of the South Phase will be required to construct Basin A and B in order to serve the South Phase (see **Exhibit 12.3**). The main storm drain conveyance feature for the South Phase is the 40-foot wide drainage channel along the west side of north-south private roadway "F". This drainage channel shall be extended within the South Phase to connect with Basin B. Storm Drainage from Airport Way and Lathrop Road shall flow into Basins A and B and

this will require the basins and the piping system to be within a public utility easement. Basins A and B will be able to function as terminal basins until such time as the basin is at 50 percent capacity. At this point construction for the storm drain pump station and outfall line into the SSJID facility will be required. On-site storm drainage shall be private with the exception of any line servicing the public roadways or public open space. Low Impact Design Best Management Practices shall be used where feasible in the design of on-site drainage systems. Storm water runoff shall be treated at individual project sites within the North Phase before leaving the site and entering the drainage channel or any other conveyance pipe.

**SSJID Irrigation:**

The South Phase includes the following SSJID facilities: Lateral T and Drain 3 (see **Exhibit 12.4**). Lateral T shall be relocated to private roadway "I" between the Community Commercial and Light Industrial uses and shall be placed within a 30- foot SSJID easement. Drain 3 shall remain as an open drainage ditch. Any crossings of Drain 3 shall not restrict its flow and shall be approved by SSJID.

**Dry Utilities:**

Connections shall be made to the existing dry utilities present in Airport Way and all of these improvements shall be coordinated with the various public utility companies. (Verizon, PG&E, Comcast, etc.)

## **B. Cost Estimates**

**Preliminary Opinion of Probable Costs**  
**Northwest Airport Way Master Plan**  
**North Phase**

**1. AIRPORT WAY - 4176 LINEAR FEET**

Item	Description	Quantity	Unit Cost	Total
<b>A. Site Preparation</b>				
1.	Site Clearing and Grubbing	9 AC	\$ 2,000.00	\$ 17,300.00
2.	Grading	9,002 CY	\$ 6.00	\$ 54,013.64
3.	Dewatering	1 LS	\$ 100,000.00	\$ 100,000.00
<b>SUBTOTAL</b>				<b>\$ 171,313.64</b>
<b>B. Storm Drain</b>				
1.	Curb Inlets Caltrans Type "GO"	7 EA	\$ 2,800.00	\$ 19,600.00
2.	12" Storm Drain Laterals	140 LF	\$ 29.00	\$ 4,060.00
3.	Std. Storm Drain Manhole	7 EA	\$ 2,800.00	\$ 19,600.00
4.	Stub & Plug	7 EA	\$ 1,000.00	\$ 7,000.00
<b>SUBTOTAL</b>				<b>\$ 50,260.00</b>
<b>C. Sanitary Sewer</b>				
1.	8" Sewer	55 LF	\$ 28.00	\$ 1,540.00
2.	15" Sewer	55 LF	\$ 45.00	\$ 2,475.00
3.	24" Sewer	4,218 LF	\$ 70.00	\$ 295,260.00
4.	Stub & Plug	3 EA	\$ 1,000.00	\$ 3,000.00
5.	Large Diameter Sewer Manhole	8 EA	\$ 4,500.00	\$ 36,000.00
6.	Connect to Existing Sewer	1 EA	\$ 5,000.00	\$ 5,000.00
<b>SUBTOTAL</b>				<b>\$ 343,275.00</b>
<b>D. Water System</b>				
1.	12" Water	4,290 LF	\$ 32.00	\$ 137,280.00
2.	12" Butterfly Valve	9 EA	\$ 2,400.00	\$ 21,600.00
3.	Hydrant, Bury, & Gate Valve Extension	10 EA	\$ 3,700.00	\$ 37,000.00
4.	1-1/2" Irrigation Service	6 EA	\$ 1,600.00	\$ 9,600.00
5.	Connect to Exist. Water	1 EA	\$ 3,200.00	\$ 3,200.00
<b>SUBTOTAL</b>				<b>\$ 208,680.00</b>

**E. Concrete**

1.	6" vertical Curb & Gutter	4,035	LF	\$	18.00	\$	72,630.00	
2.	4" Sidewalk	32,280	SF	\$	3.50	\$	112,980.00	
3.	8" Median Curb	7,941	LF	\$	26.00	\$	206,466.00	
4.	Commercial Driveway	3	EA	\$	5,000.00	\$	15,000.00	
5.	Curb Returns	5	EA	\$	2,000.00	\$	10,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 417,076.00</b>

**F. Paving**

1.	4.5" AC / 8" AB	232,409	SF	\$	3.90	\$	906,395.10	
3.	Pavement Removal	186,447	SF	\$	1.25	\$	233,058.75	
4.	Sawcut	174	LF	\$	1.50	\$	261.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 1,139,714.85</b>

**G. Electroliers, Signage & Striping**

1.	200 Watt Single Arm H.P.S. Electrolier	17	EA	\$	3,000.00	\$	51,000.00	
2.	Striping & Signage	1	LS	\$	15,000.00	\$	15,000.00	
3.	Traffic Signal	1	S	\$	200,000.00	\$	200,000.00	
4.	Traffic Signal Modification	1	LS	\$	100,000.00	\$	100,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 366,000.00</b>

**H. Miscellaneous**

1.	Install Barricade	5	EA	\$	1,200.00	\$	6,000.00	
2.	Landscaping (Streetscape)	89,617	SF	\$	5.00	\$	448,085.00	
3.	4" Sch. 40 Sleeves	1,200	LF	\$	20.00	\$	24,000.00	
4.	Traffic Control	1	LS	\$	25,000.00	\$	25,000.00	
5.	Power Pole Removal	16	EA	\$	750.00	\$	12,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 515,085.00</b>

**I. Irrigation**

1.	Removal of Existing Irrigation Piping	220	LF	\$	12.00	\$	2,640.00	
2.	42" RGRCP	110	LF	\$	90.00	\$	9,900.00	
3.	Modify Control Box	1	EA	\$	10,000.00	\$	10,000.00	
4.	Connect to Existing	2	EA	\$	2,000.00	\$	4,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 26,540.00</b>

**J. FEES**

1.	Engineering	6	%	\$	3,237,944	\$	194,276.67	
2.	Construction Staking	4	%	\$	3,237,944	\$	129,517.78	
3.	Construction / Bid Administration	2	%	\$	3,237,944	\$	64,758.89	
4.	Plan Check and Inspection Fees	2	%	\$	3,237,944	\$	64,758.89	
5.	Bonding	2	%	\$	3,237,944	\$	64,758.89	
							<b>SUBTOTAL</b>	<b>\$ 518,071.12</b>

**TOTAL - AIRPORT WAY \$ 3,756,015.61**

**2. ROTH ROAD - 1724 LINEAR FEET****K. Site Preparation**

1.	Site Clearing and Grubbing	2	AC	\$	2,000.00	\$	4,820.00	
2.	Grading	3,286	CY	\$	6.00	\$	19,716.67	
							<b>SUBTOTAL</b>	<b>\$ 24,536.67</b>

**L. Storm Drain**

1.	Curb Inlets Caltrans Type "GO"	4	EA	\$	2,800.00	\$	11,200.00	
2.	12" Storm Drain Laterals	36	LF	\$	29.00	\$	1,044.00	
3.	Std. Storm Drain Manhole	4	EA	\$	2,800.00	\$	11,200.00	
4.	Stub & Plug	4	EA	\$	1,000.00	\$	4,000.00	
							<b>SUBTOTAL</b>	<b>\$ 27,444.00</b>

**M. Sanitary Sewer**

1.	8" Sewer	1,432	LF	\$	28.00	\$	40,096.00	
2.	Stub & Plug	1	EA	\$	1,000.00	\$	1,000.00	
3.	Std. Sewer Manhole	5	EA	\$	3,000.00	\$	15,000.00	
4.	Connect to Existing Sewer	1	EA	\$	5,000.00	\$	5,000.00	
							<b>SUBTOTAL</b>	<b>\$ 61,096.00</b>

**N. Water System**

1.	12" Water	1,784	LF	\$	32.00	\$	57,088.00	
2.	12" Butterfly Valve	5	EA	\$	2,400.00	\$	12,000.00	
3.	Hydrant, Bury, & Gate Valve Extension	4	EA	\$	3,700.00	\$	14,800.00	
4.	1-1/2" Irrigation Service	3	EA	\$	1,600.00	\$	4,800.00	
5.	Temporary Blow-off	2	EA	\$	3,200.00	\$	6,400.00	
6.	Connect to Exist. Water	1	EA	\$	3,200.00	\$	3,200.00	
							<b>SUBTOTAL</b>	<b>\$ 98,288.00</b>

**O. Concrete**

1.	6" vertical Curb & Gutter	1,601	LF	\$	18.00	\$	28,818.00	
2.	Commercial Driveway	2	EA	\$	5,000.00	\$	10,000.00	
3.	Curb Returns	3	EA	\$	2,000.00	\$	6,000.00	
							<b>SUBTOTAL</b>	<b>\$ 44,818.00</b>

**P. Paving**

1.	4.5" AC / 8" AB	88,725	SF	\$	3.90	\$	346,027.50	
2.	Pavement Removal	59,235	SF	\$	1.25	\$	74,043.75	
3.	Sawcut	97	LF	\$	1.50	\$	145.50	
							<b>SUBTOTAL</b>	<b>\$ 420,216.75</b>

**Q. Electroliers, Signage & Striping**

1.	200 Watt Single Arm H.P.S. Electrolier	7	EA	\$	3,000.00	\$	21,000.00	
2.	Striping & Signage	1	LS	\$	15,000.00	\$	15,000.00	
3.	Traffic Signal Modification	1	LS	\$	100,000.00	\$	100,000.00	
							<b>SUBTOTAL</b>	<b>\$ 136,000.00</b>

**R. Miscellaneous**

1.	Install Barricade	2	EA	\$	1,200.00	\$	2,400.00	
2.	Landscaping (Streetscape)	14,409	SF	\$	5.00	\$	72,045.00	
3.	4" Sch. 40 Sleeves	240	LF	\$	20.00	\$	4,800.00	
4.	Traffic Control	1	LS	\$	25,000.00	\$	25,000.00	
5.	Power Pole Removal	10	EA	\$	750.00	\$	7,500.00	
							<b>SUBTOTAL</b>	<b>\$ 111,745.00</b>

**S. FEES**

1.	Engineering	6	%	\$	924,144	\$	55,448.67	
2.	Construction Staking	4	%	\$	924,144	\$	36,965.78	
3.	Construction / Bid Administration	2	%	\$	924,144	\$	18,482.89	
4.	Plan Check and Inspection Fees	2	%	\$	924,144	\$	18,482.89	
5.	Bonding	2	%	\$	924,144	\$	18,482.89	
							<b>SUBTOTAL</b>	<b>\$ 147,863.11</b>

**TOTAL - ROTH ROAD** **\$ 1,072,007.52**

**TOTAL NORTH PHASE** **\$ 4,828,023.14**

**15% CONTINGENCY** **\$ 724,203.47**

**GRAND TOTAL** **\$ 5,552,226.61**

**Preliminary Opinion of Probable Costs**  
**Northwest Airport Way Master Plan**  
**Central Phase**

**1. AIRPORT WAY - 4478 LINEAR FEET**

Item	Description	Quantity	Unit Cost	Total
<b>A. Site Preparation</b>				
1.	Site Clearing and Grubbing	8 AC	\$ 2,000.00	\$ 16,440.00
2.	Grading	8,733 CY	\$ 6.00	\$ 52,399.19
3.	Dewatering	1 LS	\$ 100,000.00	\$ 100,000.00
<b>SUBTOTAL</b>				<b>\$ 168,839.19</b>
<b>B. Storm Drain</b>				
1.	Curb Inlets Caltrans Type "GO"	8 EA	\$ 2,800.00	\$ 22,400.00
2.	12" Storm Drain Laterals	160 LF	\$ 29.00	\$ 4,640.00
3.	Std. Storm Drain Manhole	8 EA	\$ 2,800.00	\$ 22,400.00
4.	Stub & Plug	8 EA	\$ 1,000.00	\$ 8,000.00
<b>SUBTOTAL</b>				<b>\$ 57,440.00</b>
<b>C. Sanitary Sewer</b>				
1.	8" Sewer	55 LF	\$ 28.00	\$ 1,540.00
2.	24" Sewer	1,200 LF	\$ 70.00	\$ 84,000.00
3.	30" Sewer	2,580 LF	\$ 90.00	\$ 232,200.00
4.	Stub & Plug	2 EA	\$ 1,000.00	\$ 2,000.00
5.	Large Diameter Sewer Manhole	8 EA	\$ 4,500.00	\$ 36,000.00
6.	Connect to Existing Sewer	1 EA	\$ 5,000.00	\$ 5,000.00
<b>SUBTOTAL</b>				<b>\$ 360,740.00</b>
<b>D. Water System</b>				
1.	12" Water	3,777 LF	\$ 32.00	\$ 120,864.00
2.	12" Butterfly Valve	8 EA	\$ 2,400.00	\$ 19,200.00
3.	Hydrant, Bury, & Gate Valve Extension	9 EA	\$ 3,700.00	\$ 33,300.00
4.	1-1/2" Irrigation Service	6 EA	\$ 1,600.00	\$ 9,600.00
5.	Connect to Exist. Water	1 EA	\$ 3,200.00	\$ 3,200.00
<b>SUBTOTAL</b>				<b>\$ 186,164.00</b>

**E. Concrete**

1.	6" vertical Curb & Gutter	4,374	LF	\$	18.00	\$	78,732.00	
2.	4" Sidewalk	34,992	SF	\$	3.50	\$	122,472.00	
3.	8" Median Curb	7,268	LF	\$	26.00	\$	188,968.00	
4.	Commercial Driveway	7	EA	\$	5,000.00	\$	35,000.00	
5.	Curb Returns	4	EA	\$	2,000.00	\$	8,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 433,172.00</b>

**F. Paving**

1.	4.5" AC / 8" AB	224,249	SF	\$	3.90	\$	874,571.10	
3.	Pavement Removal	131,810	SF	\$	1.25	\$	164,762.50	
4.	Sawcut	875	LF	\$	1.50	\$	1,312.50	
							<b><i>SUBTOTAL</i></b>	<b>\$ 1,040,646.10</b>

**G. Electroliers, Signage & Striping**

1.	200 Watt Single Arm H.P.S. Electrolier	18	EA	\$	3,000.00	\$	54,000.00	
2.	Striping & Signage	1	LS	\$	20,000.00	\$	20,000.00	
3.	Traffic Signal Modification	1	LS	\$	150,000.00	\$	150,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 224,000.00</b>

**H. Miscellaneous**

1.	Install Barricade	9	EA	\$	1,200.00	\$	10,800.00	
2.	Landscaping (Streetscape)	72,393	SF	\$	5.00	\$	361,965.00	
3.	4" Sch. 40 Sleeves	1,000	LF	\$	20.00	\$	20,000.00	
4.	Traffic Control	1	LS	\$	25,000.00	\$	25,000.00	
5.	Power Pole Removal	22	EA	\$	750.00	\$	16,500.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 434,265.00</b>

**I. Irrigation**

1.	Removal of Existing Irrigation Piping	110	LF	\$	12.00	\$	1,320.00	
2.	42" RGRCP	110	LF	\$	90.00	\$	9,900.00	
3.	Connect to Existing	2	EA	\$	2,000.00	\$	4,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 15,220.00</b>

**J. FEES**

1.	Engineering	6	%	\$	2,920,486	\$	175,229.18
2.	Construction Staking	4	%	\$	2,920,486	\$	116,819.45
3.	Construction / Bid Administration	2	%	\$	2,920,486	\$	58,409.73
4.	Plan Check and Inspection Fees	2	%	\$	2,920,486	\$	58,409.73
5.	Bonding	2	%	\$	2,920,486	\$	58,409.73

***SUBTOTAL***      **\$ 467,277.81**

**TOTAL**      **\$ 3,387,764.10**

**15% CONTINGENCY**      **\$ 508,164.61**

**GRAND TOTAL**      **\$ 3,895,928.71**

**Preliminary Opinion of Probable Costs**  
**Northwest Airport Way Master Plan**  
**South Phase**

**1. AIRPORT WAY - 1950 LINEAR FEET**

Item	Description	Quantity	Unit Cost	Total
<b>A. Site Preparation</b>				
1.	Site Clearing and Grubbing	4 AC	\$ 2,000.00	\$ 7,200.00
2.	Grading	4,295 CY	\$ 6.00	\$ 25,772.23
3.	Dewatering (P.F.I.P.)	1 LS	\$ 100,000.00	\$ 100,000.00
<b>SUBTOTAL</b>				<b>\$ 132,972.23</b>
<b>B. Storm Drain</b>				
1.	Curb Inlets Caltrans Type "GO"	4 EA	\$ 2,800.00	\$ 11,200.00
2.	12" Storm Drain Laterals	80 LF	\$ 29.00	\$ 2,320.00
3.	Std. Storm Drain Manhole	4 EA	\$ 2,800.00	\$ 11,200.00
4.	Stub & Plug	4 EA	\$ 1,000.00	\$ 4,000.00
<b>SUBTOTAL</b>				<b>\$ 28,720.00</b>
<b>C. Sanitary Sewer</b>				
1.	18" Sewer	413 LF	\$ 55.00	\$ 22,715.00
2.	Sewer Manhole	2 EA	\$ 2,500.00	\$ 5,000.00
3.	Connect to Existing Sewer (P.F.I.P.)	1 EA	\$ 5,000.00	\$ 5,000.00
<b>SUBTOTAL</b>				<b>\$ 32,715.00</b>
<b>D. Water System</b>				
1.	12" Water	75 LF	\$ 32.00	\$ 2,400.00
2.	12" Butterfly Valve	2 EA	\$ 2,400.00	\$ 4,800.00
3.	Temporary Blow-off	1 EA	\$ 2,000.00	\$ 2,000.00
4.	1-1/2" Irrigation Service	5 EA	\$ 1,600.00	\$ 8,000.00
5.	Connect to Exist. Water	1 EA	\$ 3,200.00	\$ 3,200.00
<b>SUBTOTAL</b>				<b>\$ 20,400.00</b>

**E. Concrete**

1.	6" vertical Curb & Gutter	1,843	LF	\$	18.00	\$	33,177.60	
2.	4" Sidewalk	14,746	SF	\$	3.50	\$	51,609.60	
3.	8" Median Curb	2,818	LF	\$	26.00	\$	73,268.00	
4.	Commercial Driveway	2	EA	\$	5,000.00	\$	10,000.00	
5.	Curb Returns	3	EA	\$	2,000.00	\$	6,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 174,055.20</b>

**F. Paving**

1.	4.5" AC / 8" AB	111,109	SF	\$	3.90	\$	433,325.10	
3.	Pavement Removal	75,771	SF	\$	1.25	\$	94,713.75	
4.	Sawcut	838	LF	\$	1.50	\$	1,257.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 529,295.85</b>

**G. Electroliers, Signage & Striping**

1.	200 Watt Single Arm H.P.S. Electrolier	9	EA	\$	3,000.00	\$	27,000.00	
2.	Striping & Signage	1	LS	\$	15,000.00	\$	15,000.00	
3.	Traffic Signal Modification	1	LS	\$	100,000.00	\$	100,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 142,000.00</b>

**H. Miscellaneous**

1.	Install Barricade	3	EA	\$	1,200.00	\$	3,600.00	
2.	Landscaping (Streetscape)	30,438	SF	\$	5.00	\$	152,192.00	
3.	4" Sch. 40 Sleeves	400	LF	\$	20.00	\$	8,000.00	
4.	Traffic Control	1	LS	\$	25,000.00	\$	25,000.00	
5.	Power Pole Removal	10	EA	\$	750.00	\$	7,500.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 196,292.00</b>

**I. Irrigation**

1.	Removal of Existing Irrigation Piping	110	LF	\$	12.00	\$	1,320.00	
2.	42" RGRCP	110	LF	\$	90.00	\$	9,900.00	
3.	Connect to Existing	2	EA	\$	2,000.00	\$	4,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 15,220.00</b>

**J. FEES**

1.	Engineering	6	%	\$	1,271,670	\$	76,300.22	
2.	Construction Staking	4	%	\$	1,271,670	\$	50,866.81	
3.	Construction / Bid Administration	2	%	\$	1,271,670	\$	25,433.41	
4.	Plan Check and Inspection Fees	2	%	\$	1,271,670	\$	25,433.41	
5.	Bonding	2	%	\$	1,271,670	\$	25,433.41	
							<b><i>SUBTOTAL</i></b>	<b>\$ 203,467.25</b>

**TOTAL - AIRPORT WAY                    \$ 1,475,137.53**

**2. LATHROP ROAD - 1746 LINEAR FEET****K. Site Preparation**

1.	Site Clearing and Grubbing	3	AC	\$	2,000.00	\$	6,080.00	
2.	Grading	2,840	CY	\$	6.00	\$	17,041.33	
3.	Dewatering (P.F.I.P.)	1	LS	\$	100,000.00	\$	100,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 123,121.33</b>

**L. Storm Drain**

1.	Curb Inlets Caltrans Type "GO"	3	EA	\$	2,800.00	\$	8,400.00	
2.	12" Storm Drain Laterals	60	LF	\$	29.00	\$	1,740.00	
3.	Std. Storm Drain Manhole	3	EA	\$	2,800.00	\$	8,400.00	
4.	Stub & Plug	3	EA	\$	1,000.00	\$	3,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 21,540.00</b>

**M. Water System**

1.	12" Water	1,775	LF	\$	32.00	\$	56,800.00	
2.	12" Butterfly Valve	4	EA	\$	2,400.00	\$	9,600.00	
3.	Hydrant, Bury, & Gate Valve Extension	5	EA	\$	3,700.00	\$	18,500.00	
4.	1-1/2" Irrigation Service	4	EA	\$	1,600.00	\$	6,400.00	
5.	Connect to Exist. Water	1	EA	\$	3,200.00	\$	3,200.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 94,500.00</b>

**N. Concrete**

1.	6" vertical Curb & Gutter	1,740	LF	\$	18.00	\$	31,320.00	
2.	4" Sidewalk	8,700	SF	\$	3.50	\$	30,450.00	
3.	8" Median Curb	3,199	LF	\$	26.00	\$	83,174.00	
4.	Commercial Driveway	1	EA	\$	5,000.00	\$	5,000.00	
5.	Curb Returns	3	EA	\$	2,000.00	\$	6,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 155,944.00</b>

**O. Paving**

1.	4.5" AC / 8" AB	73,815	SF	\$	3.90	\$	287,878.50	
3.	Pavement Removal	86,511	SF	\$	1.25	\$	108,138.75	
4.	Sawcut	5,560	LF	\$	1.50	\$	8,340.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 404,357.25</b>

**P. Electroliers, Signage & Striping**

1.	200 Watt Single Arm H.P.S. Electrolier	8	EA	\$	3,000.00	\$	24,000.00	
2.	Striping & Signage	1	LS	\$	12,000.00	\$	12,000.00	
3.	Traffic Signal	1	S	\$	200,000.00	\$	200,000.00	
4.	Traffic Signal Modification	1	LS	\$	100,000.00	\$	100,000.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 336,000.00</b>

**Q. Miscellaneous**

1.	Install Barricade	5	EA	\$	1,200.00	\$	6,000.00	
2.	Landscaping (Streetscape)	45,091	SF	\$	5.00	\$	225,455.00	
3.	4" Sch. 40 Sleeves	500	LF	\$	20.00	\$	10,000.00	
4.	Traffic Control	1	LS	\$	25,000.00	\$	25,000.00	
5.	Power Pole Removal	13	EA	\$	750.00	\$	9,750.00	
							<b><i>SUBTOTAL</i></b>	<b>\$ 276,205.00</b>

**R. FEES**

1.	Engineering	6	%	\$	1,411,668	\$	84,700.06
2.	Construction Staking	4	%	\$	1,411,668	\$	56,466.70
3.	Construction / Bid Administration	2	%	\$	1,411,668	\$	28,233.35
4.	Plan Check and Inspection Fees	2	%	\$	1,411,668	\$	28,233.35
5.	Bonding	2	%	\$	1,411,668	\$	28,233.35

***SUBTOTAL***      **\$ 225,866.81**

**TOTAL - LATHROP ROAD**      **\$ 1,637,534.40**

**TOTAL SOUTH PHASE**      **\$ 3,112,671.92**

**15% CONTINGENCY**      **\$ 466,900.79**

**GRAND TOTAL**      **\$ 3,579,572.71**