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TRANSMITTAL

DATE: 5/1/2012

REFERENCE NO.: 540188

PROJECT NAME: 1432 Harrison St., Oakland

TO: Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

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1	ADDITIONAL OFFSITE INVESTIGATION, COMPREHENSIVE CONDUIT STUDY AND FIRST 2012 SEMI-ANNUAL GROUNDWATER MONITORING/SAMPLING REPORT

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COMMENTS:
If you have any questions regarding the content of this document, please contact Robert Foss at (510) 420-3348.

Copy to: Est. of A Bacharach/Barbara Jean Borsuk c/o Mr. Mark Borsuk

Completed by: Robert Foss [Please Print] Signed: Robert Foss

Filing: **Correspondence File**

With respect to:

Additional Offsite Investigation Report & Comprehensive Conduit Study and First 2012 Semi-Annual Groundwater Monitoring/Sampling Report

Dated May 1, 2012
Fuel Leak Case No. **RO0000266**

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report are true and correct to the best of my knowledge.

Barbara Jean Borsuk

Estate of A. Bacharach/Barbara Jean Borsuk

4/17/12

Date

ADDITIONAL OFFSITE INVESTIGATION, COMPREHENSIVE CONDUIT STUDY AND FIRST 2012 SEMI-ANNUAL GROUNDWATER MONITORING/SAMPLING REPORT

ALLRIGHT PARKING
1432 HARRISON STREET
OAKLAND, CALIFORNIA

ACEH CASE NO. RO0000266

Prepared by:
Conestoga-Rovers & Associates

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MAY 1, 2012
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1.0 INTRODUCTION

On behalf of the Estate of A. Bacharach/Barbara Jean Borsuk, Conestoga-Rovers & Associates (CRA) has generated this *Additional Offsite Assessment and Comprehensive Conduit Study Report.* This report documents the installation of one additional groundwater monitor well, five additional soil borings and the results of a comprehensive conduit study in the area around the site (Figure 1). This report is in response to an Alameda County Environmental Health Department (ACEH) request contained in a July 19, 2010 letter. ACEH requested further definition of the extent of hydrocarbons emanating from the two former underground storage tanks (USTs), removed from beneath the sidewalk in front of 1432 Harrison St., and the UST abandoned in place beneath the sidewalk in front of 1424 Harrison St. Figure 2 shows the locations of well MW-7, soil borings SB-25 through SB-29 and sub-slab vapor probes SSVP-1 through SSVP-4, installed and sampled to acquire the requested data. A copy of this correspondence is included in Appendix A.

1.1 SITE INFORMATION

Site Address	1432 Harrison St, Oakland, CA
Site Use	Commercial Parking Business
Client and Contact	Estate of A. Bacharach/Barbara Jean Borsuk, c/o Mr. Mark Borsuk, Esq.
Consultant and Contact Person	CRA, Robert Foss, P.G.
Lead Agency and Contact Person	ACEH, Mr. Jerry Wickham, P.G.
Agency Case No.	RO0000266

Additional site background information and descriptions of previous environmental work are included as Appendix B.

2.0 GEOLOGY AND HYDROGEOLOGY

2.1 GEOLOGY

The site resides along the eastern shore of San Francisco Bay, a broad depression between the San Andreas and Hayward fault systems. Regionally, this area is located in California's Coast Range Physiographic Province, characterized by northwest-southeast

trending valleys and ridges, and lying between the Pacific Ocean to the west and the Great Valley to the east. The oldest known bedrock in the Coast Range Province is marine sedimentary and volcanic rocks that form the Franciscan Assemblage. Geologic formations in the San Francisco Bay Region vary in age from Jurassic to recent Holocene. Specifically, the site is located to the west of the Oakland-Berkeley Hills on the East Bay Plain, sloping gently to the west towards San Francisco Bay. Unconsolidated sediments in the East Bay Plain vary in thickness, with some areas up to 1,000 ft thick. From oldest to youngest, the unconsolidated sediments are 1) Santa Clara Formation, 2) Alameda Formation, 3) Temescal Formation, and 4) artificial fill. The Early Pleistocene Santa Clara Formation consists of alluvial fan deposits inter-fingered with lake, swamp, river channel, and flood plain deposits, ranging from 300 to 600 ft thick. The Late Pleistocene Alameda Formation was deposited primarily in an estuarine environment and consists of alluvial fan deposits bound by mud deposits on the top and bottom of the formation. The Alameda Formation ranges from 26 to 245 ft thick and is subdivided into the Yerba Buena Mud, San Antonio, Merritt, and Young Bay Mud Members. The Early Holocene Temescal Formation is an alluvial fan deposit consisting primarily of silts and clays with some gravel layers. The Temescal Formation ranges from one to 50 ft thick, thinning toward the bay. Below any sub-base and fill, shallow sand, silt, and clay at the site are likely part of the Temescal Formation. The site lithology is slightly heterogeneous consisting of sediments grading between silty sand, sand, and sandy silt to the maximum explored depth of 50 ft. Near the surface, fill includes gravel and concrete road base.

2.2 HYDROGEOLOGY

The site is located in the East Bay Plain Sub-Basin of the Santa Clara Valley Groundwater Basin, designated as Groundwater Basin No. 2-9.04 (DWR 2003). The East Bay Plain Sub-Basin is a northwest trending alluvial basin, bounded on the north by San Pablo Bay, on the east by the contact with Franciscan basement rock, and on the south by the Niles Cone Groundwater Basin. The East Bay Plain Sub-Basin extends beneath San Francisco Bay to the west. The East Bay Plain Sub-Basin aquifer system consists of unconsolidated sediments of Quaternary age. These include the Santa Clara Formation, Alameda Formation, Temescal Formation, and artificial fill. Most rainfall in the project area occurs between November and March and the average annual rainfall is approximately 23 inches. Throughout most of the East Bay Plain regional groundwater elevation contours show the direction of flow is generally east to west, towards San Francisco Bay, with some localized variations. Groundwater flow direction typically correlates with topography.

From 1860 to 1930 groundwater from the East Bay Plain was the major water supply of the East Bay, before Sierra water was imported into the area. By the late 1920's the groundwater supply was too small to meet the growing population and the wells often became contaminated by seepage or saltwater intrusion. By 1929, East Bay Municipal Utility District (EBMUD) provided imported water to East Bay communities via the Mokelumne Aqueduct. This high-quality, reliable supply soon eliminated the need for local groundwater wells. In 1996, the Regional Board reviewed General Plans for Oakland and other communities. They found that Oakland and most other cities did not have any plans to develop local groundwater resources for drinking water, due to existing or potential saltwater intrusion, contamination, or poor and/or limited quality (Regional Board 1999).

The shallow groundwater zone occurs at approximately 20 fbg. Depth to groundwater in monitoring wells has historically ranged from 18 to nearly 23 fbg, although well MW-1 has recorded shallower groundwater during air sparge/soil vapor extraction remediation from December 2001 through April 2005. Table 1 contains historical depth to water measurements and groundwater elevation calculations. Groundwater beneath the site flows primarily toward Lake Merritt to the north. Any vertical hydraulic gradient is currently undefined.

3.0 HYDROCARBON DISTRIBUTION

3.1 HYDROCARBON DISTRIBUTION IN SOIL

Cambria Environmental Technology, Inc. conducted soil vapor extraction/air sparge (SVE/AS) remediation from December 2001 through April 2005. Table 2 documents pre-remediation hydrocarbon concentrations in soil and the figures included in Appendix B show previous soil boring, well and soil vapor probe locations, along with sample analytical results. Elevated soil hydrocarbon concentrations existed in the upper 30 ft near the former USTs and gasoline dispensers in both the vadose and saturated zones. With few exceptions, the occurrences of "pre-remediation" elevated hydrocarbon concentrations existed between 18 and 27 fbg. The exceptions were in soil samples collected between 9 and 13 fbg from soil borings located around the UST closed in place beneath the sidewalk at 1424 Harrison St. These sample depths and residual hydrocarbons are consistent with the burial depth of the UST. The maximum TPHg concentration observed in soil samples collected adjacent to the 1424 Harrison UST was 1,900 milligrams-per-kilogram (mg/kg) in boring SB-Q at 9.6 fbg, followed by 1,500 mg/kg in sample SB-P at 12.7 fbg. A shallow soil sample, collected at 10 fbg in boring B-22 near the former dispenser island, contained TPHg at 1,540 mg/kg. This was

likely the result of a release associated with a surface spill, the product piping or the dispenser itself. One additional soil sample from boring B-4, located adjacent to the former hydraulic lifts, near the eastern corner of the 1432 Harrison St property, contained 1,700 mg/kg TPH as diesel (TPHd) at 10 fbg.

Elevated TPHg concentrations were reported down to 26.5 fbg in borings adjacent to the former USTs beneath the sidewalk in front of 1432 Harrison St. Hydrocarbon concentrations decreased to below detection limits in the 30 ft samples from VES-2 and VES-4. Soil boring B-24, drilled during this investigation, contained TPHg concentrations of 1.5 mg/kg at 20 fbg, 4,300 mg/kg at 25 fbg and 22 mg/kg at 29.5 fbg. This illustrates the normal decreasing concentrations with depth to 30 fbg. However, two samples collected at 35 and 49.5 fbg, contained 1,400 and 890 mg/kg, respectively. In all borings and wells drilled onsite and in the immediate area, reported hydrocarbon concentrations decrease to near or below reporting levels between 25 and 30 fbg. This is consistent with a lower water table at the time of the hydrocarbon release(s). Elevated TPHg concentrations at 35 and 49.5 fbg appear more logically explained by caving of sidewall material from the impacted zone above, at or just below the current water table, as the direct push drilling tool was extracted and replaced, especially in light of sample B-24-29.5 containing only 22 mg/kg TPHg.

Removal of the USTs, fuel dispensers, three hydraulic lifts, a subsurface vault, a wash rack sump and associated piping took place in December 1993. Removal of approximately 240 cubic yards of backfill and over-excavated hydrocarbon-impacted soil occurred along with removal of these structures. Implementation of soil vapor extraction/air sparge (SVE/AS) remediation occurred primarily for remediation of hydrocarbons associated with the former USTs and gasoline dispensers. The removal of the USTs, piping, dispensers and associated impacted soil, along with the removal of a calculated 9,939 pounds of hydrocarbons by SVE/AS, significantly decreased residual hydrocarbon mass in soil. With the exception of soil boring SB-24 in August 2009, no post-remediation sampling had occurred until the May-June 2011 soil borings and sampling described below.

3.2 HYDROCARBON DISTRIBUTION IN GROUNDWATER

Historically, elevated concentrations of gasoline-range hydrocarbons occur in groundwater sampled from monitoring well MW-1, constructed at the location of the southern of the two former gasoline USTs beneath the sidewalk, and monitoring wells MW-2, MW-4, and MW-5, located to the north and downgradient of the former USTs. Dissolved hydrocarbon concentrations in MW-1 were stable from August 1994

through December 2001. These concentrations exhibited a significant decrease due to SVE/AS remediation between December 2001 and April 2005. However, hydrocarbon concentrations rebounded shortly after termination of active remediation in April 2005. The most recent analysis of groundwater from well MW-1 in March 2012 reported 15,000 micrograms per liter (µg/l) TPHg and 2,200 µg/l benzene. Well MW-2 had historically exhibited high dissolved hydrocarbon concentrations and responded to the SVE/AS remediation with decreasing concentrations. Similar to MW-1, dissolved concentrations also rebounded after termination of active remediation. In March 2010, light non-aqueous-phase liquid (LNAPL or "free product") entered well MW-2 during purging for sample collection. CRA's sampling contractor collected an LNAPL sample and delivered it to McCampbell Analytical Inc. for fuel fingerprinting. Although this LNAPL had the appearance of aged gasoline, the lab reported the sample as "unmodified to weakly modified gasoline." The basis for this was the presence and ratios of gasoline constituents. Bailing of LNAPL in MW-2 occurs during each event. The measured column of LNAPL increased from the initially measured thickness of 0.22-ft to 0.38-ft in February 2011. Measured in September and December 2011, the accumulated thickness decreased to 0.19-ft and 0.12-ft, respectively, then in March 2012 again increased slightly to 0.15-ft. Groundwater elevations and hydrocarbon concentrations from March 1, 2012 are included as Figure 3.

Hydrocarbon concentrations in well MW-5 were near or below detection limits from October 1996 through December 2003. In March 2004, dissolved hydrocarbon concentrations in MW-5 began increasing to a maximum of 57,000 µg/l TPHg and 16,000 µg/l benzene in March 2010. These elevated hydrocarbon concentrations began decreasing to 35,000 µg/l TPHg and 12,000 µg/l benzene in September 2010. Unexpectedly, TPHg and benzene concentrations dramatically decreased to 100 µg/l TPHg and 20 µg/l benzene in February 2011. Sample analysis confirmed the decreasing concentration trend with the September 23, 2011 sample reporting no hydrocarbons above the minimum reporting limits (MRL) of 50 µg/l TPHg, 0.5 µg/l BTEX and 5.0 µg/l MTBE. However, lab analysis of the First 2012 Semi-Annual MW-5 sample indicated a rebound of dissolved hydrocarbons to 24,000 µg/l TPHg and 11,000 µg/l benzene. A review of data from the last four gauging and sampling events suggests a remotely possible correlation between the rapid decrease, and equally rapid rebound, of dissolved hydrocarbons and the approximately 0.5 feet water table elevation increase and subsequent decrease in MW-5. However, this relatively minor rise and fall of groundwater elevation seems insignificant relative to the dramatic fluctuations of dissolved hydrocarbons. Additionally, this correlation does not hold true when compared to historical groundwater fluctuations across this same vertical sequence. Currently, CRA has no hypothesis for these dramatic changes.

Hydrocarbon concentrations in downgradient well MW-4 had significantly decreased from maximum concentrations of 57,000 µg/l TPHg in October 2001 and 18,000 µg/l benzene in January 2003 to the recent minimum levels of 86 µg/l TPHg and 4.5 µg/l benzene in September 2011. This decreasing trend would appear to result from upgradient source remediation. The First 2012 Semi-Annual analysis of MW-4 showed a slight increase to 560 µg/l TPHg and 13 µg/l benzene and, as described above with respect to MW-5, the slight increase observed in the March sample results could be somewhat related to a lower water table.

3.3 HYDROCARBON DISTRIBUTION IN SOIL GAS

During the August 2009 investigation, six soil vapor probes were installed on and near the site. This included three probes on the property at 1432 Harrison St., two probes in the subsurface parking garage at 1439 Alice St. and one on the west side of Harrison Street, in the sidewalk at 1425 Harrison St. The probes were sampled on September 9, 2009 and contained concentrations of TPHg between 440 µg/m^3 (SV-3) and 1,900 µg/m^3 (SV-6). Benzene ranged from below reporting limits of <3.8 µg/m^3 (SV-6) to 6.2 µg/m^3 (SV-7). These concentrations are below the established RWQCB Region 2 Shallow Soil Gas Screening Levels for both commercial/industrial and residential land use. Table 3 contains the September 2009 shallow soil gas analytical results and Appendix B includes a figure documenting shallow soil gas sample points and hydrocarbon concentrations.

4.0 COMPREHENSIVE CONDUIT STUDY

Historical commercial operations on nearby sites may affect hydrocarbon concentrations in wells associated with the 1432 Harrison St. site. On April 22, 2008, CRA submitted a letter report to ACEH, titled *Neighboring Sites.* The report documented the historical presence of other commercial operations that may affect groundwater in the immediate and local vicinity of the site. The two immediately adjacent upgradient properties at 1400 and 1424 Harrison St. have a history of gasoline sales and storage and automotive repair. However, the last documented operation at 1400 Harrison St. was as a gas station in 1943. The last documented potential petroleum operation at 1424 Harrison St. was in 1980 as the Oakland Garage, with the UST abandoned in 1982.

ACEH approved a proposed conduit study in its December 1, 2010 letter. ACEH approved a comprehensive conduit study near the former USTs and MW-2, as well as the areas of the proposed borings and new well. Since the borings and well were on both the west and east sides of Harrison Street, CRA conducted the conduit study across

both the north and southbound lanes, as well as along 15th Street toward Webster Street. CRA contacted the City of Oakland Department of Public Works to obtain city maps identifying locations and burial depths of storm drains and sanitary sewer lines. CRA also contacted PG&E to identify their electric and gas lines beneath Harrison Street. Under contract by CRA, ULS Services Corporation identified and marked utility conduits in the field. On December 23, 2010, CRA staff scientist Calvin Hee met ULS staff at the site to trace and mark utility conduits generally located by USA mark outs and information acquired from the City of Oakland. The unexplained elevated concentrations of dissolved hydrocarbon in well MW-5, along 15th Street, prompted CRA to investigate potential preferential migration along utilities running beneath 15th Street. The ULS report is included as Appendix C. This report contains digital images of the extensive markings along Harrison and 15th Streets. While there are numerous utilities located beneath both Harrison and 15th Streets, they are primarily gas, electric, communication and water lines. Construction of these utility types normally results in shallow burial depth. Construction of storm sewer lines and sanitary sewer lines are deeper. Flow within these lines is dependant on gravity and a progressively lower elevation is required to maintain that flow (commonly a 1 percent slope). Groundwater in the immediate vicinity has historically ranged from approximately 14 to 18 ft above mean sea level. Sanitary sewer lines run northward along the eastern and western sides of Harrison Street at a depth that, depending on the thickness of fill on which the pipe lays, could occasionally intersect the water table. Another sanitary sewer line runs eastward down 15th Street, merging with the line beneath Harrison Street It is therefore possible that an alternate upgradient release could be the source of unweathered LNAPL in MW-2, having migrated through the sewer line or migrated along the bottom of the trench backfill.

Ground penetrating radar (GPR) located additional subsurface structures along Harrison Street, although these remain unidentified. An unidentified trench is marked on the conduit study photos running parallel along Harrison Street. The depth of the trench, the utility buried within it and the owner of whatever structure resides within the trench are unknown. The asphalt covering this structure runs the entire length of the block from 14th to 15th Street and beyond, indicating that this is not merely a repair of degraded roadway. Well MW-2, installed in July 1994, resides within the surface expression of this trench, suggesting that well installation occurred after the trench was constructed.

Well MW-2 has historically contained up to 150,000 µg/l TPHg and 23,000 µg/l benzene (excluding a likely erroneous benzene value of 140,000 µg/l recorded in December 1994). During air sparge/soil vapor extraction (AS/SVE) remediation conducted between December 2001 and April 2005, dissolved concentrations in MW-2 decreased to a

minimum of 150 µg/l TPH and 10 µg/l benzene. However, dissolved hydrocarbons progressively increased again from March 2006 and LNAPL appeared in March 2010. During this same timeframe, MW-1 rebounded from a minimum of 320 µg/l TPHg and 5.2 µg/l benzene in March 2005 to a maximum of 34,000 µg/l TPHg (September 2006) and 2,600 µg/l benzene (September 2011). A grab-groundwater sample from boring SB-27 advanced adjacent to the northern former UST, contained 100,000 µg/l TPHg and 7,200 µg/l benzene. Groundwater from boring SB-28 advanced adjacent to well MW-2 contained 100,000 µg/l TPHg and 17,000 µg/l benzene. The laboratory analytical report for all groundwater samples collected during the June 2011 investigation (MW-7 and SB-25 – SB-28) contained the note "weakly modified or unmodified gasoline is significant."

On February 15, 2012, CRA project manager Robert Foss engaged in a conversation with Pat Cullen, P.G., Water Resources Control Engineer with the State Water Resources Control Board's (SWRCB's) Technical Review Unit. The conversation resulted in the SWRCB's agreement with CRA's previously presented hypothesis that the likely source of "weakly modified or unmodified gasoline" reported in samples from these borings, as well as the "weakly modified or unmodified gasoline" fingerprinted in the bailed samples from MW-2, may not be residual hydrocarbons from either the two removed USTs at 1432 Harrison St., nor from the "abandoned in place" UST beneath the sidewalk in front of 1424 Harrison St. Instead, the more likely source of both dissolved and LNAPL hydrocarbons in the sanitary sewer line running along the eastern side of Harrison Street. Figure 4 illustrates the locations of all identified utilities in the site vicinity and Figure 5 shows the locations of the sanitary sewer lines.

5.0 ADDITIONAL OFFSITE INVESTIGATION

Offsite investigation activities began on May 30, 2011 with the drilling and construction of monitoring well MW-7. Drilling and sampling of soil borings B-25 through B-29 occurred from May 31 through June 2, 2011. Access to the basement of 1445 Harrison St. for the installation and sampling of sub-slab vapor probes was delayed until January 2012. Installation and sampling of four SSVPs occurred on January 24, 2012. CRA standard field procedures and other guidance documents are included in Appendix D. Figure 2, the extended site plan, shows locations of MW-7, B-25 through B-29 and SSVP-1 through SSVP-4 installed during this investigation. Appendix E includes boring logs for each boring, a lithologic/well completion log for MW-7 and an SSVP completion log. Appendix F includes laboratory analytical reports of this investigation. A description of field activities and sample analytical results follow.

5.1 WELL INSTALLATION

Installation of well MW-7 and the soil borings described below were in response to a July 19, 2010 ACEH letter. In that letter, ACEH requested definition of the extent of LNAPL (referred to as free product) that first appeared in MW-2 in March 2010, as well as an evaluation of the potential for vapor intrusion into the basement of the downgradient building at 1445 Harrison St. CRA drilled and installed well MW-7 on May 30-31, 2011 along the west side of Harrison Street. Vapor Tech Services (VTS) cleared the borehole to 9.5 fbg by air knife and continued to 14.75 fbg by hand-auger. CRA advanced MW-7 with a Geoprobe to provide a continuous soil column for sediment logging. The borehole was extended to 37 fbg due to indications of hydrocarbons below the initially scoped 25-ft well depth. The suspicion of hydrocarbons below 25 fbg was based on photoionization detector (PID) readings and a grayish-olive color to the sediments. CRA collected soil samples at 5-ft intervals and analyzed samples from 14.5 ft, 20 ft, 24.5 ft, 30 ft and 34.5 fbg for TPHg, BTEX and MTBE. Sample MW-7-14.5 contained no reported hydrocarbons. Sample MW-7-20 contained 1,200 mg/kg TPHg, the highest reported concentration in MW-7. Benzene was below the reporting limit of 0.25 mg/kg in MW-7-20. Groundwater was present during drilling at 19 fbg. Concentrations decreased to 700 mg/kg TPHg in MW-7-24.5 and 8.1 mg/kg in MW-7-30. Benzene reported in these samples was 0.79 and 0.77 mg/kg, respectively. TPHg in MW-7-34.5 further decreased to 4.5 mg/kg. However, benzene increased to 0.96 mg/kg at 34.5 fbg. Analytical results of MW-7 soil samples are included in Table 4 and on Figure 6. After advancing the Geoprobe to 37 fbg, VTS reamed the well bore to 25 fbg using an 8-inch diameter hollow-stem auger. Construction of MW-7 to 25 fbg included a screened interval between 15 and 25 fbg. The boring/well construction log for MW-7 is included in Appendix E.

5.2 SOIL BORINGS

VTS advanced Geoprobe soil borings B-25 through B-29 to depths ranging from 29 fbg to 35 fbg. Boring B-29, located adjacent to the southern of the two removed USTs at 1432 Harrison St., encountered cement grout at 1.5 fbg and terminated at that depth. Table 4 presents analytical results of soil samples described in the following paragraphs.

CRA drilled boring B-25 on the west side of Harrison Street, in a location crossgradient of well MW-2, to a total depth of 29 fbg. Sediments in B-25 consisted of silty sand from below the asphalt/concrete surface to the total depth of 29 fbg. A one-foot thick zone of gravelly sand occurred from 5 to 6 fbg. CRA terminated B-25 at 29 fbg due to heaving

sands inhibiting further advancement of the Geoprobe. Samples B-25-10 and B-25-15 contained no hydrocarbons above the reporting limits. Sample B-25-20 contained 780 mg/kg TPHg and no detected benzene (<0.17 mg/kg). Sample B-25-25 contained 2,200 mg/kg TPHg and 21 mg/kg benzene. The laboratory report noted that both B-25-20 and B-25-25 contained strongly aged gasoline compounds. Heaving sands prohibited the collection of samples deeper than 25 fbg.

CRA advanced boring B-26 adjacent to the UST, abandoned in place beneath the sidewalk in front of 1424 Harrison St. CRA drilled and sampled B-26 to obtain additional soil and groundwater data associated with this UST, as its abandonment occurred with insufficient data to define conditions resulting from its historical operation. The lithology at boring B-26 consisted of silty sand from below the concrete to 35 fbg, with minor clay from 11 to 15 fbg and 31 to 33 fbg. Field notes indicate a strong petroleum odor emanated from the soil core when opened on the surface. Recorded photoionization detector (PID) instrument readings ranged from 0.4 parts-per-million vapor (ppmv) emanating from soil samples collected at 5 fbg, increasing to 330 ppmv at 12 and 15 fbg, and a maximum of 340 ppmv at 20 fbg before decreasing to 320 ppmv at 25 fbg and down to 0 at 30 fbg. A grab-groundwater sample from B-26 and an apparent hydrocarbon sheen was observed in the sample vials after they were filled. TPHg in soil samples ranged from 7 mg/kg in B-26-15 to 5,500 mg/kg in B-26-20. Benzene ranged from below detection at 10 and 15 fbg to 13 mg/kg at 20 fbg and 24 mg/kg in sample B-26-25.

Boring B-27 investigated conditions associated with the northern of two USTs, formerly located beneath the sidewalk in front of 1432 Harrison St. Clean medium to coarse-grained sand was encountered from below the concrete to approximately 7 fbg. Silty sand, with a small percentage of clay was present from 7 fbg to approximately 16 fbg. Clean sand again occurred between 16 and 24 fbg, grading to silty sand from 24 to 30 fbg. Silty, sandy clay was present from 30 fbg to the total depth of 35 fbg. TPHg and benzene ranged from below reporting levels at 30 fbg to 3,800 mg/kg and 27 mg/kg, respectively, in sample B-27-25. Recorded PID readings ranged from 0.2 parts-per-million vapor (ppmv) emanating from soil samples collected at 5 fbg and 10 fbg, increasing to 88 ppmv at 20 fbg. Hydrocarbon vapors increased to 420 ppmv at 22 fbg and 435 ppmv at 25 fbg, before decreasing to 0.6 ppmv at 30 fbg. Field notes document an odor from the soil column core, not specifically indentified as petroleum, but assumed to be. Sample B-27-20 contained 210 mg/kg TPHg, <0.10 mg/kg benzene and detected toluene, ethylbenzene and xylenes at <1.0 mg/kg. TPHg analysis reported that there was no recognizable pattern to the chromatogram, although heavier gasoline range compounds were significant. This suggests that the residual hydrocarbons adjacent to the former UST location consist of aged and weathered gasoline. Soil sample

B-27-25 reported concentrations of 3,800 mg/kg TPHg and 27 mg/kg benzene. The l;ab report notes this sample, along with B-26-25 and B-28-25, as unmodified or weakly modified gasoline. CRA collected a grab-groundwater sample from boring B-27, but field notes document an odor from this sample "does not smell like gas."

CRA placed boring B-28 approximately 2.5 feet south of well MW-2 to investigate the occurrence of "free product" in the well. Sediments observed in B-28 consisted of sand with varying amounts of silt and clay from 1 to 10.5 fbg. From the road surface to a depth of 1 ft, 3 inches of asphalt overlay 9 inches of concrete. Silty sand with bits of asphalt was noted on the boring log from 1 to 2 fbg. Silty sand with no asphalt continued to 7 fbg. From 7 to 10.5 fbg, the silty sand contained up to 10% clay. Clean medium to coarse-grained sand underlies this from 10.5 to 30 fbg. A silty, sandy clay occurred below the sand from 30 fbg to the total depth explored of 32 fbg. PID readings measured between 18 and 32 fbg, ranged from 11 ppmv at 18 fbg, up to a maximum of 508 ppm at 24 fbg. Soil samples were analyzed from 20, 25 and 30 fbg. TPHg ranged from 1.7 mg/kg in sample B-28-30 to a maximum of 2,300 mg/kg in sample B-28-25. Similarly, benzene ranged from 0.07 mg/kg in B-28-30 to a maximum of 14 mg/kg in B-28-25. Field notes indicated strong petroleum odors between 15 and at least 24 fbg. PID readings ranged from 0 at 5-10 fbg, 11 ppmv at 11 fbg, increasing to 432 ppmv at 20 fbg and up to 508 ppmv at 24 fbg. Recorded PID readings decreased to 32 ppmv at 30 fbg and 2.2 ppmv at the total boring depth of 32 fbg. Field notes also identify sheen in the grab-groundwater sample viles after they were filled.

Due to CRA safety protocols and as noted above, CRA terminated boring B-29 at 1.5 fbg after encountering cement at that depth. This cement is likely associated with UST removal.

Figure 6 and Table 1 show analytical results of grab-groundwater samples from borings B-25 through B-28.

5.3 SUB-SLAB VAPOR PROBES AT 1445 HARRISON STREET

ACEH expressed concern about the possibility of hydrocarbon vapor intrusion into the basement of the building located at 1445 Harrison St. This concern stemmed from the occurrence of LNAPL in well MW-2 and the previously high levels of dissolved hydrocarbons in downgradient well MW-5. CRA installed four sub-slab vapor probes (SSVPs) on January 24, 2012 by coring through the concrete slab foundation and placing stainless steel tubing within the engineered fill material below. All four probes were constructed to a depth of 9 inches below the concrete foundation surface, with the

screened section of the probe from 8.5 to 9.0 inches below surface grade. An illustration of SSVP construction details is included in Appendix E. SSVP-1, -2 and -3 are located, more or less, equidistant from each other along the eastern edge of the basement floor, beneath the Harrison Street sidewalk. SSVP-4 is located beneath the sidewalk along 15th Street, adjacent to well MW-5. Figure 6 shows the locations and vapor sample data of SSVP-1 through SSVP-4.

Following the *California Department of Toxic Substances Control (DTSC) Vapor Intrusion Guidance – Final*, dated October 2011, CRA collected SSVP vapor samples on January 24, 2012, also. Vapor samples were analyzed for TPHg, benzene, toluene, ethylbenzene, m-xylene, p-xylene and o-xylene by EPA Method TO-15. ASTM Method D-1946 analyzed all samples for helium, oxygen, methane and carbon monoxide. Helium is used as a leak check gas by covering each probe and sampling assembly with a shroud and releasing helium into the shroud. The samples were collected in a helium-enriched atmosphere and the presence of helium in the sample, as analyzed by ASTM Method D-1946, would indicate that either a leak exists in the sampling apparatus or a flaw in the probe's construction allowed surface air (helium) to enter the sample canister. Analytical results showed a maximum vapor-phase TPHg concentration of 4,100 $\mu g/m^3$ in SSVP-2 and a maximum vapor-phase benzene concentration of 3.7 $\mu g/m^3$ in SSVP-3. No helium was reported in three of the four vapor samples. SSVP-3 contained a concentration of 9.4 percent helium. A helium concentration above 5 percent indicates that a sample analysis is invalid due to a degree of dilution from surface air entering the sample canister. SSVP-3 was the first probe sampled and apparently had not completely set up before sampling. While securing the sampling apparatus to the threaded probe the stainless steel tube shifted in the cement and apparently compromised the seal. Since the compromised seal between the tube and the cement is apparently the source of the leak, CRA will attempt to reseal SSVP-3 and collect an additional sample for analysis. Reporting of analytical results of the additional SSVP-3 sample will occur in letter format as an addendum to this report.

A comparison of SSVP vapor sample analytical results to the Regional Water Quality Control Board - San Francisco Bay Region's established *Environmental Screening Levels (ESLs) for Vapor Intrusion Concerns, Table E*, showed that TPHg and benzene concentrations are nearly an order of magnitude lower than the established residential ESLs and the resampled SSVP-3 is expected to yield similar results. A copy of this table is included as Appendix G. These initial vapor sample results indicate that no human health risks exist from possible vapor intrusion into the basement beneath 1445 Harrison St. Table 5 presents SSVP vapor sample analytical data.

6.0 FIRST 2012 GROUNDWATER MONITORING AND SAMPLING EVENT

Figure 3 presents groundwater elevation contours calculated from depth to water measurements and reported hydrocarbon concentrations from the March 1, 2012 field activities. As previously mentioned, historical and current groundwater data are presented in Table 1. Table 6 provides well construction details. CRA's *Standard Field Procedures for Groundwater Monitoring and Low-Flow Sampling* is included in Appendix D and the laboratory analytical report is included in Appendix F.

6.1 FIELD ACTIVITIES

Muskan Environmental Sampling (MES) gauged and sampled all seven wells on March 1, 2012. MES inspected each well for the presence of LNAPL. Measurement of LNAPL in the well casing of MW-2 showed a thickness of 0.15 feet. Despite the 0.03-ft increase of LNAPL observed in March, this may still represent an overall decrease of its volume near MW-2. Because water and hydrocarbons are polar and non-polar molecules, respectively, they tend to stay separate from each other and do not mix. This characteristic results in a percentage of LNAPL becoming trapped in the pore space between sediment clasts as the water table rises. This is a process called entrainment. Conversely, as groundwater elevations decrease, the entrained LNAPL becomes mobile again. Groundwater decreased 0.04 ft from late December 2011 to March 1, 2012, and the accumulated LNAPL thickness increased by 0.03-ft as more LNAPL flowed from the sediments and accumulated in the well. In February 2011, when groundwater was at very nearly the same elevation, the accumulated thickness in MW-2 was 0.38-ft., more than twice the most recent accumulation. Groundwater samples were collected from all wells except MW-2. Micropurge sampling protocols were implemented during the third quarter of 2010. Prior to sampling, groundwater levels were measured and each well was purged by placing the intake tube of a clean peristaltic pump approximately 1 foot below the initial water level. Depth of groundwater was measured prior to low-flow purging, during purging, at termination of purging, and immediately prior to sample collection. Temperature, pH, specific conductance, oxygen reduction potential (ORP) and dissolved oxygen (DO) were measured initially and at regular volume intervals. Well purging continued until consecutive pH, specific conductance and temperature measurements were relatively stable. Measurement of field parameters, purge volumes and sample collection data were recorded on field sampling data sheets. Groundwater samples were collected from each well using the peristaltic pump. Samples were collected in 40-milliliter (mL) glass volatile organic analysis (VOA) vials and 1-liter amber glass containers supplied by McCampbell Analytical Laboratory, Inc. (McCampbell) of Pittsburg, California. Sample containers were labeled, sealed in a

plastic bag, placed on ice in a chilled cooler and delivered to McCampbell, a State-certified laboratory. The chain-of-custody (COC) form accompanying these samples is included with the lab report provided in Appendix F.

Decontamination of groundwater monitoring equipment prior to deployment in the first monitoring well, and between each successive well, occurred to minimize the potential for cross-contamination. The probe of the well sounder used for water level measurements was rinsed thoroughly with distilled water prior to its first use and between subsequent water level measurements. No repeat use of tubing for the peristaltic pump occurred between wells.

6.2 SAMPLE ANALYSIS

McCampbell used Modified EPA Method 8015/8021 to analyze groundwater samples for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary-butyl ether (MTBE), with reported MTBE detections confirmed by EPA Method 8260. Additionally, McCampbell analyzed an LNAPL sample from MW-2 for toluene and octane. The ratio of these two constituents can provide an estimated age of LNAPL gasoline observed in MW-2. Fecal coliform and total coliform/e. coli enumeration analyses were performed on samples from MW-1 and MW-4 in an attempt to determine if the sanitary sewer line running along Harrison Street is leaking. A description of analytical results follows below in Section 6.5. The laboratory analytical report is included in Appendix F. Figure 3 shows dissolved hydrocarbon concentrations along with groundwater elevations. Table 1 contains recent as well as historical groundwater data. CRA uploaded all analytical data to the GeoTracker database.

6.3 CURRENT MONITORING/SAMPLING CONDITIONS

Groundwater Flow Direction	North-Northeast
Hydraulic Gradient	0.003
Range of Depth to Water Measurements Below Top of Casing	19.32 (MW-3) to 20.78 (MW-6) feet
Presence of Measureable Light Non-Aqueous Phase Liquid (LNAPL)?	Yes, Offsite well MW-2

6.4 GROUNDWATER FLOW DIRECTION

Based on depth-to-water measurements collected March 1, 2012, the calculated flow direction of groundwater beneath the site is toward the north-northeast at an approximate gradient of 0.003. This flow direction and gradient are consistent with conditions observed during previous monitoring events.

6.5 CONTAMINANT DISTRIBUTION IN GROUNDWATER

Section 3.2 above provides a description of dissolved hydrocarbon distribution in groundwater beneath and nearby the subject site. Trend graphs, plotting benzene concentrations vs. time are included in Appendix H. In addition to analysis of TPHg, BTEX and MTBE, wells MW-1 and MW-4 were analyzed for fecal coliform and total coliform/e.coli enumeration by Methods SM9221E and SM9223B, respectively. This was conducted at the suggestion of California State Water Resources Control Engineer Pat Cullen, as a check to determine if the sanitary sewer is leaking. Sample analysis suggests that the sewer line itself is not leaking near the site. The coliform bacteria counts for both samples were orders of magnitude lower than would be expected if the sewer line were leaking in the vicinity.

6.6 ESTIMATED AGE OF LNAPL BASED ON CONSTITUENT RATIO

CRA analyzed a sample of LNAPL from MW-2 for toluene and octane content. The lab reported 1,900 milligrams-per-liter (mg/l) toluene and 12,000 mg/l octane. A discussion of this ratio follows in the next section. Comparison of reported concentrations, preliminarily suggests that manufacturing of this gasoline occurred during the 1940s. However, the degree of weathering could effect the estimated age, so a gas chromatograph scan of the petroleum hydrocarbons present, a PIANO analysis (paraffins, isoparaffins, aromatics, naphthenes and olefins), and a comparison of the concentrations of isooctane, cyclohexane and methylcyclohexane could provide a revised estimated age of the LNAPL sample. Testing of an LNAPL sample for the presence or absence of the organic compound tetraethyl lead and its degradation products would be a less expensive and relatively accurate method of identifying the age range as either before or after gasoline sales ceased at the subject site.

7.0 INVESTIGATION DERIVED WASTE

Investigation derived waste (IDW), generated during recent field activities along with previously produced purged groundwater, was temporarily stored in the former onsite remediation enclosure in DOT-approved 55-gallon steel drums. Profiling of the drummed waste and transported it to an appropriate facility for disposal/recycling occurred on October 12, 2011. Documentation of waste removal and disposal is filed with CRA and available for review if requested.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSIONS

Based on historical data, along with data from recent soil borings, well installation and sub-slab soil vapor analysis, CRA presents the following conclusions:

- Air Sparge/Soil Vapor Extraction remediation between December 2000 and June 2005 proved effective in removing approximately 10,000 pounds of hydrocarbons in the area of the former USTs below the sidewalk at 1432 Harrison St.
- Although dissolved hydrocarbon concentrations rebounded in source area wells after remediation ceased, levels have remained approximately an order of magnitude lower than pre-remediation hydrocarbon concentrations.
- Numerous utilities underlie both Harrison and 15th Streets. However, only sanitary sewer lines along both sides of Harrison and beneath 15th are at depths that may intermittently intersect the water table.
- The low fecal coliform and total coliform counts reported in water samples from MW-1 and MW-4 suggest that no substantial leakage occurs from the sanitary sewer line beneath the east side of Harrison Street in the site vicinity.
- Previous fuel storage and sales operations on several nearby properties could be additional historical sources of dissolved hydrocarbons observed in wells associated with the subject site.
- LNAPL, observed in well MW-2, is noted in lab reports as unmodified or weakly modified gasoline. It is still unclear whether the LNAPL migrated from an upgradient source through the sanitary sewer trench backfill material along the east side of Harrison Street or whether the LNAPL originated from either the subject site or the UST at 1424 Harrison St., and remains "unmodified" due to residing below the water table for a considerable length of time.

- Based on the ratio of toluene to octane in LNAPL collected from MW-2, the estimated manufacturing date of this gasoline is during the 1940s.
- Additional testing to define the presence and concentrations of other chemical groups could result in a revision of this estimated age.
- Gasoline sales and automobile repair operations on the subject site and two adjacent upgradient properties (1400, 1424 and 1432 Harrison St.) ceased in 1988 or earlier, the timeframe when acceptable lead concentrations in gasoline were a maximum of 0.1 grams per gallon.
- With few exceptions, residual hydrocarbons shallower than 20 fbg are reported to resemble strongly aged gasoline. Descriptions of most samples below 20 fbg, and consequently below the water table, are "unmodified to weakly modified gasoline."
- Groundwater beneath and nearby the site historically fluctuates between 18 and 23 fbg, and lithology across the entire vicinity is composed primarily of sand and silty sand. Under normal circumstances, residual hydrocarbons submerged below the water table should be subjected to sufficient biodegradation processes and able to migrate/diffuse, resulting in a more degraded condition after at least 24 years. Either these hydrocarbons are from a newer release or some undefined conditions have inhibited these submerged hydrocarbons from degrading.
- An observation of MW-2 on April 11, 2012 showed that no additional LNAPL had re-entered the well since bailing of accumulated LNAPL occurred six weeks prior on March 1, 2012.
- The SWRCB's *Third 5-Year Review Summary Report for Claim No. 2219,* dated February 27, 2012, recommends final remediation by excavation of hydrocarbon-impacted soil beneath the sidewalk concurrent with site redevelopment. This will be detailed in a Soil Management Plan to extend the redevelopment excavation beneath the sidewalk to remove all residual hydrocarbons associated with the former USTs, and thereby "mitigate a major source of remaining contamination." A copy of the SWRCB's *5-Year Review Summary Report* is included in Appendix A.

8.2 RECOMMENDATIONS

Based on historical data, the comprehensive conduit study, the additional offsite investigation, and the SWRCB's February 27, 2012 5-Year Review Summary Report, CRA recommends the following.

Upon completion of the second semi-annual monitoring and sampling event in August or September, implementation of one of the two following options can occur:

1) If during the next sampling event LNAPL reoccurs in well MW-2, implement a limited application of surfactant injections in this well to mobilize and extract the LNAPL source. This remedial activity will result in removal of LNAPL in the subsurface near MW-2, regardless of its original source. Once removal of the LNAPL source occurs, dissolved hydrocarbons in this well should begin to exhibit a decreasing trend. One or two additional sampling events should confirm successful remediation of the LNAPL source and the subsequent decreasing trend. ACEH could then grant a conditional case closure contingent on the Soil Management Plan, as suggested in the SWRCB 5-Year Review Summary Report referenced above, to over-excavate the former tankpit area beneath the sidewalk during future redevelopment of the 1432 Harrison St. property. Redevelopment plans currently include two subfloors for parking that will require excavation to approximately 25 fbg. The soil management plan would propose expansion of the excavated area to include removal of hydrocarbon-impacted soils beneath the sidewalk concurrent with redevelopment. Expansion of the redevelopment excavation to extend beneath the sidewalk would result in the complete removal of all residual hydrocarbon source material associated with the gasoline sales at the property.

2) If during the next sampling event LNAPL does not reappear in well MW-2, then one or two additional sampling events could confirm this accumulation of LNAPL was limited in extent and removed by well sampling and bailing over the past two years. In this case, again, CRA recommends that ACEH grant conditional closure with the remaining source material to be over-excavated during redevelopment, consistent with the SWRCB's recent recommendations.

Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Bryan Fong

Robert Foss

Robert Foss, P.G.

FIGURES

04/11/07

H:\SB-2004\OAK188\FIGURES\VICINITY-MAP.AI

SOURCE: TOPO! MAPS

FIGURE 1

0 1/8 1/4 1/2 1

SCALE 1:1/4 MILE

Allright Parking
1432 Harrison Street
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

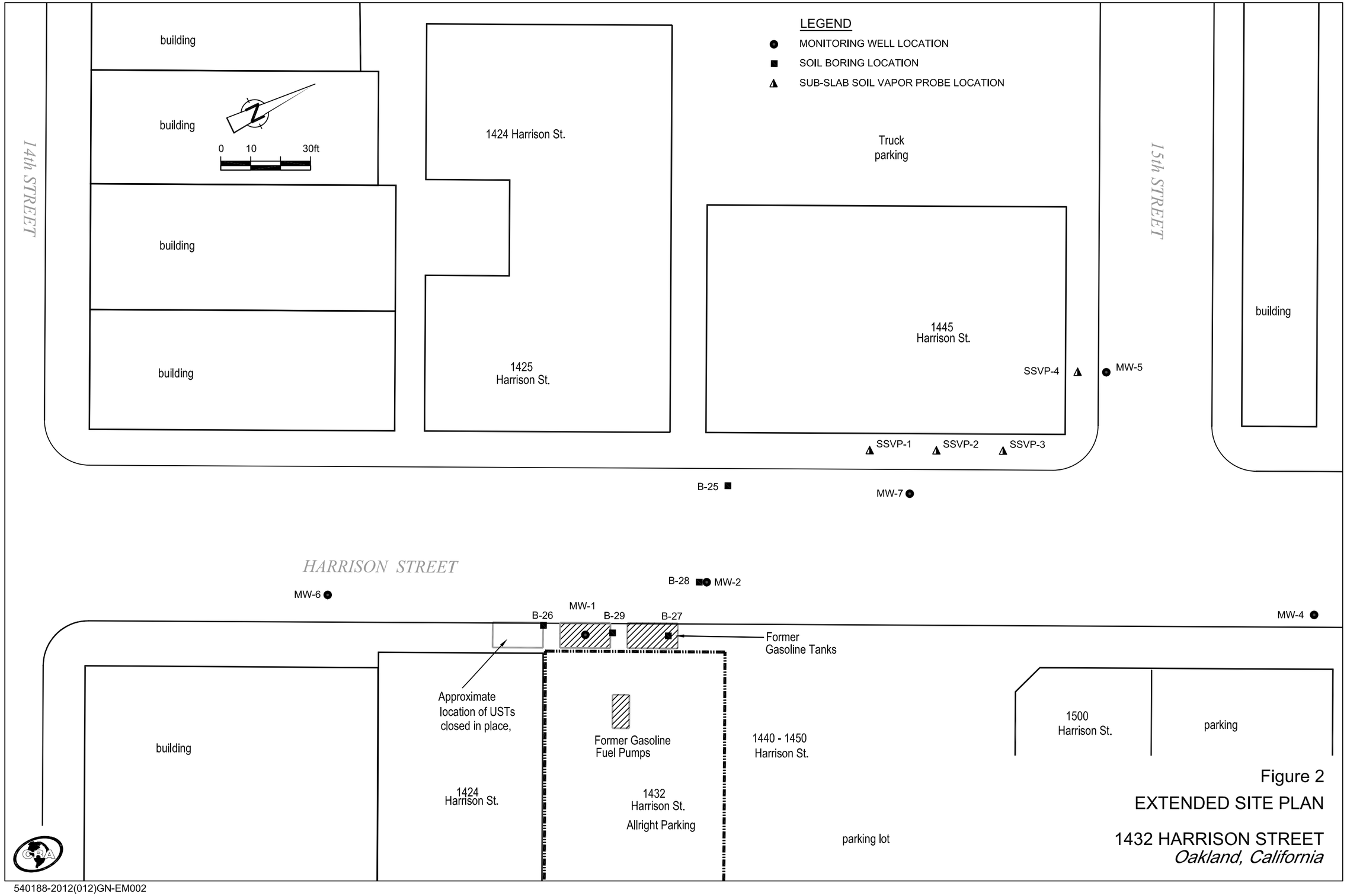

Figure 2

EXTENDED SITE PLAN

1432 HARRISON STREET

Oakland, California

540188-2012(012)GN-EM002

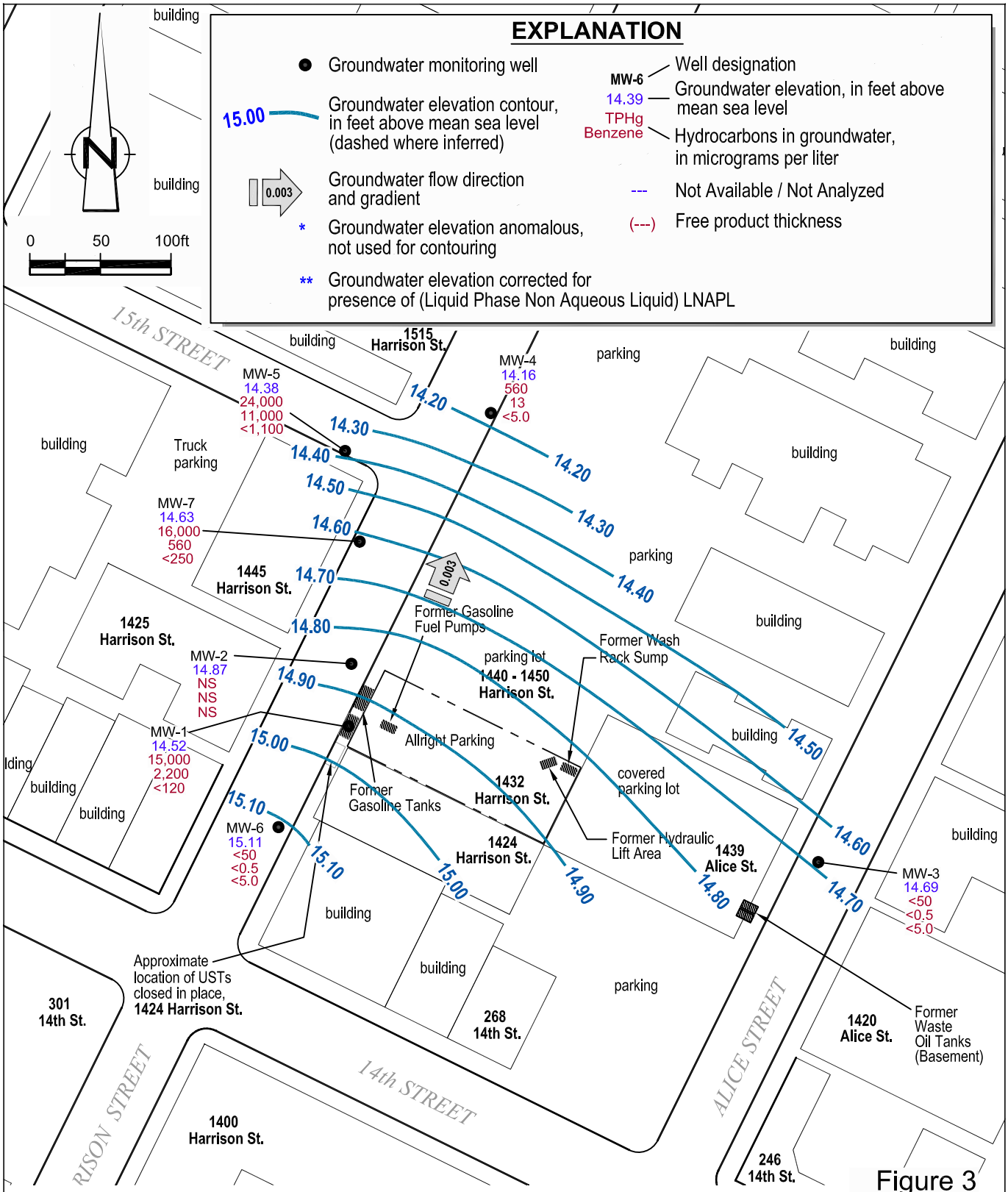

Figure 3

GROUNDWATER ELEVATION AND HYDROCARBON CONCENTRATION MAP
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California
March 1, 2012

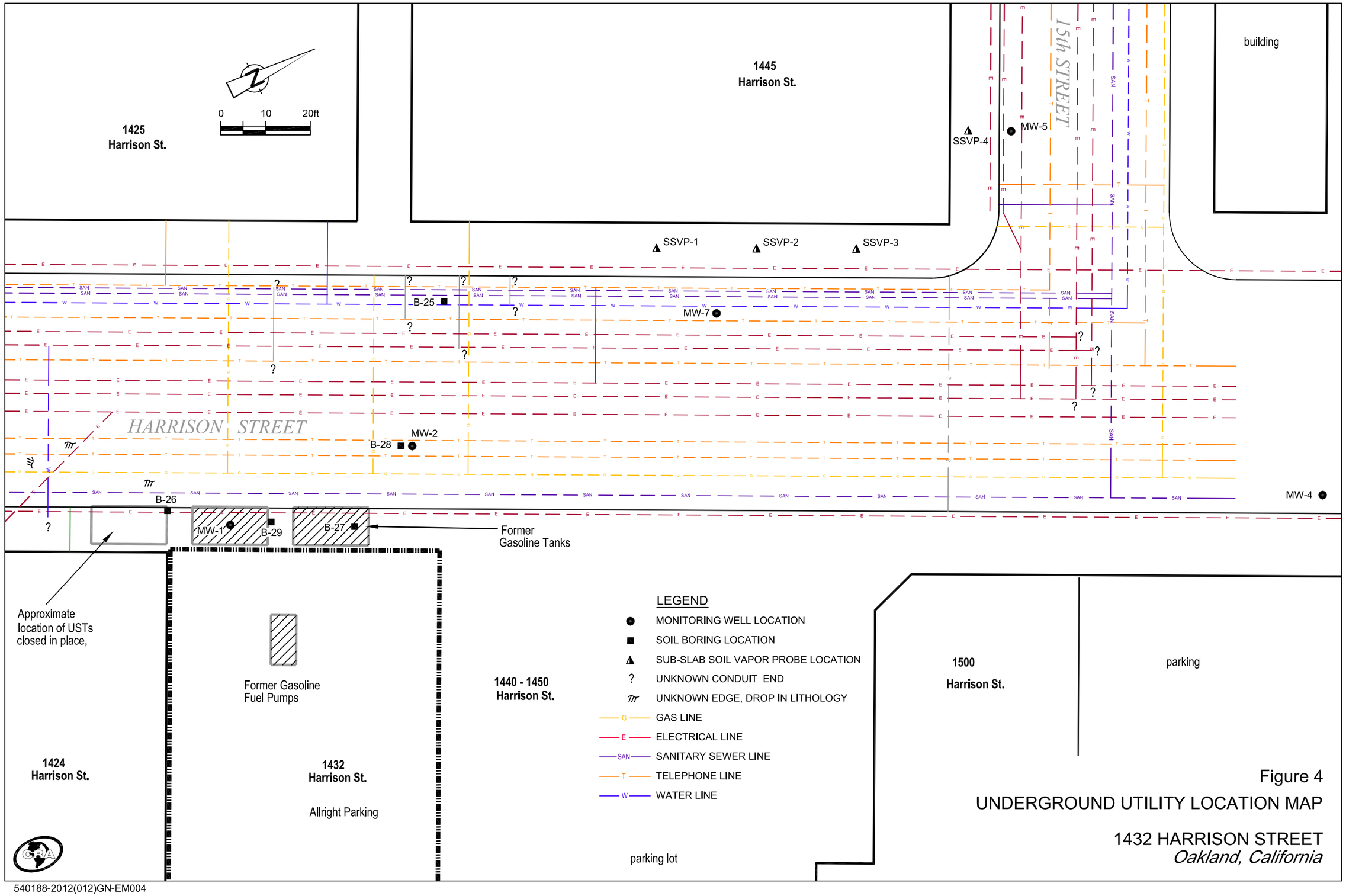

Figure 4

UNDERGROUND UTILITY LOCATION MAP

1432 HARRISON STREET

Oakland, California

540188-2012(012)GN-EM004

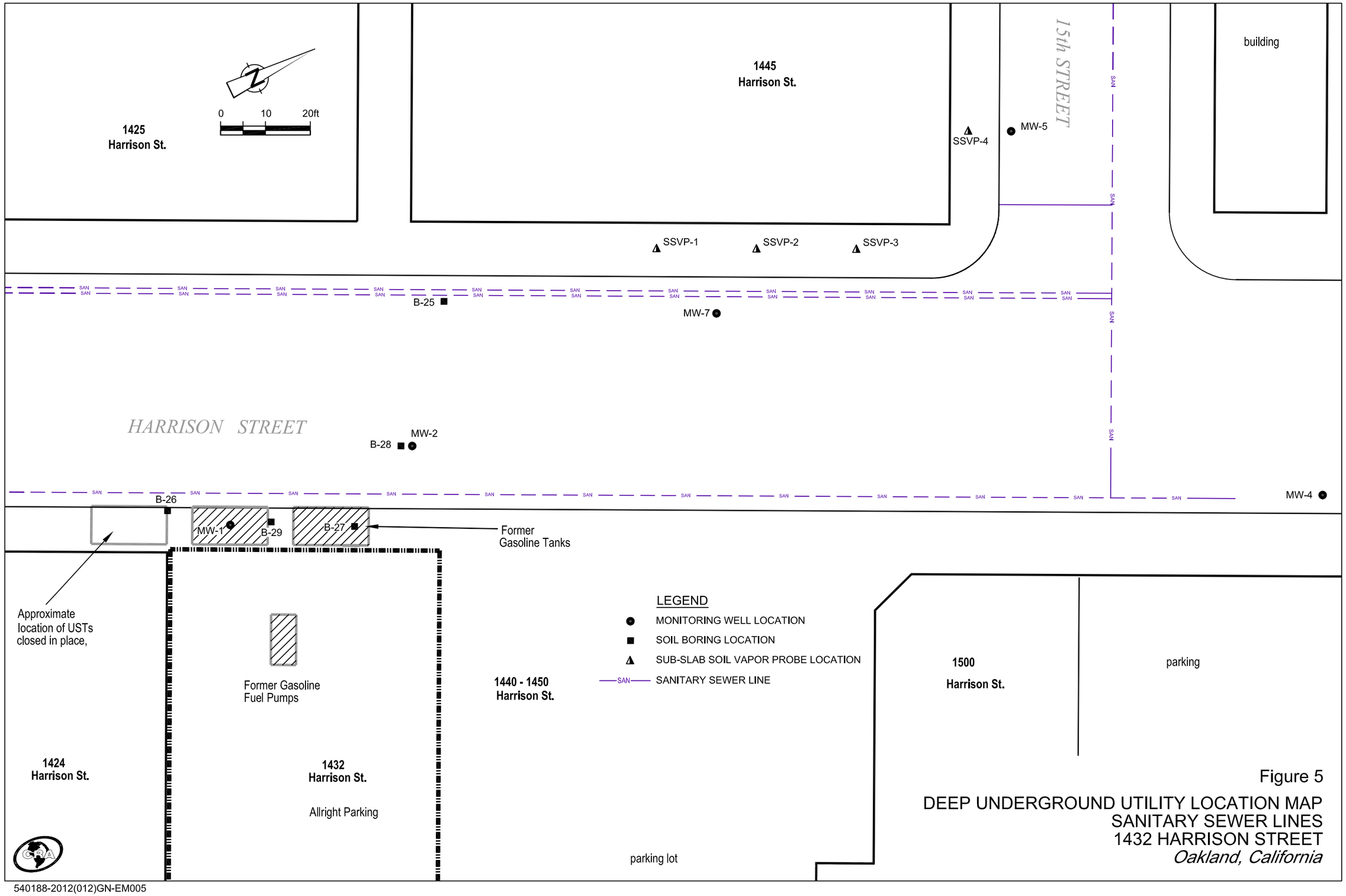

Figure 5

DEEP UNDERGROUND UTILITY LOCATION MAP
SANITARY SEWER LINES
1432 HARRISON STREET
Oakland, California

540188-2012(012)GN-EM005

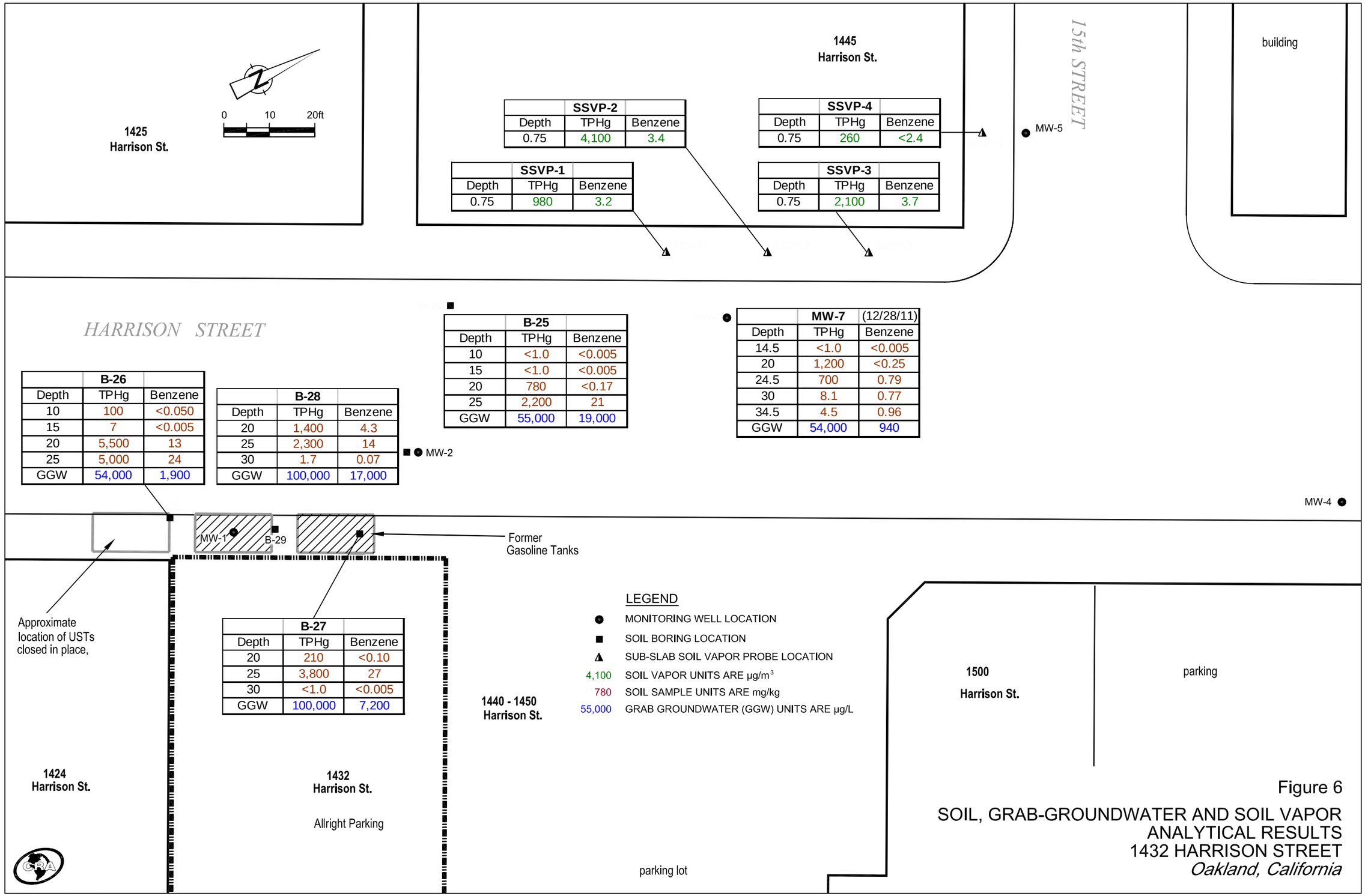

Figure 6

SOIL, GRAB-GROUNDWATER AND SOIL VAPOR ANALYTICAL RESULTS
1432 HARRISON STREET
Oakland, California

540188-2012(012)GN-EM006

TABLES

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater* (ft below TOC)	*LNAPL Thickness* (feet)	*TOC Groundwater Elevation* (ft amsl)	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←		(µg/L)			→	
Monitoring Well Sample Results:											
MW-1	8/1/1994	--	--	--	170,000	35,000	51,000	2,400	13,000	--	--
34.95	12/21/1994	19.53	--	15.42	180,000	41,000	64,000	3,100	100,000	--	--
	3/13/1995	18.66	--	16.29	150,000	31,000	45,000	2,500	17,000	--	--
	6/27/1995	18.20	--	16.75	71,000	17,000	18,000	1,600	7,700	--	--
	7/7/1995	18.35	--	16.60	71,000	17,000	18,000	1,600	7,700	--	--
	9/28/1995	18.20	--	16.75	110,000	27,000	34,000	1,700	14,000	--	--
	12/20/1995	19.96	--	14.99	120,000	33,000	43,000	2,300	15,000	--	--
	3/26/1996	19.27	--	15.68	140,000	29,000	36,000	1,900	13,000	<200*	d
	6/20/1996	18.64	--	16.31	110,000	30,000	38,000	2,200	13,000	<200*	--
	9/26/1996	19.35	--	15.60	170,000	28,000	40,000	2,200	15,000	ND**	--
	10/28/1996	19.58	--	15.37	--	--	--	--	--	--	--
	12/12/1996	19.68	--	15.27	110,000	36,000	47,000	2,500	16,000	ND*	--
	3/31/1997	18.80	--	16.15	160,000	24,000	39,000	1,900	13,000	ND*	--
	6/27/1997	19.26	--	15.69	130,000	25,000	36,000	2,000	14,000	ND*	--
	9/9/1997	19.70	--	15.25	99,000	22,000	27,000	1,600	13,000	270*	--
	12/18/1997	19.25	--	15.70	160,000	30,000	44,000	2,200	15,000	ND***	--
	3/12/1998	17.52	--	17.43	190,000	20,000	49,000	2,500	18,000	ND***	--
	6/22/1998	18.63	--	16.32	90,000	19,000	40,000	2,100	16,000	--	--
	9/18/1998	18.60	--	16.35	190,000	29,000	48,000	2,400	17,000	--	--
	12/23/1998	19.18	--	15.77	140,000	24,000	44,000	2,000	8,200	--	--
	3/29/1999	18.52	--	16.43	181,000	22,200	40,100	1,844	12,200	--	--
	6/23/1999	18.60	--	16.35	80,000	20,000	33,000	1,600	11,000	--	--
	9/24/1999	19.05	--	15.90	117,000	15,100	20,700	1,550	11,800	--	--
	12/23/1999	19.95	--	15.00	186,000	25,900	39,000	1,990	12,400	--	--
	3/21/2000	18.48	--	16.47	210,000	35,000	42,000	2,200	13,000	<3,000	a
	7/3/2000	18.95	--	16.00	200,000	33,000	46,000	2,200	15,000	<200*	a
	9/7/2000	19.45	Sheen [Field]	15.50	--	--	--	--	--	--	--
	12/5/2000	19.90	--	15.05	220,000	42,000	57,000	2,700	17,000	<200	a
	3/6/2001	18.20	--	16.75	180,000	27,000	39,000	2,000	13,000	<1200* /<20***	a,l
	6/8/2001	20.14	--	14.81	170,000	28,000	40,000	1,900	13,000	<200	a
	8/27/2001	21.19	--	13.76	130,000	24,000	33,000	1,600	11,000	<350	a
	10/25/2001	21.74	--	13.21	160,000	22,000	28,000	1,500	10,000	<350	a
	3/1/2002	21.39	0.41	13.84[x]	--	--	--	--	--	--	--
	6/10/2002	22.30	--	12.65	210,000	30,000	51,000	3,100	22,000	<1,000*	a
34.96	9/3/2002	21.40	--	13.56	2,500,000	31,000	170,000	29,000	170,000	2,500,000*	a
	12/22/2002	20.50	--	14.46	89,000	2,600	9,300	530	28,000	<1,700	a,m
	1/23/2003	18.57	Sheen [Lab]	16.39	130,000	600	1,600	<100	41,000	<50***	a,b,l
	6/12/2003	19.10	0.07	15.91[x]	--	--	--	--	--	--	--
	7/23/2003	19.42	0.07	15.59[x]	--	--	--	--	--	--	--
35.37#	12/22/2003	17.09	0.01	18.29[x]	--	--	--	--	--	--	--
	3/10/2004	13.82	--	21.55	22,000	190	250	<10	5,100	<100	a,c
	6/16/2004	14.75	--	20.62	2,700	23	160	13	520	<25	a
	9/27/2004	18.02	Sheen [Field]	17.35	27,000	580	2,000	56	6,800	<10***	a,m
	12/22/2004	11.25	--	24.12	250	3.5	18	<0.5	47	<0.5***	a,m
	3/3/2005	14.42	--	20.95	320	5.2	13	3.2	46	<5.0	a
34.96##	6/9/2005	17.80	--	17.16	--	--	--	--	--	--	+
	9/9/2005	18.26	--	16.70	--	--	--	--	--	--	+
	12/20/2005	18.68	--	16.28	--	--	--	--	--	--	+
	3/26/2006	16.96	--	18.00	23,000	270	400	65	4,400	<50	a
	6/23/2006	17.55	--	17.41	30,000	340	680	170	6,900	<500	a,m
	9/7/2006	18.53	--	16.43	34,000	540	630	190	7,000	<500	a
	12/29/2006	19.43	Sheen [Field]	15.53	20,000	550	55	130	4,700	<100*/<0.5***	a,m
	3/21/2007	18.92	Sheen [Field]	16.04	23,000	910	210	140	5,900	<250*	a
	6/7/2007	19.22	Sheen [Field]	15.74	24,000	680	61	190	4,300	<100*	a,b
	9/28/2007	20.19	--	14.77	--	--	--	--	--	--	+
	12/9/2007	20.40	--	14.56	--	--	--	--	--	--	+
	3/3/2008	19.16	Sheen [Lab]	15.80	10,000	510	28	<10	1,700	<2.5***	a,b,m,l
	6/4/2008	20.05	--	14.91	--	--	--	--	--	--	--
	9/9/2008	20.40	--	14.56	--	--	--	--	--	--	--
	12/5/2008	20.42	--	14.54	--	--	--	--	--	--	--
	3/2/2009	20.39	--	14.57	--	--	--	--	--	--	--
	9/15/2009	Well Dry	--	--	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater* (ft below TOC)	*LNAPL Thickness* (feet)	*TOC Groundwater Elevation* (ft amsl)	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←		(µg/L)			→	
MW-1 cont.	3/1/2010	Well Dry	--	--	--	--	--	--	--	--	--
	9/7/2010	Well Dry	--	--	--	--	--	--	--	--	--
	2/18/2011	20.31	--	14.65	15,000	1,600	25	<10	1,400	<5.0***	a,l
	9/23/2011	19.85	--	15.11	16,000	2,600	65	350	1,400	<250*	a
	3/1/2012	**20.44**	**--**	**14.52**	**15,000**	**2,200**	**44**	**320**	**770**	**<120***	**a**
MW-2	8/1/1994	--	--	--	130,000	28,000	35,000	3,000	12,000	--	--
35.18	12/21/1994	19.91	--	15.27	200	140,000	200,000	3,500	22,000	--	--
	3/13/1995	19.15	--	16.03	500	9,200	23,000	7,000	36,000	--	--
	6/27/1995	18.74	--	16.44	120,000	23,000	30,000	2,700	13,000	--	--
	7/7/1995	18.80	--	16.38	120,000	23,000	30,000	2,700	13,000	--	--
	9/28/1995	19.30	--	15.88	110,000	23,000	29,000	2,500	11,000	--	--
	12/20/1995	20.24	--	14.94	83,000	980	1,800	2,200	10,000	--	--
	3/26/1996	19.69	--	15.49	150,000	23,000	32,000	2,800	12,000	<200*	d
	6/20/1996	19.20	--	15.98	94,000	15,000	23,000	2,400	12,000	<200*	--
	9/26/1996	19.80	--	15.38	150,000	20,000	29,000	2,800	12,000	ND**	--
	10/28/1996	20.18	--	15.00	--	--	--	--	--	--	--
	12/12/1996	20.17	--	15.01	58,000	3,100	11,000	1,700	8,100	220*	--
	3/31/1997	19.67	--	15.51	38,000	6,000	7,900	690	3,300	ND*	--
	6/27/1997	19.68	--	15.50	62,000	13,000	16,000	1,300	6,000	ND*	--
	9/9/1997	20.20	--	14.98	81,000	16,000	18,000	1,800	8,600	ND***	--
	12/18/1997	19.80	--	15.38	110,000	18,000	26,000	2,200	9,500	ND***	--
	3/12/1998	18.07	--	17.11	120,000	16,000	26,000	2,200	9,400	ND***	--
	6/22/1998	18.29	--	16.89	38,000	9,800	9,500	1,500	6,000	--	--
	9/18/1998	19.09	--	16.09	68,000	12,000	16,000	1,400	5,900	--	--
	12/23/1998	19.67	--	15.51	180,000	16,000	22,000	2,200	8,300	--	--
	3/29/1999	18.97	--	16.21	16,600	1,380	1,920	373	1,840	--	--
	6/23/1999	18.25	--	16.93	41,000	10,000	9,400	1,100	5,000	--	--
	9/24/1999	19.60	--	15.58	40,600	4,880	3,490	1,090	4,560	--	--
	12/23/1999	20.21	--	14.97	61,900	6,710	9,320	1,150	5,360	--	--
	3/21/2000	18.93	--	16.25	98,000	14,000	21,000	1,600	6,900	<1600	a
	7/3/2000	19.38	--	15.80	140,000	18,000	33,000	2,600	11,000	<200*	a
	9/7/2000	19.83	--	15.35	110,000	17,000	21,000	2,200	9,700	<100***	a,l
	12/5/2000	20.30	--	14.88	130,000	19,000	28,000	2,500	11,000	<200	a
	3/6/2001	19.57	--	15.61	32,000	3,400	3,400	580	2,500	<200	a
	6/8/2001	20.59	--	14.59	72,000	9,400	9,200	1,300	5,800	<200	a
	8/27/2001	21.79	--	13.39	110,000	17,000	28,000	2,600	11,000	<950	a
	10/25/2001	22.05	--	13.13	110,000	15,000	18,000	2,000	8,700	<350	a
	3/1/2002	21.80	--	13.38	3,100	370	180	62	330	<5.0*	a
	6/10/2002	22.83	--	12.35	7,800	2,000	1,100	76	570	<100*	a
35.21	9/3/2002	22.03	--	13.18	21,000	2,400	2,900	320	1,400	<500	a
	12/22/2002	22.70	--	12.51	630	48	56	19	82	<5.0	a
	1/23/2003	20.49	--	14.72	1,100	27	32	19	150	<25	a
	6/12/2003	21.03	--	14.18	10,000	2,100	1,600	150	660	<250	a
	7/23/2003	21.40	--	13.81	28,000	4,800	4,800	380	1,700	<500	a
	12/22/2003	19.33	--	15.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/10/2004	19.33	--	15.88	3,100	460	290	38	240	<50	a
	6/16/2004	19.90	--	15.31	9,100	1,600	1,200	220	830	<400	a
	9/27/2004	22.08	--	13.13	14,000	2,800	490	340	1,600	<350	a
	12/22/2004	21.74	--	13.47	1,100	300	28	22	71	<15	a
	3/3/2005	19.60	--	15.61	340	12	4.4	9.1	28	<10	a
	6/9/2005	18.65	--	16.56	240	22	2.7	6.4	27	<10	a
	9/9/2005	19.27	--	15.94	7,800	1,100	170	380	690	<160	a
	12/20/2005	19.70	--	15.51	150	10	1.9	2.8	10	<5.0	a
	3/26/2006	18.51	--	16.70	2,200	93	19	66	130	<50	a
	6/23/2006	18.47	--	16.74	8,800	1,600	110	500	480	<500	a,m
	9/7/2006	18.97	--	16.24	29,000	4,800	280	940	1,000	<500	a
	12/29/2006	19.76	--	15.45	4,500	720	54	250	480	75*[1]/<0.5***	a
	3/21/2007	19.59	--	15.62	34,000	9,100	500	890	2,500	<1,100*	a
	6/7/2007	19.74	Sheen [Lab]	15.47	46,000	7,100	410	870	2,400	<800*	a,b
	9/28/2007	20.23	--	14.98	44,000	9,400	630	1,400	3,600	<0.5***	a
	12/9/2007	20.68	--	14.53	37,000	8,400	550	1,400	4,500	<17***	a,l
	3/3/2008	20.11	--	15.10	40,000	7,700	490	1,400	4,400	<17***	a,l

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater* (ft below TOC)	*LNAPL Thickness* (feet)	*TOC Groundwater Elevation* (ft amsl)	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←		(µg/L)			→	
MW-2 cont.	6/4/2008	20.40	--	14.81	56,000	7,400	600	1,500	4,100	<25***	a,j
	9/9/2008	20.85	--	14.36	65,000	7,800	510	1,700	4,700	<25***	a,l
	12/5/2008	← Well Inaccessible →									
	3/2/2009	← Well Inaccessible →									
	9/15/2009	21.22	--	13.99	48,000	6,400	600	1,900	2,800	<2.5***	a,l
	3/1/2010	21.00	0.22	14.39	← SPH Observed During Purging →						--
	9/7/2010	20.71	0.29	14.73	← SPH Observed During Purging →						--
	2/18/2011	20.68	0.38	14.83	← SPH Observed During Purging →						--
	9/23/2011	20.10	0.19	15.26	← SPH Observed During Purging →						--
	12/29/2011	20.40	0.12	14.91	← SPH Observed During Purging →						
	3/1/2012	**20.61**	**0.15**	**14.72**	--	--	--	--	--	--	--
MW-3	8/1/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
33.97	12/21/1994	18.82	--	15.15	<50	<0.5	<0.5	<0.5	<0.5	--	--
	3/13/1995	17.86	--	16.11	<50	<0.5	<0.5	<0.5	<0.5	--	e
	7/7/1995	18.25	--	15.72	--	--	--	--	--	--	f,g
	9/28/1995	18.00	--	15.97	--	--	--	--	--	--	h
	12/20/1995	18.74	--	15.23	--	--	--	--	--	--	--
	3/26/1996	18.25	--	15.72	--	--	--	--	--	--	--
	6/20/1996	18.35	--	15.62	--	--	--	--	--	--	--
	9/26/1996	19.12	--	14.85	--	--	--	--	--	--	--
	10/28/1996	19.11	--	14.86	--	--	--	--	--	--	--
	12/12/1996	18.61	--	15.36	--	--	--	--	--	--	--
	3/31/1997	18.35	--	15.62	--	--	--	--	--	--	--
	6/27/1997	18.81	--	15.16	--	--	--	--	--	--	--
	9/9/1997	19.18	--	14.79	--	--	--	--	--	--	--
	12/18/1997	18.64	--	15.33	--	--	--	--	--	--	--
	3/12/1998	17.56	--	16.41	--	--	--	--	--	--	--
	6/22/1998	18.64	--	15.33	--	--	--	--	--	--	--
	9/18/1998	18.33	--	15.64	--	--	--	--	--	--	--
	12/23/1998	18.60	--	15.37	--	--	--	--	--	--	--
	3/29/1999	17.85	--	16.12	--	--	--	--	--	--	--
	6/23/1999	18.67	--	15.30	--	--	--	--	--	--	--
	9/24/1999	18.64	--	15.33	--	--	--	--	--	--	--
	12/23/1999	19.32	--	14.65	--	--	--	--	--	--	--
	3/21/2000	17.89	--	16.08	--	--	--	--	--	--	--
	7/3/2000	18.40	--	15.57	--	--	--	--	--	--	--
	9/7/2000	18.75	--	15.22	--	--	--	--	--	--	--
34.01	12/5/2000	19.03	--	14.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/2001	18.12	--	15.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/2001	20.02	--	13.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	8/27/2001	21.09	--	12.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/2001	21.29	--	12.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/2002	21.14	--	12.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/2002	21.99	--	11.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/2002	21.17	--	12.84	--	--	--	--	--	--	--
	12/22/2002	21.94	--	12.07	--	--	--	--	--	--	--
	1/23/2003	20.08	--	13.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/12/2003	20.95	--	13.06	--	--	--	--	--	--	--
	7/23/2003	21.28	--	12.73	--	--	--	--	--	--	--
	12/22/2003	19.05	--	14.96	--	--	--	--	--	--	--
	3/10/2004	18.22	--	15.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/16/2004	18.82	--	15.19	--	--	--	--	--	--	--
	9/27/2004	21.03	--	12.98	--	--	--	--	--	--	--
	12/22/2004	20.69	--	13.32	--	--	--	--	--	--	--
	3/3/2005	17.94	--	16.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/9/2005	18.00	--	16.01	--	--	--	--	--	--	--
	9/9/2005	18.43	--	15.58	--	--	--	--	--	--	--
	12/20/2005	18.18	--	15.83	--	--	--	--	--	--	--
	3/26/2006	17.42	--	16.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/23/2006	17.77	--	16.24	--	--	--	--	--	--	--
	9/7/2006	18.20	--	15.81	--	--	--	--	--	--	--
	12/29/2006	18.49	--	15.52	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater* *(ft below TOC)*	*LNAPL Thickness* *(feet)*	*TOC Groundwater Elevation* *(ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←		(µg/L)			→	
MW-3 cont.	3/21/2007	18.44	--	15.57	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/7/2007	18.68	--	15.33	--	--	--	--	--	--	--
	9/28/2007	19.19	--	14.82	--	--	--	--	--	--	--
	12/9/2007	19.31	--	14.70	--	--	--	--	--	--	--
	3/3/2008	18.68	--	15.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	6/4/2008	19.11	--	14.90	--	--	--	--	--	--	--
	9/9/2008	19.65	--	14.36	--	--	--	--	--	--	--
	12/5/2008	19.96	--	14.05	--	--	--	--	--	--	--
	3/2/2009	19.19	--	14.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	9/15/2009	19.90	--	14.11	--	--	--	--	--	--	--
	3/1/2010	19.20	--	14.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	9/7/2010	19.43	--	14.58	--	--	--	--	--	--	--
	2/18/2011	18.79	--	15.22	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	9/23/2011	18.87	--	15.14	--	--	--	--	--	--	--
	3/1/2012	**19.32**	**--**	**14.69**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0***	**--**
MW-4	10/28/1996	19.32	--	14.43	10,000	3,900	420	400	360	<200*	n
33.75	12/12/1996	19.42	--	14.33	11,000	4,200	410	420	260	32*	--
	3/31/1997	18.67	--	15.08	ND	ND	ND	ND	ND	ND*	--
	6/27/1997	19.08	--	14.67	160	49	1.2	ND	5.9	ND*	--
	9/9/1997	19.33	--	14.42	7,400	5,000	410	230	470	33*	--
	12/18/1997	19.17	--	14.58	710	170	8.0	ND	39	ND***	--
	3/12/1998	17.68	--	16.07	1,300	410	21	ND	57	ND***	--
	6/22/1998	17.63	--	16.12	ND	ND	ND	ND	ND	--	--
	9/18/1998	18.58	--	15.17	ND	42	1.6	ND	4.8	--	--
	12/23/1998	19.01	--	14.74	1,900	1,000	76	50	120	--	--
	3/29/1999	18.35	--	15.40	ND	ND	ND	ND	ND	--	--
	6/23/1999	17.58	--	16.17	ND	ND	ND	ND	ND	--	--
	9/24/1999	19.05	--	14.70	9,150	3,270	131	34	537	--	--
	12/23/1999	19.41	--	14.34	12,200	5,360	275	424	592	--	--
	3/21/2000	18.42	--	15.33	45,000	16,000	1,100	1,400	1,900	1400* /<35***	a,l
	7/3/2000	18.82	--	14.93	33,000	10,000	720	840	1,800	<200*	a
	9/7/2000	19.21	--	14.54	26,000	8,800	800	740	1,500	<50***	a,c,l
	12/5/2000	19.60	--	14.15	41,000	11,000	840	930	1,900	<200	a
	3/6/2001	18.24	--	15.51	1,100	400	5.7	<0.5	20	<5.0	a
	6/8/2001	20.91	--	12.84	92	19	<0.5	<0.5	1	<5.0	a
	8/27/2001	21.63	--	12.12	49,000	17,000	1700	1,700	3,200	<260	a
	10/25/2001	21.70	--	12.05	57,000	16,000	1,500	1,600	2,600	<300	a
	3/1/2002	21.53	--	12.22	400	140	2.3	<0.5	12	<5.0*	a
	6/10/2002	22.23	--	11.52	<50	2.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/2002	21.85	--	11.90	31,000	9,700	300	650	1,100	<1,000	a
	12/22/2002	22.39	--	11.36	35,000	13,000	310	1,100	1,800	<1,500	a
	1/23/2003	20.61	--	13.14	51,000	18,000	430	1,500	2,200	<5.0***	a,l
	6/12/2003	21.20	--	12.55	80	12	<0.5	<0.5	1.0	<10	a
	7/23/2003	21.51	--	12.24	20,000	7,600	100	65	660	<250	a
	12/22/2003	19.60	--	14.15	26,000	9,500	200	380	1,100	<150	a
	3/10/2004	18.81	--	14.94	14,000	4,800	150	320	530	<400	a
	6/16/2004	19.32	--	14.43	2,800	1,100	24	17	100	<50	a
	9/27/2004	21.45	--	12.30	45,000	16,000	260	1,700	2,000	<25***	a
	12/22/2004	21.15	--	12.60	29,000	10,000	160	890	1,200	<5.0***	a,j
	3/3/2005	18.60	--	15.15	18,000	6,400	98	500	610	<600	a
	6/9/2005	18.11	--	15.64	20,000	6,100	110	460	580	<500	a
	9/9/2005	18.65	--	15.10	17,000	6,400	100	470	730	<250	a
	12/20/2005	19.01	--	14.74	26,000	8,500	160	640	800	<120	a
	3/26/2006	17.84	--	15.91	1,900	700	22	49	85	<50	a
	6/23/2006	17.96	--	15.79	12,000	3,400	130	370	510	260	a
	9/7/2006	18.29	--	15.46	8,600	1,800	100	170	220	<210	a,i
	12/29/2006	18.93	--	14.82	4,200	1,100	120	150	280	<150*/<0.5***	a
	3/21/2007	18.76	--	14.99	550	30	2.0	4.5	5.1	<30*	a
	6/7/2007	18.92	--	14.83	85	4.4	<0.5	0.77	0.82	<5.0*	a
	9/28/2007	19.41	--	14.34	140	7.0	<0.5	1.2	<0.5	<0.5***	a
	12/9/2007	19.86	--	13.89	120	4.5	<0.5	0.62	<0.5	<0.5	a
	3/3/2008	19.22	--	14.53	63	0.78	<0.5	<0.5	<0.5	<0.5***	i

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ALLRIGHT PARKING
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Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater* *(ft below TOC)*	*LNAPL Thickness* *(feet)*	*TOC Groundwater Elevation* *(ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←		(µg/L)			→	
MW-4 cont.	6/4/2008	19.58	--	14.17	86	2.2	<0.5	<0.5	0.58	<0.5***	a
	9/9/2008	20.01	--	13.74	460	9.4	0.95	3.1	19	<0.5***	a
	12/5/2008	20.29	--	13.46	290	4.3	1.4	3.0	14	<0.5***	a
	3/2/2009	19.86	--	13.89	520	6.0	2.2	6.5	9.2	<0.5***	a
	9/15/2009	20.23	--	13.52	370	2.2	1.1	2.8	3.3	<0.5***	a
	3/1/2010	19.70	--	14.05	220	1.8	<0.5	1.2	1.5	<0.5***	a
	9/7/2010	19.55	--	14.20	320	11	0.83	2.4	2	<0.5***	a
	2/18/2011	19.34	--	14.41	200	4.7	0.52	2.2	2.0	<0.5***	a
	9/23/2011	19.06		14.69	86	4.5	<0.5	<0.5	<0.5	<5.0*	a
	3/1/2012	**19.59**	**--**	**14.16**	**560**	**13**	**1.30**	**3.3**	**7.7**	**<5.0***	**a**
MW-5	10/28/1996	19.88	--	14.75	90	4.0	0.6	<0.50	<0.50	16*	
34.63	12/12/1996	20.09	--	14.54	230	5.6	0.9	ND	0.9	3.6*	n
	3/31/1997	19.24	--	15.39	90	3.1	ND	ND	ND	ND*	--
	6/27/1997	19.16	--	15.47	ND	ND	ND	ND	ND	ND*	--
	9/9/1997	19.93	--	14.70	ND	ND	ND	ND	ND	ND*	--
	12/18/1997	19.77	--	14.86	ND	ND	ND	ND	ND	ND***	--
	3/12/1998	19.77	--	14.86	79	2.3	ND	0.8	ND	ND*	--
	6/22/1998	18.08	--	16.55	ND	ND	ND	ND	ND	--	--
	9/18/1998	19.12	--	15.51	ND	ND	ND	ND	ND	--	--
	12/23/1998	19.60	--	15.03	ND	0.8	0.9	ND	ND	--	--
	3/29/1999	18.88	--	15.75	ND	ND	ND	ND	ND	--	--
	6/23/1999	18.05	--	16.58	ND	ND	ND	ND	ND	--	--
	9/24/1999	19.61	--	15.02	ND	ND	ND	ND	ND	--	--
	12/23/1999	20.01	--	14.62	ND	ND	ND	ND	ND	--	--
	3/21/2000	19.05	--	15.58	140	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/2000	19.40	--	15.23	85	8.1	3.1	1.6	7.8	<5.0*	k
	9/7/2000	19.62	--	15.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	a
	12/5/2000	20.25	--	14.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/2001	19.07	--	15.56	91	5.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/2001	20.77	--	13.86	290	22.0	0.8	<0.5	<0.5	<5.0	--
	8/27/2001	21.33	--	13.30	660	24.0	2.2	1.3	4.0	<25	a
	10/25/2001	21.62	--	13.01	55	3.5	<0.5	<0.5	<0.5	<5.0	a
	3/1/2002	21.49	--	13.14	200	1.9	0.69	<0.5	<0.5	<5.0*	a
	6/10/2002	22.15	--	12.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	a
	9/3/2002	21.50	--	13.13	60	1.9	<0.5	<0.5	0.77	<5.0	--
	12/22/2002	22.19	--	12.44	82	0.57	<0.5	0.68	<0.5	<5.0	a
	1/23/2003	20.27	--	14.36	<50	2.1	<0.5	<0.5	<0.5	<5.0	a
	6/12/2003	21.10	--	13.53	<50	0.88	<0.5	<0.5	<0.5	<5.0	--
	7/23/2003	21.47	--	13.16	<50	4.0	<0.5	<0.5	<0.5	<5.0	--
	12/22/2003	19.57	--	15.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/10/2004	19.61	--	15.02	990	200	2.9	4.0	20	<70	--
	6/16/2004	20.15	--	14.48	250	42	<0.5	0.88	<0.5	<35	a
	9/27/2004	22.14	--	12.49	1,600	140	4.8	45	18	<110	a
	12/22/2004	21.81	--	12.82	<50	5.3	<0.5	<0.5	0.66	<5.0	--
	3/3/2005	19.35	--	15.28	2,000	330	4.4	63	39	<150	a
	6/9/2005	18.73	--	15.90	250	42	1.4	14	3.2	<5.0	a
	9/9/2005	19.30	--	15.33	2,000	390	5.0	71	38	<400	a
	12/20/2005	19.65	--	14.98	4,300	760	18	170	150	<35	a
	3/26/2006	18.58	--	16.05	1,600	460	3.3	35	32	<50	a
	6/23/2006	18.57	--	16.06	1,900	500	3.9	81	56	<17	a
	9/7/2006	18.98	--	15.65	8,800	1,900	12	350	220	<260	a,i
	12/29/2006	19.70	--	14.93	15,000	3,400	69	610	700	<450*/<0.5***	a
	3/21/2007	19.57	--	15.06	9,900	2,300	24	360	410	<240*	a
	6/7/2007	19.70	--	14.93	14,000	3,800	40	790	720	<550*	a
	9/28/2007	20.16	--	14.47	26,000	7,200	84	1,100	1,600	<25***	a,l
	12/9/2007	20.56	--	14.07	25,000	7,000	59	1,100	2,000	<17	a,l
	3/3/2008	19.97	--	14.66	30,000	6,200	31	900	1,400	<10***	a,l
	6/4/2008	20.32	--	14.31	7,500	1,600	4.6	25	91	<10***	a,j
	9/9/2008	20.75	--	13.88	54,000	8,900	76	1,300	1,700	<25***	a,l
	12/5/2008	21.08	--	13.55	33,000	9,200	43	1,500	1,800	<5.0***	a,l
	3/2/2009	20.74	--	13.89	34,000	9,700	41	1,100	1,300	<5.0***	a,l
	9/15/2009	21.02	--	13.61	40,000	10,000	280	1,400	2,600	<2.5***	a,l

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* TOC (ft amsl)	*Date*	*Depth to Groundwater* (ft below TOC)	*LNAPL Thickness* (feet)	*TOC Groundwater Elevation* (ft amsl)	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					← (µg/L) →						
MW-5 cont.	3/1/2010	20.55	--	14.08	57,000	16,000	240	1,800	5,000	<10***	a,l
	9/7/2010	20.25	--	14.38	35,000	12,000	160	970	2,900	<25***	a,l
	2/18/2011	20.13	--	14.50	100	20	<0.5	0.74	10	<0.5***	a
	9/23/2011	19.78	--	14.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	3/1/2012	**20.25**	--	**14.38**	**24,000**	**11,000**	**51**	**660.00**	**1,300**	**<1,100***	**a**
MW-6	10/28/1996	20.02		15.87	<50	<0.50	<0.50	<0.50	<0.50	<2.0*	
35.89	12/12/1996	20.18	--	15.71	ND	ND	ND	ND	ND	ND*	n
	3/31/1997	19.81	--	16.08	--	--	--	--	--	--	--
	6/27/1997	19.76	--	16.13	--	--	--	--	--	--	--
	9/9/1997	20.06	--	15.83	ND	ND	ND	ND	ND	ND*	--
	12/18/1997	19.90	--	15.99	ND	ND	ND	ND	ND	--	--
	3/12/1998	18.00	--	17.89	ND	ND	ND	ND	ND	ND*	--
	6/22/1998	18.43	--	17.46	ND	ND	ND	ND	ND	--	--
	9/18/1998	19.10	--	16.79	ND	ND	ND	ND	ND	--	--
	12/23/1998	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	3/29/1999	18.92	--	16.97	ND	ND	ND	ND	ND	--	--
	6/23/1999	18.41	--	17.48	ND	ND	ND	ND	ND	--	--
	9/24/1999	19.61	--	16.28	ND	ND	ND	ND	ND	--	--
	12/23/1999	20.30	--	15.59	ND	ND	ND	ND	ND	--	--
	3/21/2000	18.97	--	16.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/2000	19.46	--	16.43	59	5.1	2.3	1.1	5.3	<5.0*	--
	9/7/2000	19.95	--	15.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	a
	12/5/2000	20.50	--	15.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/2001	19.54	--	16.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/2001	20.92	--	14.97	<50	<0.5	<0.5	<0.5	<0.5	<5.1	--
	8/27/2001	21.37	--	14.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	10/25/2001	21.59	--	14.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/1/2002	21.33	--	14.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	6/10/2002	21.97	--	13.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	9/3/2002	21.55	--	14.34	--	--	--	--	--	--	--
	12/22/2002	22.25	--	13.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	1/23/2003	20.47	--	15.42	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/12/2003	21.09	--	14.80	--	--	--	--	--	--	--
	7/23/2003	21.42	--	14.47	--	--	--	--	--	--	--
	12/22/2003	19.49	--	16.40	--	--	--	--	--	--	--
	3/10/2004	20.20	--	15.69	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/16/2004	20.73	--	15.16	--	--	--	--	--	--	--
	9/27/2004	22.88	--	13.01	--	--	--	--	--	--	--
	12/22/2004	22.53	--	13.36	--	--	--	--	--	--	--
	3/3/2005	19.87	--	16.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/9/2005	18.95	--	16.94	--	--	--	--	--	--	--
	9/9/2005	19.45	--	16.44	--	--	--	--	--	--	--
	12/20/2005	19.90	--	15.99	--	--	--	--	--	--	--
	3/26/2006	18.85	--	17.04	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/23/2006	18.57	--	17.32	--	--	--	--	--	--	--
	9/7/2006	19.13	--	16.76	--	--	--	--	--	--	--
	12/29/2006	19.96	--	15.93	--	--	--	--	--	--	--
	3/21/2007	19.87	--	16.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	m
	6/7/2007	20.05	--	15.84	--	--	--	--	--	--	--
	9/28/2007	20.51	--	15.38	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID *Sample ID* *TOC (ft amsl)*	*Date*	*Depth to Groundwater* *(ft below TOC)*	*LNAPL Thickness* *(feet)*	*TOC Groundwater Elevation* *(ft amsl)*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←		(µg/L)			→	
MW-6 cont.	12/9/2007	20.90	--	14.99	--	--	--	--	--	--	--
	3/3/2008	20.47	--	15.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	6/4/2008	20.70	--	15.19	--	--	--	--	--	--	--
	9/9/2008	21.09	--	14.80	--	--	--	--	--	--	--
	12/5/2008	21.50	--	14.39	--	--	--	--	--	--	--
	3/2/2009	21.30	--	14.59	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	9/15/2009	21.55	--	14.34	--	--	--	--	--	--	--
	3/1/2010	21.20	--	14.69	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	m
	9/7/2010	20.78	--	15.11	--	--	--	--	--	--	--
	2/18/2011	20.74	--	15.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5***	--
	9/23/2011	20.24	--	15.65	--	--	--	--	--	--	--
	3/1/2012	**20.78**	--	**15.11**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0***	**--**
MW-7	9/23/2011	19.60	--	15.12	23,000	1,800	1,700	930	3,300	<500*	a
34.72	12/29/2011	19.97	--	14.75	12,000	940	670	560	1,500	<200*	a
	3/1/2012	**20.09**	**--**	**14.63**	**16,000**	**560**	**530**	**860**	**2,700**	**<250***	**a**
Trip Blank	3/21/2000	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	9/7/2000	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
Grab Groundwater Sample Results:											
SB-A	7/6/1995	~20	--	--	330	16	3.6	1.3	4.9	--	i,j
SB-B	7/7/1995	~20	--	--	450	55	3.1	5.1	5.0	--	a
SB-C	7/6/1995	~20	--	--	44,000	6,600	5,900	980	4,400	--	a
SB-D	7/6/1995	~20	--	--	70,000	7,400	10,000	1,600	7,200	--	a
SB-E	7/6/1995	~20	--	--	25,000	1,000	3,000	610	2,700	--	a
SB-G	7/7/1995	~20	--	--	84,000	9,400	16,000	2,200	9,900	--	a,b
SB-I	7/7/1995	~20	--	--	24,000	6,100	1,400	680	1,600	--	a
SB-J	7/7/1995	~20	--	--	960	110	66	8.7	71	--	a
SB-K	7/7/1995	~20	--	--	72,000	9,600	9,600	1,800	7,000	--	a
CB-1-W	7/22/1999	--	--	--	110,000	1,300	16,000	2,700	12,000	<3000*	a,b,c
CB-2-W	7/22/1999	--	--	--	4,700	21	13	170	76	<50*	a,c
GW-1	7/30/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
GW-2 ^	7/29/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
GW-3 ^	7/29/1994	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
B-25-W	**5/31/2011**	**--**	**--**	**--**	**55,000**	**19,000**	**2,000**	**1,700**	**2,700**	**<1,000**	**a,c**
B-26-W	**6/1/2011**	**--**	**--**	**--**	**54,000**	**1,900**	**9,600**	**1,700**	**8,900**	**<1,000**	**a,b,c**
B-27-W	**6/1/2011**	**--**	**--**	**--**	**100,000**	**7,200**	**21,000**	**2,300**	**13,000**	**<1,500**	**a,b,c**
B-28-W	**6/2/2011**	**--**	**--**	**--**	**100,000**	**17,000**	**19,000**	**2,300**	**10,000**	**<2,000**	**a,b,c**

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well ID / *Sample ID* / *TOC (ft amsl)*	*Date*	*Depth to Groundwater* (ft below TOC)	*LNAPL Thickness* (feet)	*TOC Groundwater Elevation* (ft amsl)	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
					←		(µg/L)			→	

Abbreviations, Methods, & Notes

TOC = Top of casing elevation
ft amsl = feet above mean sea level
LNAPL = light non-aquesous phase liquid (previously referred to as SPH)
TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C
Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B
MTBE = Methyl tert-butyl ether * = MTBE by EPA Method SW8021B
** = MTBE by EPA Method SW8240
*** = MTBE by EPA Method SW8260
1 = Not confirmed with EPA Method 8260B.
µg/L = micrograms per liter, equivalent to parts per billion
-- = Not sampled, not analyzed, not applicable, or no SPH was measured or observed
<n = Not detected in sample above n mg/L
ND = Not detected above laboratory detection limit
x = Groundwater elevation adjusted for SPH by the relation:
Groundwater Elevation = TOC Elevation - Depth to Groundwater + (0.7 x SPH thickness)
= The wellhead elevation was raised by 0.41 feet when well MW-1 was connected to the SVE system on October 31, 2003.
= The wellhead elevation was lowered by 0.41 feet when well MW-1 was disconnected from the SVE system on April 30. 2005.
+ = Well de-watered during purging, no measurable water to sample.
Sheen = A sheen was observed on the water's surface
Field = Observed in the field
Lab = Observed in analytical laboratory
^ = Samples associated with 1439 Alice St. Property

a = Unmodified or weakly modified gasoline is significant.
b = Lighter than water immiscible sheen is present.
c = Liquid sample that contains greater than ~2 vol. % sediment.
d = MTBE result confirmed by secondary column or GC/MS analysis.
e = Sample analyzed for purgeable hydrocarbons by EPA Method SW8010, no purgeable hydrocarbons were detected.
f = Sample analyzed for VOCs by EPA Method SW8240, no non-BTEX compounds were detected.
g = Sample analyzed for Total Petroleum Hydrocarbons as motor oil (TPHmo) by Modified EPA Method SW8015, no TPHmo was detected.
h = Analytic sampling discontinued. Approved by Alameda County Department of Environmental Health.
i = Lighter gasoline range compounds are significant.
j = Gasoline range compounds having broad chromatographic peaks are significant.
k = No recognizable pattern.
l = Sample diluted due to high organic content.
m = Liquid sample that contains greater than ~1 vol. % sediment.
n = TOC well elevation was increased by 3 ft based on a benchmark discrepancy discovered during a well survey performed on September 11, 2002.

TABLE 2

CUMULATIVE PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring/Sample ID	Sample Depth (ft)	Sample Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
			← (mg/kg) →						
1 / 1@20.0'	20	07/25/90	6,300	99	490	110	610	--	
2 / 2@18.5'	18.5	07/25/90	9,300	98	900	190	1,100	--	
B5 / B5@22.5'	22.5	09/17/90	110	0.024	0.21	0.069	1.3	--	
B6 / B6@9'	9	09/17/90	--	<0.005	<0.005	<0.005	<0.005	--	
B6 / B6@9.5'	9.5	09/17/90	--	--	--	--	--	--	*
B7 / B7@13'	13	09/21/90	<1	<0.005	<0.005	<0.005	<0.005	--	*
B7 / B7@20'	20	09/21/90	2,500	3.5	34	33	130	--	
B8 / B8@22.5'	22.5	09/21/90	1,200	2.3	38	18	89	--	
B1 / B1-2'	2	01/16/92	27.3	<0.005	3.0	0.23	<0.005	--	*
B2 / B2-2'	2	01/16/92	<1	<0.005	0.10	<0.005	<0.005	--	*
B3 / B3-2'	2	01/16/92	1.6	<0.005	1.1	<0.005	<0.005	--	*
B4 / B4-2'	2	01/16/92	1.9	<0.005	0.8	<0.005	<0.005	--	*
B5 / B5-2'	2	01/16/92	<1	<0.005	0.4	<0.005	<0.005	--	*
B6 / B6-2'	2	01/16/92	<1	<0.005	0.4	<0.005	<0.005	--	*
B7 / B7-2'	2	01/16/92	2.6	<0.005	1.6	<0.005	<0.005	--	*
B8 / B8-2'	2	01/16/92	<1	<0.005	0.04	<0.005	<0.005	--	*
B9 / B9-5'	2	01/22/92	2.44	<0.005	<0.005	--	--	--	*
B10 / B10-8'	2	01/22/92	<1	--	<0.005	--	--	--	*
B13 / B13-5'	5	01/21/92	83.2	<0.005	0.068	1.23	<0.005	--	
B13 / B13-15'	15	01/21/92	135	--	0.71	--	8.85	--	
B14 / B14-5'	5	01/21/92	<1	<0.005	--	--	--	--	
B14 / B14-15'	15	01/21/92	2.5	--	--	<0.005	--	--	
B17 / B17-5'	5	2/3/1992	--	--	--	--	--	--	
B19 / B19-5'	5	02/03/92	2.5	<0.005	<0.005	<0.005	0.01	--	
B20 / B20-5'	5	02/03/92	2.1	<0.005	0.03	<0.005	0.01	--	
B20 / B20-15'	15	02/03/92	2.5	<0.005	0.034	<0.005	<0.005	--	
B21 / B21-5'	5	02/05/92	2.1	<0.005	0.02	<0.005	0.01	--	
B21 / B21-10'	10	02/05/92	1.9	<0.005	0.021	<0.005	0.026	--	
B21 / B21-15'	15	02/05/92	2	<0.005	0.03	<0.005	<0.005	--	
B22 / B22-5'	5	02/05/92	42.3	<0.005	0.113	<0.005	2.13	--	
B22 / B22-10'	10	02/05/92	1,540	0.987	11.7	1.67	2.88	--	

TABLE 2

CUMULATIVE PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring/Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			◄		*(mg/kg)*			►	
B23 / B23-5'	5	02/05/92	2.5	<0.005	0.027	<0.005	<0.005	--	
B23 / B23-10'	10	02/05/92	3.3	<0.005	0.034	<0.005	<0.005	--	
LFSB1 / LFSB1-4.0	4	05/22/93	0.5	<0.005	0.01	<0.005	<0.005	--	
LFSB1 / LFSB1-14.0	14	05/22/93	<0.2	0.020	<0.005	<0.005	<0.005	--	
LFSB1 / LFSB1-24.5	24.5	05/22/93	8,800	210	980	160	750	--	
LFSB2 / LFSB2-9.5	9.5	05/22/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
LFSB2 / LFSB2-19.5	19.5	05/22/93	1,000	<0.2	9.4	16	68	--	
LFSB2 / LFSB2-24.5	24.5	05/22/93	6,100	91	320	120	410	--	
Sump 5.5H (3)	5.5	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
Hoist 1-8H	8	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
Hoist 2-9.5WH (2)	9.5	11/29/93	0.3	<0.005	<0.005	<0.005	<0.005	--	
Hoist 2-11.5H	11.5	11/29/93	970	2.9	14	4.2	24	--	
Hoist 2-9EH	9	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
E. Vault-6.5H	6.5	11/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
N. Vault-7H (4)	7	11/29/93	4.1	<0.005	<0.005	<0.005	23	--	
Vault-Base-9.5H (5)	9.5	11/29/93	380	0.05	0.69	0.22	2	--	
S. Tank-8FG	8	12/06/93	1,500	0.87	43	34	240	--	
S. Tank-8G	8	12/06/93	43	0.006	0.088	0.25	1.8	--	
N. Tank-7.5G	7.5	12/06/93	3,100	11	190	64	400	--	
N. Tank-8.5FG	8.5	12/06/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
PJ-2G	2	12/07/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
DSP-2G	2	12/07/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
E. Wall-3G	3	12/15/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
S.Wall-3G	3	12/15/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
N.Wall-3G	3	12/16/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
W.Wall-3-N	3	12/29/93	<0.2	<0.005	<0.005	<0.005	<0.005	--	
W.Wall-3-S	3	12/29/93	0.5	<0.005	<0.005	<0.005	<0.005	--	
MW-2 / MW-2-5'	5	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
MW-2 / MW-2-9.5'	9.5	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
MW-2 / MW-2-15'	15	07/30/94	<0.2	0.024	0.007	<0.005	<0.005	--	
GW-1 / GW-1-10'	10	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
GW-1 / GW-1-15'	15	07/30/94	<0.2	<0.005	<0.005	<0.005	<0.005	--	
SB-F / SB-F 20'	20.0	07/07/95	160	1.9	10	2.5	11	--	a
SB-H / SB-H 20'	20.0	07/07/95	350	4.0	16	5.3	25	--	a
SB-L / SB-L 20'	20.0	07/07/95	220	1.6	4.1	4.8	24	--	b,d
(MW-4) / SB-M 20.0'	20.0	10/02/96	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
(MW-5) / SB-N 20.0'	20.0	10/02/96	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
(MW-6) / SB-O 20.5'	20.5	10/03/96	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	

TABLE 2

CUMULATIVE PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring/Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
SB-P / SB-P 3.75'	3.75	10/03/96	3.8	<0.005	0.016	0.017	0.084	<0.05	
SB-P / SB-P 12.7'	12.7	10/03/96	1,500	0.55	14	25	100	2.0	b,d
SB-Q / SB-Q 3.75'	3.75	10/03/96	4.3	0.006	0.024	0.027	0.11	<0.02	g
SB-Q / SB-Q 9.6'	9.6	10/03/96	1,900	0.95	15	43	200	<1.4	b,d
VES-1 / VES-1-16.5'	16.5	07/22/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-1 / VES-1-21.5'	21.5	07/22/99	5,600	59	400	75	370	<10	a
VES-1 / VES-1-30.5'	30.5	07/22/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-2 / VES-2-16.5'	16.5	07/22/99	2.2	<0.005	0.018	<0.005	0.050	<0.05	g
VES-2 / VES-2-26.5'	26.5	07/22/99	4,300	35	260	74	310	<10	a
VES-2 / VES-2-30.0'	30.0	07/22/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-3 / VES-3-15.5'	15.5	07/23/99	1.3	0.011	<0.005	<0.005	0.010	<0.05	a
VES-3 / VES-3-20.5'	20.5	07/23/99	2,100	<0.50	66	56	280	<10	b,j
VES-3 / VES-3-30.5'	30.5	07/23/99	1.4	0.062	0.25	0.039	0.16	<0.05	a
VES-4 / VES-4-16.5'	16.5	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
VES-4 / VES-4-25.0'	25.0	07/23/99	7,600	150	490	170	640	32*	a
VES-4 / VES-4-30.0'	30.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-10.0'	10.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-16.0'	16.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-20.0'	20.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-1 / CB-1-24.0'	24.0	07/23/99	1,500	2.3	6.8	12	58	<2	a
CB-2 / CB-2-12.0'	12.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-2 / CB-2-15.0'	15.0	07/23/99	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
CB-2 / CB-2-20.5'	20.5	07/23/99	4.2	<0.005	0.010	0.007	0.025	<0.05	j
CB-2 / CB-2-24.0'	24.0	07/23/99	4.8	0.006	<0.005	0.026	0.030	<0.05	j
B-24-5	5	8/31/2009	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-24-10	10	8/31/2009	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-24-15	15	8/31/2009	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-24-20	20	8/31/2009	1.5	<0.005	<0.005	<0.005	<0.005	<0.05	g
B-24-25	25	8/31/2009	4,300	<0.50	4.2	9.5	190	<5.0	g,j
B-24-29.5	29.5	8/31/2009	22	0.15	0.074	0.028	0.65	<0.25	g,j
B-24-35	35	8/31/2009	1,400	1.6	3.3	2.8	49	<5.0	g,j
B-24-49.5	49.5	8/31/2009	890	1.2	2.3	1.1	26	<10	g
MW-7-14.5	**14.5**	**5/30/2011**	**<1.0**	**<0.005**	**<0.005**	**<0.005**	**<0.005**	**<0.05**	**a**
MW-7-20	**20**	**5/31/2011**	**1200**	**<0.25**	**1.1**	**6.2**	**15**	**<2.5**	**a**
MW-7-24.5	**24.5**	**5/31/2011**	**700**	**0.79**	**5.5**	**6.9**	**29**	**<2.0**	**a**
MW-7-30	**30**	**5/31/2011**	**8.1**	**0.77**	**0.62**	**0.11**	**0.54**	**<0.05**	**a**
MW-7-34.5	**34.5**	**5/31/2011**	**4.5**	**0.96**	**0.16**	**0.097**	**0.26**	**<0.05**	**a**
B-25-10	**10**	**5/31/2011**	**<1.0**	**<0.005**	**<0.005**	**<0.005**	**<0.005**	**<0.05**	
B-25-15	**15**	**5/31/2011**	**<1.0**	**<0.005**	**<0.005**	**<0.005**	**<0.005**	**<0.05**	
B-25-20	**20**	**5/31/2011**	**780**	**<0.17**	**0.93**	**0.40**	**2.1**	**<1.7**	**g,j**
B-25-25	**25**	**5/31/2011**	**2,200**	**21**	**58**	**32**	**140**	**<5.0**	**g,j**

TABLE 2

CUMULATIVE PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring/Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←			*(mg/kg)*		→	
B-26-10	**10**	**6/1/2011**	**100**	**<0.050**	**<0.050**	**0.082**	**0.19**	**<0.50**	**g,j**
B-26-15	**15**	**6/1/2011**	**7**	**<0.005**	**0.014**	**<0.005**	**0.024**	**<0.05**	**g**
B-26-20	**20**	**6/1/2011**	**5,500**	**13**	**170**	**49**	**500**	**<10**	**a**
B-26-25	**25**	**6/1/2011**	**5,000**	**24**	**250**	**50**	**220**	**<15**	**a**
B-27-20	**20**	**6/1/2011**	**210**	**<0.10**	**0.10**	**0.19**	**0.81**	**<1.0**	**b,j**
B-27-25	**25**	**6/1/2011**	**3,800**	**27**	**160**	**48**	**200**	**<17**	**a**
B-27-30	**30**	**6/1/2011**	**<1.0**	**<0.005**	**<0.005**	**<0.005**	**<0.005**	**<0.05**	
B-28-20	**20**	**6/2/2011**	**1,400**	**4.3**	**44**	**16**	**85**	**<5.0**	**a**
B-28-25	**25**	**6/2/2011**	**2,300**	**14**	**81**	**34**	**150**	**<50**	**a**
B-28-30	**30**	**6/2/2011**	**1.7**	**0.070**	**0.078**	**0.028**	**0.11**	**<0.05**	**a**

Notes:

TPHg = Total purgeable petroleum hydrocarbons as gasoline by EPA method Modified 8015.

Benzene, toluene, ethylbenzene, xylenes (BTEX) and MTBE by EPA method 8020 or 8021

<n = not detected above "n" milligrams-per-kilogram (mg/kg)

a = unmodified or weakly modified gasoline is significant

b = heavier gasoline range compounds significant

d = gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline

g = strongly aged gasoline or diesel range compounds are significant

j = no recognizable pattern

* = MTBE result not confirmed by EPA Method 8260 analysis.

1990 through 1994 data tabulated from Table 1 in Levine Fricke's September 1, 1994, *Soil and Groundwater Investigation Report* , Harrison Street Garage, 1432-1434 Harrison Street, Oakland, California.

*= Samples taken from 1439 Alice St. Property

TABLE 3

SHALLOW SOIL VAPOR
ANALYTICAL DATA
1432 HARRISON/1439 ALICE ST,
OAKLAND, CALIFORNIA

Sample ID	*Date Sampled*	*Depth (ft)*	*TPHg (ug/m^3)*	*Benzene (ug/m^3)*	*Toluene (ug/m^3)*	*Ethylbenzene (ug/m^3)*	*m,p-Xylene (ug/m^3)*	*o-Xylene (ug/m^3)*	*Butane (ppbv)*	*Isobutane (ppbv)*	*Propane (ppbv)*	*Oxygen (%)*	*Methane (%)*	*Carbon Dioxide (%)*	*Mercury (ug/sample)*	*Other VOCs (ug/m^3)*
SV-3	9/8/2009	5	440	<4.0	6.0	<5.5	5.8	<5.5	7.4	4.2	ND	16	ND	2.5	--	
SV-4	9/8/2009	5	530	4.2	9.5	<5.2	12	<5.2	ND	27	ND	17	ND	0.57	--	
SV-5	9/8/2009	5	1,200	<4.0	18	<5.5	8.7	<5.5	ND	7.7	ND	17	ND	2.6	--	
SV-6	9/8/2009	5	*1,900*	<3.8	8.0	<5.2	15	6.6	ND	ND	ND	17	ND	3.4	<0.010	
SV-7	9/8/2009	5	780	6.2	39	<5.0	25	12	ND	57	ND	19	ND	0.4	<0.010	
SV-8	9/8/2009	5	460	4.9	20	<5.0	7.1	<5.0	5.1	9.9	ND	16	ND	0.38	<0.010	Acetone (19), Carbon Disulfide (95), Tetrachloroethane (32)
Duplicates																
SV-5-Duplicate	9/8/2009	5	990	<3.9	16	<5.4	6.4	<5.4	ND	7.7	ND	17	ND	2.6	--	
SV-6-Duplicate	9/8/2009	5	--	--	--	--	--	--	--	--	--	--	--	--	<0.010	

Abbreviations and Analyses:

ND<n = Not dectected (ND) above laboratory detection limit, n.
ug/m^3 = Microgram per cubic meter.
% = Percent
ppbv = Parts ber billion by volume
ft = Measured in feet
TPHg by EPA Method TO-3
Benzene, Toluene, Ethylbenzene, m,p-Xylenes, & o-Xylenes by modified EPA Method TO-15.
BTEX, Butane, Isobutane, Propane by EPA Method Modified TO-15/TICs
Oxygen, Methane, Carbon Dioxide by ASTM D-1946
Mercury by NIOSH 6009

TABLE 4

PETROLEUM HYDROCARBON SOIL ANALYTICAL DATA
ALLRIGHT PARKING
1432 HARRISON ST
OAKLAND, CALIFORNIA

Boring/Sample ID	*Sample Depth (ft)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
			←		*(mg/kg)*			→	
MW-7-14.5	14.5	5/30/2011	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
MW-7-20	20	5/31/2011	1200	<0.25	1.1	6.2	15	<2.5	a
MW-7-24.5	24.5	5/31/2011	700	0.79	5.5	6.9	29	<2.0	a
MW-7-30	30	5/31/2011	8.1	0.77	0.62	0.11	0.54	<0.05	a
MW-7-34.5	34.5	5/31/2011	4.5	0.96	0.16	0.097	0.26	<0.05	a
B-25-10	10	5/31/2011	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-25-15	15	5/31/2011	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-25-20	20	5/31/2011	780	<0.17	0.93	0.40	2.1	<1.7	g,j
B-25-25	25	5/31/2011	2,200	21	58	32	140	<5.0	g,j
B-26-10	10	6/1/2011	100	<0.050	<0.050	0.082	0.19	<0.50	g,j
B-26-15	15	6/1/2011	7	<0.005	0.014	<0.005	0.024	<0.05	g
B-26-20	20	6/1/2011	5,500	13	170	49	500	<10	a
B-26-25	25	6/1/2011	5,000	24	250	50	220	<15	a
B-27-20	20	6/1/2011	210	<0.10	0.10	0.19	0.81	<1.0	b,j
B-27-25	25	6/1/2011	3,800	27	160	48	200	<17	a
B-27-30	30	6/1/2011	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	
B-28-20	20	6/2/2011	1,400	4.3	44	16	85	<5.0	a
B-28-25	25	6/2/2011	2,300	14	81	34	150	<50	a
B-28-30	30	6/2/2011	1.7	0.070	0.078	0.028	0.11	<0.05	a

Notes:
TPHg = Total purgeable petroleum hydrocarbons as gasoline by EPA method Modified 8015.
Benzene, toluene, ethylbenzene, xylenes (BTEX) and MTBE by EPA method 8021.
<n = not detected above "n" milligrams-per-kilogram (mg/kg)
a = unmodified or weakly modified gasoline is significant
b = heavier gasoline range compounds significant
g = strongly aged gasoline or diesel range compounds are significant
j = no recognizable pattern

TABLE 5

SUB-SLAB SOIL VAPOR ANALYTICAL DATA
DAVIS COIT APT. BLDG
1445 HARRISON ST,
OAKLAND, CALIFORNIA

Sample ID	*Date Sampled*	*Depth (ft)*	*TPHg (ug/m^3)*	*Benzene (ug/m^3)*	*Toluene (ug/m^3)*	*Ethylbenzene (ug/m^3)*	*m,p-Xylene (ug/m^3)*	*o-Xylene (ug/m^3)*	*Helium (%)*	*Oxygen (%)*	*Methane (%)*	*Carbon Monoxide (%)*
RWQCB-SFBR Environmental Screening Level for Commercial/Industrial Land Use (Table E)			29,000	280	180,000	3,300	58,000	58,000	N/A	N/A	N/A	N/A
RWQCB-SFBR Environmental Screening Level for Residential Land Use (Table E)			10,000	84	63,000	980	21,000	21,000	N/A	N/A	N/A	N/A
SSVP-1	1/24/2012	0.75	980	3.2	14	<3.4	4.4	<3.4	<0.11	18	<0.00022	<0.022
SSVP-2	1/24/2012	0.75	4,100	3.4	37	3.6	13	4.5	<0.12	12	<0.00025	<0.025
SSVP-3	1/24/2012	0.75	2,100	3.7	26	3.3	10	4.3	9.4	19	0.00035	<0.020
SSVP-4	1/24/2012	0.75	260	<2.4	9.5	<3.3	8.7	<3.3	<0.10	19	<0.00020	<0.020
Duplicate												
SSVP-1	1/24/2012	0.75	1000	3	14	<3.4	5.4	<3.4	<0.10	17	<0.00021	<0.021

Abbreviations and Analyses:

ND<n = Not dectected (ND) above laboratory reporting limit, n.

ug/m^3 = Microgram per cubic meter.

% = Percent

Depth (ft) = Depth below top of slab foundation measured in feet

TPHg, Benzene, Toluene, Ethylbenzene, m,p-Xylenes, & o-Xylenes by modified EPA Method TO-15.

Helium, Oxygen, Methane, Carbon Monoxide by ASTM D-1946

TABLE 6

WELL CONSTRUCTION DETAILS
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

Well No.	Installation Date	Total Depth (ft-bgs)	Boring Diameter (inch)	Well Diameter (inch)	Screen Size (inch)	Screened Interval (ft-bgs)	Sand Pack Interval (ft-bgs)	Surface Seal (ft-bgs)	TOC Elevation (ft-msl)
MW-1	1/12/1994	27	12	4	0.020	16-26.5	14.5-27	0-14.5	35.37
MW-2	7/30/1994	26		2	0.010	11-26	9-26	0-9	35.21
MW-3	7/30/1994	25		2	0.010	15-25	13-25	0-13	34.01
MW-4	10/2/1996	25	8	2	0.010	15-25	13-25	0-13	33.75
MW-5	10/2/1996	30	8	2	0.010	14-29	12-30	0-12	34.63
MW-6	10/2/1996	30.5	8	2	0.010	14-29	12-30	0-12	35.89
MW-7	5/31/2011	25	8	2	0.010	15-25	14-25	0-12	34.72
VES-1 (VE)	7/23/1999	30	8	3	0.020	5-20	4.5-20	0-5	--
VES-1 (AS)				1	0.020	28-30	27.5-30	0-27.5	--
VES-2 (VE)	7/22/1999	29.5	8	3	0.020	5-20	4-20	0-4	--
VES-2 (AS)				1	0.020	27.5-29.5	27-29.5	0-27	--
VES-3 (VE)	7/23/1999	30	8	3	0.020	5-20	4-20	0-4	--
VES-3 (AS)				1	0.020	28-30	25-30	0-25	--
VES-4 (VE)	7/23/1999	29	8	3	0.020	5-20	4-20	0-4	--
VES-4 (AS)				1	0.020	27-29	26.5-28.5	0-26.5	--
SV-3	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--
SV-4	8/31/2009	5.75	3	1/4	probe	4.8-5.3	4.5-5.75	0.5-4.5	--
SV-5	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--
SV-6	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--
SV-7	8/31/2009	5.75	3	1/4	probe	4.8-5.3	4.5-5.75	0.5-4.5	--
SV-8	8/31/2009	5.5	3	1/4	probe	4.8-5.3	4.5-5.5	0.5-4.5	--

Notes:
ft-bgs Feet below ground surface
ft-msl Feet above mean sea level
-- Not surveyed

TABLE 6

WELL CONSTRUCTION DETAILS
ALLRIGHT PARKING
1432 HARRISON STREET, OAKLAND, CALIFORNIA

VE	Vapor extraction
AS	Air sparge
SV	Soil Vapor Well

APPENDIX A

AGENCY CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 22, 2010
Revised December 1, 2010

Sydney & Barbara Borsuk Trust, Shiela Siegel Trust
C/o Mr. Mark Borsuk
1626 Vallejo Street
San Francisco, CA 94123-5116

Mr. Leland Douglas
Douglas Parking Company
1721 Webster Street
Oakland, CA 94612

Subject: ***Revised Conditional Work Plan Approval*** for Fuel Leak Case No. RO0000266 and Geotracker Global ID T0600100682, A Bacharach Trust & B Borsuk, 1432 Harrison Street, Oakland, CA 94612

Dear Mr. Borsuk and Mr. Douglas:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the subject site including the recently submitted documents entitled, "*Additional Offsite Assessment and Comprehensive Conduit Study Work Plan, Allright Parking, 1432 Harrison Street, Oakland, California*," dated September 27, 2010 (Work Plan) and "*Second 2010 Semi-annual Groundwater Monitoring Report, Allright Parking, 1432 Harrison Street, Oakland, California*," dated October 18, 2010 (Groundwater Monitoring Report). Both reports were prepared on your behalf by Conestoga-Rovers & Associates. The Work Plan proposes soil, groundwater, and soil vapor sampling from several soil borings along Harrison Street and a conduit study. The Groundwater Monitoring Report presents results from semi-annual groundwater monitoring.

The proposed scope of work presented in the September 27, 2010 Work Plan is conditionally approved and may be implemented provided that the technical comments below are addressed and incorporated during the proposed investigation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below

TECHNICAL COMMENTS

1. **Conduit Study.** The September 27, 2010 Work Plan proposes a comprehensive utility conduit study along Harrison and 15th Streets. However, the conduit study presented in the May 6, 2010, "*Sensitive Receptor Survey Report,"* indicated that no identified utility conduits exist at the depths approximately 18 to 22 feet below grade where groundwater is typically encountered. We concur with conducting a comprehensive utility conduit study within the area of the former USTs and MW-2 and identifying utilities at each proposed boring location. Conducting a comprehensive utility conduit study outside these areas along Harrison and 15th Streets does not appear to be warranted.

2. **Proposed Soil Vapor Sampling.** The potential for vapor intrusion to the basement at 1445 Harrison Street must be evaluated since the petroleum hydrocarbon plume originating from the former USTs extends north and continues beneath the building at 1445 Harrison Street. The Work Plan proposes advancing soil borings at five locations in the sidewalk around the perimeter of the 1445 Harrison building to collect soil, groundwater, and soil vapor samples. The proposed soil borings around the perimeter of the building are generally acceptable since the proposed borings have a dual purpose of helping to define the extent of free product and collection of soil vapor samples. Contingent upon the results of the proposed soil vapor sampling around the perimeter of the building, we note that the collection of soil vapor samples or sub-slab vapor samples beneath basement at 1445 Harrison may also be required in the future. The collection of vapor samples below the basement provides the most direct measurement of chemicals in soil vapor below the building and potential exposure of building occupants.

3. **Downgradient Plume Extent.** The downgradient extent of the plume remains undefined at this time. The need for downgradient assessment will be re-evaluated pending the completion of the delineation of free product and potential for vapor intrusion.

4. **Groundwater Monitoring.** Please continue groundwater monitoring on the established semi-annual sampling schedule.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **April 13, 2011** – Site Investigation Report

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o=Alameda County Environmental Health, ou, email=jerry.wickham@acgov.org, c=US
Date: 2010.12.01 10:40:47 -08'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to:* lgriffin@oaklandnet.com)

Robert Foss, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608 2032 (*Sent via E-mail to:* bfoss@craworld.com)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH

Geotracker, File

Attachment 1
Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i. Send an e-mail to dehloptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      i. Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

SITE BACKGROUND AND PREVIOUS ENVIRONMENTAL ACTIVITIES

APPENDIX B

SITE BACKGROUND AND PREVIOUS ENVIRONMENTAL ACTIVITIES

SITE BACKGROUND

SITE DESCRIPTION

The subject site is located at 1432 Harrison Street, in Oakland, California, as identified on Figures 1 and 2, and is currently used for ground-level commercial parking. The general area is developed with a mix of commercial and high-density, multi-story residential housing.

HISTORICAL SITE USES

The site was residential from as early as 1889 through at least 1911. Sometime after 1911, the residence was removed and the site use changed to automotive servicing and repair, as well as car rental and leasing, through at least 1986. From some time preceding 1998 through the present, the site has been used for commercial parking.

PREVIOUS ACTIVITIES AND INVESTIGATIONS

July 1990 through May 1993 - Soil Boring Investigations

In July and September 1990, Subsurface Consultants (SCI) of Oakland, California drilled seven soil borings near the gasoline USTs and between the hydraulic lift area, the wash rack, and the sump. Soil samples were analyzed and petroleum hydrocarbons were detected. Geophysical investigation performed by JR Associates (JRA) was preformed in August of 1990. JRA detected anomalies in the subsurface near the hydraulic lift area.

In January and February 1992, RGA Environmental Consulting (RGA) of Emeryville, California drilled 11 soil borings and analyzed soil samples from various depths near the gasoline USTs, the pump island, and between the hydraulic lift area, the wash rack, and the Sump. In the *Preliminary Site Assessment Report,* dated April 2, 1992, RGA stated the

site was once a "Chevron Service Station". During the review of the September 2007 EDR and prior investigation documentation, CRA was unable to verify this statement.

In May 1993, Levine-Fricke, Inc. (Levine-Fricke) of Emeryville, California drilled two soil borings near the gasoline UST area and analyzed soil samples down to a depth of 24.5 feet below ground surface (ft bgs).

December 1993 – UST Removal

In December 1993, Levine-Fricke removed two underground storage tanks (USTs) from the site. The two 1,000-gallon, single-walled, steel, gasoline USTs were located under the sidewalk on Harrison Street, with gasoline dispensers located about 20 ft east of the USTs. According to Levine-Fricke, three hydraulic lifts, one vault, one wash rack sump, and associated piping, were also excavated and removed, and approximately 240 cubic yards of hydrocarbon-impacted soil was removed from these areas.

January 1994 – Installation of Monitoring Well

Monitoring well MW-1 was installed by Levine-Fricke at the former gasoline tank area. No information regarding the installation of this well has been located. However, the Levine-Fricke report, titled *Tank Closure Report on Removal of Underground Fuel Storage Tanks and Related Structures, Harrison Street Garage, 1432-1434 Harrison Street, Oakland, California*, dated February 22, 1994, states, "After removing water that infiltrated into the excavation from the gutter area, a 4-inch diameter well was installed by Levine-Fricke and a licensed drilling subcontractor in the utility box…" Apparently, no soil samples were collected or analyzed during this well installation.

July 1994 - Subsurface Investigation

In July 1994, Levine-Fricke installed well MW-2 in Harrison Street.

July 1995 - Subsurface Investigation

In July 1995, Cambria Environmental Inc. (Cambria) drilled nine soil borings to collect soil samples and three boring to collect grab groundwater samples. Petroleum hydrocarbons were detected in both soil and groundwater.

August 1996 - Soil Vapor Extraction Test

In August 1996, Cambria conducted a soil vapor extraction pilot test using existing groundwater monitoring wells MW-1 and MW-2. Results of the test suggested that the subsurface consists of moderately permeable materials and that soil vapor extraction could effectively remove hydrocarbons from subsurface soils.

October 1996 Subsurface Investigation

In October 1996, Cambria drilled five soil borings and converted three of the borings to monitoring wells MW-4, MW-5, and MW-6. Two angled borings, SB-P and SB-Q, were drilled to investigate the presence of hydrocarbons beneath two closed-in-place tanks located directly up-gradient of the subject site. These upgradient USTs, located beneath the sidewalk at 1424 Harrison Street, are approximately 10 ft south of the former tankpit of the USTs removed from beneath the sidewalk in front of 1432 Harrison Street. To avoid drilling into the abandoned USTs, the surface location of these borings were outside the tankpit and the borings angled toward the tanks. Soil samples collected at 3.75 feet below grade (fbg) in each boring contained TPHg at 3.8 and 4.3 milligrams per kilogram (mg/kg), respectively. These samples were collected laterally to the USTs and in native soil. The deeper samples collected at 12.7 and 9.6 fbg are representative of conditions beneath the closed-in-place USTs. Sample SB-P 12.7' contained 1,500 mg/kg TPHg and 0.55 mg/kg benzene. Sample SB-Q 9.6' contained 1,900 mg/kg TPHg and 0.95 mg/kg benzene

July 1999 – Coaxial Remediation Wells

In July 1999, Cambria installed four coaxial remediation wells near the former gasoline USTs for vapor extraction and air sparging.

December 2001 – April 2005 Soil Vapor Extraction/Air Sparge Remediation

In December 2001, Cambria started operating a soil vapor extraction (VES) and air sparging (AS) system. On April 30, 2005 remediation ceased due to low influent vapor concentrations and hydrocarbon mass removal rates. During operation of the SVE/AS system, approximately 9,939 pounds of hydrocarbons were extracted. On June 2, 2005, the SVE/AS system was removed from the property.

August 2006 – Risk Assessment

A Tier 1 and 2 risk assessment was performed using existing data. Based on this analysis, it was determined that there was no significant commercial risk for indoor and outdoor vapor inhalation from benzene in soil and/or groundwater. Also, there was no significant residential risk from outdoor vapor inhalation from benzene. Some elevated concentrations of benzene in soil indicated that a potential may exist from indoor residential vapor inhalation. There are no current indoor residential receptors in the site vicinity

July 2008 – *Additional Characterization Workplan*

On July 1, 2008, CRA submitted a workplan to further characterize site conditions as requested by ACEH. This workplan proposed installation and sampling of shallow soil

vapor wells, collection of soil samples from a boring adjacent to former used oil USTs partially beneath the building and sidewalk at 1439 Alice Street, collection of soil samples in the area of the former gasoline USTs and dispenser island, and installation of an additional downgradient groundwater monitor well. The proposed scope of work was approved in an August 1, 2008 ACEH letter.

August 2009 – Additional Site Investigation

Field work, as proposed in the July 2008 *Additional Characterization Workplan*, was conducted in August 2009. This investigation included the installation and sampling of six shallow soil vapor wells and the drilling and sampling of a soil boring in the vicinity of the former USTs and dispenser island. The downgradient monitor well was eliminated due to the inability to negotiate access to an appropriate location and the soil boring along Alice Street was eliminated due to limited vertical access and ventilation issues in the Alice Street basement/parking garage. Details of this investigation were presented in the document titled, *Additional Site Characterization Report*, dated December 4, 2009.

May 2010 – Sensitive Receptor Survey

On May 6, 2010, CRA submitted a *Sensitive Receptor Survey* to ACEH, as requested in a January 26, 2010 letter. CRA checked DWR and ACDPW well records to determine the presence and location of registered wells within a 1-mile radius of the subject site. CRA also mailed a questionnaire to all parcels within the 1-mile radius inquiring about wells, basements, elevator shafts and/or sumps at each address. Information gathered through these searches, along with a description of the nearest surface water body were compiled in the report and uploaded to the ACEH FTP website on May 7, 2010. Results of these record searches suggest that no wells are likely to be impacted by hydrocarbons emanating from the subject site and only one building basement, at 1445 Harrison Street, could potentially experience intrusion of hydrocarbon vapors volatilizing from the water table.

Groundwater Monitoring

Since May 1994, periodic monitoring and sampling of groundwater has been performed. The current sampling frequency is semi-annual during the first and third quarters of the year.

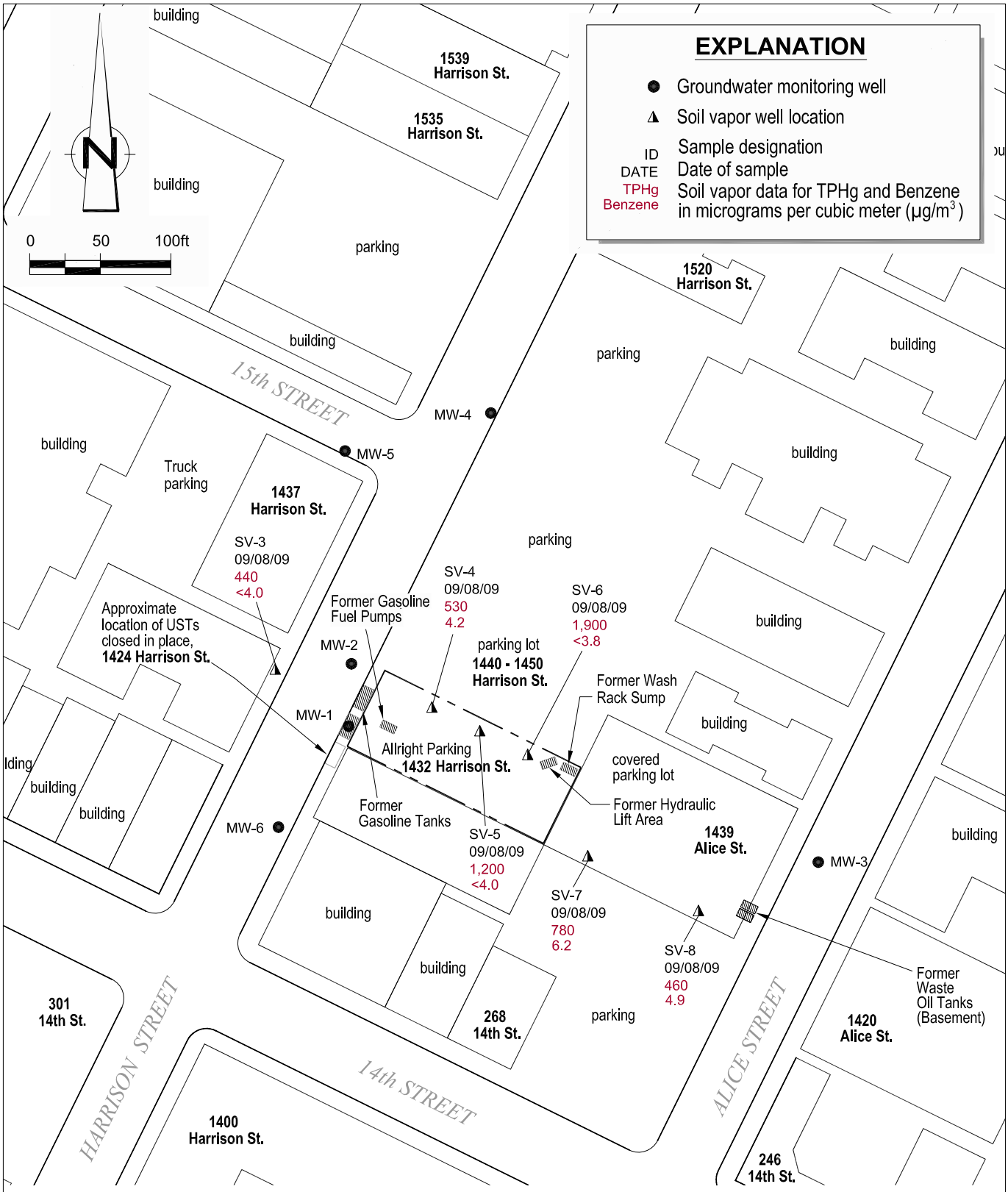

FIGURE 9
SOIL GAS SAMPLING RESULTS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

I:\IR\6-chars\5401--\540188\540188-Borsuk - Oakland\540188-FIGURES\540188_SOIL-SAMP.DWG

EXPLANATION

MW-2 — Monitoring well location

AS-2 — Vapor extraction / Air sparging coaxial well location

B-7 — Soil sample location

NOTE: Samples collected prior to May 2005

N

0 20 50ft

15th STREET

HARRISON STREET

14th STREET

ALICE STREET

building

parking

parking lot

covered

1515 Harrison St.

1445 Harrison St.

1425 Harrison St.

1440 - 1450 Harrison St.

1424 Harrison St.

1432 Harrison St.

1439 Alice St.

301 14th St.

268 14th St.

Former Gasoline Fuel Pumps

Allright Parking

Former Hydraulic Lift Area

Former Waste Oil Tanks (Basement)

MW-3

SB-M / MW-4 Date : Oct. 1996

Depth	20.0'
TPHg	<1.0
Benzene	<0.005
MTBE	<0.05

SB-N / MW-5 Date : Oct. 1996

Depth	20.0'
TPHg	<1.0
Benzene	<0.005
MTBE	<0.05

MW-2 Date : July 1994

Depth	5.0'	9.5'	15.0'
TPHg	<0.2	<0.2	<0.2
Benzene	<0.005	<0.005	**0.024**

VES-4 / AS-4 Date : July 1999

Depth	16.5'	25.0'	30.0'
TPHg	<1.0	**7,600**	<1.0
Benzene	<0.005	**150**	<0.005
MTBE	<0.05	**32**	<0.05

SB-H Date: July 1995

Depth	20.0'
TPHg	**350**
Benzene	**4.0**

B-23 Date : Feb. 1992

Depth	5.0'	10.0'
TPHg	**2.5**	**3.3**
Benzene	<0.005	<0.005
TPHd	**26**	<1

LFSB2 Date : May 1993

Depth	9.5'	19.5'	24.5'
TPHg	<0.2	**1,000**	**6,100**
Benzene	<0.005	<0.2	**91**

B-20 Date : Feb. 1992

Depth	5.0'	15.0'
TPHg	**2.0**	**2.5**
Benzene	<0.005	<0.005
TPHd	**24**	<1.0
Hg	**---**	**2.48**
As	**---**	**13.9**

2 Date: July 1990

Depth	18.5'
TPHg	**9,300**
Benzene	**98**

B-19 Date:Feb. 1992

Depth	5.0'
TPHg	**2.5**
Benzene	<0.005

SB-F Date: July 1995

Depth	20.0'
TPHg	**160**
Benzene	**1.9**

B-17 Date: Feb. 1992

Depth	5.0'
Hg	**3.56**

VES-1 / AS-1 Date : July 1999

Depth	16.5'	21.5'	30.5'
TPHg	<1.0	**5,600**	<1.0
Benzene	<0.005	**59**	<0.005
MTBE	<0.05	<10	<0.05

B-14 Date : Jan. 1992

Depth	5.0'	15.0'
TPHg	<1	**2.5**
Benzene	<0.005	**---**
TPHd	<1	**17.3**
MTBE	**---**	**---**
Hg	**28.1**	**32.8**
As	**27.5**	**32.7**

B-5 Date: Sep. 1990

Depth	22.5'
TPHg	**110**
Benzene	**0.024**

B-15 Date : Jan. 1992

Depth	5.0'	15.0'
Hg	**29.4**	**33.2**
As	**25.4**	**36.0**

LFSB1 Date : May 1993

Depth	4.0'	14.0'	24.5'
TPHg	**0.5**	<0.2	**8,800**
Benzene	<0.005	**0.020**	**210**

1 Date: July 1990

Depth	20.0'
TPHg	**6,300**
Benzene	**99**

SB-L Date: July 1995

Depth	20.0'
TPHg	**220**
Benzene	**1.6**

B-16 Date : Jan. 1992

Depth	5.0'	15.0'
Hg	**44.9**	**34.7**
As	**41.8**	**26.0**

B-4 Date: Sep. 1990

Depth	10.0'
TPHd	**1,700**

SB-P Date : Oct. 1996

Depth	3.75'	12.7'
TPHg	**3.8**	**1,500**
Benzene	<0.005	**0.55**
MTBE	<0.05	**2.0**

VES-2 / AS-2 Date : July 1999

Depth	16.5'	26.5'	30.0'
TPHg	**2.2**	**4,300**	<1.0
Benzene	<0.005	**35**	<0.005
MTBE	<0.05	<10	<0.05

SB-Q Date : Oct. 1996

Depth	3.75'	9.6'
TPHg	**4.3**	**1,900**
Benzene	**0.006**	**0.95**
MTBE	<0.02	<1.4

B-13 Date : Jan. 1992

Depth	5.0'	15.0'
TPHg	**8.32**	**135**
Benzene	<0.005	**---**
TPHd	**1.63**	<1
MTBE	**---**	**---**
Hg	**45.4**	**35.5**
As	**47.3**	**27.4**

SB-O/MW-6 Date: Oct. 1996

Depth	20.5'
TPHg	<1.0
Benzene	<0.005
MTBE	<0.05

B-21 Date : Feb. 1992

Depth	5.0'	10.0'	15.0'
TPHg	**2.1**	**1.9**	**2**
Benzene	<0.005	<0.005	<0.005
TPHd	**16.7**	**15.7**	**22.7**

B-8 Date: Sep.1990

Depth	22.5'
TPHg	**1,200**
Benzene	**2.3**

CB-2 Date : July 1999

Depth	12.0'	15.0'	20.5'	24.0'
TPHg	<1.0	<1.0	**4.2**	**4.8**
Benzene	<0.005	<0.005	<0.005	**0.006**
MTBE	<0.05	<0.05	<0.05	<0.05

VES-3 / AS-3 Date : July 1999

Depth	15.5'	20.5'	30.5'
TPHg	**1.3**	**2,100**	**1.4**
Benzene	**0.011**	<0.5	**0.062**
MTBE	<0.05	<10	<0.05

B-22 Date : Feb. 1992

Depth	5.0'	10.0'
TPHg	**42.3**	**1,540**
Benzene	<0.005	**0.987**
TPHd	**670**	**175**

CB-1 Date : July 1999

Depth	10.0'	16.0'	20.0'	24.0'
TPHg	<1.0	<1.0	<1.0	**1,500**
Benzene	<0.005	<0.005	<0.005	**2.3**
MTBE	<0.05	<0.05	<0.05	<2

B-7 Date : Sep. 1990

Depth	13.0'	20.0'
TPHg	<1.0	**2,500**
Benzene	<0.005	**3.5**

figure 5

PRE-REMEDIATION SOIL CONCENTRATIONS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

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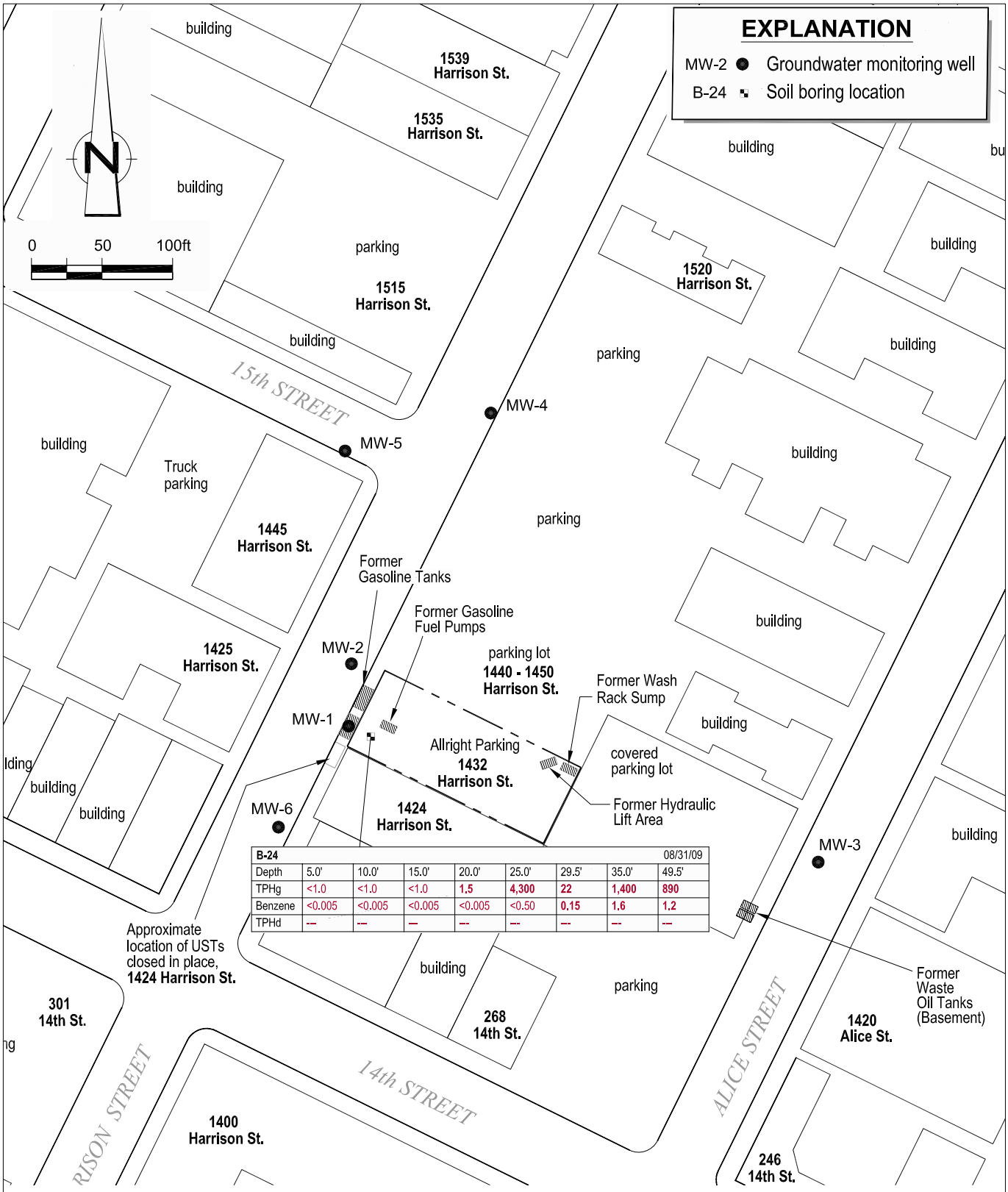

FIGURE 6

POST-REMEDIATION SOIL CONCENTRATIONS
ALLRIGHT PARKING
1432 HARRISON STREET
Oakland, California

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APPENDIX C

COMPREHENSIVE CONDUIT STUDY

SEATTLE / ALASKA/ SAN DIEGO/ LA / SAC / HAW
WWW.ULSSERVICES.COM
WWW.GEOMARKOUT.COM

CORPORATE ADDRESS
P.O. Box 724, Pocatello, ID 83204 (Mail only)
6742 West Buckskin Rd., Pocatello, Id 83204

FIELD SERVICES:

SEATTLE/ SAC / AK / HAW-PACIFIC RIM
1 866 804-5734
SOCAL
1 800 528-8206

ULS SERVICES CORP

GEOMARKOUT LOCATING CO a trade name of ULS

Work Order Agreement

Job Site Location 14th St & Harrison St.	**Job PO TO**
City, State Oakland, CA	**Job Date** 23/24 December 2010

CLIENT CRA	**FIELD TIME** 12/23 8-430 12/24 8-230 **REPORT TIME** 2.5	**LABOR HOURS W/REPORT/ HRS 15.5**
ADDRESS		**FAXED**
CITY, STATEE, ZIP EMERYVILLE, CA		**TELEPHONED**
PHONE/FAX		**HAND DELIVERED**
E-MAIL		**E-MAILED**

WORK REQUESTED: Underground utility location within four zones encompassing a total of seven proposed sampling or borehole locations depicted on CRA drawing and marked in field by CRA STAFF. CONDUCT a general utility survey for the remaining areas along Harrison between 14th and 15th St and along 15 th between Webster and Harrison.

WORK PERFORMED	**PRELIMINARY REVIEW OF CLIENT PROVIDED UTILITY DRAWINGS/AS-BUILTS:** Yes limited city drawing
VISUAL SITE INSPECTION (MANHOLES, DRAINS): SURFACE ONLY	**EMPCL CONDUCTIVE UTILITY SURVEY: CHECKED** **GAS:** Yes **ELECTRIC:** Yes **COMM.:** Yes **WATER:** Yes
EMIMD METAL DETECTION SURVEY : AMBIENT NOISE AND SETTINGS LOW NOISE | GAIN 6.5 | LOW ELV Rebar in sidewalks above reported basements below sidewalk	**EM INSERTION : NF - INSERTION METHODS NOT PROVIDED DUE TO HEALTH AND SAFETY. SEE NOTES BELOW REGARDING LATERALS**
GPR NON-CONDUCTIVE SURVEY: Good	**CLIENT ON-SITE REVIEW OF FINDINGS:** Yes

GENERAL LIMITATIONS

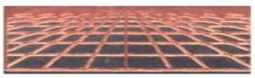
NOTE: The work described herein is performed to industry standards (or higher) using multiple methodology and QA/QC protocol. ULS cannot guarantee the accuracy or the ability to detect all underground facilities and potential interferences. Non-conductive or conductive utilities/facilities may not be detected due to variables and constraints beyond ULS control. Where known, constraints and limitations will be brought to the client's attention. Excavation work may result in injury to persons and/or damage to facilities. Client and/or excavator are advised to take all steps necessary to avoid contact with underground facilities. This includes, but is not limited to, safe digging practices, hand tooling in congested areas and within two feet on side of marked utilities (distance may vary by law), utility drawing review, site facilities representative review, and "one-call" utilities notification. ULS and its representatives are not responsible for injury to persons or damage to facilities. This document and accompanying pages will be delivered to the client before commencement of intrusive work for the client's review. If any questions arise, please notify our office immediately.

NOTE: Specific comments/limitations/constraints, known and recognized will be recorded on attached pages (field notes). Caution – some facilities (conductive or non- conductive) may not be detected. Not all limitations and constraints may be recognized.

SIGNATURE OF ULS REPRESENTATIVE ON-SITE		**PAGE OF**
MWB PEB		**1**

ULS SERVICES CORPORATION

GEOMARKOUT LOCATING Co a tradename


SAN DIEGO–LA . SF- SAC . SEATTLE . ALASKA . HAWAII- GUAM

1 (800) 528 – 8206 www.geomarkout.com 1 (866) 804 – 5734

A Veteran Owned Small Business

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a trade name of ULS Services Corp (23 years Anv)

METHODS AND GENERAL OBSERVATIONS:

METHODS:

ARRIVED SITE AND COMPLETED H&S TAILGATE AND/OR PERMIT TO WORK WITH CLIENT. SET UP DELINEATORS AROUND VEHICLE AND NEAR BLINDSPOTS AND ENTRY WAYS. MADE GENERAL SITE WALK TO REVIEW SURVEY AREAS (PROPOSED ZONES). CHECKED FOR SURFACE UTILITY MANIFESTATIONS SUCH AS VALVES, METERS, CONDUITS, TRENCHING SEAMS, VAULT LIDS AND EXISTING ONE CALL MARKINGS. BEGAN MARKOUT WORK.

METHODS UTILIZED INCLUDE: EM PIPE AND CABLE LOCATOR USING AMBIENT, GROUND INDUCTION AND CONNNECTION MODE SWEEPS. EM INDUCTION METAL DETECTOR AND GPR. A CARTISIAN GRID PATH IS WALKED AT EACH PROPOSED ZONE USING ALL METHODOLOGY. OBSERVATIONS ARE MARKED WITH WHITE PAINT. ZONE IS MARKED OUT WITH PINK MARKINGS (REFER TO PHOTOS) .

SITE CALIBRATION - GENERAL OBSERVATIONS

WEATHER IS DRY AND SURFACES ARE LARGELY CONCRETE OR ASPHALT.
EM PIPE AND CABLE TRANSMITTER TO RECIEVER (GROUND INDUCTION AND CONNECTION) BROADCASTING IS GOOD. ATTENUATION EFFECTS FROM CONCRETE STEEL REINFORCEMENT ARE NOT PRESENT.
EMIMD METAL DETECTOR BACKGROUND EM NOISE IS LOW TO MODERATE.
GPR PENETRATION AND RESOLUTION IS GOOD TO FAIR

SEE QA / QC OBSERVATION COMMENTS TO RIGHT SIDE AND SPECIFIC OBSERVATIONS / COMMENTS BELOW .....>

	QA / QC Follows
X	**SITE WALK**
X	VISUALS
X	ONECALL /DIG ALERT RECALL? Some communications Lines were marked by One Call
X	**UTILITY MAINS**
X	**ELECTRIC –** **Present Throughout Area –** **See notes**
X	**TELEPHONE –** Communications mains present in Area including fiber optics See Notes
X	**NAT GAS** Natural Gas Present – Caution Reported 20" High Pressure Gas Main present in area with laterals See Notes
X	**WATER** Mains present – several services May be of PVC variety See notes
X	SEWER/STORM Visual observation of storm/sewer Complete
X	**SEWER LATERAL** **Not known**
	USTS **Former UST observed on site** **Reported as being filled in place** **See notes**

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CLIENT CRA
LOCATION 14th st & Harrison St, Oakland, Ca
DATE 23/24 December 2010

SPECIFIC OBSERVATIONS AND COMMENTS OR CONCERNS:

NOTE FOR THE PURPOUSES OF SURVEY HARRISON IS NORTH –SOUTH AND 15TH ST IS EAST – WEST (OR NW-SE)

PROPOSED ZONE ON SOUTH SIDE OF 15TH ST NEAR SW CORNER OF 15TH AND HARRISON (ZONE WEST OF INTERSECTION) :

Caution of Fiber Optic Communication lines observed as trending northwest and southeast parallel with the road from a manhole located within the zone. CABLE MAY TREND THE ENTIRE LENGTH OF 15TH ALONG EAST BOUND LANE.

Caution of TWO Paralelle Electric Main Ducts trending East – West thru zone and the entire length of 15th st.

Caution of Storm Drain or Sewer pipe trending orthogonal to the curb through zone in a north– south path – visually observed from manholes in area.

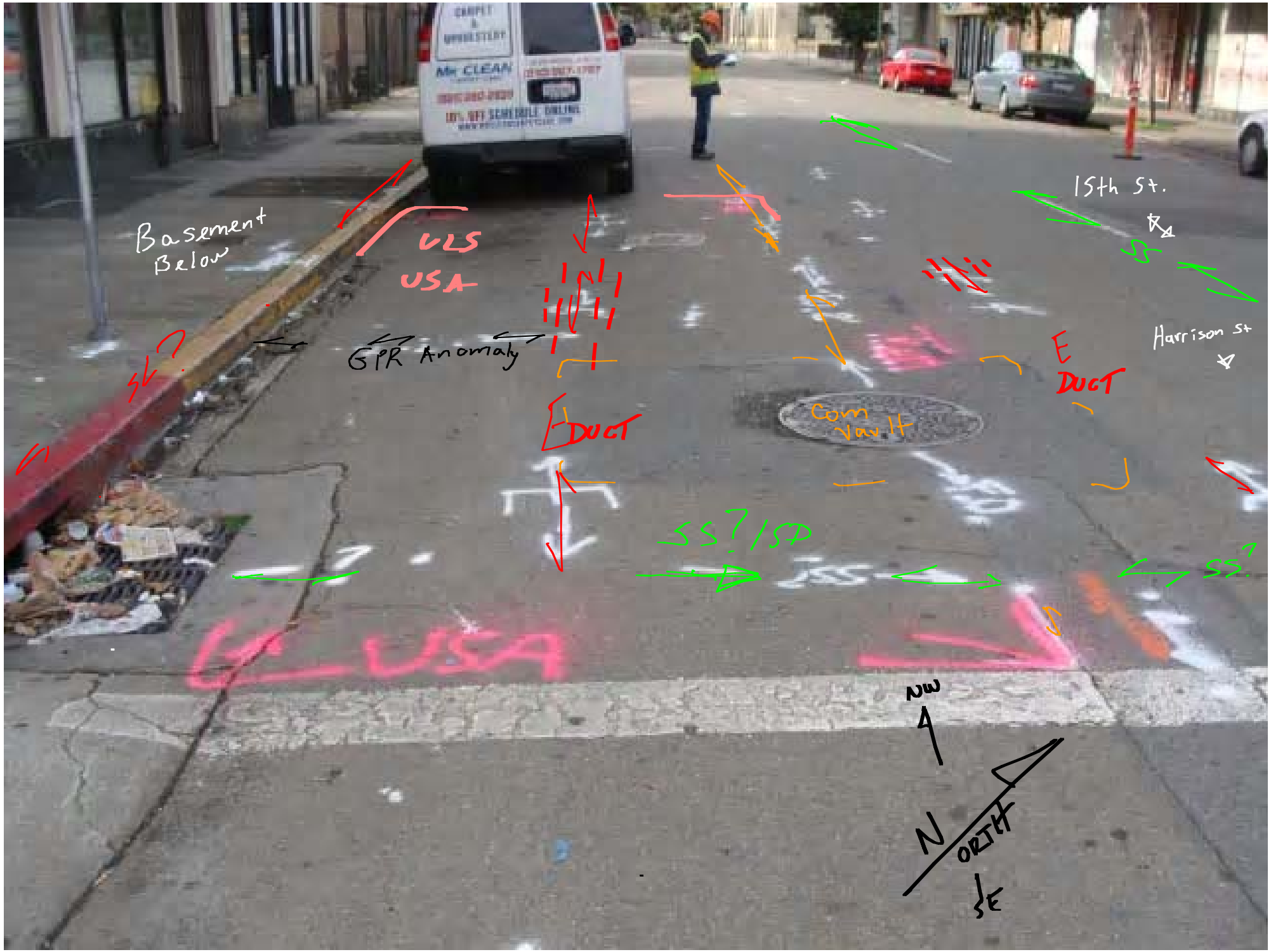
Caution of GPR anomaly observed in the form of an object extending from the southern curb northeast 3-4 feet in a narrow band.

General comments regarding the rest of 15th street between Harrison and Webster

Electric: Multiple Electric ducts observed as trending east – west (Northwest-SE) in the southern 3 lanes of traffic.
Natural Gas: Main observed as trending east – west (northwest-SE) within the northern parking lane and parallel with the Curb
Water: Main observed as trending similar to nat gas mostly within northern parking lane – appears to jog a bit more north as the line continues southeast.
Telecommunications:
Communications duct/trench paths observed in northern parking lane trending northwest through the extent of the block – originating from a vault at the intersection of Harrison and 15th St.
Fiber optics communication lines present observed as being present and believed to be within the southern two lanes and trending northwest through the block.
Storm/Sewer Main visually observed to trend East – West (Northwest-SE) within the apprx center of the road in between the sewer mh that were inspected from surface.

EDITED PHOTOS FOLLOW

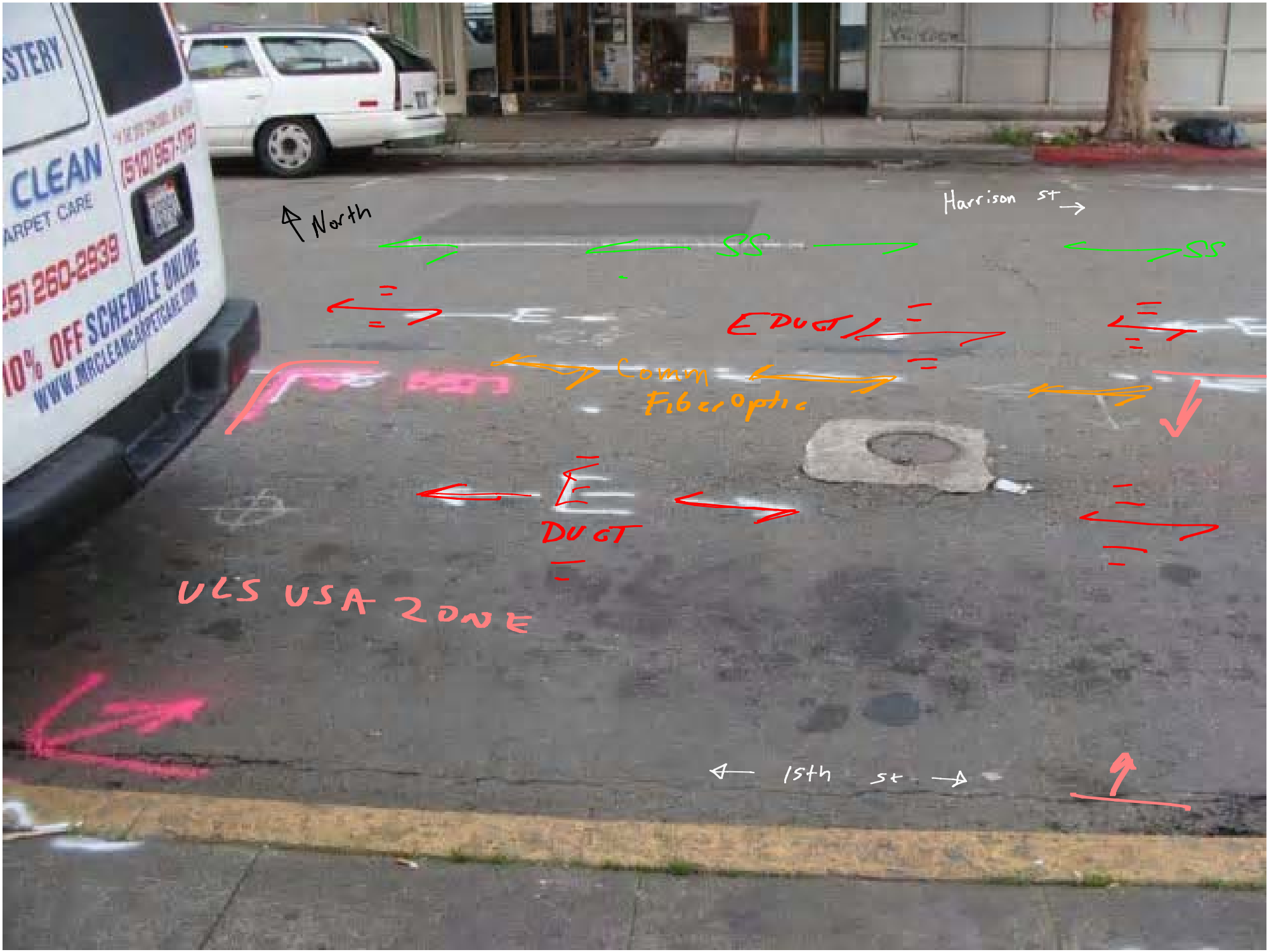

15th
Harrison
ST
1500


Basement Below
ULS USA
GPR Anomaly
E DUCT
Com Vault
15th St.
SS
Harrison St
E DUCT
SS? ISD
SS?
USA
NW
NORTH
SE

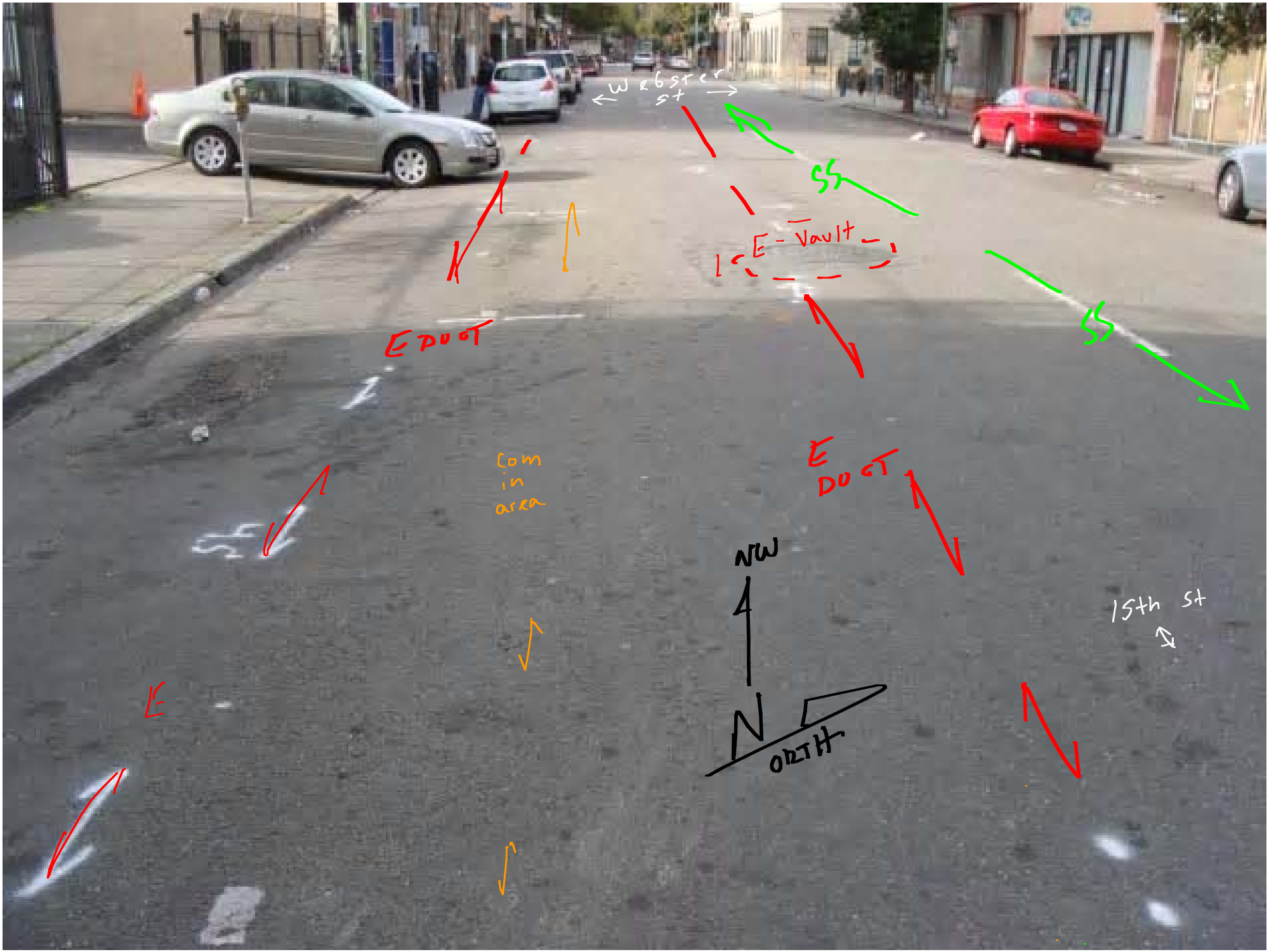

15th st
Harrison st
GPR Anomaly
Basement Below S/W
S/L?
S/L?
North

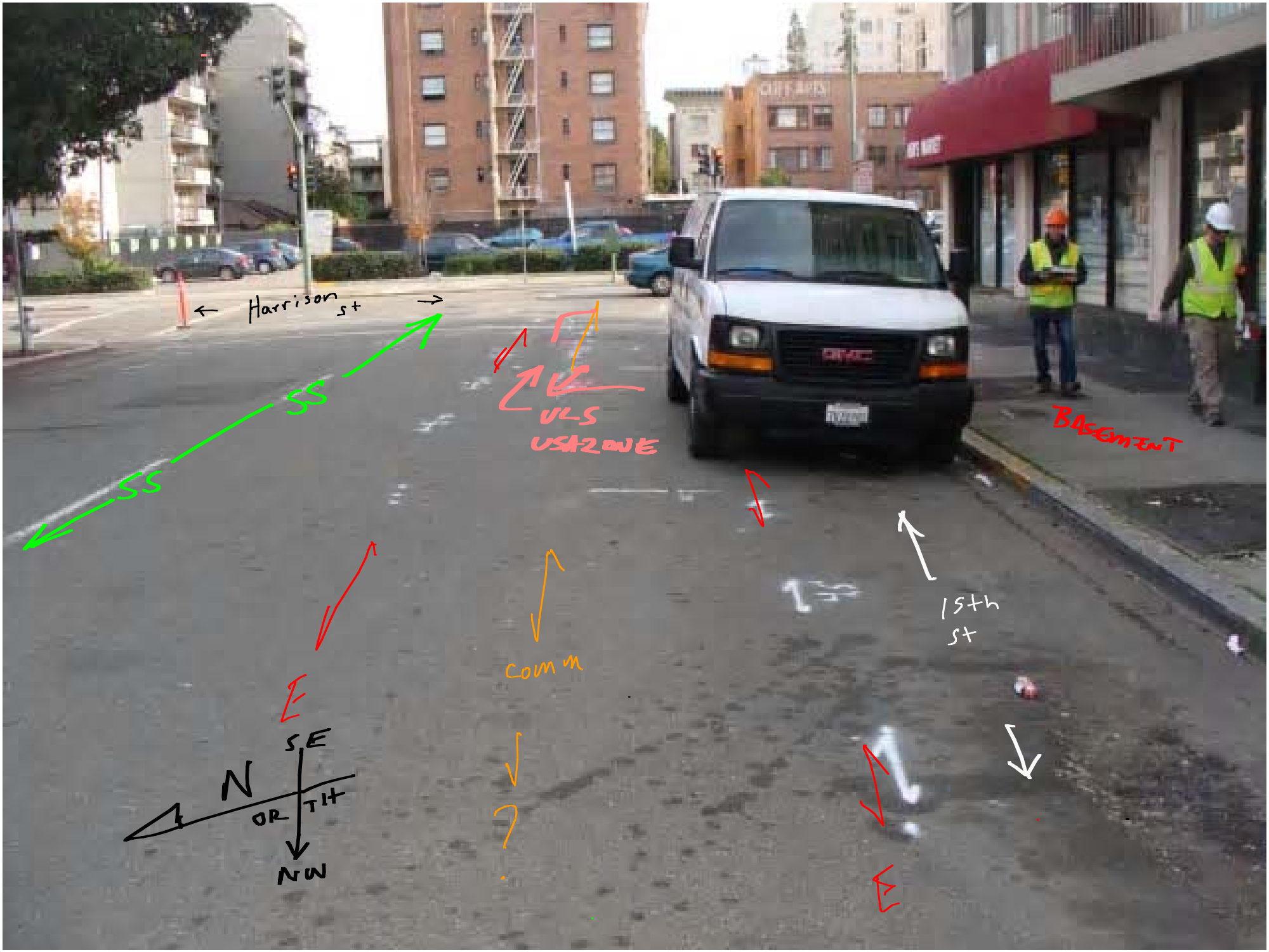

15th st
Harrison st
SS
SS
Com vault
ULS
USA
SS?
North


North
15th St
Harrison St
4'
5'
GPR Anomaly
Com Vault


North
Harrison st
SS
SS
EDUCT
Comm
Fiberoptic
DUCT
ULS USA ZONE
15th st
CLEAN
ARPET CARE
(510) 260-2939
10% OFF SCHEDULE ONLINE
WWW.MRCLEANCARPETCARE.COM


Harrison st
Conn Vault
GPR Anomaly
E
Comm
USS
USA-ZONE
North
15th st


Webster st
E-Vault
E DUCT
E DUCT
Com in area
NW
NORTH
15th St


← Harrison st →
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VLS
USHZONE
BASEMENT
15th st
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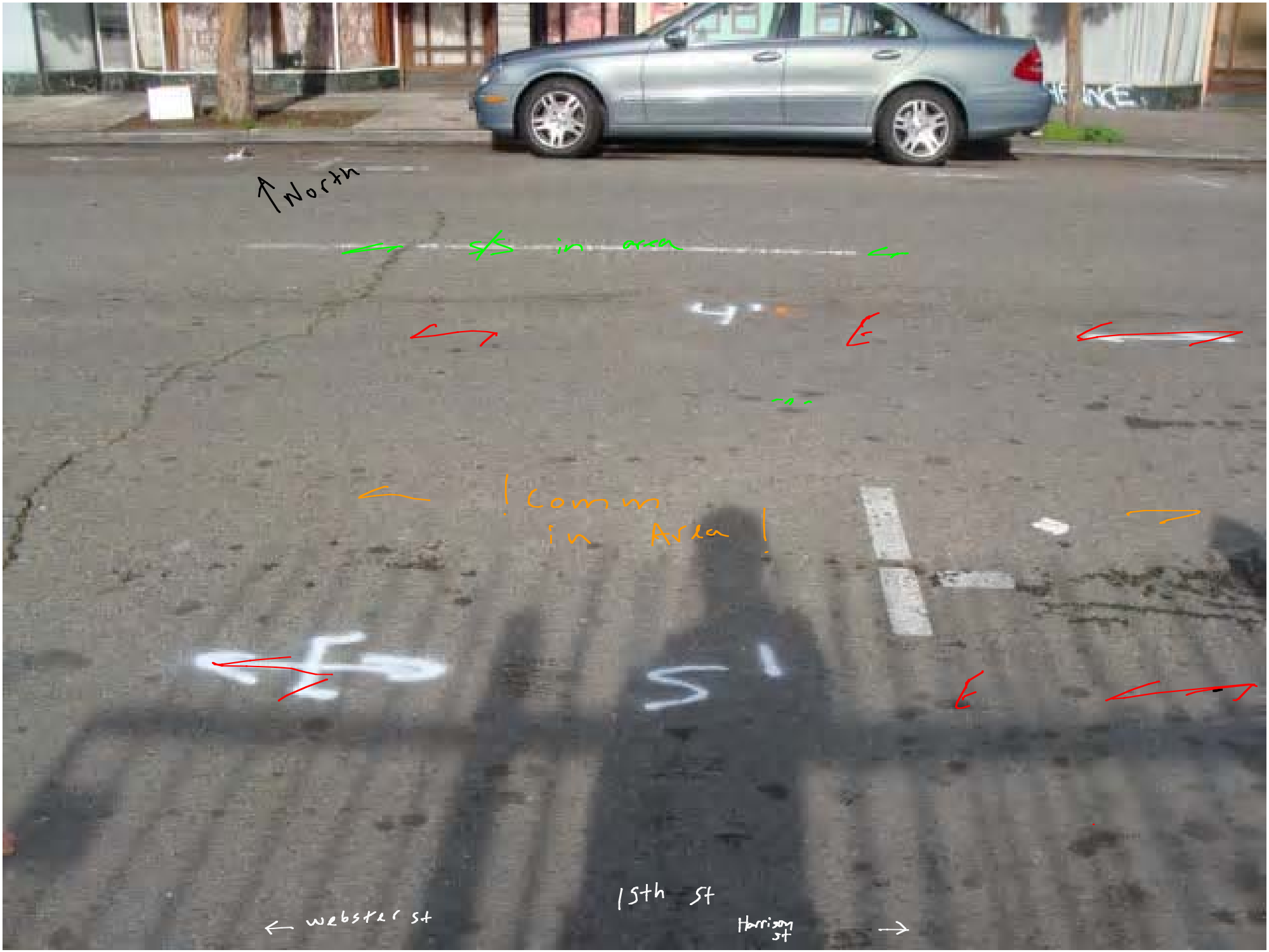
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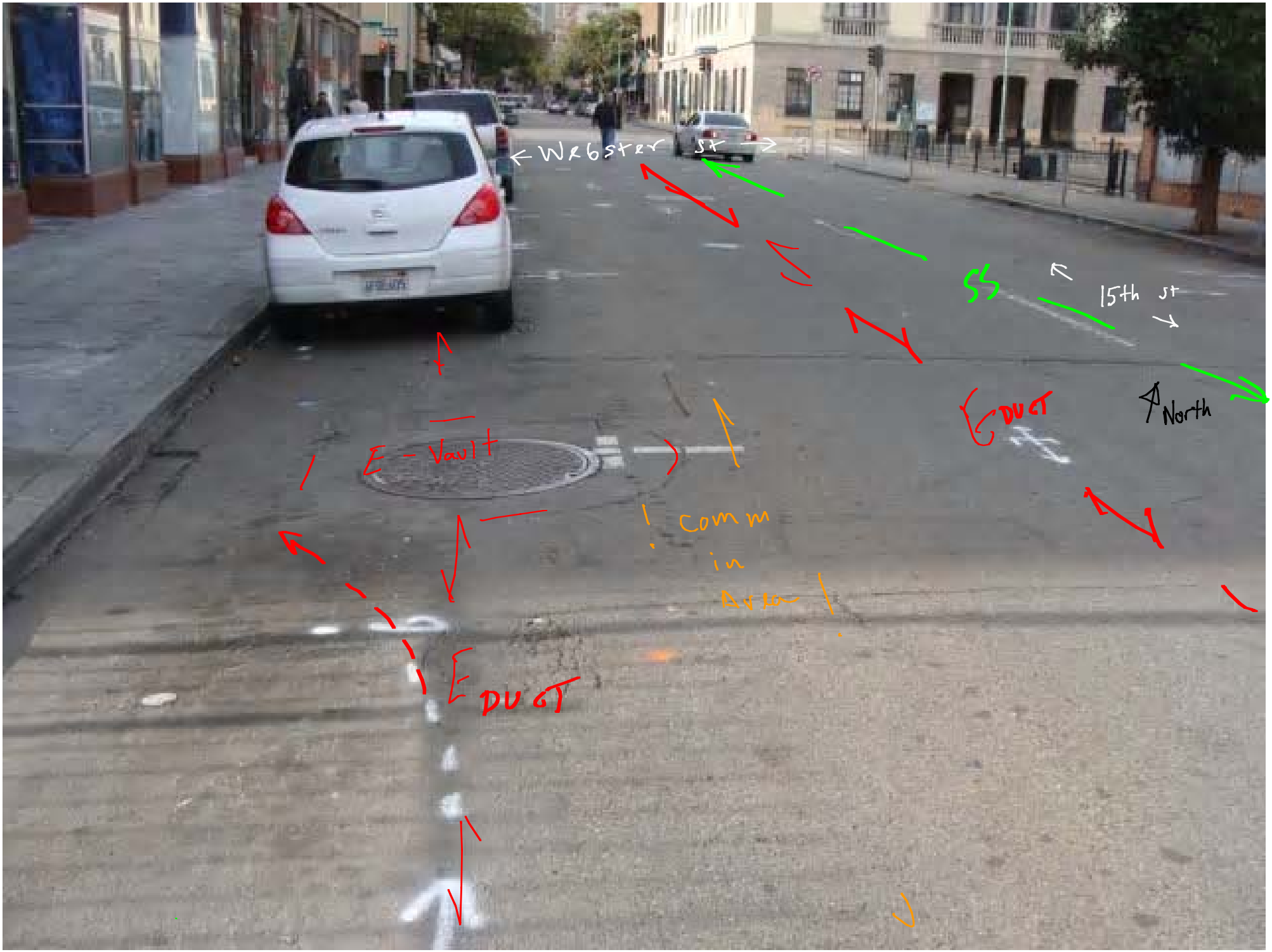
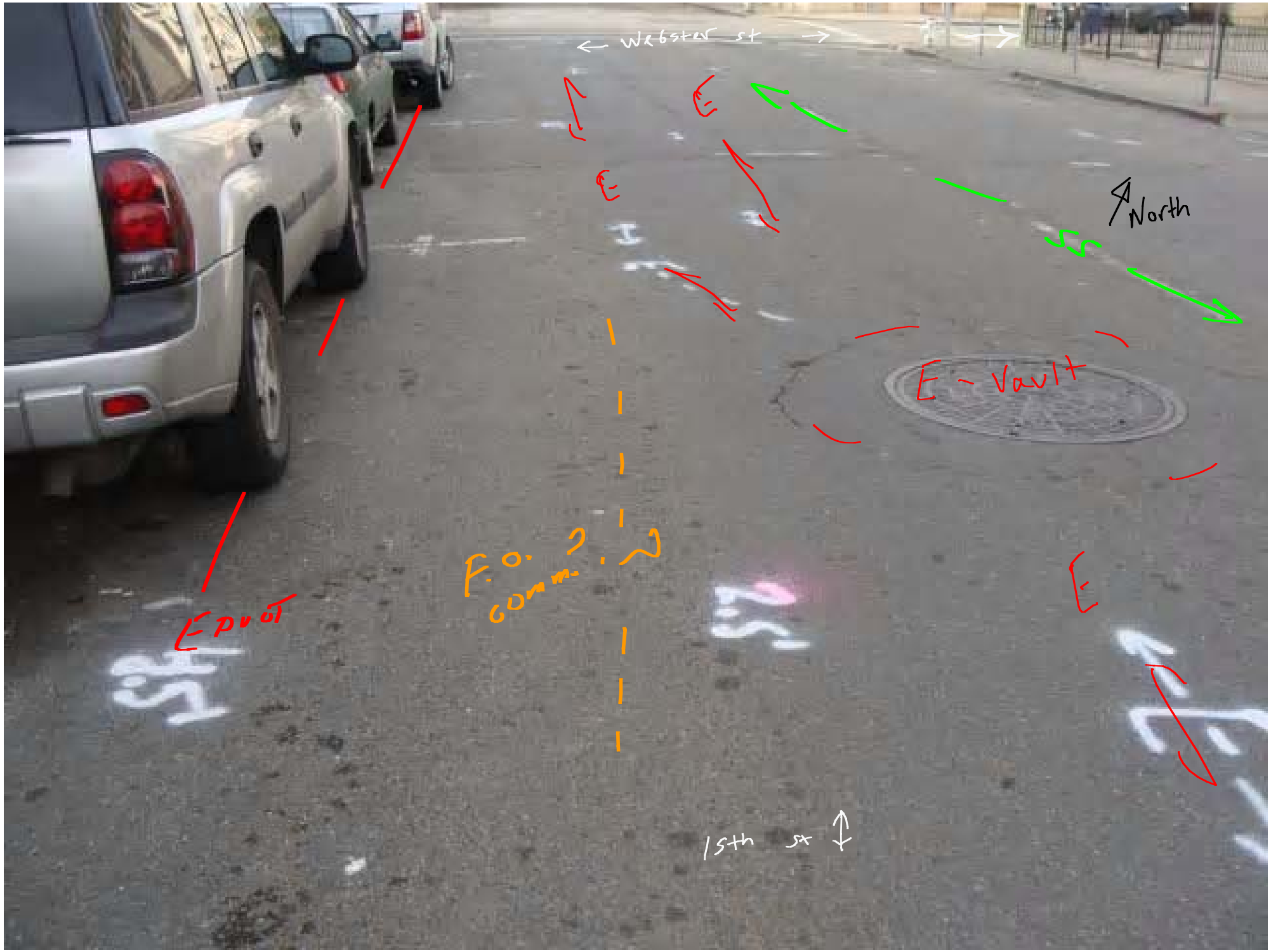
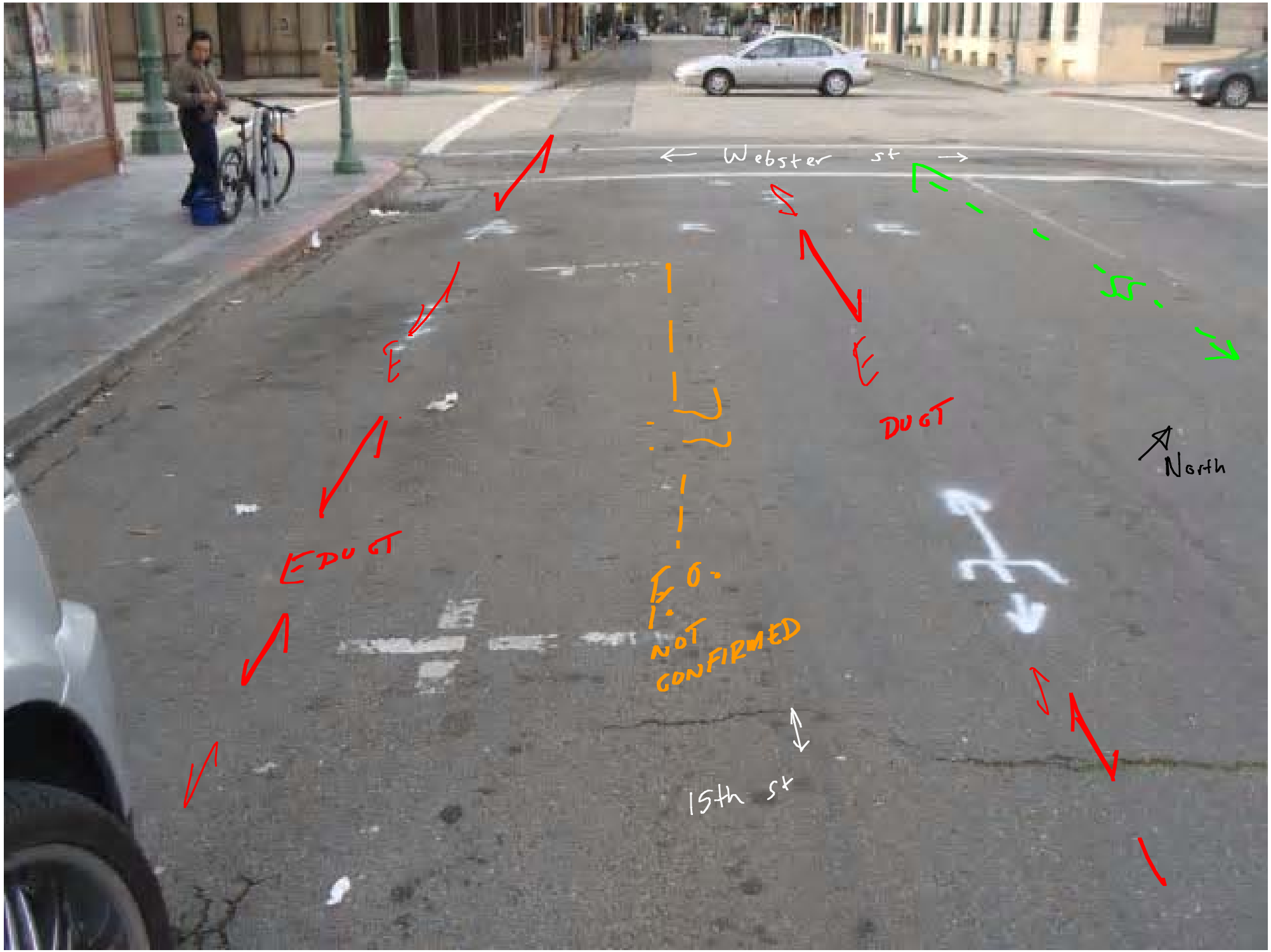
s/s in area
! Comm
in Area !
15th St
← webster st
Harrison st →

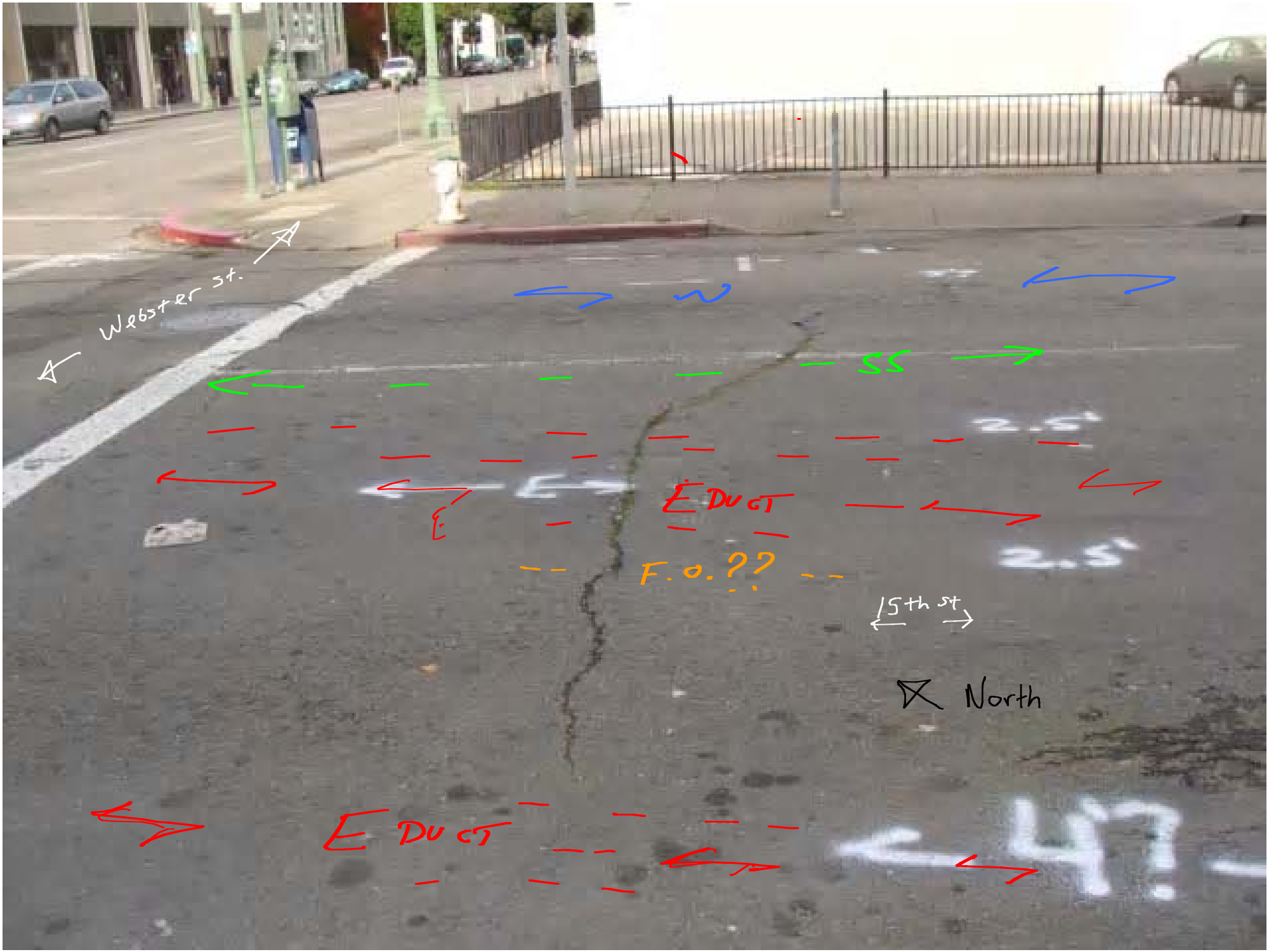

← Webster St →
15th St
North
E - Vault
E DUCT
E DUCT
Comm in Area


← Webster St →
North
15th St
in area
Com in area


Webster st
North
E - Vault
F.O. comm.
Epcot
15th st


← Webster st →
EDUGT
EDUGT
NOT CONFIRMED
15th st
North


Webster
ST


Webster st.
W
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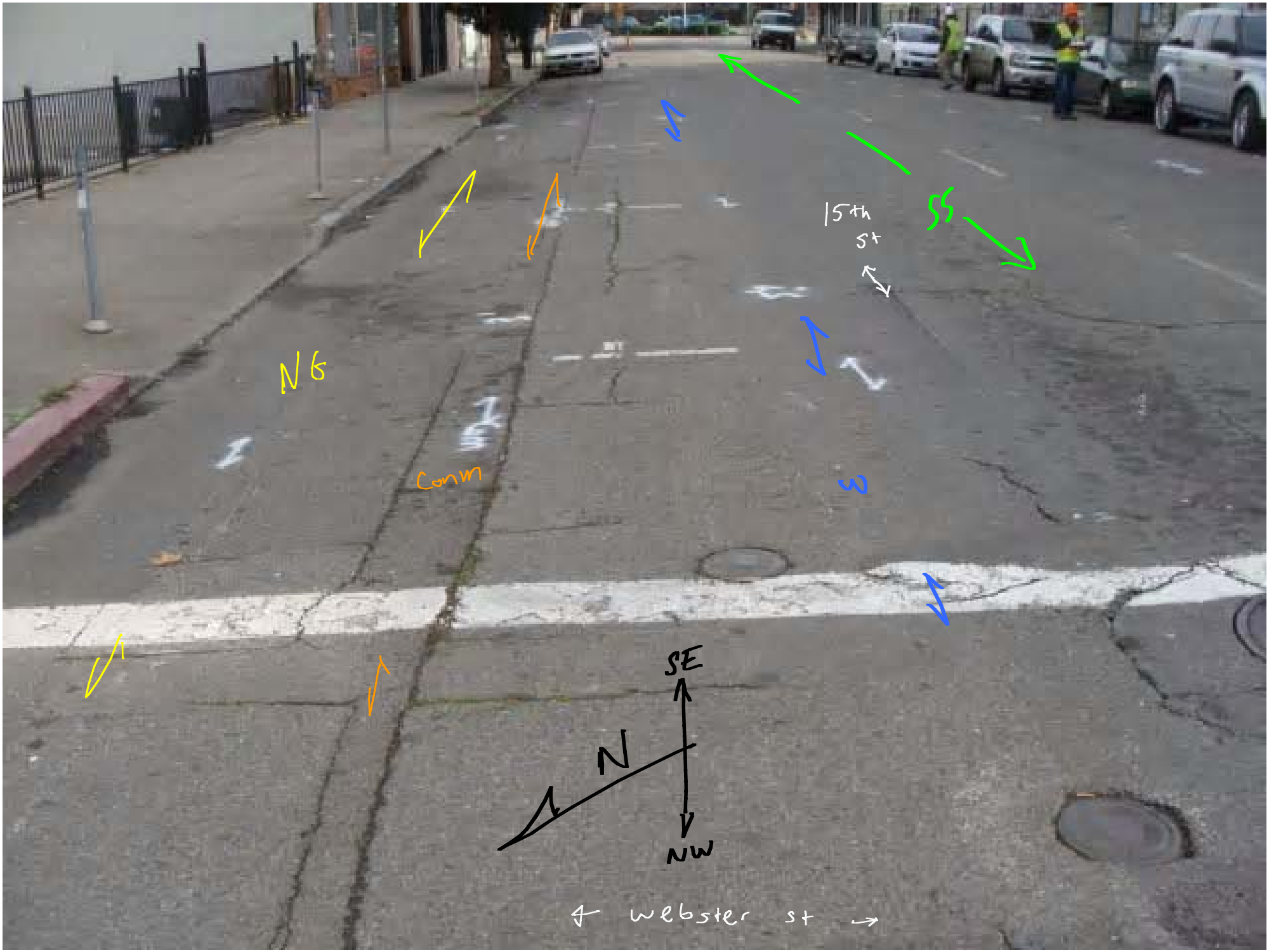
E DUCT
F.O.??
15th st
North
E DUCT


15th St
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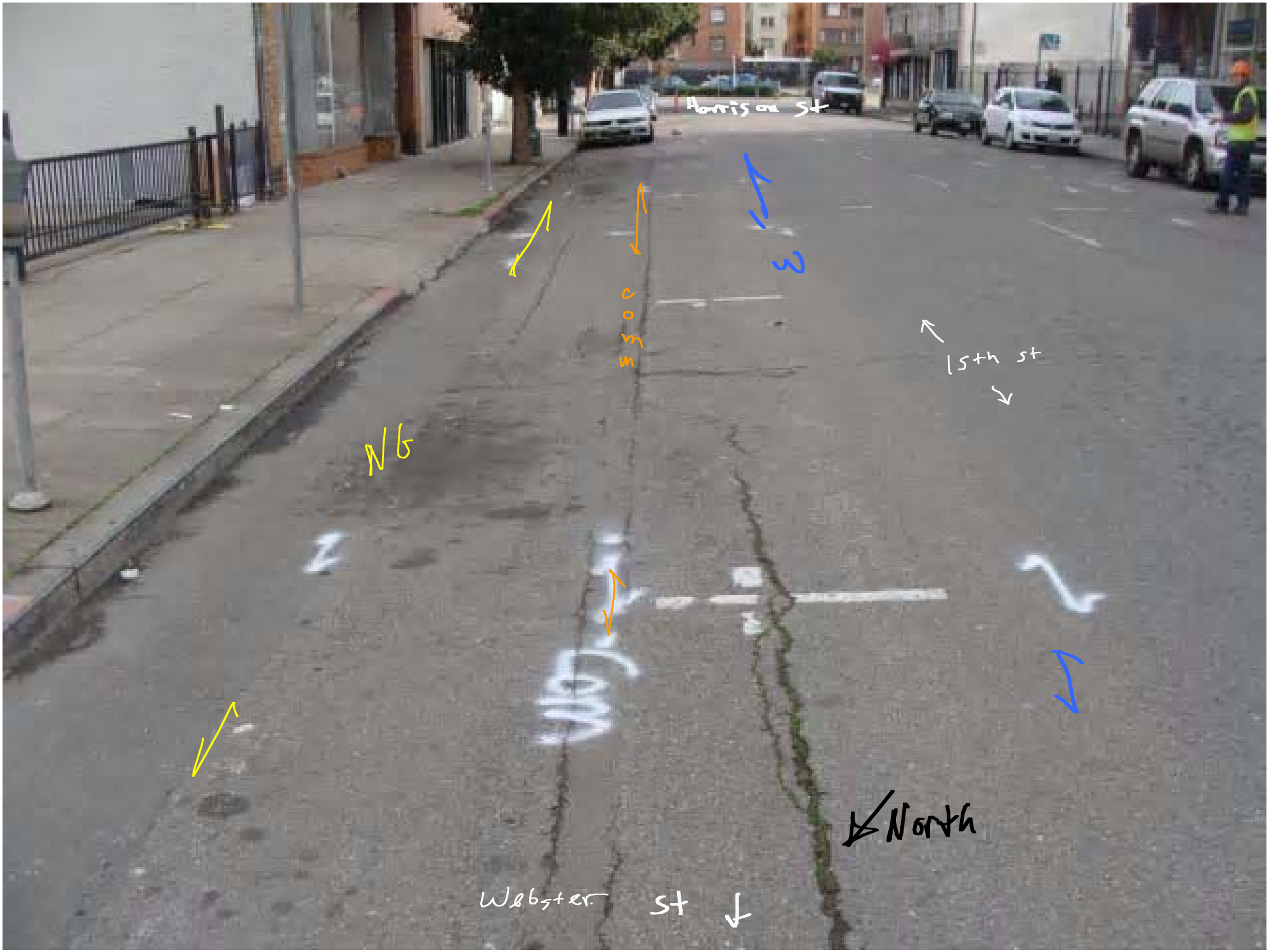
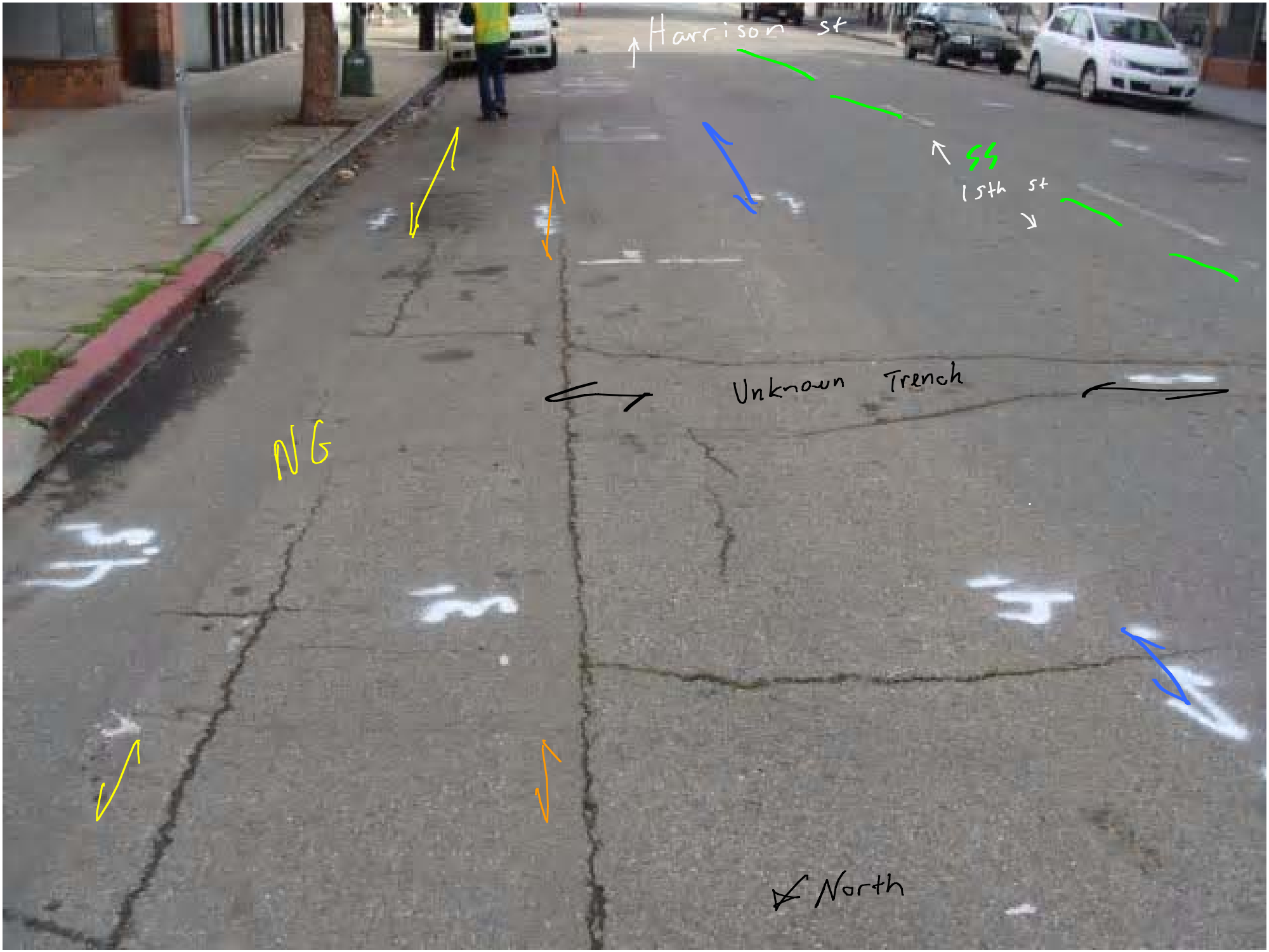
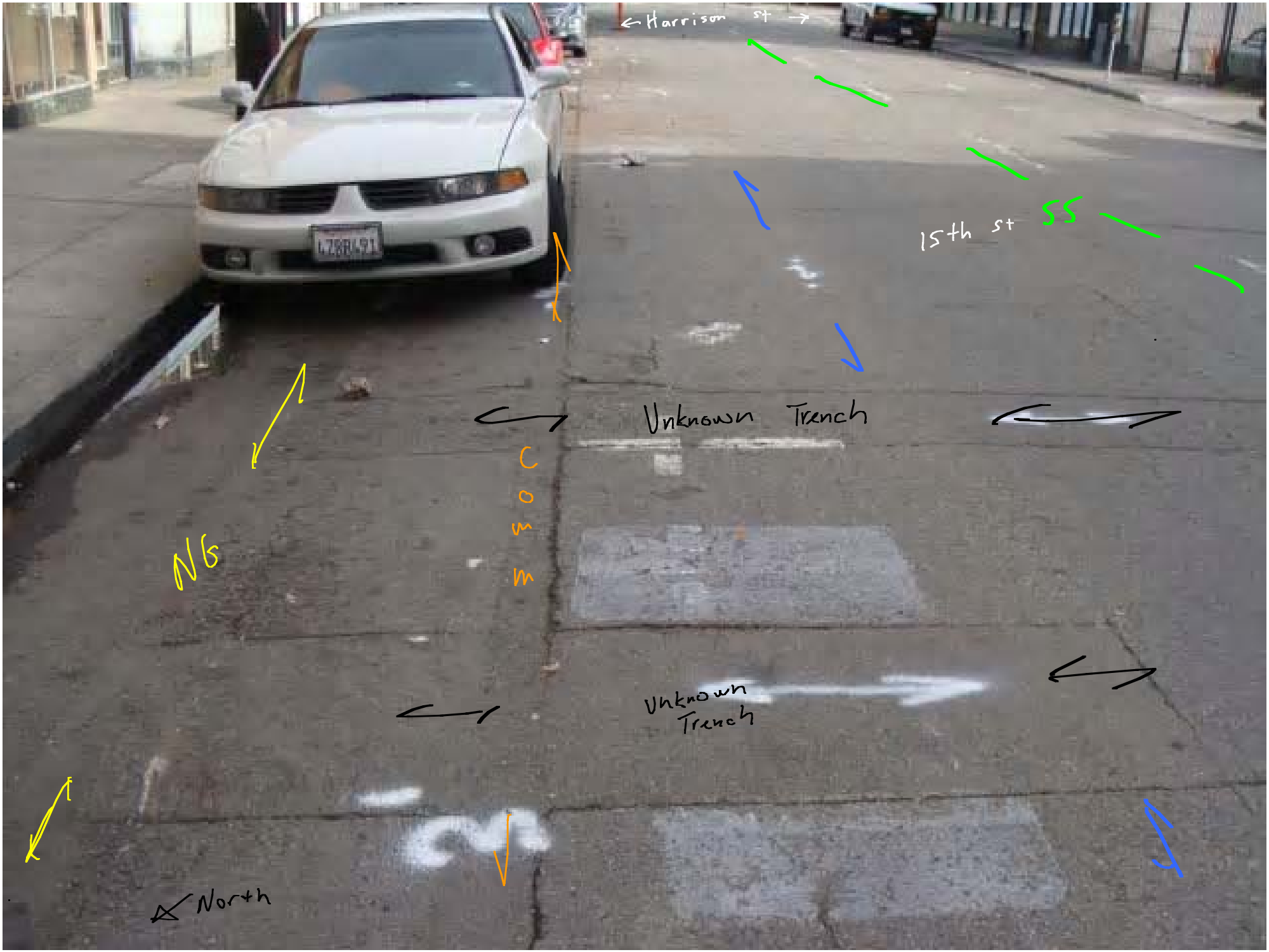
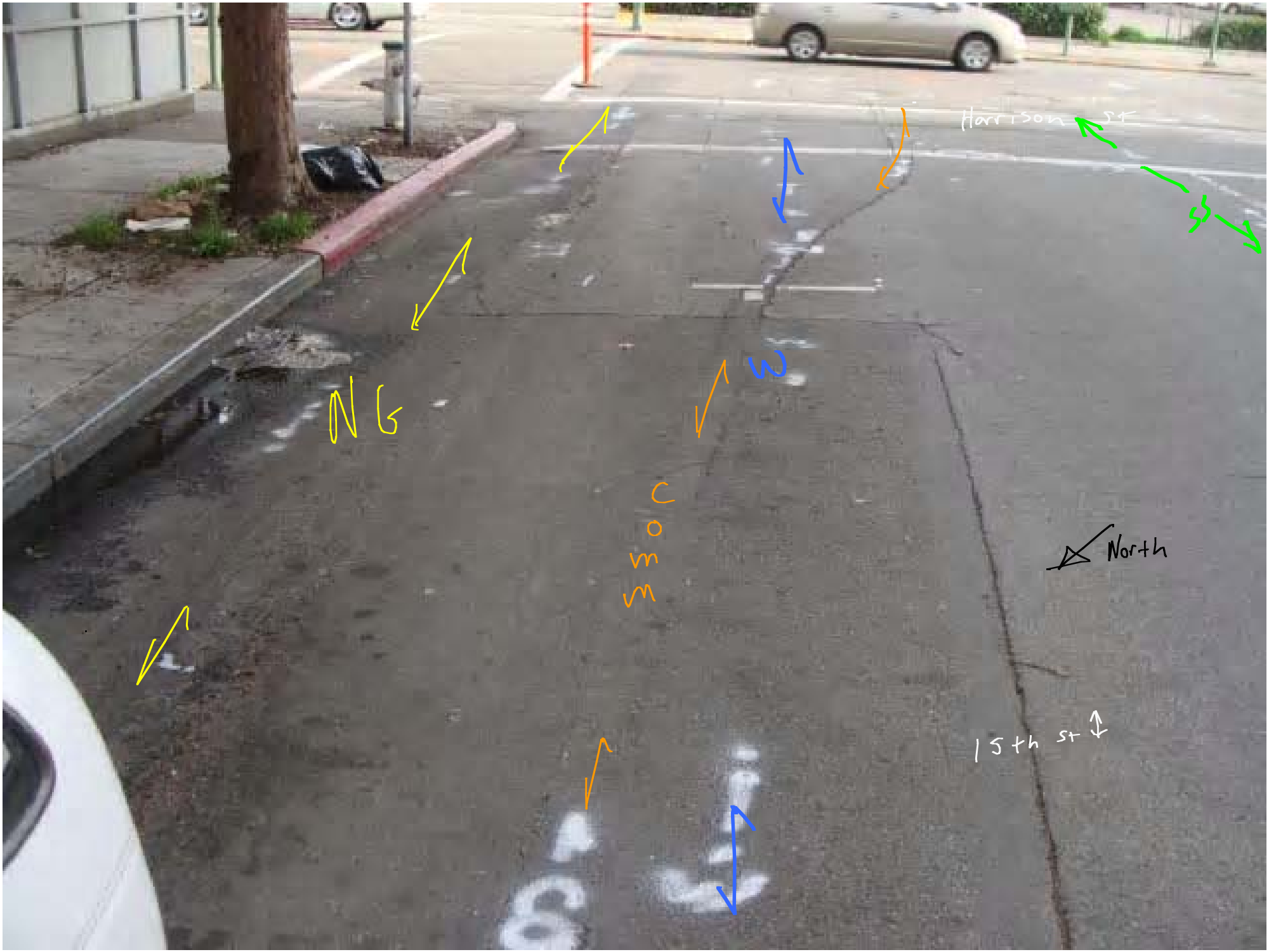
webster st


Harrison St
15th st
NB
Webster St
North


Harrison st
15th st
Unknown Trench
NG
North


Harrison st
15th st
55
Unknown Trench
Comm
NG
Unknown Trench
North


Harrison St
15th St
NG
Commo
North


Harrison St
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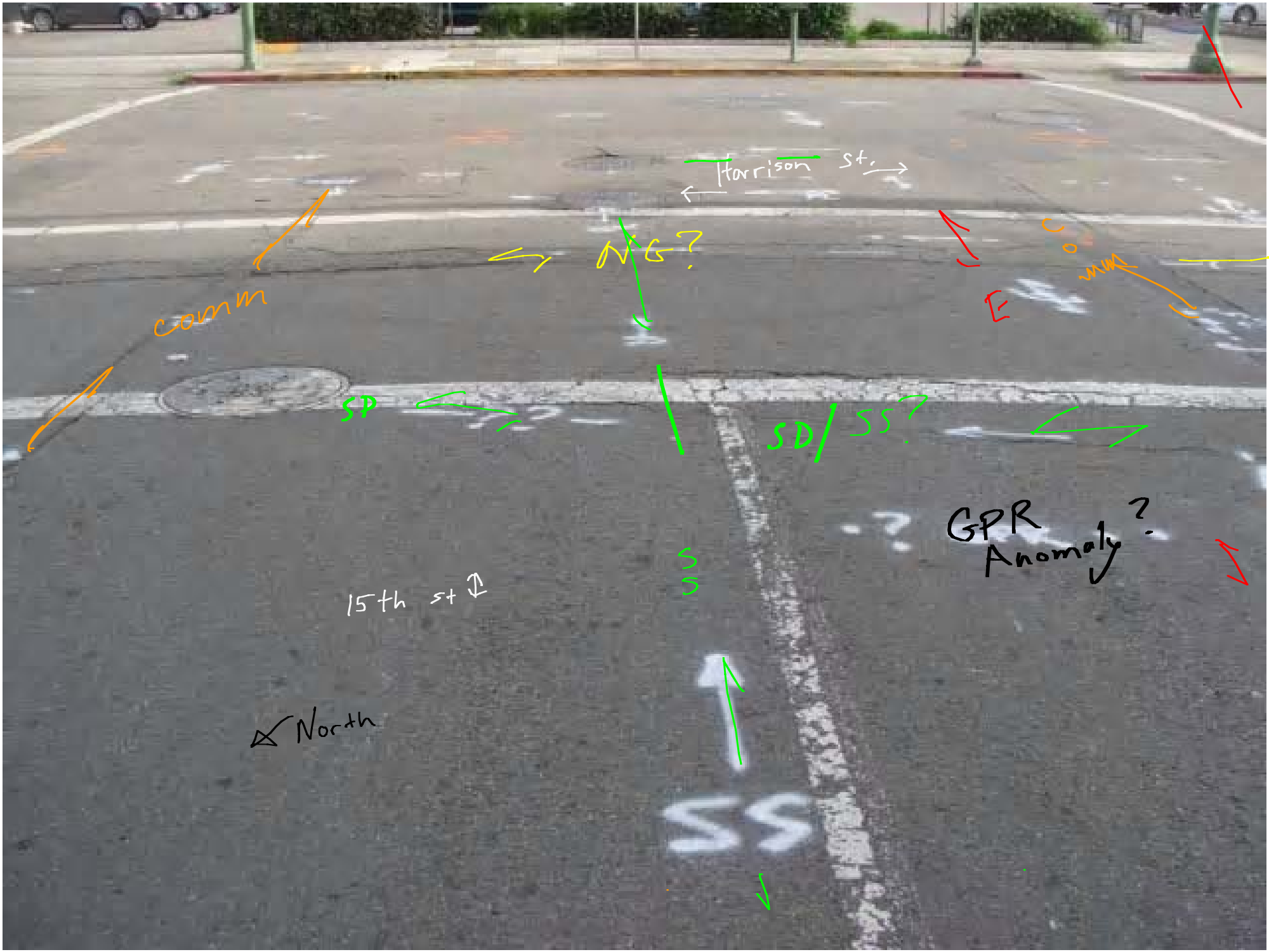
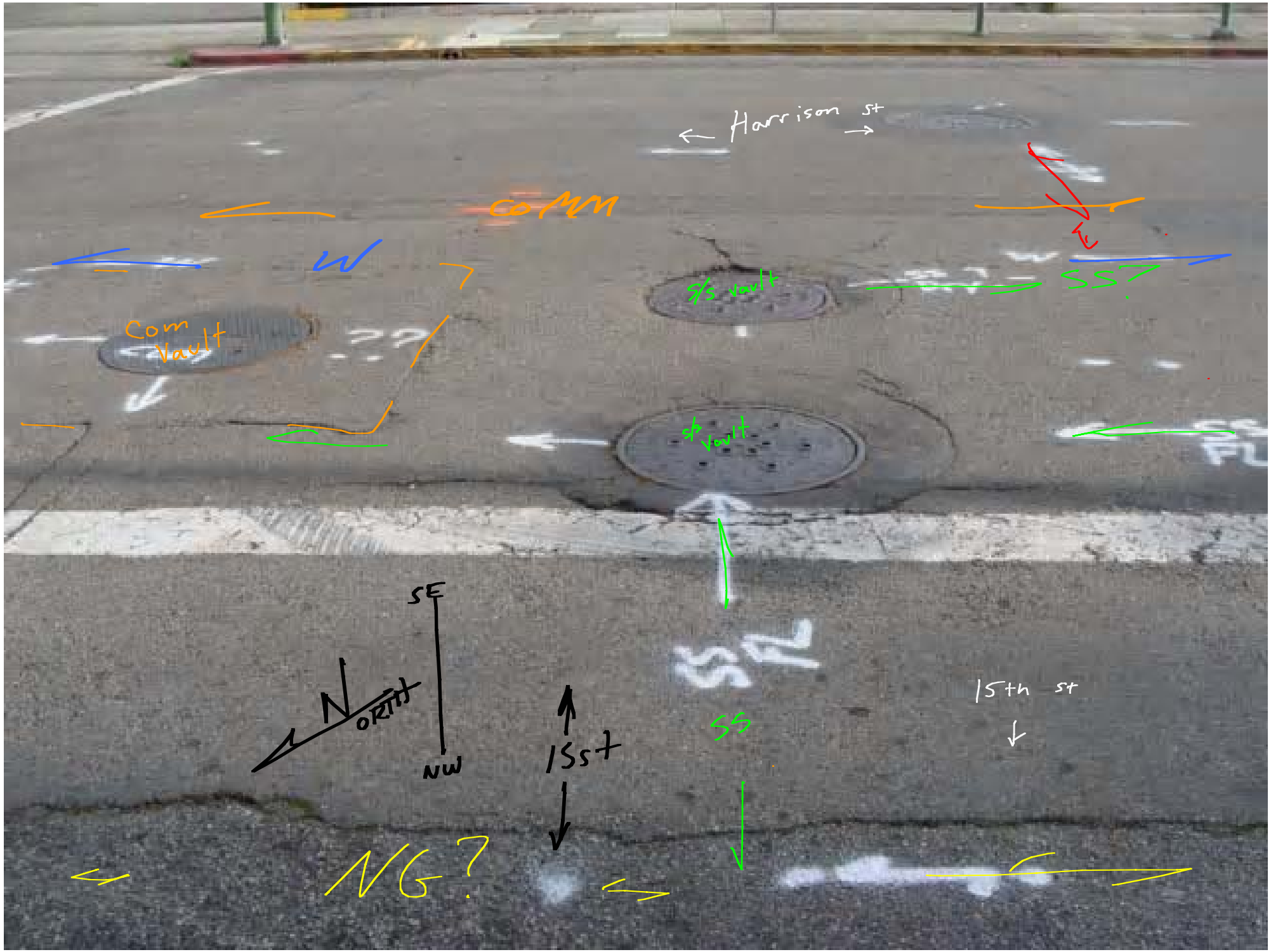
Como
North
15th St


Harrison st
NG
15th st
North


Harrison St.
NG?
comm
SP
SD/SS?
GPR Anomaly?
SS
15th st
North
SS


Harrison st
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Com Vault
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NORTH
NW
15st
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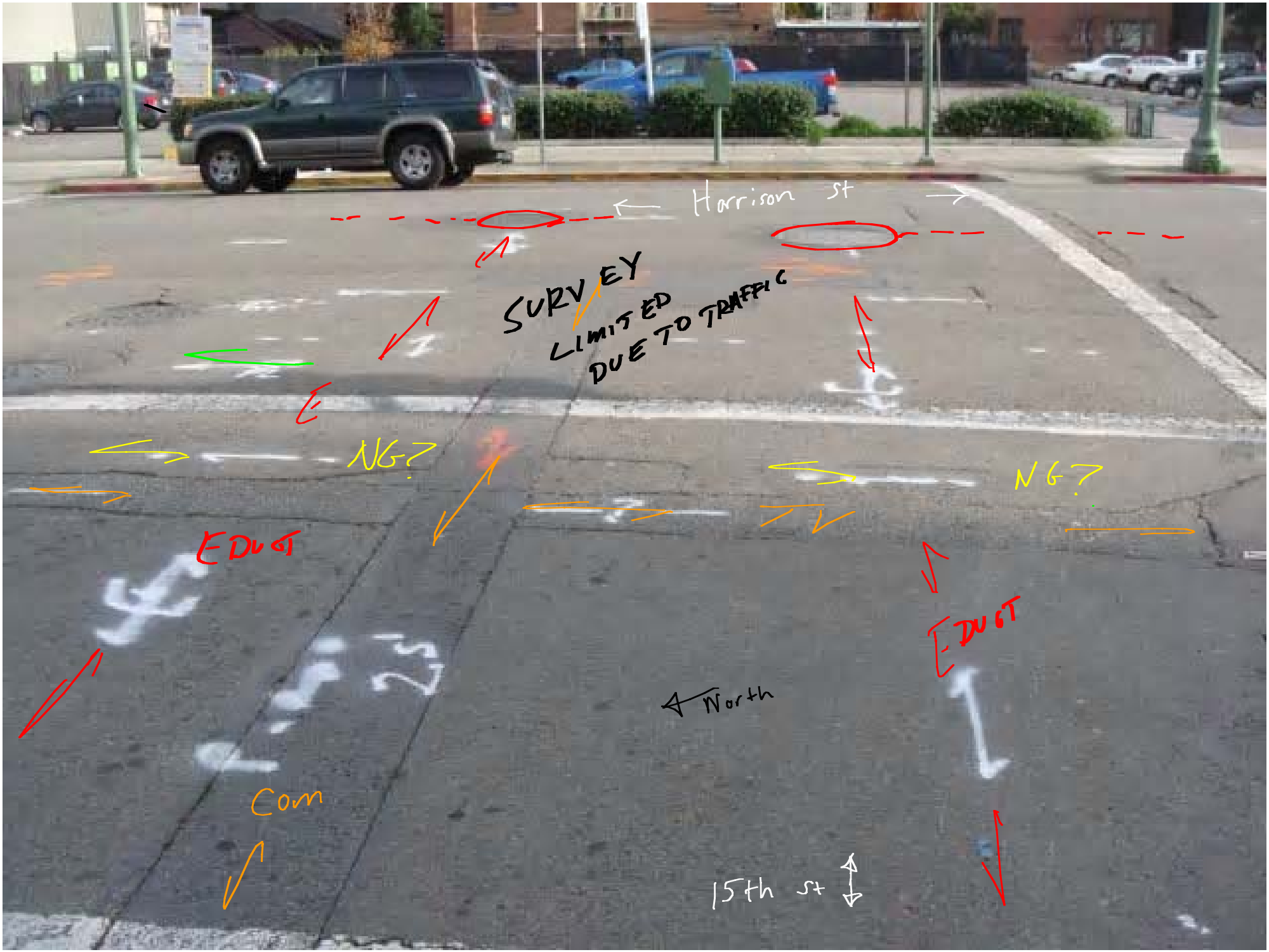
Harrison st
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LIMITED
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E
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Com
15th st

PROPOSED ZONE 1 OF 2 ON WEST SIDE OF HARRISON ST –

NOTE

*******Zone is the northern zone of two proposed areas on this side of the street and is immediately south of the 15th St and Harrison St intersection*******

*******Harrison St travels in a approx North- South (NE-SW) direction*********

THESE ZONES ARE EXTREMELY CONGESTED

ZONE TO NORTH END (WEST SIDE HARRISON)

Caution of Natural Gas Lines in zone – two laterals are reported and observed as trending Orthogonal or EAST-WEST (NW-NE) from main on east side of Harrison St. to a service vault of the curb with a Gas Meter within it. From this point the Natural Gas lines are observed to trend north –south from vault within the western parking lane on Harrison St. Natural Gas is inferred to trending west or southwest from this Vault location into the basement.

Caution of Cable TV lines observed as trending North- South (NE-SE) parallel with the western curb in the western parking lane on Harrison St AND next to a potential gas pipe Referenced above.

Caution of Water Main observed as trending North – South (NE-SW) through zone; Water main appears trend in this direction at a point approximately at the edge of the western parking lane and westernmost southbound traffic lane.

Caution of Communication duct trending North – south (NE-SW) through east side of zone at a location within the western most southbound lane of traffic near the dividing line for the two southbound lanes – visible trench on surface and partially marked by one call. CAUTION AS NON DETECTED FIBER OPTICS MAY BE NEARBY.

Caution of Sewer/Storm lines visual observed as trending through the zone somewhere within the PARKING AND Southbound lanes – exact location was not determined. Visual observations of the manholes at the 14 th and 15th St Intersection suggest that there may be two sewer mains with one potentially abandoned trending through this zone area. The in use North-South trending Main may be at a skewed angle within the zone based on visual sewer Trend alignment.

Caution of Multiple GPR Anomalies -- Immediately outside of zone on the southern end there was observed to be soil disturbances indicating something possibly buried here. Within zone at a location immediately west of a telecommunications vault in the road an anomaly was observed with indications that it trends east from western curb – possibly a pipe of some variety. Multiple Unknown Mass Anomalies were observed grouped in a location east of the Green Mailbox in the western sidewalk – no clear trending direction or distinct patterns. Caution of Unknown GPR Anomaly at a location east of the Green Mailbox in the western ROW near zone – appears to trend east out from curb – potentially a pipe or non-conductive utility – appears to stop near above mentioned group of anomalies in same area.

Caution of Possible Electric service observed as trending west towards curb from center of roadway at a location north of water valve in zone.

PROPOSED ZONE 1 OF 2 ON WEST SIDE OF HARRISON ST –

continuation

Caution of unknown utility trench path in northern part of zone – appears to trend west from the eastern side of road until reaching the curb.

Caution of multiple Electric Ducts observed as trending North – south (NE-SW) in the Inner southbound lane and middle of Harrison St – these were observed as being parallel with the curb and remain east of the eastern edge of the zone and east of communication lines marked here.

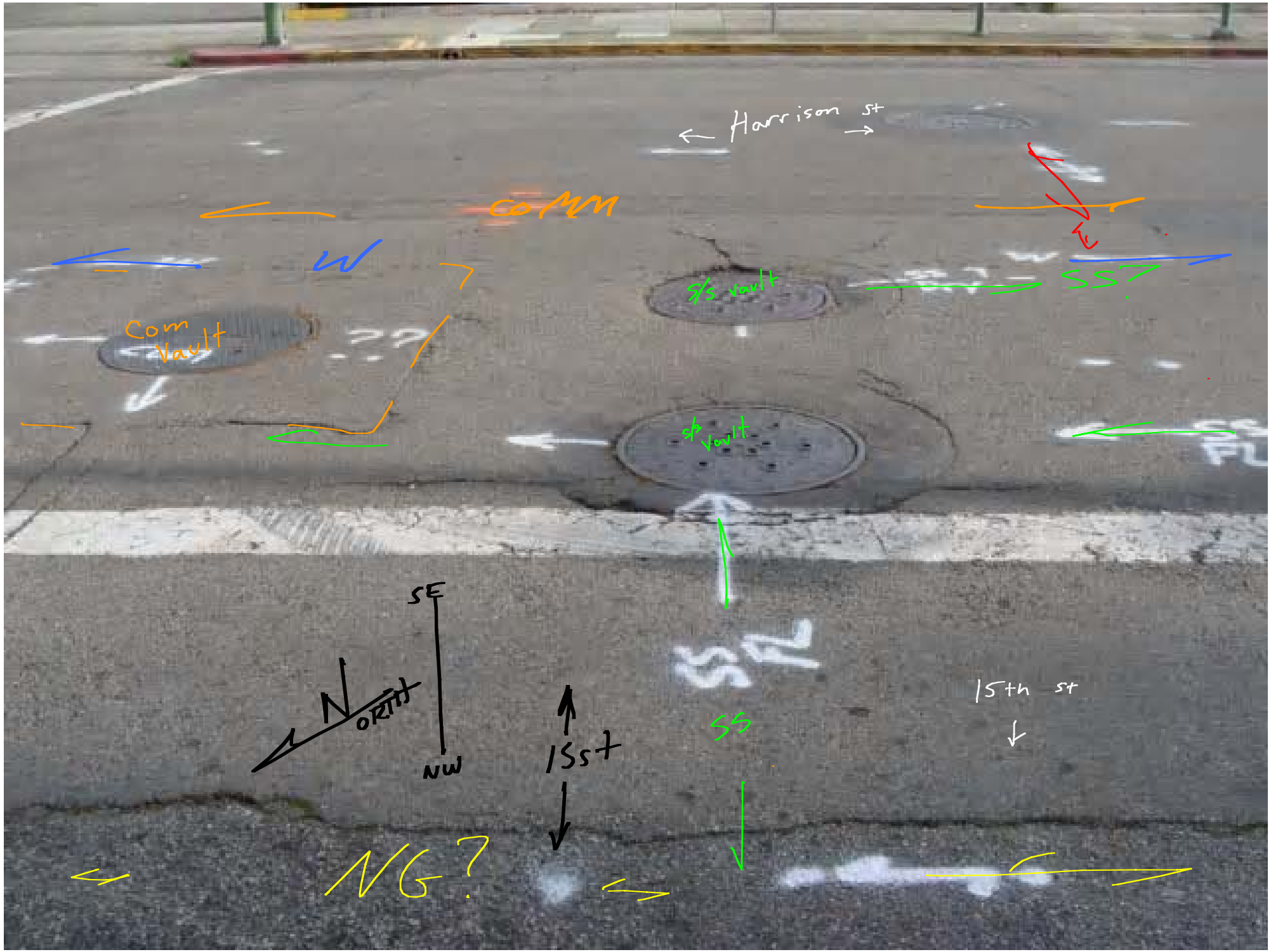
PROPOSED ZONE 2 OF 2 ON WEST SIDE OF HARRISON ST

Note*******This zone is immediately south of the above zone roughly midway between 15th St and 14th St on the western side of Harrison St.**

**********Harrison St. Travels in a North – South (NE-SW) direction**********

This zone was found to be much of a continuation of the first zone to the north as is the remaining Western side section of Harrison st south of these two zones approaching 14th St..

SEE PHOTOS TO FOLLOW BELOW


Harrison st
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S/S vault
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SS
15th st
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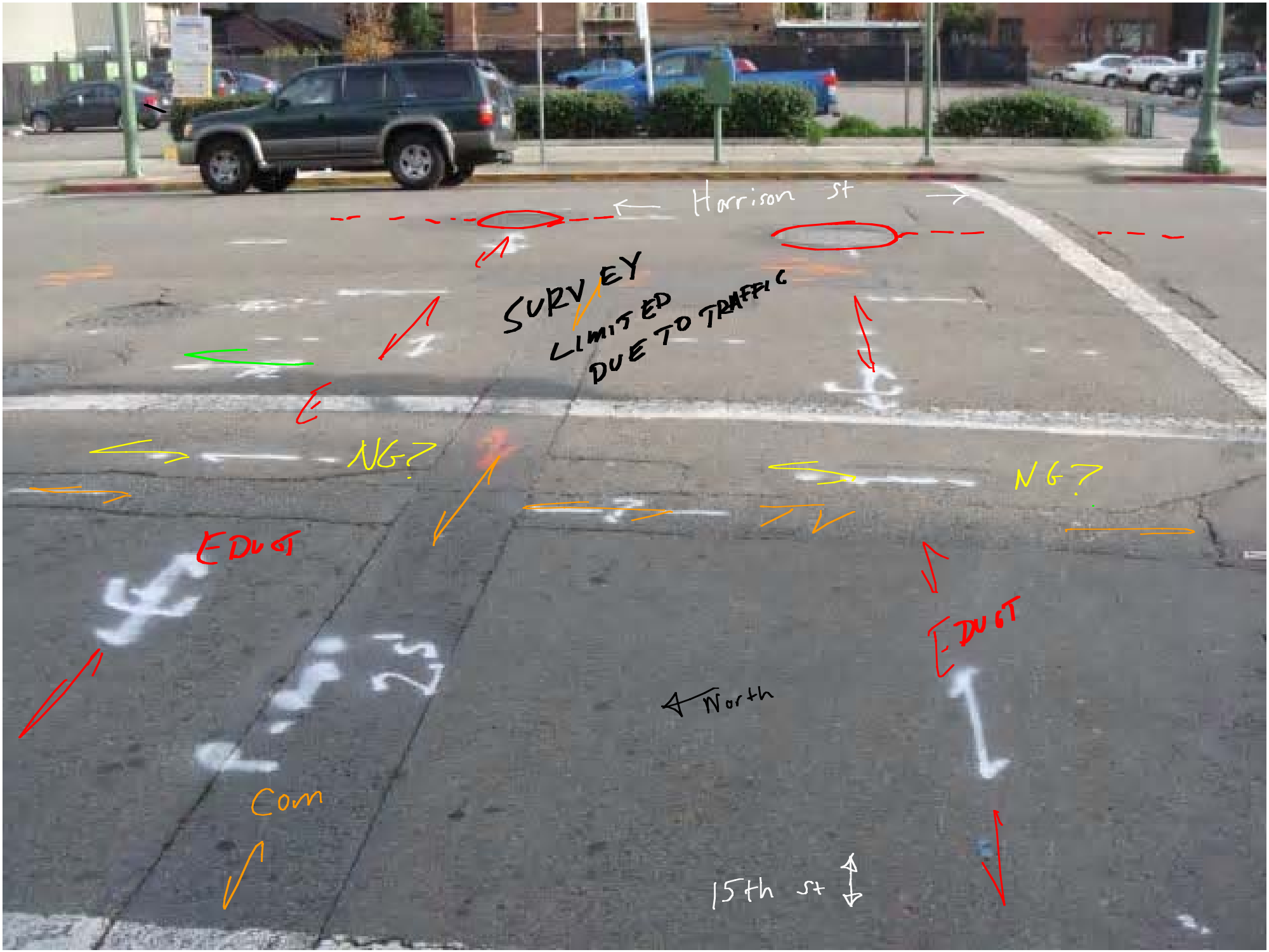
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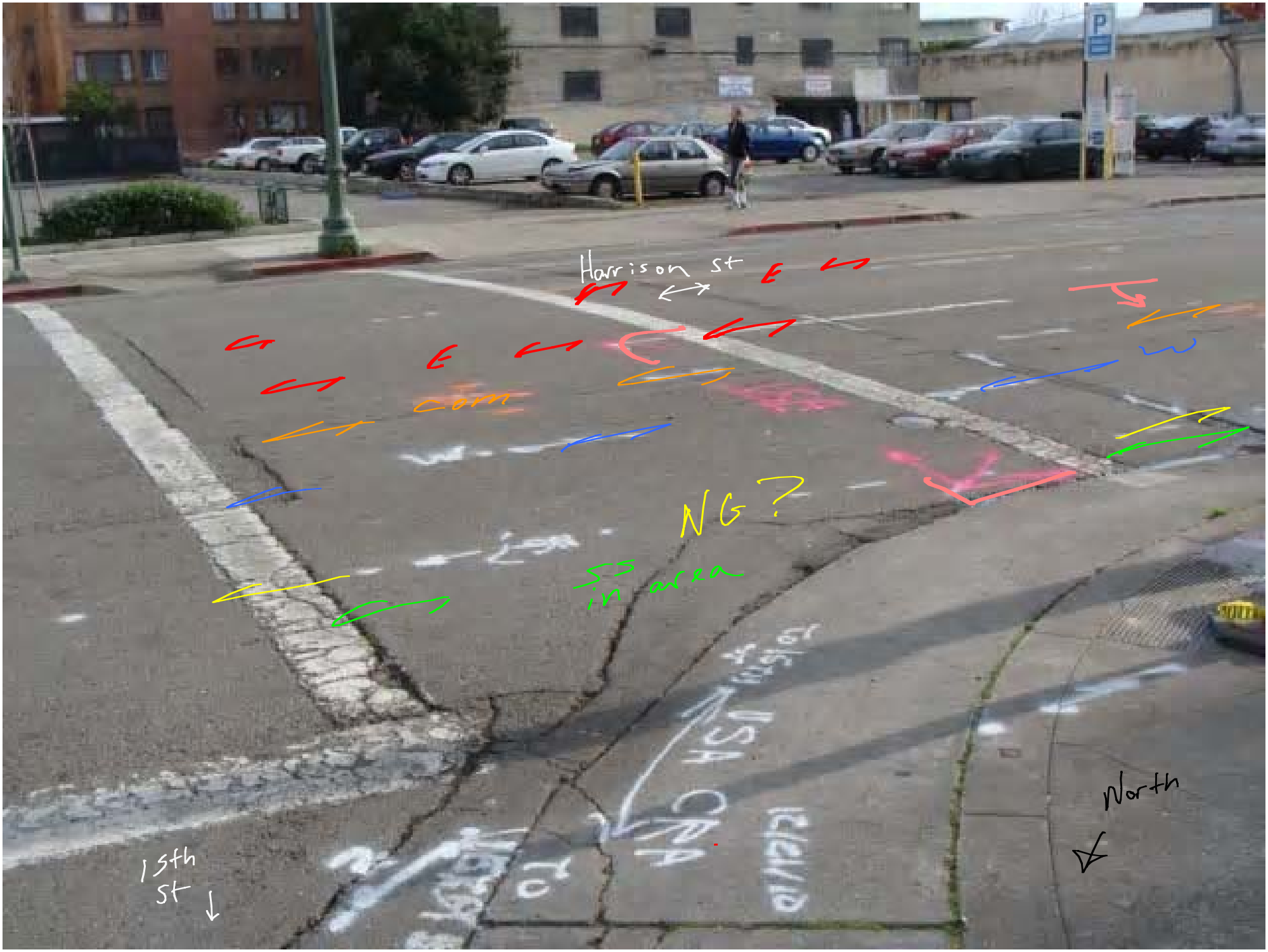
15th st


Harrison st
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15th St
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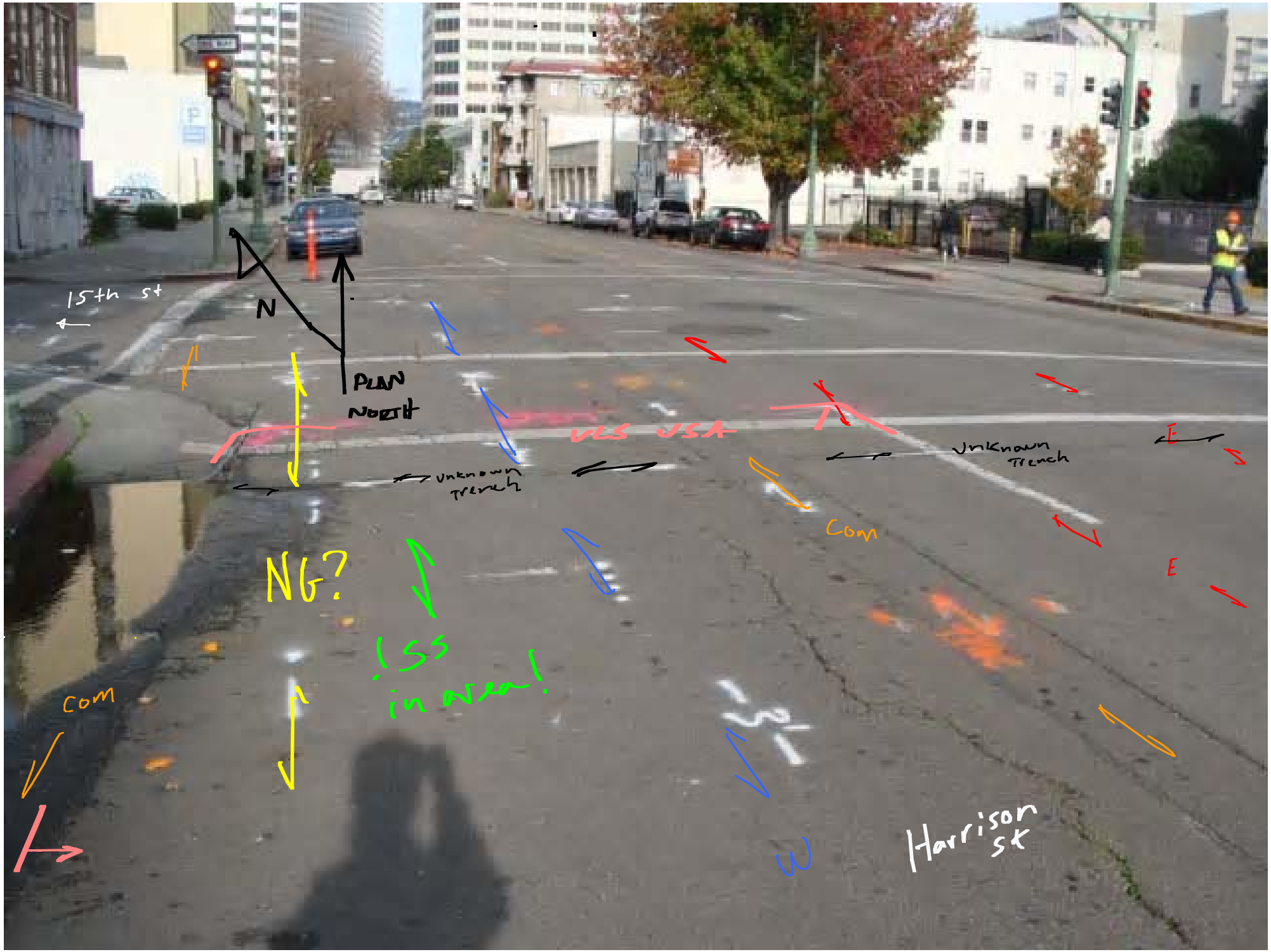
15th st
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PLAN NORTH
VLS USA
Unknown Trench
Unknown Trench
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ISS in area!
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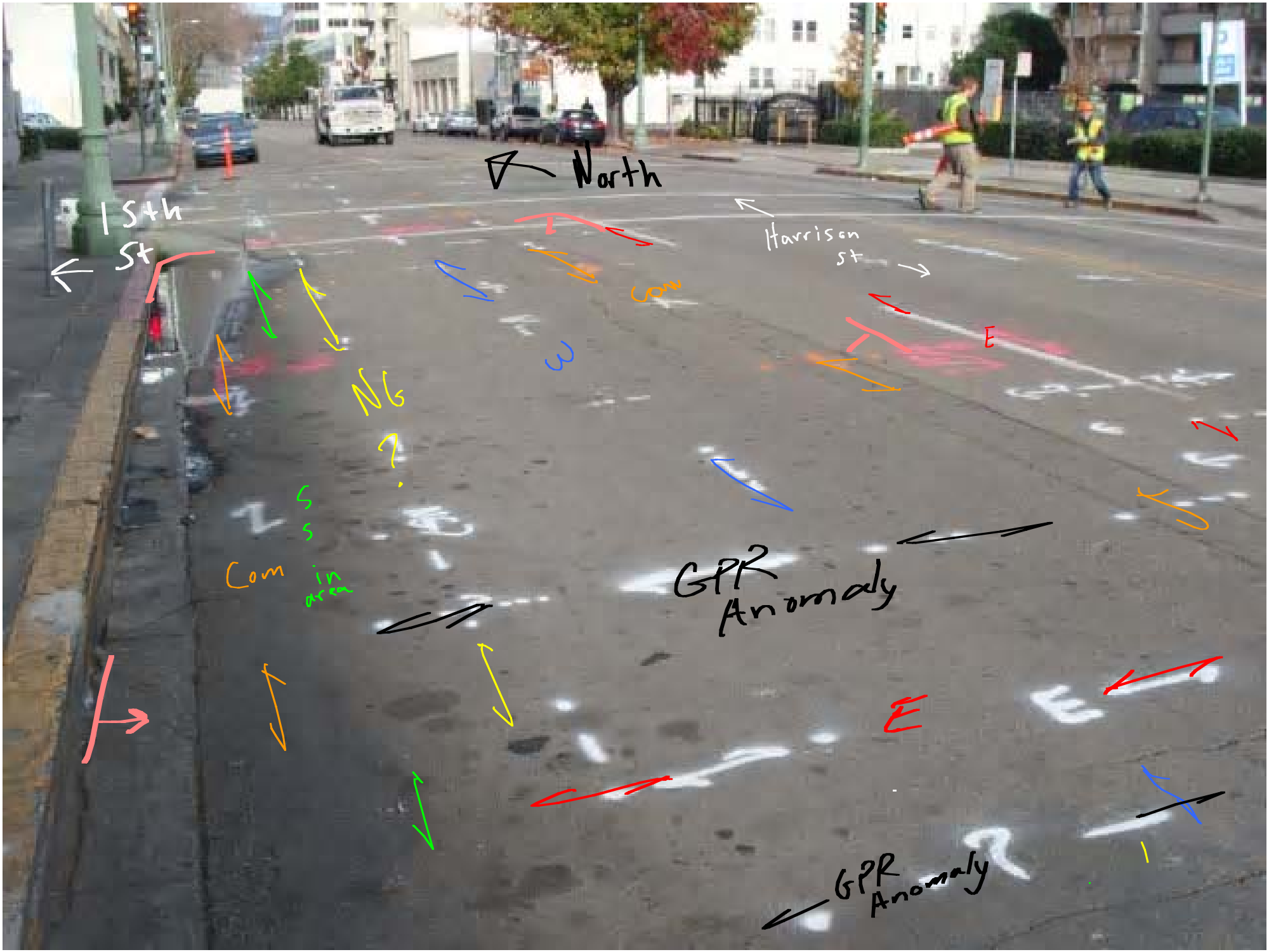
Harrison St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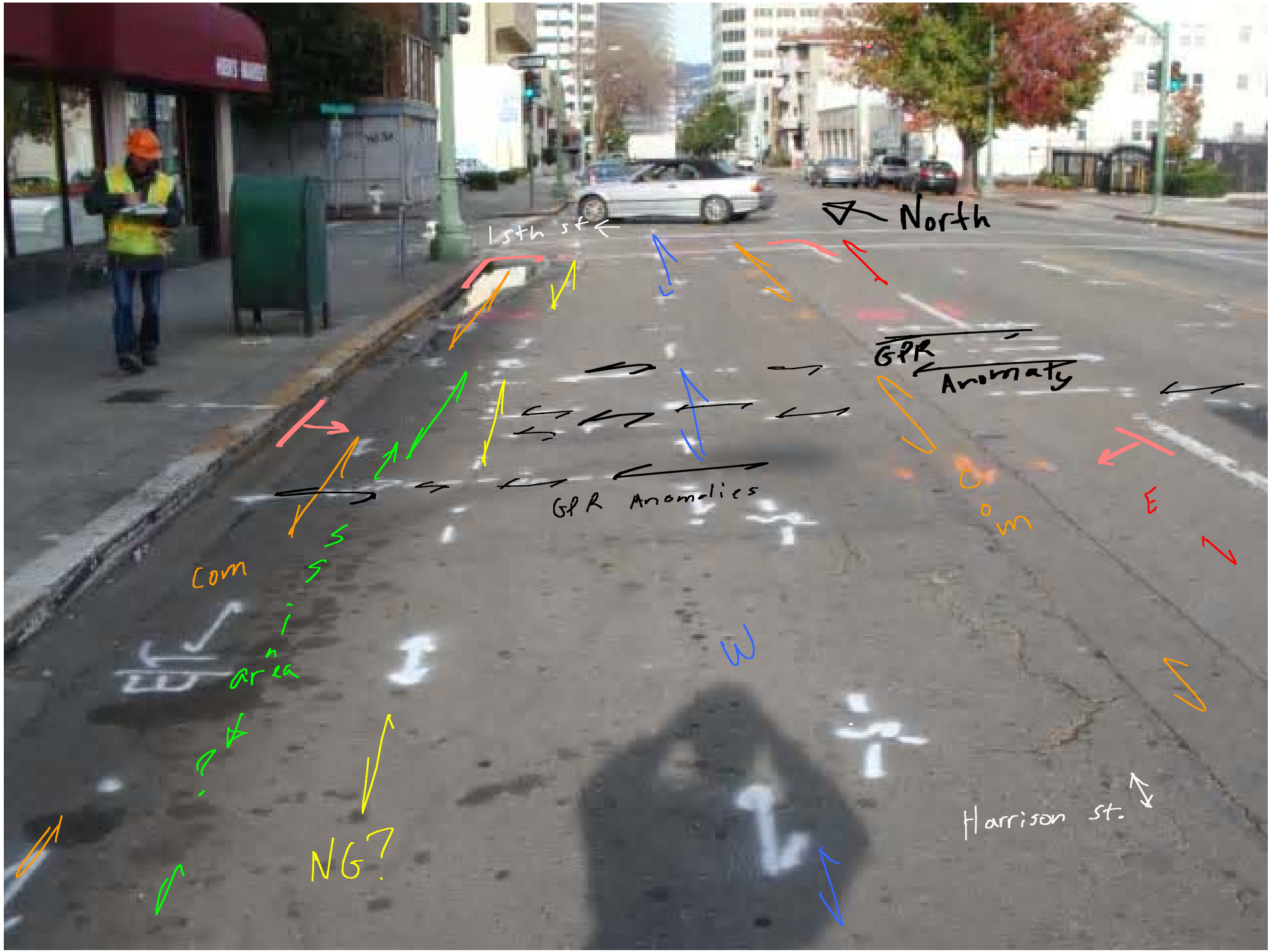
GPR Anomaly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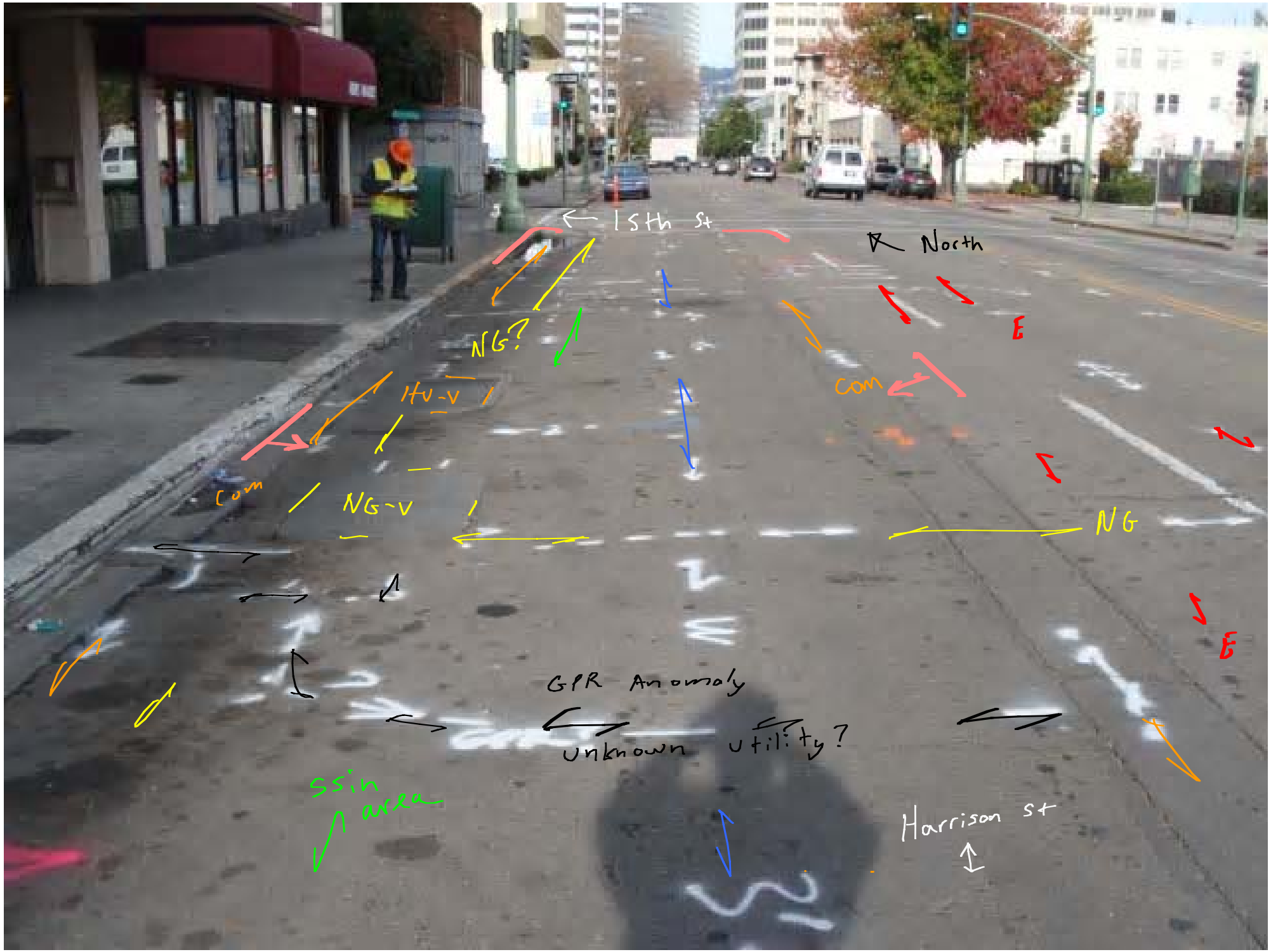
15th St
North
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GPR Anomaly
Unknown utility?
SS in area
Harrison St


15th St
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GPR Anomalies
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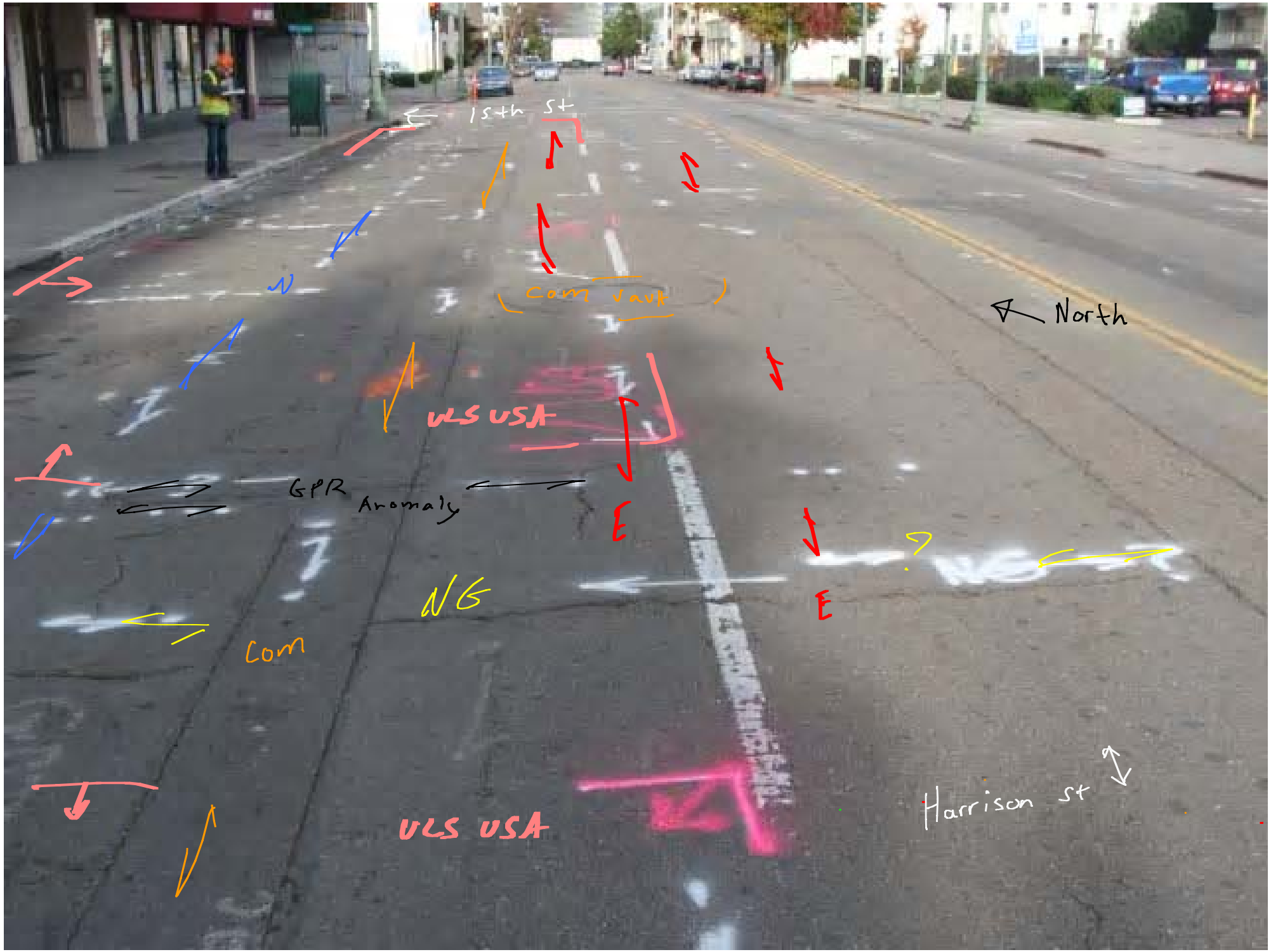
15th St
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ULS USA
GPR Anomaly
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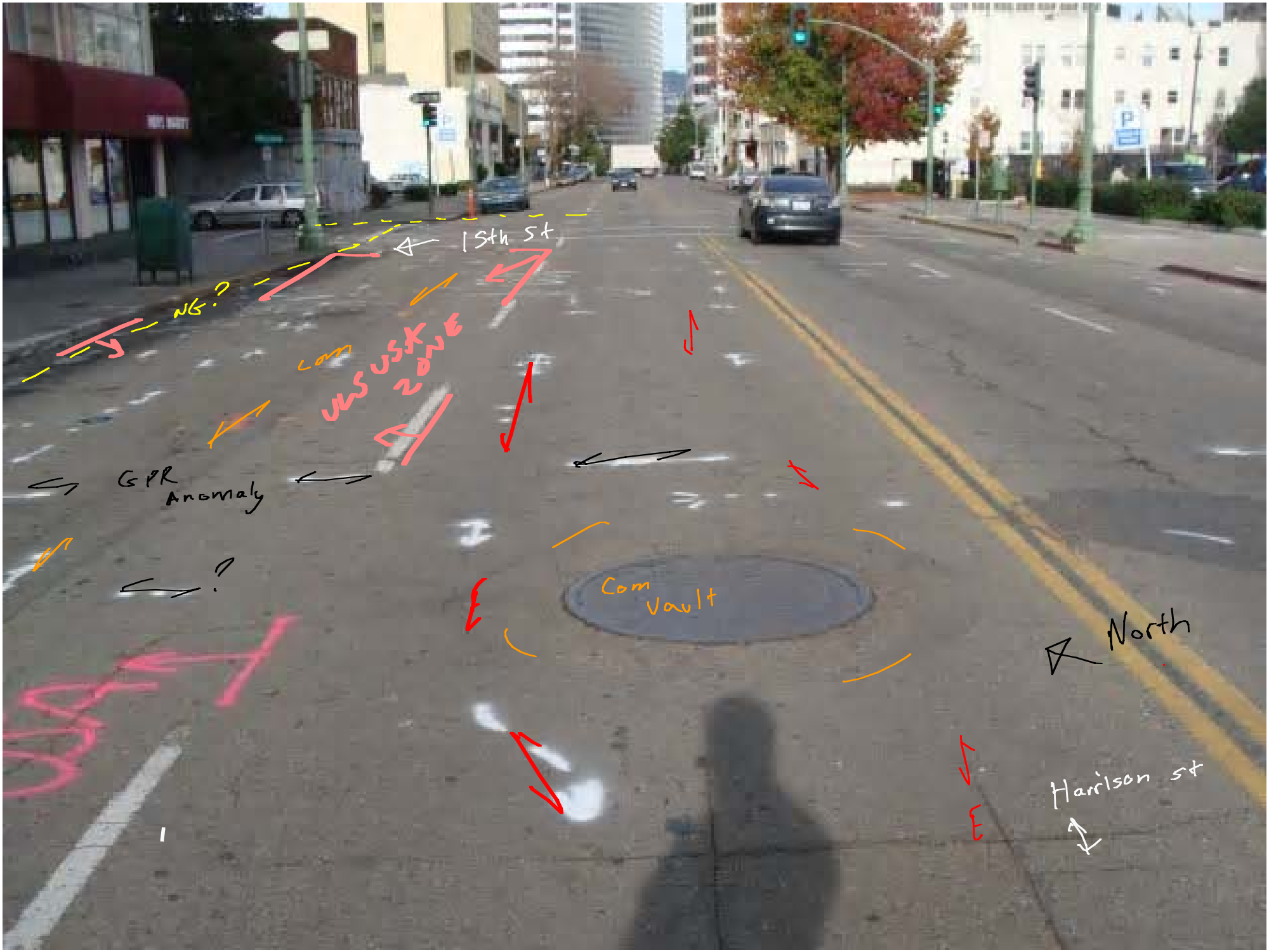
com
ULS USA
Harrison st


15th St
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GPR Anomaly
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14th st
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Harrison st
ss in area
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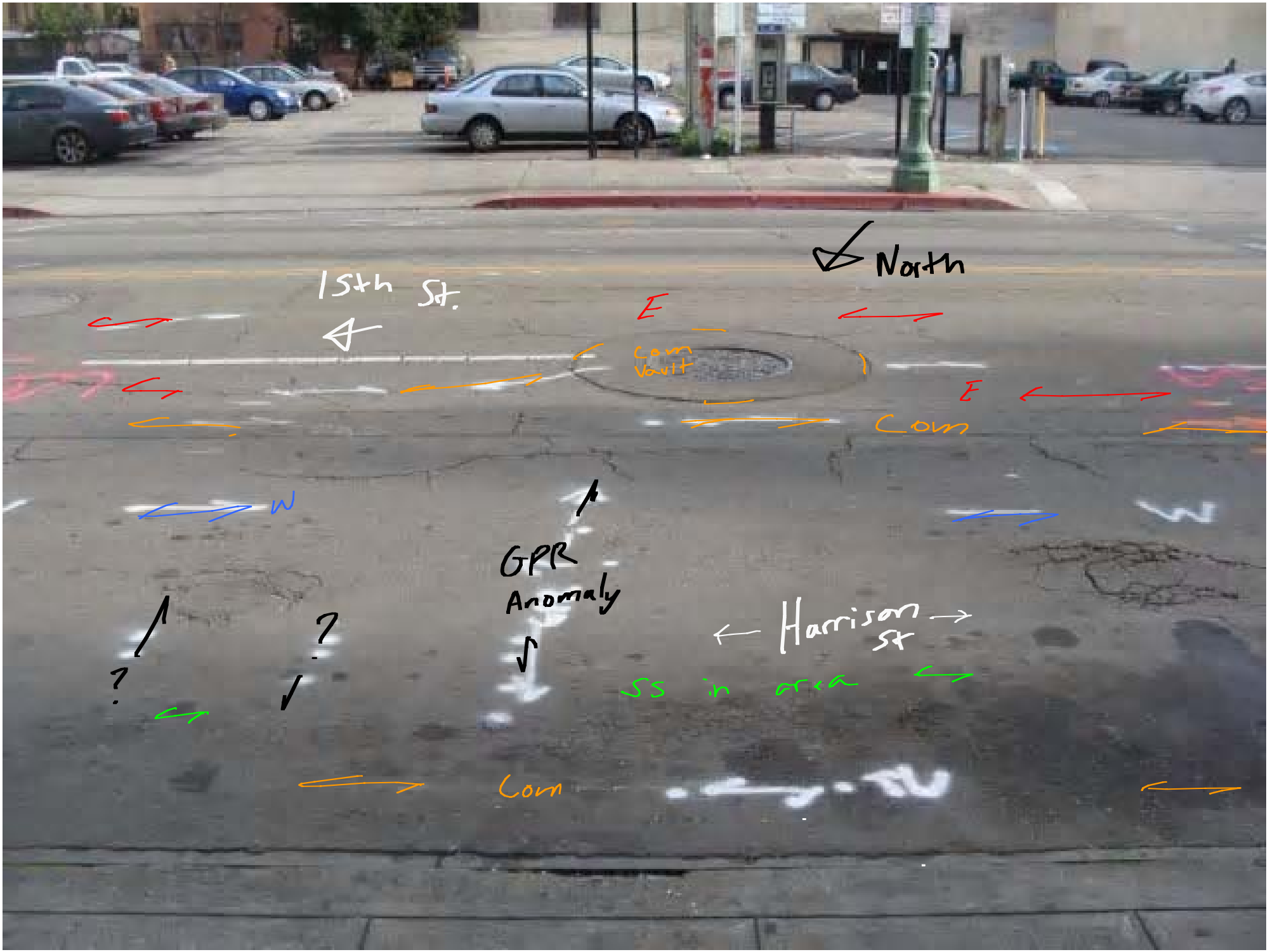
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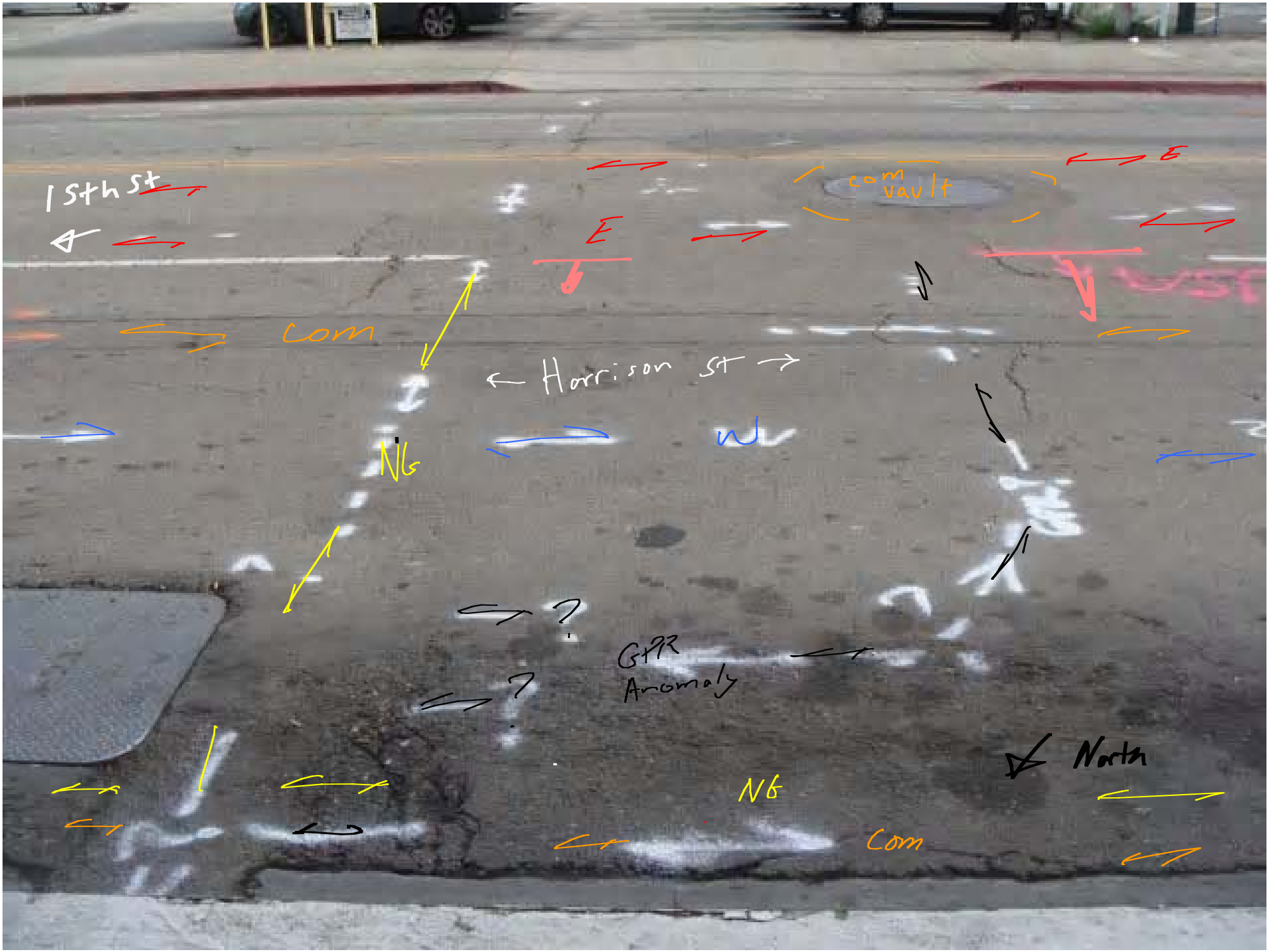
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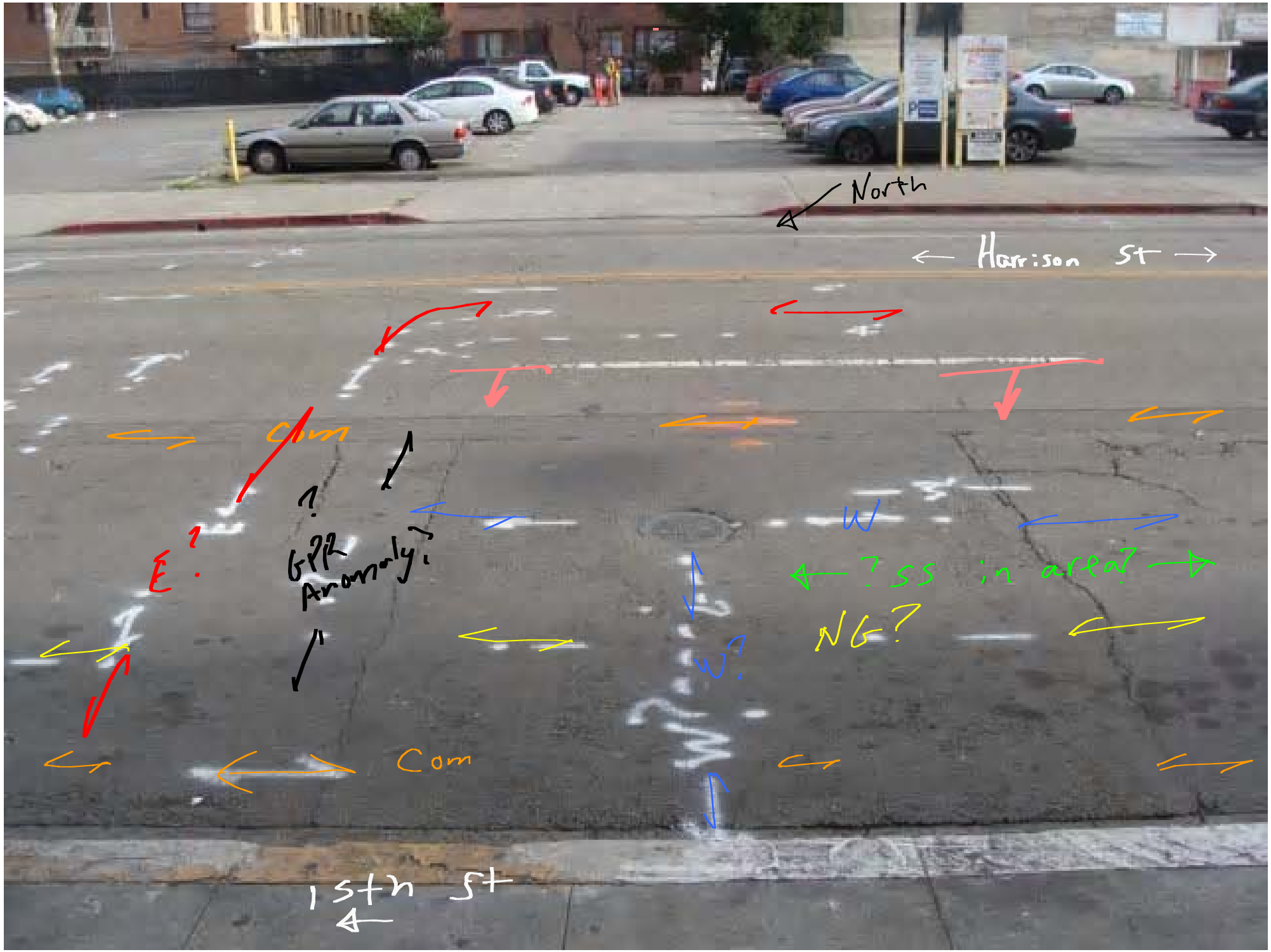
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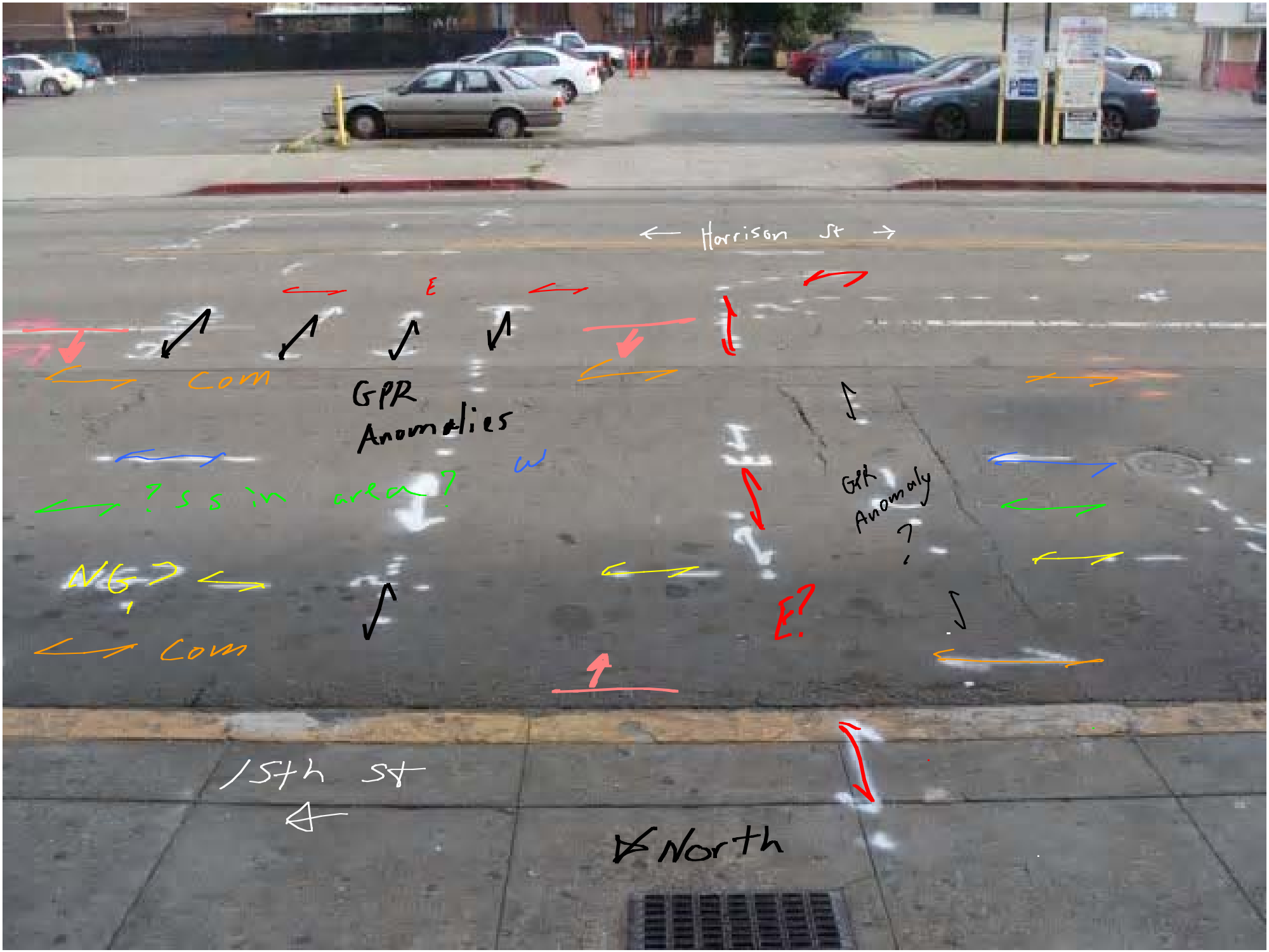
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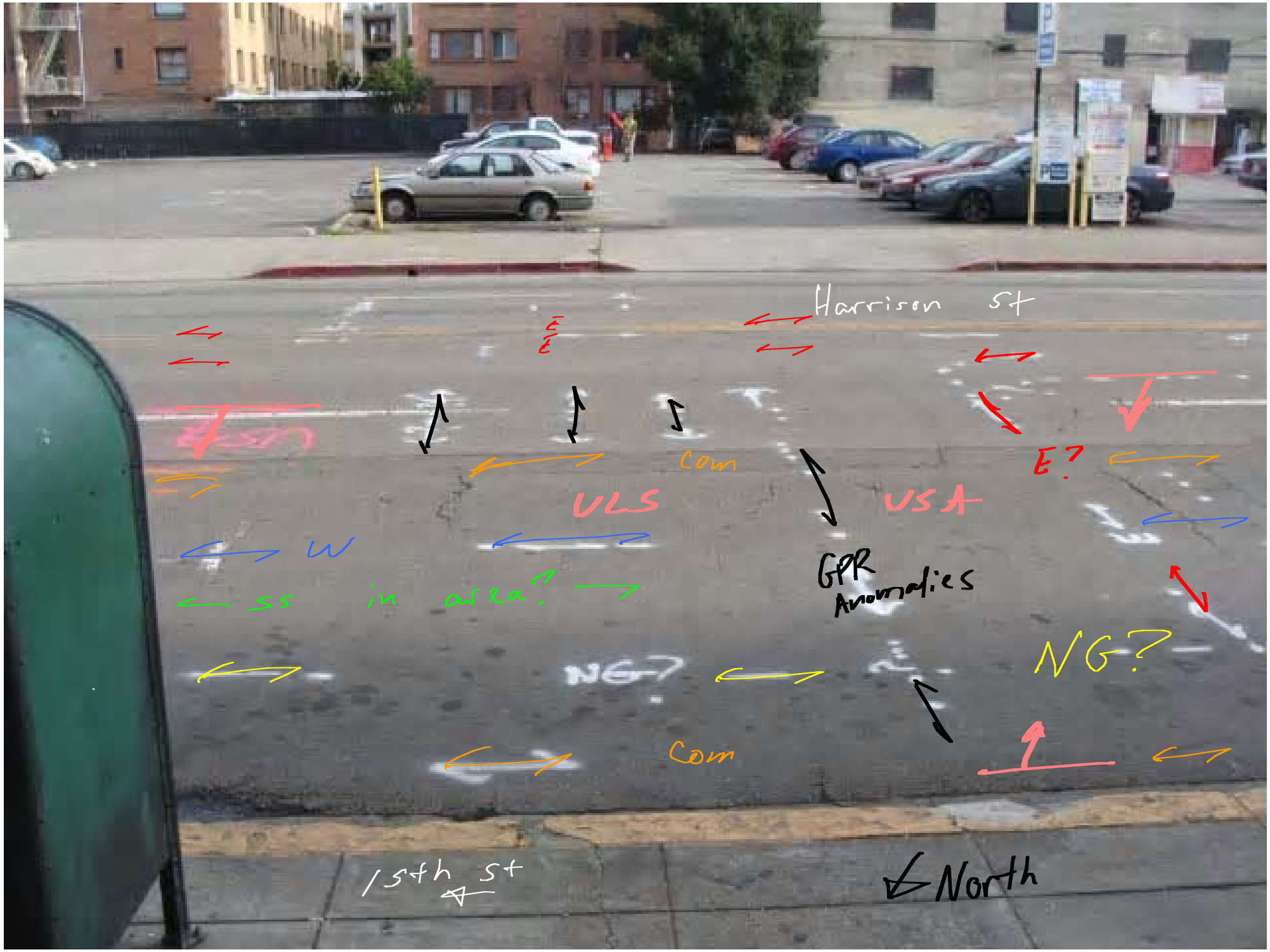
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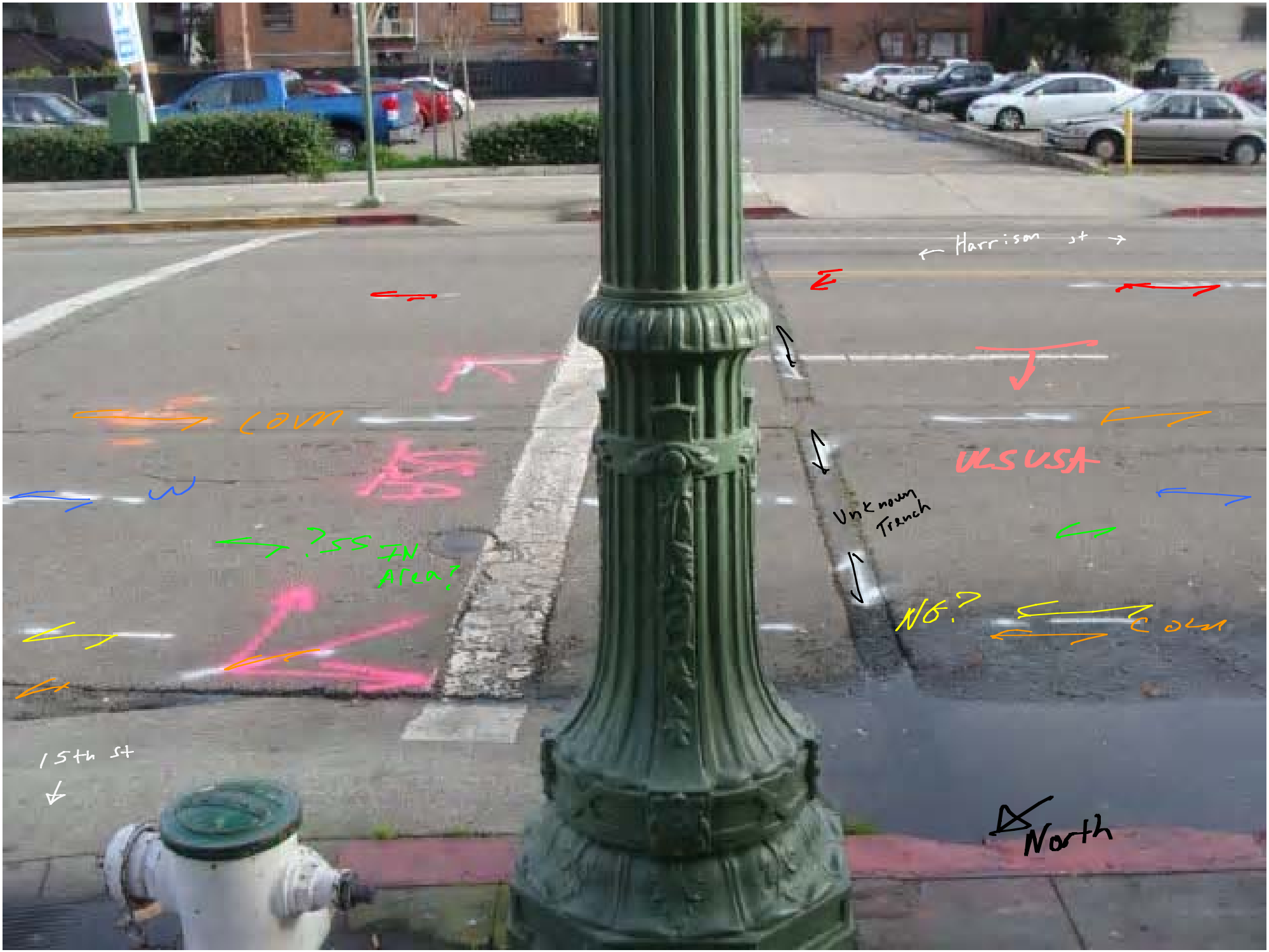
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15th st
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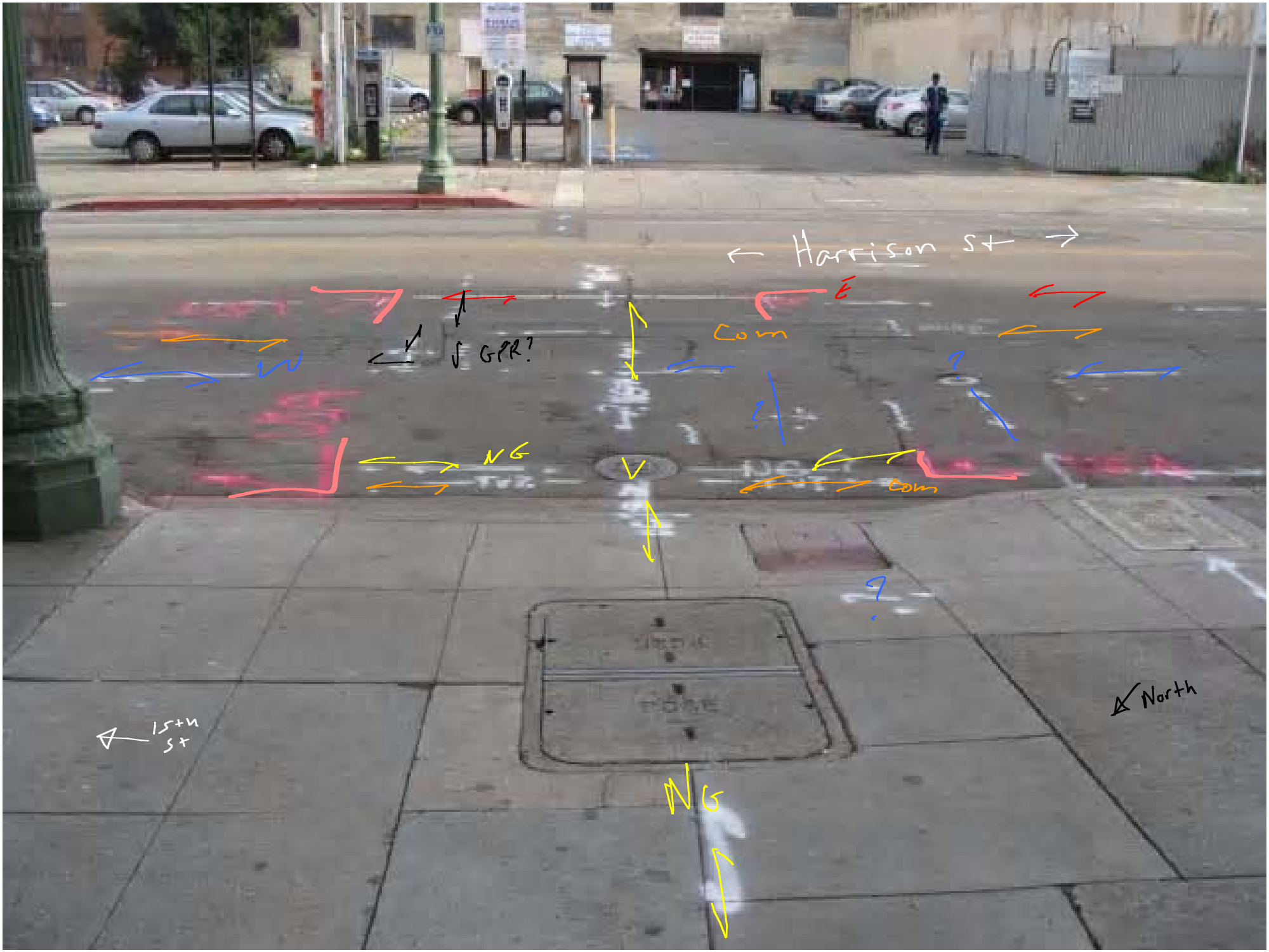
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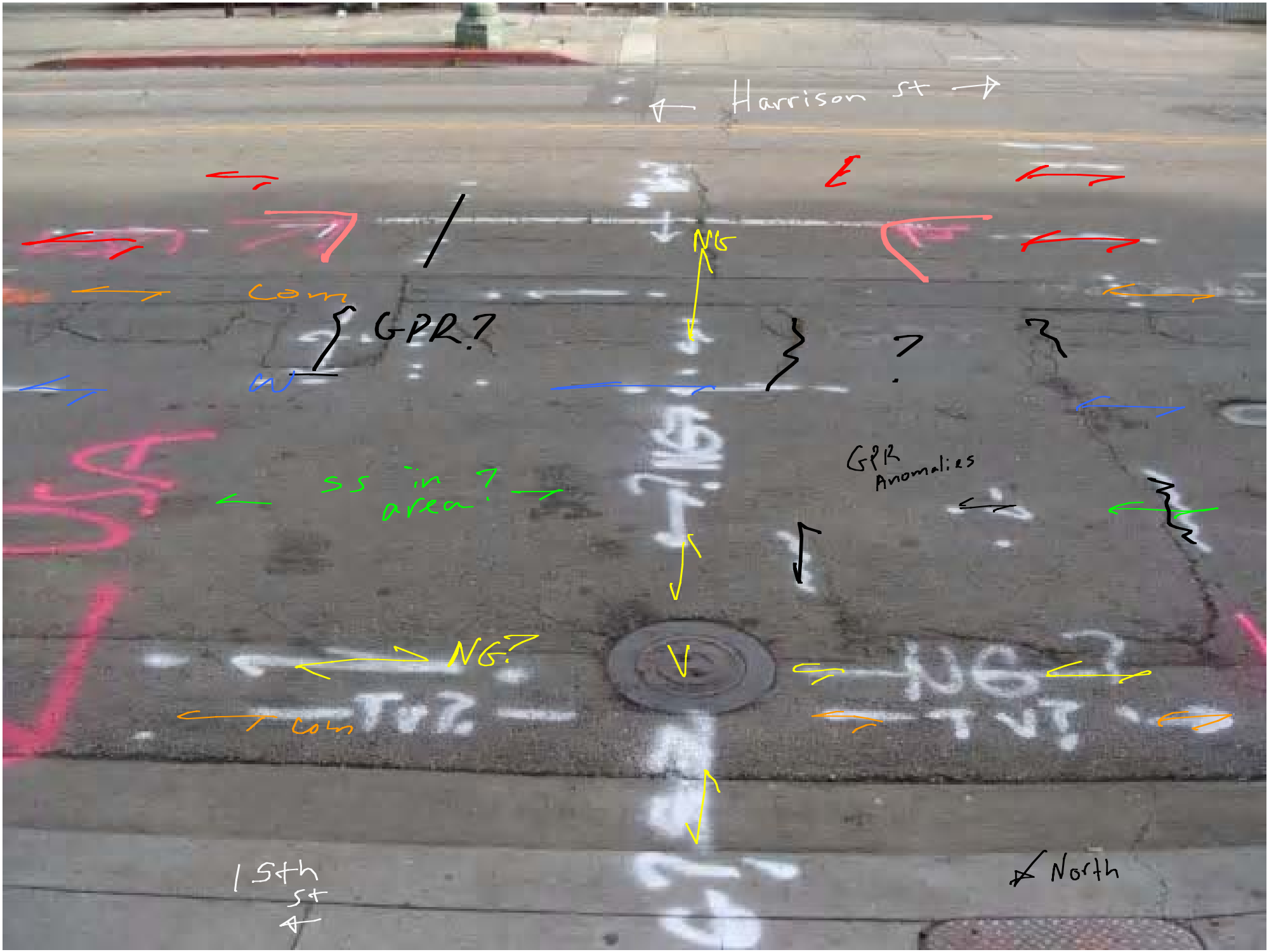
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GPR Anomalies
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15th st
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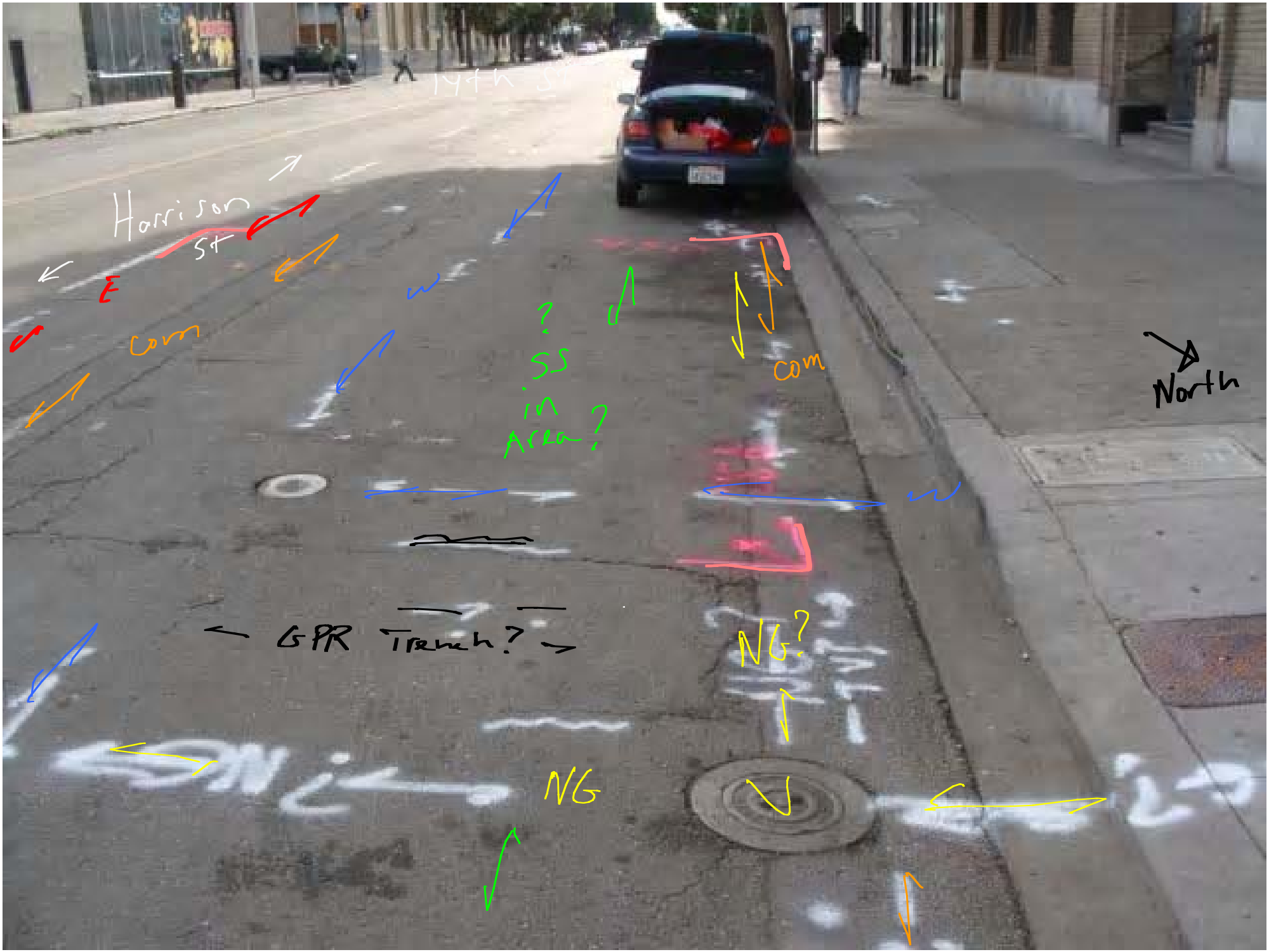
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GPR Trench?
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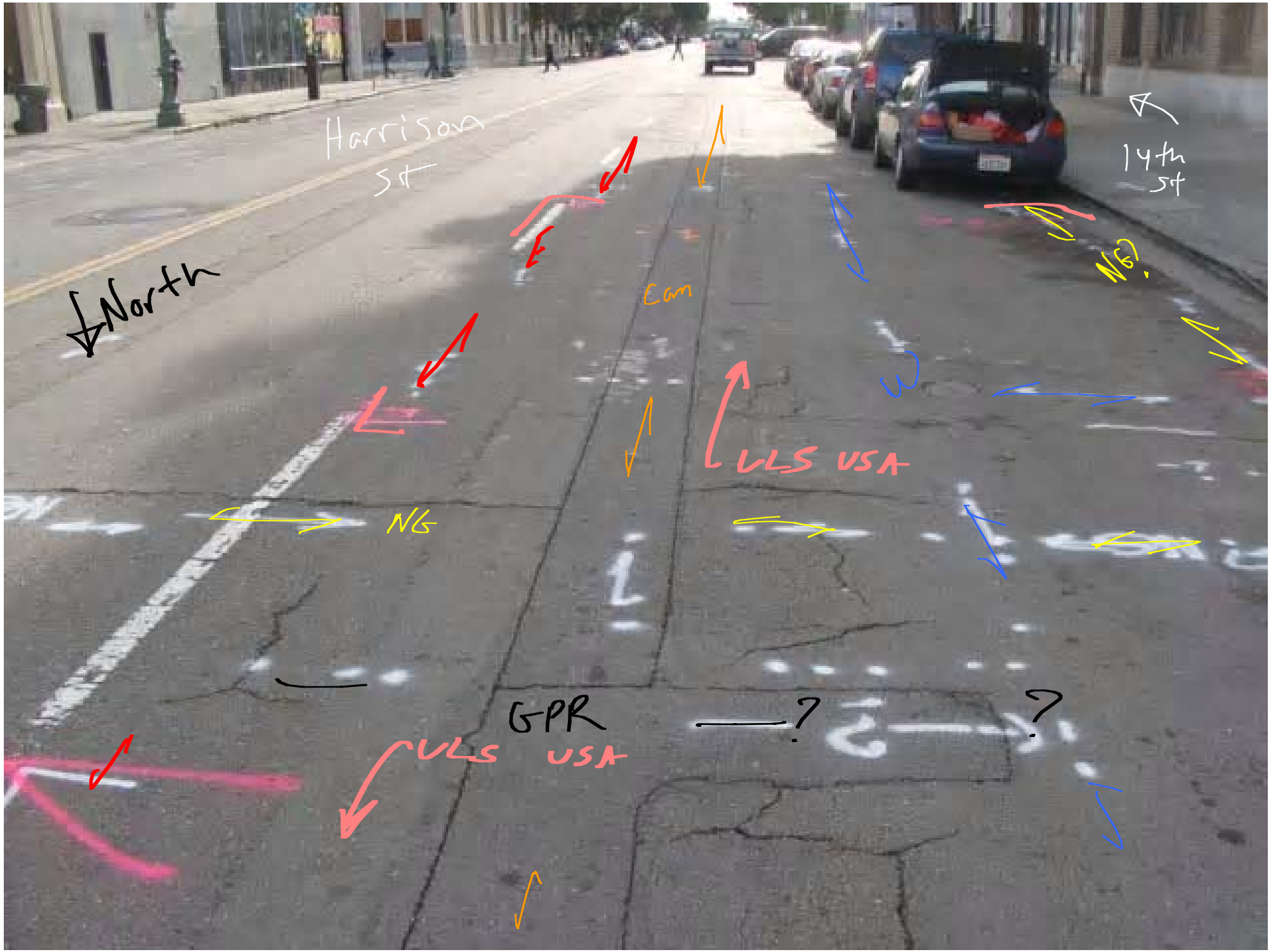
Harrison St
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GPR
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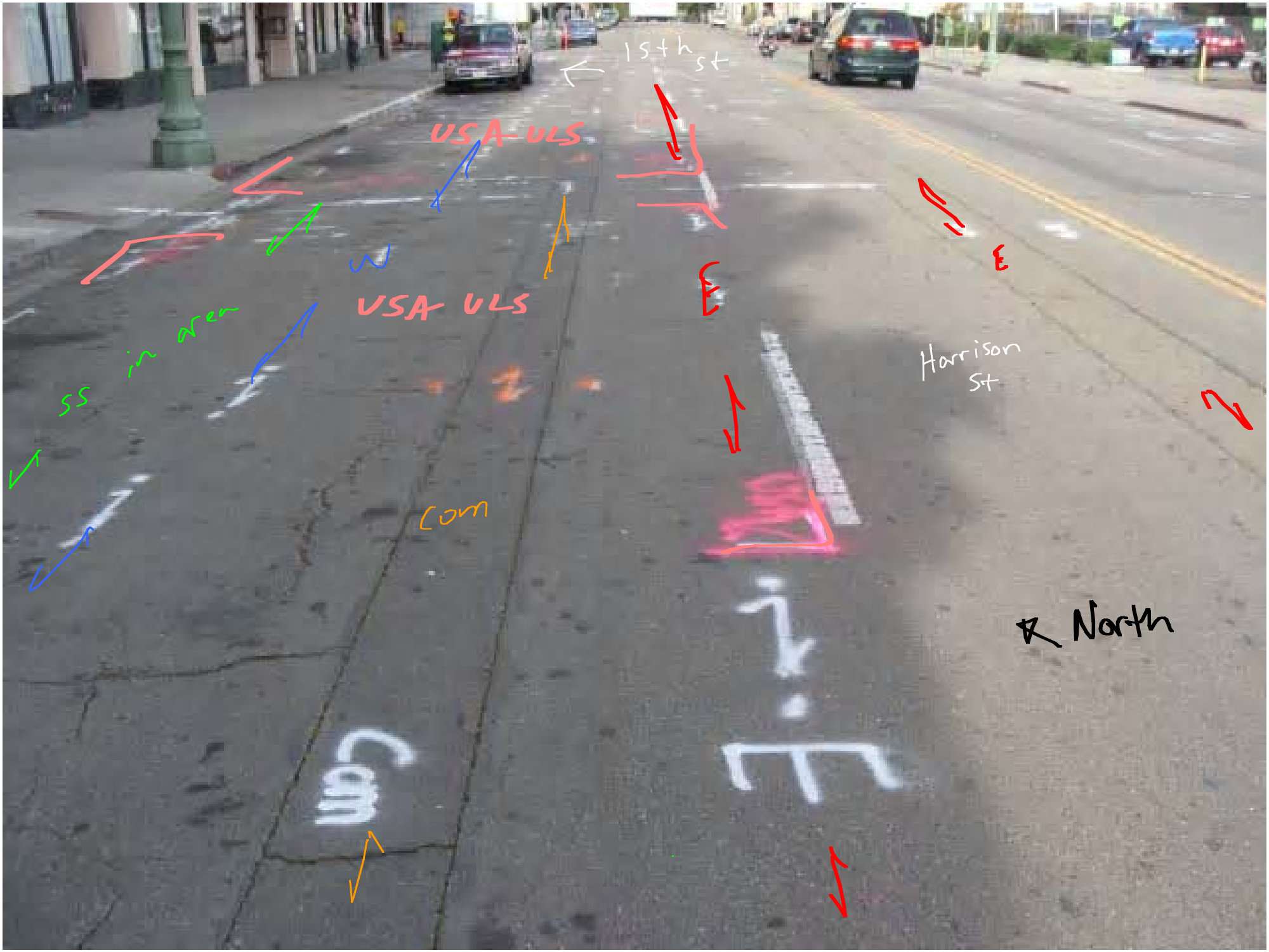
ULS USA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in area
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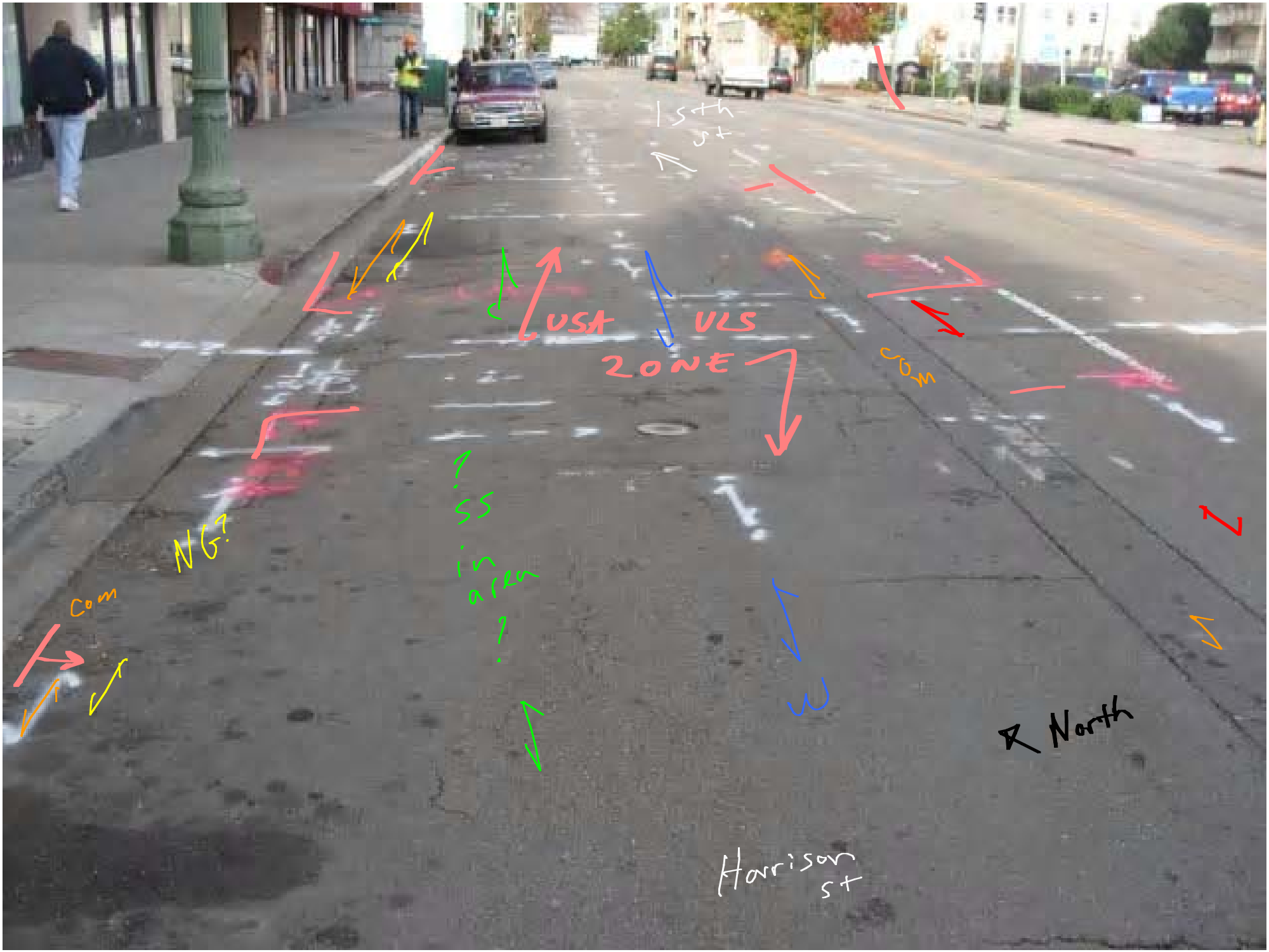
Harrison St
North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ULS
ZONE
COM
NG?
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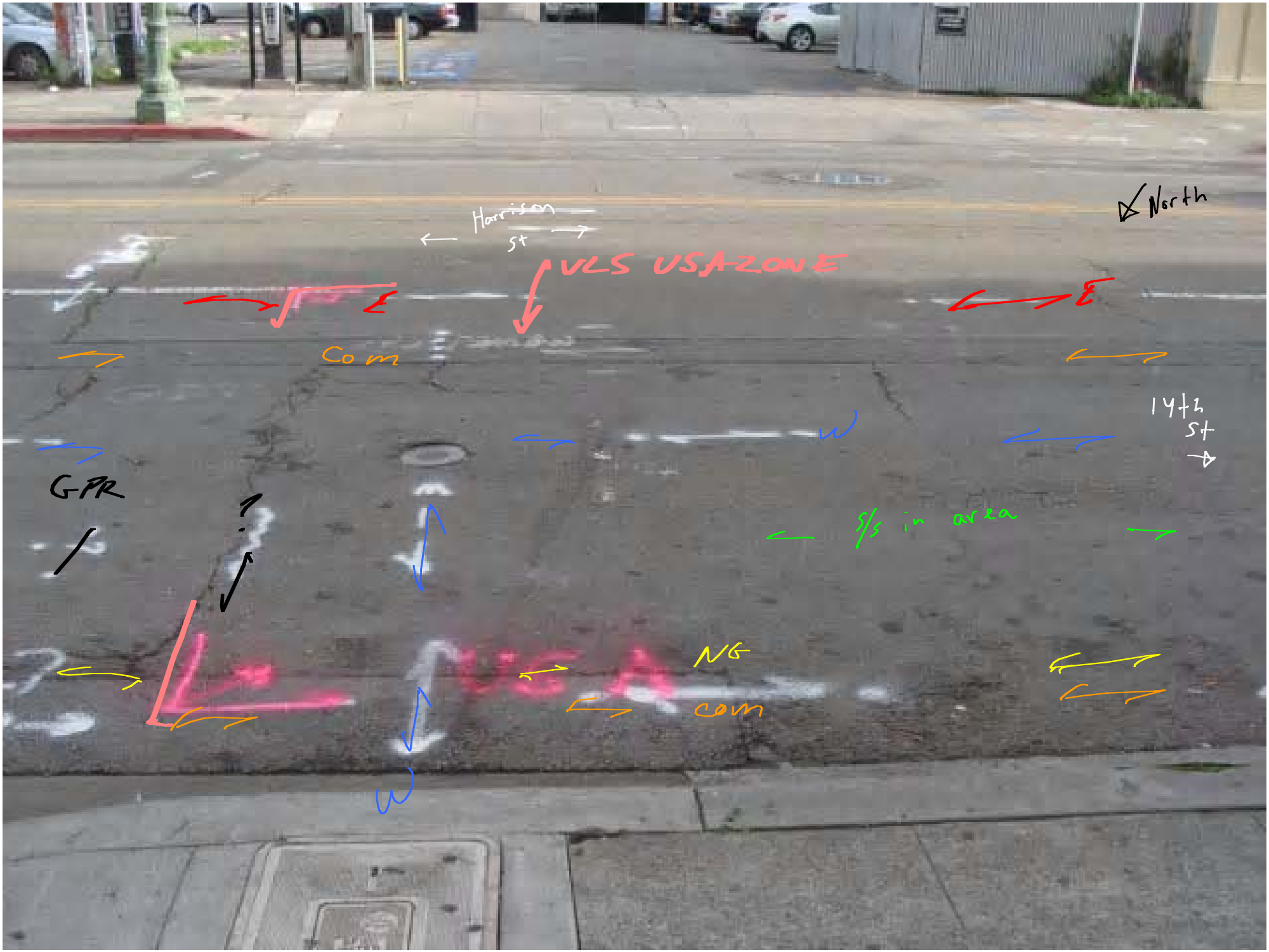
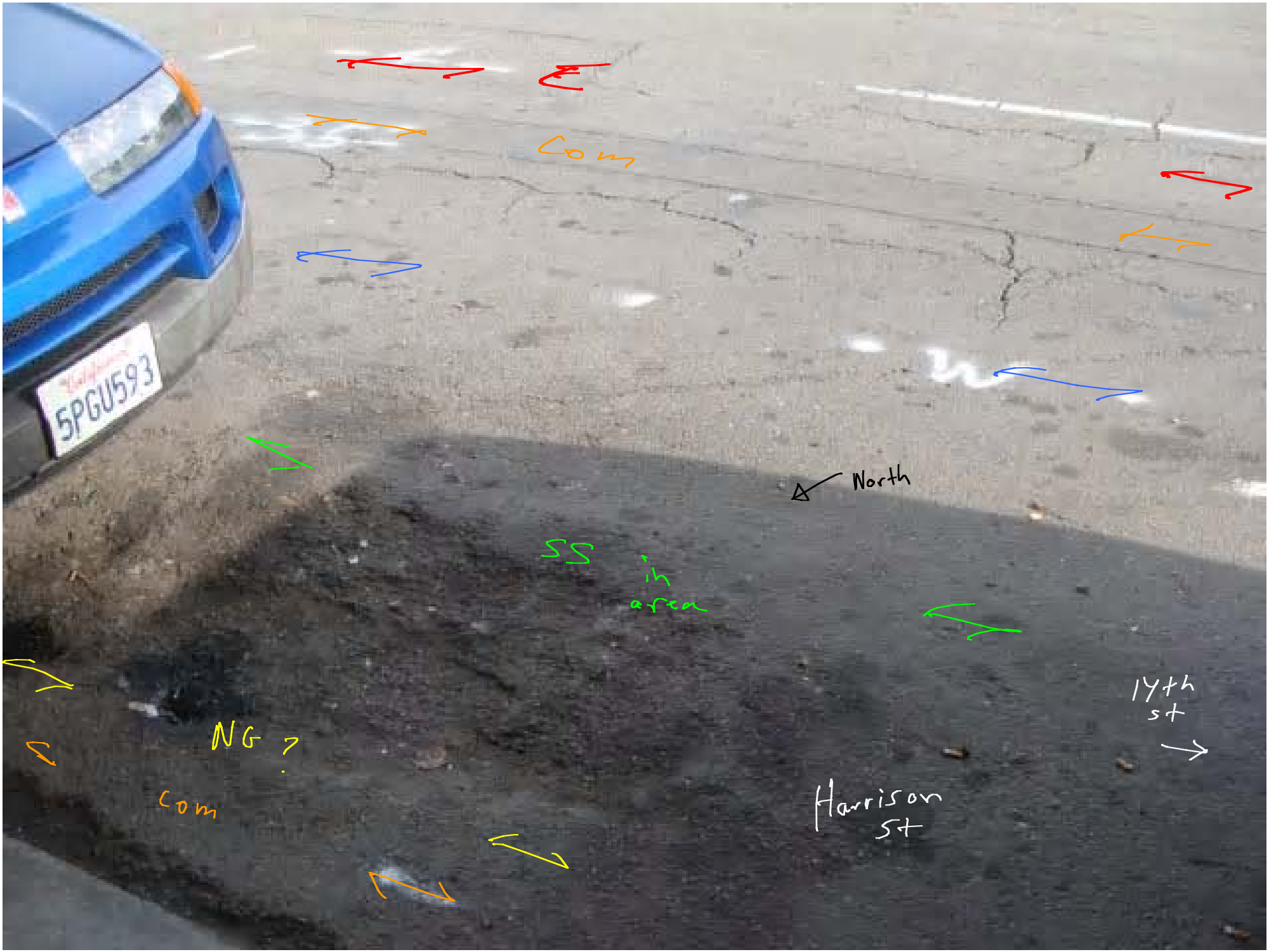
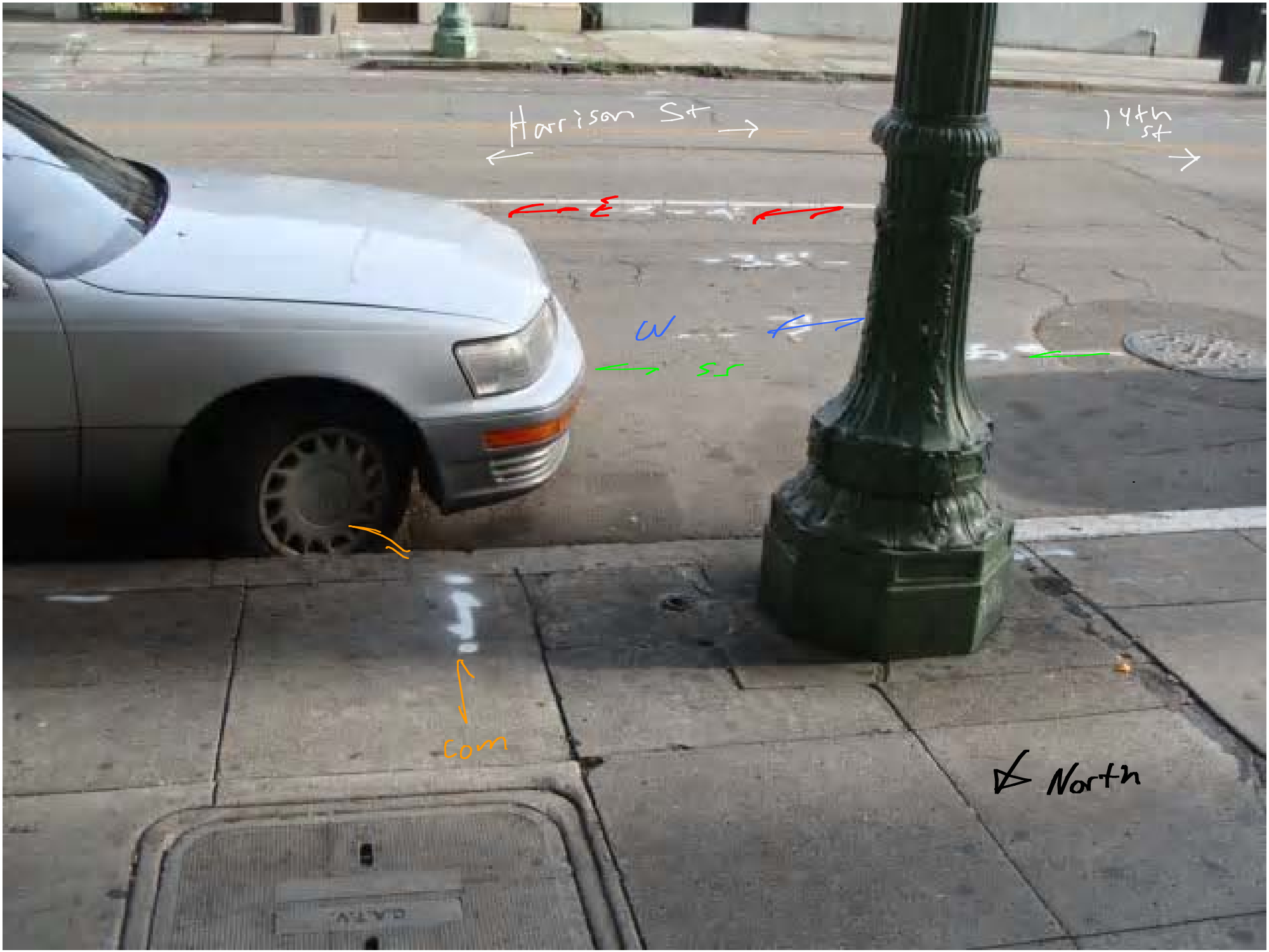
COM
R North
Harrison st


14th St
Harrison st
VLS USA
Com
SS in ora
North
NG?
Com


North
Harrison
St
VLS USA ZONE
E
E
Com
14th
St
W
GPR
?
S/S in area
NG
com
W


5PGU593
North
SS
in
area
NG ?
Com
Harrison
St
19th
St


Harrison St
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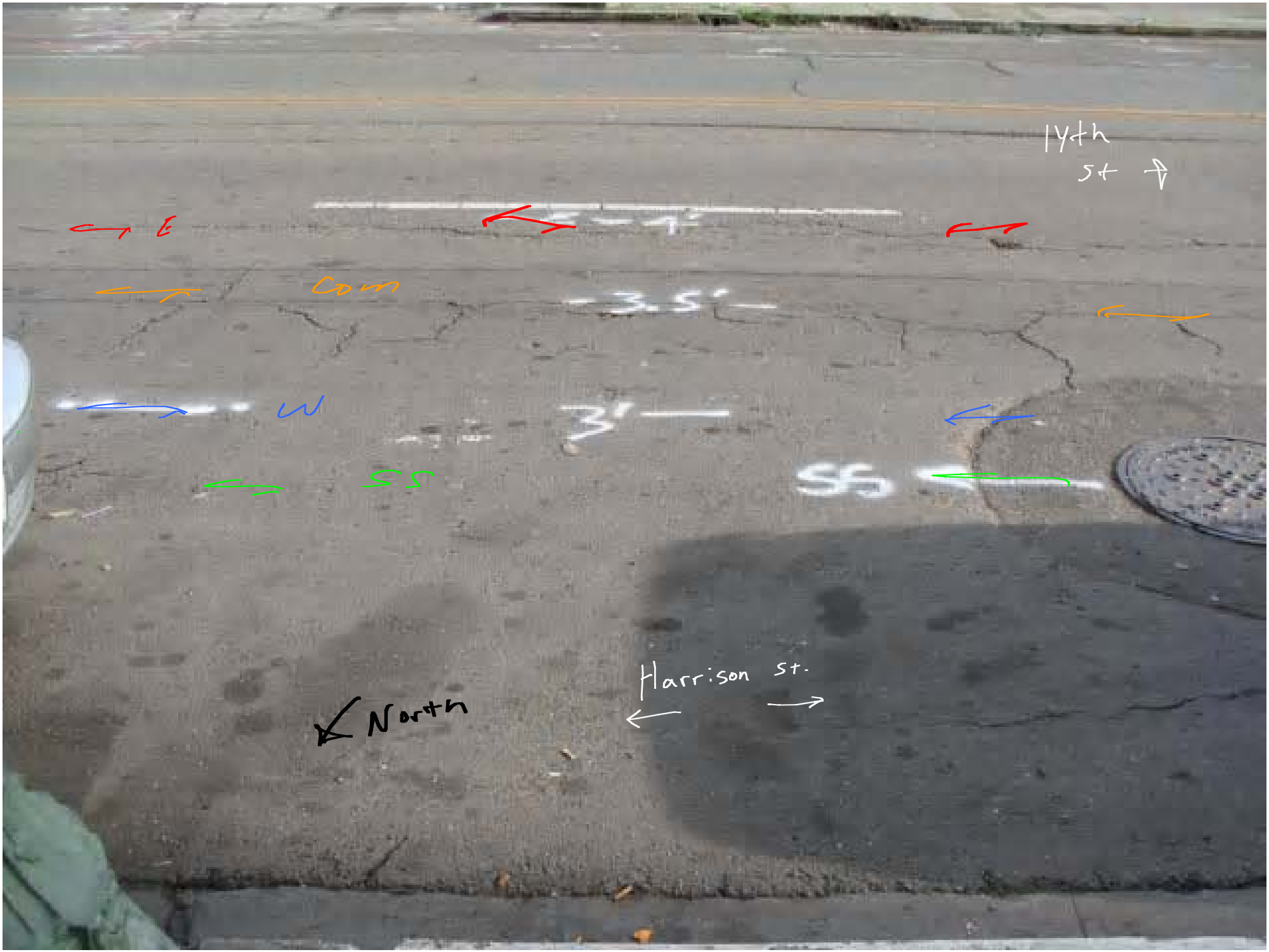
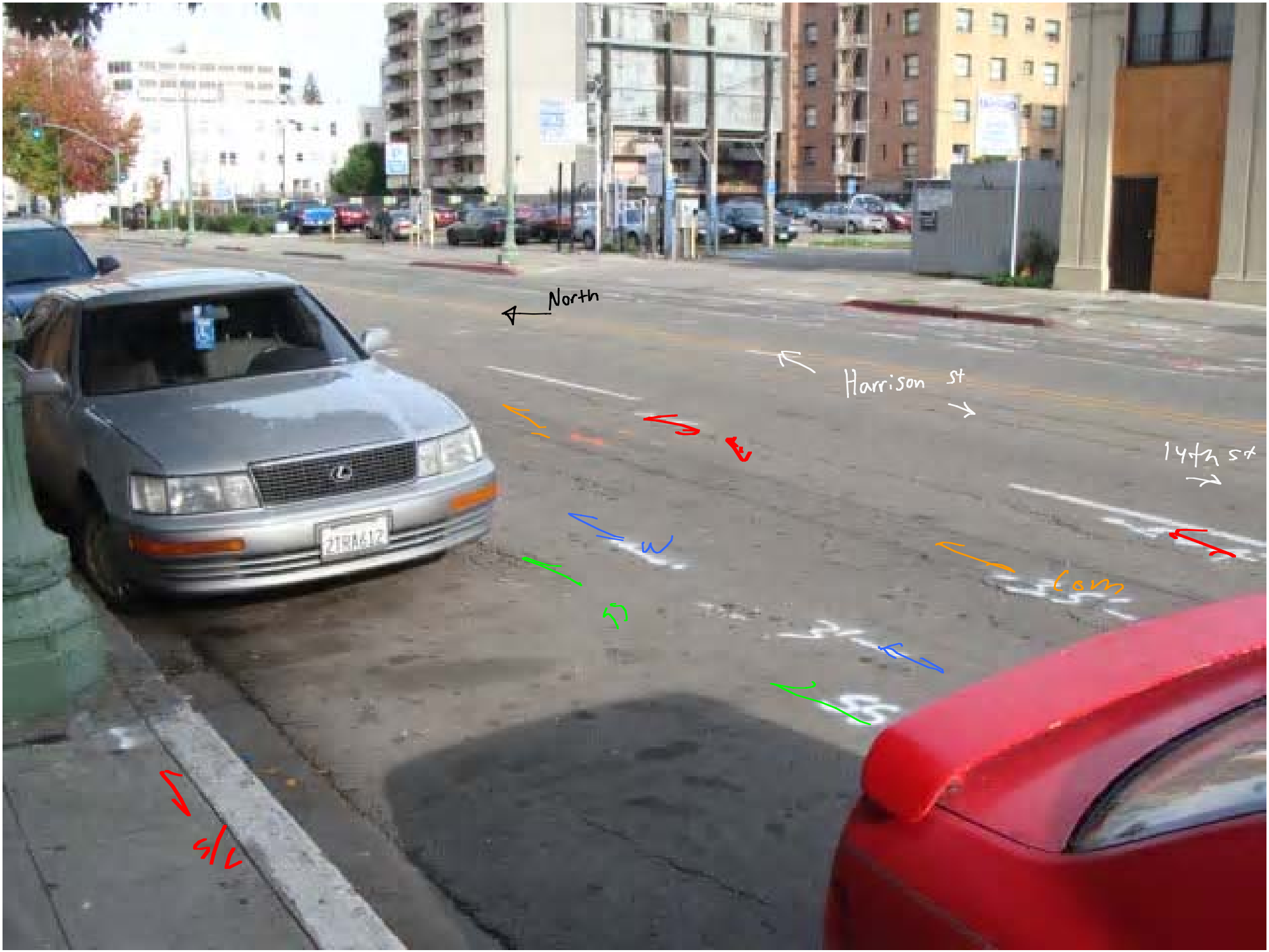
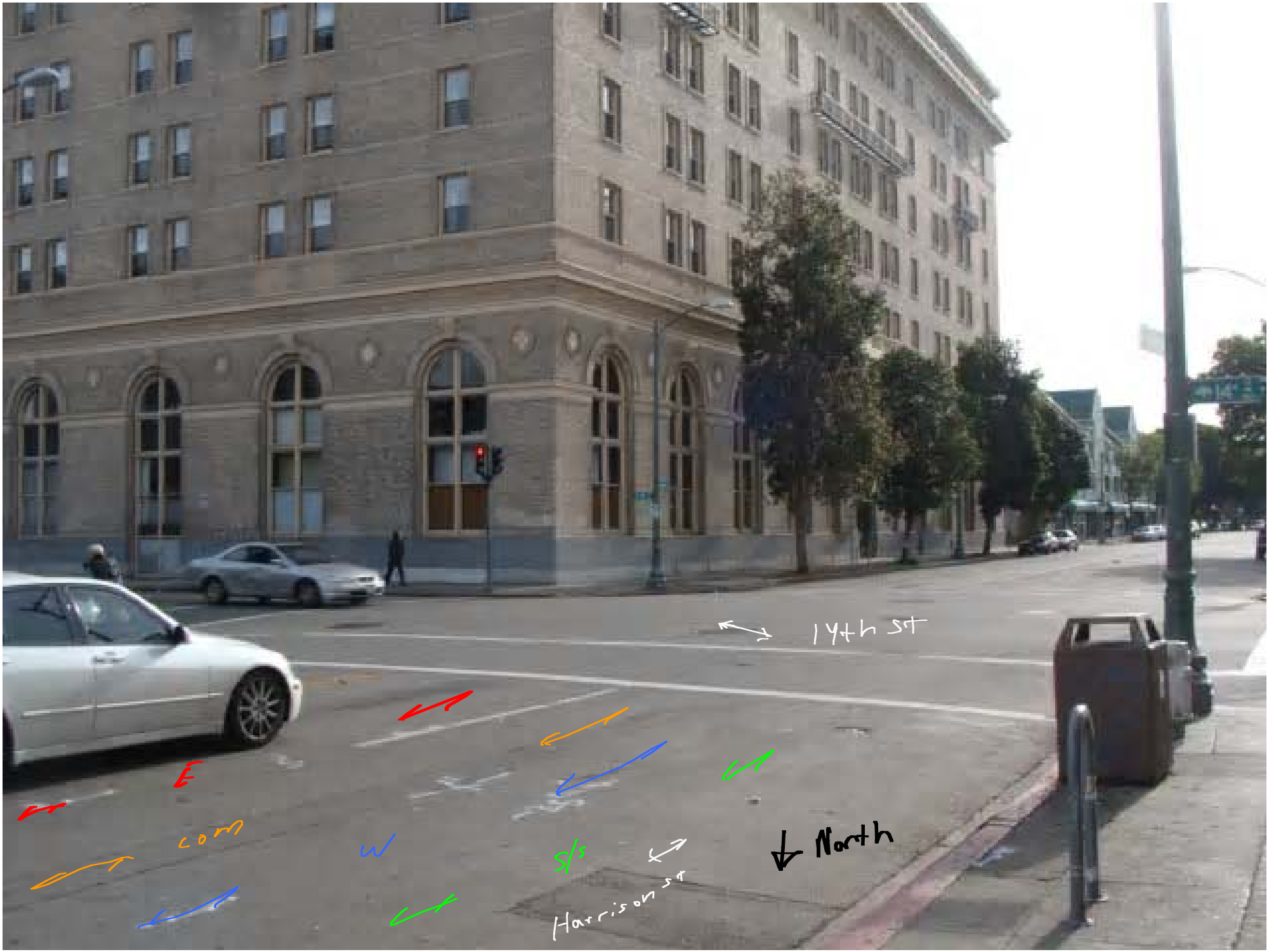

19th
st
E
Com
3.5'
W
3'
SS
SS
North
Harrison st.


North
Harrison st
14th st


14th st
E
com
W
S/S
Harrison st
North


8'
4'
35'
SS in area
Harrison st
19th st
North


19th
Harrison St
E
3'
4'
Com
35'
North


Harrison ST
1400
14th ST
300


15th St
Harrison St.
Com
SS
North

PROPOSED ZONE ON EAST SIDE OF HARRISON ST:

*********Harrison St Travels in a North-South (NE-SW) Direction*************

THIS ZONE IS EXTREMELY CONGESTED WITH UTILITIES

Caution is highly advised due to the presence of Gas Main observed as trending North – South (NE-SW) in the parking lane on the east side of Harrison within zone – main itself is reported to be large and high pressure. No lateral present in proposed zone, however laterals exist to the North and South. Appears to remain parallel with Curb. Observed pipe is detected with direct connect on service valves and with inline induction.

Caution of fiber optics communications lines observed as trending North – South (NE-SW) in easternmost northbound traffic lane staying about parallel with curb– communications vault can be found outside of zone to the North side (NE) in the eastern northbound traffic lane

Caution of Storm/Sewer lines visual observed as trending through zone in a North – South (NE-SW) direction. Visual indications of the flow line are approximately 1 to 3 feet west of curb within zone.

Caution of Electric service observed as trending southeast from the center lane of the road and leading a path into the sidewalk and entering a building in visible conduit

Caution of Street lighting in Curb immediately east of zone – lighting lines are observed as trending northeast in line with the curb.

Caution of Former USTs observed in sidewalk east of zone – this tank(s) is reported as being filled in place with visible potential surface inlets remaining – caution is advised as the western edge of the tank may extend beyond the curb into the road to a small extent – please refer to photos.

Caution of Water service lateral observed as trending east from the main on the west side of the road and continuing to the meter location and east to building wall.

Caution of multiple occurrences of possible nonconductive facilities which were observed by means of GPR – one object appears to trend northeast parallel with the curb and several potential objects are observed as being perpendicular to the curb within the zone.

General comments regarding the remaining East side of of Harrison St between 14th and 15th

General trends from above follow.

SEE ATTACHED PHOTOS BELOW.

NOTE AND ADVISORY

GREAT CAUTION IS ADVISED IN EACH OF THE PROPOSED LOCATIONS – IT IS RECCOMENDED TO CONTACT THE RESPECTIVE UTILITY COMPANIES IN REGARDS TO BEST PRACTICES WHEN DIGGING AROUND EACH UTILITY DUE TO THE AMOUNT OF CONGESTION – EXTRA SPECIAL ATTENTION SHOULD BE GIVEN TO THE GAS, FIBER OPTICS AND STORM/SEWER IN THIS AREA.

LOCATE ENERGY ISOLATION INCLUDING WATER AND GAS AT THIS SITE AND SAWCUT, JACKHAMMER, AIRKNIFE

DIG CAREFULLY IN EACH LOCATION. /

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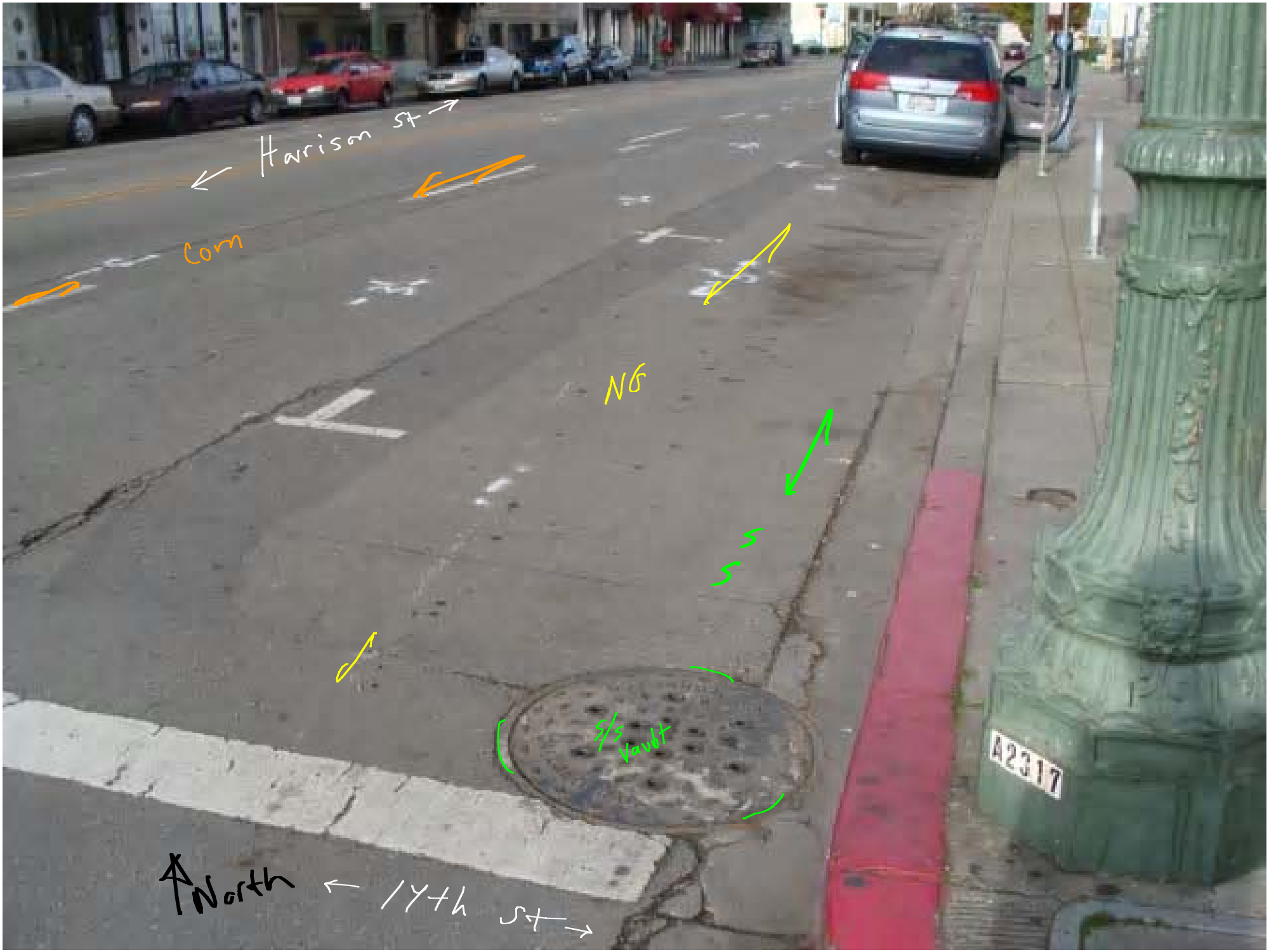
15th st
NG
com
North
Harrison st


Harrison St
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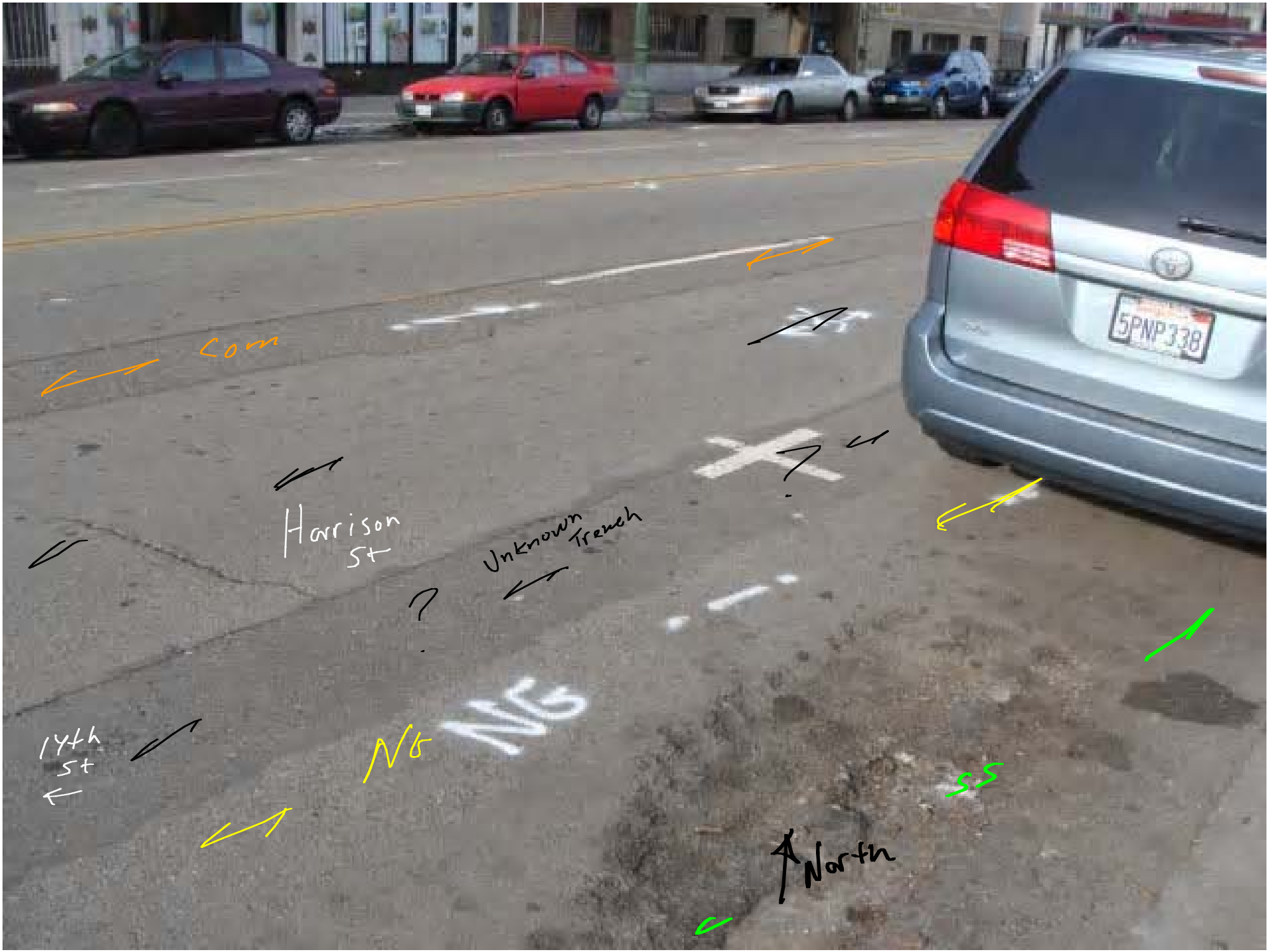
S
S
S/S Vault
A2317
North
17th St


Com
Harrison St
Unknown Trench
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19th St
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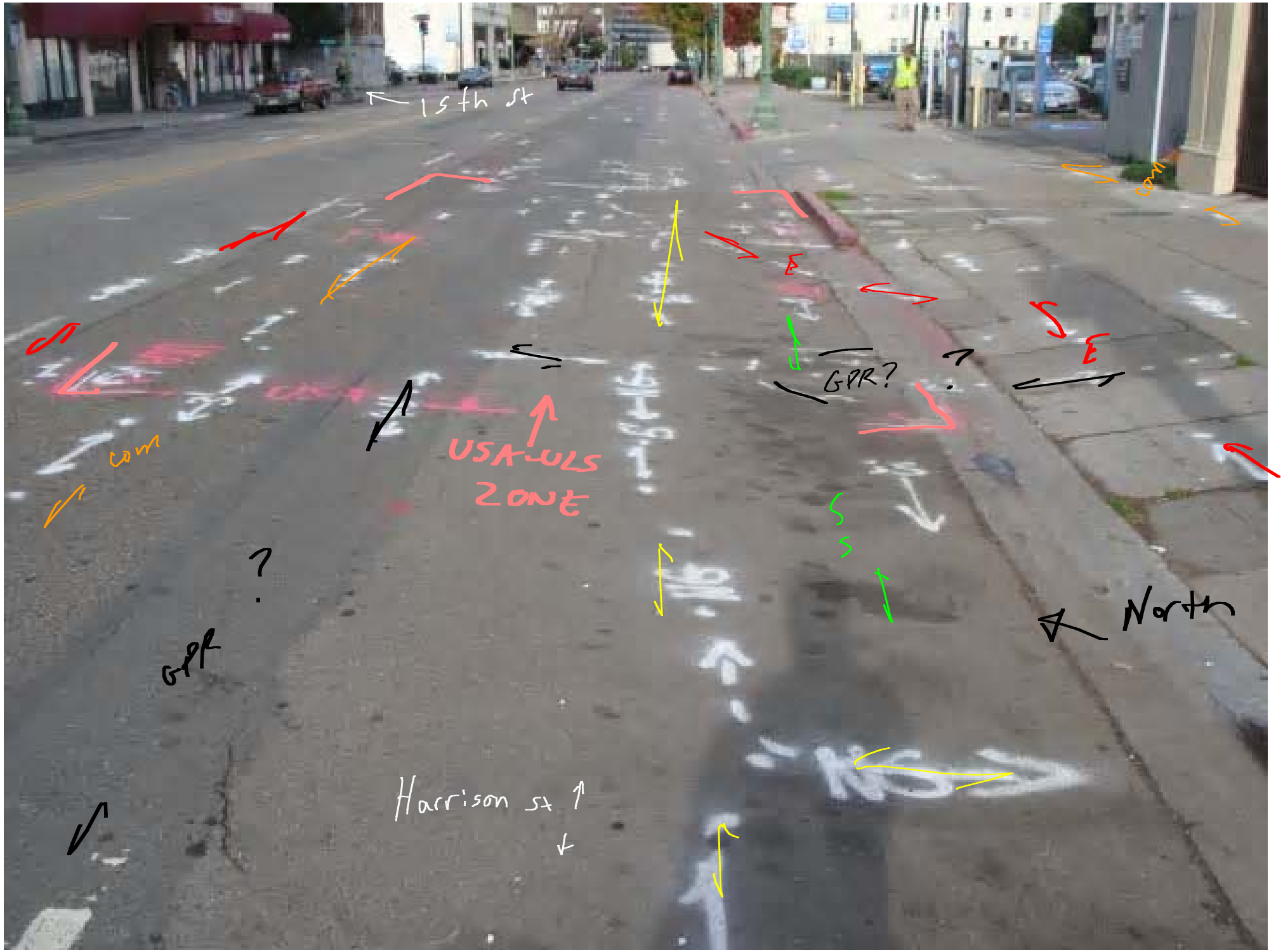
5PNP338


15th st
Com
Unknown Trench
17th St
Harrison St.
North


Unknown Trench
Harrison St
19th St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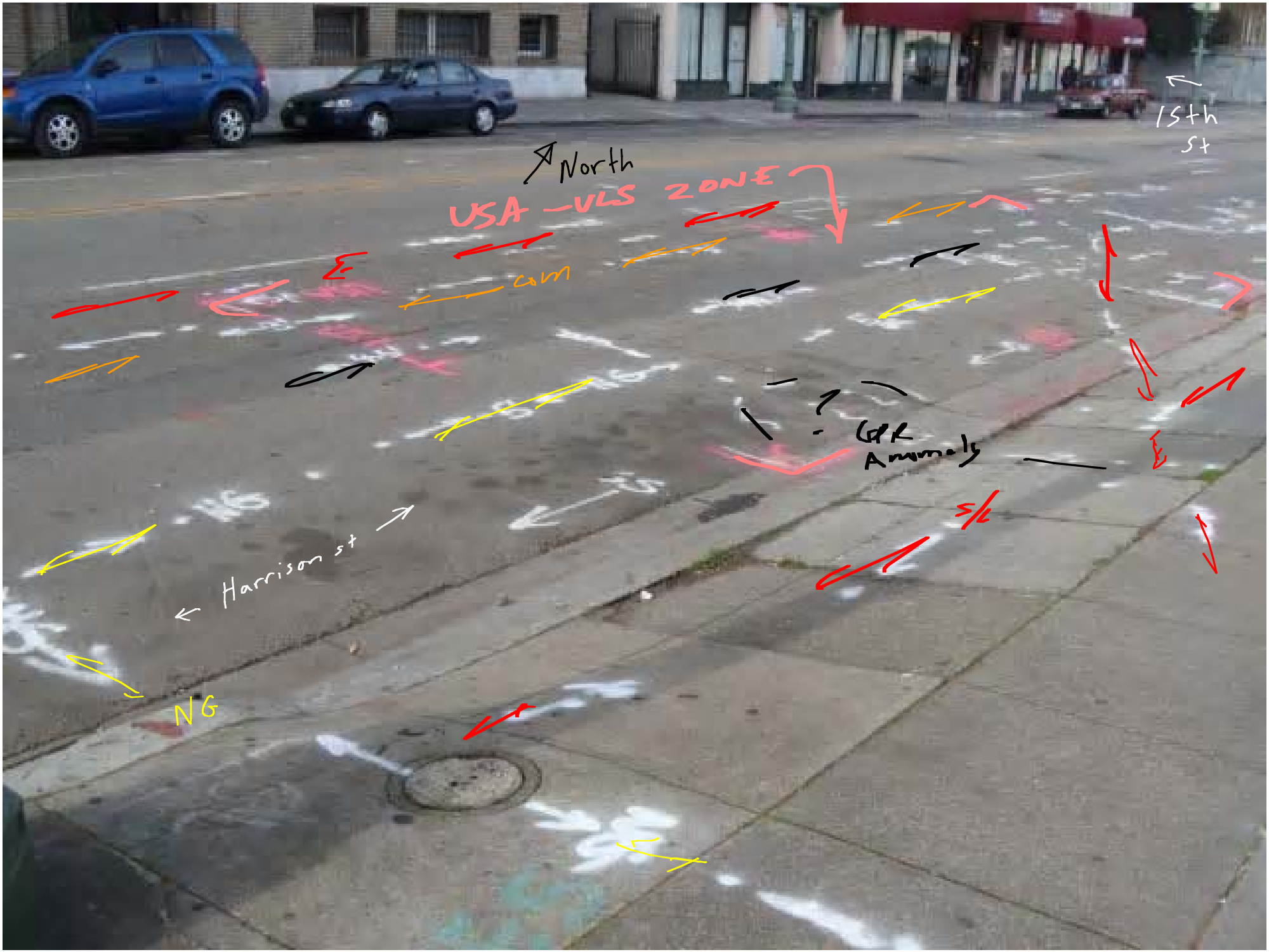
USA-ULS
ZONE
GPR
Harrison st
North


GAS
VALVE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GPR Anomaly
S/L
Harrison st
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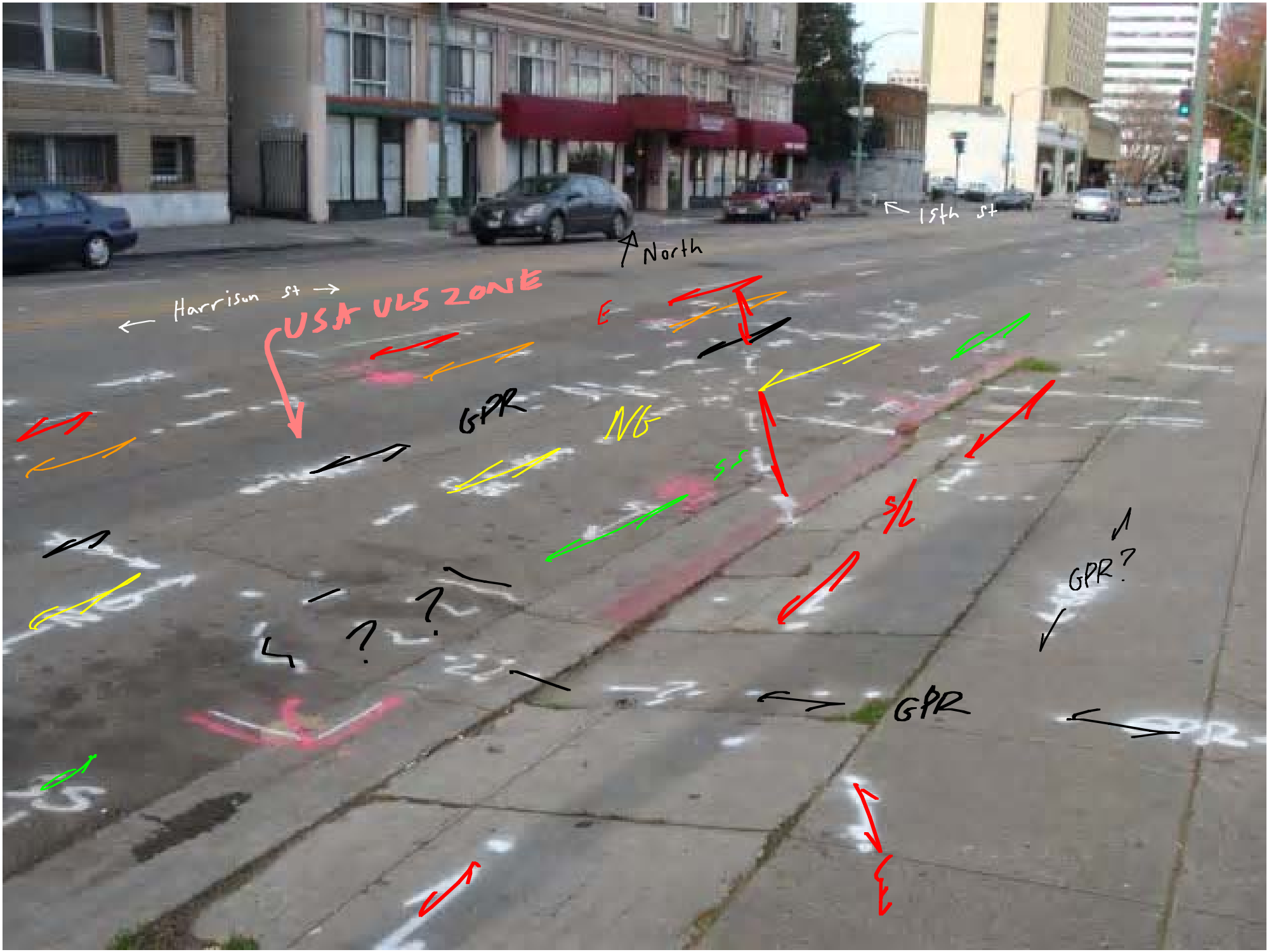
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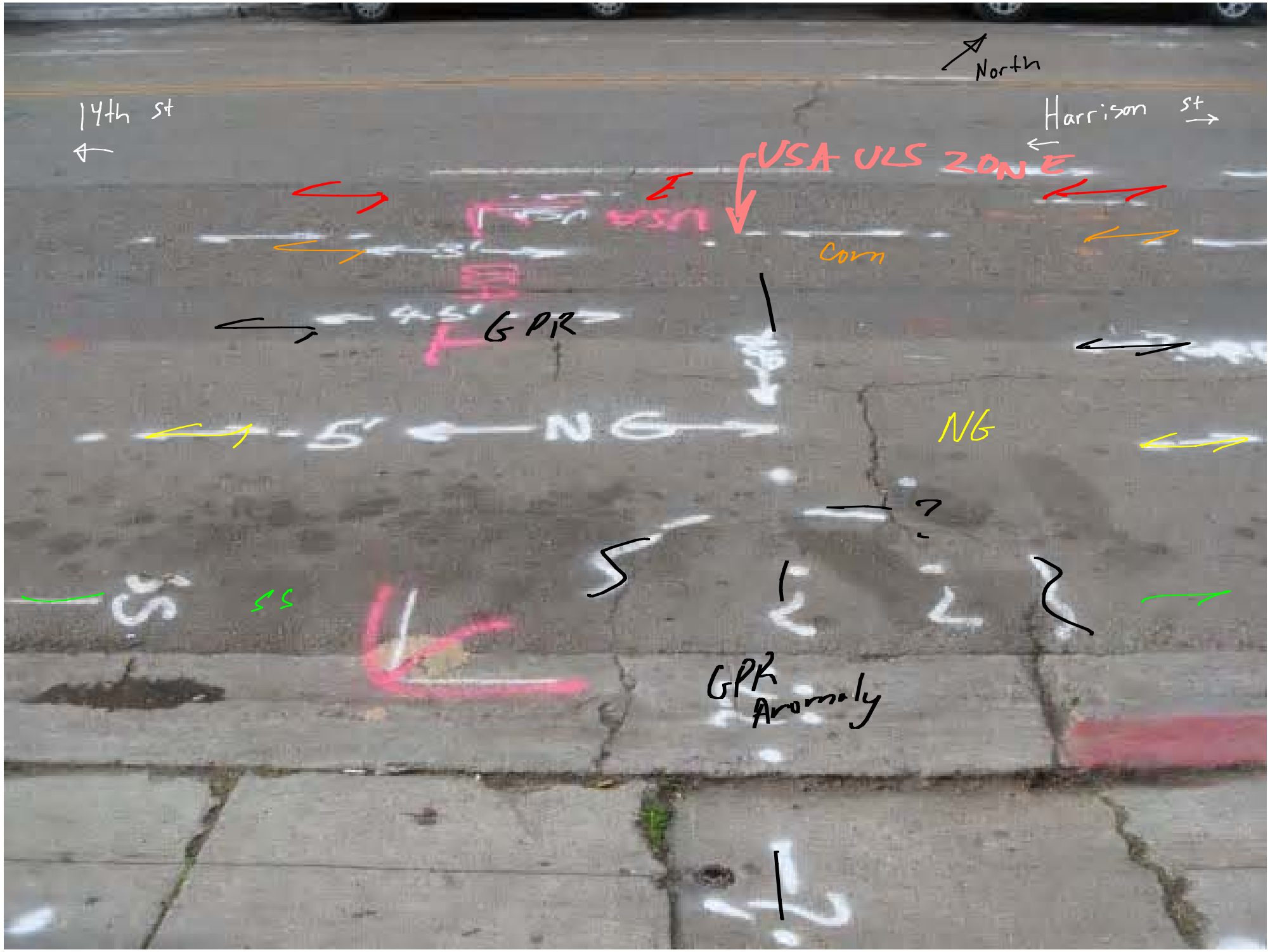
S/L
GPR?
GPR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GPR Anomaly


← Harrison St →
15th St →
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North
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15th St
← Harrison St. →
North
USA-ULS ZONE
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15th St
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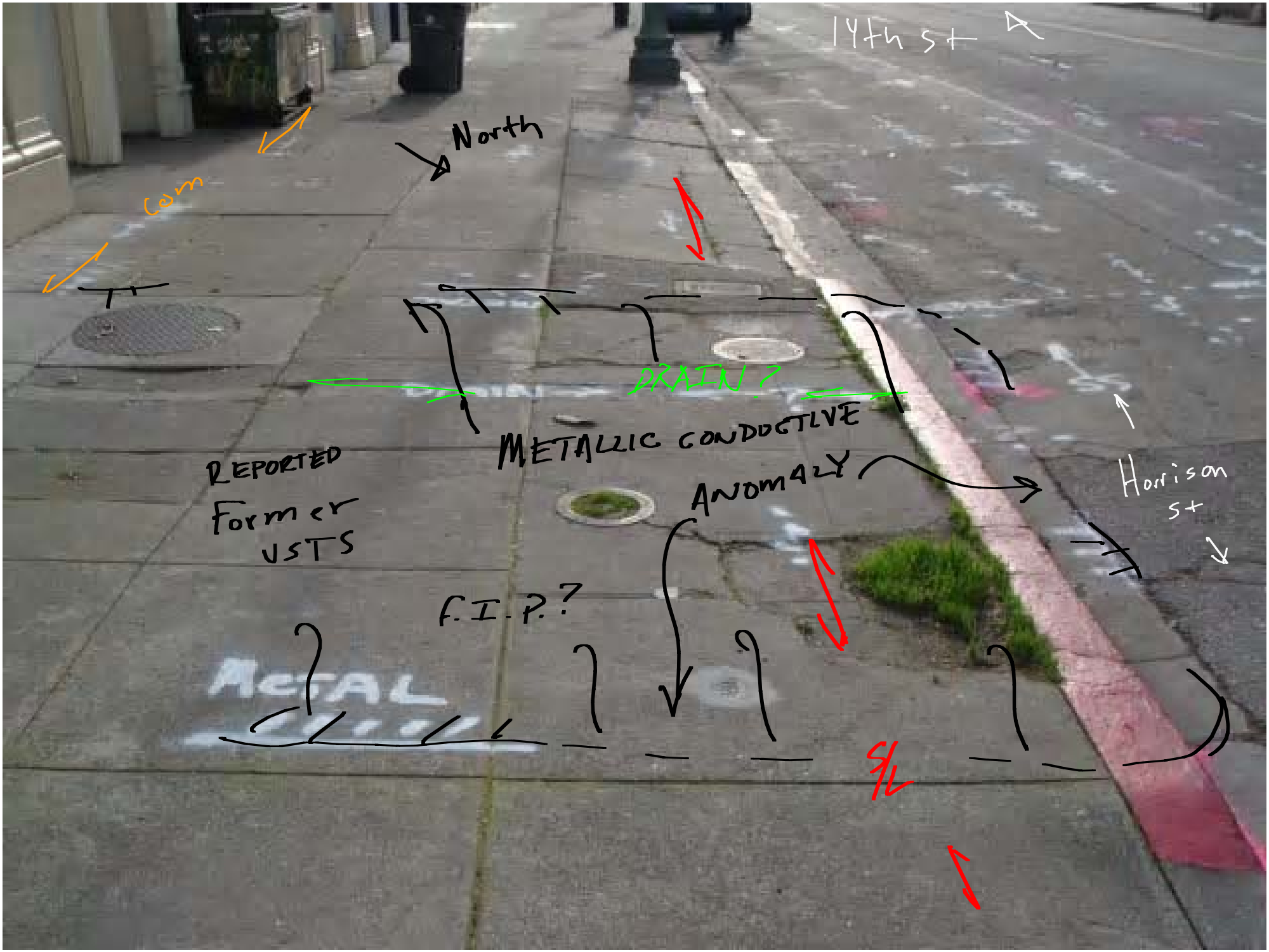
14th st
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ANOMALY
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Former
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15th St
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SS
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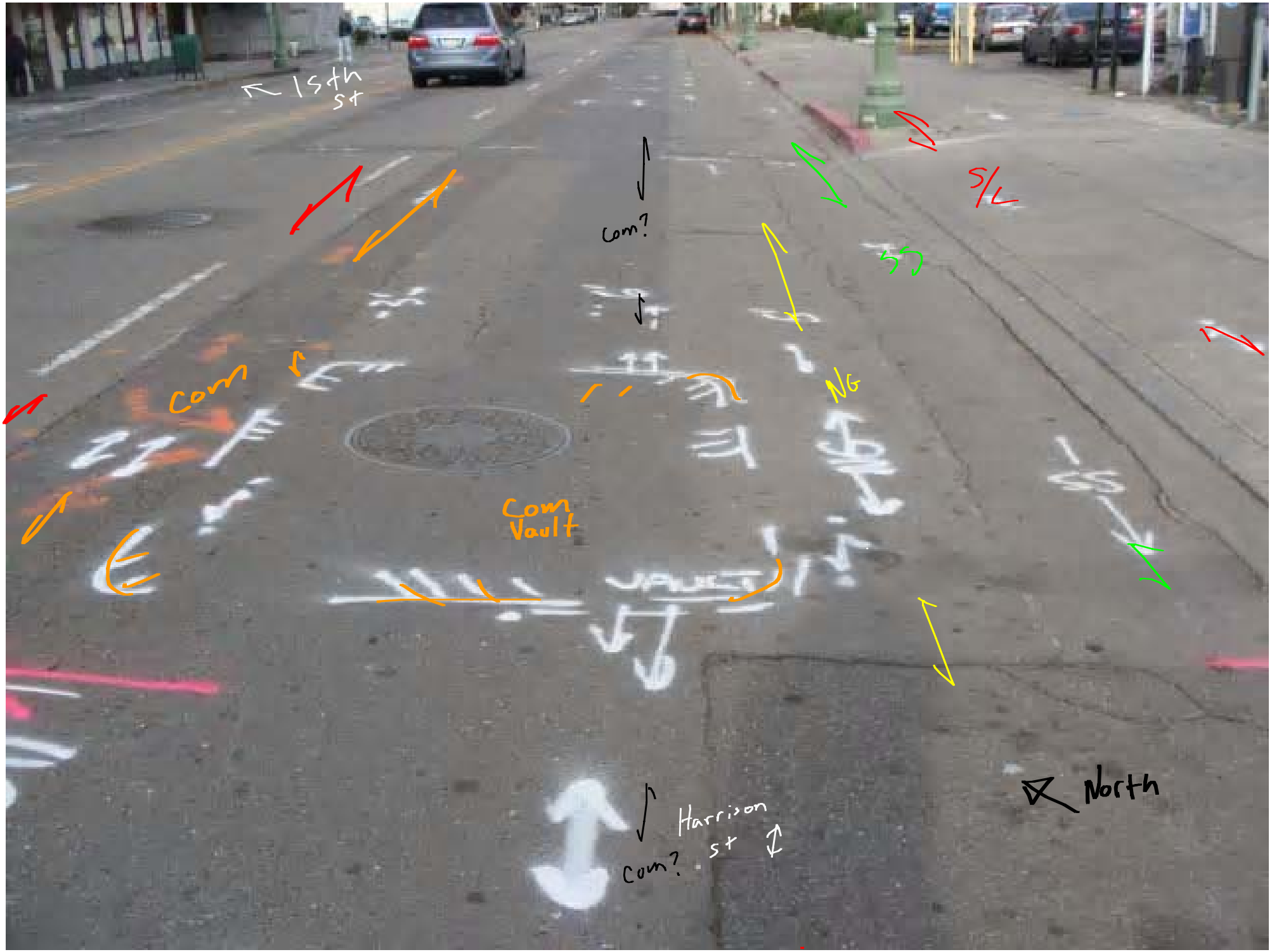
former
V.S.T.
DRAIN?
Mass Metal Anomaly
METAL
W?


15th st
Com?
S/L
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NG
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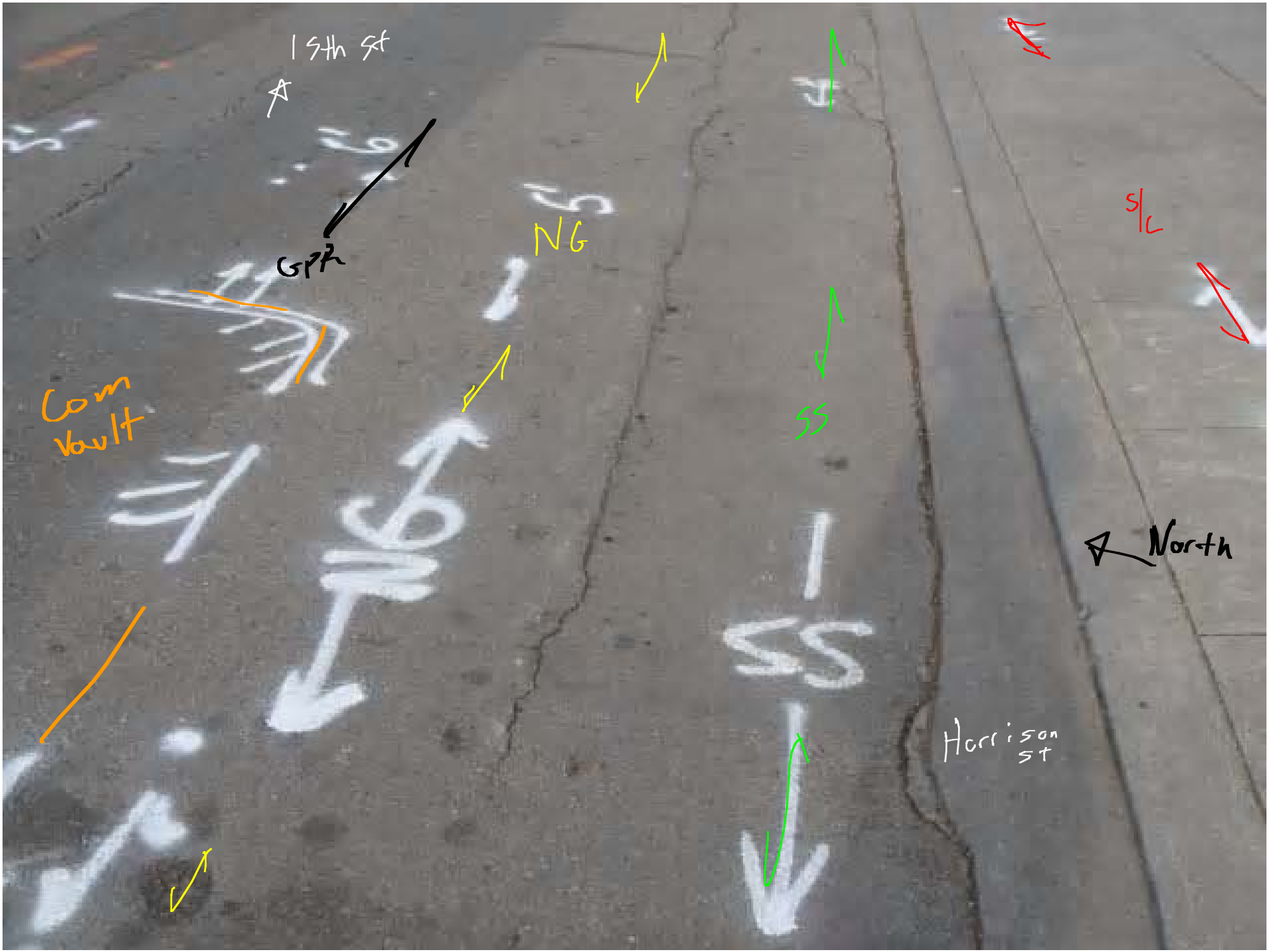
Vault
VAULT
Com?
Harrison st
North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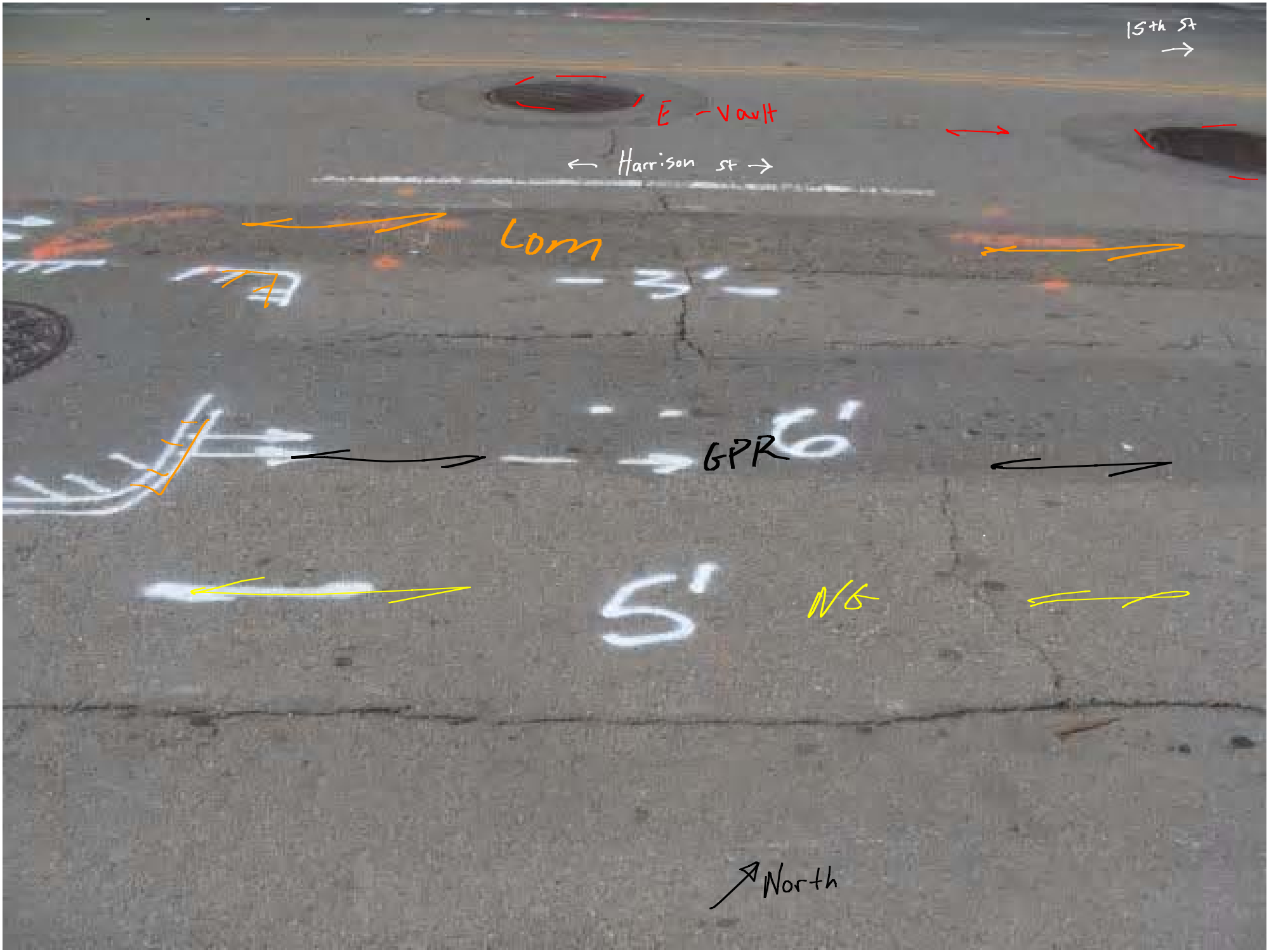
North
Harrison St


15th St
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North


14th St
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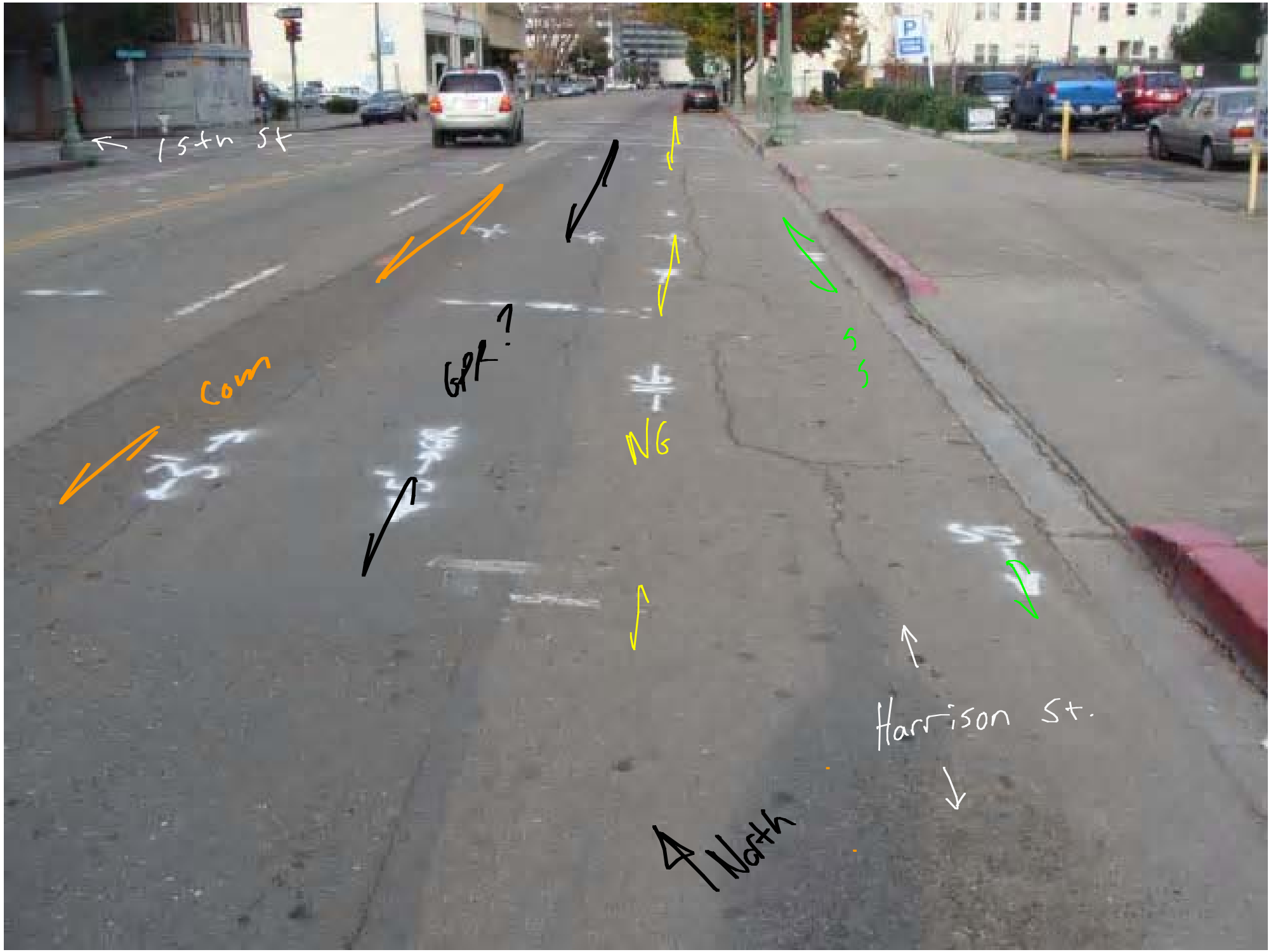
North
Harrison St.
SS


15th St
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Harrison st


15th st
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GPR - Unknown utility
6'
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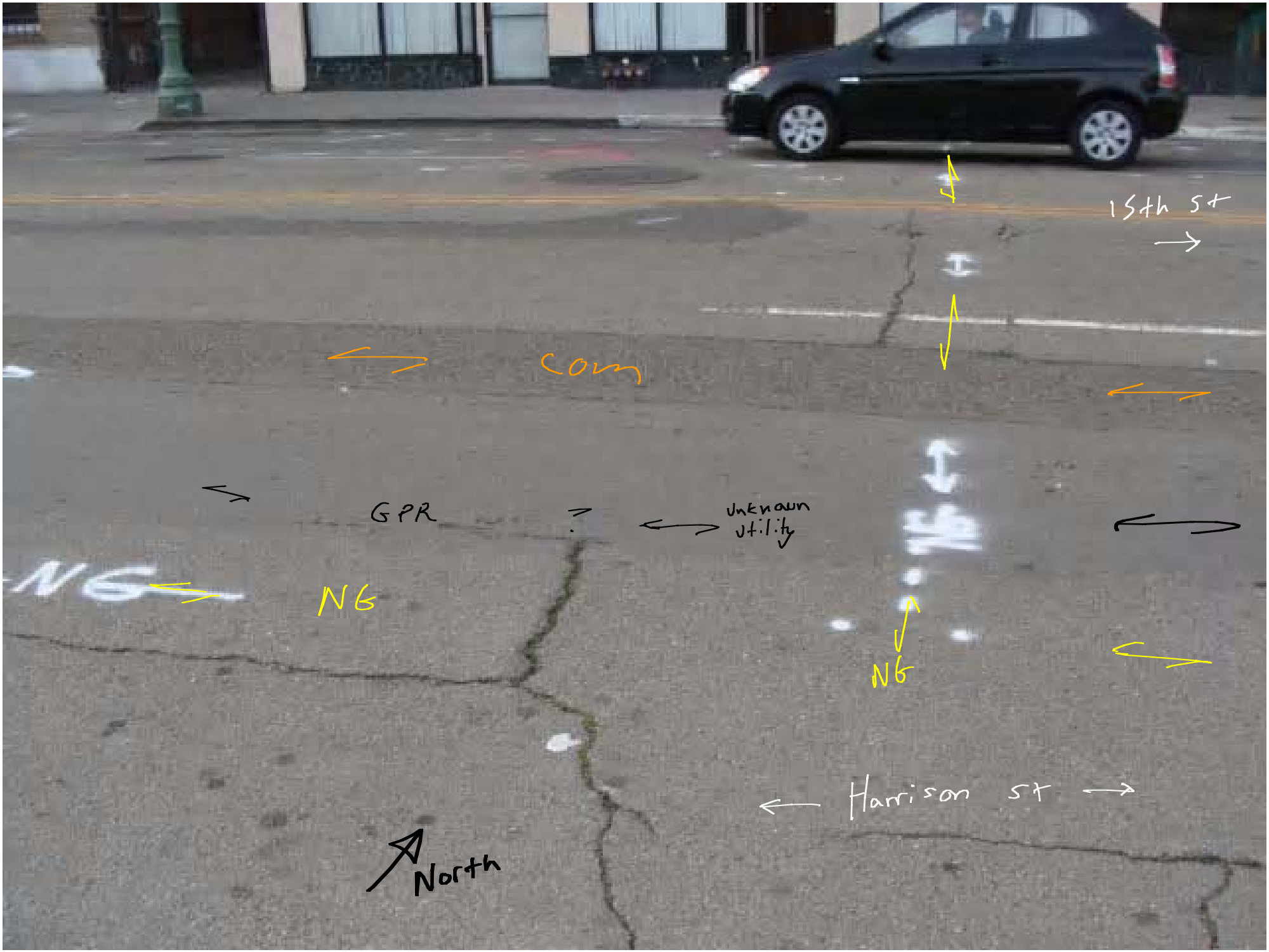
NG
5'
SS
North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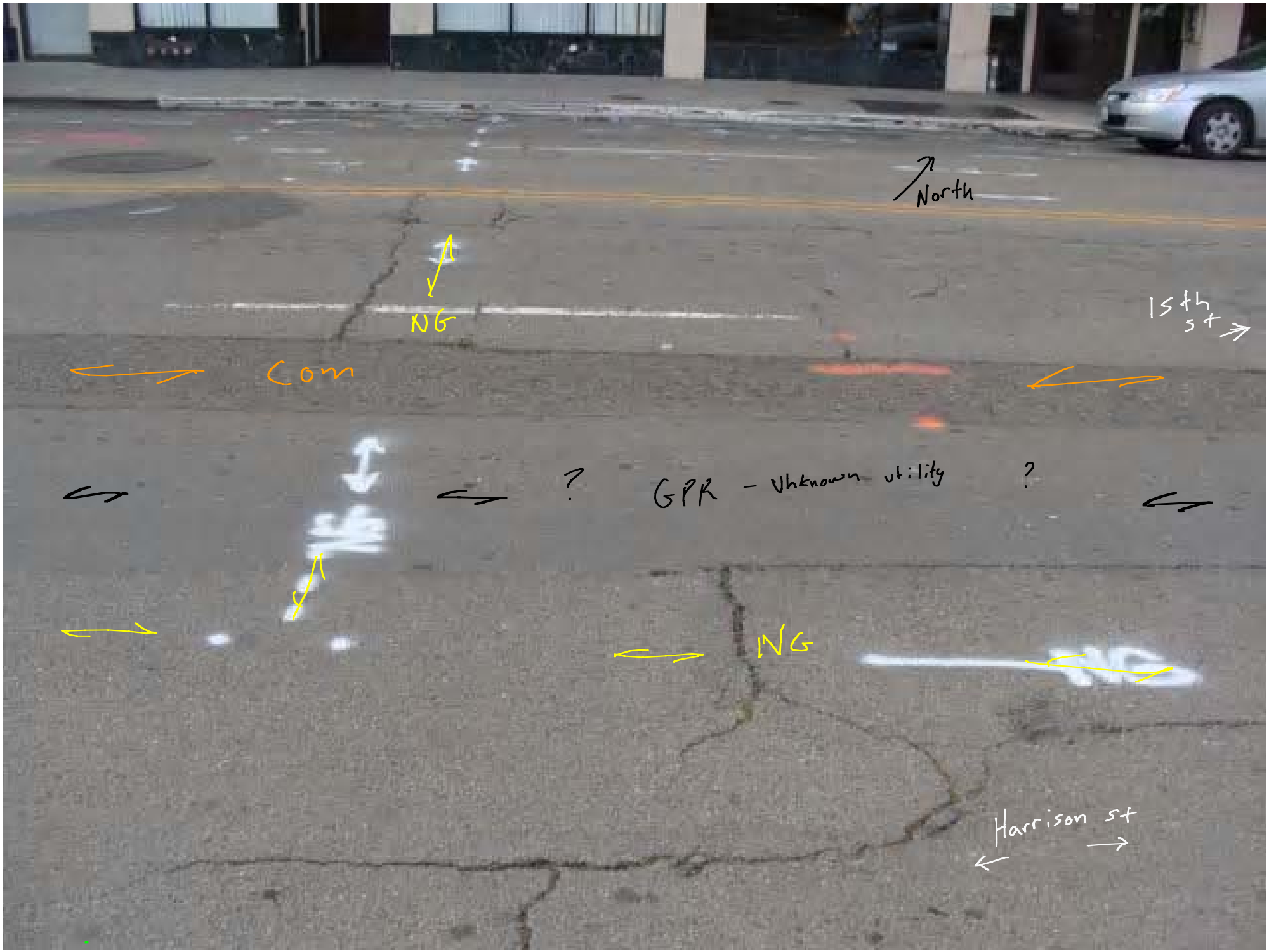
Harrison St
North


North
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GPR - Unknown utility
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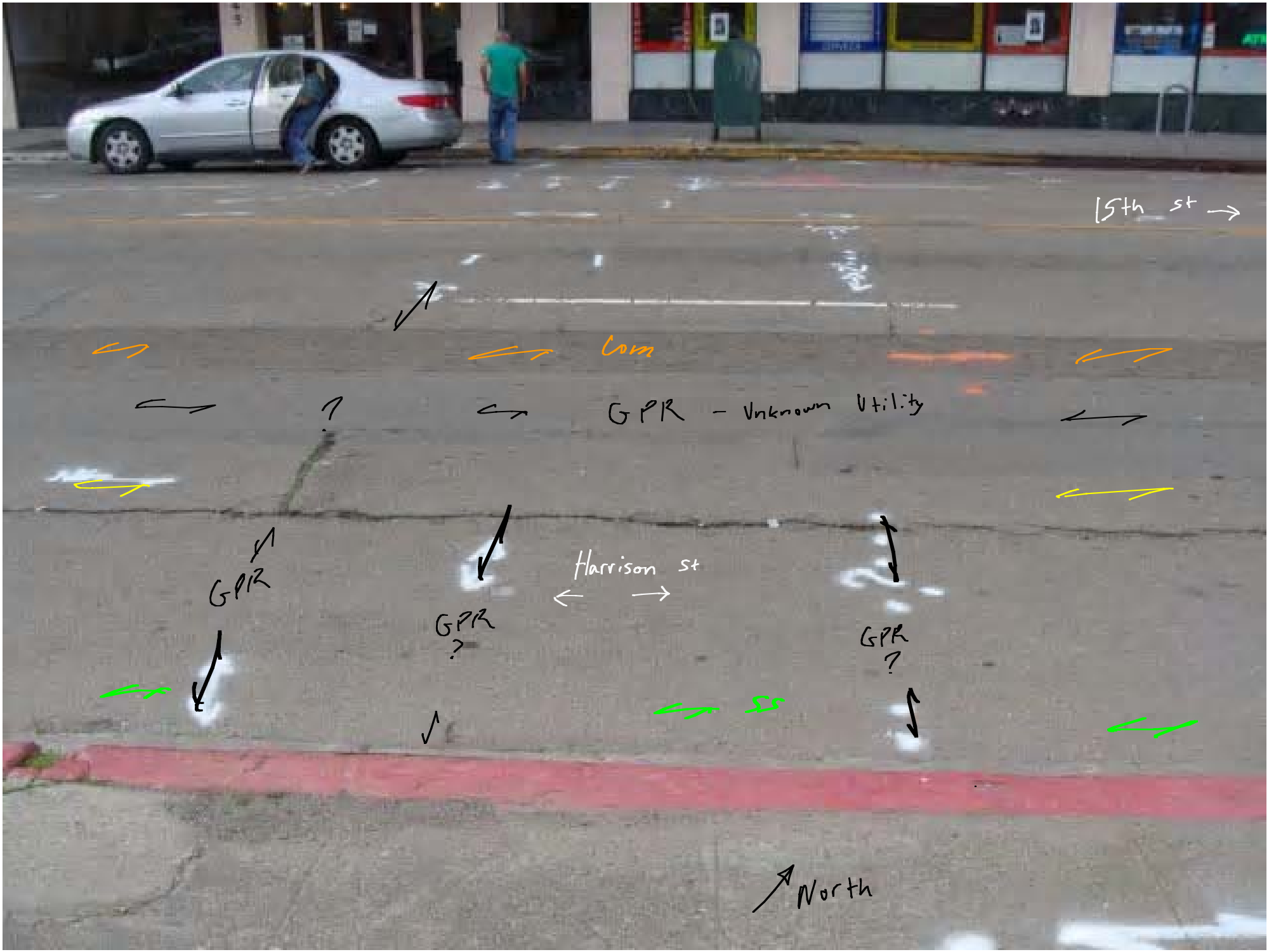
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GPR - Unknown Utility
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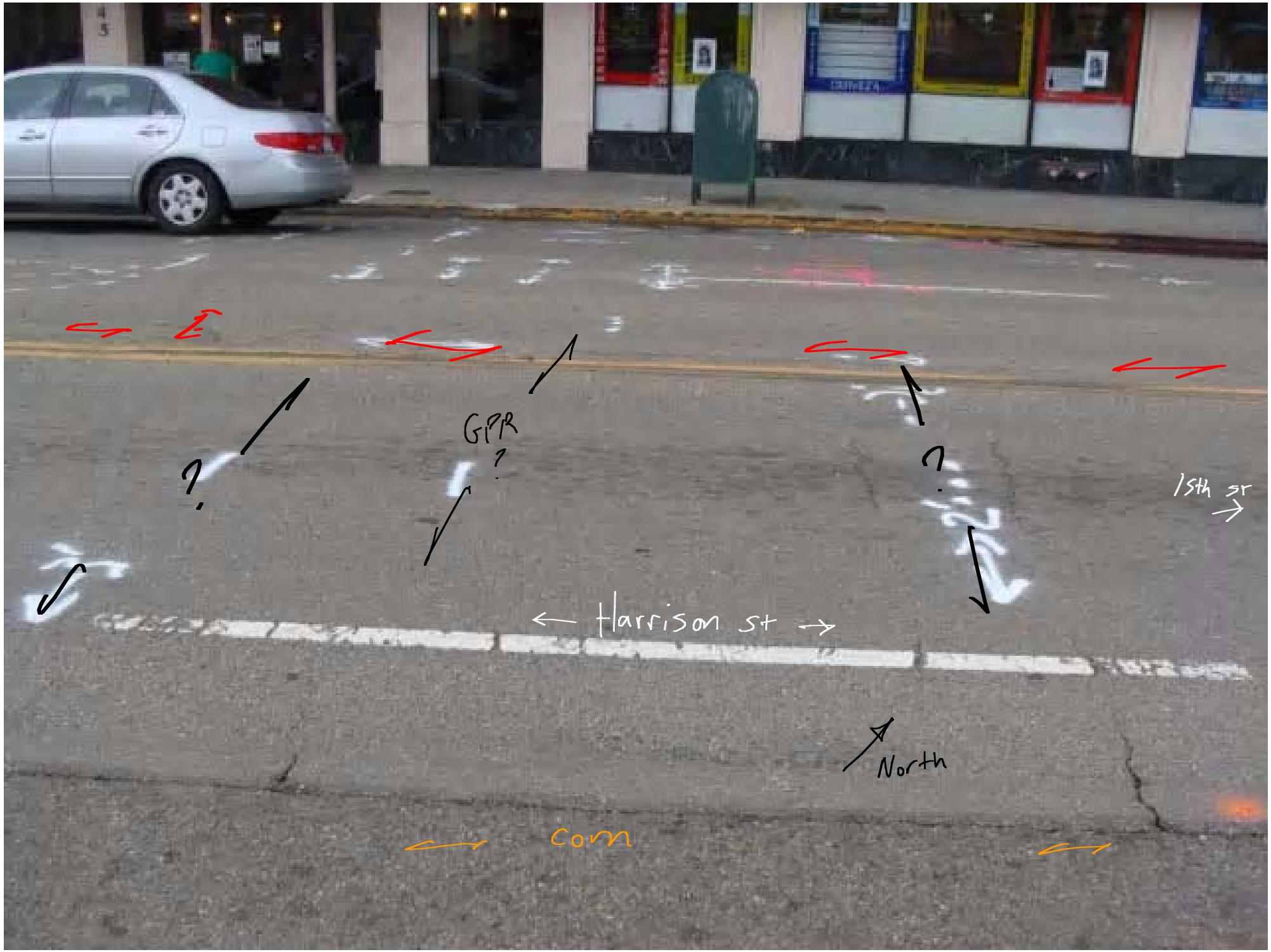
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15th st
Harrison st
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Com


15th st
Harrison st
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5'
GPR unknown utility
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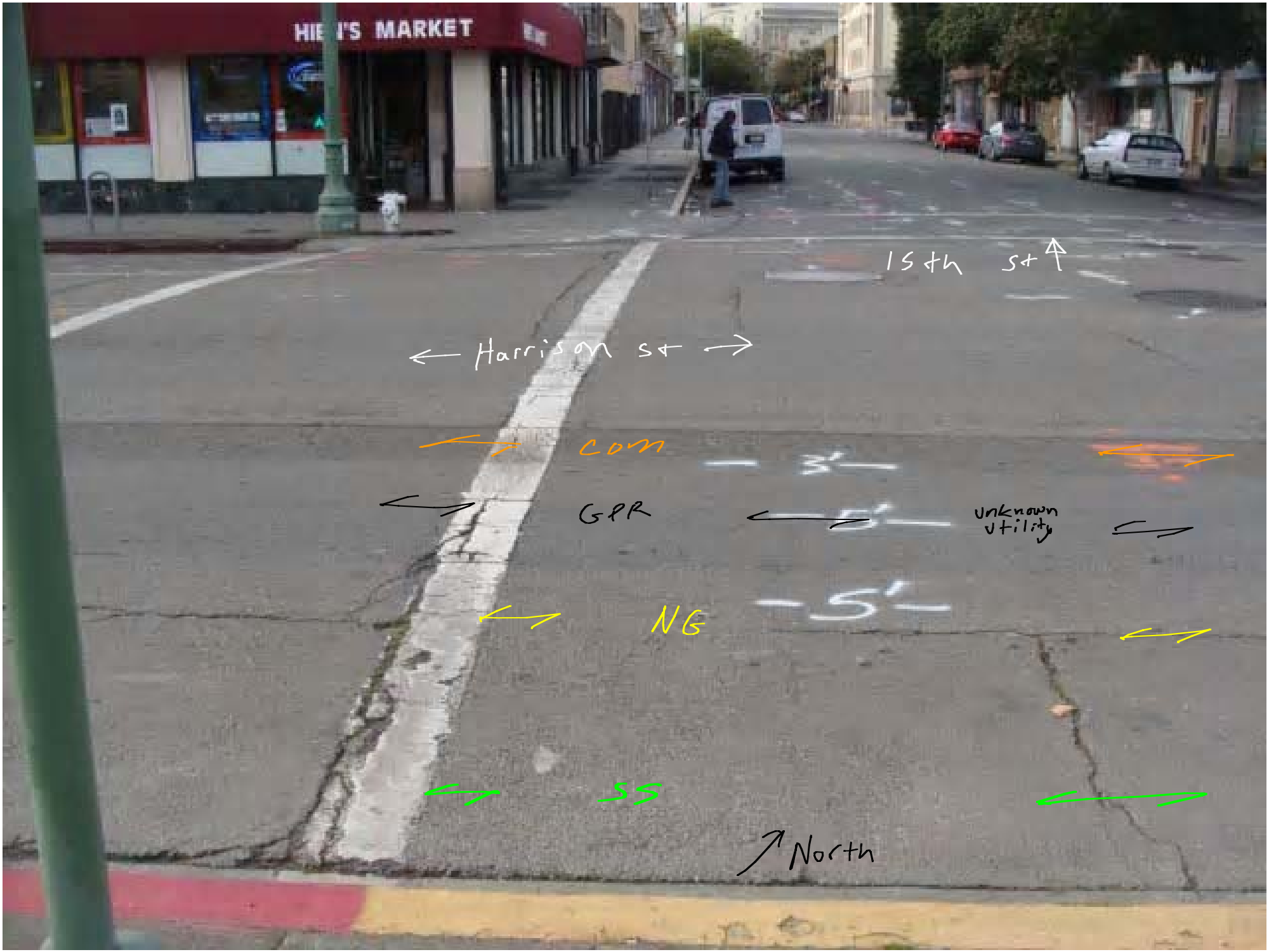
SS
North


HIE I'S MARKET
15th st
Harrison st
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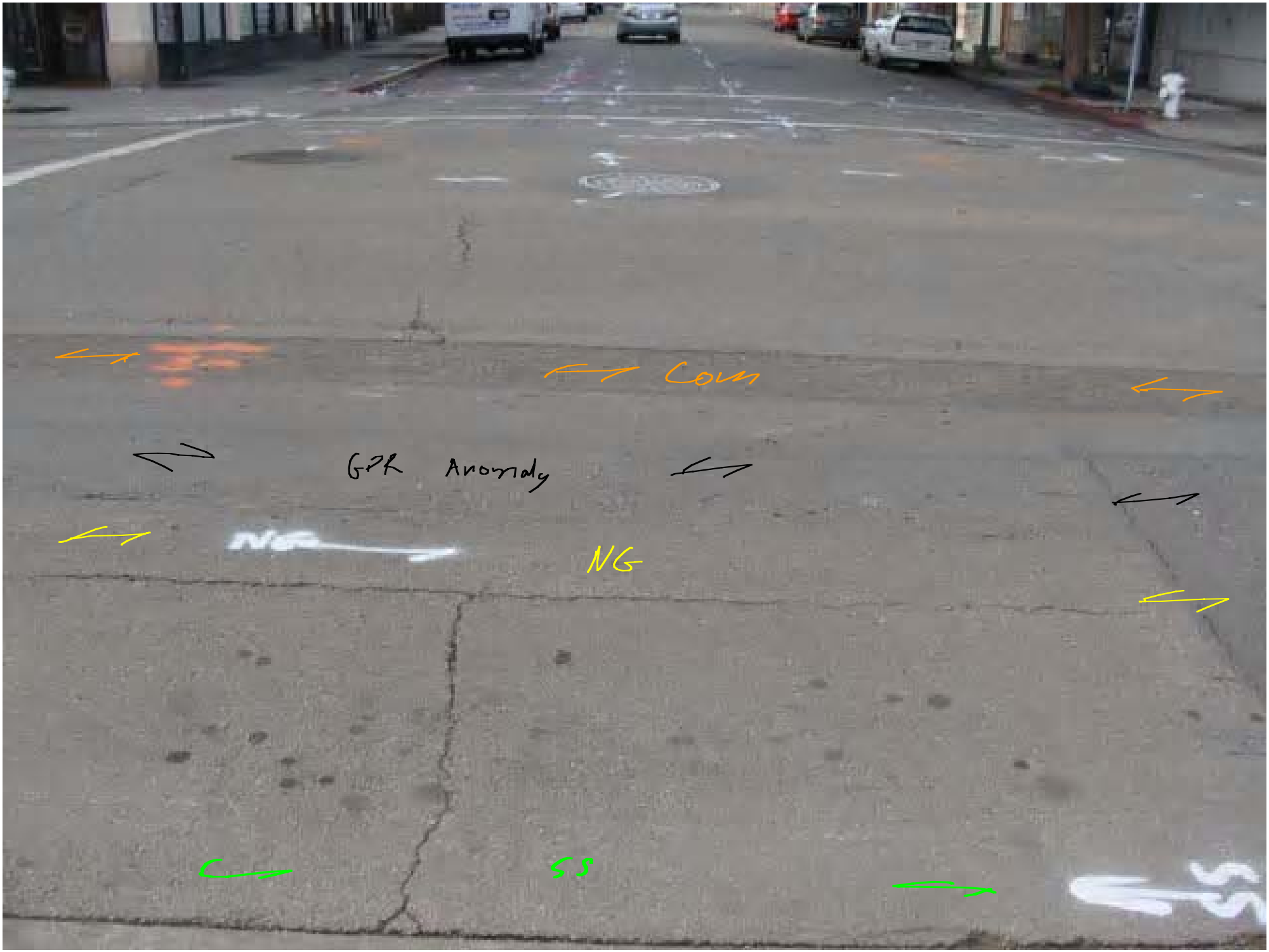
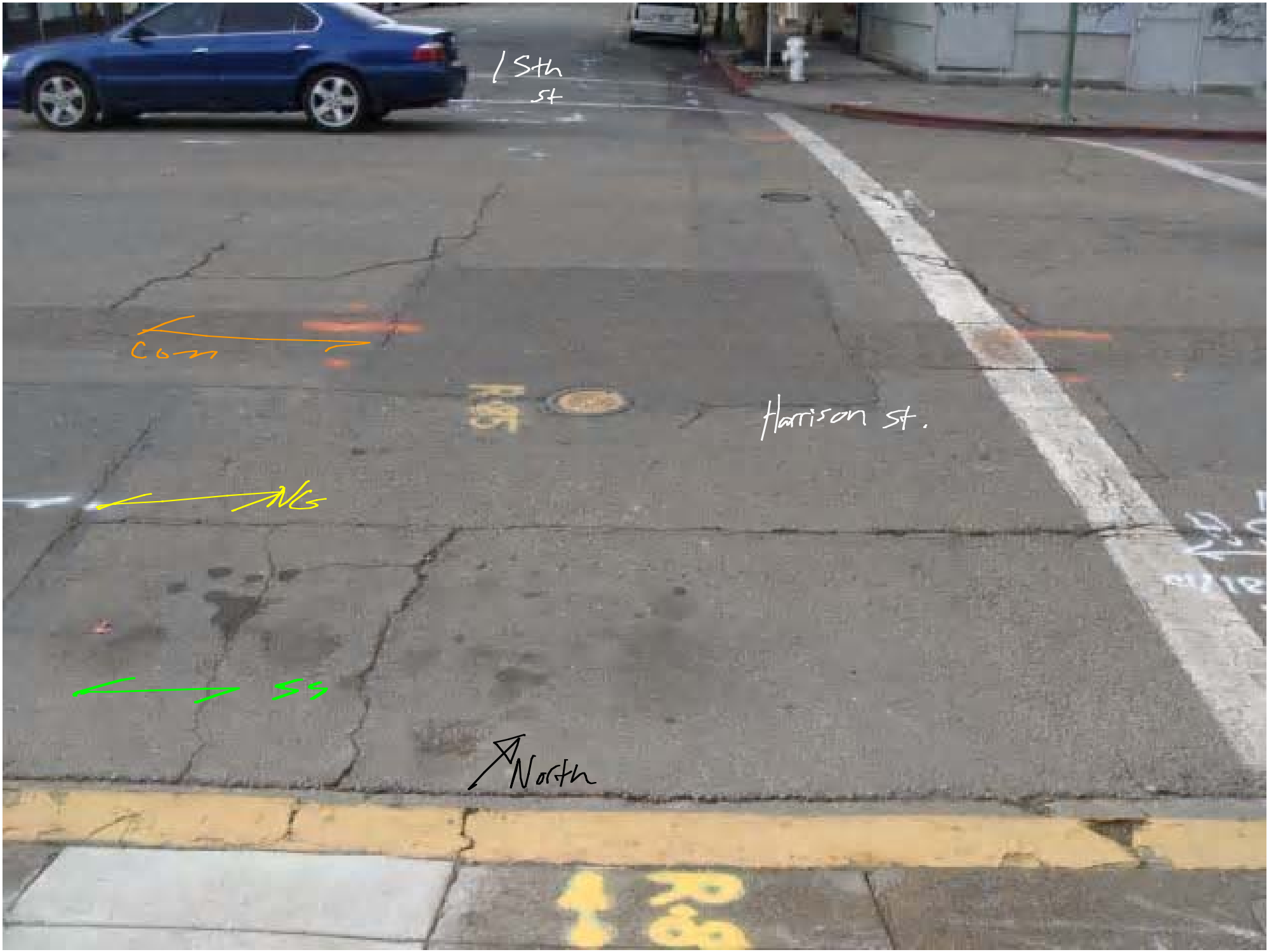
GPR
5'
unknown utility
NG
5'
SS
North


Conn
GPR Anomaly
NG
NG
SS


15th st
Com
Harrison st.
NG
SS
North


HIEN'S
MARKET

APPENDIX D

FIELD PROCEDURES AND GUIDANCE DOCUMENTS

APPENDIX G - SOIL GAS SAMPLING DIRECTLY UNDER BUILDING FOUNDATIONS (SUBSLAB SAMPLING)

For sites that fail a preliminary evaluation pursuant to Step 5, a site-specific evaluation of vapor intrusion can be done, which may include the sampling of soil gas beneath a building's foundation. The number and locations of subslab samples should be determined based on information collected during the building survey, an understanding of the building foundation, and the results from nearby soil gas sampling. At least two subslab samples should be taken at a minimum, with one sample taken in the center of the building's foundation, if possible. The subslab data will determine if vapors are collecting directly under the building's foundation and will demonstrate which contaminants potentially represent a threat to human health. If a building is determined to have a vapor barrier and/or a tension slab, special care should be given when hand-drilling through the concrete slab. In particular, for a tension foundation slab, the tension cables within the slab should be located prior to drilling either through visual observation or through remote-sensing with either a metal detector or ground penetrating radar. The cutting of a tension cable within a slab during drilling could disrupt the integrity of the slab and potentially cause injury to the field crew.

When evaluating subslab soil gas concentrations for a building, DTSC recommends that permanent sampling points be installed so that repeated sampling can be conducted, as necessary, to evaluate seasonal or temporal variations.

The following guidelines for subslab testing are derived, with modifications, from the state of Massachusetts' Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430 (Massachusetts Department of Environmental Protection, 2002).

1) After removal of the floor covering, small-diameter holes should be drilled through the concrete of the foundation slab. Typically, holes are 1.0 to 1.25 inches in diameter. Either an electric hand drill or concrete corer is used to drill the holes. All subslab utilities should be located and clearly marked on the slab prior to drilling. Subslab holes should be advanced 3 to 4 inches into the subslab material. The sampling probe should be constructed with the following specifications:

   - Vapor probes are typically constructed of 1/8 inch or 1/4 inch diameter brass or stainless steel pipe, with a permeable probe tip. A Teflon™ sealing disk should be placed between the probe tip and the blank pipe.

   - Bentonite chips should be used to fill the borehole annular space between the probe pipe and subslab gravel from the Teflon sealing disk to the base of the concrete foundation. Sufficient water should be added to hydrate the bentonite to insure proper sealing, and care should be used in placement of the bentonite to prevent post-emplacement expansion which might compromise both the probe and cement seal. If needed, the vapor probe tip can be covered with sand.

   - The probe pipe should be tightly sealed to the foundation slab with quick-setting contaminant-free Portland cement.

- Each probe should be constructed with a recessed threaded cap with a brass or stainless steel threaded fitting or compression fitting so the probe completion is flush with the foundation slab to reduce the tripping hazard.

- At least 30 minutes of time should elapse following installation of a probe to allow the cement to cure and allow for the subsurface conditions to equilibrate prior to sampling.

An example of a sampling probe is shown in the attached schematic diagram.

2) The collection of subslab samples should follow the procedures in Cal-EPA (2003), which recommends purge volume testing, leak testing, and the use of surface seals to insure sample integrity, as appropriate for field conditions. Samples should be collected in gas-tight, opaque/dark containers so that light-sensitive or halogenated VOCs will not degrade. The use of Tedlar bags for collection of soil gas samples is not recommended. If a Summa™ canister is used, a flow regulator should be placed between the probe and the canister to ensure that the canister is filled at the appropriate flow rate. Flow rates should not exceed 200 ml/min. Care should be taken during sampling to avoid sample break-through from the surface of the slab.

3) Subslab soil gas sampling should be performed using analytical methods in Cal-EPA (2003). These methods include USEPA Methods 8260B, 8021B, and 8015B. Other methods that may be used include USEPA Methods TO-14A, TO-15, and other methods that meet the site-specific data quality objectives and the analytical method detection limits for risk determination.

4) A sufficient number of subslab sampling events should be conducted to account for seasonal and temporal transience. Therefore, a minimum of two subslab sampling events are warranted before a final risk determination is made.

5) Upon completion of all the sampling, the foundation probes should be properly decommissioned. The probe tip, probe piping, bentonite, and grout should be removed by redrilling. The borehole should be filled with grout and concrete patch material. Surface restoration should include a follow-up visit for final sanding and finish work to restore the floor slab to its original condition.

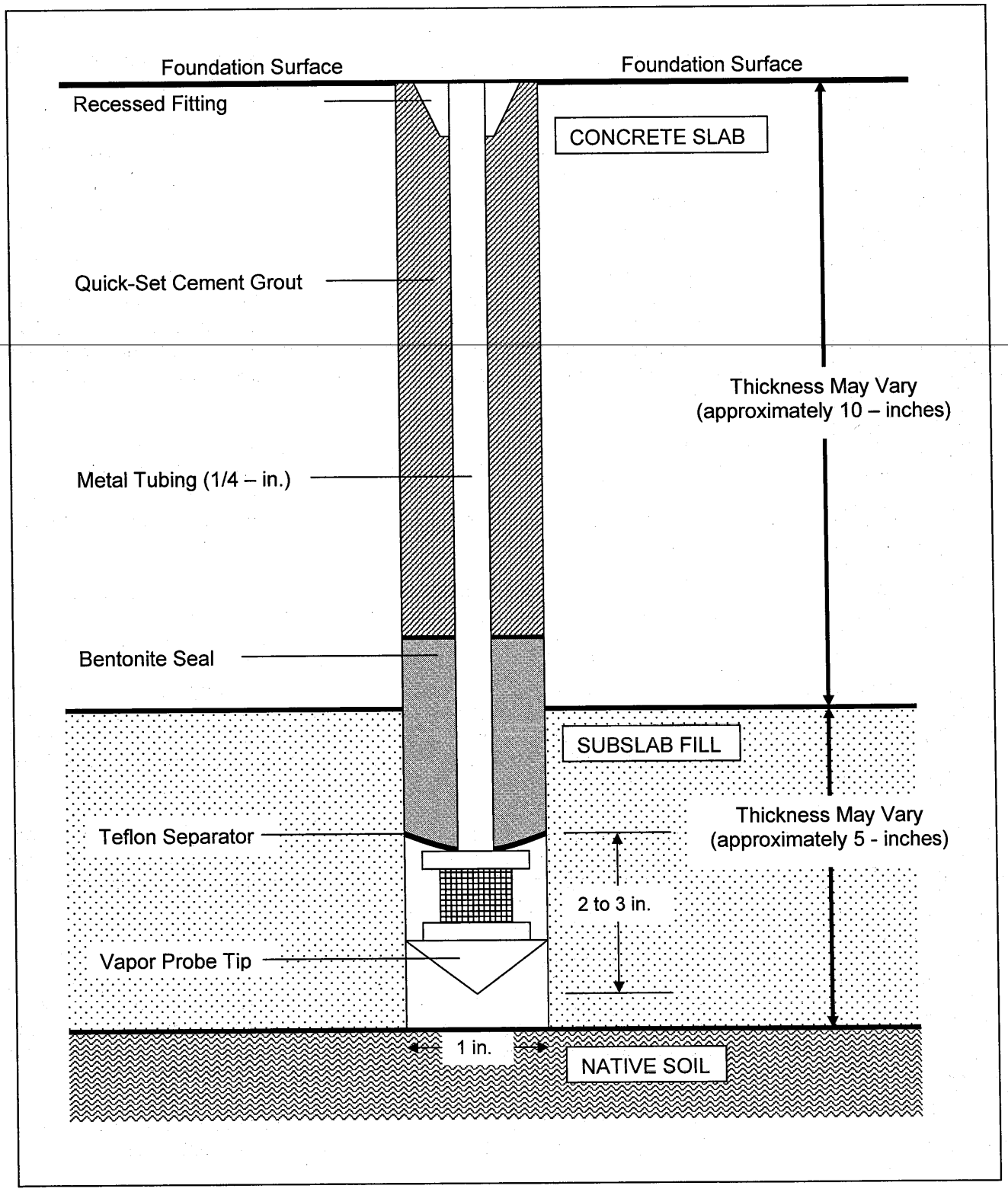
The use of passive soil gas methods for subslab sampling are not recommended for risk determination. Passive soil gas sampling should only be considered to identify subsurface contaminants, preferential pathways for vapor movement, and to reduce uncertainty caused by temporal variations.

REFERENCES

California Environmental Protection Agency. 2003. Advisory – Active Soil Gas Investigation. Jointly issued by the Regional Water Quality Control Board, Los Angeles Region and the Department of Toxic Substances Control. January 28, 2003. [www.dtsc.ca.gov/Publications Forms/index.html]

Massachusetts Department of Environmental Protection. April 2002. Indoor Air Sampling and Evaluation Guide, WSC Policy #02-430. Massachusetts Department of Environmental Protection.

SCHEMATIC DIAGRAM OF A SUBSLAB SAMPLING PROBE



STANDARD FIELD PROCEDURES FOR HAND-AUGER SOIL BORINGS

This document describes Conestoga-Rovers & Associates' standard field methods for drilling and sampling soil borings using a hand-auger. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Boring and Sampling

Hand-auger borings are typically drilled using a hand-held bucket auger to remove soil to the desired sampling depth. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the augered hole. The vertical location of each soil sample is determined using a tape measure. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Augering and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are collected from the open borehole or through temporary PVC casing using bailers. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are collected usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

The borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

Conestoga-Rovers & Associates

STANDARD FIELD PROCEDURES FOR MONITORING WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG).

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4^{o} C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 fee below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

STANDARD FIELD PROCEDURES
VAPOR POINT INSTALLATION AND SAMPLING

This document describes Conestoga-Rovers & Associates' standard field methods for soil vapor sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil vapor samples are collected and analyzed to assess whether vapor-phase subsurface contaminants pose a threat to human health or the environment.

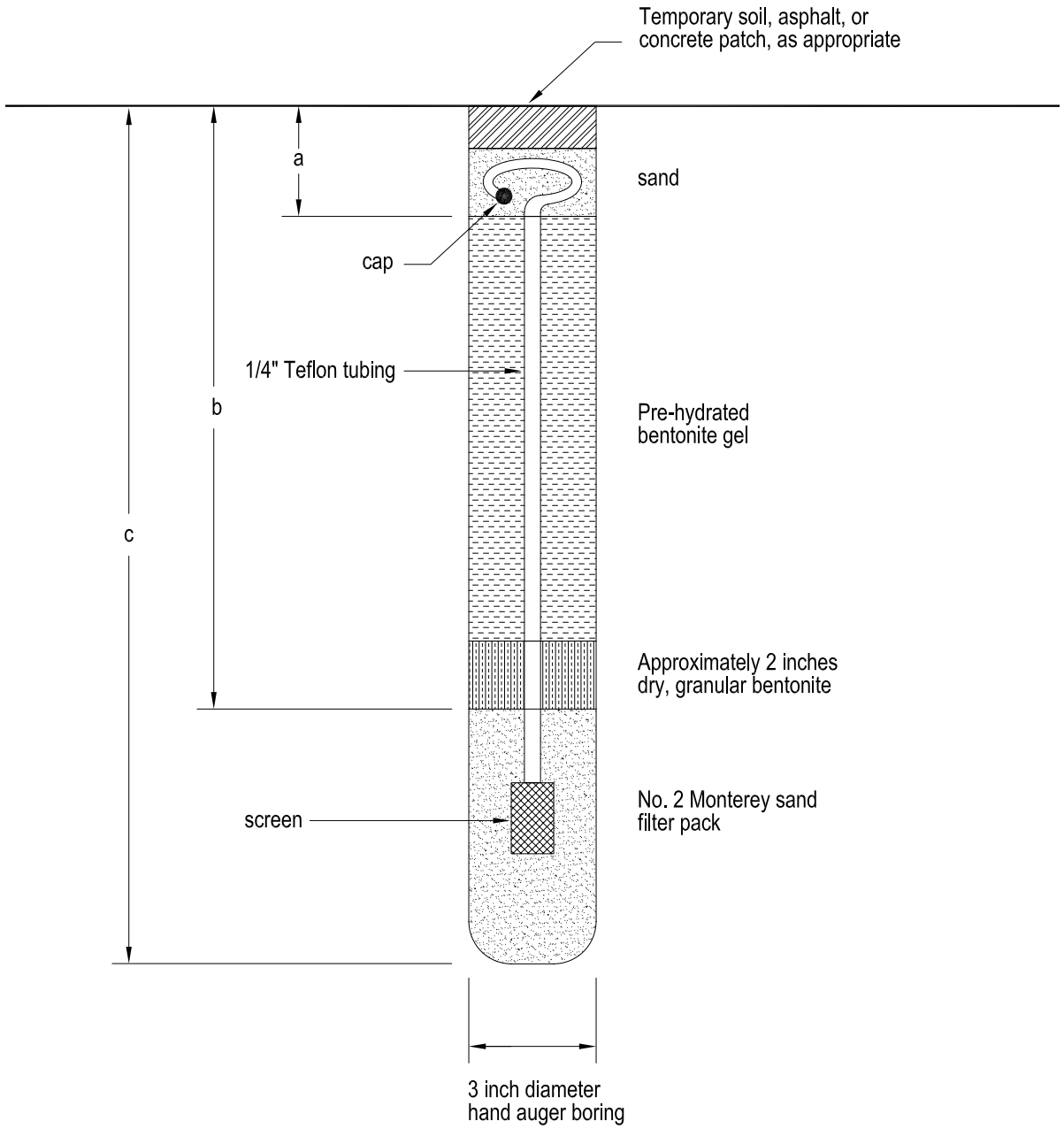
Shallow Soil Vapor Point Method for Soil Vapor Sampling

The shallow soil vapor point method for soil vapor sampling utilizes a hand auger or drill rig to advance a boring for the installation of a soil vapor sampling point. Once the boring is hand augered to the final depth, a 6-inch slotted probe, capped on either end with brass or Swagelok fittings, is placed within 12-inches of number 2/16 filter sand (Figure A). Nylon tubing of ¼-inch outer-diameter of known length is attached to the probe. A 2-inch to 12-inch layer of unhydrated bentonite chips is placed on top of the filter pack. Next pre-hydrated granular bentonite is then poured into the hole to approximately and topped with another 2-inch layer of unhydrated bentonite chips or concrete, depending if the boring will hold one probe or multiple probes. The tube is coiled and placed within a wellbox finished flush to the surface. Soil vapor samples will be collected no sooner than one week after installation of the soil vapor points to allow adequate time for representative soil vapors to accumulate. Soil vapor sample collection will not be scheduled until after a minimum of three consecutive precipitation-free days and irrigation onsite has ceased. Figure B shows the soil vapor sampling apparatus. A measured volume of air will be purged from the tubing using a different Summa purge canister. Immediately after purging, soil vapor samples will be collected using the appropriate size Summa canister with attached flow regulator and sediment filter. The soil vapor points will be preserved until they are no longer needed for risk evaluation purposes. At that time, they will be destroyed by extracting the tubing, hand augering to remove the sand and bentonite, and backfilling the boring with neat cement. The boring will be patched with asphalt or concrete, as appropriate.

Vapor Sample Storage, Handling, and Transport

Samples are stored and transported under chain-of-custody to a state-certified analytic laboratory. Samples should never be cooled due to the possibility of condensation within the canister.

Attachments: Figure A: Soil Vapor Point
Figure B: Soil Vapor Sampling Apparatus Diagram



Schematic Not to Scale

FIGURE

A

Soil Vapor Point

CONESTOGA-ROVERS & ASSOCIATES

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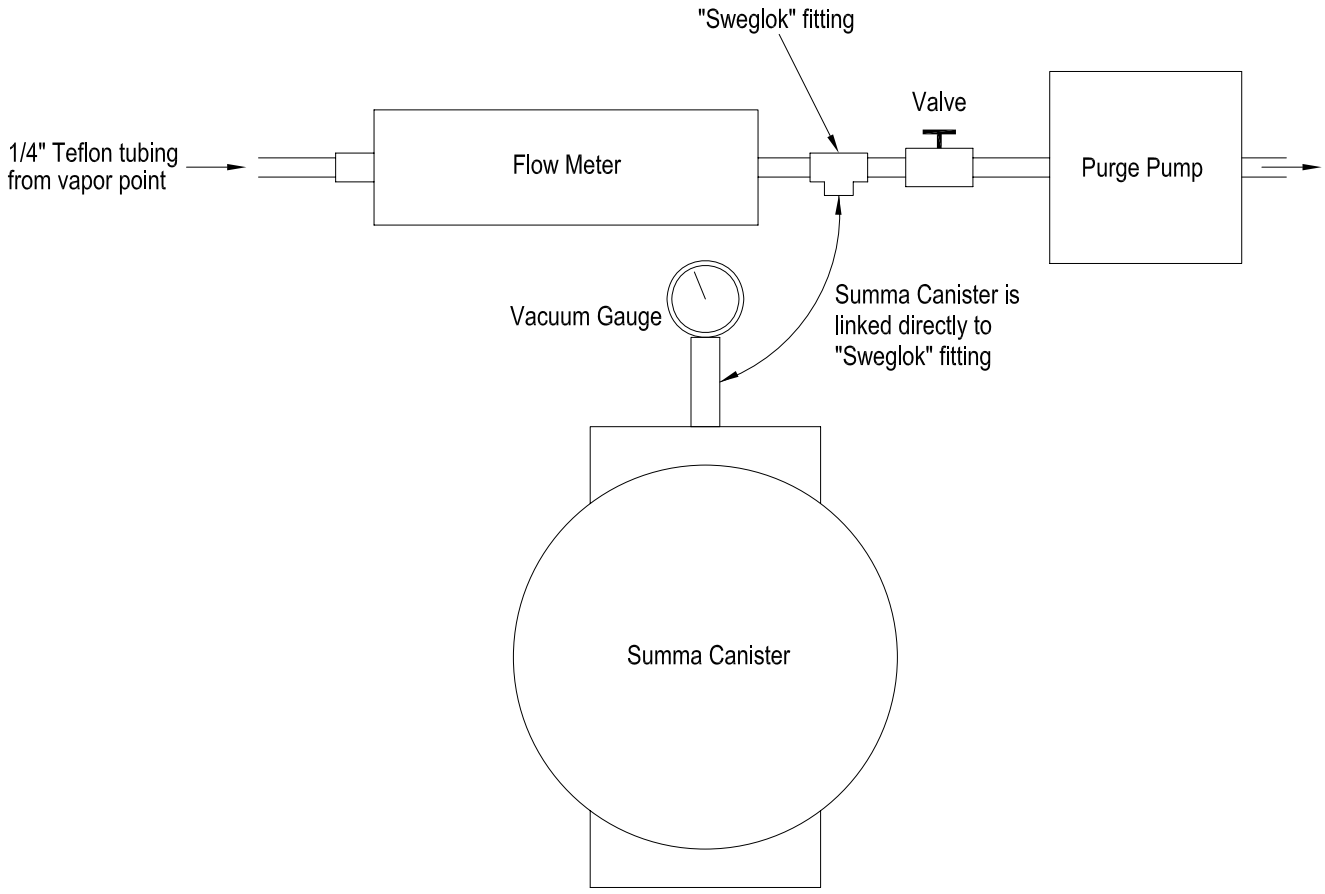

Schematic Not to Scale

FIGURE

B

CONESTOGA-ROVERS & ASSOCIATES

Soil Vapor Sampling Apparatus Diagram

S:\0-TEXACO\TEX-SITES\211273\FIGURES\VAPOR-DIAG.DWG

Conestoga-Rovers & Associates

STANDARD FIELD PROCEDURES FOR
GROUNDWATER MONITORING AND LOW-FLOW SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Conestoga-Rovers and Associate's field procedures are summarized below.

Groundwater Elevation Monitoring

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain light non-aqueous phase liquid (LNAPL) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of LNAPL, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be measured last. In wells with a history of LNAPL, the LNAPL level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water.

Groundwater Purging and Sampling

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of LNAPL or floating LNAPL globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no LNAPL is present.

Wells shall be purged according to low flow protocol using an aboveground peristaltic pump. Groundwater wells shall be purged at a low flow rate not to exceed 500 milliliters per minute (mL/min) until groundwater parameters of conductivity and/or dissolved oxygen have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall also be measured and recorded approximately every 3 to 5 minutes. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after well parameters have stabilized at a low flow rate not to exceed 500 mL/min. Groundwater samples shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and Teflon lined tubing shall be used for sampling each well.

Sample Handling

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. A copy of the COC shall be retained in the project file. Information on the COC shall consist of the project name and number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

Waste Handling and Disposal

Groundwater extracted during sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums and shall be labeled with the contents, date of generation, generator identification, and consultant contact. Extracted groundwater may be disposed offsite by a licensed waste handler or may be treated and discharged via an operating onsite groundwater extraction/treatment system.

APPENDIX E

SOIL BORING LOGS, WELL INSTALLATION BORING & CONSTRUCTION LOG AND SUB-SLAB VAPOR PROBE CONSTRUCTION LOGS

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
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Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-25
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-May-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-May-11
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	NA
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	15.00 fbg (31-May-11)
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Boring located approximately 20' east of alley between 1425 and 1445 Harrison Street		

PID (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
					ASPHALT: 3 inches thick. CONCRETE: 9 inches thick.	0.3 1.0
				SM	**Silty SAND:** Moderate yellowish brown (10YR 5/4); moist; 10% silt, 90% medium to coarse grained sand; non-plastic; high estimated permeability.	5.0
0.0		B-25- 5	5	SW	**Gravelly SAND:** Moderate yellowish brown (10YR 5/4); moist; 5% clay, 10% gravel, 85% medium to coarse grained sand; non-plastic; high estimated permeability.	9.0
3.3		B-25- 10	10		**Silty SAND:** Olive gray (5Y 3/2); moist; 10% silt, 90% medium to coarse grained sand; non-plastic; high estimated permeability. @ 11': As above but Moderate yellowish brown (10YR 5/4).	
2.6		B-25- 15	15		@ 15': As above but wet; 5% clay, 10% silt, 85% medium to coarse grained sand; non-plastic; high estimated permeability.	
			20	SM	@ 15': As above but Dark yellowish brown (10YR 6/6)	

WELL DIAGRAM

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

Continued Next Page

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Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-25
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	31-May-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-May-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
201		B-25- 20							
230		B-25- 25		25			Heaving Sands	29.0	Bottom of Boring @ 29 fbg

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-26
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	01-Jun-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	01-Jun-11
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	NA
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	14.50 fbg (01-Jun-11)
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Boring located at edge of sidewalk in vicinity of UST closed in place at 1424 Harrison Street		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: 6 inches thick.	0.5	
							Silty SAND with miscellaneous debris: Moderate brown (5YR 4/4); moist; 10% silt, 90% fine to medium grained sand; non-plastic; high estimated permeability.		
							@2.5': Brick encountered.		
0.4		B-26- 5		5	SM		@ 5': As above but no debris.		
51									
178		B-26- 10		10				11.0	
330					SM		**Silty SAND with Clay:** Moderate yellowish brown (10YR 5/4); moist; 10% clay, 15% silt, 75% medium to coarse grained sand; low plasticity; high estimated permeability. @ 12': As above but Grayish Olive green (5GY 3/2).		
330		B-26- 15		15			**Silty SAND:** Grayish olive green (5GY 3/2); wet; 10% silt, 90% medium to coarse grained sand; non-plastic; high estimated permeability.	15.0	
				20					

Continued Next Page

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-26
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	01-Jun-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	01-Jun-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
340		B-26- 20			SM				
320		B-26- 25		25					
0.0		B-26- 30		30			@ 30': As above but Moderate yellowish brown (10YR 5/4).	31.0	
					SM		**Silty, Clayey SAND**: Pale yellowish brown (10YR 6/2); wet; 15% clay, 15% silt, 60% medium to coarse grained sand; low plasticity; moderate estimated permeability.	33.0	
0.0		B-26- 34.5		35	SM		**Silty SAND**: Moderate yellowish brown (10YR 5/4); wet; 10% silt, 90% medium to coarse grained sand; non-plastic; high estimated permeability.	35.0	Bottom of Boring @ 35 fbg

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-27
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	01-Jun-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	01-Jun-11
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	NA
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	20.00 fbg (01-Jun-11)
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Boring located in vicinity of former UST and current driveway		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: 6 inches thick.	0.5	
					SW		**SAND :** Grayish brown (5YR 3/2); moist; 100% medium to coarse grained sand; non-plastic; high estimated permeability. @1.5': Moderate yellowish brown (10YR 5/4).		
0.2		B-27- 5		5					
								7.0	
							Silty SAND: Moderate yellowish brown (10YR 5/4); moist; 5% clay, 10% silt, 85% medium to coarse grained sand; low plasticity; high estimated permeability. @8.0': As above but wet.		
0.5		B-27- 10		10					
					SM				
1.3							@ 12.5': As above but Grayish olive (10Y 4/2); moist.		
							@ 13.5': As above but Dark yellowish brown (10YR 4/2).		
1.5		B-27- 15		15					
								16.0	
3.4							**SAND :** Grayish olive green (5GY 3/2); moist; 100% medium to coarse grained sand; non-plastic; high estimated permeability.		
				20					

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-27
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	01-Jun-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	01-Jun-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
88		B-27- 20			SW		@20': As above but wet.		
420								24.0	
435		B-27- 25		25	SM		**Silty SAND:** Grayish olive green (5GY 3/2); wet; 10% silt, 90% fine to medium grained sand; non-plastic; high estimated permeability.		
0.6		B-27- 30		30	CL		**Silty, Sandy CLAY:** Pale yellowish brown (10YR 6/2); wet; 20% silt, 20% medium to coarse grained sand, 60% clay; medium plasticity; moderate estimated permeability.	30.0	
0.0		B-27- 34.5		35				35.0	Bottom of Boring @ 35 fbg

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-28
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	02-Jun-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	02-Jun-11
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Direct push	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	NA
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	30.00 fbg (02-Jun-11)
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Boring located approximately 3' south of MW-2		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT: 3 inches thick.	0.3	
							CONCRETE: 9 inches thick.	1.0	
							Silty SAND with Asphalt: Moderate yellowish brown (10YR 5/4); moist; 10% silt, 90% medium to coarse grained sand; non-plastic; high estimated permeability. @2.0': As above but no asphalt.		
					SM				
0.0		B-28- 5		5					
								7.0	
							SAND with Silt and Clay: Pale yellowish brown (10YR 6/2); moist; 10% clay, 10% silt, 80% medium to coarse grained sand; low plasticity; high estimated permeability.		
					SM				
0.0		B-28- 10		10				10.5	
0.2							**SAND :** Pale yellowish brown (10YR 6/2); moist; 100% medium to coarse grained sand; non-plastic; high estimated permeability. @ 12.0': As above but Olive gray (5Y 3/2); moist.		
0.5		B-28- 15		15			@ 15.0': As above but 5% silt, 95% medium to coarse grained sand.		
11									
				20					

Continued Next Page

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Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-28
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	02-Jun-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	02-Jun-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
432		B-28- 20			SW		@ 20.0': As above but Grayish olive green (5GY 3/2).		
405									
508									
464		B-28- 25		25					
							▽	30.0	
32		B-28- 30		30			**Silty, Sandy CLAY:** Pale yellowish brown (10YR 6/2); wet; 20% silt, 20% fine to medium grained sand, 60% clay; medium plasticity; moderate estimated permeability.		
2.2					CL			32.0	Bottom of Boring @ 32 fbg

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	B-29
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	02-Jun-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	02-Jun-11
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hand Auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	3 inches	**SCREENED INTERVALS**	NA
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Boring located approximately 3' north of well MW-1		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: One feet thick.	1.0	
					SM		**Silty SAND with Gravel:** Dark yellowish brown (10YR 4/2); dry; 10% silt, 10% angualr gravel (>0.5"), 80% medium to coarse grained sand; non-plastic; high estimated permeability. @1.5': Encountered grout.	1.5 2.0	Bottom of Boring @ 2 fbg

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

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Emeryville, CA 94608
Telephone: 510-420-0700
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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	MW-7
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	30-May-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-May-11
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	8"	**SCREENED INTERVALS**	15 to 25 fbg
LOGGED BY	C. Hee	**DEPTH TO WATER (First Encountered)**	19.00 fbg (31-May-11) ▽
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Well located approximately 65' south of Harrison and 15th Street		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT: 3 inches thick. CONCRETE: 9 inches thick.	0.3 1.0	Flush-grade 12" well box
					SM		**Silty SAND:** Moderate yellowish brown (10YR 5/4); moist; 15% silt, 85% medium to coarse grained sand; non-plastic; high estimated permeability.	3.0	
0.0		MW-7- 5		5			**Silty SAND with Clay:** Moderate yellowish brown (10YR 5/4); moist; 10% clay, 15% silt, 75% medium to coarse grained sand; low plasticity; moderate to high estimated permeability.		Portland Type I/II
0.0							@ 8': As above but Grayish olive (10Y 4/2).		2" diam., Schedule 40 PVC
0.0		MW-7- 10		10	SM		@ 11.5': As above but Moderate yellowish brown (10YR 5/4).		Bentonite Seal
0.2		MW-7- 14.5		15				16.0	
							Silty SAND: Olive gray (5YR 3/2); moist; 10% silt, 90% medium to coarse grained sand; non-plastic; high estimated permeability.		
				20			@ 19': As above but wet. ▽		Monterey Sand #2/12

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

Continued Next Page

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BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	MW-7
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	30-May-11
LOCATION	Oakland, California	**DRILLING COMPLETED**	31-May-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
250		MW-7- 20			SM				2" diam., Schedule 40 PVC; Monterey Sand #2/12
303		MW-7- 24.5		25			@ 24.5': As above but Grayish olive (10Y 4/2).		Borehole reamed out to 25' with 8" diameter augers and well installed
64		MW-7- 30		30			**SAND with Silt:** Grayish olive (10Y 4/2); moist; 10% silt, 90% medium to coarse grained sand; non-plastic; high estimated permeability. Flowing sands	30.0	
63					SM				
52		MW-7- 34.5		35					
34								37.0	Bottom of Boring @ 37 fbg

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

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Emeryville, CA 94608
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Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SSVP-1
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	24-Jan-12
LOCATION	Oakland, California	**DRILLING COMPLETED**	24-Jan-12
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Rotohammer	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	1.25"	**SCREENED INTERVALS**	0.7 to 0.75 fbg
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Located in basement of downgradient building		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: (6 inches thick)	0.4	Anchoring Cement; 1/4" Stainless Steel Tubing; Dry Grannular Bentonite
							FILL	0.8	Monterey Sand #2/12; 1/2" Stainless Steel Vapor Probe
									Bottom of Boring @ 0.83 fbg

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

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Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SSVP-2
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	24-Jan-12
LOCATION	Oakland, California	**DRILLING COMPLETED**	24-Jan-12
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Rotohammer	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	1.25"	**SCREENED INTERVALS**	0.7 to 0.75 fbg
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Located in basement of downgradient building		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: (6 inches thick)		Anchoring Cement; 1/4" Stainless Steel Tubing; Dry Granular Bentonite
								0.4	
							FILL		Monterey Sand #2/12; 1/2" Stainless Steel Vapor Probe
								0.8	Bottom of Boring @ 0.83 fbg

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Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SSVP-3
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	24-Jan-12
LOCATION	Oakland, California	**DRILLING COMPLETED**	24-Jan-12
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Services C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Rotohammer	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	1.25"	**SCREENED INTERVALS**	0.7 to 0.75 fbg
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Located in basement of downgradient building		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: (6 inches thick)	0.4	Anchoring Cement; 1/4" Stainless Steel Tubing; Dry Granular Bentonite
							FILL	0.8	Monterey Sand #2/12; 1/2" Stainless Steel Vapor Probe
									Bottom of Boring @ 0.83 fbg

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

Conestoga Rovers & Associates
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Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Borsuk	**BORING/WELL NAME**	SSVP-4
JOB/SITE NAME	1432 Harrison Street	**DRILLING STARTED**	24-Jan-12
LOCATION	Oakland, California	**DRILLING COMPLETED**	24-Jan-12
PROJECT NUMBER	540188	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Vapor Tech Service C-57 #916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Rotohammer	**TOP OF CASING ELEVATION**	NA
BORING DIAMETER	1.25"	**SCREENED INTERVALS**	0.7 to 0.75 fbg
LOGGED BY	B. Fong	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	R. Foss PG #7445	**DEPTH TO WATER (Static)**	NA
REMARKS	Located in basement of downgradient building		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							CONCRETE: (6 inches thick)	0.4	Anchoring Cement; 1/4" Stainless Steel Tubing; Dry Granular Bentonite
							FILL	0.8	Monterey Sand #2/12; 1/2" Stainless Steel Vapor Probe
									Bottom of Boring @ 0.83 fbg

WELL LOG (PID) I:\IR\6-CHARS\5401--\540188\540188~1\54CAFB~1\BORSUK.GPJ DEFAULT.GDT 4/18/12

APPENDIX F

LABORATORY ANALYTICAL REPORTS

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 05/31/11-06/02/11
		Date Received: 06/03/11-06/06/11
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Reported: 06/13/11
Emeryville, CA 94608	Client P.O.:	Date Completed: 06/13/11

WorkOrder: 1106151

June 13, 2011

Dear Bob:

Enclosed within are:

1) The results of the **23** analyzed samples from your project: **#540188; Borsuk,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

1106151

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Bob Foss	Bill To: Bob Foss
Company: Conestoga Rovers and Associates	bfoss@craworld.com
5900 Hollis Street	chee@craworld.com
Emeryville, Ca	E-Mail:
Tele: (510) 420-3358	Fax: (510) 420-9170
Project #: 540188	Project Name: Borsuk
Project Location: 1432 Harrison Street, Oakland, CA	
Sampler Signature:	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: Filter sample for DISSOLVED metals analysis
MW-7-4.5		5/30/11	9:50	1	SS		X				X																					
MW-7-9.5		5/30/11	11:55		SS																											
MW-7-14.5		5/31/11	8:10		Acetate										X																	
MW-7-20		5/31/11	8:15												X																	
MW-7-24.5		5/31/11	8:20												X																	
MW-7-30		5/31/11	8:40												X																	
MW-7-34.5		5/31/11	8:45												X																	
B-25-5		5/31/11	13:50		SS																											
B-25-10		5/31/11	14:10												X																	
B-25-15		5/31/11	14:45		Acetate										X																	
B-25-20		5/31/11	14:50		Acetate										X																	

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

	Date:	Time:	
Relinquished By:	6/1/11	1:00	Received By:
Relinquished By:	6/3	1830	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 8-4

GOOD CONDITION

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS

PRESERVED IN LAB

COMMENTS: Please hold all samples not checked off 1/4

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Bob Foss	Bill To: Bob Foss
Company: Conestoga Rovers and Associates	bfoss@craworld.com
5900 Hollis Street	chee@craworld.com
Emeryville, Ca	E-Mail:
Tele: (510) 420-3358	Fax: (510) 420-9170
Project #: 540188	Project Name: Borsuk
Project Location: 1432 Harrison Street, Oakland, CA	
Sampler Signature:	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: Filter sample for DISSOLVED metals analysis
B-25-25		5/31/11	15:15	1	Acetate		X				X				X																	
B-26-5		6/1/11	9:05		SS																											
B-26-10		6/1/11	9:30		SS										X																	
B-26-15		6/1/11	10:10		SS										X																	
B-26-20		6/1/11	10:30		Acetate										X																	
B-26-25		6/1/11	10:40												X																	
B-26-30		6/1/11	10:45																													
B-26-35.5		6/1/11	10:55																													
B-27-5		6/1/11	13:25		SS																											
B-27-10		6/1/11	13:45		Acetate																											
B-27-15		6/1/11	13:50		Acetate																											

Comments: **Indicate here if these samples are potentially dangerous to handle:

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	6/3/11	1700	
Relinquished By:	Date:	Time:	Received By:
	6/3	1830	
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS: Hold Sample, not checked off

VOAS O&G METALS OTHER
PRESERVATION_____ pH<2_____

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ **PDF** ☒ **Excel** ☐ **Write On (DW)** ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Bob Foss	Bill To: Bob Foss
Company: Conestoga Rovers and Associates	bfoss@craworld.com
5900 Hollis Street	chee@craworld.com
Emeryville, Ca	E-Mail:
Tele: (510) 420-3358	Fax: (510) 420-9170
Project #: 540188	Project Name: Borsuk
Project Location: 1432 Harrison Street, Oakland, CA	
Sampler Signature:	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: Filter sample for DISSOLVED metals analysis
B-27-20		6/1/11	13:00	1	Acetate		X				X				X																	
B-27-25			14:10												X																	
B-27-30			14:15												X																	
B-27-39.5'			14:15																													
B-24-5		6/2/11	8:10		SS																											
B-24-10			8:30		Acetate																											
B-24-15			8:35																													
B-24-20			8:45												X																	
B-24-25			8:55												X																	
B-24-30			9:05												X																	
B-26-31.5'			9:00																													

Other: Comments: **Indicate here if these samples are potentially dangerous to handle:

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	6/3/11	1700	
Relinquished By:	Date:	Time:	Received By:
	6/3	1830	
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS: hold samples not checked off

3/4

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Bob Foss	Bill To: Bob Foss
Company: Conestoga Rovers and Associates	bfoss@craworld.com
5900 Hollis Street	chee@craworld.com
Emeryville, Ca	E-Mail:
Tele: (510) 420-3358	Fax: (510) 420-9170
Project #: 540188	Project Name: Borsuk
Project Location: 1432 Harrison Street, Oakland, CA	
Sampler Signature:	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: Filter sample for DISSOLVED metals analysis
+5 B-25-W		5/31/11	15:20	*	Vom	X					X	X			X																	
+10 B-26-W		6/1/11	11:15												X																	
+10 B-27-W		6/1/11	14:40												X																	
+7 B-28-W		6/2/11	9:10		V	V					V	V			X																	

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Relinquished By:	Date:	Time:	Received By:
	6/3/11	1:00	
Relinquished By:	Date:	Time:	Received By:
	6/3	1830	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 3.2
GOOD CONDITION yes
HEAD SPACE ABSENT yes
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS yes
PRESERVED IN LAB

VOAS O&G METALS OTHER
PRESERVATION pH<2

COMMENTS: *Fuel Fingerprint for GW Samples 4/4

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1106151 **ClientCode: CETE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bob Foss
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-3327 FAX (510) 420-9170

Email: bfoss@craworld.com
cc:
PO:
ProjectNo: #540188; Borsuk

Bill to:
Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: **06/03/2011**
Date Printed: **06/06/2011**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
1106151-003	MW-7-14.5	Soil	5/31/2011 8:10	☐	A		A									
1106151-004	MW-7-20	Soil	5/31/2011 8:15	☐	A											
1106151-005	MW-7-24.5	Soil	5/31/2011 8:20	☐	A											
1106151-006	MW-7-30	Soil	5/31/2011 8:40	☐	A											
1106151-007	MW-7-34.5	Soil	5/31/2011 8:45	☐	A											
1106151-009	B-25-10	Soil	5/31/2011 14:10	☐	A											
1106151-010	B-25-15	Soil	5/31/2011 14:45	☐	A											
1106151-011	B-25-20	Soil	5/31/2011 14:50	☐	A											
1106151-012	B-25-25	Soil	5/31/2011 15:15	☐	A											
1106151-014	B-26-10	Soil	6/1/2011 9:30	☐	A											
1106151-015	B-26-15	Soil	6/1/2011 10:10	☐	A											
1106151-016	B-26-20	Soil	6/1/2011 10:30	☐	A											
1106151-017	B-26-25	Soil	6/1/2011 10:40	☐	A											
1106151-023	B-27-20	Soil	6/1/2011 14:00	☐	A											

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(FF)_W	5	
6		7		8		9		10	
11		12							

Prepared by: Rosa Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1106151 **ClientCode: CETE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bob Foss
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-3327 FAX (510) 420-9170

Email: bfoss@craworld.com
cc:
PO:
ProjectNo: #540188; Borsuk

Bill to:
Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: **06/03/2011**
Date Printed: **06/06/2011**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1106151-024	B-27-25	Soil	6/1/2011 14:10	☐	A											
1106151-025	B-27-30	Soil	6/1/2011 14:15	☐	A											
1106151-030	B-28-20	Soil	6/2/2011 8:45	☐	A											
1106151-031	B-28-25	Soil	6/2/2011 8:55	☐	A											
1106151-032	B-28-30	Soil	6/2/2011 9:05	☐	A											
1106151-034	B-25-W	Water	5/31/2011 15:20	☐		A		A								
1106151-035	B-26-W	Water	6/1/2011 11:15	☐		A		A								
1106151-036	B-27-W	Water	6/1/2011 14:40	☐		A		A								
1106151-037	B-28-W	Water	6/2/2011 9:10	☐		A		A								

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(FF)_W	5	
6		7		8		9		10	
11		12							

Prepared by: Rosa Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**
Date and Time Received: **6/3/2011 7:04:26 PM**

Project Name: **#540188; Borsuk**
Checklist completed and reviewed by: Rosa Venegas

WorkOrder N°: **1106151** Matrix Soil/Water
Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 3.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 05/31/11-06/02/11
		Date Received: 06/03/11-06/06/11
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Extracted: 06/03/11-06/10/11
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 06/07/11-06/10/11

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1106151

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
003A	MW-7-14.5	S	ND	ND	ND	ND	ND	ND	1	73	
004A	MW-7-20	S	1200	ND<2.5	ND<0.25	1.1	6.2	15	50	---#	d1
005A	MW-7-24.5	S	700	ND<2.0	0.79	5.5	6.9	29	40	---#	d1
006A	MW-7-30	S	8.1	ND	0.77	0.62	0.11	0.54	1	76	d1
007A	MW-7-34.5	S	4.5	ND	0.96	0.16	0.097	0.26	1	78	d1
009A	B-25-10	S	ND	ND	ND	ND	ND	ND	1	82	
010A	B-25-15	S	ND	ND	ND	ND	ND	ND	1	74	
011A	B-25-20	S	780	ND<1.7	ND<0.17	0.93	0.40	2.1	33	---#	d7,d9
012A	B-25-25	S	2200	ND<5.0	21	58	32	140	33	---#	d7,d9
014A	B-26-10	S	100	ND<0.50	ND<0.050	ND<0.050	0.082	0.19	10	78	d7,d9
015A	B-26-15	S	7.0	ND	ND	0.014	ND	0.024	1	81	d7
016A	B-26-20	S	5500	ND<10	13	170	49	500	200	---#	d1
017A	B-26-25	S	5000	ND<15	24	250	50	220	200	---#	d1
023A	B-27-20	S	210	ND<1.0	ND<0.10	0.10	0.19	0.81	20	103	d2,d9
024A	B-27-25	S	3800	ND<17	27	160	48	200	330	93	d1
025A	B-27-30	S	ND	ND	ND	ND	ND	ND	1	86	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
b1) aqueous sample that contains greater than ~1 vol. % sediment
b6) lighter than water immiscible sheen/product is present
d1) weakly modified or unmodified gasoline is significant
d2) heavier gasoline range compounds are significant (aged gasoline?)
d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 05/31/11-06/02/11
		Date Received: 06/03/11-06/06/11
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Extracted: 06/03/11-06/10/11
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 06/07/11-06/10/11

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1106151

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
030A	B-28-20	S	1400	ND<5.0	4.3	44	16	85	100	114	d1
031A	B-28-25	S	2300	ND<50	14	81	34	150	1000	---#	d1
032A	B-28-30	S	1.7	ND	0.070	0.078	0.028	0.11	1	77	d1
034A	B-25-W	W	55,000	ND<1000	19,000	2000	1700	2700	200	103	d1,b1
035A	B-26-W	W	54,000	ND<1000	1900	9600	1700	8900	200	102	d1,b6,b1
036A	B-27-W	W	100,000	ND<1500	7200	21,000	2300	13,000	200	103	d1,b6,b1
037A	B-28-W	W	100,000	ND<2000	17,000	19,000	2300	10,000	200	102	d1,b6,b1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
b1) aqueous sample that contains greater than ~1 vol. % sediment
b6) lighter than water immiscible sheen/product is present
d1) weakly modified or unmodified gasoline is significant
d2) heavier gasoline range compounds are significant (aged gasoline?)
d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 05/31/11-06/02/11
		Date Received: 06/06/11
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Extracted: 06/06/11
Emeryville, CA 94608	Client P.O.:	Date Analyzed 06/10/11-06/11/11

Fuel FingerPrint *

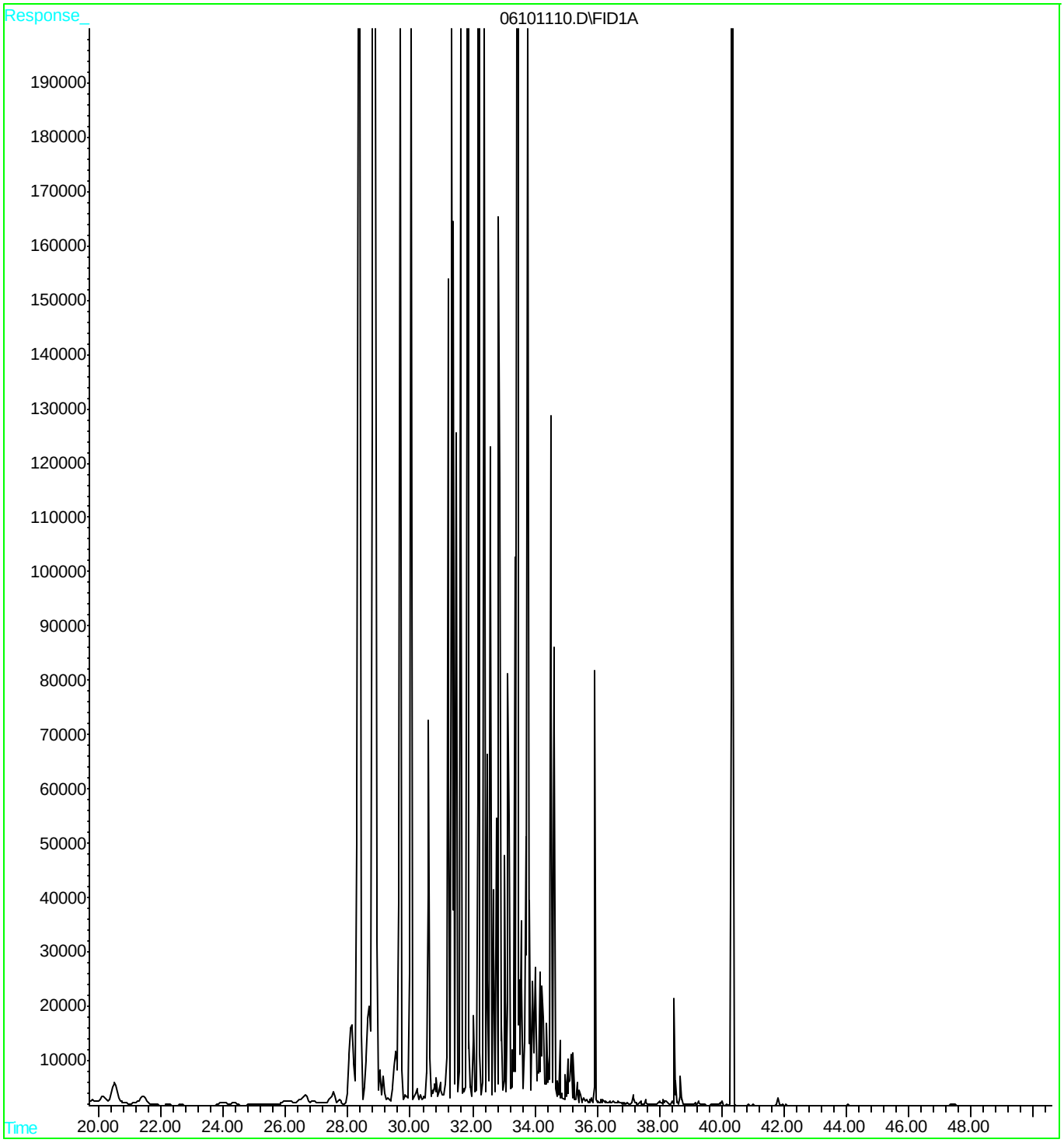
Extraction method: SW3510C Analytical methods: SW8015B Work Order: 1106151

Lab ID	Client ID	Matrix	Fuel Fingerprint
1106151-034A	B-25-W	W	This sample shows a significant hydrocarbon pattern between C6 and ~C12 that resembles a gasoline. Chromatograms enclosed.
1106151-035A	B-26-W	W	This sample has a sheen and shows a significant hydrocarbon pattern between C6 and ~C12 that resembles gasoline. Chromatograms enclosed.
1106151-036A	B-27-W	W	This sample has a sheen and shows a significant hydrocarbon pattern between C6 and ~C12 that resembles gasoline. Chromatograms enclosed.
1106151-037A	B-28-W	W	This sample has a sheen and shows a significant hydrocarbon pattern between C6 and ~C12 that resembles gasoline. Chromatograms enclosed.

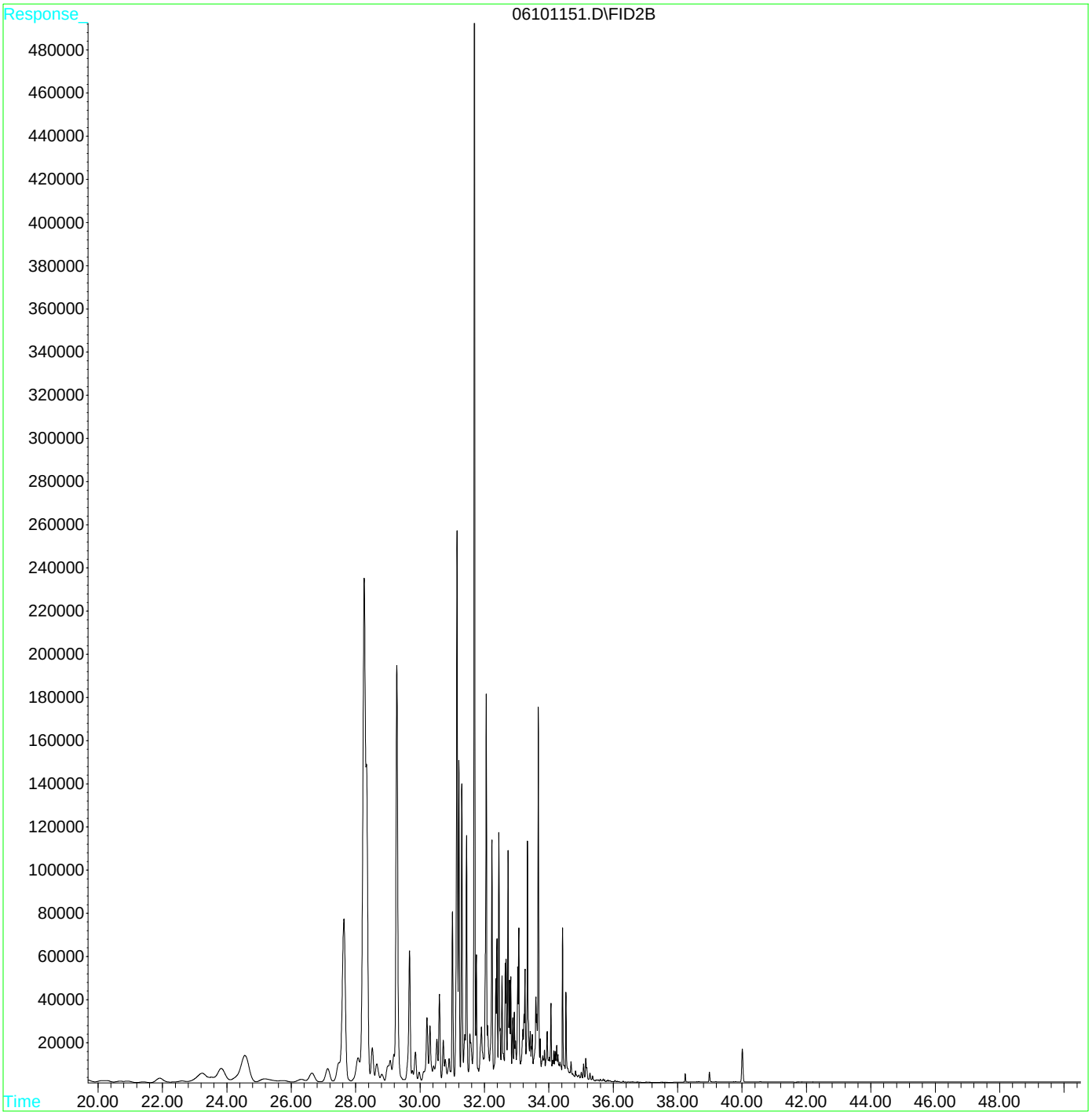
DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

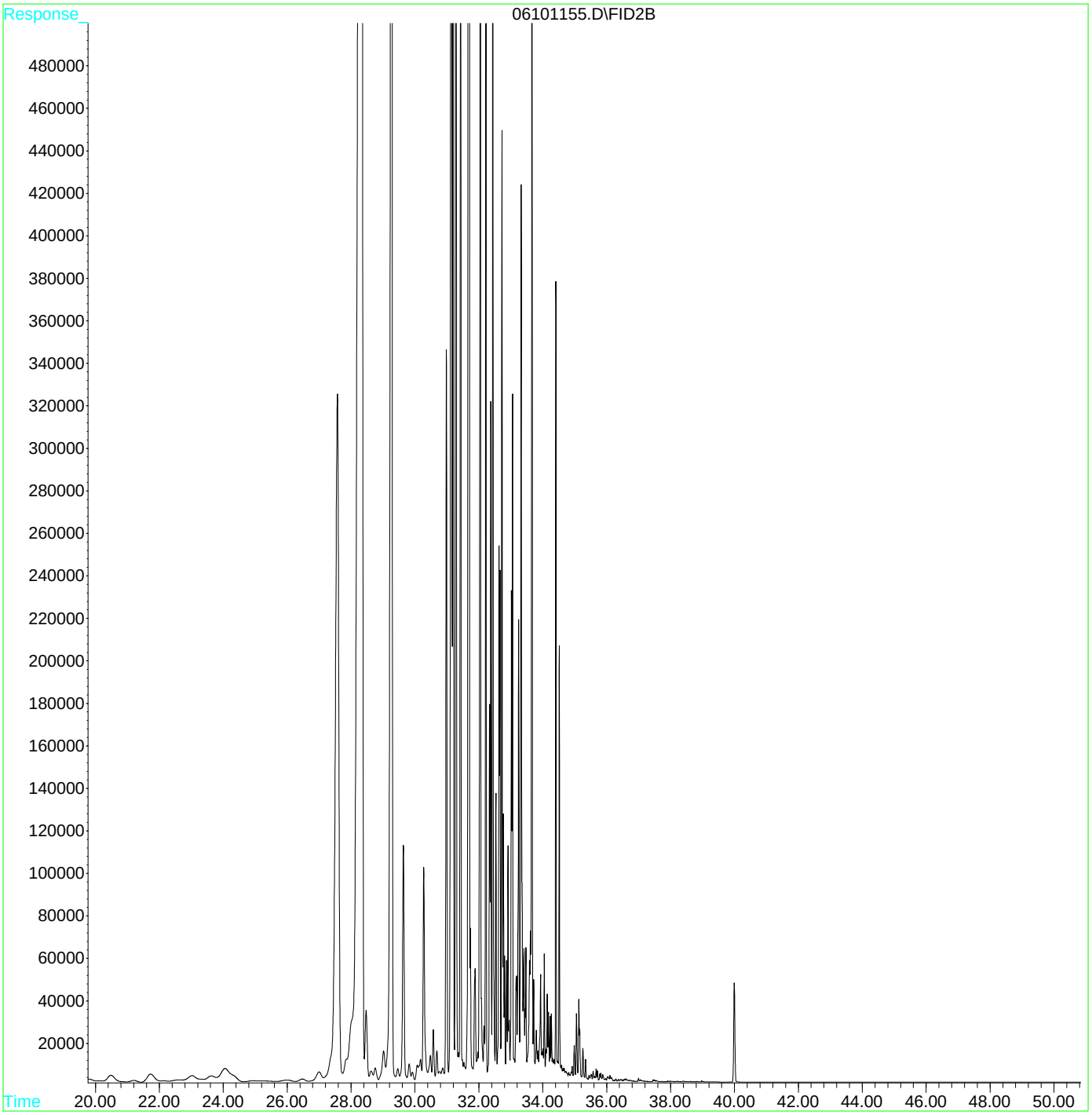
File : D:\HPCHEM\GC31\DATAA\06101110.D
Operator :
Acquired : 10 Jun 2011 3:35 pm using AcqMethod GC31A50H.M
Instrument : GC-31
Sample Name: 1106151-034A W RE
Misc Info : TPH(FF)_W
Vial Number: 5



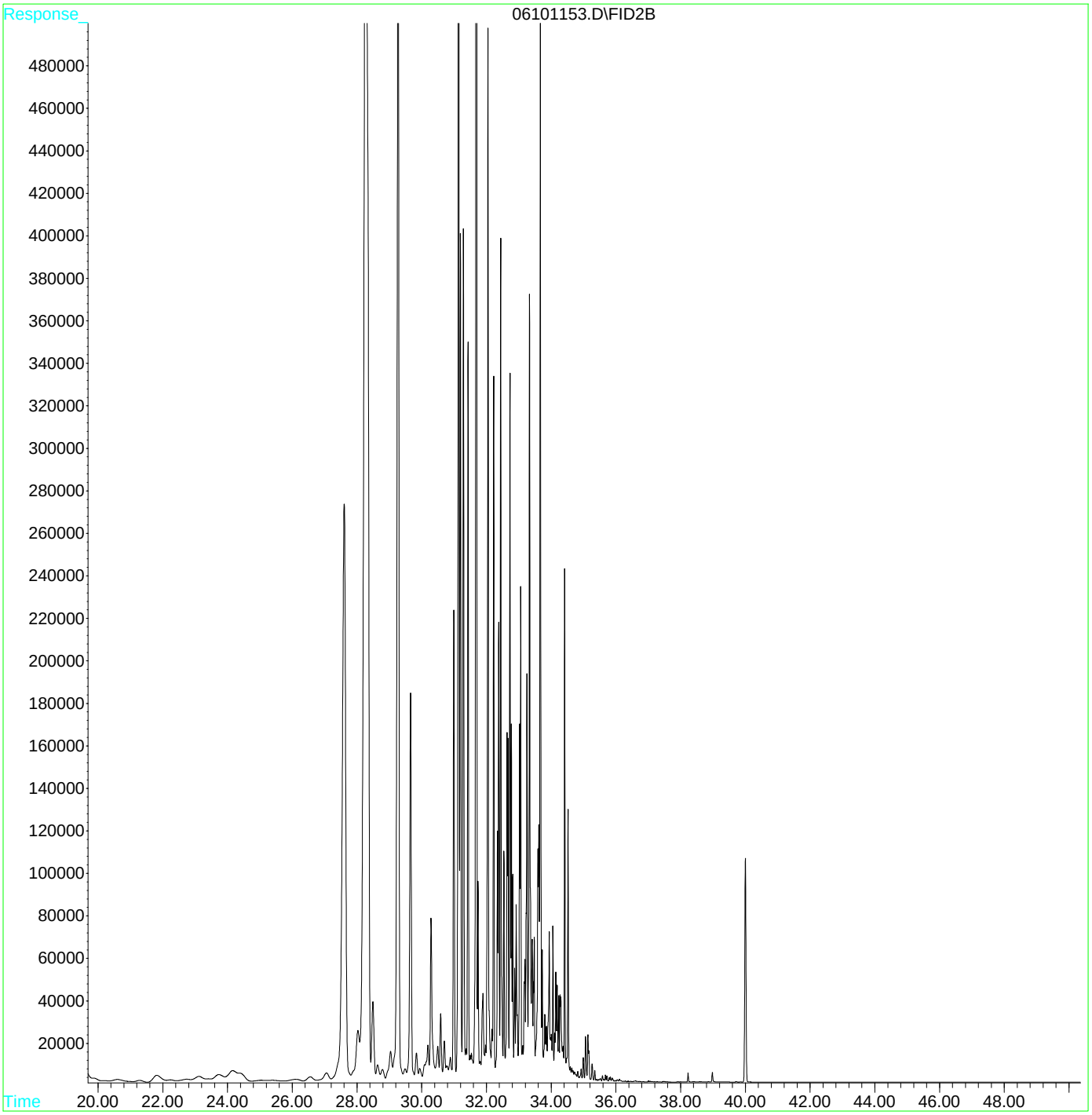
File : D:\HPCHEM\GC2\DATAB\06101151.D
Operator :
Acquired : 11 Jun 2011 6:30 pm using AcqMethod GC2A50TA.M
Instrument : GC-2
Sample Name: 1106151-035A W RE
Misc Info : TPH(FF)_W
Vial Number: 76



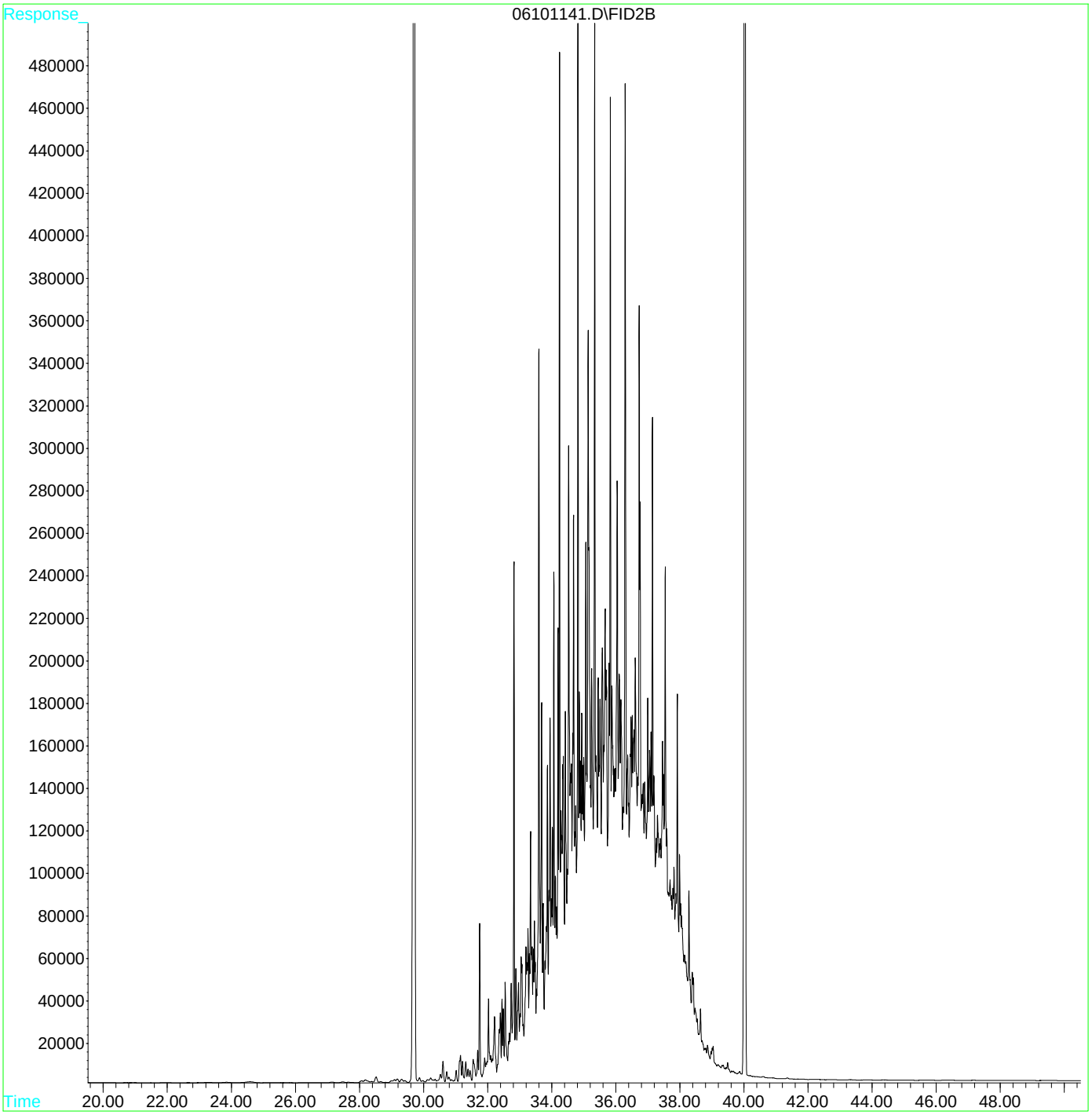
File : D:\HPCHEM\GC2\DATAB\06101155.D
Operator :
Acquired : 11 Jun 2011 8:48 pm using AcqMethod GC2A50TA.M
Instrument : GC-2
Sample Name: 1106151-036A W RE
Misc Info TPH(FF)_W
Vial Number: 78



File : D:\HPCHEM\GC2\DATAB\06101153.D
Operator :
Acquired : 11 Jun 2011 7:40 pm using AcqMethod GC2A50TA.M
Instrument : GC-2
Sample Name: 1106151-037A W RE
Misc Info : TPH(FF)_W
Vial Number: 77



File : D:\HPCHEM\GC2\DATAB\06101141.D
Operator :
Acquired : 11 Jun 2011 12:32 pm using AcqMethod GC2A50TA.M
Instrument : GC-2
Sample Name: CCV
Misc Info :
Vial Number: 71



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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 58839 WorkOrder 1106151

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1106143-005A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	111	110	0.429	111	112	1.21	70 - 130	20	70 - 130	20
MTBE	ND	0.10	98.3	98.6	0.364	96.7	97.8	1.16	70 - 130	20	70 - 130	20
Benzene	ND	0.10	90.6	91.8	1.39	91.6	91.6	0	70 - 130	20	70 - 130	20
Toluene	ND	0.10	90.4	91.5	1.22	94.1	94.2	0.137	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	98.3	98.8	0.471	98.2	99.3	1.16	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	97.4	98.4	0.995	98.7	98.6	0.0688	70 - 130	20	70 - 130	20
%SS:	80	0.10	91	91	0	93	91	1.72	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 58839 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1106151-003A	05/31/11 8:10 AM	06/03/11	06/09/11 12:32 AM	1106151-004A	05/31/11 8:15 AM	06/03/11	06/09/11 11:57 PM
1106151-005A	05/31/11 8:20 AM	06/03/11	06/09/11 1:44 PM	1106151-006A	05/31/11 8:40 AM	06/03/11	06/09/11 11:27 PM
1106151-007A	05/31/11 8:45 AM	06/03/11	06/09/11 10:57 PM	1106151-009A	05/31/11 2:10 PM	06/03/11	06/09/11 2:46 PM
1106151-010A	05/31/11 2:45 PM	06/03/11	06/09/11 2:01 AM	1106151-011A	05/31/11 2:50 PM	06/03/11	06/10/11 6:54 AM
1106151-012A	05/31/11 3:15 PM	06/03/11	06/10/11 8:24 AM	1106151-014A	06/01/11 9:30 AM	06/03/11	06/10/11 8:54 AM
1106151-015A	06/01/11 10:10 AM	06/03/11	06/09/11 10:27 PM	1106151-016A	06/01/11 10:30 AM	06/03/11	06/08/11 2:24 PM
1106151-017A	06/01/11 10:40 AM	06/03/11	06/08/11 2:55 PM	1106151-023A	06/01/11 2:00 PM	06/03/11	06/09/11 6:53 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 58848 WorkOrder 1106151

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1106195-011A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	112	111	0.761	112	107	4.90	70 - 130	20	70 - 130	20
MTBE	ND	0.10	97.5	99.6	2.18	97.1	96.6	0.593	70 - 130	20	70 - 130	20
Benzene	ND	0.10	90.5	91.5	1.06	91.2	86.1	5.75	70 - 130	20	70 - 130	20
Toluene	ND	0.10	92.7	93.6	0.891	94.1	88.2	6.53	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	97.8	98.3	0.516	99.2	93.2	6.25	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	96.7	97.2	0.557	97.5	90.8	7.03	70 - 130	20	70 - 130	20
%SS:	78	0.10	91	88	2.76	89	80	11.0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 58848 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1106151-024A	06/01/11 2:10 PM	06/03/11	06/10/11 12:23 PM	1106151-025A	06/01/11 2:15 PM	06/03/11	06/10/11 11:57 AM
1106151-030A	06/02/11 8:45 AM	06/03/11	06/10/11 12:27 AM	1106151-031A	06/02/11 8:55 AM	06/03/11	06/09/11 7:56 AM
1106151-032A	06/02/11 9:05 AM	06/03/11	06/10/11 11:22 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 58849 WorkOrder: 1106151

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1106201-001D**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	114	113	0.449	114	112	2.04	70 - 130	20	70 - 130	20
MTBE	ND	10	98	106	7.65	99.5	100	0.723	70 - 130	20	70 - 130	20
Benzene	ND	10	89.8	93.7	4.26	91	90.9	0.107	70 - 130	20	70 - 130	20
Toluene	ND	10	91.6	95.4	4.15	93.2	92.7	0.528	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.7	101	4.06	97.9	97.8	0.108	70 - 130	20	70 - 130	20
Xylenes	ND	30	95.4	99.5	4.18	97.1	96.4	0.755	70 - 130	20	70 - 130	20
%SS:	101	10	92	92	0	92	93	1.20	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 58849 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1106151-034A	05/31/11 3:20 PM	06/08/11	06/08/11 12:42 PM	1106151-035A	06/01/11 11:15 AM	06/08/11	06/08/11 1:16 PM
1106151-036A	06/01/11 2:40 PM	06/07/11	06/07/11 5:17 PM	1106151-037A	06/02/11 9:10 AM	06/08/11	06/08/11 5:48 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

DHS ELAP Certification 1644 QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 58791 WorkOrder: 1106151

EPA Method: SW8015B **Extraction: SW3510C** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	120	120	0	N/A	N/A	70 - 130	30
%SS:	N/A	625	N/A	N/A	N/A	98	98	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 58791 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1106151-034A	05/31/11 3:20 PM	06/06/11	06/10/11 3:35 PM	1106151-035A	06/01/11 11:15 AM	06/06/11	06/11/11 6:30 PM
1106151-036A	06/01/11 2:40 PM	06/06/11	06/11/11 8:48 PM	1106151-037A	06/02/11 9:10 AM	06/06/11	06/11/11 7:40 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

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Analytical Report

Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 03/01/12
		Date Received: 03/01/12
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Reported: 03/09/12
Emeryville, CA 94608	Client P.O.:	Date Completed: 03/09/12

WorkOrder: 1203023

March 09, 2012

Dear Bob:

Enclosed within are:

1) The results of the **7** analyzed samples from your project: **#540188; Borsuk,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

120 3023

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☒ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Bob Foss
Company: Conestoga-Rovers & Associates
5900 Hollis St., Ste A
Emeryville, CA
Tele: (510) 420-3348
Project #: 540188
Project Location: 1432 Harrison St., Oakland, CA
Sampler Signature: Muskan Environmental Sampling

Bill To: Conestoga-Rovers & Associates
E-Mail: bfoss@craworld.com bfoss@craworld.com
Fax: (510) 420-9170
Project Name: Borsuk

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED ICE	HCL	HNO_3	Other
MW-1		3/1/12	10:48	1-3	Amb VOA	X					X	X		
MW-2			11:15	2	VOA	X					X	X		
MW-3			07:53	3	VOA	X					X	X		
MW-4			09:01	1-3	Amb VOA	X					X	X		
MW-5			09:41	3	VOA	X					X	X		
MW-6			08:26	3	VOA	X					X	X		
MW-7			10:13	3	VOA	X					X	X		

Analysis Request

BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)
X															
X															
X															
X															
X															
X															

Other

Filter sample for DISSOLVED metals analysis	Total coliform & E. Coli (SM9223B) Coliform MTBE by 8260
	X
	X
	X
	X
	X

Comments

**Indicate here if these samples are potentially dangerous to handle:

Fecal (SM9221E) Toluene, Octane by 8021

X
X
X
X
X
X
X

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
	3/1/12	2:15pm	Mel Vall
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 10.4°C
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

COMMENTS:
Contact Bob Foss for Analizing MW-2
510-420-3348

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1203023 **ClientCode: CETE**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Bob Foss
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-3369 FAX: (510) 420-9170

Email: bfoss@craworld.com
cc:
PO:
ProjectNo: #540188; Borsuk

Bill to:
Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: **03/01/2012**
Date Printed: **03/02/2012**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1203023-001	MW-1	Water	3/1/2012 10:48	☐	B		A	B								
1203023-002	MW-2	Liquid	3/1/2012 11:15	☐		A										
1203023-003	MW-3	Water	3/1/2012 7:53	☐			A									
1203023-004	MW-4	Water	3/1/2012 9:01	☐	B		A	B								
1203023-005	MW-5	Water	3/1/2012 9:41	☐			A									
1203023-006	MW-6	Water	3/1/2012 8:26	☐			A									
1203023-007	MW-7	Water	3/1/2012 10:13	☐			A									

Test Legend:

1	FECOLI_W	2	G-MBTEX_L	3	G-MBTEX_W	4	TCEC-Enum_W	5	
6		7		8		9		10	
11		12							

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**
Date and Time Received: **3/1/2012 5:48:43 PM**

Project Name: **#540188; Borsuk**
Checklist completed and reviewed by: Zoraida Cortez

WorkOrder N°: **1203023** Matrix: Liquid/Water
Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☐	No ☑	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 10.4°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☐	No ☑	

** NOTE: If the "No" box is checked, see comments below.*

Comments: Amber liter received for Bacteria, Okay to transfer to appropriate container.

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Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 03/01/12
		Date Received: 03/01/12
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Extracted: 03/01/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/02/12

Fecal Coliform

Analytical Method: SM9221E

Work Order: 1203023

Lab ID	Client ID	Matrix	Fecal Coliform	DF	95% Confident Interval	Comments
1203023-001B	MW-1	W	4.0	1	1.0 - 17	
1203023-004B	MW-4	W	ND	1	---	

Reporting Limit & Reporting Units	W	2.0 MPN/100ml	
	S	NA	

DF = Dilution Factor

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 03/01/12
		Date Received: 03/01/12
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Extracted: 03/01/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/07/12

Volatile Hydrocarbons as Octane and Toluene*

Extraction method: SW5030B Analytical methods: SW8021B Work Order: 1203023

Lab ID	Client ID	Matrix	Octane	Toluene	DF	% SS	Comments
1203023-002A	MW-2	L	12,000	1900	100	109	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	L	20	5.0	mg/L

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

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Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 03/01/12
		Date Received: 03/01/12
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Extracted: 03/02/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/02/12

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1203023

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	15,000	ND<120	2200	44	320	770	10	101	d1
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	103	
004A	MW-4	W	560	ND	13	1.3	3.3	7.7	1	99	d1
005A	MW-5	W	24,000	ND<1100	11,000	51	660	1300	10	85	d1
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	104	
007A	MW-7	W	16,000	ND<250	560	530	860	2700	50	113	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
d1) weakly modified or unmodified gasoline is significant

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Conestoga-Rovers & Associates	Client Project ID: #540188; Borsuk	Date Sampled: 03/01/12
		Date Received: 03/01/12
5900 Hollis St, Suite A	Client Contact: Bob Foss	Date Extracted: 03/01/12
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/02/12

Total Coliform / E. Coli, Enumeration

Analytical Method: SM9223B — Work Order: 1203023

Lab ID	Client ID	Matrix	Total Coliform	95% Confident Interval	E. Coli	95% Confident Interval	DF	Comments
001B	MW-1	W	33	21 - 48	ND	---	1	
004B	MW-4	W	2.0	0.30 - 7.1	ND	---	1	

Reporting Limit & Reporting Units	W	1.0 MPN/100ml	
	S	NA	

DF = Dilution Factor

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QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM9221E (Fecal Coliform)** **Matrix:** **W** **WorkOrder:** **1203023**

Method Name: SM9221E			Units: MPN/100ml			BatchID: 65382
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1203023-001B	4.0	1	4.0	1	0	<50
1203023-004B	ND	1	ND	1	N/A	<50

BATCH 65382 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203023-001B	03/01/12 10:48 AM	03/01/12	03/02/12 7:35 PM	1203023-004B	03/01/12 9:01 AM	03/01/12	03/02/12 7:45 PM

% RPD = abs(Sample - Dup) / ((Sample + Dup) / 2) * 100

N/A = Not Applicable

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Bm

Test Method: SW8021B/8015Bm (GMBTEX) Matrix: L WorkOrder: 1203023

EPA Method: SW8021B/8015Bm **BatchID: 65368**

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65368 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203023-002A	03/01/12 11:15 AM	03/01/12	03/07/12 11:10 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 65353 | WorkOrder: 1203023

EPA Method: SW8021B/8015Bm **Extraction: SW5030B** **Spiked Sample ID: 1202855-006A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex)£	ND	60	100	110	8.81	116	70 - 130	20	70 - 130
MTBE	ND	10	84.4	81.4	3.62	87.8	70 - 130	20	70 - 130
Benzene	ND	10	100	98.4	2.12	110	70 - 130	20	70 - 130
Toluene	ND	10	103	101	1.74	109	70 - 130	20	70 - 130
Ethylbenzene	ND	10	104	102	2.44	110	70 - 130	20	70 - 130
Xylenes	ND	30	108	107	1.30	113	70 - 130	20	70 - 130
%SS:	105	10	95	94	0.967	100	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 65353 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203023-001A	03/01/12 10:48 AM	03/02/12	03/02/12 4:04 PM	1203023-003A	03/01/12 7:53 AM	03/02/12	03/02/12 5:29 AM
1203023-004A	03/01/12 9:01 AM	03/02/12	03/02/12 5:35 PM	1203023-005A	03/01/12 9:41 AM	03/02/12	03/02/12 3:29 AM
1203023-006A	03/01/12 8:26 AM	03/02/12	03/02/12 5:58 AM	1203023-007A	03/01/12 10:13 AM	03/02/12	03/02/12 6:28 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

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QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM9223B (Total Coliform & E Coli)** **Matrix:** **W** **WorkOrder:** **1203023**

Method Name: SM9223B BatchID: 65280

Lab ID	Analyte	Reporting Units	Sample	DF	Dup	DF	% RPD	Acceptance Criteria (%)
1203023-001B	E Coli	MPN/100ml	ND	1	ND	1	N/A	<70
	Total Coliform	MPN/100ml	33	1	30	1	9.28	<70
1203023-004B	E Coli	MPN/100ml	ND	1	ND	1	N/A	<70
	Total Coliform	MPN/100ml	2.0	1	2.0	1	0	<70

BATCH 65280 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203023-001B	03/01/12 10:48 AM	03/01/12	03/02/12 2:53 PM	1203023-004B	03/01/12 9:01 AM	03/01/12	03/02/12 2:59 PM

% RPD = abs(Sample - Dup) / ((Sample + Dup) / 2) * 100

N/A = Not Applicable

NR = %RPD may fall outside of laboratory acceptance criteria due to sample inconsistency between two containers.

DHS ELAP Certification 1644

QA/QC Officer

APPENDIX G

TABLE E. - ENVIRONMENTAL SCREENING LEVELS (ESLs)
INDOOR AIR and SOIL GAS
(VAPOR INTRUSION CONCERNS)

Table E. Environmental Screening Levels (ESLs)
Indoor Air and Soil Gas
(Vapor Intrusion Concerns)

	Indoor Air Screening Levels		[2]Shallow Soil Gas Screening Levels	
Chemical	[1]Residential Land Use ($\mu g/m^3$)	Commercial/ Industrial Land Use Only ($\mu g/m^3$)	[1]Residential Land Use ($\mu g/m^3$)	Commercial/ Industrial Land Use Only ($\mu g/m^3$)
Acenaphthene	4.4E+01	6.1E+01	4.4E+04	1.2E+05
Acenaphthylene	2.2E+01	3.1E+01	2.2E+04	6.1E+04
Acetone	6.6E+02	9.2E+02	6.6E+05	1.8E+06
Aldrin				
Anthracene	2.2E+02	3.1E+02	2.2E+05	6.1E+05
Antimony				
Arsenic				
Barium				
Benzene	8.4E-02	1.4E-01	8.4E+01	2.8E+02
Benzo(a)anthracene				
Benzo(b)fluoranthene				
Benzo(k)fluoranthene				
Benzo(g,h,i)perylene				
Benzo(a)pyrene				
Beryllium				
1,1-Biphenyl				
Bis(2-chloroethyl) ether	7.4E-03	1.2E-02	7.4E+00	2.5E+01
Bis(2-chloroisopropyl) ether	3.4E-03	5.8E-03	3.4E+00	1.2E+01
Bis(2-ethylhexyl) phthalate				
Boron				
Bromodichloromethane	1.4E-01	2.3E-01	1.4E+02	4.6E+02
Bromoform (Tribromomethane)				
Bromomethane	1.0E+00	1.5E+00	1.0E+03	2.9E+03
Cadmium				
Carbon tetrachloride	1.9E-02	3.1E-02	1.9E+01	6.3E+01
Chlordane				
p-Chloroaniline				
Chlorobenzene	2.1E+02	2.9E+02	2.1E+05	5.8E+05
Chloroethane	2.1E+01	2.9E+01	2.1E+04	5.8E+04
Chloroform	4.6E-01	7.7E-01	4.6E+02	1.5E+03
Chloromethane	1.9E+01	2.6E+01	1.9E+04	5.3E+04
2-Chlorophenol	3.7E+00	5.1E+00	3.7E+03	1.0E+04
Chromium (total)				
Chromium III				
Chromium VI				
Chrysene				
Cobalt				
Copper				
Cyanide	1.5E+01	2.0E+01	1.5E+04	4.1E+04
Dibenz(a,h)anthracene				
Dibromochloromethane				
1,2-dibromo-3-chloropropane	1.3E-03	2.2E-03	1.3E+00	4.3E+00
1,2-Dibromoethane	4.1E-03	6.8E-03	4.1E+00	1.4E+01
1,2-Dichlorobenzene	4.2E+01	5.8E+01	4.2E+04	1.2E+05

Table E. Environmental Screening Levels (ESLs)
Indoor Air and Soil Gas
(Vapor Intrusion Concerns)

	Indoor Air Screening Levels		[2]Shallow Soil Gas Screening Levels	
Chemical	[1]Residential Land Use ($\mu g/m^3$)	Commercial/ Industrial Land Use Only ($\mu g/m^3$)	[1]Residential Land Use ($\mu g/m^3$)	Commercial/ Industrial Land Use Only ($\mu g/m^3$)
1,3-Dichlorobenzene	2.2E+01	3.1E+01	2.2E+04	6.1E+04
1,4-Dichlorobenzene	2.2E-01	3.7E-01	2.2E+02	7.4E+02
3,3-Dichlorobenzidine				
Dichlorodiphenyldichloroethane (DDD)				
Dichlorodiphenyldichloroethene (DDE)				
Dichlorodiphenyltrichloroethane (DDT)				
1,1-Dichloroethane	1.5E+00	2.6E+00	1.5E+03	5.1E+03
1,2-Dichloroethane	9.4E-02	1.6E-01	9.4E+01	3.1E+02
1,1-Dichloroethene	4.2E+01	5.8E+01	4.2E+04	1.2E+05
cis-1,2-Dichloroethene	7.3E+00	1.0E+01	7.3E+03	2.0E+04
trans-1,2-Dichloroethene	1.5E+01	2.0E+01	1.5E+04	4.1E+04
2,4-Dichlorophenol				
1,2-Dichloropropane	2.4E-01	4.1E-01	2.4E+02	8.2E+02
1,3-Dichloropropene	1.5E-01	2.6E-01	1.5E+02	5.1E+02
Dieldrin				
Diethyl phthalate				
Dimethyl phthalate				
2,4-Dimethylphenol				
2,4-Dinitrophenol				
2,4-Dinitrotoluene				
1,4-Dioxane				
Dioxin (2,3,7,8-TCDD)				
Endosulfan				
Endrin				
Ethylbenzene	9.8E-01	1.6E+00	9.8E+02	3.3E+03
Fluoranthene				
Fluorene	2.9E+01	4.1E+01	2.9E+04	8.2E+04
Heptachlor				
Heptachlor epoxide				
Hexachlorobenzene				
Hexachlorobutadiene				
γ-Hexachlorocyclohexane (Lindane)				
Hexachloroethane				
Indeno(1,2,3-c,d)pyrene				
Lead				
Mercury (elemental)	1.9E-02	2.6E-02	1.9E+01	5.3E+01
Methoxychlor				
Methylene chloride	5.2E+00	8.7E+00	5.2E+03	1.7E+04
Methyl ethyl ketone	1.0E+03	1.5E+03	1.0E+06	2.9E+06
Methyl isobutyl ketone	6.3E+02	8.8E+02	6.3E+05	1.8E+06
Methyl mercury				
2-Methylnaphthalene				
tert-Butyl methyl ether	9.4E+00	1.6E+01	9.4E+03	3.1E+04
Molybdenum				

Table E. Environmental Screening Levels (ESLs)
Indoor Air and Soil Gas
(Vapor Intrusion Concerns)

Chemical	Indoor Air Screening Levels		[2]Shallow Soil Gas Screening Levels	
	[1]Residential Land Use ($\mu g/m^3$)	Commercial/ Industrial Land Use Only ($\mu g/m^3$)	[1]Residential Land Use ($\mu g/m^3$)	Commercial/ Industrial Land Use Only ($\mu g/m^3$)
Naphthalene	7.2E-02	1.2E-01	7.2E+01	2.4E+02
Nickel				
Pentachlorophenol				
Perchlorate				
Phenanthrene	2.2E+01	3.1E+01	2.2E+04	6.1E+04
Phenol				
Polychlorinated biphenyls (PCBs)				
Pyrene	2.2E+01	3.1E+01	2.2E+04	6.1E+04
Selenium				
Silver				
Styrene	1.9E+02	2.6E+02	1.9E+05	5.3E+05
tert-Butyl alcohol				
1,1,1,2-Tetrachloroethane	3.2E-01	5.4E-01	3.2E+02	1.1E+03
1,1,2,2-Tetrachloroethane	4.2E-02	7.0E-02	4.2E+01	1.4E+02
Tetrachloroethene	4.1E-01	6.9E-01	4.1E+02	1.4E+03
Thallium				
Toluene	6.3E+01	8.8E+01	6.3E+04	1.8E+05
Toxaphene				
TPH (gasolines)	1.0E+01	1.4E+01	1.0E+04	2.9E+04
TPH (middle distillates)	1.0E+01	1.4E+01	1.0E+04	2.9E+04
TPH (residual fuels)				
1,2,4-Trichlorobenzene	8.3E-01	1.2E+00	8.3E+02	2.3E+03
1,1,1-Trichloroethane	4.6E+02	6.4E+02	4.6E+05	1.3E+06
1,1,2-Trichloroethane	1.5E-01	2.6E-01	1.5E+02	5.1E+02
Trichloroethene	1.2E+00	2.0E+00	1.2E+03	4.1E+03
2,4,5-Trichlorophenol	7.3E+01	1.0E+02	7.3E+04	2.0E+05
2,4,6-Trichlorophenol				
Vanadium				
Vinyl chloride	3.1E-02	5.2E-02	3.1E+01	1.0E+02
Xylenes	2.1E+01	2.9E+01	2.1E+04	5.8E+04
Zinc				

Notes:

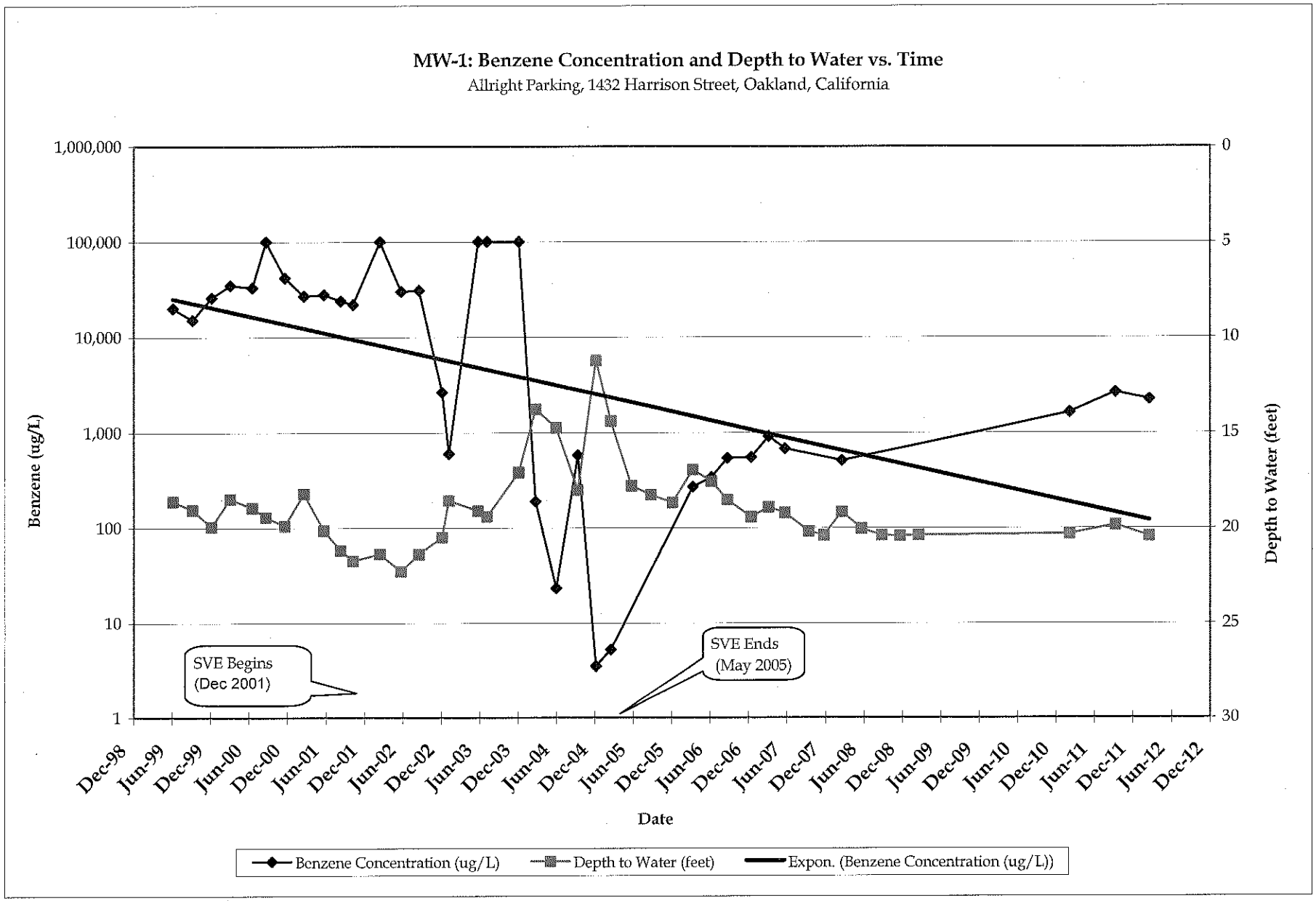
1. Category "Residential Land Use" generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.)
2. Soil Gas: Screening levels based on soil gas data collected below a building or the ground surface. Intended for evaluation of potential indoor-air impacts.

Soil gas data should be collected and evaluated at all sites with significant areas of VOC-contaminated soil. Screening levels also apply to areas over of contaminated groundwater.

TPH -Total Petroleum Hydrocarbons. TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g., BTEX, PAHs, oxidizers, etc.).

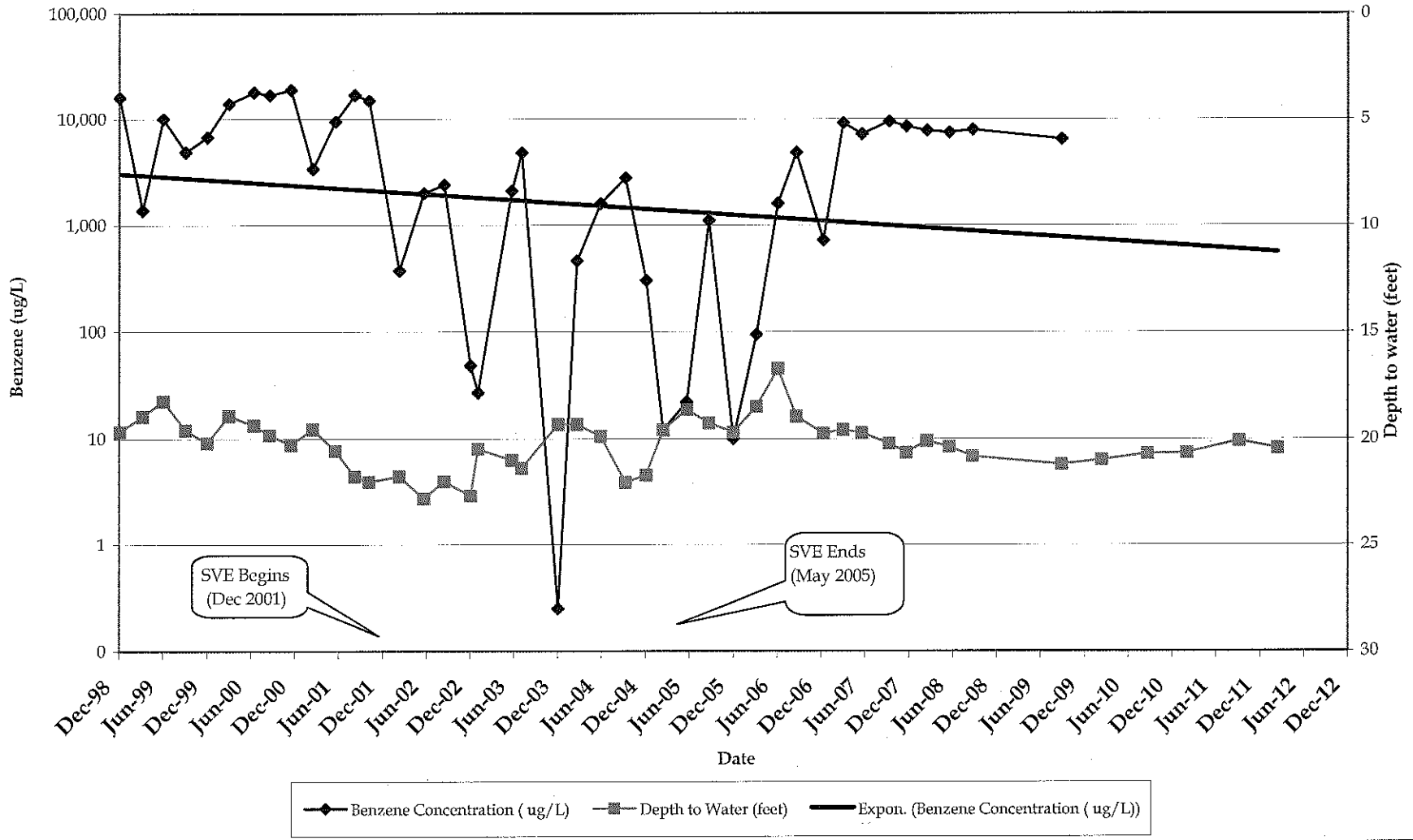
APPENDIX H

BENZENE VS. TIME TREND GRAPHS, WELLS MW-1 THROUGH MW-6


MW-1: Benzene Concentration and Depth to Water vs. Time
Allright Parking, 1432 Harrison Street, Oakland, California
Benzene (ug/L)
1,000,000
100,000
10,000
1,000
100
10
1
Depth to Water (feet)
0
5
10
15
20
25
30
SVE Begins
(Dec 2001)
SVE Ends
(May 2005)
Dec-98
Jun-99
Dec-99
Jun-00
Dec-00
Jun-01
Dec-01
Jun-02
Dec-02
Jun-03
Dec-03
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
Dec-09
Jun-10
Dec-10
Jun-11
Dec-11
Jun-12
Dec-12
Date
Benzene Concentration (ug/L)
Depth to Water (feet)
Expon. (Benzene Concentration (ug/L))

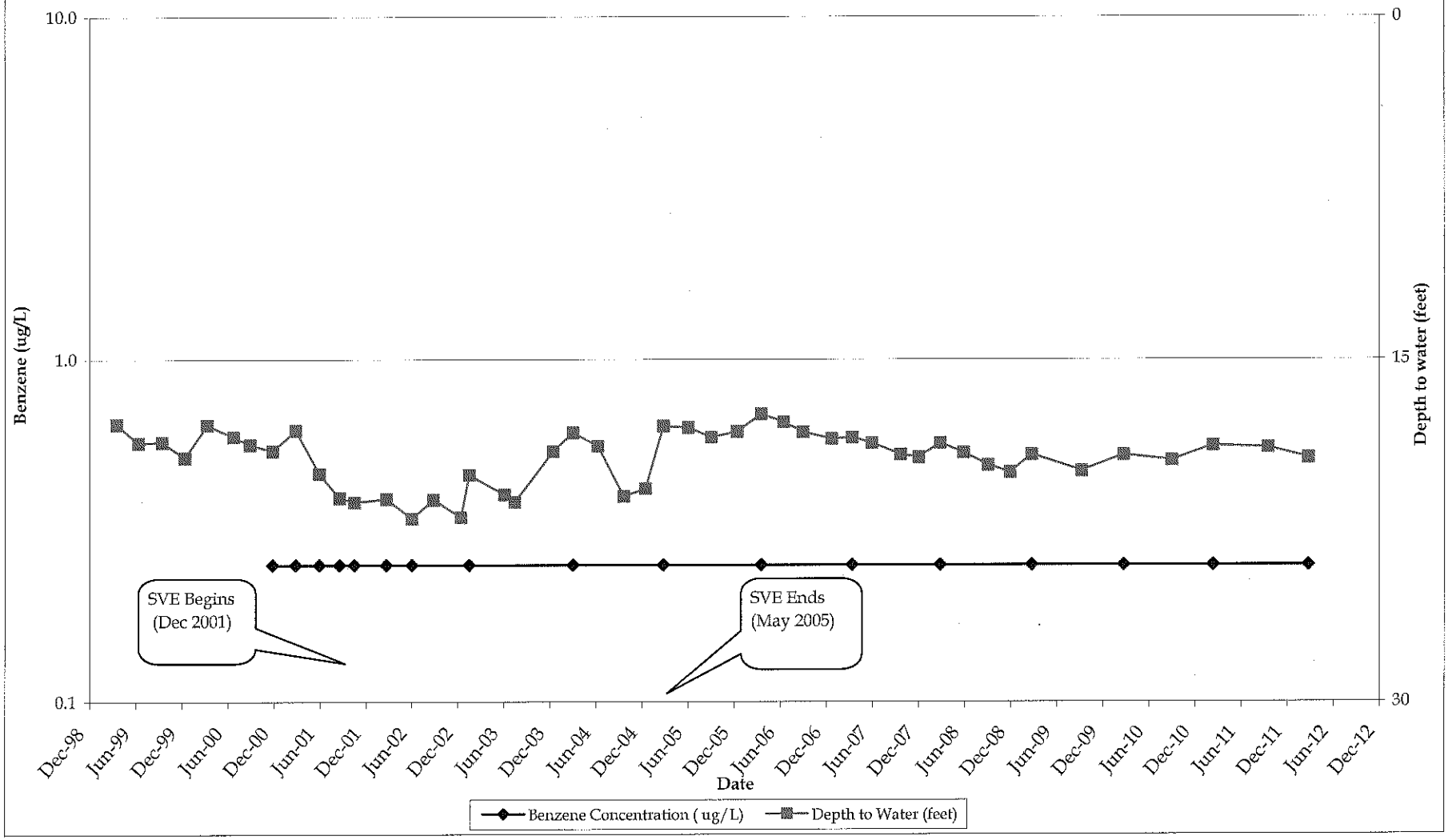
MW-2: Benzene Concentration and Depth to Water vs. Time

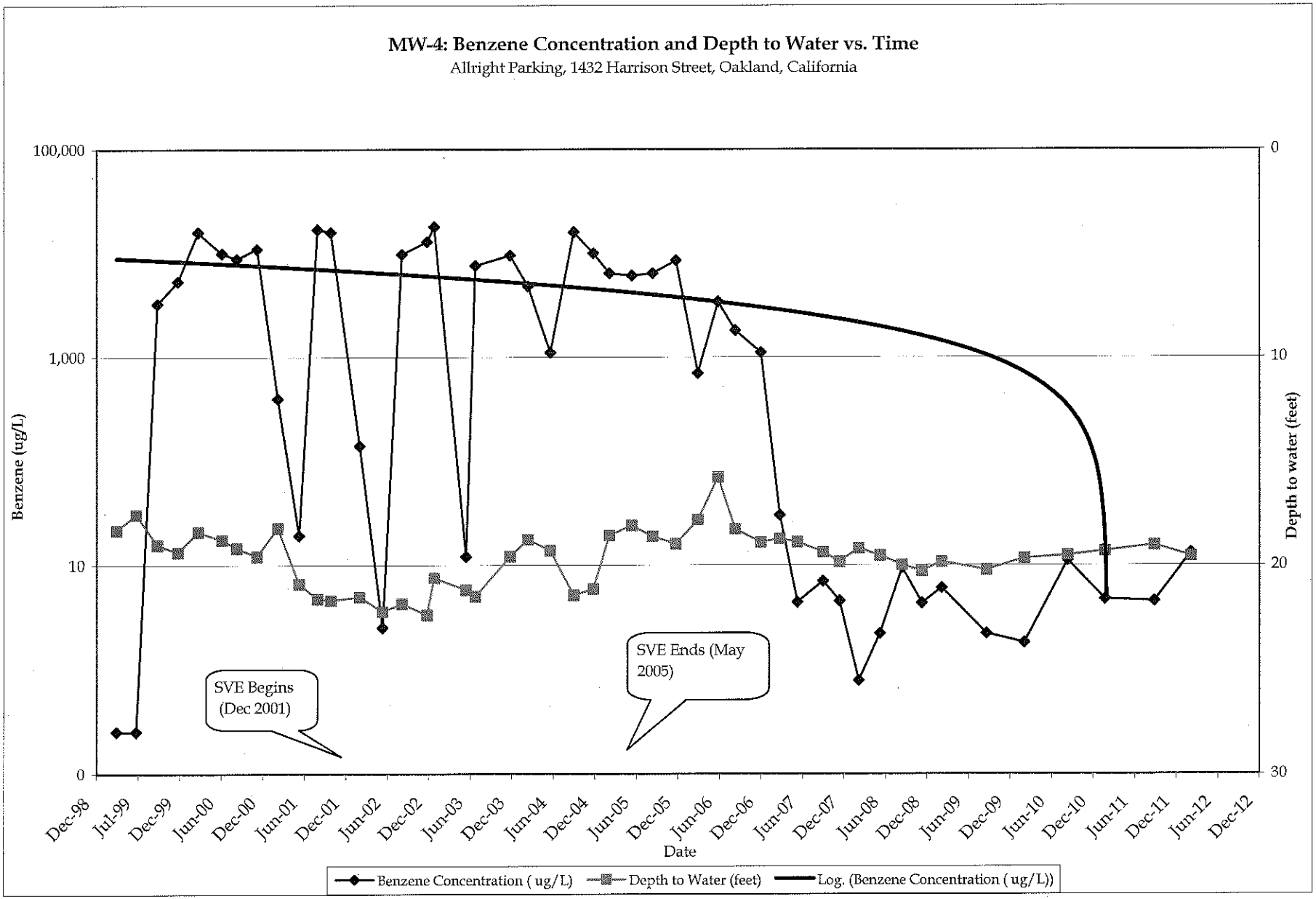
Allright Parking, 1432 Harrison Street, Oakland, California



MW-3:Benzene Concentration and Depth to Water vs. Time

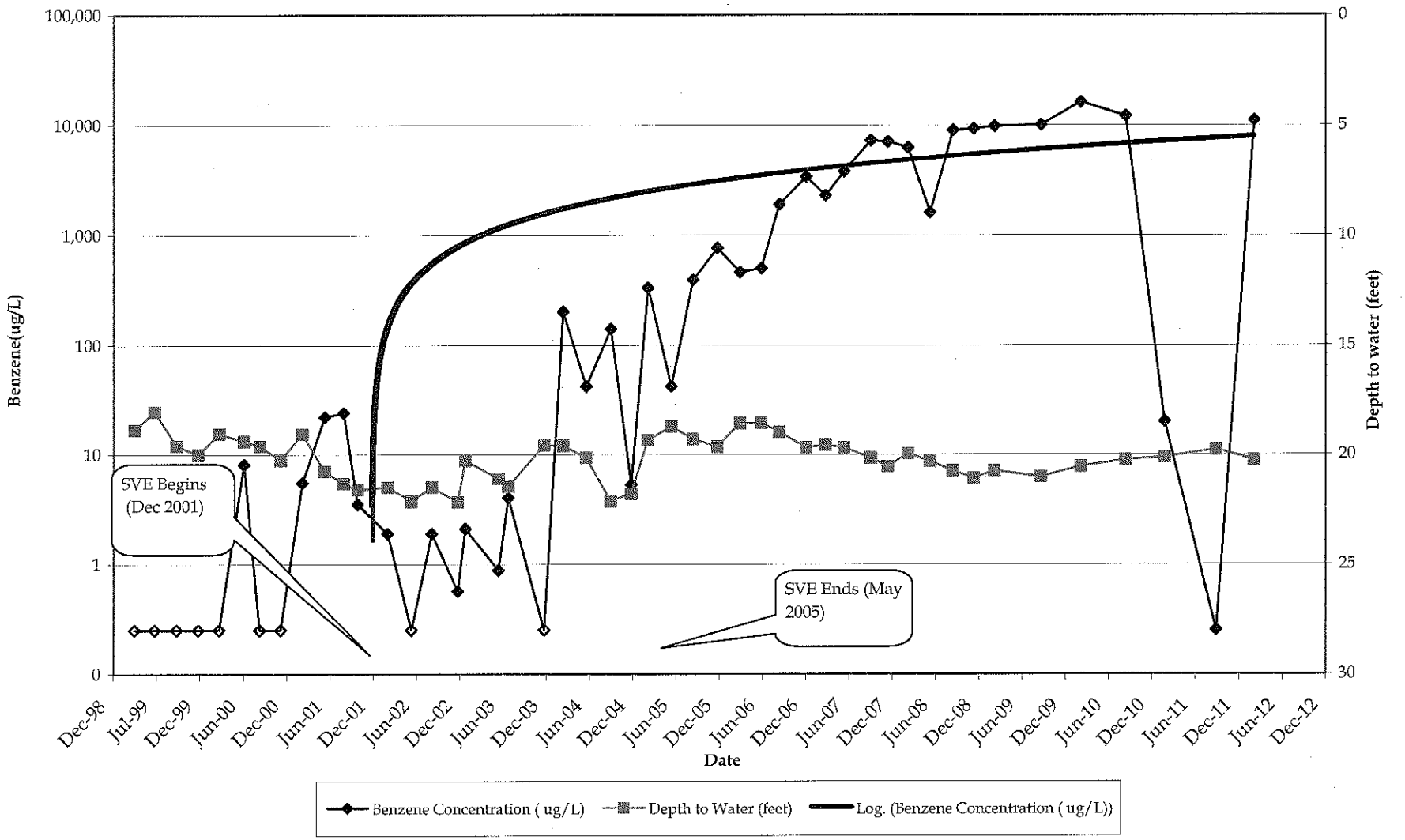
Allright Parking, 1432 Harrison Street, Oakland, California




MW-4: Benzene Concentration and Depth to Water vs. Time
Allright Parking, 1432 Harrison Street, Oakland, California
100,000
1,000
10
0
Benzene (ug/L)
0
10
20
30
Depth to water (feet)
SVE Begins (Dec 2001)
SVE Ends (May 2005)
Dec-98
Jul-99
Dec-99
Jun-00
Dec-00
Jun-01
Dec-01
Jun-02
Dec-02
Jun-03
Dec-03
Jun-04
Dec-04
Jun-05
Dec-05
Jun-06
Dec-06
Jun-07
Dec-07
Jun-08
Dec-08
Jun-09
Dec-09
Jun-10
Dec-10
Jun-11
Dec-11
Jun-12
Dec-12
Date
Benzene Concentration (ug/L)
Depth to Water (feet)
Log. (Benzene Concentration (ug/L))

MW-5: Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California



MW-6: Benzene Concentration and Depth to Water vs. Time

Allright Parking, 1432 Harrison Street, Oakland, California