

## MEMORANDUM

**TO:** Planning Commission

**THROUGH:** Richard Thompson, Director of Community Development

**FROM:** Jim Arndt, Director of Public Works  
Steve Finton, City Engineer

**DATE:** May 11, 2011

**SUBJECT:** Consideration of Determination of Consistency of the Proposed Fiscal Year 2011-12 Capital Improvement Plan with the City of Manhattan Beach General Plan

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**RECOMMENDATION:**

Staff recommends that the Planning Commission review the report and adopt a resolution (Attachment A) determining that the proposed FY 2011-12 Capital Improvement Plan (CIP) is consistent with the City of Manhattan Beach General Plan.

**BACKGROUND:**

State of California Government Code Section 65103 (c) requires each Planning Agency to conduct an annual review of the City's CIP for consistency with the General Plan. Additionally, Government Code Section 65401 requires that a coordinated program of proposed public works projects be reviewed by the City Planning Agency for conformity with the City's General Plan.

**DISCUSSION:**

Public Works staff is pleased to submit the FY 2011-12 CIP General Plan Consistency Report (Attachment B) for Planning Commission consideration. The report includes a list of all recommended projects for FY 2011-12, their funding source(s), estimated cost and a statement of consistency with the specific goals and policies of the General Plan. Also provided on Attachment B is the list of Facilities projects approved by City Council on March 1, 2011. The five-year Capital Improvement Program Spreadsheet (Attachment C) and detailed Project Descriptions (Attachment D) are provided as well.

Facilities

Funds to improve the Joslyn Center, Manhattan Heights Community Center, Begg Pool and locker rooms, and the Live Oak Ceramic Studio and Recreation Hall were appropriated by City Council on March 1, 2011 (Attachment B). The proposed FY 2011-12 through FY 2015-16 includes funding to construct High Efficiency Heating, Ventilation and Air Conditioning (HVAC) Improvements at City Hall.

Water and Sewer Projects

Water and sewer master plans completed in 2009 indicate the need for additional investment in the City's water and sewer infrastructure. Rate increases instituted in January 2010 provide

additional funding to make the needed investment. The five-year CIP includes increasing levels of water and sewer funding. In FY 2011-12, \$3.5 Million is proposed for water projects and \$1.4 Million is proposed for sewer infrastructure improvements. By FY 2013-14, \$5M and \$2.5M will be available annually for water and sewer projects respectively. The attached five-year CIP reflects the increased infrastructure investment.

#### Sepulveda Bridge

Additional funding provided through Measure R provides full funding for the Sepulveda Boulevard Bridge Widening project during the FY 2011-12 through FY 2015-16 CIP. Total funding in the amount of \$21.2 Million are identified in the five year CIP with appropriations in the amount of \$958,236 proposed for FY 2011-12.

Public Works staff believes that the projects identified in the FY 2011-12 CIP are consistent with the goals and policies of the City of Manhattan Beach General Plan. Community Development Department staff concurs with the General Plan consistency statements provided and recommends that the Commission make the necessary consistency determination. Staff is requesting that the Commission make the consistency finding on the FY 2011-12 CIP at this time. The remainder of the five-year plan is provided for the Commission's information only. General plan consistency for future projects will be submitted for the Commission's consideration in future years.

- Attachment:
- A. Draft CIP General Plan Consistency Resolution
  - B. FY 2011-12 CIP General Plan Consistency Review Report
  - C. FY 2011-12 through FY 2015-16 CIP Spreadsheets.
  - D. FY 2011-12 through FY 2015-16 CIP Project Descriptions

PROJECT TITLE	Previous Appropriations	FY 2011-12	Funding Source(s)	Project Description	General Plan Element and/or Goal
<b>Facilities (appropriated by City Council March 1, 2011)</b>					
Joslyn Center Improvements	\$718,000		CIP Fund	Facility rehabilitation – Paint, windows, doors, restrooms, ceilings, pest control, HVAC, kitchen, roofing, flooring, stage and misc.	<u>Goal CR-1:</u> Maintain a park, recreation, and open space system that provides a variety of recreational opportunities accessible to all residents and meets the needs of all residents.
Manhattan Heights Community Center Improvements	\$508,000		CIP Fund	Facility rehabilitation – Paint, windows, restrooms, ceilings, pest control, HVAC, kitchen, roofing, flooring and misc.	<u>Goal CR-1:</u> Maintain a park, recreation, and open space system that provides a variety of recreational opportunities accessible to all residents and meets the needs of all residents.
Begg Pool Improvements	\$706,000		CIP Fund	Facility rehabilitation – lockers, flooring, plumbing, toilets, paint, roofing, doors, windows, pool deck, pool lighting, lawn improvements, fencing and misc.	<u>Goal CR-1:</u> Maintain a park, recreation, and open space system that provides a variety of recreational opportunities accessible to all residents and meets the needs of all residents.
Live Oak Ceramic Studio Improvements	\$25,000		CIP Fund	Facility rehabilitation - Shelves, cabinets, mud sink, kiln venting, fire sprinklers and misc.	<u>Goal CR-1:</u> Maintain a park, recreation, and open space system that provides a variety of recreational opportunities accessible to all residents and meets the needs of all residents.
Live Oak Recreation Hall Improvements	\$25,000		CIP Fund	Facility rehabilitation – Kitchen, flooring, paint, roofing and misc.	<u>Goal CR-1:</u> Maintain a park, recreation, and open space system that provides a variety of recreational opportunities accessible to all residents and meets the needs of all residents.
Subtotal March 1, 2011 Appropriations	\$1,982,000				
<b>Facilities FY2011-12</b>					
High Efficiency HVAC and Lighting at City Hall (design only)		\$300,000	CIP Fund	Installation of ice storage unit at Police/Fire facility and construction of chilled water circulation system to City Hall. Also includes replacement of City Hall windows, lights and ceiling system. Reduces peak electrical power consumption and increases effectiveness of City Hall HVAC.	<u>Goal CR-5.7:</u> Encourage the use of energy saving designs and devices in all new construction. <u>Policy CR-5.11:</u> Support sustainable building practices.
Pier Localized Structural Rehabilitation		\$500,000	CIP Fund	Minor structural repairs to pier.	<u>Goal CR-1:</u> Maintain a park, recreation, and open space system that provides a variety of recreational opportunities accessible to all residents and meets the needs of all residents. <u>Goal CS-1:</u> Minimize the risks to public health, safety, and welfare resulting from natural and human-caused hazards.
Marine Avenue Park Synthetic Grass Field		\$1,000,000	CIP Fund (Private Donation)	Installation of synthetic grass athletic field at Marine Avenue Park.	<u>Goal CR-1:</u> Maintain a park, recreation, and open space system that provides a variety of recreational opportunities accessible to all residents and meets the needs of all residents. <u>Goal CR-5.3:</u> Encourage water conservation, including landscaping with drought tolerant plants, use of reclaimed water, and recycling of cooling water, in all development.
<b>Facilities TOTAL</b>		<b>\$1,800,000</b>			

PROJECT TITLE	Previous Appropriations	FY 2011-12	Funding Source(s)	Project Description	General Plan Element and/or Goal
<b>Streets</b>					
Annual Curb, Gutter and Ramp Replacement Project	\$450,000	\$700,000	Gas Tax Fund	Replacement of displaced curbs and gutters and installation of curb ramps	<u>Goal I-9:</u> Maintain a storm drainage system that adequately protects the health and safety and property of Manhattan Beach residents. <u>Goal I-6:</u> Create well-marked pedestrian and bicycle networks that facilitate these modes of circulation.
Annual Slurry Seal Program	\$350,000	\$425,000	Gas Tax Fund	Annual program to slurry City's streets in an effort to extend their useful life before resurfacing.	<u>Infrastructure Policy I-1.1:</u> Review the functioning of the street system on a regular basis to identify problems and develop solutions.
Street Resurfacing Project: Pacific Avenue	\$543,749	\$300,000	Gas Tax Fund ARRA Grant Funds	Pavement rehabilitation	<u>Infrastructure Goal I-1:</u> Provide a balanced transportation system that allows the safe and efficient movement of people, goods and services throughout the City.
Concrete Street Construction, 6th St. 7th St., 10th Pl., 11th Pl. & 12th Pl.		\$400,000	Measure R Local Return	Concrete Street Construction	<u>Infrastructure Goal I-1:</u> Provide a balanced transportation system that allows the safe and efficient movement of people, goods and services throughout the City.
Dual Left-Turn Lanes on Marine Ave at Sepulveda Blvd		\$335,000	Measure R SB Hwy Gas Tax Funds	Widening of the north side of the Marine to provide a dual westbound to southbound left-turn lanes.	<u>Infrastructure Goal I-1:</u> Provide a balanced transportation system that allows the safe and efficient movement of people, goods and services throughout the City. <u>Infrastructure Goal I-2:</u> Move commuter traffic through the City primarily on arterial streets, and on collector streets as appropriate, to protect other streets from the intrusion of commuter traffic.
Manhattan Ave./Highland Ave. Improvement Project (1st-8th)	\$543,706	\$160,530	Proposition 1B Funds	Pavement rehabilitation	<u>Infrastructure Policy I-2.3:</u> Upgrade all major intersections and arterial streets to keep traffic moving efficiently. <u>Infrastructure Goal I-1:</u> Provide a balanced transportation system that allows the safe and efficient movement of people, goods and services throughout the City.
Street Resurfacing Project: Ardmore and Valley		\$700,000	Gas Tax Funds	Pavement rehabilitation	<u>Infrastructure Goal I-1:</u> Provide a balanced transportation system that allows the safe and efficient movement of people, goods and services throughout the City.
Sepulveda Bridge Widening Project (33rd-Valley) (design and portion of construction)	\$1,285,440	\$958,236	Grant Fund Measure R SB Hwy Prop C	Construction of additional northbound through lane by widening Sepulveda Bridge on the east side	<u>Infrastructure Goal I-1:</u> Provide a balanced transportation system that allows the safe and efficient movement of people, goods and services throughout the City. <u>Infrastructure Goal I-2:</u> Move commuter traffic through the City primarily on arterial streets, and on collector streets as appropriate, to protect other streets from the intrusion of commuter traffic. <u>Infrastructure Policy I-2.3:</u> Upgrade all major intersections and arterial streets to keep traffic moving efficiently.
<b>Streets TOTAL</b>		<b>\$3,978,766</b>			

PROJECT TITLE	Previous Appropriations	FY 2011-12	Funding Source(s)	Project Description	General Plan Element and/or Goal
<b>Wastewater</b>					
FY11-12 Rehabilitation of Gravity Sewer Mains (Area 7)	\$200,000	\$1,140,000	Sewer Funds	Rehabilitation or Replacement of Gravity Sewer Mains.	Goal I-8: Maintain a sewage system adequate to protect the health and safety of all Manhattan Beach residents and businesses.
Utility Telemetry (Funded 50% Sewer 50% Water)	\$32,500	Deferred to FY2012-13	Sewer Funds	Install radio or fiber optic communications to 21 existing water and wastewater stations the Public Works Maintenance Facility.	Goal I-7: Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City. Goal I-8: Maintain a sewage system adequate to protect the health and safety of all Manhattan Beach residents and businesses. Goal I-9: Maintain a storm drainage system that adequately protects the health and safety and property of Manhattan Beach resident
FY12-13 Rehabilitation of Gravity Sewer Mains--(Areas 1, 2 & 3)(design only)		\$150,000	Sewer Funds	Rehabilitation or Replacement of Gravity Sewer Mains.	Goal I-8: Maintain a sewage system adequate to protect the health and safety of all Manhattan Beach residents and businesses.
FY11-12 thru 14-15 Rehabilitation of Sewer Manholes		\$100,000	Sewer Funds	Rehabilitation or Replacement of Sewer Manholes.	Goal I-8: Maintain a sewage system adequate to protect the health and safety of all Manhattan Beach residents and businesses.
<b>Wastewater TOTAL</b>		<b>\$1,390,000</b>			
<b>Water</b>					
Peck Res. Disinfection and Mixing System		\$230,000	Water Funds	Installation of a mechanical mixing and disinfection injection system at the Peck reservoir.	Infrastructure Goal I-7: Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City.
Blending Line Flow Control Facility		\$120,000	Water Funds	Installation of a flow control valve and control system to permit blending of well water and purchased water at the Peck Reservoir.	Infrastructure Goal I-7: Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City.
Well 11A Rehabilitation		\$230,000	Water Funds	Rehabilitation of the pumps, motors, pump head, column and/or casings to restore the well to full capacity.	Infrastructure Goal I-7: Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City. Infrastructure Goal CS-1.3: Ensure that public and private water distribution and supply facilities have adequate capacity and reliability to supply both everyday and emergency firefighting needs.
2nd Street Booster Pump Station	\$50,000	\$580,000	Water Funds	Installation of new natural gas engine, engine controls, engine muffler, and engine mount vibration insulators.	Infrastructure Goal CS-1.3: Ensure that public and private water distribution and supply facilities have adequate capacity and reliability to supply both everyday and emergency firefighting needs.
Pipe Replacement Program and Fire Hydrant Installation (Area 7)	\$200,000	\$2,000,000	Water Funds	Construction of replacement water mains and new fire hydrants.	Infrastructure Goal I-7: Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City. Infrastructure Goal CS-1.3: Ensure that public and private water distribution and supply facilities have adequate capacity and reliability to supply both everyday and emergency firefighting needs.

PROJECT TITLE	Previous Appropriations	FY 2011-12	Funding Source(s)	Project Description	General Plan Element and/or Goal
Utility Telemetry (Funded 50% Sewer 50% Water)	\$32,500	Deferred to FY 2012-13	Water Funds	Install radio or fiber optic communications to 21 existing water and wastewater stations the Public Works Maintenance Facility.	<p><u>Infrastructure Goal I-7:</u> Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City.</p> <p><u>Goal I-7:</u> Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City.</p> <p><u>Goal I-8:</u> Maintain a sewage system adequate to protect the health and safety of all Manhattan Beach residents and businesses.</p> <p><u>Goal I-9:</u> Maintain a storm drainage system that adequately protects the health and safety and property of Manhattan Beach resident</p>
Larsson Street Pump Station Improvement (design only)		\$100,000	Water Funds	Upgrading of pumps, controls, variable speed drives and back-up generator to provide increased pumping capacity.	<p><u>Infrastructure Goal CS-1.3:</u> Ensure that public and private water distribution and supply facilities have adequate capacity and reliability to supply both everyday and emergency firefighting needs.</p> <p><u>Infrastructure Goal I-7:</u> Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City.</p>
Pipe Replacement Program and Fire Hydrant Installation (Area 1) (design only)		\$150,000	Water Funds	Construction of replacement water mains and new fire hydrants.	<p><u>Infrastructure Goal CS-1.3:</u> Ensure that public and private water distribution and supply facilities have adequate capacity and reliability to supply both everyday and emergency firefighting needs.</p> <p><u>Infrastructure Goal I-7:</u> Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City.</p>
Water Main Replacement: Sepulveda Boulevard & 2nd Street (Sep-MBB to 2nd; 2nd-Larsson Pump to 2nd St Pump) (design only)		\$100,000	Water Funds	Construction of replacement water mains and new fire hydrants.	<p><u>Infrastructure Goal CS-1.3:</u> Ensure that public and private water distribution and supply facilities have adequate capacity and reliability to supply both everyday and emergency firefighting needs.</p> <p><u>Infrastructure Goal I-7:</u> Maintain and protect a reliable and cost effective water supply system capable of adequately meeting normal demand and emergency demand in the City.</p>
<b>Water TOTAL</b>		<b>\$3,510,000</b>			
<b>GRAND TOTAL</b>		<b>\$10,678,766</b>			

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE - ATTACHMENT C**

PROJECT TITLE	Funded Carryover Project Budget	Carryover Project Original Funding Yr	Carryover Project Status	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>SUMMARY ALL PROJECT TYPES</b>										
<b>FACILITIES</b>	\$ 2,683,180			\$ 1,800,000	\$ 620,000	\$ 770,000	\$ 550,000	\$ -	\$ 6,423,180	See Below
<b>STREETS</b>	\$ 7,111,296			\$ 3,978,766	\$ 9,385,937	\$ 13,900,472	\$ 1,065,000	\$ 3,115,000	\$ 38,556,471	See Below
<b>UTILITIES</b>	\$ 3,465,277			\$ 4,900,000	\$ 6,040,000	\$ 7,262,000	\$ 9,686,900	\$ 8,800,000	\$ 40,154,177	See Below
<b>PROJECT BY TYPE TOTAL</b>	<b>\$ 13,259,753</b>			<b>\$ 10,678,766</b>	<b>\$ 16,045,937</b>	<b>\$ 21,932,472</b>	<b>\$ 11,301,900</b>	<b>\$ 11,915,000</b>	<b>\$ 85,133,828</b>	
<b>FACILITIES</b>										
High Efficiency HVAC and Lighting at City Hall***				\$ 300,000	\$ 620,000	\$ 620,000			\$ 1,540,000	CIP Fund
Pier Localized Structural Rehabilitation				\$ 500,000					\$ 500,000	Pier Fund
Marine Avenue Park Synthetic Grass Field				\$ 1,000,000					\$ 1,000,000	Private Contributions
City-Owned Refuse Enclosure Improvements						\$ 150,000	\$ 550,000		\$ 700,000	Refuse Fund
<b>FY11-12 thru FY15-16 Subtotal</b>									<b>\$ 3,740,000</b>	
<b>Funded Carryover Projects**</b>										
Joslyn Center Improvements***	\$ 718,000	FY 2010-11	In Process						\$ 718,000	CIP Fund
Manhattan Heights Community Center Improvements***	\$ 508,000	FY 2010-11	In Process						\$ 508,000	CIP Fund
Begg Pool Improvements***	\$ 706,000	FY 2010-11	In Process						\$ 706,000	CIP Fund
Live Oak Ceramic Studio Improvements***	\$ 25,000	FY 2010-11	In Process						\$ 25,000	CIP Fund
Live Oak Recreation Hall Improvements***	\$ 25,000	FY 2010-11	In Process						\$ 25,000	CIP Fund
Alternative Fuel Station Expansion	\$ 100,000	FY2009-10	On hold						\$ 100,000	AB 2766
City Yard Cover	\$ 601,180	FY2009-10	In Process						\$ 601,180	CIP Fund Refuse Fund Sewer Fund Water Fund Stormwater Fund
<b>Facilities TOTAL</b>	<b>\$ 2,683,180</b>			<b>\$ 1,800,000</b>	<b>\$ 620,000</b>	<b>\$ 770,000</b>	<b>\$ 550,000</b>	<b>\$ -</b>	<b>\$ 6,423,180</b>	
<b>STREETS</b>										
Annual Curb, Gutter and Ramp Replacement Project	Carryover below			\$ 700,000	\$ 320,000	\$ 365,000	\$ 365,000	\$ 365,000	\$ 2,115,000	Gas Tax Fund
Annual Slurry Seal Program	Carryover below			\$ 425,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 1,825,000	Gas Tax Fund
Street Resurfacing Project: Pacific Avenue	Carryover below			\$ 300,000					\$ 300,000	Gas Tax Fund
Dual Left-Turn Lanes on Marine Ave at Sepulveda Blvd				\$ 335,000					\$ 335,000	Gas Tax Fund
Manhattan Ave./Highland Ave. Improvement Project (1st-8th)	Carryover below			\$ 160,530					\$ 160,530	Prop. 1B
Street Resurfacing Project: Ardmore and Valley				\$ 700,000					\$ 700,000	Gas Tax Fund
Concrete Street Construction, 6th St, 7th St., 10th Pl., 11th Pl. & 12th Pl.				\$ 400,000					\$ 400,000	
Sepulveda Bridge Widening Project (33rd-Valley)	Carryover below			\$ 958,236	\$ 8,715,937	\$ 10,265,472			\$ 19,939,645	Grant Fund Measure R SBHwy Prop C (New & Cryr)
Street Resurfacing Project: Blanche, Marine, Oak, 27th St & 11th St						\$ 400,000			\$ 400,000	Gas Tax Fund
Aviation at Marine, Dual SB Lefts						\$ 1,500,000			\$ 1,500,000	Measure R SBHwy
Dual Left-Turn Lanes on MBB at Sepulveda EB, NB, WB	Carryover below					\$ 980,000			\$ 980,000	Measure R SBHwy
Triennial Pavement Management System Update						\$ 40,000			\$ 40,000	Gas Tax Fund
Morningside Drive Rehabilitation							\$ 250,000		\$ 250,000	Gas Tax Fund
Manhattan Beach Bl. Rehab. Sepulveda to Aviation							\$ 100,000	\$ 900,000	\$ 1,000,000	Prop. C
Aviation at Artesia, SB Right-Turn Lane								\$ 1,500,000	\$ 1,500,000	Measure R SBHwy

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.  
 \*\*\*Appropriated on 3/1/11

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE - ATTACHMENT C**

PROJECT TITLE	Funded Carryover Project Budget	Carryover Project Original Funding Yr	Carryover Project Status	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>FY11-12 thru FY15-16 Subtotal</b>									\$ 31,445,175	
<b>Funded Carryover Projects**</b>										
Street Resurfacing Project: Rosecrans Avenue	\$ 250,000	FY 2010-11	In Process						\$ 250,000	Gas Tax Fund
Annual Curb, Gutter and Ramp Replacement Project	\$ 450,000	FY 2010-11	In Process						\$ 450,000	Gas Tax Fund
Annual Slurry Seal Program	\$ 350,000	FY 2010-11	In Process						\$ 350,000	Gas Tax Fund
Street Resurfacing Project: Pacific Avenue	\$ 543,749	FY 2010-11	In Process						\$ 543,749	Grant Fund Gas Tax Fund
Strand Stairs (Phase I)	\$ 1,920,000	FY2009-10	In Process						\$ 1,920,000	Grant Fund CIP Fund
Sepulveda Bridge Widening Project (33rd-Valley)	\$ 1,285,440	FY2009-10	In Process						\$ 1,285,440	Grant Fund
Manhattan Ave./Highland Ave. Improvement Project (1st-8th)	\$ 543,706	FY2009-10	In Process						\$ 543,706	Prop. 1B
Safe Routes to School Program	\$ 797,468	FY2009-10	In Process						\$ 797,468	CIP Fund
Dual Left-Turn Lanes on MBB at Sepulveda EB, NB, WB	\$ 414,593	FY2008-09	Pending Right-of-way Acquisition						\$ 414,593	Prop C
South Side Rosecrans Ave. Widening	\$ 346,396	FY2006-07	In Process						\$ 346,396	Grant Fund
So Rosecrans Utility Undergrounding-Street Work	\$ 209,944	FY2003-04	In Process						\$ 209,944	Prop C
<b>Streets TOTAL</b>	<b>\$ 7,111,296</b>			<b>\$ 3,978,766</b>	<b>\$ 9,385,937</b>	<b>\$ 13,900,472</b>	<b>\$ 1,065,000</b>	<b>\$ 3,115,000</b>	<b>\$ 38,556,471</b>	
<b>UTILITIES</b>										
<b>Parking Projects</b>										
<b>Funded Carryover Projects**</b>										
Automated Parking Meters	\$ 741,265	FY2009-10	In Process						\$ 741,265	Parking Fund
Automated Parking Meters	\$ 532,532	FY2009-10	In Process						\$ 532,532	St. Pier and Prkg Lot Fund
North MB BID Improvement Project	\$ 222,525	FY2006-07	In Process						\$ 222,525	NMB-BID Funds
<b>Parking TOTAL</b>	<b>\$ 1,496,321</b>								<b>\$ 1,496,321</b>	
<b>Stormwater Projects</b>										
<b>FY11-12 thru FY15-16 Projects</b>										
No projects requested									\$ -	
<b>FY11-12 thru FY15-16 Subtotal</b>									<b>\$ -</b>	
<b>Funded Carryover Projects**</b>										
Infiltration site study	\$ 50,000	FY2008-09	In Process						\$ 50,000	Storm Water Fund
<b>Stormwater Fund TOTAL</b>	<b>\$ 50,000</b>			<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50,000</b>	

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\*\*\*Appropriated on 3/1/11



City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

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<b>Wastewater Projects</b>										
<u>FY11-12 Rehabilitation of Gravity Sewer Mains</u> Full Replacement Locations -Highland Av. Sidewalk Btwn 32nd Pl. & 33rd Pl. (15' replacement) -Marine Av. Highland Av. to Grandview Dr. -Alma Av. 24th St to 27th St. -3rd Street Crest Drive to Ingleside Drive -4th Street - Ingleside to Valley -Ingleside Drive 7th Street to 5th Street -24th Street Strand to Highland Avenue -7th Street Crest Drive to Valley Drive	Carryover below			\$ 1,140,000					\$ 1,140,000	Wastewater Fund
Utility Radio Telemetry (Previously Fiber Optic Improvement) Funded 50% Sewer 50% Water	Carryover below				\$ 317,500				\$ 317,500	Wastewater Fund
<u>FY12-13 Rehabilitation of Gravity Sewer Mains</u> -11th Street Dianthus Street to Sepulveda Boulevard -Ardmore Avenue S/O 11th Street -10th Street Dianthus Street to Sepulveda Boulevard -Dianthus Street 3rd Street to 6th Street -2nd Street Poinsettia Street to Anderson Street -8th Street Poinsettia Street to Anderson Street -8th Street Anderson Street to Dianthus Street -9th Street Ardmore Avenue to Railroad Place -Boundary Place Dianthus Street to Sepulveda Boulevard -11th Place W/O Highview Avenue -6th Street John Street to John Place -1ST Street E/O Ardmore Avenue -Johnson Street 2nd to 3rd Streets -3rd Street Johnson Street to Meadows Avenue -Rowell Avenue Gates Avenue to Curtis Avenue -8th Street W/O Johnson Street -9th Street At Johnson Street -Meadows Avenue Curtis Avenue and Voorhees Avenue -2nd Street Sepulveda Boulevard to Johnson Street -8th Street E/O Johnson Street -9th Street W/O Meadows Avenue -Longfellow Drive E/O Altura Way -Shores Parking Lot W/O Peck Avenue -Johnson Street 3rd to 4th Streets -Johnson Street 4th to 5th Streets -9th Street Rowell Avenue to Peck Avenue -3rd Street Johnson Street to Meadows Street -Tennyson Street Chabella Drive to Prospect Avenue -2nd Street Herrin Avenue to Redondo Avenue (Full Replacement) -Nelson Avenue Peck Avenue to Herrin Street -Herrin Street 1st Street to Gates Avenue -Aviation Boulevard 10th Street to 11th Street -1ST Street Redondo Avenue to Aviation Boulevard				\$ 150,000	\$ 1,300,000				\$ 1,450,000	Wastewater Fund
<u>FY11-12 thru 14-15 Rehabilitation of Sewer Manholes</u> Poinsettia Sewage Pump Station				\$ 100,000	\$ 150,000		\$ 150,000		\$ 400,000	Wastewater Fund
Pacific Pump Station Upgrade					\$ 405,000	\$ 2,362,000			\$ 2,767,000	Wastewater Fund
<u>FY14-15 Rehabilitation of Gravity Sewer Mains (Spot Repairs)</u> -Harkness St 15th Street to 19th Street 1 spot repair -Faymont Ave 15th Street to 19th Street 1 spot repair -18th St Herrin Street to Redondo Avenue 2 spot repairs -19th St Herrin Street to Redondo Avenue 1 spot repair -21st st 20th Street to Meadows Avenue 1 spot repair Additional locations will be identified through future CCTV inspections						\$ 100,000	\$ 1,200,000		\$ 1,300,000	Wastewater Fund

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\*\*\*Appropriated on 3/1/11

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE - ATTACHMENT C**

PROJECT TITLE	Funded Carryover Project Budget	Carryover Project Original Funding Yr	Carryover Project Status	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b><u>FY15-16 Rehabilitation of Gravity Sewer Mains</u></b> -20th Street Highland Ave. East to end -19th Street Highland Ave. East to end -18th Street Highland Ave. East to end -16th Place W/O Live Oak Park -Highview Avenue N/O Manhattan Bch Blvd. -Manhattan Bch Blvd. Ardmore Av. to Fisher Av. -289th Street Grandview to Alma -31st Street W/O Grandview -31st Street E/O Highland -Manhattan Av. 28th St. to 29th St. -32nd Street Manhattan Av. to Strand							\$ 150,000	\$ 1,400,000	\$ 1,550,000	Wastewater Fund
<b>FY11-12 thru FY15-16 Subtotal</b>									<b>\$ 9,861,400</b>	
<b><u>Funded Carryover Projects**</u></b>										
<b>Utility Radio Telemetry (Previously Fiber Optic Improvement)</b> Funded 50% Sewer 50% Water	\$ 32,500	FY 2010-11	In Process						\$ 32,500	Wastewater Fund
<b><u>FY11-12 Rehabilitation of Gravity Sewer Mains</u></b> See locations above	\$ 200,000	FY 2010-11	In Process						\$ 200,000	Wastewater Fund
<b><u>FY10-11 Rehabilitation of Gravity Sewer Mains</u></b> Spot Repair Locations Marine Avenue — Blanche Rd to Flournoy Rd -23rd Street — Blanche Rd to 25th Street -27th Street — at Flournoy Rd -29th Street — Blanche Rd to Bell Ave -29th Street — at Laurel Ave -Bell Avenue — Street to 30th Street -30th Street — Blanche Rd to Bell Ave -31st Place — Blanche Rd to Flournoy Rd -33rd Place — at Blanche Rd -Rosecrans Avenue — sidewalk e/o Vista Drive -39th Street — between 218 39th St and Highland Ave -38th Place — between 200 and 222 38th Place -Manhattan Avenue — 36th St to Rosecrans Ave, sidewalk -Highland Avenue — 33rd St to 34th St, sidewalk -33 Street — Highland Ave to Crest Dr -9th Street — Manhattan Ave to Highland Ave	\$ 1,050,000	FY 2010-11	In Process						\$ 1,050,000	Wastewater Fund
<b>Public Works Maint Facility Master Plan</b>	\$ 7,559	FY2009-10	In Process						\$ 7,559	Wastewater Fund
<b>Utility Master Plan</b>	\$ 155,654	FY2008-09	In Process						\$ 155,654	Wastewater Fund
<b>Wastewater TOTAL</b>	<b>\$ 1,445,712</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,390,000</b>	<b>\$ 2,172,500</b>	<b>\$ 2,562,000</b>	<b>\$ 2,336,900</b>	<b>\$ 1,400,000</b>	<b>\$ 11,307,112</b>	

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.  
 \*\*\*Appropriated on 3/1/11

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE - ATTACHMENT C**

PROJECT TITLE	Funded Carryover Project Budget	Carryover Project Original Funding Yr	Carryover Project Status	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
<b>Water Projects</b>										
Peck Res. Disinfection and Mixing System				\$ 230,000					\$ 230,000	Water Fund
Blending Line Flow Control Facility				\$ 120,000					\$ 120,000	Water Fund
Well 11A Rehabilitation				\$ 230,000					\$ 230,000	Water Fund
2nd Street Booster Pump Station	Carryover below			\$ 580,000					\$ 580,000	Water Fund
<u>Pipe Replacement Program and Fire Hydrant Installation (Area 7)</u>										
Phase 1 -1st St. Highland Ave. to Valley Dr. -1st St. Ocean Dr. to Highland Ave. -3rd St. Ocean Dr. to Highland Ave. -4th St. Ocean Dr. to Highland Ave. -5th St. Ocean Dr. to Manhattan Ave. -Highland Ave. 1st St. to Homer St. -Highland Ave. 2nd St. to 1st St. -Homer St. Highland Ave. to Morningside Dr. -Manhattan Ave 8th St to 15th St -Morningside Dr. 1st St. to Homer St. -Vista Dr. Rosecrans Ave. to 27th St. Phase 2 -Highland Ave 6th Street to 10th Street -7th Street (walk street) Ocean Drive to Valley Drive -6th Street (walk street) Ocean Drive to Highland Ave -Morningside Drive 2nd Street to 3rd Street	Carryover below			\$ 2,000,000				\$ 2,000,000	Water Fund	
Utility Radio Telemetry (Previously Fiber Optic Improvement) Funded 50% Sewer 50% Water	Carryover below				\$ 317,500				\$ 317,500	Water Fund
Larsson Street Pump Station Improvement				\$ 100,000	\$ 500,000				\$ 600,000	Water Fund
<u>Pipe Replacement Program and Fire Hydrant Installation (Area 1)</u>										
-11th Street (Ardmore Avenue to John Street) -10th Street (Highview Avenue to Pacific Avenue) -9th Street (Ardmore Avenue to Highview Avenue) Low Pressure Zone -9th Street (Highview Avenue to Pacific Avenue) High pressure zone -Highview Avenue (9th Street to 10th Street) Convert to high pressure zone -Pacific Avenue (11th Street to Manhattan Beach Boulevard) Low pressure zone -John Street (10th Street to 11th Street) High pressure zone -9th Street (John to Poinsettia) High pressure zone -Poinsettia (8th Street to 9th Street) High pressure zone -Poinsettia (8th Street to 9th Street) Low pressure zone -8th Street (Pointsettia to Sepulveda) Low pressure zone				\$ 150,000	\$ 1,050,000				\$ 1,200,000	Water Fund
Water Main Replacement: Sepulveda Boulevard & 2nd Street (Sep-MBB to 2nd; 2nd-Larsson Pump to 2nd St Pump)				\$ 100,000	\$ 800,000				\$ 900,000	Water Fund
<u>Pipe Replacement Program and Fire Hydrant Installation (Area 2)</u>										
-9th Street (Meadows Avenue to Rowell Avenue) -10th Street (Meadows Avenue to Rowell Avenue) -11th Street (Meadows Avenue to Rowell Avenue) -Rhonda Drive/Longfellow Drive (Kuhn Drive N. to Kuhn Drive S.) -Terraza Place (Rhonda Drive to end) -Chabela Drive (Keats Street to Longfellow Drive) -Altura Way (Keats Street to Longfellow Drive) -Shelley Street (Prospect Avenue to Chabela Drive) -5th Street (Rowell Avenue to Peck Avenue) -3rd Street (Rowell Avenue to Peck Avenue)					\$ 200,000	\$ 1,600,000			\$ 1,800,000	Water Fund
Water Well at Aviation Boulevard/6th Street (Well 13)					\$ 1,000,000	\$ 2,500,000	\$ 2,250,000		\$ 5,750,000	Water Fund

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.  
 \*\*\*Appropriated on 3/1/11

City of Manhattan Beach, Capital Improvement Plan 2012-2016  
**PROJECTS BY TYPE FOR FY2011-2012 THRU FY2015-2016**

**BY TYPE - ATTACHMENT C**

PROJECT TITLE	Funded Carryover Project Budget	Carryover Project Original Funding Yr	Carryover Project Status	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16	FIVE YEAR TOTAL (Includes Carryover Project Totals)	FUND SOURCE(S)
Pipe Replacement Program and Fire Hydrant Installation (Area 3) -Redondo Av. 2nd St to Artesia Bl. -1st St. Redondo Av. To Aviation Bl.						\$ 100,000	\$ 900,000		\$ 1,000,000	Water Fund
Well Collection line From Well 11A to Block 35						\$ 500,000	\$ 3,500,000		\$ 4,000,000	Water Fund
Block 35 Ground Level Reservoir Replacement							\$ 700,000	\$ 7,400,000	\$ 8,100,000	Water Fund
<b>FY11-12 thru FY15-16 Subtotal</b>									<b>\$ 26,827,500</b>	
<b>Funded Carryover Projects**</b>										
2nd Street Booster Pump Station	\$ 50,000	FY 2010-11	In Process						\$ 50,000	Water Fund
Utility Radio Telemetry (Previously Fiber Optic Improvement) Funded 50% Sewer 50% Water	\$ 32,500	FY 2010-11	In Process						\$ 32,500	Water Fund
Pipe Replacement Program and Fire Hydrant Installation (Area 7) See locations above	\$ 200,000	FY 2010-11	In Process						\$ 200,000	Water Fund
Utility Master Plan	\$ 190,743	FY2008-09	In Process						\$ 190,743	Water Fund
<b>Water TOTAL</b>	<b>\$ 473,243</b>			<b>\$ 3,510,000</b>	<b>\$ 3,867,500</b>	<b>\$ 4,700,000</b>	<b>\$ 7,350,000</b>	<b>\$ 7,400,000</b>	<b>\$ 27,300,743</b>	
<b>Utilities TOTAL</b>	<b>\$ 3,465,277</b>			<b>\$ 4,900,000</b>	<b>\$ 6,040,000</b>	<b>\$ 7,262,000</b>	<b>\$ 9,686,900</b>	<b>\$ 8,800,000</b>	<b>\$ 40,154,177</b>	
<b>SUMMARY ALL PROJECT TYPES</b>										
<b>FACILITIES</b>	<b>\$ 2,683,180</b>			<b>\$ 1,800,000</b>	<b>\$ 620,000</b>	<b>\$ 770,000</b>	<b>\$ 550,000</b>	<b>\$ -</b>	<b>\$ 6,423,180</b>	See Above
<b>STREETS</b>	<b>\$ 7,111,296</b>			<b>\$ 3,978,766</b>	<b>\$ 9,385,937</b>	<b>\$ 13,900,472</b>	<b>\$ 1,065,000</b>	<b>\$ 3,115,000</b>	<b>\$ 38,556,471</b>	See Above
<b>UTILITIES</b>	<b>\$ 3,465,277</b>			<b>\$ 4,900,000</b>	<b>\$ 6,040,000</b>	<b>\$ 7,262,000</b>	<b>\$ 9,686,900</b>	<b>\$ 8,800,000</b>	<b>\$ 40,154,177</b>	See Above
<b>PROJECT BY TYPE TOTAL</b>	<b>\$ 13,259,753</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,678,766</b>	<b>\$ 16,045,937</b>	<b>\$ 21,932,472</b>	<b>\$ 11,301,900</b>	<b>\$ 11,915,000</b>	<b>\$ 85,133,828</b>	

\*\*Available funds for Carryover Projects is effective 06/30/11. Funds spent after this date will be reflected on next year's budget.  
 \*\*\*Appropriated on 3/1/11

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Facilities

**Project Title:** High Efficiency HVAC and Lighting at City Hall

**Description:** Installation of an ice storage unit in the Police/Fire facility utilizing the existing refrigeration unit there and installation of chilled water piping from the Police/Fire facility to City Hall. Modification of the City Hall system to utilize chilled water from the Police/Fire ice storage. All ducting, lighting and ceilings in City Hall will be replaced due to the venting being integrated with lighting and suspended ceiling system. Lastly, more efficient thermal windows will be installed to prevent disparate climate zones.

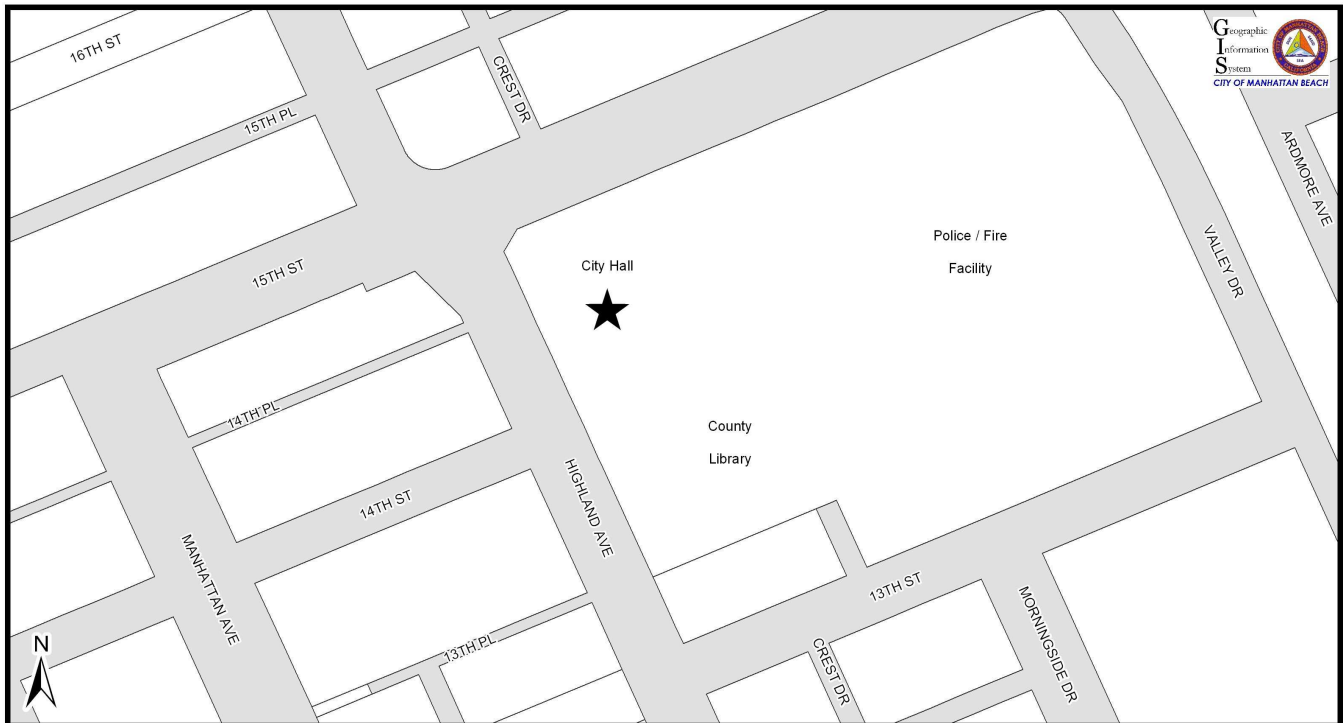
**Justification:** The project will allow the City to make ice at night at cheaper electric rates, and then use the ice during the day to cool. With the improved zone control, there will be less or no reheating needed as is presently required in different areas during the day. It is estimated that energy savings would be in excess of \$80,000 per year.

**Project Cost Information:**

***Capital Costs:***

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
CIP Funds	\$300,000	\$620,000	\$620,000			\$1,540,000
<b>TOTAL</b>	<b>\$300,000</b>	<b>\$620,000</b>	<b>\$620,000</b>			<b>\$1,540,000</b>

**Location Map:**



**Project Type:** Facilities

**Project Title:** Pier Localized Structural Rehabilitation

**Description:** Minor spot repairs to pier.

**Justification:** The marine environment and surf is extremely hard on structures. The main superstructure of the pier (columns and girders) was built in 1917. The pier deck was replaced and localized repairs were made to columns and girders in 1992. The last full condition assessment was conducted at that time.

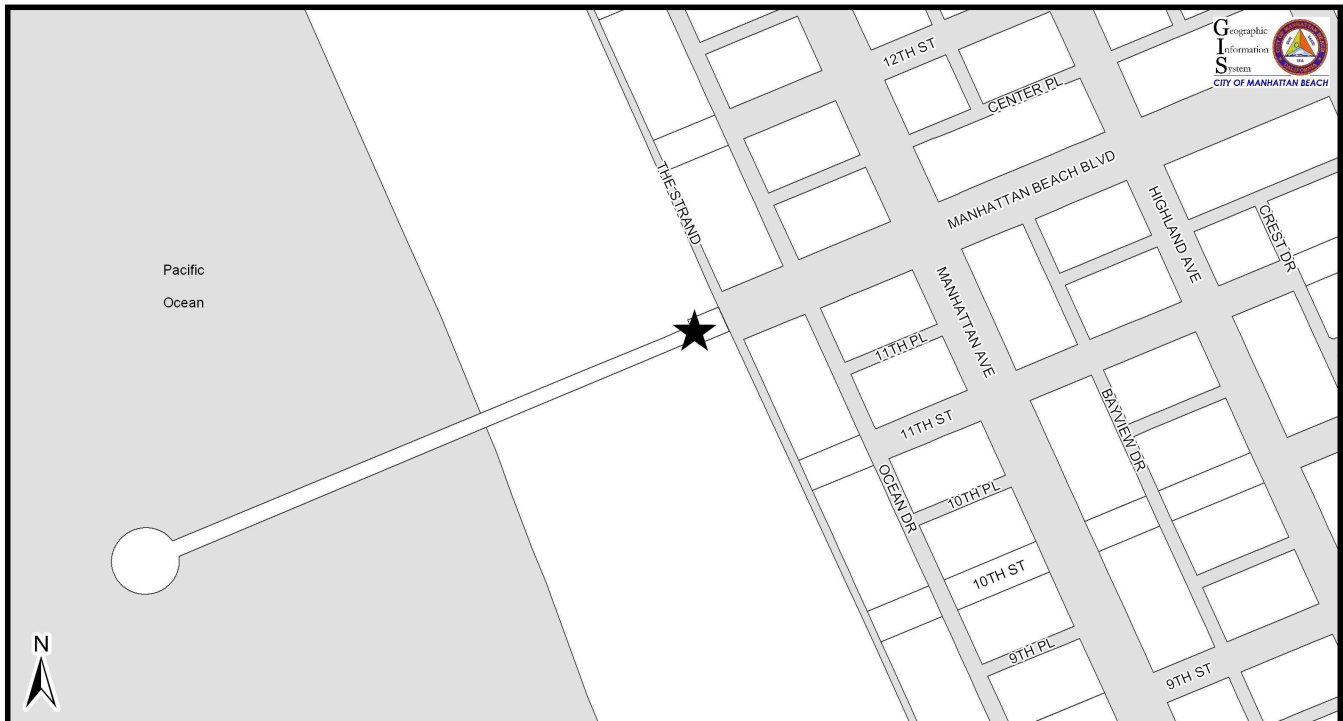
A full condition assessment of the pier was performed in Winter 2011. The Pier is in good condition; however, minor localized deterioration was detected that requires repair. The deterioration is minor and located on elements above the water. This project would perform these localized structural repairs.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
State Pier and Parking Lot Funds	\$500,000					<b>\$500,000</b>
<b>TOTAL</b>	<b>\$500,000</b>					<b>\$500,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

**Project Type: Facilities**

**Project Title: Marine Avenue Park Synthetic Grass Field**

**Description:** Installation of a synthetic grass athletic field on the west side of the park.

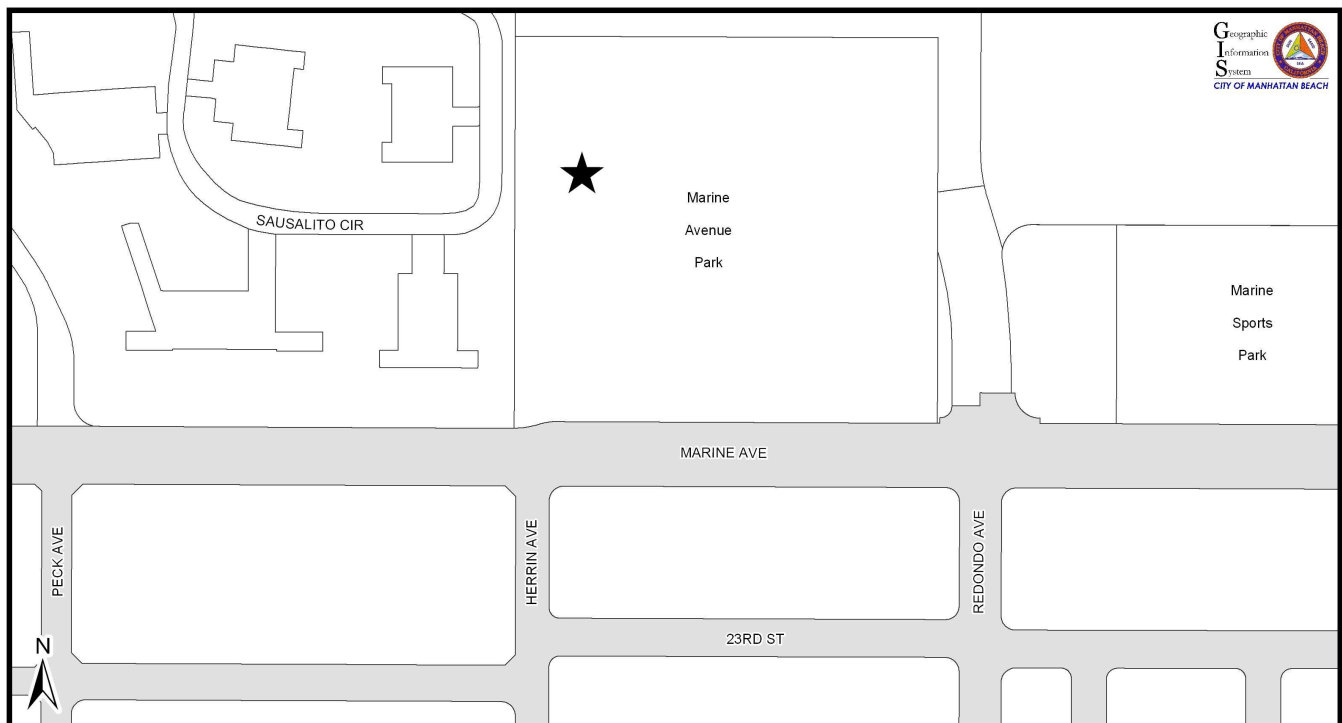
**Justification:** The existing athletic field on the west side of Marine Avenue park suffers from poor drainage and turf wear that limits available play time. Installation of a synthetic grass field (soccer field size) would permit virtually constant use, whereas the current grass field must recover for several months per year and can't be used for periods after rains. The American Youth Soccer Organization (AYSO) has offered to fund the project and the City would administer construction.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
AYSO Donation	\$1,000,000					<b>\$1,000,000</b>
<b>TOTAL</b>	<b>\$1,000,000</b>					<b>\$1,000,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

**Project Type: Facilities**

**Project Title: City-Owned Refuse Enclosure Improvements**

**Description:** Perform improvements to 18 city-owned refuse enclosures by connecting all enclosures to the sanitary sewer, rebuilding enclosures to a size appropriate for trash, recycling, and green waste cans or bins, painting and installing new hardware.

**Justification:** The city applied for illegal dumping grant funds to make these changes (our reasoning: enclosures that are not connected to the sanitary sewer pose a threat of debris and leachate (liquid trash) illegally dumping into the storm drain system), but the state did not believe that Manhattan Beach had a severe problem to warrant the grant funding.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Refuse Fund			\$150,000	\$550,000		<b>\$700,000</b>
<b>TOTAL</b>			<b>\$150,000</b>	<b>\$550,000</b>		<b>\$700,000</b>

**Location Map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Annual Curb, Gutter and Ramp Replacement Project

**Description:** Replacement of concrete improvements in advance of slurry sealing to mitigate trip hazards and gutter ponding. Curb ramps will also be installed as needed to comply with the Americans with Disabilities Act. The 2011-12 project will focus on Area 7 shown below.

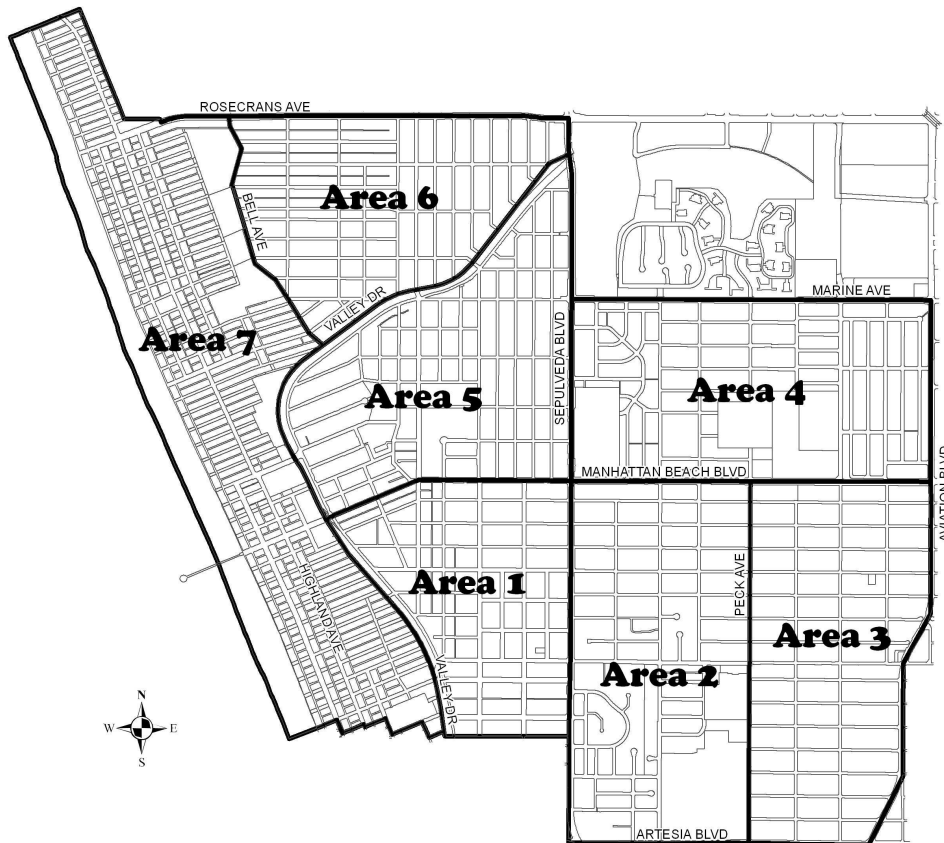
**Justification:** Tree roots and soil settlement cause displacement of curbs gutters and sidewalk. This project will eliminate displacements and gutter ponding.

**Project Cost Information:**

**Capital Costs:**

<i>Funding Source</i>	<i><u>FY2011-12</u> <u>Areas 7</u></i>	<i><u>FY2012-13</u> <u>Area 1</u></i>	<i><u>FY 2013-14</u> <u>Area 2</u></i>	<i><u>FY2014-15</u> <u>Area 3</u></i>	<i><u>FY2015-16</u> <u>Area 4</u></i>	<i><u>TOTAL</u></i>
Gas Tax	\$680,000	\$300,000	\$345,000	\$345,000	\$345,000	<b>\$2,015,000</b>
TDA – Art. 3	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	<b>\$ 100,000</b>
<b>TOTAL</b>	<b>\$700,000</b>	<b>\$320,000</b>	<b>\$365,000</b>	<b>\$365,000</b>	<b>\$365,000</b>	<b>\$2,115,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Annual Slurry Seal Program

**Description:** Annual program to slurry seal City's streets.

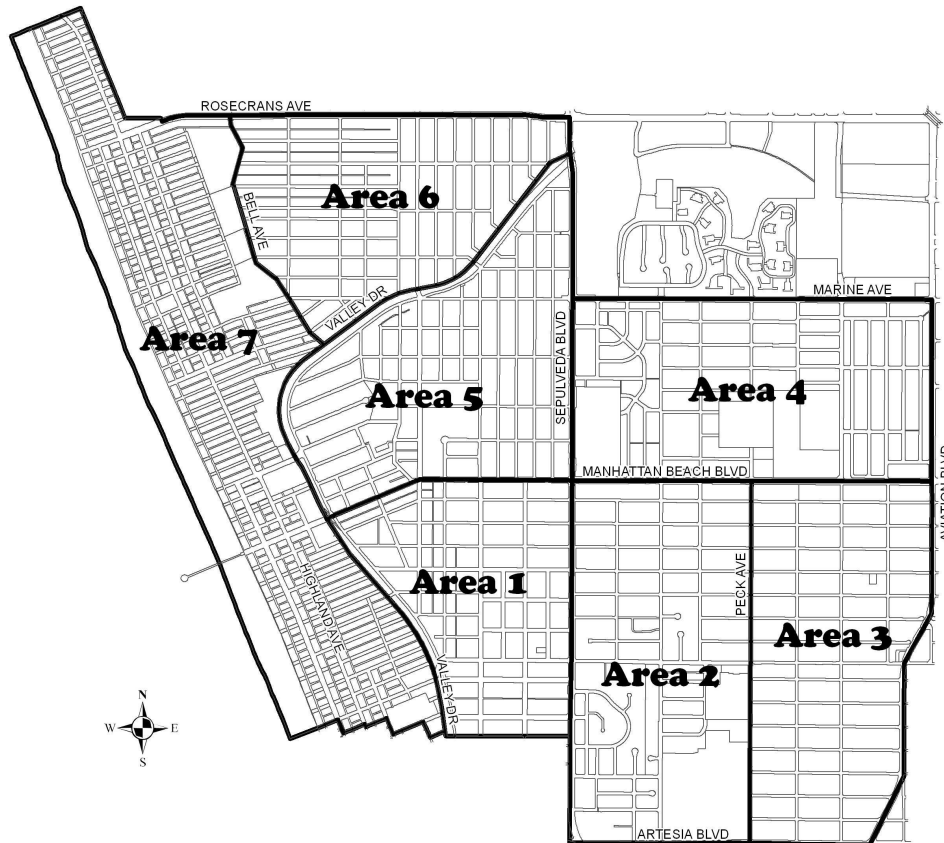
**Justification:** The slurry seal process works to protect and prolong the life of City streets, delaying the need for costly and intrusive street resurfacing for typically 5 – 10 years. This cost is dependent upon asphalt prices and is adjusted based upon current cost data. The program reflects a continuation of the City's policy to slurry seal streets on a seven year cycle.

**Project Cost Information:**

***Capital Costs:***

<u>Funding Source(s)</u>	<u>FY 2011-12</u> <u>Area 7</u>	<u>FY 2012-13</u> <u>Area 1</u>	<u>FY 2013-14</u> <u>Area 2</u>	<u>FY 2014-15</u> <u>Area 3</u>	<u>FY 2015-16</u> <u>Area 4</u>	<u>TOTAL</u>
Gas Tax	\$425,000	\$350,000	\$350,000	\$350,000	\$350,000	<b>\$1,825,000</b>
<b>TOTAL</b>	<b>\$425,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$1,825,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Street Resurfacing Project: Pacific Avenue

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

**Justification:** The existing pavement on Pacific Avenue with the project limits is deteriorated and rehabilitation is required. The Public Works Department recently replaced the water main in this street in preparation for street paving

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
ARRA	\$543,749						\$543,749
Gas Tax		\$300,000					\$300,000
<b>TOTAL</b>	<b>\$543,749</b>	<b>\$300,000</b>					<b>\$843,749</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Sepulveda Boulevard at Marine Avenue Dual Westbound to Southbound Left-Turn Lanes

**Description:** Widening of the north side of the Marine to provide a dual westbound to southbound left-turn lanes.

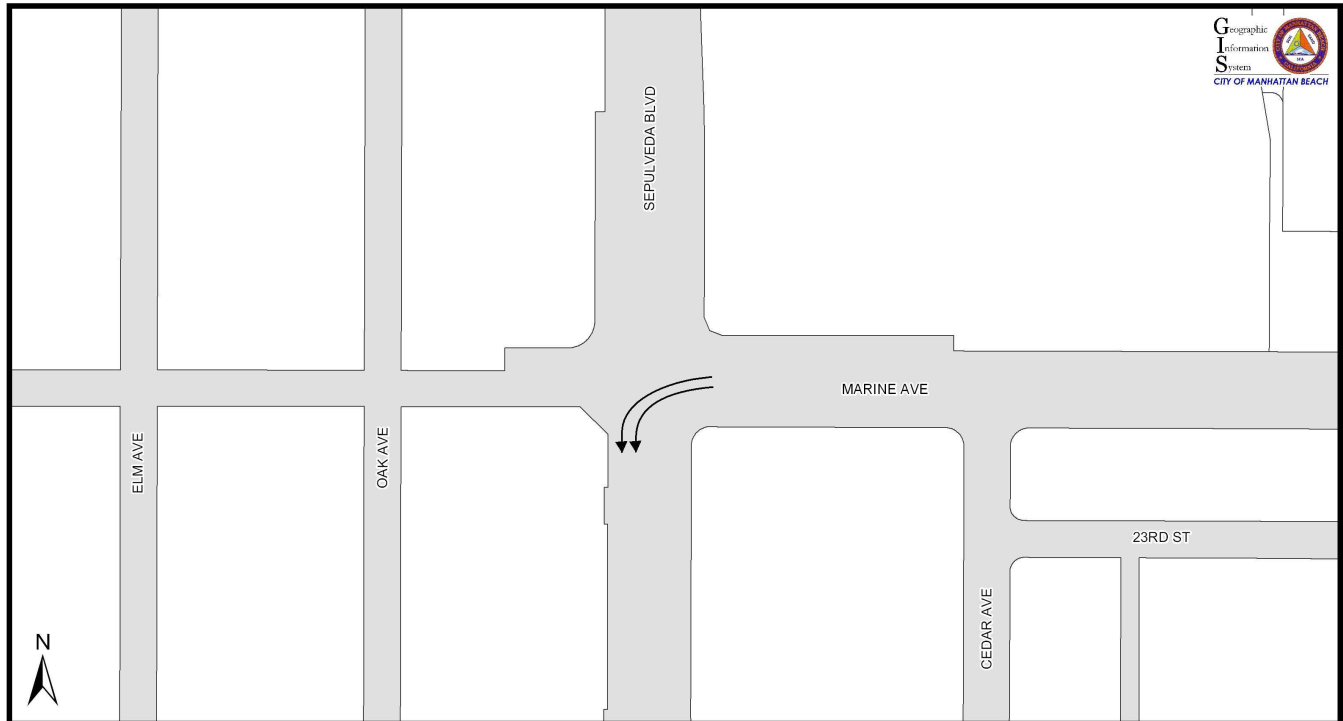
**Justification:** Westbound traffic at Sepulveda Boulevard at Marine Avenue intersection is congested due the lack of lane capacity.

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Measure R		\$235,000					<b>\$235,000</b>
Gas Tax		\$100,000					<b>\$100,000</b>
<b>TOTAL</b>		<b>\$335,000</b>					<b>\$335,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Street Resurfacing Project: Manhattan Avenue and Highland Avenue

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

**Justification:** The existing pavement on Manhattan Avenue and Highland Avenue with the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Prop 1B	\$543,706	\$160,530					\$704,236
<b>TOTAL</b>	<b>\$543,706</b>	<b>\$160,530</b>					<b>\$704,236</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Street Resurfacing Project: Ardmore Avenue and Valley Drive

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

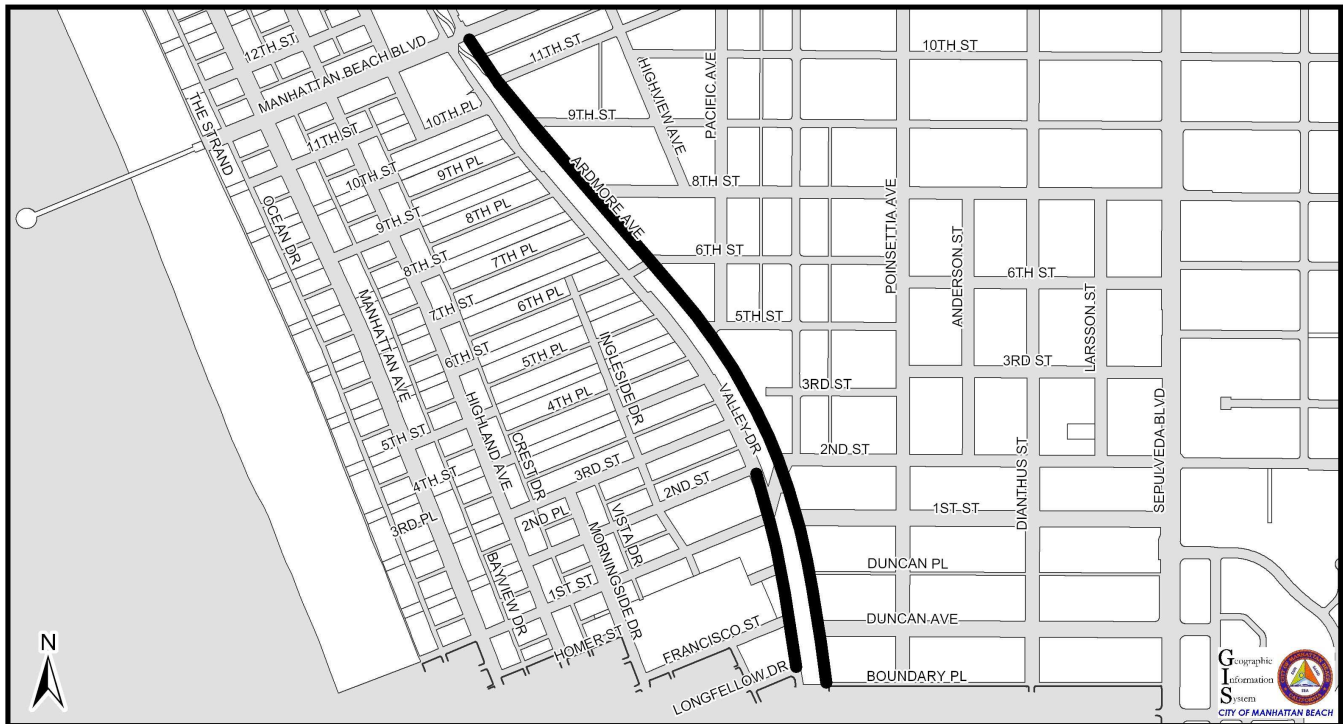
**Justification:** The existing pavement on Valley Drive and Ardmore Ave. within the project limits is deteriorated and rehabilitation is required. Ponding occurs near Manhattan Beach Boulevard after rains and pavement deterioration is escalated due to dry weather drainage sheeting across the roadway.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Gas Tax	\$582,696					<b>\$582,696</b>
MTA STP-L	\$117,304					<b>\$117,304</b>
<b>TOTAL</b>	<b>\$700,000</b>					<b>\$700,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Street Resurfacing Project: Ardmore Avenue and Valley Drive

**Description:** The project will remove existing concrete or asphalt pavement and construct new concrete roadway on the following Streets:

- 6<sup>th</sup> Street, Highland Avenue to Crest Drive
- 7<sup>th</sup> Street, Highland Avenue to Crest Drive
- 10<sup>th</sup> Place, Highland Avenue to Bayview Drive
- 11<sup>th</sup> Place, Ocean Avenue to Manhattan Avenue
- 12<sup>th</sup> Place, Highland Avenue to Bayview Drive

**Justification:** The existing pavement on these streets is deteriorated and replacement is required.

**Project Cost Information:**

Capital Costs:

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Measure R Local Return	\$400,000					<b>\$400,000</b>
<b>TOTAL</b>	<b>\$400,000</b>					<b>\$400,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Sepulveda Bridge Widening Project

**Description:** Add one northbound through lane by widening Sepulveda Bridge on the east side.

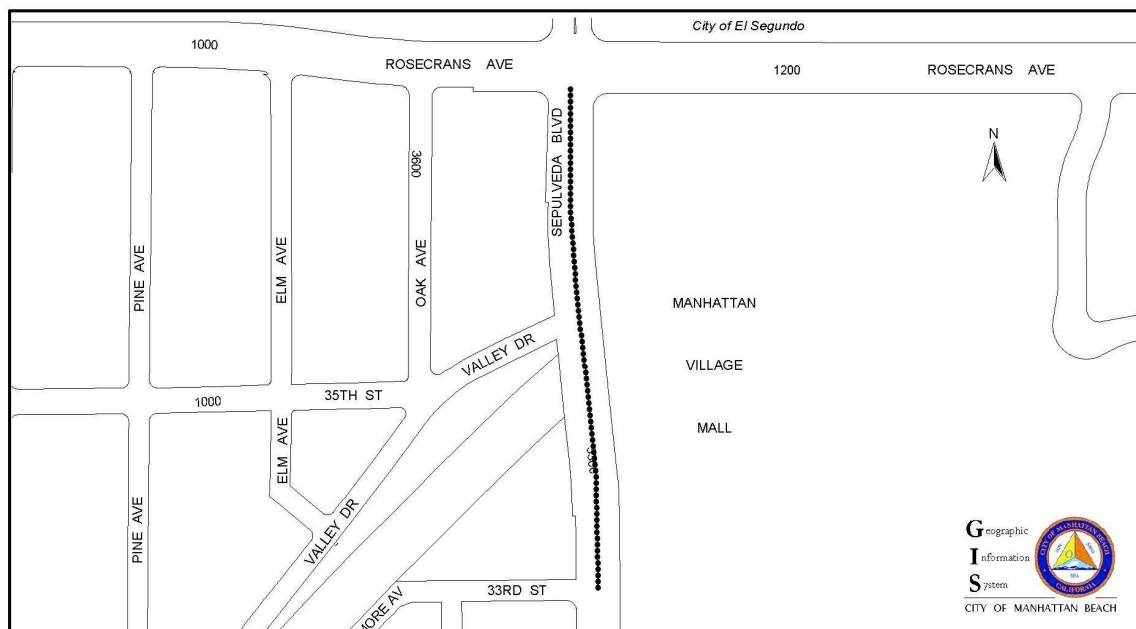
**Justification:** This project will improve traffic flow on Sepulveda Boulevard (a major north-south regional arterial street) by eliminating a bottleneck that exists at the bridge. As of April 2011, funding in the amount of \$21,268,645 has been secured for the estimated \$17.3 Million project. Policies regarding the use of Measure R South Bay funds are currently being developed. At this time, it is unsure if Metro will permit the City to substitute Measure R South Bay funds for Proposition C Funds previously dedicated to the project; therefore, the budget shown below includes excess funding in the amount of \$3,968,645 pending issuance of final ruling regarding substitution of previously allocation funding.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source</u>	<u>Previous Appr'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
MTA Call 2009			\$3,184,000	\$3,629,325			\$6,813,325
Safetea-Lu Earmark	\$1,079,000		\$360,000				\$1,439,000
Safetea-Lu STPL				500,000			\$500,000
Prop C, Incl Dev. Contr.	\$250,000	\$958,236	\$621,937	\$1,586,147			\$3,416,320
Measure R South Bay			\$4,550,000	\$4,550,000			\$9,100,000
<b>TOTAL</b>	<b>\$1,329,000</b>	<b>\$3,420,236</b>	<b>\$6,253,937</b>	<b>\$10,265,472</b>			<b>\$21,268,645</b>

**Location Map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Street Resurfacing Project: Blanche Road, Marine Avenue, Oak Street, 27th Street, and 11th Street

**Description:** The project will mill and overlay the pavement surface and replace displaced curbs, gutters and sidewalk.

**Justification:** The existing pavement on the streets within the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Gas Tax			\$400,000			\$400,000
<b>TOTAL</b>			<b>\$400,000</b>			<b>\$400,000</b>

**Location Map:**



Project Type: Streets

**Project Title:** Aviation Boulevard at Marine Avenue Southbound to Eastbound Left-Turn Lanes

**Description:** Utility pole relocation, widening and restriping of the northwest corner of the intersection of Aviation Boulevard at Marine Avenue to provide Southbound to Eastbound Left-Turn Lanes.

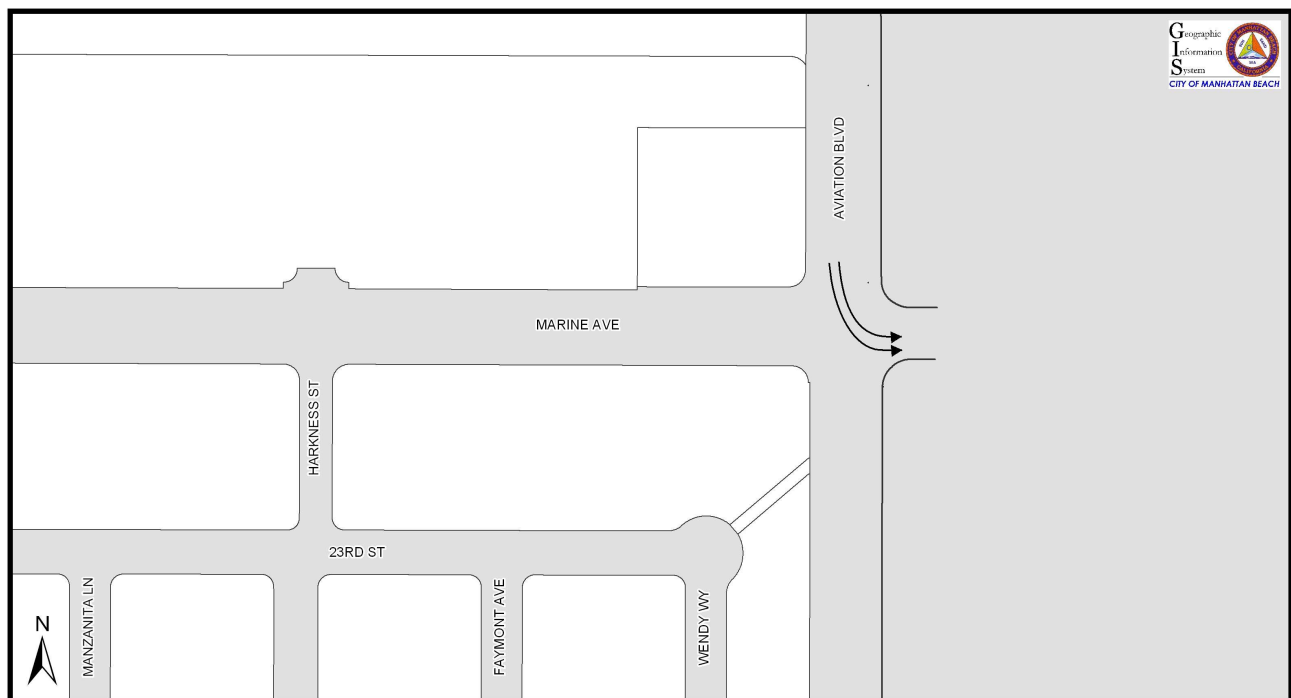
**Justification:** The southbound to eastbound Left-turn movement at Aviation Boulevard at Marine Avenue is congested due the lack of lane capacity.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Measure R SB Hwy			\$1,500,000			\$1,500,000
<b>TOTAL</b>			<b>\$1,500,000</b>			<b>\$1,500,000</b>

**Location Map:**



Project Type: Streets

**Project Title:** Sepulveda Boulevard at Manhattan Beach Boulevard Dual Westbound to Southbound, Eastbound to Northbound and Northbound to Westbound Left-Turn Lanes

**Description:** Widening and restriping of the intersection of Sepulveda Boulevard at Manhattan Beach Boulevard to provide Westbound to Southbound, Eastbound to Northbound and Northbound to Westbound Left-Turn Lanes

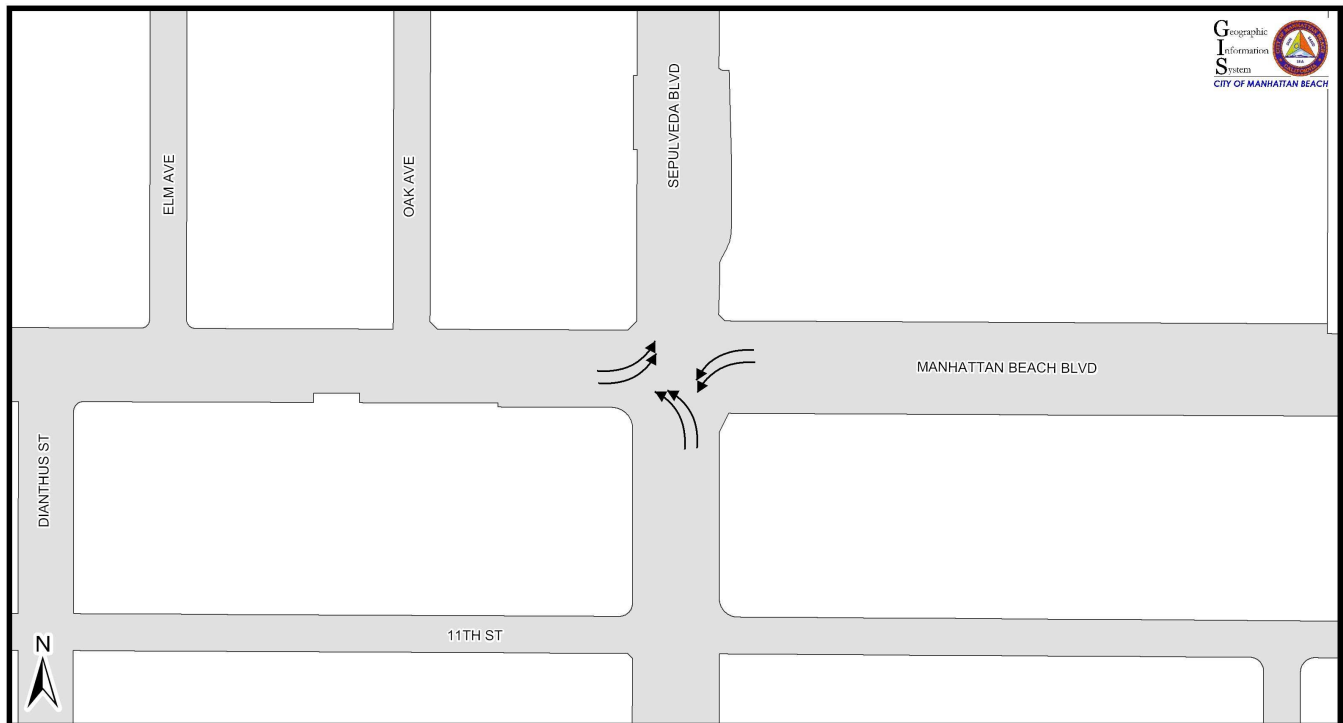
**Justification:** Left-turn movements at Sepulveda Boulevard at Manhattan Beach Boulevard are congested due the lack of lane capacity.

**Project Cost Information:**

Capital Costs:

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Measure R				\$980,000			\$980,000
Prop. C	\$414,593						\$414,593
<b>TOTAL</b>	<b>\$414,593</b>			<b>\$980,000</b>			<b>\$1,394,593</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:       Tiennial Pavement Management System Update**

**Description:**       Inspection of pavement surfaces to assess condition, prioritize rehabilitation and determine resources required to maintain street pavements in good condition.

**Justification:**       State, federal and county regulations require that Cities maintain a pavement management system. A pavement management system is a management tool to assist in the development of efficient pavement maintenance and rehabilitation programs. The City is required to inspect pavement condition on a triennial basis. The last pavement evaluation was completed in 2011 and is required to be updated again in 2014. The evaluations will update pavement condition for all streets in the City except Sepulveda Boulevard which is a State Highway.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Proposition C Funds			\$40,000			\$40,000
<b>TOTAL</b>			<b>\$40,000</b>			<b>\$40,000</b>

**Location Map:**

No map (streets citywide).

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Morningside Drive Rehabilitation

**Description:** The project will rehabilitate the pavement surface and replace displaced curbs, gutters and ramps.

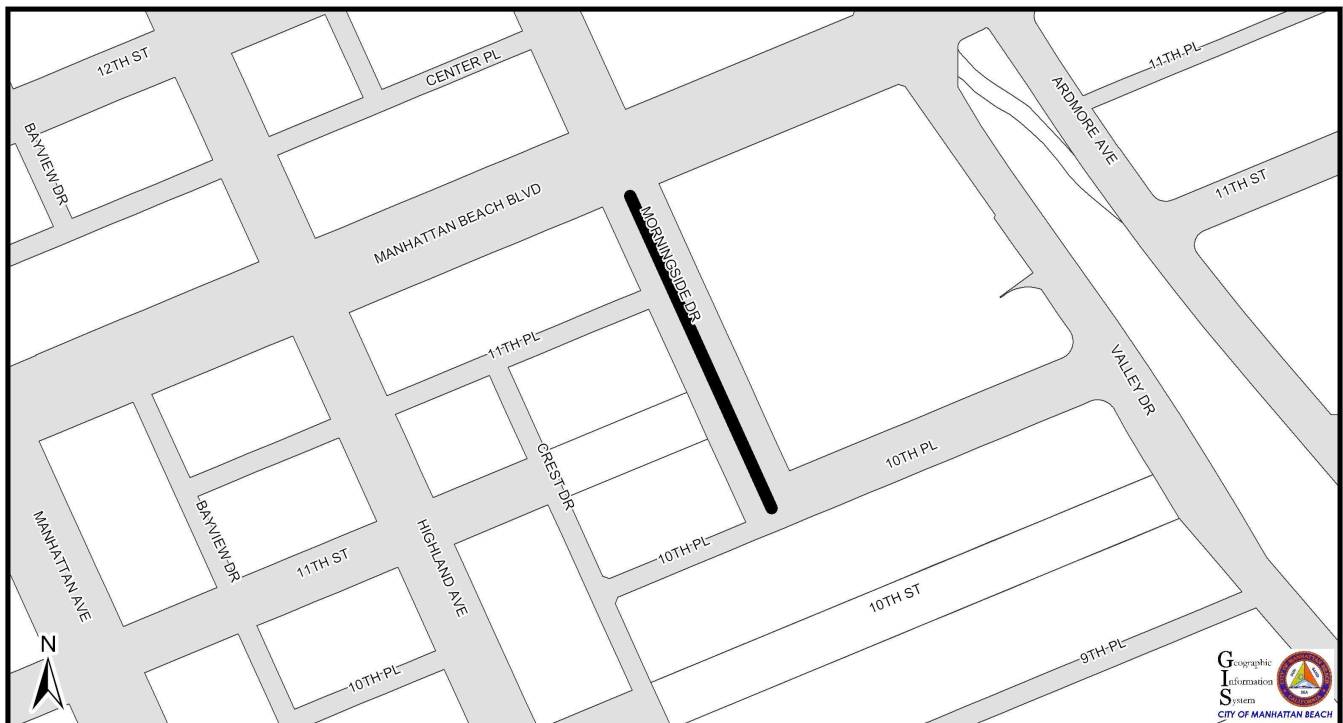
**Justification:** The existing pavement on Morningside Drive within the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Gas Tax				\$250,000		\$250,000
<b>TOTAL</b>				<b>\$250,000</b>		<b>\$250,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Streets

**Project Title:** Resurfacing Project: Manhattan Beach Boulevard, Sepulveda Blvd. to Aviation Blvd.

**Description:** The project will mill and overlay the pavement surface, replace displaced curbs, gutters and sidewalk to extend the pavement useful life.

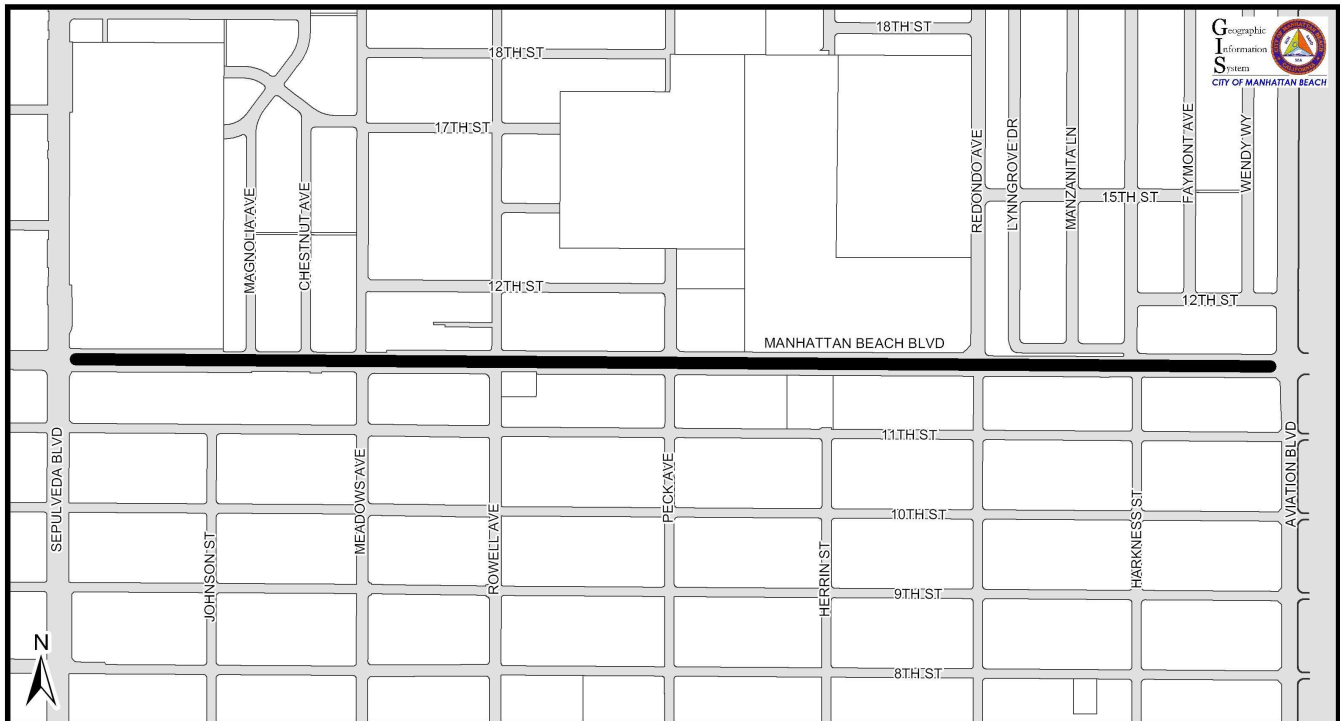
**Justification:** The existing pavement on Manhattan Beach Boulevard within the project limits is deteriorated and rehabilitation is required.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Prop. C				\$100,000	\$900,000	<b>\$1,000,000</b>
<b>TOTAL</b>				<b>\$100,000</b>	<b>\$900,000</b>	<b>\$1,000,000</b>

**Location Map:**



Project Type: Streets

**Project Title:** Aviation Boulevard at Artesia Boulevard Southbound to Westbound Right-Turn Lane

**Description:** Utility relocation, street widening and restriping of the northwest corner of the intersection of Aviation Boulevard at Artesia Boulevard to provide Southbound to westbound left-turn lanes. This project will be coordinated with City of Redondo Beach widening efforts on the southeast corner of this intersection.

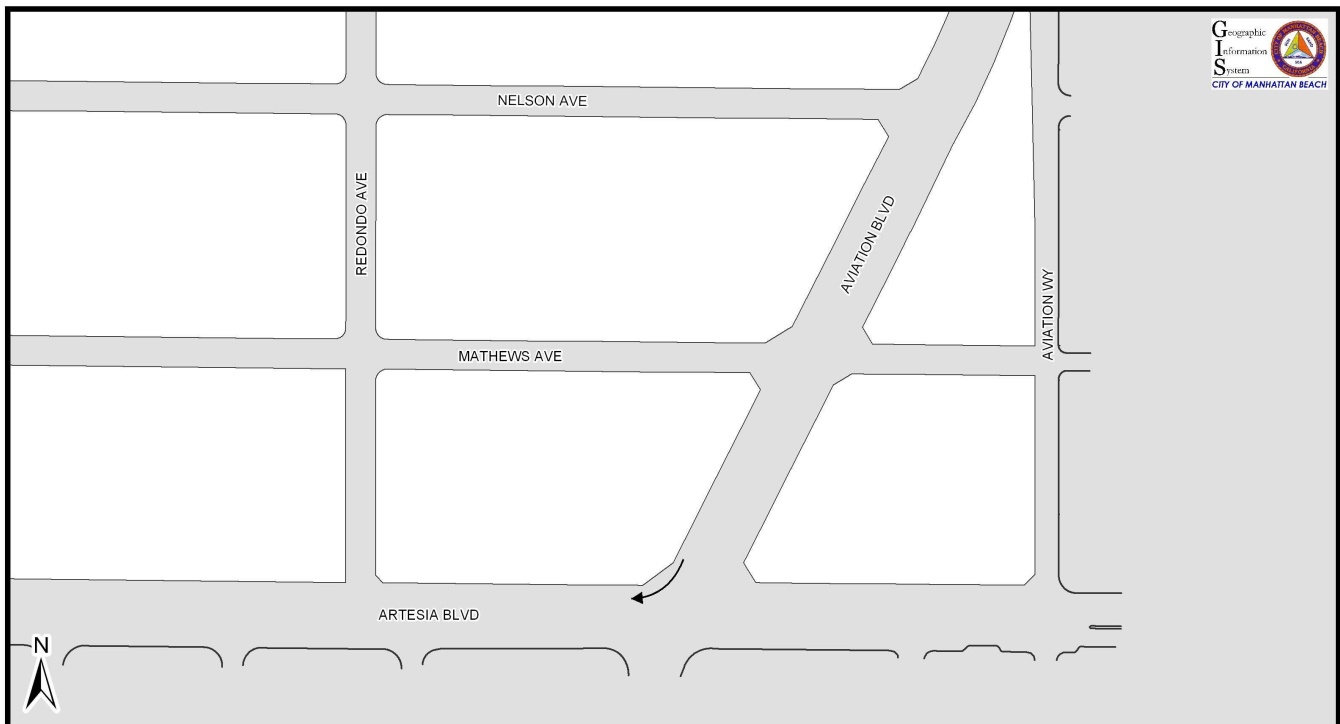
**Justification:** The southbound to westbound right-turn movement at Aviation Boulevard at Artesia Boulevard is congested due the lack of lane capacity.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Measure R SB Hwy					\$1,500,000	\$1,500,000
<b>TOTAL</b>					<b>\$1,500,000</b>	<b>\$1,500,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title:** Rehabilitation of Gravity Sewer Mains FY 2011-12

**Description:** Replacement or repair of gravity sewer mains as indicated below:

Street	limits	work	Maintenance Area
Highland Av. Sidewalk	Between 32nd Pl. & 33rd Pl.	(15' replacement)	7
Marine Av	Highland Avenue to Grandview Dr.	(Full Replacement)	7
Alma Av.	24th St to 27th St.	(Full Replacement)	7
3rd Street	Crest Drive to Ingleside Drive	(Full Replacement)	7
4th Street	Ingleside Drive to Valley Drive	(Full Replacement)	7
Ingleside Drive	7th Street to 5th Street	(Full Replacement)	7
24th Street	Strand to Highland Avenue	(Full Replacement)	7
7th Street	Crest Drive to Valley Drive	(Full Replacement)	7

**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Sewer Funds	\$200,000	\$1,140,000					\$1,340,000
<b>TOTAL</b>	<b>\$200,000</b>	<b>\$1,140,000</b>					<b>\$1,340,000</b>

**Location Map on next page:**

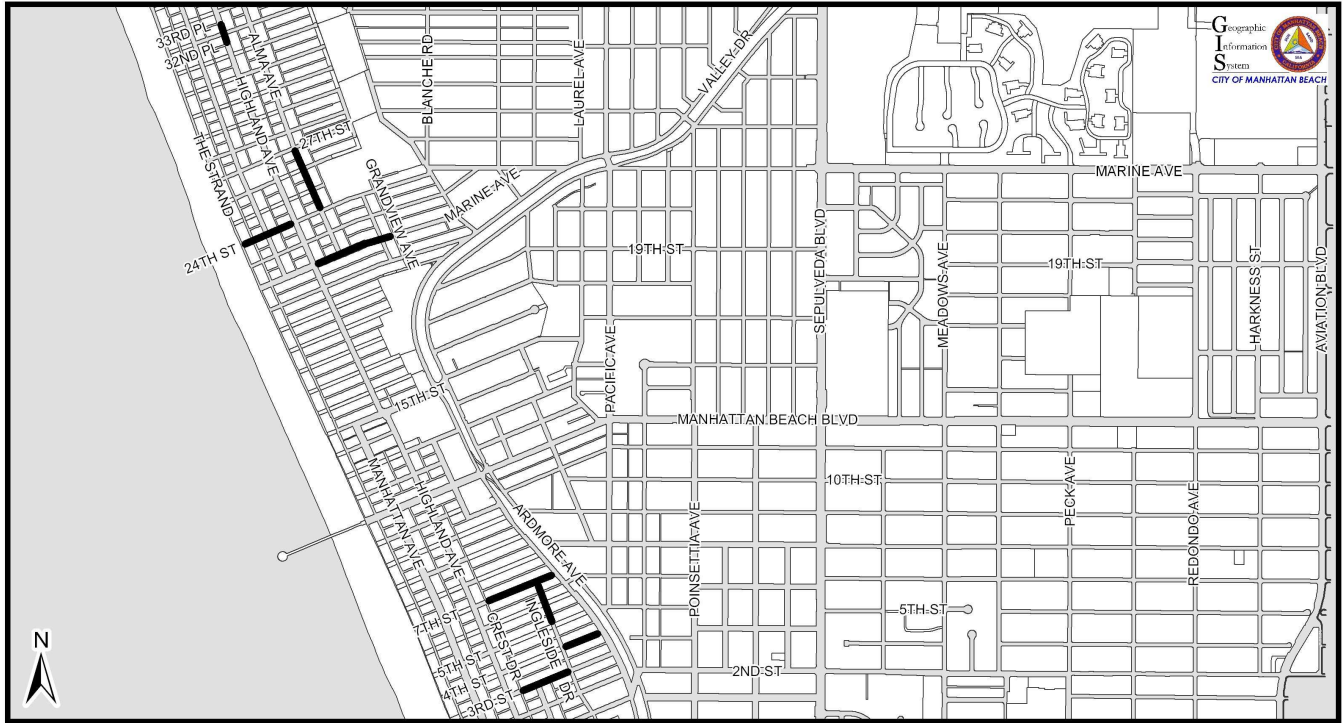


City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

ATTACHMENT D

Project Title: Rehabilitation of Gravity Sewer Mains FY 2011-12'  
Continued

Location Map:



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

**Project Type: Utilities**

**Project Title: Utility Telemetry**

**Description:** Install radio or fiber optic communications to 21 existing water and wastewater stations the Public Works Maintenance Facility.

**Justification:** The City monitors the function of 21 critical water and sewer facilities on a continuous basis. Presently, telephone is the only communication mode and there is no back-up system. Redundant communication is critical to assure the function of critical water and sewer facilities. It is proposed that a new radio and fiber optic communication system be installed while maintaining the current telephone system for redundancy.

**Project Cost Information:**

**Capital Costs:**

<b><u>Funding Source(s)</u></b>	<b><u>FY 2010-11</u></b>	<b><u>FY 2011-12</u></b>	<b><u>FY 2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY 2014-15</u></b>	<b><u>TOTAL</u></b>
Water Fund	\$32,500		\$317,500			\$350,000
Sewer Fund	\$32,500		\$317,500			\$350,000
<b>TOTAL</b>	<b>\$65,000</b>		<b>\$635,000</b>			<b>\$700,000</b>

**Location Map:**

No map (21 sites throughout the City of Manhattan Beach).

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title:** Rehabilitation of Gravity Sewer Mains FY 2012-13

**Description:** Replacement or repair of gravity sewer mains as indicated below:

Street	limits	work	Maintenance Area
11 <sup>th</sup> Street	Dianthus Street to Sepulveda Boulevard	2 spot repairs	1
Ardmore Avenue	S/O 11 <sup>th</sup> Street	1 spot repair	1
10 <sup>th</sup> Street	Dianthus Street to Sepulveda Boulevard	1 spot repair	1
Dianthus Street	3 <sup>rd</sup> Street to 6 <sup>th</sup> Street	1 spot repair	1
2 <sup>nd</sup> Street	Poinsettia Street To Anderson Street	1 spot repair	1
8 <sup>th</sup> Street	Poinsettia Street To Anderson Street	1 spot repair	1
8 <sup>th</sup> Street	Anderson Street to Dianthus Street	1 spot repair	1
9 <sup>th</sup> Street	Ardmore Avenue to Railroad Place	2 spot repairs	1
Boundary Place	Dianthus Street to Sepulveda Boulevard	1 spot repair	1
11 <sup>th</sup> Place	W/O Highview Avenue	1 spot repair	1
6 <sup>th</sup> Street	John Street to John Place	1 spot repair	1
1 <sup>ST</sup> Street	E/O Ardmore Avenue	1 spot repair	1
Johnson Street	2 <sup>nd</sup> to 3 <sup>rd</sup> Streets	1 spot repair	2
3 <sup>rd</sup> Street	Johnson Street to Meadows Avenue	2 spot repairs	2
Rowell Avenue	Gates Avenue to Curtis Avenue	1 spot repair	2
8 <sup>th</sup> Street	W/O Johnson Street	1 spot repair	2
9 <sup>th</sup> Street	At Johnson Street	1 spot repair	2
Meadows Avenue	Curtis Avenue and Voorhees Avenue	1 spot repair	2
2 <sup>nd</sup> Street	Sepulveda Boulevard to Johnson Street	1 spot repair	2
8 <sup>th</sup> Street	E/O Johnson Street	1 spot repair	2
9 <sup>th</sup> Street	W/O Meadows Avenue	1 spot repair	2
Longfellow Drive	E/O Altura Way	1 spot repair	2
Shores Parking Lot	W/O Peck Avenue	1 spot repair	2
Johnson Street	3 <sup>rd</sup> to 4 <sup>th</sup> Streets	1 spot repair	2
Johnson Street	4 <sup>th</sup> to 5 <sup>th</sup> Streets	1 spot repair	2
9 <sup>th</sup> Street	Rowell Avenue to Peck Avenue	1 spot repair	2
'Tennyson Street	Chabella Drive to Prospect Avenue	1 spot repair	2
2 <sup>nd</sup> Street	Herrin Avenue to Redondo Avenue	Full replacement	3
Nelson Avenue	Peck Avenue to Herrin Street	2 spot repairs	3
Herrin Street	1 <sup>st</sup> Street to Gates Avenue	2 spot repairs	3
Aviation Boulevard	10 <sup>th</sup> Street to 11 <sup>th</sup> Street	1 spot repair	3
1 <sup>ST</sup> Street	Redondo Avenue to Aviation Boulevard	1 spot repair	3
Nelson Avenue	Crossing Aviation Boulevard	1 spot repair	3

**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

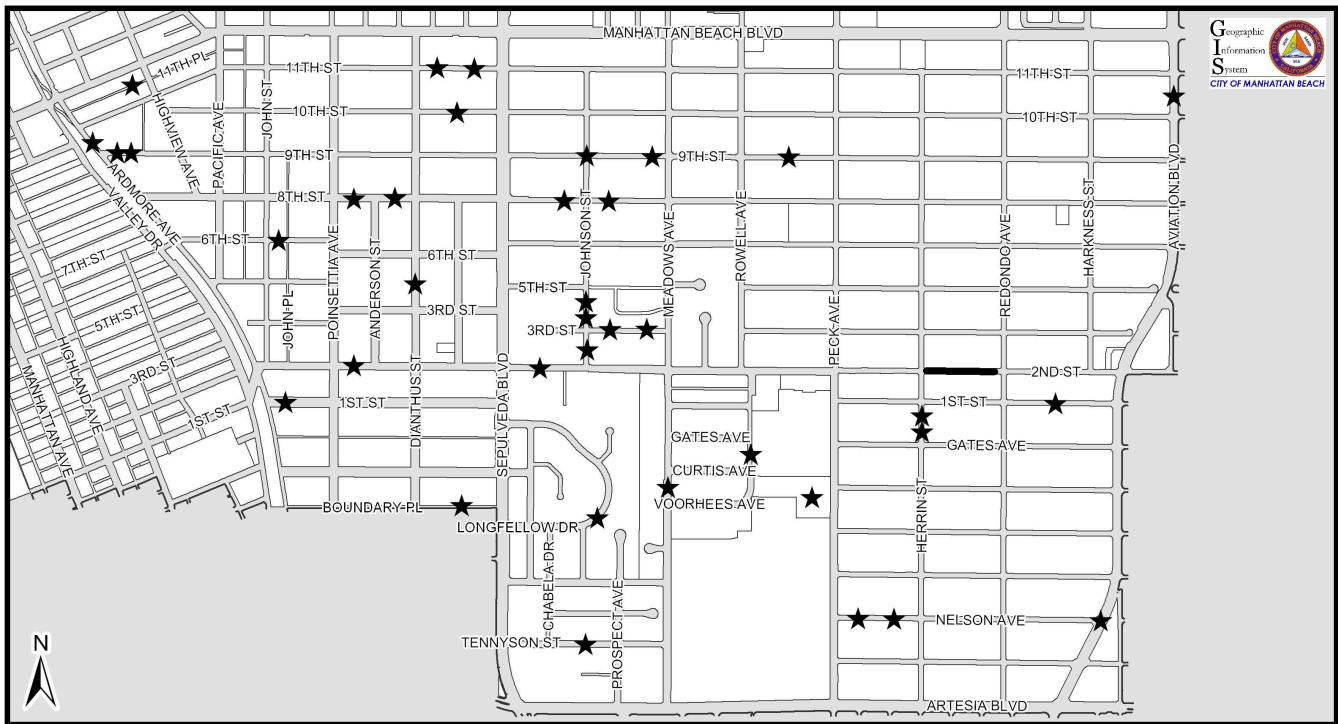
**Project Title: Rehabilitation of Gravity Sewer Mains FY 2012-13  
Continued**

**Project Cost Information:**

**Capital Costs:**

<b><u>Funding Source(s)</u></b>	<b><u>FY2011-12</u></b>	<b><u>FY2012-13</u></b>	<b><u>FY 2013-14</u></b>	<b><u>FY2014-15</u></b>	<b><u>FY2015-16</u></b>	<b><u>TOTAL</u></b>
Sewer Fund	\$150,000	\$1,300,000				<b>\$1,450,000</b>
<b>TOTAL</b>	<b>\$150,000</b>	<b>\$1,300,000</b>				<b>\$1,450,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title: Rehabilitation of Sewer Manholes FY 2012-13 through FY 2014-15**

**Description:**

Rehabilitation of Sewer Manholes at the following locations:

Street	Manhole	Recommendation	Year/Cost
Highland Ave	19-015	Replace	FY 1011-12 \$100K
1st St	01-080	Repair mortar	
Curtis Ave	05-052	Replace manhole cover and line	
Gates Ave	01-072	Line manhole	
2nd St	01-086	Line manhole	
Duncan Ave	10-039	Line manhole	
18th St	06-244	Line manhole	FY 1012-13 \$150K
8th St	04-054	Line manhole	
Meadows Ave	05-023	Line manhole	
14th St	06-191	Line manhole	
Cedar Way	25-012	Line manhole	
Village Dr	25-025	Line manhole	
11th St	09-028	Line manhole	FY 1014-15 \$150K
Rowell Ave	05-055	Replace manhole cover	
Flournoy Rd	17-057	Line manhole	
14th St	06-050	Line manhole	
14th St	06-077	Line manhole	
31st St	17-053	Line manhole	
Tennyson St	05-020	Line manhole	
Voorhees Ave	05-005	Line manhole	
The Strand	14-064	Replace manhole cover	
Manhattan Ave	11-116A	Line manhole	
19th St	06-030	Line manhole	FY 1014-15 \$150K
Blanche Rd	17-040	Line manhole	
1st St	01-061	Line manhole	
Marine Ave	15-053	Repair mortar	
Manhattan Ave	11-117	Line manhole	

**Justification:** The above sewer manholes were inspected and determined to require rehabilitation, repair or replacement. This project will rehabilitate, replace and/or repair the sewer manholes listed above. Manholes provide maintenance access to sewer mains.

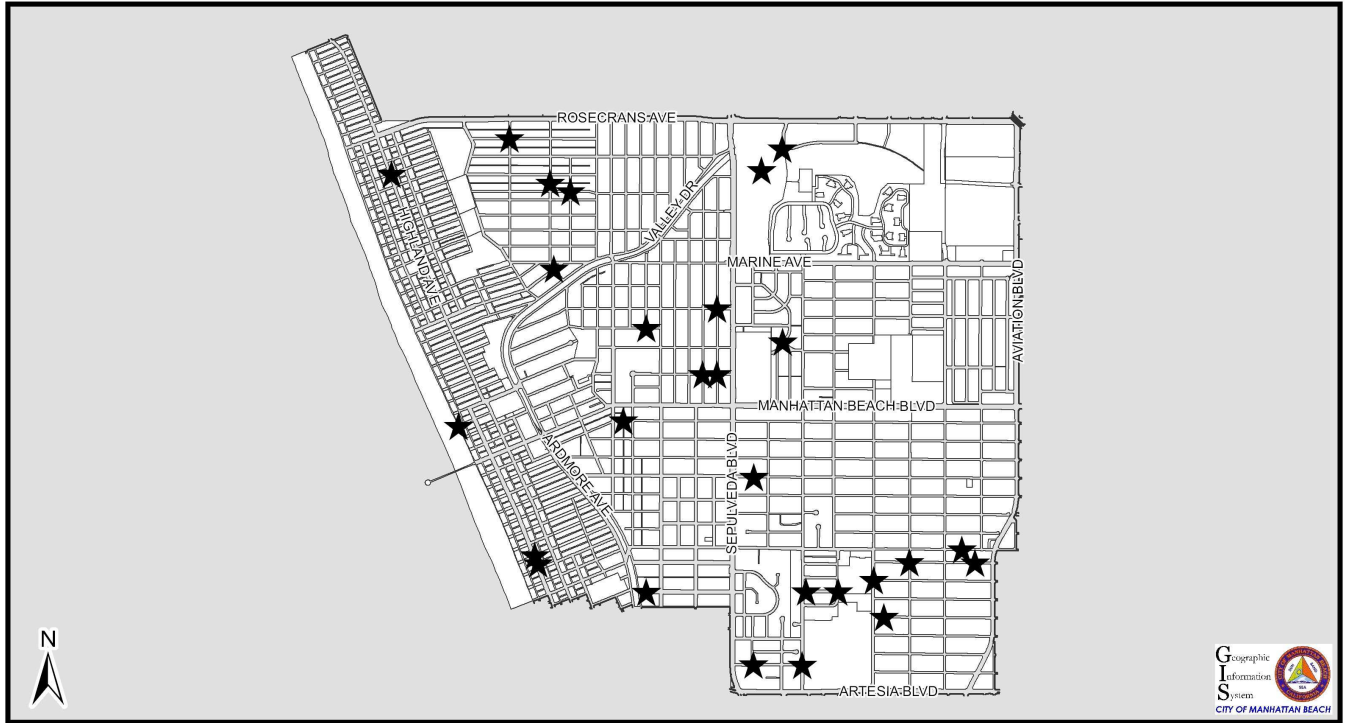
**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2010-11</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>TOTAL</u>
Sewer Fund		\$100,000	\$150,000		\$150,000	\$400,000
<b>TOTAL</b>		<b>\$100,000</b>	<b>\$150,000</b>		<b>\$150,000</b>	<b>\$400,000</b>

**Project Title: Rehabilitation of Sewer Manholes FY 2012-13 through FY 2014-15  
Continued**

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

**Project Type: Utilities**

**Project Title: Poinsettia Sewage Pump Station**

**Description:** Reconstruction/modification of the Poinsettia Sewage Pump Station and installation of a second force main.

**Justification:** The Poinsettia Sewage Pump Station has the smallest wet well capacity of any of the City's pump stations. It has only 394 gallons and 4.7 minutes of emergency storage at the peak wet weather flow rate of 85 gpm. Emergency storage for a regular dry day during the morning peak is only 8 minutes. This means that if the station fails, sewage would enter the dry well and disable the electrical systems after just 8 minutes. It is recommended that pump stations be equipped with at least 30 minutes of peak wet weather emergency storage. This station should be equipped with a minimum of 2,550 gallons emergency storage.

To provide the additional storage required, a new and deeper wet well must be constructed. It is possible that the existing dry/wet well could be used as the future dry well; however doing so would reduce the efficiency of the pumps and increase cavitation potential. It is recommended that a completely new station be built adjacent to the existing station that will possess a wet well with adequate emergency storage with a new adjacent drywell containing the pumps and controls.

An additional force main will be installed to provide system redundancy. The new force main would be 4" ductile iron pipe and would run from the station to Manhattan Beach Boulevard where it would discharge into a gravity sewer. The old force main would remain and would be available if the primary force main was damaged.

**Project Cost Information:**

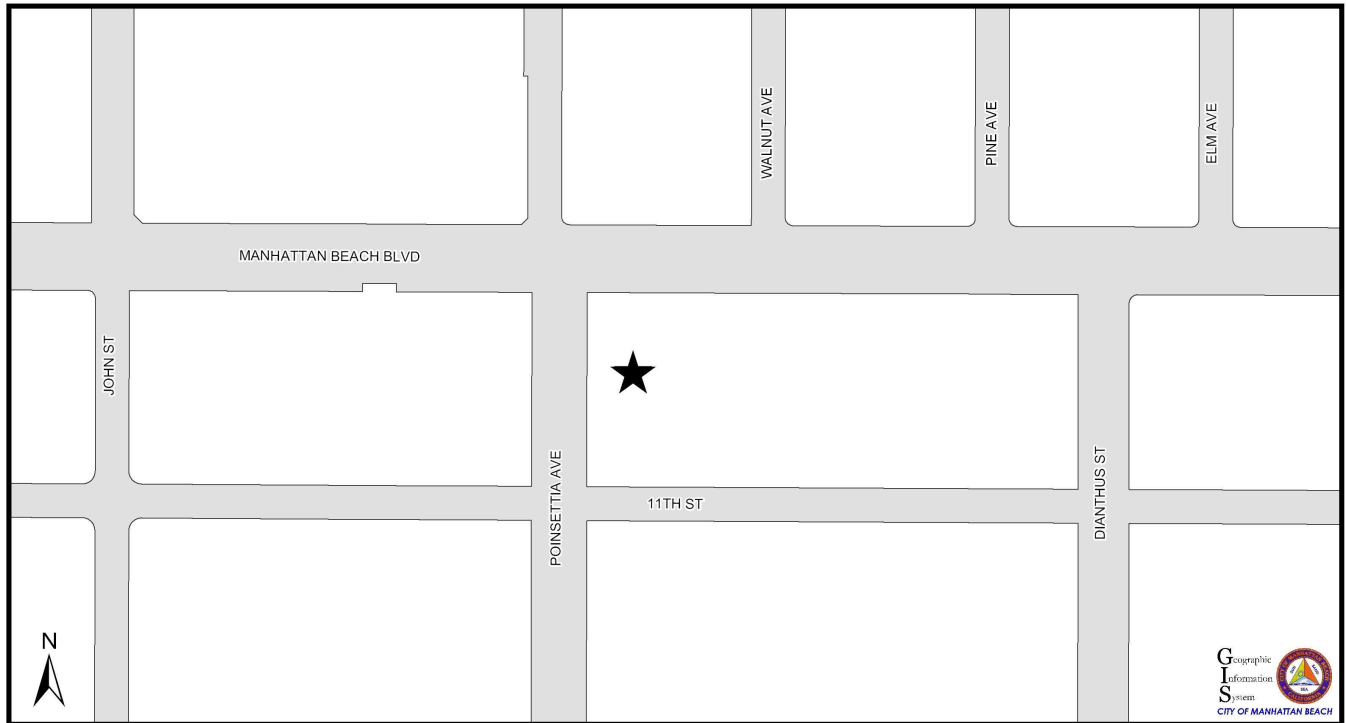
***Capital Costs:***

<b>Funding Source(s)</b>	<b>FY 2011-12</b>	<b>FY 2012-13</b>	<b>FY 2013-14</b>	<b>FY 2014-15</b>	<b>FY 2015-16</b>	<b>TOTAL</b>
Sewer Fund (Pump Station)			\$405,000	\$2,295,000		\$2,700,000
Sewer Fund (Force Main)				\$67,000		\$67,000
<b>TOTAL</b>			<b>\$405,000</b>	<b>\$2,362,000</b>		<b>\$2,767,000</b>

**Location Map on following page:**

Project Title: Poinsettia Sewage Pump Station  
Continued

Location Map:





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title:** Pacific Pump Station Upgrade

**Description:** Improvement of the Pacific Avenue Sewage Pump Station and installation of a second force main.

**Justification:** The Pacific Avenue Pump Station has operational pumping capacity of 291 to 317 gallons per minute. The peak wet weather flows anticipated are 376 gallons per minute. The current station could not pump at the needed rate if one of the two pumps fail or is taken out of service for maintenance. This project will modify the pumps and controls to accommodate two pumps capable of pumping 400 gallons per minute.

The Pacific Avenue Pump Station pumps sewage through a 57-year-old 6" cast iron force main a distance of 1,225 feet to the intersection of Poinsettia Avenue and Ardmore Avenue. If this line were to break or be damaged by another party, the City would have no option but to set up a temporary bypass pump and hose system to pump sewage inflows to an adjacent gravity sewer drainage area. This could not be set up in time to avoid significant sewage discharge to the street and storm drain system. This project would construct an additional 6" force main to provide two force mains to serve this station.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Sewer Fund (Pump Station Upgrade)			\$100,000	\$440,000		\$540,000
Sewer Fund (Force Main)				\$396,900		\$396,900
<b>TOTAL</b>			<b>\$100,000</b>	<b>\$836,900</b>		<b>\$936,900</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title:** Rehabilitation of Gravity Sewer Mains FY 2014-15

**Description:**

Rehabilitation or Replacement of Gravity Sewer Mains in maintenance area 4 as indicated below:

Street	limits	work	Maintenance Area
HARKNESS ST	15 <sup>th</sup> Street to 19 <sup>th</sup> Street	1 spot repair	4
FAYMONT AVE	15 <sup>th</sup> Street to 19 <sup>th</sup> Street	1 spot repair	4
18TH ST	Herrin Street to Redondo Avenue	2 spot repairs	4
19TH ST	Herrin Street to Redondo Avenue	1 spot repair	4
21ST ST	20 <sup>th</sup> Street to Meadows Avenue	1 spot repair	4
Additional locations will be identified through future CCTV inspections			4

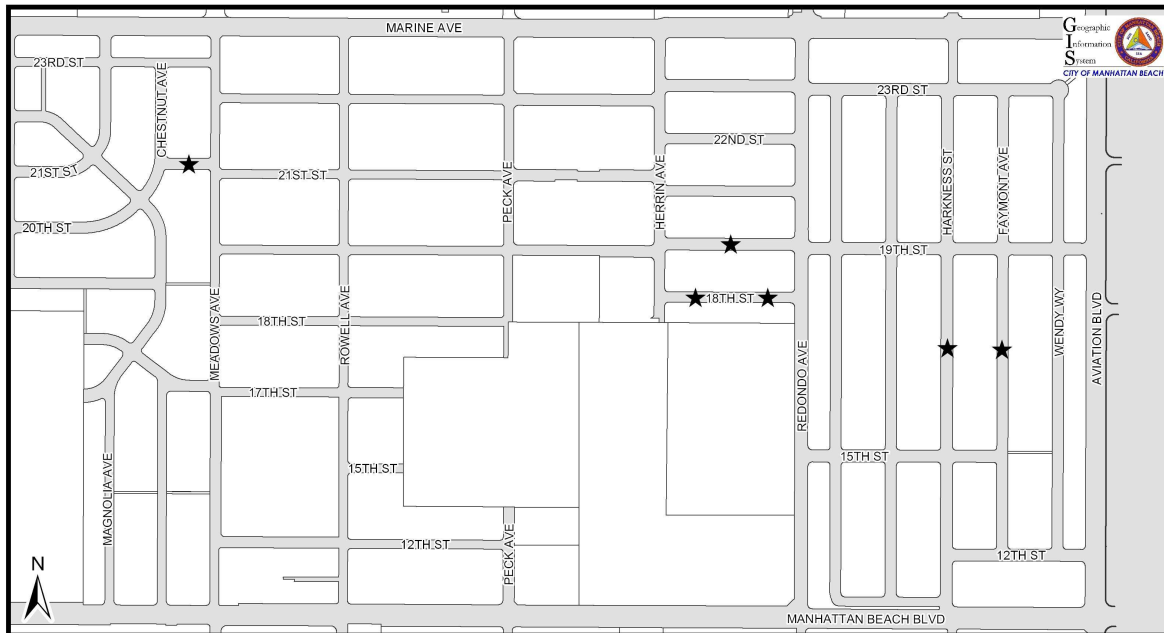
**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Sewer Fund			\$100,000	1,200,000		\$1,300,000
<b>TOTAL</b>			<b>\$100,000</b>	<b>1,200,000</b>		<b>\$1,300,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title: Rehabilitation of Gravity Sewer Mains FY 2015-16**

**Description:**

Rehabilitation or Replacement of Gravity Sewer Mains in maintenance area 5 and 7 as indicated below:

Street	limits	work	Maintenance Area
20 <sup>th</sup> Street	Highland Ave. East to end	Full Replacement	7
19 <sup>th</sup> Street	Highland Ave. East to end	Full Replacement	7
18 <sup>th</sup> Street	Highland Ave. East to end	Full Replacement	7
16 <sup>th</sup> Place	W/O Live Oak Park	2 Spot repairs	7
Highview Avenue	N/O Manhattan Bch Blvd.	Full Replacement	5
Manhattan Bch Blvd.	Ardmore Av. to Fisher Av.	1 spot repair	5
28 <sup>th</sup> Place	Grandview to Vista	Full Replacement	7
31 <sup>st</sup> Street	W/O Grandview	1 spot repair	7
31 <sup>st</sup> Street	W/O Highland	1 spot repair	7
Manhattan Av.	28 <sup>th</sup> St. to 29 <sup>th</sup> St.	Full Replacement	7
32 <sup>nd</sup> Street	Manhattan Av. to Strand	Full Replacement	7

**Justification:** The above locations have been identified by maintenance staff and through CCTV inspection to require rehabilitation or replacement.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Sewer Fund				\$150,000	\$1,400,000	\$1,550,000
<b>TOTAL</b>				<b>\$150,000</b>	<b>\$1,400,000</b>	<b>\$1,550,000</b>

**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

ATTACHMENT D

Project Title: Rehabilitation of Gravity Sewer Mains FY 2015-16  
Continued

Location Map:



Project Type: Utilities

**Project Title:** Peck Reservoir Disinfection and Mixing System

**Description:** Installation of a mechanical mixing and disinfection injection system at the Peck reservoir.

**Justification:** The existing 7.5 million gallon Peck Reservoir suffers from poor internal circulation which causes reduced disinfectant levels. A reservoir mixing and disinfectant injection system would eliminate dead zones within the reservoir and would assure that adequate disinfectant residual is maintained throughout.

**Project Cost Information:**

***Capital Costs:***

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$230,000					\$230,000
<b>TOTAL</b>	<b>\$230,000</b>					<b>\$230,000</b>

**Location Map:**



Project Type: Utilities

**Project Title:** Blending Line Flow Control Facility

**Description:** Installation of a flow control valve and control system to permit blending of well water and purchased water at the Peck Reservoir.

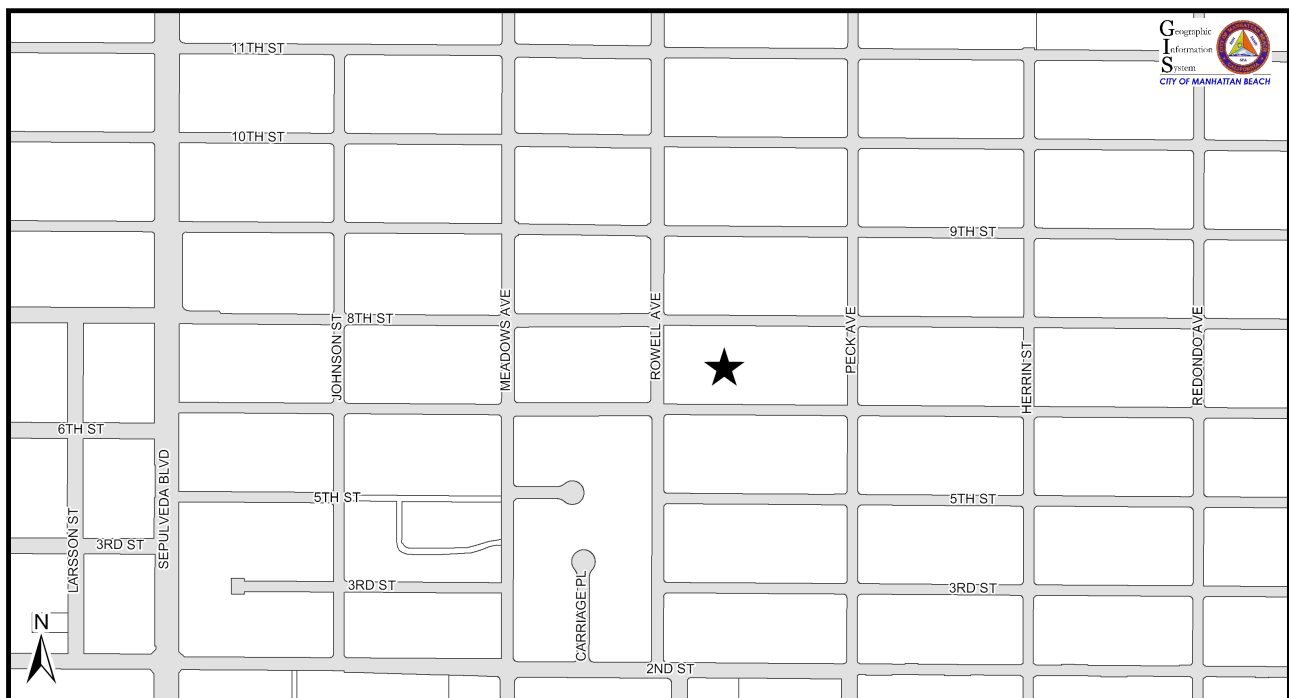
**Justification:** A water main was installed in 2006 between well 11A and Peck Reservoir. That project did not include measures to regulate the flow of well water into the reservoir. This project would construct a vault and flow control valve and SCADA connection to permit the control of well water into the reservoir.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$120,000					<b>\$120,000</b>
<b>TOTAL</b>	<b>\$120,000</b>					<b>\$120,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

**Project Type: Utilities**

**Project Title:** Well 11A Rehabilitation

**Description:** Rehabilitation of the pumps, motors, pump head, column and/or casings to restore the well to full capacity.

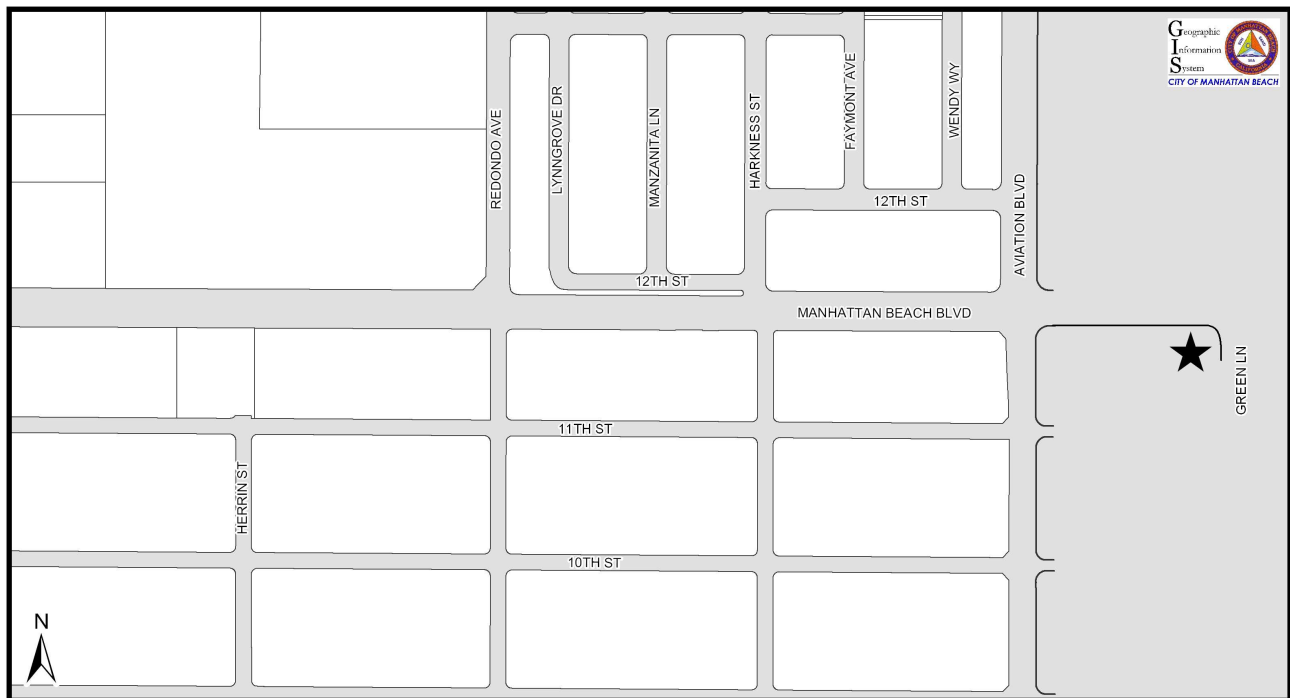
**Justification:** The existing well is experiencing a reduction in capacity. Typically, wells require rehabilitation from time-to-time to restore efficiency. Pump surfaces abrade causing reduction in pump efficiency and the integrity of well columns can be compromised causing further capacity reductions. This project will investigate the cause of the reduction and implement remedial measures.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$230,000					<b>\$230,000</b>
<b>TOTAL</b>	<b>\$230,000</b>					<b>\$230,000</b>

**Location Map:**



**Project Type: Utilities**

**Project Title:** 2<sup>nd</sup> Street Booster Pump Station

**Description:** Installation of new natural gas engine, engine controls, engine muffler, and engine mount vibration insulators.

**Justification:** The 2<sup>nd</sup> Street booster pump station is a back-up pump station in the City's high-pressure zone. This zone, located at the physical high point of the City requires supplemental pumping to maintain normal water system pressures. The Larsson Pump Station is the primary pump station in the high pressure zone; however, when peak domestic or fire flow demand is encountered, the 2nd Street Pump Station is called to provide supplemental flow and pressure.

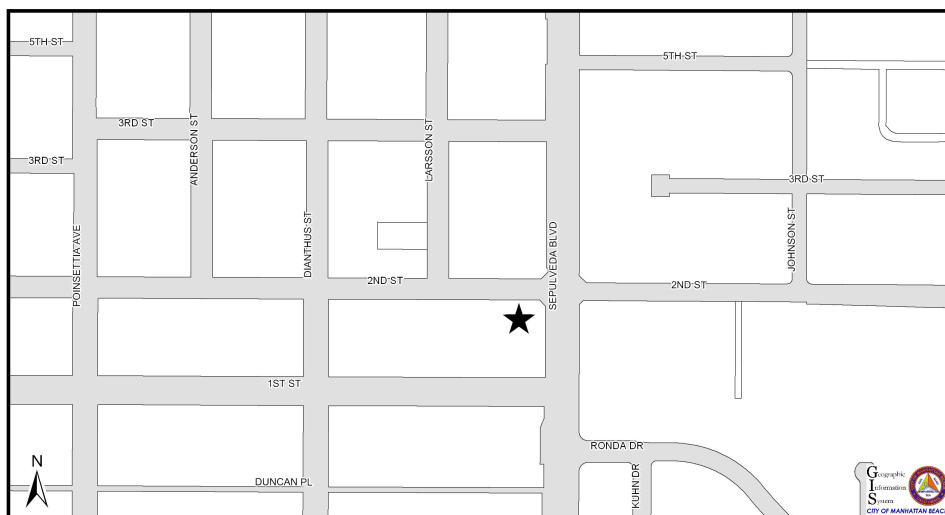
The 2<sup>nd</sup> Street Pump Station is situated in an underground vault in the 2<sup>nd</sup> Street parkway immediately adjacent to an office building. The current engine dates to the 1970s and spare parts are often difficult to locate. Both the engine and the engine control system are antiquated and require replacement. Additionally, vibration and noise from the engine affect the adjacent structure requiring installation of a new exhaust system and vibration insulators.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Sewer Funds	\$50,000	\$580,000					\$630,000
<b>TOTAL</b>	<b>\$50,000</b>	<b>\$580,000</b>					<b>\$630,000</b>

**Location Map:**





**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title: Pipe Replacement Program and Fire Hydrant Installation (Area 7)**

**Description:**

Construction of replacement water mains and new fire hydrants.

Street	From	To	Maintenance Area
<i>Phase 1</i>			
1 <sup>st</sup> St.	Highland Ave.	Valley Dr.	7
1 <sup>st</sup> St.	Ocean Dr.	Highland Ave.	7
3 <sup>rd</sup> St.	Ocean Dr.	Highland Ave.	7
4 <sup>th</sup> St.	Ocean Dr.	Highland Ave.	7
5 <sup>th</sup> St.	Ocean Dr.	Manhattan Ave.	7
Highland Ave.	1st St.	Homer St.	7
Highland Ave.	2nd St.	1st St.	7
Homer St.	Highland Ave.	Morningside Dr.	7
Manhattan Ave	8th St	15th St	7
Morningside Dr.	1st St.	Homer St.	7
Vista Dr.	Rosecrans Ave.	27th St.	7
<i>Phase 2</i>			
Highland Ave	6 <sup>th</sup> Street	10 <sup>th</sup> Street	7
7 <sup>th</sup> Street (walk street)	Ocean Drive	Valley Drive	7
6 <sup>th</sup> Street (walk street)	Ocean Drive	Highland Ave	7
Morningside Drive	2 <sup>nd</sup> Street	3 <sup>rd</sup> Street	7

**Justification:** The existing water mains in this part of Area 7 are mostly 4" cast iron mains more than 80 year old. Staff has encountered water quality problems due to corrosion and sediments attributed to the age of the mains. Additionally, increasing to 6" mains or larger would provide adequate fire flows in the area.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source (s)</u>	<u>Previous Approp'ns</u>	<u>FY2011-12</u>	<u>FY2012-13</u>	<u>FY 2013-14</u>	<u>FY2014-15</u>	<u>FY2015-16</u>	<u>TOTAL</u>
Water Fund	\$200,000	\$2,000,000					\$630,000
<b>TOTAL</b>	<b>\$200,000</b>	<b>\$2,000,000</b>					<b>\$630,000</b>

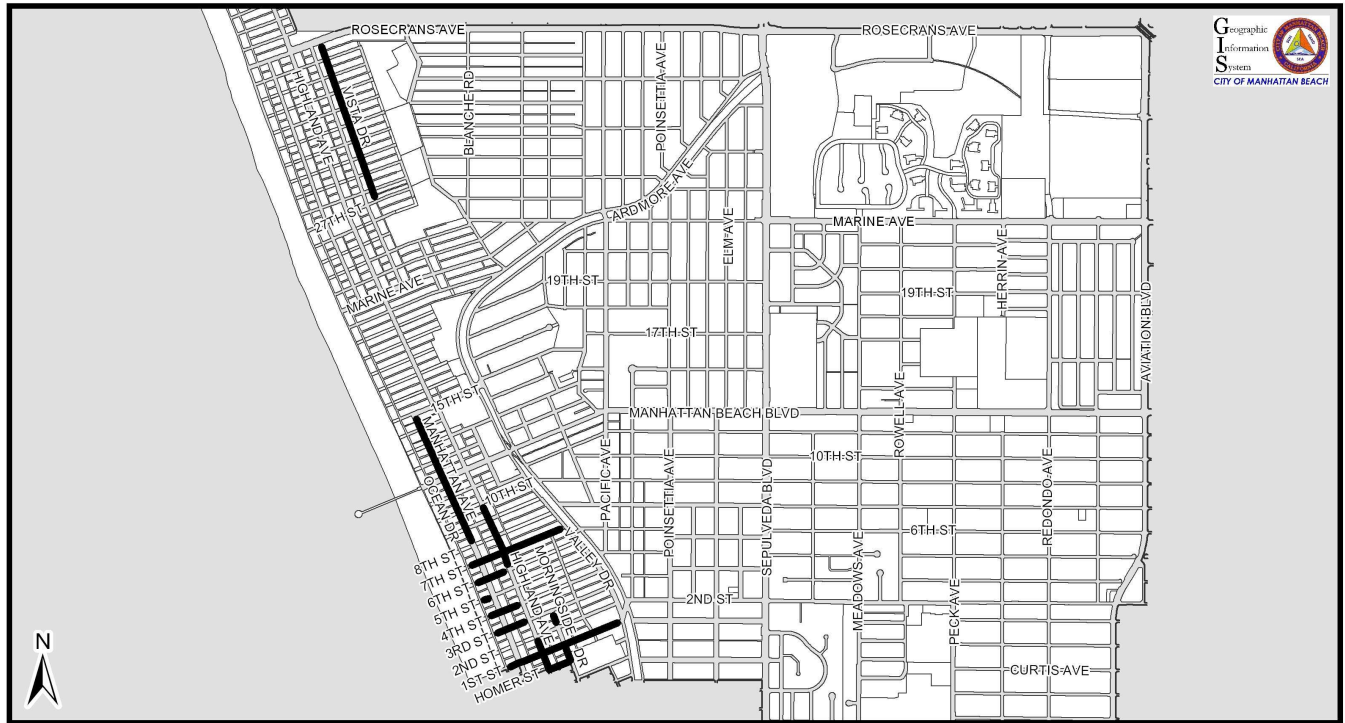
**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

ATTACHMENT D

Project Title: Pipe Replacement Program and Fire Hydrant Installation (Area 7)

Location Map:



**Project Type:** Utilities

**Project Title:** Larsson Street Pump Station Improvement

**Description:** Upgrade pumps, controls, variable speed drives and back-up generator to provide increases pumping capacity.

**Justification:** Presently the Larsson Street Pump Station consists of three electric pumps with variable speed drives. All three pumps are often called to provide peak domestic service and on occasion, the 2<sup>nd</sup> Street Pump Station is also called to assist. Optimally, peak domestic service should be served by two of the three pumps at the station. This would allow one of the pumps to be taken out of service for maintenance without requiring the 2<sup>nd</sup> Street pump station to be called.

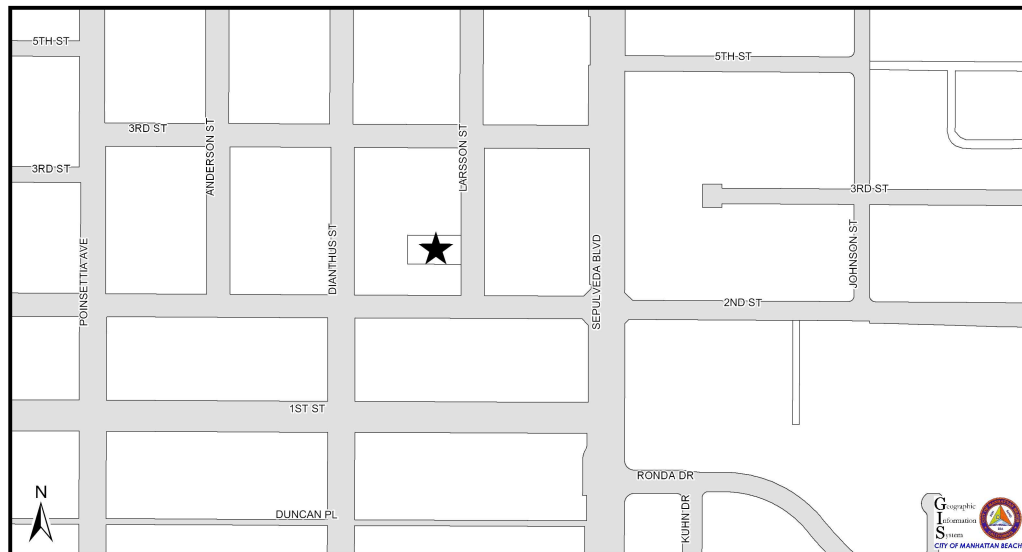
This project would provide three larger pumps at the station such that two pumps would handle peak domestic service. Three new pumps and variable speed drives would be installed along with new motor controls and a larger back-up generator to handle the increased electrical demand of the larger pumps and motors.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$100,000	\$500,000				<b>\$600,000</b>
<b>TOTAL</b>	<b>\$100,000</b>	<b>\$500,000</b>				<b>\$600,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title: Pipe Replacement Program and Fire Hydrant Installation (Area 1)**

**Description:**

Construction of replacement water mains and new fire hydrants.

Street	From	To	Maintenance Area
11 <sup>th</sup> Street	Ardmore Avenue	John Street	7 Low pressure zone
10 <sup>th</sup> Street	Highview Avenue	Pacific Avenue	7 High pressure zone
9 <sup>th</sup> Street	Ardmore Avenue	Highview Avenue	7 Low Pressure Zone
9 <sup>th</sup> Street	Highview Avenue	Pacific Avenue	7 High pressure zone
Highview Avenue	9 <sup>th</sup> Street	10 <sup>th</sup> Street	7 Convert to high pressure zone
Pacific Avenue	11 <sup>th</sup> Street	Manhattan Beach Boulevard	7 Low pressure zone
John Street	10 <sup>th</sup> Street	11 <sup>th</sup> Street	7 High pressure zone
9th Street	John Street	Poinsettia Avenue	7 High pressure zone
Poinsettia	8th Street	9th Street	7 High pressure zone
8th Street	Pointessettia Avenue	Sepulveda Boulevard	7 Low pressure zone

**Justification:** The existing water mains in this part of Area 1 are mostly 4" cast iron mains more than 60 year old. Increasing to 6" mains or larger would provide adequate fire flows in the area.

**Project Cost Information:**

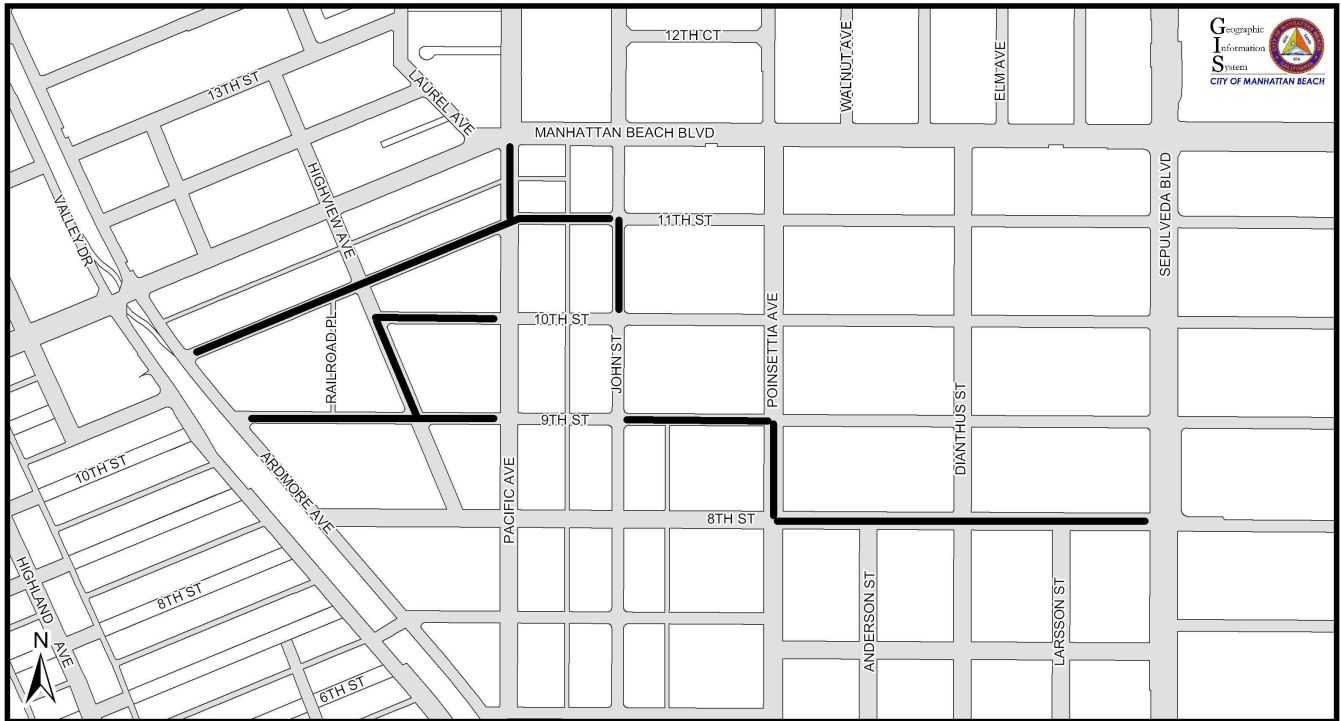
***Capital Costs:***

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$150,000	\$1,050,000				\$1,200,000
<b>TOTAL</b>	<b>\$150,000</b>	<b>\$1,050,000</b>				<b>\$1,200,000</b>

**Location Map on following page:**

**Project Title:** Pipe Replacement Program and Fire Hydrant Installation (Area 1)  
Continued

**Location map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title:** Water Main Replacement Project: Sepulveda Boulevard and 2<sup>nd</sup> Street

**Description:** Construction of replacement water mains and new fire hydrants.

Sepulveda Boulevard (Manhattan Beach Boulevard to 2nd Street)  
2<sup>nd</sup> Street (Larsson Pump Station to 2nd St Pump Station)

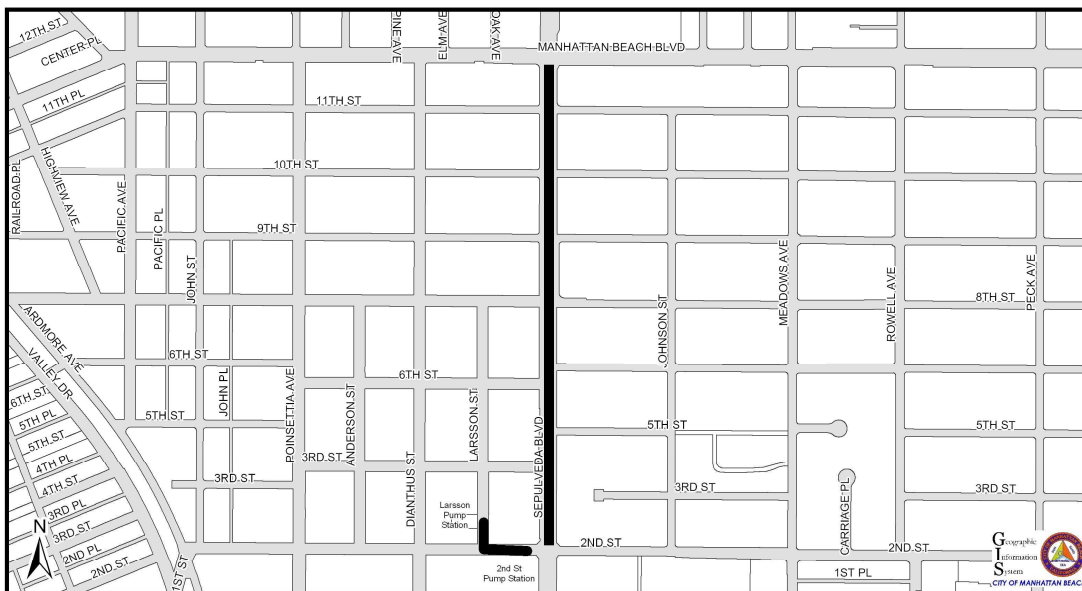
**Justification:** The existing water mains on the west side of Sepulveda Boulevard are 70 and 80 years old. Replacing the mains will restore the useful lives of these mains and will assure the longevity and dependability of the system.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund	\$100,000	\$800,000				\$900,000
<b>TOTAL</b>	<b>\$100,000</b>	<b>\$800,000</b>				<b>\$900,000</b>

**Location Map:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title: Pipe Replacement Program and Fire Hydrant Installation (Area 2)**

**Description:**

Construction of replacement water mains and new fire hydrants.

Street	From	To	Maintenance Area
9 <sup>th</sup> Street	Meadows Avenue	Rowell Avenue	2
10th Street	Meadows Avenue	Rowell Avenue	2
11th Street	Meadows Avenue	Rowell Avenue	2
Rhonda Drive/Longfellow Drive	Kuhn Drive N.	Kuhn Drive S.	2
Terraza Place	Rhonda Drive	End	2
Chabela Drive	Keats Street	Longfellow Drive	2
Altura Way	Keats Street	Longfellow Drive	2
Shelley Street	Prospect Avenue	Chabela Drive	2
5th Street	Rowell Avenue	Peck Avenue	2
3rd Street	Rowell Avenue	Peck Avenue	2

**Justification:** The existing water mains in this part of Area 2 are mostly 4" cast iron mains more than 60 year old. Increasing to 6" mains or larger would provide adequate fire flows in the area.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund		\$200,000	\$1,600,000			\$1,800,000
<b>TOTAL</b>		<b>\$200,000</b>	<b>\$1,600,000</b>			<b>\$1,800,000</b>

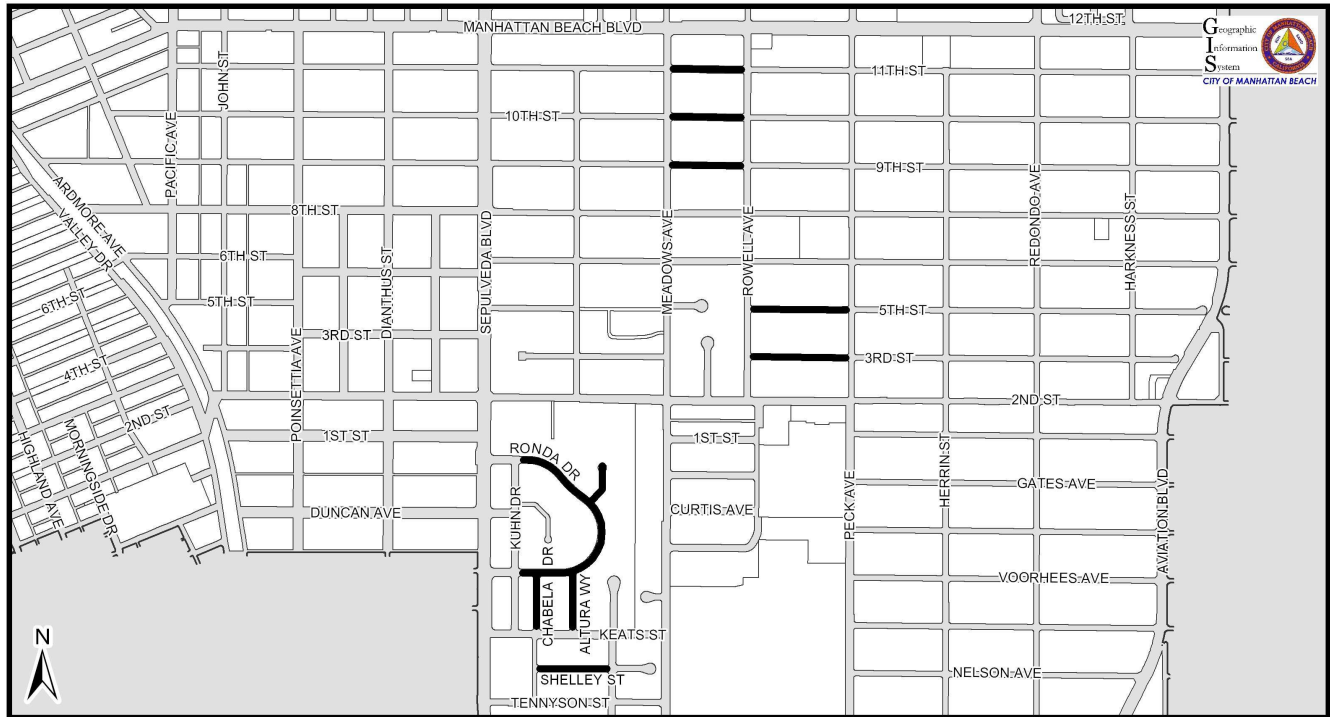
**Location Map on following page:**

City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information

ATTACHMENT D

**Project Title:** Pipe Replacement Program and Fire Hydrant Installation (Area 2)  
Continued

**Location Map:**





**Project Type: Utilities**

**Project Title: Water Well at Aviation Boulevard/ 6<sup>th</sup> Street (Well 13)**

**Description:** Construction of a new water well and support infrastructure and construction of a new collection water main from the new well to connect to the existing transmission main in 8<sup>th</sup> Street.

**Justification:** The City currently operates two groundwater wells providing a combined maximum flow rate of 3,900 gallons per minute. The City's average daily consumption of potable water is approximately 4,350 gallons per minute. The City uses approximately 7,000 acre feet of water per year and has adjudicated rights to pump 1,131.2 acre feet of groundwater annually. Although the City does not possess adequate adjudicated water rights to depend entirely on groundwater for all its potable water needs, it is prudent for the City to possess adequate well capacity to meet average daily demand (4,350 gpm). This would permit the City to depend entirely on its wells if imported water sources were temporarily curtailed.

Presently, the City's well capacity is insufficient to meet the average daily demand. It is recommended that a third well be developed to increase the City's well capacity. The City owns a well site on the south west corner of Aviation Boulevard and 6<sup>th</sup> Street. This well operated until the 1970s when salinity and operational problems caused the City to cease operation. It is believed that water quality at the Well 13 site has improved over the years due to the injection of fresh water along the County's barrier injection system. This project would include drilling a test well to verify the viability of the well site. Upon determining viability, design and then construction of the well, support infrastructure and collection main would follow.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund (Well)		\$920,000	\$2,500,000	\$1,950,000		\$3,750,000
Water Fund (Collection Main)		\$80,000		\$300,000		\$380,000
<b>TOTAL</b>		<b>\$1,000,000</b>	<b>\$2,500,000</b>	<b>\$2,250,000</b>		<b>\$5,750,000</b>

**Location Maps:**



**City of Manhattan Beach  
2012-2016 Capital Improvement Plan  
Funded Project Information**

**ATTACHMENT D**

Project Type: Utilities

**Project Title:** Pipe Replacement Program and Fire Hydrant Installation (Area 3)

**Description:** Construction of replacement water mains and new fire hydrants.

Redondo Avenue (2<sup>nd</sup> Street to Artesia Boulevard)  
1<sup>st</sup> Street (Redondo Avenue to Aviation Boulevard)

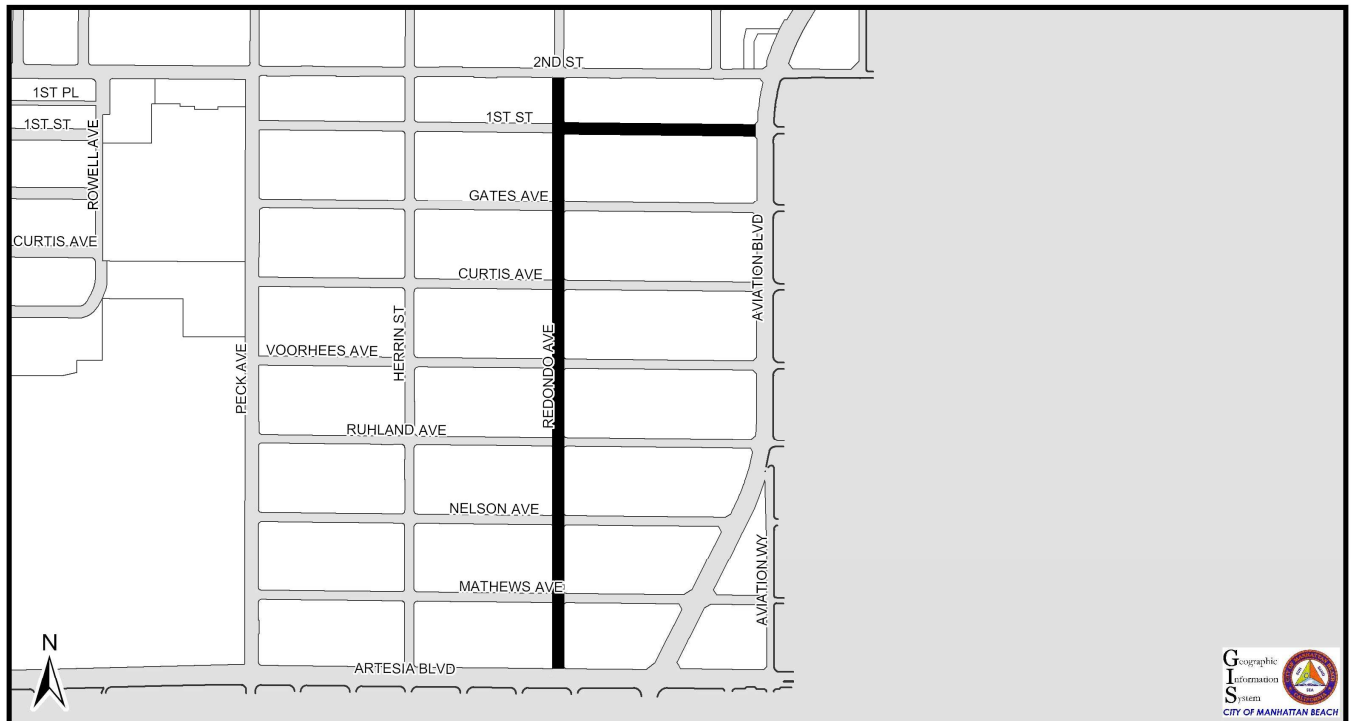
**Justification:** The existing water mains in this part of Area 3 are consist of 4" and 6" cast iron mains and most are more than 70 year old. Replacing the mains will restore the useful lives of these mains; assure the longevity and dependability of the system. Increasing to 6" mains or larger would enhance fire flows in the area.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund			\$100,000	\$900,000		\$1,000,000
<b>TOTAL</b>			<b>\$100,000</b>	<b>\$900,000</b>		<b>\$1,000,000</b>

**Location Map:**



Project Type: Utilities

**Project Title:** Well Collection Line

**Description:** Construction of a new well collection line from Well 11A to Block 35.

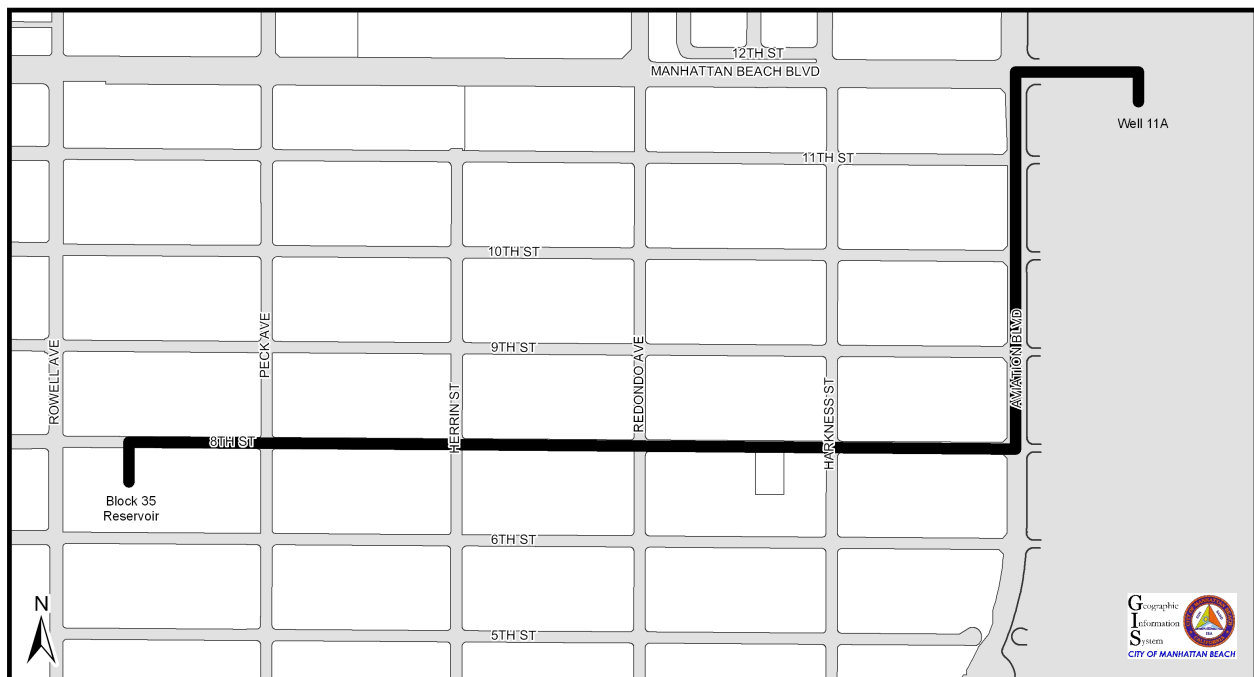
**Justification:** With the addition of a new well at site 13, a larger collection line will be required to convey flows from three operating wells simultaneously at reasonable velocities. The current collection line is 12 inches diameter and reduces to 10 inches diameter. This arrangement would cause large hydraulic losses and reduce well capacities. The new collection line would be 18 inches diameter and could efficiently convey peak flows from all three wells.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund			\$500,000	\$3,500,000		\$4,000,000
<b>TOTAL</b>			<b>\$500,000</b>	<b>\$3,000,000</b>		<b>\$4,000,000</b>

**Location Map:**



Project Type: Utilities

**Project Title:** Block 35 Ground Level Reservoir Replacement

**Description:** Construction of a new, larger capacity water reservoir

**Justification:** Block 35 Ground Level Reservoir (2 mg) was originally constructed in 1948. It has an inner wall with 69.17 ft diameter, and an outer wall with 140 ft diameter. The inner wall top is at elevation 182.8 feet, while the outer wall top is at elevation 191.58 feet. The overflow elevation is at 190 feet. Due to leakage at the wall/floor joint at high water levels, the reservoir is operated at half full level. This is the facility where most of the blending takes place, and from where water is pumped into the system. Therefore, its integrity is essential for proper operation of the system. It is at the end of its useful life, and should be replaced with a new, larger reservoir. It is recommended that a 4 million gallon tank to be constructed to provide a total operational storage of 6 million gallons (average day demand) in conjunction with the proposed Peck Reservoir.

**Project Cost Information:**

**Capital Costs:**

<u>Funding Source(s)</u>	<u>FY 2011-12</u>	<u>FY 2012-13</u>	<u>FY 2013-14</u>	<u>FY 2014-15</u>	<u>FY 2015-16</u>	<u>TOTAL</u>
Water Fund				\$1,000,000	\$7,100,000	<b>8,100,000</b>
<b>TOTAL</b>				<b>\$1,000,000</b>	<b>\$7,100,000</b>	<b>8,100,000</b>

**Location Map:**

