March 18, 2025

То:	All Bidders
From:	Sandra Lovaas, Measure C Bond Manager Pleasant Valley School District
Subject:	Addendum 1, Bid FB-25-06, Pavement Rehabilitation Project, Monte Vista Middle School

This addendum is hereby made a part of the Contract Documents for **Bid FB-25-06**, **Pavement Rehabilitation Project, Monte Vista Middle School** to the same extent as though it was originally included therein and takes precedence over the original documents.

Receipt of this addendum should be acknowledged on the Bid Form.

- 1) Provides additional scope on drawings. See following, note page 7
- 2) Provides geotechnical recommendations for site.



Pleasant Valley School District 600 Temple Avenue • Camarillo, CA 93010 • (805) 389-2100 (Office) • www.pleasantvalleysd.org PVSD prepares 21st century learners who are responsible members of our global society.

PAVEMENT REHABILITATION PROJECT MONTE VISTA MIDDLE SCHOOL CAMARILLO, CA 93010

GENERAL NOTES

- 1. AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE REGIONAL NOTIFICATION CENTER (UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA - U.S.A. AT 811) TO OBTAIN AN INQUIRY IDENTIFICATION NUMBER AND TO REQUEST THE UTILITY OWNERS TO MARK OR OTHERWISE INDICATE THE LOCATION OF THEIR SUBSURFACE FACILITIES. THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES, INCLUDING ALL SERVICE CONNECTIONS, WHICH HAVE BEEN MARKED BY THE RESPECTIVE OWNERS WHICH MAY AFFECT OR BE AFFECTED BY ITS OPERATIONS. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ALL UTILITIES AND ALL STRUCTURES FOUND AT THE SITE.
- 2. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINA ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. THE CONTRACTOR SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE DISTRICT REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION
- 3. THE CONTRACTOR SHALL KEEP A STRICT RECORD OF ALL CHANGES AND SUBMIT THIS RECORD TO THE DISTRICT REPRESENTATIVE. "AS-BUILT" PLANS SHALL BE PROVIDED TO THE DISTRICT.
- 4. ALL DAMAGE CAUSED TO PUBLIC STREETS, 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 DISTRICT REPRESENTATIVE'S SATISFACTION. 5. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY EXISTING BROKEN OR DAMAGED SIDEWALK, CURB, AND GUTTER AS DIRECTED BY THE DISTRICT REPRESENTATIVE.
- 6. SAWCUTTING OF EXISTING PAVEMENT SHALL BE TO A CLEAN STRAIGHT EDGE AS DIRECTED BY
- THE DISTRICT REPRESENTATIVE. 7. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS, GUTTERS, SIDEWALKS AND PAVEMENTS.
- 8. WHERE JOINING THE EXISTING PAVEMENT, SAWCUT TO SOUND PAVEMENT AND OVERLAY AS REQUIRED TO PROVIDE PROPER GRADE AND 2% CROSS-SLOPE. ANY UNSOUND PAVEMENT SHALL BE REPLACED.
- 9. ALL MANHOLE RIMS, LIDS, VALVE BOXES AND OTHER APPURTENANCES SHALL BE SET TO FINISH GRADE BY THE CONTRACTOR AS PART OF THIS PROJECT.
- 10. A PRECONSTRUCTION CONFERENCE OF ALL INTERESTED PARTIES SHALL BE HELD PRIOR TO ANY CONSTRUCTION OR GRADING TO ANSWER ANY QUESTIONS OR TO CLARIFY ANY PORTION OF THESE GRADING PLANS.
- 11. ALL RECOMMENDATIONS MADE BY THE SOILS ENGINEER CONTAINED IN THE REPORT BY GEOTECHNIQUES, DATED MARCH 7, 2025 (INCLUDING ANY ADDENDA) SHALL BE A PART OF THIS GRADING PLAN.
- 12. ALL DELETERIOUS MATERIAL, SUCH AS LUMBER, LOGS, BRUSH, OR ANY OTHER ORGANIC MATERIALS OR RUBBISH, SHALL BE REMOVED FROM ALL AREAS TO RECEIVE COMPACTED FILL.
- 13. UNSUITABLE MATERIAL, SUCH AS TOP SOIL, WEATHERED BED ROCK, ETC., SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.
- 14. ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER AFTER REMOVAL OF UNSUITABLE MATERIAL AND EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR ANY FILL.
- 15. ALL SOIL OR ROCK MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SITE. ANY MATERIAL SUCH AS CONCRETE OR IMPORTED MATERIALS SHALL BE APPROVED BY THE SOILS ENGINEER PRIOR TO USE IN COMPACTED FILL.

SURVEY NOTES

1. MAPPING

TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=20', WITH A 1 FOOT CONTOUR INTERVAL FROM DATA COLLECTED IN A FIELD SURVEY PERFORMED USING CONVENTIONAL EQUIPMENT AND PROCEDURES IN NOVEMBER 2022 AND FEBRUARY 2024, AT THE REQUEST OF PLEASANT VALLEY SCHOOL DISTRICT.

2. BASIS OF BEARINGS AND COORDINATES

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM NAD83, ZONE 5, EPOCH 2017.50 AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) AND/OR CONTINUOUS OPERATING REFERENCE STATIONS (CORS) VNCO & TOST BEING SOUTH 84-38-03 EAST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

3. ELEVATIONS

THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), PER GPS TIES & GEOID MODELING (GEOID12B) TO CGPS STATION TOST. ELLIPSOID HEIGHTS ARE CONSTRAINED PER CSRC. NO COUNTY BENCHMARKS WERE MEASURED IN THIS SURVEY.

4. UTILITIES

SURFACE UTILITY FEATURES SHOWN HEREON WERE LOCATED AS A PART OF THE FIELD SURVEY PERFORMED BY ECG BASED ON VISIBILITY ON THE DATE OF SURVEY. NO RESEARCH OR MAPPING OF SUBSURFACE UTILITIES HAS BEEN PERFORMED.









	REVISIONS			
MARK	DATE	DESCRIPTION		
1	03/18/25	RIBBON GUTTER REMOVAL AND REPLACEMENT		
REVIEWED BY:				
-	DATE			

SHEET INDEX

DESCRIPTION

TITLE SHEET
DEMOLITION PLAN
GRADING PLAN
GRADING PLAN
GRADING PLAN
GRADING PLAN
GRADING PLAN
DETAIL SHEET

EXISTING UTILITY NOTES

1. THE GENERAL CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AND NOTIFY APPROPRIATE UTILITY AGENCIES TO VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING ANY EXCAVATION.

2. THE GENERAL CONTRACTOR SHALL POTHOLE TO LOCATE AND VERIFY ALL EXISTING UTILITIES, POINT OF CONNECTIONS, AND CROSSINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE DISTRICT REPRESENTATIVE.

3. THE LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY; ALL UTILITIES MAY NOT BE SHOWN.

4. SOME IRRIGATION PIPING AND ELECTRICAL CONDUIT LOCATIONS AND SIZES ARE UNKNOWN AND NOT IDENTIFIED HEREON.

5. SUBSURFACE UTILITIES SHOWN HEREON HAVE BEEN COMPILED FROM RECORD INFORMATION GATHERED FROM VARIOUS SOURCES. THE SUBSURFACE INFORMATION, INCLUDING LOCATION, SIZES, AND CAPACITIES IS AN ESTIMATION BASED ON AVAILABLE DATA AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. ENCOMPASS CONSULTANT GROUP DOES NOT WARRANT THE ACCURACY OF COMPLETENESS OF SAID RECORD INFORMATION.

6. THE CONTRACTOR, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, UNDERSTANDS THAT THEY AGREE TO ASSUME LIABILITY, AND AGREE TO HOLD THE UNDERSIGNED HARMLESS FOR ANY LIABILITY FOR DAMAGE RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE RECORDS PROVIDED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING TO WORK.

THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICES TO BUILDINGS OR OTHER STRUCTURES INTENDED TO REMAIN IN OPERATIONAL SERVICE DURING THE COURSE OF CONSTRUCTION.



NO 71473

CIVIL

ABBREVIATIONS

PER SSPWC SECTION 1-3 AND SPPWC STANDARD PLAN 100-1 UNLESS OTHERWISE NOTED HEREON

C. DA	ASPHALT CONCRETE AMERICANS WITH DISABILITIES
осн	ACT
2	BEGIN CURVE
CR DY	BEGIN CURB RETURN BOUNDARY
G	BEGIN BACKELOW PREVENTER
_DG	BUILDING
DT /C	BOTTOM OF PIPE BEGIN VERTICAL CURVE
N \\/	BOTTOM OF WALL
3	CATCH BASIN
= FS	CURB FACE CUBIC FEET PER SECOND
L. or C	CENTERLINE
- _F	CHAIN LINK FENCE
MU DNC	CONCRETE MASONRY UNIT
BL	
A	DIAMETER
NG BAA	EBAA IRON, INC.
C R	END CURVE
EC	ELECTRIC
.ev Ly	EASTERLY
о SM'T	EDGE OF PAVEMENT FASEMENT
/C	END VERTICAL CURVE
5	FINISH FLOOR FINISH GRADE
	FLOWLINE FINISH SURFACE
, /S	FEET PER SECOND
л З	GRADE BREAK
M V	GAS METER GAS VALVE
GL	HYDRAULIC GRADE LINE
N	HIGH POINT HEADWALL
:V IV	IRRIGATION CONTROL VALVE
.R T	IRRIGATION
\ I :	LATERAL LINEAR FEET
-	LOW POINT LEFT
AX	MAXIMUM
л ЭС	MIDDLE OF CURVE
LY I.C.	NORTHERLY NOT IN CONTRACT
T.S.	NOT TO SCALE
/C	ON CENTER
HW B	OVERHEAD WIRE PULL BOX
C.C.	PORTLAND CEMENT CONCRETE PCC
E.	POLYETHYLENE
1B	PROPERTY LINE PROCESSED MISC. BASE
RC	POINT OF REVERSE CURVATURE
/C	POLYVINYL CHLORIDE
/MT CP	PAVEMENT REINFORCED CONCRETE PIPE
ET O W	RETAINING RIGHT OF WAY
	RIGHT OF WATER
W W	RECYCLED WATER RIGHT OF WAY
CE CO	SOUTHERN CALIFORNIA EDISON
OR S.D.	STORM DRAIN
DMIN DR	STANDARD DIMENSION RATIO
HT LY	SHEET SOUTHERLY
	SEWER MANHOLE
T WC	WORKS CONSTRUCTION
SPWC	SANITARY SEWER STANDARD SPECIFICATIONS FOR
D	PUBLIC WORKS CONSTRUCTION
TRU	STRUCTURE
	TOP OF CURB
EL G	TELEPHONE TOP OF GRATE
	TRAFFIC INDEX
DE	TOE OF SLOPE
DP RANS	TOP OF SLOPE OR PIPE TRANSITION
N /P	TOP OF WALL
г N.O.	UNLESS NOTED OTHERWISE
AR _V	VARIES/VARIABLE VALVE
'LY M	WESTERLY
SEL	WATER SURFACE ELEVATION
V	

MONTE VISTA MIDDLE SCHOOL PAVEMENT REHABILITATION TITLE SHEET CAMARILLO, CA 93010

YR

333 N. LANTANA ST, SUITE 287, CAMARILLO, CA 93010

PHONE: 805.322.4443 WEBSITE: WWW.ECGCIVIL.COM

TRISTAN J. SANTOS ____ DATE: 03/11/2025

PROJECT ENGINEER

R.C.E. 71473

SCALE: HORIZ. <u>1" = 80'</u> VERT. WORK ORDER 0835 DRAWN BY: VR TIS SHEET NO. 1 OF 8 ECKED BY:



LEGEND

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REMOVE EXISTING AC PAVEMENT AND AGGREGATE BASE

REMOVE EXISTING AC PAVEMENT. AGGREGATE BASE TO BE PROTECTED IN PLACE

CONCRETE REMOVAL

ASPHALT PAVEMENT DIVISION LINE (APPROXIMATE; TO BE FIELD VERIFIED)

APPROXIMATE RIGHT OF WAY

PROPOSED SAWCUT LINE

DEMOLITION NOTES

- 1. DEMOLITION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE EXISTING STRUCTURES AND ALL OTHER OBJECTIONABLE MATERIAL FROM THE PROJECT SITE.
- 2. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE REMOVAL OF MATERIAL FROM THE SITE AND ALL OBJECTIONABLE MATERIALS COVERED BY THESE PLANS. DISPOSAL OF MATERIALS SHALL BE DONE IN A SAFE AND LEGAL MANNER AND SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR SHALL CONTINUOUSLY COORDINATE WITH THE DISTRICT'S REPRESENTATIVE TO SALVAGE, RELOCATE, AND/OR PROTECT ANY EXISTING ITEMS OR MATERIALS AS DIRECTED.
- PRIOR TO COMMENCING DEMOLITION OPERATIONS, THE CONTRACTOR SHALL COORDINATE SEQUENCING OF WORK IN ADVANCE WITH THE DISTRICT'S REPRESENTATIVE.
- 4. THE CONTRACTOR SHALL CONTINUOUSLY CLEAN AND REMOVE DEMOLISHED MATERIALS FROM THE SITE EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. DO NOT ALLOW MATERIALS TO ACCUMULATE ON SITE.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY ITEMS DAMAGED DURING THE DEMOLITION PROCESS THAT ARE INTENDED TO REMAIN AT NO ADDITIONAL COST TO THE OWNER.
- 6. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE PLANS IN THEIR ENTIRETY PRIOR TO PROJECT DEMOLITION. PLAN DISCREPANCIES OR DEFICIENCIES SHALL BE REPORTED TO THE DISTRICT'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
- 7. ALL EXISTING UTILITIES TO BE PROTECTED IN PLACE UNLESS OTHERWISE SHOWN. CONTRACTOR TO COORDINATE WITH ALL NECESSARY UTILITY COMPANIES.
- 8. REFER TO LANDSCAPE DRAWINGS FOR ANY REQUIRED PLANTING & IRRIGATION DEMOLITION AND TREE REMOVAL. ALL AREAS TO RECEIVE LANDSCAPING TO BE CLEARED, GRUBBED, AND REMOVE EXISTING IRRIGATION AS NECESSARY.
- 9. CONCRETE SIDEWALKS WILL BE REMOVED TO THE NEAREST CONSTRUCTION OR EXPANSION JOINT TO THE LIMITS OF REMOVAL AS SHOWN ON THE PLANS. CONTRACTOR TO PROVIDE SAWCUT LOCATION PLAN FOR APPROVAL BY DISTRICT'S REPRESENTATIVE.
- 10. ADJUST EXISTING UTILITY LIDS, GRATES, COVERS TO FINISHED GRADE.
- 11. DEMOLITION SHALL BE CONDUCTED TO LIMITS SHOWN & AS REQUIRED FOR NEW WORK.
- 12. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT AND SUPPORT THE UTILITIES OR SUBSTRUCTURES FOUND AT THE SITE WHETHER OR NOT SHOWN ON THE PLANS OR EXPOSED BY CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK (72-HOURS NOTICE REQUIRED). PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) TOLL FREE AT 8-1-1. CONTRACTOR SHALL PROTECT ALL EXISTING PROPERTIES FROM DAMAGE. CONTRACTOR SHALL RESTORE ALL EXISTING SURFACE AND SUBSURFACE FACILITIES DISTURBED BY CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, TREES, LANDSCAPING, IRRIGATION, TRAILS, ASPHALT CONCRETE ROAD PAVING, CURB AND GUTTER, CROSS GUTTER, SIDEWALK, AND UTILITIES. POTHOLE EXISTING UTILITIES PRIOR TO CONSTRUCTION AND ADVISE DISTRICT'S REPRESENTATIVE OF CONFLICTS. CONTACT PURVEYORS OF UTILITY SYSTEMS SUCH AS ELECTRIC, TELEPHONE, CABLE TV, GAS OR OTHERS TO RELOCATE FACILITIES TO ALLOW FOR THE CONSTRUCTION SHOWN ON THESE PLANS. EXCEPT AS OTHERWISE SHOWN THE DEPTHS OF UTILITIES ARE NOT KNOWN.
- 13. UNLESS OTHERWISE NOTED ON DRAWINGS, ALL EXISTING WIRING, CONDUITS, JUNCTION BOXES AND OTHER ELECTRICAL DEVICES IN AREAS WHERE NEW WORK OCCURS SHALL BE REMOVED, EXCEPT WHEN SUCH DEVICES ARE REQUIRED TO MAINTAIN SERVICES TO OTHER AREAS, OR OTHERWISE NOTED. IN SUCH CASES, CONTRACTOR SHALL RELOCATE THESE DEVICES PER INSTRUCTIONS BY DISTRICT'S REPRESENTATIVE.
- 14. CONTRACTOR SHALL PROVIDE SUFFICIENTLY DEEP SAW CUT BETWEEN BACK OF CURB AND SIDEWALK PRIOR TO DEMOLITION OF EXISTING CURB TO ALLOW CLEAN SEPARATION FROM CONCRETE TO BE PROTECTED IN PLACE.

R.C.E. 71473

DEMOLITION NOTES

DATE

1 SAWCUT TO LEGE AREAS	AND REMOVE EXISTING AC END AND PLAN FOR LIMITS OF WHERE AGGREGATE BASE TO	IMPROVEMENTS TO LIMITS SHOWN. REFER FULL PAVEMENT SECTION REMOVAL AND BE PROTECTED IN PLACE.		
2 EXISTIN	G CURB TO BE REMOVED.			
3 EXISTIN	G SIDEWALK TO BE REMOVED).		
4 REMOVE	AND REPLACE WHEEL STOP.	REFER TO GRADING PLANS FOR PROPOSED		
5 EXISTIN	G CONCRETE TO BE PROTECT	ED IN PLACE.		
6 EXISTIN	G CURB TO BE PROTECTED IN	I PLACE.		
7 EXISTIN	G LIGHT POLES TO BE PROTE	CTED.		NI
8 EXISTIN	G RIBBON GUTTER TO BE PRO	DTECTED IN PLACE.		
9 EXISTIN	9 EXISTING BOLLARD TO BE REMOVED.			
10 EXISTIN	10 EXISTING SPEED BUMPS TO BE REMOVED.			
11 EXISTIN	G SIGN POLE AND BASE TO B	E PROTECTED IN PLACE.	VV<	
12 EXISTIN	G INLET TO BE PROTECTED I	N PLACE.		
13 EXISTIN	13 EXISTING SOLAR PANEL ARRAY SHADE STRUCTURE TO BE PROTECTED IN PLACE.			5
14 EXISTIN	G CURB DRAIN TO BE REMOV	ED AND REPLACED WITH PARKWAY DRAIN.	S	CALE: 1"=30'
15 EXISTIN	G CONCRETE RIBBON GUTTER	R TO BE REMOVED.	0 30	60 90
LACEMENT	PROFESSION PROFESSION AUGINEER AUGINEER NO 71473 SINEER AUGIN	Encompass Consultant Group 333 N. LANTANA ST, SUITE 287, CAMARILLO, CA 93010	MONTE VISTA N PAVEMENT RE DEMOLIT CAMARILLO	MIDDLE SCHOOL HABILITATION TON PLAN D, CA 93010
	CIVIL CIVIL	PHONE: 805.322.4443 WEBSITE: WWW.ECGCIVIL.COM	SCALE: HORIZ. <u>1" = 30'</u>	VERT
DATE	OF CALIFO	TRISTAN J. SANTOS DATE: 03/11/2025	- WORK ORDER 0835	1
			DRAWN BY: V/D	

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VR SHEET NO. 2 OF 8









R.C.E. 71473

TJS SHEET NO. 4 OF 8

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GENERAL GRADING AND PAVING NOTES

- REMOVE EXISTING ASPHALT CONCRETE PAVEMENT WITHIN MARKED AREA. SAW CUT WITH CLEAN STRAIGHT EDGES. KEY CUT ASPHALT CONCRETE EDGES TO A DEPTH OF 11/2 TO 2 INCHES AND WIDTH OF 18 INCHES INTO ADJACENT ASPHALT CONCRETE PAVEMENT. COMPACT UPPER 8 INCHES BELOW PAVEMENT SECTION SUBGRADE TO A DISTANCE OF 1 FOOT BEYOND PERIMETER WHERE ALLOWABLE TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY.
- 2. SUBGRADE AND COMPACTED AGGREGATE BASE COURSE SHALL BE FIRM AND UNYIELDING WHEN PROOF-ROLLED WITH A FULL WATER TRUCK.
- 3. FURNISH AND INSTALL MIRAFI 600X ON FINISHED SUBGRADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 4. WITHOUT DRIVING DIRECTLY ON GEOTEXTILE, PLACE AND COMPACT AGGREGATE BASE TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY.
- PROTECT EXISTING UTILITY STRUCTURES AND CONCRETE IMPROVEMENTS IN 5. PLACE, ADJUST EXISTING UTILITY LIDS, COVERS, AND OTHER APPURTENANCES TO MATCH FINISH GRADE.
- 6. PROTECT EXISTING PAVEMENT FROM DISTRESS FROM CONSTRUCTION TRAFFIC. REPLACE DAMAGED CONCRETE AND ASPHALT PAVEMENT NOT IDENTIFIED FOR DEMOLITION.
- 7. CONTRACTOR TO VERIFY PAVEMENT AREAS AND LOCATIONS OF EXISTING UTILITIES.
- 8. CONTRACTOR TO MEMORIALIZE EXISTING PAVEMENT MARKINGS AT PARKING LOT AREA.
- 9. CONTRACTOR TO MATCH FINISHED GRADES TO ADJACENT EXISTING IMPROVEMENTS. 10. APPLY TACK COAT TO ALL CONCRETE FACES/SURFACES JUST PRIOR TO AC
- LAY-DOWN. 11. CONTRACTOR TO EFFECT POSITIVE DRAINAGE ON ALL NEW PAVEMENT SURFACES.
- DRAINAGE ON NEW PAVEMENT SURFACES SHALL BE ACHIEVED BY SHEET FLOW AND SHALL NOT BE CONCENTRATED.
- 12. RESTORE ALL PAVEMENT MARKINGS AND PAINT CURBS IN PAVEMENT RECONSTRUCTION/NEW CONSTRUCTION AREAS WITH TRAFFIC-RATED PAINT. 13. SEALCOAT ASPHALT CONCRETE SEAMS BETWEEN NEW AND EXISTING ASPHALT
- CONCRETE. 14. DEPICTED CONCRETE WALKWAY REPLACEMENT AREAS ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LIMITS WITH DISTRICT REPRESENTATIVE TO THE
- NEAREST JOINT. 15. SLOPE IN ADA PARKING STALL AND ACCESS AISLE SHALL NOT EXCEED TWO PERCENT IN ALL DIRECTIONS.



LEGEND



_____ ____ · · · ____ · · · ____ · · · ____

____X__ __X__ ___

ASPHALT CONCRETE PAVEMENT (FULL PAVEMENT SECTION)

ASPHALT CONCRETE PAVEMENT (3" AC ONLY)

CONCRETE PAVEMENT

FLOW LINE RIGHT-OF-WAY GRADE BREAK

ASPHALT PAVEMENT DIVISION LINE (APPROXIMATE) EXISTING CHAIN LINK FENCE (REFER TO LANDSCAPE PLANS)

CONSTRUCTION NOTES

- (1) CONSTRUCT ASPHALT CONCRETE PAVEMENT PER DETAIL "A", SHEET 8.
- (2) CONSTRUCT DRIVE AISLE ASPHALT CONCRETE PAVEMENT PER DETAIL "B", SHEET 8.
- (3) CONSTRUCT CONCRETE WALKWAY PER DETAIL "C", SHEET 8.
- (5) CONSTRUCT SPEED HUMP PER DETAIL "H", SHEET 8.
- (9) CONSTRUCT 6" CONCRETE CURB AND GUTTER PER SPPWC STD PLATE 120-3, A2-6(150).
- 10 PROTECT EXISTING SIGNAGE AND POST IN PLACE. REFER TO DETAIL "F", SHEET 8 SHOULD REPLACEMENT REQUIRED.
- 12 PARKING LOT STRIPING SHALL BE 4" WIDE WHITE NON-REFLECTORIZED PAINT. PAVEMENT MARKINGS SHALL BE SAME SIZE AND MATERIAL AS EXISTING CONDITION.
- (13) CONSTRUCT ADA ACCESS AISLE MARKINGS PER SECTION 11B-502.3.3 OF THE 2022 CALIFORNIA BUILDING CODE.
- (14) CONSTRUCT RED CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
- (15) CONSTRUCT BLUE CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
- (16) CONSTRUCT YELLOW CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.



GENERAL GRADING AND PAVING NOTES

- REMOVE EXISTING ASPHALT CONCRETE PAVEMENT WITHIN M WITH CLEAN STRAIGHT EDGES. KEY CUT ASPHALT CONCRET OF 11/2 TO 2 INCHES AND WIDTH OF 18 INCHES INTO CONCRETE PAVEMENT. COMPACT UPPER 8 INCHES BELOW SUBGRADE TO A DISTANCE OF 1 FOOT BEYOND PERIMETER A MINIMUM OF 95% OF MAXIMUM DRY DENSITY.
- 2. SUBGRADE AND COMPACTED AGGREGATE BASE COURSE SHALL BE FIRM AND UNYIELDING WHEN PROOF-ROLLED WITH A FULL WATER TRUCK.
- 3. FURNISH AND INSTALL MIRAFI 600X ON FINISHED SUBGRADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 4. WITHOUT DRIVING DIRECTLY ON GEOTEXTILE, PLACE AND COMPACT AGGREGATE
- BASE TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY. 5. PROTECT EXISTING UTILITY STRUCTURES AND CONCRETE IMPROVEMENTS IN PLACE, ADJUST EXISTING UTILITY LIDS, COVERS, AND OTHER APPURTENANCES TO
- MATCH FINISH GRADE. PROTECT EXISTING PAVEMENT FROM DISTRESS FROM CONSTRUCTION TRAFFIC.
- REPLACE DAMAGED CONCRETE AND ASPHALT PAVEMENT NOT IDENTIFIED FOR 7. CONTRACTOR TO VERIFY PAVEMENT AREAS AND LOCATIONS OF EXISTING
- 8. CONTRACTOR TO MEMORIALIZE EXISTING PAVEMENT MARKINGS AT PARKING LOT
- 9. CONTRACTOR TO MATCH FINISHED GRADES TO ADJACENT EXISTING
- 10. APPLY TACK COAT TO ALL CONCRETE FACES/SURFACES JUST PRIOR TO AC
- 11. CONTRACTOR TO EFFECT POSITIVE DRAINAGE ON ALL NEW PAVEMENT SURFACES. DRAINAGE ON NEW PAVEMENT SURFACES SHALL BE ACHIEVED BY SHEET FLOW AND SHALL NOT BE CONCENTRATED.
- 12. RESTORE ALL PAVEMENT MARKINGS AND PAINT CURBS IN PAVEMENT RECONSTRUCTION/NEW CONSTRUCTION AREAS WITH TRAFFIC-RATED PAINT. 13. SEALCOAT ASPHALT CONCRETE SEAMS BETWEEN NEW AND EXISTING ASPHALT
- 14. DEPICTED CONCRETE WALKWAY REPLACEMENT AREAS ARE APPROXIMATE.
- CONTRACTOR TO FIELD VERIFY LIMITS WITH DISTRICT REPRESENTATIVE TO THE
- 15. SLOPE IN ADA PARKING STALL AND ACCESS AISLE SHALL NOT EXCEED TWO PERCENT IN ALL DIRECTIONS.

SCALE: 1"=10'

REVISIONS

1ARKED AREA. SAW CUT				
TE EDGES TO A DEPTH				
O ADJACENT ASPHALT				
W PAVEMENT SECTION				
WHERE ALLOWABLE TO				

LEGEND

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_____ ____ · · · ____ · · · ____ · · · ____

____X__ __X__ ___

ASPHALT CONCRETE PAVEMENT (FULL PAVEMENT SECTION)

ASPHALT CONCRETE PAVEMENT (3" AC ONLY)

CONCRETE PAVEMENT

FLOW LINE RIGHT-OF-WAY GRADE BREAK ASPHALT PAVEMENT DIVISION LINE (APPROXIMATE) EXISTING CHAIN LINK FENCE (REFER TO LANDSCAPE PLANS)

CONSTRUCTION NOTES

(1) CONSTRUCT ASPHALT CONCRETE PAVEMENT PER DETAIL "A", SHEET 8.

- (2) CONSTRUCT DRIVE AISLE ASPHALT CONCRETE PAVEMENT PER DETAIL "B", SHEET 8.
- (3) CONSTRUCT CONCRETE WALKWAY PER DETAIL "C", SHEET 8.
- (5) CONSTRUCT SPEED HUMP PER DETAIL "H", SHEET 8.
- (9) CONSTRUCT 6" CONCRETE CURB AND GUTTER PER SPPWC STD PLATE 120-3, A2-6(150).
- (1) CONSTRUCT 18" WIDE PARKWAY DRAIN PER SPPWC STD PLATE 151-3. RECONSTRUCT UPSTREAM STORM DRAIN TO ACCOMMODATE REVISED PARKWAY DRAIN INVERT.
- (12) PARKING LOT STRIPING SHALL BE 4" WIDE WHITE NON-REFLECTORIZED PAINT. PAVEMENT MARKINGS SHALL BE SAME SIZE AND MATERIAL AS EXISTING CONDITION.
- (14) CONSTRUCT RED CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
- (16) CONSTRUCT YELLOW CURB TO LIMITS SHOWN. MATCH EXISTING CURB COLOR.
- (18) TRANSITION CURB AND GUTTER TO MATCH EXISTING GUTTER CROSS SLOPE ELEVATION.
- (19) CONSTRUCT VEHICULAR CONCRETE PAVEMENT PER DETAIL "J", SHEET 8.
- 20 CONSTRUCT CONCRETE CROSS GUTTER PER SPPWC STD PLATE 122-3, SECTION D-D. MATCH EXISTING ELEVATIONS.

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March 7, 2025 Project No. 1025.009.01

Pleasant Valley School District 600 Temple Avenue Camarillo, California 93021

Attention: Ms. Sandra Lovaas, Measure C Bond Manager

Subject: Geotechnical Recommendations for Replacement of Asphalt Concrete at Dos Caminos Elementary School and Monte Vista Middle School, in the Pleasant Valley School District, in Camarillo, California

Dear Ms. Lovaas:

This geotechnical letter report provides recommendations for the preparation of subgrade in replacement and new pavement areas and construction of structural asphalt concrete pavement sections at Dos Caminos Elementary School and Monte Vista Middle School, in Camarillo, California. Our understanding of the proposed projects is based on discussions with Pleasant Valley School District ("PVSD") personnel, site observations, and observation of existing pavement sections and subgrade soil samples from selected locations at each campus from both this study and in conjunction with recent construction activity.

PROJECT SCOPE

Site improvements at the subject campuses will consist of new asphalt concrete courses or pavement sections (i.e., that include aggregate base course), on-grade concrete improvements, and any related underground utility repairs.

Minor grading will be performed as needed to improve local gradients to achieve ADA compliance or enhance positive drainage in improvement areas.

SITE CONDITIONS

Monte Vista Middle School West and North Parking Lots. Subgrade soil at Monte Vista Middle School typically consists of dark gray-brown clayey silt with fine sand (ML). Subgrade soils were observed to be several percentage points over optimum moisture content. Note that the existing pavement in the west parking lot and at the western half of the north parking lot appears to consist of the original design of about 2½ inches of asphalt concrete, and Petromat was not observed in the existing surficial asphalt concrete course in this area. The eastern half of the north parking lot was repaved in about 1999, with about 3-inches of asphalt concrete over about 11 inches of aggregate base. This portion of the north parking lot will be repaved with 3 inches of asphalt concrete over the existing approximate 11–inch aggregate base course.

Dos Caminos Elementary School. Subgrade soil at Dos Caminos Elementary School consists predominantly of clayey silt with sand (ML) and should be anticipated to be a few to several percentage points over optimum moisture content. The original pavement section in the front parking lot consisted of about $1\frac{1}{2}$ inches of asphalt concrete over 4 inches of aggregate base; however, the original pavement was overlaid with Petromat and an additional $1\frac{1}{2}$ inches of asphalt concrete. The north playground also was originally constructed with a $2\frac{1}{2}$ -inch thick asphalt concrete course that was subsequently overlaid with between about 1 and $2\frac{1}{2}$ inches of additional asphalt concrete (the $2\frac{1}{2}$ inch overlay thickness in the drive lane along north edge of playground), with no Petromat observed at the two potholed locations on the north playground.

General Consideration for All Sites. Note that the moisture content of near-surface subgrade materials may vary with seasonal conditions including rainfall and irrigation intensity, or from other circumstances.

SITE SUBGRADE PREPARATION RECOMMENDATIONS

Areas to receive new asphalt concrete and on-grade concrete shall be underlain by a minimum of 12 inches of subgrade compacted to a minimum of 95 percent of the maximum dry density determined according to ASTM D1557, measured from the lowest point of the thickened edge or below the aggregate base course.

Preliminary Site Preparation

Site irrigation shall be discontinued as far in advance as practicable prior to clearing, demolition, and excavation operations. Root mass from trees and shrubs and the root mat in lawn areas should be completely removed, stripped, and wasted offsite prior to utility trench or subgrade excavation, or earthmoving operations. Excavations and depressions, either existing or from removal of root-balls, below grade structures or improvements, or footings, or from rutting from demolition and construction equipment trafficking shall not be filled in or smoothed over outside the presence of the Geotechnical representative.

Contractor shall fully mitigate or repair any rutting from demolition or earthmoving equipment.

Subgrade Preparation

Asphalt Concrete and On-Grade Concrete Areas. Subgrade for asphalt concrete or on-grade concrete shall be excavated to a level corresponding to lowest level of asphalt concrete pavement or on-grade concrete section (including base course). The excavation shall be deepened, as necessary to remove organics, topsoil, and deleterious material and extend a horizontal distance of an additional 1 foot beyond the asphalt concrete or new concrete in unimproved areas. The exposed surface shall be observed by the Geotechnical representative prior to scarification of the exposed excavation bottom. Depending on the moisture content of the soils exposed in the excavation bottom, the upper 1 foot of subgrade shall be moisture-conditioned or aerated to between 0 and 2 percent above optimum moisture content and processed by reducing scarified materials to pea-size or finer consistency. Excavation bottoms in silty and clayey subgrade areas likely shall require extended aeration periods (after scarification effecting pulverization) prior to compacting. Once the targeted moisture condition is achieved, processed materials shall then be compacted to a minimum of 95 percent of the maximum dry density determined by ASTM D1557, latest edition.

Areas to Receive Fill. The upper 1 foot in areas to receive fill shall be similarly scarified and compacted, as above, prior to fill placement.

Footing Areas. Footing areas to a distance of 2 feet beyond perimeter shall be overexcavated to a depth of 1 foot below bottom of footing. The bottom of the overexcavation shall be observed by the Geotechnical representative prior to placing fill. Fill shall be reduced to pea-sized or finer consistency, moisture conditioned or aerated, as needed, and compacted to a minimum of 95 percent of the maximum dry density determined by ASTM D1557, latest edition.

Alternatives to Subgrade Aeration and Subgrade Stabilization

An alternative to aeration consists of the treatment of onsite wet clayey materials with cement to reduce elevated in-place moisture content and to effect "bridging" over potentially yielding, unstable underlying subgrade materials. For silty and clayey subgrade treatment, 2 to 3 percent "quicklime" or 3 to 4 percent cement (by weight), shall be thoroughly mixed into the upper 1 foot of the excavation bottom in accordance with Sections 301-3.1 through 301-3.1.6 of the "Greenbook." The soil-cement mixture shall be moisture-conditioned and compacted to a minimum of 93 percent of the maximum dry density within 90 minutes of adding moisture to cement-treated soil and according to Section 301-3.1.8. The compacted soil-cement mixture shall be cured according to Section 301-3.1.9. At least 2 days of curing time shall be allowed prior to placement of general, select, or treated fill materials. This cement content is appropriate for low-contact pressure, lightweight equipment operation; heavier equipment and rubber tired equipment imposing higher contact pressures shall require higher cement concentrations— approaching 10 percent by weight (for a pavement recycler, for example)—and/or thicker treated zones in order to support heavier equipment loads during construction.

An alternative to cement treatment of subgrade consists of removal and replacement of the upper 1 foot of subgrade with aggregate base over Mirafi 600X, placed in accordance with the manufacturer's instructions, with the full thickness of aggregate base placed before trafficking with lightweight spreading and compacting equipment so that "bridging" is achieved and maintained over underlying very moist to saturated soil.

Cement-treatment and replacement with aggregate base alternatives both require that the Contractor employ appropriate minimal equipment loading (i.e., lightweight equipment and appropriate for materials affected) and trafficking reduction measures to maintain integrity of the compacted subgrade and overlying base courses through completion of concrete placement.

Contractor Awareness and Operations Considerations

The likelihood of encountering very moist subgrade soils should be factored into all aspects of demolition and construction to avoid exacerbating subgrade moisture conditions and inducing 'pumping' of subgrade materials.

Equipment loads during demolition and subgrade preparation in pavement and concrete improvement areas shall be minimized, as needed, to avoid increasing moisture content of exposed or underlying subgrade materials and in excavations and subsequently placed fill materials during fill placement and compaction. Examples of such excavating, spreading, processing and compacting equipment include low ground pressure track dozers or, to a greater extent, excavators or backhoes staged outside the excavation. Similar low or no-load means of compacting fill shall be used, as needed, including non-tired sheepsfoot compactors for finegrained subgrade materials. Care shall be exercised to avoid repeated passes over ingress or egress areas, and to avoid overworking or overloading any area such that pumping conditions and elevated moisture contents and/or rutting are induced by demolition and/or construction operations.

Lightweight equipment shall be used for placing and compacting subsequent lifts and courses, as needed, until "bridging" over potentially unstable pumping subgrade soil is accomplished and risk of aggravating moisture conditions with other equipment is low (i.e., the "bridging" effect is not destroyed by subsequent heavy or repeated loadings).

Contractor shall proof-roll both compacted subgrade and aggregate base course with fully-loaded water truck with no deflections in presence of geotechnical representative prior to placing base and asphalt concrete, respectively.

Fill Placement and Compaction

Onsite soils are anticipated to be used as general fill once cleared of organic material, demolition or other debris, and any oversized rock. Earth materials placed as fill or within the upper 12 inches of subgrade in asphalt concrete and on-grade concrete areas shall consist of onsite excavated general fill or imported non-expansive materials with an Expansion Index less than 40. Unless noted otherwise herein, the upper 1 foot of subgrade materials shall be compacted to a minimum of 95 percent of the maximum dry density determined from ASTM D1557.

Subgrade and onsite soils used as fill and imported fill materials shall be placed and compacted at a moisture content of between 0 and 2 percent over optimum moisture content. Each layer shall be spread evenly in loose lifts no thicker than 8 inches and shall be thoroughly blade-mixed during the spreading to reduce soil consistency to pea-size or finer and to provide relative uniformity of material within each layer. Fill and backfill materials may need to be placed in thinner lifts to achieve the recommended compaction with the equipment being used. Soft or yielding materials shall be removed and be replaced with properly compacted fill material, prior to placing the next layer.

Rock, gravel and other oversized material greater than 3 inches in diameter, shall be removed from the subgrade and fill material being placed. Rock less than 3 inches in diameter shall not be nested and voids caused by inclusion of rock in the fill shall be filled with sand or other approved material. All roots larger than $\frac{1}{2}$ -inch diameter shall be removed and discarded.

All subgrade and fill materials, including scarified materials, shall be thoroughly processed to pea-sized or finer consistency prior to aeration and applying compactive effort. Blading or turning wet soils shall be necessary to effect uniform aeration throughout the targeted layer of soil. When the moisture content of the fill material is below that sufficient to achieve the recommended compaction, water shall be added to the fill during processing. While water is being added, the soil shall be bladed and mixed to provide relatively uniform moisture content throughout the material.

Surfaces shall be finished to uniform grades and slopes in accordance with contract documents and in such a manner to drain properly, convey runoff to existing and new drainage improvements, and be free from depressions that may cause areas of standing water or concentrates runoff on finished surface.

FILL MATERIALS

Fill shall be free of organics, oversize material (e.g., greater than 2 inches in diameter), trash and debris, and other deleterious material. The expansion index of imported materials or onsite materials used as general fill shall be tested, as necessary, during earthmoving operations to verify that the expansion index of the material is suitable for its use as general or select fill.

Onsite Soils. Onsite soils are generally anticipated to consist predominantly of fine sand with silt and occasional clay that meets the requirements for general fill.

General Fill. General fill materials shall have an expansion index less than or equal to 40. If necessary, general fill may be blended with sand or dry cement just prior to compaction to reduce the expansion index.

There is a potential that silty and clayey onsite general fill materials, where encountered, could be sensitive to changes in moisture content. Control of moisture content, compaction layer thickness, and efficiency and appropriateness of equipment to soil type will likely be necessary to achieve and maintain the recommended compaction.

Imported Fill. Imported fill to be used as general fill shall meet the requirements of general fill material and its expansive characteristics shall be equal to or better than onsite subgrade soils. Imported fill materials shall be observed, tested as necessary, and accepted by Geotechniques prior to being brought to the site.

Aggregate Base. Aggregate base materials shall consist of imported material conforming to Caltrans Standard Specifications for Class 2 aggregate base, Section 26-1.02 [Caltrans, latest edition] or Section 200-2.4 of the "Greenbook" (International Conference of Building Officials [ICBO], latest edition) for Crushed Miscellaneous Base (CMB).

The aggregate base course beneath the concrete section shall be moisture conditioned to optimum moisture content before placing and spreading and shall be compacted to a minimum of 95 percent of the maximum dry density. Aggregate base materials shall be laterally confined during compaction to achieve the minimum compaction requirements adjacent to the thickened concrete edge.

Aggregate base materials used beneath on-grade concrete and as bedding or backfill in utility trenches or excavations *in areas other than previously or currently paved in asphalt concrete* shall not contain recycled asphalt.

Bedding Sand in Utility Trenches. Sand used as bedding and pipe zone sand in utility trenches shall conform to Caltrans Standard Specifications for sand bedding, Section 19-3.02F(2) (2018) and have a minimum Sand Equivalent (SE) of 30. The sand shall have a gradation that allows the material to maintain a compacted surface condition during construction operations until concrete placement or until pipe and/or subsequent lift placement (i.e., as bedding or pipe zone sand in utility trench).

ASPHALT CONCRETE AND ON-GRADE CONCRETE SECTION THICKNESS

Subgrade for asphalt concrete and on-grade concrete to receive rare fire truck traffic should be prepared as recommended previously (see "SITE SUBGRADE PREPARATION RECOMMENDATIONS"). Subgrade and aggregate base courses shall be firm and unyielding

and proof-rolled in the presence of the Geotechnical representative prior to placement of the successive structural section course (i.e., aggregate base or asphalt concrete or concrete).

Surfaces shall be finished to uniform grades and slopes in accordance with contract documents and in such a manner to drain properly, convey runoff to existing and new drainage improvements, and be free from depressions that may cause areas of standing water or concentrates runoff on finished surface.

Dos Caminos Asphalt Concrete Pavement. Asphalt concrete pavement for playground pavement replacement and to receive potential fire truck access to or within playground areas shall, at a minimum, consist of the following:

Pavement Area	Asphalt Concrete Thickness (inches)	Aggregate Base Thickness (inches)
General playground	21/2	4
Playground Drive Lane and Ingress/Egress	3	6
Annex Lot Auto Parking	3	6
Main and Annex Lot Areas to Receive Truck and Bus Traffic	4	8

Monte Vista Asphalt Concrete Parking Lot Pavements. The eastern half of the North Parking Lot shall receive a new 3-inch thick asphalt concrete course over existing aggregate base (with aggregate base compacted as needed to 95 percent relative compaction). Asphalt concrete pavement for auto parking areas and ingress/egress drive lanes and asphalt concrete pavement to receive routine bus and/or routine truck traffic shall, at a minimum, consist of the following:

Pavement Area	Asphalt Concrete Thickness (inches)	Aggregate Base Thickness (inches)
Auto Parking and Auto Drive Lanes Only	3	9
East Half of North Parking Lot	3	Existing Base
Ingress/Egress/Areas to Receive Bus and/or Truck Traffic	4	9

At both campuses, asphalt concrete using coarser aggregate (such as ³/₄-inch) with low loss from abrasion is preferred (over coarse C2) in the mix design for drive lanes to receive bus and truck traffic. Geotextile such as Mirafi 600x is recommended to be placed in accordance with manufacturer's instructions immediately below the aggregate base course in areas to receive at least 8 inches of aggregate base.

Aggregate base should be compacted to a minimum of 95 percent of the maximum dry density. Asphalt concrete should be compacted to a minimum of 95 percent of the maximum density.

ON-GRADE CONCRETE AND CONCRETE PAVEMENTS

On-grade concrete section thickness for exclusively pedestrian use such as shade structures or sidewalks, should consist, at a minimum, of 4 inches of concrete over 6 inches of aggregate base compacted to a minimum of 95 percent of the maximum dry density.

Concrete Pavement Structural Sections. On-grade concrete to receive vehicular traffic, including pavement that may be used for fire truck access, should consist of a minimum of 6 inches of concrete over a minimum of 6 inches of aggregate base compacted to 95 percent of the maximum dry density. (Note that concrete to receive fork-lift traffic and routine truck traffic for deliveries or in trash dumpster areas should be at least 7 inches thick, depending on traffic index [TI].) Concrete should have a minimum 28-day compressive strength of 3,500 psi, a minimum Modulus of Rupture of 530 psi, and should be reinforced with No. 4 bars at 18 inches each way. Reinforcement should be supported at mid-slab at time of concrete pour. (Note that this structural section is not intended for exclusively pedestrian use such as shade structures.)

UTILITY TRENCHES AND EXCAVATION

Utility trenches shall be braced or sloped in accordance with the requirements of (Cal) OSHA. Utility trench backfill shall be governed by the provisions of this report relating to minimum compaction recommendations.

Prior to excavation, the grass and root mat shall be stripped and wasted (or set aside for reuse at surface upon completion of backfilling trench) along the trench alignment and in excavation stockpile areas.

Excavations and trenches shall be sufficiently wide to accommodate equipment size needed for proper compaction of bedding, pipe zone and backfill materials. Trench and excavation bottoms shall be excavated to a firm uniform bottom free of loose, disturbed material and observed by the Geotechnical representative prior to placement of bedding. Aggregate base materials may be used as bedding, as required, to mitigate soft, yielding excavation bottoms, where encountered.

Trench backfill shall be moisture conditioned between 0 and 2 percent over optimum moisture content prior to placing in trench. Backfill shall be compacted to a minimum of 90 percent relative compaction as determined from ASTM D1557, and 95 percent within the upper 1 foot of subgrade in pavement or on-grade concrete areas, or within a 1h:1v influence zone of footings¹.

Rock larger than 3 inches in maximum dimension shall be excluded from backfill. Jetting of trench backfill materials shall not be permitted.

Trench backfill materials shall consist of bedding and pipe zone sand placed a minimum thickness of 4 inches below the pipe invert and to a height of 12 inches above the top of the pipe. Bedding and pipe zone sand shall consist of fine to medium or coarse sand with a minimum Sand Equivalent (SE) of 30. General fill or pipe zone sand shall be placed as backfill above the pipe zone in 8-inch loose lifts and compacted to the minimum relative compaction summarized above. General backfill materials shall meet the preceding recommendations of this report, "Fill Placement and Compaction" and "Fill Materials."

¹ Where this is not feasible because of access constraints or for expediency, a 1½-sack cement and sand slurry may be used.

CLOSURE

The recommendations in this letter are specific to the scope of the proposed on-grade concrete, replacement playground and pavement asphalt concrete, underground utility and site improvements summarized herein. The presence of hazardous and/or toxic materials is not within the scope of services provided for this study.

We appreciate the opportunity to be of service to Pleasant Valley School District. Please call if you have any questions concerning this letter report.

Sincerely,

Geotechniques

arde Hockner

Carole Wockner, P.E. Principal Engineer R.C. E. No. 74407, exp 09/30/25