ORIGINAL PLOT DATE: APRIL 2020

FOR REDUCED PLANS, THE ORIGINAL SCALE IS IN INCHES
0 1 2 3

PROJECT PLANS FOR :

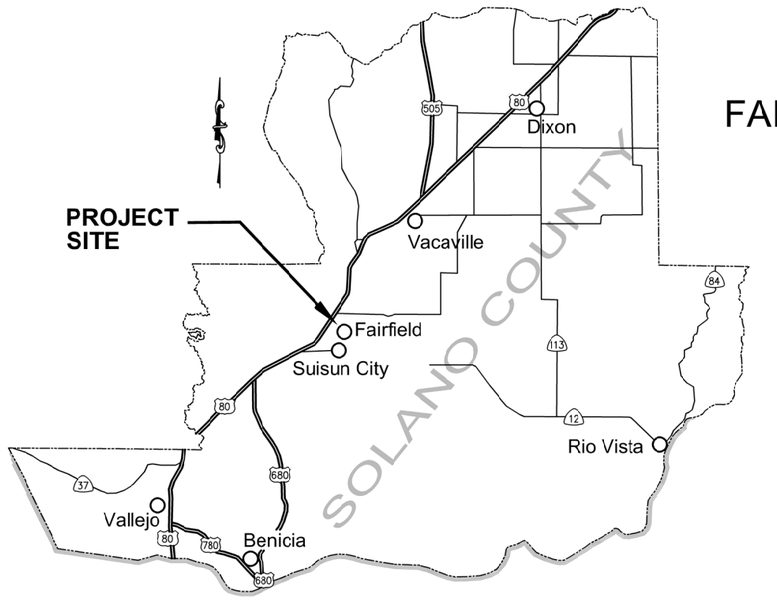
# GRANGE MIDDLE SCHOOL BASKETBALL COURT PAVEMENT REHABILITATION PROJECT 1975 BLOSSOM AVENUE

APRIL 2020

FOR THE

FAIRFIELD SUISUN UNIFIED SCHOOL DISTRICT

SOLANO COUNTY




VICINITY MAP

NOT TO SCALE




## INDEX OF SHEETS


| No. | Sheet Title |
|---|---|
| 1 | TITLE SHEET |
| 2 | GENERAL NOTES |
| 3 | DETAILS |
| 4 | SITE PLAN |


## PROJECT CONTACTS

| | |
|---|---|
| SCHOOL DISTRICT | FAIRFIELD SUISUN UNIFIED SCHOOL DISTRICT |
| PROJECT MANAGER | 1650 FAIRFIELD AVENUE<br>FAIRFIELD, CA 94533<br>ATTN: MIKE SWEARENGIN<br>(707) 716-8655 |
| CIVIL ENGINEER | COASTLAND CIVIL ENGINEERING<br>324 CAMPUS LANE, SUITE A<br>FAIRFIELD, CA 94534<br>ATTN: KEN SWENSON<br>(707) 702-1963 |

**Coastland Civil Engineering, Inc.**
324 Campus Lane, Suite A, Fairfield, CA 94534
707.702.1961

Kenneth R. Swenson 04/22/2020

KENNETH R. SWENSON, RCE 043034 DATE

REGISTERED PROFESSIONAL ENGINEER
KENNETH R. SWENSON
C 043034
CIVIL
STATE OF CALIFORNIA

| | |
|---|---|
| PROJECT NUMBER | 131-4361 |
| DRAWNG DATE | APRIL 2020 |
| DRAWING NUMBER | 1 OF 4 |

GRANGE MIDDLE SCHOOL BASKETBALL COURT PAVEMENT REHABILITATION PROJECT

Xrefs: CCE-ENGINEERS STAMPS-PLAN-2018.dwg;CCE-ENGINEERS STAMPS-COVER-2018.dwg;1314361_aerial_bottom.dwg;1314361_aerial_top.dwg
Images: CN darker.jpg;STAMP-KRS.jpg;w11-15.gif;W16-7P.gif;65555E1850BN.tif;65555E1850AN.tif;
Path: F:\Civil 3D Projects\1314361 Grange MS Paving Rehab\dwg\working-fc\1314361_cov.dwg Layout Name: Cover Sheet Plot Date: Apr 22, 2020 at 02:13 pm

ORIGINAL PLOT DATE: APRIL 2020

FOR REDUCED PLANS, THE SCALE IS IN INCHES

ORIGINAL SCALE IS 0 1 2 3

Xrefs: CCE-ENGINEERS STAMPS-PLAN-2018.dwg;CCE-ENGINEERS STAMPS-COVER-2018.dwg;1314361_aerial_bottom.dwg;1314361_aerial_top.dwg
Images: CN darker.jpg;STAMP-KRS.jpg;w11-15.gif;W16-7P.gif;6555SE18558N.tif;6555SE18558N.tif;
Path: F:\Civil 3D Projects\1314361 Grange MS Paving Rehab\dwg\working-fc\1314361_cov.dwg Layout Name: sht-2 Plot Date: Apr 22, 2020 at 02:4

# SPECIFICATION NOTES

1A. THE INTENT OF THE PLANS AND SPECIFICATIONS IS TO DESCRIBE THE DETAILS FOR THE CONSTRUCTION AND COMPLETION OF THE WORK WHICH THE CONTRACTOR UNDERTAKES TO PERFORM IN ACCORDANCE WITH THE TERMS OF THE CONTRACT. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS, BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND DO ALL THE WORK INVOLVED IN EXECUTING THE CONTRACT IN A SATISFACTORY AND WORKMANLIKE MANNER.

1B. DEFINITIONS.
IN THESE PLANS AND SPECIFICATIONS, THE INTENT AND MEANING OF THE TERMS THAT ARE USED SHALL BE DEFINED AS FOLLOWS:
1. OWNER: SHALL MEAN FAIRFIELD-SUISUN UNIFIED SCHOOL DISTRICT LOCATED AT
2490 HILBORN RD.FAIRFIELD, CALIFORNIA 94534
CONTACT: MIKE SWEARENGIN, (707) 716-8655
2. ENGINEER: SHALL MEAN COASTLAND CIVIL ENGINEERING LOCATED AT
324 CAMPUS LANE, SUITE A, FAIRFIELD, CALIFORNIA 94534
CONTACT: KENNETH SWENSON, (707) 702-1963

2A. GENERAL NOTES
1. ALL MATERIALS AND INSTALLATION SHALL CONFORM WITH THE CITY OF FAIRFIELD STANDARD, CITY ORDINANCES, STANDARD SPECIFICATIONS AND DETAILS (2017 EDITION), OR AS DEFINED IN THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS, 2018 EDITION, EXCEPT AS NOTED ON THESE PLANS. REVISED STANDARD SPECIFICATIONS AND DETAILS BOOKLET CAN BE OBTAINED FROM THE FAIRFIELD CITY PUBLIC WORKS DEPARTMENT.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF ALL CURRENT DETAILS AND STANDARD DRAWINGS OF ALL THE PUBLIC AND PRIVATE AGENCIES.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS. PERMITS SHALL INCLUDE BUT NOT BE LIMITED TO FILING A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD, IF APPLICABLE, AND PREPARATION AND SUBMITTAL OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WHICH SHALL BE REVIEWED AND APPROVED BY THE FAIRFIELD SUISUN UNIFIED SCHOOL DISTRICT.
4. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY OR PUBLIC EASEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF FAIRFIELD CITY PUBLIC WORKS DEPARTMENT.
5. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF PROPER SHORING OF TRENCHES IN ACCORDANCE WITH OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE PROJECT CIVIL ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY IN, ON, OR NEAR THE CONSTRUCTION SITE.
6. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER AT (707) 702-1963 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
7. THE CONTRACTOR SHALL EXPOSE AND CHECK INVERTS ON EXISTING WATER MAINS, SANITARY SEWERS, AND STORM DRAINS AND CLEARANCES OF KNOWN CROSSINGS OF OTHER UTILITIES BEFORE TRENCHING OR INSTALLING NEW PIPE.
8. THE EXISTENCE AND LOCATIONS OF ANY UNDERGROUND UTILITY PIPELINES OR LINES. STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS AND IN SOME CASES BY A FIELD SURVEY. THE PROJECT CIVIL ENGINEER MAKES NO REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITIES OR STRUCTURES WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR AGREES TO ASSUME LIABILITY AND TO HOLD SCHOOL DISTRICT, ENGINEER, AND CITY OF FAIRFIELD CITY HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE.
9. THE CONTRACTOR SHALL CONTACT "UNDERGROUND SERVICE ALERT" AT (800) REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES 227-2600 AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION. OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT CIVIL ENGINEER OF ANY DIFFERENCES OF LOCATION OF EXISTING UTILITIES FROM THAT SHOWN, OR OF ANY CONFLICTS WITH THE DESIGN BEFORE CONTINUING
11. ANY UTILITIES THAT MAY HAVE TO BE RELOCATED SHALL BE DONE AT THE WORK IN THAT AREA. CONTRACTOR'S EXPENSE.
12. AS A PART OF THIS WORK, THE CONTRACTOR IS TO PROTECT ALL EXISTING IMPROVEMENTS NOT SPECIFICALLY DESIGNATED FOR REMOVAL ON THESE PLANS. ALL EXISTING IMPROVEMENTS DAMAGED, INCLUDING UNDERGROUND UTILITIES AND IRRIGATION SYSTEMS, SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
13. THE CONTRACTOR WILL BE RESPONSIBLE FOR PREVENTING AIRBORNE DUST NUISANCE FROM THE CONSTRUCTION SITE BY WATERING AND/OR TREATING THE SITE IN SUCH A MANNER TO CONFINE DUST PARTICLES TO THE IMMEDIATE SURFACE
14. APPROVAL OF THE SCHOOL DISTRICT OR ITS AUTHORIZED REPRESENTATIVE IS REQUIRED ON OF WORK. COMPLETED WORK PRIOR TO (A) PLACING OF ANY CONCRETE, (B) PLACING OF ASPHALT CONCRETE, (C) BACKFILLING TRENCHES FOR PIPE. WORK DONE WITHOUT SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY
15. UNDERGROUND FACILITIES SHALL BE INSTALLED PRIOR TO INSTALLATION OF CURBS AND OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER. GUTTERS UNLESS OTHERWISE SPECIFIED. TRENCHING WILL NOT BE ALLOWED IN NEWLY PAVED AREAS WITHOUT CONSENT OF THE SCHOOL DISTRICT.
16. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL NECESSARY UTILITY RELOCATIONS WITH THE APPROPRIATE UTILITY COMPANY.
17. NO REVISIONS OF, OR DEVIATION FROM THESE PLANS WILL BE ALLOWED WITHOUT WRITTEN APPROVAL OF THE SCHOOL DISTRICT, ENGINEER, AND CITY ENGINEER, WHERE APPLICABLE.
18. EXISTING PUBLIC FACILITIES DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR, AT HIS/HER SOLE EXPENSE, TO THE SATISFACTION OF THE ENGINEER AND DISTRICT REPRESENTATIVE.

2B. STORM DRAIN WITHIN CITY RIGHT OF WAY
1. ALL MATERIAL AND INSTALLATION SHALL CONFORM WITH SECTION 10 OF THE SPECIFIC PROVISIONS OF THE CITY OF FAIRFIELD CITY STANDARD SPECIFICATIONS, EXCEPT AS NOTED.
2. ALL TRENCH BEDDING AND BACKFILL SHALL CONFORM TO SECTION 9, SUBSECTION 9.06 OF THE SPECIFIC PROVISIONS OF THE CITY OF FAIRFIELD CITY STANDARD SPECIFICATIONS. JETTING OR FLOODING SHALL NOT BE PERMITTED WITHIN PUBLIC RIGHT-OF-WAY. COMPACTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY STANDARDS.
3. THE CONTRACTOR SHALL MAINTAIN ALL DRAINAGE WITHIN THE CONSTRUCTION AREA UNTIL THE DRAINAGE IMPROVEMENTS ARE IN PLACE AND ACCEPTED.

2C. CONCRETE
1. ALL MATERIALS AND INSTALLATION SHALL CONFORM WITH THE APPLICABLE REQUIREMENTS OF SECTION 8 OF THE SPECIFIC PROVISIONS OF THE CITY OF FAIRFIELD CITY STANDARD SPECIFICATIONS AND THE STATE STANDARD SPECIFICATIONS, SECTION 73, EXCEPT AS NOTED.
2. ALL CONCRETE USED ON THIS PROJECT (INCLUDING PRECAST INLETS), SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED ON THESE PLANS.

## CIVIL ON-SITE IMPROVEMENTS

3A. SITE LAYOUT
THE CONTRACTOR SHALL PROVIDE ALL HIS/HER OWN CONSTRUCTION STAKING. THE CONTRACTOR SHALL INSPECT GRADES AT THE COMPLETION OF EACH GRADING OPERATION TO ENSURE THAT GRADES ARE AS SHOWN AND ARE WITHIN THE SPECIFIED TOLERANCES. AT THE COMPLETION OF THE WORK OF THE CONTRACT THE CONTRACTOR SHALL CERTIFY THAT THE GRADING AND LAYOUT WORK COMPLIES WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

3B. EXCAVATING, GRADING, AND FILLING
1. SPECIAL REQUIREMENTS
A. SITE CONDITIONS: THE CONTRACTOR IS PRESUMED TO HAVE VSITED THE SITE AND TO HAVE FAMILIARIZED HIMSELF/HERSELF WITH THE EXISTING SITE CONDITIONS. NO ALLOWANCE WILL BE MADE FOR ANY UNFAVORABLE CONDITIONS OR EVENT WHICH MIGHT HAVE BEEN FORESEEN FROM EXAMINATION OF THE SITE AND OF THE WORKING CONDITIONS. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION.
B. PROTECTION: COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS IN FORCE AT PLACE OF BUILDING. PROTECT ALL STRUCTURES, IMPROVEMENTS, LANDSCAPING FENCES, OF THIS AND ADJOINING AREAS, EXERCISING UTMOST CARE DURING OPERATIONS OF THIS SCOPE OF WORK. DAMAGE DONE SHALL BE RECTIFIED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE SCHOOL DISTRICT, SCHOOL DISTRICT'S REPRESENTATIVE, AND AUTHORITIES HAVING JURISDICTION. MAINTAIN SAFE PEDESTRIAN AND VEHICULAR TRAFFIC AT ALL TIMES.
C. DUST CONTROL: THE CONTRACTOR SHALL DAMPEN THE AREA OF GRADING AND TAKE OTHER MEASURES AS REQUIRED TO PREVENT RAISING OF DUST AND TRANSPORTATION OF SAME INTO BUILDING AND ONTO ADJACENT PROPERTIES DURING GRADING OPERATIONS. ALSO, THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ANY DUST CONTROL ORDINANCE IN FORCE AT THE PLACE OF WORK.
D. DRAINAGE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DRAINAGE DURING PROGRESS OF WORK TO PREVENT WATER FROM ACCUMULATING ON THE SITE OR FROM RUNNING ONTO ADJACENT PROPERTY, PROVIDING NECESSARY TEMPORARY DRAINAGE AS REQUIRED TO PREVENT THE SAME. KEEP EXCAVATIONS FREE FROM WATER BY PROVIDING PUMPS OR DIVERSION CHANNELS. AS REQUIRED.
E. UNUSUAL CONDITIONS: NO WORK SHALL BE DONE IN EXCESSIVELY COLD, WET OR OTHERWISE UNFAVORABLE WEATHER. NOR SHALL WORK BE DONE OVER SOFT, SPONGY, OR EXCESSIVELY ROCKY AREAS WITHOUT FURTHER INSTRUCTIONS.
F. EXISTING UTILITIES: WHERE EXISTING UTILITIES NOT SHOWN ON THE DRAWING ARE ENCOUNTERED, SUPPORT, SHORE UP, PROTECT THEM AND IMMEDIATELY NOTIFY THE CIVIL ENGINEER. ALLOW ENTRANCE OPPORTUNITY AND AMPLE TIME FOR CONTINUANCE AND/OR RELOCATION OF SUCH SERVICES. NO ALLOWANCE WILL BE MADE FOR ANY DOWN TIME AS THE RESULT OF STOPPAGE OF WORK FOR A UTILITY RELOCATION OR A REROUTING OF A PROPOSED UTILITY.
G. THE CONTRACTOR SHALL PROVIDE ADEQUATE FENCES TO SECURE HIS WORK AREA AND PROTECT THE GENERAL PUBLIC.

2. EXECUTION
A. FINAL AREA GRADES: THE FINISH APPEARANCE OF ALL GRADING WORK SHALL BE TRIM, NEAT, FREE OF HOLLOWS OR HUMMOCKS AND CLODS GREATER THAN 1-1/2" IN ANY DIRECTION. FINAL GRADE TOLERANCES AS FOLLOWS:
1. GENERAL SITE GRADES: ±0.05 FEET.
2. ASPHALT CONCRETE PAVEMENT: ±0.02 FEET.
3. CONCRETE VALLEY GUTTER, CURBS, SIDEWALKS, GUTTERS AND SLAB ON GRADE: ±0.01 FEET.
B. SITE CLEARING AND GRUBBING: THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF OFF-SITE ALL WEEDS, BUSHES (INCLUDING ROOT BALLS), GARBAGE, STEEL, OLD PIPE, CONCRETE, AND ASPHALT RUBBLE AS WELL AS ANY OTHER DEBRIS AND DELETERIOUS OBSTRUCTIONS OR OVER EXCAVATION DUG UP DURING EARTHWORK OPERATIONS.
C. SUBGRADE COMPACTION: THE TOP 6" OF SUBGRADE SOILS BENEATH THE PAVEMENT SHOULD BE COMPACTED TO AT LEAST 92% COMPACTION AT A MOISTURE CONTENT AT LEAST 3% ABOVE THE OPTIMUM MOISTURE CONTENT. SUBGRADE SOIL SHOULD BE STABLE AND "NON-PUMPING" AT THE TIME THE GEOFABERIC, BASEROCK AND ASPHALT SURFACE IS PLACED.

3C. STORM DRAINAGE:
1. SPECIAL REQUIREMENTS:
A. CONNECTIONS TO EXISTING STORM DRAIN: PRIOR TO LAYING ANY PIPE OR SETTING ANY CATCH BASINS, THE CONTRACTOR SHALL VERIFY THE ELEVATION OF STORM DRAINS TO WHICH PIPES INSTALLED ARE TO CONNECT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INSTALL DRAINS WITH THE SLOPES SHOWN ON THE DRAWINGS REGARDLESS OF WHETHER OR NOT EXISTING INVERT ELEVATIONS SHOWN ARE CORRECT. IF ACTUAL ELEVATIONS OF EXISTING DRAINS OR SEWERS VARY FROM THOSE SHOWN ON THE DRAWINGS BY MORE THAN ONE TENTH OF A FOOT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT PROCEED WITH THE WORK UNTIL INSTRUCTIONS ARE RECEIVED. THE CONTRACTOR SHOULD ALLOW AMPLE TIME FOR RESOLUTION OF CONFLICTS.

2. MATERIALS
STORM DRAIN
A. ALL SOLID WALL STORM DRAIN PIPE SHALL BE SDR35 PVC (ASTM D-3034) OR HIGH DENSITY POLYETHYLENE (HDPE) N-12 CORRUGATED PIPE WITH SMOOTH INNER WALL AND WATER TIGHT JOINTS UNLESS OTHERWISE SPECIFIED ON THE PLANS FOR THE SIZES SHOWN ON THE DRAWINGS.
B. ALL MATERIAL AND INSTALLATION SHALL CONFORM WITH SECTION 10 OF THE CITY OF FAIRFIELD CITY STANDARD SPECIFICATIONS, UNLESS NOTED OTHERWISE.
C. CATCH BASIN: US CONCRETE GROUP PRECAST DROP INLET OR APPROVED EQUAL. ALL DROP INLETS SHALL BE MODEL C81818 (CENTRAL PRECAST CONCRETE, INC. MODEL CK) UNLESS OTHERWISE NOTED ON THESE PLANS. GRATES SHALL BE ADA COMPLIANT AND LOCKED TO FRAME AND SHALL BE TRAFFIC RATED.
D. MARK ALL STORM DRAINS WITH DISTRICT APPROVED POLLUTION PREVENTION MESSAGE ON THERMAL PLASTIC MARKERS. MARKERS MAY BE PURCHASED FROM DISTRICT. SPECIFIC PLACEMENT OF MARKERS WILL BE AS DIRECTED BY DISTRICT REPRESENTATIVE.
E. THE CONTRACTOR SHALL MAINTAIN ALL DRAINAGE WITHIN THE CONSTRUCTION AREA UNTIL THE DRAINAGE IMPROVEMENTS ARE IN PLACE AND ACCEPTED.
F. PERFORATED SUBDRAIN PIPE SHALL BE THE MATERIAL IN PARAGRAPH A OF THIS SECTION. PERFORATIONS SHALL MANUFACTURED OPENINGS WITH MAX. OPENING 3/8".
G. SUBDRAIN CLEAN-OUT BOX SHALL BE PRECAST PCC CHRISTY/OLD CASTEL G-5 W/GALVANIZE GRATE. GRATE SHALL BE ADA COMPLIANT & HIGH HEEL COMPATIBLE.

3. INSTALLATION
A. EXCAVATION: THE GROUND SHALL BE EXCAVATED IN OPEN TRENCH TO THE REQUIRED DEPTH IN ACCORDANCE WITH CITY STANDARD. BOTTOM OF THE TRENCH SHALL BE GRADED TO PROVIDE FIRM BEARING THE FULL LENGTH OF THE PIPE. SOFT, SPONGY MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED FILL. AT THE TIME OF PIPE LAYING, THE TRENCH SHALL BE IN REASONABLY DRY CONDITION. PROVIDE A 4" MINIMUM BED OF CLASS 2 PERMEABLE AGGREGATE TO WITHIN 8" OF SURFACE. BACKFILL FINAL 8" TO SURFACE WITH 3" AC OVER 5" AB PATCH. ANY TURFED AREA DISTURBED DURING THE TRENCHING FOR THE STORM DRAIN SHALL BE REPLACED WITH MATCHING SOD.
B. LAYING OF STORM DRAIN: PIPE LAYING SHALL START AT THE LOW END OF THE LINE. TEST PIPE FOR SOUNDNESS, CLEAN ITS INTERIOR AND JOINT SURFACES BEFORE POSITIONING. TO FORM SMOOTH INVERT LAY PIPES IN STRAIGHT LINES AND ON UNIFORM GRADES BETWEEN POINTS WHERE CHANGES IN ALIGNMENT OR GRADE ARE SHOWN . HANDLE PIPES WITH CARE TO PREVENT DAMAGE. SEAT EACH JOINT FIRMLY BEFORE PROCEEDING TO NEXT JOINT. IMMEDIATELY AFTER EACH JOINT IS MADE, DRAG A CLOSE-FITTING SWAB PAST THE JOINT WITHIN THE PIPE. KEEP A STOPPER IN PIPE MOUTH WHEN PIPE LAYING IS NOT IN PROGRESS.
C. BACKFILLING: AFTER PIPING HAS BEEN INSPECTED AND LOCATIONS OF PIPES HAVE BEEN RECORDED.
D. CATCH BASINS: INSTALL CATCH BASINS AS DETAILED WITH PROPER RIM ELEVATION AND INVERT. ALL CATCH BASINS ARE TO BE FURNISHED WITH ADA COMPLIANT BOLT DOWN GALVANIZED H20 LOAD-RATED GRATES.

4. CLEAN-UP ALL DEBRIS RESULTING FROM THIS OPERATION.
1. SPECIAL REQUIREMENTS (ASPHALT CONCRETE)
A. REFERENCE DOCUMENTS: "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", 2010 EDITION.
B. PROTECTION: THE CONTRACTOR SHALL PROVIDE NECESSARY SAFETY DEVICES SO THAT THIS WORK SHALL NOT BE A HAZARD AND TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN SAFE PEDESTRIAN AND VEHICULAR TRAFFIC. EXISTING IMPROVEMENTS DAMAGED OR REMOVED DUE TO WORK OF THE CONTRACTOR SHALL BE REPAIRED AND REPLACED BY THE CONTRACTOR IN AN APPROVED MANNER AND AT NO EXTRA COST TO THE SCHOOL DISTRICT.

2. MATERIALS
A. AGGREGATE BASE: SHALL BE NEW CLASS II AGGREGATE BASE SECTION 26, STATE STANDARD SPECIFICATION, EXCEPT NO RECYCLED AGGREGATE ALLOWED.
B. ASPHALT CONCRETE: SHALL BE IN ACCORDANCE WITH SECTION 39, STATE STANDARD SPECIFICATIONS, FOR 1/2" GRADATION AND SHALL BE TYPE A OR B HOT MIX ASPHALT CONCRETE USING PG 64-10 PAVING ASPHALT.
C. SEAL COAT: WESTERN COLLOID PRODUCTS, INC. "PARK-TOP" OR APPROVED EQUAL TO BE APPLIED AS SHOWN ON THE PLANS. AFTER NEW PAVEMENT HAS CURED AND BEEN CLEANED, AND EXISTING PAVEMENT HAS BEEN PATCHED, CRACK FILLED AND CLEANED, APPLY TWO COATS OF SEAL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. DILUTE SEALER WITH A MAXIMUM 20% WATER AND APPLY EACH COAT AT THE RATE OF 15 TO 20 GALLONS PER THOUSAND SQUARE FEET. ALLOW SEAL COAT TO CURE THE REQUIRED AMOUNT PER MANUFACTURER RECOMMENDATIONS PRIOR TO STRIPING WORK.
D. CRACK FILL: SS1 ASPHALTIC EMULSION AND SAND FOR 1/8" TO 1/4" WIDE CRACKS OR HENRY HE094 CALSEAL CRACK FILLER FOR 1/4" TO 3/4" WIDE CRACKS OR APPROVED EQUAL. CRACKS SHALL BE CLEANED OF ALL DIRT AND VEGETATION PRIOR TO FILLING.
E. AC SKIN PATCH: TYPE B, NO. 4 MAXIMUM, APPLIED OVER TACK COAT.

3. APPLICATION
A. SUBGRADE: SUBGRADE SURFACE SHALL BE FINE-GRADED WITH APPROPRIATE ALLOWANCE FOR FINISH MATERIAL WITH TOLERANCE OF ±0.05'.
B. AGGREGATE BASE: AGGREGATE BASE SHALL BE SPREAD AND COMPACTED TO 95% RELATIVE COMPACTION IN ACCORDANCE WITH SECTION 26, STATE STANDARD SPECIFICATIONS, EXCEPT THAT BLADE MIXING WILL BE ALLOWED AT THE JOB SITE.
C. PAINT BINDER (TACK COAT): APPLY SPECIFIED ASPHALT EMULSION TO VERTICAL SURFACES OF CONSTRUCTION JOINTS, PORTLAND CEMENT CURBS, GUTTERS, AND SIMILAR CONSTRUCTION WHICH ABUT ASPHALT CONCRETES. APPLICATION SHALL BE APPROXIMATELY 0.10 GALLON PER SQUARE YARD OF SURFACE.
D. ASPHALT CONCRETE: SPREAD AND COMPACT IN ACCORDANCE WITH SECTION 39, STATE STANDARD SPECIFICATIONS.
E. SURFACE SMOOTHNESS: THE SURFACE OF ASPHALT CONCRETE, AFTER ROLLING SHALL BE EVEN AND SMOOTH, SHALL HAVE A UNIFORM TEXTURE WITH NO VOIDS, ROCK POCKETS, OR RAVELING, SHALL BE FREE OF ROLLER MARKS OR OTHER IRREGULARITIES, AND SHALL VARY NOT MORE THAN 1/4" FROM A 10'-0" STRAIGHT EDGE PLACED IN ANY DIRECTION ON THE SURFACE. PAVING SHALL BE EVEN WITH OR SLIGHTLY BELOW TOP OF ADJACENT CONCRETE SLABS AND SET 1/4" ABOVE CONCRETE GUTTERS.
F. DRAINAGE: IT IS THE INTENT THAT SURFACE WATER DRAIN AWAY FROM BUILDINGS AND TOWARD DRAINAGE STRUCTURES AND GUTTERS. FLOOD FINISHED SURFACE WITH WATER TO DETERMINE ADEQUACY OF SURFACE DRAINAGE. INADEQUATE DRAINAGE DUE TO FAULTY PAVING SHALL BE CORRECTED TO THE ENGINEER'S SATISFACTION.
G. SEAL COAT: THE FINISHED SURFACE SHALL BE SEALED WITH SEALER NO SOONER THAN 14 DAYS AFTER PAVEMENT IS LAID. APPLY SEALER AT THE RATE LISTED ABOVE. SEAL COAT MUST BE APPLIED BEFORE JULY 27 AND RE-STRIPED BEFORE AUGUST 10, 2020.

4. CLEAN-UP:
BEFORE THE FINAL INSPECTION OF THE WORK, THE CONTRACTOR SHALL CLEAN THE SURFACED AREAS OF ALL RUBBISH, EXCESS MATERIAL, AND EQUIPMENT. ALL PARTS OF THE WORK SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION. CLEAN STAINS AND SPATTERING FROM ADJACENT SURFACES.

5. PAVEMENT STRIPING
1. THE CONTRACTOR SHALL INCLUDE IN HIS BID THE COMPLETE RE-STRIPING OF ENTIRE WORK AREA IN KIND, INCLUDING ALL AREAS WHICH WILL RECEIVE A SEAL COAT. STRIPING PAINT SHALL CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA AIR QUALITY CONTROL BOARD AND THE FAIRFIELD-SUISUN UNIFIED SCHOOL DISTRICT.
2. PAINT SHALL BE ACRYLIC BASED AND YELLOW IN COLOR IN BASKET BALL COURT. PAINT SHALL ONLY BE APPLIED ON CLEAN DRY PAVEMENT DURING FAVORABLE WEATHER WHEN THE AMBIENT TEMPERATURE IS ABOVE 50°F AND RISING AND PAVEMENT TEMPERATURE IS 40°F AND RISING (2 COATS). DESIGN MIX AND APPLICATIONS METHODS SHALL BE IN ACCORDANCE TO THE MANUFACTURER'S DIRECTIONS.

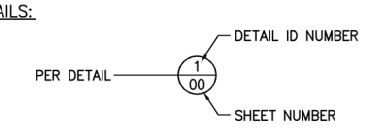
6. PAVEMENT REINFORCING FABRIC
1. PAVEMENT REINFORCING FABRIC (PRF) SHALL BE PLACED WITH THE OVERLAY. THE PRF SHALL BE GLASPAVE 50 AS MANUFACTURED BY SAINT-GOBAIN TECHNICAL FABRICS, OR APPROVED EQUIVALENT. THE CONTRACTOR SHALL INSTALL THE PRF PER THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATION.

## ABBREVIATIONS:

| | | | |
|---|---|---|---|
| AC | ASPHALT CONCRETE | NIC | NOT IN CONTRACT |
| BSW | BACK OF SIDEWALK | PED | PEDESTRIAN |
| CB | CATCH BASIN | PRF | PAVEMENT REINFORCING FABRIC |
| C&G | CURB & GUTTER | PVC | POLYVINYL CHLORIDE |
| CI | CAST IRON | OH | OVERHEAD UTILITY |
| CL | CENTERLINE | RCP | REINFORCED CONCRETE PIPE |
| CO | CLEANOUT | R&R | REMOVE & REPLACE |
| CONC | CONCRETE | SD | STORM DRAIN |
| DDI | DROP INLET | SDMH | STORM DRAIN MANHOLE |
| DWY | DRIVEWAY | STD | STANDARD |
| EP | EDGE OF PAVEMENT | SW | SIDEWALK |
| EX.(E) | EXISTING | TYP | TYPICAL |
| FC | FACE OF CURB | UG | UNDERGROUND |
| FG | FINISHED GRADE | VLT | VAULT |
| FL | FLOW LINE | VAR | VARIES |
| HDPE | HIGH-DENSITY POLYETHYLENE | WM | WATER MAIN |
| IG | INVERT GRADE | WS | WATER SERVICE |
| INV | INVERT GRADE | WTR, W | WATER |
| LF | LINEAR FEET | | |

## DETAIL AND SECTION CALLOUTS

DETAILS:




## CONSTRUCTION NOTE DESIGNATIONS

(R1) = ROADWAY AND RELATED ITEMS CONSTRUCTION NOTES.

(D1) = DRAINAGE AND RELATED ITEMS CONSTRUCTION NOTES.

## LEGEND

| DESCRIPTION OF LINETYPE | PROPOSED | EXISTING |
|---|---|---|
| STORM DRAIN PIPE | | |
| **DESCRIPTION OF SYMBOL** | **PROPOSED** | **EXISTING** |
| CONCRETE SURFACE | | N/A |
| AC OVERLAY & SEAL COAT | | N/A |
| AC TAPER GRIND, AC OVERLAY & SEAL COAT | | N/A |
| CRACK FILL & SURFACE SEAL COAT | | N/A |
| DEEP AC PATCH, AC OVERLAY & SEAL COAT | | N/A |
| AC SKIN PATCH, AC OVERLAY & SEAL COAT | | N/A |
| STORM DRAIN DROP INLET | | |
| STORM DRAIN MANHOLE | N/A | |

REGISTERED PROFESSIONAL ENGINEER KENNETH R. SWENSON C 043034 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
KENNETH R. SWENSON, RCE 043034 DATE 04/22/2020
DESIGNED BY KRS/FAC | DRAWN BY FAC | REVIEWED BY KRS/GRH

Coastland Civil Engineering, Inc.
324 Campus Lane, Suite A, Fairfield, CA 94534
707.702.1961

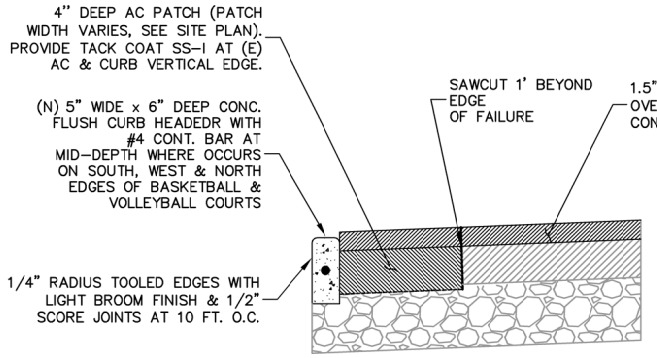
GRANGE MIDDLE SCHOOL BASKETBALL COURT
PAVEMENT REHABILITATION PROJECT
FAIRFIELD CALIFORNIA

# GENERAL NOTES

PROJECT NUMBER 131-4361

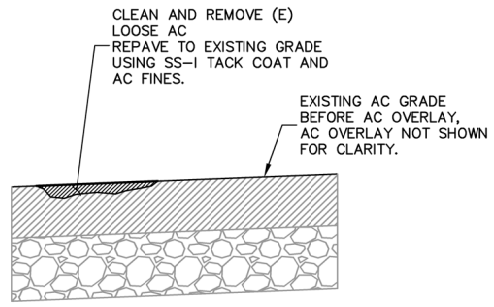
DRAWING DATE APRIL 2020

SHEET NUMBER 2 OF 4



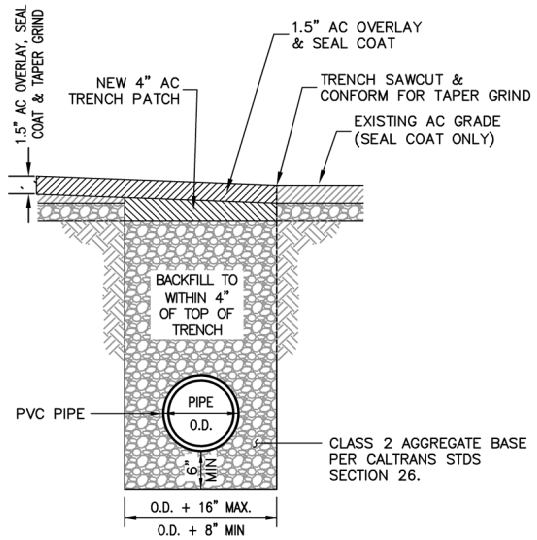

## 4" DEEP AC PATCH & CONCRETE HEADER DETAIL 1/-

NOT TO SCALE



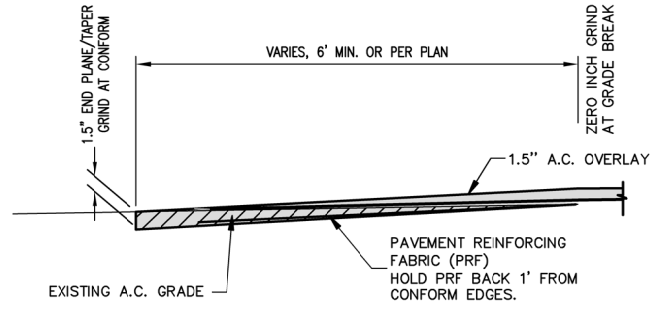

## AC SKIN PATCH DETAIL 2/-

NOT TO SCALE



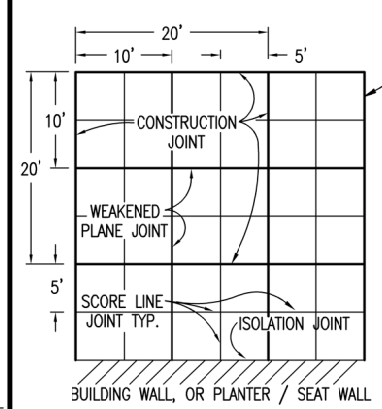

## TYPICAL TRENCH SECTION (LOOKING NORTH) 3/-

NOT TO SCALE

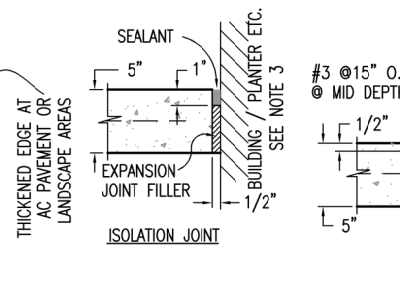



## TAPER GRIND DETAIL 4/-

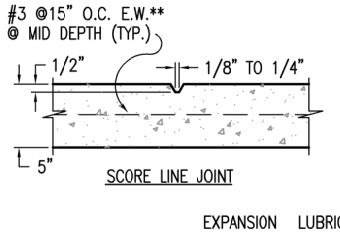
NOT TO SCALE



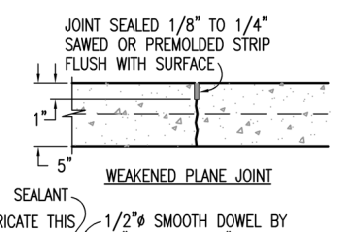

TYPICAL JOINT LAYOUT PLAN



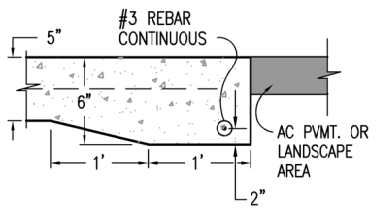

ISOLATION JOINT



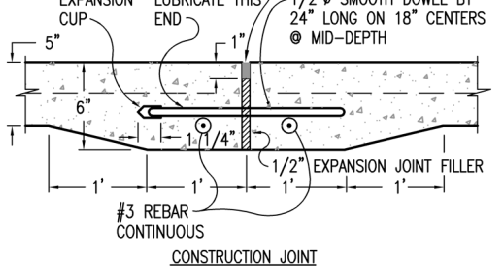

SCORE LINE JOINT




WEAKENED PLANE JOINT




THICKENED EDGE



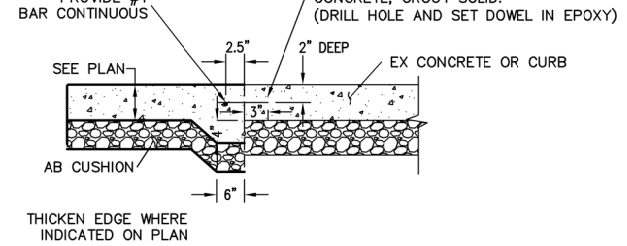

CONSTRUCTION JOINT

NOTES

1. LIGHT BROOM FINISH ALL PAVING IN UNIFORM DIRECTION.
2. INSTALL 4" THICK LAYER OF CLASS 2 AB UNDER ALL CONCRETE WALK OR SIDEWALK PAVING AS SHOWN IN APPLICABLE DETAILS. THE AB LAYER SHALL BE CONSTRUCTED ON A MOISTURE CONDITIONED SUBGRADE. (90% MIN. COMPACTION)
3. PROVIDE ISOLATION JOINT WITH THICKENED EDGE ALONG AC PAVEMENT OR LANDSCAPE AREA.

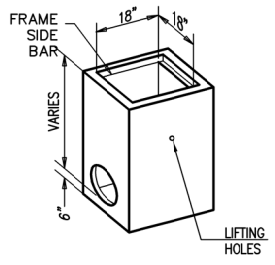
## CONCRETE PAVEMENT/WALK JOINT DETAILS 5/-

NOT TO SCALE



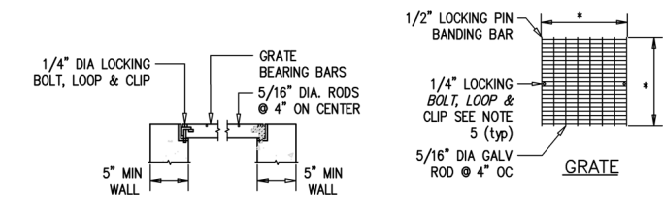

## HARDSCAPE DOWELS 6/-

NOT TO SCALE




NOTES:

1. OPENINGS SHALL BE CAST AS REQUIRED TO MEET CONNECTING STORM DRAIN PIPING.
2. CONCRETE SHALL BE 3,000 PSI AT 28-DAY STRENGTH.
3. WALLS SHALL BE REINFORCED WITH 4"x4"-10/10 WELDED WIRE MESH.
4. WALLS SHALL BE 5" MIN THICK AND BASE SHALL BE 6" THICK.
5. GRATE SHALL BE SECURED TO FIELD INLET FRAME WITH TWO SETS OF 1/4" DIA LOCKING STAINLESS STEEL BOLT, LOOP & CLIP, OR OTHER APPROVED METHODS.
6. A. AT PLAYGROUND AC PAVEMENT AND AC WALKWAY LOCATIONS, FRAME AND GRATE SHALL BE ADA COMPLIANT, GALVANIZED AND TRAFFIC RATED (NOT SHOWN). GRATE OPENING MAX 1/2".
   B. AT CURB AND GUTTER OR LANDSCAPE/TURF LOCATIONS: FRAME AND GRATE SHALL BE BICYCLE PROOF AND HEAVY TRAFFIC RATED FOR H-20 LOADING AND HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM A-123.




## PRE-CAST CATCH BASIN (TYP.) 7/-

NOT TO SCALE

ORIGINAL PLOT DATE: APRIL 2020

FOR REDUCED PLANS, THE 0 1 2 3 SCALE IS IN INCHES
ORIGINAL SCALE IS 30" X 42"

Xrefs: COE-ENGINEERS STAMPS-PLAN-2018.dwg;COE-ENGINEERS STAMPS-COVER-2018.dwg;1314361_cserial_bottom.dwg;1314361_cserial_top.dwg
Images: CN darker.jpg;STAMP-KRS.jpg;w11-15.gif;WI6-7P.gif;65555E18558N.tif;65555E18584N.tif;
Path: F:\Civil 3D Projects\1314361 Grange MS Paving Rehab\dwg\working-fc\1314361_cov.dwg Layout Name: sht-3 Plot Date: Apr 22, 2020 at 03:59

REGISTERED PROFESSIONAL ENGINEER KENNETH R. SWENSON C 043034 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
KENNETH R. SWENSON, RCE 043034 DATE 04/22/2020
DESIGNED BY KRS/FAC | DRAWN BY FAC | REVIEWED BY KRS/GRH

Coastland Civil Engineering, Inc.
324 Campus Lane, Suite A, Fairfield, CA 94534
707.702.1961

GRANGE MIDDLE SCHOOL BASKETBALL COURT
PAVEMENT REHABILITATION PROJECT
FAIRFIELD CALIFORNIA

# DETAILS

PROJECT NUMBER 131-4361
DRAWING DATE APRIL 2020
SHEET NUMBER 3 OF 4

ORIGINAL PLOT DATE: APRIL 2020

FOR REDUCED PLANS, THE
ORIGINAL SCALE IS IN INCHES

0 1 2 3




GRAPHIC SCALE
0 5 10 20
( IN FEET )
1 inch = 20 ft.

## CONSTRUCTION NOTES

- (D1) INSTALL (N) 6" PVC SD, SLOPE=1% MINIMUM & CONNECT TO (E) 24" SD, WITH 1.5' MINIMUM COVER — (4/3)
- (D2) INSTALL (N) STORM DRAIN INLET 2 WITH RIM=(E)AC FG-0.02'
- (D3) INSTALL (N) STORM DRAIN INLET 1 WITH RIM=(E)AC FG-0.02'
- (D4) CONNECT (N) 6" PVC SD TO (E) 24" RCP SD AT NORTH & SOUTH SPRINGLINE 24" RCP WITH NEAT CORE DRILL HOLES & NON-SHRINK GROUT
- (R1) PLACE CRACK FILL AND SEAL COAT ON (E) AC PAVEMENT AND RESTRIPE TO MATCH (E) STRIPING LAYOUT
- (R2) CONSTRUCT 1.5" TAPER GRIND AND 1.5" OVERLAY WITH SEAL COAT PER DETAIL — (7/3) AND RESTRIPE TO MATCH (E) STRIPING LAYOUT.
- (R3) CONSTRUCT 1.5" ASPHALT CONCRETE OVERLAY WITH PRF AND SEAL COAT. RESTRIPE TO MATCH (E) STRIPING LAYOUT.
- (R4) SAWCUT BEHIND EXISTING CRACK IN (E) CONCRETE SIDEWALK.
- (R5) SAWCUT (E)SIDEWALK AT NEAREST SCORE JOINT.
- (R6) REMOVE & REPLACE (E)CONCRETE WALK PER DETAIL — (5/3) (6/3)
- (R7) CONSTRUCT NEW CURB PER DETAIL — (1/3) SET (N)TC 1.5" HIGHER THAN (E)AC
- (R8) CONSTRUCT NEW AC SKIN PATCH PER DETAIL — (2/3)
- (R9) NOT USED.
- (R10) CONSTRUCT (N) 4" DEEP AC PATCH PER DETAIL — (1/3)
- (R11) SAWCUT AND CONFORM AC PATCH TO EXISTING SURFACE.
- (R12) CONSTRUCT NEW AC PATCH SIMILAR TO DETAIL — (1/3)
- (R13) CONFORM 1/4" ABOVE (N) FLUSH CONCRETE CURB HEADER
- (R14) NOT USED.
- (R15) CONSTRUCT AC SKIN PATCH, 0"-0.75" DEEP PER DETAIL — (2/3) AS MARKED IN THE FIELD BY DISTRICT REPRESENTATIVE
- (R16) BASKETBALL POLES TO REMAIN (TYP)
- (R17) PLACE (N) FLUSH CURB HEADER 6" MIN. FROM (E) SPRINKLER HEADS & RESTORE DISTURBED SOIL & TURF ALONG FIELD SIDE OF FLUSH CURB HEADER WITH MATCHING SCD
- (R18) (E) SD DI TO REMAIN, CONFORM TO (E) RIM
- (R19) (E) VALVE BOXES. ADJUST TO GRADE USING TWO (N) VALVE BOXES AS REQUIRED

## LEGEND

| DESCRIPTION OF LINETYPE | PROPOSED | EXISTING |
|---|---|---|
| STORM DRAIN PIPE | | |

| DESCRIPTION OF SYMBOL | PROPOSED | EXISTING |
|---|---|---|
| CONCRETE SURFACE | | N/A |
| AC OVERLAY & SEAL COAT | | N/A |
| AC TAPER GRIND, AC OVERLAY & SEAL COAT | | N/A |
| CRACK FILL & SURFACE SEAL COAT | | N/A |
| DEEP AC PATCH, AC OVERLAY & SEAL COAT | | N/A |
| AC SKIN PATCH, AC OVERLAY & SEAL COAT | | N/A |
| STORM DRAIN DROP INLET | | |
| STORM DRAIN MANHOLE | N/A | |

REGISTERED PROFESSIONAL ENGINEER
KENNETH R. SWENSON
No. C 043034
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF
KENNETH R. SWENSON, RCE 043034 — DATE 04/22/2020
DESIGNED BY KRS/FAC | DRAWN BY FAC | REVIEWED BY KRS/GRH


Coastland Civil Engineering, Inc.
324 Campus Lane, Suite A, Fairfield, CA 94534
707.702.1961


GRANGE MIDDLE SCHOOL BASKETBALL COURT
PAVEMENT REHABILITATION PROJECT
FAIRFIELD CALIFORNIA

# SITE PLAN

PROJECT NUMBER
131-4361

DRAWING DATE
APRIL 2020

SHEET NUMBER
4 OF 4


Images: Fairfield.temp;STAMP-HRS.jpg;6555526185508.tif; Xrefs: CCE-ENGINEERS STAMPS-PLAN.dwg;1314361_contrd_bottom.dwg;1314361_planreq.dwg
Paths: F:\Civil 3D Projects\1314361 Grange MS Paving Rehab\dwg\working-fs\1314361_gp.dwg Layout Name: Sheet-4 Plot Date: Apr 22, 2020 at 15:51