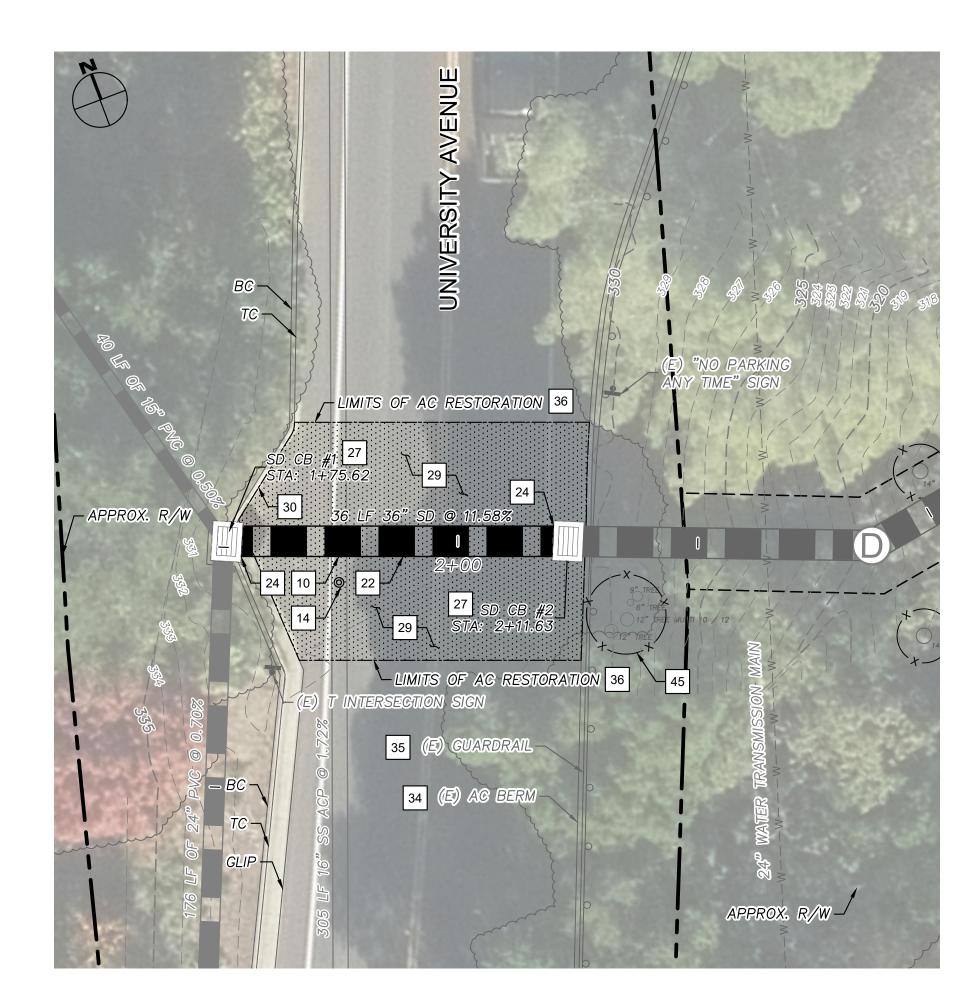
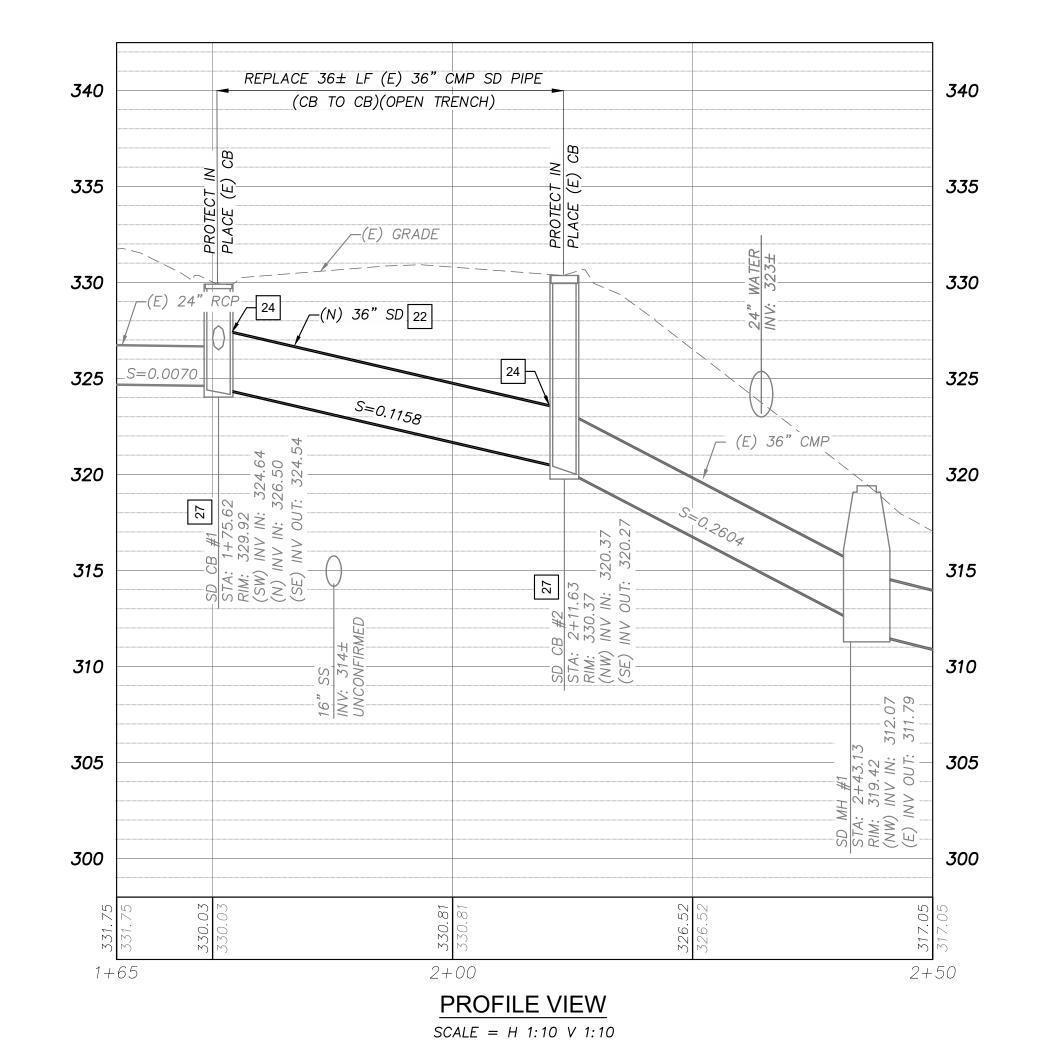
VASONA STORM DRAIN REPLACEMENT (PHASE 1)

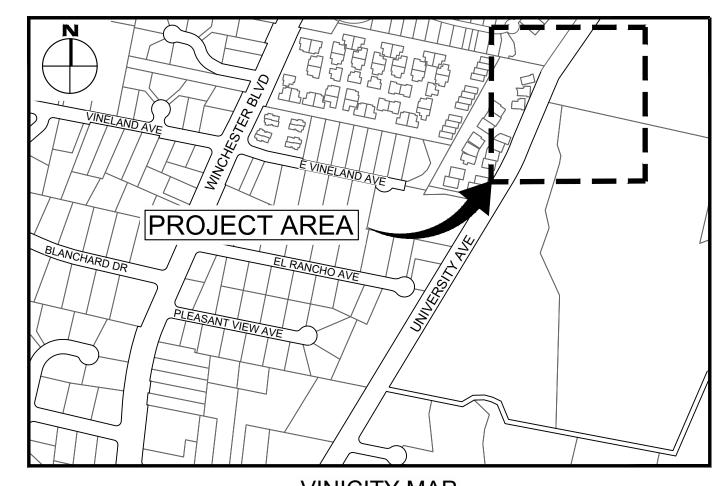
UNIVERSITY AVENUE APPR. 180' NORTH OF VASONA OAKS DRIVE TOWN OF LOS GATOS

PROJECT NO. 25-816-0420









VINICITY MAP SCALE: NTS

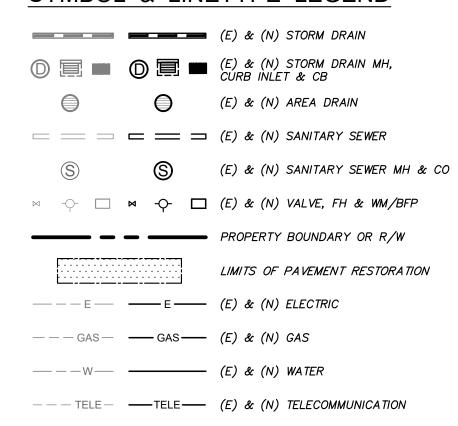
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ABBREVIATIONS:

INVERT ELEVATION

AB	AGGREGATE BASE	MAX	MAXIMUM
AC	ASPHALT CONCRETE	MIN	MINIMUM
AD	AREA DRAIN	(N)	NEW
BC	BACK OF CURB	NTS	NOT TO SCALE
CB	CATCH BASIN	RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE	RIM	RIM ELEVATION
DI	DROP INLET	R/W	RIGHT-OF-WAY
DIA	DIAMETER	SD CB	STORM DRAIN CATCH BASIN
EG	EXISTING GRADE	SD MH	STORM DRAIN MANHOLE
(E)	EXISTING	TC	TOP OF CURB
FC	FACE OF CURB	TYP	TYPICAL
GLIP	GUTTER LIP	W	WATER
HDPE	HIGH-DENSITY POLYETHYLENE	WVSD	WEST VALLEY SANITATION DISTR

SYMBOL & LINETYPE LEGEND



GENERAL NOTES:

1) ALL MATERIAL AND WORKMANSHIP SHALL FULLY CONFORM WITH THE SPECIFICATIONS, STANDARDS, AND ORDINANCES OF THE TOWN OF LOS GATOS. SEE GENERAL NOTES & SPECIFICATIONS ON SHEETS 02 - 06.

2) THE OFFICE OF PUBLIC WORKS INSPECTION SHALL BE NOTIFIED AT LEAST 72 HOURS IN ADVANCE OF ANY WORK.

3) CONTRACTOR OR SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. SHOULD ANY CONTRACTOR OR SUBCONTRACTOR FIND CONFLICTS, ERRORS, OMISSIONS, DEFICIENCIES, OR DISCREPANCIES IN THESE PLANS OR ARE IN DOUBT OF THE MEANING OR INTENT, THEY SHALL NOTIFY THE ENGINEER OF RECORD IN WRITING AND REQUEST CLARIFICATION. SHOULD THEY FAIL TO DO SO, THEY CANNOT CLAIM ADDITIONAL COMPENSATION FOR WORK REQUIRED TO COMPLETE THE PROJECT.

4) THE ENGINEER OF RECORD PREPARING THESE PLANS IS NOT RESPONSIBLE OR LIABLE FOR ANY UNAUTHORIZED CHANGES TO THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE TOWN ENGINEER.

5) THE WORD "TYPICAL" OR "TYP" WHERE IT OCCURS MEANS THE SAME WORK APPLIES WHERE SIMILAR CONDITIONS OCCUR UNLESS NOTED OTHERWISE.

6) CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROLS AND SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SEE GENERAL NOTES & SPECIFICATIONS ON SHEETS 02 - 06.

7) CONTRACTOR SHALL PERFORM BYPASSING AND DEWATERING AS NEEDED TO MAINTAIN EXISTING STORM DRAIN FLOW AND FACILITATE EXCAVATION FOR REMOVAL/REPLACEMENT OF THE STORM DRAIN LINE. IF REQUIRED, CONTRACTOR SHALL SUBMIT A BYPASSING PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SEE GENERAL NOTES & SPECIFICATIONS ON SHEETS 02 - 06.

8) EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING, BRACING OR SHEETING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SEE GENERAL NOTES & SPECIFICATIONS ON SHEETS 02 - 06.

9) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CONTACT UNDERGROUND SERVICE ALERT (USA) AT 800-227-2600 OR 811. ALL USA MARKINGS TO BE REMOVED AT END OF CONSTRUCTION.

10) EXISTING UTILITIES SHALL BE MAINTAINED IN SERVICE AND IN PLACE BY THE CONTRACTOR DURING CONSTRUCTION UNLESS

11) EXISTING UTILITIES AND IMPROVEMENTS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE TOWN ENGINEER, AT THE CONTRACTOR'S SOLE EXPENSE. SEE GENERAL NOTES & SPECIFICATIONS ON SHEETS 02 - 06.

12) THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY AND THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT JUST DURING NORMAL WORKING HOURS.

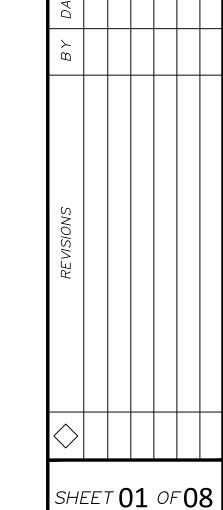
13) RESTORE ALL (E) STRIPING AND PAVEMENT MARKINGS REMOVED/DAMAGED BY STORM DRAIN REPLACEMENT.

14) IF THE CONTRACTOR PROPOSES A FULL ROAD CLOSURE (I.E., NO THROUGH TRAFFIC), THE TRAFFIC CONTROL PLAN MUST CLEARLY REFLECT THIS AND SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE TOWN'S TRAFFIC ENGINEER. FULL ACCESS FOR TRAFFIC MUST BE RESTORED AT THE END OF EACH WORKDAY.









ATTACHMENT 4

PAVEMENT 2" AND REPAVE WITH HOT MIX ASPHALT. 45 PROTECT IN PLACE (E) TREE.

RECONSTRUCT INSTALLATION.

CONSTRUCTION NOTES

CONCRETE STORM DRAIN STRUCTURE.

27 PROTECT IN PLACE (E) SD CB.

EXERCISE EXTREME CAUTION WHEN WORKING IN CLOSE PROXIMITY TO (E) SANITARY SEWER FACILITIES. COORDINATE WORK WITH WVSD.

REMOVE (E) 36" CMP AND INSTALL (N) 36" CORRUGATED HDPE DUAL-WALL (SMOOTH INTERIOR, TYPE S) PIPE AT

DETAIL SD-305 AND SD-306. BACKFILL AND COMPACT VOIDS WITHIN TRENCH WITH CLASS 2 AB, COMPACTED IN 6"

CONNECT (N) SD PIPE TO (E) SD STRUCTURE. ENLARGE OPENINGS IN (E) SD STRUCTURE TO ACCOMMODATE LARGER

OPENINGS OF (N) PIPE CONNECTIONS. PRIOR TO MORTAR FILL, APPLY HYDROPHILIC VULCANIZED EXPANSIVE RUBBER

RECONSTRUCT PORTIONS OF (E) CURB AND GUTTER AND/OR (E) VERTICAL CURB IF REMOVED/DAMAGED BY STORM DRAIN INSTALLATION. REFER TO TOWN OF LOS GATOS STANDARD DETAILS ST-210 AND ST-211 ON SHEET 07.

RECONSTRUCT PORTIONS OF (E) GUARDRAIL AND REFLECTOR IN-KIND IF REMOVED/DAMAGED BY STORM DRAIN

APPROXIMATE LIMITS OF AC PAVEMENT RESTORATION TO EXTEND 10' BEYOND EDGE OF TRENCH. COLD PLANE AC

BACKFILL VOIDS OUTSIDE OF STORM DRAIN TRENCH LIMITS WITH CLSM MIX. ANY VOIDS ENCOUNTERED DURING CONSTRUCTION OUTSIDE OF THE TRENCH LIMITS SHALL BE PAID FOR IN BID ITEM 6.

34 RECONSTRUCT PORTIONS OF (E) AC BERM IN-KIND IF REMOVED/DAMAGED BY STORM DRAIN INSTALLATION.

STRIP AROUND THE ANNULAR JOINT WHERE THE (N) 36" CORRUGATED HDPE DUAL-WALL PIPE MEETS THE (E)

INVERTS, LENGTH, AND SLOPE INDICATED ON PLANS. TRENCH AND BACKFILL PER TOWN OF LOS GATOS STANDARD

14 POTHOLE (E) SANITARY SEWER TO VERIFY DEPTH PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF CONFLICTS.

LIFTS. IF COMPACTING VOIDS WITHIN TRENCH IS NOT FEASIBLE, BACKFILL WITH CLSM MIX.

GENERAL

- 1. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE FOLLOWING:
- a. TOWN OF LOS GATOS ENGINEERING DESIGN STANDARDS AND SPECIFICATIONS (UNLESS SPECIFICALLY STATED OTHERWISE ON THE PLANS).
- b. ALL TOWN OF LOS GATOS CONDITIONS OF APPROVAL RELATED TO THE PROJECT.
- c. THESE PLANS, DETAILS, AND SPECIFICATIONS.
- d. 2024 EDITION (OR MOST RECENT) OF THE STATE OF CALIFORNIA (CALTRANS) STANDARD SPECIFICATIONS AND STANDARD PLANS
- e. THE GEOTECHNICAL REPORT (IF AVAILABLE) AND ALL THE NOTES SHOWN.
- THE CONTRACTOR SHALL HAVE A COPY OF ALL DOCUMENTS AVAILABLE AT THE JOB SITE AT ALL TIMES. ALL ON SITE IMPROVEMENTS SHALL BE INSPECTED AND CERTIFIED BY THE ENGINEER OF RECORD. IMPROVEMENTS IN THE PUBLIC RIGHT OF WAY SHALL BE INSPECTED BY PUBLIC WORKS.
- 2. THE CONTRACTOR SHALL CONTACT THE TOWN ENGINEERING INSPECTOR AT (408) 399-5771 TO SCHEDULE A PRECONSTRUCTION MEETING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE COMMENCEMENT OF ANY AND ALL WORK. DURING THE DURATION OF THE PROJECT, ROLLING 3-WEEK LOOKAHEAD SCHEDULES WILL BE REQUIRED TO BE SUBMITTED WEEKLY.
- 3. THE CONTRACTOR AND ALL SUBCONTRACTORS MUST CALL UNDERGROUND SERVICE ALERT (USA NORTH 811 OR 1-800-227-2600) PRIOR TO THE START OF ANY WORK ON THE PROJECT SITE. EACH CONTRACTOR SHALL SUBMIT A COPY OF THEIR USA TAG TO THE TOWN FOR VERIFICATION. THE CONTRACTOR SHALL ALSO CALL ANY COMPANY OR AGENCY FOR SERVICE LOCATIONS WHO ARE NOT A MEMBER OF UNDERGROUND SERVICE ALERT. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING UTILITIES IN THE FIELD. LOCATIONS OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING USA MARKINGS AFTER THE COMPLETION OF CONSTRUCTION FROM THE PUBLIC RIGHT OF WAY.
- 4. THE CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY INSPECTIONS, SCHEDULING AND RELOCATIONS WITH THE APPROPRIATE UTILITY COMPANIES.
- 5. ALL WORK SHALL BE IN ACCORDANCE WITH THE PREVAILING GOVERNING AGENCY. FOR DISCREPANCIES BETWEEN THESE PLANS AND THOSE AGENCIES REGULATIONS AND STANDARD PLANS, AGENCY REQUIREMENTS SHALL PREVAIL.
- 6. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO -24 HOUR A DAY EMERGENCY TELEPHONE NUMBERS OF THE PERSON(S) WHO CAN RESPOND TO THE PROJECT.
- 7. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
- 8. CONTRACTOR SHALL CONFORM TO EXISTING STREETS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC., AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
- 9. FOR ALL CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO: GRADING, FENCING, RETAINING WALLS, TREE TRIMMING, STORM DRAINAGE, OR ANY OTHER TYPE OF WORK, THAT OCCUR ON ADJACENT PROPERTY, THE CONTRACTOR SHALL PROVIDE THE TOWN A RIGHT-OF-ENTRY/TEMPORARY CONSTRUCTION EASEMENT SIGNED BY THE OWNER OF RECORD OF THE AFFECTED/ADJACENT PROPERTY PRIOR TO START OF CONSTRUCTION.
- 10. THE CONTRACTOR SHALL NOTIFY ALL CUSTOMERS OF UTILITY SERVICE INTERRUPTIONS 48 HOURS IN ADVANCE WITH DOOR HUNG NOTICES. INTERRUPTION SCHEDULING SHALL BE AUTHORIZED IN WRITING BY TOWN ENGINEER.
- 11. CONSTRUCTION ACTIVITIES THROUGHOUT THE ENTIRE DURATION OF THE PROJECT SHALL BE LIMITED TO THE HOURS OF 7:00 A.M. TO 7:00 P.M., MONDAY THROUGH FRIDAY. THERE SHALL BE NO STARTUP OF MACHINES NOR EQUIPMENT PRIOR TO 8:00 A.M., MONDAY THROUGH FRIDAY; NO DELIVERY OF MATERIALS NOR EQUIPMENT PRIOR TO 7:30A.M. NOR PAST 5:00P.M., MONDAY THROUGH FRIDAY; NO CLEANING OF MACHINES NOR EQUIPMENT PAST 6:00 P.M., MONDAY THROUGH FRIDAY: NO SERVICING OF EQUIPMENT PAST 6:45 P.M., MONDAY THROUGH FRIDAY; AND CONSTRUCTION ON WEEKENDS OR LEGAL HOLIDAYS SHALL BE LIMITED TO THE HOURS OF 8:00 A.M. TO 4:00 P.M., UNLESS THE CONTRACTOR SUBMITS A WRITTEN REQUEST AND THAT REQUEST IS APPROVED BY THE TOWN ENGINEER, OR THEIR DESIGNEE, PURSUANT TO SECTION 8.08.025 & 8.08.050 OF THE TOWN MUNICIPAL CODE. IF THE REQUEST TO WORK OUTSIDE OF THE DESIGNATED HOURS IS APPROVED, THE CONTRACTOR MAY BE REQUIRED TO PAY THE COST OF PROVIDING INSPECTION SERVICES FOR THE WORK BEING PERFORMED. IF INSPECTION SERVICES ARE NOT AVAILABLE FOR THE REQUESTED CHANGE, THE TOWN ENGINEER MAY DENY THE REQUEST. THE TOWN MANAGER, OR DESIGNEE, SHALL GRANT SUCH
- a. FOR EMERGENCY WORK;
- b. OTHER WORK, IF WORK AND EQUIPMENT WILL NOT CREATE NOISE THAT MAY BE UNREASONABLY
- OFFENSIVE TO NEIGHBORS AS TO CONSTITUTE A NUISANCE; OR c. IF NECESSARY TO PROTECT THE PUBLIC HEALTH, SAFETY, AND WELFARE.
- ALL MUFFLER SYSTEMS ON CONSTRUCTION EQUIPMENT SHALL BE PROPERLY MAINTAINED. ALL CONSTRUCTION EQUIPMENT SHALL NOT BE PLACED ADJACENT TO DEVELOPED AREAS UNLESS SAID EQUIPMENT IS PROVIDED WITH ACOUSTICAL SHIELDING. ALL CONSTRUCTION AND GRADING EQUIPMENT SHALL BE SHUT DOWN WHEN NOT ACTIVELY IN USE.
- AN INSPECTOR IS REQUIRED TO BE ONSITE FOR WORK OUTSIDE OF THE MONDAY THROUGH FRIDAY WORK HOURS, THE CONTRACTOR SHALL REQUEST FROM THE TOWN, IN WRITING, 72 HOURS PRIOR TO THE WORK, FOR APPROVAL. IF PRIOR WRITTEN NOTICE IS NOT PROVIDED, THE REQUEST WILL BE DENIED, AND CONSTRUCTION WORK MAY NOT BE PERFORMED. ADDITIONAL FEES MAY BE CHARGED FOR WORK OUTSIDE OF THE MONDAY THROUGH FRIDAY WORK HOURS. THE TOWN RESERVES THE RIGHT TO DENY ALL WORK OUTSIDE OF THE MONDAY THROUGH FRIDAY WORK HOURS.
- DEVELOPER/CONTRACTORS WILL BE GIVEN ONE (1) WARNING FOR WORK STARTING PRIOR TO OR AFTER THE WORK HOURS STATED ABOVE. AFTER THE FIRST WARNING IS GIVEN, ANY VIOLATIONS OF TIME WILL RESULT IN AN AUTOMATIC FIVE (5) WORKING DAY SHUTDOWN OF THE ENTIRE PROJECT.
- NO STAGING OR DELIVERIES IN THE PUBLIC RIGHT OF WAY UNLESS APPROVED PER WRITTEN REQUEST.
- THE TOWN ENGINEER, PLANNING COMMISSION OR TOWN COUNCIL MAY IMPOSE ADDITIONAL LIMITATIONS ON
- WORKING HOURS AND NOISE BASED ON THE SPECIAL CIRCUMSTANCES THAT MAY. 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND CONTROL POINTS. ALL MONUMENTS DESTROYED DURING CONSTRUCTION SHALL BE RESURVEYED AND
- PROFESSIONS CODE, SECTION 8771. 13. THE CONTRACTOR SHALL PROVIDE THE TOWN SUBMITTAL(S) FOR ALL MATERIAL TO BE INSTALLED WITHIN THE PUBLIC RIGHT OF WAY ON THE PROJECT. CONSTRUCTION SHALL NOT START PRIOR TO SUBMITTALS BEING APPROVED. PRIOR TO BEING SUBMITTED TO THE TOWN, THE DESIGNER OF RECORD SHALL REVIEW AND THE SUBMITTAL AND RETURN IT TO THE CONTRACTOR WITH APPROVAL OR COMMENTS WITHIN TEN (10)

REPLACED BY THE CONTRACTOR AND AT THE CONTRACTOR'S EXPENSE AS OUTLINED IN THE BUSINESS AND

14. SITE SECURITY, PERIMETER CONTROLS, AND SITE SAFETY ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INSTALLED AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION. TEMPORARY 6FT CHAIN LINK WITH OPAQUE SCREENING SHALL BE USED FOR SITE SECURITY UNLESS ANOTHER METHOD IS SUBMITTED AND APPROVED FOR USE BY THE TOWN

TRAFFIC CONTROL (BID ITEM 1)

WORKING DAYS AFTER RECEIPT OF THE SUBMITTAL.

- 1. ALL TRAFFIC CONTROL REQUIRED FOR CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD). FOR FULL STREET CLOSURES, A WRITTEN EXPLANATION DETAILING THE NEED FOR FULL CLOSURE SHALL BE ACCOMPANIED WITH A TRAFFIC CONTROL PLAN AND SUBMITTED TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL. FOR ALL LANE AND SIDEWALK CLOSURES AND DETOURS, A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL AT LEAST TEN WORKING DAYS BEFORE THE SCHEDULED CLOSURE. CONSTRUCTION WILL NOT BE ALLOWED TO START PRIOR TO THE APPROVAL OF THE TRAFFIC CONTROL PLAN.
- 2. ALL TRAFFIC CONTROL PLANS SHALL BE A CAD DRAWING FORMAT PLAN WITH COMPLETE DETAILS AND TABLES. AERIAL PHOTOS, HAND DRAWN PLANS, AND NOTES ARE NOT ACCEPTABLE.
- 3. TRAFFIC CONTROL SHALL BE PER CA MUTCD, SECTION 6 (SECTION 5 IS NOT ALLOWED).

TRAFFIC CONTROL (CONT.)

- 4. "NO PARKING"SIGNS SHALL BE PLACED 48 HOURS PRIOR TO THE WORK TO BE COMPLETED WITHIN AN AREA OF DESIGNATED PUBLIC PARKING. NO PARKING SIGNS SHALL BE FILLED IN WITH ALL PERTINENT INFORMATION OF THE EXACT TIME THE WORK IS TO TAKE PLACE. SIGNS SHALL BE CLEAR AS TO WHEN THE PUBLIC MAY PARK IN THE AREA OUTSIDE OF THE CONSTRUCTION TIME. IF WORK IS STAGED OR DELAYED, THEN ALL "NO PARKING" SIGNS SHALL BE REMOVED AND NEW NO PARKING SIGNS SHALL BE PLACED 48 HOURS PRIOR TO WHEN WORK IS READY TO RESUME. SIGNS SHALL BE PLACED APPROXIMATELY EVERY 50 FEET APART.
- 5. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TRAFFIC CONTROL EQUIPMENT IN-PLACE DURING WORK ACTIVITIES AND SHALL REMOVE ALL TRAFFIC CONTROL THAT IS NOT NEEDED AND RETURN ACCESSIBLE TRAVEL FOR THE PUBLIC DURING NON-WORK HOURS OR DAYS.
- 6. IF THE CONTRACTOR PROPOSES A FULL ROAD CLOSURE (I.E., NO THROUGH TRAFFIC), THE TRAFFIC CONTROL PLAN MUST CLEARLY REFLECT THIS AND SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE TOWN'S TRAFFIC ENGINEER, FULL ACCESS FOR TRAFFIC MUST BE RESTORED AT THE END OF EACH WORKDAY.
- 7. THE TOWN RESERVES THE RIGHT TO STOP ALL WORK BEING PERFORMED FOR LACK OF TRAFFIC CONTROL OR TRAFFIC CONTROL THAT IS NOT PER THE APPROVED TRAFFIC CONTROL PLAN.
- 8. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TEMPORARY PAVEMENT DELINEATION UNTIL THE PERMANENT PAVEMENT DELINEATION IS PLACED. ALL PERMANENT TRAFFIC STRIPING SHALL BE LAID OUT AND CAT-TRACKED. THE TOWN SHALL HAVE A MINIMUM OF TEN WORKING DAYS TO APPROVE THE STRIPING LAYOUT
- 9. TRAFFIC STRIPING SHALL BE THERMOPLASTIC WITH REFLECTOR UNLESS OTHERWISE SPECIFIED.
- 10. CONTRAST STRIPING SHALL BE PLACED ON ALL CONCRETE ROADWAY SURFACES.
- 11. PRIOR TO THE STREET OPENING AFTER HMA IS PLACED, THERE SHALL BE TEMPORARY PAINT, TAPE, OR REFLECTIVE MAKERS PLACED PER TOWN ENGINEER'S APPROVAL. CONTRACTOR TO WAIT A MINIMUM OF 5 DAYS AND A MAXIMUM OF 10 DAYS AFTER HMA IS PLACED BEFORE PERMANENT STRIPING IS PLACED.
- 12. BIKE LANE LEGENDS SHALL BE HELMETED CYCLIST WITH ARROW.
- 13. GREEN-BACKED DASHED BIKE LANES SHALL BE PLACED AT CONFLICT ZONES.
- 14. ALL MEDIAN NOSES SHALL BE PAINTED TO MATCH THE ROAD STRIPING LEADING TO THE NOSE.
- 15. TYPE Q MARKERS SHALL BE PLACED ONE FOOT (1') BACK FROM ALL MEDIAN NOSES.
- 16. MEDIAN NOSES SHALL BE SIGNED AT INTERSECTIONS AND AT THE START OF A MEDIAN CHAIN. 17. ALL TRAFFIC SIGNS (EXCLUDING TEMPORARY CONSTRUCTION SIGNS) SHALL HAVE 3M DIAMOND CUBED

RETRO-REFLECTIVE OR EQUIVALENT BASE AND 3M 1160 PROTECTIVE OVERLAY FILM OR EQUIVALENT.

SUBMITTALS 1. CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN, NO LATER THAN TWO (2) WEEKS AFTER THE AWARD OF THE PROJECT, BY THE LOS GATOS TOWN COUNCIL, FOR REVIEW AND APPROVAL BY THE TOWN'S TRAFFIC ENGINEER. THE PLAN SHALL BE PREPARED UNDER THE DIRECTION OF A LICENSED TRAFFIC ENGINEER OR CIVIL ENGINEER, WHO MUST STAMP AND SIGN THE PLAN.

MEASUREMENT AND PAYMENT

- 1. THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL" (BID ITEM 1) SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS AND FOR DOING ALL THE WORK INVOLVED INCLUDING PREPARING TYPICAL AND/OR DETAILED TRAFFIC CONTROL PLANS, PLACING, ADJUSTING AND REMOVING TEMPORARY TRAFFIC CONTROL MEASURES, SUCH AS, BUT NOT LIMITED TO, FLAGS, CONES, BARRICADES, CRASH BARRIERS, SIGNS, AND FLAGGERS (PERSONNEL DEDICATED TO CONTROLLING AND MANAGING TRAFFIC); FURNISHING, TRAFFIC CONTROL SIGNS AS REQUIRED BY THE CONTRACT DRAWINGS AND AS PART OF THE APPROVED TRAFFIC CONTROL PLAN; INCIDENTALS NECESSARY FOR WORKER, PEDESTRIAN AND TRAFFIC PROTECTION, INCLUDING FURNISHING ALL EQUIPMENT, MATERIALS, AND PERSONNEL ASSOCIATED THEREWITH; PROVIDING TRAFFIC CONTROL FOR PROJECT WORK AREAS AND DURATION OF THE PROJECT AS SPECIFIED HEREIN, AS SHOWN ON THE PLANS, AS SPECIFIED IN THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFOR.
- 2. THIS ITEM SHALL INCLUDE, BUT NOT LIMITED TO, TRAFFIC CONTROL FOR STORM DRAIN REPLACEMENT, POTHOLING, STORM BYPASS, AND PAVEMENT RESTORATION IN PROJECT WORK ZONES.

EROSION AND SEDIMENT CONTROL (BID ITEM 2)

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MANAGING EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. THE EROSION AND SEDIMENT CONTROL PLAN (ESCP) SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS IN SECTION 21-2, "EROSION CONTROL WORK," OF THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS.

SUBMITTALS

- 1. THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN (ESCP) TO THE ENGINEER FOR APPROVAL. THE ESCP SHALL ADDRESS ALL REQUIRED EROSION PREVENTION AND SEDIMENT CONTAINMENT PRACTICES ASSOCIATED WITH STORM DRAIN IMPROVEMENTS AND RELATED PROJECT ACTIVITIES. THE ESCP SHALL CONFORM TO SECTION 21 OF THE STANDARD SPECIFICATIONS, REQUIREMENTS OF THE TOWN OF LOS GATOS, AND THESE SPECIFICATIONS.
- 2. EROSION AND SEDIMENT CONTROL WORK TO BE INCLUDED IN THE ESCP SHALL INCLUDE, BUT NOT LIMITED TO: a. CLEANING OF VEHICLES BY REMOVING LOOSE SOIL FROM EQUIPMENT USING BRUSHES OR BROOMS BEFORE LEAVING THE SITE.
- b. STREET SWEEPING AS REQUIRED BY THE ENGINEER.
- c. INSTALLATION AND MAINTENANCE OF TEMPORARY INLET PROTECTION.
- d. USE OF A CONCRETE WASHOUT CONTAINMENT FACILITY. e. COVERING AND STABILIZATION OF STOCKPILES.
- f. DECONTAMINATION OF EQUIPMENT BEFORE LEAVING THE SITE.
- g. COVERING OF SOIL LOADS HAULED OFFSITE TO PREVENT SOIL TRACKING.
- h. INSTALLATION OF SILT FENCES AND MAINTEANCE THROUGHOUT THE PROJECT.
- i. INSTALLATION OF FIBER ROLLS FOR PERIMETER AND SLOPE PROTECTION.
- j. SITE DEWATERING AND PROPER DISCHARGE MANAGEMENT AS NEEDED.
- 3. NO WORK THAT MAY RESULT IN EROSION, SEDIMENT-LADEN RUNOFF, OR POLLUTANT DISCHARGE SHALL BE PERFORMED UNTIL THE ESCP IS APPROVED BY THE ENGINEER. APPROVAL BY THE ENGINEER DOES NOT WAIVE ANY CONTRACT REQUIREMENTS OR RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

MEASUREMENT AND PAYMENT

1. THE CONTRACT LUMP SUM PRICE PAID FOR "EROSION AND SEDIMENT CONTROL" (BID ITEM 2) SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, MOBILIZATION, DEWATERING, AND INCIDENTALS NECESSARY TO PREPARE, SUBMIT, REVISE, AND IMPLEMENT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, AND FOR PERFORMING ALL ASSOCIATED INSPECTIONS AND BMP MAINTENANCE, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.

UTILITY & AGENCY COORDINATION (BID ITEM 3)

- 1. THE CONTRACTOR SHALL WORK AROUND AND PROTECT ALL EXISTING IMPROVEMENTS TO REMAIN, INCLUDING BUT NOT LIMITED TO EXISTING UTILITIES, MONUMENTATION, BENCH MARKS, STORM DRAINAGE, SEWER, AND WATER FACILITIES, AND UTILITY VAULTS THAT ARE WITHIN OR ADJACENT TO THE CONSTRUCTION AREAS.
- 2. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) PRIOR TO BEGINNING ANY WORK. NOTIFICATION SHALL BE IN FULL COMPLIANCE WITH USA. AT THE CONCLUSION OF THE PROJECT, THE CONTRACTOR MUST REMOVE ALL USA MARKINGS FROM ALL PAVED AND CONCRETE SURFACES THROUGHOUT THE JOB SITE WITHOUT DAMAGING SAID SURFACES. THE METHOD OF REMOVING THE USA MARKINGS IS AT THE CONTRACTOR'S DISCRETION.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND FIELD VERIFYING THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO ALL CONSTRUCTION ACTIVITIES AND PROTECTING ALL FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT EXISTING ELECTROLIERS WHEN PLACING CONSTRUCTION SIGNS. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REMOVE AND REPLACE ANY ITEM DAMAGED OR INJURED BY HIS OPERATIONS AT HIS SOLE EXPENSE AND TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE APPROPRIATE OWNER OF THE IMPROVEMENT OR FACILITY AND THE ENGINEER OF ANY DAMAGE AS A RESULT OF HIS OPERATIONS TO EXISTING IMPROVEMENTS OR FACILITIES. IF THE

UTILITY & AGENCY COORDINATION (CONT.)

IMPROVEMENT BELONGS TO A PRIVATE RESIDENCE AND THE PROPERTY OWNER OR OCCUPANT IS NOT AT HOME, SUCH NOTIFICATION SHALL BE ATTACHED TO THE FRONT DOOR OF THE PROPERTY. ALL UNDERGROUND FACILITIES THAT ARE DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR WITHIN TWO (2) HOURS AFTER THE DAMAGE IS DONE.

MEASUREMENT AND PAYMENT

1. THE CONTRACT LUMP SUM PRICE FOR "UTILITY & AGENCY COORDINATION" (BID ITEM 3) SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS AND FOR DOING ALL THE WORK INVOLVED IN COORDINATION WITH UTILITY COMPANIES FOR ANY POTENTIAL UTILITY CONFLICTS AND MOBILIZATION, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.

POTHOLING (BID ITEM 4)

- 1. THIS ITEM IS TO PROVIDE AN ALLOWANCE FOR ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR POTHOLING UNFORESEEN UTILITY COMPANY PIPES OR DUCTS NOT CONFIRMED, SHOWN, AND/OR IDENTIFIED ON
- 2. THE CONTRACTOR SHALL POTHOLE AS NECESSARY TO VERIFY THE UTILITIES THAT MAY BE IN CONFLICT WITH PROPOSED IMPROVEMENTS.

MEASUREMENT AND PAYMENT

- 1. THE CONTRACT UNIT PRICE PAID FOR "POTHOLING" (BID ITEM 4) SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS AND FOR DOING ALL THE WORK INVOLVED IN POTHOLING COMPLETE IN PLACE, INCLUDING, BUT NOT LIMITED TO, MOBILIZATION, DEMOLITION, REMOVAL, EXCAVATION, BACKFILL, OFF HAUL, AND SURFACE RESTORATION, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.
- 2. PAYMENT FOR TRAFFIC CONTROL PLANS REQUIRED FOR WORK UNDER "POTHOLING" ARE INCLUDED IN "TRAFFIC

36" CORRUGATED HDPE DUAL-WALL (TYPE S) (BID ITEM 5)

- 1. THE CONTRACTOR SHALL FURNISH AND INSTALL BY OPEN CUT EXCAVATION ALL STORM DRAIN PIPE AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THESE SPECIFICATIONS AND AS REQUIRED TO COMPLETELY INTERCONNECT ALL UTILITY STRUCTURES WITH PIPING. HIGH DENSITY POLYETHYLENE PIPE SHALL CONFORM TO THE PROVISIONS IN SECTION 64, "PLASTIC PIPE", OF THE STANDARD SPECIFICATIONS AND THESE TECHNICAL PROVISIONS. HIGH DENSITY POLYETHYLENE PIPE (HDPE) SHALL BE FURNISHED AND INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS, AS SPECIFIED IN THESE TECHNICAL PROVISIONS, AND AS DIRECTED BY THE
- 2. ATTENTION SHALL BE GIVEN TO THE AMBIENT TEMPERATURE AND RESULTING CONTRACTION OR EXPANSION OF HDPE PIPE DURING INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR MAKING NECESSARY ADJUSTMENTS TO LENGTH OF PIPE DUE TO THE EFFECTS OF TEMPERATURE.

SUBMITTALS

1. CONTRACTOR SHALL SUBMIT MANUFACTURER'S PRODUCT DATA FOR PIPE, FITTINGS, AND PIPE CONNECTION MATERIALS FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

MATERIALS

1. PIPE MATERIAL SHALL BE AS NOTED ON THE PLANS.

b. WATER-TIGHT JOINTS PER ASTM D3212

2. HDPE TYPE S - CORRUGATED EXTERIOR AND SMOOTH INTERIOR a. PIPES 12-INCH DIAMETER AND LARGER PER AASHTO M294-97 AND ASTM D3212

3. FITTINGS SHALL BE THE SAME MATERIAL AS PIPE MOLDED OR FORMTED TO SUIT PIPE SIZES AND END DESIGN.

STRUCTURE BACKFILL SHALL COMPLY WITH THE PROVISIONS IN SECTION 19-3.02C, "STRUCTURE EXCAVATION AND BACKFILL", OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BACKFILL OPEN TRENCH (ROADWAY) IN CONFORMANCE WITH THE TOWN OF LOS GATOS STANDARD PLANS NO. SD-305 "TRENCH DETAIL" AND SD-306 "TRENCH DETAIL NOTES. "BACKFILL IN LANDSCAPING AREAS, AS SHOWN ON THE PROJECT PLANS, SHALL COMPLY WITH THE TOWN OF LOS GATOS STANDARD PLANS NO. SD-305 AND SD-306, WITH THE EXCEPTION OF NATIVE SOIL USED IN PLACE OF AGGREGATE BASE ABOVE THE "BEDDING MATERIAL."

- a. CEMENT MORTAR FOR THE SEALING OF OPENINGS FOR PIPE PENETRATIONS, SHALL CONFORM WITH THE CALIFORNIA BUILDING CODE, CHAPTER 21, STYPE S (WITHOUT LIME), WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 1,800 PSI.
- b. MORATR SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF ASTM C270, INCLUDING MEASUREMENT, MIXING, PROPORTIONING, AND WATER RETENTION. TEN PERCENT BY VOLUME OF THE CEMENT CONTENT OF THE MORATR SHALL BE FLY ASH OR POZZOLANIC MATERIAL CONFIRMING WITH ASTM C618.
- c. USE MORTAR WITHIN 90 MINUTES AFTER MIXING. DISCARD MORTAR WHICH HAS BEEN MIXED LONGER OR WHICH HAS BEGUN TO SET. RETEMPERING OF MORTAR WILL NOT BE PERMITTED.

6. HYDROPHILIC VULCANIZED EXPANSIVE RUBBER SEALANT

INSTALL DE NEEF SWELLSEAL 8 OR APPROVED EQUIVALENT AROUND THE ANNULAR SPACE WHERE THE NEW 36" CORRUGATED HDPE DUAL-WALL PIPE CONNECTS TO THE EXISTING CONCRETE MANHOLE STRUCTURE. PRODUCT SHALL BE FULLY CONFINED AND SERVE AS A WATERTIGHT SWELLING BARRIER PRIOR TO MORTAR PLACEMENT.

- DE NEEF SWELLSEAL 8 (HYDROPHILIC VULCANIZED RUBBER STRIP)
- MINIMUM EXPANSION: 500%
- MINIMUM CONCRETE/MORTAR COVER: 6" SHAPE: TYPE F (FLAT) OR TYPE R (ROUND), AS APPROPRIATE

- 1. CLEAN ALL CONTACT SURFACES (HDPE AND CONCRETE). SURFACE MAY BE DAMP OR DRY. 2. APPLY SWELLSEAL 8 USING NAILS AND/OR SWELLSEAL WA ADHESIVE AS NEEDED FOR SURFACE
- 3. BUTT ENDS ONLY NO OVERLAPS. SECURE FULL PERIMETER OF PIPE.
- 4. PROTECT FROM WATER EXPOSURE PRIOR TO PLACEMENT OF MORTAR.
- 5. ALLOW ADHESIVE TO CURE PER MANUFACTURER INSTRUCTIONS (TYPICALLY 24-36 HOURS). 6. AFTER CURING, PLACE MORTAR WITH MINIMUM 6" COVER TO FULLY CONFINE THE STRIP.

ALTERNATIVE PRODUCTS MUST MEET OR EXCEED PERFORMANCE OF SWELLSEAL 8, INCLUDING EXPANSION RATE, CHEMICAL RESISTANCE, AND CONFINEMENT REQUIREMENTS. SUBMITTALS SHALL INCLUDED MANUFACTURER DATA SHEETS FOR REVIEW.

PROTECTION OF EXISTING FACILITIES

1. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES BEFORE ANY EXCAVATION TO ENSURE THAT THE PROPOSED STORM DRAIN LAYOUT CAN BE CONSTRUCTED. MINOR ADJUSTMENTS OF MAINTENANCE HOLE LOCATIONS ARE ALLOWED BUT NEED TO BE BROUGHT TO THE TOWN'S ATTENTION IN FORM OF A RED-LINED PLAN SHEET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING UTILITIES WITHIN THE PROPOSED ALIGNMENT OF THE PROPOSED STORM

QUALITY ASSURANCE

- 1. EXERCISE SPECIAL CARE DURING THE UNLOADING, HANDLING, AND STORAGE OF ALL HDPE PIPE TO ENSURE THAT THE PIPE IS NOT CUT, GOUGED, SCORED, OR OTHERWISE DAMAGED. ANY PIPE SEGMENT, WHICH HAS CUTS IN THE PIPE WALL EXCEEDING 10 PERCENT OF THE WALL THICKNESS, SHALL BE CUT OUT AND REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE.
- 2. THE PIPE SHALL BE STORED SO THAT IT IS NOT DEFORMED AXIALLY OR CIRCUMFERENTIALLY, WHICH MAY HINDER PIPE INSTALLATION. AFTER THE UNLOADING OF ANY PIPE MATERIAL, ORDERED TO THE PROJECT SITE, AND BEFORE INSTALLATION OF THE PIPE, INSPECT ALL PIPE TO VERIFY ITS CONDITION PRIOR TO INSTALLATION WITH THE ENGINEER AND/OR THE PROJECT INSPECTOR. A PIPE CONDITION INSPECTION REPORT SHALL BE FILED

36" CORRUGATED HDPE DUAL-WALL (TYPE S) (CONT.)

WITH AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

3. ALL HDPE PIPE, WITHOUT AN ULTRAVIOLET INHIBITOR, SHALL NOT BE STORED UNPROTECTED AGAINST THE OUTSIDE ELEMENTS.

EXECUTION

- 1. THE CONTRACTOR SHALL BEGIN HIS WORK AT THE POINT OF DOWNSTREAM CONNECTION TO THE EXISTING STORM DRAIN, AND LAY PIPE UPGRADE. STORM DRAINS SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS AND SHALL CONFORM TO THE DETAILS SHOWN IN THE CONTRACT PLANS EXCEPT AS MODIFIED BY THESE SPECIFICATIONS, OR AS DIRECTED BY THE ENGINEER.
- 2. CONTRACTOR SHALL KEEP SUFFICIENT STEEL PLATES ON SITE TO COVER ALL ACTIVE EXCAVATIONS IN CASE STREET AND WORK AREA NEEDS TO BE FULLY OPENED DURING AN EMERGENCY.

3. EXCAVATION

TRENCH EXCAVATION AND BACKFILL SHALL CONFORM TO TOWN OF LOS GATOS STANDARD DETAILS, SECTION 19, "EARTHWORK," OF THE CALTRANS STANDARD SPECIFICATIONS, THESE SPECIFICATIONS, AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PROBABILITY OF ENCOUNTERING GROUND WATER DURING TRENCHING EXCAVATION. THIS WILL INCLUDE ALL WATER ENTERING THE EXISTING STORM DRAIN INLET EXCAVATION AND /OR THE TRENCH EXCAVATION FOR NEW STORM DRAIN PIPE. ANY GROUND WATER WHICH MAY BE ENCOUNTERED SHALL BE CONTROLLED AND REMOVED IN ACCORDANCE WITH THE APPROVED GROUNDWATER MANAGEMENT PLAN TO BE PREPARED BY THE CONTRACTOR.

TRENCHES OR OTHER EXCAVATIONS SHALL BE KEPT FREE FROM WATER WHILE THE PIPE OR STRUCTURES ARE BEING INSTALLED, WHILE CONCRETE IS SETTING, AND UNTIL BACKFILL HAS PROGRESSED TO A SUFFICIENT HEIGHT TO ANCHOR THE WORK AGAINST POSSIBLE FLOTATION OR LEAKAGE.

DISPOSAL OF WATER SHALL PROCEED UNDER REQUIRED PERMITS SECURED BY THE CONTRACTOR AND MEET ALL CONDITIONS IMPOSED BY ALL REGULATORY AGENCIES HAVING JURISDICTION AND SHALL NOT DAMAGE PROPERTY OR CREATE A PUBLIC NUISANCE. DEWATERING SYSTEMS SHALL NOT REMOVE NATURAL SOILS. UNLESS OTHERWISE SPECIFIED IN THESE SPECIAL PROVISIONS, OPEN EXCAVATIONS SHALL BE BACKFILLED AT

THE END OF EACH WORKING DAY OR COVERED WITH A STEEL TRENCH PLATE, 1 INCH MINIMUM IN THICKNESS. EXCAVATED MATERIAL SHALL BE REMOVED FROM THE JOB SITE AS IT IS EXCAVATED.

4. PIPE INSTALLATION

- a. LAY PIPE TO LINE AND GRADE INDICATED. BELL AND SPIGOT TYPE, LAY BELLS IN CROSS-CUTS CUT IN
- TRENCH. LAY PIPE WITH THE BELL OR GROOVED END UPHILL b. THE BOTTOM OF THE TRENCH SHALL BE GRADED AND PREPARED TO PROVIDE A FIRM AND UNIFORM BEARING THROUGHOUT THE ENTIRE LENGTH OF THE PIPE.
- c. PREVENT DIRT FROM GETTING INTO PIPE JOINTS. d. CLEAN INTERIOR OF PIPE OF CEMENT, DIRT, AND EXTRANEOUS MATTE AS THE WORK PROGRESSES.
- e. PIPE JOINTS SHALL BE MADE SECURE AND WATERTIGHT.
- EMPLOY APPROPRIATE EQUIPMENT TO DRAW THE SECTIONS OF THE PIPE TIGHTLY TOGETHER. f. CONSTRUCT AND/OR ENLARGE OPENINGS IN EXISTING DRAINAGE STRUCTURES TO ACCOMMODATE NEW AND/OR LARGER OPENINGS FOR PROPOSED PIPE CONNECTIONS, AS INDICATED. REMOVE AND PROPERLY DISPOSE OF DEBRIS AND TAILINGS FROM ANY DEMOLITION TO ENLARGE OPENINGS PRIOR TO GROUT-SEALING PIPE CONNECTIONS WITH MORTAR. ENSURE MORTAR AT INTERIOR OF JOINT IN PIPE SYSTEM IS SMOOTH AFTER APPLICATION OF MORTAR TO SEAL CONNECTIONS. REMOVE AND PROPERLY DISPOSE OF

PIPING SHALL NOT BE COVERED WITH BACKFILL MATERIAL, UNTIL INSPECTED, AND APPROVED BY THE

DEBRIS AND TAILINGS FROM OPERATIONS TO SMOOTH MORTAR.

AFTER MAKING UP PIPE JOINTS, FILL SPACE BETWEEN PIPE AND SIDES OF TRENCH WITH BACKFILL MATERIAL HALF-WAY UP THE PIPE. BOTH SIDES SHALL BE FILLED FOR FULL WIDTH OF TRENCH AT SAME TIME AND CAREFULLY COMPACTED SO AS TO HOLD THE PIPE IN ITS PROPER POSITION.

AFTER PIPE HAS BEEN INSTALLED, INSPECTED, AND APPROVED, PLACE AND COMPACT BACKFILL AS SPECIFIED PER LOS GATOS STANDARD DETAILS SD-305 AND SD-306. WHEN CLSM BACKFILL IS TO BE PLACED THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS SO AS

TO NOT "FLOAT" THE PIPE WHILE PLACING CLSM BACKFILL IN THE TRENCH

MEASUREMENT AND PAYMENT 1. THE CONTRACT PRICE PAID PER LINEAR FOOT FOR "REMOVE & REPLACE (E) 36" CMP WITH (N) 36" CORRUGATED HDPE DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS REQUIRED TO INSTALL THE PIPE, COMPLETE IN PLACE, INCLUDING SAW CUTTING; EXCAVATION; REMOVAL AND DISPOSAL OF EXISTING PIPE AND EXCAVATED MATERIAL; AGGREGATE BASE; BACKFILL VOIDS WITHIN TRENCH LIMITS; PIPE BEDDING; COUPLINGS; FITTINGS; CONNECTIONS TO STRUCTURES; TEMPORARY SUPPORT; SURFACE AND CONCRETE RESTORATION; DEWATERING, SHORING, AND BYPASS PLANS; AS SHOWN ON THE PLANS, AS SPECIFIED IN THE

2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER. CLSM BACKFILL OUTSIDE TRENCH LIMITS (BID ITEM 6)

- GENERAL 1. ANY VOIDS ENCOUNTERED DURING CONSTRUCTION OUTSIDE OF THE STORM DRAIN TRENCH LIMITS FOR THE WORK DONE SHALL BE PAID FOR IN THIS BID ITEM. BACKFILL VOIDS OUTSIDE OF TRENCH LIMITS WITH CLSM
- 2. CONTROLLED LOW STRENGTH MATERIALS (CLSM) SHALL CONFORM TO THE REQUIREMENTS OF SECTION 19-3, "STRUCTURE EXCAVATION AND BACKFILL," OF THE 2024 CALTRANS STANDARD SPECIFICATIONS.

MEASUREMENT AND PAYMENT 1. THE CONTRACT PRICE PAID PER CUBIC YARD FOR "CLSM BACKFILL OUTSIDE TRENCH LIMITS" SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, MOBILIZATION AND INCIDENTALS REQUIRED TO BACKFILL VOIDS OUTSIDE OF THE STORM DRAIN TRENCH LIMITS, COMPLETE IN PLACE, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.

COLD PLANE - 2" (BID ITEM 7)

1. COLD PLANING SHALL INCLUDE ALL WORK NECESSARY TO REMOVE EXISTING ASPHALT AND/OR CONCRETE PAVEMENT TO A PREDETERMINED DEPTH AS INDICATED ON THE DRAWINGS. THE WORK INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF THE EXISTING PAVEMENT ADJACENT TO OR ON TOP OF GUTTERS, CROSS GUTTERS, ENDS OF OVERLAYS, EQUIPMENT CROSSINGS, RAILROAD CROSSINGS, AND BRIDGE APPROACHES.

2. EXISTING PAVEMENT SURFACE ON ROADWAYS TO BE MILLED PRIOR TO PAVEMENT INLAY SHALL BE COLD PLANED AS SPECIFIED HEREIN.

EQUIPMENT 1. THE MACHINE USED FOR PLANING SHALL HAVE PERFORMED SATISFACTORILY ON SIMILAR WORK AND SHALL MEET THE FOLLOWING REQUIREMENTS:

THE PLANING MACHINE SHALL BE SPECIFICALLY DESIGNED AND BUILT FOR THE PLANING OF BITUMINOUS PAVEMENTS WITHOUT THE ADDITION OF HEAT. IT SHALL HAVE THE ABILITY TO PLANE PORTLAND CEMENT CONCRETE PATCHES IN THE BITUMINOUS PAVEMENT, OR PORTLAND CEMENT CONCRETE PAVEMENTS. THE CUTTING DRUM SHALL BE A MINIMUM OF 48 INCHES WIDE AND SHALL BE EQUIPPED WITH CARBIDE TIPPED PLACED IN A VARIABLE LACING PATTERN TO PRODUCE THE DESIRED FINISH.

THE MACHINE SHALL BE CAPABLE OF BEING OPERATED AT SPEEDS OF ZERO TO FORTY FEET PER MINUTE, IT SHALL BE SELF—PROPELLED, AND HAVE THE CAPABILITY OF SPRAYING WATER AT THE CUTTING DRUM TO MINIMIZE DUST. THE MACHINE SHALL BE OPERATED IN SUCH A WAY SO THAT NO FUMES OR SMOKE WILL BE PRODUCED. THE MACHINE SHALL BE CAPABLE OF REMOVING THE PAVING MATERIAL NEXT TO CURBS OR GUTTERS AND BE DESIGNED SUCH THAT THE OPERATOR THEREOF CAN AT ALL TIMES OBSERVE THE PLANING OPERATION WITHOUT LEAVING THE CONTROLS. THE MACHINE SHALL BE ADJUSTABLE FOR SLOPE AND DEPTH AND SHALL BE EQUIPPED WITH SONIC SENSING DEVICES FOR CONTROLLING DEPTH.



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CONSTRUCTION

- 1. LIMITS OF COLD PLANING WILL BE MARKED IN THE FIELD BY THE ENGINEER PRIOR TO CONSTRUCTION. THE DEPTHS AND DIMENSIONS OF THE COLD PLANING ARE DESIGNATED ON THE PLANS.
- 2. COLD PLANING MAY REQUIRE REMOVAL OF EXISTING ASPHALT CONCRETE ABOVE GUTTER LIPS, IN ADDITION TO THE REQUIRED DEPTH BELOW THE GUTTER LIP, DUE TO PRIOR OVERLAYS.
- 3. PAVEMENT TO BE COLD PLANED MAY CONTAIN PAVEMENT FABRIC.
- 4. COLD PLANING OPERATION WILL NOT COMMENCE UNTIL A SWEEPER IS ON SITE.

LOWERING UTILITY COVERS

1. PRIOR TO COLD PLANING ON STREETS TO HAVE A UNIFORM DEPTH OF THE EXISTING SURFACE REMOVED, ALL UTILITY COVERS SHALL BE LOWERED SUCH THAT THE CUTTING TEETH OF THE PLANING MACHINE PASS OVER THE ADJUSTED LID WITHOUT CAUSING DAMAGE TO THE LID OR FRAME. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ANY TEMPORARY ASPHALT FILL MATERIAL OVER THESE FACILITIES UNTIL THE FINAL PAVING SURFACE IS INSTALLED. THE CONTRACTOR SHALL CLEARLY MARK OR REFERENCE LOWERED SANITARY SEWER AND WATER VALVES IN CASE EMERGENCY ACCESS IS REQUIRED BY THE AGENCY RESPONSIBLE FOR OPERATION OF THE SEWER AND WATER SYSTEM.

PAVEMENT REMOVAL

1. ALL PAVEMENT AREAS CALLED OUT FOR REMOVAL AND REPLACEMENT SHALL BE COLD PLANED TO THE DIMENSIONS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. PAVEMENT AGAINST CURB FACES SHALL BE REMOVED TO THE FULL DEPTH DESIGNATED FOR THAT PARTICULAR SECTION OF ROADWAY. IF PAVEMENT AGAINST CURB FACES CANNOT BE REMOVED BY THE PLANING MACHINE, THE CONTRACTOR SHALL USE OTHER MEANS TO REMOVE THIS MATERIAL.

SCHEDULE

- 1. THE CONTRACTOR SHALL SCHEDULE THE WORK SUCH THAT THE LEVELING COURSE, BASE COURSE, AND INTERMEDIATE COURSE PAVING IS COMPLETED THE SAME DAY AS THE COLD PLANING. MILLED PAVEMENT SURFACE SHALL NOT BE OPENED TO TRAFFIC AND ALL TRAFFIC LANES SHALL BE OPEN FOR TRAFFIC OUTSIDE THE APPROVED WORKING HOURS, UNLESS AUTHORIZED OTHERWISE IN WRITING BY THE ENGINEER.
- 2. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL SUBJECT THE CONTRACTOR TO \$1,500 PER STREET PER CALENDAR DAY IN LIQUIDATED DAMAGES. MULTIPLE OCCURRENCES OF LIQUIDATED DAMAGES PER CALENDAR DAY ARE NOT RESTRICTED.

TEMPORARY STRIPING

1. STREETS TO BE MILLED SHALL BE TEMPORARILY STRIPED AFTER COMPLETION OF COLD PLANING PRIOR TO PAVEMENT RESURFACING WORK. TEMPORARY STRIPING SHALL CONSIST OF TEMPORARY TAB MARKERS AND REFLECTIVE TRAFFIC STRIPING TAPE BY 3M (OR EQUAL) AND SHALL BE CONTINUOUSLY MAINTAINED BY THE CONTRACTOR UNTIL RESURFACING WORK IS PERFORMED. TEMPORARY STRIPING WILL BE PLACED TO DELINEATE LANE LINES, CENTER LINES, CROSSWALKS, AND OTHER TRAFFIC STRIPING LEGENDS.

TOLERANCES

1. THE PAVEMENT SURFACE AFTER COLD PLANING SHALL BE UNIFORMLY ROUGH. THE GRADE SHALL NOT DEVIATE FROM A SUITABLE STRAIGHT EDGE MORE THAN 1/4 INCH AT ANY POINT. WHEN MULTIPLE PASSES ARE REQUIRED TO CREATE THE COLD PLANED SURFACE, THE MAXIMUM VARIATION FROM A STRINGLINE OR STRAIGHT EDGE SHALL BE 1/4 INCH HIGH TO 1/2 INCH LOW. HIGH POINTS OUT OF TOLERANCE SHALL BE REPLANED TO FALL WITHIN TOLERANCE. LOW AREAS SHALL BE FILLED WITH ASPHALT CONCRETE AS SPECIFIED HEREIN TO MEET TOLERANCES. THE COST OF SUCH CORRECTION OF LOW AREAS SHALL BE ENTIRELY HEREIN TO MEET TOLERANCES. THE COST OF SUCH CORRECTION OF LOW AREAS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.

REMOVAL AND DISPOSAL OF MATERIAL

- 1. DURING THE COLD PLANING OPERATION, THE CONTRACTOR SHALL SWEEP THE ROADWAY WITH MECHANICAL EQUIPMENT AND REMOVE ALL LOOSENED MATERIAL FROM THE PROJECT SITE UNTIL COMPLETION OF THE REMOVAL WORK.
- 2. ALL MATERIAL REMOVED SHALL BE CONSIDERED THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S SOLE EXPENSE.
- 3. IN ADDITION TO REMOVING THE COLD PLANED ASPHALT CONCRETE, THE CONTRACTOR SHALL REMOVE ANY ASPHALT CONCRETE WHICH IS ADHERED TO THE TOP OF THE ADJACENT GUTTER, CROSS GUTTER, OR APRON.

TEMPORARY TRANSITIONS

1. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT TRANSITIONS PRIOR TO ALLOWING TRAFFIC ONTO COLD PLANED PAVEMENT AREAS. SUCH TRANSITIONS SHALL HAVE A MAXIMUM SLOPE OF 20:1 AND BE CONSTRUCTED ON KRAFT PAPER OR OTHER SUITABLE BOND BREAKER SUCH THAT UPON REMOVAL OF THE TRANSITION A CLEAN NOTCH REMAINS. TEMPORARY TRANSITIONS ARE REQUIRED ALONG ALL PLANED EDGES AT EXISTING OR NEW HANDICAP ACCESS RAMPS. TEMPORARY TRANSITIONS SHALL ALSO BE PROVIDED ALONG ALL PLANED EDGES WITH A DROP OFF GREATER THAN 2 INCHES IN DEPTH AT ALL PAVING CONFORMS, CROSS GUTTERS, AND COMMERCIAL AND RESIDENTIAL DRIVEWAYS.

CORRECTION OF TEAR OUT AREAS

- 1. IF TEAR-OUT TO THE REMAINING, UNDERLYING LAYERS OCCURS DURING THE COLD PLANING OPERATION, THE CONTRACTOR SHALL ADJUST HIS OPERATION TO MINIMIZE TEAR—OUT. CORRECTIONS SHALL INCLUDE CHANGING OPERATION SPEED AND REPLACING CUTTING TEETH. CHANGES IN COLD PLANING DEPTH SHALL ONLY BE MADE WITH APPROVAL OF THE ENGINEER.
- 2. AREAS TORN OUT BY LACK OF DILIGENCE ON THE CONTRACTOR'S PART SHALL BE CORRECTED BY PLACEMENT OF ASPHALT CONCRETE CONFORMING TO THE REQUIREMENTS OF THESE TECHNICAL PROVISIONS. AREAS TORN OUT DUE TO PRE-EXISTING ADHESION PROBLEMS IN THE EXISTING ASPHALT CONCRETE SHALL BE CORRECTED AT THE TOWN'S EXPENSE AS DIRECTED BY THE ENGINEER.

MEASUREMENT AND PAYMENT

1. THE CONTRACT PRICE PAID PER SQUARE FOOT (SF) FOR "COLD PLANE - 2" (BID ITEM 6) SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND FOR DOING ALL THE WORK INVOLVED IN COLD PLANING, COMPLETE IN PLACE, INCLUDING MOBILIZATION, COLD PLANING, REMOVAL, OFF HAUL, AND DISPOSAL OF EXISTING ASPHALT CONCRETE ABOVE THE LIP OF GUTTER TO THE DEPTHS REQUIRED, RESTORING ALL EXISTING STRIPING AND PAVEMENT MARKINGS AFFECTED BY STORM DRAIN REPLACEMENT, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.

HMA (TYPE A) PG-64-10 (BID ITEM 8)

GENERAL

- 1. THIS WORK INCLUDES PRODUCING AND PLACING HOT MIX ASPHALT (HMA) SURFACE COURSE USING MODIFIED STANDARD PROCESS AND PLACING MINOR HOT MIX ASPHALT USING THE METHOD PROCESS AS INDICATED HEREIN.
- 2. COMPLY WITH SECTION 39, "HOT MIX ASPHALT," OF THE STATE STANDARD SPECIFICATIONS (NON-REVISED EDITION) EXCEPT AS MODIFIED IN THESE SPECIAL PROVISIONS.
- 3. HMA ASSOCIATED WITH SURFACE RESTORATION OF TRENCHING AND EXCAVATIONS FOR STORM DRAIN MAIN IS NOT INCLUDED IN THIS BID ITEM. SAID RESTORATION SHALL BE CONSIDERED INCIDENTAL TO THE PIPELINES, STRUCTURES, AND OTHER FACILITIES UNLESS SPECIFICALLY STATED OTHERWISE IN THE BID SCHEDULE.

SUBMITTALS

- 1. SUBMIT JMF INFORMATION ON FORM CEM-3511 AND FORM CEM-3512. SUBMIT FORM CEM-3513 OR CEM-3514 FOR MIXES THAT HAVE BEEN VERIFIED WITHIN LAST 12 MONTHS. PROVIDE MOST RECENT CEM-3513 IF MIX HAS NOT BEEN VERIFIED WITHIN THE LAST 12 MONTHS. FOR UNVERIFIED MIXES OR OUT-OF-DATE MIX TESTS, FINAL ACCEPTANCE WILL BE BASED ON PRODUCTION STARTUP TESTS AND CONTRACTOR WILL BE PAVING AT THEIR OWN RISK.
- 2. SUBMIT QUALITY CONTROL PLAN THAT CONFORMS TO THE CURRENT CALTRANS QUALITY CONTROL PLAN REVIEW CHECKLIST FOR HOT MIX ASPHALT. ALLOW 20 CALENDAR DAYS FOR REVIEW.

MATERIALS 1. ASPHALT BINDER

THE GRADE OF ASPHALT BINDER MIXED WITH AGGREGATE FOR HMA TYPE A MUST BE PG 64-16.

2. AGGREGATE

- GENERALLY, THE HOT MIX ASPHALT TO BE USED WILL BE AS FOLLOWS UNLESS MODIFIED BY THE ENGINEER: a. BASE COURSES: 3/4" TYPE A, HOT MIX ASPHALT
- b. INTERMEDIATE COURSE: 1/2" TYPE A, HOT MIX ASPHALT
- c. SURFACE COURSES: 1/2" TYPE A, HOT MIX ASPHALT

HMA (TYPE A) PG-64-10 (CONT.)

- 3. MIX VOIDS SHALL BE TARGETED AT 3.5%.
- 4. THE ALLOWABLE PRODUCTION RANGE FOR MIX VOIDS SHALL BE 2.0% TO 5.0%.
- 5. THE MIX SHALL INCLUDE 0.5% OF LIQUID ANTI-STRIP. NO WARM MIX ADDITIVE SHALL BE ALLOWED.

CONSTRUCTION 1. SURFACE PREPARATION

- THE WORK SHALL CONSIST OF PREPARING THE EXISTING STREET SURFACES PRIOR TO THE COMMENCEMENT OF PAVING. SUCH WORK SHALL INCLUDE REMOVING RAISED PAVEMENT MARKERS REMOVING THERMOPLASTIC TRAFFIC MARKINGS AND LEGENDS, CONTROLLING NUISANCE WATER, SWEEPING, WATERING, AND REMOVING LOOSE AND BROKEN PAVEMENT AND FOREIGN MATERIAL AS SPECIFIED IN THE STATE STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.
- ALL VERTICAL EDGES TO BE PAVED SHALL BE TACK COATED. THESE INCLUDE, BUT ARE NOT LIMITED TO, CURB FACES, GUTTER LIPS, SWALE EDGES, CROSS GUTTER EDGES, AND PAVEMENT EDGES.
- TACK COAT SHALL BE UTILIZED AND SHALL BE EITHER EMULSIFIED ASPHALT GRADE RS-1, RS-1H, SS-1, OR SS-1H CONFORMING TO SECTION 94, "ASPHALTIC EMULSIONS," OR PAVING GRADE ASPHALT CONFORMING TO SECTION 92, "ASPHALTS BINDER."
- ALL COLD JOINTS, BOTH LONGITUDINAL AND TRANSVERSE, SHALL BE HEATED WITH A TORCH IMMEDIATELY PRIOR TO PAVING. COLD JOINTS INCLUDE PREVIOUS PASSES PLACED MORE THAN THREE HOURS PRIOR. ALL COLD JOINTS SHALL BE TACK COATED. ROLLING SHALL BE PERFORMED AS INDICATED IN THE REFERENCED CALTRANS SPECIFICATIONS. THE ROLLER WATER SHALL CONTAIN A SOAP TYPE COMPOUND TO PREVENT STICKING OF THE HMA MATERIAL TO THE ROLLERS.
- 2. LEVELING, TRANSITIONS, AND HOT MIX ASPHALT FILLS A LEVELING COURSE OF VARIABLE THICKNESS SHALL BE PLACED AND COMPACTED PRIOR TO PLACING THE SURFACE COURSE AT LOCATIONS WHERE DIRECTED BY THE ENGINEER. THE LEVELING COURSE WILL BE USED TO CORRECT PAVEMENT IRREGULARITIES SUCH AS RUTTING, VARIABLE CROSS SLOPE, OR VARIABLE LONGITUDINAL SLOPE. WHERE TWO OVERLAYS OF DIFFERENT THICKNESS ABUT AT A LONGITUDINAL JOINT, THE CONTRACTOR SHALL ADD TO THE THINNER SECTION TO MATCH THE THICKER LIFT AND PROVIDE A SMOOTH TRANSITION AND UNIFORM CROSS-FALL. COLD PLANING RIDGES OR OTHER RISES IN

THE PAVEMENT SURFACE MAY BE REQUIRED BY THE ENGINEER. THE ENGINEER WILL DETERMINE THE

EXACT LIMITS AND THICKNESS OF THE LEVELING COURSES, HOT MIX ASPHALT FILLS, AND TRANSITIONS.

- THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT TRANSITIONS AT ALL TRANSVERSE PAVING JOINTS GREATER THAN 1 INCH PRIOR TO ALLOWING TRAFFIC ONTO THE PAVED SURFACE. TEMPORARY PAVEMENT TRANSITIONS SHALL HAVE A MAXIMUM SLOPE OF 20:1 OR AS APPROVED BY THE ENGINEER AND BE CONSTRUCTED ON KRAFT PAPER OR OTHER SUITABLE BOND BREAKER SUCH THAT UPON REMOVAL OF THE TEMPORARY PAVEMENT TRANSITION, A CLEAN NOTCH REMAINS. THE TEMPORARY TRANSITIONS MAY BE CONSTRUCTED OF EITHER COLD MIX OR HOT MIX. TEMPORARY TRANSITION SHALL BE REQUIRED AT DRIVEWAYS WHERE DROP OFF IS MORE THAN 1 INCH.
- THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN THE TEMPORARY PAVEMENT UNTIL FINAL PAVING. EACH TEMPORARY TRANSITION SHALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED AS NECESSARY TO COMPLY WITH THESE PROVISIONS AT THE END OF EACH DAY INCLUDING WEEKENDS

FAILURE TO COMPLY WITH THESE PROVISIONS WILL RESULT IN A LIQUIDATED DAMAGE OF \$250 PER DAY PER TRANSITION AND/OR THE COST OF TOWN CREWS MAKING THE REPAIRS IF NECESSARY TO CORRECT FOR PUBLIC SAFETY.

3. LAYOUT

- THE CONTRACTOR SHALL LAYOUT AND MARK THE LOCATION OF THE EDGES OF THE PAVING PASSES OF THE SURFACE COURSE TO MATCH THE NEW LAYOUT OF THE LANE LINES. THE LAYOUT SHALL BE MADE AT LEAST 24 HOURS PRIOR TO PAVING. THE LAYOUT SHALL BE APPROVED BY THE ENGINEER PRIOR TO PAVING.
- IF THE STRIPING IS TO REMAIN UNCHANGED, THE EDGES OF THE PAVING PASSES SHALL CONFORM TO EXISTING LANE EDGES.
- IN ALL CASES WHERE PRACTICAL, EACH LANE SHALL BE PAVED IN A SINGLE PASS. IN TAPERED TRANSITION AREAS, THE SHOULDER AREAS SHALL BE PAVED FIRST, THEN THE THROUGH LANE SHALL BE PAVED IMMEDIATELY AFTER THE SHOULDER PAVING.
- FOR PAVING WHICH INCORPORATES NEW QUARTERPOINTS OR GRADEBREAKS DUE TO KEYCUTS OR OTHER CONDITIONS, THE CONTRACTOR SHALL PROVIDE EQUIPMENT CAPABLE OF ADJUSTING TO THE NEW SURFACE PROFILE AT THE APPROPRIATE LOCATIONS. THE PROFILE ADJUSTMENTS SHALL BE WITHIN TWELVE INCHES OF THE ACTUAL GRADEBREAK OR QUARTERPOINT.
- THE CONTRACTOR SHALL TAKE SUFFICIENT MEASUREMENTS DURING LAYDOWN TO ENSURE THAT THE FULL DESIGN HOT MIX ASPHALT LAYER DEPTH IS PROVIDED AT EACH QUARTERPOINT, GRADEBREAK, OR TRANSITION. FAILURE TO PROVIDE THE DESIGN DEPTH AT THESE AREAS WILL RESULT IN REJECTION OF THE WORK. CORRECTION OF THIS REJECTED WORK WILL INCLUDE MILLING OUT THE NEW HOT MIX ASPHALT FROM THE ROAD EDGE TO THE CENTERLINE OR NEAREST INSIDE LANE LINE AND REPAVING. THE MINIMUM LENGTH OF THE MILLED AND CORRECTED AREA SHALL BE FIFTY FEET.

4. TOLERANCES

- THE FINISHED HOT MIX ASPHALT SURFACE SHALL BE FLUSH WITH, TO 1/4 INCH (0.20 FEET OR 6 MM) ABOVE, THE GUTTER LIPS. THE FINISHED PAVEMENT SURFACE SHALL NOT BE LOWER THAN THE GUTTER LIPS.
- THE AVERAGE PAVEMENT THICKNESS SHALL BE EQUAL TO THE SPECIFIED THICKNESS FOR THE PROJECT.
- FOR TOTAL PAVEMENT THICKNESSES OF LESS THAN FOUR INCHES, THE MINIMUM ALLOWABLE THICKNESS WILL BE 1/4 INCH LESS THAN THAT SPECIFIED.

5. COMPACTING

- THE NUMBER OF ROLLERS REQUIRED FOR EACH PAVING OPERATION SHALL BE SUCH THAT ALL ROLLING FOR DENSITY CAN BE COMPLETED BEFORE THE TEMPERATURE OF THE HOT MIX ASPHALT MIXTURE DROPS BELOW 240 DEGREES FAHRENHEIT.
- BREAKDOWN ROLLING SHALL COMMENCE WHEN THE HOT MIX ASPHALT IS PLACED. ROLLING SHALL BE ACCOMPLISHED WITH THE DRIVE WHEEL FORWARD AND WITH THE ADVANCE AND RETURN PASSES IN THE SAME LINE.
- THE CONTRACTOR SHALL HAVE HAND-COMPACTION EQUIPMENT IMMEDIATELY AVAILABLE FOR COMPACTING ALL AREAS INACCESSIBLE TO ROLLERS. HAND-COMPACTION SHALL BE PERFORMED CONCURRENTLY WITH BREAKDOWN ROLLING, IF FOR ANY REASON HAND-COMPACTION FALLS BEHIND BREAKDOWN ROLLING, FURTHER PLACEMENT OF HOT MIX ASPHALT SHALL BE SUSPENDED UNTIL HAND-COMPACTION IS CAUGHT UP. HAND-COMPACTION INCLUDES VIBRAPLATES AND HAND TAMPERS. HAND TORCHES SHALL BE AVAILABLE FOR REWORK OF AREAS WHICH HAVE COOLED. AFTER COMPACTION, THE SURFACE TEXTURE OF ALL HAND WORK AREAS SHALL MATCH THE SURFACE TEXTURE OF THE MACHINE PLACED MAT. ANY COARSE OR SEGREGATED AREAS SHALL BE CORRECTED IMMEDIATELY UPON DISCOVERY. FAILURE TO IMMEDIATELY ADDRESS THESE AREAS SHALL CAUSE SUSPENSION OF HOT MIX ASPHALT PLACEMENT UNTIL THE AREAS ARE SATISFACTORILY ADDRESSED, UNLESS OTHERWISE ALLOWED BY THE ENGINEER.

6. CONTRACTOR QUALITY CONTROL

- JOB MIX FORMULA (JMF) FOR ALL HOT MIX ASPHALT (HMA) TO BE USED (EXCEPT FOR MISCELLANEOUS AREAS AND DIKES) SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL. THE JMF TESTING DATA DOCUMENTS DEVELOPED BY THE MIX DESIGN LABORATORY SHALL BE SUBMITTED ON CALTRANS FORM CEM-3511 AND CEM-3512 AND DATED WITHIN 12 MONTHS OF PLANNED PAVEMENT WORK. CONTRACTOR SHALL SAMPLE AND TEST THE HOT MIX ASPHALT IN ACCORDANCE WITH CALTRANS CONSTRUCTION MANUAL, CHAPTER 4 'CONSTRUCTION DETAILS' 4-3903D(5) 'SAMPLING AND TESTING HOT MIX ASPHALT.' CONTRACTOR SHALL OBTAIN SPLIT SAMPLES OF HMA FROM THE MAT BEHIND THE PAVER OR OTHER LOCATION APPROVED BY THE INSPECTOR.
- HOT MIX ASPHALT WHICH HAS BEEN IMPROPERLY PREPARED. DOES NOT MATCH THE APPROVED MIX DESIGN AS REQUIRED BY THE SPECIFICATIONS, OR HAS FAILED FOR ANY OTHER REASON PRIOR TO FINAL ACCEPTANCE SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S SOLE EXPENSE TO THE SATISFACTION OF THE TOWN ENGINEER. HOT MIX ASPHALT DEPOSITED ON OTHER THAN ASPHALT CONCRETE SURFACES SHALL BE CLEANED TO THE SATISFACTION OF THE TOWN.
- THE ENGINEER MAY TEST FOR CONFORMANCE WITH AGGREGATE QUALITY CHARACTERISTICS AT THE BEGINNING OF THE PROJECT.

HMA (TYPE A) PG-64-10 (CONT.)

THE ENGINEER MAY SAMPLE THE HOT MIX ASPHALT FROM TRUCK BEDS AT THE PLANT, FROM THE HOPPER OF TE PAVING MACHINE, OR FROM THE MAT BEHIND THE PAVER AT THE DISCRETION OF THE ENGINEER. THE CONTRACTOR SHALL FACILITATE THE SAMPLING PROCESS.

7. ENGINEER'S ACCEPTANCE

- THE IN-PLACE DENSITY SHALL BE BETWEEN 92.0 PERCENT AND 97.0 PERCENT OF MAXIMUM THEORETICAL UNIT WEIGHT USING A NUCLEAR GAUGE. GAUGE COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH CTM 375. FINAL COMPACTION IS BASED ON THE AVERAGE NUCLEAR GAUGE RESULTS FOR THE SUBLOT. THE NUCLEAR GAUGE WILL BE CORE CORRELATED THE FIRST DAY OF PAVING.
- IF NUCLEAR GAUGE COMPACTION TESTING RESULTS ARE FAILING, THE CONTRACTOR CAN REQUEST CORING TO VERIFY THE RESULTS. THE CORE LOCATIONS WILL BE DETERMINED USING RANDOM SAMPLING CHARTS IN CTM 375. THE ENGINEER WILL MARK THE CORE LOCATIONS.
- CORES MAY BE TAKEN UP TO 5 CALENDAR DAYS AFTER PLACEMENT AND MAY BE 4 OR 6 INCHES IN DIAMETER. THE ENGINEER WILL PROVIDE RESULTS WITHIN 3 WORKING DAYS OF RECEIVING THE CORES.
- PASSING CORES SHALL BE PAID FOR BY THE OWNER. FAILING CORES WILL BE PAID FOR BY THE CONTRACTOR. IF THE CORE TESTING PRODUCES BOTH PASSING AND FAILING CORES, THE COST WILL BE PRORATED BETWEEN THE CONTRACTOR AND THE OWNER.

MEASUREMENT & PAYMENT

1. THE CONTRACT PRICE PAID PER TONS FOR "HMA (TYPE A) PG-64-10" (BID ITEM 7) SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND FOR DOING ALL THE WORK INVOLVED IN HOT MIX ASPHALT (HMA), COMPLETE IN PLACE, INCLUDING MOBILIZATION; SURFACE PREPARATION; TACK GOAT; FURNISHING, PLACING AND COMPACTING HMA; CONSTRUCTING AND REMOVING TEMPORARY TRANSITIONS; JMF PREPARATION, TESTING AND PRODUCTION COST FOR VERIFICATION AND QUALITY CONTROL TESTING: CONTRACTOR'S QUALITY CONTROL PLAN: AND COSTS OF CORING TO VERIFY DENSITY BY CORES, IF REQUESTED; AND CLEANUP, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.

STREET SECTION AND SIDEWALK CONSTRUCTION

GENERAL

- 1. AREAS TO BE DEVELOPED SHALL BE CLEARED OF VEGETATION, TREES, TREE ROOTS, DEBRIS AND ANY REMNANTS OF FOUNDATIONS OR ABANDONED UTILITIES. THE AREA SHALL BE STRIPPED OF THE UPPER SOILS CONTAINING ORGANIC MATTER. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF ACCORDING TO THE GUIDELINES OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA).
- 2. ALL CLASS II AGGREGATE BASE SHALL BE SAMPLED AND TESTED FOR SIEVE ANALYSIS, R-VALUE, SAND EQUIVALENT AND MAXIMUM DENSITY WITHIN 10 DAYS OF SUBMITTING THE SUBMITTAL TO THE TOWN ENGINEER FOR APPROVAL. THE TOWN SHALL RECEIVE THE SUBMITTAL A MINIMUM OF FIVE WORKING DAYS PRIOR TO SCHEDULED USE.
- 3. JOB MIX FORMULA (JMF) FOR ALL HOT MIX ASPHALT (HMA) TO BE USED (EXCEPT FOR MISCELLANEOUS AREAS AND DIKES) SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL. THE JMF DOCUMENTS THE TESTING DATA DEVELOPED BY THE MIX DESIGN LABORATORY AND SHALL BE SUBMITTED ON CALTRANS FORM CEM-3152 AND DATED WITHIN 12 MONTHS OF PLANNED PAVEMENT WORK. HOT MIX ASPHALT SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH CALTRANS CONSTRUCTION MANUAL, CHAPTER 4 CONSTRUCTION DETAILS' 4-3930D (5) 'SAMPLING AND TESTING HOT MIX ASPHALT'. OBTAIN SPLIT SAMPLES OF HMA FROM THE MAT BEHIND THE PAVER OR OTHER LOCATION APPROVED BY THE INSPECTOR.
- 4. ALL TRENCH BACKFILL SHALL BE TESTED PER ASTM D1557 FOR COMPACTION. IF THE TRENCH BACKFILL IS MORE THAN 12-INCHES DEEP, COMPACTION TESTING SHALL BE COMPLETED AS EACH LIFT OF FILL IS PLACED AND COMPACTED. EACH LIFT OF MATERIAL SHALL NOT EXCEED 12-INCHES IN DEPTH. PRIOR TO PAVING, ALL TRENCHES SHALL BE TESTED, AND ALL TEST RESULTS SHALL BE SUBMITTED TO THE TOWN. ALL TEST RESULTS, BOTH PASSING AND FAILING SHALL BE SHOWN AND PROVIDED TO THE TOWN. THE TOWN RESERVES THE RIGHT TO REQUEST ADDITIONAL FIELD TESTING TO BE PERFORMED.
- 5. THE SUBGRADE SHALL BE SCARIFIED, PROCESSED AND COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION PER ASTM D1557/ASTM D6938. AND SHALL BE FIRM AND UNYIELDING. PROOF-ROLLING OF THE FINISHED SUBGRADE SHALL BE PERFORMED BY THE CONTRACTOR USING A FULLY LOADED 3—AXLE WATER TRUCK AND REVIEWED AND APPROVED BY THE TOWN INSPECTOR PRIOR TO PLACEMENT OF ADDITIONAL MATERIALS. PROOF-ROLLING SHALL BE OBSERVED BY THE CONTRACTOR'S LICENSED GEOTECHNICAL ENGINEER AND THE TOWN INSPECTOR. THE CONTRACTOR'S LICENSED GEOTECHNICAL ENGINEER SHALL PROVIDE IN WRITING AN APPROPRIATE METHOD TO STABILIZE THE AREAS OF DEFLECTION. ALL COMPACTIONS SHALL BE TESTED WITH A NUCLEAR GAGE.
- DISTANCE BEYOND ANY CUT TO ENSURE A SMOOTH TRANSITION AND SHALL CONSIST OF A FULL 2-INCH-DEEP FOR THE ENTIRE AREA AND A 2-INCH ASPHALT CONCRETE OVERLAY. STREET RESURFACING WILL BE REQUIRED FOR ALL CUTS RESULTING FROM IMPROVEMENTS THAT INCLUDE BUT ARE NOT LIMITED TO PAVEMENT WIDENING, CURB AND GUTTER, STORM DRAIN, WATER, SEWER, SIGNAL, LIGHTING, AND OTHER UTILITIES FOR THE PROJECT. THE LIMITS OF THE OVERLAY MAY BE EXTENDED BEYOND THE PROJECT FRONTAGE OF THE PARCEL AND/OR 10 FEET ON EITHER SIDE OF THE TRENCH TO COVER ALL THE UTILITY TRENCH CUTS AT THE DISCRETION OF THE TOWN AFTER ALL UNDERGROUND INFRASTRUCTURE HAS BEEN INSTALLED.
- 9, ALL NEW CONCRETE SHALL BE DOWELED TO EXISTING CONCRETE; MINIMUM 18-INCHES SPACING ON SIDEWALK AND 24-INCHES SPACING ON CURB AND GUTTER; WITH #4 REBAR EMBEDDED 6- INCHES DEEP. IF CONCRETE IS PLACED IN SECTIONS OR PHASES, THE NEW CONCRETE SHALL BE DOWELED TOGETHER.
- 10. ANY PCC CURB PLACED ON TOP OF EXISTING OR NEW ASPHALT CONCRETE SHALL BE EPOXY DOWELLED ON 4 FEET CENTERS AND GLUED DOWN TO THE SURFACE.
- 11. ANY CONCRETE PLACED THAT BECOMES TAGGED, DEFACED, CRACKED OR DAMAGED SHALL BE REPLACED PRIOR TO PROJECT ACCEPTANCE. SPOT PATCHING REPAIRS OF CONCRETE IS NOT ALLOWED. ANY PERMANENT REFERENCE POINT MARKS MADE INTO CONCRETE IS NOT ALLOWED. IF DONE, ENTIRE SECTION OF CONCRETE FROM JOINT TO JOINT SHALL BE REMOVED AND REPLACED.

STORMWATER QUALITY

GENERAL

1. CONTRACTOR SHALL MEET THE REQUIREMENTS OF DISCHARGING TO A PUBLIC STORM DRAINAGE SYSTEM AS REQUIRED TO ENSURE COMPLIANCE BY THE TOWN AND WITH ALL STATE/FEDERAL LAWS AND REGULATIONS RELATED TO STORM WATER AS STIPULATED IN THE CLEAN WATER ACT. CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IN EFFECT PRIOR TO COMPLETION OF PROJECT CONSTRUCTION FOR STORM WATER DISCHARGES FROM THE MUNICIPAL STORMWATER SYSTEM OPERATED BY THE TOWN OF LOS GATOS. CONTRACTOR SHALL COMPLY WITH STORMWATER POLLUTION PREVENTION PLAN (SWPPP) (PROJECT > 1 ACRE) AND/OR EROSION AND SEDIMENT THE CONTROL PLAN (ESCP) (PROJECTS <1 ACRE) AND THE STORMWATER CONTROL PLAN (SCP) SUBMITTED AS PART OF ITS APPLICATION AS (MODIFIED AND) APPROVED BY THE TOWN ENGINEER.

STORM DRAINAGE

- 1. PIPES FOR STORM SEWERS SHALL BE PVC PIPE AND SHALL CONFORM TO ASTM D3034-SDR 35 OR CORRUGATED POLYETHYLENE AND SHALL CONFORM TO AASHTO M294-97 & ASTM D3212.
- 2. ALL CONNECTIONS MADE TO INTERSECTING STORM DRAIN LINES SHALL BE MADE AT A MANHOLE OR DRAIN INLET. DIRECT CONNECTIONS TO STORM DRAIN LINES ARE NOT ALLOWED.
- 3. IF, BY SPECIAL DESIGN, PLASTIC PIPE IS APPROVED FOR INSTALLATION OF STORM DRAINAGE SYSTEMS, WATER STOPS SHALL BE INSTALLED.
- MANUFACTURER. IN NO CASE, SHALL THE RUBBER GASKETS BE EXPOSED. IF THE DEFLECTION EXCEEDS THE ALLOWABLE LIMIT PER THE PIPE MANUFACTURER, A MANHOLE OR JUNCTION BOX MUST BE INSTALLED. 5. A 60-INCH MANHOLE SHALL BE USED FOR ALL STORM DRAIN LINES LARGER THAN 24-INCHES OR WHERE

4. STORM DRAIN LINES SHALL NOT BE INSTALLED THAT EXCEED THE MAXIMUM DEFLECTION PER THE PIPE

6. ALL STORM DRAIN SYSTEMS SHALL BE VIDEOTAPED AT THE COMPLETION OF SUBGRADE OR PRIOR TO PLACEMENT OF HMA.

MORE THAN TWO STORM DRAIN PIPES ENTER THE MANHOLE.

STORM DRAINAGE (CONT.)

- 7. PROVIDE STORMWATER CONVEYANCE SYSTEM STENCILING AND SIGNAGE FOR BOTH PRIVATE DEVELOPMENT AND PUBLIC RIGHT OF WAY.
- a. PROVIDE MARKER OF ALL STORMWATER CONVEYANCE SYSTEM INLETS AND CATCH BASINS WITHIN THE PROJECT AREA WITH PROHIBITIVE LANGUAGE (E.G. "NO DUMPING -FLOWS TO BAY"). b. POST SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS, WHICH PROHIBIT ILLEGAL DUMPING AT PUBLIC ACCESS POINTS ALONG CHANNELS AND CREEKS WITH THE PROJECT AREA,

TRAILHEADS, PARKS, BUILDING ENTRANCES, AND BIORETENTION FACILITIES. DISPOSAL OF MATERIAL

1. DISPOSAL OF MATERIAL SHALL CONFORM TO SECTION 5-1.20B(4) "CONTRACTOR-PROPERTY OWNER AGREEMENT" OF THE 2024 CALTRANS STANDARD SPECIFICATIONS.

- 2. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DISPOSING OF MATERIALS OUTSIDE THE STREET RIGHT-OF-WAY. DISPOSABLE MATERIAL SHALL NOT BE STOCKPILED IN THE STREET BEYOND THE NORMAL WORKING HOURS. MATERIAL SHALL NOT BE DISPOSED OF IN ANY OF THE FOLLOWING AREAS: a. WITHIN THE FLOODWAY OF THE TOWN OF LOS GATOS OR THE COUNTY OF SANTA CLARA. b. WITHIN THE NORMAL CHANNEL OF ANY RIVER, CREEK, STREAM, DITCH, CANAL, SWALE OR OTHER WATER COURSE AND WITHIN THE PORTIONS OF THE ADJACENT FLOOD PLAIN OF SAME AS ARE REQUIRED TO EFFICIENTLY CARRY THE FLOOD FLOW, AS DETERMINED BY THE ENGINEER.
- 3. PRIOR TO ANY DISPOSAL OF MATERIAL, THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE OWNER OF THE PROPOSED DISPOSAL SITE AND PROVIDE A COPY OF SAID WRITTEN PERMISSION TO THE
- 4. WHENEVER ANY MATERIAL DISPOSAL LOCATION IS VISIBLE FROM A PUBLIC STREET, THE DISPOSAL AREA SHALL BE LEFT IN A NEAT AND UNIFORM MANNER TO THE SATISFACTION OF THE ENGINEER.
- 5. IF THE DISPOSAL SITE IS WITHIN THE TOWN OF LOS GATOS LIMITS, CONTRACTOR SHALL SUBMIT TO THE ENGINEER AN APPROVED GRADING PERMIT AND PLAN PRIOR TO DISPOSING OF THE MATERIAL. GRADING PERMITS ARE ISSUED BY THE TOWN OF LOS GATOS, BUILDING INSPECTION DIVISION.
- 6. IF THE DISPOSAL SITE IS LOCATED OUTSIDE OF THE TOWN OF LOS GATOS LIMITS, A GRADING PERMIT FROM THE AFFECTED AGENCY AS WELL AS WRITTEN PERMISSION FROM THE OWNER OF THE DISPOSAL SITE SHALL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCEMENT OF THE WORK.

COMPACTION AND TESTING

- 1. ATTENTION IS DIRECTED TO SECTION 6-2, "QUALITY ASSURANCE", OF THE 2024 CALTRANS STANDARD SPECIFICATIONS. COMPACTION OF ALL EARTHWORK MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 19-5, "COMPACTION," OF THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS.
- 2. A GEOTECHNICAL FIRM SHALL BE RETAINED BY THE CONTRACTOR AT THE CONTRACTOR'S SOLE EXPENSE TO OBSERVE THE GRADING, TRENCH BACKFILL, AND PLACEMENT OF AGGREGATE BASE. A SUFFICIENT NUMBER OF COMPACTION TESTS SHALL BE PERFORMED TO ENSURE THAT THE SUBGRADE, TRENCH BACKFILL, AGGREGATE BASE ROCK AND ASPHALT CONCRETE IS INSTALLED AND COMPACTED IN ACCORDANCE WITH TOWN SPECIFICATIONS. A SUMMARY REPORT OF THE WORK PERFORMED, AND THE TEST RESULTS SHALL BE SUBMITTED TO THE TOWN. PROOF ROLL TO BE ACCEPTED BY THE INSPECTOR CONFIRMING FIRM AND UNYIELDING SOILS/MATERIALS.
- 3. IF ACCEPTED AGGREGATE BASE BECOMES SATURATED AND/OR DISTURBED, THE SUBGRADE MUST AGAIN BE PROOF-ROLLED AND TESTING SOILS AND AB MAY BE REQUIRED. ALL TESTS SHALL BE PER ASTM D1557 METHODOLOGY. AC DENSITY TESTING PER CALIFORNIA TEST 375 AS REQUIRED BY THE LATEST VERSION OF THE CALTRANS STANDARD SPECIFICATIONS, 95% MINIMUM COMPACTION.

CONCRETE IMPROVEMENTS

GENERAL

- 1. THE WORK DESCRIBED HEREIN THIS SECTION SHALL COMPLY WITH SECTION 73, "CONCRETE CURBS AND SIDEWALKS," AND SECTION 90, "CONCRETE," OF THE 2024 CALTRANS STANDARD SPECIFICATIONS, THE PLANS. AND THESE SPECIFICATIONS.
- 2. THE WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: THE REMOVAL AND DISPOSAL OF EXISTING CONCRETE SIDEWALK, CURB, GUTTER, AND ADJACENT ASPHALT PAVEMENT AND BASE MATERIAL; ROOT TRIMMING AND PRUNING; THE INSTALLATION OF CLASS 2 AGGREGATE BASE; GRADING; COMPACTING; INSTALLATION OF DOWELS; INSTALLATION OF REBAR; INSTALLATION AND FINISHING OF CONCRETE SIDEWALK, CURB, AND GUTTER; AND THE INSTALLATION OF THE ADJACENT ASPHALT PAVEMENT RESTORATION NEXT TO THE ADJACENT SIDEWALK, CURB, AND GUTTER.
- CONCRETE FOR SIDEWALKS, CURB, AND GUTTER SHALL MEET A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT SEVEN (7) DAYS. CONCRETE FOR DRIVEWAYS AND THE PORTION OF CURB AND GUTTER ADJACENT TO THE DRIVEWAY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT THREE (3) DAYS (HIGH-EARLY STRENGTH).
- 3. NEW IMPROVEMENTS SHALL BE CONSTRUCTED WITHIN THE FOOTPRINT OF THE EXISTING IMPROVEMENT UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAINTED CURBS REMOVED AND REPLACED BY THE CONTRACTOR SHALL BE REPAINTED AT THE CONTRACTOR'S EXPENSE.
- 4. SIDEWALKS, CURB, AND GUTTER SHALL BE CONSTRUCTED TO THE TOWN'S STANDARDS INCLUDING SPECIFIED CLASS 2 AGGREGATE BASE COMPACTED TO 95%. ALL FACILITIES SHALL MEET CURRENT ADA REQUIREMENTS. CONCRETE FOR SIDEWALKS, CURB, AND GUTTER SHALL MEET A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT SEVEN (7) DAYS. CONCRETE FOR DRIVEWAYS AND THE PORTION OF CURB AND GUTTER ADJACENT TO THE DRIVEWAY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT THREE (3) DAYS (HIGH-EARLY STRENGTH).
- 5. NEW IMPROVEMENTS SHALL BE CONSTRUCTED WITHIN THE FOOTPRINT OF THE EXISTING IMPROVEMENT UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAINTED CURBS REMOVED AND REPLACED BY THE CONTRACTOR SHALL BE REPAINTED AT THE CONTRACTOR'S EXPENSE.
- 6. SIDEWALKS, CURB, AND GUTTER SHALL BE CONSTRUCTED TO THE TOWN'S STANDARDS INCLUDING SPECIFIED CLASS 2 AGGREGATE BASE COMPACTED TO 95%. ALL FACILITIES SHALL MEET CURRENT ADA REQUIREMENTS.
- ENGINEER AND SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ITS REMOVAL AND REPLACEMENT. 8. THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF ONE WEEK'S NOTICE PRIOR TO ACTUAL REMOVAL

AND REPLACEMENT OF ANY CONCRETE IMPROVEMENTS. THE LIMITS OF ALL REMOVAL AND REPLACEMENT

SHALL BE FROM SCORE MARK TO SCORE MARK UNLESS OTHERWISE APPROVED BY THE ENGINEER.

UNDER THE APPROPRIATE BID ITEMS FOR CONCRETE IMPROVEMENTS.

7. SIDEWALKS, CURB AND GUTTER REMOVAL AND REPLACEMENT SHALL BE MARKED IN THE FIELD BY THE

- 9. THE SUBGRADE FOR SIDEWALKS, DRIVEWAYS, AND SIMILAR STRUCTURES BELOW THE AGGREGATE SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95 PERCENT FOR A DEPTH OF 0.5 FOOT. THE SUBGRADE FOR CURB AND GUTTER BELOW THE AGGREGATE SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95 PERCENT FOR A DEPTH OF 0.75 FOOT. SUBGRADE PREP FOR CONCRETE IMPROVEMENTS SHALL BE PAID FOR
- 10. AGGREGATE BASE FOR SIDEWALK, CURB AND GUTTER, AND CURB RAMPS SHALL BE CLASS 2, 3/4"MAXIMUM AND SHALL CONFORM TO THE PROVISIONS IN SECTION 26, "AGGREGATE BASES," OF THE STANDARD SPECIFICATIONS, THE PLANS, AND THESE SPECIAL PROVISIONS. EXISTING AGGREGATE BASE SHALL BE REMOVED FROM THE CONSTRUCTION AREA AND SHALL NOT BE USED AS BACKFILL MATERIAL. THE COST FOR AGGREGATE BASE SHALL BE INCLUDED IN THE PAY ITEMS FOR SIDEWALK, CURB AND GUTTER, AND CURB RAMP AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFORE.
- 11. NEW IMPROVEMENTS SHALL NOT BE PLACED UNTIL FORMS AND COMPACTION REQUIREMENTS ARE INSPECTED AND APPROVED BY THE ENGINEER. IF NEW CONCRETE IMPROVEMENTS ARE NOT TO THE TOWN'S STANDARDS AND EXISTING CONFORMS ARE DAMAGED DUE TO NEW CONCRETE INSTALLATION, THE CONTRACTOR SHALL REPAIR, REMOVE, OR REPLACE THE DEFICIENCY AT THE CONTRACTOR'S SOLE EXPENSE.
- 12. PORTLAND CEMENT CONCRETE SHALL CONTAIN 1 LB. (MIN.) LAMP BLACK PER CUBIC YARD. THE CONTRACTOR SHALL SUPPLY THE TOWN A CERTIFICATE OF COMPLIANCE THAT THE CONCRETE USED ON THE PROJECT MEETS THE REQUIRED STANDARD SPECIFICATIONS. DRIVEWAYS AND ADJACENT IMPROVEMENTS SHALL MEET ADA REQUIREMENTS.



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14. EPOXY SHALL BE TYPE II AND CONFORM TO SECTION 95-1.02D, "EPOXY ADHESIVE FOR BONDING FRESHLY MIXED CONCRETE TO HARDENED CONCRETE," OF THE STANDARD SPECIFICATIONS. A CERTIFICATE OF COMPLIANCE IS REQUIRED FOR THE EPOXY.

15. CURB AND GUTTER TO BE REPLACED SHALL BE CONSTRUCTED WITH A STRAIGHT GRADE BETWEEN EXISTING IMPROVEMENTS TO REMAIN. FLOWLINES FOR THE CURB AND GUTTER AND FOR CURB AND GUTTER ATTACHED TO A CURB RAMP SHALL BE VERIFIED AND FLOW TESTED BY THE CONTRACTOR IN THE PRESENCE OF THE ENGINEER AND SHALL BE FREE FROM PONDING PRIOR TO ACCEPTANCE OF THE IMPROVEMENTS. THE CONTRACTOR SHALL REPLACE NEW CONCRETE IMPROVEMENTS IF THE SAID IMPROVEMENTS DO NOT CONFORM TO THE DESIGNED FLOWLINE.

16. NEW CURB RAMPS SHALL BE CONSTRUCTED TO MATCH THE EXISTING GRADE OF THE EXISTING IMPROVEMENTS THAT ARE TO REMAIN AND SHALL BE IN COMPLIANCE WITH THE DETAILS FOUND IN THE PLANS AND THESE SPECIAL PROVISIONS.

17. NEW CONCRETE SHALL BE FREE OF STAMPS, LOGOS, NAMES, GRAFFITI, ETC. ANY CONCRETE IDENTIFIED THAT IS DISPLAYING A STAMP OR EQUAL SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S SOLE EXPENSE AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED THEREFORE.

MATERIALS TESTING AND INSPECTIONS

1. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN TO SCHEDULE MATERIALS TESTING AND INSPECTIONS FOR SOIL COMPACTION, CONCRETE PLACEMENT, AND FOR OTHER OPERATIONS AS INSTRUCTED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, AT MINIMUM 72 HOURS IN ADVANCE, OF WHEN COMPACTION TESTING AND CONCRETE SAMPLING FOR CONCRETE POURS ARE TO BE SCHEDULED. MATERIALS TESTING MAY OCCUR DAILY DURING THE DURATION OF THE PROJECT.

HOT MIX ASPHALT PAVEMENT RESTORATION

1. THE HOT MIX ASPHALT PAVEMENT RESTORATION ADJACENT TO THE CURB RAMP AND CURB AND GUTTER INSTALLATIONS WILL BE A MINIMUM OF 24-INCHES WIDE ON ALL SIDES WHERE THE ADJACENT CONCRETE IS REPLACED. THE CONTRACTOR SHALL REMOVE A MINIMUM DEPTH OF 8 INCHES OR TO THE TOP OF THE NATIVE SOIL, WHICHEVER IS GREATER. THE REPLACED HOT MIX ASPHALT WILL BE 4 INCHES THICK, ON TOP OF A MINIMUM OF 4 INCHES OF CLASS II AGGREGATE BASE, COMPACTED TO A RELATIVE COMPACTION OF 95% PER THE TOWN STANDARD DRAWINGS. COMPACTION SHALL BE ACHIEVED USING A VIBRATORY PLATE COMPACTOR. THE PAVING ASPHALT SHALL BE PG 64-10. A TACK COAT OF UNDILUTED SS1H EMULSIFIED ASPHALT SHALL BE PLACED ON ALL EXPOSED HMA AND CONCRETE SURFACES PRIOR TO THE PLACEMENT OF THE NEW ASPHALT SECTION.

2. THE CONTRACTOR MAY ELECT TO PERFORM A 12-INCH WIDE ASPHALT RESTORATION THAT WILL BE FILLED WITH 6 INCHES OF A 2-SACK SAND/CEMENT SLURRY AND 2-INCHES OF 1/2-INCH, TYPE A HOT MIX ASPHALT. THE CONTRACTOR MAY NOT PLACE THE NEW HOT MIX ASPHALT UNTIL THE SLURRY CURES AND IS APPROVED BY THE ENGINEER TO PROCEED WITH THE FINAL 2-INCH ASPHALT LIFT.

3. THE FINAL, TOP LAYER OF HOT MIX ASPHALT ADJACENT TO THE CURB AND GUTTER SHALL BE 1/2-INCH HMA, TYPE A, COMPACTED TO A RELATIVE COMPACTION OF 95%, AND PLACED IN TWO, 2-INCH LIFTS. THE CONTRACTOR IS REQUIRED TO USE A TWIN DRUM, 2.5-TON VIBRATORY ROLLER FOR COMPACTION OF THE FINAL LIFT OF HOT MIX ASPHALT.

4. THE CONTRACTOR SHALL ENSURE THAT CONNECTIONS TO EXISTING OR PREVIOUSLY LAID SURFACING SHALL CONFORM TO THE REQUIREMENTS OF SURFACE SMOOTHNESS UNDER THE STANDARD SPECIFICATIONS OR THE CONTRACTOR SHALL CORRECT ALL THESE DEFICIENCIES TO THE SATISFACTION OF THE ENGINEER. THE ENGINEER'S DECISION WHETHER THE CONTRACTOR HAS MET THE REQUIREMENTS OF SURFACE SMOOTHNESS SHALL BE FINAL.

5. THE HOT MIX ASPHALT PAVEMENT RESTORATION FOR CURB RAMPS AND CURB AND GUTTER SHALL BE PAID FOR UNDER THE ASSOCIATED BID ITEMS AND SHALL COMPLY WITH THESE SPECIAL PROVISIONS. THE AREA OF ANY PAVEMENT RESTORATION WORK WILL NOT BE MEASURED AS PART OF THE PAY ITEMS.

MEASUREMENT AND PAYMENT

1. FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND FOR DOING ALL THE WORK INVOLVED IN CONCRETE IMPROVEMENTS, INCLUDING, BUT NOT LIMITED TO, MOBILIZATION, REBAR, BASE ROCK, AND HOT MIX ASPHALT, AS SHOWN IN THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" (BID ITEM 5).

EXISTING FACILITIES

GENERAL

1. EXISTING FACILITIES SHALL CONFORM TO SECTION 15, "EXISTING FACILITIES," OF THE 2024 CALTRANS STANDARD SPECIFICATIONS, THE PLANS, AND THESE SPECIFICATIONS.

PROTECT EXISTING FACILITIES TO REMAIN

1. THE CONTRACTOR SHALL WORK AROUND AND PROTECT ALL EXISTING IMPROVEMENTS TO REMAIN, INCLUDING BUT NOT LIMITED TO EXISTING UTILITIES, MONUMENTATION, BENCH MARKS, STORM DRAINAGE FACILITIES, UTILITY VAULTS, TRAFFIC DETECTOR LOOPS, HOME RUNS AND HANDHOLES, CONCRETE AND HOT MIX ASPHALT PAVEMENT, PAVEMENT MARKINGS, LANDSCAPING, IRRIGATION FACILITIES, AND APPURTENANCES THAT ARE WITHIN OR ADJACENT TO THE CONSTRUCTION AREAS.

2. ALL EXISTING IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, IRRIGATION SYSTEMS, BRICK WORK, STONE WORK, FENCES, MAILBOXES, TURF AND LANDSCAPING, ON PUBLIC RIGHT-OF-WAY WHICH ARE OBSTACLES TO FORMING OPERATIONS MAY BE REMOVED AS NECESSARY FOR THIS TYPE OF WORK. THE CONTRACTOR SHALL NOTIFY THE AFFECTED PROPERTY OWNER AND THE ENGINEER PRIOR TO REMOVAL OF ANY EXISTING IMPROVEMENTS. AFTER REMOVING THE FORMS, ALL THE EXISTING IMPROVEMENTS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE TOWN. IF THE CONTRACTOR FAILS TO COMPLY IN PROVIDING THE NECESSARY RESTORATION WORK AS DEFINED, THE ENGINEER MAY ELECT TO HAVE THE TOWN OR OTHER CONTRACT FORCES PERFORM ALL THESE DUTIES, DEDUCTING ALL THE EXPENSES INCURRED FROM ANY MONEYS THAT ARE DUE, OR TO BECOME DUE, TO THE CONTRACTOR. BY EXERCISING THIS OPTION, THE CONTRACTOR IS IN NO WAY RELIEVED OF THE RESPONSIBILITIES TO PERFORM THESE DUTIES.

EXCAVATION AND BACKFILL

1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO PERFORM AND COMPLETE ALL UTILITY EARTHWORK AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

2. THE WORK OF THIS SECTION INCLUDES ALL UTILITY EARTHWORK REQUIRED FOR CONSTRUCTION OF THE PROJECT. SUCH UTILITY EARTHWORK SHALL INCLUDE, BUT MAY NOT NECESSARILY BE LIMITED TO, THE LOOSENING, REMOVING, LOADING, TRANSPORTING, DEPOSITING, AND COMPACTING IN ITS FINAL LOCATION OF ALL MATERIALS WET AND DRY, AS REQUIRED FOR THE PURPOSES OF COMPLETING THE WORK, WHICH SHALL INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, THE FURNISHING, PLACING, AND REMOVING OF SHEETING, SHORING AND BRACING NECESSARY TO SAFELY SUPPORT THE SIDES OF ALL EXCAVATIONS; ALL PUMPING, DITCHING, DRAINING AND OTHER REQUIRED MEASURES FOR THE REMOVAL OR EXCLUSION OF WATER FROM THE EXCAVATION; SOIL STABILIZATION; THE SUPPORTING OF STRUCTURES ABOVE AND BELOW THE GROUND; ALL BACKFILLING AROUND STRUCTURES AND ALL BACKFILLING OF TRENCHES; THE DISPOSAL OF EXCESS EXCAVATED MATERIALS; BORROW OF MATERIALS TO MAKE UP DEFICIENCIES FOR FILLS; AND ALL OTHER

3. HAZARDOUS MATERIALS SHALL BE HANDLED IN ACCORDANCE WITH ALL REGULATORY AGENCY REQUIREMENTS.

EXCAVATION AND BACKFILL (CONT.)

REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

1. STATE CODES: CALIFORNIA LABOR CODE. CONSTRUCTION SAFETY ORDERS OF THE STATE OF CALIFORNIA.

2. STATE OF CALIFORNIA (CALTRANS) STANDARDS:

a. STANDARD SPECIFICATIONS: SECTION 25 AGGREGATE SUBBASES.

b. SECTION 26 AGGREGATE BASES.

c. SECTION 68 SUBSURFACE DRAINS. d. SECTION 88 ENGINEERING FABRICS

3. COMMERCIAL STANDARDS:

a. ASTM D 422 TEST METHOD FOR PARTICLE—SIZE ANALYSIS OF SOILS.

b. ASTM D 1556 TEST METHOD FOR DENSITY OF SOIL IN PLACE BY THE SAND—CONE METHOD.

c. ASTM D 1557 TEST METHODS FOR MOISTURE-DENSITY RELATIONS OF SOILS AND SOIL-AGGREGATE MIXTURES USING 10-LB (4.54-KG) RAMMER AND 18-IN. (457-MM) DROP.

d. ASTM D 1633 TEST METHOD FOR COMPRESSIVE STRENGTH OF MOLDED SOIL—CEMENT CYLINDERS.

e. ASTM D 2419 METHOD FOR SAND EQUIVALENT VALUE OF SOILS AND FINE AGGREGATE.

i, ASTM D 3776 TEST METHODS FOR MASS PER UNIT AREA (WEIGHT) OF WOVEN FABRIC.

f. ASTM D 2487 TEST METHOD FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES. g. ASTM D 2922 TEST METHODS FOR DENSITY OF SOIL AND SOIL—AGGREGATE IN PLACE BY NUCLEAR

h. ASTM D 3017 TEST METHOD FOR WATER CONTENT OF SOIL AND ROCK IN PLACE BY NUCLEAR METHODS (SHALLOW DEPTH).

j. ASTM D 3786 METHOD OF HYDRAULIC BURSTING STRENGTH OF KNITTED GOODS AND NONWOVEN FABRICS:

DIAPHRAGM BURSTING STRENGTH TESTER METHOD.

k. ASTM D 4253 TEST METHODS FOR MAXIMUM INDEX DENSITY OF SOILS USING A VIBRATORY TABLE. I. ASTM D 4254 TEST METHODS FOR MINIMUM INDEX DENSITY OF SOILS AND CALCULATION OF RELATIVE

m. ASTM D 4318 TEST METHOD FOR LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS. n. ASTM D 4491 TEST METHODS FOR WATER PERMEABILITY OF GEOTEXTILES BY PERMITTIVITY.

o. ASTM D 4632 TEST METHOD FOR GRAB BREAKING LOAD AND ELONGATION OF GEOTEXTILES. p. ASTM D 4751 TEST METHOD FOR DETERMINING THE APPARENT OPENING SIZE OF A GEOTEXTILE.

q. ASTM D 6023 STANDARD TEST METHOD FOR DENSITY, YIELD, CEMENT CONTENT, AND AIR CONTENT OF CONTROLLED LOW-STRENGTH MATERIAL (CLSM).

4. OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.

CONTRACTOR SUBMITTALS

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PROVISIONS FOR "SHORING AND BRACING DRAWINGS" IN SECTION 6705 OF THE CALIFORNIA LABOR CODE. THE CONTRACTOR, PRIOR TO BEGINNING ANY TRENCH OR STRUCTURE EXCAVATION FIVE (5) FEET DEEP OR OVER, SHALL SUBMIT TO THE ENGINEER FOR REVIEW FOR COMPLIANCE WITH SECTION 6705 THE CONTRACTOR'S DETAILED PLAN SHOWING DESIGN OF ALL SHORING, BRACING, SLOPING OF THE SIDES OF EXCAVATION, OR OTHER PROVISIONS FOR WORKER PROTECTION AGAINST THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCHES OR STRUCTURE EXCAVATION. THE SHORING AND BRACING PLAN SHALL BE PREPARED, STAMPED AND SIGNED BY A CIVIL OR STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA AT THE CONTRACTOR'S SOLE EXPENSE.

2. FOR ALL MATERIALS THAT ARE NOT PRE-APPROVED BY THE TOWN THE CONTRACTOR SHALL DESIGNATE THE SOURCE AND/OR SUBMIT SAMPLES OF ALL MATERIALS IN ADVANCE OF THEIR USE FOR REQUIRED TESTING AND ENGINEER'S APPROVAL. ALL TESTING COSTS SHALL BE AT THE CONTRACTOR'S EXPENSE.

3. CERTIFICATES OF COMPLIANCE SHALL BE PROVIDED FOR ALL PRODUCTS AND MATERIALS PROPOSED TO BE USED UNDER THIS SECTION.

QUALITY ASSURANCE

1. ALL SOILS AND COMPACTION TESTING WILL BE DONE BY A TESTING LABORATORY AT THE CONTRACTOR'S SOLE EXPENSE. THE ENGINEER SHALL APPROVE USE OF THE CONTRACTOR—SELECTED LABORATORY PRIOR TO THE WORK.

2 WHERE SOIL MATERIAL IS REQUIRED TO BE COMPACTED TO A PERCENTAGE OF MAXIMUM DENSITY THE MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT WILL BE DETERMINED IN ACCORDANCE WITH ASTM D 1557. WHERE COHESIONLESS, FREE DRAINING SOIL MATERIAL IS REQUIRED TO BE DENSIFIED TO A PERCENTAGE OF RELATIVE DENSITY THE CALCULATION OF RELATIVE DENSITY WILL BE DETERMINED IN ACCORDANCE WITH ASTM D 4253 AND D 4254. FIELD DENSITY IN-PLACE TESTS WILL BE PERFORMED IN ACCORDANCE WITH ASTM D 2922, OR BY SUCH OTHER MEANS ACCEPTABLE TO THE ENGINEER.

3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO PERFORMING ANY UTILITY EXCAVATION.

BACKFILL MATERIALS

1. BACKFILL SHALL BE A SELECTED OR PROCESSED CLEAN, FINE EARTH, ROCK, OR SAND, FREE FROM OBJECTIONABLE MATERIAL, VEGETATION, OR OTHER DELETERIOUS SUBSTANCES.

THE FOLLOWING TYPES OF BACKFILL MATERIALS ARE DESIGNATED AND DEFINED AS FOLLOWS:

a. TYPE 1. SAND SHALL BE MATERIAL WITH 100 PERCENT PASSING A 3/8-INCH SIEVE, AT LEAST 90 PERCENT PASSING A NO. 4 SIEVE, AND A SAND EQUIVALENT VALUE NOT LESS THAN 30.

b. TYPE 2. CLASS 2 AGGREGATE BASE SHALL BE CRUSHED ROCK AGGREGATE BASE MATERIAL MEETING THE REQUIREMENTS OF SECTION 26. "AGGREGATE BASES." FOR 19 MILLIMETER (3/4 INCH) MAXIMUM GRADING.

OF THE CALTRANS STANDARD SPECIFICATIONS. c. TYPE 3. CLASS 1, TYPE A OR B, PERMEABLE MATERIAL SHALL BE CRUSHED STONE, OR GRAVEL, DURABLE AND FREE FROM SLAKING OR DECOMPOSITION UNDER ACTION OR ALTERNATE WETTING OR DRYING, UNIFORMLY GRADED, AND SHALL MEET THE REQUIREMENTS OF SECTION 68-2.02F(2) FOR CLASS

1, "PERMEABLE MATERIAL," OF THE CALTRANS STANDARD SPECIFICATIONS. d. TYPE 4. CLASS 2 PERMEABLE MATERIAL SHALL BE CRUSHED ROCK OR GRAVEL, DURABLE AND FREE FROM SLAKING OR DECOMPOSITION UNDER THE ACTION OF ALTERNATE WETTING OR DRYING, UNIFORMLY GRADED, AND SHALL MEET THE REQUIREMENTS OF SECTION 68-2.02F(3) FOR CLASS 2 "PERMEABLE

MATERIAL," OF THE CALTRANS STANDARD SPECIFICATIONS. e. TYPE 5. STRUCTURE BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 19-3.02B TYPE D

OF THE CALTRANS STANDARD SPECIFICATIONS. f. TYPE 6. CLASS 3 PERMEABLE MATERIAL SHALL BE 3/4" CRUSHED ROCK OR GRAVEL, DURABLE AND FREE FROM SLAKING OR DECOMPOSITION UNDER THE ACTION OF ALTERNATE WETTING OR DRYING, UNIFORMLY GRADED, AND SHALL MEET THE REQUIREMENTS OF SECTION 68-2.02F(4) FOR CLASS 3 "PERMEABLE

MATERIAL," OF THE CALTRANS STANDARD SPECIFICATIONS. g. TYPE 7. MANUFACTURED BACKFILL SHALL BE MANUFACTURED, ANGULAR, GRANULAR, CRUSHED STONE, ROCK, OR SLAG WITH 100 PERCENT PASSING A ONE-INCH SIEVE AND LESS THAN ONE PERCENT PASSING

A NO. 4 SIEVE. h. TYPE 8. CONTROLLED LOW STRENGTH MATERIALS (CLSM) SHALL CONFORM TO THE REQUIREMENTS OF SECTION 19-3, "STRUCTURE EXCAVATION AND BACKFILL," OF THE 2024 CALTRANS STANDARD

MATERIALS ARE NOT CLASSIFIED AS UNSUITABLE. NATIVE MATERIAL SHALL BE FREE OF STONES, LUMPS, VEGETATION, AND DELETERIOUS SUBSTANCES. j type 10. Topsoil material may be material which has been obtained at the site or may be

i. TYPE 9. NATIVE MATERIAL SHALL BE MATERIAL OBTAINED FROM ON-SITE EXCAVATIONS, PROVIDED THE

IMPORTED. REMOVAL OF THE TOPSOIL SHALL BE DONE AFTER THE AREA HAS BEEN STRIPPED OF VEGETATION AND DEBRIS AS SPECIFIED. k. TYPE 11. AGGREGATE SUBBASE SHALL CONFORM TO THE GRADING AND QUALITY REQUIREMENTS OF

SECTION 25, "CLASS 2 AGGREGATE SUBBASE" OF THE CALTRANS STANDARD SPECIFICATIONS. I. TYPE 12. TRENCH FOUNDATION SHALL BE 3/4-INCH CRUSHED, ANGULAR ROCK MEETING THE FOLLOWING GRADATION:

1 ½"= 100%, 1" = 95-100%

$\frac{1}{2}$ " = 0-30%, #4 = 0-4%

EXCAVATION AND BACKFILL (CONT.)

UNSUITABLE BACKFILL MATERIAL

1. ANY MATERIAL AS DETERMINED BY THE ENGINEER.

2. ANY MATERIAL DETERMINED TO BE HAZARDOUS IS DEFINED AS UNSUITABLE MATERIAL.

3. WASHED, SMOOTH ROCK (PEA GRAVEL) IS CLASSIFIED AS UNSUITABLE MATERIAL.

4. USE OF UNAPPROVED BACKFILL MATERIAL TYPES NOT SPECIFIED IN THE PLANS, SPECIFICATIONS, OR DETAILS.

5. BACKFILL MATERIAL TYPES SHALL BE USED IN CONFORMANCE WITH TOWN STANDARDS.

PIPELINE AND UTILITY TRENCH EXCAVATION

1. TRENCH WIDTH: UNLESS OTHERWISE SHOWN OR DIRECTED, EXCAVATION FOR PIPELINES AND UTILITIES SHALL BE OPEN-CUT TRENCHES. TRENCH WIDTHS SHALL BE AS NOTED ON THE PLANS.

2. SUBGRADE: THE SURFACE OF THE SUBGRADE AFTER COMPACTION SHALL BE HARD, UNIFORM, SMOOTH, SELF-DRAINING, AND TRUE TO GRADE AND CROSS SECTION.

3. TRENCH BOTTOM: THE PIPE BEDDING SHALL BE GIVEN A FINAL TRIM ESTABLISHING GRADE SUCH THAT EACH PIPE SECTION WHEN FIRST LAID WILL BE CONTINUALLY IN CONTACT WITH THE BEDDING ALONG THE EXTREME BOTTOM OF THE PIPE. ROUNDING OUT THE TRENCH BOTTOM OR BEDDING TO FORM A CRADLE FOR THE PIPE WILL NOT BE ALLOWED. THE CONTRACTOR SHALL EXCAVATE FOR BELL HOLES AND FITTINGS.

4. OPEN TRENCH: THE MAXIMUM AMOUNT OF OPEN TRENCH PERMITTED IN ANY ONE LOCATION SHALL BE THE LENGTH NECESSARY TO ACCOMMODATE THE AMOUNT OF PIPE INSTALLED AND BACKFILLED IN A SINGLE DAY. ALL TRENCHES SHALL BE FULLY BACKFILLED AT THE END OF EACH DAY OR, IN LIEU THEREOF, SHALL BE COVERED BY HEAVY STEEL PLATES ADEQUATELY BRACED AND CAPABLE OF SUPPORTING VEHICULAR TRAFFIC IN THOSE LOCATIONS WHERE IT IS IMPRACTICAL TO BACKFILL AT THE END OF EACH DAY.

5. OVER-EXCAVATION: CONTRACTOR SHALL NOTIFY ENGINEER IF ANY UNSTABLE TRENCH CONDITIONS DEVELOP IN TRENCH BOTTOM. WHEN ORDERED BY THE ENGINEER, WHETHER OR NOT INDICATED ON THE DRAWINGS, TRENCHES, TUNNELING PITS AND/OR STRUCTURE EXCAVATIONS SHALL BE OVER-EXCAVATED BEYOND THE DEPTH SHOWN IN ORDER TO PROVIDE A FIRM AND UNYIELDING TRENCH BASE.

OVER-EXCAVATION NOT ORDERED, SPECIFIED, OR SHOWN

1. ANY OVER-EXCAVATION CARRIED BELOW THE GRADE ORDERED, SPECIFIED, OR SHOWN, SHALL BE BACKFILLED TO THE REQUIRED GRADE AND DENSIFIED WITH THE SPECIFIED MATERIAL AND COMPACTION. SUCH WORK SHALL BE PERFORMED BY THE CONTRACTOR AT ITS OWN EXPENSE.

EXCAVATION IN LAWN AREAS

1. WHERE EXCAVATION OCCURS IN LAWN AREAS, THE SOD SHALL BE CAREFULLY REMOVED, STOCKPILED, WATERED AND PRESERVED FOR REPLACEMENT, UNLESS SPECIFICALLY APPROVED BY ENGINEER IN WRITING BEFORE WORK IS PERFORMED. EXCAVATED MATERIAL MAY BE PLACED ON THE LAWN PROVIDED THAT A TARP OR OTHER SUITABLE METHOD IS EMPLOYED TO PROTECT THE LAWN FROM DAMAGE. THE LAWN SHALL NOT REMAIN STOCKPILED FOR MORE THAN 48 HOURS. IMMEDIATELY AFTER COMPLETION OF BACKFILLING AND TESTING OF THE PIPELINE, THE SOD SHALL BE REPLACED IN A MANNER SO AS TO RESTORE THE LAWN AS NEAR AS POSSIBLE TO ITS ORIGINAL CONDITION. CONTRACTOR SHALL PROVIDE NEW SOD, IN KIND, IF REMOVED SOD HAS REMAINED STOCKPILED FOR MORE THAN 48 HOURS.

2. ALL OTHER LANDSCAPING SHALL BE REPLACED IN KIND AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. ALL DAMAGED IRRIGATION SYSTEMS, INCLUDING PIPING AND ELECTRICAL WIRING, SHALL BE REPAIRED AND OPERATING PROPERLY THE SAME DAY THEY ARE DAMAGED.

EXCAVATION IN VICINITY OF TREES

1. EXCEPT WHERE TREES ARE SHOWN TO BE REMOVED, CONTRACTOR SHALL PROTECT TREES FROM INJURY DURING CONSTRUCTION OPERATIONS. REMAINING TREES SHALL BE PROTECTED BY INSTALLING PROTECTIVE FENCING OUTSIDE THE DRIPLINE. NO TREE ROOTS OVER 2 INCHES IN DIAMETER SHALL BE CUT WITHOUT EXPRESS PERMISSION OF THE ENGINEER. TREES SHALL BE SUPPORTED DURING EXCAVATION BY ANY MEANS PREVIOUSLY REVIEWED BY THE ENGINEER.

2. IF EXISTING ROOTS OVER ONE INCH IN DIAMETER ARE CUT DURING THE COURSE OF THE WORK, THE CUT FACES SHALL BE THOROUGHLY COATED WITH ROOT SEALER AND GROWTH INHIBITOR. EXPOSED ROOTS SHALL BE COVERED WITH WET BURLAP TO PREVENT THEM FROM DRYING OUT.

3. THE TOWN SHALL RETAIN AN ARBORIST TO EVALUATE THE HEALTH OF THE TREES PRIOR TO CONSTRUCTION, FORMULATE SITE-SPECIFIC RECOMMENDATIONS TO MAINTAIN THE HEALTH OF TREES DURING AND AFTER CONSTRUCTION, AND MONITOR CONSTRUCTION NEAR THE TREES AT APPROPRIATE INTERVALS.

DISPOSAL OF EXCESS EXCAVATED MATERIAL

1. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXCESS EXCAVATED MATERIAL TO A SUITABLE SITE. THE PROPER AND LEGAL DISPOSAL AND ASSOCIATED COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

BACKFILL - GENERAL

1. BACKFILL SHALL NOT BE DROPPED DIRECTLY UPON ANY STRUCTURE OR PIPE.

2. UNLESS SPECIFICALLY EXCEPTED BY THE ENGINEER, BACKFILL SHALL NOT BE PLACED UNTIL AFTER ALL WATER IS REMOVED FROM THE EXCAVATION.

PIPE AND UTILITY TRENCH ZONES AND BACKFILL

1. PIPE ZONE: a. THE LIMITS OF PIPE ZONE ARE SHOWN ON THE PLANS.

b. THE PIPE ZONE SHALL BE BACKFILLED WITH THE SPECIFIED BACKFILL MATERIAL. THE CONTRACTOR SHALL EXERCISE CARE TO PREVENT DAMAGE TO THE PIPELINE COATING, CATHODIC BONDS, OR THE PIPE ITSELF

DURING THE INSTALLATION AND BACKFILL OPERATIONS. c. VERIFY PIPE AND MANHOLE LINE AND GRADE PRIOR TO INSTALLING PIPE ZONE MATERIAL.

d. PREVENT FLOTATION OF SEWER PIPE DURING BACKFILL OPERATIONS.

e. PIPE ZONE MATERIAL TO BE COMPACTED TO 90% RC, WITH A MAXIMUM 6-INCH LIFTS. f. DEMONSTRATE IN THE FIELD AND THROUGH COMPACTION TEST RESULTS THAT INSTALLATION AND COMPACTION EFFORTS ACHIEVE PROPER COMPACTION UNDER THE PIPE HAUNCHES. THIS INCLUDES AFTER THE REMOVAL OF SHORING DEVICES FROM THE TRENCH.

2. TRENCH BEDDING: THE LIMITS OF BEDDING ARE SHOWN ON THE PLANS. AFTER PLACEMENT AND COMPACTING OF THE BEDDING MATERIAL THE CONTRACTOR SHALL PERFORM A FINAL TRIM FOR ESTABLISHING GRADE, SUCH THAT EACH PIPE SECTION WHEN FIRST LAID WILL BE CONTINUALLY IN

CONTACT WITH THE BEDDING ALONG THE EXTREME BOTTOM OF THE PIPE. CONTRACTOR SHALL SUPPORT AND/OR HOLD-DOWN THE PIPE DURING PLACEMENT AS NECESSARY. BEDDING SHALL BE PLACED TO FORM A SMOOTH, UNIFORM, HORIZONTAL PLANE TO MATCH PIPE SLOPE. HAND-EXCAVATE FLANGES OR BELL HOLES AT EACH PIPE JOINT TO PROVIDE UNIFORM SUPPORT FOR ALL SECTIONS OF PIPE.

3. TRENCH ZONE: AFTER THE PIPE ZONE BACKFILL HAS BEEN PLACED AS SPECIFIED ABOVE, AND AFTER ALL EXCESS WATER HAS COMPLETELY DRAINED FROM THE TRENCH, BACKFILLING OF THE TRENCH ZONE MAY PROCEED. THE LIMITS OF TRENCH ZONE ARE SHOWN ON THE PLANS.

4. UTILITY CROSSING: FOR ANY NEW PIPELINE INSTALLATION THAT CROSSES UNDER AN EXISTING ELECTRIC, GAS, TELEPHONE, OR CABLE TV UTILITY PIPE(S) OR CONDUIT(S) THE CONTRACTOR SHALL REPLACE THE EXISTING BACKFILL MATERIAL AROUND THE EXISTING UTILITY PIPE(S) OR CONDUIT(S) WITH CLSM OR AS DIRECTED BY THE ENGINEER. FOR ANY NEW PIPELINE INSTALLATION CROSSING UNDER EXISTING STORM OR SANITARY SEWER, THE CONTRACTOR SHALL REPLACE EXISTING BACKFILL MATERIAL WITH CLSM OR AS DIRECTED BY THE ENGINEER. USE A CONCRETE VIBRATOR DURING BACKFILLING OPERATIONS,

EXCAVATION AND BACKFILL (CONT.)

EXCAVATION AND BACKFILL FOR STRUCTURES

1. EXCAVATION FOR CONCRETE STRUCTURES SHALL BE MADE TO THE LINES AND GRADES SHOWN ON THE DRAWINGS, WITH SUFFICIENT CLEARANCE TO PERMIT THE INSTALLATION AND REMOVAL OF FORMS AND THE INSPECTION OF THE EXTERIOR SURFACE.

2. WHERE ABANDONED UNDERGROUND STRUCTURES ARE ENCOUNTERED IN THE STREET AREAS, REMOVE TO SUFFICIENT DEPTH TO ALLOW UNDERGROUND LINES TO CROSS, BACKFILL, AND COMPACT DURING ROUGH GRADING. THE ENGINEER MAY REQUIRE FURTHER WORK TO BE DONE IF VISUAL INSPECTION INDICATES DURING CONSTRUCTION.

3. EXCEPT WHEN SPECIFICALLY PROVIDED TO THE CONTRARY, EXCAVATION SHALL INCLUDE THE REMOVAL OF ALL MATERIALS OF WHATEVER NATURE ENCOUNTERED, INCLUDING ALL OBSTRUCTIONS OF ANY NATURE THAT WOULD INTERFERE WITH THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE REMOVAL OF SAID MATERIALS SHALL CONFORM TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR ORDERED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH, PLACE, AND MAINTAIN ALL SUPPORTS AND SHORING THAT MAY BE REQUIRED FOR THE SIDES OF THE EXCAVATIONS, AND ALL PUMPING, DITCHING, OR OTHER MEASURES REQUIRED FOR THE REMOVAL OR EXCLUSION OF WATER, INCLUDING STORM WATER, GROUNDWATER, AND WASTEWATER REACHING THE SITE OF THE WORK FROM ANY SOURCE SO AS TO PREVENT DAMAGE TO THE WORK OR ADJOINING PROPERTY. EXCAVATIONS SHALL BE SUPPORTED IN A SAFE MANNER IN ACCORDANCE WITH APPLICABLE STATE SAFETY REQUIREMENTS AND THE REQUIREMENTS OF OSHA SAFETY AND HEALTH STANDARDS FOR CONSTRUCTION (29CFR1926). THE LIMITS OF STRUCTURE EXCAVATION SHALL BE A MINIMUM OF 12 INCHES BEYOND THE OUTSIDE EDGE OF THE STRUCTURE, AND AT A MINIMUM NO LARGER THAN NECESSARY TO FACILITATE BACKFILL, COMPACTION, AND TESTING OPERATIONS.

4. AFTER EXCAVATION IS COMPLETED, THE SUBGRADE SHALL BE PROPERLY SHAPED, TRIMMED, AND COMPACTED.

5. BACKFILL PLACED AGAINST CONCRETE WALLS SHALL BE PLACED ONLY AFTER THE CONCRETE HAS ATTAINED ITS DESIGN STRENGTH.

6. NO HEAVY EQUIPMENT SHALL BE OPERATED OVER THE STRUCTURE UNTIL AT LEAST 7 CALENDAR DAYS HAVE ELAPSED SINCE PLACEMENT OF THE CONCRETE AND CONCRETE HAS ACHIEVED DESIGN STRENGTH.

7. BACKFILL SHALL BE BROUGHT UP UNIFORMLY ON ALL SIDES OF A STRUCTURE TO PREVENT UNEQUAL LOADING.

SURFACE RESTORATION

1. ALL PAVEMENT, CURBS, SIDEWALKS, DRIVEWAYS, FENCES, AND OTHER IMPROVEMENTS REMOVED, BROKEN, OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL, UNLESS OTHERWISE SPECIFIED.

2. ALL TRENCH PAVEMENT REPLACEMENT SHALL CONFORM TO APPLICABLE TOWN STANDARD DETAILS OR TO THE

3. ALL SURFACES SHALL BE CLEANED OF EXCESS MATERIALS AND DEBRIS UPON COMPLETION OF THE WORK.

4. FINAL RESTORATION SHALL NOT BE PERFORMED UNTIL ALL COMPACTION TESTING IS COMPLETE AND ACCEPTED.

MEASUREMENT AND PAYMENT 1. FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND FOR DOING ALL THE WORK INVOLVED IN EXCAVATING AND BACKFILL, INCLUDING MOBILIZATION, AS SHOWN ON THE PLANS, AS SPECIFIED IN THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" (BID ITEM 5).

2. OVER-EXCAVATION NOT ORDERED BY THE ENGINEER AND ANY ASSOCIATED BACKFILL WILL NOT BE MEASURED FOR PAYMENT AND SHALL BE AT THE CONTRACTOR'S SOLE EXPENSE.

3. ANY DEWATERING REQUIRED TO PERFORM THE WORK AS SPECIFIED SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN

TRAFFIC STRIPES. PAVEMENT MARKINGS. AND MARKERS

GENERAL

1. TRAFFIC STRIPES (TRAFFIC LINES) AND PAVEMENT MARKINGS (LEGENDS) SHALL CONFORM TO THE FOLLOWING: PROVISIONS OF SECTION 84 OF THE STANDARD SPECIFICATIONS, THE CA MUTCD, THE STRIPING TIE-OUT UNDER SECTION 10-1.02D, PLANS AS GENERATED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER "PAVEMENT MARKER, THERMOPLASTIC MARKING AND STRIPING REMOVAL," OF THE STANDARD SPECIFICATIONS. TRAFFIC STRIPES AND MARKINGS SHALL BE INSTALLED AS SHOWN ON THE APPROVED STRIPING TIE-OUT PLANS OR AS DIRECTED BY THE ENGINEER.

2. WHENEVER CONTRACTOR'S OPERATIONS REDUCE VISIBILITY OF PAVEMENT DELINEATION (LANE LINES, EITHER PAVEMENT MARKERS OR PAINTED LINES OR BOTH, OR TEMPORARY DELINEATION) AND PAVEMENT MARKING, SUCH PAVEMENT DELINEATION AND PAVEMENT MARKING SHALL BE REPLACED BY EITHER PERMANENT OR TEMPORARY DELINEATION AND MARKING BEFORE OPENING THE TRAVELED WAY TO PUBLIC TRAFFIC. TEMPORARY PAVEMENT DELINEATION SHALL BE MAINTAINED BY THE CONTRACTOR'S SOLE EXPENSE UNTIL IT IS REPLACED WITH PERMANENT DELINEATION. FINAL PAVEMENT MARKINGS AND STRIPING SHALL BE DONE AFTER COMPLETION OF OVERLAY.

3. ALL TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE LAID OUT IN THE FIELD BY THE CONTRACTOR AND REVIEWED AND APPROVED BY THE ENGINEER FIVE (5) WORKING DAYS PRIOR TO ANY FINAL INSTALLATION. ANY STRIPING AND/OR MARKING INSTALLED BY THE CONTRACTOR THAT THE ENGINEER HAS NOT PRE-APPROVED, AND THAT THE ENGINEER DETERMINES HAVE BEEN INSTALLED IMPROPERLY OR IN THE WRONG LOCATIONS, SHALL BE REMOVED AND REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S SOLE EXPENSE.

PAINT FOR TRAFFIC STRIPES

1. PAINT FOR THE TRAFFIC STRIPES, CURB PAINTING, AND PAVEMENT MARKINGS SHALL BE RAPID DRY WATER BORNE PAINT IN ACCORDANCE WITH SECTIONS 84, "MARKINGS," OF THE STANDARD SPECIFICATIONS AND SHALL BE APPLIED IN TWO COATS.

2. CURBS SHALL BE PAINTED AT LOCATIONS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. APPLICATION SHALL CONSIST OF TWO COATS OF TRAFFIC PAINT OF THE APPROPRIATE COLOR APPLIED TO THE FACE AND TOP OF THE CURB.

3. PAVEMENT MARKINGS SHALL BE INSTALLED WITH STENCILS BELONGING TO THE CONTRACTOR THAT ARE DETERMINED TO BE IDENTICAL TO THE TOWN'S STENCILS.

4. THE CONTRACTOR SHALL INSTALL THE FIRST COAT OF THE PAINT WITHIN SEVEN (7) CALENDAR DAYS OF THE FINAL RESURFACING. AFTER FOURTEEN (14) CALENDAR DAYS, THE SECOND COAT OF PAINT SHALL BE APPLIED AFTER THE FINAL RESURFACING.

THERMOPLASTIC TRAFFIC STRIPE AND PAVEMENT MARKING

1. THERMOPLASTIC TRAFFIC STRIPES (TRAFFIC LINES) AND PAVEMENT MARKINGS SHALL BE APPLIED IN CONFORMANCE WITH SECTION 84, "MARKINGS," OF THE STANDARD SPECIFICATIONS AND THESE SPECIAL PROVISIONS.

2. THERMOPLASTIC MATERIAL SHALL BE FREE OF LEAD AND CHROMIUM AND SHALL CONFORM TO THE REQUIREMENTS IN STATE SPECIFICATION PTH 02ALKYD OR PTH-02SPRAY OF THE STANDARD SPECIFICATIONS.

3. RETROREFLECTIVITY OF THE THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS IN ASTM D6359 99. WHITE THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL HAVE A MINIMUM INITIAL RETROREFLECTIVITY OF 250 MC/M2/LUX. YELLOW THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL HAVE A MINIMUM INITIAL RETROREFLECTIVITY OF 150 MCD/M2/LUX.

4. THE COLOR FOR GREEN BACK SYMBOLS SHALL MEET FHWA SPECIFICATIONS FOR "GREEN."



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6. THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE FREE OF RUNS, BUBBLES, CRATERS, DRAG LUXMARKS, STRETCH MARKS, AND DEBRIS. THERMOPLASTIC SHALL BE EXTRUDED AND PLACED IN ONE COAT AND SHALL BE PLACED FIVE DAYS AFTER THE FINAL SURFACING. SPRAYABLE THERMOPLASTIC IS NOT ALLOWED AFTER THE INSTALLATION OF SURFACE TREATMENTS (SLURRY SEAL, CHIP SEAL, RUBBER CHIP SEAL,

APPLICATION

1. USE PREHEATERS WITH MIXERS HAVING 360 DEGREE ROTATION TO PREHEAT THE THERMOPLASTIC MATERIAL APPLY THE THERMOPLASTIC IN A SINGLE UNIFORM LAYER BY EXTRUSION METHOD. COMPLETELY COAT AND FILL VOIDS IN THE PAVEMENT SURFACE WITH THE THERMOPLASTIC.

EXTRUDED THERMOPLASTIC

1. APPLY EXTRUDED THERMOPLASTIC AT A TEMPERATURE FROM 400 TO 425°F, UNLESS A DIFFERENT TEMPERATURE IS INSTRUCTED BY THE MANUFACTURER. APPLY EXTRUDED THERMOPLASTIC FOR A TRAFFIC STRIPE AT A RATE OF AT LEAST 0.20 LB./FT. OF 4-INCH WIDE SOLID STRIPE. THE APPLIED THERMOPLASTIC TRAFFIC STRIPE MUST BE AT LEAST 0.060 INCH THICK. AN APPLIED THERMOPLASTIC PAVEMENT MARKING MUST BE FROM 0.100 TO 0.150 INCH THICK. APPLY GLASS BEADS TO THE SURFACE OF THE MOLTEN THERMOPLASTIC AT A RATE OF AT LEAST 8 LB./100 SQ. FT.

PAVEMENT MARKERS AND ADHESIVES

1. PAVEMENT MARKERS SHALL CONFORM TO SECTION 81-3, "PAVEMENT MARKERS," OF THE CALTRANS STANDARD SPECIFICATIONS, AS SPECIFIED HEREIN, AND IN THE SPECIAL PROVISIONS.

2. FIRE HYDRANT MARKERS SHALL BE TWO-WAY, REFLECTIVE BLUE MARKERS.

3. ADHESIVE FOR PAVEMENT MARKERS SHALL BE RAPID SET TYPE EPOXY CONFORMING TO SECTION 95-2.04 OF THE CALTRANS STANDARD SPECIFICATIONS OR HOT MELT BITUMINOUS ADHESIVE CONFORMING TO SECTION 81-3 OF THE CALTRANS STANDARD SPECIFICATIONS.

GUARDRAIL

1. GUARDRAIL REMOVAL AND REPLACEMENT SHALL CONFORM TO CALTRANS STANDARD PLANS A77A AND A77B AND STANDARD SPECIFICATIONS SECTION 83. CONTRACTOR SHALL FURNISH AND INSTALL IN KIND, INCLUDING ALL POSTS, HARDWARE, AND TERMINAL SYSTEMS, AND ANY ATTACHED REFLECTORS, DELINEATORS, OR MARKERS. ALL COMPONENTS SHALL MATCH EXISTING CONDITIONS OR AS DIRECTED BY THE ENGINEER.

MEASUREMENTS AND PAYMENT

1. FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND FOR DOING ALL THE WORK INVOLVED IN PROVIDING TRAFFIC STRIPES, PAVEMENT MARKINGS, AND MARKERS, INCLUDING MOBILIZATION, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" (BID ITEM 5).

GROUT

1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO FURNISH AND PLACE GROUT AND SHALL FORM, MIX, PLACE, CURE, REPAIR, FINISH, AND DO ALL OTHER WORK AS NECESSARY TO PRODUCE FINISHED GROUT AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

THE FOLLOWING TYPES OF GROUT SHALL BE COVERED IN THIS SECTION:

- a. NON-SHRINK GROUT IS TO BE USED UNLESS ANOTHER TYPE IS SPECIFICALLY REFERENCED OR AS SHOWN
- ON THE DRAWINGS.
- b. EPOXY GROUT c. CEMENT GROUT
- d. FLOWABLE CEMENT GROUT
- e. LOW VISCOSITY (PERMEATION) GROUT AND FAST SETTING INJECTED GROUT
- f. POLYMER GROUT
- g. NEAT CEMENT GROUT

REFERENCE SPECIFICATIONS, CODES, AND STANDARDS 1. ALL APPLICABLE WORK SHALL CONFORM TO THE FOLLOWING STANDARDS:

- a. ASTM C109 TEST METHOD FOR COMPRESSIVE STRENGTH OF HYDRAULIC CEMENT MORTARS (USING 2-IN.
- OR 50-MM CUBE SPECIMENS)
- b. ASTM C531 TEST METHOD FOR LINEAR SHRINKAGE AND COEFFICIENT OF THERMAL EXPANSION OF CHEMICAL-RESISTANT MORTARS, GROUTS, AND MONOLITHIC SURFACINGS
- c. ASTM C579 TEST METHODS FOR COMPRESSIVE STRENGTH OF CHEMICAL-RESISTANT MORTARS, GROUTS, AND MONOLITHIC SURFACINGS
- d. C827 TEST METHOD FOR CHANGE IN HEIGHT AT EARLY AGES OF CYLINDRICAL SPECIMENS FROM CEMENTITIOUS MIXTURES
- e. ASTM D696 TEST METHOD FOR COEFFICIENT OF LINEAR THERMAL EXPANSION OF PLASTICS

2. PLASTICS; AND CRD-C 621 - CORPS OF ENGINEERS SPECIFICATION FOR NON-SHRINK GROUT.

RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION.

1. CERTIFICATES OF COMPLIANCE SHALL BE PROVIDED FOR ALL PRODUCTS AND MATERIALS PROPOSED TO BE USED UNDER THIS SECTION.

PREPACKAGED GROUTS

1. NON-SHRINK GROUT: a. NON-SHRINK GROUT SHALL BE A PREPACKAGED, INORGANIC, NON-GAS-LIBERATING, NON-METALLIC, CEMENT-BASED GROUT REQUIRING ONLY THE ADDITION OF WATER. MANUFACTURER'S INSTRUCTIONS SHALL BE PRINTED ON EACH BAG OR OTHER CONTAINER IN WHICH THE MATERIALS ARE PACKAGED. THE SPECIFIC FORMULATION FOR EACH CLASS OF NON-SHRINK GROUT SPECIFIED HEREIN SHALL BE THAT

b. CLASS A NON-SHRINK GROUTS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI; SHALL HAVE NO SHRINKAGE (ZERO PERCENT) AND A MAXIMUM 4.0 PERCENT EXPANSION IN THE PLASTIC STATE WHEN TESTED IN ACCORDANCE WITH ASTM C827; AND SHALL HAVE NO SHRINKAGE (ZERO PERCENT) AND A MAXIMUM OF 0.2—PERCENT EXPANSION IN THE HARDENED STATE WHEN TESTED IN ACCORDANCE WITH CRD C621.

c. CLASS B NON-SHRINK GROUTS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI AND SHALL MEET THE REQUIREMENTS OF CRD C621.

d. APPLICATION:

·CLASS A NON-SHRINK GROUT SHALL BE USED FOR THE REPAIR OF ALL HOLES AND DEFECTS IN CONCRETE MEMBERS WHICH ARE WATER BEARING OR IN CONTACT WITH SOIL OR OTHER FILL MATERIAL, GROUTING UNDER ALL EQUIPMENT BASE PLATES, AND AT ALL LOCATIONS WHERE GROUT IS SPECIFIED; EXCEPT, FOR THOSE APPLICATIONS FOR CLASS B NON-SHRINK GROUT AND EPOXY GROUT SPECIFIED HEREIN. CLASS A NON-SHRINK GROUT MAY BE USED IN PLACE OF CLASS B NON-SHRINK GROUT FOR ALL APPLICATIONS. APPLY CLASS A GROUT TO ANNULAR SPACES, SPECIFICALLY WHERE PVC SANITARY SEWER CONNECTS TO PRECAST MANHOLES.

·CLASS B NON-SHRINK GROUT SHALL BE USED FOR THE REPAIR OF ALL HOLES AND DEFECTS IN CONCRETE MEMBERS WHICH ARE NOT WATER-BEARING AND NOT IN CONTACT WITH SOIL OR OTHER FILL MATERIAL.

2. EPOXY GROUT:

a. EPOXY GROUT SHALL BE A POURABLE, NON-SHRINK, 100-PERCENT SOLIDS SYSTEM. THE EPOXY GROUT SYSTEM SHALL HAVE 3 COMPONENTS: RESIN, HARDENER, AND SPECIALLY BLENDED AGGREGATE, ALL PREMEASURED AND PREPACKAGED. THE RESIN COMPONENT SHALL NOT CONTAIN ANY NON-REACTIVE DILUENTS. RESINS CONTAINING BUTYL GLYCIDYL ETHER (BGE) OR OTHER HIGHLY VOLATILE AND HAZARDOUS REACTIVE DILUENTS ARE NOT ACCEPTABLE. VARIATION OF COMPONENT RATIOS IS NOT PERMITTED UNLESS SPECIFICALLY RECOMMENDED BY THE MANUFACTURER. MANUFACTURER'S INSTRUCTIONS SHALL BE PRINTED ON EACH CONTAINER IN WHICH THE MATERIALS ARE PACKAGED.

GROUT (CONT.)

- b. THE CHEMICAL FORMULATION OF THE EPOXY GROUT SHALL BE THAT RECOMMENDED BY THE
- MANUFACTURER FOR THE PARTICULAR APPLICATION. c. THE MIXED EPOXY GROUT SYSTEM SHALL HAVE A MINIMUM WORKING LIFE OF 45 MINUTES AT 75 DEGREES F.

PSI IN 7 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C579, METHOD B. THERE SHALL BE NO

- AND SHALL MEET THE REQUIREMENTS OF CRD C621. d. THE EPOXY GROUT SHALL DEVELOP A COMPRESSIVE STRENGTH OF 5,000 PSI IN 24 HOURS AND 10,000
- SHRINKAGE (ZERO PERCENT) AND A MAXIMUM 4.0 PERCENT EXPANSION WHEN TESTED IN ACCORDANCE WITH e. APPLICATION: EPOXY GROUT SHALL BE USED TO EMBED ALL ANCHOR BOLTS AND REINFORCING STEEL

- 3. CEMENT GROUT: a CEMENT GROUT SHALL BE COMPOSED OF ONE PART CEMENT, 3 PARTS SAND, AND THE MINIMUM AMOUNT OF WATER NECESSARY TO OBTAIN THE DESIRED CONSISTENCY. WHERE NEEDED TO MATCH THE COLOR OF ADJACENT CONCRETE, WHITE PORTLAND CEMENT SHALL BE BLENDED WITH REGULAR CEMENT AS NEEDED. THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 4,000 PSI.
- b. CEMENT SHALL BE AS SPECIFIED IN SECTION 02537, "PRECAST CONCRETE MANHOLES."

REQUIRED TO BE SET IN GROUT, AND FOR ALL OTHER SPECIFIED APPLICATIONS.

c. CEMENT GROUT SHALL NOT BE USED AS CONTACT GROUT FOR FILLING VOIDS CREATED DURING A TUNNEL OR SHAFT EXCAVATION.

4. FLOWABLE CEMENT GROUT

- a. FLOWABLE CEMENT GROUT: MINIMUM PENETRATION RESISTANCE OF 10 PSI IN 24 HOURS WHEN TESTED IN ACCORDANCE WITH ASTM C403 AND A 28-DAY UNCONFINED COMPRESSIVE STRENGTH OF 45-165 PSI.
- · VOID SPACES BETWEEN THE EARTH AND THE CASING PIPE.
- · INTERSTITIAL SPACE BETWEEN THE CASING PIPE AND CARRIER PIPE.

5. LOW VISCOSITY (PERMEATION) GROUT AND FAST SETTING INJECTED GROUT

- a. LOW VISCOSITY GROUT SHALL BE INJECTED TO PROVIDE STABILIZATION FOR THE FOLLOWING CONDITIONS: · STABILIZE EXISTING UTILITY PIPELINES DURING TRENCHING AND EXCAVATION ACTIVITIES TO PREVENT DESTABILIZATION OF MATERIALS WHEN EXPOSED IN VERTICAL EXCAVATIONS.
- · STABILIZE MATERIALS THAT WOULD BE SUBJECT TO VIBRATION DENSIFICATION DURING NEARBY SHEET PILE DRIVING OR CONSTRUCTION ACTIVITY.
- PREVENT POROUS AND PERMEABLE MATERIALS FROM TRANSMITTING PERCHED GROUNDWATER INTO
- b. THE LOW VISCOSITY GROUT SHALL CONSIST OF PORTLAND CEMENT, WATER, AND FLUIDIZER ADDITIVES. c. GROUTING SHOULD COMPLETELY BIND THE GRANULAR MATERIAL INTO A SINGLE COHERENT GROUTED MASS (GROUTED PRISM).
- d. GROUT BATCH RECORDS SHALL INCLUDE TIME OF MIX, AMOUNT AND TYPE OF COMPONENTS USED, AND
- e. FAST SETTING INJECTED GROUT SHALL BE USED IN ESTABLISHING BULKHEADS TO LIMIT THE SPREAD/FLOW OF LOW VISCOSITY GROUT. MIX ACCORDING TO THE FOLLOWING PROPORTIONS:
- a. PORTLAND CEMENT TYPE I-II: 8 SACKS @ 94 LBS. PER SACK
- b. BENTONITE SUSPENDING AGENT: 0-50 LBS.
- c. PGA EXPANSION AGENT: 0-3 LBS.
- COMPONENT B:
- a. SODIUM SILICATE: 40 GALLONS b. WATER

6. NEAT CEMENT GROUT

- a. APPLICATION: USE FOR DEWATERING WELL ABANDONMENT.
- b. MIX ACCORDING TO THE FOLLOWING RATIO:

• UP TO 5% BENTONITE POWDER OR CHIPS

- 94 LBS. PORTLAND TYPE II CEMENT
- GALLONS CLEAN WATER

7. PRESSURE GROUTING EQUIPMENT

a. PRESSURE GROUTING EQUIPMENT SHALL INCLUDE A MIXER AND HOLDOVER AGITATOR TANKS. GAGES SHALL BE PROVIDED TO INDICATE PRESSURE USED. THE MIXER SHALL BE PROVIDED WITH A METER CAPABLE OF INDICATING TO ONE-TENTH OF A CUBIC FOOT THE VOLUME OF GROUT USED. THE GROUT PUMP SHALL BE CAPABLE OF PUMPING LOW VISCOSITY GROUT.

8. CONSISTENCY a. THE CONSISTENCY OF GROUTS SHALL BE THAT NECESSARY TO COMPLETELY FILL THE SPACE TO BE GROUTED FOR THE PARTICULAR APPLICATION. DRY PACK CONSISTENCY IS SUCH THAT THE GROUT IS PLASTIC AND MOLDABLE BUT WILL NOT FLOW. WHERE "DRY PACK" IS SPECIFIED, IT SHALL MEAN A GROUT OF THAT CONSISTENCY; THE TYPE OF GROUT TO BE USED SHALL BE AS SPECIFIED HEREIN FOR THE PARTICULAR APPLICATION.

9. MEASUREMENT OF INGREDIENTS

- a. MEASUREMENTS FOR CEMENT GROUT SHALL BE MADE ACCURATELY BY VOLUME USING APPROPRIATE CONTAINERS. SHOVEL MEASUREMENT WILL NOT BE ALLOWED.
- b. PREPACKAGED GROUTS SHALL HAVE INGREDIENTS MEASURED BY MEANS RECOMMENDED BY THE MANUFACTURER.

10. GENERAL

- a. ALL SURFACE PREPARATION, CURING, AND PROTECTION OF CEMENT GROUT SHALL BE AS SPECIFIED IN SECTION 332538, "PRECAST CONCRETE STORM DRAIN STRUCTURES." THE FINISH OF THE GROUT SURFACE SHALL MATCH THAT OF THE ADJACENT CONCRETE.
- b. THE MANUFACTURER OF CLASS A NON-SHRINK GROUT AND EPOXY GROUT SHALL PROVIDE ON-SITE TECHNICAL ASSISTANCE UPON REQUEST.
- c. ALL MIXING, SURFACE PREPARATION, HANDLING, PLACING, CONSOLIDATION, AND OTHER MEANS OF EXECUTION FOR PREPACKAGED GROUTS SHALL BE DONE ACCORDING TO THE PRINTED INSTRUCTIONS AND RECOMMENDATIONS OF THE MANUFACTURER.

11. CONSOLIDATION

a. GROUT SHALL BE PLACED IN SUCH A MANNER, FOR THE CONSISTENCY NECESSARY FOR EACH APPLICATION, SO AS TO ASSURE THAT THE SPACE TO BE GROUTED IS COMPLETELY FILLED.

12. APPLICATION

- a. PRIOR TO PLACEMENT OF ANY SUBSURFACE GROUT, CONTRACTOR SHALL NOTIFY USA TO MARK SUBSCRIBING SUBSURFACE UTILITIES IN THE VICINITY OF PLANNED EXCAVATIONS AND GROUTING. USE PROJECT DRAWINGS AND MAKE DETAILED SITE INSPECTIONS TO LOCATE EXISTING SUBSURFACE UTILITIES PRIOR TO BEGINNING GROUTING/EXCAVATION OPERATIONS.
- b. GROUTING IS TO BE DONE PRIOR TO SHORING INSTALLATION AND PRIOR TO ANY DEWATERING. c. GROUT MIX SHALL BE DESIGNED AND INJECTED AT PRESSURES THAT WILL NOT DAMAGE ADJACENT UTILITIES. NO HEAVE OF GROUND SURFACE SHALL BE ALLOWED AND ALL EXISTING UTILITIES, PIPELINES, AND STRUCTURES SHALL BE PROTECTED FROM DAMAGE DURING APPLICATION AND CURING OF GROUT. INSTALL TEMPORARY ELEVATION BENCHMARKS IN GROUTING AREAS AND AT SUITABLE DISTANCES OUTSIDE OF GROUTING AREAS TO PROVIDE REFERENCE CHECKS AGAINST EXISTING ELEVATIONS. MONITOR ELEVATIONS OF EXISTING IMPROVEMENTS INCLUDING UTILITIES DURING ALL GROUTING OPERATIONS AND MAINTAIN DAILY
- LOGS OF CUMULATIVE CHANGES IN BENCHMARK ELEVATIONS. d. PROVIDE CONSTANT MONITORING OF EXISTING GRAVITY UTILITIES TO VERIFY NO INFLOW OF GROUT DURING GROUT PUMPING OPERATIONS. IMMEDIATELY CEASE GROUT PUMPING IF INTRUSION OCCURS. CONTRACTOR IS RESPONSIBLE TO REMOVE GROUT FROM ANY AFFECTED UTILITIES.
- e. NOTIFY THE TOWN IMMEDIATELY IF ELEVATION CHANGES GREATER THAN 0.25 INCHES OCCUR AND IMMEDIATELY CEASE ALL WORK IN AND AROUND THE AFFECTED AREA. REVISE AND RESUBMIT GROUTING PLAN FOR REVIEW BY THE ENGINEER PRIOR TO CONTINUATION OF WORK IN THE AFFECTED AREA. f. PUMP GROUT THROUGH GROUT INJECTION CASINGS UNTIL GROUT RETURNS ARE NOTED IN THE NEXT ADJACENT PRE-DRILLED/DRIVE GROUT INJECTION CASING.
- g. COORDINATE GROUT INJECTION PRESSURES (ALWAYS TO BE LESS THAN PRESSURES THAT COULD DAMAGE EXISTING UTILITIES), GROUT FLUIDITY/SET TIMES, AND GROUT INJECTION CASING LAYOUT DIMENSIONS. h. MAINTAIN DAILY LOG OF GROUTING OPERATIONS INCLUDING GROUT INJECTION CASING NUMBER, LOCATION, GROUTING PRESSURE AND RATE, STAGE DEPTH, AND GROUT QUANTITY AND BATCH USED.

GROUT (CONT.)

- i. SAMPLES SHALL BE TAKEN FROM EACH BATCH MIXED AND PROPERLY IDENTIFIED, STORED, AND TESTED TO
- VERIFY THAT COMPRESSIVE STRENGTH IS WITHIN SPECIFIED RANGE. j. DURING AND UPON COMPLETION OF GROUTING, THE WORK AREA SHALL BE CLEANED AND RESTORED TO
- ORIGINAL CONDITION INCLUDING ADEQUATE DISPOSAL OF ALL GENERATED WASTE AND WASTEWATER. k. REPAIR THE TOP OF EACH GROUT INJECTION HOLE TO MATCH EXISTING PAVEMENT GRADE.

MEASUREMENT AND PAYMENT

1. FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS AND FOR DOING ALL THE WORK INVOLVED IN GROUTING, INCLUDING MOBILIZATION, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" (BID ITEM 5).

DEWATERING

- 1. DEWATERING MAY BE REQUIRED FOR TRENCHING, DRILLING, AND OTHER WORK REQUIRING EXCAVATION.
- CONTRACTOR SHALL IMPLEMENT A GROUNDWATER MANAGEMENT PLAN WHICH INCLUDES THE FOLLOWING: a. KEEP ALL EXCAVATIONS, INCLUDING DRILLED SHAFT FOUNDATIONS, REASONABLY FREE FROM WATER DURING CONSTRUCTION.
- b. DISPOSAL OF WATER SHALL NOT DAMAGE PROPERTY OR CREATE A PUBLIC NUISANCE. c. HAVE ON HAND PUMP EQUIPMENT AND MACHINERY IN GOOD WORKING CONDITION FOR EMERGENCIES AND
- WORKMEN AVAILABLE FOR ITS OPERATION. d. DEWATERING SYSTEMS SHALL OPERATE CONTINUOUSLY UNTIL FOUNDATIONS ARE POURED OR TRENCHES ARE BACKFILLED.
- e. GROUNDWATER SHALL BE CONTROLLED TO PREVENT SOFTENING OF THE BOTTOM OF EXCAVATIONS, OR FORMATION OF "QUICK" CONDITIONS.
- f. DEWATERING SYSTEMS SHALL NOT REMOVE NATURAL SOILS.
- g. CONTROL SURFACE RUNOFF TO PREVENT ENTRY OR COLLECTION OF WATER IN EXCAVATIONS. h. RELEASE OF GROUNDWATER SHALL BE CONTROLLED TO PREVENT DISTURBANCE OF THE NATURAL
- FOUNDATION SOILS OR COMPACTED FILL. i. THERE SHALL BE NO DISCHARGE OF TURBID WATER ON SITE.
- j. DISCHARGE OR DISPOSAL OF WATER SHALL BE CONTROLLED TO PREVENT EROSION ALONG ROADWAY EMBANKMENTS. EROSION CONTROL BMPS SUCH AS RIP RAP AND WATTLES SHALL BE IMPLEMENTED FOR
- k. DEWATERING EFFLUENT SHALL NOT BE DISCHARGED INTO TOWN SANITARY SEWER SYSTEM WITHOUT PRIOR APPROVAL FROM ENGINEER.

1. DEWATERING PLAN SHALL BE SUBMITTED TO THE TOWN FOR REVIEW PRIOR TO THE START OF WORK.

MEASUREMENT AND PAYMENT

1. FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS NECESSARY TO PREPARE, SUBMIT, REVISE, AND IMPLEMENT THE APPROVED DEWATERING PLAN, AND FOR DOING ALL THE WORK INVOLVED IN PROVIDING DEWATERING, INCLUDING MOBILIZATION, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" (BID ITEM 5).

EXCAVATION SAFETY AND SHORING

- 1. THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING TEMPORARY SHEETING, SHORING, BENCHING, AND BRACING IN ACCORDANCE WITH OSHA REQUIREMENTS AND THE CONSTRUCTION SAFETY ORDERS OF THE STATE OF CALIFORNIA, PURSUANT TO SECTION 6707 OF THE CALIFORNIA LABOR CODE.
- 2. THIS WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING: SHORING PLANS AND CALCULATIONS (PREPARED BY A CALIFORNIA— LICENSED CIVIL OR STRUCTURAL ENGINEER), INSTALLING AND MAINTAINING SHORING, BRACING, SHIELDING, AND SHEETING, AND INCLUDE CONFORMANCE TO APPLICABLE SAFETY ORDERS, AND ANY NECESSARY SUBSURFACE INVESTIGATIONS, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE
- 3. "EXCAVATION SAFETY" SHALL CONFORM TO SECTION 7-1.02K(6)(B) OF THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS.

STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS. AND AS DIRECTED BY THE ENGINEER.

SUBMITTALS

1. SHEETING, SHORING, BENCHING, AND BRACING PLANS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A CALIFORNIA REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO THE TOWN FOR REVIEW PRIOR TO THE START OF WORK.

EXECUTION

- 1. THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING TEMPORARY SHEETING, SHORING, BENCHING, AND BRACING IN ACCORDANCE WITH THE REQUIREMENTS OF OSHA AND THE CONSTRUCTION SAFETY ORDERS OF THE STATE OF CALIFORNIA, PURSUANT TO THE PROVISIONS OF SECTION 6707 OF THE CALIFORNIA LABOR CODE. SHEETING, SHORING, BENCHING, AND BRACING PLANS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A CALIFORNIA REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO THE TOWN PRIOR TO THE START OF
- 2. ATTENTION IS DIRECTED TO THE REQUIREMENTS IN SECTION 6705 OF THE LABOR CODE CONCERNING TRENCH EXCAVATION SAFETY PLANS. EXCAVATIONS SHALL BE ADEQUATELY SHORED AND BRACED SO THAT THE EARTH WILL NOT SLIDE, MOVE, OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE.
- 3. ATTENTION IS CALLED TO ARTICLE 6 OF "CONSTRUCTION SAFETY ORDERS" OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, THAT THE CONTRACTOR IS REQUIRED BY LAW TO OBEY AND WHICH ARE ADOPTED BY REFERENCE AS PART OF THESE SPECIAL PROVISIONS. ATTENTION IS DIRECTED TO PUBLIC CONTRACT CODE SECTION 7104, WHICH REQUIRES THE CONTRACTOR TO PROMPTLY NOTIFY THE TOWN OF LOS GATOS WHEN WORKING ON A CONTRACT INVOLVING THE DIGGING OF TRENCHES OR EXCAVATIONS IN EXCESS OF FOUR FEET
- BELOW THE SURFACE, AND WHEN ANY OF THE FOLLOWING ARE ENCOUNTERED: a. MATERIAL THAT THE CONTRACTOR BELIEVES MAY BE HAZARDOUS WASTE, AS DEFINED IN SECTION 25117 OF THE HEALTH AND SAFETY CODE THAT IS REQUIRED TO BE REMOVED TO A CLASS I, CLASS II, OR CLASS III DISPOSAL SITE IN ACCORDANCE WITH THE PROVISIONS OF EXISTING LAW.
- b. SUBSURFACE OR LATENT PHYSICAL CONDITIONS AT THE SITE DIFFERING FROM THOSE INDICATE c. UNKNOWN PHYSICAL CONDITIONS AT THE SITE OF ANY UNUSUAL NATURE, DIFFERENT MATERIALLY FROM THOSE ORDINARILY ENCOUNTERED AND GENERALLY RECOGNIZED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR THE CONTRACT. SUCH NOTIFICATION SHALL BE IN WRITING AND SHALL BE
- d. ENTRY AND RECEIVING PITS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: • PROTECTED BY THE PLACEMENT OF A 6-FOOT CHAIN-LINK FENCE OR TYPE K BARRIER. • SHORING IN ACCORDANCE WITH CAL-OSHA REQUIREMENTS.

SUBMITTED TO THE ENGINEER PRIOR TO DISTURBING ANY OF THE ABOVE CONDITIONS.

- 4. THE SHORING METHOD'S CHOICE SHALL BE LEFT TO THE CONTRACTOR'S JUDGMENT BASED ON EXPERIENCE, ECONOMIC CONSIDERATIONS, AND ADJACENT IMPROVEMENTS SUCH AS UTILITIES, PAVEMENTS, AND FOUNDATION LOADS. TEMPORARY SHORING SHOULD SUPPORT ADJACENT IMPROVEMENTS WITHOUT DISTRESS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 5. IN ADDITION TO SOIL EARTH PRESSURES, THE SHORING SYSTEM WILL NEED TO SUPPORT ADJACENT LOADS SUCH AS CONSTRUCTION VEHICLES AND INCIDENTAL LOADING, EXISTING STRUCTURE FOUNDATION LOADS, AND STREET LOADING. HEAVY CONSTRUCTION LOADS (CRANES, ETC.) AND MATERIAL STOCKPILES SHALL BE KEPT AT LEAST 15 FEET BEHIND THE SHORING. WHERE THIS LOADING CANNOT BE SET BACK, THE SHORING WILL NEED TO BE DESIGNED TO SUPPORT THE LOADING. THE SHORING DESIGNER SHALL PROVIDE FOR TIMELY AND UNIFORM MOBILIZATION OF SOIL PRESSURES THAT WILL NOT RESULT IN EXCESSIVE LATERAL DEFLECTIONS.
- 6. A CALIFORNIA-LICENSED CIVIL OR STRUCTURAL ENGINEER MUST DESIGN AND BE IN RESPONSIBLE CHARGE OF THE TEMPORARY SHORING DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, AS WELL AS SITE SAFETY. TEMPORARY SHORING DESIGN CALCULATIONS SHALL BE SUBMITTED

EXCAVATION SAFETY (CONT.)

- TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-1.02K(6) (A, B AND D), "OCCUPATIONAL SAFETY AND HEALTH STANDARDS" OF THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS.
- 4. THE SHORING METHOD'S CHOICE SHALL BE LEFT TO THE CONTRACTOR'S JUDGMENT BASED ON EXPERIENCE, ECONOMIC CONSIDERATIONS, AND ADJACENT IMPROVEMENTS SUCH AS UTILITIES, PAVEMENTS, AND FOUNDATION LOADS. TEMPORARY SHORING SHOULD SUPPORT ADJACENT IMPROVEMENTS WITHOUT DISTRESS AND SHALL BE
- 5. IN ADDITION TO SOIL EARTH PRESSURES, THE SHORING SYSTEM WILL NEED TO SUPPORT ADJACENT LOADS SUCH AS CONSTRUCTION VEHICLES AND INCIDENTAL LOADING, EXISTING STRUCTURE FOUNDATION LOADS, AND STREET LOADING. HEAVY CONSTRUCTION LOADS (CRANES, ETC.) AND MATERIAL STOCKPILES SHALL BE KEPT AT LEAST 15 FEET BEHIND THE SHORING. WHERE THIS LOADING CANNOT BE SET BACK, THE SHORING WILL NEED TO BE DESIGNED TO SUPPORT THE LOADING. THE SHORING DESIGNER SHALL PROVIDE FOR TIMELY AND UNIFORM MOBILIZATION OF SOIL PRESSURES THAT WILL NOT RESULT IN EXCESSIVE LATERAL DEFLECTIONS.
- 6. A CALIFORNIA—LICENSED CIVIL OR STRUCTURAL ENGINEER MUST DESIGN AND BE IN RESPONSIBLE CHARGE OF THE TEMPORARY SHORING DESIGN. THE CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, AS WELL AS SITE SAFETY. TEMPORARY SHORING DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-1.02K(6) (A, B AND D), "OCCUPATIONAL SAFETY AND HEALTH STANDARDS" OF THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS.

MEASUREMENT AND PAYMENT

THE CONTRACTOR'S RESPONSIBILITY.

1. FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS AND FOR DOING ALL THE WORK INVOLVED IN PROVIDING EXCAVATION SAFETY AND SHORING, INCLUDING MOBILIZATION, SHORING PLANS AND CALCULATIONS (PREPARED BY A CALIFORNIA-LICENSED CIVIL OR STRUCTURAL ENGINEER), INSTALLING AND MAINTAINING SHORING, BRACING, SHIELDING, AND SHEETING, AND INCLUDE CONFORMANCE TO APPLICABLE SAFETY ORDERS, AND ANY NECESSARY SUBSURFACE INVESTIGATIONS, AS SHOWN ON THE PLANS, AS SPECIFIED IN THE 2024 CALTRANS STANDARD SPECIFICATIONS AND THESE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" (BID ITEM 5).

FLOW BYPASS SYSTEM

1. PERFORMANCE REQUIREMENTS

2. DESIGN REQUIREMENTS:

- a.IT IS ESSENTIAL TO THE OPERATION OF THE TOWN'S STORM DRAIN SYSTEM THAT THERE BE NO SERVICE INTERRUPTION FOR THE CUSTOMERS AND THAT THE FLOW OF STORM DRAIN THROUGHOUT THE DURATION OF THE PROJECT BE DONE IN A MANNER THAT DOES NOT ENDANGER PUBLIC HEALTH OR THE ENVIRONMENT. PROVIDE, MAINTAIN, AND OPERATE ALL TEMPORARY FACILITIES SUCH AS DAMS, PLUGS, FLOW-THROUGH PLUGS, PUMPING EQUIPMENT (BOTH PRIMARY AND BACKUP UNITS AS REQUIRED), CONDUITS, AND ALL NECESSARY POWER TO INTERCEPT THE STORM DRAIN FLOW BEFORE IT REACHES THE POINT WHERE IT WOULD INTERFERE WITH THE WORK, CARRY IT PAST THE WORK, AND RETURN IT TO THE EXISTING STORM DRAIN DOWNSTREAM OF THE WORK.
- b. DESIGN, INSTALL, AND OPERATE TEMPORARY FLOW BYPASS AND PUMPING SYSTEMS WHERE REQUIRED.
- c. CONVEY THE STORM DRAIN FLOW SAFELY PAST THE WORK AREA. DO NOT STOP OR IMPEDE THE MAIN FLOWS UNDER ANY CIRCUMSTANCES.
- d. MAINTAIN STORM DRAIN FLOW AROUND AND WITHIN THE WORK AREA IN A MANNER THAT WILL NOT CAUSE SURCHARGING OF STORM DRAIN LINES, DAMAGE TO STORM DRAINS, AND THAT WILL PROTECT PUBLIC AND PRIVATE PROPERTY FROM DAMAGE AND FLOODING, INCLUDING THE ROUTING OF STORM DRAIN OVERFLOW IN THE EVENT OF FAILURE OF ANY BYPASS SYSTEM.
- e. PROTECT WATER RESOURCES, WETLANDS, AND OTHER NATURAL RESOURCES.
- f, QUALIFIED PERSONNEL RESPONSIBLE FOR BYPASS PUMPING OPERATIONS 24 HOURS PER DAY, 7 DAYS
- a. PROVIDE FLOW THROUGH PLUGS, PUMPS OF ADEQUATE SIZE TO HANDLE PEAK FLOW, AND/OR TEMPORARY DISCHARGE PIPING, TO ENSURE THAT THE TOTAL FLOW OF THE VARIOUS PIPELINES AND SERVICE CONNECTIONS CAN BE SAFELY DIVERTED AROUND THE SECTIONS TO BE REHABILITATED.

b. INSTALL A MINIMUM OF TWO PUMPS WHERE PUMPING IS REQUIRED, EACH OF WHICH SHALL BE CAPABLE

ONLINE, ISOLATED BY INDIVIDUAL VALVES, AND BE READY FOR USE WITHIN FIVE MINUTES IN THE EVENT

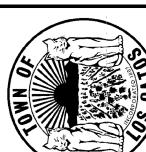
OF PUMPING THE TOTAL CONTRIBUTING FLOWS (100 PERCENT REDUNDANCY). ALL PUMPS SHALL BE

OF AN EMERGENCY OR BREAKDOWN OF AN ON-LINE PUMP.

c. PROVIDE ONSITE PORTABLE LIGHTS FOR EMERGENCY USE ONLY.

- d. PROVIDE STANDBY POWER FACILITIES FOR EMERGENCY USE IF PUMPS ARE EQUIPPED WITH ELECTRIC MOTORS.
- e. ALL JOINTS OF PIPE USED SHALL BE RESTRAINED.
- f. CONTRACTOR SHALL PROVIDE PIPELINE PLUGS AS NECESSARY FOR ALL SHUTDOWNS. TEMPORARY BYPASS OPERATIONS, OR WHERE HANDLING OF UPSTREAM FLOWS IS PROPOSED IN LIEU OF OR IN ADDITION TO BYPASS PUMPING.
- g. METHOD OF WORK AND LAYOUT OF EQUIPMENT FOR BYPASS SYSTEM CONVEYANCE ACROSS STREETS AND INTERSECTIONS SHALL BE INCLUDED WITH AND APPROVED BY THE GOVERNING ENCROACHMENT PERMIT FOR THE JURISDICTION. ALLOWED AT-GRADE CONVEYANCE SCHEME SHALL INCLUDE ADEQUATE TRAFFIC CONTROL DEVICES AND PERSONNEL, AS PER GOVERNING ENCROACHMENT PERMIT. BURIED CONVEYANCE SCHEME SHALL ALSO INCLUDE ADEQUATE TRAFFIC CONTROL DEVICES AND PERSONNEL AS PER GOVERNING ENCROACHMENT PERMIT. ALL TRENCHING WILL BE RESTORED PER GOVERNING ENCROACHMENT PERMIT.

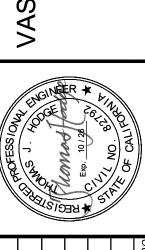
- 1. DETAILED PLANS AND DESCRIPTIONS OUTLINING COMPLETE FLOW BYPASS PUMPING SYSTEM FOR FLOW REROUTING. BYPASS SYSTEM PLAN SHALL INCLUDE AN EMERGENCY RESPONSE PLAN TO BE FOLLOWED IN THE EVENT OF A FAILURE OF THE BYPASS SYSTEM, AND SHALL OUTLINE IN DETAIL THE PROPOSED SEQUENCING FOR ALL PROPOSED SYSTEM OUTAGES, SYSTEM STARTUP AND SWITCHOVERS, INCLUDING TIME OF DAY AND AMOUNT OF TIME REQUIRED, AND EMERGENCY RESPONSE DETAILS REGARDING PERSONNEL INVOLVED AND CLEANUP PROCEDURES AS APPLICABLE. ALL PLANS SHALL BE SUBMITTED TO THE ENGINEER AT LEAST 8 WEEKS PRIOR TO REQUIRED OPERATION OF BYPASS SYSTEM. SEWER SYSTEM OUTAGES ARE NOT PERMITTED.
- 2. WHERE PUMPING IS REQUIRED, SUBMIT COMPLETE INFORMATION ON PUMPING SYSTEM. LOCATION FOR TEMPORARY PUMPS, PIPE ROUTING, MANHOLE TIE IN LOCATIONS, AND PUMPING AND FLOW HANDLING METHODS SHALL BE SUBMITTED WITH BYPASS SYSTEM PLAN. IF FLOW HANDLING WITHOUT A BYPASS SYSTEM (I.E., PLUGGING UPSTREAM PIPELINES AND UTILIZING A COMBO TRUCK TO CAPTURE UPSTREAM FLOWS) IS PROPOSED, CONTRACTOR SHALL PROVIDE SUFFICIENT DETAIL IN THE BYPASS SYSTEM PLAN FOR THE COMPLETE OPERATION OF THE FLOW HANDLING SCHEME.
- 3. WHERE STANDBY GENERATORS ARE REQUIRED, SUBMIT COMPLETE INFORMATION ON GENERATION SYSTEM.
- 4. ALL BYPASS PUMPING EQUIPMENT SHALL BE RATED FOR LOW NOISE RATE COMPLIANCE. DECIBELS OF THE ENTIRE OPERATION SHALL NOT EXCEED 86 DBA AT 50 FEET FOR WORK DURING NORMAL WORKING HOURS. IF PUMPING IS REQUIRED OUTSIDE NORMAL WORKING HOURS, GENERATORS SHALL BE "WHISPER QUIET" AND RATED FOR LOW NOISE RATE COMPLIANCE IN RESIDENTIAL NEIGHBORHOODS AND PER GOVERNING JURISDICTION. GENERATORS SHALL NOT PRODUCE NOISE SUCH THAT A REASONABLE PERSON OF NORMAL SENSITIVENESS RESIDING IN THE WORK AREA IS CAUSED DISCOMFORT OR ANNOYANCE. THE CONTRACTOR SHALL SUBMIT PROPOSED EQUIPMENT, INCLUSIVE OF DBA RATINGS TO THE ENGINEER FOR APPROVAL PRIOR TO USE.



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FLOW BYPASS SYSTEM (CONT.)

- 5. PROVIDE EMERGENCY CONTACT NAMES AND PHONE NUMBERS OF CONTRACTOR'S SUPERVISOR AND PERSONNEL QUALIFIED TO REMEDIATE ANY DISRUPTION IN BYPASS PUMPING OPERATIONS.
- 6. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO SAFELY CONVEY THE SEWAGE PAST THE WORK AREA.
- IF PUMPING IS REQUIRED OUTSIDE NORMAL WORKING HOURS, GENERATORS SHALL BE "WHISPER QUIET" AND RATED FOR LOW NOISE RATE COMPLIANCE IN RESIDENTIAL NEIGHBORHOODS AND PER GOVERNING JURISDICTION. GENERATORS SHALL NOT PRODUCE NOISE SUCH THAT A REASONABLE PERSON OF NORMAL SENSITIVENESS RESIDING IN THE WORK AREA IS CAUSED DISCOMFORT OR ANNOYANCE. THE CONTRACTOR SHALL SUBMIT PROPOSED EQUIPMENT, INCLUSIVE OF DBA RATINGS TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
- 5. PROVIDE EMERGENCY CONTACT NAMES AND PHONE NUMBERS OF CONTRACTOR'S SUPERVISOR AND PERSONNEL QUALIFIED TO REMEDIATE ANY DISRUPTION IN BYPASS PUMPING OPERATIONS.
- 6. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO SAFELY CONVEY THE STORM DRAINAGE PAST THE WORK AREA.
- 7. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE TOWN SHOULD A STORM DRAINAGE OVERFLOW (SDO) OCCUR AND TAKE ALL NECESSARY ACTIONS TO CONTROL, TO CONTAIN, AND TO CLEAN UP THE SPILLAGE TO THE SATISFACTION OF THE TOWN AND/OR OTHER GOVERNMENTAL AGENCY. IF STORM DRAINAGE IS SPILLED INTO PUBLIC OR PRIVATE PROPERTY, THE CONTRACTOR SHALL WASH DOWN, AND CLEAN UP THE SPILLAGE TO THE SATISFACTION OF THE PROPERTY OWNER, TOWN, AND/OR OTHER GOVERNMENTAL

QUALITY ASSURANCE

- 1. CONTRACTOR TO BE COMPLETELY RESPONSIBLE FOR ANY OVERFLOW OR SPILLAGE OF ANY MATERIAL DUE TO FAILURE OF ANY PORTION OF THE FLOW BYPASS SYSTEM.
- 2. CONTRACTOR SHALL PAY ALL FINES OR COSTS ASSOCIATED WITH SUCH SPILLAGES, THIS CONDITION IS IN ADDITION TO INDEMNIFICATION AND INSURANCE PROVISIONS DEFINED ELSEWHERE FOR THE WORK.
- 3. CONTRACTOR TO BE RESPONSIBLE FOR ANY CLEANUP OR RESTORATION RESULTING FROM SUCH SPILLAGES.
- 4. CONTRACTOR SHALL DEMONSTRATE THAT FLOW BYPASS SYSTEM PERFORMS IN CONFORMANCE WITH THESE REQUIREMENTS PRIOR TO PUTTING INTO USE. DEMONSTRATION SHALL REQUIRE ENGINEER'S CONCURRENCE FOR PROPER OPERATIONS.
- 5. CONTRACTOR SHALL PROVIDE FLOW BYPASS AROUND THE SECTION OF PIPE DESIGNATED FOR REHABILITATION. THE BYPASS SYSTEM SHALL BE MADE BY PLUGGING THE LINE AT AN EXISTING UPSTREAM MANHOLE(S) AND PUMPING THE FLOW INTO A DOWNSTREAM MANHOLE OR ADJACENT SYSTEM. THE PUMP AND BYPASS LINES SHALL BE OF ADEQUATE CAPACITY AND SIZE TO HANDLE THE FLOW.

1. CONTRACTOR TO VERIFY FLOWS FOR PROJECT AREA FLOW BYPASS. FLOW DATA, IF AVAILABLE, MAY BE REQUESTED BY THE CONTRACTOR FROM THE ENGINEER OR TOWN OF LOS GATOS.

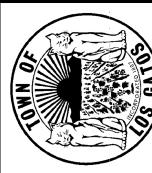
- 1. PUMP SYSTEMS PUMPS MAY BE GAS, ELECTRIC, OR DIESEL POWERED.
- a. PUMPS MAY BE END SUCTION OR SUBMERSIBLE.
- b. BYPASS PIPING SHALL BE RUBBER GASKETED, WITH A MINIMUM PRESSURE RATING OF 50 PSI AND NO VISIBLE LEAKS UNDER OPERATING CONDITIONS. PIPE SUPPORTS, THRUST RESTRAINTS AND VALVES SHALL BE PROVIDED, INCLUDING AN AIR VALVE AT THE HIGH POINT. PIPING SHALL BE SUFFICIENTLY RESTRAINED AND SUPPORTED TO PREVENT MOVEMENT DURING PUMP CYCLING. LAY FLAT RUBBER HOSE SHALL NOT BE
- c. TEMPORARY FENCING, GATES, LOCKS AND SCREENING SHALL BE PROVIDED TO PROTECT AND SCREEN THE EQUIPMENT FROM THE PUBLIC, AND MAINTAIN SECURITY FOR ALL PROPERTIES WHOSE SECURITY IS AFFECTED BY THE BYPASS FLOW SYSTEM. CONTRACTOR SHALL PROVIDE THE TOWN WITH KEYS TO ALL LOCKS.

EXECUTION

- 1. BYPASS PUMPING AND FLOW DIVERSION SHALL BE MONITORED AT ALL TIMES BY A COMPETENT PERSON FAMILIAR WITH THE PUMPING EQUIPMENT AND THE FLOW BYPASS SYSTEM INCLUDING PEDESTRIAN AND VEHICLE TRAFFIC CONTROL.
- 2. CONTRACTOR SHALL CONFORM TO ALL SAFETY PROVISIONS PERTAINING TO CONFINED SPACE ENTRY WHEN ENTERING ANY CONFINED SPACE INCLUDING BUT NOT LIMITED TO PIPES, MHS, AND TANKS.
- 3. ALL BYPASSING WILL REQUIRE COORDINATION WITH TOWN STAFF AT LEAST 48 HOURS IN ADVANCE. SYSTEM OUTAGES ARE NOT PERMITTED.
- 4. TOWN OF LOS GATOS DOES NOT ALLOW STORM DRAIN BLOCKAGE OR BYPASSING 36 HOURS BEFORE A FORECASTED RAIN EVENT AND 36 HOURS AFTER A RAIN EVENT.

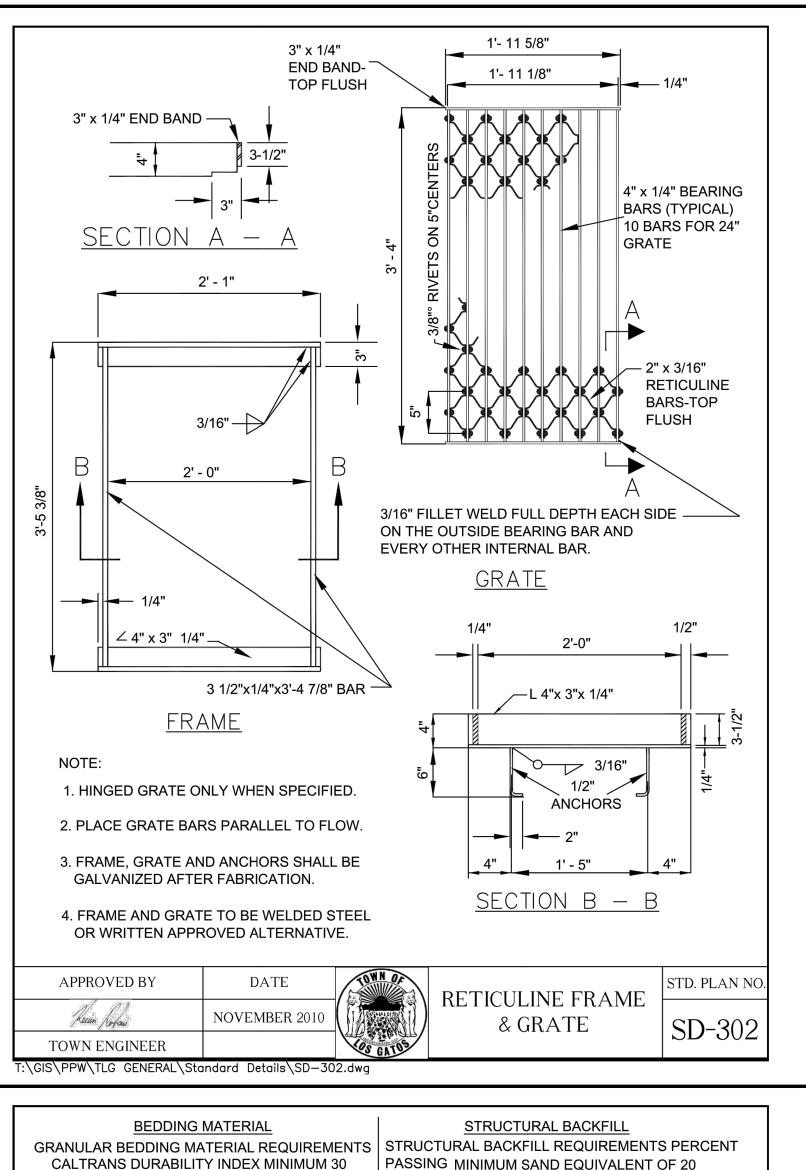
MEASUREMENT AND PAYMENT

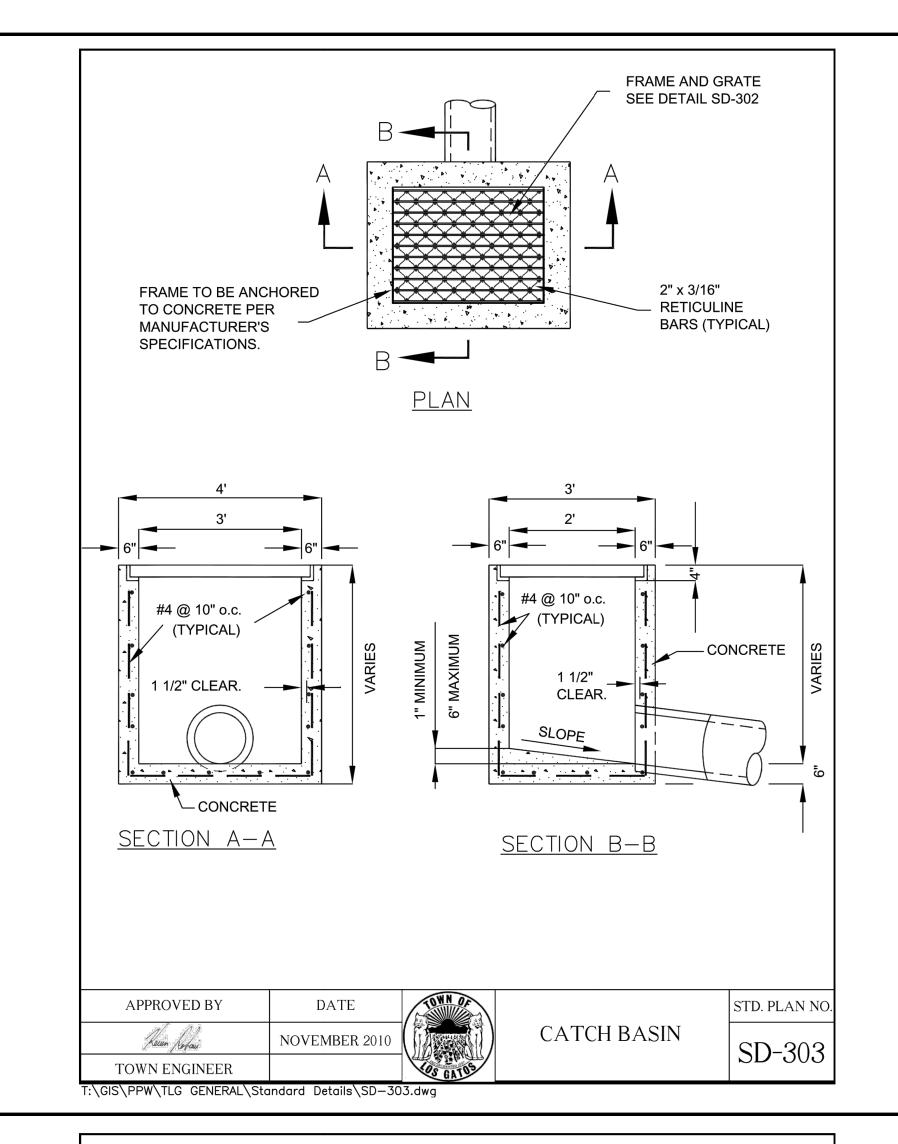
1. FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND FOR DOING ALL THE WORK IN FLOW BYPASS SYSTEM, COMPLETE IN PLACE, INCLUDING, BUT NOT LIMITED TO, MOBILIZATION, BYPASS PLAN, FLOW CONTROL, DIVERSION OR BYPASS PUMPING, DEWATERING, PUMP SETUP, PLUGGING, FUEL/ELECTRICITY, MAINTENANCE, MONITORING WATER LEVELS, TESTING OF STORM BYPASS LINE, AND ALL OTHER WORK NECESSARY TO INSTALL THE STORM BYPASS, SHALL BE CONSIDERED INCIDENTAL TO "REMOVE & REPLACE EXISTING 36" CMP WITH NEW 36" HDPE CORRUGATED DUAL-WALL (TYPE S) BY OPEN TRENCH METHOD" (BID ITEM 5).

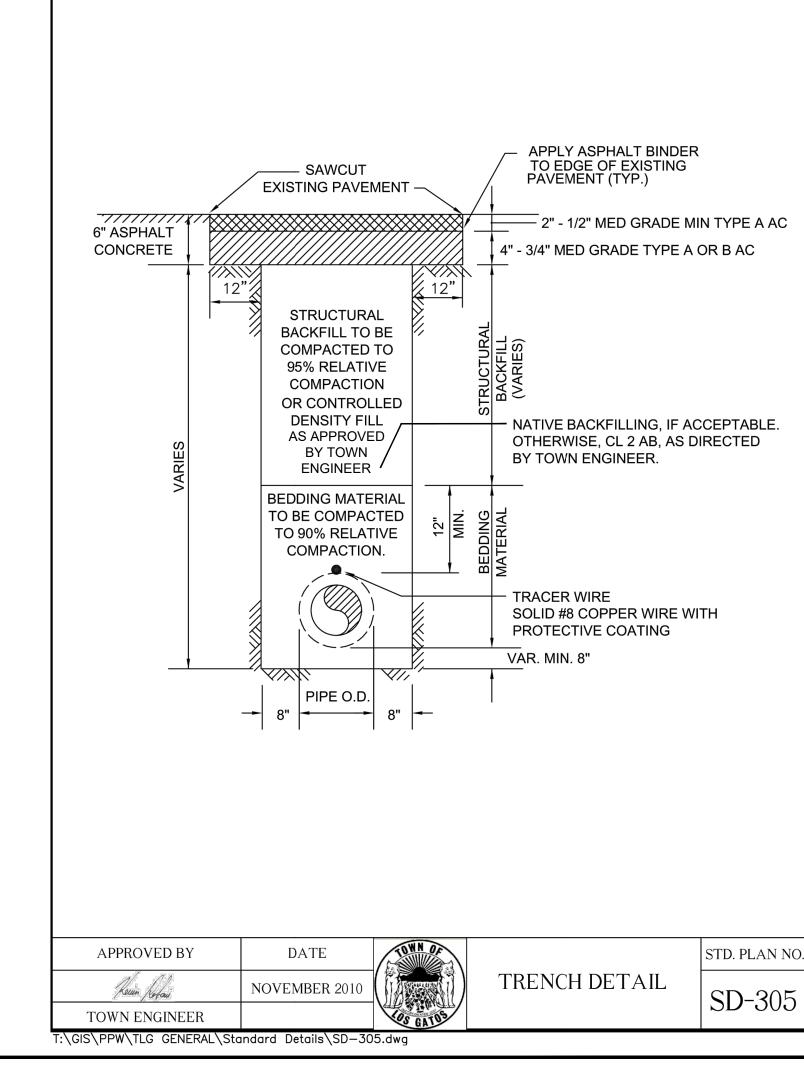


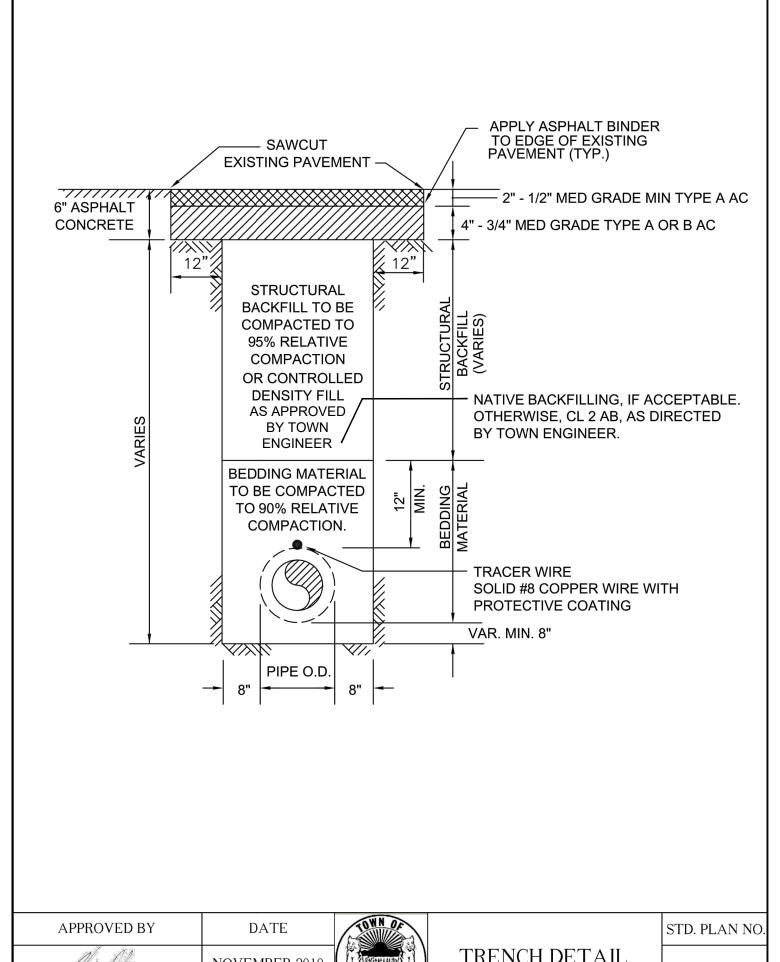
STORM DRAIN IMPROVEMENTS PROJECT
STORM DRAIN REPLACEMENT(PHAS)
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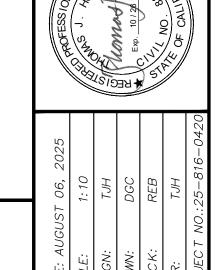












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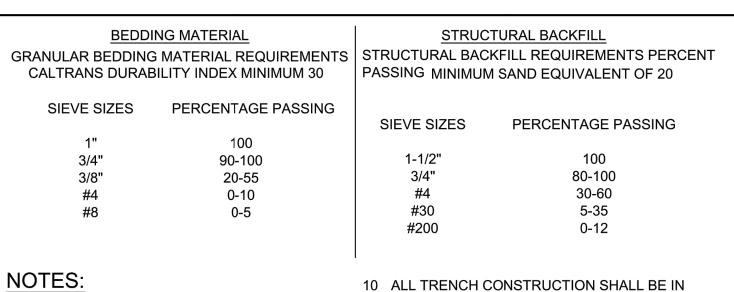
REPLACEMENTS PROJECT

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- ALL BACKFILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES BEFORE COMPACTION UNLESS AUTHORIZED BY THE ENGINEER.
- 2 MECHANICAL COMPACTION OF BACKFILL MATERIAL SHALL NOT BEGIN UNTIL THE DEPTH OF COMPACTED BACKFILL MATERIAL IS 2 FEET ABOVE THE TOP OF PIPE.
- EACH LIFT SHALL BE MECHANICALLY COMPACTED TO THE REQUIRED DENSITY PRIOR TO PLACING SUCCEEDING LIFTS OF BACKING MATERIAL.
- 4 COMPACTION TESTS SHALL BE AS REQUIRED BY THE TOWN CONSTRUCTION INSPECTOR, BUT IN NO CASE LESS THAN 2 TESTS EVERY 200 FT OF TRENCH. (ONE AT FINISH SUBGRADE AND 14 A SEMI-FINISHED SURFACE OF CUTBACK OR ONE AT 50% OF TRENCH DEPTH).
- 5 IN-PLACE DENSITY WILL BE DETERMINED BY ONE OR MORE OF THE FOLLOWING METHODS. (A) ASTM D1557, TEST FOR DENSITY OF SOIL IN-PLACE BY THE SAND CONE METHOD. (B) ASTM D2922 - (NUCLEAR METHOD)
- 6 LABORATORY DENSITY WILL BE DETERMINED BY ASTM D1557, MOISTURE-DENSITY RELATIONS OF SOILS AND SOIL-AGGREGATE MIXTURES.
- 7 IF THE EDGE OF THE TRENCH FALLS WITHIN 3' OF THE GUTTER, THE ENTIRE PAVEMENT SHALL BE REMOVED TO THE GUTTER.
- 8 ON STEEP SLOPES, CONSTRUCT CLAY OR CONCRETE DAM THROUGH THE BEDDING MATERIAL AS DETERMINED BY TOWN ENGINEER.
- 9 FOR CONCRETE STREETS PLACE 6" CLASS A P.C.C. OVER 6" CLASS 2 A.B. FOR FINISHED SURFACE.

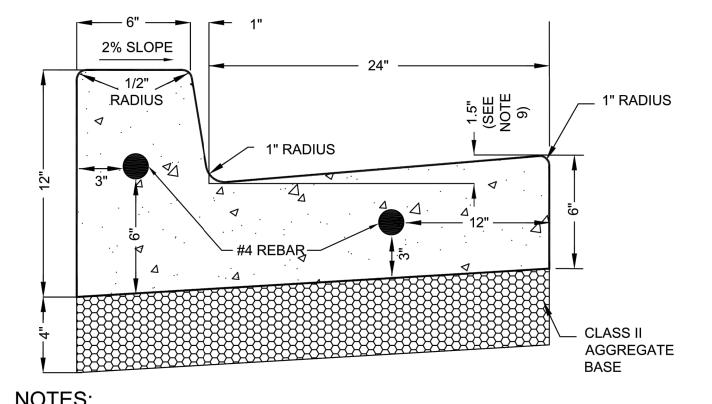
10	ALL TRENCH CONSTRUCTION SHALL BE IN
	COMPLIANCE WITH LATEST OSHA STANDARDS.

- 11 PLACE PERMANENT PAVEMENT WITHIN 30 DAYS AFTER BACKFILLING. INSTALL TEMPORARY AC TO FINISH GRADE UNTIL PERMANENT AC IS PLACED. 12 IF EXISTING AC SECTION IS LESS THAN 4", GRIND
- AC KEY TO FULL DEPTH OF EXISTING AC & REPLACE FULL DEPTH OF AC SECTION (3" MIN.) 13 IN PAVED STREETS, ALL CUTS SHALL BE SMOOTH & VERTICAL WITH THE AREA BEING GENERALLY RECTANGULAR. NATIVE MATERIAL MAY BE USED AS BACKFILL IF APPROVED BY TOWN ENGINEER. IF SAND BACKFILL IS USED, IT MUST BE WELL GRADED, TAMPED WITH VIBRATORY COMPACTOR
- LOWERED CROSS-SECTION (MAX. LOWERED DEPTH, 1/2") OF ASPHALTIC CONCRETE WILL BE ALLOWED FOR A MAXIMUM OF 30 DAYS AFTER BACKFILLING TO ALLOW FOR SETTLING. CONTRACTOR SHALL PATCH ANY TIME THAT EXCESSIVE SETTLING OCCURS.

& LIGHTLY JETTED, IF NECESSARY.

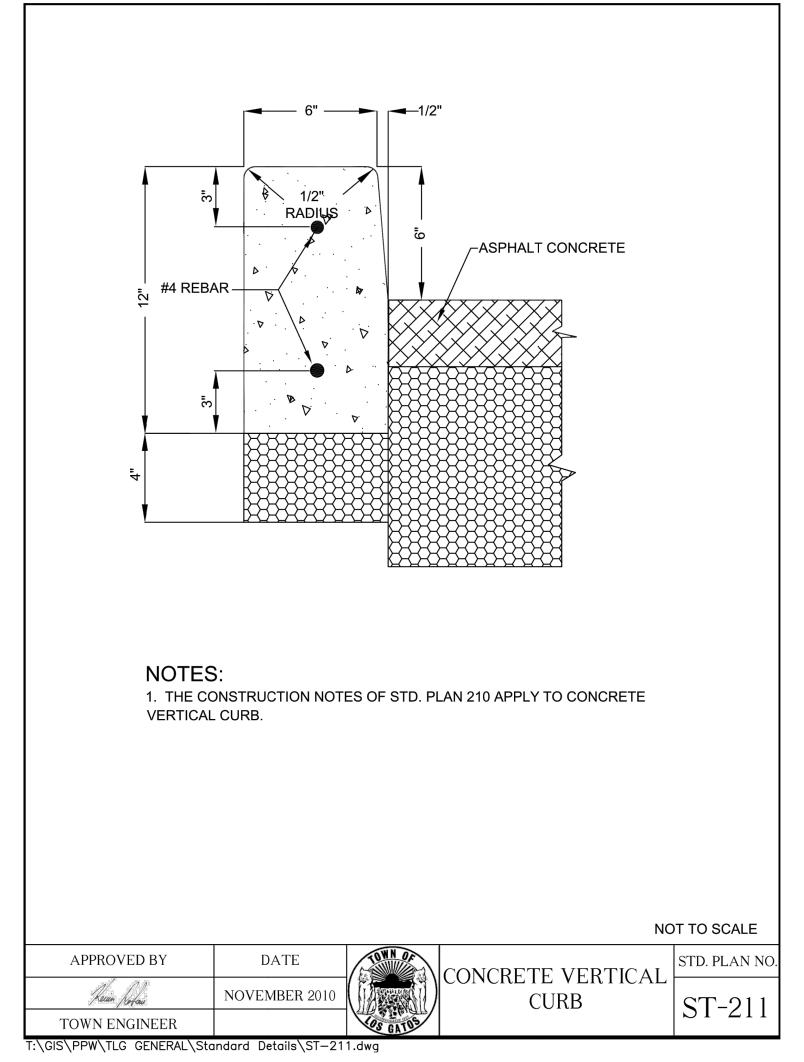
- 15 WITHIN 30 DAYS, CONTRACTOR SHALL RESTORE SURFACE TO ITS ORIGINAL CONDITION & BE RESPONSIBLE FOR ANY FURTHER SETTLING OR FAILURE FOR A MIN. OF 2 YEARS. IF CUTBACK IS USED AS A SEMI-FINISHED SURFACE, IT SHALL BE REMOVED BEFORE FINISHING. A 6" EDGE OF EXISTING AC SHALL BE REMOVED AROUND THE PERIMETER OF THE CUT BEFORE PLACEMENT OF ASPHALTIC CONCRETE.
- 16 A 6" COURSE OF CRUSHED ROCK BASE (1.5" MAX. AGGREGATE) & 3" ASPHALTIC CONRETE IS MIN. SURFACING TO BE RESTORED. NO RESTORATION SHALL BE LESS SUBSTANTIAL THAN EXISTING COMPOSITION. IN CASES OF CONCRETE STREETS A 6" THICKNESS OF CONCRETE ON A 6" ROCK CUSHION IS THE MINIMUM STANDARD.

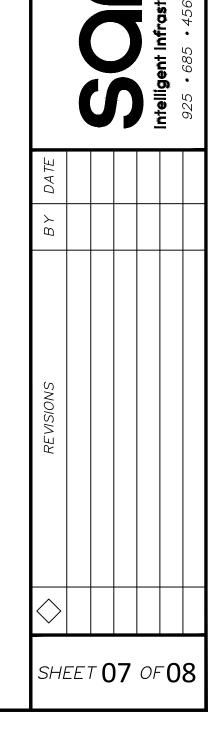
	APPROVED BY	DATE	TOWN OF	TRENCH DETAIL	STD. PLAN NO.	
	Rein Roban	NOVEMBER 2010		NOTES	SD-306	
	TOWN ENGINEER		COS GATOS		3D 300	
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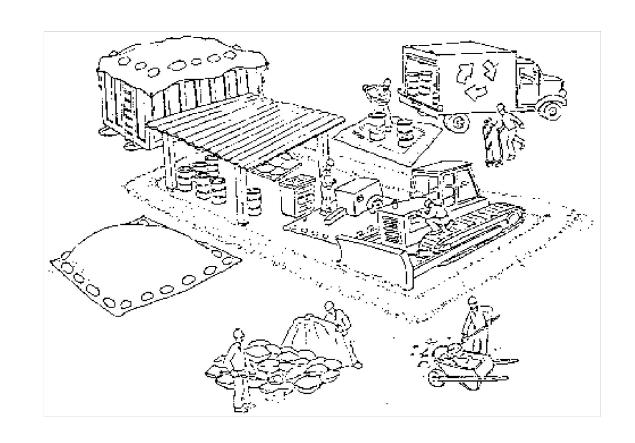
- 1. ALL RADII LESS THAN 100' SHALL USE FLEXIBLE WOOD OR METAL FORMS TO
- ELIMINATE ANGULAR POINTS AT 10' SECTION POINTS. 2. SAWCUT AND REMOVE 20 IN. (MIN.) STREET SECTION FOR CURB AND GUTTER
- INSTALLATION ON EXISTING STREETS. 3. 3/4" EXPANSION JOINTS TO BE PLACED AT DRIVEWAY SECTIONS, CURB RETURNS, CURB RAMPS & COLD JOINTS OR A MAX. OF 30' C/C. EXPANSION JOINTS SHALL
- PROTRUDE 1" BELOW THE BOTTOM OF GUTTER 4. THRU JOINTS SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS AT POINTS OF TANGENCY ON STREETS, AND AT ALLEY AND DRIVEWAY RETURNS. MAXIMUM SPACING SHALL BE 30' PRE-MOLDED JOINT FILLER, SHALL BE 1/2" WIDE AND CONFORM
- TO AASHTO DESIGN M213. DUMMY JOINTS SHALL BE PLACED EVERY 10'. 5. FINISHED WORK SHALL NOT VARY MORE THAN 1/8" IN GRADE AND 1/4" IN ALIGNMENT. 6. THE FINISHED CURB SHALL IMMEDIATELY BE SPRAYED WITH A TRANSPARENT CURING COMPOUND. CURB SHALL BE COVERED BY WATERPROOF PAPER OR PLASTIC MEMBRANE IN THE EVENT OF RAIN OR OTHER UNSUITABLE WEATHER. CURING TIME
- SHALL BE A MINIMUM OF 72 HOURS. 7. ALL CURB AND GUTTER SHALL BE PLACED ON A MIN. OF 4" AGGREGATE BASE CLASS II 95% MAX. COMPACTION ASTM D1557
- 8. #4 REBAR SHALL BE EXTENDED ALONG LENGTH OF THE CURB AND GUTTER 9. GUTTER PAN SLOPE SHALL NOT EXCEED 5% SLOPE AT PEDESTRIAN CURB RAMP ENTRY LOCATIONS. CONTRACTOR SHALL USE 1.2" (MAX) BETWEEN LIP OF GUTTER AND FLOWLINE AT THESE LOCATIONS.
- 10. ALL CONCRETE SHALL INCLUDE ONE (1) POUND OF LAMP BLACK PER CUBIC YARD OF
- 11. ALL CURB AND GUTTER SHALL HAVE 2 #4 REBARS THE ENTIRE LENGTH AND EMBEDDED ON BOTH ENDS USING DOWELS (ONE DOWEL IN THE CENTER OF THE GUTTER, ONE DOWEL IN THE CENTER OF THE CURB.)

	GOTTEN, ONE DOWLE IN THE CENTER OF THE CORD.)				NOT TO SCALE	
1	APPROVED BY	DATE	TOWN OF	CONCRETE CURB AND	STD. PLAN NO.	
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Pollution Prevention — It's Part of the Plan



Make sure your crews and subs do the job right!

Runoff from streets and other paved areas is a major source of pollution in San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local creeks. Following these guidelines will ensure your compliance with local ordinance requirements.



Materials storage & spill cleanup

Non-hazardous materials management

- ✓ Sand, dirt, and similar materials must be stored at least 10 feet from catch basins, and covered with a tarp during wet weather or when rain is forecast.
- ✓ Use (but don't overuse) reclaimed water for dust control as needed.
- ✓ Sweep streets and other paved areas daily. Do not wash down streets or work areas with water!
- ✔ Recycle all asphalt, concrete, and aggregate base material from demolition activities.
- ✓ Check dumpsters regularly for leaks and to make sure they don't overflow. Repair or replace leaking dumpsters promptly.

Hazardous materials management

- ✓ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, state, and federal regulations.
- ✓ Store hazardous materials and wastes in secondary containment and cover them during wet weather.
- ✓ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ✔ Be sure to arrange for appropriate disposal of all hazardous wastes.

Spill prevention and control

- ✓ Keep a stockpile of spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- ✓ When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain. Never wash spilled material into a gutter, street, storm drain, or creek!
- ✓ Report any hazardous materials spills immediately! Dial 911 or your local emergency response number.

Vehicle and equipment maintenance & cleaning

- ✓ Inspect vehicles and equipment for leaks frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.
- ✓ Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- ✓ If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinsewater to run into gutters, streets, storm drains, or creeks.
- ✓ Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.

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✓ Keep excavated soil on the site where it is least likely to collect in the street. Transfer to dump trucks should take place on the site, not in the street.

Earthwork & contaminated soils

✓ Use hay bales, silt fences, or other control measures to minimize the flow of silt off the site.



- ✓ Avoid scheduling earth moving activities during the rainy season if possible. If grading activities during wet weather are allowed in your permit, be sure to implement all control measures necessary to prevent erosion.
- ✓ Mature vegetation is the best form of erosion control. Minimize disturbance to existing vegetation whenever possible.
- ✓ If you disturb a slope during construction, prevent erosion by securing the soil with erosion control fabric, or seed with fast-growing grasses as soon as possible. Place hay bales down-slope until soil is secure.
- ✓ If you suspect contamination (from site history, discoloration, odor, texture, abandoned underground tanks or pipes, or buried debris), call your local fire department for help in determining what testing should be done.
- ✓ Manage disposal of contaminated soil according to Fire Department instructions.

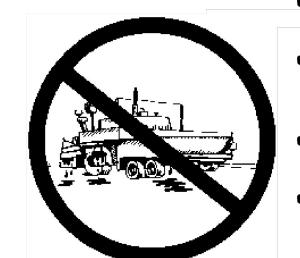
Dewatering operations

- Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.
- Be sure to call your city's storm drain inspector before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ✓ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the city inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

Saw cutting

- ✓ Always completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, hay bales, sand bags, or fine gravel dams to keep slurry out of the storm drain system.
- ✓ Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ✓ If saw cut slurry enters a catch basin, clean it up immediately.

Paving/asphalt work



- Do not pave during wet weather or when rain is forecast.
- ✓ Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- ✔ Place drip pans or absorbent material under paving equipment when not in use.
- ✓ Protect gutters, ditches, and drainage courses with hay bales, sand bags, or earthen berms.
- ✓ Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or creeks. Collect sand and return it to the stockpile, or dispose of it as trash.
- ✓ Do not use water to wash down fresh asphalt concrete pavement.

Concrete, grout, and mortar storage & waste disposal

- ✔ Be sure to store concrete, grout, and mortar under cover and away from drainage areas. These materials must never reach a storm drain.
- ✓ Wash out concrete equipment/trucks off-site or designate an on-site area for washing where water will flow onto dirt or into a temporary pit in a dirt area. Let the water seep into the soil and dispose of hardened concrete with trash.



- ✓ Divert water from washing exposed aggregate concrete to a dirt area where it will not run into a gutter, street, or storm drain.
- ✓ If a suitable dirt area is not available, collect the wash water and remove it for appropriate disposal off site.

Painting

- ✓ Never rinse paint brushes or materials in a gutter or street!
- Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink. If you can't use a sink, direct wash water to a dirt area and spade it in.



- ✔ Paint out excess oil-based paint before cleaning brushes in thinner.
- ✓ Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as hazardous waste.

Storm drain polluters may be liable for fines of up to \$10,000 per day!



VASONA STORM DRAIN IMPROVEMENTS PROJECT

VASONA STORM DRAIN REPLACEMENT(PHASE

UNIVERSITY AVE APPR. 180' NORTH OF VASONA OAKS DR

POLLUTION PREVENTION NOTES

PROJECT NO. 25-816-0420

DATE: AUGUST 06, 2025

SCALE: 1:10

DESIGN: TJH

CHECK: REB

ENGR: TJH

SOME Enduring Communities

REVISIONS BY DATE

SHEET **08** OF **08**

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Bay Area Stormwater Management Agencies Association (BASMAA)

1-888-BAYWISE