

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made this 16th day of April, 2013, by the City of Manhattan Beach, a municipal corporation, ("CITY"), and Omni-Means, Ltd., a Nevada corporation registered to do business in California, ("CONTRACTOR") (collectively, the "Parties").

RECITALS

The following recitals are a substantive part of this Agreement:

1. CITY seeks to obtain professional services necessary to conduct a Roundabout Feasibility Study, and
2. CONTRACTOR is qualified by virtue of experience, training, education, and expertise to accomplish these services.

AGREEMENT

THE PARTIES MUTUALLY AGREE AS FOLLOWS:

1. **Term of Agreement.** This Agreement shall terminate on September 30, 2013, unless earlier terminated as provided below.

1.1 **Termination.** CITY and CONTRACTOR shall have the right to terminate this Agreement, without cause, by giving thirty (30) days written notice. Upon receipt of a termination notice, CONTRACTOR shall:

- (1) promptly discontinue all services affected (unless the notice directs otherwise); and
- (2) promptly deliver all data, reports, estimates, summaries, and such other information and materials as may have been accumulated by CONTRACTOR in performing the Agreement to CITY, whether completed or in progress. CONTRACTOR shall be entitled to reasonable compensation for the services it performs up to the date of termination.

2. **Services to be Provided.** The services to be provided hereunder shall be those set forth in Exhibit A, which is attached hereto and incorporated herein by this reference.

3. **Compensation.** CONTRACTOR shall be compensated as follows:

3.1 **Amount.** Compensation shall be made on an hourly basis in accordance with the rates set forth in CONTRACTOR's Fee Proposal, attached hereto as Exhibit B and incorporated herein. In no event shall compensation provided pursuant to this Agreement, including reimbursable expenses described in Section 3.3, exceed \$47,314.

3.2 **Payment.** For work under this Agreement, payment shall be made per monthly invoice. For extra work not a part of this Agreement, written authorization by CITY will be required.

3.3 **Expenses.** CONTRACTOR shall be reimbursed for costs advanced by CONTRACTOR on behalf of CITY, including traffic counts, travel expenses, and handling charges in an amount not to exceed \$7,269, as stated in Exhibit B. Travel expenses shall only be paid by CITY if approved in writing prior to the incursion of said expenses. Records must be submitted to CITY along with any invoice that requests payment for the foregoing expenses.

4. **Professional Standards.** CONTRACTOR shall maintain or exceed the level of competency presently maintained by other similar practitioners in the State of California, for professional and technical soundness, accuracy and adequacy of all work, advice, and materials furnished under this Agreement.

5. **Time of Performance.** CONTRACTOR shall complete all services required hereunder as and when directed by CITY, and in accordance with the Proposed Schedule set forth in Exhibit C. However, CITY in its sole discretion, may extend the time for performance of any service.

6. **Employees and Subcontractors.** CONTRACTOR may, at CONTRACTOR'S sole cost and expense, employ such other persons as may, in the opinion of CONTRACTOR, be needed to comply with the terms of this Agreement, if such persons possess the necessary qualifications to perform such services. If such persons are employed to perform a portion of the scope of work, the engagement of such persons shall be subject to the prior approval of the CITY.

7. Insurance Requirements.

7.1 Commencement of Work. CONTRACTOR shall not commence work under this Agreement until it has obtained CITY approved insurance. Before beginning work hereunder, during the entire period of this Agreement, for any extensions hereto, and for periods after the end of this Agreement as indicated below, CONTRACTOR must have and maintain in place, all of the insurance coverages required in this Section 7. CONTRACTOR'S insurance shall comply with all items specified by this Agreement. Any subcontractors shall be subject to all of the requirements of this Section 7 and CONTRACTOR shall be responsible to obtain evidence of insurance from each subcontractor and provide it to CITY before the subcontractor commences work.

All insurance policies used to satisfy the requirements imposed hereunder shall be issued by insurers authorized to do business in the State of California. Insurers shall have a current A.M. Best's rating of not less than A-VII unless otherwise approved by CITY.

7.2 Coverages, Limits and Policy Requirements.

CONTRACTOR shall maintain the types of coverages and limits indicated below:

(1) **COMMERCIAL GENERAL LIABILITY INSURANCE** - a policy for occurrence coverage, including all coverages provided by and to the extent afforded by Insurance Services Office Form CG 0001 ed. 11/88 or 11/85, with no special limitations affecting CITY. The limit for all coverages under this policy shall be no less than one million dollars (\$1,000,000.00) per occurrence. CITY, its employees, officials and agents, shall be added as additional insureds by endorsement to the policy. The insurer shall agree to provide the City with thirty (30) days prior written notice of any cancellation, non-renewal or material change in coverage. The policy shall contain no provision that would make this policy excess over, contributory with, or invalidated by the existence of any insurance, self-insurance or other risk financing program maintained by CITY. In the event the policy contains such an "other insurance"

clause, the policy shall be modified by endorsement to show that it is primary for any claim arising out of the work performed under this Agreement. The City of Manhattan Beach Insurance Endorsement Form No. 1 (General Liability) must be executed by the applicable insurance underwriters.

(2) COMMERCIAL AUTO LIABILITY INSURANCE - a policy including all coverages provided by and to the extent afforded by Insurance Services Office form CA 0001, ed. 12/93, including Symbol 1 (any auto) with no special limitations affecting the CITY. The limit for bodily injury and property damage liability shall be no less than one million dollars (\$1,000,000) per accident. CITY, its employees, officials and agents, shall be added as additional insureds by endorsement to the policy. The insurer shall agree to provide the City with thirty (30) days prior written notice of any cancellation, non-renewal or material change in coverage. The policy shall contain no provision that would make this policy excess over, contributory with, or invalidated by the existence of any insurance, self-insurance or other risk financing program maintained by CITY. In the event the policy contains such an "other insurance" clause, the policy shall be modified by endorsement to show that it is primary for any claim arising out of the work performed under this Agreement. The City of Manhattan Beach Insurance Endorsement Form No. 2 (Auto) must be executed by the applicable insurance underwriters.

(3) WORKERS' COMPENSATION INSURANCE - a policy which meets all statutory benefit requirements of the Labor Code, or other applicable law, of the State of California. The minimum coverage limits for said insurance shall be no less than one million dollars (\$1,000,000) per claim. The policy shall contain, or be endorsed to include, a waiver of subrogation in favor of CITY.

(4) PROFESSIONAL ERRORS & OMISSIONS - a policy with minimum limits of two million dollars (\$2,000,000) per claim and aggregate. This policy shall be issued by an insurance company which is qualified to do business in the State of California and contain a clause that the policy may not be canceled

until thirty (30) days written notice of cancellation is mailed to CITY.

7.3 Additional Requirements. The procuring of such required policies of insurance shall not be construed to limit CONTRACTOR'S liability hereunder, or to fulfill the indemnification provisions and requirements of this Agreement. There shall be no recourse against CITY for payment of premiums or other amounts with respect thereto. CITY shall notify CONTRACTOR in writing of changes in the insurance requirements. If CONTRACTOR does not deposit copies of acceptable insurance policies with CITY incorporating such changes within sixty (60) days of receipt of such notice, CONTRACTOR shall be deemed in default hereunder.

Any deductibles or self-insured retentions must be declared to and approved by CITY. Any deductible exceeding an amount acceptable to CITY shall be subject to the following changes:

- (1) either the insurer shall eliminate, or reduce, such deductibles or self-insured retentions with respect to CITY and its officials, employees and agents (with additional premium, if any, to be paid by CONTRACTOR) ; or
- (2) CONTRACTOR shall provide satisfactory financial guarantee for payment of losses and related investigations, claim administration, and defense expenses.

7.4 Verification of Compliance. CONTRACTOR shall furnish CITY with original endorsements effecting coverage required by this Agreement. The endorsements are to be signed by a person authorized by the insurer to bind coverage on its behalf. All endorsements are to be received and approved by CITY before work commences. Not less than fifteen (15) days prior to the expiration date of any policy of insurance required by this Agreement, CONTRACTOR shall deliver to CITY a binder or certificate of insurance with respect to each renewal policy, bearing a notation evidencing payment of the premium therefor, or accompanied by other proof of payment satisfactory to CITY.

8. **Non-Liability of Officials and Employees of the CITY.** No official or employee of CITY shall be personally liable for any default or liability under this Agreement.

9. **Non-Discrimination.** CONTRACTOR covenants there shall be no discrimination based upon race, color, creed, religion, sex, marital status, age, handicap, national origin, or ancestry, in any activity pursuant to this Agreement.

10. **Independent Contractor.** The Parties agree, understand, and acknowledge that CONTRACTOR is not an employee of the CITY, but is solely an independent contractor. CONTRACTOR expressly acknowledges and agrees that CITY has no obligation to pay or withhold state or federal taxes or to provide workers' compensation or unemployment insurance or other employee benefits and that any person employed by CONTRACTOR shall not be in any way an employee of the CITY. As such, CONTRACTOR shall have the sole legal responsibility to remit all federal and state income and social security taxes and to provide for his/her own workers compensation and unemployment insurance and that of his/her employees or subcontractors. Neither CITY nor any of its agents shall have control over the conduct of CONTRACTOR or any of CONTRACTOR's employees. CONTRACTOR shall not, at any time, or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of CITY. CONTRACTOR shall indemnify and hold harmless CITY and its elected officials, officers and employees, servants, designated volunteers, and agents serving as independent contractors in the role of CITY officials, from any and all liability, damages, claims, costs and expenses of any nature to the extent arising from CONTRACTOR's personnel practices. CITY shall have the right to offset against the amount of any fees due to CONTRACTOR under this Agreement any amount due to CITY from CONTRACTOR as a result of CONTRACTOR's failure to promptly pay to CITY any reimbursement or indemnification arising under this Section 10.

11. **Compliance with Law.** CONTRACTOR shall comply with all applicable laws, ordinances, codes, and regulations of the federal, state, and local government.

12. **Ownership of Work Product.** All documents or other information created, developed or received by CONTRACTOR shall, for purposes of copyright law, be deemed works made for hire for CITY by CONTRACTOR as CITY'S employee(s) for hire and shall be the sole property of CITY. CONTRACTOR shall provide CITY with copies of these items upon demand and in any event, upon termination or expiration of the term of this Agreement.

13. **Conflict of Interest and Reporting.** CONTRACTOR shall at all times avoid conflict of interest, or appearance of conflict of interest, in performance of this Agreement.

14. **Notices.** All notices shall be personally delivered or mailed to the below listed addresses. These addresses shall be used for delivery of service of process.

a. Address of CONTRACTOR is as follows:

Omni-Means, Ltd.
943 Reserve Drive, Suite 100
Roseville, CA 95678

b. Address of CITY is as follows:

Director of Community Development
City of Manhattan Beach
1400 Highland Ave
Manhattan Beach, CA 90266

(with a copy to):

City Attorney
City of Manhattan Beach
1400 Highland Ave
Manhattan Beach, CA 90266

15. **Contractor's Proposal.** In the event of any inconsistency between the terms of the Contractor's Proposal and this Agreement, this Agreement shall govern.

16. **Licenses, Permits, and Fees.** CONTRACTOR shall obtain a Manhattan Beach Business License, all permits, and licenses as may be required by this Agreement.

17. **Familiarity with Work.** By executing this Agreement, CONTRACTOR warrants that:

- (1) it has investigated the work to be performed;
- (2) it has investigated the site of the work and is aware of all conditions there; and
- (3) it understands the difficulties and restrictions of the work under this Agreement. Should CONTRACTOR discover any conditions materially differing from those inherent in the work or as represented by CITY, it shall immediately inform CITY and shall not proceed,

except at CONTRACTOR's risk, until written instructions are received from CITY.

18. **Time of Essence.** Time is of the essence in the performance of this Agreement.

19. **Limitations upon Subcontracting and Assignment.** Neither this Agreement, or any portion, shall be assigned by CONTRACTOR without prior written consent of CITY.

20. **Key Person.** During the term of this Agreement, CONTRACTOR shall provide the services of Gary Hamrick and all other personnel stated in Exhibit A.

21. **Authority to Execute.** The persons executing this Agreement on behalf of the Parties warrant that they are duly authorized to execute this Agreement.

22. **Indemnification.**

(a) **Indemnity for Design Professional Services.** CONTRACTOR is considered a "design professional" as that term is defined in Civil Code Section 2782.8. In connection with its design professional services, CONTRACTOR shall hold harmless and indemnify CITY, and its elected officials, officers, employees, servants, designated volunteers, and those city agents serving as independent consultants in the role of city officials (collectively, "Indemnitees"), with respect to any and all claims, demands, damages, liabilities, losses, costs or expenses, including reimbursement of attorneys' fees and costs of defense (collectively, "Claims" hereinafter), including but not limited to Claims relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to in whole or in part to the negligence, recklessness, or willful misconduct of CONTRACTOR or any of its officers, employees, subcontractors, or agents in the performance of its design professional services under this Agreement.

(b) **Other Indemnities.** In connection with any and all claims, demands, damages, liabilities, losses, costs or expenses, including attorneys' fees and costs of defense (collectively, "Damages" hereinafter) not covered by Section (a) herein, CONTRACTOR shall defend, hold harmless and indemnify the Indemnitees with respect to any and all Damages, including but not limited to, Damages relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to the acts or omissions of CONTRACTOR or any of its officers, employees, subcontractors, or agents in connection with the performance of this Agreement, including without limitation the payment of all consequential damages, attorneys' fees, and other related costs and expenses, except for such loss or damage arising from the sole negligence or willful misconduct of the CITY, as determined by final arbitration or court decision or by the agreement of the parties. CONTRACTOR shall defend Indemnitees in any

action or actions file in connection with any such Damages with counsel of CITY's choice, and shall pay all costs, judgments, and expenses, including all attorneys' fees and experts' costs actually incurred in connection with such defense. CONTRACTOR's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by CONTRACTOR or CITY. All duties of CONTRACTOR under this Section shall survive termination of this Agreement.

23. **California Law.** This Agreement shall be construed in accordance with the laws of the State of California. Any action commenced about this Agreement shall be filed in the appropriate branch of the Los Angeles County Municipal or Superior Court.

24. **Interpretation.** This Agreement shall be interpreted as though prepared by both Parties.

25. **Preservation of Agreement.** Should any provision of this Agreement be found invalid or unenforceable, the decision shall affect only the provision interpreted, and all remaining provisions shall remain enforceable.

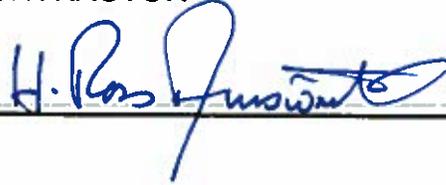
26. **Entire Agreement; Modification.** This Agreement supersedes any and all other agreements, either oral or in writing, between the Parties with respect to the subject matter herein. Each party to this Agreement acknowledges that representations by any party not embodied herein, and any other agreements, statements, or promises concerning the subject matter of this Agreement, not contained in this Agreement, shall not be valid and binding. Any modification of this Agreement will be effective only if it is in writing signed by the Parties. Any issue with respect to the interpretation or construction of this Agreement shall be resolved without resorting to the presumption that ambiguities should be construed against the drafter.

27. **Attorneys' Fees.** In the event that legal action is necessary to enforce the provisions of the Agreement, or to declare the rights of the Parties hereunder, the Parties agree that the prevailing party in the legal action shall be entitled to recover from the losing party all of its attorneys' fees and other costs incurred in connection therewith, in addition to such other relief as may be sought and awarded.

[Signatures begin next page]

IN WITNESS THEREOF, the Parties hereto have executed this Agreement on the day and year first shown above.

CONTRACTOR



CITY OF MANHATTAN BEACH



DAVID N. CARMANY
City Manager

ATTEST:

LIZA TAMURA
City Clerk

APPROVED AS TO FORM:



QUINN M. BARROW
City Attorney

WORK PLAN

The work plan for this project will be divided into several distinct and consecutive project phases. The initial project phase as it relates to the three locations to be considered for roundabout or other suitable solutions:

- **Manhattan Beach Boulevard and N Valley Drive/Ardmore Avenue**
- **15th Street and N Valley Drive/Ardmore Avenue**
- **Pacific Avenue and N Valley Drive/Ardmore Avenue**

"Phase 1", is to prepare an analysis of each location to identify the need for, and as appropriate, illustrate "feasible" roundabout or other appropriate traffic improvements. Assuming that there is a need and a feasible improvement has been identified, subsequent phases could include the preparation of further documents ultimately leading to project construction.

PHASE 1: SITE SPECIFIC FEASIBILITY ANALYSIS

TASK 1 PROJECT COORDINATION

Project coordination will occur throughout the course of the project.

1.1 - Project Meetings with the City of Manhattan Beach Staff (City)

OMNI-MEANS will be available to attend meetings, as required, throughout the length of this project. We have budgeted our attendance at three (3) project meetings in Manhattan Beach, as called for in the RFP. Additional meetings would be approved and scheduled in advance.

1.2 - Neighborhood Community Open House #1 (Optional)

This task was not identified within the RFP, but it is an optional effort that we believe is critical to the success of this project. These open houses provide the opportunity for "stake-holders", and the public in general to express their concerns over the existing conditions, as well as voice their opinion as to the potential solutions. In our experiences, these "**community voices**" **will be heard** if not now at the City council meeting. It is far better to ferret out these issues and concerns at the earliest point of the process.

Despite the fact that these decisions become very personal and often times confrontational, OMNI-MEANS embraces the opportunity to work with the public, interacting on behalf of our client and working with your community to find solutions. We have a long history working hand in hand with the community stakeholders and the community at large, and we look forward to the opportunity and challenge of working with the Manhattan Beach community to create a corridor that will be unique within Southern California, one we can all be proud of. Our proposal includes two (2) optional open house sessions, **one at the initial outset (Task 1.2)**, the **second when the design concepts (Task 5.3) have been developed and evaluated**.

TASK 2: DATA COLLECTION/BASE MAPPING

2.1 - Obtain Existing Reports, Engineering Evaluations and Related Data

OMNI-MEANS will gather copies of previous transportation and environmental studies, materials, reports, related planning analysis and engineering studies, available as built information, aerial photography, topographic mapping and any additional AutoCAD files and/or GIS data, for each of the three (3) locations. In addition we plan to collect all relevant documents to provide a more complete understanding of the project area. This could include City survey monumentation data, existing "record" drawings, right of way documents, and utility maps from City and outside purveyors - Southern California Edison, Southern Californian Gas, Verizon, Time Warner, etc.

2.2 - Site Investigation

OMNI-MEANS Project Team will field review the project area, during the initial project meeting in Manhattan Beach. Factors that could affect the concepts of the proposed roundabout improvements will be noted.

2.3 - Traffic Counts - Forecasts

This task will involve the collection of adequate traffic data to facilitate the development of a series of comprehensive roundabout concepts for each of the study intersections. In addition we will be requesting that the City of Manhattan Beach provide design year traffic forecasts for the three project intersections such that our roundabout concepts will be based on both current and future traffic demand requirements.

For the "existing conditions" counts we will be gathering new AM (7-9) and PM (4-6) peak hour turning movement traffic counts for the following locations:

- Manhattan Beach Boulevard at three spot locations
 - Ardmore Avenue
 - N. Valley Drive
- 15th Street at two spot locations
 - Ardmore Avenue
 - N. Valley Drive
- Pacific Avenue at two spot locations
 - Ardmore Avenue
 - N. Valley Drive

In addition, since Manhattan Beach is a destination community, we will be collecting the peak hour turning movement counts at these same locations on a Saturday for three intervals; AM (7-9), PM (4-6) and mid-day.(11 AM to 1 PM) These counts will include, pedestrian and bicycle users.

We will also collect Thursday thru Saturday machine count (directional with classification) at 15 locations along both N. Valley Drive and Ardmore Avenue (4 each), Manhattan Beach Blvd (2), 15th Street (2), Pacific Avenue(2) and Marine Avenue (1), as selected by the City. We are confident that this data collection effort will result in a very comprehensive data base which will allow us to identify and develop viable intersection concepts.

2.4 - Base Mapping

Base Mapping for each of the three (3) locations will be compiled using all of the existing information we can gather, and will be heavily dependent on City GIS, aerial mapping and utility information. We have conducted a field review of the existing roadway conditions including existing above-ground surface facilities, we expect to gain a lot of information from the respective utility companies. We understand the right-of-way information will be available from the City. We will prepare the base mapping of the existing conditions using AutoCAD software; however, it is understood that base mapping compiled as described above is approximate and should feasibility of a location be determined additional field surveys may be required (*not included in this phase budget*).

TASK 3: DEVELOP CONCEPTS

OMNI-MEANS will prepare roundabout (or other appropriate improvement) concepts for each location (minimum two per location) that consider:

- ◆ Horizontal Alignments
- ◆ Curb, truck apron and island layouts
- ◆ Delivery Truck/Motorcoach analysis (Truck and Bus tracking through the roundabout)
- ◆ Fastest path
- ◆ Potential right-of way impacts
- ◆ Potential utility impacts
- ◆ Pedestrian and Bike Circulation

3.1 - Roundabout Design Standards Approval

As approved by the City, OMNI-MEANS will use appropriate design standards for pedestrian crossings, sight distance considerations, fastest path criteria and truck and bus motor coach requirements. The design truck will be the bus/motorcoach and smaller delivery vehicles.

3.2 - Alignments, Geometrics, Typical Cross Sections

Prior to this Task the City will determine how many concepts and intersection(s) to develop geometric alignment and cross-sections. Such work shall be completed with a not-to-exceed amount per intersection.

This work will be carried out utilizing the required design year intersection configurations, preliminary centerline alignments, entry/exit, splitter island, pedestrian refuge, and roadway approach geometrics will be developed. It is anticipated that up to two alternative concept plans may be prepared under this task for each intersection selected by the City for this effort. Any readily recognizable potential public/private utility impacts and utility relocations will be identified on these concept plans. We will also identify approximate right of way that may be required by each concept based on the available right of way information.

TASK 4: ROUNDABOUT CONCEPT PLAN ANALYSIS

4.1 - Roundabout Operations

Roundabout traffic operations will be analyzed for both existing and Design Year conditions, for the AM and PM peak hour and weekend traffic flows based on the information gathered in task 2.3. The Design Year analysis will take into consideration any planned circulation improvements, if any, within the project area.

The "roundabout" intersection will be planned and designed per U.S. Department of Transportation, Federal Highway Administration Publication No. FHWA-RD-00-067, Caltrans Design Information Bulletin Number 80-01 and Transportation Research Board NCHRP Publication 672. Three roundabout analysis tools will be utilized:

- ◆ **Rodel** - an empirical roundabout design and operations tool developed in the UK
- ◆ **SIDRA** - a gap acceptance tool developed in Australia

RODEL will be used to establish the geometrics and SIDRA will be utilized to test traffic operations associated with the geometrics established in RODEL.

All of these tools will be utilized to assure proper roundabout operations. These tools provide several measures of effectiveness including a queuing analysis, which will be utilized to in the comparison with Traffic Signal operations.

4.2 - Safety Analysis (Optional)

Three year accident data for the subject intersection will be obtained from the City of Manhattan Beach Police Department and supplemented with accident data from Statewide Integrated Traffic Record System (SWITRS). This data will be utilized in performing the safety analysis. The safety analysis will be evaluated using Caltrans' safety index calculation worksheet typically used for Highway Safety Improvement Program (HSIP) projects. The safety index calculations will be performed for each of the three (3) locations.

4.3 - Prepare Preliminary Cost Estimates (Optional)

Within this task, OMNI-MEANS will develop a preliminary project cost estimate for the concepts developed, excluding utility relocation and right of way costs. Estimates for right of way and utility relocation costs will be determined through consultations with City staff.

4.4 - Phase 1 Memorandum

The roundabout concepts will be submitted in hard copy and AutoCAD format to the City for review. The entire process will be documented in a memorandum with three separate sections one for each of the three locations:

- ◆ **Manhattan Beach Boulevard and Valley Drive/Ardmore Avenue,**
- ◆ **15th Street and Valley Drive/Ardmore Avenue, and**
- ◆ **Pacific Avenue and Valley Drive/Ardmore Avenue.**

PHASE 2: INTERSECTION CONCEPT DEVELOPMENT

The following project tasks will be accomplished, as directed by the City. The fee for this work will be determined once the number of scenarios and their magnitude have been determined.

TASK 5: SELECT PREFERRED INTERSECTION CONCEPTS

This Memorandum is designed to provide the City significant information suitable to the selection of the "preferred design concept" for each of the locations previously chosen by the City. We also believe this would be the appropriate time to hold the Community Open House #2 if desired by the City.

5.1 - Select Preferred Intersection Concept(s)

At this point we will be prepared to meet with City staff to review our findings, go over the "Memorandum" and assist as necessary in selecting a preferred "design concept" for each location. The determination of the "preferred intersection concept(s)" will be determined by the City.

After receiving direction from City staff, OMNI-MEANS will move to the next level of evaluation; the refinement of the selected "preferred design concept(s)".

5.2 - VISSIM Simulation

OMNI-MEANS has evaluated and used several different traffic simulation models over the years. We have found that the use of computer micro-simulation models provides a substantial benefit to the overall transportation evaluation process, often used to optimize a set of complex technical systems. With roundabouts and roadway widening, simulation may be very critical in the analysis. Simulation's impact as a part of a technical presentation to a governing body or the public at-large; can be immensely beneficial. We will provide computer micro-simulation of the "preferred Intersection Concept(S), for the critical design condition, using the computer simulation model VISSIM.

When important decisions on costly projects have to be made, our combination of traffic engineering expertise combined with the 3D animations provided through simulation guarantees a convincing presentation for both technical experts and decision makers. Traffic simulation convincingly illustrates both the impacts and benefits assisting with the decision making process.

5.3 - Community Open House #2

The second community open-house could be held at this juncture of the project, if the City decides that it would be a worthwhile event.

TASK 6: REFINE PREFERRED DESIGN CONCEPT(S)

This task involves the updating and refining the "preferred design concepts". This will result in a closer look at some of the criteria previously evaluated and the inclusion of some additional criteria. The refinement will include as a minimum:

- ◆ Roundabout Geometrics,
- ◆ Truck and Bus Tracking
- ◆ Fast Path Analysis
- ◆ Natural Path Analysis
- ◆ Sight Distance and Critical Gap
- ◆ Vehicle Queuing
- ◆ Approach Gradients
- ◆ Roundabout Delay/LOS
- ◆ Updated Cost Estimates

TASK 7: PREPARE "PROJECT REPORT"

With the previous work completed the refined, updated "preferred design concept(s)" will be ready for incorporation into the Project Report. The project report is the final task, prior to formal presentations as required by the City. The memorandum developed at the conclusion of Phase 1 will provide important study documentation for Project Report.

A meeting with City staff will be held prior to issuing this document. We understand that the City would like to receive five (5) copies each of the final report, as well as 11" x 17" reproductions of the "roundabout design concepts". The count data will be included within the report document. A CD with each of these items in electronic format will be provided as well.

TASK 8 - FORMAL PRESENTATIONS AND MEETINGS

We will attend two (2) formal scheduled meetings one each with the Manhattan Beach Parking and Public Improvements Commission, and the other with the City Council. Presentation graphics will be prepared clearly illustrating all features of each roundabout intersection. All physical attributes, right of way and utility impacts, landscaping opportunities, environmental benefits and roundabout operations will all be included within the presentation materials. Perhaps most important, a VISSIM 3 Dimensional computer simulation of each of the preferred intersection improvements will be presented, if selected by the City.

3. Schedule of Work

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
Project Schedule															
Manhattan Beach Roundabout Feasibility Study for Three Locations along Valley Drive/Armore Avenue, Manhattan Beach Boulevard, 15th Avenue and Pacific Avenue															
Task 1: Project Coordination															
1.1 - Project Meetings (3) with the City of Manhattan Beach Staff	M							M							
1.2 - Formal Presentations and Meetings (2)															
1.3 - Neighborhood Community Open Houses - (OPTIONAL)		OH						OH							
Task 2: Data Collection/Base Mapping															
2.1 - Obtain Existing Reports, Engineering Evaluations and Related Data															
2.2 - Site Investigation															
2.3 - Traffic Counts - Forecasts Weekday and Weekend Peak Hour Counts Seven (7) day Machine Counts (vol-speed-classification)															
2.4 - Base Mapping															
Task 3: Develop Roundabout Design Sketches															
3.1 - Roundabout Design Standards Approval															
3.2 - Alignments, Geometrics, Typical Cross Sections															
Task 4: Roundabout Design Sketch Analysis															
4.1 - Roundabout Operations															
4.2 - Safety Analysis															
4.3 - Prepare Preliminary Cost Estimates															
4.4 - VISSIM Simulation															
4.5 - Working Paper															
Task 5: Select Preferred Design Sketches															
Select Preferred Design Sketches															
Task 6: Refine Preferred Design Sketches															
Refine Preferred Design Sketches															
Task 7: Prepare "Project Report"															
Project Report															

