LOS ANGELES INTERNATIONAL AIRPORT - PALMDALE REGIONAL AIRPORT SPECIALIZED RAIL TRANSIT SYSTEM DEMONSTRATION PROJECT

TASK 1:

IDENTIFICATION OF UTILITIES

Prepared for:

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December 9, 1991

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INTRODUCTION

The following is a technical memorandum which presents Task 1 - Review of major utility structures along the proposed route of the Los Angeles International Airport to Palmdale Specialized Rail Transit System (LAX-Palmdale). The LAX-Palmdale Rail Project is proposed to follow the alignment of Interstate 405 (I-405, San Diego Freeway), Interstate 5 (I-5, Golden State Freeway), and State Route 14 (SR-14, Antelope Valley Freeway), and is generally proposed as an aerial transitway within the freeway right-of-way. (See Figure 1.)

Organization of this Document

The route study area is divided into 13 segments between the 14 proposed stations. The report describes the major utilities within the segment between each station. Included are electrical and telephone lines, and water, sewer, storm drain, oil, and gas pipelines. Locations of major overhead electrical lines (Southern California Edison) as shown on route plans distributed with the original Request For Proposal were confirmed with Edison and are included herein to provide all utility data in one document.

The data is presented in both tabular and graphic formats. Within this report, tables for each segment list major utilities by ownership, stationing, and description of structure, as shown in the following example:

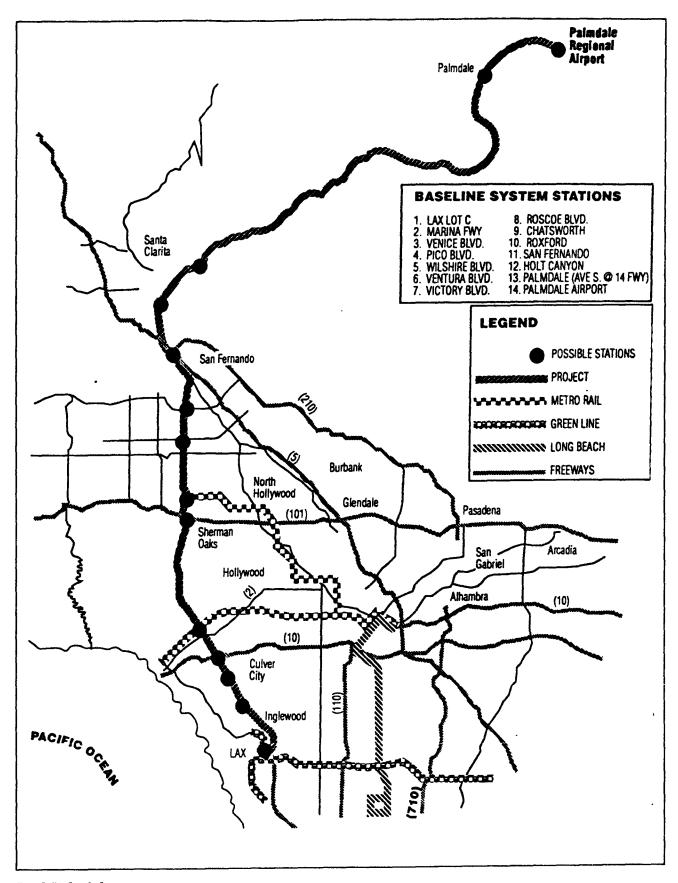
Table 1
Example of Utility Crossing Data

Station	Ownership	Structure
100+00	Southern California Edison	High tension guy wire must be relocated onto steel stub (now crossing alignment).

In addition, utility locations, ownership, and structure data are indicated graphically on the revised set of route plans included herewith.

Methodology

Each utility was contacted and original "as built" plans were reviewed for the entire length of the route. Utility locations were plotted on the attached maps and are described in tabular form for each segment between stations.



LAX-Palmdale

While every effort was made to obtain complete and accurate utility location information, each utility disclaimed responsibility for completeness and accuracy of substructure information. Accordingly, the completeness and accuracy of the utility information provided herein is based on the most up to date information available; however, the user assumes responsibility for verifying utility locations before construction and assumes all responsibility for damage to utility structures as a result of construction activity.

LAX TO MARINA FREEWAY (Station 1 to Station 2)

Station	Ownership	Structure
7+60	So. Calif. Gas Co.	2" Gas Line
8+35	Pac Tel.	12" MTD
10+20	LA DWP	8" Water
21+35	So. Cal. Gas Co.	4" Gas Line
22+55	Pac. TeL	Buried Cable
24+10	LA DWP	8" Water Line
48+80	So. Cal. Gas Co.	10" Gas Line
50+25	So. Cal. Gas Co.	30" Gas Line
51+65	So. Cal. Gas Co.	6" Gas Line
79+00	Pac. Tel.	8" MTD
79+25	LA DWP	3" Water Line
79+60	Pac. Tel.	10" MTD
84+00	So. Cal. Gas Co.	3" Gas Line
87+20	So. Cal. Gas Co.	4" Gas Line
91+50	So. Cal. Gas Co.	2" Gas Line
100+00	Southern California Edison	High tension guy wire must be relocated onto steel stub (now crossing alignment).
152+45	Los Angeles County Flood Control District (L.A.C.F.C.D.)	24" storm drain
154+45	L.A.C.F.C.D.	24" storm drain
164+45	L.A.C.F.C.D.	24" storm drain
171+50	Los Angeles County Sanitation District (L.A.C.S.D.)	2) 9" sanitary sewer
177+50 to 178+13	Standard Oil Company	1) 3" pipe in 10" casing; 2) 6" pipes in 12" casings; 1) 8" pipe in 14" casing; 1) 14" spare casing; 1) 12' pipe w/o casing
182+ 65	L.A.C.F.C.D.	24" storm drain
186+65	L.A.C.F.C.D.	12' x 9' reinforced concrete box
186+90	L.A.C.F.C.D.	24" storm drain
196+30	L.A.C.F.C.D.	30" storm drain
	L.A.C.F.C.D.	48" storm drain
196+35		L
196+35 196+40	L.A.C.F.C.D.	102" storm drain

MARINA FREEWAY TO VENICE (Station 2 to Station 3)

Station	Ownership	Structure
197+60	Union Oil Co.	12" pipeline
198+60	Mobil Oil Co.	10" pipeline
199+60	Standard Oil Co.	16" pipeline
201+70	Standard Oil Co.	16' pipeline
204+70	Pacific Telephone	6" cable casing
205+60	Mobil Oil Co.	10" pipeline
209+00	L.A.C.F.C.D.	24" storm drain
212+10	L.A.C.F.C.D.	78" storm drain
212+30	L.A.C.F.C.D.	78" storm drain
212+40	L.A.C.F.C.D.	78" storm drain
214+92	L.A.C.F.C.D.	24" storm drain
218+57	L.A.C.F.C.D.	42" storm drain
218+97	L.A.C.F.C.D.	36" storm drain
220+35	General Telephone (7)	2" G.I.P. casing
221+87	L.A.C.F.C.D.	24" storm drain
226+80	LA.C.F.C.D.	24" storm drain
230+33	General Telephone	Buried cable

VENICE TO PICO (Station 3 to Station 4)

Station	Ownership	Structure
396+80	L.A.C.F.C.D.	24" storm drain
419+80	L.A.C.F.C.D.	24" storm drain
419+90 to 421+80	General Telephone	6 x 22 buried cable
432+80	L.A.C.F.C.D.	33" storm drain

PICO TO WILSHIRE (Station 4 to Station 5)

Station	Ownership	Structure
505+50	L.A.C.F.C.D.	24" storm drain
506+52	General Telephone	Buried cable

WILSHIRE TO VENTURA (Station 5 to Station 6)

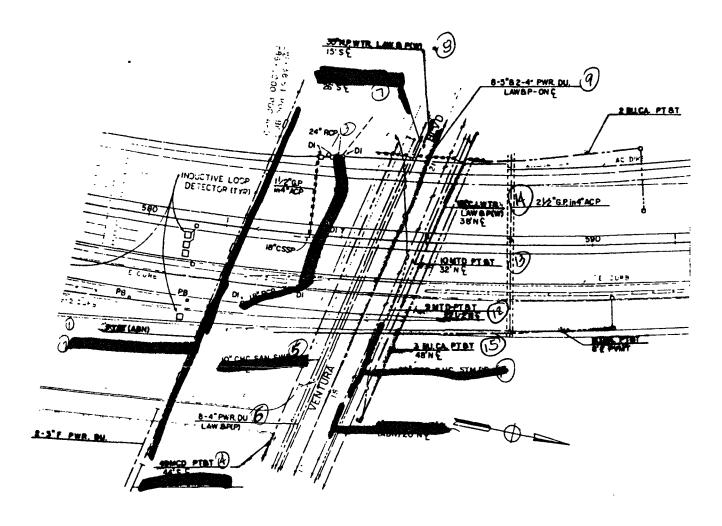
Station	Ownership	Structure
530+00	L.A.C.F.C.D.	24" storm drain
534+30	L.A.C.F.C.D.	24" storm drain
536+10	General Telephone	Buried cable
537+90	Southern California Edison	2) 4" buried cable
541+00	L.A.C.F.C.D.	24" storm drain
542+00	L.A.C.F.C.D.	24" storm drain
548+70	L.A.C.F.C.D.	24" storm drain
550+20	General Telephone	Buried cable
556+20	L.A.C.F.C.D.	24" storm drain 96" storm drain
55 9+ 70	Metropolitan Water District	96" pipeline
569+20	General Telephone	Buried cable
569+60	LA.C.F.C.D.	24" storm drain
570+20	LA.C.F.C.D.	36" storm drain
576+70	L.A.C.F.C.D.	24" storm drain
583+50 to 589+50	General Telephone	Buried cable
584+00	L.A.C.F.C.D.	24" storm drain
584+40		4" gasoline pipeline (abandoned)
585+52	L.A.C.F.C.D.	36" storm drain
585+52	General Petroleum/Mobil Oil Co.	10" pipeline (abandoned)
582+00 to 603+50	Southern California Gas Co.	26" pipeline
583+00 to 603+50	Chevron USA	8" gasoline pipeline
593+50	LACECD.	24" storm drain
598+70	L.A.C.F.C.D.	24" storm drain
598+85	General Telephone	18) 3½" ACD
599+50	L.A.C.F.C.D. (7)	84" storm drain (abandoned)
610+80	L.A.C.F.C.D.	24" storm drain
615+20	L.A.C.F.C.D.	24" storm drain
632+20	General Telephone	Buried cable
632+20 to 643+20	General Telephone	Buried cable

T		_
Station	Ownership	Structure
637+00	L.A.C.F.C.D.	24" storm drain
640+70	L.A.C.F.C.D.	24" storm drain
643+00	General Telephone	Buried cable
644+90	L.A.C.F.C.D.	24" storm drain
647+90	L.A.C.F.C.D.	24" storm drain
654+30	L.A.C.F.C.D.	24" storm drain
656+80	General Telephone	Buried cable
659+60	L.A.C.F.C.D.	30" storm drain
661+00	L.A.C.F.C.D.	24" storm drain
666+50	L.A.C.F.C.D.	54" storm drain
669+00 to 672+50	General Telephone	Buried cable
673+70	L.A.C.F.C.D.	24" storm drain
681+40	General Telephone	Buried cable
683+90	L.A.C.F.C.D.	42" storm drain
684+00 to 689+00	L.A.C.F.C.D.	10' x 12' rc box
693+50	L.A.C.F.C.D.	24" storm drain
694+20		97" welded steel water pipe
694+20 to 700+00	General Telephone	Buried cable
699+60	LA.C.F.C.D.	54' storm drain
699+70	L.A.C.F.C.D.	9' x 11' rc box
700+90	L.A.C.F.C.D.	24" storm drain
709+10	L.A.C.F.C.D.	30" storm drain
713+20	L.A.C.F.C.D.	24" storm drain
718+50	LACECD.	24" storm drain
719+00	LA.C.F.C.D.	24" storm drain
720+80	LA.C.F.C.D.	24" storm drain
722+00	LA.C.F.C.D.	30" storm drain
722+00 to 726+00	L.A.C.F.C.D.	9' x 11' RC Box
722+80	L.A.C.F.C.D.	24" storm drain
723+70	L.A.C.F.C.D.	24" storm drain
724+20	LACECD.	24" storm drain
726+70	L.A.C.F.C.D.	30" storm drain

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Station	Ownership	Structure
727+80	L.A.C.F.C.D.	24" storm drain
730+30	L.A.C.F.C.D.	24" storm drain
733+40	L.A.C.F.C.D.	42" storm drain
735+60	L.A.C.F.C.D.	24" storm drain
739+85 - 740+35	General Telephone	Buried cable
739+80	L.A.C.F.C.D.	24" storm drain
742+25	L.A.C.F.C.D.	30" storm drain
745+95	L.A.C.F.C.D.	30" storm drain
754+65	L.A.C.F.C.D.	24" storm drain
761+65	L.A.C.F.C.D.	24" storm drain
766+15	L.A.C.F.C.D.	30" storm drain
769+95	L.A.C.F.C.D.	24" storm drain
773+75	L.A.C.F.C.D.	36" storm drain
779+25	L.A.C.F.C.D.	24" storm drain
781+10	General Telephone	Buried cable
785+25	L.A.C.F.C.D.	48" storm drain
786+10	L.A.C.F.C.D.	24" storm drain
791+50	L.A.C.F.C.D.	24" storm drain
797+25	LA.C.F.C.D.	48" storm drain
799+10	LA.C.F.C.D.	24" storm drain
804+10	LA.C.F.C.D.	30" storm drain
810+60	LA.C.F.C.D.	30" storm drain
812+50	L.A.C.F.C.D.	30" storm drain
813+65	LA.C.F.C.D.	54" storm drain
815+25	LA.C.F.C.D.	24" storm drain
816+65	General Telephone	Buried cable
817+30	L.A.C.F.C.D.	36" storm drain
819+75	LA.C.F.C.D.	33" storm drain
820+60	LA.C.F.C.D.	24" storm drain
831+55	LA.C.F.C.D.	24" storm drain
833+50	LA.C.F.C.D.	24" storm drain
835+00	LA.C.F.C.D.	24" storm drain

Station	Ownership	Structure
835+50	Southern California Gas Co.	8" Gas Pipeline
837+25	LA.C.F.C.D.	27" storm drain
839+65	L.A.C.F.C.D.	24" storm drain
841+25	LA.C.F.C.D.	30" storm drain
843+60	LA.C.F.C.D.	24" storm drain
845+75	L.A.C.F.C.D.	33" storm drain
847+40	L.A.C.F.C.D.	24" storm drain
852+00	L.A.C.F.C.D.	24" storm drain
853+35	L.A.C.F.C.D.	36" storm drain
854+30	Los Angeles Department of Water and Power	24" Water Pipeline
857+65	L.A.C.F.C.D.	24" storm drain
860+70	L.A.C.F.C.D.	39" storm drain
863+35	LA.C.F.C.D.	24" storm drain
866+30	L.A.C.F.C.D.	24" storm drain
871+20	L.A.C.F.C.D.	24" storm drain
877+60	L.A.C.F.C.D.	42" storm drain
883+30	L.A.C.F.C.D.	24" storm drain
886+80	Pacific Telephone	Buried cable
888+20	L.A.C.F.C.D.	24" storm drain
890+75	L.A.C.F.C.D.	24" storm drain
895+80	L.A.C.F.C.D.	24" storm drain
898+00	L.A.C.F.C.D.	24" storm drain
904+25	L.A.C.F.C.D.	30" storm drain
905+05	L.A.C.F.C.D.	24" storm drain
908+25	L.A.C.F.C.D.	39" storm drain
910+80	Pacific Telephone	Buried cable
913+95	L.A.C.F.C.D.	48" storm drain
918+50	L.A.C.F.C.D.	57" storm drain
920+25	Pacific Telephone	Buried cable (abandoned)

Station	Ownership	Structure
922+00 to 925+00	L.A.C.F.C.D. Pacific Telephone Los Angeles Department of Water and Power	24" storm drain 49" MCD 8) 4" Power line conduits
	L.A.C.F.C.D. Southern California Gas Co. Los Angeles Department of Water and Power	10" Sanitary Sewer 16" High Pressure Gas Pipeline 30" Water Pipeline
	Los Angeles Department of Water and Power Southern California Gas Co. L.A.C.F.C.D.	8) 5" and 2) 4" Power Conduits 4" Gas Pipeline 72" storm drain
	Los Angeles Department of Water and Power Pacific Telephone Pacific Telephone	8" Water Pipeline 9" MTD 10" MTD
937+00	Pacific Telephone Southern California Gas Co.	3" Buried cable conduit 30" Gas Pipeline



VENTURA TO VICTORY (Station 6 to Station 7)

Station	Ownership	Structure
1125+00	Pacific Telephone	Buried cable
1127+40	Los Angeles Department of Water and Power	12' High Pressure Water Pipeline
1128+65	Southern California Gas Co.	3" Medium Pressure Gas Pipeline
1143+35	Pacific Telephone	Buried cable

VICTORY TO ROSCOE (Station 7 to Station 8)

Station	Ownership	Structure	
1175+00	Southern California Gas Co.	8" Gas Pipeline	
1175+50	Southern California Gas Co.	4" Medium Pressure Gas Pipeline	
1176+50	LA.C.F.C.D.	24" storm drain	
1180+55	L.A.C.F.C.D.	24" storm drain	
1187+75	L.A.C.F.C.D.	24" storm drain	
1192+00	LA.C.F.C.D.	24" storm drain	
1199+50	Los Angeles Department of Water and Power	12" Water Pipeline	
1200+40	Southern California Gas Co.	6" Medium Pressure Gas Pipeline	
1207+60	L.A.C.F.C.D.	24" storm drain	
1212+75	L.A.C.F.C.D.	24" storm drain	
1220+20	L.A.C.F.C.D.	24" storm drain	
1225+55	Los Angeles Department of Water and Power	12' Water Pipeline	
1226+75	Southern California Gas Co.	3" Gas Pipeline	
1234+40	L.A.C.F.C.D.	24" storm drain	
1239+50	LA.C.F.C.D.	3) 2½' x 6' culverts	
1252+00	L.A.C.F.C.D.	24" storm drain	

ROSCOE TO CHATSWORTH (Station 8 to Station 9)

Station	Ownership	Structure	
1175+00	Southern California Gas Co.	8" Gas Pipeline	
1175+50	Southern California Gas Co.	4" Medium Pressure Gas Pipeline	
1176+50	L.A.C.F.C.D.	24" storm drain	
1180+55	L.A.C.F.C.D.	24" storm drain	
1187+75	L.A.C.F.C.D.	24" storm drain	
1192+60	L.A.C.F.C.D.	24" storm drain	
1199+50	Los Angeles Department of Water and Power	12" Water Pipeline	
1200+40	Southern California Gas Co.	6" Medium Pressure Gas Pipeline	
1207+00	L.A.C.F.C.D.	24" storm drain	
1212+40	L.A.C.F.C.D.	24" storm drain	
1220+20	L.A.C.F.C.D.	24" storm drain	
1225+55	Los Angeles Department of Water and Power	12" Water Pipeline	
1226+75	Southern California Gas Co.	3" Gas Pipeline	
1234+40	L.A.C.F.C.D.	24" storm drain	
1239+50	L.A.C.F.C.D.	Triple 6' x 2.5' RCB culvert	
1252+00	Los Angeles Department of Water and Power	8" Water Pipeline	
1252+40	General Telephone	Buried cable	
1252+80	Southern California Gas Co.	2" Gas Pipeline	
1262+20	L.A.C.F.C.D.	24" storm drain	
1268+05	L.A.C.F.C.D.	Double 5' x 2.5' RC Box	
1269+50	L.A.C.F.C.D.	24" storm drain	
1272+45	L.A.C.F.C.D.	24" storm drain	

CHATSWORTH TO ROXFORD

(Station 9 to Station 10)

Station	Ownership	Structure	
1407+00 to 1451+00±	General Telephone	Buried cable	
1440+00	General Telephone	1" GSC & 21/2" GSP in 4" ACP	
1451+00	General Telephone	1" GSC & 4" ACP	

ROXFORD TO SAN FERNANDO (Station 10 to Station 11)

Station	Ownership	Structure
1502+00	Los Angeles Department of Water and Power	30" Water Pipeline in 42" CSG
1510+00	Los Angeles Department of Water and Power Los Angeles Department of Water and Power	2½" Galvanized Pipe in 6" CMP 3" Galvanized Pipe in 6" CMP
1519+00 to 1535+00±	ARCO	10% Oil in 16" Csg (abandoned)
1535+00	Los Angeles Department of Water and Power Los Angeles Department of Water and Power General Telephone Los Angeles Department of Water and Power 2) 3" diam. Telephone Los Angeles Department of Water and Power 2) 5" + 6) 4" diam, pwr 35	
1537+00	Southern California Gas Co.	12" Gas Pipeline, 49' sn
1538+00	Mobil	8" Oil Pipeline
1556+00	Southern California Gas Co.	22" High Pressure Gas Pipeline
1561+00 to 1567+00±	Southern California Gas Co.	12" Gas Pipeline (abandoned)
1567+00	Water District General Telephone	77" Water Pipeline 9 diam. Telephone Line
1603+00	Mobil	10" Oil Pipeline
1605+00	Mobil Southern California Gas Co. Southern California Gas Co. Southern California Gas Co. Los Angeles Department of Water and Power Southern California Gas Co.	
1607+00	General Telephone	30" Telephone Cable, 33' WQ
1635+00	Southern California Gas Co. Southern California Gas Co.	30" High Pressure Gas Pipeline, 5' No. 30" High Pressure Gas Pipeline, 10' So.
1640+00	General Telephone	Buried cable
1677+00	Southern California Gas Co.	22" High Pressure Gas Pipeline
1679+00	Southern California Gas Co. Gas Pacific Light Corporation	16" High Pressure Gas Pipeline 26" High Pressure Gas Pipeline
1727+00	Newhall Company Water District General Telephone	12" Water Pipeline Buried cable, high voltage and telephone

SAN FERNANDO TO HOLT CANYON (Station 11 to Station 12)

Station	Ownership	Structure	
1926+75	L.A.C.F.C.D.	8" Cast Iron Pipe Sewer	

HOLT CANYON TO AVENUE "S" (Station 12 to Station 13)

Station	Ownership	Structure	
2019+20	Water District	8" ACP Water	
2019+45	Newhall Company Water District	24" VCP Sewer	
2019+75	Santa Clarita Water District	12" ACP	
2068+60	Santa Clarita Water District	8" Steel Pipe	
2120+75	Santa Clarita Water District	6" Water Pipeline	
2185+80	Southern California Gas Co.	30" Gas Pipeline	
2191+90	Water District	4" Water Pipeline	
2326+00	PT&T 9" MCD		
2877+90	Water District	12" Water Pipeline	
2878+65	PT&T	Buried cable	
3381+85	Pacific Bell	6" diam. Telephone Line	
3582+35	Gas Pacific Light Corporation	30" Gas Pipeline	

AVENUE "S" TO PALMDALE AIRPORT (Station 13 to Station 14)

Note: Within this segment, the alignment leaves the SR-14 right-of-way at Avenue "P-8". East of this location, the alignment follows existing or proposed local streets. These street rights-of-way frequently include parallel utility easements, both within and adjacent to the right-of-way. For this reason, numerous utility structures are encountered paralleling the transit route itself.

Station	Ownership	Structure	
3466+50	Pacific Bell	15" diam. Buried cable	
3488+00	Southern California Gas Co.	6" High Pressure Gas Pipeline	
3525+00	Palmdale Water District	12" Water Pipeline	
3525+00 to 3536+00	Palmdale Water District	10" Water Pipeline	
3525+00 to 3606+00±	Los Angeles County Sanitation District (L.A.C.S.D.)	18" Sanitary Sewer	
3535+50	Palmdale Water District	6" Water Pipeline	
3537+00	Los Angeles County Sanitation District (L.A.C.S.D.) Southern California Gas Co.	18" Sanitary Sewer 4" Medium Pressure Gas Pipeline	
3552+00±	Palmdale Water District	2" Water Pipeline (abandoned) 8' Water Pipeline	
3565+00 to 3580+00±	Palmdale Water District Southern California Gas Co. Pacific Bell	6" Water Pipeline 2" Medium Pressure Gas Pipeline Buried cable	
3580+00	Southern California Gas Co. Southern California Gas Co. Palmdale Water District	10" High Pressure Gas Pipeline 4" Medium Pressure Gas Pipeline 12%" Water Pipeline	
3590+00	L.A.C.S.D.	18" Sanitary Sewer	
3597+00 to 3600+00±	Pacific Bell	Buried cable	
3615+00 to 3630+00±	Southern California Gas Co.	4" Medium Pressure Gas Pipeline	
3615+00 to 3647+00±	Palmdale Water District L.A.C.S.D.	16" Water Pipeline 18" Sanitary Sewer	
3615+00 to 3632+00±	Pacific Bell	Buried cable	
3625+00	Palmdale Water District	ct Water Well 800'	
3632+00	Southern California Gas Co.	4" High Pressure Gas Pipeline	
3675+00	Palmdale Water District	12" Water Pipeline	
3702+00 to 3737+00±	L.A.C.S.D. Pacific Bell	24" Sanitary Sewer Buried cable	

Task 1: Identification of Utilities

Station	Ownership	Structure	
3702+00 to 3716+00±	Southern California Gas Co.	3" Medium Pressure Gas Pipeline	
3716+00	Southern California Gas Co. Southern California Gas Co.	4" Medium Pressure Gas Pipeline 4" High Pressure Gas Pipeline	
3716+00 to 3737+00±	Palmdale Water District Palmdale Water District Southern California Gas Co.	16" Water Pipeline 12" Water Pipeline 4" Medium Pressure Gas Pipeline	
3728+00	Palmdale Water District	Water Well 1,400'	
3747+00 to 3793+00±	L.A.C.S.D.	24" Sanitary Sewer	
3747+00 to 3755+00±	Palmdale Water District	20" Water Pipeline	
3755+00 to 3793+00±	Palmdale Water District	24" Water Pipeline	
3755+00	Palmdale Water District	Water Well 1,300'	
3767+00	Pacific Bell	4" CPC	