

CITY OF ORLAND

GLENN COUNTY, CALIFORNIA

2016 SEWER POND IMPROVEMENT PROJECT

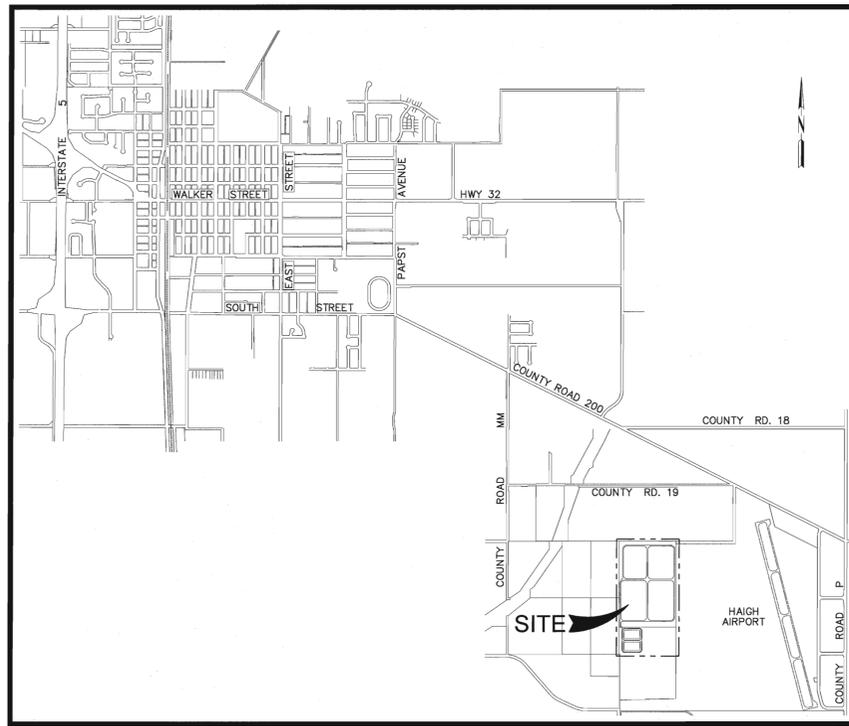
NOVEMBER, 2016

CITY COUNCIL

BRUCE T. ROUNDY, MAYOR
 DENNIS G. HOFFMAN, VICE MAYOR
 SALINA J. EDWARDS
 CHARLES GEE
 JAMES E. PASCHALL SR.

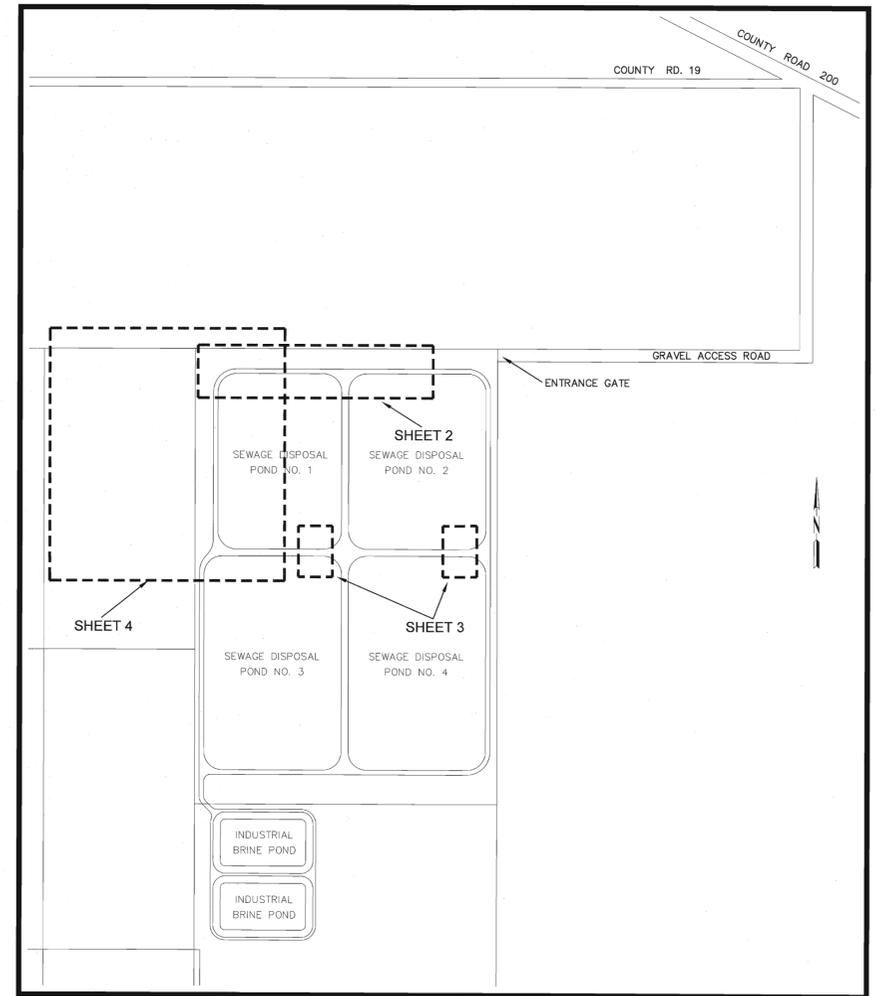
PUBLIC WORKS DIRECTOR

ED VONASEK



LOCATION MAP

NO SCALE



SITE LOCATION MAP

NO SCALE

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE PROJECT PLANS, SPECIFICATIONS AND THE CITY OF ORLAND IMPROVEMENT STANDARDS. WHERE THE PLANS AND SPECIFICATIONS DO NOT AGREE WITH THE CITY OF ORLAND IMPROVEMENT STANDARDS, THE PLANS AND SPECIFICATIONS SHALL GOVERN.
2. THE LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA NORTH) AT 811 AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ANY MONUMENTS DISTURBED, DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER LICENSED TO PERFORM LAND SURVEYING AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL APPLY EITHER WATER OR DUST PALLIATIVE OR BOTH FOR THE ALLEVIATION OF DUST NUISANCE AS DIRECTED BY THE ENGINEER.
5. THE CITY MAY TEST COMPACTION AT ANY LOCATION IN AREAS TO BE COMPACTED. THE CONTRACTOR SHALL PAY THE COST OF ALL FAILED TESTS.
6. THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR AT (530) 895-1422 AT LEAST 48 HOURS PRIOR TO BEGINNING OR RESUMING WORK, TRENCHING OR BACKFILLING OPERATIONS, AND CONCRETE PLACEMENT.
7. THE CONTRACTOR SHALL COORDINATE ALL WORK ON THIS PROJECT WITH THE PUBLIC WORKS SUPERVISOR AT (530) 865-1610. IN CASE OF EMERGENCY, THE CONTRACTOR SHALL NOTIFY THE CITY OF ORLAND POLICE DEPARTMENT OFFICE (911).
8. LOW OVERHEAD POWER AND TELEPHONE FACILITIES EXIST ADJACENT TO THE PROJECT WORK AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID THE OVERHEAD FACILITIES, AND SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED FACILITIES.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND IMPROVEMENTS WITHIN AND ADJACENT TO THE PROJECT AREA. ANY EXISTING UTILITIES OR IMPROVEMENTS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

APPROVED BY OR UNDER
 THE SUPERVISION OF:

Kenneth G. Skillman III

KENNETH G. SKILLMAN III, RCE 45328

CITY ENGINEER

REGISTRATION EXPIRES: 9-30-18

DATE: 11-07-2016



SHEET INDEX

- | | |
|---|---|
| 1 | TITLE SHEET |
| 2 | PONDS 1 & 2 SEWER MAIN PLAN AND PROFILE |
| 3 | PONDS 3 & 4 PLAN AND STRUCTURE DETAILS |
| 4 | MONITORING WELL PLAN AND DETAIL |

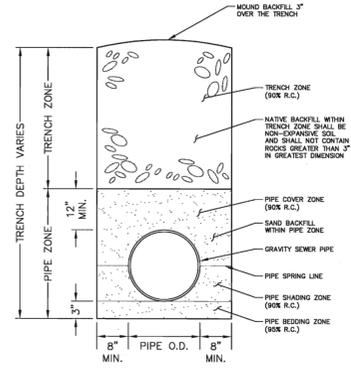
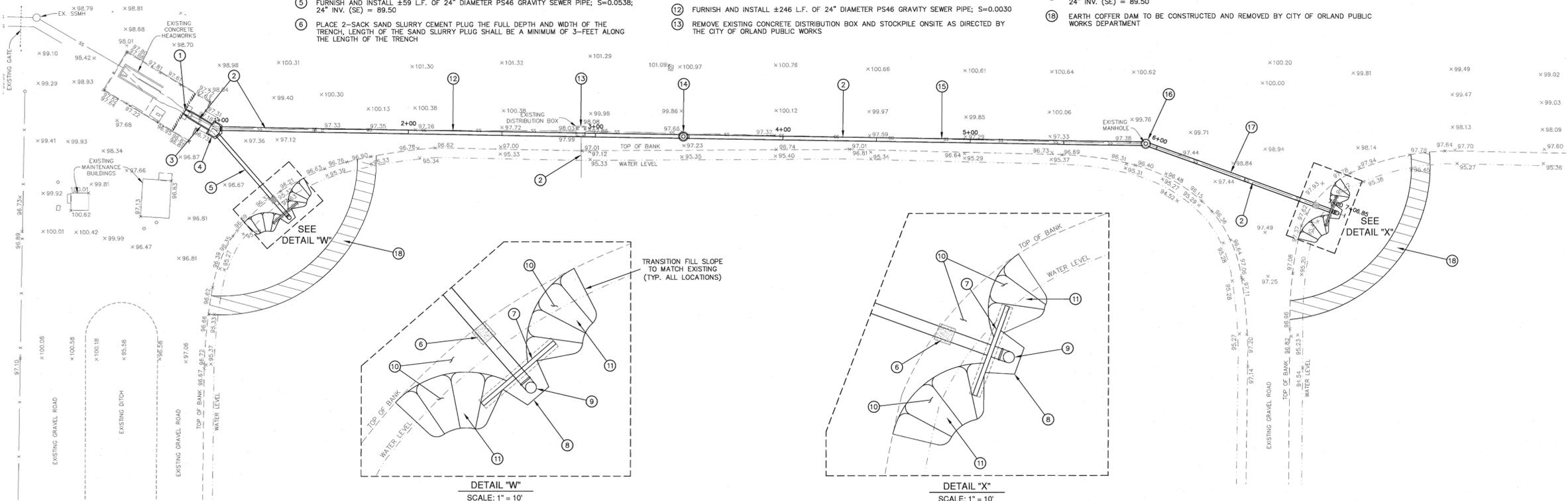
CITY OF ORLAND - 2016 SEWER POND IMPROVEMENT PROJECT

CONSTRUCTION NOTES

- 1 SAWCUT EXISTING CONCRETE CHANNEL, REMOVE EXISTING CONCRETE CHANNEL AND STOCKPILE ONSITE AS DIRECTED BY THE CITY OF ORLAND PUBLIC WORKS. EXISTING CONCRETE FLATWORK AND CHAINLINK FENCE AROUND HEADWORKS TO BE SAWCUT AND REMOVED BY THE CITY OF ORLAND PUBLIC WORKS
- 2 REMOVE EXISTING 24" DIAMETER CONCRETE PIPE AND STOCKPILE ONSITE AS DIRECTED BY THE CITY OF ORLAND PUBLIC WORKS; ±637 L.F. TOTAL THIS DRAWING
- 3 FURNISH AND INSTALL PRECAST CONCRETE CHANNEL PER DETAIL "A" ON DRAWING 3
- 4 FURNISH AND INSTALL PRECAST CONCRETE DIVERSION BOX PER DETAIL "A" ON DRAWING 3
- 5 FURNISH AND INSTALL ±59 L.F. OF 24" DIAMETER PS46 GRAVITY SEWER PIPE; S=0.0538; 24" INV. (SE) = 89.50
- 6 PLACE 2-SACK SAND SLURRY CEMENT PLUG THE FULL DEPTH AND WIDTH OF THE TRENCH. LENGTH OF THE SAND SLURRY PLUG SHALL BE A MINIMUM OF 3-FEET ALONG THE LENGTH OF THE TRENCH
- 7 FURNISH AND INSTALL CALTRANS STANDARD PLAN D89 PRECAST CONCRETE STRAIGHT HEADWALL PER DETAIL "B" ON DRAWING 3
- 8 FURNISH AND INSTALL 14-INCH THICK CONCRETE PAD PER DETAIL "B" ON DRAWING 3
- 9 FURNISH AND INSTALL 24-INCH DIAMETER 90 DEG. ELBOW TURNED UPWARD
- 10 BACKFILL WITH NATIVE MATERIAL COMPACTED TO 95% RELATIVE COMPACTION; GRADE EMBANKMENT SLOPES AT 1½:1
- 11 FURNISH AND INSTALL ROCK SLOPE PROTECTION AT A DEPTH OF 5-INCHES ON ALL NATIVE BACKFILLED SLOPES
- 12 FURNISH AND INSTALL ±246 L.F. OF 24" DIAMETER PS46 GRAVITY SEWER PIPE; S=0.0030
- 13 REMOVE EXISTING CONCRETE DISTRIBUTION BOX AND STOCKPILE ONSITE AS DIRECTED BY THE CITY OF ORLAND PUBLIC WORKS
- 14 FURNISH AND INSTALL CITY OF ORLAND STD. DETAIL 406 60-INCH DIAMETER MANHOLE WITH T-LOCK LINER; STA. 3+46.72; RIM = 98.00; 24" INV. (W) = 91.80; 24" INV. (E) = 91.80
- 15 FURNISH AND INSTALL ±246 L.F. OF 24" PS46 GRAVITY SEWER PIPE; S=0.0030
- 16 REMOVE EXISTING SEWER MANHOLE AND STOCKPILE ONSITE AS DIRECTED BY THE CITY OF ORLAND PUBLIC WORKS, INSTALL NEW CITY OF ORLAND STD. DETAIL 406 60-INCH DIAMETER MANHOLE WITH T-LOCK LINER; STA. 5+93.74; RIM = 98.00; 24" INV. (W) = 91.06; 24" INV. (E) = 91.06
- 17 FURNISH AND INSTALL ±108 L.F. OF 24" PS46 GRAVITY SEWER PIPE; S=0.0143; 24" INV. (SE) = 89.50
- 18 EARTH COFFER DAM TO BE CONSTRUCTED AND REMOVED BY CITY OF ORLAND PUBLIC WORKS DEPARTMENT

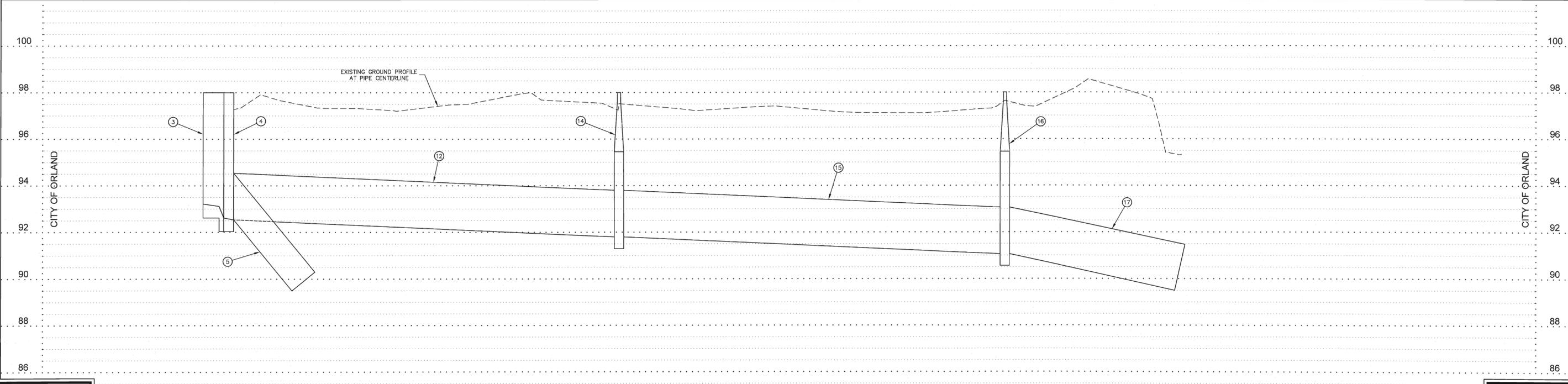
LEGEND

× 99.49	EXISTING GROUND ELEVATION
SS	EXISTING SEWER PIPE
---	EXISTING WATER LEVEL (5/13/16)
---	EXISTING TOP OF BANK
---	EXISTING FENCE
---	PROPOSED SAWCUT LINE
⊙	PROPOSED SEWER MANHOLE
---	PROPOSED SEWER PIPE



TYPICAL TRENCH SECTION DETAIL
NO SCALE

STATIONING	1+00	2+00	3+00	4+00	5+00	6+00	7+00	SCALE:
EX. GROUND ELEV.	97.27	97.39	97.06	97.50	97.23	97.53	98.51	HORIZ. 1" = 30'
(PIPE INV. ELEV.)	(92.54)	(92.39)	(92.24)	(92.09)	(91.79)	(90.97)	(89.55)	VERT. 1" = 2'



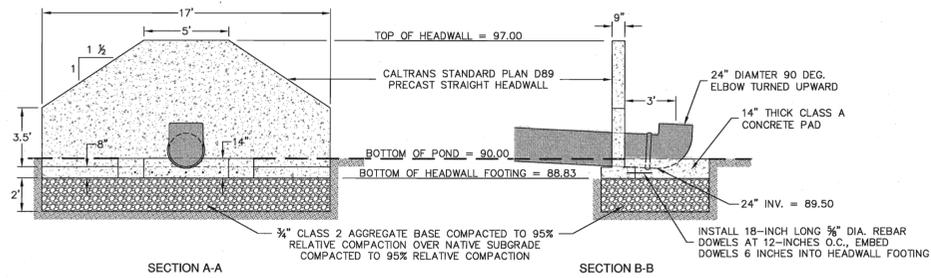
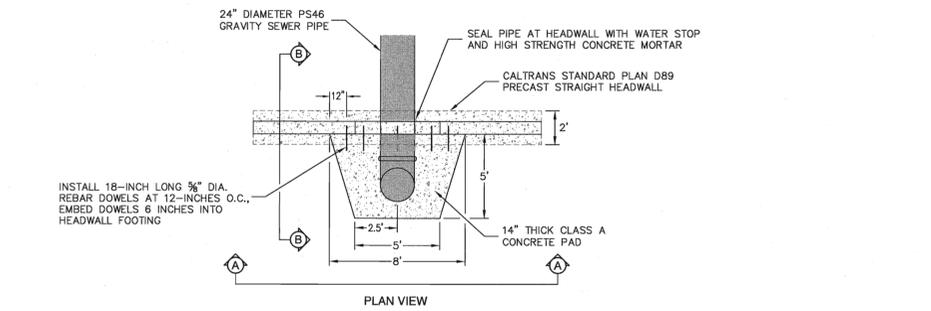
APPROVED
KGS 11-07-16
DATE
NOVEMBER, 2016

PREPARED FOR:
CITY OF ORLAND

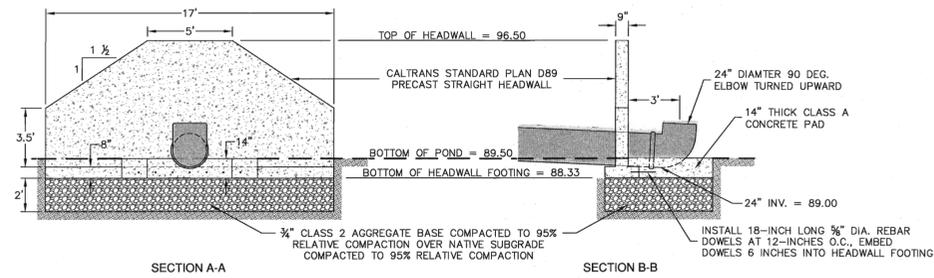
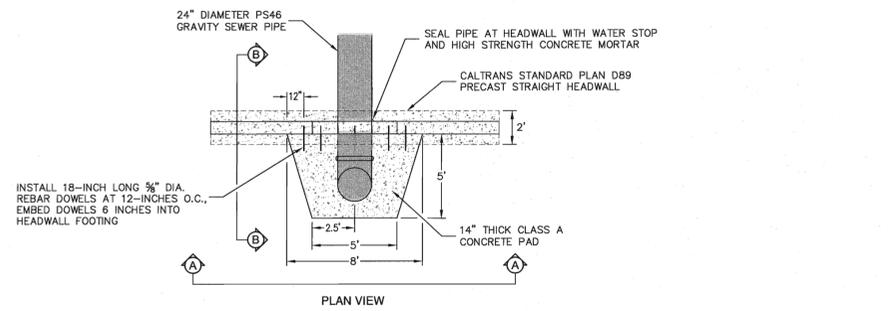
RAR
ROLLS ANDERSON & ROLLS
CIVIL ENGINEERS
115 YELLOWSTONE DRIVE • CHICO, CALIFORNIA 95973-5811 • TELEPHONE 530-895-1422

2015 SEWER TREATMENT PLANT IMPROVEMENT PROJECT
PONDS 1 & 2 SEWER MAIN PLAN AND PROFILE

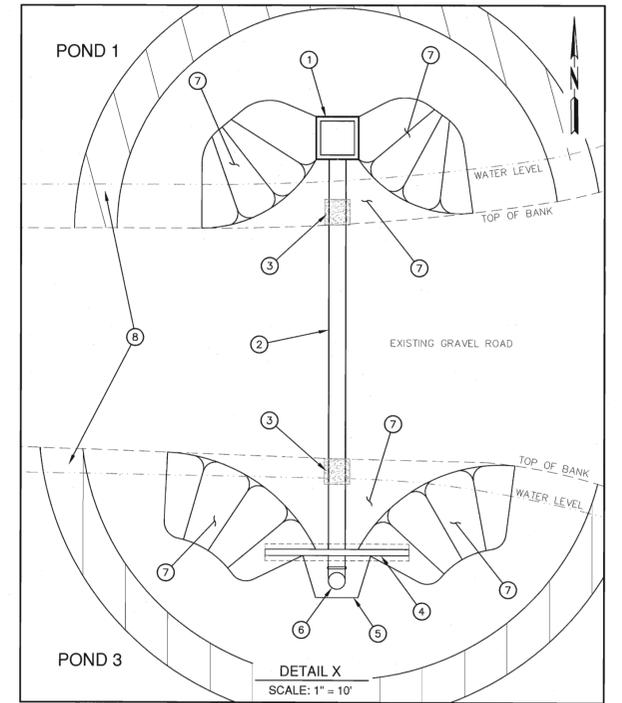
DESIGNED	JIR
DRAWN	CAD
CHECKED	KGS
DRAWING NO.	2 OF 4
JOB NO.	15015



DETAIL B
POND 1 & POND 2 INLET AND HEADWALL
SCALE: 1" = 5'

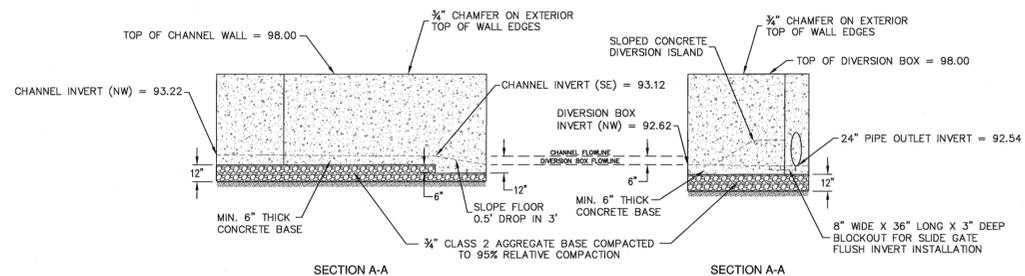
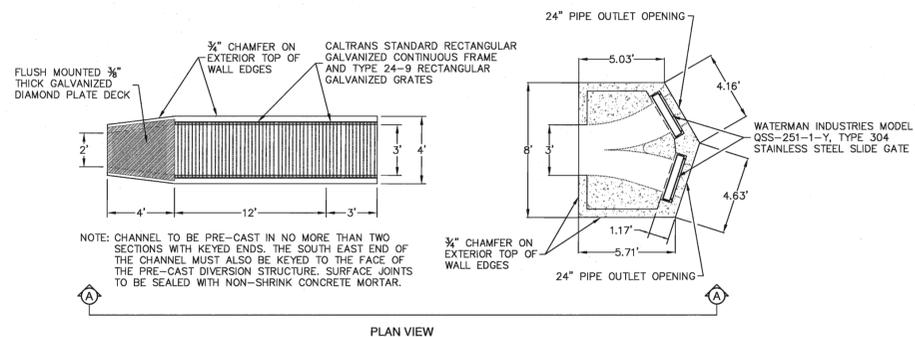


DETAIL C
POND 3 & POND 4 INLET AND HEADWALL
SCALE: 1" = 5'

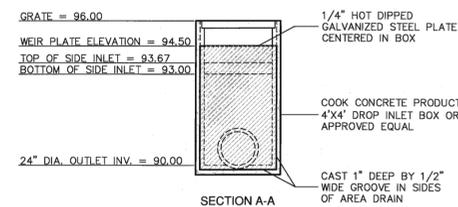
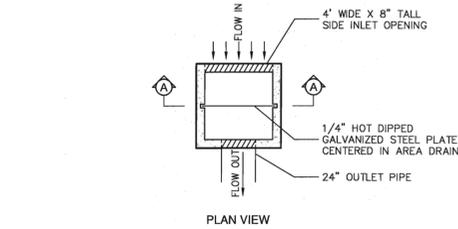


CONSTRUCTION NOTES

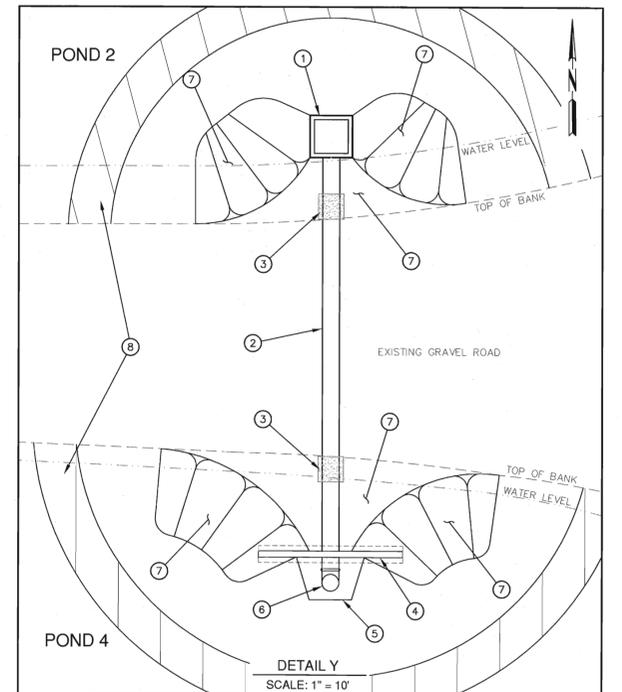
- FURNISH AND INSTALL DISCHARGE CONTROL STRUCTURE PER DETAIL "D" ON THIS DRAWING; 24" INV. = 90.00
- FURNISH AND INSTALL 24" DIAMETER PS46 GRAVITY SEWER PIPE, S=0.0100; ±100 L.F. TOTAL THIS DRAWING
- PLACE 2-SACK SAND SLURRY CEMENT PLUG THE FULL DEPTH AND WIDTH OF THE TRENCH, LENGTH OF THE SAND SLURRY PLUG SHALL BE A MINIMUM OF 3- FEET ALONG THE LENGTH OF THE TRENCH
- FURNISH AND INSTALL CALTRANS STANDARD PLAN D89 PRECAST CONCRETE STRAIGHT HEADWALL PER DETAIL "C" ON THIS DRAWING
- FURNISH AND INSTALL 14-INCH THICK CONCRETE PAD PER DETAIL "C" ON THIS DRAWING
- FURNISH AND INSTALL 24-INCH DIAMETER 90 DEG. ELBOW TURNED UPWARD PER DETAIL "C" ON THIS DRAWING; 24" INV. = 89.00
- BACKFILL WITH NATIVE MATERIAL COMPACTED TO 95% RELATIVE COMPACTION; GRADE EMBANKMENT SLOPES AT 1:1. FURNISH AND INSTALL ROCK SLOPE PROTECTION AT A DEPTH OF 5-INCHES ON ALL NATIVE BACKFILLED SLOPES
- EARTH COFFER DAM TO BE CONSTRUCTED AND REMOVED BY CITY OF ORLAND PUBLIC WORKS DEPARTMENT



DETAIL A
PRECAST CONCRETE CHANNEL & DIVERSION STRUCTURE
SCALE: 1" = 5'



DETAIL D
DISCHARGE CONTROL STRUCTURE
NO SCALE



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APPROVED
KGS 11-07-16
DATE NOVEMBER, 2016

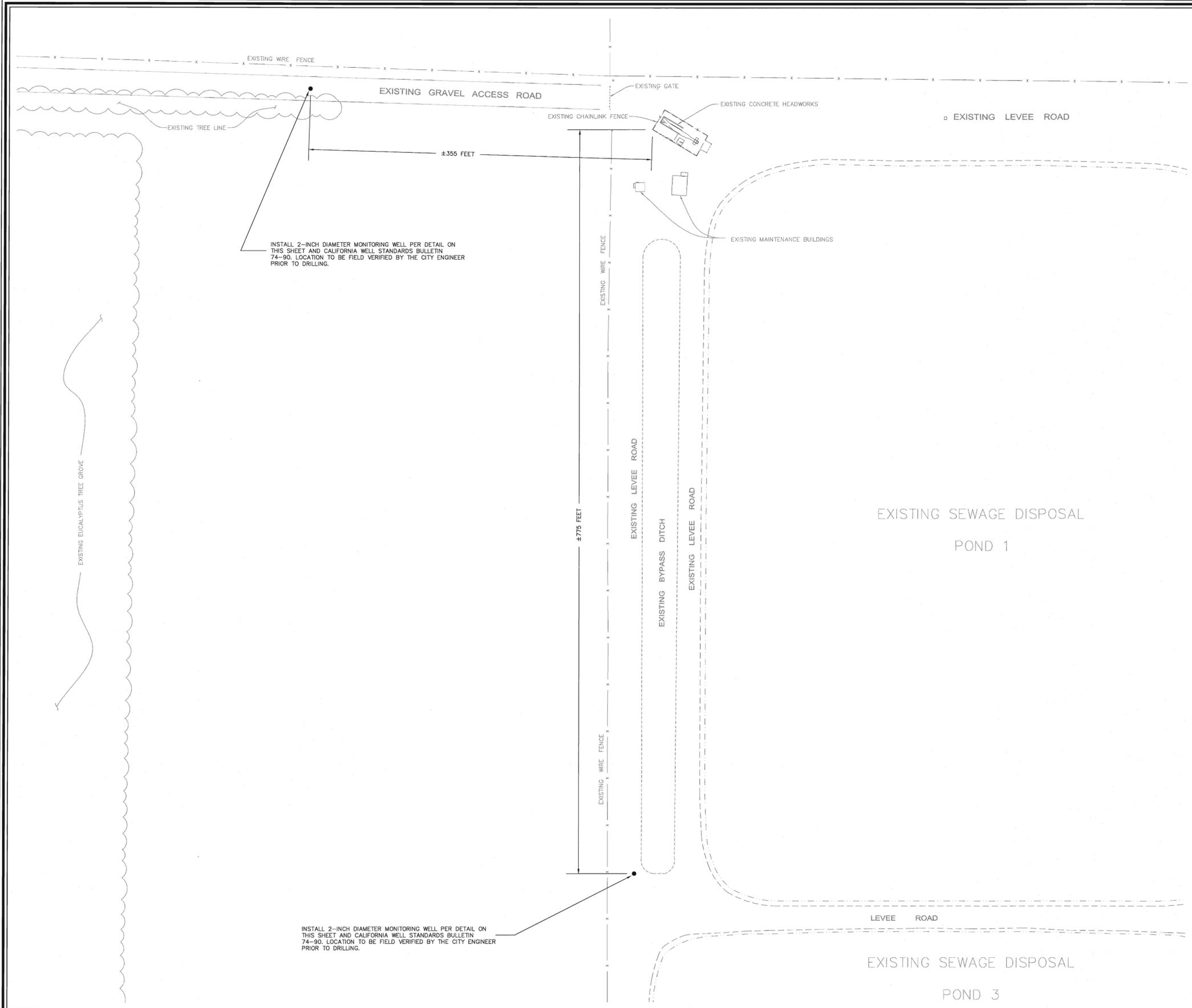
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CITY OF ORLAND



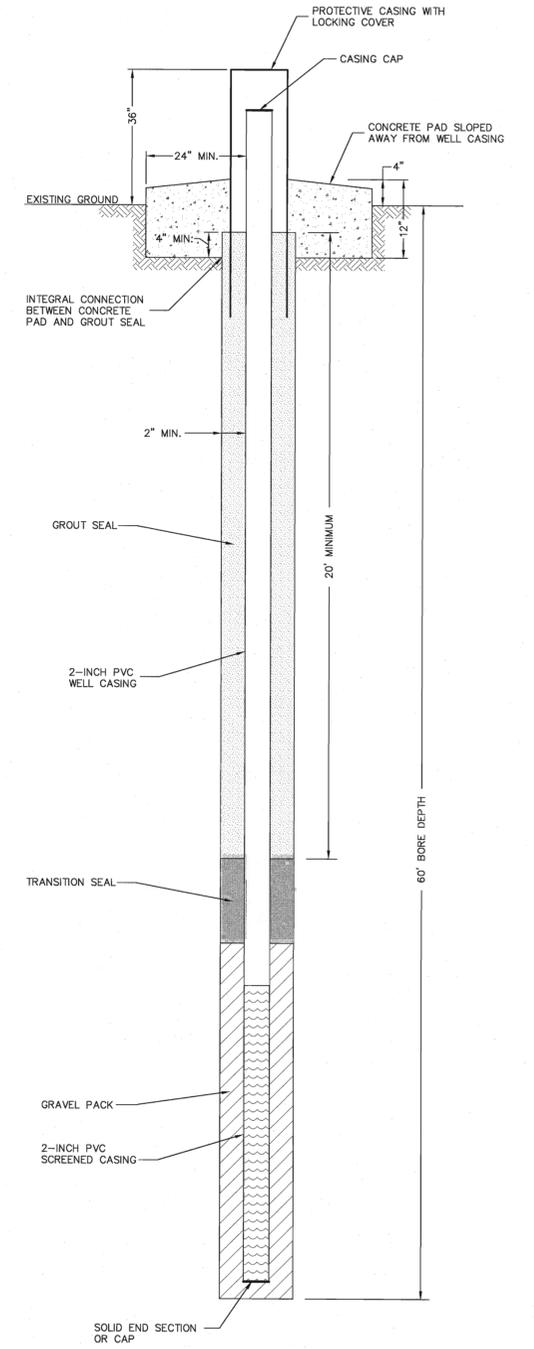
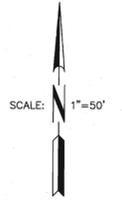
2015 SEWER TREATMENT PLANT IMPROVEMENT PROJECT
POND 3 & 4 PLAN AND STRUCTURE DETAILS

DESIGNED	JIR
DRAWN	CAD
CHECKED	KGS
DRAWING NO.	3 OF 4
JOB NO.	15015



INSTALL 2-INCH DIAMETER MONITORING WELL PER DETAIL ON THIS SHEET AND CALIFORNIA WELL STANDARDS BULLETIN 74-90. LOCATION TO BE FIELD VERIFIED BY THE CITY ENGINEER PRIOR TO DRILLING.

INSTALL 2-INCH DIAMETER MONITORING WELL PER DETAIL ON THIS SHEET AND CALIFORNIA WELL STANDARDS BULLETIN 74-90. LOCATION TO BE FIELD VERIFIED BY THE CITY ENGINEER PRIOR TO DRILLING.



NOTE: DETAIL SHOWN IS FOR THE CONSTRUCTION OF MONITORING WELLS OUTSIDE OF ROADWAYS.

MONITORING WELL SECTION
NO SCALE



APPROVED
K953 11-07-16
DATE
NOVEMBER, 2016

PREPARED FOR:
CITY OF ORLAND



2015 SEWER TREATMENT PLANT IMPROVEMENT PROJECT
MONITORING WELL PLAN AND DETAIL

DESIGNED	JIR
DRAWN	CAD
CHECKED	KGS
DRAWING NO.	4 OF 4
JOB NO.	15015