NORTH ROAD CROSS COUNTRY / DAVEY GLEN ROAD IMPROVEMENTS PROJECT BACKGROUND The water mains along Davey Glen Road were installed in 1961 and N2977 comprise of 600 LF of 6" cast iron pipe (CIP) and 800 LF of 8" CIP. Water is supplied to Davey Glen from Middle Road and a 6" CIP cross country (CC) water main, installed in 1962, extending down from North Road to where the 6" CIP on Davey Glen transitions to the 8" CIP. The CC water main runs beneath a 4 FT wide sidewalk DAVEY GLEN along a dedicated easement. Beyond the edge of walk the terrain REGULATOR drops fairly steeply where at its base is an apartment complex pool ABANDON 400 LF OF and common area. Any breaks along this alignment could result in CROSS COUNTRY 6" CIP significant damage to both the hillside and the apartment complex below. This project abandons the CC water main and replaces FROM N2935 TO N2169 1,400 LF of CIP water main along Davey Glen Road with 8" DIP to correct fire flow deficiencies upon the CC abandonment. Hydraulic analysis indicates a fire flow decrease of up to 38% from N2935 approximately 2,400 gpm to 1,500 gpm with these improvements. However, combining this project with the South Road Improvements (DSA 045) brings the majority of the fire flows to above 2,000 gpm REPLACE 800 LF OF 8" CIP with a select few around 1,800 gpm. Distribution System Analysis WITH 8" DIP FROM N2169 No. 044. TO N2977 (REGULATOR) PROPOSED IMPROVEMENTS Abandon 400 LF of 6" CC CIP Replace 1.400 LF of 6" & 8" CIP w/ 8" DIP NORTH Replace 5 fire hydrant assemblies N2169 Replace 17 service connections REPLACE 600 LF OF 6" CIP WITH 8" DIP FROM N2168 **PROJECT BENEFITS** TO N2169 The North Road Cross Country / Davey Glen Road Improvements abandons a CC water main, reduces District maintenance, and replaces an aging water main along Davey Glen Road. DAVEY GLEN ROAD N2168 MIDDLE ROAD **EXPENDITURE SCHEDULE (2015 DOLLARS)** 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020 Future Planning, Design, CM ---------------Construction SCALE: 1" = 200' Contingency Total Cost Pakpour Consulting Group, Inc. 10012.07 JOB No. CAPITAL IMPROVEMENT PROGRAM - 2015 UPDATE MID-PENINSULA WATER DISTRICT 05/28/15 5776 Stoneridge Mall Road, Suite 320 DATE SAN MATEO COUNTY, CALIFORNIA NORTH ROAD CROSS COUNTRY / DAVEY GLEN ROAD AS NOTED Pleasanton, CA 94588 SCALE 3 DAIRY LANE __BL 925.224.7717 Fax 925.224.7726 Х **IMPROVEMENTS PROJECT 15-43** BELMONT, CA 94002 CKD JP www.pcgengr.com

FRANCIS AVENUE / COURT **IMPROVEMENTS** PROJECT BACKGROUND Francis Avenue is located between Fairway Drive and Notre Dame Avenue and has a 640 LF 4" polyvinylchloride (PVC) water main installed in 1975. Francis Court is located directly off Francis Avenue and also has 190 LF of 4" PVC installed in 1976. Fire flows along these streets are well below the recommended 1,500 gpm at 20 psi with flows as low as 925 gpm and 590 gpm on Francis Avenue and Francis Court respectively. In addition, no hydrant currently exists at the end of Francis Court. This project replaces a total 830 LF of 4" PVC with 8" ductile iron pipe (DIP) and adds an additional hydrant in the area. Hydraulic analysis indicates fire flow increases as much as 300% to over 2,350 gpm upon completion of this project. Distribution System Analysis No. 055 N2103 PROPOSED IMPROVEMENTS Replace 830 LF of 4" PVC with 8" DIP FAIRWAY DRIVE Install 1 new fire hydrant assembly REPLACE 640 LF OF 4" Replace 1 fire hydrant assembly **PVC WITH 8" DIP FROM** Replace 23 service connections REPLACE 190 LF OF 4" N2975 TO N2103 **PVC WITH 8" DIP FROM PROJECT BENEFITS** N2104 N2104 TO N2993 The Francis Avenue/Court Improvements replaces undersized 4" PVC water main with 8" DIP, improves fire protection with the addition of a hydrant, and improves fire flows in the area as much as FRANCIS COURT N2993 N2975 WHIPPLE WAY EXPENDITURE SCHEDULE (2015 DOLLARS) 2017-2018 2015-2016 2016-2017 2018-2019 2019-2020 Future Planning, Design, CM -------------------------Construction SCALE: 1" = 200' Contingency Total Cost Pakpour Consulting Group, Inc. 10012.07 JOB No. CAPITAL IMPROVEMENT PROGRAM - 2015 UPDATE MID-PENINSULA WATER DISTRICT 05/28/15 5776 Stoneridge Mall Road, Suite 320 DATE SAN MATEO COUNTY, CALIFORNIA AS NOTED FRANCIS AVENUE / COURT IMPROVEMENTS Pleasanton, CA 94588 SCALE 3 DAIRY LANE BY BL 925.224.7717 Fax 925.224.7726 Χ PROJECT 15-51 BELMONT, CA 94002 CKD JP www.pcgengr.com

ACADEMY AVENUE / BELBURN DRIVE **IMPROVEMENTS** VILLA AVENUE PROJECT BACKGROUND Academy Avenue between Ralston Avenue and Belburn Drive has 2120 two parallel water mains: a 600 LF 4" polyvinylchloride (PVC) water main installed in the 1970 and a 6" cast iron (CIP) water main installed in 1977. Hydraulic analysis indicates the existing 4" PVC provides little hydraulic benefit to the system. It is assumed the 2124 existing services are located on the 4" PVC. In addition, Belburn Drive between Academy Avenue and Villa Avenue also has a 300 LF 4" PVC water main incapable of achieving the minimum recommended fire flow of 1,500 gpm at 20 psi with fire flows at 1,080 N2112 gpm. The two 4" PVC water mains aforementioned connect to each BELBURN DRIVE other at Academy Avenue. This project abandons the existing 4" PVC on Academy Avenue, relocates 22 service connections to the existing 6" CIP, and replaces 150 LF of PVC on Belburn Drive with 8" ductile iron pipe (DIP) connecting it to the existing 6" CIP on Academy Avenue. Hydraulic analysis indicates a 132% increase in N2995 fire flows on Belburn Drive to 2,500 gpm. Distribution System REPLACE 300 LF OF 4" Analysis Nos. 057 and 058 **PVC WITH 8" DIP FROM** N2970 TO N2995 PROPOSED IMPROVEMENTS 6" CIP Abandon 600 LF of 4" PVC Replace 300 LF of 4" PVC with 8" DIP Replace 25 service connections (22 on Academy, 3 on Belburn) **PROJECT BENEFITS** N2970 The Academy Avenue / Belburn Drive Improvements abandons a 4" PVC water main providing little benefit to the system, replaces old 6" DIP and aging 4" PVC with new 8" DIP, reduces District maintenance, and improves fire flows in the area as much as 132%. ABANDON 600 LF OF PARALLEL 4" CIP FROM N2111 TO N2112 N2111 RALSTON AVENUE EXPENDITURE SCHEDULE (2015 DOLLARS) 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020 Planning, Design, CM -----Construction -----SCALE: 1" = 200' Contingency Total Cost 10012.07 Pakpour Consulting Group, Inc. JOB No. CAPITAL IMPROVEMENT PROGRAM - 2015 UPDATE MID-PENINSULA WATER DISTRICT 05/28/15 5776 Stoneridge Mall Road, Suite 320 DATE AS NOTED

SAN MATEO COUNTY, CALIFORNIA 3 DAIRY LANE BELMONT, CA 94002

ACADEMY AVENUE / BELBURN DRIVE IMPROVEMENTS PROJECT 15-53

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Future

Pleasanton, CA 94588

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925.224.7717 Fax 925.224.7726

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