APPENDIX A

INDUSTRIAL WASTEWATER TREATMENT PLANT
STORMWATER IMPROVEMENT PLANS

Sheet List Table

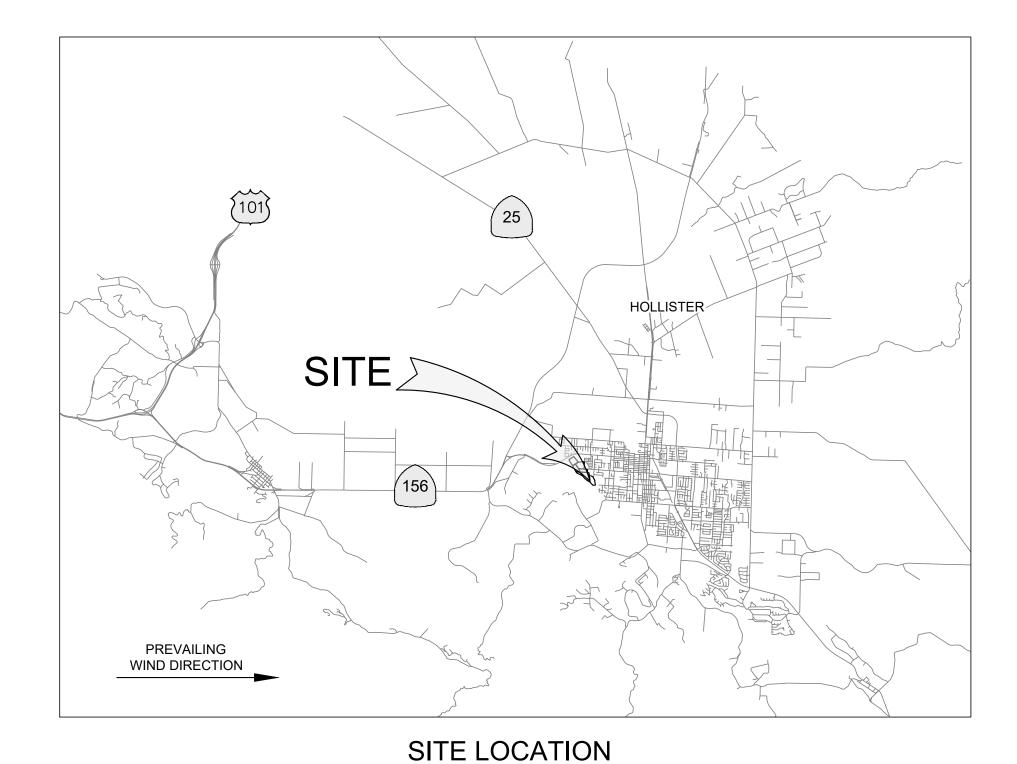
COVER SHEET

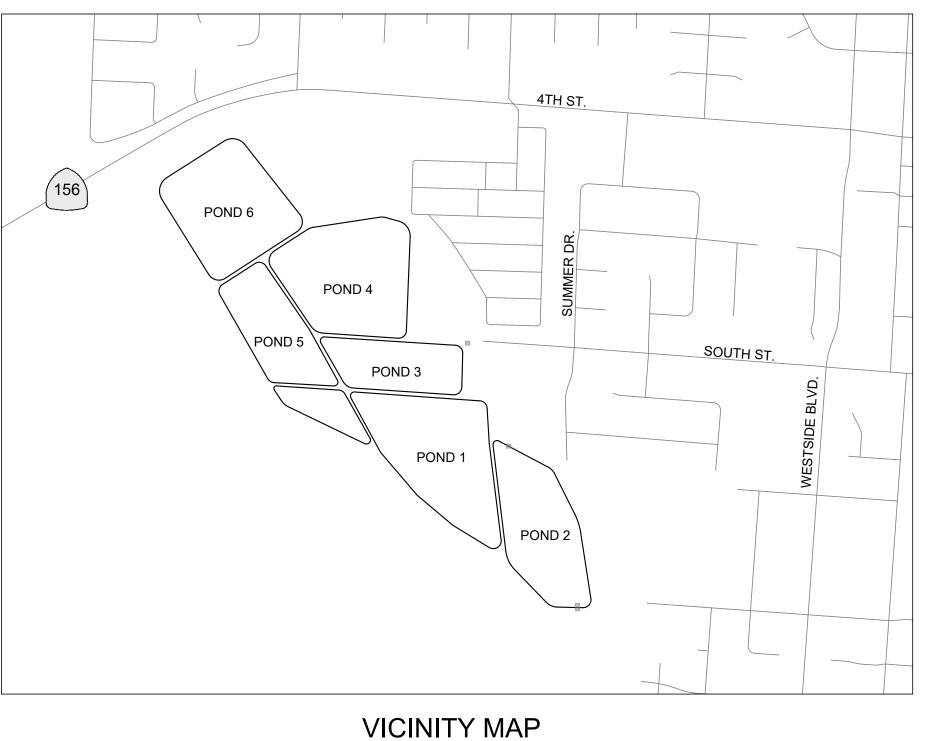
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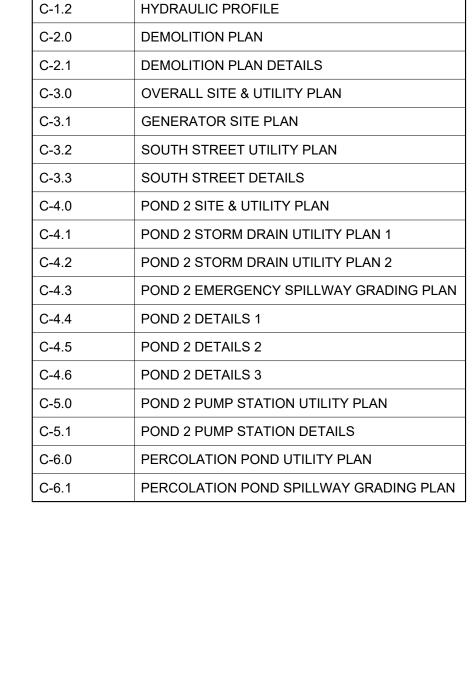
Sheet Number | Sheet Title

INDUSTRIAL WASTEWATER TREATMENT PLANT STORMWATER IMPROVEMENTS

CITY OF HOLLISTER SAN BENITO COUNTY, CA







SURVEY NOTES

- 1. ALL UNITS ARE IN U.S. SURVEY FEET.
- THE HORIZONTAL DATUM FOR THIS SURVEY IS THE NORTH AMERICAN DATUM OF 1983, 2007 ADJUSTMENT [NAD83(2007)], EPOCH DATE OF 2007.00.
- THE PROJECTION USED IS THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE 4 PROJECTION.
- THIS SURVEY BASED ON 2 NATIONAL GEODETIC SURVEY (NGS) CONTROL STATIONS. THOSE STATIONS ARE THE NGS POINTS DESIGNATED PID GU2612 "HOLLISTER", HAVING A PUBLISHED POSITION OF: NORTHING 2203485.77', EASTING 5857502.00'; AND PID GU3630 "HOLLAIR", HAVING A PUBLISHED POSITION OF: NORTHING 2217094.29', EASTING 5859397.50'. THE RESULTING BEARING FROM "HOLLISTER" TO "HOLLAIR" BEING: N 07°55'46.5" E. THE BEARINGS SHOWN HEREON ARE REFERENCED TO CCS83, ZONE 4 GRID NORTH.
- THE VERTICAL DATUM FOR THIS SURVEY IS THE CITY OF HOLLISTER VERTICAL CONTROL NETWORK AS PROVIDED BY MR. DAVID RUBCIC, PE, PLS -ASSOCIATED CIVIL ENGINEER, CITY OF HOLLISTER. THIS SURVEY IS BASED ON THE FOLLOWING BENCHMARKS: BM5 - HAVING A PUBLISHED ELEVATION OF 310.172 BM10 - HAVING A PUBLISHED ELEVATION OF 484.86 BM 22 - HAVING A PUBLISHED ELEVATION OF 281.706

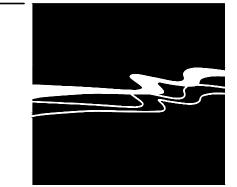
BM 31 - HAVING A PUBLISHED ELEVATION OF 231.307

EASEMENTS AFFECTING THE PROPERTY SHOWN HEREON MAY EXIST. NO TITLE INFORMATION WAS PROVIDED. NO ATTEMPT HAS BEEN MADE TO PLOT EASEMENTS.

CITY APPROVAL PLANS ARE APPROVED FOR CONSTRUCTION.

DANNY HILLSTOCK CITY ENGINEER

В	3/25/2021	60% SUBMITTAL	NFW
Α	7/3/2020	30% SUBMITTAL	ESR
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HOLLISTER IMPROVI OF M CITY

DRAWN BY: NFW

DATE: 3/25/2021 DRAWING NO. C-1.0

2. THE CONTRACTOR SHALL HAVE COPIES OF THE APPROVED CONTRACT DOCUMENTS FOR THIS PROJECT ON SITE AT ALL TIMES AND SHALL BE FAMILIAR WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS.

- 3. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER AND OWNER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, OR THIRD PARTY IN VIOLATION OF THE LAW OR IN TRESPASS. THE CONTRACTOR SHALL PRACTICE SAFETY AT ALL TIMES AND SHALL FURNISH, ERECT, AND MAINTAIN, SUCH FENCES, BARRICADES, LIGHTS, AND SIGNS NECESSARY TO GIVE ADEQUATE PROTECTION TO THE PUBLIC AT ALL TIMES.
- 4. INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES IS BASED ON RECORD INFORMATION AND IS AS SHOWN FOR INFORMATIONAL PURPOSES ONLY. UNDERGROUND FEATURES SHOWN IN PLAN VIEW ON THE PLANS ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT, AND MAY NOT APPEAR IN PROFILE OR SECTIONS VIEWS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA), TOLL FREE AT 1-800-642-2444 AND THE CITY OF HOLLISTER, (48) HOURS PRIOR TO THE START OF CONSTRUCTION.
- 5. THE CONTRACTOR SHALL CONTINUALLY REVIEW JOB SITE CONDITIONS. CONDITIONS REQUIRING CONSTRUCTION DIFFERENT FROM THAT SHOWN ON THE PLANS SHALL BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED CONSTRUCTION.
- THESE DRAWINGS REPRESENT THE FINISHED CONDITION AND UNLESS OTHERWISE INDICATED, THEY DO NOT SHOW THE METHOD OF CONSTRUCTION.
- 7. ALL IMPROVEMENTS SHOWN OR INDICATED ON THESE DRAWINGS ARE TO BE CONSTRUCTED AND/OR INSTALLED BY THE CONTRACTOR IN THIS PROJECT, UNLESS THEY ARE CALLED OUT AS: "EXISTING", "FUTURE", "NIC", "NOT A PART", OR HAVE SOME OTHER EXCLUDING NOTATION.
- 8. THE CONTRACTOR SHALL KEEP A SET OF PROJECT DRAWINGS ON WHICH RECORD INFORMATION SHALL BE PLACED NOTING DEVIATIONS FROM THE PLANS IN THE LOCATION, GRADE, SIZE, TYPE, AND SCOPE OF WORK WHICH IS CONSTRUCTED.
- 9. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) REQUIREMENTS AND STANDARDS SHALL BE OBSERVED AT THE JOB SITE AT ALL TIMES.
- 10. CONTRACTOR SHALL ORGANIZE A PRE-CONSTRUCTION MEETING PRIOR TO COMMENCEMENT OF WORK. THE MEETING SHALL INCLUDE (AT A MINIMUM) THE OWNER/REPRESENTATIVE, CONTRACTORS, ENGINEER OF RECORD, SOILS ENGINEER, PERTINENT UTILITY COMPANIES, SURVEYOR, AND (ENTER AGENCY) INSPECTOR.
- 11. EXISTING TOPOGRAPHIC INFORMATION DELINEATED ON THESE PLANS IS BASED ON A FIELD SURVEY PROVIDED BY WALLACE GROUP ON (ENTER DATE).
- 12. ALL CONSTRUCTION SHALL BE IN COMPLETE COMPLIANCE WITH ALL RECOMMENDATIONS AND REQUIREMENTS AS SET FORTH IN THE SOILS REPORT (ENTER SOILS REPORT TITLE) DATED (ENTER DATE), PREPARED BY (ENTER CONSULTANT NAME), (ENTER CONSULTANT ADDRESS).
- 13. NO CONSTRUCTION SHALL BE STARTED WITHOUT PLANS APPROVED BY THE CITY OF HOLLISTER. THE CITY OF HOLLISTER ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO START OF CONSTRUCTION. ANY CONSTRUCTION DONE WITHOUT APPROVED PLANS OR PRIOR NOTIFICATION TO THE CITY OF HOLLISTER ENGINEER WILL BE REJECTED AND WILL BE AT THE CONTRACTOR'S AND/OR OWNER'S RISK.
- 14. SOILS TESTS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF HOLLISTER STANDARDS AND SPECIFICATIONS. ALL TESTS MUST BE MADE WITHIN 15 DAYS PRIOR TO THE PLACEMENT OF MATERIAL. THE TEST RESULTS SHALL CLEARLY INDICATE THE LOCATION AND SOURCE OF THE MATERIAL.
- B 15. COMPACTION TESTS SHALL BE MADE ON SUB-GRADE MATERIAL AND MATERIAL AS SPECIFIED BY THE SOILS ENGINEER. SAID TESTS SHALL BE MADE PRIOR TO THE PLACEMENT OF THE NEXT MATERIAL.
- 16. SUB-GRADE MATERIAL SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95% IN THE ZONE BETWEEN FINISHED SUB-GRADE ELEVATION AND 1 FOOT BELOW. ALL MATERIAL IN FILL SECTIONS BELOW THE ZONE MENTIONED ABOVE SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
- 17. THE FINAL STRUCTURAL SECTION SHALL BE BASED ON 'R' VALUE TESTS MADE AT THE TIME OF CONSTRUCTION AND ON A CITY OF HOLLISTER APPROVED TRAFFIC INDEX.
- 18. THE ENGINEER OF RECORD SHALL PERFORM PERIODIC REVIEWS OF COMPLETED WORK TO DETERMINE CONFORMANCE WITH THE APPROVED PLANS. THE CONTRACTOR SHALL CORRECT ANY DIFFERENCES FOUND BY SUCH SURVEY AND WILL PROVIDE ALL CONTRACTOR'S RECORDS KEPT DURING THE COURSE OF CONSTRUCTION TO THE ENGINEER OF RECORD FOR PREPARATION OF RECORD DRAWINGS.
- 19. THE CITY OF HOLLISTER INSPECTOR ACTING ON BEHALF OF THE CITY OF HOLLISTER MAY REQUIRE REVISIONS IN THE PLANS TO RESOLVE UNFORESEEN PROBLEMS THAT MAY ARISE IN THE FIELD. ALL REVISIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER OF RECORD.
- 20. A REGISTERED CIVIL ENGINEER MUST VERIFY THAT THE IMPROVEMENTS, WHEN COMPLETED, ARE IN CONFORMANCE WITH THE PLANS PRIOR TO THE REQUEST FOR FINAL INSPECTION. RECORD DRAWING'S ARE TO BE PREPARED AFTER CONSTRUCTION IS COMPLETED. THE CIVIL ENGINEER PREPARING THE RECORD DRAWING PLANS WILL BE PRESENT WHEN THE FINAL INSPECTION IS MADE.
- 21. AN INSPECTION AGREEMENT IS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
- 22. ALL PERTINENT UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO THE START OF CONSTRUCTION.
- 23. AN ENCROACHMENT PERMIT IS REQUIRED FOR ALL WORK DONE WITHIN ANY ROAD RIGHT-OF-WAY.
- 24. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE HOURS OF 7:00AM TO 6:00PM MONDAY THROUGH SATURDAY.

CONSTRUCTION NOTES

- 1. THE CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR ANY EXISTING HAZARD TO CONSTRUCTION NOT SHOWN ON THE PLANS SUCH AS FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, OR LARGE DEPOSITS OF ORGANIC MATERIAL, ETC. IF ANY SUCH HAZARDS ARE FOUND, THE OWNER AND ENGINEER SHALL BE NOTIFIED. ALL EXISTING SURFACE STRUCTURES, FENCES, TANKS, PIPES, ETC., AND ANY BURIED MATERIAL SPECIFIED IN THE PLANS FOR REMOVAL FROM THE SITE SHALL BE DISPOSED OF AT A LICENSED DISPOSAL FACILITY.
- 2. ALL DISTURBED AREAS SHALL BE RE-VEGETATED. TEMPORARY EROSION, SEDIMENTATION, AND SILTATION MITIGATION DEVICES SHALL BE PLACED BETWEEN OCTOBER 15 AND APRIL 15. DRAINAGE SHALL BE DISPERSED FROM IMPERMEABLE AREAS TO MITIGATE EROSION.
- 3. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS WRITTEN NOTICE TO THE PROJECT REPRESENTATIVE AND SURVEYOR WHEN REQUESTING SURVEY STAKES.
- 4. ALL WATER PIPE AND FITTINGS SHALL BE CLASS 150, DR 18, POLYVINYL CHLORIDE (PVC), "BELL AND SPIGOT" TYPE, MEETING THE STANDARDS SET FORTH IN AWWA C900. ALL FITTINGS FOR THE WATER PIPE SHALL BE DUCTILE IRON OR GRAY IRON FOR PVC PIPE CONFORMING TO AWWA C110 WITH CEMENT MORTAR LINING PER AWWA C104. METALLIC PIPE FITTINGS SHALL BE POLYETHYLENE ENCASED PER AWWA C105 UNLESS NOTED OTHERWISE.
- ALL WATER SYSTEM GATE VALVES SHALL BE RESILIENT SEAT-RESILIENT WEDGE FULLY ENCAPSULATED MEETING THE REQUIREMENTS OF AWWA C509. VALVES SHALL BE PLACED IN A CHRISTY G-5 VALVE BOX OR APPROVED EQUAL.
- 6. ALL WATER MAINS SHALL BE TESTED, FLUSHED, AND DISINFECTED PURSUANT TO THE (ENTER AGENCY NAME) STANDARD SPECIFICATIONS. COST OF ALL TESTING, DISINFECTING, AND RECONSTRUCTION DUE TO TEST FAILURE SHALL BE BORN BY THE CONTRACTOR. TRACER WIRE SHALL BE INSTALLED WITH ALL WATER MAINS.
- 7. ALL SANITARY SEWER PIPE (INCLUDING LATERALS, CLEANOUTS, ETC.) SHALL BE POLYVINYL CHLORIDE (PVC) SDR35 MEETING THE STANDARDS SET FOR IN ASTM D3034-88. ALL SANITARY SEWER FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS SET FORTH IN ASTM D2321-83A UNLESS OTHERWISE NOTED.
- 8. THE CONTRACTOR SHALL INSPECT ALL SANITARY SEWER GRAVITY MAINS BY VIDEO AFTER TESTING IS COMPLETE AND IS SATISFACTORY TO THE ENGINEER OF RECORD AND (ENTER AGENCY NAME). SEWER MAINS SHALL ALSO BE TESTED FOR OUT-OF-ROUND DEFLECTIONS PER MANUFACTURER'S SPECIFICATIONS. SAGS INDICATED BY THE VIDEO INSPECTION WILL REQUIRE THE AFFECTED LENGTH OF PIPE TO BE REMOVED AND REINSTALLED TO CONFORM TO THE (AGENCY'S) REQUIREMENTS. COST OF ALL TESTING AND INSPECTION INCLUDING VIDEO RETAKES SHALL BE PAID FOR BY THE PERSON, FIRM, OR CORPORATION CONSTRUCTING THE IMPROVEMENT.
- 9. ALL SEWERAGE AND WATER SUPPLY SHALL CONFORM TO THE REQUIREMENTS OF (ENTER AGENCY NAME), UNLESS OTHERWISE NOTED ON THESE PLANS.
- 10. SPECIFICATIONS FOR HIGH DENSITY CORRUGATED POLYETHYLENE (HDPE) STORM SEWER PIPE WITH SMOOTH INTERIOR (DOUBLE WALL) AND RUBBER GASKET JOINTS:
- A. HIGH DENSITY CORRUGATED POLYETHYLENE STORM DRAIN PIPE SHALL HAVE FULL CIRCULAR CROSS-SECTION, AN INTEGRALLY FORMED SMOOTH INTERIOR, AND CORRUGATED EXTERIOR. NOMINAL SIZES ARE 4" 60" DIAMETER;
- B. PIPE SHALL MEET CALTRANS STANDARD SPECIFICATIONS SECTION 64 AND THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-294 FOR 12" 48" DIAMETER AND MP-7 FOR 54" AND 60" DIAMETER. PIPE SHALL BE TYPE S OR D (SMOOTH INTERIOR):
- C. PIPE JOINTS SHALL BE BELL AND SPIGOT DESIGN AND SHALL INCLUDE A RUBBER GASKET CONFORMING TO THE REQUIREMENTS OF ASTM F-477. THE JOINT SYSTEM SHALL BE CERTIFIED BY AN INDEPENDENT TESTING ORGANIZATION THAT IT MEETS THE LEAKAGE TEST REQUIREMENTS OF ASTM D-3212 AT 3.0 PSI;
- D. FITTINGS USED WITH THE PIPE SHALL NOT REDUCE OR IMPAIR THE OVERALL INTEGRITY OR FUNCTION OF THE PIPELINE. FITTINGS MAY BE MOLDED OR FABRICATED AND SHALL BE FURNISHED BY THE PIPE MANUFACTURER;
- E. UNLESS OTHERWISE SPECIFIED IN THE PROJECT PLANS OR SPECIFICATIONS, INSTALLATION OF THE PIPE AND FITTINGS SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.
- 11. SPECIFICATIONS FOR PVC STORM SEWER PIPE:
- A. PVC GRAVITY SEWER PIPE SPECIFIED ON THE DRAWINGS AS SDR 35 SHALL CONFORM TO ASTM D3034, WITH INTEGRAL BELL GASKET JOINTS. RUBBER GASKETS SHALL BE FACTORY INSTALLED AND CONFORM TO ASTM F477;
- B. SEWER PIPE SHALL BE MADE OF PVC PLASTIC HAVING A CELL CLASSIFICATION OF 12454B OR 12364B AS DEFINED IN ASTM D1784, SHALL HAVE A SDR OF 35, AND A MINIMUM PIPE STIFFNESS OF 46 PSI ACCORDING TO ASTM TEST D2412;
- C. ALL PIPE LENGTHS SHALL BE INSTALLED IN COMPLIANCE WITH ASTM D2321.
 BACKFILL REQUIREMENTS SHALL BE PER (ENTER AGENCY NAME) STANDARD DRAWING (ENTER STANDARD DRAWING NUMBER AND NAME);
- D. ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH (ENTER AGENCY NAME) STANDARD SPECIFICATIONS.

DUST CONTROL NOTES

- THE CONTRACTOR SHALL COMPLY WITH DUST CONTROL MEASURES REQUIRED BY THE (ENTER AGENCY NAME).
- 2. IMPLEMENT PERMANENT DUST CONTROL MEASURES AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ANY SOIL DISTURBING ACTIVITIES
- 3. STABILIZE ALL DISTURBED/EXPOSED SOIL AREAS PER THE EROSION CONTROL NOTES.
- 4. DURING CONSTRUCTION, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. INCREASED FREQUENCY WILL BE REQUIRED WHENEVER WIND SPEEDS EXCEED 15 MPH. RECLAIMED (NON-POTABLE) WATER SHALL BE USED WHENEVER POSSIBLE.
- 5. ALL DIRT STOCKPILE AREAS SHALL BE SPRAYED DAILY AS NEEDED.
- 6. ALL TRUCKS HAULING SOIL MATERIALS TO AND FROM THE SITE SHALL BE COVERED WITH A TARP TO PREVENT DUST FROM BLOWING OFF THE TRUCK.
- 7. ALL CONSTRUCTION VEHICLES SHALL NOT EXCEED 15 MPH ON ANY UNPAVED SURFACE AT THE CONSTRUCTION SITE.
- 8. INSTALL WHEEL WASHERS WHERE VEHICLES ENTER AND EXIT UNPAVED ROADS ONTO ADJACENT STREETS, OR WASH CONSTRUCTION EQUIPMENT AND VEHICLES BEFORE LEAVING THE SITE.
- 9. SWEEP STREETS AT THE END OF EACH DAY IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PAVED ROADS. WATER SWEEPERS WITH RECLAIMED WATER SHALL BE USED WHEN FEASIBLE.
- 10. THE CONTRACTOR SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE DUST CONTROL PROGRAM AND TO ORDER INCREASED WATERING, AS NECESSARY, TO REDUCE THE TRANSPORT OF DUST OFF-SITE. THE DESIGNATED PERSON'S DUTY SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS.
- 11. CONSTRUCTION EQUIPMENT SHALL CONFORM TO THE MOST CURRENT AIR QUALITY REGULATIONS FOR THE OPERATION OF MOTOR VEHICLES.

Design C	riteria	Design Data	
	Volume, MG	32	
	Surface Area, Acres	8.8	
Pond 2	Top of Bank (TOB)	267.5	
	10 Year Water Surface Elevation, ft	262.5	
	Freeboard (10-Year Storm), ft	5.0	
Pond 2 Pump Station	Vertical Turbine Pump, 8000 GPM (each)	2	
	Weir Elevation, ft	265.0	
	Max WSE (100-year Storm), ft	266.0	
Pond 2 Outlet Weir Structure	Weir Crest Length, ft	35	
	Outlet Pipe Diameter, in	60	
	PHF, cfs	122.0	
	Spillway Channel Elevation, ft	265.5	
	Max WSE (100-year Storm), ft	266.5	
The state of the Property of the University	Width, ft	70	
Pond 2 Emergency Spillway	Depth, ft	2	
	Side Slopes, H:V	2:1	
	PHF, cfs	167.3	
	Minimum Particle Capture Size, mm	5	
. Salar Salar Barrier	Inlet Pipe Diameter, in	60	
Apricot Lane Trash Capture Structure	Outlet Pipe Diameter, in	60	
	PHF, cfs	167.3	
	Max WSE (100-year Storm)	4" from Top of Curb	
Apricot Lane Trash Capture Structure	Width, ft	20	
Emergency Spillway	Depth, ft	1	
	PHF, cfs	167.3	
	Area, Acres	27 (total)	
	Infiltration Rate (Canning/Non- Canning Season), ft/day	0.45/0.29	
Percolation Ponds (Unchanged from Existing)	Application Rate (Canning/Non- Canning Season), MGD	5.2/2.6	
	Application Rate (Canning/Non-	5.2/2.6	

Percolation Pond Spillways (3)

Spillway Channel Elevation

Max WSE (100-year Storm)

Width, ft

Side Slopes, H:V

PHF, cfs

FOR REDUCED PLANS

ORIGINAL SCALE IS IN INCHES

2-Feet from TOB

1-Foot from TOB

2:1

90.9

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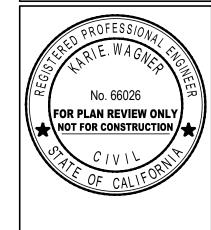


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CITY OF HOLLISTER
TER IWTP IMPROVEMEN

JOB #: 1011-0003-08

DESIGNERS: BDC

DRAWN BY: NFW

DATE: 3/25/2021

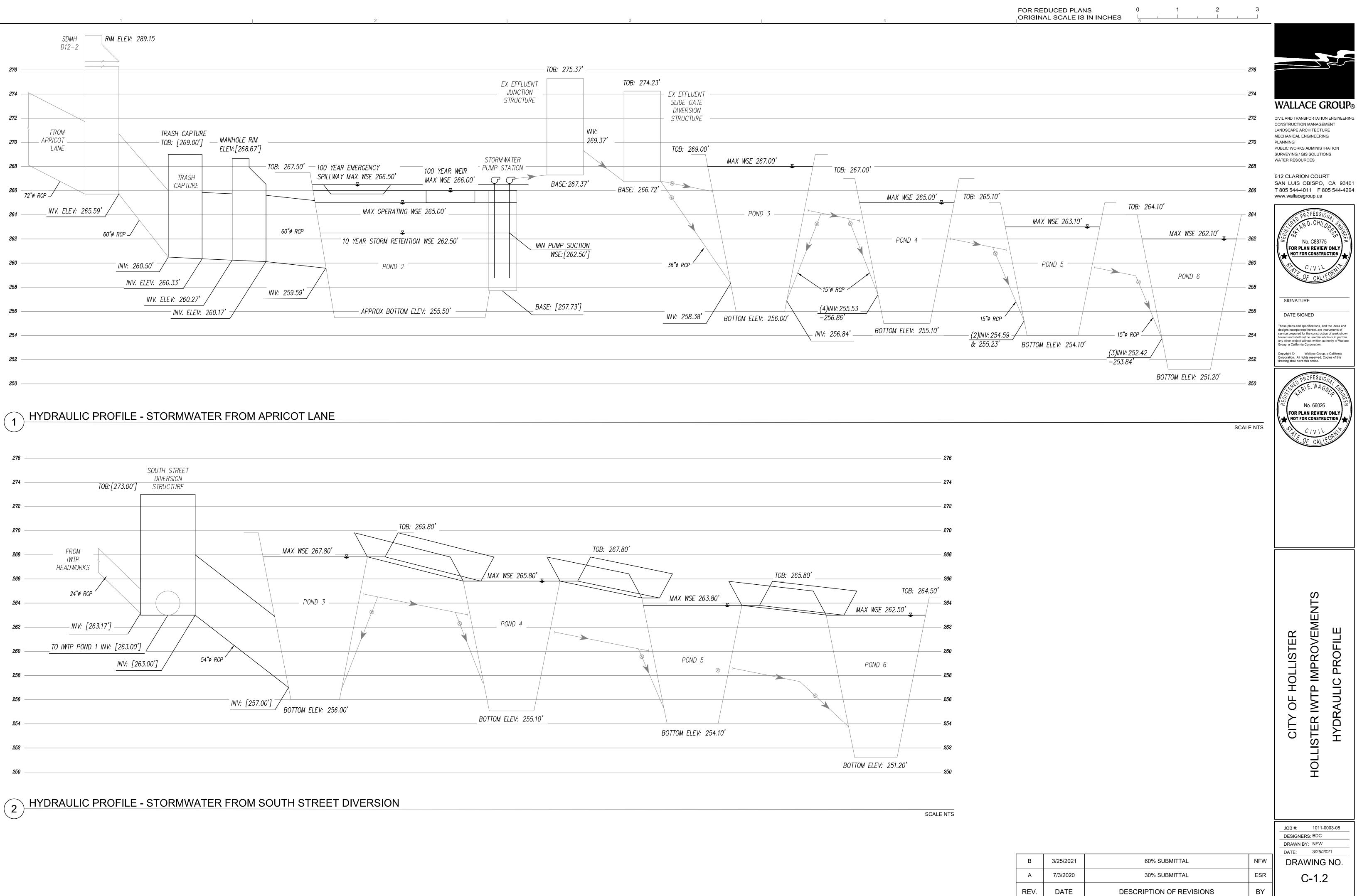
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C-1.1

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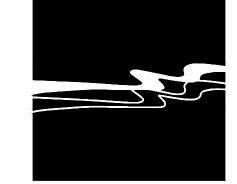
DESIGNERS: BDC DRAWN BY: NFW DATE: 3/25/2021

DRAWING NO. C-1.2

1 DEMOLITION PLAN

ABBANDON IN
PLACE EXISITNG 60"
RCP STORMDRAIN,
SEE SHEET C-2.1
FOR DETAILS

FOR REDUCED PLANS 0 1 2
ORIGINAL SCALE IS IN INCHES



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OLLISTER IWTP IMPROVEMENTS

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DESIGNERS: BDC

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DRAWING NO.

C-2.0

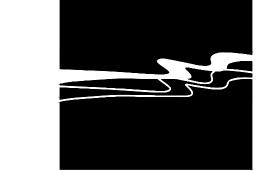
 B
 3/25/2021
 60% SUBMITTAL
 NFW

 A
 7/3/2020
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 ESR

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 DATE
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 BY

(IN FEET) 1 IN = 200 FT

SCALE: 1" = 200'



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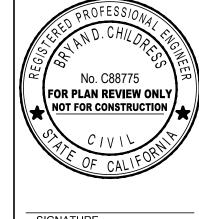


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IMPROVEMENTS HOLLISTER M OF CITY

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DATE: 3/25/2021 DRAWING NO.

C-2.1

EXISTING POND 2 OVERFLOW STRUCTURES

SCALE: 1" = 5'

EFFLUENT PUMP STATION DEMOLITION PLAN SCALE: 1" = 5'

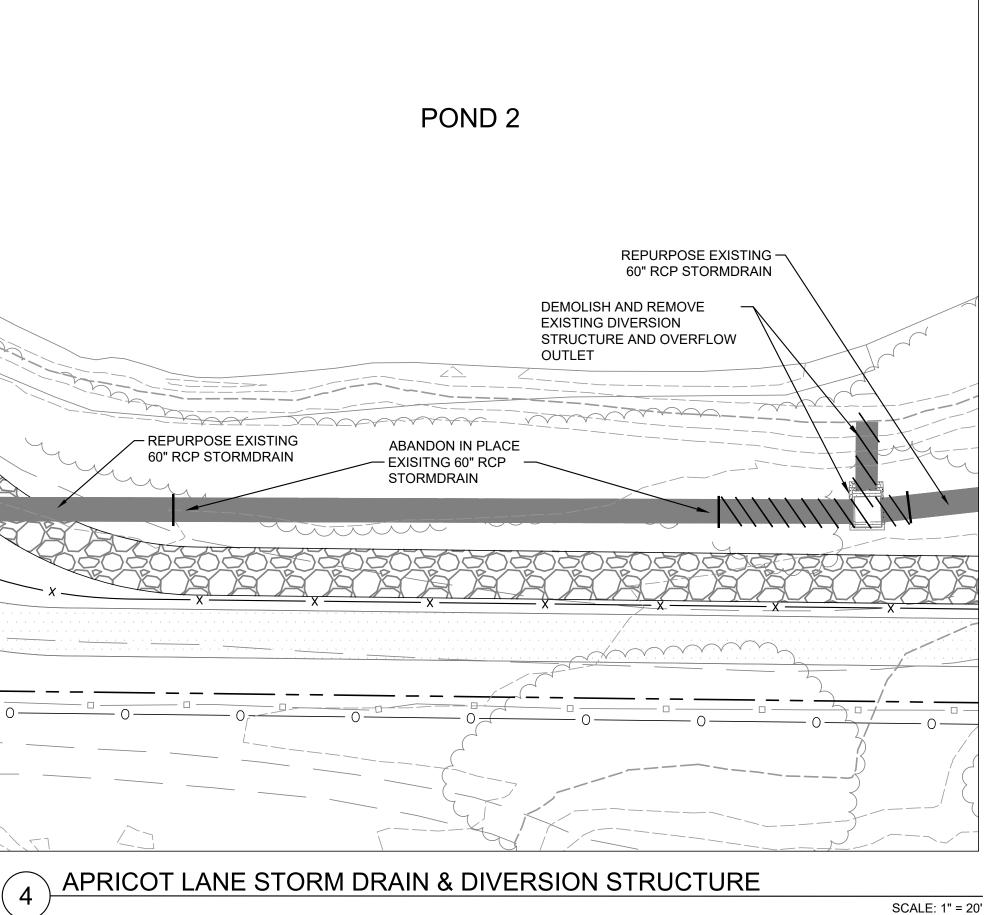
REMOVE EXISTING 16" -EFFLUENT FORCE MAIN

PUMPS `

REMOVE & SALVAGE — EXISTING EFFLUENT

REPURPOSE EXISTING 16" —

DI EFFLUENT FORCE MAIN



POND 1/POND 2 OVERFLOW STRUCTURES

ABANDON EXISTING OVERFLOW OUTLETS, — SEE PHOTOGRAPH THIS SHEET (TYPICAL

INFLUENT MANHOLE DEMOLTION PLAN

OF 2)

POND 1

OF 2)

ABANDON EXISTING OVERFLOW OUTLETS, — SEE PHOTOGRAPH THIS SHEET (TYPICAL

FILE NAME: 1011-0003-08-DEMO.DWG

DEMOLISH AND REMOVE EXISTING 8' INFLUENT

- PROTECT IN PLACE

POND 2

SCALE: 1" = 20'

MANHOLE

В	3/25/2021	60% SUBMITTAL	NFV
Α	7/3/2020	30% SUBMITTAL	ESR
REV.	DATE	DESCRIPTION OF REVISIONS	BY

EX APRICOT LANE OUTFALL -

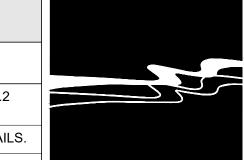
02 POND 2 OUTLET STRUCTURE —

FOR REDUCED PLANS

ORIGINAL SCALE IS IN INCHES

REFERENCE KEYNOTES (XXX) DESCRIPTION SOUTH STREET DIVERSION STRUCTURE, SEE SHEET C-3.2 FOR DETAILS. POND 2 OUTLET STRUCTURE SEE SHEET C-4.1 FOR DETAILS. APRICOT LANE TRASH CAPTURE STRUCTURE, SEE SHEET C-4.5 FOR DETAILS. APRICOT LANE TRASH CAPTURE STRUCTURE EMERGENCY SPILLWAY, SEE SHEET C-4.4 FOR DETAILS EX EFFLUENT PUMP STATION TO BE RE-PURPOSED TO A STORMWATER PUMP STATION, SEE SHEET C-5.0 FOR EMERGENCY BACKUP GENERATOR, SEE SHEET C-3.1 FOR 10' X 10' FLOATING ISLANDS. EXACT LOCATION TO BE DETERMINED BY CITY. SEE SHEET C-4.6 FOR DETAILS POND 2 EMERGENCY SPILLWAY, SEE SHEET C-4.3 FOR DETAILS PERCOLATION POND SPILLWAY. SEE SHEET C-6.1 FOR

DETAILS.



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IWTP IMPROVEMENTS OF HOLLISTER CITY

DESIGNERS: BDC DRAWN BY: NFW DATE: 3/25/2021

DRAWING NO.

C-3.0

3/25/2021 60% SUBMITTAL ESR 7/3/2020 30% SUBMITTAL BY REV. DATE DESCRIPTION OF REVISIONS

(IN FEET)

1 IN = 200 FT

APRICOT LANE TRASH CAPTURE STRUCTURE

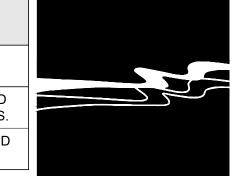
ORIGINAL SCALE IS IN INCHES

REFERENCE KEYNOTES

DESCRIPTION

CUMMINS DIESEL QSB7 125-200 KW GEN SET WITH C125D6D SOUND ENCLOSURE. SEE ELECTRICAL PLANS FOR DETAILS.

GENERATOR SLAB. SEE STRUCTURAL PLANS FOR SLAB AND GENERATOR ANCHORAGE DETAILS.



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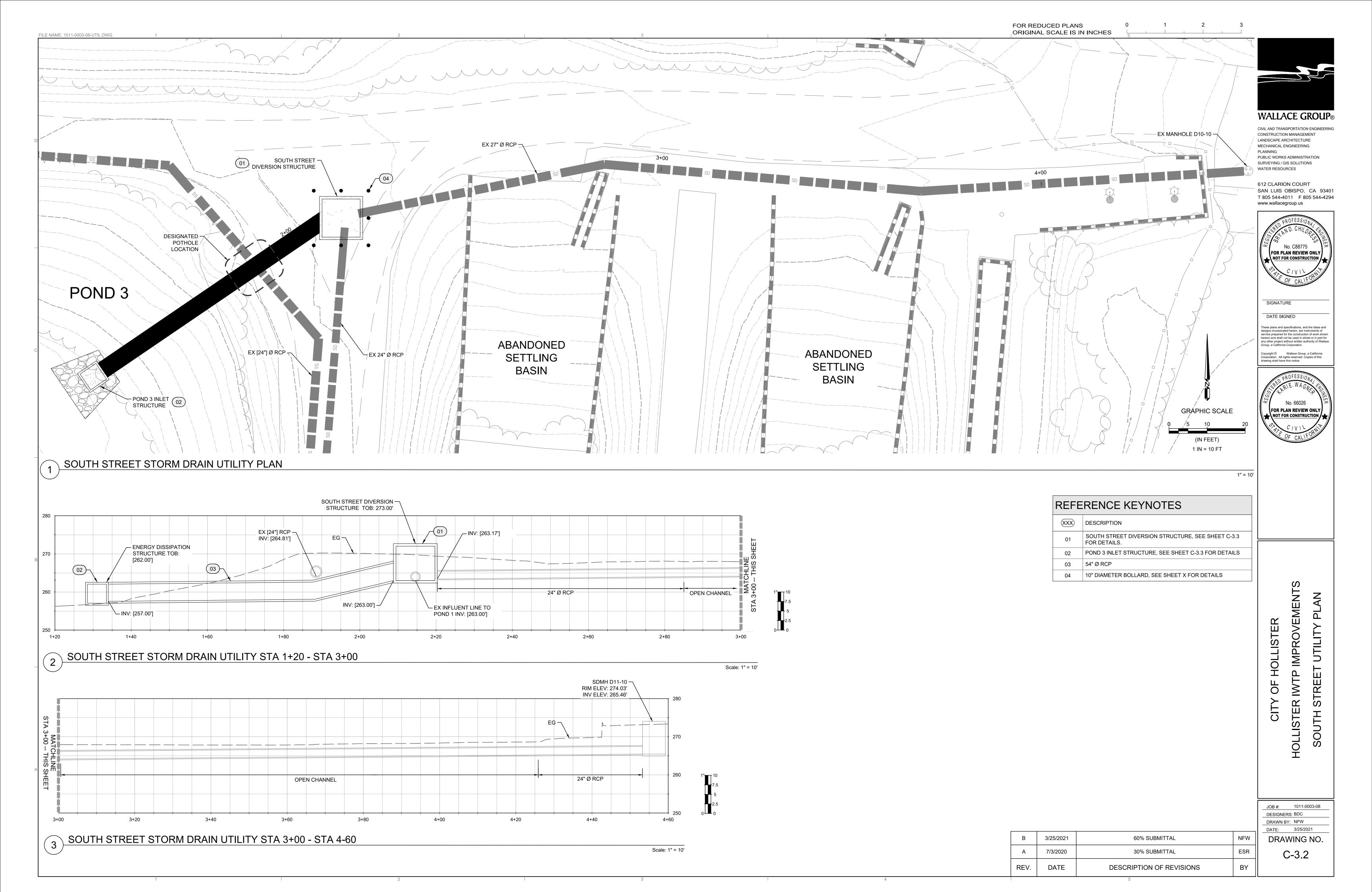


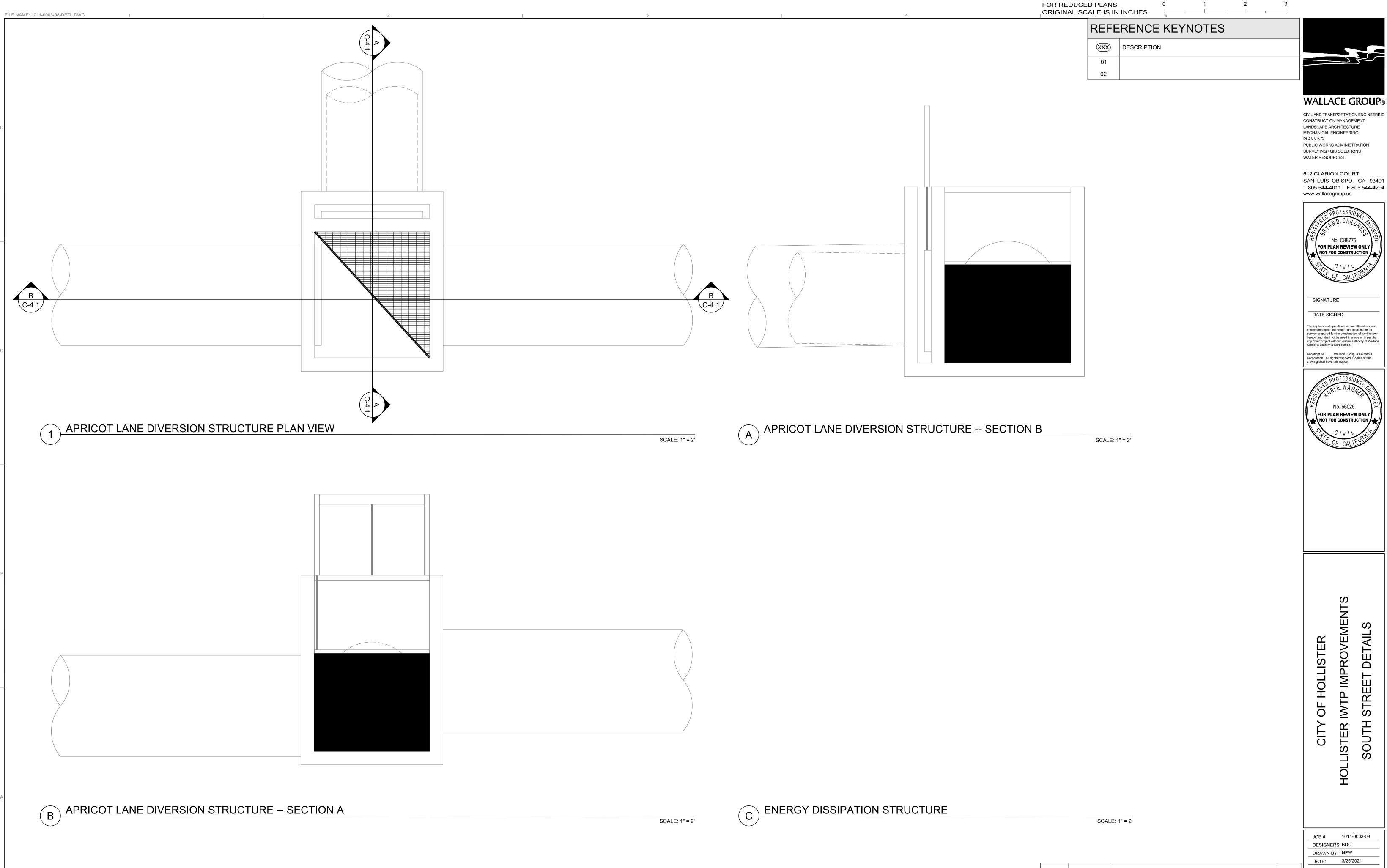
HOLLISTER IWTP IMPROVEMENTS CITY OF HOLLISTER

DRAWN BY: NFW DATE: 3/25/2021

DRAWING NO. C-3.1

60% SUBMITTAL ESR 30% SUBMITTAL 7/3/2020 BY REV. DATE DESCRIPTION OF REVISIONS





60% SUBMITTAL 3/25/2021 ESR 30% SUBMITTAL 7/3/2020 BY DATE DESCRIPTION OF REVISIONS

REV.

CIVIL AND TRANSPORTATION ENGINEERING

CONSTRUCTION MANAGEMENT LANDSCAPE ARCHITECTURE MECHANICAL ENGINEERING PLANNING PUBLIC WORKS ADMINISTRATION SURVEYING / GIS SOLUTIONS WATER RESOURCES

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HOLLISTER IWTP IMPROVEMENTS

JOB #: 1011-0003-08 DESIGNERS: BDC DRAWN BY: NFW DATE: 3/25/2021

DRAWING NO.

C-3.3

ORIGINAL SCALE IS IN INCHES

3/25/2021

7/3/2020

DATE

REV.

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30% SUBMITTAL

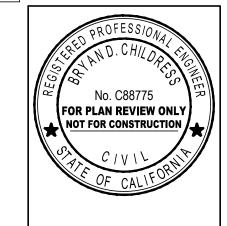
DESCRIPTION OF REVISIONS

REFERENCE KEYNOTES

DESCRIPTION

- FLOATING ISLAND CLUSTER TO CONSIST OF TWELVE (12) 10' X 10' BIOHAVEN ® ISLANDS MOORED TOGETHER IN A CIRCLE. EXACT LOCATION TO BE DETERMINED BY OWNER. SEE SHEET C-4.6 FOR DETAILS
- FOUNTAIN TO BE LOCATED IN CENTER OF ISLAND CLUSTER. SEE SHEET C-4.6 FOR DETAILS.
- EX EFFLUENT PUMP STATION TO BE RE-PURPOSED TO A STORMWATER PUMP STATION, SEE SHEET 5.0 FOR DETAILS.
- 04 POND 2 INLET STRUCTURE, SEE SHEET C-4.4 FOR DETAILS.
- POND 2 OUTLET STRUCTURE, SEE SHEET C-4.1 FOR DETAILS.
- POND 2 EMERGENCY SPILLWAY, SEE SHEET C-4.3 FOR DETAILS
- TRASH CAPTURE STRUCTURE EMERGENCY SPILLWAY, SEE SHEET C-4.4 FOR DETAILS

SAN LUIS OBISPO, CA 93401 T 805 544-4011 F 805 544-4294 APRICOT LANE TRASH CAPTURE STRUCTURE, SEE SHEET www.wallacegroup.us C-4.5 FOR DETAILS.



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CONSTRUCTION MANAGEMENT LANDSCAPE ARCHITECTURE

PUBLIC WORKS ADMINISTRATION SURVEYING / GIS SOLUTIONS

MECHANICAL ENGINEERING

612 CLARION COURT

WATER RESOURCES

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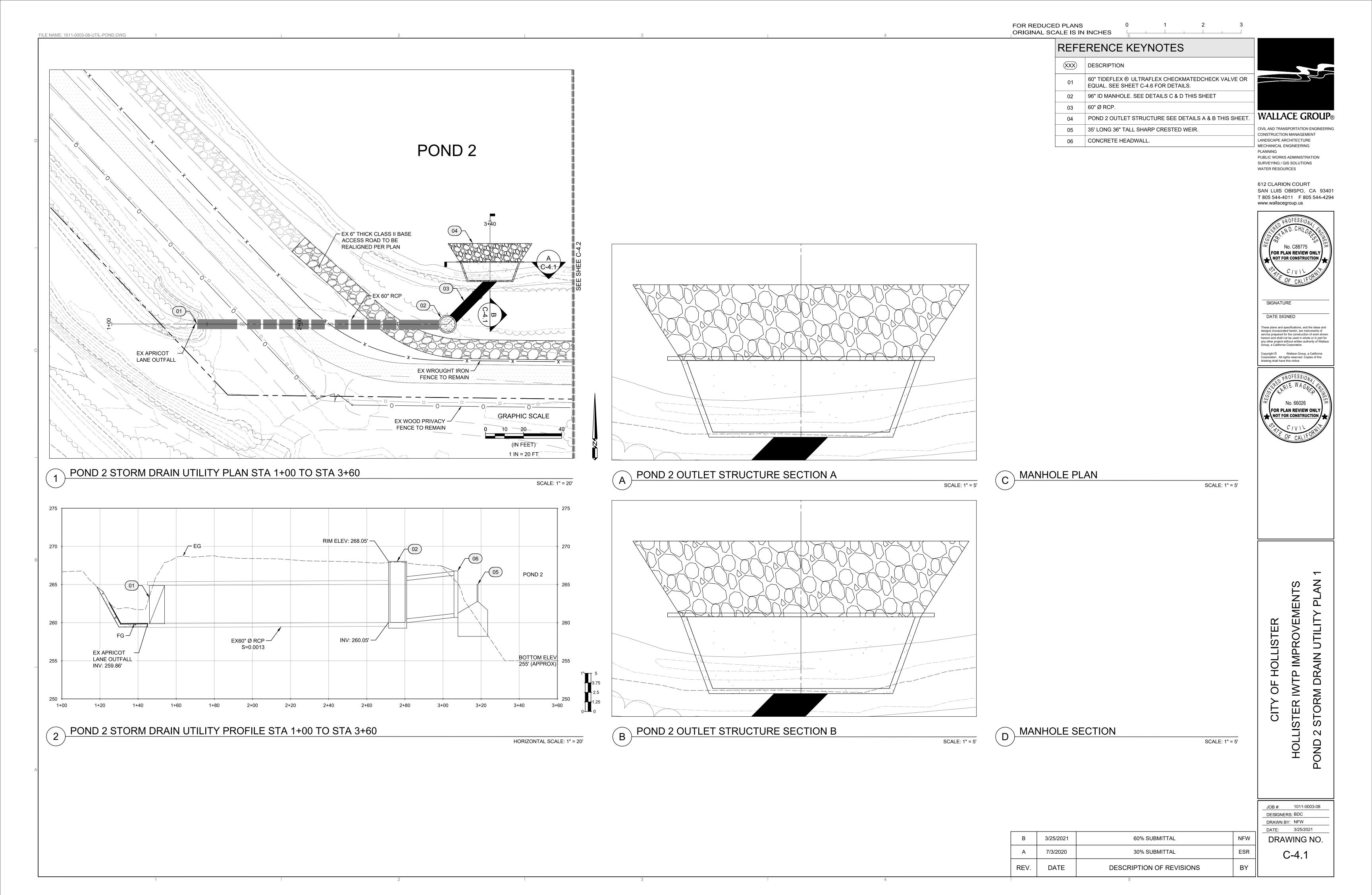


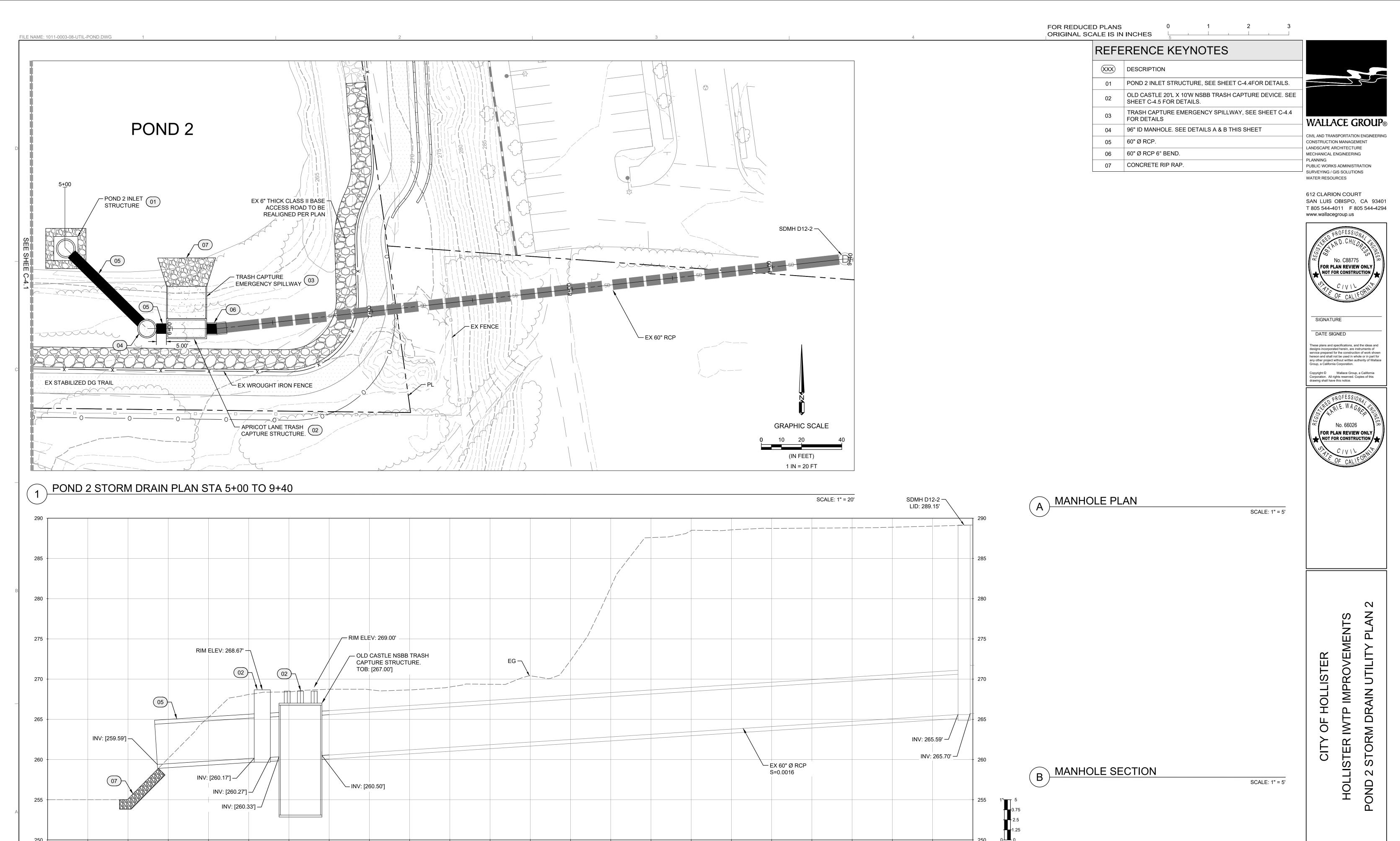
IMPROVEMENTS HOLLISTER OF CITY

DRAWN BY: NFW

DATE: 3/25/2021 DRAWING NO. C-4.0

ESR





4+80

POND 2 STORM DRAIN PROFILE STA 5+00 TO 9+40

 B
 3/25/2021
 60% SUBMITTAL
 NFW

 A
 7/3/2020
 30% SUBMITTAL
 ESR

 REV.
 DATE
 DESCRIPTION OF REVISIONS
 BY

9+20

9+40

HORIZONTAL SCALE: 1" = 20'

JOB #: 1011-0003-08

DESIGNERS: BDC

DRAWN BY: NFW

DATE: 3/25/2021

DRAWING NO.

C-4.2

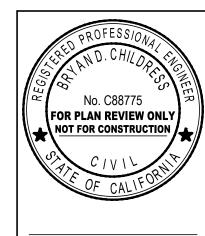
REFERENCE KEYNOTES

DESCRIPTION

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DESIGNERS: BDC DRAWN BY: NFW

DATE: 3/25/2021 DRAWING NO. C-4.3

ESR

BY

60% SUBMITTAL

30% SUBMITTAL

DESCRIPTION OF REVISIONS

3/25/2021

7/3/2020

DATE

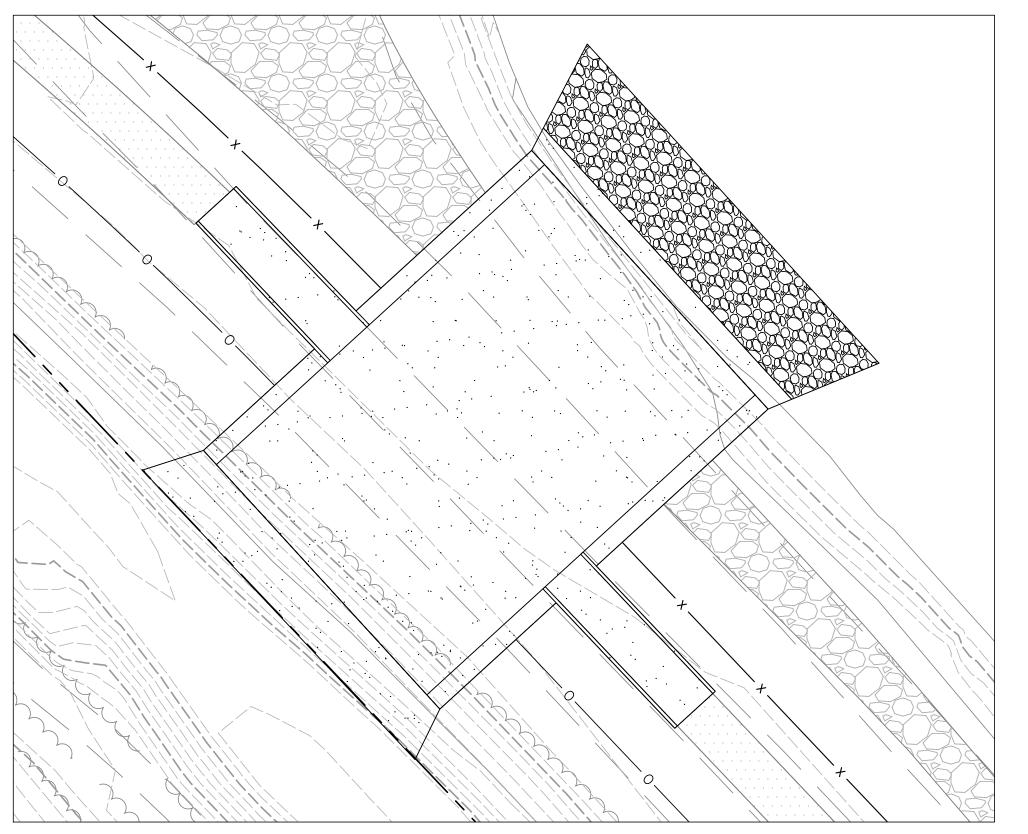
REV.

HORIZONTAL SCALE: 1" = 20'

POND 2 EMERGENCY SPILLWAY GRADING PLAN

FILE NAME: 1011-0003-08-UTIL-POND.DWG

HORIZONTAL SCALE: 1" = 20'



POND 2 EMERGENCY SPILLWAY GRADING SECTION A

POND 2 EMERGENCY SPILLWAY GRADING SECTION A

HORIZONTAL SCALE: 1" = 20'

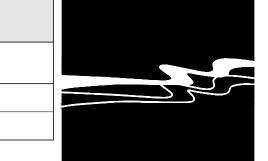
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REFERENCE KEYNOTES

DESCRIPTION

02

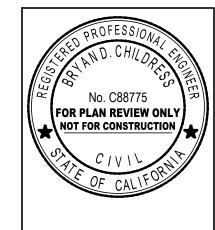
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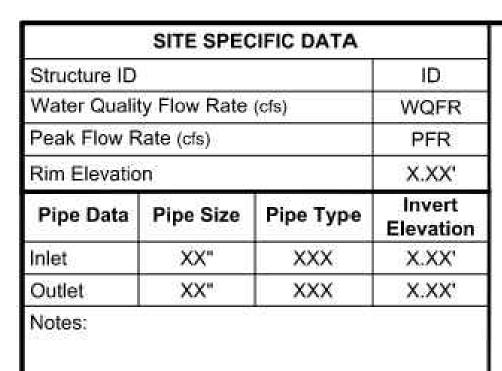


HOLLISTER IWTP IMPROVEMENTS CITY OF HOLLISTER

DESIGNERS: BDC DRAWN BY: NFW DATE: 3/25/2021

DRAWING NO. C-4.4

60% SUBMITTAL 3/25/2021 ESR 7/3/2020 30% SUBMITTAL BY REV. DATE DESCRIPTION OF REVISIONS



FILE NAME: 1011-0003-08-DETL.DWG

PERFORMANCE SPECIFICAT	IONS
Screen System Storage Volume	197.22 cf
Total Sump Volume	1440.83 c
NJDEP Sediment Storage Volume	190.00 cf
Peak Flow Capacity	169.93 cfs
Treatment Flow Capacities:*	
NJDEP 50% Removal, 75 micron	15.56 cfs
80% Removal, 150 micron	45.40 cfs
*Contact Oldcastle for alternative treatment flow ca	pacities.

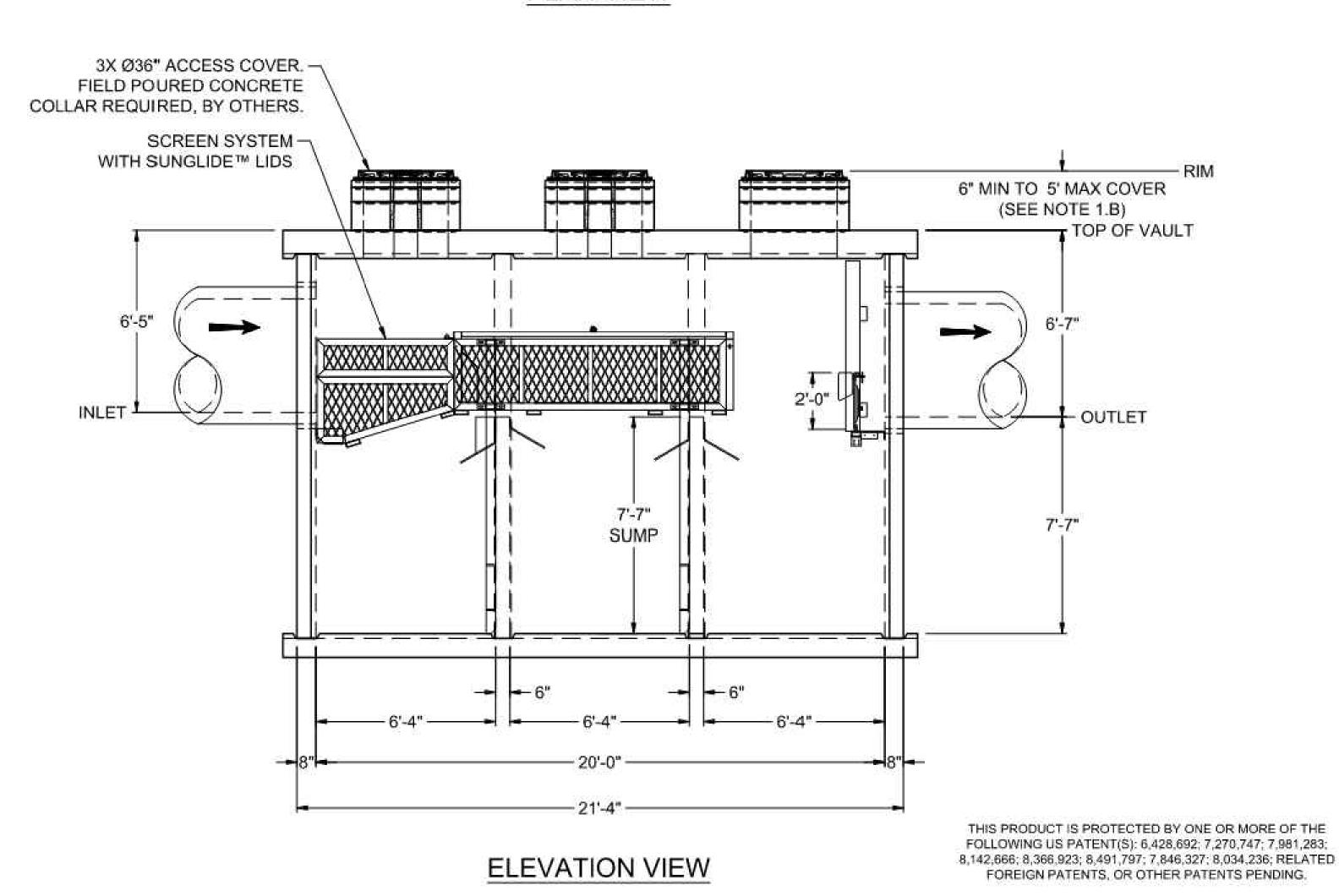
2X VISUAL -

INSPECTION PORT

15'-0" 13'-2"

- SKIMBOSS® MAX FLOATING SKIMMER 6" BAFFLE WALL TYP. Ø62.00" OPENING FOR -Ø48.00" RCP MAX, INLET TURBULENCE -COVERS NOT SHOWN IN DEFLECTORS - Ø62.00" OPENING FOR THIS VIEW FOR CLARITY Ø48.00" RCP MAX. OUTLET

PLAN VIEW



NOTES:

- DESIGN LOADINGS:
 - A. AASHTO HS-20-44 W/ IMPACT. B. STANDARD DESIGN FILL: 5' MAXIMUM;
 - FLORIDA ONLY: 3' MAXIMUM. C. ASSUMED WATER TABLE: MAX 2' ABOVE TOP OF STRUCTURE. ASSUMED WATER TABLE FOR FLORIDA ONLY: AT TOP OF
 - D. DRY LATERAL EARTH PRESSURE (EFP) = 45
 - E. LATERAL LIVE LOAD SURCHARGE = 80 PSF

(APPLIED TO 8' BELOW GRADE).

- F. NO LATERAL SURCHARGE FROM ADJACENT BUILDINGS, WALLS, PIERS, OR FOUNDATIONS.
- CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 5,000 PSI MINIMUM.
- 3. STEEL REINFORCEMENT: REBAR, ASTM A-615 OR A-706, GRADE 60.
- CEMENT: ASTM C-150 SPECIFICATION.

STRUCTURE.

- REQUIRED ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSF. CONTRACTOR RESPONSIBLE TO ENSURE ADEQUATE BEARING SURFACE IS PROVIDED (I.E. COMPACTED AND LEVEL PER PROJECT SPECIFICATIONS).
- REFERENCE STANDARD:
 - A. ASTM C 890 B. ASTM C 913
 - C. ACI 318-14
- INTERNALS SHALL CONSIST OF A FLOATING SKIMMER, FLOW DEFLECTORS, ELEVATED CENTRAL SCREEN SYSTEM AND SLIDING LIDS. THESE COMPONENTS EFFECTIVELY REDUCE HEAD LOSS, INCREASE POLLUTANT REMOVAL AND SIMPLIFY MAINTENANCE.
- MAXIMUM PICK WEIGHT (COMBINED WEIGHT OF BASE, BAFFLE WALLS AND INTERNAL SCREEN SYSTEM) = XX,XXX LBS. SECTION HEIGHTS, SLAB/WALL THICKNESSES AND KEYWAYS ARE SUBJECT TO CHANGE DUE TO AVAILABILITY AND PRODUCTION PLANT CAPACITY.
- 9. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT OLDCASTLE INFRASTRUCTURE.



IS DOCUMENT IS THE PROPERTY OF OLDCASTLE INFRASTRUCTURE, IF LIS CONFIDENTIAL, SUBMITTED FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE USED IN ANY WAY INJURIOUS TO THE INTERESTS OF, O WITHOUT THE WRITTEN PERMISSION OF OLDCASTLE INFRASTRUCTURE, IN COPYRIGHT © 2020 OLDCASTLE INFRASTRUCTURE, INC. ALL RIGHTS RESERVE

Nutrient Separating Baffle Box® NSBB-1020

JOB NAME

7/3/2020

DATE

REV.

CUSTOMER

NSBB-1020 REV DATE 1 OF 1

3/25/2021 60% SUBMITTAL

30% SUBMITTAL

DESCRIPTION OF REVISIONS

DATE: 3/25/2021 DRAWING NO. C-4.5

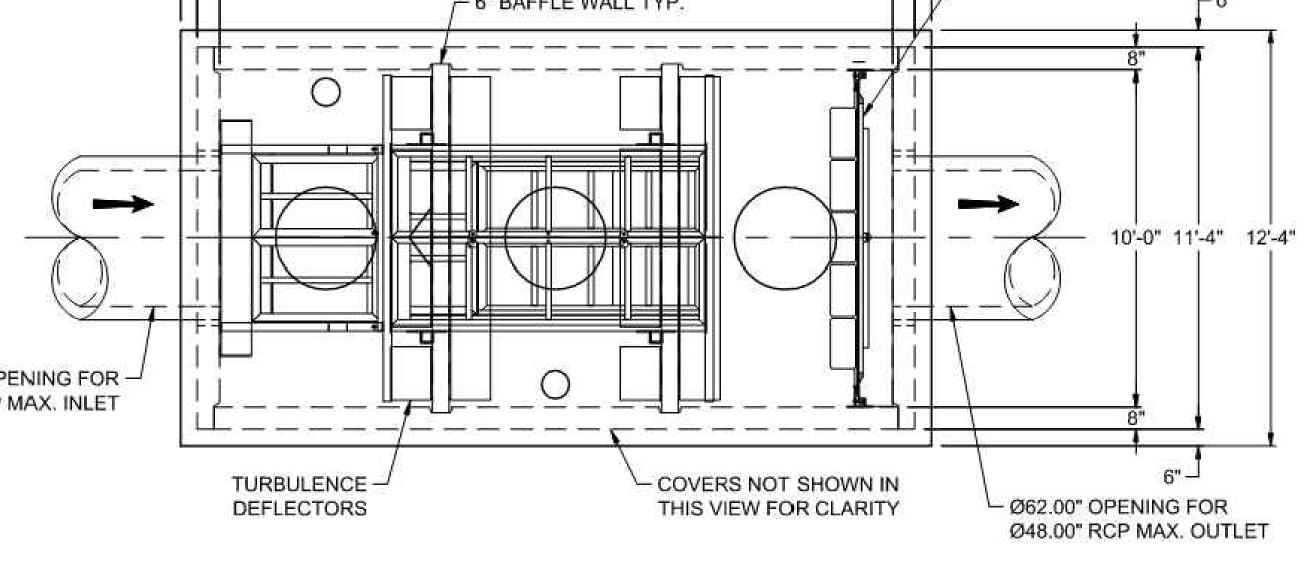
DESIGNERS: BDC DRAWN BY: NFW

ESR

BY

OLD CASTLE NUTRIENT SETTLING BAFFLE BOX (NSBB)

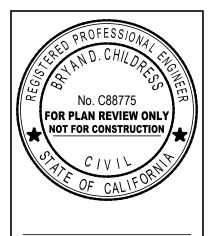
LEFT END VIEW



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designs incorporated herein, are instruments of service prepared for the construction of work shown



P IMPROVEMEN OF HOLLISTER MCITY

BioHaven® Floating Island

ON BOW & STERN

24/UNIT

ON BOW & STERN

FLOATING ISLAND DETAIL

12 - 14 lbs (5.4 - 6.4 kg)

12 - 14 lbs (5.4 - 6.4 kg)

STANDARD SPECIFICATIONS

BioHaven Floating Island (BFI)

Top View - Rectangle Shape

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0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

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Small BioHaven (BFI-S) Components

Top View

0 0 0 0 0 0

0 0 0 0 0 0

Large BioHaven (BFI-L) Components

02

REFERENCE KEYNOTES

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JOB #: 1011-0003-08 DESIGNERS: BDC DRAWN BY: NFW DATE: 3/25/2021

NFW

ESR

BY

DRAWING NO. C-4.6



SEE STRUCTURAL PLANS FOR ISLAND AND FOUNTAIN MOORING DETAILS

NTS

Scale: 1:1

FOUNTAIN DETAIL

DESCRIPTION MAT'L 1 1 ULTRAFLEX CHECKMATE CHECK VALVE MUST BE SUPPLIED 9.00" [229mm] CUFF 2 2 CLAMP MUST BE SUPPLIED 1. PIPE INSIDE DIAMETER - MUST BE SUPPLIED SEE NOTE #2 (MINIMUM ALLOWABLE PIPE DIAMETER - 59.00 INCHES) 2. CLAMP INSTALLED IN UPSTREAM OR DOWNSTREAM CUFF DEPENDING ON INSTALLATION ORIENTATION 3. MAXIMUM ALLOWABLE BACK PRESSURE - 15.0 FEET 4. IT IS RECOMMENDED TO BOLT OR PIN CHECKMATE TO PIPE AS SHOWN, 4 PLACES 90' APART - BILL NOTCH SEE NOTE #1 PIPE I.D. BILL NOTCH -PRELIMINARY DRAWING NOT FOR APPROVAL PURPOSES OPPORTUNITY No: XXXXX | SALES ORDER No: TXX-XXXX * PATENT PENDING * PIN PER NOTE #4 PROPRIETARY NOTICE RECOMMENDED PINNING CONFIGURATION THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TIDEFLEX TECHNOLOGIES. TT PRODUCT: 60" ULTRAFLEX CHECKMATE CHECK VALVE (SUPPLIED BY CUSTOMER) (SEE I.O.M.) IT IS LOANED BY TIDEFLEX TECHNOLOGIES, SUBJECT TO THE CONDITIONS THAT IT AND THE INFORMATION EMBODIED THEREIN SHALL BE USED ONLY FOR RECORD TO PART No.: CMCBUF-600-APPROVAL NOT TO SCALE AND REFERENCE PURPOSES. IT SHALL NOT BE USED OR CAUSED TO BE USED IN ANY WAY PREJUDICIAL TO THE INTERESTS OF TIDEFLEX TECHNOLOGIES. IT SHALL DR. BY: TLM DATE: 2-7-17 CHKD. BY: DATE: CUSTOMER: XXX NOT BE REPRODUCED OR COPIED IN WHOLE OR PART, OR DISCLOSED TO ANYONE WITHOUT THE DIRECT WRITTEN PERMISSION OF TIDEFLEX TECHNOLOGIES AND SHALL BE RETURNED UPON REQUEST.

CAD SCALE: FULL PLOT SCALE: 1 = 1 ORDER No: XXX

BioHaven® Floating Island

NATURALIZED (56) 0.03" (30 mil)

AVAILABLE FOR BOTH BFI-L & BFI-S MODELS

TO SUPPORT CUSTOM LOADS

TREX | GRATING | ARMOR THICKNESS

APPLICABLE FOR ORDERS OVER 3000 ft2 (278.7 m2)

BIOHAVENS CUSTOMIZED FOR AMPHIBIANS | BIRDS | FISH, ETC..

VARIED QUANTITY & SPACING WITHIN FOAM GRID

Environmental Awareness

The BioHaven Matrix is manufactured with 100% recycled polyethylene terephthalate (PET) sourced from plastic drinking bottles, which are mandated by the FDA to

Water-based latex resins are used in the Matrix manufacturing process. No phenol-formaldehyde resins are used in the binding process. The Matrix has been tested

The polyester Matrix fibers (PET) are non-reactive and resistant to attack by micro-organisms. PET is inert, won't biologically degrade and will not leach. Because of its molecular structure, PET is also inherently more UV resistant than other plastics, like polypropylene.

The polyurea coating is perfect for marine environments because it is inert, it will not hydrolyze, leach or contaminate. It provides UV protection, contains no VOC

use the highest quality fiber available. Its high IV (intrinsic viscosity) ensures the quality of recycled Matrix fiber exceeds most virgin fibers.

NGULAR | CIRCULAR | SQUARE | CUSTOM DESIGN - ie. KIDNEY AT 2" (5.1 cm) INCREMENTS

EVERY 2* (60 cm) DIAMETER 0.5" (1.5 cm) # OF HOLES FOR BFI-L 20 # OF HOLES FOR BFI-S 12

STANDARD SPECIFICATIONS

BFI Standard Options

BFI Custom Options

Weight-Bearing / Buoyancy

Fishery & Habitat-Specific Designs

and was found to be non-toxic to aquatic life.

7.5' (2.3 m) LENGTH 11.8'(3.6 m) DEPTH (approx) 8" (20.3 cm)

12" (30 cm) JOINED & HIGH-STRENGTH STRAPPING

Top View - Naturalized Shape

0000000000

0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

DEPTH 3 LAYERS

JOINED & HIGH-STRENGTH
CENTERED WEBBING

00000000000

000000000

5' (1.5 m) LENGTH 7.5' (2.3 m) DEPTH (approx) 8" (20.3 cm)

THICKNESS 0.05" (50 mil) COLOR COYOTE BROWN

INDIVIDUAL POCKET DIAMETER 3" (7.6 cm)

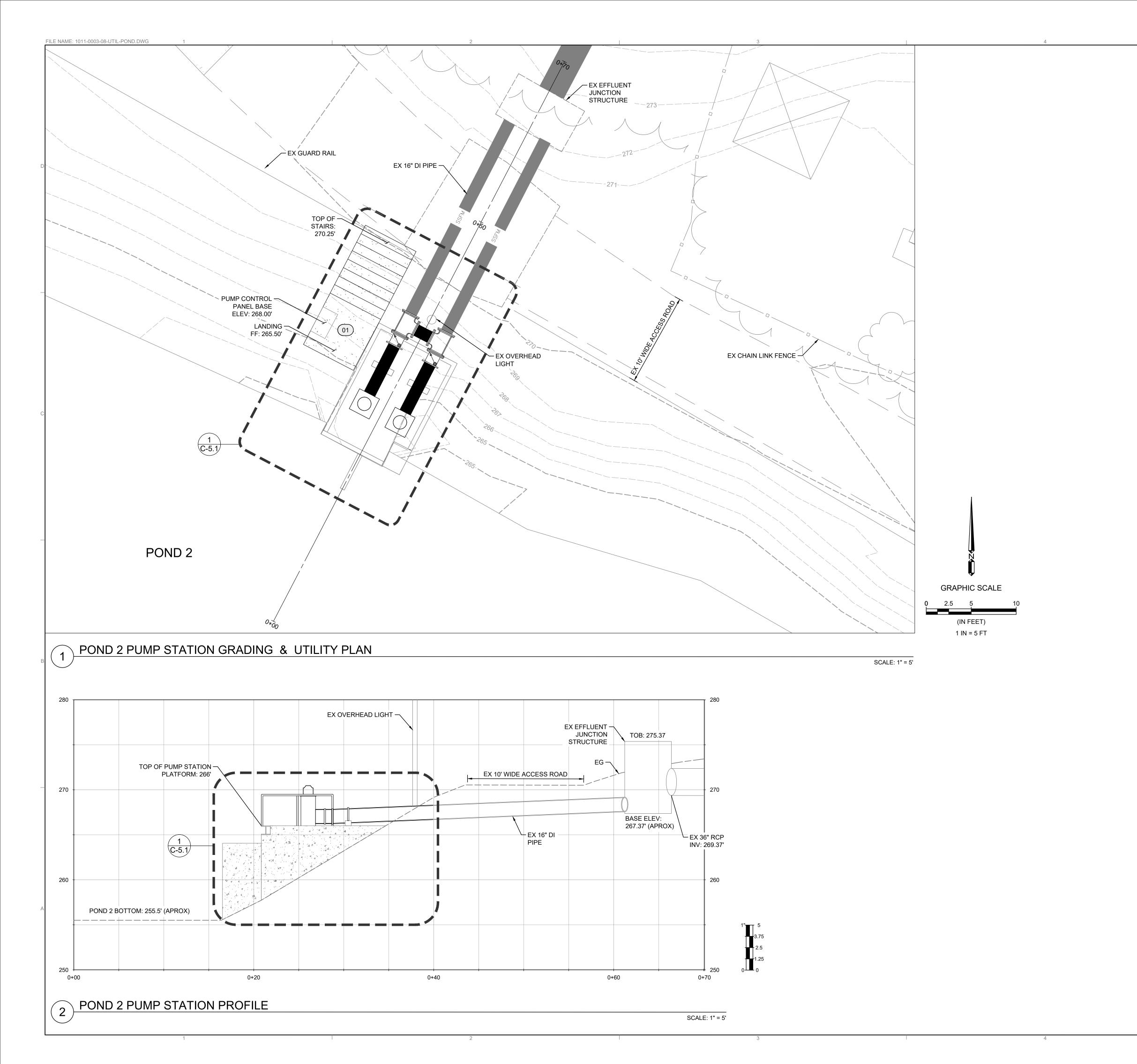
THICKNESS 0.05" (50 mil) COLOR COYOTE BROWN

INDIVIDUAL POCKET DIAMETER 3" (7.6 cm) DEPTH 3 LAYERS

C TIDEFLEX VALVE

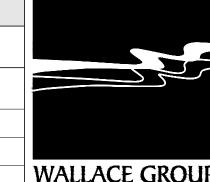
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3/25/2021 60% SUBMITTAL 7/3/2020 30% SUBMITTAL REV. DATE DESCRIPTION OF REVISIONS



FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

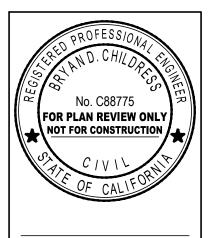
REFERENCE KEYNOTES DESCRIPTION PUMP STATION STAIRS AND LANDING. SEE STRUCTURAL PLANS FOR DETAILS 02 03 04



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IWTP IMPROVEMENTS OF HOLLISTER CITY

JOB #: 1011-0003-08 DESIGNERS: BDC DRAWN BY: NFW DATE: 3/25/2021

DRAWING NO.

C-5.0

NFW 3/25/2021 60% SUBMITTAL ESR 7/3/2020 30% SUBMITTAL BY REV. DATE DESCRIPTION OF REVISIONS

3/25/2021

7/3/2020

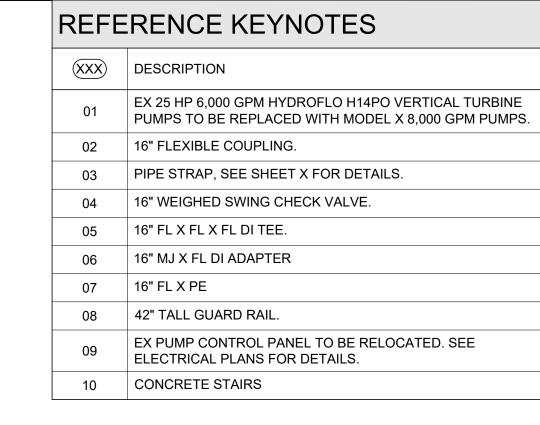
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DESCRIPTION OF REVISIONS



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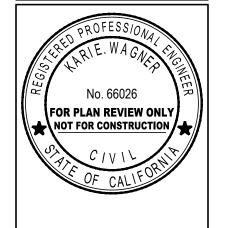
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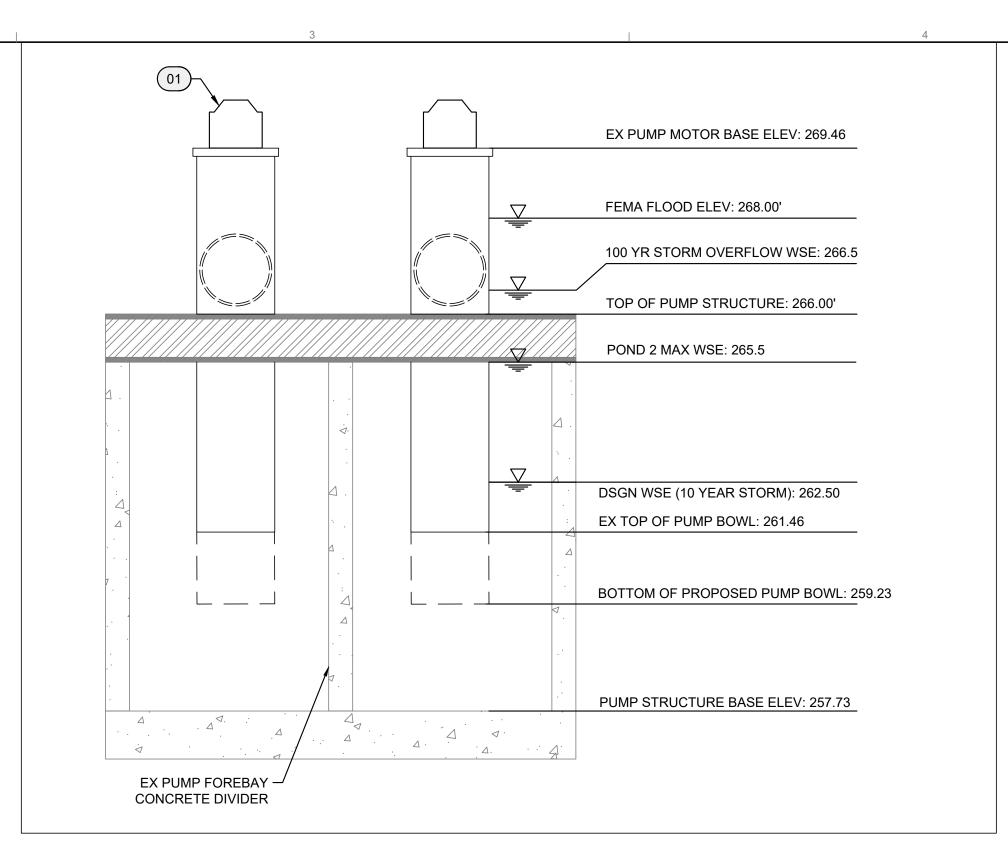
P IMPROVEMENTS OF HOLLISTER M CITY

DESIGNERS: BDC DRAWN BY: NFW DATE: 3/25/2021

DRAWING NO. C-5.1

ESR

BY



POND 2 PUMP STATION SECTION A

EX OVERHEAD LIGHT — EX PUMP FOREBAY -CONCRETE DIVIDER EX 16" DI PIPE -

B POND 2 PUMP STATION SECTION B

POND 2 PUMP STATION PLAN VIEW

FILE NAME: 1011-0003-08-DETL.DWG

08

SCALE 1" = 2'

EX 16" DI PIPE

- EX PUMP FOREBAY CONCRETE DIVIDER

EX OVERHEAD LIGHT —

EX PIPE STRAP -TO BE RE-USED

EX GUARD RAILS -

TYP OF 2

NTS

SCALE: 1" = 2'

60% SUBMITTAL 3/25/2021 ESR 30% SUBMITTAL 7/3/2020 REV. DATE DESCRIPTION OF REVISIONS BY

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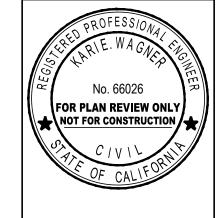
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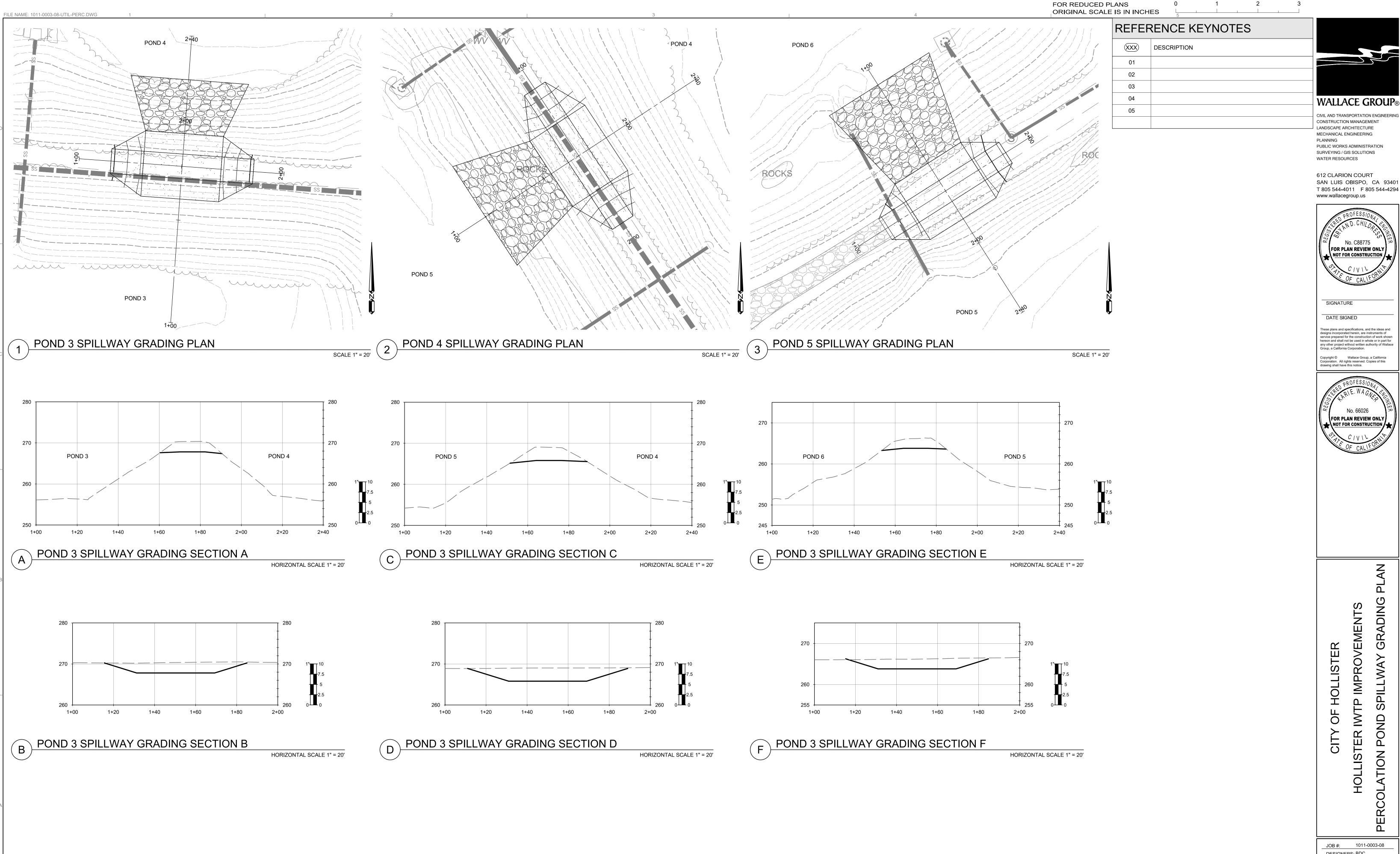
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DESIGNERS: BDC DRAWN BY: NFW

DATE: 3/25/2021 DRAWING NO. C-6.0



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HOLLISTER IWTP IMPROVEMENTS

DRAWN BY: NFW

DATE: 3/25/2021 DRAWING NO.

C-6.1

APPENDIX B

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Special-Status Plant Species with Potential to Occur in the Project Vicinity

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Alkali milk-vetch (Astragalus tener var. tener)	//1B.2	Alkaline sites in playas, valley and foothill grassland (on adobe clay), and vernal pools; elevation 1-60m. Blooming Period: March – June.	Unlikely. Suitable habitat not found on the project site.
California alkali grass (Puccinellia simplex)	//1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins; elevation 1-915m. Blooming Period: March – May.	Unlikely. Suitable habitat not found on the project site.
Carmel Valley bush-mallow (Malacothamnus palmeri var. involucratus)	//1B.2	Chaparral, cismontane woodland, coastal scrub; elevation 30-1100m. Blooming Period: May – October.	Unlikely. Suitable habitat not found on the project site.
Carmel Valley malacothrix (Malacothrix saxatilis var. arachnoidea)	//1B.2	Chaparral (rocky); elevation 25-335m. Blooming Period: March – December.	Unlikely. Suitable habitat not found on the project site.
Congdon's tarplant (Centromadia parryi spp. congdonii)	//1B.1	Valley and foothill grassland (alkaline); elevation 1-230m. Known to occur on various substrates, and in disturbed and ruderal (weedy) areas. Blooming Period: June – November.	Unlikely. Not known to occur within or in the vicinity of the City of Hollister.
Fragrant fritillary (Fritillaria liliacea)	//1B.2	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine; various soils reported though usually clay in grassland; elevation 3-410m. Blooming Period: February – April.	Unlikely. Suitable habitat not found on the project site.
Gabilan Mountains manzanita (Arctostaphylos gabilanensis)	//1B.2	Chaparral, cismontane woodland, granitic substrates; elevation 300-700m. Blooming Period: January – February.	Unlikely. Species typically found at elevations higher than the project site.
Hooked popcorn flower (Plagiobothrys uncinatus)	//1B.2	Chaparral (sandy), cismontane woodland, valley and foothill grassland; elevation 300-730m. Blooming Period: April – May.	Unlikely. Species typically found at elevations higher than the project site.
Hoover's button-celery (Eryngium aristulatum var. hooveri)	//1B.1	Vernal pools. Alkaline depressions, roadside ditches, and other wet places near the coast; elevation 5-45m. Blooming Period: July.	Unlikely. Suitable habitat not found on the project site.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Indian Valley bush-mallow (Malacothamnus aboriginum)	//1B.2	Chaparral and cismontane woodland; rocky, often burned areas. Prefers granitic outcrops and sandy bare soil; elevation 150-1700m. Blooming Period: April – October.	Unlikely. Species typically found at elevations higher than the project site.
Jolon clarkia (Clarkia jolonensis)	//1B.2	Cismontane woodland, chaparral, coastal scrub; elevation 20-660m. Blooming Period: April – June.	Unlikely. Suitable habitat not found on the project site.
Monterey spineflower (Chorizanthe pungens var. pungens)	FT//1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; elevation 3-450m. Blooming Period: April – June.	Unlikely. Suitable habitat not found on the project site.
Most beautiful jewel-flower (Streptanthus albidus ssp. peramoenus)	//1B.2	Chaparral, valley and foothill grassland, and cismontane woodland; serpentine outcrops, on ridges and slopes; elevation 120-730m. Blooming Period: April – June.	Unlikely. Suitable habitat not found on the project site.
Pajaro manzanita (Arctostaphylos pajaroensis)	//1B.1	Sandy soils in chaparral habitat; evergreen; elevation 30-760m. Blooming Period: December – March.	Unlikely. Suitable habitat not found on the project site.
Pink creamsacs (Castilleja rubicundula ssp. rubicundula)	//1B.2	Chaparral, meadows and seeps, and valley and foothill grassland. Openings in chaparral or grasslands on serpentine soils; elevation 20- 900m. Blooming Period: April – June.	Unlikely. Suitable habitat not found on the project site.
Pinnacles buckwheat (Eriogonum nortonii)	//1B.3	Sandy sites in chaparral and valley and foothill grassland, often on recent burns; elevation 300-975m. Blooming Period: May – June.	Unlikely. Species typically found at elevations higher than the project site.
Prostrate vernal pool navarretia (Navarretia prostrata)	//1B.1	Coastal scrub, valley and foothill grassland, and vernal pools. Alkaline soils in grassland, or in vernal pools; elevation 15-700m. Blooming Period: April – July.	Unlikely. Suitable habitat not found on the project site.
Saline clover(Trifolium hydrophilum)	//1B.2	Marshes and swamps, valley and foothill grassland, and vernal pools. Prefers wet, alkaline sites; elevation 0-300m. Blooming Period: April – June.	Unlikely. Suitable habitat not found on the project site.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
San Francisco popcornflower (Plagiobothrys diffusus)	/SE/1B.1	Valley and foothill grassland, and coastal prairie. Historically from grassy slopes with marine influence; elevation 60-485m. Blooming Period: March – June.	Unlikely. Suitable habitat not found on the project site.
San Joaquin spearscale (Etriplex joaquinana)	//1B.2	Alkaline sites in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland; elevation 1-320m. Blooming Period: April – October.	Unlikely. Suitable habitat not found on the project site.
Toro manzanita (Arctostaphylos montereyensis)	//1B.2	Maritime chaparral, cismontane woodland, coastal scrub, sandy; elevation 30-730m. Blooming Period: February – March.	Unlikely. Suitable habitat not found on the project site.
Western Heermann's buckwheat (Eriogonum heermannii var. occidentale)	//1B.2	Openings in cismontane woodland, often on serpentine alluvium or on roadsides; rarely on clay or shale slopes; elevation 410-805m. Blooming Period: July – October.	Unlikely. Species typically found at elevations higher than the project site.

SOURCE: CDFW 2020, CNPS 2020

NOTE: Status Codes: Federal (USFWS)

FE: Listed as Endangered under the Federal Endangered Species Act.

FT: Listed as Threatened under the Federal Endangered Species Act.

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SD: Delisted under the California Endangered Species Act.

CNPS Rare Plant Ranks and Threat Code Extensions

- 1B: Plants that are considered Rare, Threatened, or Endangered in California and elsewhere.
- 2B: Plants that are considered Rare, Threatened, or Endangered in California, but more common elsewhere.
- .1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).
- .2: Fairly endangered in California (20-80% occurrences threatened).
- .3: Not very endangered in California (<20% of occurrences threatened or no current threats known).

Special-Status Wildlife Species with Potential to Occur in the Project Vicinity

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
American badger (Taxidea taxus)	/SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats. Needs sufficient food and open, uncultivated ground with friable soils to dig burrows. Preys on burrowing rodents.	Unlikely. Suitable habitat not found at the project site.
Bank swallow (Riparia riparia)	/ST	Highly colonial species that nests in alluvial soils along rivers, streams, lakes, and ocean coasts. Nesting colonies only occur in vertical banks or bluffs of friable soils at least one meter tall, suitable for burrowing with some predator deterrence values. Breeding colony present in Salinas River.	Unlikely. Suitable habitat not found at the project site.
Bay checkerspot butterfly (Euphydryas editha bayensis)	FT/	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Castilleja densiflora</i> and <i>C. exserta</i> are secondary host plants.	Unlikely. Suitable habitat not found at the project site.
Big-eared kangaroo rat (Dipodomys venustus elephantinus)	/SSC	Chaparral-covered slopes of the southern part of the Gabilan Range, in the vicinity of the Pinnacles. Forages under shrubs and in the open. Burrows for cover and for nesting.	Unlikely. Suitable habitat not found at the project site.
Burrowing owl (Athene cunicularia)	/SSC	Open, dry, annual or perennial grasslands, desert, or scrubland, with available small mammal burrows.	Low Potential. Species known to occur within two miles of the project site.
California horned lark	/SSC	Coastal regions, chiefly from Sonoma County to San Diego County, also within the main part of the San Joaquin Valley and east to the foothills. Prefers short-grass prairie, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Unlikely. Suitable habitat not found at the project site.
California red-legged frog (Rana draytonii)	FT/SSC	Rivers, creeks, and stock ponds with pools and overhanging vegetation. Requires dense, shrubby or emergent riparian vegetation, and prefers short riffles and pools with slow-moving, well-oxygenated water. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter.	Unlikely. Suitable habitat not found at the project site.
California tiger salamander (Ambystoma californiense)	FT/ST	Grasslands and oak woodlands near seasonal pools and stock ponds in central and coastal California. Needs upland habitat to aestivate (remain dormant during dry	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
		months) in small mammal burrows, cracks in the soil, or moist leaf litter. Requires seasonal water sources that persist into late March for breeding habitat.	
Coast horned lizard (Phrynosoma blainvillii)	/SSC	Arid grassland and scrubland habitats; prefers lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burrowing, and abundant supply of ants and other insects for feeding.	Unlikely. Suitable habitat not found at the project site.
Coast Range newt (Taricha torosa)	/SSC	Coastal drainages; lives in terrestrial habitats and can migrate over 1 km to breed in ponds, reservoirs, and slow-moving streams.	Unlikely. Suitable habitat not found at the project site.
Cooper's hawk	/SSC	Oak or riparian woodlands.	Unlikely. Suitable habitat not found at the project site.
Crotch bumble bee (Bombus crotchii)	/SC	Coastal California east to the Sierra-Cascade Crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Unlikely. Suitable habitat not found at the project site.
Foothill yellow-legged frog (Rana boylii)	/SC	Partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats. Requires at least some cobble-sized substrate for egg-laying and 15 weeks of available water to attain metamorphosis.	Unlikely. Suitable habitat not found at the project site.
Golden eagle (Aquila chrysaetos)	/SFP	Rolling foothill mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range. Also uses large trees in open areas.	Unlikely. Suitable habitat not found at the project site.
Monterey dusky-footed woodrat (Neotoma macrotis luciana)	/SSC	Forest habitats of moderate canopy and moderate to dense understory. Also chaparral habitats. Nests constructed of grass, leaves, sticks, feathers, etc. Population may be limited by availability of nest materials.	Unlikely. Suitable habitat not found at the project site.
Northern California legless lizard (Anniella pulchra)	/SSC	Sandy or loose loamy soils under sparse vegetation, in moist soils. <i>Anniella pulchra</i> is traditionally split into two subspecies: <i>A. pulchra pulchra</i> (silvery legless lizard) and <i>A. pulchra nigra</i> (black legless lizard), but these subspecies are typically no longer recognized.	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Pallid bat (Antrozous pallidus)	/SSC	Deserts, grasslands, scrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures.	Unlikely. Suitable habitat not found at the project site.
Salinas pocket mouse (Perognathus inornatus psammophilus)	/SSC	Annual grassland and desert shrub communities in the Salinas Valley. Prefers fine-textured, sandy, friable soils. Burrows for cover and nesting.	Unlikely. Suitable habitat not found at the project site.
San Joaquin coachwhip (Masticophis flagellum ruddocki)	/SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Requires mammal burrows for refuge and oviposition (egg-laying).	Unlikely. Suitable habitat not found at the project site.
San Joaquin kit fox (Vulpes macrotis mutica)	FE/ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	Unlikely. Project site is isolated from known occupied habitat.
Swainson's hawk (Buteo swainsoni)	/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands or agricultural fields supporting rodent populations.	Unlikely. Suitable habitat not found at the project site.
Townsend's big-eared bat (Corynorhinus townsendii)	/SSC	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Unlikely. Suitable habitat not found at the project site.
Tricolored blackbird (Agelaius tricolor)	/ST	Areas adjacent to open water with protected nesting substrate, which typically consists of dense, emergent freshwater marsh vegetation.	Unlikely. Suitable habitat not found at the project site.
Western mastiff bat (Eumops perotis californicus)	/SSC	Many open, semi-arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Unlikely. Suitable habitat not found at the project site.
Western pond turtle (Emys marmorata)	/SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites (such as rocks or partially submerged logs) and suitable upland habitat for egg-laying (sandy banks or grassy open fields).	Unlikely. Suitable habitat not found at the project site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Western spadefoot (Spea hammondii)	/SSC	Occurs primarily in grassland habitats, but can be found in valley foothill hardwood woodlands. Breeds in winter and spring (January - May) in quiet streams and temporary pools.	Unlikely. Suitable habitat not found at the project site.
Western yellow-billed cuckoo (Coccyzus americanus occidentalis)	FT/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Unlikely. Suitable habitat not found at the project site.
Yellow rail (Coturnicops noveboracensis)	/SSC	Summer resident in eastern Sierra Nevadas; prefers freshwater marshlands.	Unlikely. Suitable habitat not found at the project site.
Yellow-breasted chat (Icteria virens)	/SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian habitat, consisting of willow, blackberry, and wild grape. Forages and nests within 10 ft of ground.	Unlikely. Suitable habitat not found at the project site.

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