

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

DESIGN CONCEPT REPORT

75TH AVENUE  
(GLENDALE AVENUE-OLIVE AVENUE)

MARICOPA COUNTY, ARIZONA

Work Order No. 68843



November 1994

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Prepared by:

*Burgess & Niple, Inc.*

5025 East Washington Street, Suite 212  
Phoenix, AZ 85034

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## **1.0 INTRODUCTION**

### **1.1 Project Description**

The proposed project will upgrade 75th Avenue to a four-lane arterial roadway from Glendale Avenue north to Olive Avenue, a distance of approximately 3.2 kilometers (see Figure 1.1). This report addresses the design concepts for the proposed project. The project is partially located within jurisdictions of Maricopa County, the City of Glendale, and the City of Peoria. The Maricopa County Department of Transportation (MCDOT), as the lead agency, has inter-governmental agreements with the Cities of Glendale and Peoria for design and construction of the portions of 75th Avenue within their respective jurisdictions.

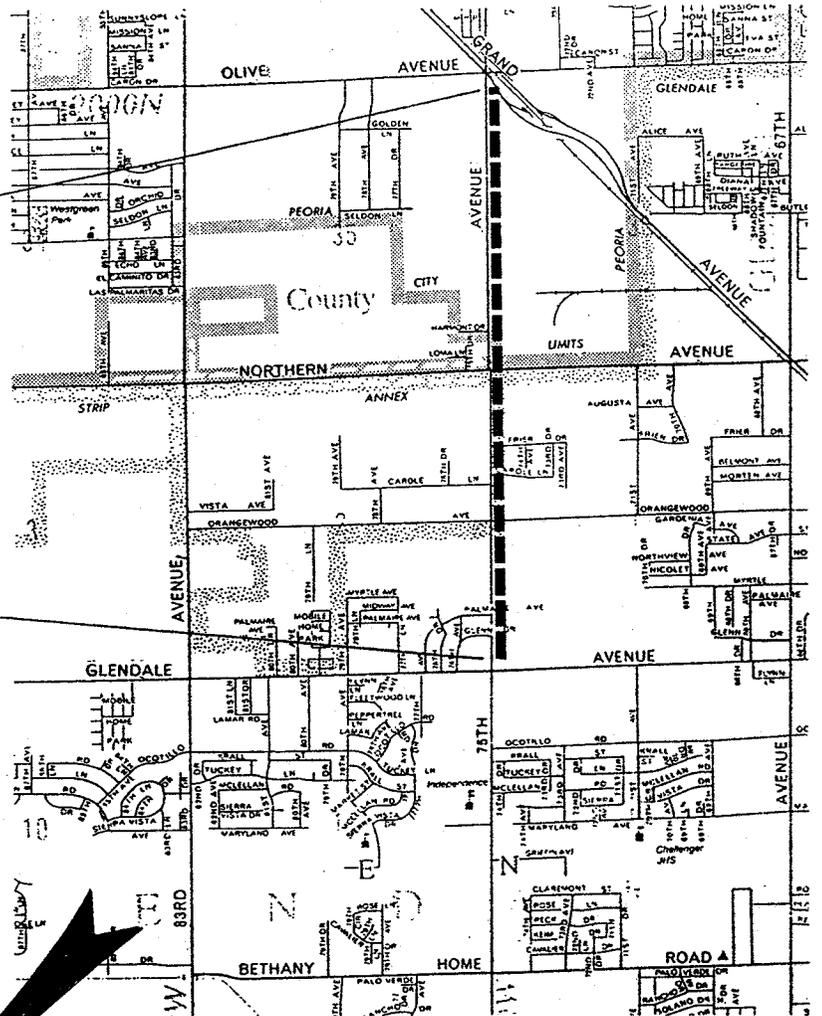
This project is scheduled to be constructed in FY 1996-97.

### **1.2 Purpose of the Project**

The purpose of the project is to improve the operational capacity, drainage and safety of 75th Avenue. Alternatives have been investigated to provide a preliminary design which meets the goals of the project, while minimizing the impacts on utilities and property owners.

End Project

Begin Project



# PROJECT MAP



## VICINITY MAP

## 2.0 CHARACTERISTICS OF THE CORRIDOR

### 2.1 Characteristics of the Roadway

Existing 75th Avenue, between Glendale Avenue and Olive Avenue, is a section line road functioning as a rural principal arterial in an urbanizing area. It is generally a two-lane asphalt pavement. The road was paved in 1976 with 50 millimeters of penetration chip seal on 200 millimeters of base. Existing traffic volumes are approaching 10,000 vehicles per day. The intersection at Olive Avenue is a six-legged intersection, with Grand Avenue (US Routes 60 and 89) being the third roadway. Immediately north of the intersection with Olive and Grand Avenues, 75th Avenue intersects at-grade with the Atchison, Topeka and Santa Fe Railroad.

The intersections at Glendale Avenue, Northern Avenue and Olive Avenue are signalized.

The existing posted speed limit is 40 miles per hour (mph) or 64 kilometers per hour (kph) between Glendale and Northern Avenues and 45 mph (72 kph) between Northern and Olive Avenues.

The existing pavement south of this project is two lanes in each direction without curbs or sidewalks. The existing pavement north of this project is two lanes in each direction plus a continuous center left turn lane, curbs and gutters, and sidewalk on the east side only.

The intersections at Glendale Avenue and Olive Avenue have been improved. The north approach to Glendale Avenue has two lanes in each direction plus a left turn lane and curbs and gutters. The south approach to Olive Avenue has two lanes in each direction plus a left turn lane, curbs and gutters, and sidewalks adjacent to the curb.

The Northern Avenue and Orangewood Avenue intersections have been widened to provide left turn lanes for both north bound and south bound traffic.

The east side of 75th Avenue has been widened at two locations. The first starts approximately 200 meters north of Glendale Avenue and is approximately 160 meters long. The second widening starts approximately 150 meters north of Orangewood Avenue and is approximately 240 meters long. The widened half street consists of two and one-half lanes of pavement, curb and gutter, and sidewalk adjacent to the curb.

Present planning for improving Grand Avenue includes relocating and elevating Grand Avenue to provide a grade separation with 75th Avenue north of existing Grand Avenue and the railroad.

The horizontal alignment of 75th Avenue is straight and generally centered on a section line for the length of the project. The vertical alignment is relatively flat to fit the topography of the adjacent land. The profile slope varies from 0.08 to 0.67 percent. The slope from beginning to end of project is 0.19 percent.

Many driveways exist to provide access to the adjacent properties. While there is no control of access to 75th Avenue, on much of the project, driveway access is limited by the location of crossings over the open irrigation ditches.

There are no bridges or major culverts and storm drains. The project is not located within a floodplain and will not impact surface water quality. The general slope of the natural ground along 75th Avenue, from Glendale Avenue to Northern Avenue, is northeast to southwest. From Northern Avenue to Olive Avenue, the slope is more nearly east to west.

Accident summaries for 75th Avenue, Glendale Avenue to Olive Avenue, for the period January 1, 1991 through March 31, 1994 were provided by the Maricopa County Highway Department. The summaries show ten traffic accidents at locations other than the intersections with Glendale Avenue, Orangewood Avenue, Northern Avenue, or Olive Avenue. Of these ten accidents, six involved vehicles traveling in the same direction. Two accidents involved single vehicles, and two involved vehicles traveling in opposite directions.

During this same time period, twelve accidents occurred at the 75th Avenue - Northern Avenue intersection. Five involved vehicles traveling in the same direction; four were southbound and one was westbound. Four accidents involved vehicles turning left. The remaining three accidents involved vehicles running a red light.

At the Orangewood Avenue intersection with 75th Avenue, four accidents occurred during the specified time period. Of the four accidents, one involved vehicles traveling in the same direction. The remaining three accidents involved failure to yield at a stop sign.

## 2.2 Physical and Natural Environment

### A. Topography

The land adjacent to the project is very flat. Approximately 50 percent of the land is presently irrigated farm land and nearly all was farmed at one time.

### B. Vegetation

No protected plants have been identified in the corridor. Since all the land adjacent to the project has been disturbed in the past by farming or other development, no impact on natural vegetation or wetlands is expected.

### C. Wildlife

No threatened, endangered or other special status species have been identified in the vicinity of the project, nor is significant adverse impact to wildlife resources expected.

### D. Noise and Air Quality

The project is in the non-attainment area for particulates ( $PM_{10}$ ), Carbon Monoxide (CO), and Ozone ( $O_3$ ). The proposed improvements are included in the Maricopa Association of Governments (MAG) Transportation Improvement Program (TIP), which is an approved, conforming plan. The project corridor is a mix of residential, industrial, farm and commercial properties and roadway traffic noise is not expected to be a problem.

### E. Hazardous Materials

A hazardous materials investigation was performed along the 75th Avenue alignment corridor to ensure that Maricopa County is informed, to the extent reasonably possible, of the environmental status of the proposed corridor. The assessment included site reconnaissance, records review, and interviews.

The non-intrusive site review did not reveal any evidence of past or present illicit uses. The corridor is currently designated and used for municipal purposes including a two lane arterial roadway and utility routing. Aerial photographs taken in 1973, 1984, and 1994 were reviewed. These did not reveal any evidence of illicit activities or attempts to conceal environmentally sensitive conditions.

A review of federal and state records was performed to identify historical environmental conditions on the corridor and surrounding properties. This search was performed over an area that extended one mile in all directions from the proposed corridor alignment. This distance exceeds the requirements of American Society for Testing Materials (ASTM) E1527 for environmental search distances in most cases. The data search identified the following environmental conditions within and around the proposed corridor.

TABLE 2.1 - ENVIRONMENTAL CONDITIONS <sup>(1)</sup>					
LOCATION	CERCLIS	LUST	UST	RCRIS-SQG	RCRIS-LQG
Assessed Corridor	0	0	0	0	0
Adjacent Site	1	1	1	2	0
0 - 0.40 km	0	1	3	0	1
0.40 km - 0.80 km	1	0	1	0	2
0.80 km - 1.60 km	0	7	13	11	0
Total	2	9	18	13	3

<sup>(1)</sup> Definitions of acronyms are included in the appendix.

No hazardous conditions were identified within the proposed corridor. However, five potential hazardous conditions were identified adjacent to the corridor. The CERCLIS site that was identified adjacent to the corridor has been assessed by the Environmental Protection Agency (EPA). The EPA determined that no further action was necessary because no hazard was identified. The LUST site that was identified adjacent to the corridor is located at 7504 West Glendale Avenue. The preliminary site assessment report was inconclusive and the Arizona Department of Environmental Quality (ADEQ) has indicated that further assessment is required. The site is listed as a Priority 2 site for remediation. Precautionary efforts to minimize the potential damage included initial remediation by vapor extraction. It has yet to be determined if the contaminate plume is isolated in the soil or extends into the groundwater. The UST site that

was identified adjacent to the corridor stores automotive fuels. There are no indications that any leaks exist. The RCRIS-SQG sites identified adjacent to the corridor have not had any reported spills or leaks.

The results of the hazardous materials review for this corridor do not appear to indicate that there are any environmental reasons that the proposed corridor improvements should not proceed. The area of concern is the LUST site located on the south end of the corridor, and it is being monitored by ADEQ through Maricopa County. If remediation by vapor extraction is successful and contamination is limited to the soil immediately adjacent to the storage tank this issue becomes moot. Additional documentation of this review is included as Appendix A.

## 2.3 Socioeconomic Environment

### A. Land Use

Existing land uses in the project corridor are single family residential, multi-family residential, rural residential, commercial and industrial. Approximately 50 percent of the land is currently farmed. From Glendale Avenue to Orangewood Avenue, the 75th Avenue Corridor is mostly zoned for multi-family residential. It is zoned for a shopping center and general commercial area at Glendale Avenue.

At Orangewood Avenue, there is single family residential zoning on the west side of 75th Avenue to Northern Avenue. Further north, on the west side, it is zoned for rural-residential, heavy industrial and business park uses.

The east side of 75th Avenue, between Orangewood Avenue and Northern Avenue, is zoned for light industrial use. The zoning is for business park/industrial north of Northern Avenue.

B. Socioeconomics

Ten businesses are located in the corridor. They are equally divided between service related and manufacturing related and consist of a gas station, a nursery and garden center, a power generating plant, two automobile service shops, a roof truss manufacturer, a propane gas supplier, and three other industries related to glass products, boilers and wastewater treatment components.

Existing 75th Avenue is an arterial street. Improvements within the existing corridor are not expected to cause significant adverse impacts to existing social or economic conditions. The project; with its continuous left turn lane, curb and gutter, and sidewalks; will improve access and make businesses more attractive to the public.

C. Right-of-Way

The width of existing right-of-way is nonuniform. West of the section line, it varies from 10.058 to 19.812 meters. The width east of the section line also varies from 10.058 to 19.812 meters; however, the east and west sides are not symmetrical.

The properties adjacent to the corridor are privately owned. There are no state or federal lands.

D. Utilities

The following is a list of the utility corridors and the utilities located in each corridor:

75th Avenue -	City of Glendale water lines (some are abandoned)
	City of Peoria water lines
	City of Glendale sewer lines
	City of Peoria sewer lines
	Southwest Gas Corp. gas lines
	US West telephone lines (underground and overhead)
	APS electric lines (overhead)
	SRP electric lines (underground and overhead)
	SRP steam line

	Dimension Cable television lines (overhead)
	Salt River Valley Water Users Association (SRVWUA)
	irrigation lines (underground and open channel)
Glenn Drive -	City of Glendale water line
Palmaire Avenue -	City of Glendale water line
Orangewood Avenue -	City of Glendale water lines
	Southwest Gas Corp. gas line
	US West telephone lines (underground)
	Dimension Cable television lines (overhead)
	SRVWUA irrigation lines (underground and open channel)
Carol Lane -	US West underground telephone line
	SRP underground electric line
	City of Glendale water lines
	City of Glendale sewer line
Frier Drive -	City of Glendale water line
Northern Avenue -	Southwest Gas Corp. gas lines
	City of Glendale water lines
	El Paso Natural Gas Co. high pressure gas line
	City of Glendale sewer line
	SRVWUA irrigation line (underground)
	City of Peoria sewer line
	US West underground telephone lines
Harmont Drive -	City of Peoria water line
100± meter wide property north of Northern Avenue -	SRP 230 KV transmission line (overhead)

## 2.4 Cultural Resources

No sites of prehistoric or archaeological significance have been identified. One historically significant site has been identified. It will not be impacted by this project. The Maricopa County Department of Transportation report titled "An Archaeological Survey of 75th Avenue from Glendale Avenue to Olive Avenue" is included as Appendix B.

## 3.0 MAJOR DESIGN FEATURES

### 3.1 Design Features

#### A. Engineering

The roadway typical section conforms to the Urban Minor Arterial Road with Bike Lanes as shown in the MCDOT Roadway Design Manual, adopted November 3, 1993, (see Figure 3.1). The roadway width is 22.2 meters, face to face of curbs, and the pavement consists of four travel lanes, a two-way left turn lane and bike lanes on both sides. The two-way left turn lane is 4.2 meters wide; the traveled lanes 3.6 meters wide; and the bike lanes 1.3 meters wide, to the face of gutter.

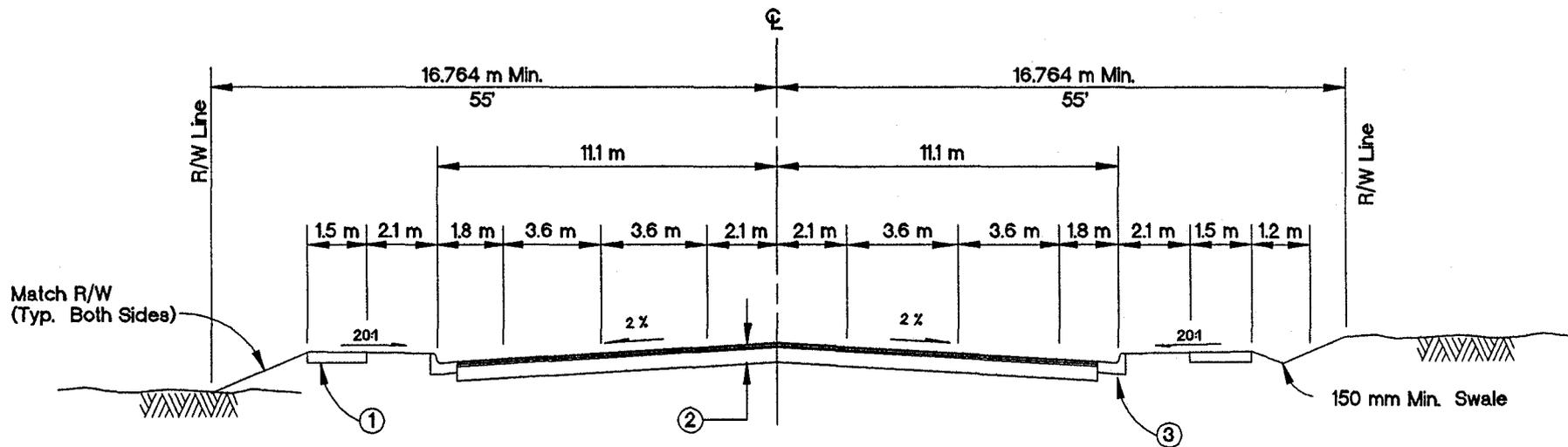
The roadway section includes a 0.6-meter wide curb and gutter on both sides. The curb and gutter is MAG Std. Detail 220, Type A or MCDOT Std. Detail 2030. A 3.6-meter shoulder is provided behind the face of curb at a cross slope of 20:1. Within the shoulder, a 1.5-meter wide sidewalk is located 2.1 meters behind the face of curb on both sides.

This typical section will be used the entire length of the project with the exception of matching the existing improvements at the intersections with Glendale Avenue and Olive Avenue. The design criteria for the project is summarized in Table 3.1.

Traffic control (signals, signing, etc.) during construction will be performed according to the requirements of the Manual on Uniform Traffic Control Devices (MUTCD).

#### B. Drainage

A Glendale-Peoria Area Drainage Master Plan has been prepared by the Flood Control District (FCD) of Maricopa County. The FCD is in the process of initiating preparation of detailed plans for a major storm drain outfall, crossing 75th Avenue at Orangewood Avenue. The outfall will drain from east to west and is an 1830-millimeter pipe east of 75th Avenue and a 2130-millimeter pipe west of 75th Avenue.



URBAN MINOR ARTERIAL ROAD  
WITH BIKE LANES

① TYPICAL LOCATION OF SIDEWALK EXCEPT AT STREET INTERSECTIONS (TYP. BOTH SIDES)

② 100 mm MIN. ASPHALT CONCRETE OVER 250 mm MIN. AGGREGATE BASE OR APPROVED EQUIVALENT.

③ MAG STD DETAIL 220, TYPE A OR MCDOT STD. DETAIL 2030, CURB AND GUTTER (TYP. BOTH SIDES)

**TABLE 3.1 - DESIGN CRITERIA**

Functional Classification	Urban Minor Arterial
Design Vehicle	Intermediate Semitrailer (WB-40)
Vehicle Turning Radius	Min. Design Radius = 12.2 m Min. Inside Radius = 5.8 m
Design Year	2020
Design Speed	90 km/h (Level Terrain)
Pavement Design Life	20-25 years
Pavement Structure	100 mm Min. Asphalt Concrete over 250 mm Min. Aggregate Base
Horizontal Alignment	V = 90 km/h
Vertical Alignment	Vertical curve required when algebraic difference in grade is equal to or greater than 0.3%
Clear Zones	0.46 m Min., 0.91 m desirable
Number of Traffic Lanes	4
Lane Widths (No Median)	Two-Way Left Turn Lane = 4.2 m Travel Lanes = 3.6 m Bike Lanes = 1.3 m
Shoulder Widths	3.6 m
Longitudinal Centerline Road Grades	5% Maximum 0.25% Minimum (desirable) 0.15% Absolute minimum
Transverse Road Slope Shoulder Slopes Graded Side Slopes	2% 20:1 Match Existing, 4:1 Max.
Curb and Gutter Types	MAG Std. Detail 220, Type A or MCDOT Std. Detail 2030
Curb Return Radii at Intersecting Streets (Measured to Face of Curb)	11 m (Orangewood Ave & Northern Ave) 10 m (All other intersecting streets)
Tapers	55:1
Access Control, Driveway and/or Turnout Design	Match existing S-1, M-2, CH-1, CH-2 Type Openings
Intersection and Cross Road Geometry	80° or greater intersecting angle, match existing

**TABLE 3.1 - DESIGN CRITERIA (continued)**

Drainage	10-year runoff contained within curbs. Maintain one 3.6 m dry driving lane, each direction. 100-year runoff to be contained below finished floor of buildings Q max = 3 cms d max = 0.2 m above centerline of street V max = 3 mps
Structural	None
Utilities	MCDOT guidelines for relocation
Lighting	None, relocate existing

The Master Plan also shows a secondary storm drain flowing from east to west in Northern Avenue. The pipe sizes are 1070 millimeters and 1520 millimeters, east and west of 75th Avenue, respectively.

Existing 75th Avenue drains from north to south. Runoff from 75th Avenue, between Northern Avenue and Olive Avenue will discharge to the proposed Northern Avenue storm drain. Runoff between Orangewood Avenue and Northern Avenue will discharge to the proposed storm drain in Orangewood Avenue. Inlets and a storm drain will be provided, as required, to drain 75th Avenue. The storm drain will be sized to handle the runoff from the proposed roadway section only.

South of Orangewood Avenue, 75th Avenue drains to existing storm inlets in the intersection with Glendale Avenue. These inlets discharge to SRP facilities. Alternative means of discharging storm drainage from 75th Avenue, between Glendale Avenue and Orangewood Avenue, may be addressed in the Maryvale Area Drainage Master Plan, which is currently being initiated by the FCD.

#### C. Right-of-Way

The width of right-of-way required for an Urban Minor Arterial is a minimum of 33.5 meters.

#### D. Level of Service

Level of service is the concept used by transportation officials to describe the amount of congestion on a roadway. Levels of service are graded A through F and are defined by the Highway Capacity Manual, Special Report 209, published by the Transportation Research Board, Washington, D.C., 1985.

Existing 75th Avenue, between Glendale Avenue and Olive Avenue, is functioning as a rural principal arterial in an urbanizing area, with average daily traffic (ADT) approaching 10,000 vehicles. The existing pavement section more nearly fits that for a roadway classified as an urban collector, whose ADT should not exceed 7,000 vehicles, if a desired Level of Service C is to be maintained. The level of service of the existing road is less than Level D.

The upgraded road will accommodate existing and projected traffic and should maintain a Level of Service C.

#### E. Utilities

The 75th Avenue corridor is extensively occupied by utilities which will be impacted by the proposed project.

Extensive relocation of overhead electric, telephone and cable television facilities will be required. Surface facilities for underground electric and telephone, such as pull boxes and terminal connectors, must be relocated. Valve boxes and meters for water and gas facilities must be adjusted to grade and/or relocated. Sanitary sewer manholes must be adjusted to grade. The relocation of street lights will be required.

Substantial modification to irrigation facilities will be required. Irrigation canals and tailwater (waste) ditches must be relocated or buried and turnout structures, headwall trashracks and weir structures must be relocated.

The following facilities are of particular interest when developing alignment alternatives:

SRP well site located west of 75th Avenue and approximately 85 meters north of Northern Avenue.

Two SRP towers for 230 KV transmission line located east of 75th Avenue and approximately 475 meters north of Northern Avenue.

#### F. Traffic Signals

The existing traffic signal at Northern Avenue must be modified and signal supports and pull boxes must be relocated.

#### G. Public Transit

The Regional Public Transportation Authority (Valley Metro) has suggested right-of-way be provided for future transit accessory pads for north bound traffic, north of Glendale Avenue; north bound traffic, north of Northern Avenue; south bound traffic, south of Olive Avenue; and south bound traffic, south of Northern Avenue.

### 3.2 Design Exceptions

The proposed project is based on MCDOT design criteria, which is in compliance with The AASHTO "A Policy on Geometric Design of Highways and Streets, 1990".

Roadway profile grades will not meet the requirements of Section 5.11 of MCDOT's Roadway Design Manual, for minimum values (see Table 3.1). The existing profile grade, from beginning to end of project, is 0.19 percent and grades vary from 0.08 to 0.67 percent. The 0.19 percent grade is not desirable because it requires cut for the entire length of project, significant depths of cut for much of the length, and a maximum cut of 1.4 meters. Preliminary design is based on a minimum slope of 0.14 percent.

Horizontal curve lengths will not meet the requirements of Section 5.10 of the design manual, for minimum values. Preliminary design has reverse curves at the beginning and end of project with a degree of curve of  $0^{\circ}15'$ , central angles of approximately  $1^{\circ}46'$  and lengths of curve of approximately 217 meters. The requirements of the design manual can be met by using a degree of curvature of  $0^{\circ}10'$ . This would extend the curves at the beginning of project into the Orangewood Avenue intersection. Furthermore, the requirements of the design manual are more applicable to a rural design, where avoiding the appearance of a kink is more desirable.

Preliminary design for Alternative D has reverse curves on the south approach to the Northern Avenue intersection with degrees of curve of  $0^{\circ}40'$ . This is borderline meeting the requirements of

Figure 5.17 of the design manual, concerning removal of crown. The design is based on providing horizontal curvature that requires no superelevation or removal of crown, therefore eliminating the need for a tangent between reverse curves. (Because of the flat profile grades, pavement cross slope transitions will worsen already flat gutter slopes.) The curves do meet the requirements for a design speed of 80 kph, which is 8 kph more than a posted speed of 72 kph. Decreased degrees of curve will extend the curvature through the Northern Avenue intersection; increase the impact on the residence on the east side, south of Northern Avenue; and potentially impact the SRP well site on the west side, north of Northern Avenue.

## 4.0 ALTERNATIVES DEVELOPMENT AND ANALYSIS

### 4.1 Alternatives

#### A. No Build

The "No Build" alternative would do nothing to improve the existing roadway. The ability of the existing roadway to provide for safe operation and a desired level of service would not be improved for the short term and would seriously deteriorate for the long term. The increased congestion would negatively impact air quality.

Left turn lanes exist at the intersections with Glendale Avenue, Orangewood Avenue, Northern Avenue and Olive Avenue. Therefore, opportunities to make significant improvements to the level of service and safety do not exist without the addition of traffic lanes.

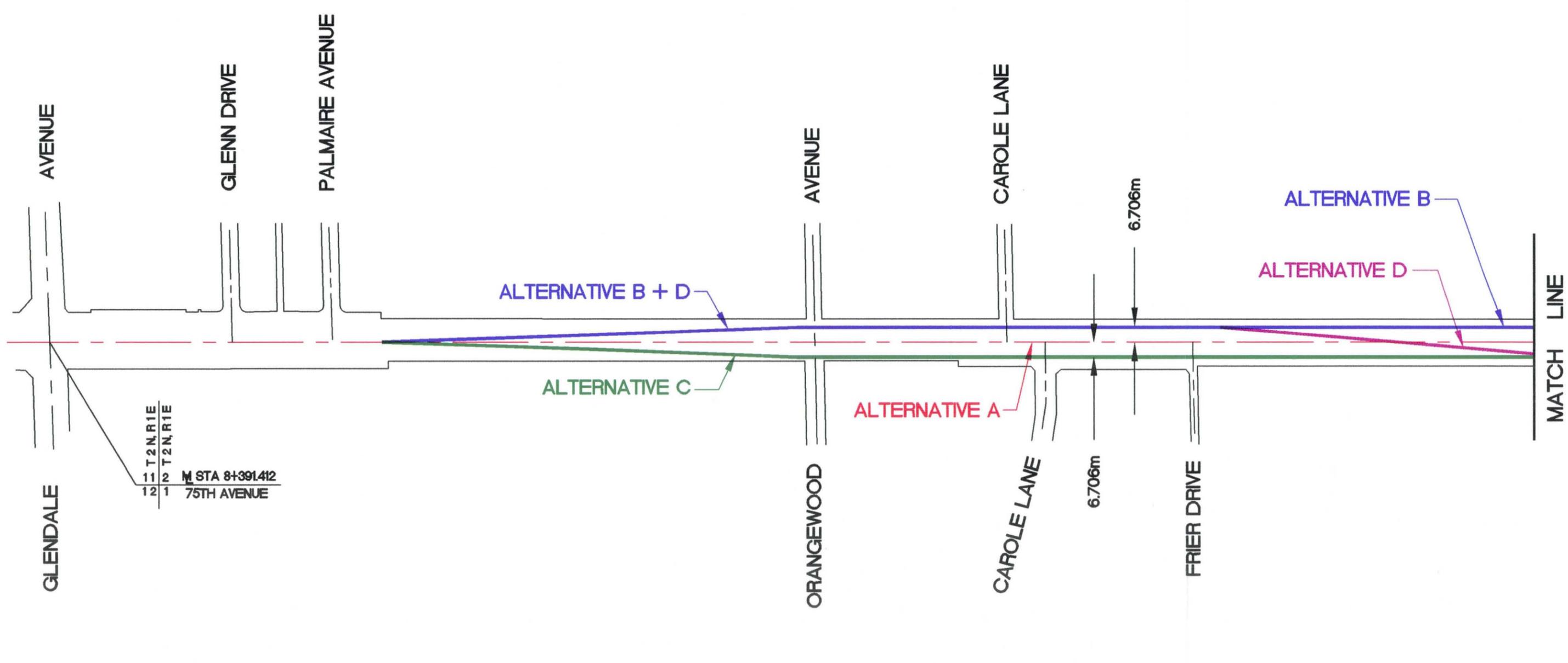
#### B. Alignment Alternatives

Four alignment alternatives have been developed (see Figure 4.1). Plans for the selected alternative are included as Appendix C.

Alternative A is centered on the section line for the entire length of project. The existing right-of-way from Glendale Avenue to approximately 350 meters north of Glendale Avenue is sufficient for the proposed roadway widening. Therefore, all of the alignment alternatives are identical from Glendale Avenue to approximate Station 8+743.

Alternative B is offset west of the section line to minimize the additional right-of-way required on the east side. The offsets at each end of the project are accomplished with reverse curves having radii of 7,000 meters.

Alternative C is offset east of the section line to minimize the additional right-of-way required on the west side. The curvature is the same as that used for Alternative B.

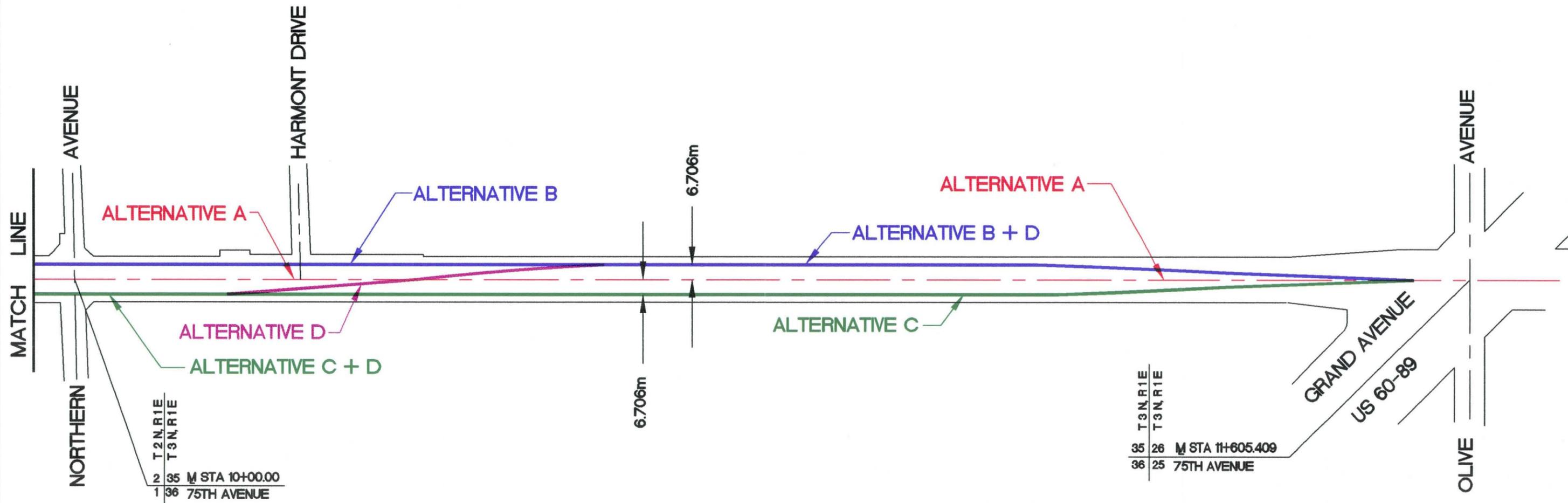


# 75TH AVENUE

FIGURE 4.1



NOT TO SCALE



# 75TH AVENUE

FIGURE 4.1

Alternative D is a meandering alignment used to minimize the impact of the project on property owners and utilities. Alternative D is offset to the west (same as Alternative B) from the beginning to approximately 390 meters south of Northern Avenue. Reverse curves, having radii of 2,600 meters, are then used to offset the alignment to the east of the section line. From just south of Northern Avenue to approximately 170 meters north of Northern Avenue, this alternative is identical to Alternative C. Reverse curves, having radii of 3,500 meters, are then used to offset the alignment back to the west. From approximately 600 meters north of Northern Avenue to the end of project, this alternative is again the same as Alternative B.

## 4.2 Impact of Alternatives

### A. Natural Environment

The land adjacent to the project has all been disturbed by farming or other development. Approximately 50 percent of the land is currently farmed. There are no bridges or major culverts and storm drains, and the project is not located in a floodplain. No protected plants or threatened, endangered or other special status wildlife species have been identified in the project corridor. Hazardous materials were not identified within the project corridor.

None of the alternatives will have significant adverse impacts on natural vegetation or wetlands, wildlife resources, surface water quality or hazardous material sites.

A variety of noise receptors are present in the project area. Based on the Federal Highway Administration Noise Abatement Criteria, activity categories present are: (1) Category B - residential and churches; (2) Category C - commercial and industrial; and (3) Category D - undeveloped lands and farm lands. No Category A (lands on which serenity and quiet are of extraordinary significance) lands are present.

Approximately 75 to 80 percent of the project corridor consists of commercial, industrial or farm lands. One church, 20 residences and three apartment complexes are located along the corridor. Due to the widening of 75th Avenue, increases in traffic volumes are projected and the potential exists to move traffic closer to the receptors. Roadway noise levels are expected to increase above existing levels.

Due to the mixed land uses and location of access to the residential and church properties, noise abatement opportunities are limited. Construction of walls or berms is not possible without eliminating access to the properties. A noise wall must be continuous, with no openings, to be effective. The multiple driveways needed for direct access to 75th Avenue preclude walls or berms.

Rubberized asphalt pavements have been shown to reduce traffic tire noise and thereby slightly reduce roadway noise. This option should be considered; however, since 75 to 80 percent of the corridor does not include noise sensitive land uses and the residential and church properties are interspersed within the commercial and farm lands, the benefit of rubberized asphalt is diminished.

Other options include reducing the posted speed and restricting the truck traffic. Since 75th Avenue serves a number of commercial activities, truck limitations would not be practical. The existing posted speed varies from 40 to 45 miles per hour. To achieve substantial reduction in noise, posted speeds would need to be reduced by at least 10 miles per hour. This would not be practical in the project setting.

Noise analysis is not required. Construction noise is not anticipated to be a problem due to the limited number of receptors and the short term disturbance. Construction Special Provisions should address this contractor responsibility (section 107.15, Community Relations.)

The project is located in a designated non-attainment area for CO, O<sub>3</sub> and PM<sub>10</sub>. The project is adding capacity and must be evaluated for conformity with the State air quality Implementation Plan (SIP). This project has been evaluated for conformity, as part of the regional TIP (project #377) by MAG. MAG has shown the TIP conforms with the SIP. If USEPA agrees with this finding, then this project will be in conformity. The project is locally funded and is exempt from microscale air quality analysis modeling requirements.

A dust control plan must be submitted to the County Air Pollution Control Division for reasonably available dust abatement measures as required by County Air Pollution Rules 200 and 310 and a permit must be obtained.

All the build alternatives will equally impact noise and air quality.

#### B. Construction Impacts

A Section 402 National Pollutant Discharge Elimination System (NPDES) permit is required. This will require a Storm Water Pollution Prevention Plan (SWPPP), Notice of Intent (NOI) and Notice of Termination (NOT). These elements are covered in MCDOT's Construction Special Provisions (Section 107.2.1).

One lane of traffic in each direction and access to local residences and businesses should be maintained at all times; however, during construction, some disruption in this access and delays in access by emergency vehicles may occur.

Some decrease in air quality may occur during construction, due to delays in the movement of traffic, dust, and emissions from construction equipment.

Some increase in noise levels may occur due to the operation of construction equipment.

Construction of any of the build alternatives will significantly impact utilities, especially overhead electric and telephone facilities and irrigation facilities.

Alternative A has the largest impact on overhead facilities. The other alternatives have nearly equal impacts, with Alternative D having the least.

The build alternatives all have nearly equal impacts on the SRP irrigation facilities. Alternatives A, B and D have the most impact on the private irrigation ditches along the west side of the corridor.

Alternatives A and B impact the SRP well site located on the west side, north of Northern Avenue.

Alternative C impacts the SRP towers supporting 230 KV electric transmission lines, located on the east side, north of Northern Avenue.

### C. Socioeconomic Impacts

Existing 75th Avenue is an arterial street. Street improvements within the existing corridor are not expected to cause significant adverse impacts to existing social or economic conditions or change neighborhoods, business development patterns, community cohesion or social groups. Some disruption may occur during construction. Acceleration of land use changes may result from the improved street.

Table 4.1 shows the affects of Alternatives A through D on existing property owners, in terms of the amount of right-of-way required, the number of parcels affected, the amount of agricultural land required for right-of-way, and the number of residential and business relocations.

TABLE 4.1 - RIGHT-OF-WAY REQUIREMENTS				
	ALTERNATIVES			
	A	B	C	D
Parcels Affected	50	31	32	31
Right-of-Way Required (Hectares)	3.3	3.4	3.4	3.2
Agricultural Land Required (Hectares)	1.4	2.1	1.3	1.9
Residential Relocations	---	2	8	---
Business Relocations	---	---	---	---

### D. Cultural Resources

The MCDOT report titled "An Archaeological Survey of 75th Avenue from Glendale Avenue to Olive Avenue" is included as Appendix B. Sites of historic and prehistoric or archaeological significance were not identified; therefore, none of the alternatives will impact cultural resources.

### E. Economic Efficiency

A benefit/cost analysis was performed to determine the economic efficiency of the project. The American Association of State Highway and Transportation Officials manual titled "A Manual on User Benefit Analysis of Highway and Bus-Transit Improvements" was used as a reference and software titled "Unilink Benefit/Cost" by the New Mexico Highway and Transportation

Department was used for the analysis. The benefits, consisting of the value of savings in vehicle operating costs, the value of savings in travel time costs and the value of reduced accident costs, due to improving 75th Avenue, were determined to be \$608,000 per year. The project cost for construction, right-of-way acquisition, utility relocations and design is \$4,642,000.

The analysis is based on expressing benefits and costs as present worth. Present worth is the amount of money, when invested at a given rate of interest (seven percent), provides the funds to cover all expenditures during the life of the project (20 years).

Present worth of the costs is the present worth of the project cost (\$4,642,000) or \$4,338,000.

Present worth of the benefits is the present worth of the annual savings in vehicle operating costs, travel time costs and accident costs, or \$6,441,000.

The benefit/cost ratio for this project equals 1.48.

#### 4.3 Evaluation of Alternatives

Table 4.2 is a summary and comparison of the impacts of the five alternatives on various evaluation criteria. Impacts on some of the criteria are compared on a quantitative basis; impacts on other criteria are subjective and may be positive, negative or neutral. Impacts are positive (P), negative (N), more negative (NN) or neutral (blank space).

**TABLE 4.2 - EVALUATION MATRIX**

EVALUATION CRITERIA	ALTERNATIVES				
	NO BUILD	A	B	C	D
Level of service	N	P	P	P	P
Safety	N	P	P	P	P
Natural vegetation	---	---	---	---	---
Wetlands	---	---	---	---	---
Wildlife resources	---	---	---	---	---
Water quality	---	---	---	---	---
Floodplains	---	---	---	---	---
Hazardous materials	---	---	---	---	---
Cultural resources	---	---	---	---	---
Air quality	N	P	P	P	P
Noise	N	N	N	N	N
Maintenance of Traffic	---	N	N	N	N
Utilities	---	NN	NN	NN	N
Right-of-Way (Hectares)	---	3.3	3.4	3.4	3.2
Right-of-Way (Parcels)	---	50	31	32	31
Agricultural lands (Hectares)	---	1.4	2.1	1.3	1.9
Residential relocations	---	---	2	8	---
Construction cost (thousands of dollars)	---	1,787	1,787	1,787	1,787
Right-of-Way cost (thousands of dollars)	---	839	760	1,087	735
Utility relocation cost (thousands of dollars)	---	2,240	2,520	2,320	1,970

P Positive                      NN More negative  
 N Negative                      --- Neutral

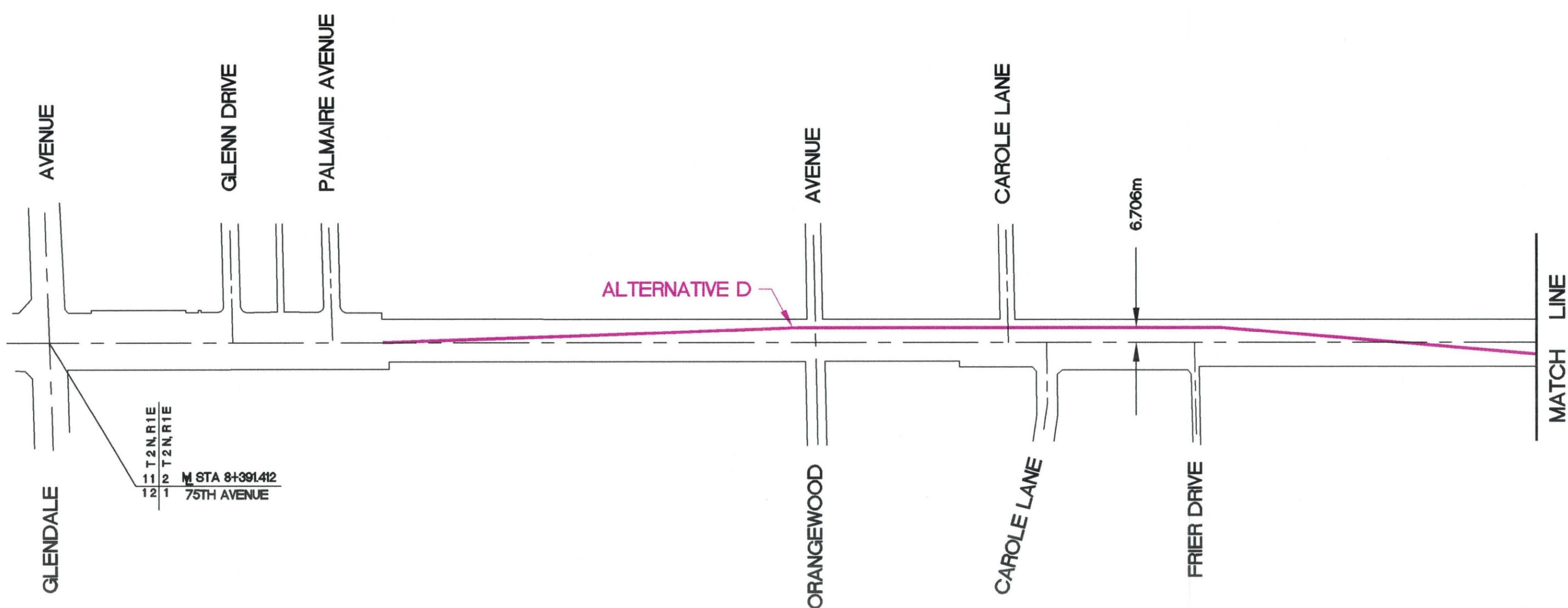
## 5.0 SELECTION OF PREFERRED ALTERNATIVE

Alternative D (Figure 5.1) was selected because it meets the goals of improving safety and the level of service and has the least impact on utilities and existing property owners.

The "No Build" alternative was not selected because it fails to meet the goals of improving the safety and level of service of the existing roadway, and because an improvement can be made without producing significant adverse impacts on the natural environment.

None of the alternatives will have significant adverse impacts on the natural environment, hazardous material sites or cultural resources.

The build alternatives will have equal impacts on noise and air quality.



# 75TH AVENUE PREFERRED ALTERNATIVE

FIGURE 5.1



NOT TO SCALE



# 75TH AVENUE PREFERRED ALTERNATIVE

FIGURE 5.1

## 6.0 CONCEPT DESIGN

### 6.1 Roadway Design

Alignment alternatives are described in Section 4.1. The selected alternative is Alternative D. Plan and profile sheets for the selected alternative are included as Appendix C.

Design criteria are summarized in Table 3.1. The typical section and pavement design are described in Section 3.1 and shown on Figure 3.1.

The profile design is discussed in Section 3.2. An effort was made to design a profile to drain the pavement from Olive Avenue to a future outlet at Northern Avenue. This can be accomplished by using a 0.12 percent grade from the intersection at Northern Avenue to the end of project; however, it does not fit well with the existing road profile. Fill is required for the entire length, to a maximum depth of 0.5 meters. Therefore a 0.14 percent grade was used and a sag was introduced at Station 10+130.

The lead agency for this project is MCDOT. The project will be funded with Highway User Revenue Funds (HURF).

The project will be constructed in one phase and detour roads or road closures will not be required. Traffic control during construction will comply with the permit provisions and follow guidance contained in the MUTCD. Two way traffic and access to local residences and businesses should be maintained at all times. Temporary pavement widening may be required to maintain traffic.

Traffic volumes, projected to year 2015 were provided by MCDOT. Right turn volumes at the north and south approaches to the Northern Avenue intersection are not sufficient to justify right turn lanes.

## 6.2 Drainage Design

Drainage calculations and an exhibit showing catch basin locations are included as Appendix E. The calculations are based on draining the street right-of-way only, the drainage design criteria shown in Table 3.1 and the preliminary profile design shown in Appendix C.

Drainage of the pavement is based on a 10-year design storm. The pavement between Olive Avenue and Northern Avenue drains to a profile sag at Station 10+130. To limit spread on the pavement, catch basins and a storm drain system are required to relieve the gutters north of the sag at approximately Station 10+855.

The gutters have sufficient capacity to drain the pavement from Northern Avenue to an outlet at Orangewood Avenue and from Orangewood Avenue to an outlet at Glendale Avenue.

Calculations were also performed to determine if the street section will contain the 100-year storm within back to back of sidewalks. The minimum capacity of the street is 3.35 cubic meters per second (cms), which far exceeds the actual flows and exceeds 2.83 cms allowed by the design criteria. The maximum 100-year flow in the street is 0.52 cms.

## 6.3 Earthwork

Preliminary earthwork estimates indicate that the volume of excavation is sufficient to provide the embankment required.

## 6.4 Utilities

The City of Peoria plans to install a new water line in 75th Avenue at some future date.

US West plans on constructing new buried cable or conduit along 75th Avenue, between Orangewood Avenue and Northern Avenue, during 1994.

## 6.5 Constructability

This project requires commonly provided arterial street construction capabilities. Because of flat grades, care will be required to construct well draining gutters.

The 75th Avenue corridor is extensively occupied by utilities. Substantial effort will be required to coordinate the relocation of overhead electric, telephone and cable television facilities and irrigation facilities.

Water service to the SRP steam plant north of Northern Avenue can not be disrupted when the plant is operating.

The El Paso Natural Gas Company has a 400-millimeter high pressure natural gas pipeline along Northern Avenue at 75th Avenue. Coordination with the El Paso Natural Gas Company will be required (see their letter dated May 31, 1994 in Appendix D).

The electric utilities have requested that relocation of their facilities occur during the off-peak season from October 15 to April 15.

## 6.6 Construction Cost Estimate

Table 6.1 is an itemized construction cost estimate.

**TABLE 6.1 - ITEMIZED CONSTRUCTION COST ESTIMATE**

Description	Quantity	Unit	Unit Cost	Cost
Mobilization	1	Lump Sum	\$5,000.00	\$5,000
Grading Roadway for Pavement	106,950	m <sup>2</sup>	2.39	255,610
Asphalt Concrete	16,505	M Ton	20.00	330,100
Prime Coat	36	M Ton	193.00	6,948
Aggregate Base	33,345	M Ton	12.40	413,478
Curb and Gutter	6,278	m	19.69	123,614
Concrete Sidewalk	9,378	m <sup>2</sup>	13.75	128,948
Concrete Driveway	1,556	m <sup>2</sup>	33.00	51,348
Concrete Sidewalk Ramp	18	Each	350.00	6,300
460mm Storm Drain	175	m	195.00	34,125
380mm Storm Drain	200	m	163.00	32,600
300mm Storm Drain	200	m	114.00	22,800
Catch Basin	8	Each	2,500.00	20,000
Adjust Valve, Box and Cover to Grade	22	Each	225.00	4,950
Relocate Fire Hydrant	8	Each	800.00	6,400
Relocate Water Meter	31	Each	250.00	7,750
Adjust Manhole to Grade	19	Each	250.00	4,750
Removal and Replacement of Traffic Signal	1	Lump Sum	70,000.00	70,000
Traffic Sign	40	Each	110.00	4,400
Striping and Reflectors	1	Lump Sum	25,000.00	25,000
Contingencies (15%)				232,879
<b>TOTAL ESTIMATED CONSTRUCTION COST</b>				\$1,787,000
Right-of-Way Acquisition				735,000
Utility Relocation				1,970,000
Design				150,000
Administration				130,000
Construction Administration				150,000
<b>TOTAL PROJECT COST</b>				\$4,922,000

Costs are based on 1993 unit prices. The utility relocation cost includes \$1,570,000 to relocate irrigation facilities and is based on replacing the open ditch with pipe. An alternative to piping is to purchase right-of-way and relocate the open ditch, in those areas that remain undeveloped. This would result in a cost savings of \$260,000.

The construction cost includes catch basins and storm drain pipe to drain the pavement north of Northern Avenue to a future storm drain in Northern Avenue. If that outlet is not available, temporary retention may be required to drain the pavement sag at Station 10+130.

#### 6.7 Schedule

This project is included in the MCDOT Capital Improvements Program for FY 1995-99 and is programmed to be constructed in Fiscal Year 1997. The following is a schedule of start dates:

Begin Detailed Design -	January 1995
Begin Utility Relocations -	July 1996
Begin Right-of-Way Acquisition -	July 1995
Bid Opening -	February 1997
Begin Construction -	May 1997

The schedule includes a 13-month period for detailed design, a 17-month period for acquisition of right-of-way and an 8-month period for relocation of utilities. Construction should be completed in eight months (December 1997).

#### 6.8 Political Feasibility

This project appears to have the support of the surrounding community and has the support of the City of Glendale and the City of Peoria. Public support has been received from the West Valley Bicycle Club, the Coalition of Arizona Bicyclists and the Maricopa County Sheriff.

6.9 **Economic Feasibility**

The current Capital Improvement Program includes \$2,680,000 for this project, which is 54 percent of the estimated project cost; therefore, an increase in funding is required. The benefit/cost ratio for the project is positive.

## 7.0 PUBLIC PARTICIPATION

The preparation of a Public Involvement Plan (see Appendix D) was among the first tasks completed after initiation of this project.

Concerned agencies, officials, public interest organizations and utility companies were identified and contacted at the onset of the project. The contacts were made to provide notification of the project and to request information and comments relevant to the project. The contact letters and lists of contacts are included as a part of Appendix D. Responses to those contacts are also included in Appendix D.

Two public meetings were held. The first meeting was held during the formative stage of the study to provide information and to receive public input concerning project purpose, goals, characteristics of the corridor, study approach and alternatives. Following development of alternatives, a second meeting was held to present the alternatives and the evaluation of the alternatives, and to receive public comment.

Meeting notices were mailed to those on the agency and utility contact lists and to property owners. The meeting notices and property owner mailing list are included in Appendix D.

An informational handout was prepared and distributed at the meetings (see Appendix D).

Appendix D also includes attendance lists and minutes of the meetings.

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*APPENDIX A  
HAZARDOUS MATERIAL  
INVESTIGATION*

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

HAZARDOUS MATERIAL INVESTIGATION

*75TH AVENUE DESIGN CONCEPT REPORT  
(GLENDALE AVENUE-OLIVE AVENUE)*

*MARICOPA COUNTY, ARIZONA*

*Work Order No. 68843*

*July 1994*

*Prepared by:*

*Burgess & Niple, Inc.*

*5025 East Washington Street, Suite 212  
Phoenix, AZ 85034*

## HAZARDOUS MATERIALS

### A. Purpose

The hazardous materials investigation along the 75th Avenue corridor was performed to identify, to the extent feasible, recognized environmental conditions within and around the corridor right-of-way. Key components of the assessment included site reconnaissance, records review, and interviews. This assessment was performed in two phases in accordance with the scope of work. The initial phase consisted of a "Preliminary Initial Site Assessment". It was conducted to assess the potential of the presence of hazardous material. It consisted of a non-intrusive field inspection, regulatory review, and aerial photography review. The second phase consisted of a "Phase I Site Assessment" of suspect or known sites that contain hazardous materials. It consisted of interviews, detailed site inspection, and additional regulatory data review.

The purpose of these investigations is to ensure that Maricopa County is informed, to the extent reasonably possible, of the environmental status of the proposed alignment. This information may be used to realign the improvements or remediate a suspect site, if hazardous materials are found.

### B. Site Description

A non-intrusive site reconnaissance was performed to assess the general environmental conditions along the corridor. The corridor is 3.2 kilometers long, varying from 20.116 to 39.622 meters wide within a Maricopa County right-of-way. It extends in a north and south direction along 75th Avenue between Glendale Avenue to the south and Olive Avenue to the north. It is bounded on the east and west by commercial, residential, and agricultural land that lies within the Cities of Glendale and Peoria, and Maricopa County.

The corridor is currently designated for municipal use and includes a two lane arterial roadway and utilities. Review of the corridor did not reveal evidence of past or present illicit uses. Review of the property adjacent to the assessed corridor revealed one suspect hazardous site that will be discussed further under Records Review, Section D.

**C. Aerial Photos**

Aerial photograph review of past uses and conditions of the corridor and adjacent property was performed from 1973 to present. This consisted of photos from 1973, 1984, and 1994, for review increments of approximately ten years. The major changes to the corridor and adjacent property are described below.

Comparison of 1973 and 1984 photos showed the following changes beginning at Glendale Avenue and continuing north to Olive Avenue.

- Carole Lane, at approximately 7600 north, was constructed from 75th Avenue east.
- Two commercial buildings were constructed west of 75th Avenue, at approximately 8100 north.
- A commercial complex was constructed east of 75th Avenue, at approximately 8500 north.
- A residence was constructed east of 75th Avenue, at approximately 8750 north.

Comparison of 1984 and 1994 photos showed the following changes beginning at Glendale Avenue and continuing north to Olive Avenue.

- An apartment complex was constructed east of 75th Avenue, at approximately 7200 north.
- A nursery was constructed east of 75th Avenue, at approximately 7550 north.
- A residence was removed east of 75th Avenue, at approximately 7650 north.
- A residence was removed for lumber yard expansion, east of 75th Avenue, at approximately 8800 north.

Review of the aerial photographs did not reveal any evidence of illicit activities or attempts to conceal environmentally sensitive conditions.

**D. Records Review**

Review of records was performed to identify historical environmental conditions on the property and surrounding properties. The records search distances used during this assessment were in accordance with ASTM E1527 and are listed in Table 1.

**TABLE 1  
ENVIRONMENTAL SEARCH DISTANCES <sup>(1)</sup>**

	<b>Kilometers</b>
Federal NPL <sup>(2)</sup> Site List	1.60
Federal CERCLIS <sup>(2)</sup> List	0.80
Federal RCRA TSD <sup>(2)</sup> Facilities List	1.60
Federal RCRA <sup>(2)</sup> Generators List	Property and adjoining property
Federal ERNS <sup>(2)</sup> List	Property Only
State Hazardous Waste Sites	0.80
State Landfill or Solid Waste Disposal Sites	0.80
State LUST <sup>(2)</sup> Sites	0.80
State UST <sup>(2)</sup> Sites	Property and adjoining property

<sup>(1)</sup> Most search distances exceeded these minimums when the data was reasonably available.

<sup>(2)</sup> Definitions of acronyms are included in Paragraph F.

The records search for this assessment included the Arizona Department of Environmental Quality (ADEQ) and the Environmental Protection Agency (EPA). Initial state and federal records were researched through Environmental Data Resources, an environmental information services firm. Their database is linked into 13 state and federal lists providing current environmental information in accordance with ASTM standards.

The records search was performed over an area that extended 1.60 kilometers in all directions from the proposed corridor alignment. Exhibit 1 is a plan of the assessed corridor and all sites located within 1.60 kilometers of the corridor. From the non-intrusive site reconnaissance and records search, the following was determined.

Suspect asbestos containing material was not observed.

Suspect PCB containing material was not observed.

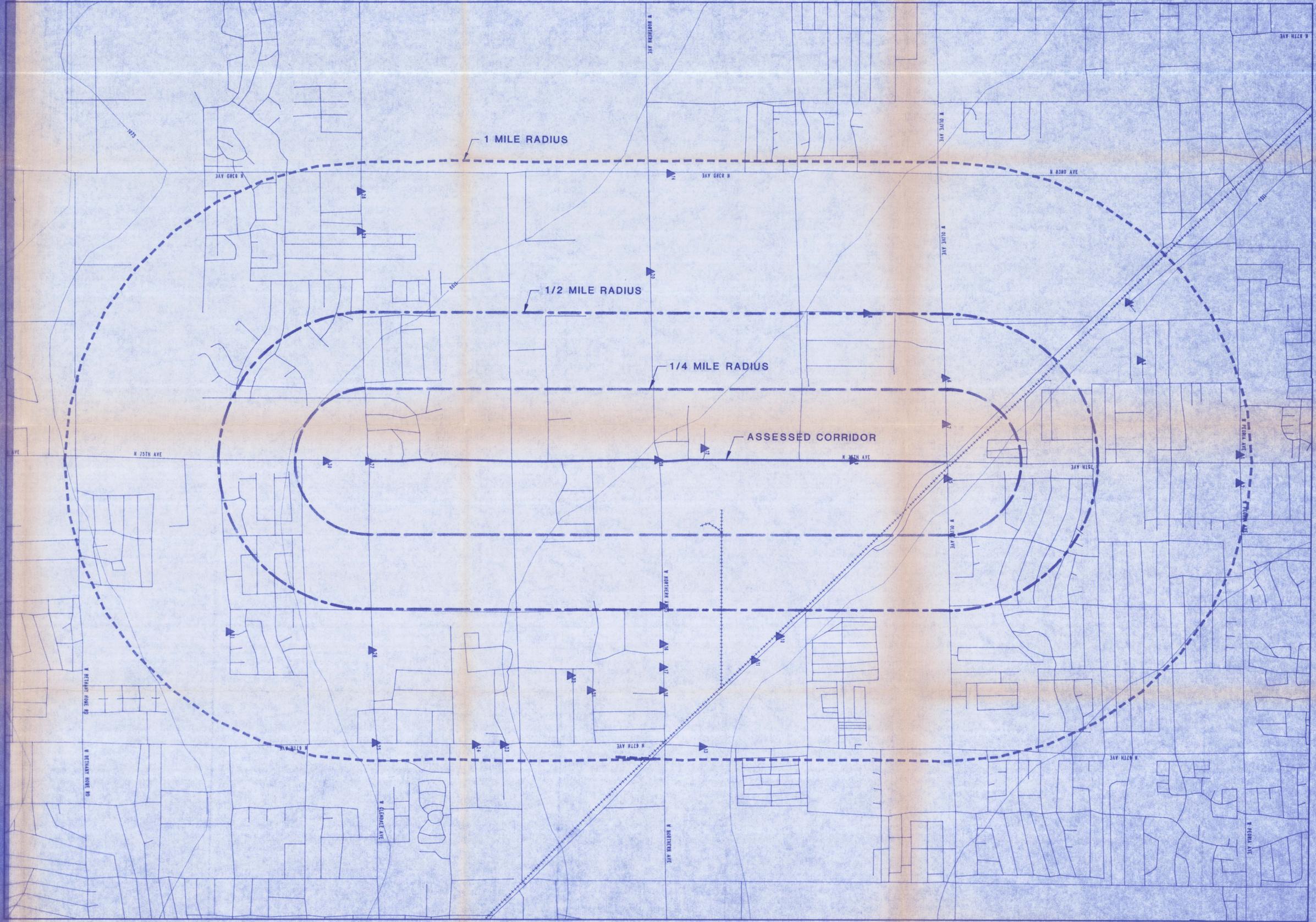
No chemicals were observed. One site approximately 0.16 kilometers away from the assessed corridor is involved with pesticide/toxic substance production.

- Map I.D. No. 12  
Professional Supply, 7539 W. Harmont Drive, Peoria, AZ  
EPA I.D. No. AZD070247234  
Site Status: This facility is involved in toxics production. No spills or incidents have been reported.

The right-of-way is not a U.S. EPA Superfund site, and it is not used for treatment, storage, or disposal of hazardous wastes. The surrounding area contains 13 RCRIS-SQG (small hazardous waste generator) and three RCRIS-LQG (large hazardous waste generator). These are listed in the Map Findings Summary, Paragraph E of this section. These businesses are listed as hazardous waste generators. No spills have been recorded from these sites.

Two sites within the 1.60-kilometer radius search distance are identified by the U.S. EPA as CERCLIS sites.

- Map ID No. 8  
City of Peoria, 8850 N. 79th Avenue, Peoria, AZ  
CERCLIS EPA ID No. AZD983479155  
Site Status: EPA conducted a preliminary assessment on this site on September 16, 1993 and determined that no further action is necessary. No hazard was identified.



# EXHIBIT 1 ENVIRONMENTAL ASSESSMENT PLAN

## LEGEND

- ▲ HAZARDOUS SITES
- ROADS
- 100' CONTOUR LINES
- ASSESSED CORRIDOR
- STUDY AREA BOUNDARY
- 1/4 MILE RADIUS
- 1/2 MILE RADIUS
- 1 MILE RADIUS



- Map ID No. 19  
SRP Agua Fria Steam Plant, 75th & Northern, Peoria, AZ  
CERCLIS EPA ID No. AZD000628560  
Site Status: EPA conducted a preliminary assessment on this site on September 1, 1983 and determined that no further action is necessary. No hazard was identified.

There is no visible physical evidence of UST's such as pumps, pump islands, and vent tubes that were observed or are suspected; however, there are two adjacent sites that contain UST's, one which contains a LUST.

- Map ID No. 27  
Exxon Co., 7504 W. Glendale, Glendale, AZ  
EPA ID No. AZD983470238  
Site Status: This facility contains UST and LUST sites. The LUST site, LUST Facility ID No. 0001877, was initially assessed in August 1991. The preliminary site assessment report dated October 18, 1993 was inconclusive. ADEQ has the site currently listed as a Priority 2 site for remediation. The extent of site contamination has not been defined (soil only or groundwater). Initial remediation efforts were performed by vapor extraction.
- Map ID No. 30  
Texaco, 6937 N. 75th Ave., Glendale, AZ  
EPA ID No. Not Available  
Site Status: Underground storage of fuels for automotive uses. No indications that leaks exist.

There are no above ground storage tanks.

Current wetland regulations require the presence of hydric soils, wetland vegetation, and wetland hydrology for an area to be classified as a jurisdictional wetland. Based on our review of the subject property, no wetland indicators were observed.

Table 2 provides a summary of environmental conditions in the assessed corridor and for 1.60 kilometers around the corridor.

**TABLE 2  
SUMMARY OF ENVIRONMENTAL CONDITIONS**

Condition	Assessed Corridor	Adjacent Site	0 - 0.4 km	0.4 - 0.8 km	0.8 - 1.6 km	Total
NPL - Superfund Sites	0	0	0	0	0	0
RCRIS-TSD (Treatment Storage and Disposal Facility)	0	0	0	0	0	0
SHWS	0	0	0	0	0	0
CERCLIS	0	1	0	1	0	2
State Landfill	0	0	0	0	0	0
LUST	0	1	1	0	7	9
UST	0	1	3	1	13	18
RAATS	0	0	0	0	0	0
RCRIS-SQG (Small Quantity Generator)	0	2	0	0	11	13
RCRIS-LQG (Large Quantity Generator)	0	0	1	2	0	3
HMIRS	0	0	0	0	0	0
PADS	0	0	0	0	0	0
ERNS	0	0	0	0	0	0
FINDS	0	1	1	2	15	19
TRIS	0	0	0	0	0	0
TSCA	0	0	0	0	0	0
AZ Dry Well	0	0	0	0	0	0
<b>Total</b>	0	6	6	6	46	64

Exhibit 1 provides the approximate locations of these sites in and around the assessed corridor.

E. Map Findings Summary

Table 3 provides a descriptive list of all the sites shown on the map and the databases that the sites are listed in.

TABLE 3

Map I.D. No.	Site	Database
1	ARCO 7501 W. Peoria Avenue Peoria, AZ 85345	FINDS
1	CIRCLE K 7510 W. Peoria Avenue Peoria, AZ 85345	LUST
1	MOBIL OIL CORP 7510 W. Peoria Avenue Peoria, AZ 85345	RCRIS-SQG FINDS UST
1	CIRCLE K 7530 W. Peoria Avenue Peoria, AZ 85345	UST
2	PEP BOYS 7440 W. Peoria Avenue Peoria, AZ 85345	RCRIS-SQG FINDS UST
3	VALLEY INDUSTRIES PIMA LONG S. GIN 8175 Market Ave. Long Site Peoria, AZ 85345	FINDS UST
4	ELECTRIC TOOL & SUPPLY CO. INC. 7910 NW Market Street Peoria, AZ 85345	UST
5	CIRCLE K 7410 W. Olive Peoria, AZ 85345	UST
6	BUD WEST INC. 7733 W. Olive Peoria, AZ 85345	FINDS RCRIS-LQG
7	SOUTHWEST PIPE & SUPPLY CO 7600 W. Olive Avenue Peoria, AZ 85345	LUST

TABLE 3 (continued)

Map I.D. No.	Site	Database
7	SOUTHWEST PIPE & SUPPLY CO 7600 W. Olive Avenue Peoria, AZ 85345	LUST
7	NATIONAL PUMP COMPANY 7600 W. Olive Avenue Peoria, AZ 85345	FINDS RCRIS-LQG
7	SOUTHWEST PIPE & SUPPLY CO. 7600 W. Olive Avenue Peoria, AZ 85345	UST
8	CITY OF PEORIA 8850 North 79th Avenue Peoria, AZ 85345	CERCLIS UST
9	JORDAN AUTOMOTIVE 8789 N. 75th Avenue Peoria, AZ 85345	RCRIS-SQG FINDS
10	STUTTER'S PLACE AUTO 7048 Grand Avenue Glendale, AZ 85301	UST
10	GRAND MEXICAN ADOBE 7050 Grand Avenue Glendale, AZ 85301	LUST
11	GRAND AVE LUMBER & HARDWARE CO 6970 NW Grand Avenue Glendale, AZ 85301	UST
11	GRAND AVE LUMBER & HARDWARE CO 6970 NW Grand Avenue Glendale, AZ 85301	LUST
12	PROFESSIONAL SUPPLY INC 7539 W. Harmont Drive Peoria, AZ 85345	FINDS
13	MIKES AUTO TECH 8160 N. 67th Ave, Ste. 132 Glendale, AZ 85302	RCRIS-SQG FINDS
14	DIRECT LINE EXPRESS INC 8139 N. 83rd Avenue Peoria, AZ 85345	RCRIS-SQG FINDS
15	SALT RIV PROJ AGUA FRIA STEAM PLT 7302 W. Northern Avenue Glendale, AZ 85303	FINDS RCRIS-LQG

TABLE 3 (continued)

Map I.D. No.	Site	Database
16	PENSKE TRUCK LEASING CO L P 7020 W. Northern Avenue Glendale, AZ 85303	RCRIS-SQG FINDS
17	SOUTHWEST FOREST IND CONTAINER 6962 W. Northern Avenue Glendale, AZ 85303	FINDS
18	STONE CONTAINER CORPORATION 6902 W. Northern Avenue Glendale, AZ 85303	RCRIS-SQG FINDS
18	STONE CONTAINER CORPORATION 6902 W. Northern Avenue Glendale, AZ 85303	LUST
19	SALT RIV PROJ AGUA FRIA STEAM PLT 75th Avenue & Northern Peoria, AZ 85345	CERCLIS
20	LABATO TRUCKING 8027 W. Northern Avenue Glendale, AZ 85303	RCRIS-SQG FINDS
21	KNIPP BROS INC. 6840 W. Frier Drive Glendale, AZ 85303	UST
22	FAR WEST BODY WORKS 6852 W. Belmont Avenue Glendale, AZ 85301	RCRIS-SQG FINDS
23	ACTION RENTALS 7315 N. 67th Avenue Glendale, AZ 85301	LUST
24	BOYLES BROS DRILLING CO 7235 N. 67th Avenue Glendale, AZ 85301	UST
25	TEXACO 6702 W. Glendale Avenue Glendale, AZ 85303	UST
25	TEXACO 6702 W. Glendale Avenue Glendale, AZ 85303	LUST
26	LIBERTY BANK 7002 W. Glendale Avenue Glendale, AZ 85300	RCRIS-SQG FINDS

TABLE 3 (continued)

Map I.D. No.	Site	Database
26	GLENDALE AVE DINOSEB 7002 W. Glendale Avenue Glendale, AZ 85300	RCRIS-SQG
27	EXXON CO USA 7504 W. Glendale Avenue Glendale, AZ 85301	RCRIS-SQG FINDS LUST UST
28	TEXACO 8250 W. Glendale Avenue Glendale, AZ 85303	UST
29	GLENDALE PUMP & SUPPLY INC. 8124 W. Glendale Avenue Glendale, AZ 85301	UST
30	TEXACO 6937 N. 75th Avenue Glendale, AZ 85303	UST
31	GLENDALE ELEMENTARY SCHL DIST 40 7015 W. Maryland Avenue Glendale, AZ 85301	UST
31	GLENDALE ELEMENTARY SCHL DIST 40 7015 W. Maryland Avenue Glendale, AZ 85303	RCRIS-SQG FINDS

**F. Definitions - Acronyms of Records Search**

**CERCLIS**                      Comprehensive Environmental Response, Compensation and Liability Information System

CERCLIS contains information on over 34,000 sites identified by EPA as abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

**ERNS**                              Emergency Response Notification System

ERNS contains over 25,000 spill records and stores information on reported releases of oil and hazardous substances. The data are collected from spills reported to EPA and the Coast Guard (National Response Center).

**FINDS**                              Facility Index System

FINDS provides EPA with an inventory of almost 500,000 facilities. FINDS contains both facility information and "pointers" to other sources of information that contain more detailed information about the facility. Other sources of information include: HWDMS/RCRIS, CERCLIS, FURS (Federal Underground Injection Control), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

**HMIRS**                              Hazardous Materials Incident Report System

HMIRS contains hazardous spill incidents reported to the Department of Transportation. These spill incidents are not necessarily listed in ERNS.

**LUST**                                Leaking Underground Storage Tank Incident Reports

LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

**NPL**                                    National Priorities List (Superfund)

The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. Sites are added from the CERCLIS list according to a hazard ranking system which seeks to identify high priority sites.



**TSCA****Toxic Substances Control Act**

TSCA promulgated a rule requiring manufacturers and importers of certain chemical substances included on the TSCA Chemical Substance Inventory list to report current data on the production volume of these substances by plant site. After initial reporting in 1986, recurring reporting is required every 4 years.

**TSD****Treatment Storage and Disposal Facility**

TSD sites are used for treatment, storage, and disposal of hazardous wastes. These sites may be listed with RCRA and RCRIS databases.

**UST****Registered Underground Storage Tanks**

USTs are regulated under Subtitle I of RCRA and must be registered with the state department responsible for administering the UST program. Information varies by state program.

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*APPENDIX B*  
*ARCHAEOLOGICAL SURVEY*

# AN ARCHAEOLOGICAL SURVEY OF 75TH AVENUE FROM GLENDALE AVENUE TO OLIVE AVENUE

Prepared by

Brian W. Kenny  
Environmental Program Manager/Anthropologist  
Environmental Branch, Transportation Planning Division  
Maricopa County Department of Transportation

JUNE 1994

## INTRODUCTION

The Maricopa County Department of Transportation (MCDOT) proposes to re-construct a two mile long segment of 75th Avenue, between Glendale Avenue and Olive Avenue, near the Cities of Glendale and Peoria in Maricopa County, Arizona (MCDOT Work Order # 68843). MCDOT is considering construction of a "preferred alternative" design which would consist of a four traffic lanes and a center turn lane within an 110 foot right-of-way. This alternative is the widest proposed design alternative being considered. MCDOT determined that archaeological survey was necessary to ensure that no significant historic or prehistoric archaeological sites or traditional cultural properties would be impacted as a result of the proposed project.

MCDOT conducted a cultural resource survey expending one (1) person-day of field work carried out under Arizona State Museum (ASM) Permit # 94-22. This work was completed on February 3, 1994. This report describes the archaeological survey work performed by the MCDOT Transportation Planning Division on behalf of MCDOT. The author conducted an intensive, Class III pedestrian survey of a project area 60 meters wide and 2 miles in length; this area encompasses some 19.43 hectares (ha) (48 acres). Much of the ground surface in this area is previously disturbed and consists of existing transportation rights-of-way, utility easements, nearby plowed farmlands and pastures, grass-covered lawns (single-family homes) and commercial properties. Creation of these modern cultural landscapes may have obscured entirely any prehistoric or historic cultural resources which may have been present in this area prior to development.

Information presented in this report will help MCDOT, the State Historic Preservation Office (SHPO) at State Parks, and the Arizona State Museum (ASM) at the University of Arizona determine if additional historic preservation activities are warranted prior to new ground disturbance and project development. This report also provides sufficient information to allow resource specialists and agency officials an opportunity to make recommendations in voluntary compliance with guidelines established by the Arizona Antiquities Act, the State Historic Preservation Act and Section 106 of the National Historic Preservation Act.

## LOCATION

The 75th Avenue project area (Figure 1) is situated within T2N, R1E, SEC 1 and 2; and, T3N, R1E, SEC 35 and 36, G&SRB&M (Glendale, AZ USGS 7.5' Quadrangle, Photorevised 1982). Land ownership patterns within the 75th Avenue project area are relatively complex. Surface ownership maps reveal that the existing right-of-way crosses private property located within the boundaries of the City of Glendale and the City of Peoria, and unannexed lands within Maricopa County. No State Trust lands or federally-controlled lands are involved.

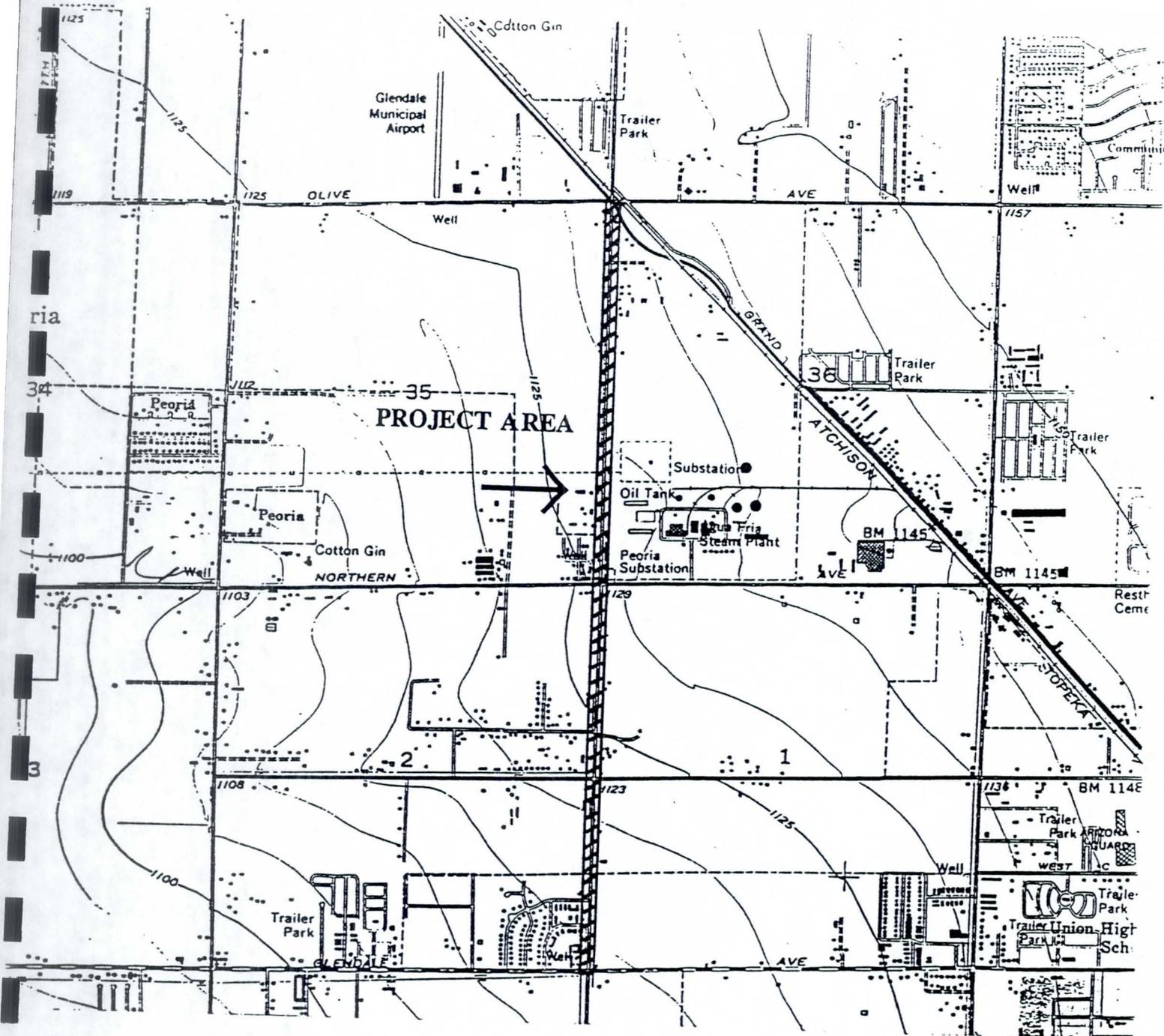
## ENVIRONMENT

The 75th Avenue project area is situated at an elevation of 1125 feet and is relatively flat. The area is located in a suburban setting that retains some agricultural landscapes and rural spatial characteristics that were retained from an earlier time perhaps 50 to 100 years ago. The area contains mostly introduced plant species, though some transplanted native plants and wild annual volunteers (weedy species) are present. No wildlife was observed during the survey. Nonetheless, some wild species are expected in the area from time to time. These might include: coyote, skunk, raccoon, Red-tailed hawk, Gambel's quail, Mourning dove, Inca dove; migrating waterfowl and other avian species, rodents and amphibians, bats and small reptiles. No federally listed endangered species are known to be present within the project area.

## CULTURE HISTORY

Prior to A.D. 1, Western Archaic groups may have occupied or utilized upland areas of the Salt River Valley away from the major river channels, but Archaic sites are rare. Between A.D. 200 and A.D. 550 Hakataya or Hohokam groups occupied the area and engaged in a mixed economy of upland gathering and small scale canal irrigation farming staged from semi-permanent habitation sites. From A.D. 600 until A.D. 1350, occupants of the Salt Gila Basin were affiliated with the cultural and economic traditions of the Hohokam. The Hohokam increased their use of irrigation agriculture, a system based on dependable water from the river, as annual rainfall stayed within a narrow range of effective moisture. A cycle of flooding and drought beginning about A.D. 1350 may have destroyed portions of the irrigation systems, or made them unmanageable simply because of the unpredictability of the river. Between A.D. 1350 and 1450, major changes seem to have occurred. Hohokam populations "crashed" or went through a population "bottleneck" and the area was abandoned. Archaeologists have speculated that the culture known as "Hohokam" re-organized, died-out or left the area entirely after about A.D. 1450. Remaining populations in the area seemed much smaller, and archaeological remains dating after this time are infrequent, unobtrusive and difficult to find and interpret. During the Proto-Historic Period beginning about A.D. 1540, local population appear more closely affiliated with Piman, Pai and Lower Colorado River groups. A few Apachean groups may have begun using the Salt and Gila River Basin area about this time.

Cultural interactions since the advent of the Historic Period in the Southwest (A.D. 1540-1690) have included indigenous groups, and Hispanics (Spanish and Mexican), Caucasian European-Americans and others from outside the region. Use of the area by Hispanics and Caucasian European-Americans ("Anglos") became most common after the area north of the Gila was ceded



75TH AVENUE ARCHAEOLOGICAL SURVEY  
GLENDALE AVENUE TO OLIVE AVENUE  
 MARICOPA COUNTY, ARIZONA  
 (MCDOT W.O.# 68843)  
 GLENDALE ARIZ 7.5' USGS QUADRANGLE  
 PHOTEREVISED 1982

▲▲▲ NORTH ▲▲▲

to the United States by Mexico in 1848. Territorial and Early Statehood Periods saw the development of transportation infrastructure and the establishment of farms and ranches in the region. Cattle, sheep and ostrich ranching, vegetable truck farming, and cotton and citrus production were common economic strategies in the Glendale and Peoria region through the WWII era. The area has experienced increasing urbanization in the post-WWII era.

### PREVIOUS ARCHAEOLOGICAL RESEARCH

MCDOT obtained archival site file information for the 75th Avenue project area from the Arizona State Museum (ASM) and the State Historic Preservation Office (SHPO). Site maps prepared by Geo-Map, Inc. of Tucson, Arizona cover a large area of the Salt River Valley, but these maps extend only as far as the Fowler Quadrangle where prehistoric Hohokam habitation sites and irrigation systems are recorded in T2N, R1E, Sections 24-26 and 34-36. The southern terminus of the 75th Avenue is located approximately 4.5 miles from the site of El Canal in T2N, R1E, Sec 36. This site was recorded by Frank Midvale according to Geo-Map footnotes printed on the Fowler 7.5' Quadrangle.

ASM records indicate one (1) survey project in the general region. ASM survey 1989-148 follows the railroad tracks along Grand Avenue at the northern terminus of the 75th Avenue project area. No sites were recorded in the vicinity of 75th Avenue and Olive during this survey. According to ASM, the nearest recorded site is the historic Sahuaro Ranch, AZ T:8:12(ASM) located in T3N, R2E, Section 30, approximately 2 miles from northern terminus of the 75th Avenue project area..

SHPO records indicate that an additional survey (4748-R / 3169-I) was conducted in the region. This east-west oriented utility easement survey crosses the 75th Avenue project area about one-quarter mile north of Glendale Avenue before turning north to Grand Avenue. No sites were located during this survey. The SHPO map also details the presence of site AZ T:8:13(ASU) in T2N, R1E, Sec 11 (NE 4), approximately one-half mile southwest of the southern terminus of the 75th Avenue project area.

### MCDOT SURVEY METHODOLOGY

MCDOT obtained an ASM permit (# 94-22) to conduct archaeological and paleontological non-collection surveys on State Trust lands in December, 1993. Notification to conduct survey was provided to ASM as per item 7 of the ASM permit. MCDOT contacted ASM and SHPO in January, 1994, and conducted site file checks and records reviews prior to initiating the field survey. Copies of pertinent records are in the archaeology project file at MCDOT. Original documents are retained by ASM and SHPO.

The project area was intensively examined. The MCDOT road survey advanced along 75th Avenue by walking two transects oriented parallel to the existing paved road. These transects were walked in alternating directions, one along each side of the road at a distance of 10 meters from the road. This procedure resulted in a 20 m survey coverage for each transect (10 m on each side of the surveyor). Including the existing road, the project survey width was 60 meters.

## SURVEY RESULTS AND CLEARANCE RECOMMENDATIONS

The survey area was devoid of significant archaeology and the survey produced negative results. No new archaeological sites, features or isolated artifact occurrences were discovered or recorded as a result of the field work.

It is requested that cultural resource clearance be granted for the entire 75th Avenue project area. MCDOT is aware that clearance to proceed with construction has not been granted at this time. The agency also is cognizant that in the event archaeological features, artifacts or human remains are encountered during construction, all work must cease at the location of the find and notification be given to the Arizona State Museum as required by A.R.S. 41-844 (Duty to Report Discoveries).

## SHPO ABSTRACT

**AGENCY:** Maricopa County Department of Transportation (MCDOT)

**PROJECT TITLE:** An Archaeological Survey of 75th Avenue from Glendale Avenue to Olive Avenue

**PROJECT NUMBER:** N/A

**PROJECT DESCRIPTION:** MCDOT plans to reconstruct 75th Avenue between Glendale Avenue and Olive Avenue. The preferred construction alternative has a maximum width of 110 feet. The project area was examined to determine if significant historic properties were present. A 100% intensive survey was conducted by MCDOT, in voluntary compliance with permit #94-22 issued by the Arizona State Museum.

**LOCATION:** T2N, R1E, SEC 1 and 2; and, T3N, R1E, SEC 35 and 36, G&SRB&M

**NUMBER OF SURVEYED ACRES:** 19.43 Hectares (48 acres)

**NUMBER OF SITES:** None ( 0 )

**NUMBER OF STATE & NATIONAL REGISTER ELIGIBLE SITES:** None ( 0 )

**LISTING OF ELIGIBLE SITES:** None ( 0 )

**ISOLATED ARTIFACT OCCURRENCES:** None ( 0 )

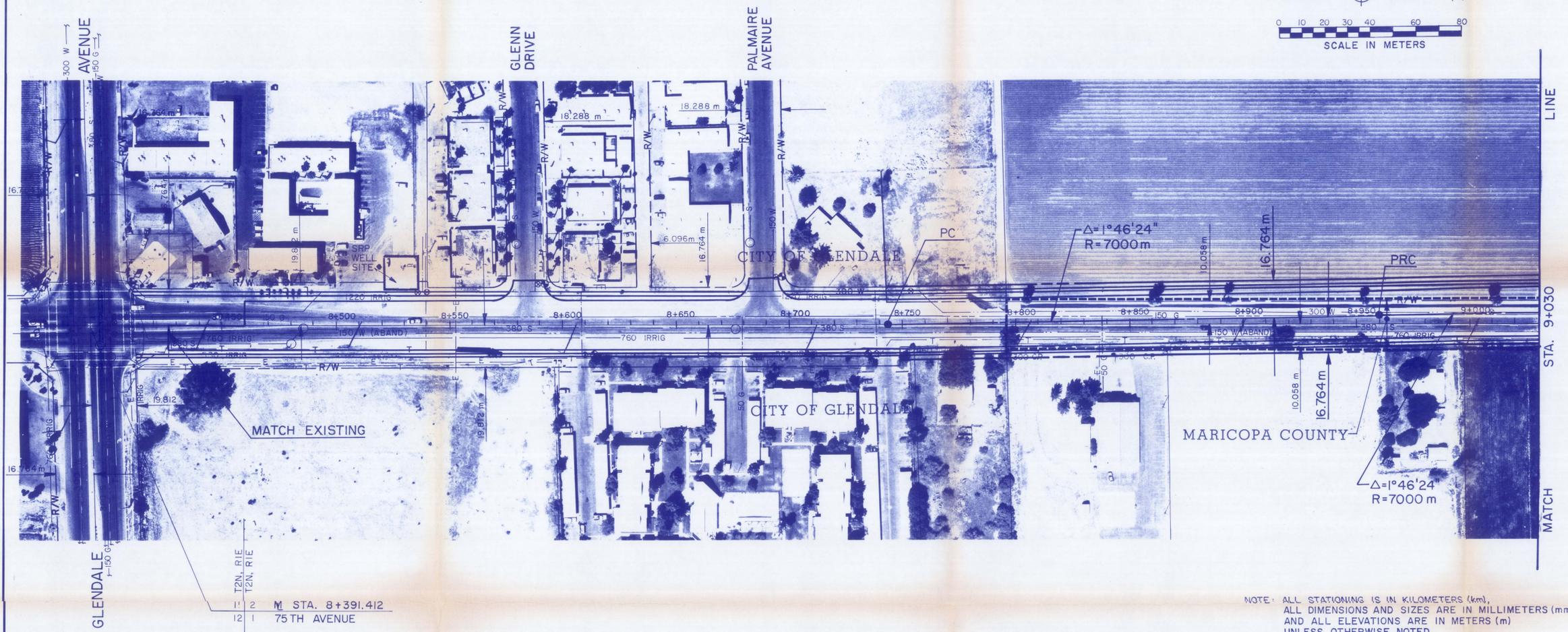
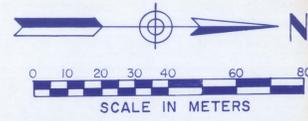
**COMMENTS:** The entire project area was intensively surveyed; no sites were found.

**RECOMMENDATIONS:** It is recommended that cultural resources clearance be granted for the entire 75th Avenue project area.

**DISCOVERY CLAUSE NOTIFICATION:** MCDOT has been advised that in the event archaeological features, artifacts or human remains are encountered during project construction, all work must cease in the vicinity of the find and notification be given to the Arizona State Museum per ARS 41-844. MCDOT should not physically disturb areas outside the archaeological survey area boundaries specified in this report without first undertaking additional survey work in consultation with ASM and the private landowners.

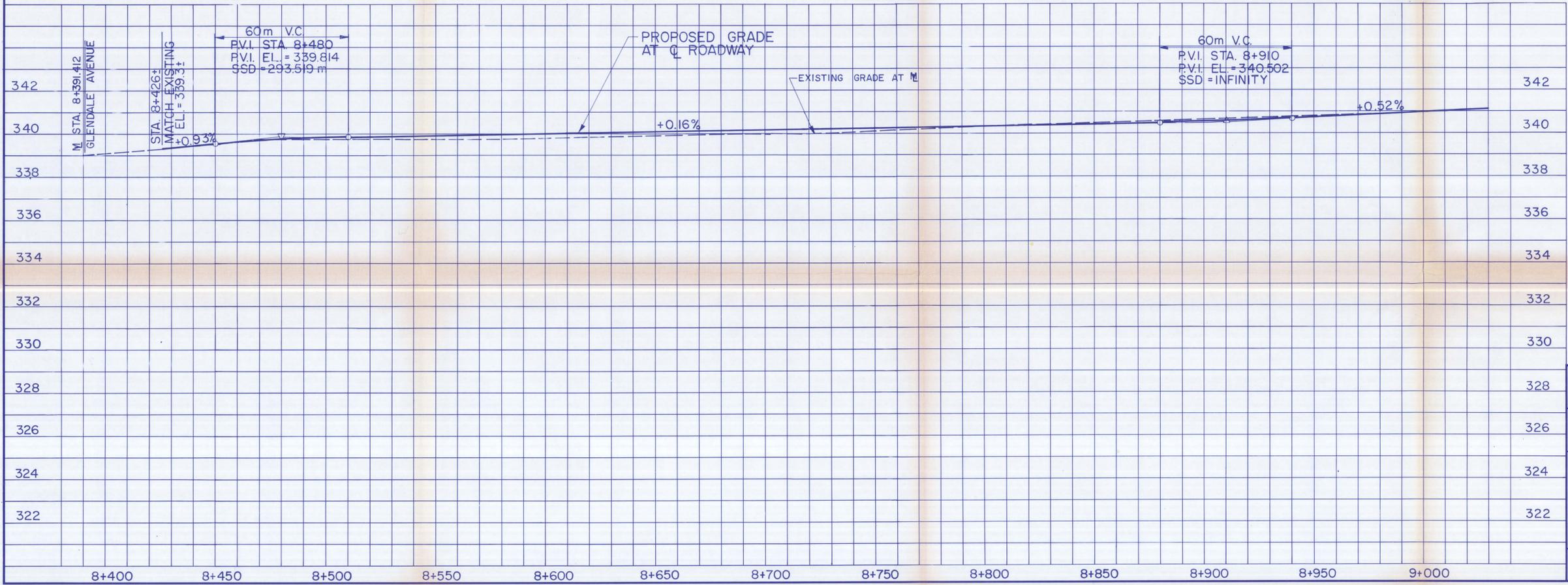
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*APPENDIX C  
PLAN AND PROFILE SHEETS  
SELECTED ALTERNATIVE*



NOTE: ALL STATIONING IS IN KILOMETERS (km),  
ALL DIMENSIONS AND SIZES ARE IN MILLIMETERS (mm),  
AND ALL ELEVATIONS ARE IN METERS (m)  
UNLESS OTHERWISE NOTED.

### 75TH AVENUE



SCALE = 1:1000 HORIZ.  
1:100 VERT.

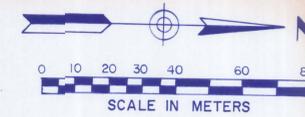
**MARICOPA COUNTY**  
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION

**75TH AVENUE DESIGN CONCEPT REPORT**  
GLENDALE AVENUE TO OLIVE AVENUE  
PROJECT NO. 68843

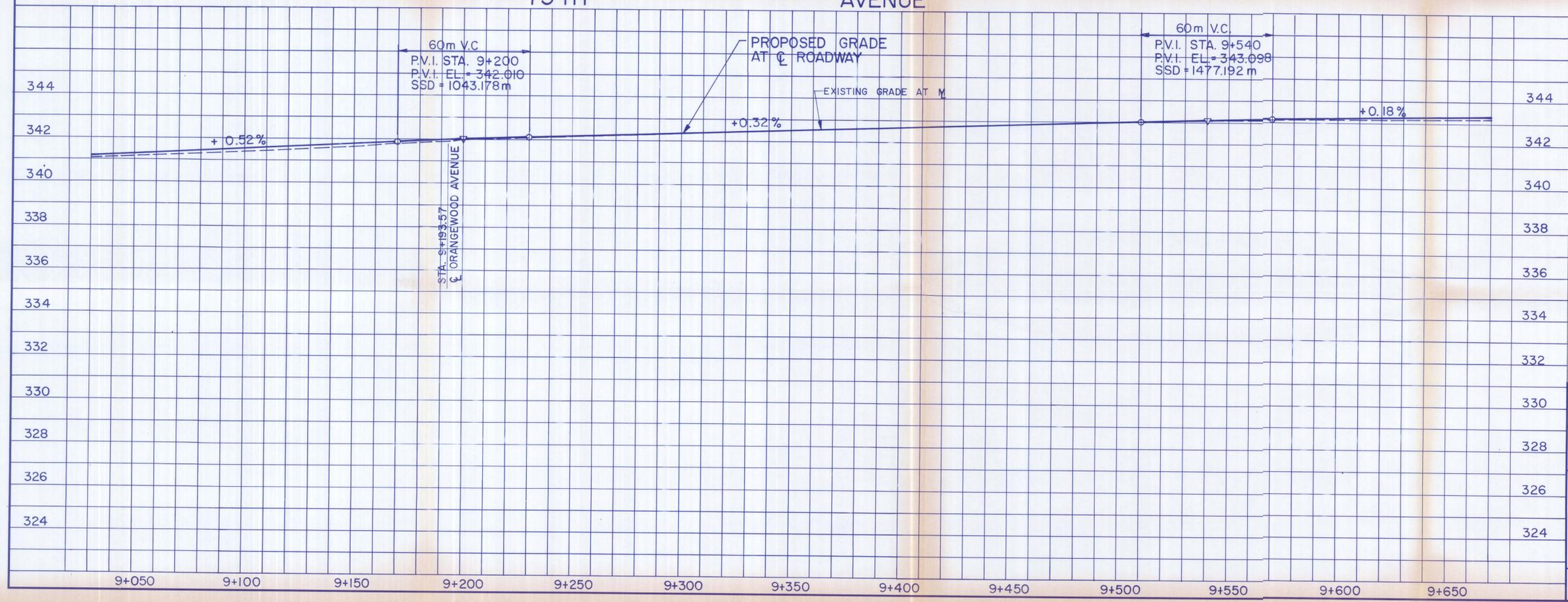
	BY	DATE
DESIGNED	D. MORRIS	9/94
DRAWN	T. CHANDLER	9/94
CHECKED	L. CULLER	9/94

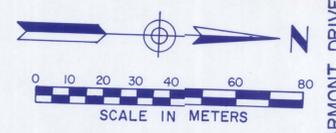
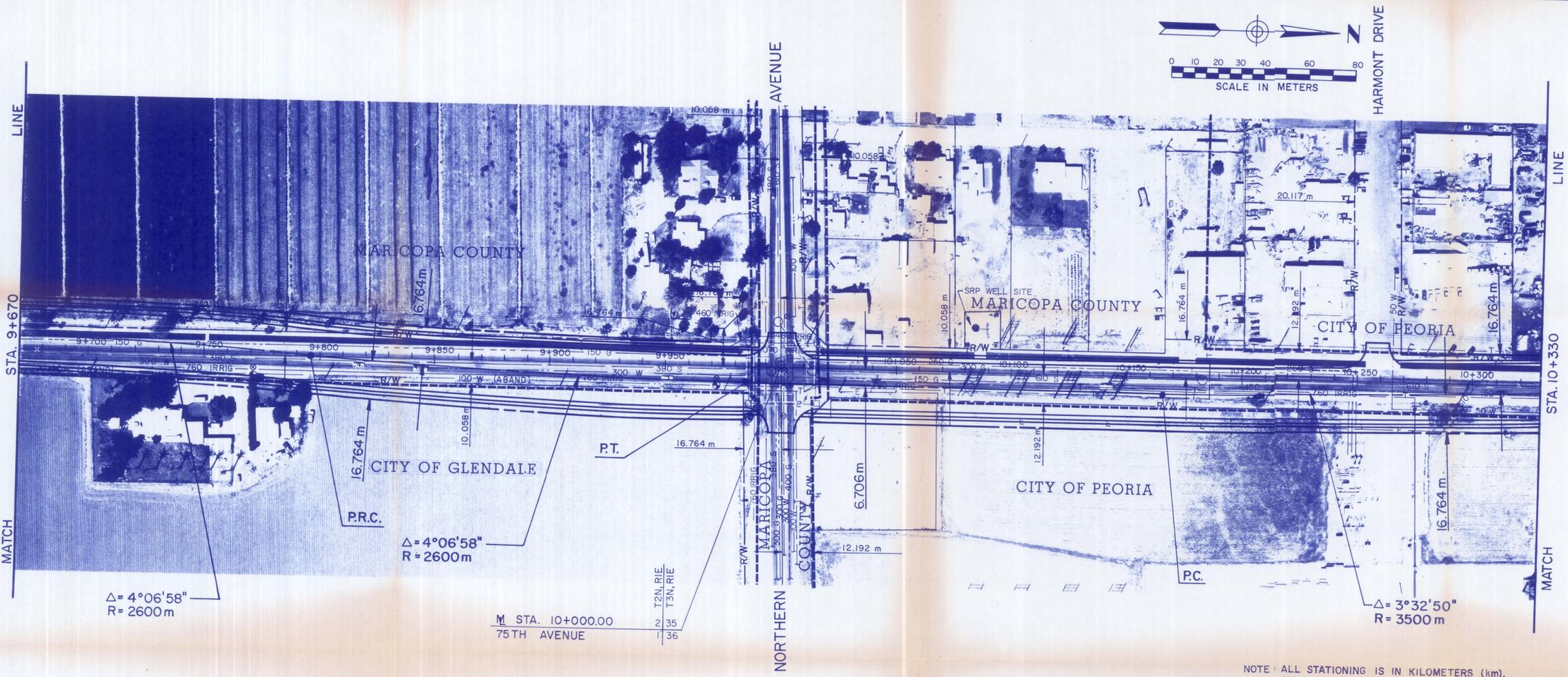
BURGESS & NIPLE  
ENGINEERS & ARCHITECTS

PLAN AND PROFILE SHEET OF 15  
STA. 8+391.412 TO STA. 9+030



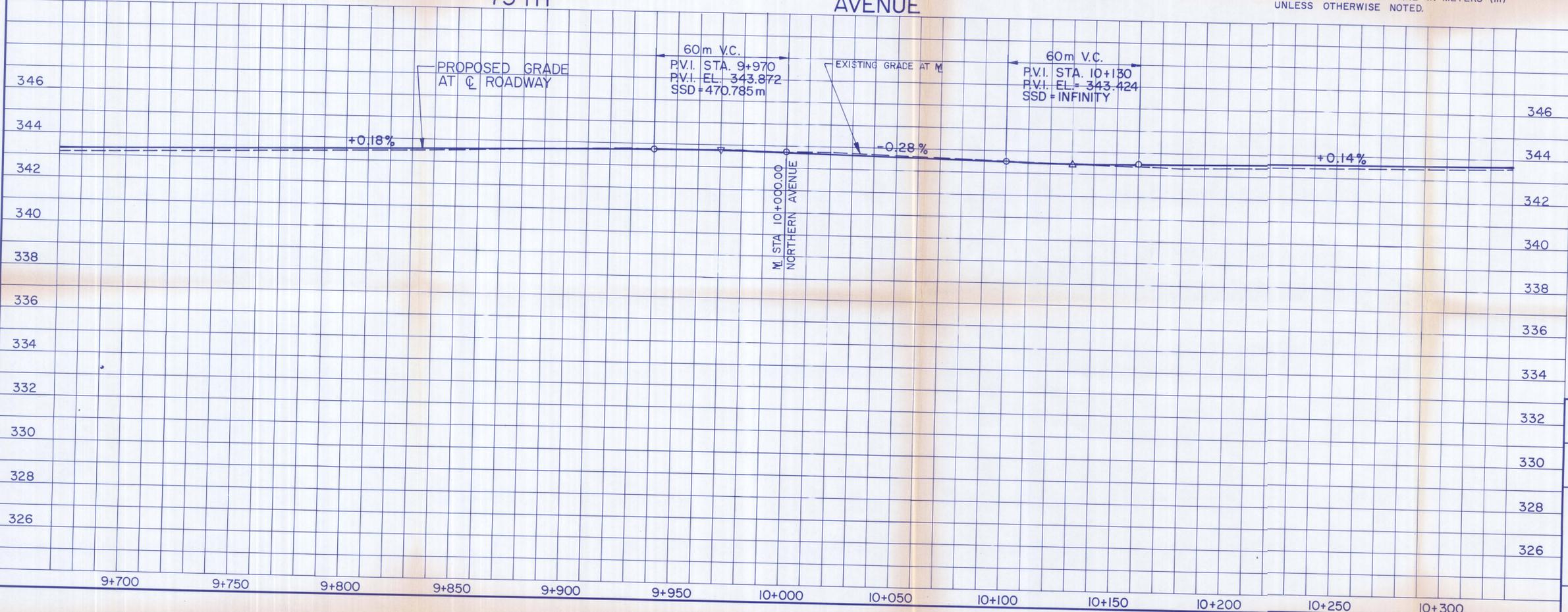
NOTE: ALL STATIONING IS IN KILOMETERS (km),  
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 AND ALL ELEVATIONS ARE IN METERS (m),  
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ALL DIMENSIONS AND SIZES ARE IN MILLIMETERS (mm)  
AND ALL ELEVATIONS ARE IN METERS (m)  
UNLESS OTHERWISE NOTED.

### 75 TH AVENUE



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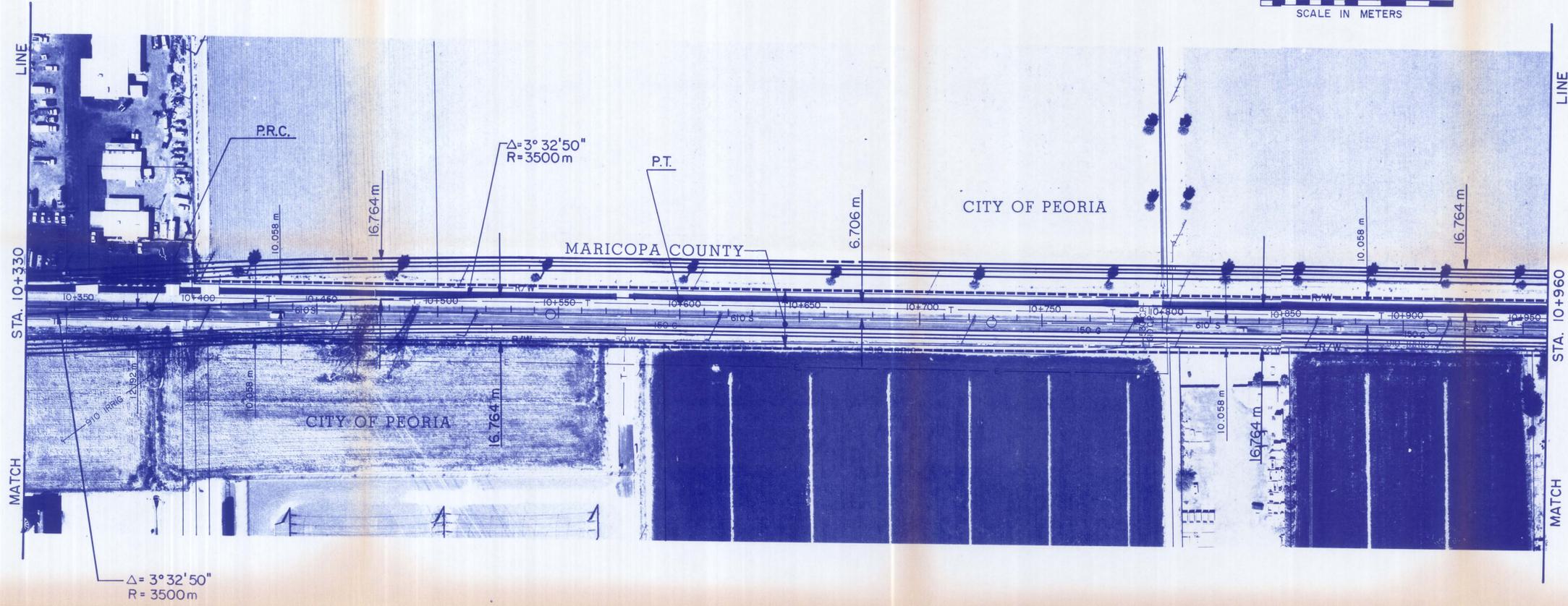
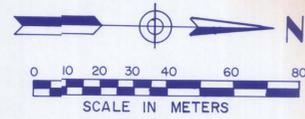
MARICOPA COUNTY  
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION  
75TH AVENUE DESIGN CONCEPT REPORT  
GLENDALE AVENUE TO OLIVE AVENUE  
PROJECT NO. 68843

DESIGNED	BY	DATE
D. MORRIS		9/94
T. CHANDLER		9/94
L. CULLER		9/94

BURGESS & NIPLE  
ENGINEERS & ARCHITECTS

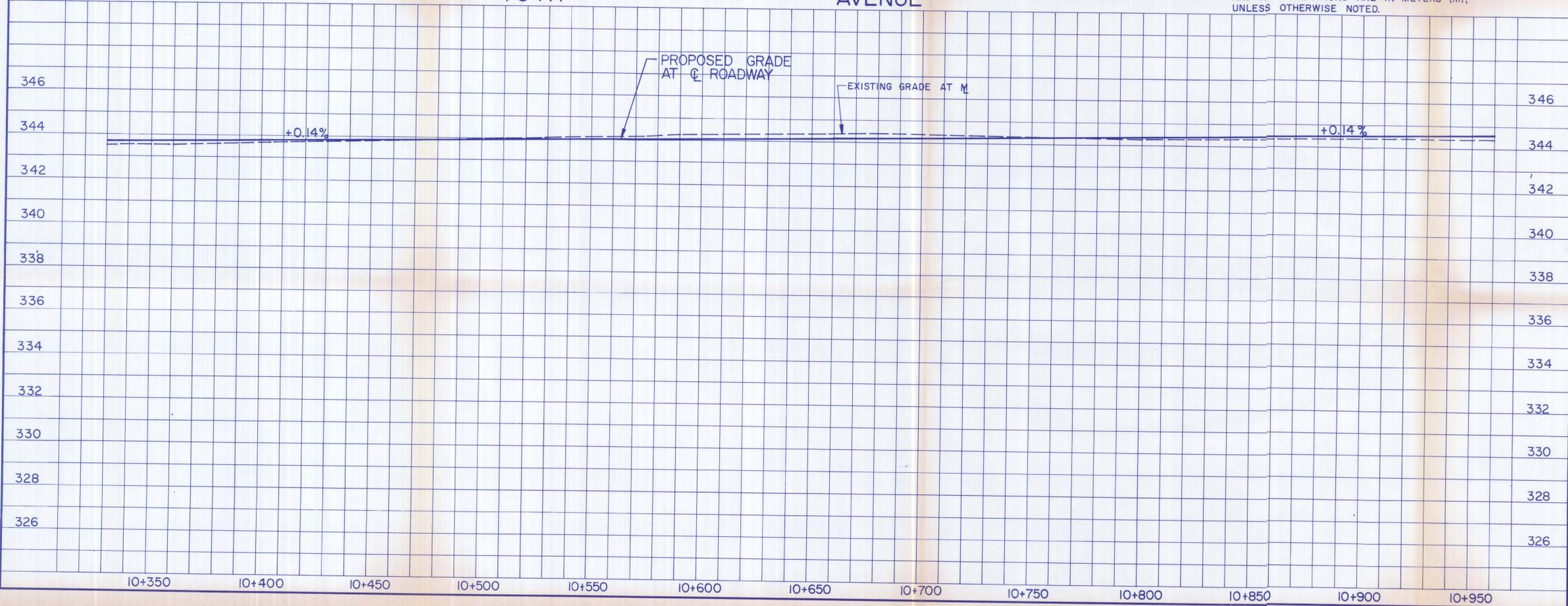
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STA 9+670 TO STA. 10+330

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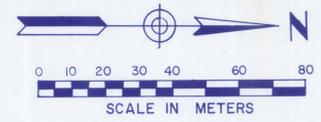
**75TH AVENUE**

NOTE: ALL STATIONING IS IN KILOMETERS (km),  
 ALL DIMENSIONS AND SIZES ARE IN MILLIMETERS (mm),  
 AND ALL ELEVATIONS ARE IN METERS (m),  
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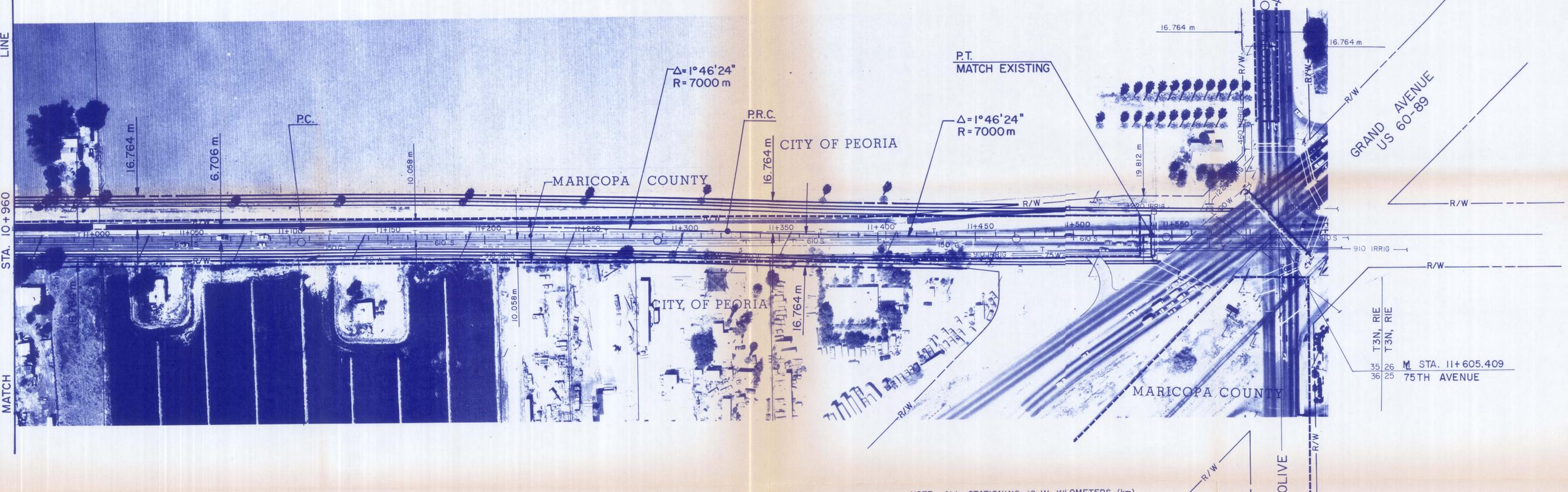


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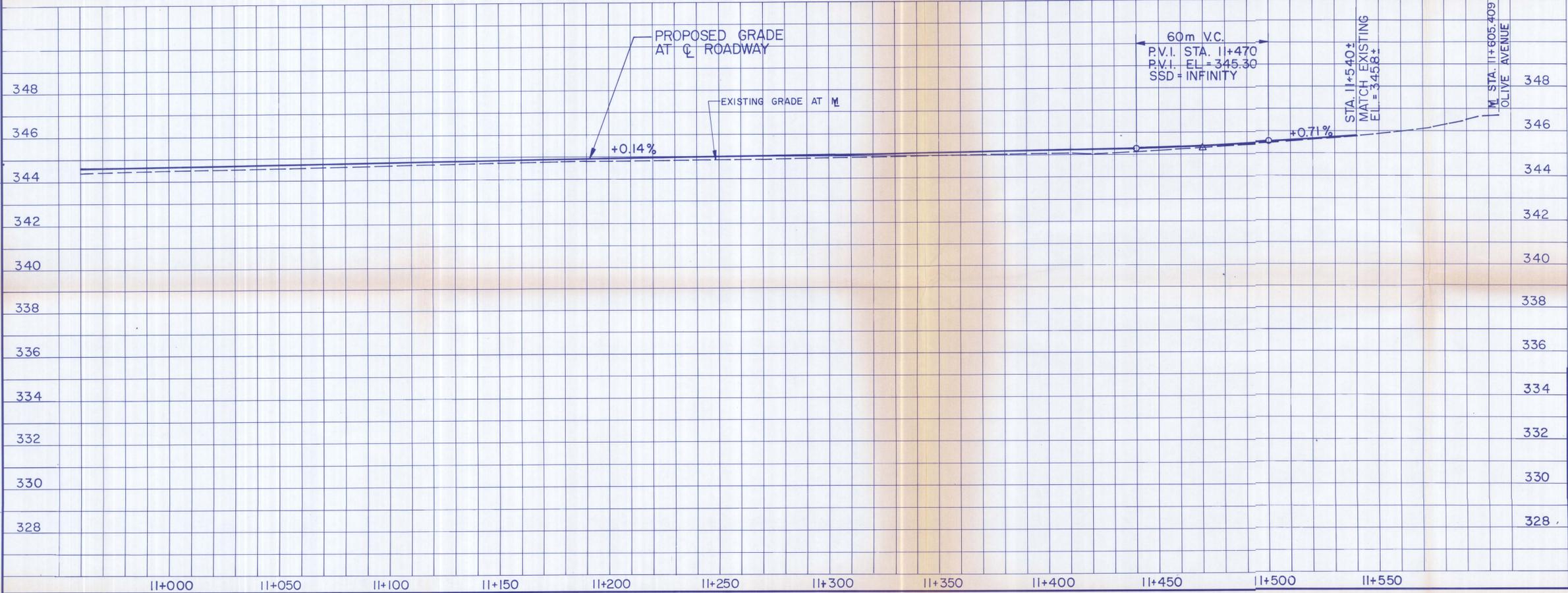
<b>MARICOPA COUNTY</b> DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION <b>75TH AVENUE DESIGN CONCEPT REPORT</b> <b>GLENDALE AVENUE TO OLIVE AVENUE</b> <b>PROJECT NO. 68843</b>		
	BY	DATE
	DESIGNED D. MORRIS	9/94
	DRAWN T. CHANDLER	9/94
	CHECKED L. CULLER	9/94
PLAN AND PROFILE STA 10+330 TO STA. 10+960		SHEET OF <b>4</b> OF <b>5</b>



LINE  
STA. 10+960  
MATCH



75 TH AVENUE



SCALE = 1:1000 HORIZ.  
1:100 VERT.

MARICOPA COUNTY  
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION  
75TH AVENUE DESIGN CONCEPT REPORT  
GLENDALE AVENUE TO OLIVE AVENUE  
PROJECT NO. 68843

	BY	DATE
DESIGNED	D. MORRIS	9/94
DRAWN	T. CHANDLER	9/94
CHECKED	L. CULLER	9/94

BURGESS  
& NIPLE  
ENGINEERS  
ARCHITECTS

PLAN AND PROFILE  
STA. 10+960 TO STA. 11+605.409

SHEET 5 OF 5

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*APPENDIX D*  
*PUBLIC INVOLVEMENT*

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

PUBLIC INVOLVEMENT PLAN

*75TH AVENUE DESIGN CONCEPT REPORT  
(GLENDALE AVENUE-OLIVE AVENUE)*

*MARICOPA COUNTY, ARIZONA*

*Work Order No. 68843*

*April 1994*

*Prepared by:*

*Burgess & Niple, Inc.*

*5025 East Washington Street, Suite 212  
Phoenix, AZ 85034*

## PUBLIC INVOLVEMENT PLAN

This plan is consistent with the Maricopa County Department of Transportation (MCDOT) Environmental Process Policy.

### I. DESCRIPTION OF PROPOSED IMPROVEMENTS

Work Order Number: 68843

Proposed Action: Development of a design concept for a preferred alignment to widen 75th Avenue from 2 lanes to 4 lanes.

Project Limits: The alternative locations are generally along the existing 75th Avenue alignment between Glendale Avenue and Olive Avenue. There is also the "No Build" alternative.

Level of Significance: MCDOT Environmental Determination Report

### II. IDENTIFICATION OF CONCERNED AGENCIES AND PUBLIC

The following federal, state, and local agencies, having a concern in this project due to jurisdictional review or expressed interest, have been identified and will be contacted directly by MCDOT or its consultant at the onset of the project. As other concerned public agencies are identified during the study, they will be added to the list and contacted.

#### FEDERAL:

Federal Emergency Management Agency  
U.S. Department of Interior:  
Fish and Wildlife Service

#### STATE:

Arizona Department of Agriculture  
Arizona Department of Environmental Quality  
Arizona Department of Transportation  
Arizona Game and Fish Department  
Arizona State Parks, State Historic Preservation Office  
Arizona State Museum

#### LOCAL:

City of Glendale  
City of Peoria  
Maricopa County Flood Control District  
Maricopa County Parks and Recreation  
Maricopa County Infrastructure Planning Department  
Rural Metro

Early in the study, a general letter of introduction will be prepared and submitted to the agencies, which will alert them to the project and solicit comments and information pertaining to the project.

The following local officials and interest groups, having a direct or expressed interest in the project, will be identified and contacted by MCDOT or its consultant.

- Local Elected and Appointed Officials:

- Glendale
- Peoria
- Maricopa Association of Governments (MAG) Transportation Planning Office
- MAG Regional Bicycle Task Force
- Maricopa County Board of Supervisors
- MCDOT Transportation Advisory Board
- Maricopa County Sheriff's Office
- Regional Public Transportation Authority

- Public Interest Organizations:

- Peoria Unified School District No. 11
- Glendale Elementary School District No. 40
- Glendale Union High School District No. 205

### III. PUBLIC NOTIFICATION

The following techniques will be employed, either individually or cumulatively, to notify the public of the proposed transportation improvements and upcoming meetings, as well as to solicit public input into the project development process.

Identification of mass media used to carry public notices, news releases, public service announcements, news items, and interviews include:

**NEWSPAPERS:**

- Peoria Times
- Glendale Star

**RADIO:**

- KTAR 620

Public notification techniques which will be used at various times during project development include:

- Invitational and/or information letters
- News releases to the media
- Public display notices
- Public service announcements
- Direct mail to the following in order to obtain input or provide project information:
  - Property owners adjacent to the project
  - Local elected and appointed officials
  - Individuals who request to be placed on mailing list

- Public and private groups, organizations, agencies, or businesses that request to be added to the mailing list

Advertisements will be placed in local newspapers in order to notify the public about upcoming meetings. Newspaper advertisements will appear a minimum of two weeks prior to public information meetings and again one week prior to such meetings.

#### IV. PUBLIC MEETINGS

An informational meeting will be conducted during project development to receive public input regarding project purpose, goals, study approach, and alternatives being considered. Following development and evaluation of alternatives, the need for a second public meeting will be evaluated. If necessary, the second meeting will be conducted to present a comparison of the environmental impacts and cost effectiveness of the alternatives.

- Meeting Site: 75-person capacity facility in the project area.
- Public Advertisement: Display advertisements will be printed in selected media listed in Section III.
- Letters of Invitation: Letters will be sent to all local officials and property owners regarding the upcoming meeting.
- Meeting Preparation: A meeting strategy session will be held among project team members, including MCDOT and its consultant, to obtain consensus on meeting format, exhibits, and handout material two to three weeks before each meeting. Subsequently, display graphics and handout materials will be prepared. An open house format is recommended following brief introductory remarks regarding the purpose and objective of the meeting.
- Meeting Record: Notes will be prepared by project team members, supplemented by a meeting debriefing session.

The results of the meeting will be summarized in the Design Concept Report. Additional meetings or workshops may be conducted as the need arises.

**B U R G E S S  
& N I P L E**

E N G I N E E R S  
A R C H I T E C T S

Mr. Sam Spiller  
State Supervisor  
US Fish & Wildlife Service  
3616 W. Thomas Road, Suite 6  
Phoenix, AZ 85019

Re: 75th Avenue Design Concept Report  
Glendale Avenue - Olive Avenue

April 26, 1994

Dear Mr. Spiller:

**Burgess & Niple, Inc.**  
5025 East Washington Street  
Suite 212  
Phoenix, AZ 85034  
602 244-8100  
Fax 602 244-1915

Burgess & Niple, Inc. has been retained by the Maricopa County Department of Transportation, Transportation Planning Division to develop a design concept report for widening 75th Avenue from two lanes to four lanes between Glendale Avenue and Olive Avenue. (See enclosed map.)

We are contacting federal, state and local agencies; local officials; and other public interest organizations to request comments and information relevant to this project. We are collecting information pertaining to the following:

- Past, existing and future land use
- Future parks and recreation facilities
- Community cohesion
- Business, residential and industrial development
- Historic/archaeological sites
- Soils and geotechnical
- Socially/environmentally sensitive areas
- Hazardous materials sites
- Ecological communities
  - Habitat
  - Vegetation
  - Wildlife
  - Threatened and endangered species
- Arizona Native Plant Law species

Please contact Barbara Raisanen or myself if you have any questions. We look forward to working with you and to receiving a written response to this request within 15 calendar days after receipt of this letter.

Very truly yours,

Larry D. Culler

**B U R G E S S  
& N I P L E**

E N G I N E E R S  
A R C H I T E C T S

Mr. Chuck Hughes  
Distribution Design  
Salt River Project  
P O Box 52025  
Phoenix, AZ 85072-5025

Re: 75th Avenue Design Concept Report  
Glendale Avenue - Olive Avenue

April 26, 1994

Dear Mr. Hughes:

**Burgess & Niple, Inc.**  
5025 East Washington Street  
Suite 212  
Phoenix, AZ 85034  
602 244-8100  
Fax 602 244-1915

Burgess & Niple, Inc. has been retained by the Maricopa County Department of Transportation, Transportation Planning Division to develop a design concept report for widening 75th Avenue from two lanes to four lanes between Glendale Avenue and Olive Avenue. (See enclosed map.)

We are contacting utility companies to request comments and information concerning your facilities in the area of this project which may include:

- Water lines
- Sewer lines
- Storm drain facilities
- Gas lines
- Electric facilities, overhead or underground
- Street lights
- Telephone lines, including fiber optics, overhead or underground
- Cable TV facilities

Please contact Barbara Raisanen or myself if you have any questions. We look forward to working with you and to receiving a written response to this request within 15 calendar days after receipt of this letter.

Very truly yours,

Larry D. Culler

LDC:cg  
Enclosure

## AGENCY CONTACT ADDRESSES

### 75th Avenue Design Concept Report - Glendale Avenue - Olive Avenue

Mr. Sam Spiller, State Supervisor  
US Fish & Wildlife Service  
3616 W. Thomas Road, Suite 6  
Phoenix, AZ 85019

Mr. Neil Erwin  
Chief Engineer & General Manager  
Flood Control District  
2801 W. Durango Street  
Phoenix, AZ 85009

Ms. Jill Herberg-Kusy  
Principal Planner  
Maricopa Co. Infrastructure Planning Dept.  
2901 W. Durango  
Phoenix, AZ 85009

Mr. Ron Christofferson  
Habitat Evaluation Coordinator  
Arizona Game & Fish Department  
2221 W. Greenway Road  
Phoenix, AZ 85023

Mr. Jim Garrison  
Arizona State Historic Preservation Office  
1300 W. Washington  
Phoenix, AZ 85007

Mr. Jim Matt  
Arizona Department of Environmental Quality  
Water Quality Section  
3033 N. Central  
Phoenix, AZ 85012

Mr. Jack DeBolske, Director  
Maricopa Association of Governments  
1820 W. Washington Street  
Phoenix, AZ 85007

Mr. Joseph M. Arpaio, County Sheriff  
Sheriff's Office  
102 W. Madison  
Phoenix, AZ 85003

Mrs. Cynthia Donald  
Supervisor of Planning, Design & Construction  
County Parks and Recreation Department  
3475 W. Durango Street  
Phoenix, AZ 85009

Mr. Robert Manschot, CEO  
Attn: Warren Mundt  
Rural Metro  
8401 E. Indian School Road  
Scottsdale, AZ 85251

Mr. Greg Victor  
Fire Department  
City of Glendale  
6835 N. 57th Drive  
Glendale, AZ 85301

Mr. Marvin Harris  
Fire Inspector  
City of Peoria  
8401 W. Monroe  
Peoria, AZ 85345

Native Plants Production  
AZ Department of Agriculture  
1601 N. 7th Street  
Phoenix, AZ 85006

Mr. William Medigovich, Director  
FEMA, Region IX  
Presidio of San Francisco  
Bldg. 105  
San Francisco, CA 94129

**AGENCY CONTACT ADDRESSES**

Page 2 of 2

Mr. William Belt, Manager  
Environmental Planning Services  
Arizona Dept. of Transportation  
205 S. 17th Avenue  
Phoenix, AZ 85007

Mr. Michael Carman  
Arizona State Capitol Museum  
1700 W. Washington Street  
Phoenix, AZ 85007

Arizona Historical Society Museum  
1300 N. College  
Tempe, AZ 85281

Regional Bicycle Task Force  
MAG Transportation Planning Office  
2901 W. Durango  
Phoenix, AZ 85009

Ms. Kimberly Holub  
Regional Public Transportation Authority  
302 N. 1st Avenue, Suite 700  
Phoenix, AZ 85003

Dr. Richard Terbush  
Glendale Elementary School District #40  
7301 N. 58th Avenue  
Glendale, AZ 85301

Dr. Jerry George  
Glendale Union High School District #205  
7650 N. 43rd Avenue  
Glendale, AZ 85301

Dr. Raymond Kellis, Superintendent  
Peoria Unified School District #11  
6330 W. Thunderbird Road  
Glendale, AZ 85306

## UTILITY CONTACT ADDRESSES

### 75th Avenue Design Concept Report - Glendale Avenue - Olive Avenue

Mr. John Nevlis - Glendale Exchange  
US West  
2233 W. Dunlap, Room 232  
Phoenix, AZ 85021

Mr. Bill Ward  
District Superintendent  
El Paso Natural Gas Company  
7815 S. 48th Street  
Phoenix, AZ 85044

Mr. Robert Maurer  
Engineering Services  
Salt River Valley Water Users Assn.  
P.O. Box 52025  
Mail Station PAB106  
Phoenix, AZ 85072-2025

Mr. Pete Thomas  
Transmission Engineering  
Arizona Public Service Company  
P.O. Box 53999  
Mail Station 3881  
Phoenix, AZ 85072-3999

Mr. Colin Sword  
District Engineer  
Sprint  
401 W. Harrison  
Phoenix, AZ 85003

Mr. Grant Anderson  
City Engineer  
City of Glendale  
5850 W. Glendale Avenue  
Glendale, AZ 85301

Mr. John Kilgus - Peoria Exchange  
US West  
2233 W. Dunlap, Room 232  
Phoenix, AZ 85021

Mr. Jim Woodruff  
Construction Department  
Dimension Cable  
115 N. 51st Avenue  
Phoenix, AZ 85043

Mr. Chuck Hughes  
Distribution Design  
Salt River Project  
P.O. Box 52025  
Mail Station WVS208  
Phoenix, AZ 85072-2025

Southwest Gas  
Drafting  
9 South 43rd Avenue  
Phoenix, AZ 85009

Mr. Christopher Clark  
Branch Business Manager  
MCI  
2525 E. Camelback Road, #400  
Phoenix, AZ 85016

Mr. Robert J. Darr  
City Engineer  
City of Peoria  
8401 W. Monroe Street, Room 210  
Peoria, AZ 85345



State of Arizona  
DEPARTMENT OF LIBRARY, ARCHIVES AND PUBLIC RECORDS  
ARLENE BANSAL  
Director

ARIZONA STATE CAPITOL MUSEUM  
1700 W. Washington  
Phoenix, Arizona 85007  
Phone: (602) 542-4675  
FAX: (602) 542-4690

MICHAEL D. CARMAN  
Division Director

ARIZONA HALL OF FAME MUSEUM  
1101 W. Washington  
Phoenix, Arizona 85007  
Phone: (602) 255-2110

April 26, 1994

RECEIVED  
MAY - 4 1994  
BURGESS & NIPLE, INC.

Larry D. Culler  
Burgess and Niple Engineers Architects, Inc.  
5025 East Washington Suite 212  
Phoenix, Arizona 85007

Dear Mr. Culler:

The Arizona State Capitol Museum has nothing to contribute to your report on the expansion of 75th Avenue. This museum's holdings are limited to Arizona government history from establishment of the Arizona Territory in 1863 through installation of state government in 1912. Nothing in our operations extends into that area to the best of my knowledge.

You may receive more information on this area you are investigating from the Glendale Historical Society and the Central Division of the Arizona Historical Society. Your researchers will undoubtedly want to visit the State Archives and State Library as well as other historical records depositories at the universities and throughout the valley. The State Historic Preservation Officer, Jim Garrison, should be able to help you identify historical and archaeological sites along the 75th Avenue corridor. The SHPO or someone at one of the universities can recommend a researcher to answer your questions and complete your report if you need that kind of specialized impact report research.

Sincerely,

Michael D. Carman



# OFFICE OF THE SHERIFF

JOSEPH M. ARPAIO  
SHERIFF



April 27, 1994

RECEIVED

APR 29 1994

BURGESS & NIPLE, INC.

Mr. Larry D. Culler  
Burgess & Niple, Inc.  
5025 East Washington Street  
Suite 212  
Phoenix, Arizona 85034

RE: 75th Avenue Design Concept Report  
Glendale Avenue - Olive Avenue

Dear Mr. Culler;

The Sheriff's Office is not opposed to the widening of 75th Avenue between Glendale and Olive Avenues.

The widening of this road from two lanes to four lanes can do nothing but improve the flow of vehicular traffic and enhance safety.

Sincerely,

Joseph M. Arpaio  
Maricopa County Sheriff

A handwritten signature in cursive script, appearing to read "William R. Heath".

Deputy Chief William R. Heath  
Enforcement Bureau

JMA:WRH:yrv



THE STATE



OF ARIZONA

## GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4399 (602) 942-3000

Governor  
Fife Symington

Commissioners:  
Larry Taylor, Yuma, Chairman  
Elizabeth T. Woodin, Tucson  
Arthur Porter, Phoenix  
Nonie Johnson, Snowflake  
Michael M. Golightly, Flagstaff

Director  
Duane L. Shroufe

Deputy Director  
Thomas W. Spalding

April 27, 1994

RECEIVED

APR 29 1994

BURGESS & NIPLE, INC.

Mr. Larry D. Culler  
Burgess & Niple, Inc.  
5025 East Washington Street, Suite 212  
Phoenix, Arizona 85034

Re: 75th Avenue Design Concept Report;  
Glendale Avenue - Olive Avenue

Dear Mr. Culler:

The Arizona Game and Fish Department (Department) appreciates receiving your letter of April 25, 1994, requesting our comments on the above-referenced Design Concept Report (DCR). The Department recommends that you allot a minimum of 30 days for our evaluation of this proposed roadway expansion. We anticipate responding to your request by May 25, 1994.

Thank you for the opportunity to participate early in the development of the DCR. If you have any questions, please contact me at 789-3605.

Sincerely,

A handwritten signature in cursive script that reads "Ron Christofferson".

Ron Christofferson  
Project Evaluation Coordinator  
Habitat Branch

RAC:rc

cc: Kelly Neal, Regional Supervisor, Region VI, Mesa



April 27, 1994

RECEIVED

MAY - 2 1994

BURGESS & NIPLE, INC.

Mr. Larry D. Culler  
Burgess & Niple, Inc.  
5025 E Washington St. Suite 212  
Phoenix, AZ 85034

Dear Mr. Culler:

I have received your letter dated April 25, 1994, regarding the 75th Avenue project. From the "laundry list", the only issue that could relate to the fire department is "hazardous materials sites". I do not know what you mean by this term, could you define it for me? In addition, our records are filed by address. We charge a \$25.00 fee for each address researched. You will need to provide a list of addresses and occupancy names that you want to be researched accompanied by \$25.00 per address.

If you have any questions you may call me at 930-3456.

Sincerely,

Greg Victor  
Fire Marshal

William C. Scalzo  
Director



PARKS AND RECREATION  
DEPARTMENT

RECEIVED

APR 29 1994

BURGESS & NIPLE, INC.

April 28, 1994

Mr. Larry D. Culler  
Burgess & Niple, Inc.  
5025 East Washington Street, Suite 212  
Phoenix, AZ 85034

**RE: 75TH AVENUE DESIGN CONCEPT REPORT  
GLENDALE AVENUE - OLIVE AVENUE**

Dear Mr. Culler:

We have reviewed your letter of April 25, 1994 requesting comments and information that would be relevant to the above referenced project. We do not have anything to contribute to this project.

Sincerely,

A handwritten signature in cursive script that reads "Kenneth W. Mouw".

Kenneth W. Mouw, P.E.

c: Cynthia Donald

f:\wp\office\75thave.ltr



CONVERSATION RECORD

Job No. 15192 Job Name 75th Av. DCR-MCDOT Date 4-28-94

By B. Raisanen Time \_\_\_\_\_

With Burton Charron, C.O. Peoria

By Telephone  Incoming  Outgoing Telephone No. (\_\_\_\_) \_\_\_\_\_  
*Call Returned*

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: Existing conditions

Conversation Items: 1. Street lights - SRP

2. Sewer line - existing

3. Water line - Peoria wants one in 75th Av.

4. SRWUA has Lateral 70 on W. side 75th Av.

5. SRP has water line to steam plant on E.

side 75th Av. (Plant @ 75th ; Northern) -

water can not be disrupted when plant is

operating

6. ADOT owns property @ Olive / 75th / RR

Action Required: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Action Taken: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av. DCR - MCDOT Date 4-28-94

By B. Raisanen Time \_\_\_\_\_

With Larry Broyles - C.O. G. Kendall

By Telephone  Incoming  Outgoing Telephone No. (\_\_\_\_\_) \_\_\_\_\_

*Call Returned*

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: \_\_\_\_\_

- Conversation Items:
1. Street lights - Dave Hoffman, Traffic Engineering, C.O.G. 435-4163
  2. All "a-built's" - Engineering Mapping & Records - Don Slayton (or Joe) 435-4361 \*
  3. Land use - Planning & Zoning - 435-4169

\* Has "a-b"'s on 75th (E. side) for apts & Industrial park paving - 5 sheets - 3rd flk. City Hall, \$3/shet - order & pick up

Action Required: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Action Taken: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av. DCR-MCDOT Date 5-2-94

By B. Raisanen Time \_\_\_\_\_

With Ben Leonard - research asst. @ RPTA

By Telephone  Incoming  Outgoing Telephone No. (\_\_\_\_\_) \_\_\_\_\_  
Call Returned

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: \_\_\_\_\_

Conversation Items: Regional Public Transit Authority  
needs r/w for "transit accessory pads"  
35' x 17' conc. slab w/ elec. pull box -  
not the pad or elec., just the r/w.  
Mr. Leonard will send a sketch.

Action Required: \_\_\_\_\_

Action Taken: \_\_\_\_\_



Regional Public  
Transportation  
Authority

RECEIVED  
MAY - 5 1994

May 2, 1994

Ms. Barbara Raisanen  
Burgess and Niple, Inc.  
5025 East Washington Street  
Suite 212  
Phoenix, AZ 85034

Re: 75th Avenue Design Concept Report  
Glendale Avenue - Olive Avenue

Dear Ms. Raisanen:

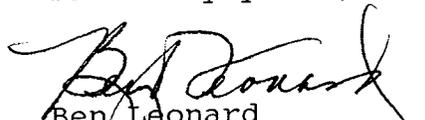
In view of the fact that no bus service presently exists within the design concept area of 75th Avenue between Glendale and Olive Avenues, RPTA input consists of a right-of-way requirement for future transit accessory pads at the following locations:

- 75th Avenue, north bound and farside of Glendale Avenue
- 75th Avenue, north bound and farside of Northern Avenue
- 75th Avenue, south bound and farside of Olive Avenue
- 75th Avenue, south bound and farside of Northern Avenue

Thank you for inviting suggestions from the Regional Public Transportation Authority.

I have enclosed a copy each of Phoenix Standard Detail P-1258 and P-1260 to assist you.

Sincerely yours,

  
Ben Leonard  
Research Assistant

Enclosures

c: Linda Blew  
Chuck Italiano

BEN/private/burgess.let

B U R G E S S  
& N I P L E

E N G I N E E R S  
A R C H I T E C T S

To: File Date: 5-3-94  
From: B. Raisanen Job Number: 15192  
Subject: 75th Av. DCR-MCDOT Sect. No. / Act.: 9415

## Memorandum

Burgess & Niple, Inc.  
5025 East Washington Street  
Suite 212  
Phoenix, AZ 85034  
602 244-8100  
602 244-1915 Fax

In reply to B & N letter of inquiry,  
we received from the

AZ DEPT OF AGRICULTURE  
1601 N. 7th ST.  
PHX, AZ 85006

2 items -

1. Categories of Protected Native Plants
2. List of Protected Native Plants by Categories.



May 3, 1994

Mr. Larry D. Culler  
Burgess & Niple, Inc.  
5025 East Washington Street, Suite 212  
Phoenix, Arizona 85034

75TH AVENUE DESIGN CONCEPT REPORT/GLENDALE TO OLIVE AVENUES

Dear Mr. Culler:

Attached are copies of the quarter section maps and as-built drawings for 75th Avenue, between Glendale and Olive Avenues. We understand that you will be designing this project for the Maricopa County Department of Transportation.

This portion of 75th Avenue lies within the City of Glendale Strip Annex Area and will become part of the City in the future. For this reason, the City is interested in reviewing any plans which are developed for this street. Please be sure to include us in all project reviews.

Please be aware that the Flood Control District of Maricopa County is in the process of designing a storm drain outfall in the Orangewood Avenue alignment. This storm drain will cross 75th Avenue. The design of 75th Avenue should accommodate the design of the storm drain and should provide drainage facilities north of Orangewood Avenue.

Please feel free to contact me at 435-4152 should you have any questions or require additional information.

Sincerely,

Grant I. Anderson, P.E.  
City Engineer

  
Daniel A. Sherwood, P.E.  
Civil Engineer

va  
Attachments

**APS**  
**Arizona Public Service Company**  
P.O. BOX 53999 • PHOENIX, ARIZONA 85072-3999

RECEIVED  
MAY 11 1994  
BURGESS & NIPLE, INC.

Burgess & Niple, Inc.  
5025 East Washington Street  
Suite 212  
Phoenix, AZ 85043

Re: 76th Avenue Design Concept Report  
Glendale Avenue - Olive Avenue

May 8, 1994

Dear Mr. Culler:

Per your request, here are the one-line drawings showing our facilities along 75th Avenue between Glendale Avenue and Olive Avenue.

Please contact Hans Burket (371-6614) or myself (371-6826) if you have any questions or require additional information.

Sincerely yours,

  
Pete Thomas

hwb



Maricopa County  
Planning and Development

May 10, 1994

Larry D. Culler  
Burgess & Niple, Inc  
5025 East Washington Street  
Suite 212  
Phoenix, AZ 85034

RECEIVED

MAY 12 1994

BURGESS & NIPLE, INC.

Dear Mr. Culler:

This Department appreciates the opportunity to comment on the proposed improvement of 75th Avenue between Glendale and Olive Avenues and to provide you with the requested information.

Enclosed for your reference are portions of Maricopa County Zoning Maps A21 and A42. A county island is located along the west side of 75th Avenue starting at Orangewood and continuing to approximately one-eighth mile north of Northern Avenue. That portion of unincorporated Maricopa County south of Northern Avenue is zoned R1-6, which is a single-family residential zoning district permitting lots 6000 square feet or larger. North of Northern Avenue, the property is zoned Rural-43, a rural residential zone permitting single-family units on lots one-acre or larger. North of the Rural-43 zoning is a parcel zoned Ind-3, or heavy industrial.

The City of Glendale is adjacent to 75th Avenue at the south end of the corridor and the City of Peoria at the north end. There is no adopted Maricopa County land use plan for this area. However, Glendale's General Plan covers the area south of Northern Avenue and Peoria's General Plan covers the area north of Northern Avenue.

page 1 of 2



Section 2309 of the Maricopa County Zoning Ordinance establishes a 55-foot setback along section-line roads and any permits issued have been in accordance with this requirement. If a half-width of greater than 55-foot is being considered, we recommend that the permit history of each parcel along the corridor be carefully examined and zoning implications considered prior to a making a decision on the issue.

Because Glendale and Peoria are adjacent to the project area, we also recommend that the proposed improvement be referred to these municipalities for review and comment.

Sincerely,

Jill Herberg-Kusy <sup>wl.</sup>

Jill Herberg-Kusy  
Principal Planner

wl  
enclosure



Date May 16, 1994  
File No. \_\_\_\_\_

P.O. BOX 52025  
PHOENIX, ARIZONA 85072-2025

**LETTER OF TRANSMITTAL**

RECEIVED  
MAY 17 1994

BURGESS & NIPLE, INC.

TO: BURGESS & NIPLE  
5025 E. WASHINGTON ST, SUITE 212  
PHOENIX AZ 85034

ATTENTION: LARRY D. CULLER

RE: 75<sup>TH</sup> AVE, GLENDALE AVE - OLIVE AVE

- Attached
- Shop Drawings
- Copy of Letter
- Under Separate Cover Via \_\_\_\_\_
- Prints
- Change Order
- Preliminary Plans
- Final Plans
- Samples
- Specifications
- Other

Date	No.	Description
		INSTALLATION RECORDS - OVERHEAD &
		UNDERGROUND

TRANSMITTED FOR:

- APPROVAL
- YOUR INFO & USE
- AS REQUESTED
- REVIEW AND COMMENT
- OTHER: \_\_\_\_\_
- APPROVED
- APPROVED AS NOTED
- RETURNED FOR CORRECTIONS
- RESUBMIT \_\_\_\_\_ COPIES FOR APPROVAL
- SUBMIT \_\_\_\_\_ COPIES FOR DISTRIBUTION
- \_\_\_\_\_ CORRECTED PRINTS

REMARKS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

cc:

SIGNED: Chuck Hughes

DEPARTMENT: DIST. DESIGN  
111/8 200

PHONE: 236-4853



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
ARIZONA ECOLOGICAL SERVICES STATE OFFICE  
3616 West Thomas Road, Suite 6  
Phoenix, Arizona 85019



Telephone: (602) 379-4720 FAX: (602) 379-6629

May 16, 1994

In Reply Refer To:  
AESO/ES  
2-21-94-I-338

RECEIVED  
MAY 17 1994  
BURGESS & NIPLE, INC.

Mr. Larry D. Culler  
Burgess & Niple, Inc.  
5025 East Washington Street  
Suite 212  
Phoenix, Arizona 85034

Dear Mr. Culler:

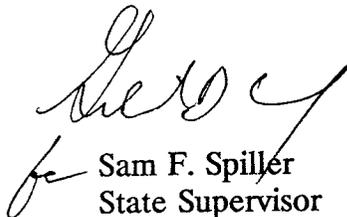
This letter is in response to your April 25, 1994, request for information on listed or proposed threatened or endangered species and candidate species that may occur in the area of 75th Avenue between Glendale Avenue and Olive Avenue, Maricopa County, for proposed widening of the road from two to four lanes.

Our data indicate that no listed or proposed threatened or endangered species would likely be affected by the proposed action.

The State of Arizona protects some species not protected by Federal law. We suggest you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for state-listed or sensitive species in the project area.

We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. In future communications on this project, please refer to consultation number 2-21-94-I-338. If we may be of further assistance, please contact Brenda Andrews or Tom Gatz.

Sincerely,

  
for Sam F. Spiller  
State Supervisor

cc: Director, Arizona Game and Fish Department, Phoenix, Arizona

THE STATE



OF ARIZONA

## GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4399 (602) 942-3000  
Mesa Office, 7200 E. University, Mesa, Arizona 85207 981-9400

Governor  
Fife Symington

Commissioners:  
Larry Taylor, Yuma, Chairman  
Elizabeth T. Woodin, Tucson  
Arthur Porter, Phoenix  
Nonie Johnson, Snowflake  
Michael M. Golightly, Flagstaff

Director  
Duane L. Shroufe

Deputy Director  
Thomas W. Spalding

RECEIVED

MAY 20 1994

BURGESS & NIPLE, INC.

May 18, 1994

Burgess & Niple, Inc.  
c/o Mr. Larry D. Culler  
5025 East Washington Street, Suite 212  
Phoenix, Arizona 85034

Re: Design Concept Report for Widening 75th Avenue, Phoenix, Arizona.

Dear Mr. Culler:

The Arizona Game and Fish Department (Department) has reviewed the above referenced project. As proposed, this project is not expected to result in significant adverse impacts to wildlife resources. In addition, the Department's Heritage Data Management System has been accessed and at this time current records do not indicate the presence of any endangered, threatened, or other special status species in the vicinity of this widening project.

Thank you for the opportunity to comment on this proposed project.

Sincerely,

  
Thomas R. McMahon  
Habitat Evaluation Specialist

TRMc:trMc

cc: Kelly Neal, Region VI Supervisor  
Dave Walker, Habitat Branch, Phoenix  
Bill Brandel, NW Phoenix District Wildlife Manager  
Sam Spiller, USFWS, Ecological Services, Phoenix  
Ed Swanson, Arizona Dept. of Environmental Quality

AGFD# 4-26-94 (03)





# ARIZONA STATE PARKS

1300 W. WASHINGTON  
PHOENIX, ARIZONA 85007  
TELEPHONE 602-542-4174

FIFE SYMINGTON  
GOVERNOR

## STATE PARKS BOARD MEMBERS

BILLIE A. GENTRY  
CHAIR  
SCOTTSDALE

J. RUKIN JELKS  
SECRETARY  
ELGIN

PENNY HOWE  
PHOENIX

WILLIAM G. ROE  
TUCSON

ROBERT A. FROST  
SCOTTSDALE

DEAN M. FLAKE  
SNOWFLAKE

M. JEAN HASSELL  
STATE LAND COMMISSIONER

KENNETH E. TRAVOUS  
EXECUTIVE DIRECTOR

CHARLES R. EATHERLY  
DEPUTY DIRECTOR

May 23, 1994

RECEIVED

MAY 25 1994

BURGESS & NIPLE, INC.

Larry D. Culler  
Burgess & Niple, Inc.  
5025 E. Washington St.  
Suite 212  
Phoenix, AZ 85034

RE: Design Concept Report for Widening 75th Avenue between Glendale Ave. and Olive Ave.; MCDOT

Dear Mr. Culler:

Thank you for asking for our input on historic/archaeological sites for the above proposed project area. Please note that if any state or federal agencies are involved in this project, then all project documentation will need to be processed through a formal consultation procedure with those entities and our office. Please advise us of the respective "federal, state and local agencies" involved in this project and we will be happy to discuss the specific compliance processes with you.

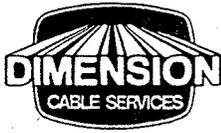
If the project area has not already been surveyed for cultural resources by a professional archaeologist (for state or federal land this information can be obtained from the respective agency archaeologist or the Arizona State Museum [ASM]). The contact at the ASM is Ms. Sharon Urban at 621-4011.

Please keep us informed as to the status of this construction project. We look forward to working with you on this endeavor in the future. We appreciate your cooperation with this office in complying with the historic preservation requirements for federal and state undertakings. If you have any questions or concerns, please feel free to contact me at 602/542-7138.

Sincerely,

Ann Valdo Howard  
Public Programs Manager/Archaeologist  
State Historic Preservation Office

cc: Brian Kenny, MCDOT



CARL MCKAY

Times Mirror Cable of Arizona  
115 North 51st Avenue, Phoenix, AZ 85043

BURGESS & NIPLE, INC.

LARRY D. CULLER

5025 E. WASHINGTON ST. # 212

PHX, AZ. 85034

RECEIVED  
MAY 23 1994  
BURGESS & NIPLE, INC.



May 26, 1994

RECEIVED

MAY 31 1994

BURGESS & NIPLE, INC.

Brugess & Niple, Inc.  
5025 East Washington Street  
Suite 212  
Phoenix, Arizona 85034

Attn: Larry Culler

Re: 75th Avenue Design Concept Report, Glendale Ave. - Olive Ave.

Dear Mr. Culler:

Thank you for your recent communication regarding the above project. During a review of the plans, as described above, I have found no conflicts with Sprint's cable/conduit facilities.

If I can be of further assistance to you on this project or future projects please feel free to contact me at (602)254-3798. Thank you again for your consideration in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Colin Sword".

COLIN SWORD  
District Engineer

cc: Marvin Gibson  
Phoenix file:

**El Paso**  
Natural Gas Company

P. O. BOX 1492  
EL PASO, TEXAS 79978  
PHONE: 915-541-2600

May 31, 1994

RECEIVED  
JUN 03 1994  
BURGESS & NIPLE, INC.

Mr. Larry D. Culler  
Burgess & Niple, Inc.  
5025 East Washington Street,  
Suite 212  
Phoenix, Arizona 85034

Re: **R/W 940381 - Highway Adjustment: MCDOT-  
75th Avenue Widening Project; Agua Fria Power  
Plant Line (2215), M.P. 0+, Maricopa County, Arizona**

Dear Mr. Culler:

El Paso Natural Gas Company has completed its review of the Design Concept Report for the captioned project where the Maricopa County Department of Transportation proposes to widen 75th Avenue from Glendale Avenue to Olive Avenue. Please be advised that El Paso has a 16-inch high pressure natural gas pipeline running along Northern Avenue which crosses 75th Avenue. A copy of El Paso's drawing numbered 2215.5-1 depicting its gas pipeline is enclosed for your information.

El Paso has no objections with the County's project provided it is afforded the opportunity to temporarily close down the intersection prior to the County's construction to perform one of the two following:

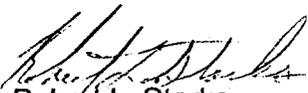
- 1) Remove the casing from the gas pipeline or, 2) relocate the above ground vents out of the County's construction area.

Also because of the close proximity, El Paso will require the County to notify Mr. Bill Ward, El Paso's Phoenix District Superintendent, at 602/438-4200 at least 48 hours in advance of construction activity in the vicinity of its facilities.

Mr. Larry D. Culler  
May 31, 1994  
R/W 940381  
Page -2-

Should you have any questions, please feel free to call Mr. Ward or me at 915/541-2099.

Very truly yours,



Robert L. Starks  
Specialist  
Titles and Controls Division  
Right of Way Department  
rs/hwy

cc: Bill Ward



P.O. BOX 52025  
PHOENIX, ARIZONA 85072-2025



STREET ADDRESS:  
PROJECT ADMINISTRATION BUILDING  
1521 NORTH PROJECT DRIVE  
TEMPE, ARIZONA 85281-1213  
(PROJECT DRIVE AT VAN BUREN STREET)

LETTER OF TRANSMITTAL

TO:	LARRY D. CULLER OF BURGESS + NIPLER	DATE: JUNE 8, 1994
	5025 EAST WASHINGTON STREET SUITE 212	FROM: JASON PFEIFFER 236-4657
	PHOENIX, AZ 85034	FOR: Glenda Sands, Engineering Assistant
	244-8100	Engineering Services
		Voice Mail/Phone: 236-5799 FAX: 236-2720

RE: Attached are available installation record drawings ("as-builts") for irrigation facilities in requested areas.

CUSTOMER REQUEST(S):

75th Ave - GLENDALE AVE TO OLIVE AVENUE

RECEIVED

JUN 09 1994

BURGESS & NIPLER, INC.

SUBJECT DRAWINGS:

A-101-32	-701	A-102-678	B-130-3.10
-39	-703.1		-3.11
-40	-705.1	B-112-195.1	
-99	-705.2	-195.2	
-388.1	-776.12	-474.1	
-419.3		-583	
-478.2			
-502.4			

REMARKS:

PLEASE EXCUSE THE FACT THAT THESE AS-BUILTS HAD NOT BEEN TAKEN CARE OF IMMEDIATELY. DUE TO A LARGE # OF PROJECTS THAT HAVE BEEN RECEIVED. NORMALLY WE CHARGE \$1 PER DRAWING AND ENCOURAGE A DELIVERER TO PICK THEM UP. BECAUSE OF THE ELAPSED TIME OF OVER A MONTH WE WILL SUPPLY YOU THESE DRAWINGS AT NO CHARGE.

TOTAL DRAWINGS, @ \$1.00 PER SHEET ~~20~~ \$20.00

CONVERSATION RECORD

Job No. 1519Z Job Name 75th Ave Design Date 6/23/94

By J. Cullen Concept Report Time \_\_\_\_\_

With John Newlin (US West)

By Telephone  Incoming  Outgoing Telephone No. ( ) 395-2407

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: \_\_\_\_\_

Conversation Items: US West is planning on revising their service to the power plant. John will send a letter and concept plan in about 3 weeks.

Action Required: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Action Taken: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av. DCR Date 6-24-94  
By Barbara Raisanen Time 6:55 a.m.  
With Jim Matt, ADEQ  
 By Telephone  Incoming  Outgoing Telephone No. (602) 207-4502  
returned call  
 Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: ADEQ - Inquiry from B & N in letter dated 4-20-94

Conversation Items: ADEQ does not usually have time to respond to inquiry unless a permit is being requested; and in that case more information is required to be submitted - e.g., photos of water courses.

Jim Matt stated that he would have responded if there was an apparent problem, but he didn't see one, so no response was made.

Action Required: \_\_\_\_\_  
Prior to construction (design phase), ADEQ should be contacted for a formal response.  
\_\_\_\_\_  
\_\_\_\_\_

Action Taken: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av. DCR Date 6-27-99

By Barbara Raisanen Time 9:20 AM

With John Kilgus - US West

By Telephone  Incoming  Outgoing Telephone No. (602) 395-2598

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: Utilities (telephone lines) in  
area of project

Conversation Items: Kilgus will send a copy  
U.S. West maps ASAP

Action Required: None

Action Taken:

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av. DCR Date 6-27-94

By Barbara Raisanen Time 9:10 AM

With R. W. Shobe, MCFC

By Telephone  Incoming  Outgoing Telephone No. (602) 506-1501

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: Proposed storm drain outfall in Orangewood Av. crossing 75th Av.

Conversation Items: No design or location yet.

Negotiating w/ consultant.

Outfall to be 72" dia. E/o

75th Av., 84" w/o 75th Av.

Action Required: None

Action Taken:

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av DCR Date 6-29-99

By Barbara Raisanen Time 8:45AM

With John Newlis - US West - Glendale → 259-1125

By Telephone  Incoming  Outgoing Telephone No. (602) 395-2407  
*call returned*

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: Exist. U.S. West facilities

Conversation Items: B & N needs buried facilities  
maps, 75th Av., Glendale to Olive  
Newlis will mail us this info.  
today. OH facilities, if any, are on  
power poles -

For info. only - US West has  
plans to build cable from Orangewood  
to Northern sometime this year.  
Newlis will send us the info. when  
complete

Action Required: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Action Taken: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





RECEIVED

JUL 13 1994

BURGESS & NIPLE, INC.

July 8, 1994

Mr. Mike Dawson  
Maricopa County Department of Transportation  
2901 W. Durango Street  
Phoenix, Arizona 85009

SUBJECT: 75TH AVENUE STREET IMPROVEMENTS, GLENDALE TO OLIVE  
AVENUE: MCDOT NO. 68843

Dear Mr. Dawson:

The City of Glendale has several concerns about your scope of work for the proposed 75th Avenue project. This letter will call out our concerns and provide some clarifications on questions raised at your June 28th public meeting.

The existing sanitary sewer in 75th Avenue is 15" in diameter and will not need to be upgraded. It is the responsibility of the property owners to connect to the existing sewer at the property owners' expense. Individual connections to sewer lines 12" and larger require manholes.

Seventy-fifth Avenue is shown on the Bikeable Arterial Plan and is supposed to be a 3/2 configuration with wide curb lanes. This configuration requires a 79 foot improvement between back of curbs.

The City wants to provide for pedestrian traffic throughout the City, therefore, PCC or asphalt walks are required. Sidewalks are detached a minimum of seven feet from the curbs on arterial streets. The PCC walks will be required next to existing developed areas and the AC walks next to the vacant parcels.

If there are short segments of developed street sections that do not meet the 79 foot standard, they should be removed and replaced at 79 feet.

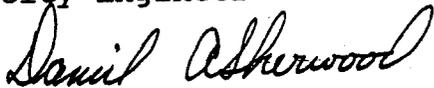
The project should be striped for the bike lanes at the time of construction completion.

July 8, 1994  
Mr. Mike Dawson  
SEVENTY FIFTH AVENUE STREET IMPROVEMENTS  
Page 2

The City of Glendale may be willing to contribute funds toward the project to cover part of the cost for the additional width and asphalt sidewalk. Please contact me at 435-4152 should you have any questions or require additional information. We look forward to a successful completion of this project.

Sincerely,

Grant I. Anderson, P.E.  
City Engineer



Daniel A. Sherwood, P.E.  
Civil Engineer

DAS/ajl

cc: David Sabers  
Larry Keller, Burgess & Niple

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av DCR Date 7-22-94

By Barbara Raisanen Time 10:45AM

With Dan Sherwood - C.O. Glendale

By Telephone  Incoming  Outgoing Telephone No. (602) 435-4156

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: Drainage - availability of contour map, master drainage map

Conversation Items: ① C.O.G. has 1986 aerial contour map - prints available

② Master drainage done by MCFCD

③ New study (possibly "Maryvale drainage area study") underway by MCFCD, Kathy White supv.; Kmetty (?) possibly is the consultant

④ MCFCD also planning drainage work in the area; Wood-Patel possibly is the consultant [this probably is the Orangewood S.D.]  
bkr

Action Required: Follow up w/ MCFCD

Action Taken: Left message @ MCFCD - R.W. Shobe, 506-1501

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av DCR Date 7-25-94

By B. Raitanen Time \_\_\_\_\_

With R. W. Shobe - MCFC D

By Telephone  Incoming  Outgoing Telephone No. (602) 506-1501

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: Drainage

Conversation Items: Glendale - Peoria Area Drainage  
Master Plan covers Orangewood Storm  
Drain.

Maryvale A.D.M.P. job, headed  
by Greg Rodzenko, also may affect  
the 75th Av DCR area (Glendale Av. to  
Olive Av.)

Action Required: none

Action Taken: \_\_\_\_\_

CONVERSATION RECORD

Job No. 15192 Job Name 75th Av - DCR Date 8-17-94

By B. Raisanen Time 2 pm

With Howard Denniston - U.S. West

By Telephone  Incoming  Outgoing Telephone No. ( ) 395-2429

Visit, Site \_\_\_\_\_ City \_\_\_\_\_

Regarding: R/W

Conversation Items: Mr. Denniston wants to know the proposed r/w on 75th Av. so that he can relocate U.S. West lines just outside of it.

Action Required: Check status of any proposed r/w.

Action Taken: I told Mr. D. that the County has 4 alternates under review & no decision on r/w has been made. He will go to County & find out exist. r/w & follow up when a decision is made. I told him U.S. West will be informed of progress.

**PUBLIC MEETING ANNOUNCEMENT**

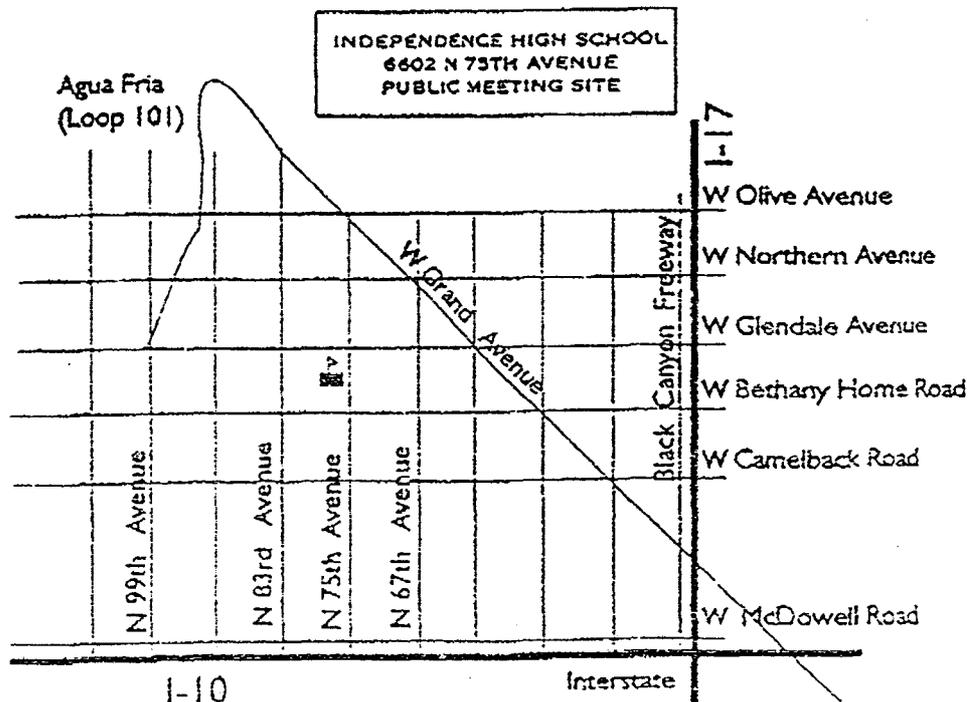
For more information, Contact:  
 E. Jim Gardner, Public Involvement Coordinator  
 Maricopa County Department of Transportation  
 (602) 506-8003

**MARICOPA COUNTY TRANSPORTATION PLANNING DIVISION  
 75TH AVENUE ALIGNMENT ROAD CONSTRUCTION  
 (Glendale Avenue to Olive Avenue)**

The Maricopa County Department of Transportation, joined by Burgess & Niple Inc., will hold a public meeting on Tuesday, June 28, 1994. The meeting is designed to provide the public, in the north valley area, an opportunity to share their comments and discuss information concerning the 75th Avenue alignment design concepts. It is the Transportation Planning Division's desire to identify and analyze alternatives in this rapidly developing area of Maricopa County. The proposed project includes the widening of the 75th Avenue roadway corridor from two lanes to four lanes with a center turn lane.

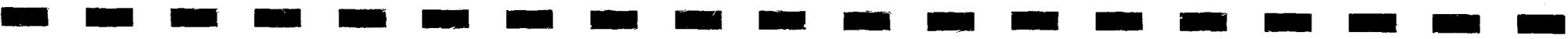
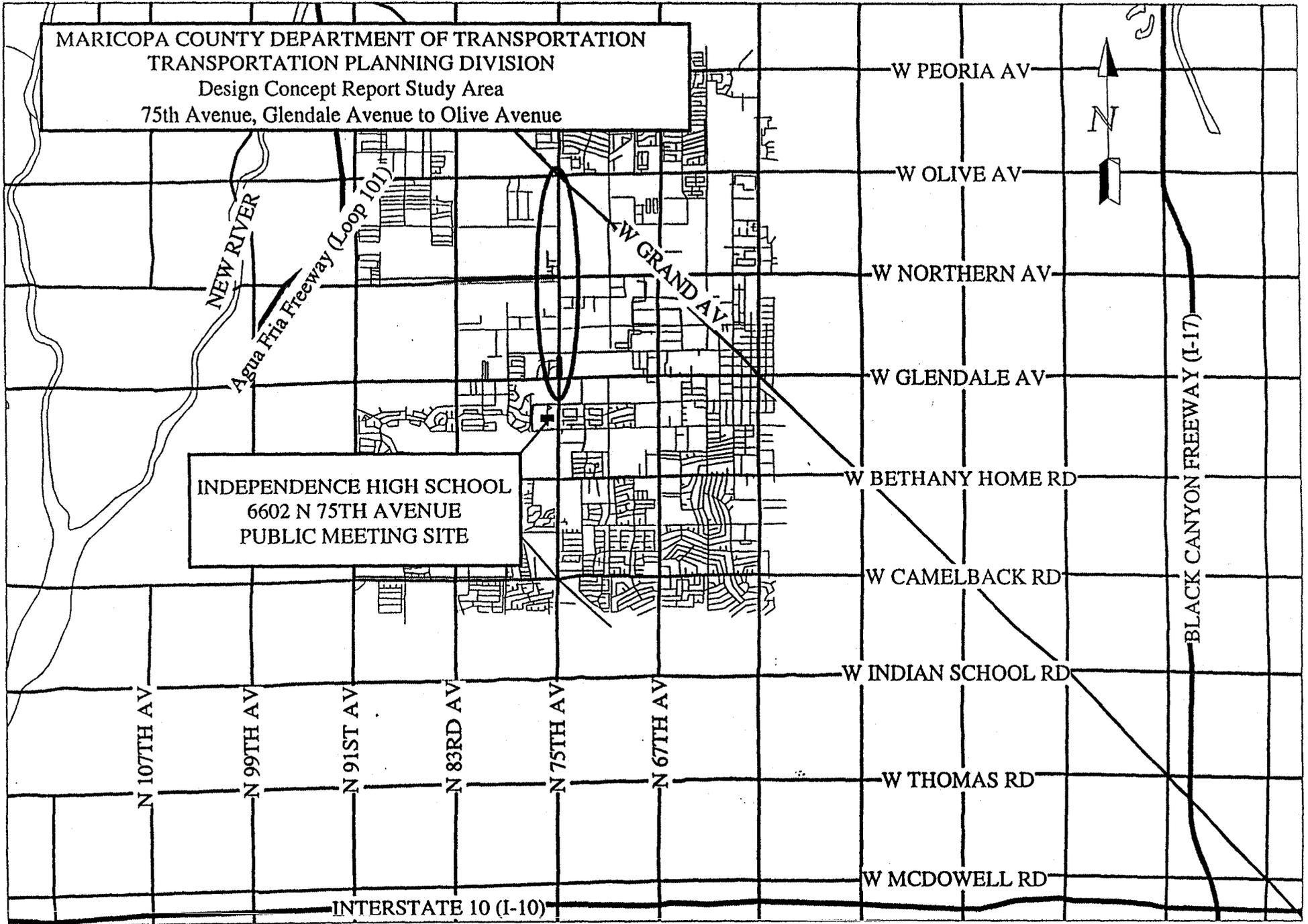
The meeting will be from 6:00 p.m. to 8:00 p.m. in the Independence High School Cafeteria. The High School is located at 6602 N. 75th Avenue in Glendale, Arizona (75th Avenue and Maryland Avenue). The meeting will consist of a formal presentation, commencing at 6:30 p.m., followed by a question and answer session.

A sign language interpreter will be made available upon request with 72 hours' notice. Alternative format materials, or FM or Infra-red Listening Devices are also available upon request with 72 hours' notice. Additional reasonable accommodations will be made available to the extent possible within the period of the request.



MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION PLANNING DIVISION  
Design Concept Report Study Area  
75th Avenue, Glendale Avenue to Olive Avenue

INDEPENDENCE HIGH SCHOOL  
6602 N 75TH AVENUE  
PUBLIC MEETING SITE



PROJECT NO. 68843 - 75TH AVENUE (Glendale to Olive)  
PROPERTY OWNER MAILING LIST

LARRY ROVEY  
7711 WEST NORTHERN AVENUE  
GLENDALE, AZ 85303

LUKE H. LEE TRUST  
5516 WEST CINNABAR AVENUE  
GLENDALE, AZ 85303

SRPAI & PD  
P.O. BOX 1980  
PHOENIX, AZ 85001

EXXON CORP.  
P.O. BOX 53  
HOUSTON, TX 77001

DONALD G. & MARY LOU HOBBS TR  
31682 AVENIDA EVITA  
SAN JUAN CAPISTRANO, CA 92675

SUN STATE SAVINGS & LOAN ASSN  
4222 EAST CAMELBACK ROAD  
PHOENIX, AZ 85018

COMMONWEALTH LAND TITLE  
INSURANCE TRUST TR# 513-514  
1201 S. ALMA SCHOOL ROAD #5450  
MESA, AZ 85202

JUANITA BALLARD  
3833 W. TUCKEY LAND  
PHOENIX, AZ 85019

RICHARD N. & L. ESTHER WILLIAMS  
7502 W. PALMAIRE  
GLENDALE, AZ 85303

WILLIAM L. HOLMES  
6509 N. MARYLAND CIRCLE  
PHOENIX, AZ 85013

MICHAEL L. & KAREN A. BONDS  
7511 W. CAROLE LANE  
GLENDALE, AZ 85303

EDDIE WILBUR BICKEL  
7520 W. CAROLE LANE  
GLENDALE, AZ 85303

ARLENE ROSE BOOTH  
RT. BOX 210  
GLENDALE, AZ 85301

CBM PROPERTIES INC.  
7501 E. MCCORMICK PARKWAY  
SUITE 114N  
SCOTTSDALE, AZ 85258

TEXACO REFINING &  
MARKETING INC.  
10 UNIVERSAL CITY PLAZA  
UNIVERSAL CITY, CA 91608

ARIZONA MACHINERY CO.  
11111 W. MCDOWELL ROAD  
AVONDALE, AZ 85323

JOHN WALTER CHAMBERS  
7327 N. 75TH AVENUE  
GLENDALE, AZ 85303

FAITH BAPTIST CHURCH  
7233 N. 75TH AVENUE  
GLENDALE, AZ 85303

ELISA MARCOS  
7491 W. ORANGEWOOD  
GLENDALE, AZ 85301

GLENDALE COMMERCIAL PTNSHP  
5060 N. 40TH ST. #214  
PHOENIX, AZ 85018

CHRYSLER GLENDALE CORPORATION  
255 HIGH RIDGE ROAD  
STANFORD, CT 06905

ANNA URAINE  
7149 N. 75TH AVENUE  
GLENDALE, AZ 85303

J & B MEAT CO.  
7533 N. 75TH AVENUE  
GLENDALE, AZ 85303

ARTHUR LLOYD HAWKINS  
1735 W. HEATHERBRAE  
PHOENIX, AZ 85015

GLENN D. O. & JESUSITA V. TURNBOW  
5909 W. GLENDALE AVENUE  
GLENDALE, AZ 85301

GARY K. & SHARON R. PETTERSON  
7515 W. NORTHERN AVENUE  
GLENDALE, AZ 85303

GREENWORLD NURSERIES INC.  
3401 E. BASELINE RD.  
PHOENIX, AZ 85040

EARL G. OGSBURY TRUST, ETAL.  
3715 E. MEDLOCK DR.  
PHOENIX, AZ 85018

NELLIE P. MCSORLEY  
P.O. BOX 402  
NEEDLES, CA 92363

LOIS ISABELLE HIGHLY, ETAL  
834 N. 13TH AVENUE, APT. 101  
PHOENIX, AZ 85007

LUTHER W. JR. & JIMMIE L. ANTHONY  
9012 N. 42ND AVENUE  
PHOENIX, AZ 85021

KOBASHI LAND CO., INC.  
7218 WEST ORANGEWOOD  
GLENDALE, AZ 85303

ARIZONA STATE DEPT. OF  
TRANSPORTATION  
205 S. 17TH AVENUE  
PHOENIX, AZ 85007

HARRY H. & JOSEPHINE R. JORDAN  
8789 N. 75TH AVENUE  
PHOENIX, AZ 85345

ATCHISON, TOPEKA & SANTA FE  
RAILROAD  
ONE SANTA FE PLAZA  
5200 EAST SHIELA STREET  
LOS ANGELES, CA

MELVIN W. & LYNN R. THOMPSON  
7534 W. NORTHERN AVENUE  
GLENDALE, AZ 85303

PAUL E. BAKER  
8112 NORTH 75TH AVENUE  
PEORIA, AZ 85345

CHARLES D. & MARTHA L. STRICKLER  
8025 N. 75TH DRIVE  
PEORIA, AZ 85345

HARVEY L. & BERTHA E. SHARP  
7540 W. NORTHERN  
GLENDALE, AZ 85303

SAMUEL K. & GENEVA K. CORNEIL  
P.O. BOX 2744  
GLENDALE, AZ 85311

K. C. PALMER, P. C. FRUSCELLO AND  
D. S. TRIVISION  
5030 EAST LUDLOW DRIVE  
SCOTTSDALE, AZ 852454

ARIZONA BOILER  
P. O. BOX 14508  
PHOENIX, AZ 85063

CLAUDE H. & CLAUDNEY L. STEVENS  
7520 WEST NORTHERN  
GLENDALE, AZ 85303

U. S. HOME CORPORATION  
P. O. BOX 7549  
NEWPORT BEACH, CA 92658

FIRSTAR CORPORATION  
320 NORTH CENTRAL AVENUE  
PHOENIX, AZ 85004

TIMOTHY C. & VICKI L. GABLE  
3522 WEST CACTUS ROAD  
PHOENIX, AZ 85029

LAUNGER FAMILY TRUST  
6118 EAST CAMBRIDGE AVENUE  
SCOTTSDALE, AZ 85257

WILLI O. & ADELHEID COELER  
9257 DORRINGTON AVENUE  
ARLETA, CA 91331

ARIZONA AUTOMOBILE ASSOC., INC.  
3144 NORTH 7TH AVENUE  
PHOENIX, AZ 85013

TUTTLE PAPOCK, LTD PTN  
P. O. BOX 52084  
PHOENIX, AZ 85072

JAMES WELLER, INC.  
14862 NORTH 74TH STREET  
SCOTTSDALE, AZ 85260

DARYL G. & ELIZABETH STRICKLER  
7502 WEST NORTHERN AVENUE  
GLENDALE, AZ 85303

**SUMMARY SHEET**  
**75th AVENUE - GLENDALE AVENUE TO OLIVE AVENUE CORRIDOR**  
**MCDOT PROJECT NUMBER 68843**

**PROPOSED PROJECT**

Widening and upgrading of the existing 75th Avenue from Glendale Avenue to Olive Avenue. The existing two lanes of this facility will be widened to four lanes with a continuous center left turn lane.

**TIME SCHEDULE**

The project is programmed for construction beginning in May of Fiscal Year 1997 in the MCDOT Capital Improvements Program for FY 1995-99 (\$1.5 M for construction). Preliminary design needs to be completed by September 1994 in order for the detailed design to begin in January of 1995. Bid opening is anticipated in February of 1997.

**CHARACTERISTICS OF THE CORRIDOR**

Existing 75th Avenue, between Glendale Avenue and Olive Avenue, is a section line road functioning as a rural principal arterial in a urbanizing area. It is generally a two-lane asphalt pavement. Existing traffic volumes are approaching 10,000 vehicles per day. The intersection at Olive Avenue is a six-legged intersection, with Grand Avenue (US Routes 60 and 89) being the third roadway. The intersections at Glendale Avenue, Northern Avenue and Olive Avenue have traffic signals.

The existing pavement south of this project is two lanes in each direction without curbs or sidewalks. The existing pavement north of this project is two lanes in each direction plus a continuous center left turn lane, curb and gutters, and sidewalk on the east side only.

The intersections at Glendale Avenue and Olive Avenue have been improved. The north approach to Glendale Avenue has two lanes in each direction plus a left turn lane and curb and gutters. The south approach to Olive Avenue has two lanes in each direction plus a left turn lane, curb and gutters, and sidewalks adjacent to the curb. Various other spot improvements along the corridor have also been made over time.

**Physical and Natural Environment**

**A. Topography**

The land adjacent to the project is very flat with approximately 50 percent of the property irrigated farm land.

## B. Vegetation

No protected plants have been identified in the corridor and no impact on natural vegetation or wetlands is expected.

## C. Wildlife

No threatened, endangered or other special status species have been identified in the vicinity of the project, nor is significant adverse impact to wildlife resources expected.

## D. Noise and Air Quality

The project is in the non-attainment area for particulates (PM-10), Carbon Monoxide (CO), and Ozone (O<sub>3</sub>). The Proposed improvements are in conformity and the project is on the MAG Transportation Improvement Program (TIP). The project corridor is a mix of residential, farm and commercial properties and roadway traffic noise is not expected to be a problem.

## E. Hazardous Materials

A hazardous materials review was performed along the 75th Avenue alignment corridor to ensure that Maricopa County is informed, to the extent reasonably possible, of the environmental status of the proposed corridor. The assessment included site reconnaissance, records review, and interviews. The non-intrusive site review did not reveal any evidence of past or present non-regulated uses.

No hazardous materials , spills or releases were identified within the proposed corridor. The results of the hazardous materials review for this corridor do not appear to indicate that there are any environmental reasons that the proposed corridor improvements should not proceed.

## Socioeconomic Environment

### A. Land Use

Existing land uses in the project corridor are single family residential, multi-family residential, rural residential, commercial and industrial. Approximately 50 percent of the land is currently farmed. From Glendale Avenue to Orangewood Avenue, the 75th Avenue Corridor is mostly zoned for multi-family residential. It is zoned for a shopping center and general commercial area at Glendale Avenue.

At Orangewood Avenue, there is single family residential zoning on the west side of 75th Avenue to Northern Avenue. Further north, on the west side, it is zoned for rural-residential, heavy industrial and business park uses.

The east side of 75th Avenue, between Orangewood Avenue and Northern Avenue, is zoned for light industrial use. The zoning is for business park/industrial north of Northern Avenue.

#### B. Socioeconomic

Existing 75th Avenue is an arterial street with adjacent residential and commercial uses. Improvements within the existing corridor may impact some uses. Residential or commercial relocations are possible, however, MCDOT will try to minimize property acquisitions that will affect land use. Some disruption will occur during construction.

#### C. Right-of-Way

The width of existing right-of-way is very nonuniform. West of the section line, it varies from 10.058 to 19.812 meters ( 33 to 65 feet). The width east of the section line also varies from 10.058 to 19.812 meters ( 33 to 65 feet); however, the east and west sides are not symmetrical.

#### D. Utilities

There are various utility facilities located in the project corridor and it will be necessary to relocate the affected utilities based on the recommend alternative of the design concept report.

### **Cultural Resources**

No sites of prehistoric or archaeological significance have been identified. One historically significant site has been identified near to, but outside the project corridor. It will not be impacted by this project.

JUN 28 1994

## GUESTS - PLEASE SIGN IN

NAME	FIRM	ADDRESS	PHONE
Reed Kempton	Coalition of AZ Bicyclists	4730 E. IRL. & 11 <sup>th</sup> AVE	839-5796 +1-602-198-1411
Jaw Dickson		12441 S. K. DR	PHX 506-4687
Don Burnette	Daily News-Sun	1002 S. 1 <sup>st</sup> Ave	S. City 977-835
Elisa Maresca		7491 W. ORANGEWOOD	GLEN 85301 937-9615
Dick Lewis		7015 W. Hearn	979-9124
Jayne Lewis		7015 W. Hearn	979-9124
Don Sherwood	City of Glendale		435-4152
Deborah Ravey		7845 N. 75 <sup>th</sup> Ave	842-1314
LORRA FISHAR		6216 N 83 <sup>rd</sup> AVE	822-1242
Low Girard		10301 Meade Ln	S. City 977-3652
Kenman Baer		9855 WRANGLER	S. City 972-2871
Richard B. DeBere		10838 White Mountain Rd.	S. City 977-2531
Jana Thorson		7122 N. 59 <sup>th</sup> Ave	Glendale 842-6004
Arthur L. Hawkins		1735 N. HEATHCOTE DR	PHX 266-5468
Cheryl Chambers		7327 N. 75 <sup>th</sup> Ave	937-9765
Walt Chambers		7327 N. 75 <sup>th</sup> Ave	937-9765
Kathryn Daily		7550 W. Chancewood	934-8623
Orlene Booth		7706 N. 75 <sup>th</sup> AVE	939-7912
	SMILING	7439 N. 79 <sup>th</sup> Ln.	
Betsy Turwen		9101 N. 57 <sup>th</sup> Ave	Glendale 842-2478
Glenda Bouch		7713 W. Carole Ln	Glendale 937-8192
Ron Rovey		140 Northview Road	Sedona, AZ 86336 262-1155
Rob Rosztozy		11111 W. McDowell	936-7131
Frank H. Hofermeister		7514 W. Orange (Old) G11	934-9846
JOM PARKER		6535 N. 83 <sup>rd</sup> Ave	937-8569

GUESTS - PLEASE SIGN IN

NAME

FIRM

ADDRESS

PHONE

Josephine Harvey Jordan

8189 N. 75 Ave

979-3921

SIO WINE

5202 E. Whitton

85018 840-9193

Joe LaRue

9401 W Thunderbolt rd

977-9898

Sharon Petterson Greenwood 7575 N. <sup>#328</sup> 75 Ave.

437-0700

~~Jimmy Peeters~~

cc cc cc cc

PUBLIC MEETING  
SUMMARY MINUTES  
TUESDAY, JUNE 28, 1994  
75TH AVENUE--GLENDALE AVENUE TO OLIVE AVENUE CORRIDOR  
MCDOT PROJECT NUMBER 68843

John Dickson, MCDOT, opened the public with general introductory comments. He explained that the purpose of this meeting was to receive open public input from the residents in the area familiar with the project area. The County is working with their consultant, Burgess & Niple to create a Preliminary DCR.

Widening and upgrading of the existing 75th Avenue corridor, from Glendale Avenue to Olive Avenue. The existing two lane roadway is proposed to be widened to four lanes with a continuous center, left turn lane. The project is scheduled to begin construction in May of the Fiscal Year 1997.

Larry, Burgess & Niple, described the process his firm used in collecting information and data. He then presented materials relative to his firms finding. The firms initial work consisted of a field survey, aerial map, contact with utilities, and contact with public officials in attempts to inform those concerned or affected and to receive information and input.

Information collected from federal, state and local agencies within the proposed project corridor included: topography, socioeconomic impacts, right-of-way, existing and proposed utilities, storm drain facilities, noise and air quality, wildlife, vegetation, archeological, ecological, land use plans, parks and recreation, historic and hazardous material sites.

Mike Dawson, MCDOT, noted that the identified historic site adjacent to the proposed project is a historic home located one-half mile from the corridor at Grand and Olive.

Project termini is just north of Glendale Avenue and south of Olive Avenue. The existing land use consists of single/multi family housing and 75% of the land is currently farmed. The existing right-of-way varies from 66 feet to 130 feet along the proposed corridor. The most common right-of-way width is 66 feet. Major utility corridor (water and gas lines, cable TV, irrigation, both open and underground, and telephone and electrical, both underground and overhead. 26 reported traffic accidents reported between 1/91 and 3/94 between Glendale and Olive Avenue, but not including those intersections. No hazmat identified.

Alternatives will include alignments and no build scenarios. Decision based on design, cost, access, impact on utilities, socioeconomic, natural and cultural resource impacts, right-of-way, and impact on property owners.

The proposed project lies within three jurisdictions: Maricopa County, City of Glendale and City of Peoria. The project is surrounded completely by the City of Glendale and the City of Peoria. The existing 75th Avenue corridor, between Glendale Avenue and Olive Avenue, is a section line road functioning as a rural principal arterial in an urbanizing area. The project requires 110' of ROW to complete the proposed project. The existing one lane,

asphalt road has some widened sections. The alignment is straight with a flat profile. Glendale, Northern and Olive Avenues have existing signals.

There is a second public meeting planned in August, 1994 to present the alternatives development and analysis and to gain comments on a preferred alternative.

#### PUBLIC SPEAKERS:

There was an inquiry about whether or not the SRP lateral would be placed underground. Another person asked about sidewalks, because there are some existing sidewalks throughout the project corridor.

REED KEMPTON: Concerned with the lack of provisions for bike lanes. Believes that five foot wide AASHTO standard bikes lanes are feasible if the lane width is reduced. Would provide neighborhoods to the north with a continuous bicycle system, because there are existing bicycle facilities on Orangewood Avenue. Although Peoria and Glendale have plans for future bicycle lanes, MCDOT should not wait for the cities to come back and reconfigure. Bike lanes should be considered and included with this project.

DICK AND JANE LEWIS: Strongly urge MCDOT to put the bike lanes in and not try to retrofit. She is part of a bike club with an interest in improving the commute system and safety for bikers.

ARTHUR HAWKINS: Property owners concerned with the City of Glendale sewer lines that run down the center of 75th Avenue. Is there a provision to provide the residents with a tap access to the sewer without tearing up the roadway following the improvement. Could there be a survey to find out if there are residents that want to tap in and what the related costs would be.

DAN SHERWOOD: (City of Glendale) the City has not considered this at the time.

MIKE DAWSON: Need to investigate further and determine if the sewer lines might be relocated.

ROB ROSZTOCZY: Inquired whether properties south of Glendale Avenue are going to be affected?

WALT AND CHERYL CHAMBERS: Concerned with provisions or considerations for replacement or relocation of drainage ditches along 75th Avenue. Farmers to the east (Orangewood and the Chambers irrigation) are concerned with flooding. Ditches start at the south end of Ms. Markus' property, the Chambers property, and past the Baptist Church. If eliminated there will be flooding problems in the area.

John Dickson thanked the attending public for their interest and input. He stated that the information provided saves the County much time and effort in collection valid information and concerns in project areas.

75TH AVENUE, GLENDALE AVENUE TO OLIVE AVENUE  
WRITTEN COMMENTS

Dan Sherwood      *City of Glendale Engineering Dept, 5850 W. Glendale Avenue (435-4152)*  
The City of Glendale requires a typical section of 34.5 from the monument line to the back of curb.

Susan Bookspan is the City of Glendale Bike Coordinator.  
Glenn Compton is the City of Glendale Water/sewer engineer 435-4152.

Betsey Turner      *9101 N.57th Avenue Glendale, AZ 85302 (842-2476)*  
Having driven this stretch of roadway for 3-4 years to and from work and also bicycled the same for almost as many years I would urge the inclusion of bike lanes for the safety of both cyclists and motorists. Have been both and encountered both as an "other mode" I have experienced the fear of almost hitting and being hit -

Bike lanes reduce that danger considerably. In an effort to reduce vehicular pollution and encourage alternative forms of transportation bike lanes are a solution.

P.S. I also represent the 98 members of the West Valley Bicycle Club, a chapter of the Greater Arizona Bicycling Association as Vice President (2 years) and past President (2 years).

Reed Kempton      *Coalition of Arizona Bicyclists 4730 E. Indian School Road Suite #120-198  
Phoenix, AZ 85018 (839-5796)*

This project should include bike lanes. It should not be lined without bike lanes and then wait several years for the cities to reline the street. There are existing bicycle facilities on Glendale Avenue and Orangewood Avenue. Putting bike lanes on 75th Avenue would connect these two and make for a more continuous bike route system. The county should not stripe this road without bicycle lanes! There is no reason for the taxpayers to pay to stripe this road twice.

Richard Debere

Please make bike lanes available. The safety of bikers is most important. The lanes should be planned from the beginning. This insures that it will be done.

75TH AVENUE, GLENDALE AVENUE TO OLIVE AVENUE  
QUESTIONS AND COMMENTS TO STAFF

Faith Baptist Church of Glendale would like two driveway entrances, one south and one north of church to create circular access (turn-around).

Future Frier Drive (1/4 mile north of Orangewood) extension west of 75th Avenue. Would MCDOT provide that roadway intersection?

Mr. Walter Chambers north of church on east side of 75th built house in 1941 and has lived there ever since.

Mrs. Marcos southeast corner of 75th Avenue and Orangewood has lived in house since 1943.

Construction impacts business. Prefer construction during summer months.

Buried electric and private irrigation on east side of 75 in front of Greenworld nursery and industrial park land. Plans probably not available. Actual location and limits unknown.

Provide truck turning radii at Greenworld nursery and drive north of Greenworld and industrial park.

Old trailer vacant, west side of 75th Avenue (9+945).

Need Good Road!!

Two properties on east side of 75th Avenue, south of Grand Avenue will donate properties for two million dollars.

August 16, 1994

## PUBLIC MEETING ANNOUNCEMENT

For more information, Contact:  
E. Jim Gardner, Public Involvement Coordinator  
Maricopa County Department of Transportation  
(602) 506-8003

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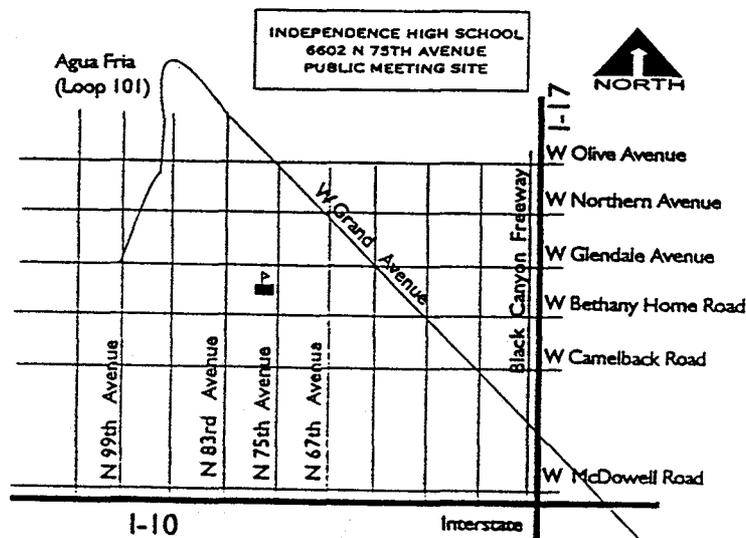
### MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION TRANSPORTATION PLANNING DIVISION 75TH AVENUE ALIGNMENT ROAD CONSTRUCTION (Glendale Avenue to Olive Avenue)

The Maricopa County Department of Transportation, joined by Burgess & Niple Inc., will hold the second 75th Avenue public meeting Wednesday, September 14, 1994. The proposed project includes the widening of the 75th Avenue roadway corridor from two lanes to four lanes with a center turn lane. There are three primary alternatives: roadway widening completely on the west side of the section line, roadway widening completely on the east side of the section line, and a meandering alignment.

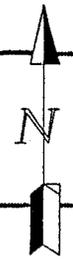
The purpose of the meeting is to present the results of the qualitative analysis and the detailed alternative development and analysis. The comparative analysis of the alternatives addresses issues including but not limited to engineering, environmental, social, and financial factors concerning each of the alternatives. The meeting will also provide the public with a second opportunity to share their comments and discuss information concerning the different 75th Avenue alignment design concepts. Public input in the selection of a preferred alignment, that will be forwarded to design and construction, is solicited.

The meeting will be from 6:00 p.m. to 8:00 p.m. in the Independence High School Cafeteria. The High School is at 6602 N. 75th Avenue in Glendale, Arizona (75th Avenue and Maryland Avenue). The meeting will consist of a formal presentation, commencing at 6:30 p.m., followed by a question and answer session.

A sign language interpreter, alternative format materials, or FM and Infra-red Listening Devices are available upon request with 72 hours' notice. Additional reasonable accommodations are also available to the extent possible within the period of the request.



MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION PLANNING DIVISION  
Design Concept Report Study Area  
75th Avenue, Glendale Avenue to Olive Avenue



NEW RIVER

Agua Fria Freeway (Loop 101)

W GRAND AV

W PEORIA AV

W OLIVE AV

W NORTHERN AV

W GLENDALE AV

W BETHANY HOME RD

W CAMELBACK RD

W INDIAN SCHOOL RD

W THOMAS RD

W MCDOWELL RD

BLACK CANYON FREEWAY (I-17)

INDEPENDENCE HIGH SCHOOL  
6602 N 75TH AVENUE  
PUBLIC MEETING SITE

N 107TH AV

N 99TH AV

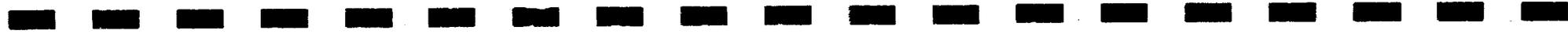
N 91ST AV

N 83RD AV

N 75TH AV

N 67TH AV

INTERSTATE 10 (I-10)



# 75TH AVENUE ALIGNMENT ROAD CONSTRUCTION

## SUMMARY OF ALTERNATIVES

- "No Build" Alternative
  - No improvements to existing roadway
  - Ability to maintain and operate a safe roadway and level of service deteriorates over time
  - Increased congestion will negatively impact air quality
  
- Alternative A - New Roadway Centered on Section Line
  - Existing right-of-way from Glendale Avenue to 350m north is sufficient for proposed improvements
  - Impacts to property owners and utilities on both sides of section line
  
- Alternative B - New Roadway Offset West of the Section Line
  - Minimizes new right-of-way on the east side of the section line
  - Offsets accomplished by reverse curves with 7,000 m radii
  
- Alternative C - New Roadway Offset East of the Section Line
  - Minimizes new right-of-way on the west side of the section line
  - Curvature is same as Alternative B
  
- Alternative D - Meandering Alignment
  - Minimizes impacts to property owners and utilities on both sides of the section line

# 75TH AVENUE ALIGNMENT ROAD CONSTRUCTION

## Right-of-way Impacts and Requirements

	A	B	C	D
Parcels Affected	50	31	32	31
Right-of-way Required (hectares)	3.3	3.4	3.4	3.2
Agricultural Land Required (hectares)	1.4	2.4	1.3	1.9
Residential Relocations	0	2	8	0
Business Relocations	0	0	0	0

1 hectare = 2.47 acres

**75TH AVENUE-GLENDALE AVENUE TO OLIVE AVENUE  
EVALUATION MATRIX**

EVALUATION CRITERIA	ALTERNATIVES				
	NO BUILD	A	B	C	D
LEVEL OF SERVICE	N	P	P	P	P
SAFETY	N	P	P	P	P
NATURAL VEGETATION	—	—	—	—	—
WETLANDS	—	—	—	—	—
WILDLIFE RESOURCES	—	—	—	—	—
WATER QUALITY	—	—	—	—	—
FLOODPLAINS	—	—	—	—	—
HAZARDOUS MATERIALS	—	—	—	—	—
CULTURAL RESOURCES	—	—	—	—	—
AIR QUALITY	N	P	P	P	P
NOISE	N	N	N	N	N
MAINTENANCE OF TRAFFIC	—	N	N	N	N
UTILITIES	—	NN	NN	NN	N
RIGHT-OF-WAY (HECTARES)	—	3.3	3.4	3.4	3.2
RIGHT-OF-WAY (PARCELS)	—	50	31	32	31
AGRICULTURAL LANDS (HECTARES)	—	1.4	2.1	1.3	1.9
RESIDENTIAL AND BUSINESS RELOCATIONS	—	—	2	8	—
CONSTRUCTION COST (THOUSANDS OF DOLLARS)	—	2,013	2,013	2,013	2,013
RIGHT-OF-WAY COST (THOUSANDS OF DOLLARS)	—	839	760	1,087	735
UTILITY RELOCATION COST (THOUSANDS OF DOLLARS)	—	2,258	2,538	2,338	1,988

**LEGEND**

P	POSITIVE	NN	MORE NEGATIVE
N	NEGATIVE	—	NEUTRAL



75TH AVENUE, GLENDALE AVENUE TO OLIVE AVENUE  
SECOND PUBLIC MEETING MINUTES

John Dickson began the formal meeting presentation at 6:30. The actual presentation was made by Larry Culler of Burgess & Niple, the design firm preparing the Design Concept Report, and assisted by Dave Morris.

The project begins north of Glendale Avenue and ends just south of Olive Avenue. The project is within the jurisdictions of Glendale, Peoria, and Phoenix. All four alignment alternatives begin at an identical point due to the existing right-of-way. The typical roadway section was presented and Larry indicated bike lanes were added at the request of the public at the last public meeting.

Alternatives:

**No Build Alternative** No Improvements to existing roadway. Ability to maintain and operate a safe roadway and level of service deteriorates over time. Increased congestion will negatively impact air quality. Road condition will continue to deteriorate.

**Alternative A** New roadway centered on section line. Existing right-of-way from Glendale Avenue to 350 m north is sufficient for proposed improvements. Impacts to property owners and utilities on both sides of section line.

**Alternative B** New roadway offset west of the section line. Minimizes new right-of-way on the east side of the section line. Offsets accomplished by reverse curve with 7,000 m radii.

**Alternative C** New roadway offset east of the section line. Minimizes new right-of-way on the west side of the section line. Curvature is same as Alternative B.

**Alternative D** Meandering alignment. Minimizes impacts to property owners and utilities on both sides of the section line.

Evaluated environmental, noise, hazardous materials, traffic, right-of-way, safety, natural environment (wetlands, vegetation, wildlife), air pollution, effects on utilities, effects of property owners (residential, farm, business). Some are quantified and some are unquantifiable and are based on a subjective evaluation.

Larry commented that Alternative A affects more residential properties. Alternatives B and C affect residential relocations, numbering 2 and 8 respectively.

Right-of-way cost varies greatly, primarily due to residential properties. Alternative D is the best alternative for the utilities and residential properties. Larry noted that one hectare equals approximately 2-1/2 acres.

Construction is anticipated to take less than a year (approximately eight months).

Questions and Comments from the audience:

Construction Timing?	Answer: Construction programmed for 1997
Design?	Detailed design should begin January 1995
Right-of-way?	Land acquisition planned for the middle of next year following the start of design (late 1995)
Construction Period?	Construction is anticipated to take approximately less than 8 months, less than one year

Consensus for Alternative D - least impacts

Alternative D is best, be sure to place drainage in pipes not open ditches

One vote for the road widened

One in favor of road improvements, as soon as possible, doesn't matter which is the chosen alternative.

People on the southeast corner of 75th Avenue and Olive Avenue (Camper parking owners) support any of the four alternatives, even if it impacts their property. They have questions about the power poles. The existing power poles are too close and they wondered what would happen to them. Moved? Underground? Also, there is one area that constantly floods on the roadway in the front of their property. They are amazed that there are not more accidents, because people heading north often have to drive on the southbound lane to pass through this area. This project may help solve some of their drainage concerns and will help to eliminate the dust problem caused by traffic backing up south of Grand and people pulling off of the pavement onto the dirt area in front of their home to turn right onto Grand.

Karen Bonds, whose property is across from Greenworld Nursery wanted to know about the SRP channel and whether it would be covered up with the proposed improvements. They have a small fence around their property, and the SRP acts as a natural barrier to their property. If the SRP channel was piped, she was concerned that the animals may be affected by traffic or other people passing by on the new roadway. She did not have any objections to the alternatives and made the statement that the people who sold her and her husband the property told her that this road would probably be widened in a couple years. She had right-of-way questions and asked if the County will purchase her property.

There was another question about the sewer lines and hookups. The City of Glendale's response from the first meeting was that the existing sanitary sewer in 75th Avenue is 15" in diameter and will not need to be upgraded. It is the responsibility of the property owners to connect to the existing sewer at the property owners' expense. Individual connections to sewer lines 12" and larger require manholes.

Reed Kempton, was glad to see that the bike lanes were added to the typical section and inquired into whether or not this decision would be permanent. He did not want to see the bike lanes excluded at some later date.

ADA question on the slope of the sidewalk and the widths of sidewalk and area may not be sufficient. Slope should be 50:1 not 20:1 (Glendale).

Dan Sherwood (Glendale) and Reed Kempton requested a copy of the typical section. Also, Glendale's cross section is 84 feet wide, 3 lanes north bound, 2 south bound and bike lanes.

The Roveys own most of the farm land in the area. They will be having a family meeting this weekend to discuss the alternatives. They were given the second set of displays to use. They will call and return them next week with their comments on all of the alternatives. Identified a private well in front of the house on the west side of 75th Avenue (house lies back from the road). The well is not being currently used, but the reason was not identified. This well would lie in the proposed right-of-way take for Alternative D. Also, commented that the house on the east side of 75th Avenue and south of Northern Avenue would be affected by Alternative D. Questioned whether the curve could be shortened, sharpened or shifted to lessen the impacts to the property and house. This would require a design exception and depending on the exact location would intrude on the well site. Burgess and Niple informed them that the roadway was designed with no superelevation and noted that the 40 minute curve is already a design exception for this project. This would have to be decided at a later date.

Subsequent to the public meeting, the Rovey family meeting generated the following responses:

Generally, the family favors Alternative D with a few deviations to minimize the impacts to their family property. One quarter mile south of Northern is the first area of concern. They would prefer that the road be bent and put all on the east side of the roadway to straighten the alignment. They do not want to have curved property lines. On the west side of 75th Avenue, south of Orangewood Avenue, the proposal is okay how it bends back to the east. Then they have the two parcels (residences) on the east side. One is Paul Rovey's and the other older house is used for helpers. Not an impact and would prefer straight property lines, impacts to property on only one side 75th Avenue, and a 90° intersection at Northern Avenue and 75th Avenue to keeping the homes. The only other concern was that if the houses would be impacted by the proposed improvement, that they would want use of the facilities until the actual construction.

They also questioned the project timing. It appeared to them that there was a gap in the timing of the project from the end of design to the actual construction. The utility relocations will occur after the right-of-way acquisition and before the actual construction. This information was not addressed in the formal presentation.

Just south of Olive Avenue, they would prefer that the new right-of-way line be straight and match the existing one at the intersection. It is currently shown as a V-shape connection.

The last question was on the area between the sidewalk and the right-of-way. Is there plans for any time of landscaping and who is responsible for maintaining the area? The cities will annex the roadway and will be responsible for the maintenance. Landscape issues have not been discussed to date. They commented on the weeds and having to

grade the area because it is neglected and hinders their farming.

Someone question the speed limit on the new roadway. Commented that the existing speed is too high and does not want to see the posted speed increase. It currently is signed for 40 and 45 mph.

A representative from El Paso Gas indicated that they have a large natural gas line under 75th Avenue. They inquired about shutting down the intersection of Northern Avenue and 75th Avenue in order to remove the casing pipe underneath 75th Avenue during the construction of this project. It is approximately 10 feet deep and would probably take 2 to 3 days to complete. Possible detour road? Temporary road to avoid intersection?

The Chambers family was in favor of Alternative D and oppose Alternative C. In their opinion, Alternative D has the least impacts to the farms and the residences. They commented that their neighbors would also favor this alternative (who were not able to attend the public meeting).

Comments received from City of Glendale: 75th Avenue is shown on the bikeable arterial plan and is supposed to be a 3/2 configuration with wide curb lanes. This configuration requires a 79 foot improvement between back of curbs. The city wants to provide for pedestrian traffic throughout the City, therefore, PCC (concrete) or asphalt walks are required. Sidewalks are detached a minimum of seven feet from the curbs on arterial streets. The PCC walks will be required next to existing developed areas and the AC walks next to the vacant parcels. If there are short segments of developed street sections that do not meet the 79 foot standard, they should be removed and replaced at 79 feet. Should stripe the project for bike lanes at project completion. The City of Glendale may be willing to contribute funds toward the project to cover part of the cost for the additional width and asphalt sidewalk.

One gentleman, who was picking up his daughter from school, came in to see what the public meeting was about. He preferred any alternative that relocated the large transmission lines. He thought they were an eyesore and possibly a health hazard and would like to see them moved. He wanted the lines to be buried or moved completely away, not simply relocated. He said that he would prefer any alternative, except for Alternative D, because he believed the other alternatives would move the transmission lines from the area.

Another individual (supported Alternative D) noted that we should signalize Orangewood Avenue with this project because development is coming to the farm fields and the traffic is already bad at that intersection. He was referring to the for sale signs and residential zoning on the Rovey's parcel across from Orangewood Avenue and on the west side of 75th Avenue. The individual was informed that conduit would be placed for future signalization as warranted, but that any signals will become the responsibility of Glendale, if the planned annexation occurs.

Overall, no one objected to the scope of the project. In fact, there was a lot of public support for the road widening.

RONALD N. ROVEY  
ATTORNEY AT LAW  
1765 WEST HIGHWAY 89A, SUITE 3-1  
SEDONA, ARIZONA 86336  
(602) 282-1155

September 22, 1994

Ms. Dana L. Owsiany  
Maricopa County Dept. of Transportation  
2901 W. Durango St.  
Phoenix, AZ 85009

Re: 75th Avenue (Olive to Northern) Improvement Project

Dear Ms. Owsiany:

Following up our telephone conversation, our family board generally favors Alternative D (the "meandering route") as being the most reasonable and having the least impacts for all concerned, subject to some modification.

Our family strongly prefers that the alignment for the one-quarter mile segment south of Northern Avenue be all on the east side of 75th Avenue instead of the west side of 75th Avenue except for whatever curve is necessary to join the proposed alignment on the west side of 75th Avenue at the southern boundary of our property ( $\frac{1}{4}$  mile south of Northern Avenue), which would not require any change in the proposed alignment south of our property. Our family owns the properties on both sides of 75th Avenue for  $\frac{1}{4}$  mile south of Northern, so putting the right of way on the east side would minimize the impacts to our parcel on the west side, and we are not opposed to removal of the two residences on the east side provided we can use them until construction starts.

If for some really compelling reason the alignment cannot be put on the east side, then the alignment on the west side should be extended closer to the Northern Avenue intersection before shifting over to the east side so that no frontage will be taken from either of our two residences on the east side of 75th Avenue, and appropriate "noise barriers" and/or suitable walls should be built in front of the residences to protect them from the traffic.

The segment south of Olive Avenue should run uniformly for the entire length of our property (about  $\frac{11}{16}$ th of a mile) on the west side of 75th to keep a straight alignment and straight property boundary lines. We would be very opposed to having the alignment curve back and forth along that property frontage. Also, at the north end, the right of way line should continue

Ms. Dana L. Owsiany  
September 22, 1994  
Page 2

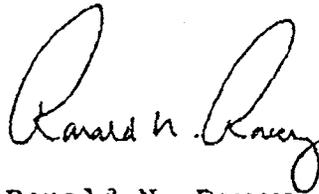
straight until it intersects the existing right of way line rather than leave a small projection at that point that would become difficult to farm, plan around or develop in the future.

Some of our family board members raised questions regarding landscaping of the open areas that are not surfaced and who will be responsible to maintain those landscaped areas. It is our understanding that upon completing the improvement project, the roadway will be annexed by the City of Glendale and they will then become responsible for care and maintenance of the landscaping. We would appreciate your clarifying those questions and concerns. The unsurfaced open areas along the edges of roadways can create weed and insect problems for our adjacent field crops.

Finally, we have some concerns and need to know whether the County will replace any existing improvements (i.e. fences and ditches) that might be within the existing right-of-way.

We will look forward to your responses regarding these matters and trust that you will incorporate our requests in the design phase for this project. We do appreciate and thank you for your very courteous cooperation and assistance.

Sincerely,



Ronald N. Rovey

RNR:lo  
cc: Mr. Larry D. Rovey  
Mr. Paul E. Rovey

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*APPENDIX E*  
*HYDROLOGY AND DRAINAGE*

BURGESS & NIPLE, INC. - COMPUTATION SHEET

JOB NO. 15192 JOB NAME 75TH AVENUE DESIGN SHEET 1 OF 16 SHEETS  
 SUBJECT \_\_\_\_\_ PREPARED BY L. Culler DATE 10/5/94  
PAVEMENT DRAINAGE CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

Based on profile design for selected alternative.  
 Drain right-of-way only.  
 Attached is the typical section.  
 Use 10 year design storm for spread on pavement.\*  
 Check street capacity for 100 year storm:

$Q_{max} = 100 \text{ cfs}$

$V_{max} = 10 \text{ fps}$

$d_{max} = 8'' \text{ above street crown}$

\* Flow shall be contained within curbs  
 Maintain 12' driving lane, each direction  
 Allowable spread<sub>10</sub> = 24.42' (not contained in curbs)†

Design criteria is from Table 2.1 of Volume II of MCDOT Drainage Design Manual.

† Allowable spread<sub>10</sub> = 23.47'

From Table 3.2 of Volume I of MCDOT Drainage Design Manual:

$C_{10} \text{ for pavement and walk} = 0.80$

$C_{100} \text{ " " " " } = 0.95$

$C_{10} \text{ for earth shoulder} = 0.25$

$C_{100} \text{ " " " " } = 0.32$

Width of pavement and earth shoulder = 41.92'

Width of earth shoulder = 6.31'

Weighted  $C_{10} = 41.92 \times 0.80 = 33.54$

$6.31 \times 0.25 = 1.58$

48.23

$35.12 / 48.23 = 0.73$

Weighted  $C_{100} = 41.92 \times 0.95 = 39.82$

$6.31 \times 0.32 = 2.02$

48.23

$41.84 / 48.23 = 0.87$

0.59'  
 5.460  
 2.519'

BURGESS & NIPLE, INC. - COMPUTATION SHEET

JOB NO. \_\_\_\_\_ JOB NAME \_\_\_\_\_ SHEET 2 OF 16 SHEETS  
 SUBJECT \_\_\_\_\_ PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 \_\_\_\_\_ CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

0.500  
 .562  
 .062'

Allow.  $d_{100}$  to contain flow within back to back of walks  
 = 1.062' (0.303' above street crown)

OLIVE TO NORTHERN

CHECK PAVEMENT AT STA. 10+160.

$$(11+605) - (10+160) = 1,445 \text{ m} = 4,741' = 0.90 \text{ miles}$$

$$4741 \times 48.23 = 228,658 \text{ s.f.} = 5.25 \text{ Ac.}$$

$$S = 0.14\% = 7.39' / \text{mile}$$

From Table 3.1 of Volume I of MCDOT Manual:

$$K_b = -0.00625(\log 5.25) + 0.04 = 0.035$$

From Eq. 3.2 of Volume I of MCDOT Manual:

$$T_c = 11.4 L^{0.5} K_b^{0.52} S^{-0.31} L^{-0.38}$$

$$= 11.4 (0.90)^{0.5} (0.035)^{0.52} (7.39)^{-0.31} L^{-0.38}$$

$$= 1.02 L^{-0.38}$$

From Fig. 3.2 of Vol. I of MCDOT Manual:

Let  $T_c = 49 \text{ min.}$

$$L_{10} = 1.8 \text{ "/hr}$$

$$T_c = 1.02 (1.8)^{-0.38} = 0.82 \text{ hr.} = 49 \text{ min. ; OK}$$

$$Q = CLA = 0.73 (1.8) (5.25) = 6.90 \text{ cfs EXCEEDS GUTTER CAP.}$$

From Fig. 3.2 of Vol. II of MCDOT Manual:

$$n = 0.016$$

$$T_s = 22.05' \text{ (Allow.)}$$

$$Q_s = 6.3 \text{ cfs (Allow.)}$$

From Fig. 3.23 of Vol. II of MCDOT Manual:

$$w/T = 1.42/23.47 = 0.06$$

$$S_w/S_x = 0.042/0.02 = 2.1$$

$$E_o = 0.17$$

$$Q_t = Q_s / (1 - E_o) = 6.3 / 0.83 = 7.5 \text{ cfs (Allow.)}$$

From Eq. 3.2 and Fig. 3.4 of Vol. II of MCDOT Manual:

$$Q_{cap} = F_s \times Q_t = 0.6 \times 7.5 = 4.5 \text{ cfs (Allow.)}$$

CHECK  $T_c$

Assume  $Q = 6.90 \text{ cfs}$

$T = 21.53'$ ; A for triangular gutter = 4.64 s.f.

$$V_{max} = Q/A = 69/4.64 = 1.49 \text{ fps}$$

BURGESS & NIPLE, INC. - COMPUTATION SHEET

JOB NO. \_\_\_\_\_ JOB NAME \_\_\_\_\_ SHEET 3 OF 16 SHEETS  
 SUBJECT \_\_\_\_\_ PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 \_\_\_\_\_ CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

$T_G = 4741/1.49 = 3,182 \text{ sec.} = 53 \text{ min.}$  in gutter  
 Based on Max. V in gutter, not Avg. V, and does not include time to gutter. POOR CHECK OF EQ. 3.2

Assume  $T_c$  (time in gutter + time to gutter) =  $58^*$  min.

$i = 1.6''/\text{hr}$

$Q = 0.73(1.6)(5.25) = 6.13 \text{ cfs}$

$T = 20.59'$

Area of flow =  $4.24 \text{ sf}$

$V = 6.13/4.24 = 1.45 \text{ fps}$

$4741/1.45 = 54 \text{ min.}$

Assume  $T_c = 59 \text{ min.}$

$i = 1.6''/\text{hr}$

$Q = 0.73(1.6)(5.25) = 6.13 \text{ cfs}$  EXCEEDS GUTTER CAPACITY

CHECK PAVEMENT AT STA 10+300

$(11+605) - (10+300) = 1,305 \text{ m} = 4,282'$

$A = 4282 \times 48.23 = 206,521 \text{ s.f.} = 4.74 \text{ Ac.}$

Assume  $V = 1.2 \text{ f.p.s.}$

$T_G = 4282/1.2 = 59 \text{ min.}$

$T_c = 59 + 5 = 64 \text{ min.}$

$i = 1.5''/\text{hr.}$

$Q = 0.73 \times 1.5 \times 4.74 = 5.19 \text{ cfs}$

$T = 19.35'$

$A = 3.74 \text{ sf}$

$V = 5.19/3.74 = 1.39 \text{ fps}$

Let  $V = 1.39 \text{ fps}$

$T_G = 4282/1.39 = 51 \text{ min.}$

$T_c = 51 + 5 = 56 \text{ min.}$

$i = 1.7''/\text{hr.} = 65 \text{ min.}$

\* Assume  $T_c = 53 \text{ min.}$

## BURGESS &amp; NIPLE, INC. - COMPUTATION SHEET

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$$Q = 0.73 \times 1.7 \times 4.74 = 5.88 \text{ cfs}$$

$$T = 20.27'$$

$$A = 4.11 \text{ sf}$$

$$V = 5.88 / 4.11 = 1.43 \text{ cfs}$$

$$\text{let } V = 1.43$$

$$T_G = 4282 / 1.43 = 50 \text{ min.}$$

$$T_C = 50 + 5 = 55 \text{ min.}$$

$$L = 1.7''/\text{hr.}$$

$$Q = 5.88 \text{ cfs} \quad \text{OK ; EXCEEDS GUTTER CAPACITY}$$

CHECK PAVEMENT AT 10+450

$$(11+605) - (10+450) = 1,155 \text{ m} = 3,790'$$

$$A = 3790 \times 48.23 = 182,792 \text{ sq. ft.} = 4.20 \text{ Ac.}$$

$$\text{Assume } V = 1.4 \text{ f.p.s.}$$

$$T_G = 3790 / 1.4 = 45 \text{ min.}$$

$$T_C = 45 + 5 = 50 \text{ min.}$$

$$L = 1.8''/\text{hr.}$$

$$Q = 0.73 \times 1.8 \times 4.20 = 5.52 \text{ cfs.}$$

$$T = 19.80'$$

$$A = 3.92 \text{ sf}$$

$$V = 5.52 / 3.92 = 1.41 \text{ f.p.s.}$$

$$\text{Let } V = 1.41''/\text{sec.}$$

$$T_G = 3790 / 1.41 = 45 \text{ min.} \quad \text{OK ; EXCEEDS GUTTER CAPACITY}$$

CHECK PAVEMENT AT STA. 10+750

$$(11+605) - (10+750) = 855 \text{ m} = 2,805'$$

$$A = 2805 \times 48.23 = 135,285 \text{ sq. ft.} = 3.11 \text{ Ac.}$$

$$\text{Assume } V = 1.35''/\text{sec.}$$

$$T_G = 2805 / 1.35 = 35 \text{ min.}$$

$$T_C = 35 + 5 = 40 \text{ min.}$$

$$L = 2.15''/\text{hr.}$$

$$Q = 0.73 \times 2.15 \times 3.11 = 4.88 \text{ cfs}$$

$$T = 18.91'$$

$$A = 3.58 \text{ sf}$$

## BURGESS &amp; NIPLE, INC. - COMPUTATION SHEET

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$$V = 4.88 / 3.58 = 1.36' / \text{sec.}$$

$$\text{Let } V = 1.36' / \text{sec.}$$

$$T_G = 2805 / 1.36 = 34 \text{ min.}$$

$$T_C = 34 + 5 = 39 \text{ min.}$$

$$L = 2.15' / \text{hr} \quad \text{OK; EXCEEDS GUTTER CAPACITY}$$

CHECK PAVEMENT AT STA. 10+900

$$(11+605) - (10+900) = 705 \text{ m} = 2,313'$$

$$A = 2313 \times 48.23 = 111,550 \text{ sf} = 2.56 \text{ AC.}$$

$$\text{Assume } V = 1.3' / \text{sec.}$$

$$T_G = 2313 / 1.3 = 30 \text{ min.}$$

$$T_C = 30 + 5 = 35 \text{ min.}$$

$$L = 2.3' / \text{hr.}$$

$$Q = 0.73 \times 2.3 \times 2.56 = 4.30 \text{ cfs}$$

$$T = 18.03'$$

$$A = 3.25 \text{ s.f.}$$

$$V = 4.30 / 3.25 = 1.32' / \text{sec.}$$

$$\text{Let } V = 1.32' / \text{sec.}$$

$$T_G = 2313 / 1.32 = 29 \text{ min.}$$

$$T_C = 29 + 5 = 34 \text{ min.}$$

$$L = 2.3' / \text{hr} \quad \text{OK; } < \text{ GUTTER CAPACITY}$$

CHECK PAVEMENT AT STA. 10+800

$$(11+605) - (10+800) = 805 \text{ m} = 2,641'$$

$$A = 2641 \times 48.23 = 127,375 \text{ sf} = 2.92 \text{ AC.}$$

$$\text{Assume } V = 1.35' / \text{sec.}$$

$$T_G = 2641 / 1.35 = 33 \text{ min.}$$

$$T_C = 33 + 5 = 38 \text{ min.}$$

$$L = 2.2' / \text{hr.}$$

$$Q = 0.73 \times 2.2 \times 2.92 = 4.69 \text{ cfs}$$

$$T = 18.63'$$

$$A = 3.47 \text{ sf}$$

$$V = 4.69 / 3.47 = 1.35' / \text{sec} \quad \text{OK; EXCEEDS GUTTER CAPACITY}$$

BURGESS & NIPLE, INC. - COMPUTATION SHEET

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CHECK PAVEMENT AT STA. 10+855

$$(11+605) - (10+855) = 750 \text{ m} = 2,461'$$

$$A = 2461 \times 48.23 = 118,694 \text{ s.f.} = 2.72 \text{ Ac.}$$

Assume  $V = 1.33' / \text{sec.}$

$$T_L = 2461 / 1.33 = 31 \text{ min}$$

$$T_C = 31 + 5 = 36 \text{ min.}$$

$$i = 2.25'' / \text{hr.}$$

$$Q = 0.73 \times 2.25 \times 2.72 = 4.46 \text{ cfs}$$

$$T = 18.28'$$

$$A = 3.34 \text{ sf}$$

$$V = 4.46 / 3.34 = 1.33' / \text{sec.} \quad \text{GOOD} \rightarrow$$

First catch basins are required at Sta. 10+855  
 Basins will be required at approximately 700 m spacing.  
 Basins are required in the sag at Sta. 10+130 and possibly upstream of the sag, to the north.

CHECK STA 10+855 FOR 100 YEAR STORM

$$A = 2461 \times 48.23 \times 2 = 237,388 \text{ s.f.} = 5.45 \text{ Ac}$$

Let  $n$  for street and shoulders = 0.018  
 $C = 0.87$

Max. street capacity:

$$d = 1.062'$$

$$Q = A(1.486/n)R^{2/3}S^{1/2}$$

$$WP = 97.46'$$

$$S = 0.0014' / \text{ft.}$$

$$A = 55.650 \text{ sf}$$

$$R = 55.650 / 97.46 = 0.571$$

$$Q = 55.650(1.486/0.018)(0.571)^{2/3}(0.0014)^{1/2} = 118.29 \text{ cfs}$$

$$V = 118.29 / 55.65 = 2.13' / \text{sec.}$$

EXCEEDS ALLOWABLE ↗

$$Q = VA$$

$$V = \frac{Q}{A}$$

## BURGESS &amp; NIPLE, INC. - COMPUTATION SHEET

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Assume  $d = 0.7'$

Use Fig. 3.2 for a triangular section. This is conservative, since the actual street capacity is a little larger, but gives a close approximation of velocity. (Ignore composite cross slope and area behind curb. Assume curbs are extended to the required height.)

$$A = (0.7/2) 35 \times 2 = 24.50 \text{ sf}$$

$$WP = 71.40'$$

$$R = 24.50/71.40 = 0.343$$

$$V = (1.486/n) R^{2/3} S^{1/2} = (1.486/0.018) (0.343)^{2/3} (0.0014)^{1/2} = 1.51'/\text{sec.}$$

$$Q = 1.51 \times 24.50 = 37.00 \text{ cfs}$$

$$T_L = 2461/1.51 = 27 \text{ min.}$$

$$T_C = 27 + 5 = 32 \text{ min.}$$

$$i = 3.8''/\text{hr.}$$

$$Q = 0.87 \times 3.8 \times 5.45 = 18.02 \text{ cfs}$$

Try  $d = 0.5'$

$$A = (0.5/2) \times 25 \times 2 = 12.50 \text{ sf}$$

$$WP = 51.00'$$

$$R = 12.50/51.00 = 0.25$$

$$V = (1.486/0.018) (0.25)^{2/3} (0.0014)^{1/2} = 1.23'/\text{sec.}$$

$$Q = 1.23 \times 12.50 = 15.38 \text{ cfs}$$

$$T_L = 2461/1.23 = 33 \text{ min.}$$

$$T_C = 33 + 5 = 38 \text{ min.}$$

$$i = 3.4''/\text{hr.}$$

$$Q = 0.87 \times 3.4 \times 5.45 = 16.12 \text{ cfs}$$

STREET CAPACITY IS ADEQUATE

Actual  $d$  is between 0.5' and 0.7'

## BURGESS &amp; NIPLE, INC. - COMPUTATION SHEET

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NORTHERN TO ORANGEWOODCHECK PAVEMENT AT STA. 9+570

$$(10+000) - (9+570) = 430 \text{ m} = 1,411'$$

$$1411 \times 48.23 = 68,053 \text{ sf} = 1.56 \text{ Ac.}$$

$$S = 0.18\%$$

$$\text{Assume } V = 1.5' / \text{sec.}$$

$$T_G = 1411 / 1.5 = 16 \text{ min.}$$

$$T_C = 16 + 5 = 21 \text{ min.}$$

$$i = 3.2'' / \text{hr.}$$

$$Q = 0.73 \times 3.2 \times 1.56 = 3.64 \text{ cfs}$$

$$T = 16.16'$$

$$A = 2.61 \text{ sf.}$$

$$V = 3.64 / 2.61 = 1.39' / \text{sec.}$$

$$\text{Let } V = 1.39' / \text{sec.}$$

$$T_G = 1411 / 1.39 = 17 \text{ min.}$$

$$T_C = 17 + 5 = 22 \text{ min.}$$

$$i = 3.1'' / \text{hr.}$$

$$Q = 0.73 \times 3.1 \times 1.56 = 3.53 \text{ cfs}$$

$$T = 15.98'$$

$$A = 2.55 \text{ sf.}$$

$$V = 3.53 / 2.55 = 1.38' / \text{sec.}$$

$$\text{Let } V = 1.38' / \text{sec.}$$

$$T_G = 1411 / 1.38 = 17 \text{ min.}$$

GOOD ←

Allowable gutter capacity exceeds 4.5 cfs (sheet 2)

CHECK PAVEMENT AT STA. 9+230

$$(10+000) - (9+230) = 770 \text{ m} = 2,526'$$

$$(9+570) - (9+230) = 340 \text{ m} = 1,116'$$

$$2526 \times 48.23 = 121,829 \text{ sf} = 2.80 \text{ Ac.}$$

$$S = 0.32\%$$

$$\text{Assume } V = 1.5' / \text{sec.}$$

BURGESS & NIPLE, INC. - COMPUTATION SHEET

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$$T_G = 1116 / 1.5 = 12 \text{ min.}$$

$$T_C = 12 + 17 + 5 = 34 \text{ min.}$$

$$i = 2.3 \text{ "/hr.}$$

$$Q = 0.73 \times 2.3 \times 2.80 = 4.70 \text{ cfs}$$

$$T = 15.97'$$

$$A = 2.55 \text{ sf}$$

$$V = 4.70 / 2.55 = 1.84' / \text{sec.}$$

Let  $V = 1.84' / \text{sec.}$

$$T_G = 1116 / 1.84 = 10 \text{ min.}$$

$$T_C = 10 + 17 + 5 = 32 \text{ min.}$$

$$i = 2.4 \text{ "/hr.}$$

$$Q = 0.73 \times 2.4 \times 2.80 = 4.91 \text{ cfs}$$

$$T = 16.23'$$

$$A = 2.63 \text{ sf}$$

$$V = 4.91 / 2.63 = 1.87' / \text{sec.}$$

Let  $V = 1.87' / \text{sec.}$

$$T_G = 1116 / 1.87 = 10 \text{ min.}$$

GOOD

GUTTER CAPACITY (Sheet 2)

$$T_s = 22.05'$$

$$Q_s = 10 \text{ cfs}$$

$$Q_t = 10 / 0.83 = 12.05 \text{ cfs}$$

$$Q_{\text{cap}} = 0.74 \times 12.05 = 8.92 \text{ cfs}$$

Catch basins are required at Orangewood Ave.

100 YEAR CHECK

Sta. 9+570

$$A = 1411 \times 48.23 \times 2 = 136,105 \text{ sf} = 3.12 \text{ Ac.}$$

Assume  $d = 0.4'$

$$A = (0.4/2) \times 20 \times 2 = 8.00 \text{ sf}$$

$$WP = 40.80'$$

$$R = 8.00 / 40.80 = 0.20$$

$$V = (1.486 / 0.018) (0.20)^{2/3} (0.0018)^{1/2} = 1.20' / \text{sec}$$

$$Q = 1.20 \times 8.00 = 9.60 \text{ cfs}$$

## BURGESS &amp; NIPLE, INC. - COMPUTATION SHEET

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$$T_G = 1411/1.20 = 20 \text{ min.}$$

$$T_C = 20 + 5 = 25 \text{ min.}$$

$$L = 4.5''/\text{hr.}$$

$$Q = 0.87 \times 4.5 \times 3.12 = 12.21 \text{ cfs}$$

$$\text{Let } d = 0.5'$$

$$A = (0.5/2) 25 \times 2 = 12.50 \text{ sf}$$

$$WP = 51.00'$$

$$R = 12.50/51.00 = 0.25$$

$$V = (1.486/0.018)(0.25)^{2/3}(0.0018)^{1/2} = 1.39'/\text{sec.}$$

$$Q = 1.39 \times 12.50 = 17.38 \text{ cfs}$$

$$T_G = 1411/1.39 = 17 \text{ min.}$$

$$T_C = 17 + 5 = 22 \text{ min.}$$

$$L = 4.8''/\text{hr.}$$

$$Q = 0.87 \times 4.8 \times 3.12 = 13.03 \text{ cfs}$$

$$\text{Let } d = 0.42'$$

$$A = (0.42/2) 21 \times 2 = 8.82 \text{ s.f.}$$

$$WP = 42.84'$$

$$R = 8.82/42.84 = 0.21$$

$$V = (1.486/0.018)(0.21)^{2/3}(0.0018)^{1/2} = 1.24'/\text{sec.}$$

$$Q = 1.24 \times 8.82 = 10.94 \text{ cfs}$$

$$T_G = 1411/1.24 = 19 \text{ min.}$$

$$T_C = 19 + 5 = 24 \text{ min.}$$

$$L = 4.6''/\text{hr.}$$

$$Q = 0.87 \times 4.6 \times 3.12 = 12.49 \text{ cfs}$$

$$\text{Let } d = 0.44'$$

$$A = (0.44/2) 22 \times 2 = 9.68 \text{ s.f.}$$

$$WP = 44.88'$$

$$R = 9.68/44.88 = 0.22$$

$$V = (1.486/0.018)(0.22)^{2/3}(0.0018)^{1/2} = 1.28'/\text{sec.}$$

$$Q = 1.28 \times 9.68 = 12.39 \text{ cfs}$$

$$T_G = 1411/1.28 = 18 \text{ min}; T_C = 18 + 5 = 23 \text{ min.}$$

$$L = 4.7''/\text{hr.}$$

$$Q = 0.87 \times 4.7 \times 3.12 = 12.76 \text{ cfs}$$

BURGESS & NIPLE, INC. - COMPUTATION SHEET

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Let  $d = 0.45'$   
 $A = (0.45/2) 22.5 \times 2 = 10.12 \text{ s.f.}$   
 $WP = 45.90'$   
 $R = 10.12 / 45.90 = 0.22$   
 $V = 1.29' / \text{sec. (Sheet 10)}$   
 $Q = 1.28 \times 10.12 = 12.95 \text{ cfs}$   
 $T_b = 18 \text{ min.}$   
 $T_c = 23 \text{ min.}$   
 $L = 4.7'' / \text{hr}$   
 $Q = 12.76 \text{ cfs}$  GOOD

Street capacity  $> 100 \text{ cfs}$  (Sheet 6)

Sta. 9+230  
 $A = 2526 \times 48.23 \times 2 = 243,658 \text{ s.f.} = 5.59 \text{ AC.}$   
 Assume  $d = 0.45'$   
 $A = 10.12 \text{ s.f.}$   
 $WP = 45.90'$  } above  
 $R = 0.22$   
 $V = (1.486 / 0.018) (0.22)^{2/3} \times (0.0032)^{1/2} = 1.70' / \text{sec.}$   
 $Q = 1.70 \times 10.12 = 17.20 \text{ cfs}$   
 $T_b = 116 / 1.70 = 11 \text{ min.}$   
 $T_c = 11 + 18 + 5 = 34 \text{ min.}$   
 $L = 3.7'' / \text{hr.}$   
 $Q = 0.87 \times 3.7 \times 5.59 = 17.99 \text{ cfs}$

Let  $d = 0.46'$   
 $A = (0.46/2) 23 \times 2 = 10.58 \text{ s.f.}$   
 $WP = 46.92'$   
 $R = 10.58 / 46.92 = 0.23$   
 $V = (1.486 / 0.018) (0.23)^{2/3} (0.0032)^{1/2} = 1.75' / \text{sec.}$   
 $Q = 1.75 \times 10.58 = 18.52 \text{ s.f.}$   
 $T_b = 116 / 1.75 = 11 \text{ min.}$   
 $T_c = 34 \text{ min.}$  } above  
 $L = 3.7'' / \text{hr}$   
 $Q = 17.99 \text{ cfs}$  GOOD

Capacity  $> 100 \text{ cfs}$  (Sheet 6)

## BURGESS &amp; NIPLE, INC. - COMPUTATION SHEET

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ORANGEWOOD TO GLENDALECHECK PAVEMENT AT STA. 8+940

$$(9+194) - (8+940) = 254 \text{ m} = 833'$$

$$A = 833 \times 48.23 = 40,176 \text{ s.f.} = 0.92 \text{ Ac.}$$

$$S = 0.52\%$$

$$\text{Assume } V = 2.3' / \text{sec.}$$

$$T_G = 833 / 2.3 = 6 \text{ min.}$$

$$T_C = 6 + 5 = 11 \text{ min.}$$

$$L = 4.4'' / \text{hr.}$$

$$Q = 0.73 \times 4.4 \times 0.92 = 2.96 \text{ cfs}$$

$$T = 12.26'$$

$$A = 1.50 \text{ s.f.}$$

$$V = 2.96 / 1.50 = 1.97' / \text{sec.}$$

$$\text{Let } V = 1.97' / \text{sec.}$$

$$T_G = 833 / 1.97 = 7 \text{ min.}$$

$$T_C = 7 + 5 = 12 \text{ min.}$$

$$L = 4.25'' / \text{hr.}$$

$$Q = 0.73 \times 4.25 \times 0.92 = 2.85 \text{ cfs}$$

$$T = 12.09'$$

$$A = 1.46 \text{ s.f.}$$

$$V = 2.85 / 1.46 = 1.95' / \text{sec.}$$

GOOD

$$\text{Let } V = 1.95' / \text{sec.}$$

$$T_G = 833 / 1.95 = 7 \text{ min.}$$

Allowable gutter capacity exceeds 4.5 cfs (sheet 2)

CHECK PAVEMENT AT STA. 8+510

$$(9+194) - (8+510) = 684 \text{ m} = 2,244'$$

$$(8+940) - (8+510) = 430 \text{ m} = 1,411'$$

$$2244 \times 48.23 = 108,228 \text{ s.f.} = 2.48 \text{ Ac.}$$

$$S = 0.16\%$$

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Assume  $V = 1.5$  ' / sec.  
 $T_G = 1411 / 1.5 = 16$  min.  
 $T_C = 16 + 7 + 5 = 28$  min.  
 $i = 2.65$  " / hr.  
 $Q = 0.73 \times 2.65 \times 2.48 = 4.80$  cfs  
 $T = 18.31$  '  
 $A = 3.35$  s.f.  
 $V = 4.80 / 3.35 = 1.43$  ' / sec.

Let  $V = 1.43$  ' / sec  
 $T_G = 1411 / 1.43 = 16$  min.

GOOD

GUTTER CAPACITY (Sheet 2)

$T_s = 22.05$  '  
 $Q_s = 7$  cfs  
 $Q_t = 7 / 0.83 = 8.43$  cfs  
 $Q_{cap} = 0.62 \times 8.43 = 5.23$  cfs

CATCH BASINS ARE REQUIRED  
 AT GLENDALE AVENUE

100 YEAR CHECK

Sta. 8+940  
 $A = 833 \times 48.23 \times 2 = 80,351$  s.f. = 1.84 Ac.  
 Assume  $d = 0.4$  '  
 $A = (0.4/2) 20 \times 2 = 8.00$  s.f.  
 $WP = 40.80$  '  
 $R = 8.00 / 40.80 = 0.20$   
 $V = (1.486 / 0.018) (0.20)^{2/3} (0.0052)^{1/2} = 2.03$  ' / sec.  
 $Q = 2.03 \times 8.00 = 16.24$  cfs  
 $T_G = 833 / 203 = 7$  min.  
 $T_C = 7 + 5 = 12$  min.  
 $i = 6.5$  " / hr.  
 $Q = 0.87 \times 6.5 \times 1.84 = 10.41$  cfs

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Let  $d = 0.35'$

$A = (0.35/2) \times 17.50 \times 2 = 6.13 \text{ s.f.}$

$WP = 35.70'$

$R = 6.13/35.70 = 0.17$

$V = (1.486/0.018)(0.17)^{2/3}(0.0052)^{1/2} = 1.83' / \text{sec.}$

$Q = 1.83 \times 6.13 = 11.22 \text{ cfs}$

$T_b = 833/1.83 = 8 \text{ min.}$

$T_c = 8 + 5 = 13 \text{ min.}$

$i = 6.25'' / \text{hr.}$

$Q = 0.87 \times 6.25 \times 1.84 = 10.01 \text{ cfs}$

Let  $d = 0.32'$

$A = (0.32/2) \times 16 \times 2 = 5.12 \text{ s.f.}$

$WP = 32.64'$

$R = 5.12/32.64 = 0.16$

$V = (1.486/0.018)(0.16)^{2/3}(0.0052)^{1/2} = 1.75' / \text{sec.}$

$Q = 1.75 \times 5.12 = 8.96 \text{ cfs}$

$T_b = 833/1.75 = 8 \text{ min.}$

$T_c = 13 \text{ min.}$

$i = 6.25'' / \text{hr.}$  } above

$Q = 10.01 \text{ cfs}$  }

Let  $d = 0.34'$

$A = (0.34/2) \times 17 \times 2 = 5.78 \text{ s.f.}$

$WP = 34.68'$

$R = 5.78/34.68 = 0.17$

$V = 1.83' / \text{sec.}$  (above)

$Q = 1.83 \times 5.78 = 10.58 \text{ cfs}$

$T_b = 8 \text{ min.}$

$T_c = 13 \text{ min.}$

$i = 6.25'' / \text{hr.}$  } above

$Q = 10.01 \text{ cfs}$  }

BURGESS & NIPLE, INC. - COMPUTATION SHEET

JOB NO. \_\_\_\_\_ JOB NAME \_\_\_\_\_ SHEET 15 OF 16 SHEETS  
 SUBJECT \_\_\_\_\_ PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

Let  $d = 0.33'$

$A = (0.33/2) \times 16.50 \times 2 = 5.45 \text{ s.f.}$

$WP = 33.66'$

$R = 5.45 / 33.66 = 0.16$

$V = 1.75' / \text{sec}$  (above)

$Q = 1.75 \times 5.45 = 9.54 \text{ cfs}$

$T_G = 8 \text{ min.}$

$T_c = 13 \text{ min.}$  } above

$i = 6.25'' / \text{hr.}$

$Q = 10.01 \text{ cfs}$

GOOD

street capacity  $> 100 \text{ cfs}$  (Sheet 6)

Sta. 8+510

$A = 2244 \times 48.23 \times 2 = 216,456 \text{ s.p.} = 4.97 \text{ Ac.}$

Assume  $d = 0.6'$

$A = (0.6/2) \times 30 \times 2 = 18.00 \text{ s.f.}$

$WP = 61.20'$

$R = 18.00 / 61.20 = 0.29$

$V = (1.486 / 0.018) (0.29)^{2/3} (0.0016)^{1/2} = 1.45' / \text{sec.}$

$Q = 1.45 \times 18 = 26.10 \text{ cfs}$

$T_G = 1411 / 1.45 = 16 \text{ min.}$

$T_c = 16 + 8 + 5 = 29 \text{ min.}$

$i = 4.1'' / \text{hr.}$

$Q = 0.87 \times 4.1 \times 4.97 = 17.73 \text{ cfs}$

Let  $d = 0.5'$

$A = (0.5/2) \times 25 \times 2 = 12.50 \text{ s.f.}$

$WP = 51.00'$

$R = 12.50 / 51.00 = 0.25$

$V = (1.486 / 0.018) (0.25)^{2/3} (0.0016)^{1/2} = 1.31' / \text{sec.}$

$Q = 1.31 \times 12.50 = 16.38 \text{ cfs}$

$T_G = 1411 / 1.31 = 18 \text{ min.}$

$T_c = 18 + 8 + 5 = 31 \text{ min.}$

$i = 3.9'' / \text{hr.}$

$Q = 0.87 \times 3.9 \times 4.97 = 16.86 \text{ cfs}$

BURGESS & NIPLE, INC. - COMPUTATION SHEET

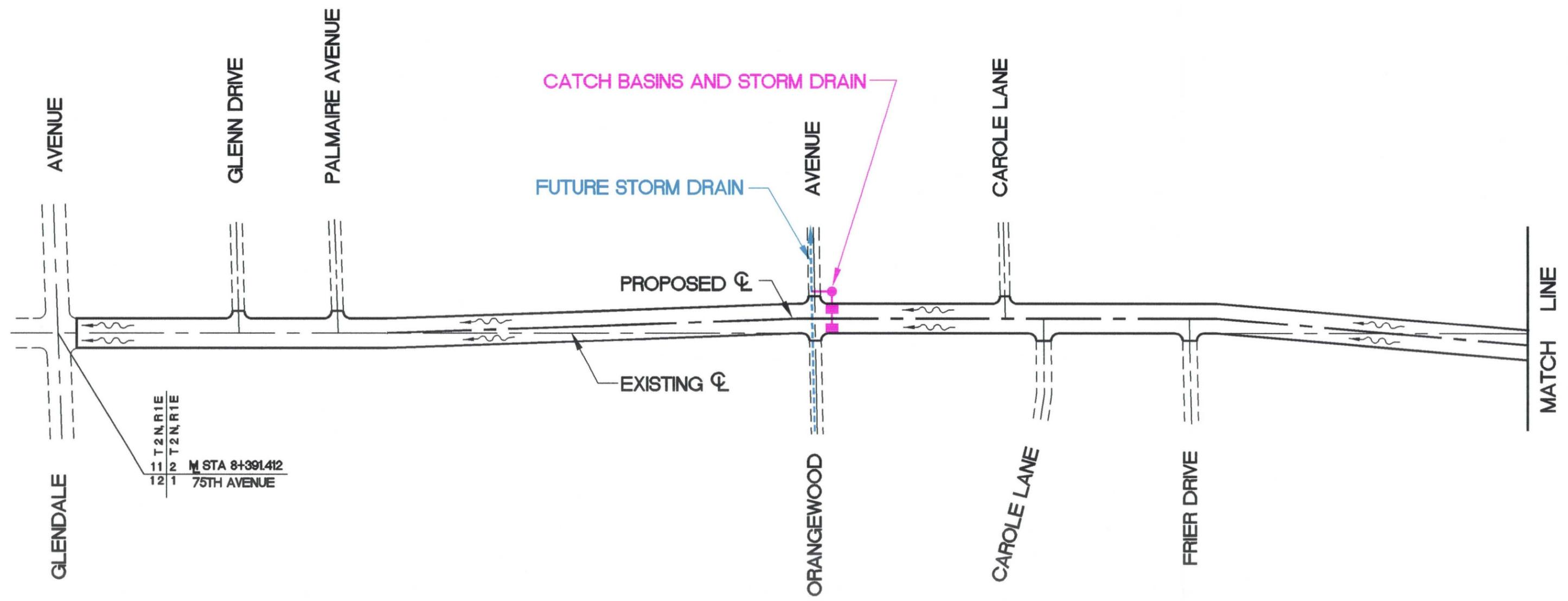
JOB NO. \_\_\_\_\_ JOB NAME \_\_\_\_\_ SHEET 16 OF 16 SHEETS  
 SUBJECT \_\_\_\_\_ PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 \_\_\_\_\_ CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

Let  $d = 0.52'$   
 $A = (0.52/2) 26 \times 2 = 13.52 \text{ s.f.}$   
 $WP = 53.04'$   
 $R = 13.52/53.04 = 0.25$   
 $V = 1.31'/\text{sec. (above)}$   
 $Q = 1.31 \times 13.52 = 17.71 \text{ cfs}$   
 $T_c = 18 \text{ min.}$   
 $T_c = 31 \text{ min.}$   
 $L = 3.9''/\text{hr.}$   
 $Q = 16.86 \text{ cfs}$  } above

Let  $d = 0.51'$   
 $A = (0.51/2) 25.50 \times 2 = 13.01 \text{ s.f.}$   
 $WP = 52.02$   
 $R = 13.01/52.02 = 0.25$   
 $V = 1.31'/\text{sec. (above)}$   
 $Q = 1.31 \times 13.01 = 17.04 \text{ cfs}$   
 $T_c = 31 \text{ min.}$   
 $L = 3.9''/\text{hr.}$   
 $Q = 16.86 \text{ cfs}$  } above

GOOD  $\leftarrow$

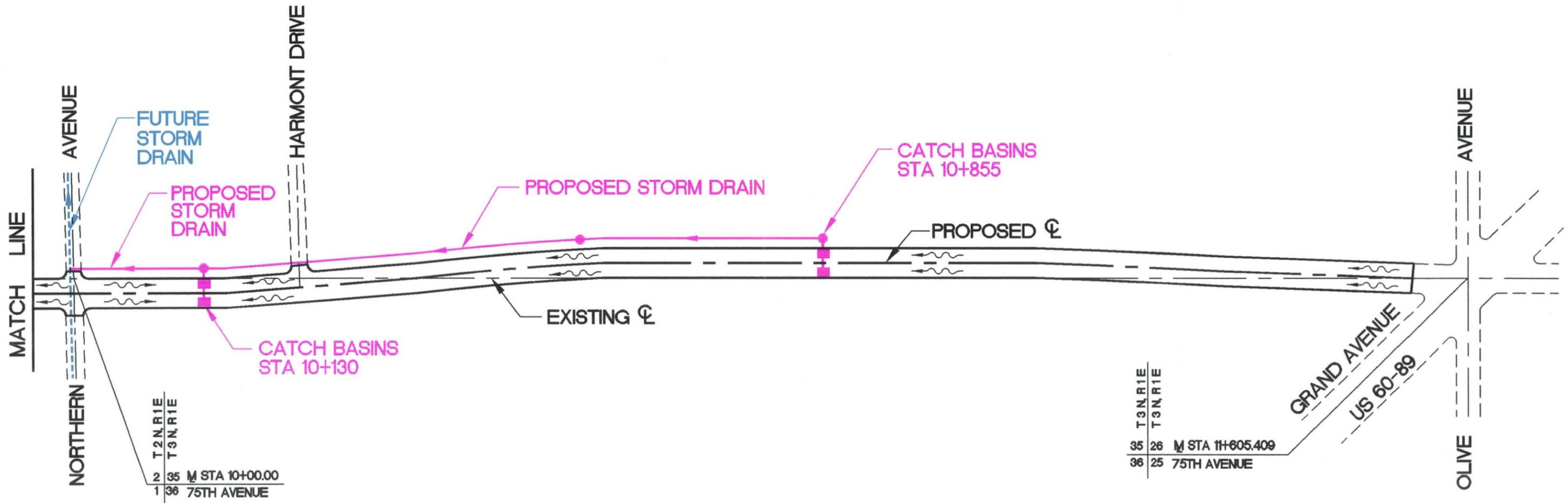
street capacity  $> 100 \text{ cfs}$  (Sheet 6)



# 75TH AVENUE DRAINAGE MAP PREFERRED ALTERNATIVE



NOT TO SCALE



# 75TH AVENUE DRAINAGE MAP PREFERRED ALTERNATIVE