

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SECTION 000
GENERAL

LAST REVISION : JULY 2013

GENERAL

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THESE STANDARDS, THE LATEST VERSION OF THE CALTRANS STANDARD SPECIFICATIONS (CSS), AND THE LATEST VERSION OF THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. WORK SHALL BE DONE IN CONFORMANCE WITH THE MOST RECENT VERSION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STATE OF CALIFORNIA.
3. WORK ON WATER AND SEWER LINES WITHIN THE TOWN SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE MAMMOTH COMMUNITY WATER DISTRICT.
4. WORK IN STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION RIGHT OF WAY SHALL BE PERMITTED BY THE TOWN AND CALTRANS AND CONFORM TO THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION REQUIREMENTS.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



REFERENCE STANDARDS

PUBLIC WORKS
DIRECTOR APPROVAL: _____

DATE: **May 7, 2014**

STANDARD PLAN

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ABBREVIATIONS

ALSO REFER TO SECTION 1 OF THE CSS:

AC	ASPHALT CONCRETE	LF	LINEAR FEET
AD	ALGEBRAIC DIFFERENCE	LP	LOW POINT
AGC	ASSOCIATED GENERAL CONTRACTORS OF AMERICA	MAT'L	MATERIALS
AGG	AGGREGATE	MJ	MECHANICAL JOINT
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	MLFPD	MAMMOTH LAKES FIRE PROTECTION DISTRICT
ASA	AMERICAN STANDARD ASSOCIATION	MCWD	MAMMOTH COMMUNITY WATER DISTRICT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NEC	NATIONAL ELECTRIC CODE
BC	BEGIN CURVE	NIC	NOT IN CONTRACT
BM	BENCH MARK	NTS	NOT TO SCALE
BOC	BACK OF CURB	OC	ON CENTER
BVCE	BEGIN VERTICAL CURVE ELEVATION	PCC	PORTLAND CEMENT CONCRETE
BVCS	BEGIN VERTICAL CURVE STATION	PCCC	POINT ON COMPOUND CURVE
CFS	CUBIC FEET PER SECOND	PERF	PERFORATED
CITY	TOWN OF MAMMOTH LAKES	PL	PROPERTY LINE
CL	CENTERLINE	PP	POWER POLE
CMP	CORRUGATED METAL PIPE	P.U.E.	PUBLIC UTILITY EASEMENT
CMU	CONCRETE MASONRY UNIT	PVC	POINT ON VERTICAL CURVE
CO	CLEAN OUT	POVC	POLYVINYL CHLORIDE
CONC.	CONCRETE	PVI	POINT OF VERTICAL INTERSECTION
CPP	CORRUGATED PLASTIC PIPE	PVMT	PAVEMENT
CS	CRAWL SPACE	RCP	REINFORCED CONCRETE PIPE
CSP	STATE OF CALIFORNIA DOT STANDARD PLANS, MOST RECENT EDITION	REQMT'S	REQUIREMENTS
CSP	CORRUGATED STEEL PIPE	ROW	RIGHT OF WAY
CSS	STATE OF CALIFORNIA DOT STANDARD SPECIFICATIONS, MOST RECENT EDITION	RR	RAILROAD
CU. FT, CF	CUBIC FEET	SD	STORM DRAIN
CY	CUBIC YARDS	SDN	SUBDRAIN
DI	DROP INLET	SDMH	STORM DRAIN MANHOLE
DIA	DIAMETER	SL	SEWER LATERAL
DIP	DUCTILE IRON PIPE	SQ.FT.,SF	SQUARE FEET
EC	END CURVE	SS	SANITARY SEWER
EG	EXISTING GROUND	SSMH	SANITARY SEWER MANHOLE
EL,ELEV	ELEVATION	SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION, PREPARED BY SOUTHERN CALIFORNIA CHAPTERS OF AGC AND APWA
EOR	ENGINEER OF RECORD	STA	STATION
EP	EDGE OF PAVEMENT	STND	STANDARD
EQ	EQUIVALENT	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
EX	EXISTING	TBM	TEMPORARY BENCH MARK
EVCE	END VERTICAL CURVE ELEVATION	TC	TOP OF CURB
EVCS	END VERTICAL CURVE STATION	TF	TOP OF FOOTING
FF	FINISHED FLOOR	TG	TOP OF GRATE
FG	FINISHED GRADE	TOML	TOWN OF MAMMOTH LAKES
FH	FIRE HYDRANT	TOWN	TOWN OF MAMMOTH LAKES
FL	FLOWLINE	TW	TOP OF WALL
FM	FORCE MAIN	TYP.	TYPICAL
FPS	FIRE PROTECTION SERVICE	UG	UNDERGROUND
FS	FINISHED SURFACE	VC	VERTICAL CURVE
GB	GRADE BREAK	VLT	VAULT
GP	GATE POST	VCP	VITRIFIED CLAY PIPE
H	HEIGHT	WL	WATER LATERAL
HMA	HOT MIX ASPHALT	WS	WATER SERVICE
HP	HIGH POINT		
HDPE	HIGH DENSITY POLYETHYLENE		
I.FT.	INVERT ELEVATION		
INTX	INTERSECTION		
INV	INVERT		
JMF	JOB MIX FORMULA		

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



ABBREVIATIONS AND DEFINITIONS

PUBLIC WORKS DIRECTOR APPROVAL: *[Signature]*

DATE: **May 7, 2014**

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DEFINITIONS

ALSO REFER TO SECTION 1, "DEFINITIONS AND TERMS" OF THE CSS.

- BIDDER: ANY INDIVIDUAL, FIRM, PARTNERSHIP, CORPORATION, OR COMBINATION THEREOF, SUBMITTING A PROPOSAL FOR THE WORK CONTEMPLATED, ACTING DIRECTLY OR THROUGH A DULY AUTHORIZED REPRESENTATIVE.
- DEPARTMENT: PUBLIC WORKS DEPARTMENT, TOWN OF MAMMOTH LAKES.
- DIRECTOR: DIRECTOR OF PUBLIC WORKS DEPARTMENT, OR HIS DESIGNEE
- DUE NOTICE: A WRITTEN NOTIFICATION, GIVEN IN DUE TIME, OF A PROPOSED ACTION WHERE SUCH NOTIFICATION IS REQUIRED BY THE CONTRACT TO BE GIVEN A SPECIFIED INTERVAL OF TIME (USUALLY 48 HOURS OR TWO WORKING DAYS) PRIOR TO THE COMMENCEMENT OF THE CONTEMPLATED ACTION. NOTIFICATION MAY BE FROM ENGINEER TO CONTRACTOR OR FROM CONTRACTOR TO ENGINEER.
- ENGINEER: TOWN ENGINEERING DIVISION, ACTING EITHER DIRECTLY OR THROUGH RESIDENT ENGINEER. THE PUBLIC WORKS DIRECTOR ACTING WITHIN THE SCOPE OF THE PARTICULAR DUTIES ENTRUSTED TO THEM.
- ENGINEER OF RECORD DESIGN ENGINEER, ENGINEER RESPONSIBLE FOR THE SIGNING OF PLANS WILL ALSO SET DIRECTION OF DESIGN PROCESS
- LABORATORY: THE DESIGNATED LABORATORY AUTHORIZED BY THE TOWN TO TEST MATERIALS AND THE WORK INVOLVED IN THE CONTRACT.
- PROMPT: THE BRIEFEST INTERVAL OF TIME REQUIRED FOR A CONSIDERED REPLY, INCLUDING TIME REQUIRED FOR APPROVAL OF A GOVERNING BODY.
- STATE: THE STATE OF CALIFORNIA.
- CALTRANS STANDARD PLANS (CSP): STATE OF CALIFORNIA DOT STANDARD PLANS DATED 2010, OR MOST RECENT.
- CALTRANS STANDARD SPECIFICATION (CSS): STATE OF CALIFORNIA DOT STANDARD SPECIFICATIONS, DATED 2010, OR MOST RECENT.
- TOWN COUNCIL: THE BODY CONSTITUTING THE AWARDED AUTHORITY OF THE TOWN.
- TOWN: THE TOWN OF MAMMOTH LAKES
- TOWN ENGINEER: PUBLIC WORKS DIRECTOR
- REPRESENTATIVE: ENGINEERING DIVISION ACTING EITHER DIRECTLY OR THROUGH PROPERLY AUTHORIZED AGENTS ACTING WITHIN THE SCOPE OF THE PARTICULAR DUTIES ENTRUSTED TO THEM.
- WORKING DAYS: A WORKING DAY IS DEFINED AS ANY DAY, EXCEPT SUNDAYS, LEGAL HOLIDAYS AND DAYS WHEN WORK IS SUSPENDED BY THE ENGINEER, AS PROVIDED IN SECTION 8 OF THE CSS.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS








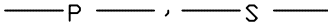



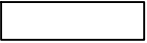

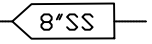

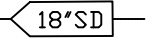

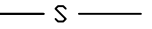














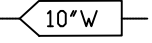







ABBREVIATIONS AND DEFINITIONS

PUBLIC WORKS DIRECTOR APPROVAL: *[Signature]*

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STANDARD PLAN
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<u>DESCRIPTION</u>	<u>EXISTING</u>	<u>PROPOSED</u>
MONUMENT		
POWER POLE		
PROPERTY LINE		
GAS LINE		
ROCK WALL		
SAND		
SANITARY SEWER w/SIZE & DIRECTION INDICATOR		
STORM DRAIN w/SIZE & DIRECTION INDICATOR		
SEWER LATERAL		
SIGN		
STREET LIGHT (LUMINAIRE)		
TRAFFIC SIGNAL		
TREE - DECIDUOUS		
TREE - EVERGREEN		
TREE SIZE AND TYPE		
TREE TO BE REMOVED		
WATER LINE		
WATER VALVE		
WATTLES		
REVISION AND REVISION NUMBER		

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SYMBOLS








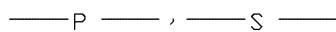



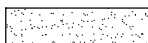

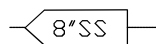

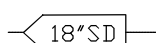

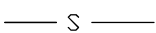











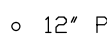

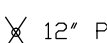

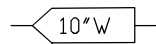





PUBLIC WORKS
DIRECTOR APPROVAL: 

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STANDARD PLAN

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DESCRIPTION	EXISTING	PROPOSED
MONUMENT		
POWER POLE		
PROPERTY LINE		
GAS LINE		
ROCK WALL		
SAND		
SANITARY SEWER w/SIZE & DIRECTION INDICATOR		
STORM DRAIN w/SIZE & DIRECTION INDICATOR		
SEWER LATERAL		
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TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



SYMBOLS

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A. CONCRETE USED WITHIN TOWN RIGHT OF WAY SHALL MEET THE FOLLOWING REQUIREMENTS (UNLESS OTHERWISE SPECIFIED BY THE TOWN):

1. CONCRETE SHALL BE IN CONFORMANCE WITH THE MOST RECENT VERSION OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (CSS) SECTION 90.
2. PORTLAND CEMENT CONCRETE SHALL BE CLASS 1 IN ACCORDANCE WITH SECTION 90, " CONCRETE" OF THE CSS AND MIN 7.1 SACK TYPE II OR 1P CEMENT PER CUBIC YARD.
3. AGGREGATE USED FOR CONCRETE SHALL BE NON-REACTIVE OR TREATED IN AN APPROVED MANNER.
4. EXPOSED CONCRETE SHALL CONTAIN 5% \pm 1.0% ENTRAINED AIR.
5. CONCRETE SHALL CONTAIN MIN 15% FLY ASH MAX 25%.
6. CONCRETE SHALL BE SEALED WITH A TOWN APPROVED SEALER.
7. FIBER MESH (POLYPROPYLENE) SHALL BE ADDED PER MANUFACTURER'S RECOMMENDATIONS TO ALL CONCRETE THAT HAS A WEARING SURFACE INCLUDING BUT NOT LIMITED TO CURB AND GUTTER, SIDEWALK, CROSSWALKS, EXPOSED UTILITY RIMS, VAULTS, VALLEY GUTTERS, AND AS SPECIFIED.
8. WEARING SURFACE COMPRESSIVE STRENGTH SHALL BE 5000 psi IN 28 DAYS OR AS APPROVED BY PUBLIC WORKS DIRECTOR. ALL OTHER CONCRETE SHALL BE MINIMUM 3600 psi IN 28 DAYS OR AS SPECIFIED ON PLANS.
9. CONCRETE SHALL BE TESTED FOR SLUMP & AIR FOR COMPLIANCE BEFORE THE PLACEMENT OF THE FIRST TRUCK LOAD AND EVERY 50 YARDS THERE AFTER OR AS DIRECTED BY ENGINEER. THE CONTRACTOR SHALL DOCUMENT THE RESULTS AND SUBMIT THESE AND JOB FIELD REPORTS TO THE TOWN ON A WEEKLY BASIS. IN THE EVENT THERE IS A TEST FAILURE, CORRECTIVE ACTIONS SHALL BE TAKEN TO REMEDY THE SITUATION AND THE ACTIONS DOCUMENTED. THE TOWN SHALL BE NOTIFIED IMMEDIATELY. CONCRETE CYLINDERS SHALL BE TAKEN MID LOAD AND EVERY 50 YARDS THEREAFTER.
10. COPIES OF THE BATCH TICKETS SHALL ACCOMPANY THE FIELD REPORTS AND TEST RESULTS.

B. CONCRETE BACKFILL SLURRY WITHIN TOWN RIGHT OF WAY SHALL MEET THE FOLLOWING REQUIREMENTS:

1. AGGREGATE USED SHALL HAVE A MINIMUM SAND EQUIVALENT (SE) OF 30.0
2. AT THE OPTION OF THE CONTRACTOR, AGGREGATE SHALL BE EITHER:
 - A. SELECTED MATERIAL WHICH IS FREE OF ORGANIC MATERIAL AND OTHER DELETERIOUS SUBSTANCES AND CONFORMS TO THE FOLLOWING GRADING REQUIREMENTS:

<u>SIEVE SIZES</u>	<u>PERCENTAGE BY WEIGHT PASSING SIEVE</u>
1 1/2 INCH	100
1 INCH	80 - 100
3/4 INCH	60 - 100
3/8 INCH	50 - 100
NO. 4	40 - 100
NO. 100	2 - 40
NO. 200	2 - 15

B. COMMERCIAL QUALITY CONCRETE SAND WHICH CONFORMS TO THE FOLLOWING GRADE REQUIREMENTS:

<u>SIEVE SIZES</u>	<u>PERCENTAGE BY WEIGHT PASSING SIEVE</u>
3/8 INCH	100
NO. 4	95 - 100
NO. 8	80 - 100
NO. 16	50 - 85
NO. 30	25 - 60
NO. 50	10 - 30
NO. 200	2 - 15

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



CONCRETE AND SLURRY STANDARDS

PUBLIC WORKS DIRECTOR APPROVAL:

DATE: **May 7, 2014**

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3. MIXING:

- A. THE AGGREGATE, CEMENT AND WATER SHALL BE PROPORTIONED BY WEIGHT. 188 POUNDS OF CEMENT (2 SACK) SHALL BE USED FOR EACH CUBIC YARD OF MATERIAL PRODUCED. THE WATER CONTENT SHALL BE SUFFICIENT TO PRODUCE A FLUID, WORKABLE MIX THAT WILL FLOW AND CAN BE PUMPED WITHOUT SEGREGATION OF THE AGGREGATE WHILE BEING PLACED. STRUCTURAL CONCRETE SHALL NOT BE USED.
- B. MATERIALS FOR TRENCH SLURRY BACKFILL SHALL BE THOROUGHLY MACHINE MIXED IN A PUG MILL, ROTARY DRUM, OR OTHER APPROVED MIXER. MIXING SHALL CONTINUE UNTIL THE CEMENT AND WATER ARE THOROUGHLY DISPERSED THROUGHOUT THE MATERIAL. TRENCH SLURRY BACKFILL SHALL BE PLACED WITHIN ONE HOUR AFTER MIXING OR IT SHALL BE REJECTED.

4. COMPRESSIVE STRENGTH:

- A. 100 PSI IN 28 DAYS.
- B. NO LABORATORY TESTS ARE REQUIRED IF THE CONTRACTOR USES CONCRETE SAND AS AGGREGATE. CONTRACTOR WILL BE REQUIRED TO SUBMIT MIX DESIGN PRIOR TO PLACEMENT. THE INSPECTOR WILL USE THE BATCH TICKET AS PROOF OF THE SACK MIX. IF REQUIRED, OCCASIONAL COMPRESSIVE STRENGTH TESTS AND AGGREGATE GRADATIONS MAY BE PERFORMED.
- C. STRUCTURAL CONCRETE SHALL NOT BE USED AS SLURRY BACKFILL.


5. PLACING

- A. SLURRY SHALL BE PLACED AND VIBRATED BY MECHANICAL MEANS.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



CONCRETE AND SLURRY STANDARDS

PUBLIC WORKS
DIRECTOR APPROVAL: 

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A. SPECIFICATIONS FOR BACKFILL AND DENSIFICATION

WHERE SPECIFIC RECOMMENDATIONS HAVE NOT BEEN PREPARED BY A GEOTECHNICAL INVESTIGATION THE FOLLOWING SHALL APPLY:

BACKFILL SHALL BE CONSIDERED AS STARTING ONE FOOT ABOVE THE PIPE OR CONDUIT, OR AT THE TOP OF CONCRETE BEDDING OVER THE PIPE OR CONDUIT. ALL MATERIAL BELOW THIS POINT SHALL BE CONSIDERED BEDDING. ROCKS GREATER THAN 3 INCHES IN ANY DIMENSION WILL NOT BE PERMITTED IN THE BACKFILL PLACED ABOVE ANY PIPE OR BOX WHEREVER THE TRENCH WIDTH IS 4 FEET OR NARROWER. WHEREVER TRENCH WIDTHS ARE GREATER THAN 4 FEET, ROCKS LARGER THAN 3 INCHES BUT LESS THAN 12 INCHES IN ANY DIMENSION WILL BE PERMITTED AS BACKFILL NO CLOSER THAN 2 FEET FROM THE TOP OF PIPE OR BOX AND 2 FEET BELOW FINISHED PAVEMENT SUB GRADE OR WITHIN 2 FEET OF RISERS, VALVES, MANHOLES, OR OTHER STRUCTURES, PROVIDING THE FOLLOWING CONDITIONS ARE MET:

1. BACKFILL MATERIALS SHALL BE SCREENED OR "GRIZZLED" PRIOR TO BEING USED AS BACKFILL.
2. ROCKS SHALL BE MIXED WITH SUFFICIENT VOLUME OF SUITABLE SOIL SO AS TO ELIMINATE NESTING OF ROCK AND VOIDS.
3. TRENCHES SHALL BE AT LEAST 4 FEET WIDE IF A COMPACTOR ON THE END OF A TRACK EXCAVATOR BOOM IS UTILIZED, OR AT LEAST 8 FEET WIDE IF A FULL SIZED ROLLER IS USED. A FULL SIZED ROLLER SHALL CONSIST OF A SHEEPSFOOT OR DRUM ROLLER HAVING METAL DRUMS OR SHELLS NOT LESS THAN 4 FEET IN DIAMETER. HAND TAMPING COMPACTORS OR ROLLERS WILL BE USED TO OBTAIN COMPACTION WITHIN 2 FEET OF RISERS, VALVES, MANHOLES, OR OTHER STRUCTURES, AND WILL ASSIST IN OBTAINING COMPACTION ALONG EDGES OF TRENCHES. HOWEVER, THEY WILL NOT BE PERMITTED TO BE USED IN LIEU OF THE EQUIPMENT SPECIFIED IF ROCK LARGER THAN 3 INCHES IN ANY DIMENSION IS USED AS BACKFILL.
4. THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER AND THE TESTING AGENCY THAT ADEQUATE COMPACTION CAN BE OBTAINED WITH THE MATERIALS, EQUIPMENT, AND PROCEDURES TO BE USED.
5. THE LOOSE THICKNESS OF EACH LAYER OF EMBANKMENT MATERIAL BEFORE COMPACTION SHALL NOT EXCEED 8 INCHES FOR HAND TAMPERS AND 12 INCHES FOR ROLLER COMPACTORS.
6. IF, IN THE OPINION OF THE ENGINEER AND/OR TESTING AGENCY, THE BACKFILL SOILS CANNOT BE SATISFACTORILY TESTED TO DETERMINE IF COMPACTION CRITERIA IS MET, THE TESTING AGENCY OR ENGINEER, MAY AT THEIR OPTION REQUEST THE CONTRACTOR TO MODIFY HIS MATERIALS AND PROCEDURES SO THE TESTING CAN BE PERFORMED OR MAY USE A METHOD SPECIFICATION BASED ON THE EQUIPMENT AND MATERIALS BEING USED TO VERIFY THAT THE ADEQUATE COMPACTION IS OBTAINED.
7. CONSTRUCTION SHALL NOT BE PERFORMED WHEN MATERIAL IS FROZEN OR A BLANKET OF SNOW PREVENTS PROPER COMPACTION

ALL BACKFILL MATERIALS SHALL BE COMPACTED IN 8" MAXIMUM LIFTS TO 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557-CURRENT EDITION. IN PLACE DENSITY SHALL BE TESTED AND CONFIRMED USING ASTM TEST METHOD D 6938.

B. MASS GRADING BACKFILL AND DENSIFICATION

1. ROCKS LARGER THAN 12 INCHES IN ANY DIMENSION SHALL NOT BE PERMITTED WITHOUT AUTHORIZATION OF THE ENGINEER AND ONLY AFTER A SATISFACTORY METHOD OF OBTAINING ADEQUATE COMPACTION HAS BEEN DEVELOPED AND AGREED TO.
2. WHERE ROCKS ARE USED IN THE BACKFILL, THEY SHALL BE MIXED WITH SUITABLE EXCAVATED MATERIALS SO AS TO ELIMINATE VOIDS.
3. AFTER PLACING OF BACKFILL HAS STARTED, THE CONTRACTOR SHALL PROCEED AS SOON AS PRACTICABLE WITH DENSIFICATION. ALL BACKFILL MATERIALS SHALL BE COMPACTED IN 8" MAXIMUM LIFTS TO 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557-CURRENT EDITION. IN PLACE DENSITY SHALL BE TESTED AND CONFIRMED USING ASTM TEST METHOD D 6938. BACKFILL IN NON-STRUCTURAL AREAS SHALL BE DENSIFIED TO AT LEAST 85% OF THE MATERIALS MAXIMUM DRY DENSITY.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



BACKFILL STANDARDS

PUBLIC WORKS
DIRECTOR APPROVAL: *[Signature]*

DATE: **May 7, 2014**

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C. SPECIFICATIONS FOR TRENCH SLURRY BACKFILL:

1. TRENCH SLURRY BACKFILL SHALL CONSIST OF A FLUID, WORKABLE MIXTURE OF AGGREGATE, 2-SACK CEMENT AND WATER.
2. AT THE OPTION OF THE CONTRACTOR, TRENCH SLURRY BACKFILL MAY BE USED AS A STRUCTURAL BACKFILL FOR PIPE, EXCEPT THAT TRENCH SLURRY BACKFILL SHALL NOT BE USED AS STRUCTURAL BACKFILL FOR ALUMINUM OR ALUMINUM COATED PIPE.
3. WHEN TRENCH SLURRY BACKFILL IS USED FOR STRUCTURAL BACKFILL, THE WIDTH OF THE EXCAVATION SHOWN ON THE PLANS MAY BE REDUCED SO THAT THE SIDE CLEAR DISTANCE BETWEEN THE OUTSIDE OF THE PIPE AND THE SIDE OF THE EXCAVATION, ON EACH SIDE OF THE PIPE, IS A MINIMUM OF 6 INCHES FOR PIPES UP TO AND INCLUDING 42 INCHES IN DIAMETER OR SPAN, ONE FOOT FOR PIPES OVER 42 INCHES IN DIAMETER OR SPAN.
4. TRENCH SLURRY BACKFILL SHALL BE PLACED ONLY FOR THE PORTION OF THE STRUCTURAL BACKFILL BELOW THE ORIGINAL GROUND, THE GRADING PLANE OR THE TOP OF EMBANKMENT PLACED PRIOR TO EXCAVATING FOR THE PIPE. WHERE NECESSARY, EARTH PLUGS SHALL BE COMPACTED AS REQUIRED AT EACH END OF THE PIPE PRIOR TO PLACING BACKFILL IN A MANNER THAT WILL COMPLETELY CONTAIN THE SLURRY IN THE TRENCH.
5. TRENCH SLURRY BACKFILL SHALL BE PLACED IN A UNIFORM MANNER THAT WILL PREVENT VOIDS IN, OR SEGREGATION OF, THE BACKFILL, AND WILL NOT FLOAT OR SHIFT THE PIPE. FOREIGN MATERIAL WHICH FALLS INTO THE TRENCH PRIOR TO OR DURING PLACING OF THE TRENCH SLURRY BACKFILL SHALL BE IMMEDIATELY REMOVED.
6. BACKFILLING OR PLACING ANY MATERIAL OVER TRENCH SLURRY BACKFILL SHALL NOT COMMENCE UNTIL AT LEAST FOUR HOURS AFTER THE TRENCH SLURRY BACKFILL HAS BEEN PLACED, EXCEPT THAT WHEN CONCRETE SAND IS USED FOR THE AGGREGATE AND THE IN-PLACE MATERIAL IS FREE DRAINING, BACKFILLING MAY COMMENCE AS SOON AS THE SURFACE WATER IS GONE. TRENCH SLURRY BACKFILL MAY BE USED AS A SUBSTITUTE FOR AGGREGATE BASE WHEN APPROVED IN ADVANCE BY THE PUBLIC WORKS DIRECTOR.

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BACKFILL STANDARDS

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PAVEMENT SPECIFICATIONS

SUBGRADE

SURFACE TO RECEIVE HOT MIX ASPHALT MUST COMPLY WITH THE COMPACTION AND ELEVATION TOLERANCE SPECIFICATIONS IN THE SECTION OF TOWN STANDARDS FOR THE MATERIAL INVOLVED. SURFACE MUST BE FREE OF LOOSE PAVING PARTICLES, DIRT, AND OTHER EXTRANEIOUS MATERIAL BY MEANS INCLUDING FLUSHING AND SWEEPING.

TACK COAT

APPLY TACK COAT:

1. TO EXISTING PAVEMENT INCLUDING PLANED SURFACES.
2. BETWEEN HOT MIX ASPHALT LAYERS EXCEPT LAYERS PLACED THE SAME DAY.
3. BETWEEN HOT MIX ASPHALT LAYERS IF DIRT OR OTHER FOREIGN MATERIAL IS PRESENT ON THE SURFACE INCLUDING HOT MIX ASPHALT LAYERS PLACED THE SAME DAY.
4. TO VERTICAL SURFACES OF:
 - A. CURBS
 - B. GUTTERS
 - C. CONSTRUCTION JOINTS

APPLY TO VERTICAL SURFACES WITH A RESIDUAL TACK COAT RATE THAT WILL THOROUGHLY COAT THE VERTICAL SURFACE WITHOUT RUNNING OFF.

IMMEDIATELY IN ADVANCE OF THE HOT MIX ASPHALT, APPLY ADDITIONAL TACK COAT TO DAMAGED AREAS WHERE LOOSE OR EXTRANEIOUS MATERIAL IS REMOVED.

CLOSE AREAS RECEIVING TACK TO TRAFFIC, SO AS NOT TO TRACK TACK ONTO PAVEMENT SURFACES BEYOND THE JOB SITE.

TRANSPORTING, SPREADING, AND COMPACTING

DO NOT PAVE HOT MIX ASPHALT ON WET PAVEMENT OR FROZEN SURFACE.

CONTRACTOR MAY DEPOSIT HOT MIX ASPHALT IN WINDROWS AND LOAD IN PAVER IF:

1. PAVER IS EQUIPPED WITH A HOPPER THAT AUTOMATICALLY FEEDS THE SCREED
2. LOADING EQUIPMENT CAN PICK UP THE WINDROWED MATERIAL AND DEPOSIT IT IN THE PAVER.
3. ACTIVITIES FOR DEPOSIT, PICK-UP, LOADING, AND PAVING ARE CONTINUOUS.
4. HOT MIX ASPHALT TEMPERATURE IN THE WINDROW DOES NOT FALL BELOW 260° F.

PAVE HOT MIX ASPHALT IN PROPER LIFTS CONSISTING OF 3X THE MAXIMUM NOMINAL SIZE OF THE AGGREGATE.

1. 3/4 INCH AGGREGATE LIFT WILL BE 2 1/4 INCH OR 0.25 FT
2. 1/2 INCH AGGREGATE LIFT WILL BE 1 1/2 INCH OR 0.15 FT
3. 3/8 INCH AGGREGATE LIFT WILL BE 1 1/2 INCH OR 0.15 FT

CONTRACTOR MAY PAVE HOT MIX ASPHALT IN 1 OR MORE LAYERS ON AREAS LESS THAN 5 FOOT WIDE AND OUTSIDE THE TRAVELED WAY INCLUDING SHOULDERS. YOU MAY USE MECHANICAL EQUIPMENT OTHER THAN A PAVER FOR THESE AREAS. THE EQUIPMENT MUST PRODUCE A UNIFORM SMOOTHNESS AND TEXTURE.

HOT MIX ASPHALT HANDLED, SPREAD, OR WINDROWED MUST NOT STAIN THE FINISHED SURFACE OF ANY EXISTING IMPROVEMENTS INCLUDING PAVEMENT.

DO NOT USE PETROLEUM SUCH AS KEROSENE OR DIESEL FUEL TO RELEASE HOT MIX ASPHALT FROM TRUCKS, SPREADERS, OR COMPACTORS.

HOT MIX ASPHALT MUST BE FREE OF:

1. SEGREGATION
2. COARSE OR FINE AGGREGATE POCKETS
3. HARDENED LUMPS

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LONGITUDINAL JOINTS IN THE TOP LAYER MUST MATCH SPECIFIED LANE EDGES. ALTERNATE LONGITUDINAL JOINT OFFSETS IN LOWER LAYERS AT LEAST 6 INCHES FROM EACH SIDE OF THE SPECIFIED LANE EDGES. YOU MAY REQUEST IN WRITING OTHER LONGITUDINAL JOINT PLACEMENT PATTERNS.

UNTIL THE ADJOINING THROUGH LANE TOP LAYER HAS BEEN PAVED, DO NOT PAVE THE TOP LAYER OF:

1. SHOULDERS
2. TAPERS
3. TRANSITIONS
4. ROAD CONNECTIONS
5. PRIVATE DRIVES
6. CURVE WIDENINGS
7. CHAIN CONTROLS
8. TURNOUTS
9. LEFT TURN LANES

IF THE NUMBER OF LANES CHANGE PAVE EACH THROUGH LANE'S TOP LAYER BEFORE PAVING A CHANGING LANE'S TOP LAYER. SIMULTANEOUS TO PAVING A THROUGH LANE'S TOP LAYER, YOU MAY PAVE AN ADJOINING AREA'S TOP LAYER INCLUDING THE SHOULDERS. DO NOT OPERATE SPREADING EQUIPMENT ON ANY AREA'S TOP LAYER UNTIL COMPLETING FINAL COMPACTION.

IF HOT MIX ASPHALT (LEVELING) IS SPECIFIED, FILL AND LEVEL IRREGULARITIES AND RUTS WITH HMA BEFORE SPREADING HMA OVER BASE, EXISTING SURFACES, OR BRIDGE DECKS. YOU MAY USE MECHANICAL EQUIPMENT OTHER THAN A PAVER FOR THESE AREAS. THE EQUIPMENT MUST PRODUCE A UNIFORM SMOOTHNESS AND TEXTURE. HMA USED TO CHANGE AN EXISTING SURFACE'S CROSS SLOPE OR PROFILE IS NOT HMA (LEVELING).

IF PLACING HOT MIX ASPHALT AGAINST THE EDGE OF EXISTING PAVEMENT, SAWCUT OR GRIND THE PAVEMENT STRAIGHT AND VERTICAL ALONG THE JOINT AND REMOVE EXTRANEOUS MATERIAL WITHOUT DAMAGING THE SURFACE REMAINING IN PLACE. IF PLACING HOT MIX ASPHALT AGAINST THE EDGE OF A LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINT AND THE JOINT IS DAMAGED OR IS NOT PLACED IN A NEAT LINE. SAWCUT OR GRIND THE PAVEMENT STRAIGHT AND VERTICAL REMAINING IN PLACE. REPAIR OR REMOVE AND REPLACE DAMAGED PAVEMENT AT YOUR EXPENSE.

ROLLING MUST LEAVE THE COMPLETED SURFACE SMOOTH WITHOUT TEARING, CRACKING, OR SHOVING. COMPLETE FINISH ROLLING ACTIVITIES BEFORE THE PAVEMENT SURFACE TEMPERATURE IS 140°F.

COMPACTION EQUIPMENT

EACH PAVING MACHINE SPREADING HMA TYPE A OR B MUST BE FOLLOWED BY THREE ROLLERS:

1. ONE VIBRATORY SPECIFICALLY DESIGNED TO COMPACT HOT MIX ASPHALT. THE ROLLER MUST BE CAPABLE OF AT LEAST 2,500 VIBRATIONS PER MINUTE AND MUST BE EQUIPPED WITH AMPLITUDE AND FREQUENCY CONTROLS. THE ROLLER'S GROSS STATIC WEIGHT MUST BE AT LEAST 7.5 TONS
2. ONE OSCILLATING TYPE PNEUMATIC-TIRED ROLLER AT LEAST 4 FEET WIDE. PNEUMATIC TIRES MUST BE OF EQUAL SIZE, DIAMETER, TYPE, AND PLY. THE TIRES MUST BE INFLATED TO 60PSI MINIMUM AND MAINTAINED SO THAT THE AIR PRESSURE DOES NOT VARY MORE THAN 5PSI.
3. ONE STEEL-TIRED, 2-AXLE TANDEM ROLLER. THE ROLLER'S GROSS WEIGHT MUST BE AT LEAST 7.5 TONS.

EACH ROLLER MUST HAVE IT'S OWN OPERATOR UNLESS PAVING UNDER 300 TONS AT WHICH TIME ONLY 2 WILL BE REQUIRED.

COMPACTION METHODS

TYPE A AND B HOT MIX ASPHALT

BREAKDOWN = 3 COVERAGE'S OF VIBRATORY ROLLER
$$\text{SPEED (MPH)} \leq \frac{\text{VIBRATIONS PER MINUTE}}{1000}$$

INTERMEDIATE = 3 COVERAGE'S OF PNEUMATIC-TIRED ROLLER < 5MPH

FINISH = 1 COVERAGE IF STEEL-TIRED ROLLER

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SURFACE AND AIR TEMPERATURES

TAKE AMBIENT AIR TEMPERATURES IN THE SHADE

PUBLIC WORKS ENFORCES THE TEMPERATURE RESTRICTIONS

COMPACTED LAYER THICKNESS	ATMOSPHERIC		SURFACE	
	UNMODIFIED	MODIFIED	UNMODIFIED	MODIFIED
<0.15 - FT	55	50	60	55
0.15 - 0.25 - FT	45	45	50	50

HMA TYPE A AND B COMPACTION TEMPERATURES UNMODIFIED, COMPLETE

1. 1ST COVERAGE OF BREAKDOWN BY 250°F.
2. BREAKDOWN AND INTERMEDIATE BY 200°F.
3. FINISH BY 150°F.

MODIFIED, COMPLETE

1. 1ST COVERAGE OF BREAKDOWN BY 240° F.
2. BREAKDOWN AND INTERMEDIATE BY 180° F.
3. FINISH BY 140° F.

CONTRACTOR RESPONSIBILITY

ACCEPTANCE OF PAVING:

CORES ARE TO BE TAKEN ONCE PER PRODUCTION DAY OR EVERY 500 TONS. EITHER A 4 OR 6 INCH CORE (AT CONTRACTOR'S DISCRETION) IS TO BE TAKEN WITHIN 5 DAYS OF BEING LAID. CORES ARE TO TESTED BY THE CONTRACTOR PER THE QUALITY CONTROL REQUIREMENTS AND RESULTS GIVEN TO THE TOWN FOR ACCEPTANCE PER THE JOB MIX FORMULA.

SMOOTHNESS WILL BE CHECKED WITH A 12 FOOT STRAIGHT EDGE AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR.

MAXIMUM DEVIATIONS ALLOWED AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR:

1. 0.01 FEET PARALLEL TO CENTERLINE.
2. 0.02 FEET PERPENDICULAR TO CENTERLINE WITHIN A TRAFFIC LANE.

TOWN MAY REQUIRE A PROFILOGRAPH IF CONTRACTOR EXCEEDS THE PRESCRIBED DEVIATIONS

JOINTS AND EDGES SHALL BE, STRAIGHT, FLUSH AND UNRAVELED IN APPEARANCE.

GENERAL:

CONTRACTOR NEEDS TO CONTROL:

1. MATERIALS
2. PROPORTIONING
3. SPREADING AND COMPACTING
4. FINISHED ROADWAY SURFACE

CONTRACTOR DEVELOPS, IMPLEMENTS, AND MAINTAINS A QUALITY CONTROL PROGRAM THAT INCLUDES:

1. INSPECTION
2. SAMPLING
3. TESTING

SUBMIT WRITTEN REPORTS WITHIN THE TIME SPECIFIED IN THE TOWN STANDARDS FOR INSPECTION AND TESTING:

1. SAMPLING LOCATION, QUANTITY, TIME, AMBIENT AIR TEMPERATURE AND SURFACE TEMPERATURE IN THE SHADE.
2. TESTING RESULTS
3. SUPPORTING DATA AND RESULTS

DOCUMENT CORRECTIVE ACTIONS IF BEYOND ACTION LIMITS

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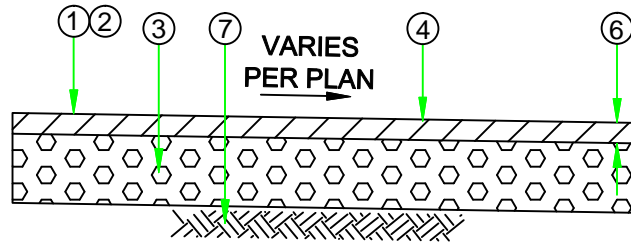
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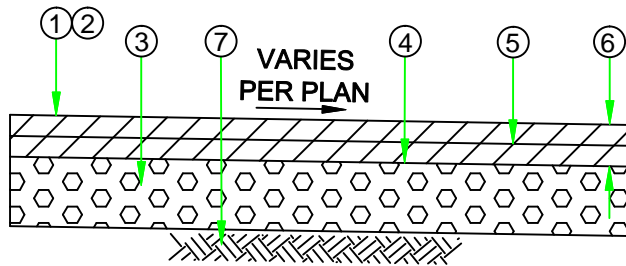
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TYPICAL PAVEMENT STRUCTURAL SECTION - TYPE 1

NO SCALE



TYPICAL STREET STRUCTURAL SECTION - TYPE 2

NO SCALE

CONSTRUCTION NOTES

1. 3/4 INCH, TYPE A ASPHALT CONCRETE FOR COLLECTOR AND ARTERIAL STREETS.
2. LOCAL STREETS AND PRIVATE DRIVES SHALL BE PG64-28 OR PG64-28 PM, AS APPROVED BY PUBLIC WORKS DIRECTOR.
3. CLASS II AGGREGATE BASE COMPACTED TO 95% RELATIVE DENSITY.
4. TYPE 1. 1-1/2 TO 3 INCHES OF ASPHALT CONCRETE PER PLANS.
5. TYPE 2. 1-1/2 TO 3 INCHES PER LIFT FOR 3 TO 5-1/2 INCHES OF ASPHALT CONCRETE SECTION PER PLANS. 3 INCH ASPHALT CONCRETE LIFT SHALL BE PRE-APPROVED BY THE PUBLIC WORKS DEPARTMENT.
6. MIN 3 INCH THICKNESS FOR ANY PRIVATE STREET; MIN 3-1/2 INCH THICKNESS FOR ANY LOCAL STREET; MIN 5-1/2 INCH THICKNESS FOR PUBLIC OR PRIVATE COLLECTOR STREET, ARTERIAL STREET, OR BUS ROUTE.
7. SUBGRADE SCARIFIED FOR 12 INCH AND COMPACTED TO 95% FOR THE UPPER 12 INCHES.

GENERAL NOTES FOR PAVEMENT STRUCTURAL SECTION

- A. ASPHALT CONCRETE SHALL BE TYPE A, 3/4 INCH MAXIMUM GRADING AND SHALL CONFORM TO THE PROVISIONS OF SECTION 39, "HOT MIX ASPHALT", OF THE CSS.
- B. SEAL COAT OF SS-1 OR CSS-1 ASPHALT SHALL BE APPLIED AT 40 TO 70 GALLONS PER SQUARE FOOT TO NEW ASPHALT CONCRETE PAVED SURFACES. COMPACTION SHALL BE A MINIMUM OF 95% AND A MAXIMUM OF 99%.
- C. AGGREGATE BASE SHALL BE CLASS 2, 3/4 INCH MAXIMUM GRADING, AND SHALL CONFORM TO THE PROVISIONS OF SECTION 26, "AGGREGATE BASES", OF THE CSS. THE AGGREGATE BASE SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557-(LATEST EDITION).

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A. GENERAL CONSTRUCTION REQUIREMENTS WITHIN TOWN RIGHT OF WAY

1. UNLESS OTHERWISE SPECIFIED, ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THESE STANDARDS, THE LATEST VERSION OF THE CALTRANS STANDARD SPECIFICATIONS (CSS), AND THE LATEST VERSION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
2. WORK SHALL BE DONE IN CONFORMANCE WITH THE MOST RECENT VERSION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. THE TOWN'S REPRESENTATIVE AND ALL OTHER INTERESTED PARTIES SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE START OF WORK.
4. AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING CONSTRUCTION, UNDERGROUND SERVICE ALERT (USA) SHALL BE NOTIFIED AT THE REGIONAL NOTIFICATION CENTER, WITH A REQUEST THAT UTILITY OWNERS MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR FACILITIES. ALL APPROPRIATE UTILITY COMPANIES SHALL ALSO BE CONTACTED. UTILITIES SHALL BE POT HOLED AT CROSSINGS AND TIE-INS PRIOR TO EXCAVATION WORK. ALL MEASURES SHALL BE TAKEN TO PROTECT UTILITIES AND STRUCTURES FOUND AT THE SITE.

THE TOWN IS NOT PART OF U.S.A. DIG. CONTRACTOR SHALL CALL TOWN OF MAMMOTH LAKES PUBLIC WORKS DEPARTMENT AT 760-934-8989 FOR LOCATION OF TOWN FACILITIES.

5. PRIOR TO BEGINNING CONSTRUCTION ALL REQUIRED PERMITS MUST BE OBTAINED.
6. PRE CONSTRUCTION MEETINGS ARE REQUIRED BEFORE ANY WORK IS TO BEGIN, EXCEPT FOR THE IMPLEMENTATION OF THE EROSION CONTROL PLAN.
7. WORK IN TOWN OF MAMMOTH LAKES RIGHT OF WAY SHALL COMPLY WITH THE TERMS, CONDITIONS, AND REQUIREMENTS OF THE TOWN ENCROACHMENT PERMIT.
8. THE CONTRACTOR SHALL TAKE ALL SUCH MEASURES NECESSARY TO CONTROL DUST NUISANCE BY CLEANING, SWEEPING, AND SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE TOWN'S REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION. ALL EXPOSED SOIL SURFACES SHALL BE MOISTENED AS REQUIRED TO AVOID NUISANCE CONDITIONS AND INCONVENIENCES FOR LOCAL RESIDENTS AND TRAVELERS OF NEARBY ROADWAYS. SUFFICIENT WATER TRUCKS SHALL BE MADE AVAILABLE FOR DUST CONTROL PURPOSES.
9. ANY EVIDENCE OF THE HISTORICAL PRESENCE OF MAN FOUND DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE MAMMOTH LAKES PUBLIC WORKS DEPARTMENT AND CONSTRUCTION SHALL STOP UNTIL FURTHER NOTICE.
10. TREE REMOVAL SHALL BE PERFORMED BY A LICENSED TIMBER OPERATOR ONLY. TIMBER OPERATOR SHALL NOTIFY CALIFORNIA DEPARTMENT OF FORESTRY (714) 782-4140 PRIOR TO COMMENCING WORK. ALL TREE REMOVAL SHALL CONFORM TO THE APPROVED TIMBER HARVEST PLAN, IF REQUIRED, AND CALIFORNIA DEPARTMENT OF FORESTRY. STUMP SHALL BE TREATED WITH SODIUM BORATE WITHIN 8 HOURS OF BEING CUT TO PREVENT ROOT FUNGUS.
11. CONTRACTOR SHALL PROMPTLY CLEAN UP AREAS ADJACENT TO WORK OF ALL DEBRIS.

B. CONTROL OF WORK:

1. CONSTRUCTION SHALL BE LIMITED TO 7:00 AM TO 8:00 PM MONDAY THROUGH SATURDAY. OPERATIONS ON SUNDAYS, STATE AND FEDERAL HOLIDAYS, AND TOWN SPECIAL EVENTS ARE PERMITTED ONLY ON APPROVAL OF THE PUBLIC WORKS DIRECTOR AND LIMITED TO 9:00 AM TO 5:00 PM. A WRITTEN PERMIT IS REQUIRED FOR SUNDAY OR OFF HOURS WORK. PERMIT MUST BE LOCATED ON SITE AT ALL TIMES.
2. THE LIMITS OF CONSTRUCTION SHALL BE CAREFULLY AND FULLY FLAGGED PRIOR TO START OF CONSTRUCTION, AND POSTED SO AS TO PREVENT DAMAGE TO VEGETATION AND DISTURBANCE TO SOILS OUTSIDE OF THE AREA OF CONSTRUCTION.

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3. THE CONTRACTOR SHALL SO CONDUCT HIS OPERATIONS AS TO OFFER THE LEAST POSSIBLE OBSTRUCTION AND INCONVENIENCE TO THE PUBLIC, AND HE SHALL HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAN HE CAN PROSECUTE PROPERLY WITH DUE REGARD TO THE RIGHTS OF THE PUBLIC. CONVENIENT ACCESS TO DRIVEWAYS, HOUSES, AND BUILDINGS ALONG THE LINE OF WORK SHALL BE MAINTAINED AND TEMPORARY CROSSINGS SHALL BE PROVIDED AND MAINTAINED IN GOOD CONDITION. NO MORE THAN ONE CROSSING OR INTERSECTION STREET OR ROAD SHALL BE CLOSED AT ANY ONE TIME. ACCESS TO BUSINESSES AND RESIDENCES SHALL BE MAINTAINED AT ALL TIMES.

C. SAFETY:

1. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK, AND THE CONTRACTOR SHALL FULLY COMPLY WITH ALL STATE, FEDERAL, AND OTHER LAWS, RULES, REGULATIONS, AND ORDERS RELATING TO SAFETY OF WORKERS AND ALL OTHERS. THIS MAY INCLUDE THE ISSUANCE OF PERSONAL PROTECTIVE EQUIPMENT.
2. CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN ACCORDANCE WITH THE TOWN OF MAMMOTH LAKES ORDINANCES AND STANDARDS AND IN CONFORMANCE OF INDUSTRIAL RELATIONS, DIVISION OF INDUSTRIAL SAFETY.
3. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF GENERAL OSHA STANDARDS FOR THE PROTECTION OF WORKMEN AND THE GENERAL PUBLIC. OSHA PERMITS ARE REQUIRED FOR TRENCHES OVER 5 FEET DEEP. A WORKER PROTECTION PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE TOWN FOR APPROVAL FOR ALL EXCAVATIONS GREATER THEN 4 FEET.
4. ALL OPERATIONS INVOLVING THE STORAGE AND HANDLING OF EXPLOSIVES SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF DIVISION II, PART I, OF THE CALIFORNIA HEALTH AND SAFETY CODE AND ALL OTHER APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL CODES AND REGULATIONS. DRILLING AND BLASTING SHALL ONLY BE DONE UNDER THE DIRECTION OF LICENSED PERSONNEL. ALL PRECAUTIONS NECESSARY FOR THE PROTECTION OF LIFE AND PROPERTY SHALL BE TAKEN DURING BLASTING OPERATIONS AND ADEQUATE WARNING SHALL BE GIVEN TO WORKERS, INSPECTORS, AND PROPERTY OWNERS THAT BLASTING IS IN PROGRESS. THE TOWN SHALL BE NOTIFIED PRIOR TO ANY BLASTING.

D. EXECUTION:

1. ALL CUT AND FILL SLOPES SHALL BE REVEGETATED AND/OR LANDSCAPED TO PREVENT EROSION.
2. CUT AND FILL SLOPES SHALL NOT EXCEED A STEEPNESS OF 3:1 (3 FEET HORIZONTAL TO 1 FOOT VERTICAL), UNLESS OTHERWISE NOTED, AND SHALL BE REVEGETATED TO CONTROL EROSION. STOCKPILED TOPSOIL WILL BE SPREAD EVENLY TO A DEPTH OF 4 INCHES MINIMUM OVER SLOPES AND DISTURBED AREAS, THEN LANDSCAPED OR SEEDED TO PREVENT EROSION WITH THE SEED MIXTURE INDICATED IN SECTION 20, "LANDSCAPE" OF THE CSS OR AS SUPPLIED BY THE TOWN. SEEDED SLOPES SHALL BE STABILIZED BY INSTALLATION OF AN EROSION CONTROL BLANKET, "NORTH AMERICAN GREEN SC150", GEOTEXTILES, JUTE MATTING OR APPROVED EQUAL, SECURED PER MANUFACTURES RECOMMENDATIONS.
3. THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID INJURY TO EXISTING IMPROVEMENTS OR FACILITIES, UTILITY FACILITIES, ADJACENT PROPERTY, TREES AND SHRUBBERY THAT ARE NOT TO BE REMOVED. ALL DAMAGE CAUSED TO PUBLIC STREET, INCLUDING HAUL ROUTES, ALLEYS, SIDEWALKS, CURBS, OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE TOWN'S REPRESENTATIVE. ALL IMPROVEMENTS REMOVED AS A COURSE OF WORK SHALL BE REPLACED AS APPROVED BY THE OWNER AND TOWN REPRESENTATIVE.

E. MATERIALS:

1. SIGNS SHALL BE DESIGNED, SUPPLIED AND INSTALLED IN CONFORMANCE WITH THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN MANUAL, STANDARDS AND SPECIFICATIONS.
2. SIGN POSTS SHALL BE DESIGNED, SUPPLIED AND INSTALLED IN CONFORMANCE WITH THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN MANUAL, STANDARDS, AND SPECIFICATIONS
3. INSTALLATION OF TRAFFIC STRIPES AND PAVEMENT MARKINGS WILL BE IN CONFORMANCE WITH THE PROVISIONS OF SECTION 84, "TRAFFIC STRIPES AND PAVEMENT MARKINGS", OF THE CSS. DESIGN OF TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN MANUAL.

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F. INSPECTION:

1. CONTRACTOR SHALL NOTIFY THE TOWN OF MAMMOTH LAKES PUBLIC WORKS INSPECTOR AT (760) 934-2534, 48 HOURS IN ADVANCE FOR THE INSPECTION OF THE FOLLOWING:
 - TRAFFIC CONTROL
 - SHORING
 - CONCRETE FORMS
 - CONCRETE PLACEMENT
 - REBAR PLACEMENT
 - SUBGRADE
 - FINAL GRADE - BASE COURSE
 - LIGHT POLE FOOTINGS AND ANCHOR BOLTS PRIOR TO CONCRETE POUR
 - HEATING TUBING IN SIDEWALKS PRIOR TO CONCRETE POUR OR INSTALLATION OF PAVERS
 - UTILITY INSTALLATIONS PRIOR TO BACKFILL
 - ADDITIONAL ITEMS AS DETERMINED BY TOWN

2. SOILS TESTING SHALL BE PERFORMED BY A STATE APPROVED INDEPENDENT TESTING LABORATORY. SHOULD ANY COMPACTION TEST FAIL TO MEET THE MINIMUM REQUIRED DENSITY AS SPECIFIED ON THE PLANS OR IN THE GEOTECHNICAL REPORT, THE DEFICIENCY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE SOILS ENGINEER. THE EXPENSE OF RETESTING SUCH AN AREA SHALL BE BORN BY THE CONTRACTOR, AT NO COST TO THE OWNER.

G. ENGINEERING CERTIFICATION:

1. ALL IMPROVEMENT PLANS AND THE SPECIFIC DETAILS AND SPECIFICATIONS THEREOF SHALL BE PREPARED BY, OR UNDER THE DIRECTION OF, AND SIGNED BY, A CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA AND SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF MAMMOTH LAKES PUBLIC WORKS DIRECTOR PRIOR TO CONSTRUCTION OF THE IMPROVEMENTS. IT IS RECOGNIZED THAT THERE MAY BE SITUATIONS WHERE THESE STANDARDS CANNOT BE REASONABLY APPLIED OR SITUATIONS NOT ADDRESSED HEREIN. IN EITHER CASE, IT SHALL BE THE SOLE RESPONSIBILITY OF THE PUBLIC WORKS DIRECTOR TO EXERCISE SOUND ENGINEERING JUDGMENT IN APPROVING ALTERNATE PROPOSALS IN THESE SITUATIONS.

H. SHOP DRAWINGS AND SUBMITTALS

1. SHOP DRAWING SUBMITTALS SHALL BE PROVIDED TO THE PUBLIC WORKS INSPECTOR AT LEAST 5 DAYS PRIOR TO MATERIAL USE FOR THE FOLLOWING:
 - CLASS II BASE
 - CONCRETE
 - ASPHALT PAVING / (JMF) HMA DESIGN
 - STREET LIGHTS, (SUGGESTED BEFORE ORDERING LIGHTS)
 - ELECTRICAL
 - DRAINAGE COMPONENTS
 - SIGNAGE

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POLICY FOR DEVELOPMENT ON SUB-STANDARD STREETS

THIS POLICY IS INTENDED TO ADDRESS THE DEVELOPMENT ON SUB-STANDARD STREETS WITHIN THE TOWN OF MAMMOTH LAKES. THIS POLICY IS APPLICABLE TO ALL SUB-STANDARD STREETS. A STREET MAY BE DEEMED SUB-STANDARD BY THE PUBLIC WORKS DIRECTOR. A STREET MAY BE CONSIDERED SUB-STANDARD AS A RESULT OF CHANGES MADE TO THE MUNICIPAL CODE, THE SUBDIVISION ORDINANCE OF THE TOWN, AND BY CHANGES IN THE INTERNATIONAL FIRE CODE AS AMENDED BY THE STATE OF CALIFORNIA AND THE MLFPD CODE.

IN SOME CASES, IT MAY NOT BE REASONABLE TO IMPOSE THE APPLICATION OF CURRENT STREET STANDARDS TO A PROPOSED DEVELOPMENT THAT MAY ONLY BE ACCESSIBLE VIA A SUB-STANDARD STREET. OFF-SITE RIGHT-OF-WAY DEDICATIONS AND/OR STREET IMPROVEMENTS THAT WOULD BE REQUIRED TO BRING THE STREET INTO COMPLIANCE MAY BE IMPRACTICAL OR EXTRANEOUS TO THE PROPOSED DEVELOPMENT. IN SUCH CASES THE FOLLOWING REQUIREMENTS SHALL BE APPLIED TO PROPERTIES ON STREETS AS SUCH:

- RIGHT OF WAY DEDICATIONS SHALL BE REQUIRED ALONG ALL FRONTAGES OF THE SUBJECT PROPERTY. THE DEDICATION SHALL BE HALF WIDTH FROM CENTERLINE, AND SHALL INCLUDE SNOW STORAGE EASEMENTS WHERE REQUIRED.
- ADDITIONAL RIGHT OF WAY OR SNOW STORAGE EASEMENTS MAY BE REQUIRED WHENEVER THE DEVELOPMENT OF THE PROPERTY REQUIRES THE ADDITIONAL DEDICATIONS. STREETS THAT HAVE NOT BEEN ACCEPTED BY THE TOWN AND PRIVATE STREETS SHALL MAKE AN IRREVOCABLE OFFER OF DEDICATION (IOD) FROM THE CENTERLINE OF THE EXISTING EASEMENT OUT TO THE ULTIMATE RIGHT OF WAY. THE IOD MAY NOT BE ACCEPTED UNTIL SUCH TIME AS THE ENTIRE STREET IS TO BE ACCEPTED AS A PUBLIC STREET. SETBACKS SHALL BE MEASURED FROM THE ULTIMATE RIGHT OF WAY.
- ALL PORTIONS OF STREETS FRONTING THE PROPERTY TO BE DEVELOPED SHALL BE IMPROVED TO THE FULL HALF-WIDTH STREET SECTION FROM CENTERLINE, PLUS EIGHT FEET OF PAVEMENT ON THE OPPOSITE SIDE OF THE CENTERLINE.
- IMPROVEMENTS SHALL INCLUDE PAVING, SNOW POLES, SIGNAGE, AND CURB, GUTTER AND SIDEWALK WHERE REQUIRED BY A TOWN ADOPTED PLAN OR POLICY. ADDITIONAL IMPROVEMENTS MAY BE REQUIRED WHEREVER IT IS DEEMED NECESSARY BY THE PUBLIC WORKS DIRECTOR TO PROVIDE FOR SAFE AND REASONABLE TRANSITIONS.
- FIRE DEPARTMENT ACCESS SHALL BE IMPROVED TO THE PROPERTY BY PROVIDING TURNOUTS, FIRE HYDRANTS AND TURNAROUNDS CONSISTENT WITH MLFPD REQUIREMENTS.
- EXISTING DEAD END STREETS BEING DEVELOPED SHALL PROVIDE A CUL-DE-SAC OR TURNAROUND APPROVED BY THE PUBLIC WORKS DIRECTOR
- IN AREAS WHERE INADEQUATE FIRE ACCESS EXISTS THE DEVELOPER MAY BE REQUIRED TO PROVIDE ADDITIONAL PAVEMENT ALONG THE STREET FRONTAGE IN ORDER TO ACCOMMODATE A FIRE ACCESS TURNOUT, THE LENGTH AND WIDTH TO BE DETERMINED BY THE MLFPD. A FIRE HYDRANT MAY ALSO BE REQUIRED. PARKING WOULD NOT BE PERMITTED AND THE ROAD SHALL BE SIGNED AS SUCH ALONG THE TURNOUT, REGARDLESS OF THE FIRE HYDRANT.
- WHEN PROPERTIES ARE TO BE DEVELOPED ON PRIVATE STREETS, UNIMPROVED STREETS OR A STREET THAT IS NOT MAINTAINED BY THE TOWN, THE PROPERTY OWNER SHALL ENTER INTO TWO AGREEMENTS WITH THE TOWN PRIOR TO ISSUANCE OF A BUILDING PERMIT OR RECORDATION OF A MAP. A WAIVER OF RIGHTS FOR THE FORMATION OF AND ANNEXATION INTO AN ASSESSMENT DISTRICT FOR THE CONSTRUCTION OF STREET AND RELATED IMPROVEMENTS, INCLUDING UTILITIES, AND A WAIVER OF RIGHTS FOR THE FORMATION OF A BENEFIT ASSESSMENT DISTRICT FOR THE MAINTENANCE OF THE STREET AND RELATED PUBLIC IMPROVEMENTS.
- EASEMENTS SHALL BE GRANTED WHENEVER REQUIRED BY MUNICIPAL CODE OR AN ADOPTED TOWN PLAN OR POLICY.
- DEVELOPMENT PROJECTS THAT PROPOSE DENSITY IN ADDITION TO THAT WHICH IS ALLOWED BY CURRENT ZONING, OR BY THE REZONING OF THE PROPERTY TO A HIGHER DENSITY SHALL REQUIRE ADDITIONAL IMPROVEMENTS. ALLOWING ADDITIONAL DENSITY IS A DISCRETIONARY PROCESS AND THEREFORE THE EXTENT OF THE ADDITIONAL IMPROVEMENTS IS DISCRETIONARY AND SHALL ADDRESS ALL ISSUES CONCERNING THE PUBLIC HEALTH, SAFETY AND WELFARE AS APPROVED BY THE PLANNING COMMISSION OR TOWN COUNCIL. THIS MAY INCLUDE IMPROVEMENTS OFF-SITE AND NOT ADJACENT TO THE PROPERTY, AND MAY ALSO REQUIRE DEDICATIONS FOR STREET PURPOSES, SNOW STORAGE OR FOR OTHER MEASURES TO MITIGATE NEGATIVE IMPACTS.
- IN THE EVENT THAT A DEVELOPMENT PROJECT IS PROPOSED ALONG AN EXISTING MISALIGNED STREET, WHERE THE ALIGNMENT IS OUTSIDE OF THE ROW, THE REALIGNMENT OF THE STREET TO THE ROW WILL BE AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR. ANY CONDITION THAT REQUIRES THE RE-ALIGNMENT OF THE STREET WILL BE IN ADDITION TO ALL OTHER CONDITIONS AND REQUIREMENTS WITHIN THIS POLICY, TOWN STANDARDS, AND MUNICIPAL CODE.

THE PUBLIC WORKS DIRECTOR WILL PLACE A MEMO IN THE STREET FILES DESCRIBING ANY INTERPRETATIONS OF THIS POLICY. A MEMO WILL BE CREATED FOR EACH AND EVERY PROJECT THAT THIS POLICY HAS BEEN APPLIED TO.

TOWN OF MAMMOTH LAKES - DEPARTMENT OF PUBLIC WORKS



POLICY FOR DEVELOPMENT ON SUB-STANDARD STREETS

PUBLIC WORKS
DIRECTOR APPROVAL: 

DATE: **May 7, 2014**

STANDARD PLAN

008-1

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