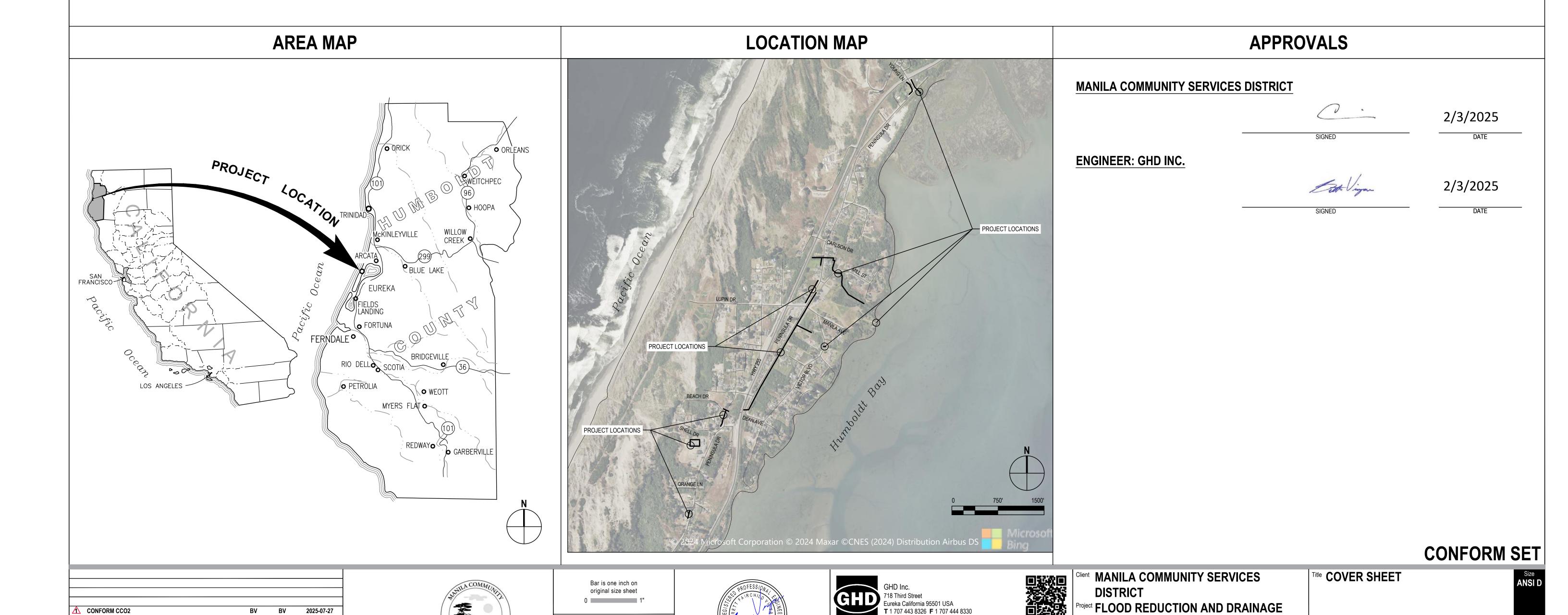
# MANILA COMMUNITY SERVICES DISTRICT FLOOD REDUCTION AND DRAINAGE ENHANCEMENT PROJECT

JULY 2025 GHD PROJECT NUMBER: 12572691



**ENHANCEMENT PROJECT** 

2025-02-01

**AS SHOWN** 

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2025-02-01

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Project Manager B. VIVYAN

0 BID SET

Author R. RIOS

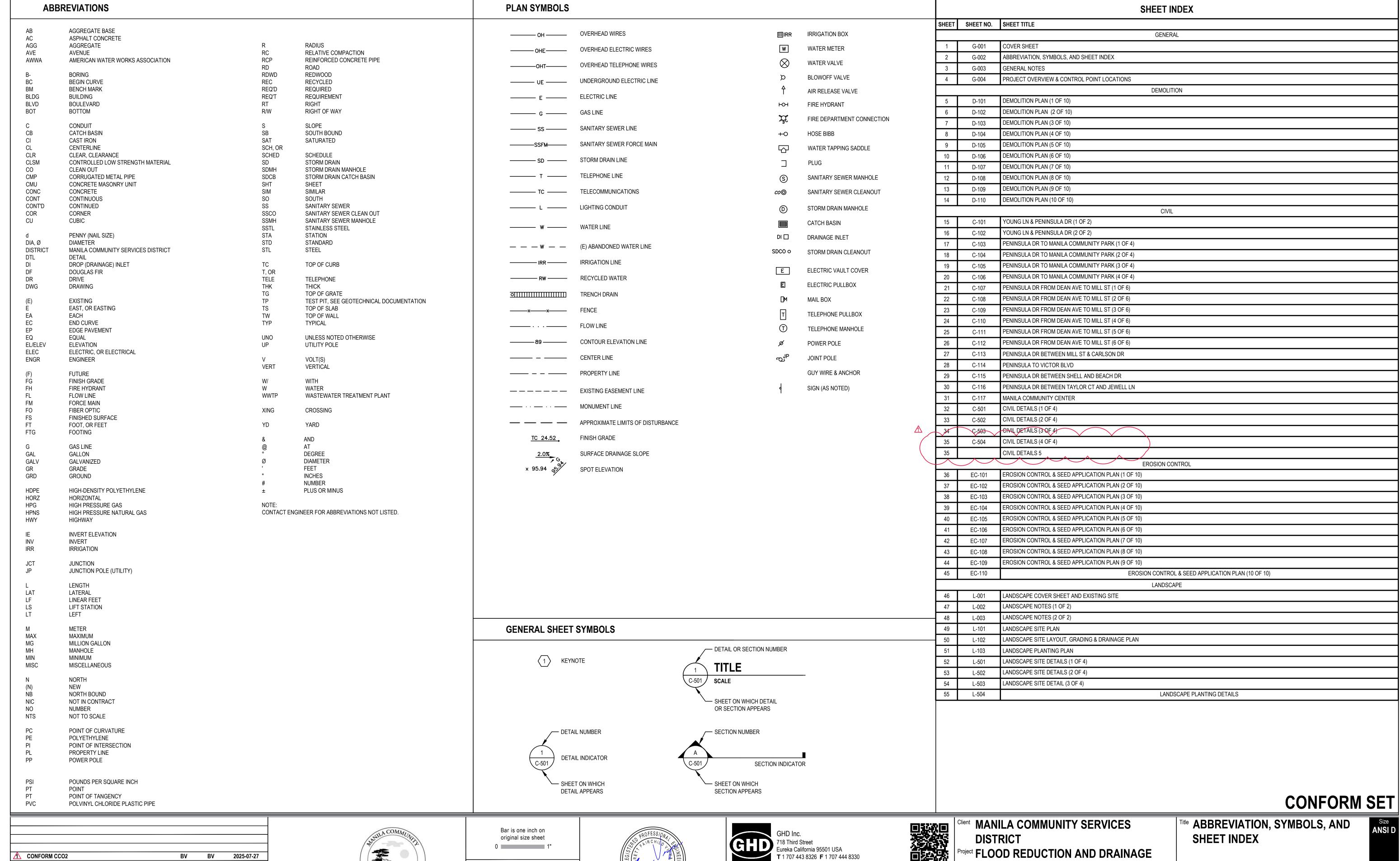
Designer R. RIOS

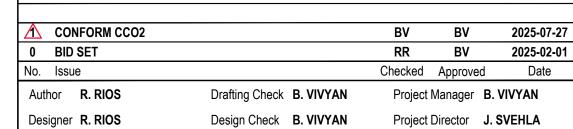
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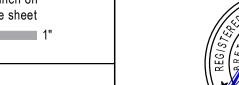
Design Check B. VIVYAN

Plotted By: Brett Vivyan















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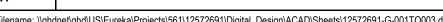
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MANIEA COMMONITI CERVICES
DISTRICT
Project FLOOD REDUCTION AND DRAINAGE
ENHANCEMENT PROJECT

2025-02-01

Scale

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### **GENERAL NOTES**

- 1. PROJECT REQUIRES A CLASS 'A' GENERAL ENGINEERING CONTRACTOR'S LICENSE IN THE STATE OF CALIFORNIA.
- 2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK AND REPORT ANY DISCREPANCIES TO THE DISTRICT. CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND BECOMING FAMILIAR WITH THE SITE CONDITIONS PRIOR TO BIDDING. SHOULD EXISTING CONDITIONS DIFFER FROM THOSE SHOWN OR INDICATED, OR IF IT APPEARS THAT THESE PLANS, AND SPECIFICATIONS DO NOT ADEQUATELY DETAIL THE WORK TO BE DONE, CONTRACTOR SHALL NOTIFY THE DISTRICT PRIOR TO CONTINUING WITH ANY RELATED WORK. NO ALLOWANCE WILL BE MADE ON CONTRACTOR'S BEHALF FOR ANY EXTRA EXPENSE RESULTING FROM FAILURE OR NEGLECT IN DETERMINING THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE.
- CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THAT NEW FEATURES TIE INTO EXISTING SITE DEVELOPMENT, PAVEMENT JOINTS MATCH CORRECTLY, AND THAT GENERAL DESIGN ELEVATIONS FOR NEW CONSTRUCTION PROVIDE PROPER PAVEMENT AND DRAINAGE SLOPES FROM EXISTING TIE IN POINTS. REPORT DISCREPANCIES TO DISTRICT PRIOR TO CONSTRUCTION.
- 4. QUANTITIES OF ITEMS, LENGTH OF PROJECT, AND SITE CONDITIONS SHOWN IN THE PLANS ARE APPROXIMATE, ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- 5. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- 6. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING STRUCTURES, ROADS, AND UTILITIES DURING CONSTRUCTION. ALL DAMAGE SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
- 7. A SET OF SIGNED WORKING DRAWINGS AND A SET OF SPECIFICATIONS WILL BE KEPT AT ALL TIMES AT THE JOB SITE ON WHICH ALL CHANGES OR VARIATIONS IN THE WORK, INCLUDING ALL EXISTING UTILITIES, ARE TO BE RECORDED AND/OR CORRECTED DAILY AND SUBMITTED TO THE DISTRICT WHEN THE WORK TO BE DONE IS COMPLETED.
- 8. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT TEMPORARY BARRIERS TO PROVIDE FOR THE SAFETY OF THE STAFF AND PUBLIC TO THE SATISFACTION OF THE DISTRICT.
- 8. CONTRACTOR TO MAINTAIN TRAFFIC (VEHICULAR AND PEDESTRIAN) ACCESS TO ALL AREAS OF PUBLIC RIGHT-OF-WAY AT ALL TIMES. CONTRACTOR TO COORDINATE ANY PROPOSED SHUT DOWNS WITH OWNER.
- 9. CONTRACTOR SHALL NOTIFY THE DISTRICT AT LEAST 72 HOURS IN ADVANCE OF COMMENCEMENT OF ANY PART OF THE WORK AND SHALL COORDINATE CONSTRUCTION SCHEDULE ACCORDINGLY.
- 10. UNSUITABLE EXCAVATED MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A MANNER CONSISTENT WITH APPLICABLE REGULATIONS. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY AND EXPENSE FOR PROPER DISPOSAL OF UNSUITABLE MATERIALS TAKEN FROM SITE.
- 11. THE DESIGN FEATURES INCLUDING HORIZONTAL AND VERTICAL ALIGNMENTS, TYPICAL SECTIONS, APPROACHES, AND OTHER DESIGN DETAILS SHOWN ON THESE DESIGN PLANS SHALL NOT BE ALTERED OR MODIFIED IN ANY WAY DURING CONSTRUCTION WITHOUT THE EXPRESSED, WRITTEN DIRECTION AND APPROVAL OF THE DISTRICT. DRAINAGE STRUCTURES SHALL BE INSTALLED AS SHOWN ON THE PLANS WITH ONLY MINOR CORRECTIONS IN LOCATION, SKEW, AND/OR ELEVATIONS AS NEEDED TO FIT FIELD CONDITIONS AS DETERMINED BY THE DISTRICT.
- 12. THE CONTRACTOR SHALL READ AND MAKE CAREFUL EXAMINATION OF THE PLANS, SPECIFICATIONS, QUANTITIES AND MATERIAL ESTIMATES AND VISIT THE SITE OF THE PROPOSED CONSTRUCTION TO BECOME FAMILIAR WITH THE SITE CONDITIONS AND LIMITATIONS BEFORE MAKING A BID. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ERRORS RESULTING FROM THE FAILURE TO MAKE SUCH AN EXAMINATION. ANY INFORMATION DERIVED FROM THE MAPS, PLANS, SPECIFICATIONS, PROFILES, DRAWINGS OR FROM THE DISTRICT WILL NOT RELIEVE THE CONTRACTOR FROM ANY RISK OR FROM FULFILLING THE TERMS OF THE CONTRACT.
- 13. NO WORK SHALL BE PERFORMED OUTSIDE OF THE DESIGNATED LIMITS OF WORK WITHOUT THE APPROVAL OF THE DISTRICT.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING STAGING AREAS WITH THE DISTRICT.
- 15. UPON COMPLETION OF THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL. ALL DAMAGE CAUSED BY THE CONTRACTOR SHALL BE RESTORED TO AN "AS GOOD OR
- 16. THE CONTRACTOR SHALL BE REQUIRED TO SAWCUT OR GRIND THE EXISTING ASPHALT PAVEMENT WHERE NEW ASPHALT IS TO TIE INTO THE OLD ASPHALT PAVEMENT. THE CONTRACTOR SHALL BE REQUIRED TO TAPER THE NEW ASPHALT CONCRETE SURFACING TO MATCH THE EXISTING PAVEMENT SECTION AT TIE-IN POINTS AND TO PROVIDE FOR A SMOOTH TRANSITION AS DIRECTED BY THE DISTRICTS PROJECT MANAGER.
- 17. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL PROTECT EXISTING SURVEY MONUMENTS WITHIN WORK LIMITS. ANY MONUMENT DAMAGED BY THE CONTRACTOR SHALL BE RESET IN ACCORDANCE WITH THE CALIFORNIA PROFESSIONAL
- 18. WHENEVER ANY MATERIAL OR EQUIPMENT IS INDICATED OR SPECIFIED BY PATENT OR PROPRIETARY NAME OR BY THE NAME OF THE MANUFACTURER. SUCH SPECIFICATION SHALL BE CONSIDERED AS USED FOR DESCRIBING THE MATERIAL OR EQUIPMENT DESIRED AND SHALL BE CONSIDERED AS USED FOR DESCRIBING THE MATERIAL OR EQUIPMENT DESIRED AND SHALL BE CONSIDERED AS FOLLOWED BY THE WORDS "OR APPROVED EQUAL". THE CONTRACTOR MAY OFFER ANY MATERIAL OR EQUIPMENT WHICH SHALL BE EQUAL IN EVERY RESPECT TO THAT SPECIFIED, PROVIDED THAT WRITTEN APPROVAL FIRST IS OBTAINED FROM THE DISTRICT.

### TRAFFIC CONTROL NOTES

- 1. THE CONTRACTOR SHALL PREPARE A DETAILED TRAFFIC CONTROL PLAN FOR ALL WORK AREAS, AND SHALL SUBMIT THE PLAN TO THE OWNER FOR APPROVAL AT THE PRECONSTRUCTION MEETING. THE TRAFFIC CONTROL PLAN SHALL COMPLY WITH ALL REQUIRED PERMITS AND OTHER GUIDELINES LISTED ON THESE PLANS AND IN THE SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL KEEP ONE LANE OF TRAFFIC OPEN THROUGH THE WORK AREA AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE OWNER. CONTRACTOR SHALL CLEARLY SHOW ON THE TRAFFIC CONTROL PLAN HOW THEY INTEND TO POSITION FLAGGERS, SIGNS, AND OTHER REQUIRED TRAFFIC CONTROL DEVICES THROUGHOUT THE WORK AREA DURING ALL PHASES OF CONSTRUCTION.
- 3. THE CONTRACTOR SHALL COORDINATE WITH ALL BUSINESSES POTENTIALLY AFFECTED BY CONTRACTOR'S CONSTRUCTION PLANS. TRAFFIC CONTROL PLAN SHALL SHOW HOW ACCESS TO BUSINESSES WILL BE MAINTAINED THROUGHOUT THE

### **GRADING NOTES**

AREAS DURING CONSTRUCTION.

- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND SHALL ARRANGE FOR STAKING BY A SURVEYOR LICENSED BY THE STATE OF CALIFORNIA. STAKING WILL BE REVIEWED BY DISTRICT'S PROJECT MANAGER FOR CONFIRMATION TO DESIGN PRIOR TO CONSTRUCTION.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL SURVEY DATA. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING RIGHT- OF-WAY LINES, SLOPE EASEMENTS, AND ALL HORIZONTAL AND VERTICAL CONTROL PRIOR TO
- ALL GRADES BETWEEN SPOT ELEVATIONS SHALL HAVE UNIFORM SLOPE UNLESS OTHERWISE INDICATED. MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING WALLS AND DOORS.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL CONSTRUCTION, ADEQUATE SHORING BRACING, TIES, AND SUPPORTS SHALL BE USED TO PROVIDE PROPER TEMPORARY INTEGRITY DURING ALL PHASES OF CONSTRUCTION.
- 5. ALL EXISTING LANDSCAPED AND UNPAVED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE HAND RAKED SMOOTH, LANDSCAPED, AND RETURNED TO ORIGINAL EXISTING CONDITIONS.
- 6. ALL DITCHES, SWALES, GUTTERS, ETC. SHOULD BE CONSIDERED ACTIVE STORM CONVEYANCES UNLESS OTHERWISE INDICATED. CONTRACTOR IS RESPONSIBLE FOR ADDRESSING STORM WATER DRAINAGE AND DEWATERING OF WORK
- 7. THE CONTRACTOR SHALL BE AWARE OF THE SOFT AND SATURATED SOIL CONDITION THAT MAY BE ENCOUNTERED DURING CONSTRUCTION.
- 8. DURING WET WEATHER PERIODS, CONTRACTOR IS RESPONSIBLE FOR SEQUENCING CONSTRUCTION IN A MANNER TO MINIMIZE IMPACT ON OPEN EARTHWORK AND COMPACTION OPERATIONS.
- COMPLETELY COVER ANY SOIL STOCKPILES WITH 6 MIL BLACK PLASTIC AND PROVIDE RESTRAINTS TO HOLD PLASTIC IN PLACE, MONITOR PLASTIC COVER AS PART OF CONTINUOUS EROSION CONTROL PLAN, PLACE SILT FENCE COMPLETELY AROUND STOCKPILE. ALL STAKING/STOCKPILE AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE RETURNED TO EXISTING CONDITIONS OR BETTER.
- 10. ALL CONSTRUCTION SITES AND HAUL ROADS SHALL MAINTAINED, AS NECESSARY, TO MINIMIZE THE EMISSION OF DUST AND PREVENT CREATION OF NUISANCE TO ADJACENT PROPERTIES

### **UTILITY NOTES**

- 1. LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE PLOTTED FROM RECORD DRAWINGS, LOCATION MARK-UP, AND INTERPOLATION OF PHYSICAL EVIDENCE ON THE SITE AND ARE SUBJECT TO FIELD VERIFICATION BY THE CONTRACTOR.
- 2. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION UNDER THIS SECTION OR ANY OTHER SECTION.
- 3. THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, OR FITTING REQUIRED TO COMPLETE THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND WORKING SYSTEM.
- CONTRACTOR SHALL COORDINATE A UTILITY LOCATE AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION FOR LOCATION MARK-UP OF ALL EXISTING UTILITIES. INFORM DISTRICT IMMEDIATELY IF LOCATE INDICATES THAT EXISTING UTILITIES ARE DIFFERENT THAN SHOWN ON DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES. FEATURES. AND STRUCTURES LOCATED ON THE SITE. LOCATE, PROTECT, AND AVOID DISRUPTION OF ALL ABOVE AND BELOW GRADE UTILITIES DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EQUAL OR BETTER THAN THE EXISTING CONDITION AT CONTRACTORS SOLE
- 6. ALL UTILITY CONSTRUCTION SHALL CONFORM TO CITY STANDARDS, AND CURRENT CALIFORNIA CODES.
- ALL BURIED LINES TO HAVE 12 INCHES MINIMUM COVER, UNLESS NOTED OTHERWISE.
- ALL EXISTING UTILITIES AND TIE-IN POINTS SHOULD BE CONSIDERED ACTIVE UTILITIES UNLESS OTHERWISE INDICATED.
- 9. CONFIRM ALL UTILITY APPURTENANCES WITH DISTRICT.
- 10. CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTDOWNS WITH THE DISTRICT. NOTICE SHALL BE IN WRITING AND SENT TO THE DISTRICT A MINIMUM OF TWO WEEKS IN ADVANCE OF PROPOSED SHUTDOWN.

### **SURVEY NOTES**

- THE TOPOGRAPHIC SURVEY DATA WAS COLLECTED WITH A 32-LASER MOBILE AND MAPPING SYSTEM WITH AN INTEGRATED IMU/GNSS. INERTIAL EXPLORER SOFTWARE WAS USED TO POST PROCESS AND MAXIMIZE THE ACCURACY OF THE ON BOARD GNSS/INS HARDWARE TO ENSURE ACCURATE POSITION, VELOCITY AND ELEVATION OF THE LIDAR DATA. LIDAR CORRECTED TO 10 GROUND CONTROL POINTS THROUGHOUT THE PROJECT AREA.
- AERIAL LIDAR DATA HAS A POINT DENSITY OF APPROXIMATELY 300 POINTS PER SQUARE METER.
- VESSEL: GHD DJI MATRICE 600 DATE OF SURVEY: MAY 18, 2022
- PART 107 CERTIFICATE NUMBER: 3975687
- A DIGITAL SURFACE WAS GENERATED FROM THE POINT CLOUD IN VIRTUAL SURVEYOR DRAFTING SOFTWARE.
- HORIZONTAL COORDINATES IN DRAWINGS ARE REFERENCED TO THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, ZONE I, TRANSVERSE MERCATOR PROJECTION, NORTH AMERICAN DATUM OF 1983 (NAD83), COORDINATES IN SURVEY FEET.
- 3. VERTICAL COORDINATES IN DRAWGINS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 4. DIGITAL SURFACE CHECK POINT STATISTICS: MIN ERROR: -0.30 FT MAX ERROR: 0.30 FT AVERAGE ERROR: 0.05 FT RMSE: 0.10 FT
- 5. TOPOGRAPHIC BACKGROUND IS NOT A PRODUCT OF SURVEY.
- 6. AERIAL IMAGERY BASE MAP FROM CITY OF EUREKA, 2019. PROVIDED FOR REFERENCE ONLY

### WATER POLLUTION CONTROL NOTES

- 1. AT A MINIMUM, THE CONTRACTOR SHALL EMPLOY THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS) AS DESCRIBED IN THE CURRENT CALIFORNIA STORMWATER BMP HANDBOOK FOR CONSTRUCTION (WWW.CASQA.ORG):
  - SCHEDULING
  - SILT FENCE SE-1
  - SE-5 FIBER ROLLS

TO EROSION DURING RAIN EVENTS.

- SE-7 STREET SWEEPING AND VACUUMING
- SE-10 STORM DRAIN INLET PROTECTION
- WE-1 WIND EROSION CONTROL NS-3 PAVING AND GRINDING OPERATIONS
- NS-9 VEHICLE EQUIPMENT AND FUELING
- NS-10 VEHICLE & EQUIPMENT MAINTENANCE WM-1
- MATERIALS DELIVERY AND STORAGE WM-2 MATERIAL USE
- WM-3 STOCKPILE MANAGEMENT
- WM-4 SPILL PREVENTION AND CONTROL
- SOLID WASTE MANAGEMENT WM-5
- WM-8 CONCRETE WASTE MANAGEMENT SANITARY/SEPTIC WASTE MANAGEMENT WM-9
- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MINIMIZE EROSION AND PREVENT THE TRANSPORT OF SEDIMENT TO
- SENSITIVE AREAS. 3. SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES TO DEAL WITH AREAS SUSCEPTIBLE
- 4. MINIMIZE DISTURBANCE OF EXISTING VEGETATION TO THAT NECESSARY TO COMPLETE THE WORK.
- 5. THE CONTRACTOR SHALL MAKE ADEQUATE PREPARATIONS, INCLUDING TRAINING & EQUIPMENT, TO CONTAIN SPILLS OF OIL AND OTHER HAZARDOUS MATERIALS.
- 6. ACTIVITIES SUCH AS VEHICLE WASHING ARE TO BE CARRIED OUT AT AN OFF-SITE FACILITY WHEREIN THE WATER IS DISCHARGED INTO A SANITARY SEWER.
- THE CONTRACTOR SHALL PROVIDE COVERED WASTE RECEPTACLE FOR COMMON SOLID WASTES AT CONVENIENT LOCATIONS ON THE JOB SITE AND PROVIDE REGULAR COLLECTION OF WASTES.
- THE CONTRACTOR SHALL PROVIDE SANITARY FACILITIES OF SUFFICIENT NUMBER AND SIZE TO ACCOMMODATE CONSTRUCTION CREWS AND ENSURE ADEQUATE ANCHORAGE OF SUCH FACILITIES TO PREVENT THEM FROM BEING TIPPED
- APPROPRIATE STORAGE AND DISPOSAL OF WATER FROM DEWATERING OPERATIONS SHALL BE EXERCISED IN THE EVENT THAT ACCUMULATED WATER MUST BE REMOVED FROM A WORK LOCATION.
- 10. COVERED AND SECURED STORAGE AREAS FOR POTENTIALLY TOXIC MATERIALS SHALL BE PROVIDED. ALL HAZARDOUS
- 11. VEHICLE AND EQUIPMENT & MAINTENANCE SHOULD BE PERFORMED OFF-SITE WHENEVER PRACTICAL.

MATERIAL CONTAINERS SHOULD BE PLACED IN SECONDARY CONTAINMENT.

- 12. SOIL STOCKPILES SHALL BE COVERED, AND LOCATED AT LEAST 50 FEET AWAY FROM DRAINAGE CHANNELS AND STORMWATER SYSTEMS.
- 13. CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM.
- 14. ALL SEDIMENT DEPOSITED ON PAVED SURFACES SHALL BE SWEPT AT THE END OF EACH WORKING DAY, AS NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. A STABILIZED CONSTRUCTION ENTRANCE MAY BE REQUIRED TO PREVENT SEDIMENT FROM BEING DEPOSITED ON PAVED ROADWAYS.
- 15. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN ACCORDANCE TO THEIR RESPECTIVE BMP FACT SHEET UNTIL DISTURBED AREAS ARE STABILIZED.
- 16. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF THE OWNERS REPRESENTATIVE.
- 17. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIX ANY DEFICIENCIES INDICATED BY THE DISTRICT'S PROJECT MANAGER TO PREVENT EROSION AND CONTROL SEDIMENT.

### **VEGETATION PROTECTION AND RESTORATION NOTES**

- 1. NO CUTTING OF ANY PART OF TREES, INCLUDING ROOTS, SHALL BE DONE OUTSIDE LIMITS OF DISTURBANCE WITHOUT SECURING APPROVAL FROM OWNER.
- 2. DISPOSAL OF TREES SHALL NOT INCLUDE SALE, BARTER, TRADE, OR EXCHANGE BY THE OWNER, THE OWNER'S CONTRACTOR, OR ANY SUCCESSORS. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE MINIMUM AMOUNT OF TREES REQUIRED TO CONSTRUCT THE PROJECT.
- WHEN CONSTRUCTION OCCURS WITHIN DRIP LINE ON EXISTING TREES. CONTRACTOR IS TO PILE THE SOIL ON THE SIDE AWAY FROM THE TREE. WHEN THIS IS NOT POSSIBLE, PLACE SOIL ON PLYWOOD. A TARP, OR THICK BED OF MULCH. THIS IS TO HELP PREVENT CUTTING INTO THE SOIL SURFACE WHEN THE BACKHOE OR TRACTOR BLADE REFILLS THE TRENCH.
- 4. REFILL OPEN TRENCHES QUICKLY WITHIN HOURS OF EXCAVATION WHEN THEY OCCUR WITHIN THE DRIP LINE OF EXISTING TREES. IF THIS IS NOT POSSIBLE AND WEATHER IS HOT, DRY, OR WINDY, CONTRACTOR MUST KEEP ROOT ENDS MOIST BY COVERING THEM WITH WET BURLAP. IF TEMPERATURE IS 80°F OR GREATER. THE BURLAP MUST BE INSPECTED EVERY HOUR AND RE-WET AS NECESSARY TO MAINTAIN A CONSTANT COOL MOIST CONDITION. IF TEMPERATURE IS BELOW 80°, THE BURLAP MUST BE INSPECTED EVERY FOUR HOURS AND RE-WET AS NECESSARY TO MAINTAIN A CONSTANT COOL MOIST CONDITION. SMALL ROOTS CAN DRY OUT AND DIE IN 10-15 MINUTES. LARGER ROOTS CAN SUCCUMB IN AN HOUR OR LESS UNDER UNFAVORABLE WEATHER CONDITIONS.
- WHEN ROOTS 2" OR LARGER MUST BE CUT, SHOVEL BY HAND NEAR THE ROOTS AND SAW THE ROOTS. ACCIDENTALLY BROKEN ROOTS SHOULD BE SAWED A COUPLE OF INCHES BEHIND THE RAGGED END. CRUSHED OR TORN ROOTS ARE MORE LIKELY TO ALLOW DECAY TO BEGIN; SHARPLY CUT ROOTS PRODUCE A FLUSH OF NEW ROOTS HELPING THE TREE TO RECOVER FROM ITS INJURY.
- 6. MATERIALS, EQUIPMENT, TEMPORARY BUILDINGS, FUELS, PAINTS AND OTHER CONSTRUCTION ITEMS ARE NOT TO BE PLACED WITHIN THE DRIP LINE OF EXISTING TREES.
- 7. GRADING SHOULD NOT CREATE DRAINAGE PROBLEMS FOR TREES BY CHANNELING WATER INTO THEM, OR CREATING SUNKEN AREAS.
- 8. LANDSCAPING THAT IS REMOVED TO FACILITATE CONSTRUCTION SHALL BE REPLACED IN KIND.
- 9. ALL DISTURBED GRASS AREAS TO BE FINISH GRADE WITH TOP SOIL, SEEDED, AND MULCHED AT THE CONCLUSION OF THE PROJECT.

Client MANILA COMMUNITY SERVICES

DISTRICT \*\* FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

**CONFORM SET** Title GENERAL NOTES

CONFORM CCO2 BV 2025-07-27 BID SET BV 2025-02-01 No. Issue Checked Approved Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Designer R. RIOS Design Check B. VIVYAN Project Director J. SVEHLA



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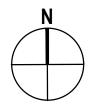
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Point Table				
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1009	15,96	2200141.00	5962978.95	FX
1010	15,46	2199694.62	5962716.52	FX
1011	17,12	2199510,43	5962558.37	FX
1012	16.79	2200943.76	5963470.42	FX
1013	18.94	2201384.44	5963749.86	FX
1014	17.10	2201814,81	5963743.94	FX
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1016	18,99	2202379.43	5964193.01	FX
1017	18,48	2203596.81	5964399.48	FX
1018	12.06	2204651,82	5965150.53	FX
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1023	10.92	2204536.79	5965288.62	FX
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1025	14.47	2200251.89	5963735.97	FX
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1033	11.13	2197129,40	5961885.18	FX
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1037	24,69	2197252,88	5961454.20	FX
1038	22.07	2197763.77	5961639.61	FX
1039	21.22	2198269,18	5961710,39	FX NO NAIL
1040	30,28	2198735,29	5961913,89	FX
1041	23,94	2199209.50	5962146.51	FX
1042	21.70	2199557.82	5962445.02	FX
1043	15.98	2201423,25	5963691.24	FX
1044	24.06	2198045.73	5961673.01	FX
1045	23,33	2198029,13	5961328,99	FX NO NAIL
1046	17.31	2198051.55	5961496.92	FX

CONTROL POINT LOCATIONS



# CONFORM SET

⚠ CONFORM CCO2		BV BV 2025-07-27
0 BID SET		RR BV 2025-02-01
No. Issue		Checked Approved Date
Author R. RIOS	Drafting Check B. VIVYAN	Project Manager B. VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project Director J. SVEHLA

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Project No.

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	Client MANILA COMMUNITY SERVI
	DISTRICT
	Project FLOOD REDUCTION AND DE
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ANILA COMMUNITY SERVICES ISTRICT LOOD REDUCTION AND DRAINAGE

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**POINT LOCATIONS** 

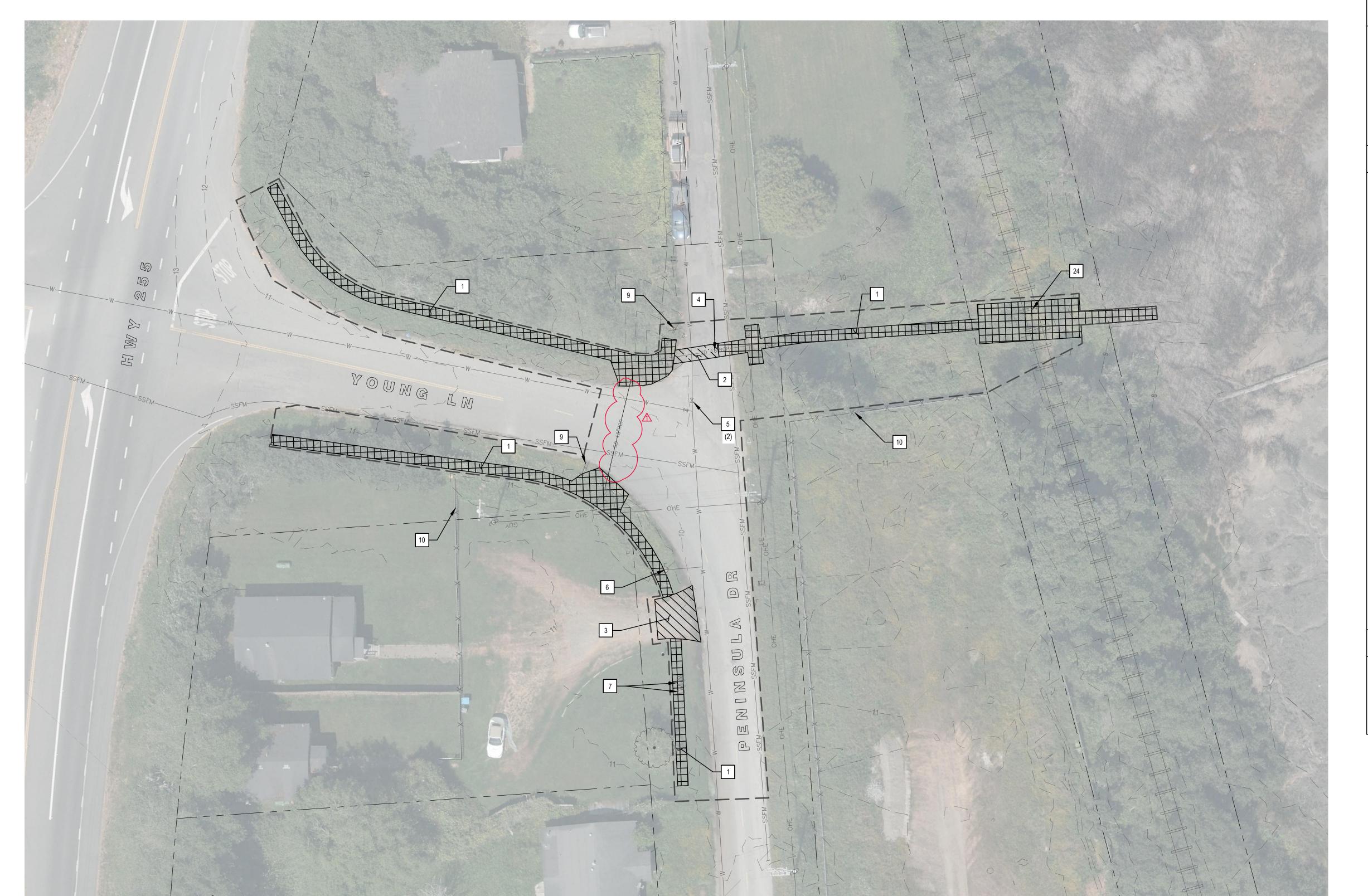
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AS SHOWN

Title PROJECT OVERVIEW & CONTROL



Plot Date: 28 July 2025 - 6:15 AM  $Filename: \verb|\ghdnet\ghd\US\Eureka| Projects \verb|\scale=1| 12572691 \verb|\Digital_Design\ACAD\Sheets \verb|\scale=1| 12572691-G-001TO003.dwg | 12572691-G-001TO0003.dwg | 12572691-G-001TO0003.dwg | 12572691-G-$ Plotted By: Brett Vivyan



# PLAN - YOUNG LN & PENINSULA DR





### SHEET GENERAL NOTES

- ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN ON PLANS. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.
- 2. VEHICLE ACCESS TO ALL RESIDENCES TO BE MAINTAINED.
- 3. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF ALL UTILITIES NOT SPECIFICALLY IDENTIFIED FOR REMOVAL OR RELOCATION.
- UNDERGROUND UTILITY INFORMATION IS BASED ON AVAILABLE EXISTING UTILITY MAPPING AND SURFACE TOPOGRAPHIC SURVEY. CONTRACTOR SHALL USA TO VERIFY EXISTING UTILITIES BEFORE BREAKING GROUND.

# DEMO KEYNOTES

- 1. CLEAR AND GRUB AND LIMB OVERHANGING TRUNKS AND BRANCHES. WILLOW CUTTINGS AND ROOT BALLS MAY BE REUSED FOR 1-PAR WETLAND PLANTING.
- 2. SAW CUT, REMOVE, AND DISPOSE OF (E) ROADWAY.
- 3. REMOVE AND DISPOSE (E) ASPHALT OR GRAVEL DRIVEWAY.
- 4. REMOVE AND DISPOSE (E) SD PIPE.
- 5. (E) WATER VALVE TO REMAIN AND BE PROTECTED.
- 6. (E) FIRE HYDRANT TO REMAIN AND BE PROTECTED.
- 7. (E) MAIL BOXES TO BE REMOVED AND RESET/RELOCATED.
- 8. (E) POWER POLE TO REMAIN AND BE PROTECTED.
- 9. (E) STREET SIGN TO BE REMOVED AND RESET.
- . ,
- 10. (E) FENCE TO REMAIN AND BE PROTECTED.
- 11. (E) TREE TO REMAIN AND BE PROTECTED (LIMBING OF BRANCHES PERMITTED WITH APPROVAL BY DISTRICT).
- 12. (E) FENCE WITHIN LIMITS OF DISTURBANCE TO BE REMOVED AND REPLACED.
- 13. (E) UTILITY TO REMAIN AND BE PROTECTED.
- 14. (E) SHRUB TO REMAIN AND BE PROTECTED.
- 15. REMOVE AND DISPOSE (E) CONCRETE HEADWALL.
- 16. (E) SD TO REMAIN AND BE PROTECTED.
- 17. (E) STRUCTURE TO REMAIN AND BE PROTECTED.
- 18. (E) TREE TO BE REMOVED.
- 19. (E) SPARTINA TO BE REMOVED (MOW TO GROUND ELEVATION).
- 20. (E) CONCRETE, STORMDRAIN PIPE, DRAIN INLETS TO BE REMOVED AND DISPOSED OF.
- 21. (E) GREENHOUSE TO BE REMOVED AND DISPOSED OF.
- 22. (E) PLANTERS AND MINOR CONCRETE STRUCTURETO BE RELOCATED OUTSIDE OF WORK AREA
- 23. (E) SHED TO BE RELOCATED OUTSIDE WORK AREA.
- 24. (E) RAILROAD TRACKS, TIES AND APPURTENANCES TO BE REMOVED AND SALVAGED.

### **LEGEND**



(E) VEGETATION TO BE CLEARED, GRUBBED AND DISPOSED OF

(E) ROADWAY TO BE REMOVED AND DISPOSED OF

(E) DRIVEWAY TO BE REMOVED AND DISPOSED OF

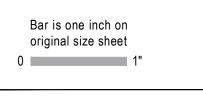
(E) CONCRETE TO BE REMOVED AND DISPOSED OF

# DEMOLITION KEYMAP

CONFORM SET

⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager <b>B</b> .	VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director J.	SVEHLA











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DISTRICT
Project FLOOD REDUCTION AND DRAINAGE
ENHANCEMENT PROJECT

Client MANILA COMMUNITY SERVICES

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Date	Scale	

AS SHOWN

2025-02-01

Title DEMOLITION PLAN (1 OF 10)

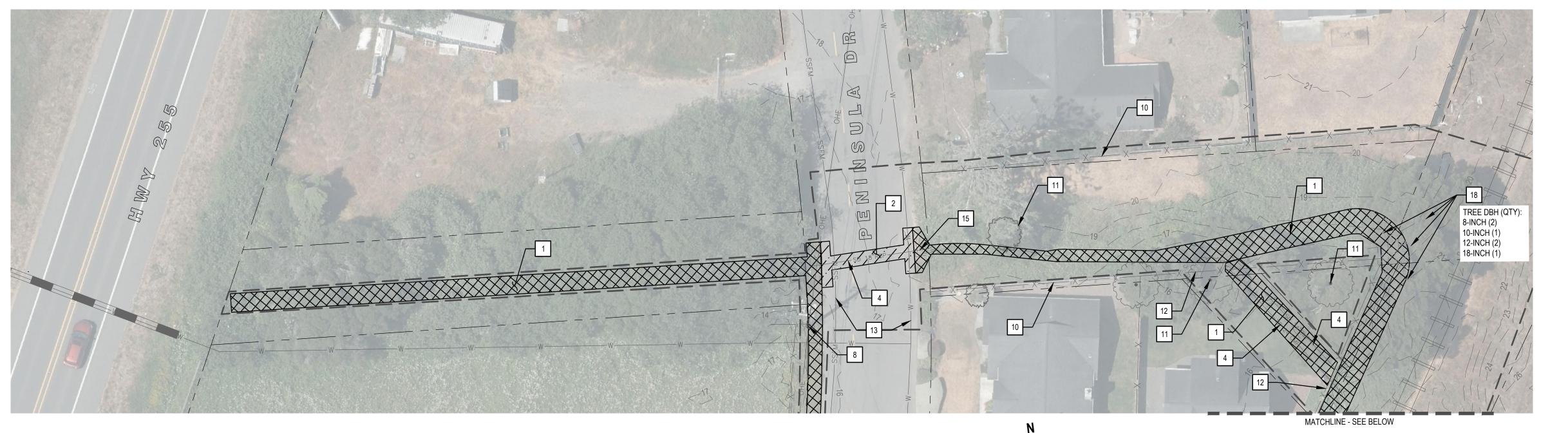
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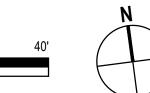
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Plotted By: Brett Vivyan

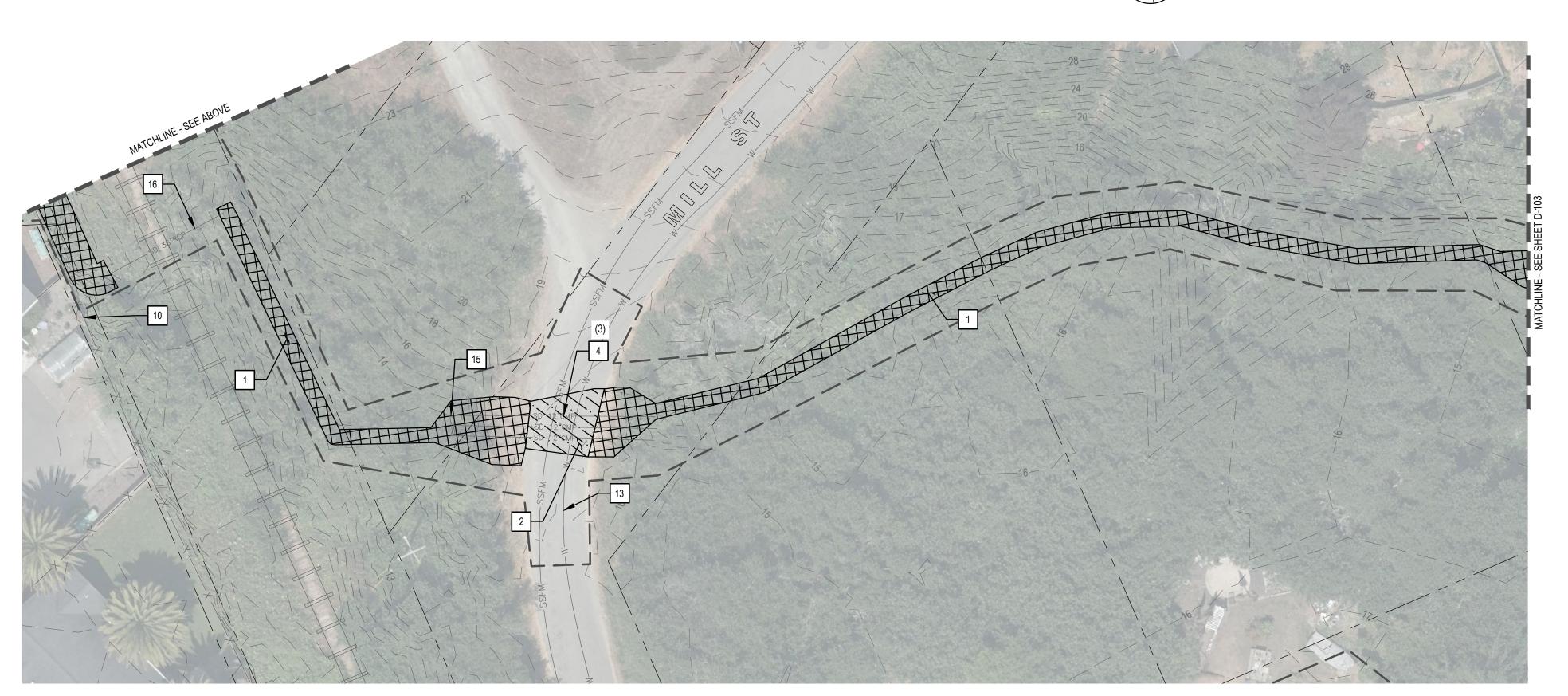
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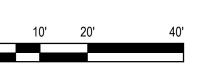
PLAN - PENINSULA DR TO MANILA COMMUNITY PARK







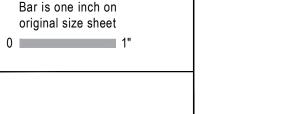
PLAN - PENINSULA DR TO MANILA COMMUNITY PARK





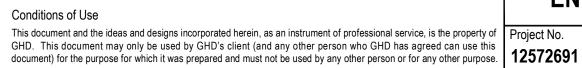
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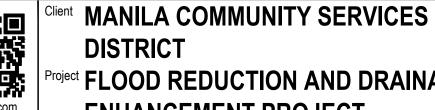












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roject	FLOOD REDUCTION AND DRAINAGE
	ENHANCEMENT PROJECT

2025-02-01

Title DEMOLITION PLAN (2 OF 10)

SHEET GENERAL NOTES

VERIFY PRIOR TO CONSTRUCTION.

**DEMO KEYNOTES** 

4. REMOVE AND DISPOSE (E) SD PIPE.

2. VEHICLE ACCESS TO ALL RESIDENCES TO BE MAINTAINED.

EXISTING UTILITIES BEFORE BREAKING GROUND.

2. SAW CUT, REMOVE, AND DISPOSE OF (E) ROADWAY.

5. (E) WATER VALVE TO REMAIN AND BE PROTECTED.

6. (E) FIRE HYDRANT TO REMAIN AND BE PROTECTED.

8. (E) POWER POLE TO REMAIN AND BE PROTECTED.

9. (E) STREET SIGN TO BE REMOVED AND RESET.

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13. (E) UTILITY TO REMAIN AND BE PROTECTED.

14. (E) SHRUB TO REMAIN AND BE PROTECTED.

16. (E) SD TO REMAIN AND BE PROTECTED.

18. (E) TREE TO BE REMOVED.

LEGEND

Scale

AS SHOWN

15. REMOVE AND DISPOSE (E) CONCRETE HEADWALL.

17. (E) STRUCTURE TO REMAIN AND BE PROTECTED.

19. (E) SPARTINA TO BE REMOVED (MOW TO GROUND ELEVATION).

21. (E) GREENHOUSE TO BE REMOVED AND DISPOSED OF.

23. (E) SHED TO BE RELOCATED OUTSIDE WORK AREA.

APPROVAL BY DISTRICT).

7. (E) MAIL BOXES TO BE REMOVED AND RESET/RELOCATED.

3. REMOVE AND DISPOSE (E) ASPHALT OR GRAVEL DRIVEWAY.

NOT SPECIFICALLY IDENTIFIED FOR REMOVAL OR RELOCATION.

AND ROOT BALLS MAY BE REUSED FOR 1-PAR WETLAND PLANTING.

11. (E) TREE TO REMAIN AND BE PROTECTED (LIMBING OF BRANCHES PERMITTED WITH

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22. (E) PLANTERS AND MINOR CONCRETE STRUCTURETO BE RELOCATED OUTSIDE OF WORK

24. (E) RAILROAD TRACKS, TIES AND APPURTENANCES TO BE REMOVED AND SALVAGED.

(E) VEGETATION TO BE CLEARED, GRUBBED AND DISPOSED OF

E) ROADWAY TO BE REMOVED AND DISPOSED OF

(E) DRIVEWAY TO BE REMOVED AND DISPOSED OF

(E) CONCRETE TO BE REMOVED AND DISPOSED OF

**DEMOLITION KEYMAP** 

12. (E) FENCE WITHIN LIMITS OF DISTURBANCE TO BE REMOVED AND REPLACED.

ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN ON PLANS. CONTRACTOR TO

CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF ALL UTILITIES

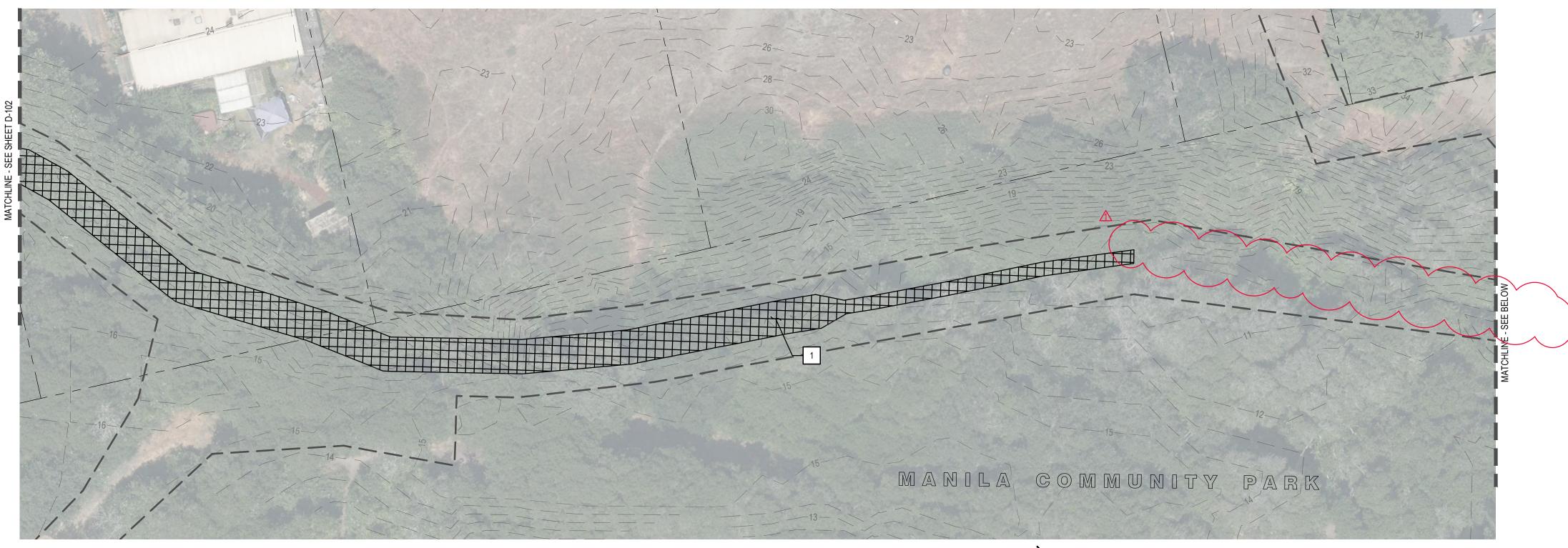
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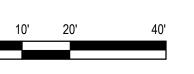
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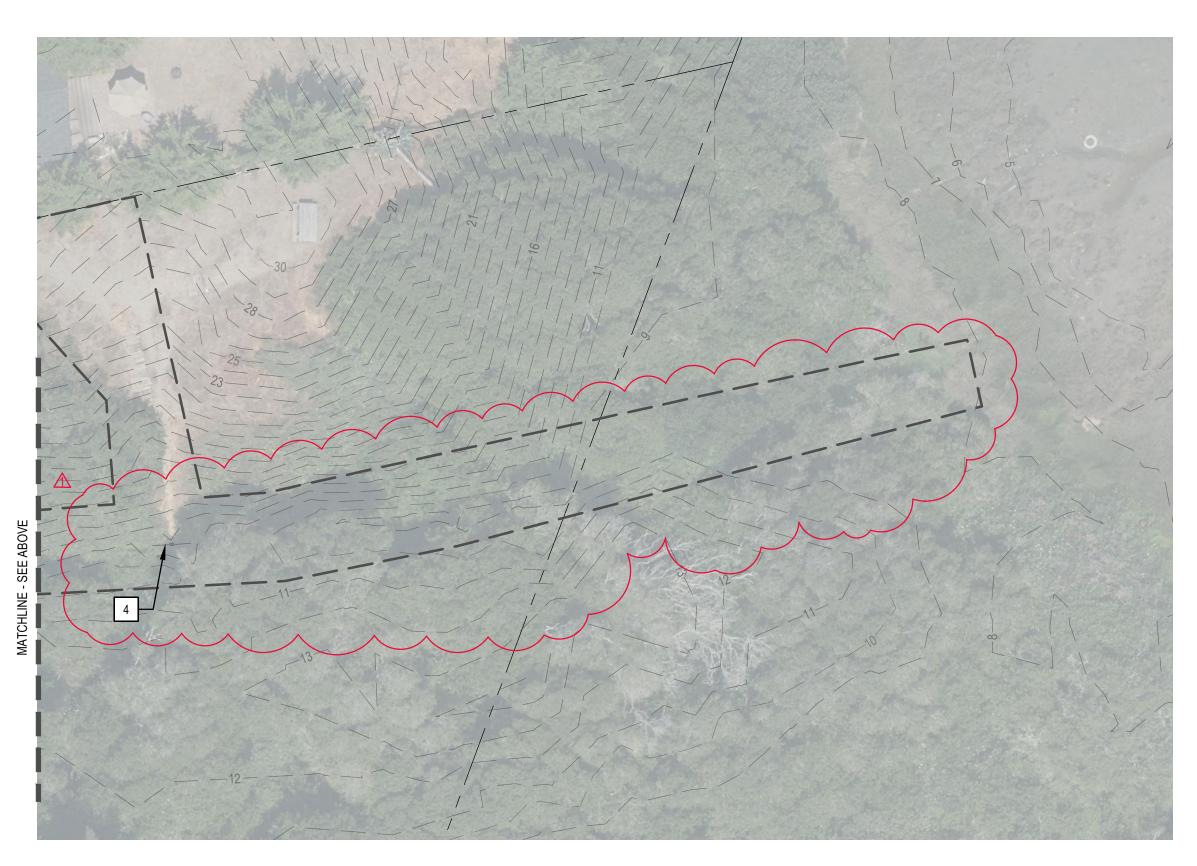
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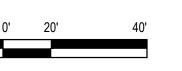
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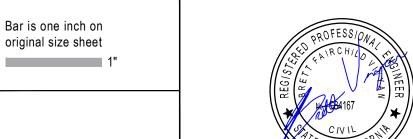






PLAN - PENINSULA DR TO MANILA COMMUNITY PARK









	MANILA COMMUNITY SERVICES
	DISTRICT
	FLOOD REDUCTION AND DRAINA
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ENHANCEMENT PROJECT

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Title DEMOLITION PLAN (3 OF 10)

SHEET GENERAL NOTES

VERIFY PRIOR TO CONSTRUCTION.

**DEMO KEYNOTES** 

4. REMOVE AND DISPOSE (E) SD PIPE.

2. VEHICLE ACCESS TO ALL RESIDENCES TO BE MAINTAINED.

EXISTING UTILITIES BEFORE BREAKING GROUND.

2. SAW CUT, REMOVE, AND DISPOSE OF (E) ROADWAY.

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16. (E) SD TO REMAIN AND BE PROTECTED.

18. (E) TREE TO BE REMOVED.

**LEGEND** 

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**DEMOLITION KEYMAP** 

12. (E) FENCE WITHIN LIMITS OF DISTURBANCE TO BE REMOVED AND REPLACED.

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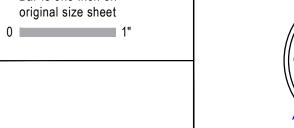
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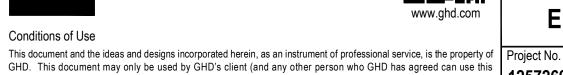
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CONFORM SET

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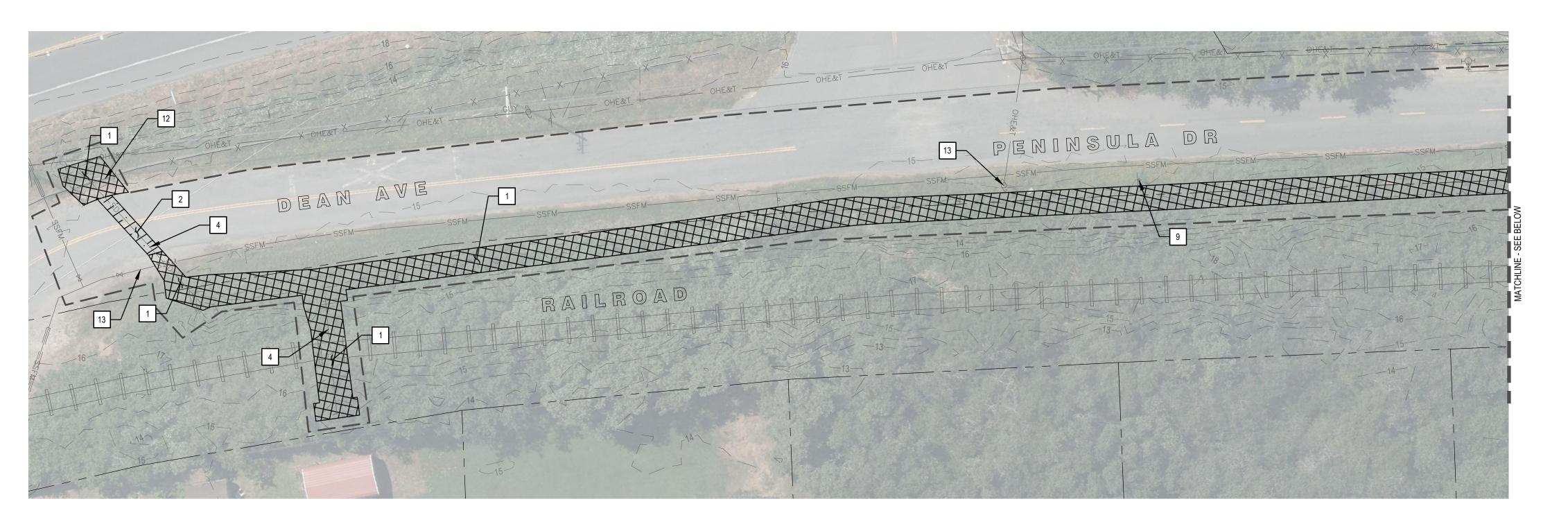


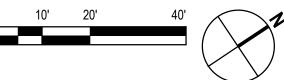
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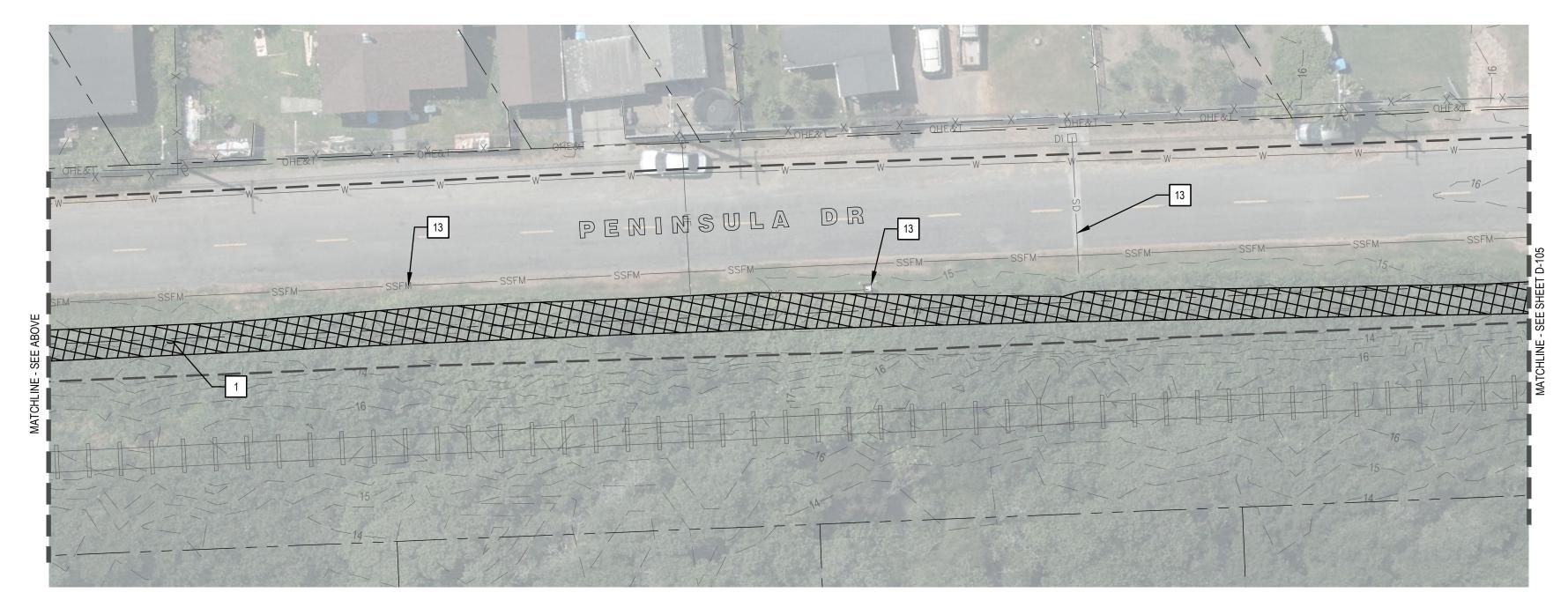
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PLAN - PENINSULA DR FROM DEAN AVE TO MILL ST



# SHEET GENERAL NOTES

- ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN ON PLANS. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.
- 2. VEHICLE ACCESS TO ALL RESIDENCES TO BE MAINTAINED.
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### **DEMO KEYNOTES**

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- 3. REMOVE AND DISPOSE (E) ASPHALT OR GRAVEL DRIVEWAY.
- 4. REMOVE AND DISPOSE (E) SD PIPE.
- 5. (E) WATER VALVE TO REMAIN AND BE PROTECTED.
- 6. (E) FIRE HYDRANT TO REMAIN AND BE PROTECTED.
- 7. (E) MAIL BOXES TO BE REMOVED AND RESET/RELOCATED.
- 8. (E) POWER POLE TO REMAIN AND BE PROTECTED.
- 9. (E) STREET SIGN TO BE REMOVED AND RESET.
- 10. (E) FENCE TO REMAIN AND BE PROTECTED.
- 11. (E) TREE TO REMAIN AND BE PROTECTED (LIMBING OF BRANCHES PERMITTED WITH APPROVAL BY DISTRICT).
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- 20. (E) CONCRETE, STORMDRAIN PIPE, DRAIN INLETS TO BE REMOVED AND DISPOSED OF.
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- 22. (E) PLANTERS AND MINOR CONCRETE STRUCTURETO BE RELOCATED OUTSIDE OF WORK
- 23. (E) SHED TO BE RELOCATED OUTSIDE WORK AREA.
- 24. (E) RAILROAD TRACKS, TIES AND APPURTENANCES TO BE REMOVED AND SALVAGED.

# **LEGEND**



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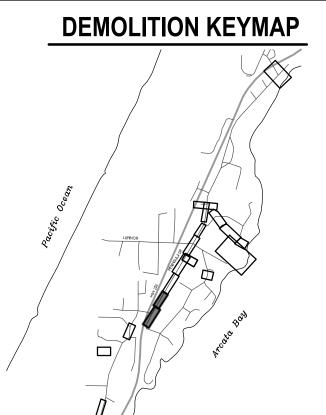
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(E) VEGETATION TO BE CLEARED, GRUBBED AND DISPOSED OF

E) ROADWAY TO BE REMOVED AND DISPOSED OF

(E) DRIVEWAY TO BE REMOVED AND DISPOSED OF

(E) CONCRETE TO BE REMOVED AND DISPOSED OF



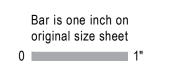
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No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B.	VIVYAN
Designer R RIOS	Design Check R VIVYAN	Project	Director I	SVEHI A

Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:25 AM











Client MANILA COMMUNITY SERVICES **DISTRICT** ect FLOOD REDUCTION AND DRAINAGE

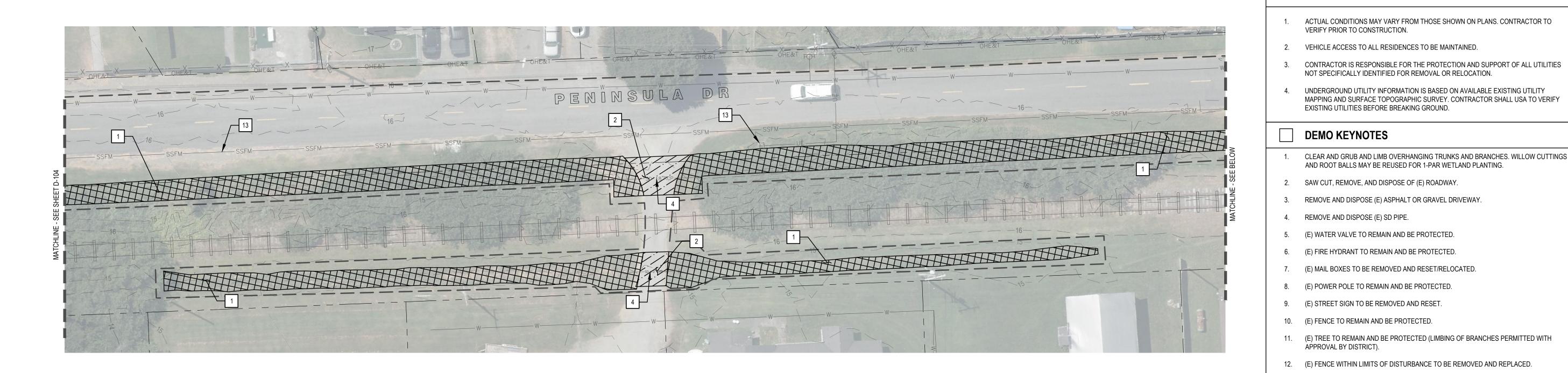
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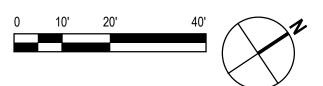
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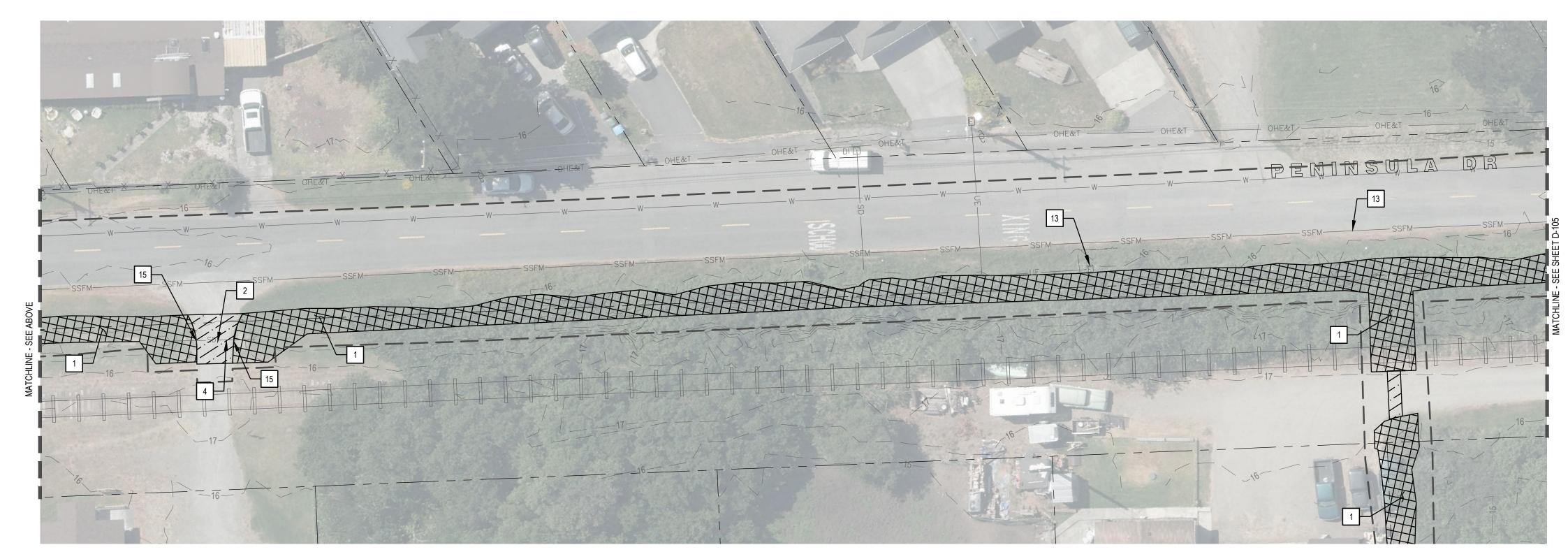
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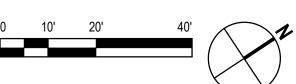








# PLAN - PENINSULA DR FROM DEAN AVE TO MILL ST

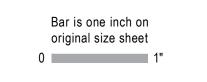


### CONFORM CCO2 BV 2025-07-27 2025-02-01 0 BID SET Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Design Check B. VIVYAN Project Director J. SVEHLA Designer R. RIOS

Plotted By: Brett Vivyan

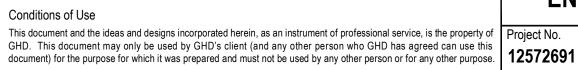
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2025-02-01

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Title DEMOLITION PLAN (5 OF 10)

SHEET GENERAL NOTES

13. (E) UTILITY TO REMAIN AND BE PROTECTED.

14. (E) SHRUB TO REMAIN AND BE PROTECTED.

16. (E) SD TO REMAIN AND BE PROTECTED.

18. (E) TREE TO BE REMOVED.

**LEGEND** 

15. REMOVE AND DISPOSE (E) CONCRETE HEADWALL.

17. (E) STRUCTURE TO REMAIN AND BE PROTECTED.

19. (E) SPARTINA TO BE REMOVED (MOW TO GROUND ELEVATION).

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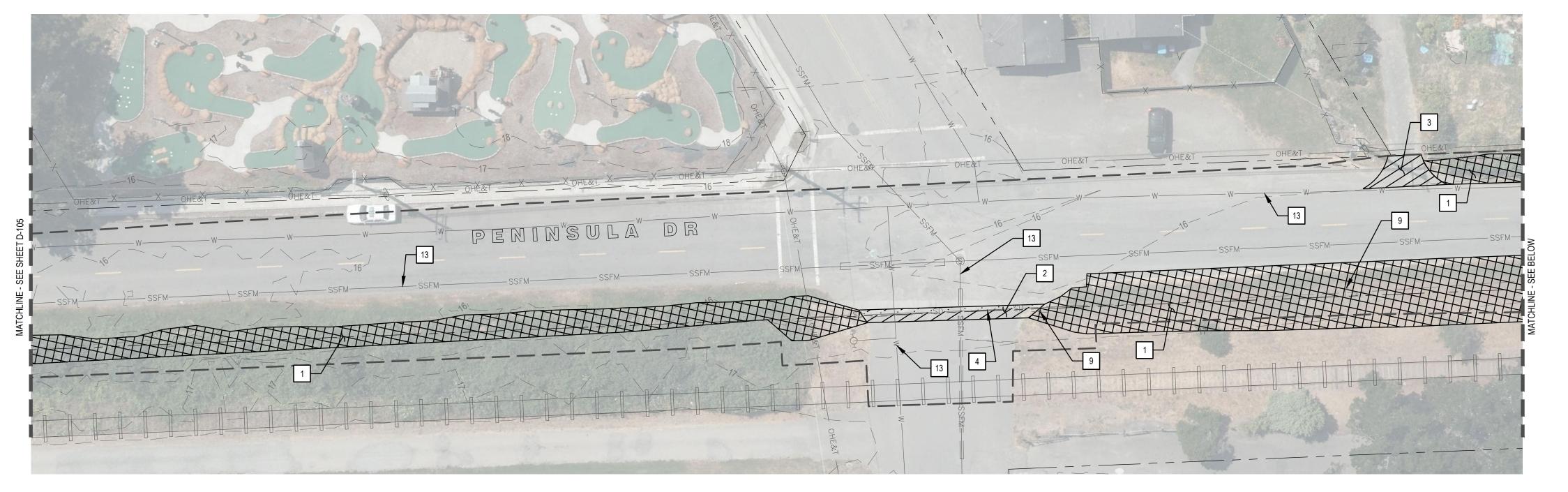
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**DEMOLITION KEYMAP** 

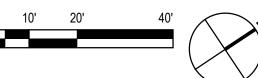
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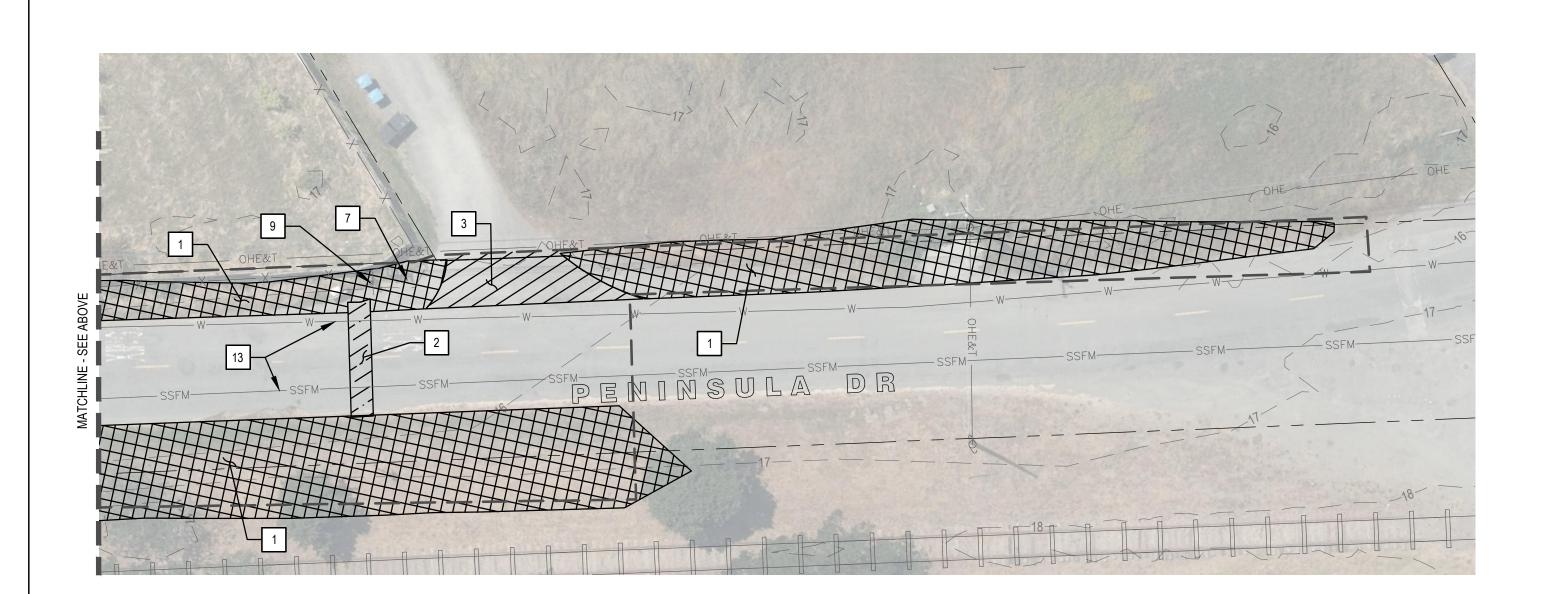
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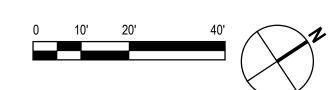
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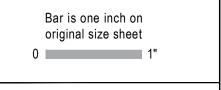






↑ CONFORM CCO2		BV	BV	2025-07-27
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Designer R. RIOS	Design Check B. VIVYAN	Project	Director J.	SVEHLA











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SHEET GENERAL NOTES

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**DEMO KEYNOTES** 

4. REMOVE AND DISPOSE (E) SD PIPE.

2. VEHICLE ACCESS TO ALL RESIDENCES TO BE MAINTAINED.

EXISTING UTILITIES BEFORE BREAKING GROUND.

2. SAW CUT, REMOVE, AND DISPOSE OF (E) ROADWAY.

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13. (E) UTILITY TO REMAIN AND BE PROTECTED.

14. (E) SHRUB TO REMAIN AND BE PROTECTED.

16. (E) SD TO REMAIN AND BE PROTECTED.

18. (E) TREE TO BE REMOVED.

**LEGEND** 

15. REMOVE AND DISPOSE (E) CONCRETE HEADWALL.

17. (E) STRUCTURE TO REMAIN AND BE PROTECTED.

19. (E) SPARTINA TO BE REMOVED (MOW TO GROUND ELEVATION).

21. (E) GREENHOUSE TO BE REMOVED AND DISPOSED OF.

23. (E) SHED TO BE RELOCATED OUTSIDE WORK AREA.

APPROVAL BY DISTRICT).

7. (E) MAIL BOXES TO BE REMOVED AND RESET/RELOCATED.

3. REMOVE AND DISPOSE (E) ASPHALT OR GRAVEL DRIVEWAY.

NOT SPECIFICALLY IDENTIFIED FOR REMOVAL OR RELOCATION.

AND ROOT BALLS MAY BE REUSED FOR 1-PAR WETLAND PLANTING.

11. (E) TREE TO REMAIN AND BE PROTECTED (LIMBING OF BRANCHES PERMITTED WITH

20. (E) CONCRETE, STORMDRAIN PIPE, DRAIN INLETS TO BE REMOVED AND DISPOSED OF.

22. (E) PLANTERS AND MINOR CONCRETE STRUCTURETO BE RELOCATED OUTSIDE OF WORK

24. (E) RAILROAD TRACKS, TIES AND APPURTENANCES TO BE REMOVED AND SALVAGED.

(E) VEGETATION TO BE CLEARED, GRUBBED AND DISPOSED OF

E) ROADWAY TO BE REMOVED AND DISPOSED OF

(E) DRIVEWAY TO BE REMOVED AND DISPOSED OF

(E) CONCRETE TO BE REMOVED AND DISPOSED OF

**DEMOLITION KEYMAP** 

12. (E) FENCE WITHIN LIMITS OF DISTURBANCE TO BE REMOVED AND REPLACED.

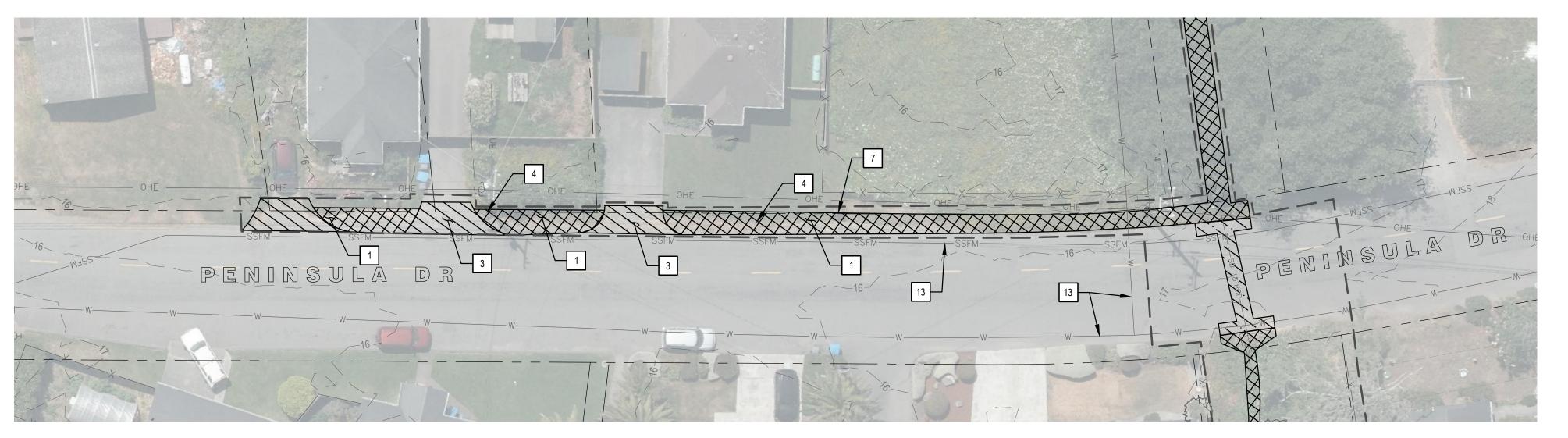
1. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN ON PLANS. CONTRACTOR TO

CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF ALL UTILITIES

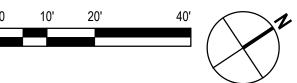
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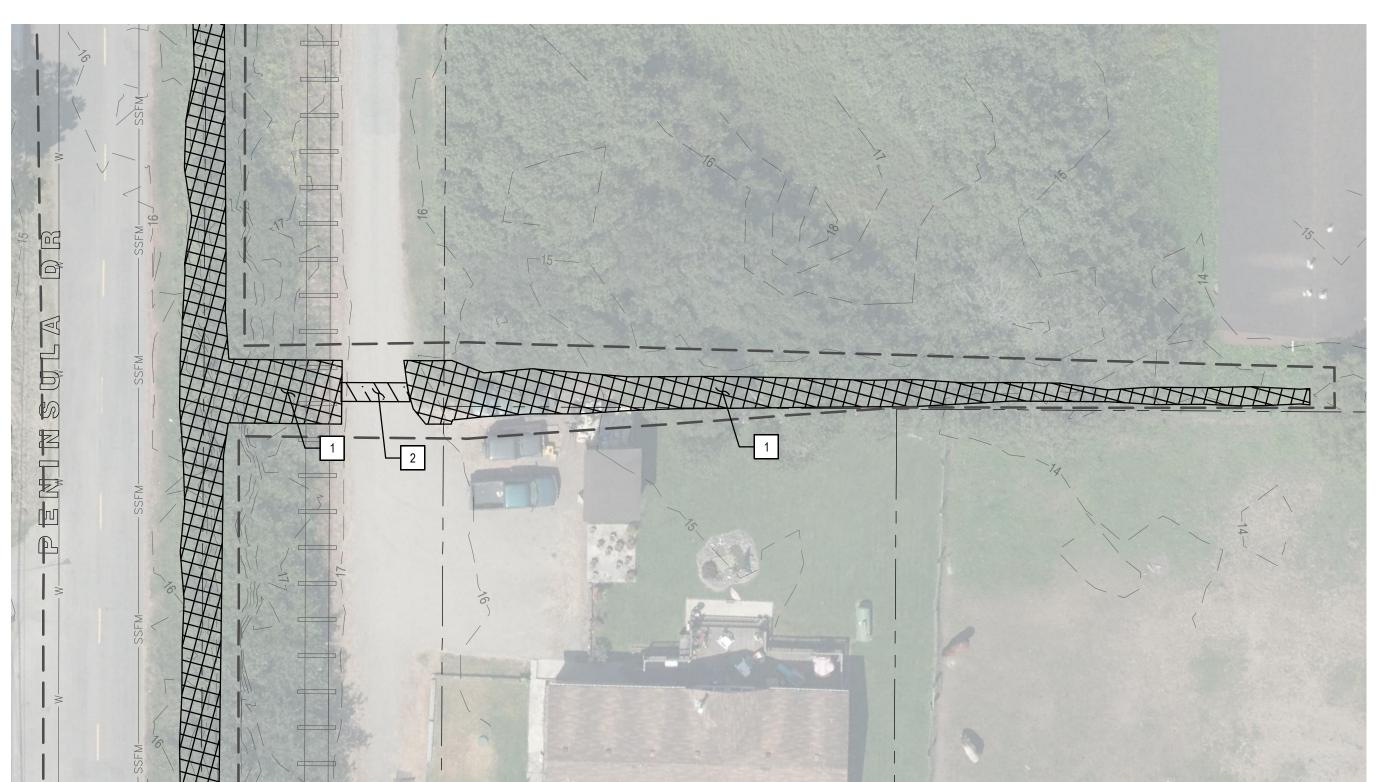
UNDERGROUND UTILITY INFORMATION IS BASED ON AVAILABLE EXISTING UTILITY MAPPING AND SURFACE TOPOGRAPHIC SURVEY. CONTRACTOR SHALL USA TO VERIFY

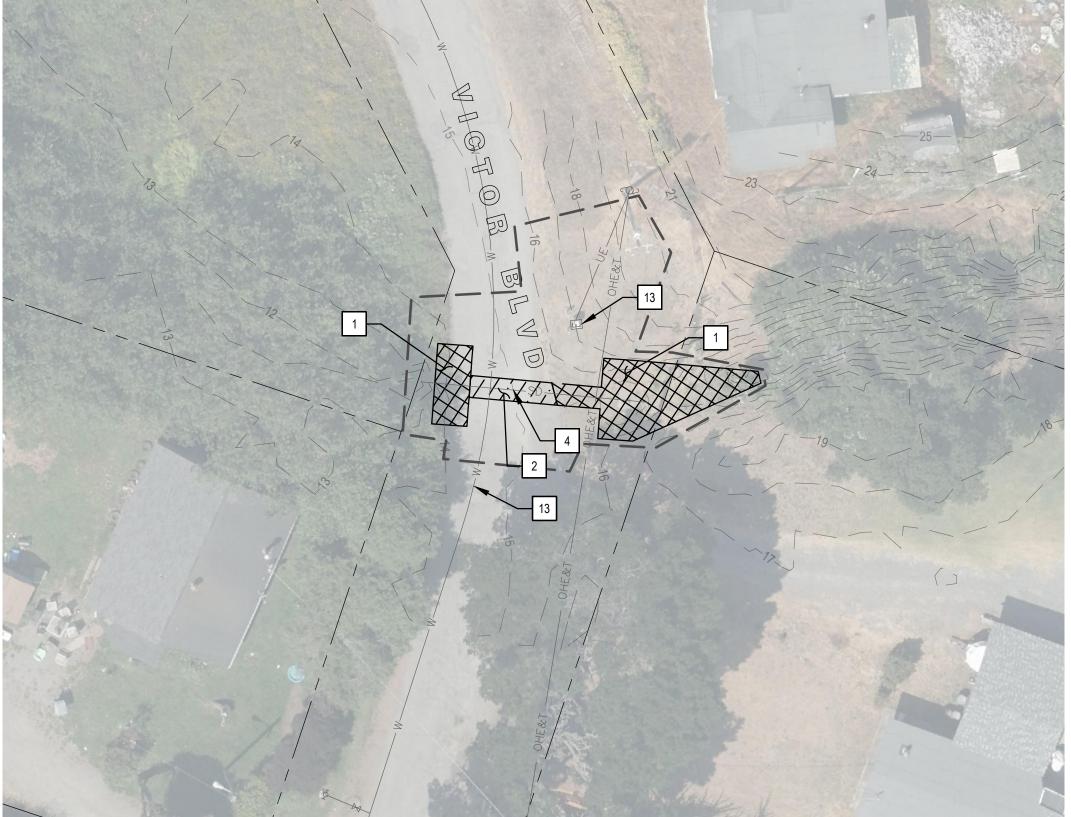
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# PLAN - PENINSULA DR BETWEEN MILL ST & CARLSON DR







PLAN - PENINSULA DR TO VICTOR BLVD



PLAN - VICTOR BLVD



# SHEET GENERAL NOTES

- 1. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN ON PLANS. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION.
- 2. VEHICLE ACCESS TO ALL RESIDENCES TO BE MAINTAINED.
- CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF ALL UTILITIES NOT SPECIFICALLY IDENTIFIED FOR REMOVAL OR RELOCATION.
- UNDERGROUND UTILITY INFORMATION IS BASED ON AVAILABLE EXISTING UTILITY MAPPING AND SURFACE TOPOGRAPHIC SURVEY. CONTRACTOR SHALL USA TO VERIFY EXISTING UTILITIES BEFORE BREAKING GROUND.

### **DEMO KEYNOTES**

- CLEAR AND GRUB AND LIMB OVERHANGING TRUNKS AND BRANCHES. WILLOW CUTTINGS AND ROOT BALLS MAY BE REUSED FOR 1-PAR WETLAND PLANTING.
- 2. SAW CUT, REMOVE, AND DISPOSE OF (E) ROADWAY.
- 3. REMOVE AND DISPOSE (E) ASPHALT OR GRAVEL DRIVEWAY.
- 4. REMOVE AND DISPOSE (E) SD PIPE.
- 5. (E) WATER VALVE TO REMAIN AND BE PROTECTED.
- 6. (E) FIRE HYDRANT TO REMAIN AND BE PROTECTED.
- 7. (E) MAIL BOXES TO BE REMOVED AND RESET/RELOCATED.
- 8. (E) POWER POLE TO REMAIN AND BE PROTECTED.
- 9. (E) STREET SIGN TO BE REMOVED AND RESET.

10. (E) FENCE TO REMAIN AND BE PROTECTED.

- 11. (E) TREE TO REMAIN AND BE PROTECTED (LIMBING OF BRANCHES PERMITTED WITH APPROVAL BY DISTRICT).
- 12. (E) FENCE WITHIN LIMITS OF DISTURBANCE TO BE REMOVED AND REPLACED.
- 13. (E) UTILITY TO REMAIN AND BE PROTECTED.
- 14. (E) SHRUB TO REMAIN AND BE PROTECTED.
- 15. REMOVE AND DISPOSE (E) CONCRETE HEADWALL.
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- 23. (E) SHED TO BE RELOCATED OUTSIDE WORK AREA.
- 24. (E) RAILROAD TRACKS, TIES AND APPURTENANCES TO BE REMOVED AND SALVAGED.

### LEGEND



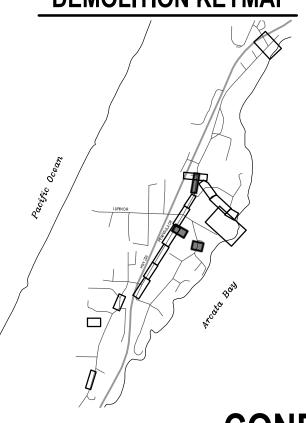
Scale

(E) VEGETATION TO BE CLEARED, GRUBBED AND DISPOSED OF

(E) DRIVEWAY TO BE REMOVED AND DISPOSED OF

(E) CONCRETE TO BE REMOVED AND DISPOSED OF

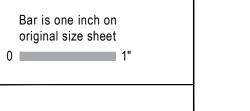
# **DEMOLITION KEYMAP**



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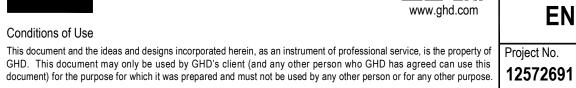
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0 BID SET		RR B	/ 2025-02-01
No. Issue		Checked Appro	oved Date
Author R. RIOS	Drafting Check B. VIVYAN	Project Manag	er B. VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project Directo	r J. SVEHLA







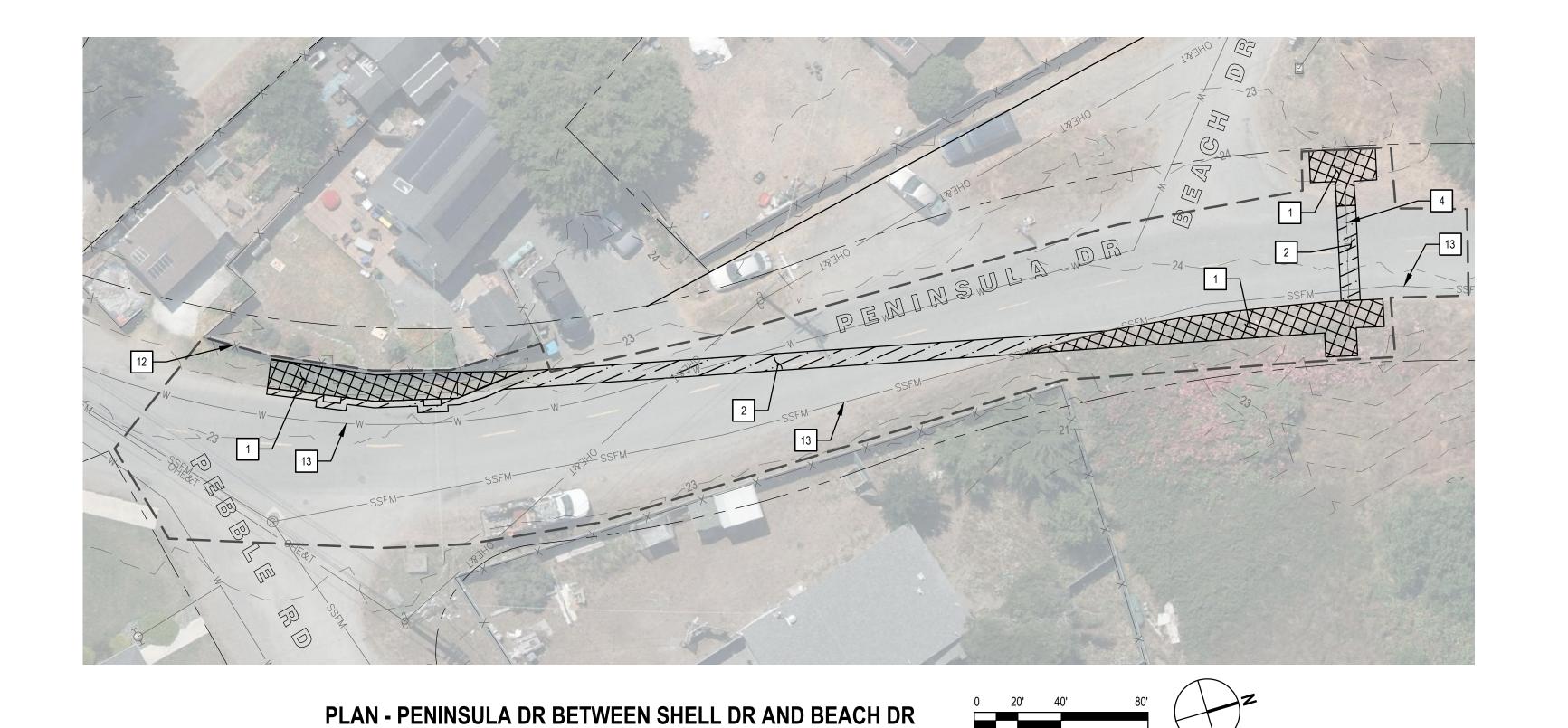


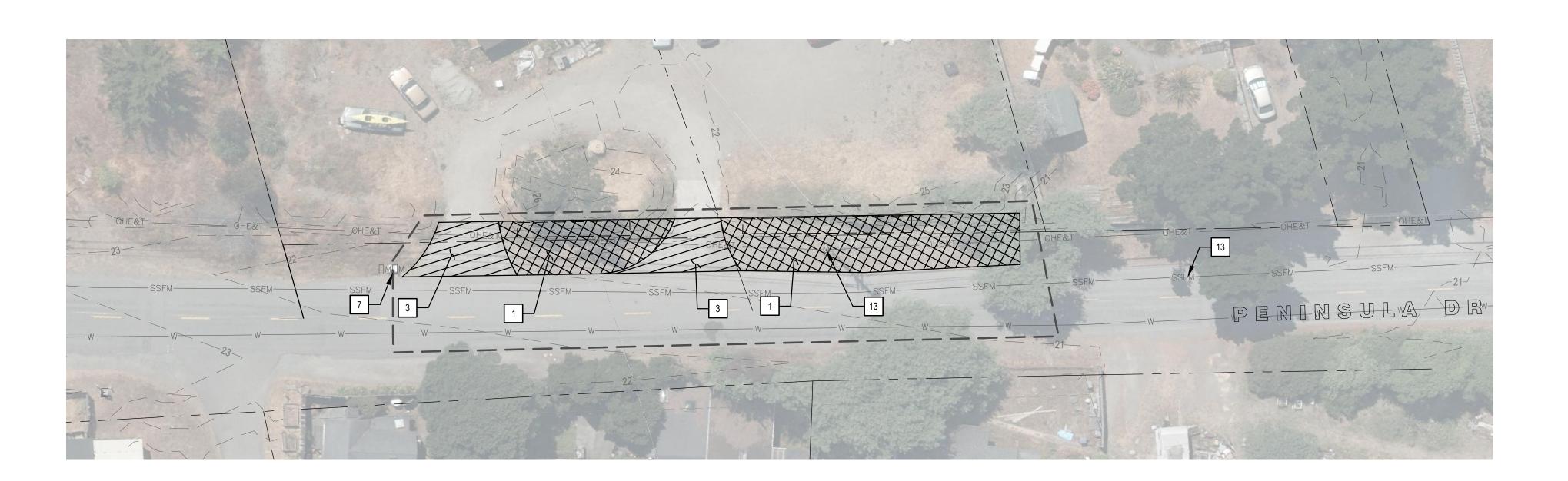


Client MANILA COMMUNITY SERVICES DISTRICT ect FLOOD REDUCTION AND DRAINAGE

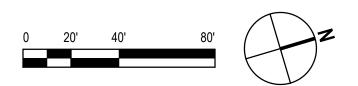
**ENHANCEMENT PROJECT** 2025-02-01 AS SHOWN

Title DEMOLITION PLAN (7 OF 10)



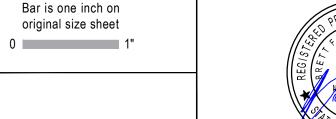


PLAN - PENINSULA DR BETWEEN TAYLOR CT AND JEWELL LN



### CONFORM CCO2 BV BV 2025-07-27 2025-02-01 0 BID SET Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Design Check B. VIVYAN Project Director J. SVEHLA Designer R. RIOS











Client MANILA COMMUNITY SERVICES **DISTRICT** 

ect FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

Title DEMOLITION PLAN (8 OF 10)

Scale

AS SHOWN

SHEET GENERAL NOTES

VERIFY PRIOR TO CONSTRUCTION.

**DEMO KEYNOTES** 

4. REMOVE AND DISPOSE (E) SD PIPE.

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**DEMOLITION KEYMAP** 

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CONFORM SET

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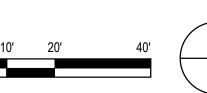
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MANILA COMMUNITY CENTER



### CONFORM CCO2 BV BV 2025-07-27 2025-02-01 0 BID SET Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN

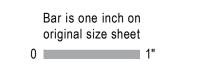
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Project Director J. SVEHLA

Design Check B. VIVYAN

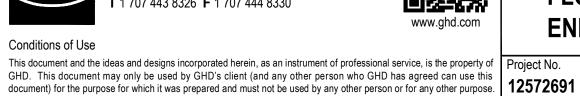
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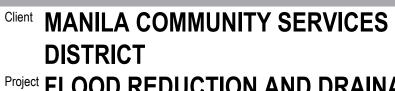












ject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

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Scale

AS SHOWN

SHEET GENERAL NOTES

VERIFY PRIOR TO CONSTRUCTION.

**DEMO KEYNOTES** 

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**DEMOLITION KEYMAP** 

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PLAN - MANILA COMMUNITY PARK



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# **LEGEND**



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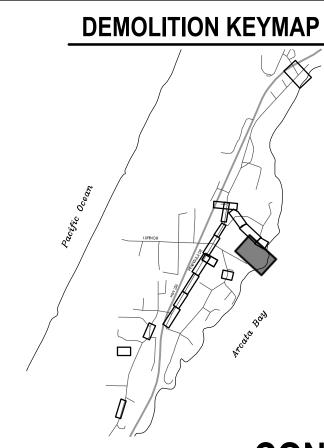
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(E) VEGETATION TO BE CLEARED, GRUBBED AND DISPOSED OF

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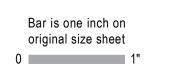
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⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B.	VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director J.	SVEHLA

Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:35 AM











Client MANILA COMMUNITY SERVICES DISTRICT ject FLOOD REDUCTION AND DRAINAGE

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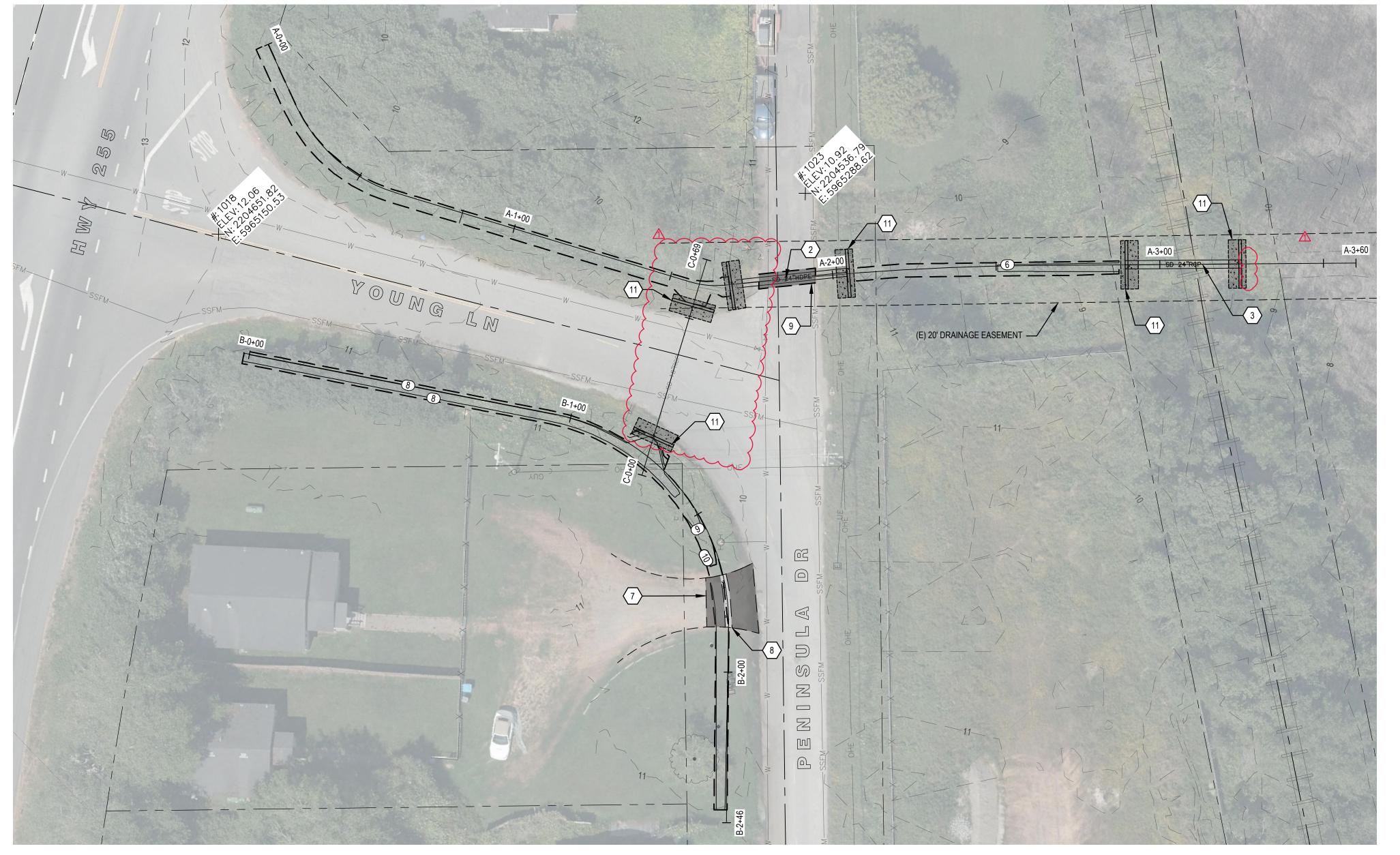
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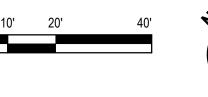
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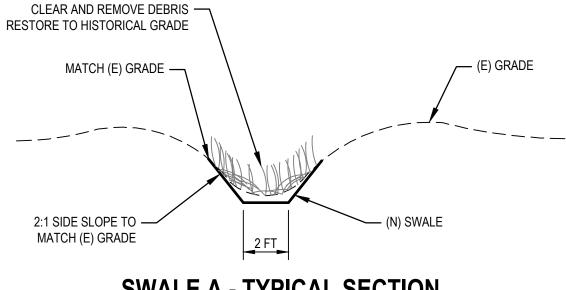
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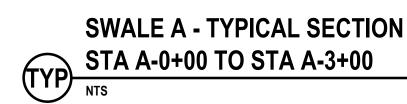
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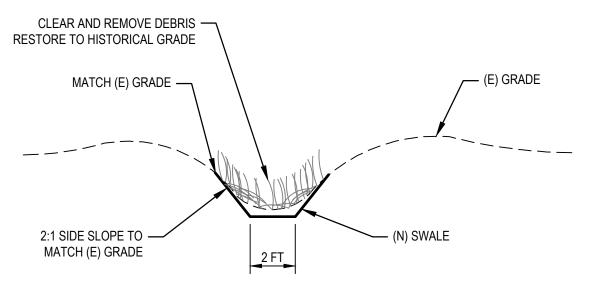


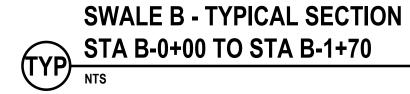
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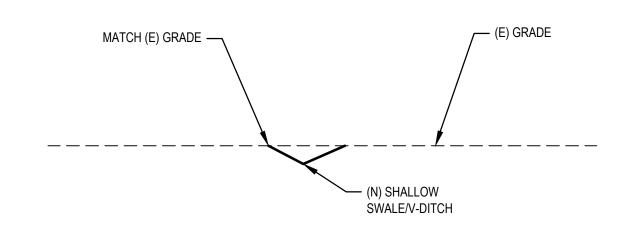










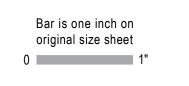


**SWALE B - TYPICAL SECTION** TYP STA B-1+90 TO STA B-2+45

# CONFORM SET

CONFORM CCO2 BV 2025-07-27 2025-02-01 0 BID SET No. Issue Date Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Designer R. RIOS Design Check B. VIVYAN Project Director J. SVEHLA









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MANILA COMMUNITY SERVICES
DISTRICT
ject FLOOD REDUCTION AND DRAINA

**ENHANCEMENT PROJECT** 

N AND DRAINAGE

Title YOUNG LN & PENINSULA DR (1 OF ANSI D

SHEET GENERAL NOTES

RESIDENCES AT ALL TIMES, UNO.

1. (N) 36" DUAL-WALL HDPE SD PIPE.

2. (N) 24" DUAL-WALL HDPE SD PIPE.

4. (N) 18" DUAL-WALL HDPE SD PIPE.

6. (N) THICKENED CURB PER DETAIL 4/C-503.

7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.

9. AC PATCH PAVING, PER DETAIL 4/C-501.

12. (N) FLARED END SECTION.

20. (N) BERM.

(N) 24" RCP SD PIPE.

(N) 18" RCP SD PIPE.

**○** SHEET KEYNOTES (C-101 - C-114)

CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.

QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN

ESTIMATED BASED ON TYPICAL SECTIONS AND ASSUMED AVERAGE DEPTH OF EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION. SWALE GRADING FOLLOWS EXISTING SWALE ALIGNMENTS UNLESS NOTED OTHERWISE

THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS,

4. CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND

5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.

LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.

14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.

15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.

16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.

18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.

19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.

10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.

13. (N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL

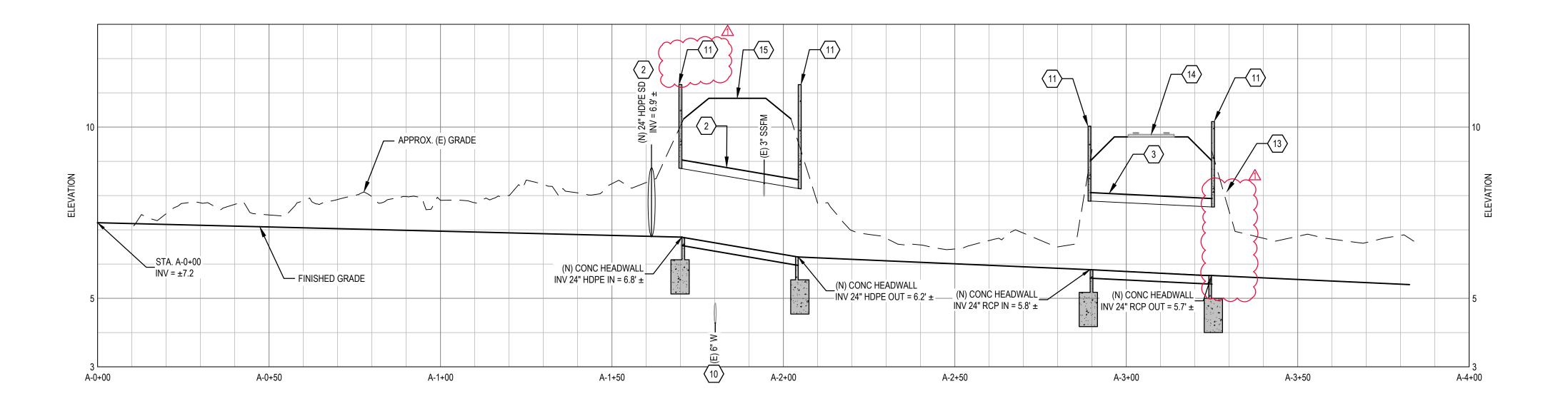
17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED

SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.

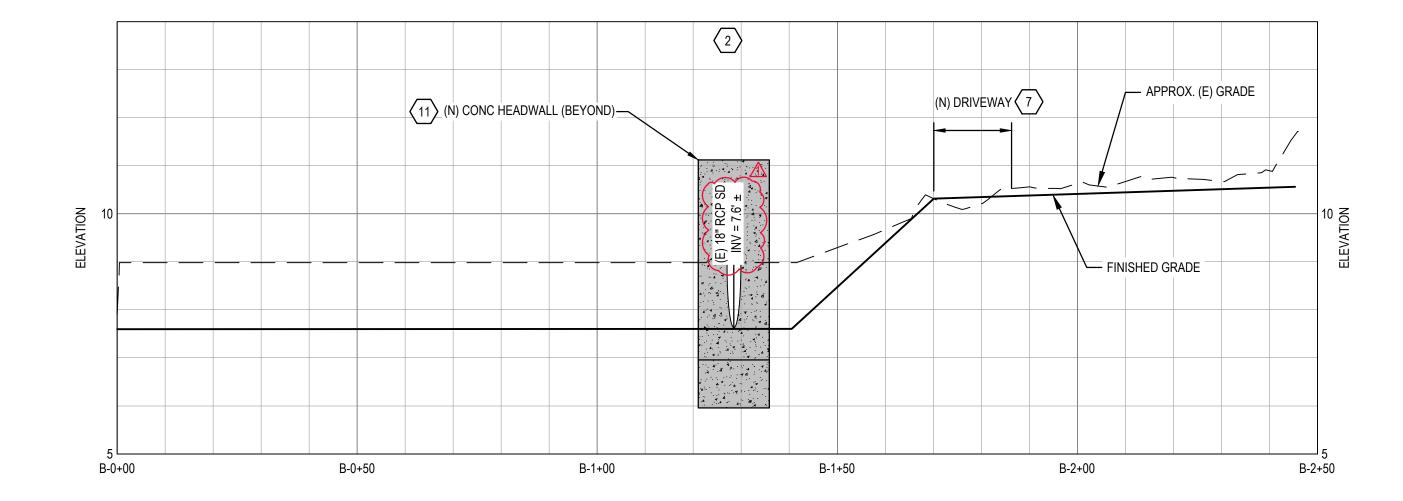
2025-02-01

Scale **AS SHOWN** 

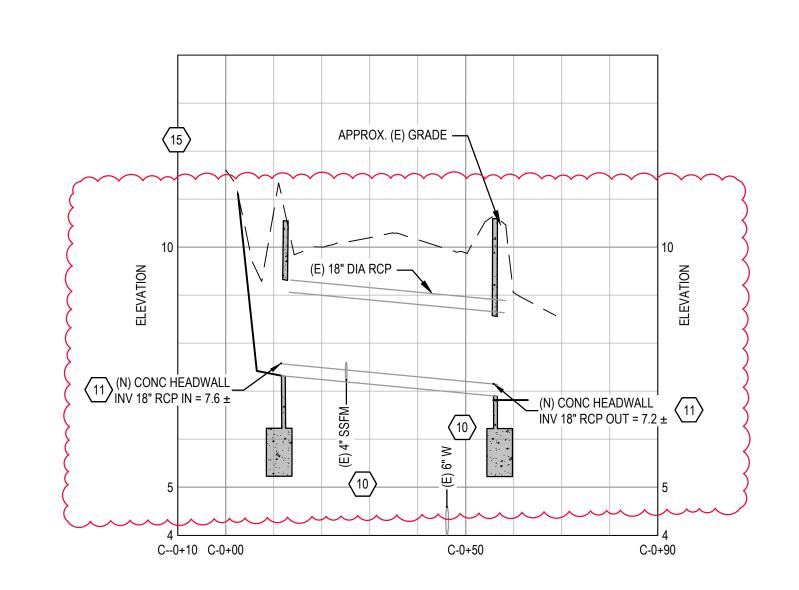
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# PROFILE - SWALE A TO END V: 1" = 2', H: 1" = 20'



PROFILE - SWALE B V: 1" = 2', H: 1" = 20'



PROFILE - CULVERT CROSSING FROM SWALE B TO SWALE A V: 1" = 2', H: 1" = 20'

document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose. | 12572691

# CONFORM SET

CONFORM CCO2 BV 2025-07-27 2025-02-01 0 BID SET BV No. Issue Checked Approved Date Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Project Director J. SVEHLA Designer R. RIOS Design Check B. VIVYAN

Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:42 AM





Bar is one inch on original size sheet

0 \_\_\_\_\_\_1"





]	Client MANILA COMMUNITY SERVICES
	Client MANILA COMMUNITY SERVICES DISTRICT
	Project FLOOD REDUCTION AND DRAINA
	ENULANGEMENT DDO JEGT

IAGE ENHANCEMENT PROJECT

2025-02-01

Title YOUNG LN & PENINSULA DR (2 OF ANSI D

SHEET GENERAL NOTES

RESIDENCES AT ALL TIMES, UNO.

1. (N) 36" DUAL-WALL HDPE SD PIPE.

2. (N) 24" DUAL-WALL HDPE SD PIPE.

4. (N) 18" DUAL-WALL HDPE SD PIPE.

6. (N) THICKENED CURB PER DETAIL 4/C-503.

7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.

9. AC PATCH PAVING, PER DETAIL 4/C-501.

(N) FLARED END SECTION.

20. (N) BERM.

Scale

AS SHOWN

(N) 24" RCP SD PIPE.

(N) 18" RCP SD PIPE.

**○ SHEET KEYNOTES (C-101 - C-114)** 

CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.

PLANS, PROFILES, SECTION AND DETAILS OF THESE PLANS. SWALE QUANTITIES WERE

SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.

2. QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN

ESTIMATED BASED ON TYPICAL SECTIONS AND ASSUMED AVERAGE DEPTH OF EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION. SWALE GRADING FOLLOWS EXISTING SWALE ALIGNMENTS UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS,

4. CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND

5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.

LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.

14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.

15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.

16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.

18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.

19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.

10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

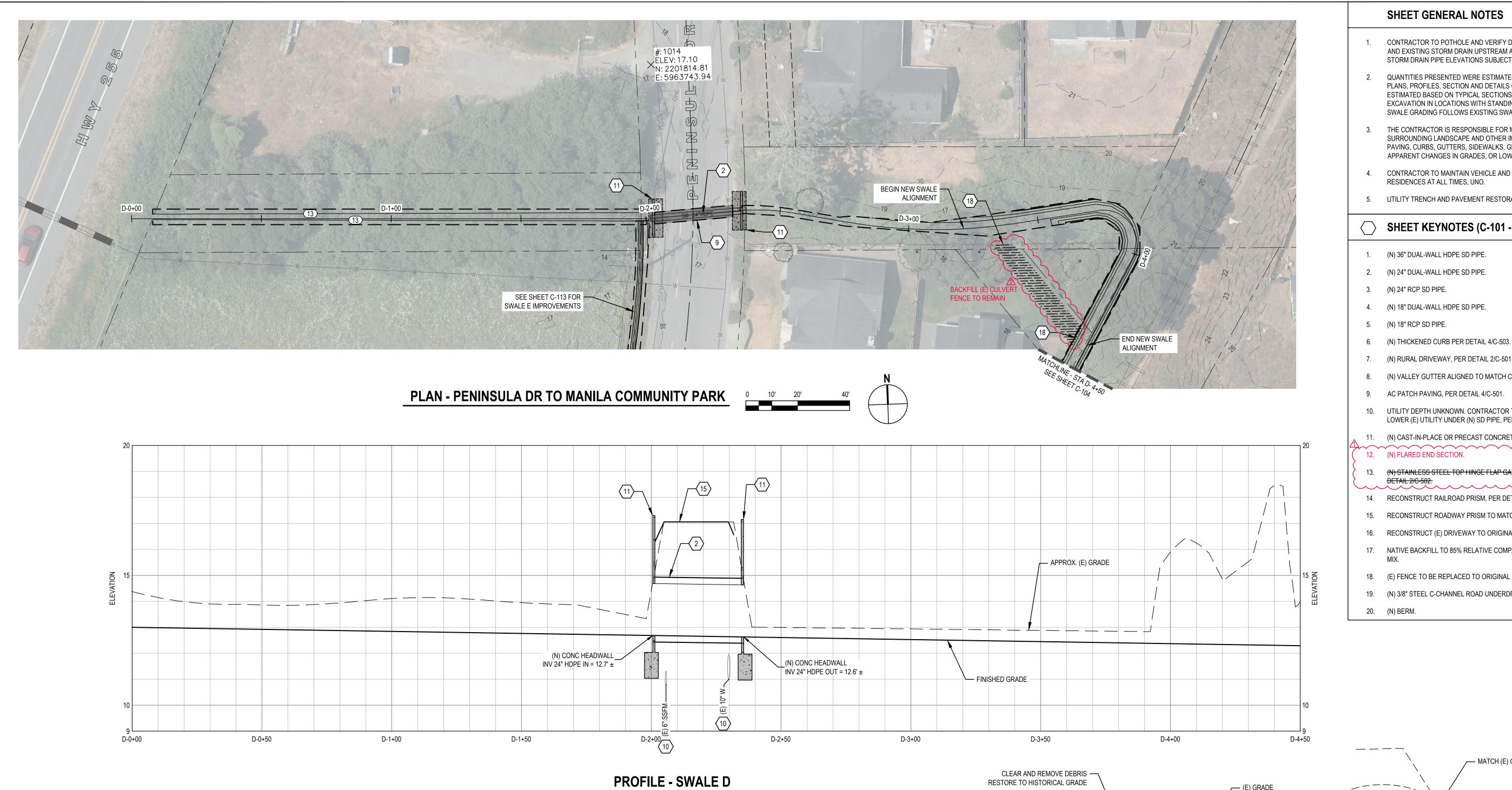
11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.

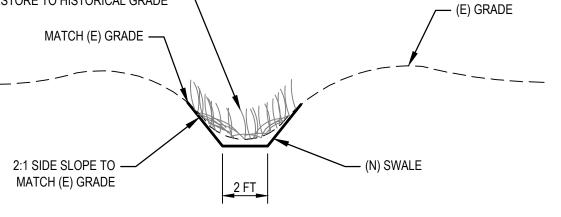
**....** 

13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>

17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED

Filename: \\ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-C SHEETS.dwg





**SWALE D - TYPICAL SECTION** STA D-0+00 TO STA D-3+10

# **SHEET GENERAL NOTES**

- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
- QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN ESTIMATED BASED ON TYPICAL SECTIONS AND ASSUMED AVERAGE DEPTH OF EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION. SWALE GRADING FOLLOWS EXISTING SWALE ALIGNMENTS UNLESS NOTED OTHERWISE
- THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.
- CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, UNO.
- 5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

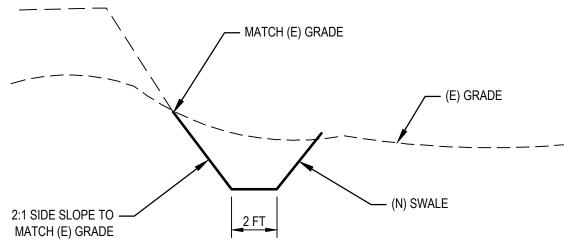
# **SHEET KEYNOTES (C-101 - C-114)**

- 1. (N) 36" DUAL-WALL HDPE SD PIPE.
- 2. (N) 24" DUAL-WALL HDPE SD PIPE.
- (N) 24" RCP SD PIPE.

- (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.
- 8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.
- 9. AC PATCH PAVING, PER DETAIL 4/C-501.
- 10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.
- 11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.
- 13. (N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL DETAIL 2/C-502.
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
- 15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.
- 16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.
- 17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED
- 18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.
- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- (N) BERM.

Scale

**AS SHOWN** 

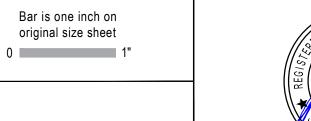


**SWALE D - TYPICAL SECTION** TYP STA D-3+10 TO STA D-4+80

# CONFORM SET

⚠ CONFORM CCO2		BV BV 2025-07-27
0 BID SET		RR BV 2025-02-01
No. Issue		Checked Approved Date
Author R. RIOS	Drafting Check B. VIVYAN	Project Manager B. VIVYAN
Designer R RIOS	Design Check <b>B VIVYAN</b>	Project Director J SVFHI A





V: 1" = 2', H: 1" = 20'





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Client MANILA COMMUNITY SERVICES
DISTRICT
Project FLOOD REDUCTION AND DRAINAC
ENHANCEMENT PROJECT

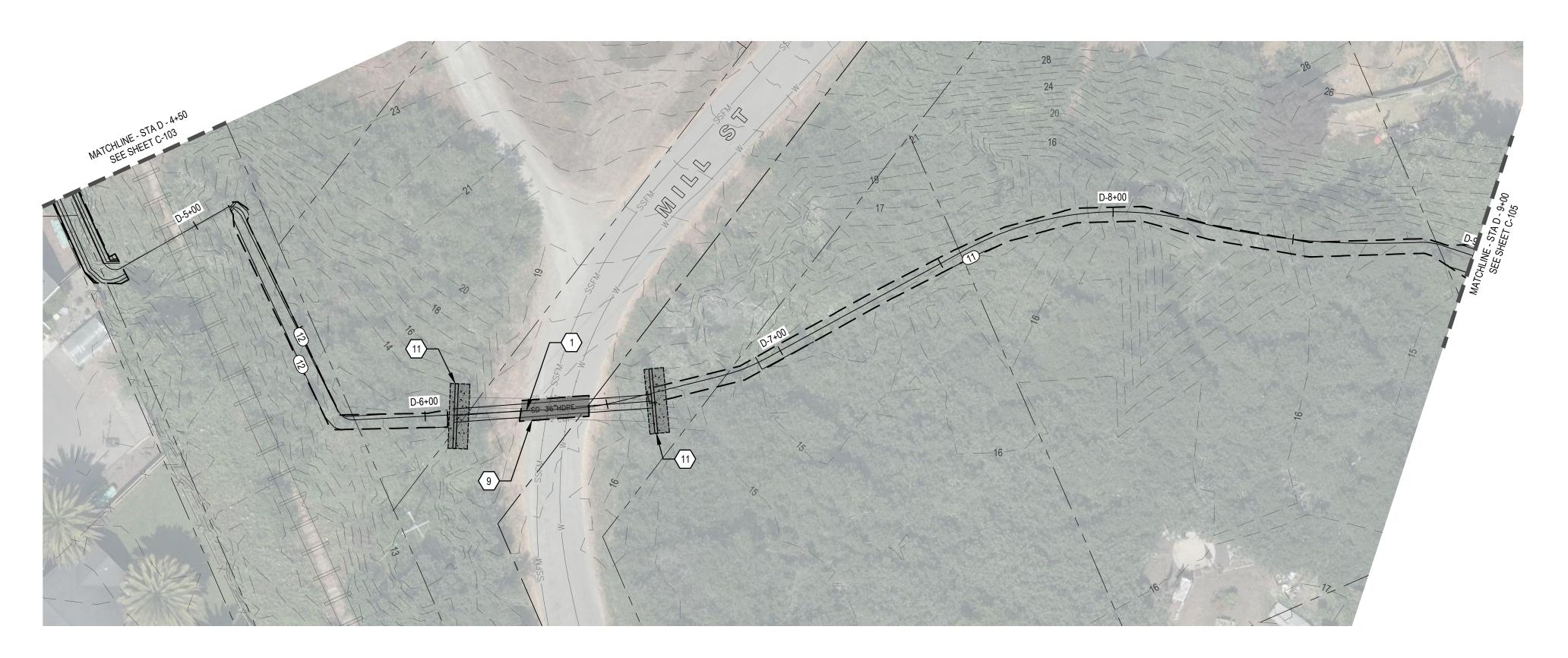
NIC I	
OD REDUCTION AND DRAINAGE	
ANCEMENT PROJECT	

2025-02-01

**COMMUNITY PARK (1 OF 4)** 

Title PENINSULA DR TO MANILA

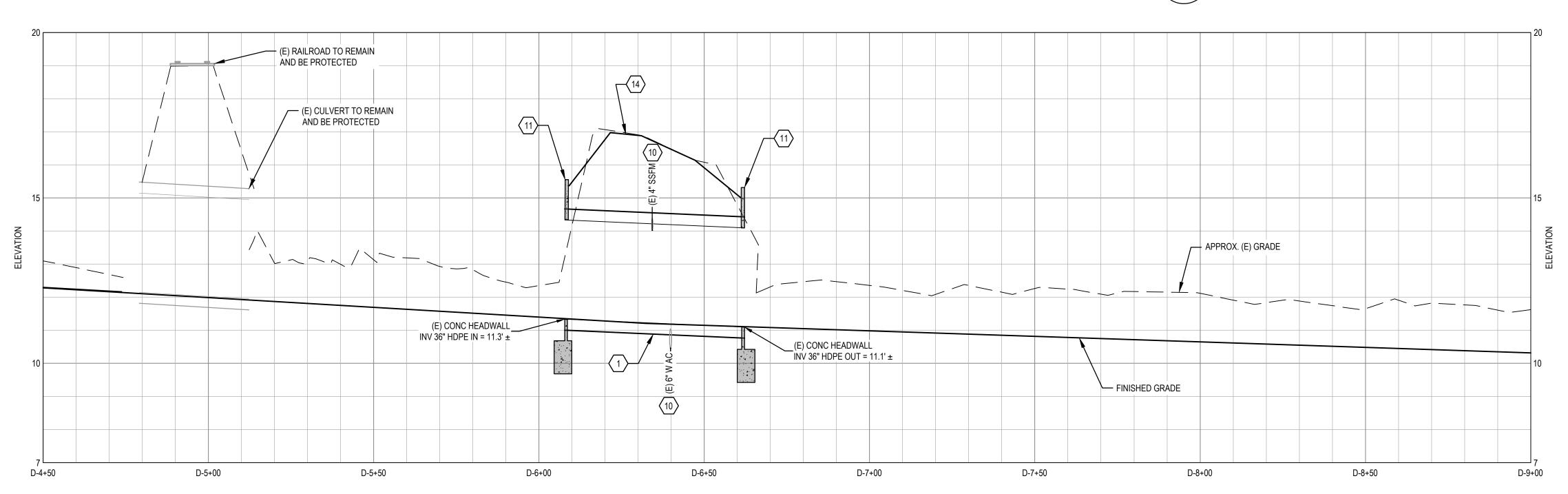
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# PLAN - PENINSULA DR TO MANILA COMMUNITY PARK







PROFILE - SWALE D V: 1" = 2', H: 1" = 20'

### CONFORM CCO2 2025-07-27 2025-02-01 0 BID SET No. Issue Date Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Designer R. RIOS Design Check B. VIVYAN Project Director J. SVEHLA

Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:44 AM

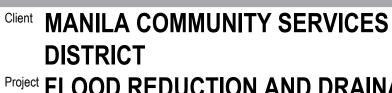


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pject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

Title PENINSULA DR TO MANILA

SHEET GENERAL NOTES

RESIDENCES AT ALL TIMES, UNO.

1. (N) 36" DUAL-WALL HDPE SD PIPE.

2. (N) 24" DUAL-WALL HDPE SD PIPE.

4. (N) 18" DUAL-WALL HDPE SD PIPE.

6. (N) THICKENED CURB PER DETAIL 4/C-503.

7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.

9. AC PATCH PAVING, PER DETAIL 4/C-501.

12. (N) FLARED END SECTION.

20. (N) BERM.

CLEAR AND REMOVE DEBRIS

RESTORE SWALE TO -

HISTORICAL GRADE

Scale

EXCAVATION AND PLACEMENT OF CLEAN FILL.

(N) 24" RCP SD PIPE.

(N) 18" RCP SD PIPE.

**○** SHEET KEYNOTES (C-101 - C-114)

CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.

QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN

ESTIMATED BASED ON TYPICAL SECTIONS AND ASSUMED AVERAGE DEPTH OF EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION. SWALE GRADING FOLLOWS EXISTING SWALE ALIGNMENTS UNLESS NOTED OTHERWISE

THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS,

4. CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND

5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.

LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.

14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.

15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.

16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.

18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.

19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.

(E) TREES TO REMAIN —

10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.

13. (N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL

17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED

SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.

CONFORM SET

- MATCH (E) GRADE

OVER EXCAVATE 1 FOOT BELOW FG AND REPLACE WITH CLEAN FILL

STA D-6+60 TO STA D-15+48

- 2:1 SIDE SLOPE TO

MATCH (E) GRADE

2025-02-01 **AS SHOWN**  **COMMUNITY PARK (2 OF 4)** 

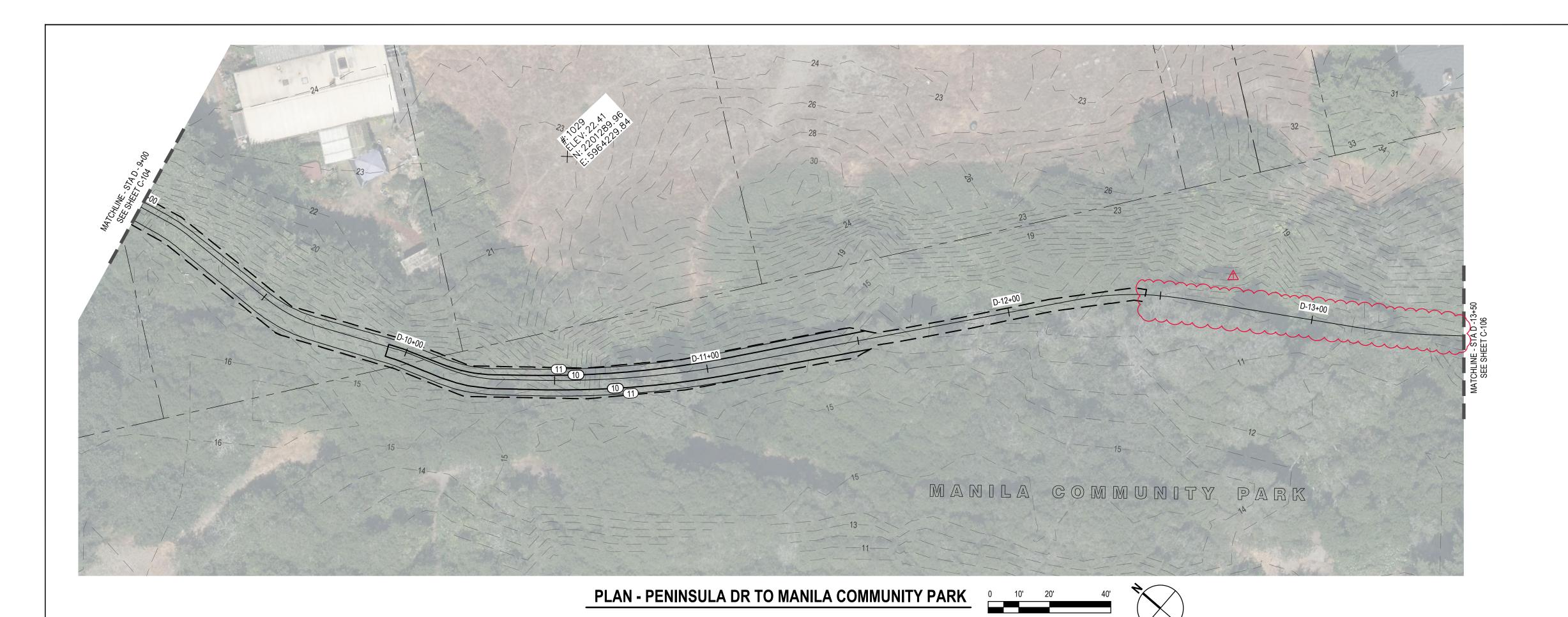
**SWALE D - TYPICAL SECTION** 

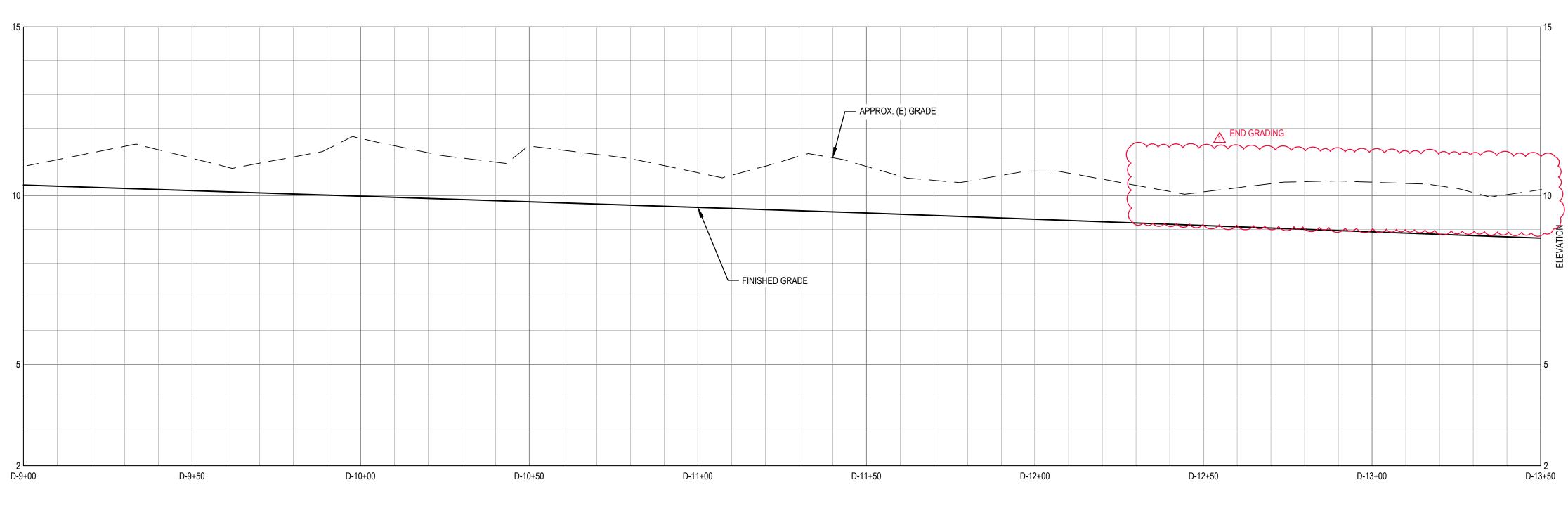
STA D-5+10 TO STA D-15+48

FOLLOWING CLEARING AND GRUBBING OF STA D-5+10 TO D-15+48, DISTRICT TO SAMPLE

SOILS FOR HAZARDOUS MATERIALS. DISTRICT TO PROVIDE DIRECTION ON STATIONING OF CONTINUED GRADING ACTIVITIES AND STATIONING OF LOCATIONS REQUIRING 1 FT OVER

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# PROFILE - SWALE D V: 1" = 2', H: 1" = 20'

### CONFORM CCO2 BV 2025-07-27 2025-02-01 0 BID SET No. Issue Date Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN

Project Director J. SVEHLA

Design Check B. VIVYAN

Plotted By: Brett Vivyan

Designer R. RIOS

Plot Date: 28 July 2025 - 6:45 AM



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**DISTRICT ENHANCEMENT PROJECT** 

**Client MANILA COMMUNITY SERVICES** 

pject FLOOD REDUCTION AND DRAINAGE

Scale

Title PENINSULA DR TO MANILA **COMMUNITY PARK (3 OF 4)** 

**SWALE D - TYPICAL SECTION** 

TYP STA D-5+10 TO STA D-15+48

FOLLOWING CLEARING AND GRUBBING OF STA D-5+10 TO D-15+48, DISTRICT TO SAMPLE

SOILS FOR HAZARDOUS MATERIALS. DISTRICT TO PROVIDE DIRECTION ON STATIONING OF CONTINUED GRADING ACTIVITIES AND STATIONING OF LOCATIONS REQUIRING 1 FT OVER

CONFORM SET

- 2:1 SIDE SLOPE TO

MATCH (E) GRADE

OVER EXCAVATE 1 FOOT BELOW FG AND REPLACE WITH CLEAN FILL

STA D-6+50 TO STA D-15+48

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EXCAVATION AND PLACEMENT OF CLEAN FILL.

SHEET GENERAL NOTES

RESIDENCES AT ALL TIMES, UNO.

1. (N) 36" DUAL-WALL HDPE SD PIPE.

(N) 24" DUAL-WALL HDPE SD PIPE.

4. (N) 18" DUAL-WALL HDPE SD PIPE.

6. (N) THICKENED CURB PER DETAIL 4/C-503.

7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.

9. AC PATCH PAVING, PER DETAIL 4/C-501.

12. (N) FLARED END SECTION.

DETAIL 2/C-502.

20. (N) BERM.

CLEAR AND REMOVE DEBRIS -

RESTORE SWALE 1

HISTORICAL GRADE

(N) 24" RCP SD PIPE.

(N) 18" RCP SD PIPE.

**○** SHEET KEYNOTES (C-101 - C-114)

CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED

EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION.

PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.

4. CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND

5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.

LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.

14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.

15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.

16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.

18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.

19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.

(E) TREES TO REMAIN -

10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

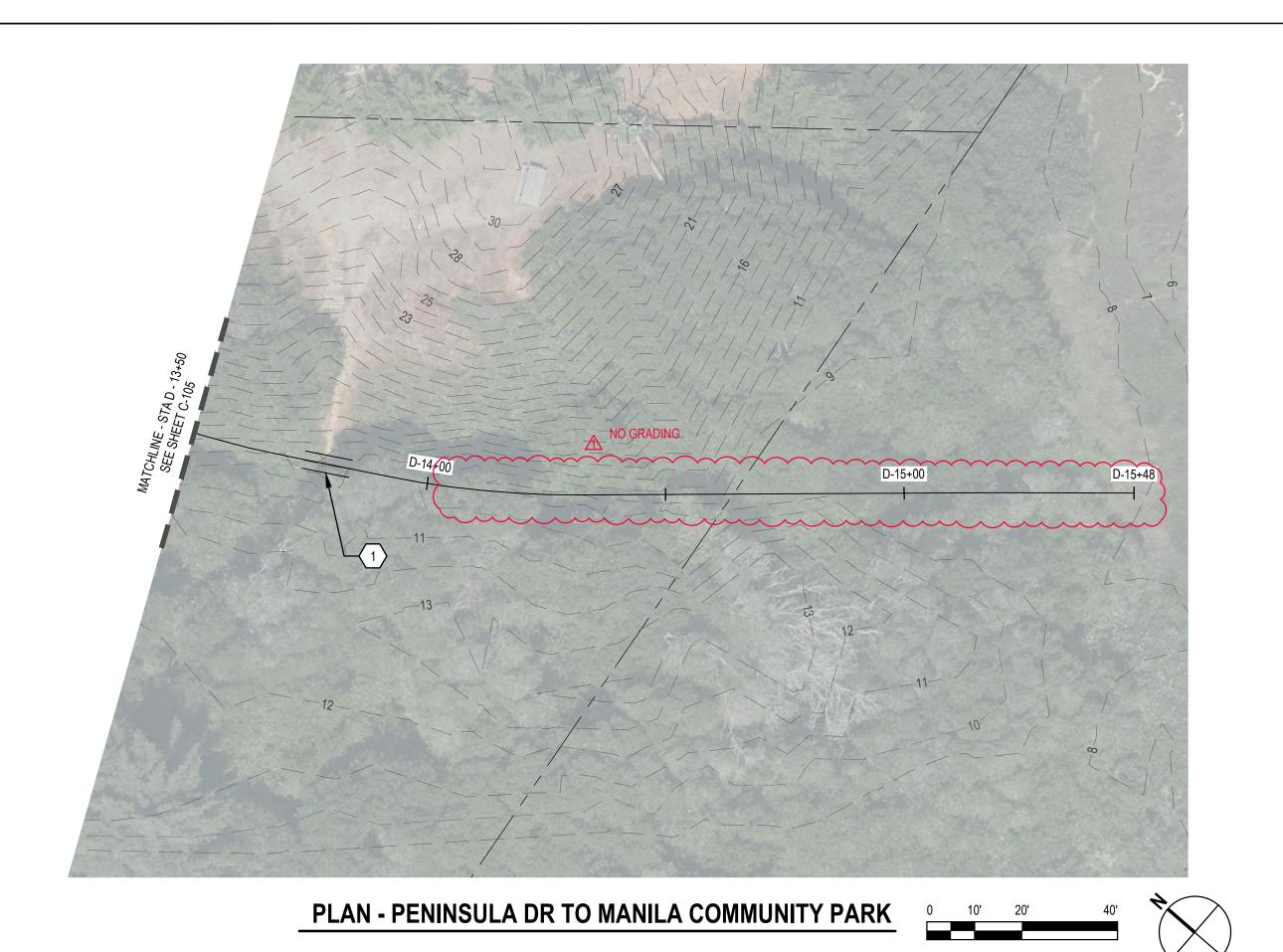
11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.

13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>

17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED

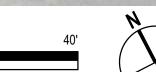
STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.

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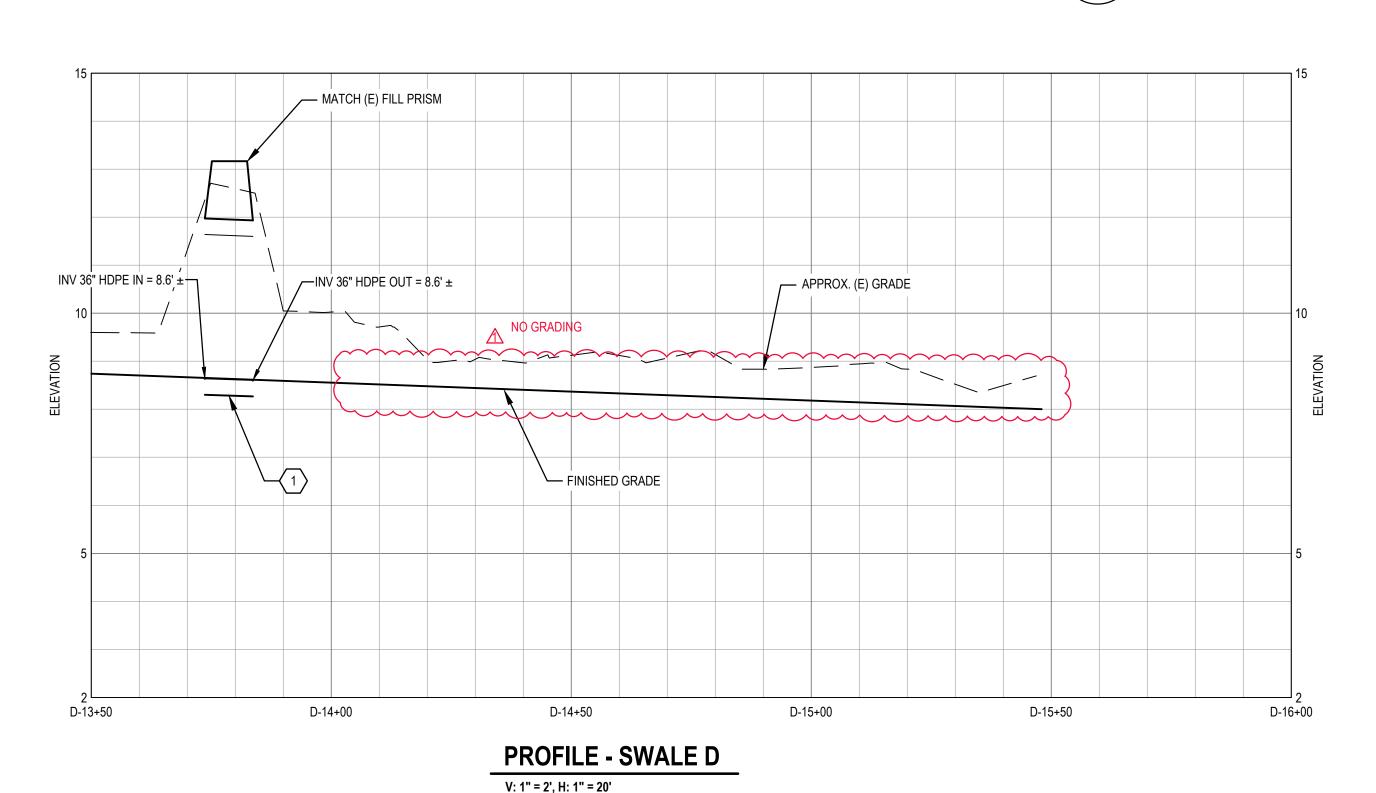


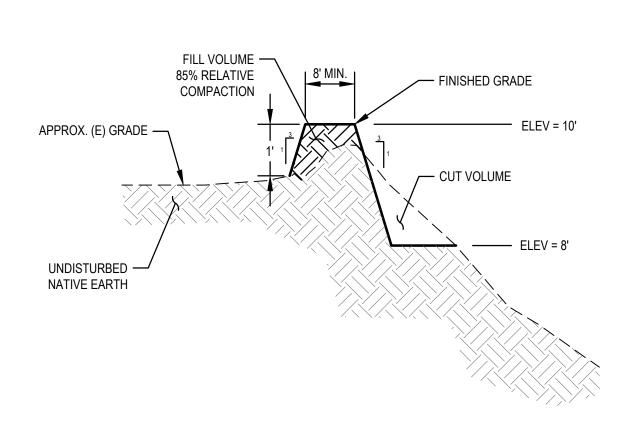


PLAN - MANILA COMMUNITY PARK









BERM - TYPICAL SECTION

### SHEET GENERAL NOTES

- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
- QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN ESTIMATED BASED ON TYPICAL SECTIONS AND ASSUMED AVERAGE DEPTH OF EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION. SWALE GRADING FOLLOWS EXISTING SWALE ALIGNMENTS UNLESS NOTED OTHERWISE
- THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.
- CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, UNO.
- 5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

# SHEET KEYNOTES (C-101 - C-114)

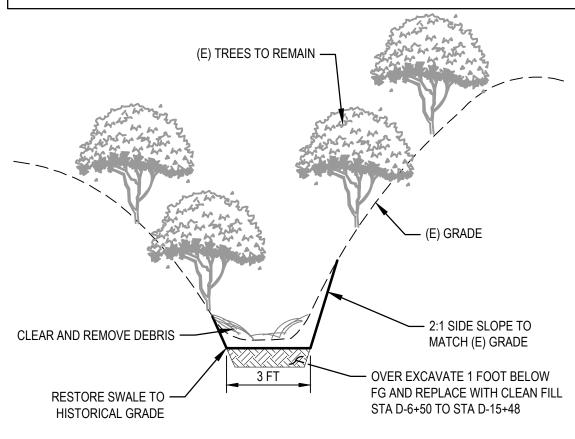
- 1. (N) 36" DUAL-WALL HDPE SD PIPE.
- (N) 24" DUAL-WALL HDPE SD PIPE.
- 4. (N) 18" DUAL-WALL HDPE SD PIPE.
- 5. (N) 18" RCP SD PIPE.

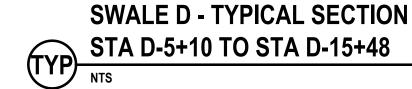
3. (N) 24" RCP SD PIPE.

- 6. (N) THICKENED CURB PER DETAIL 4/C-503.
- 7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.
- 8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.
- 9. AC PATCH PAVING, PER DETAIL 4/C-501.

12. (N) FLARED END SECTION.

- 10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.
- 11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.
- 13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
- 15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY. 16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.
- 17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED
- 18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.
- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- 20. (N) BERM.





Scale

FOLLOWING CLEARING AND GRUBBING OF STA D-5+10 TO D-15+48, DISTRICT TO SAMPLE SOILS FOR HAZARDOUS MATERIALS. DISTRICT TO PROVIDE DIRECTION ON STATIONING OF CONTINUED GRADING ACTIVITIES AND STATIONING OF LOCATIONS REQUIRING 1 FT OVER EXCAVATION AND PLACEMENT OF CLEAN FILL.

# **CONFORM SET**

CONFORM CCO2 BV 2025-07-27 2025-02-01 0 BID SET No. Issue Date Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Designer R. RIOS Design Check B. VIVYAN Project Director J. SVEHLA



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**Client MANILA COMMUNITY SERVICES DISTRICT** Piect FLOOD REDUCTION AND DRAINAGE

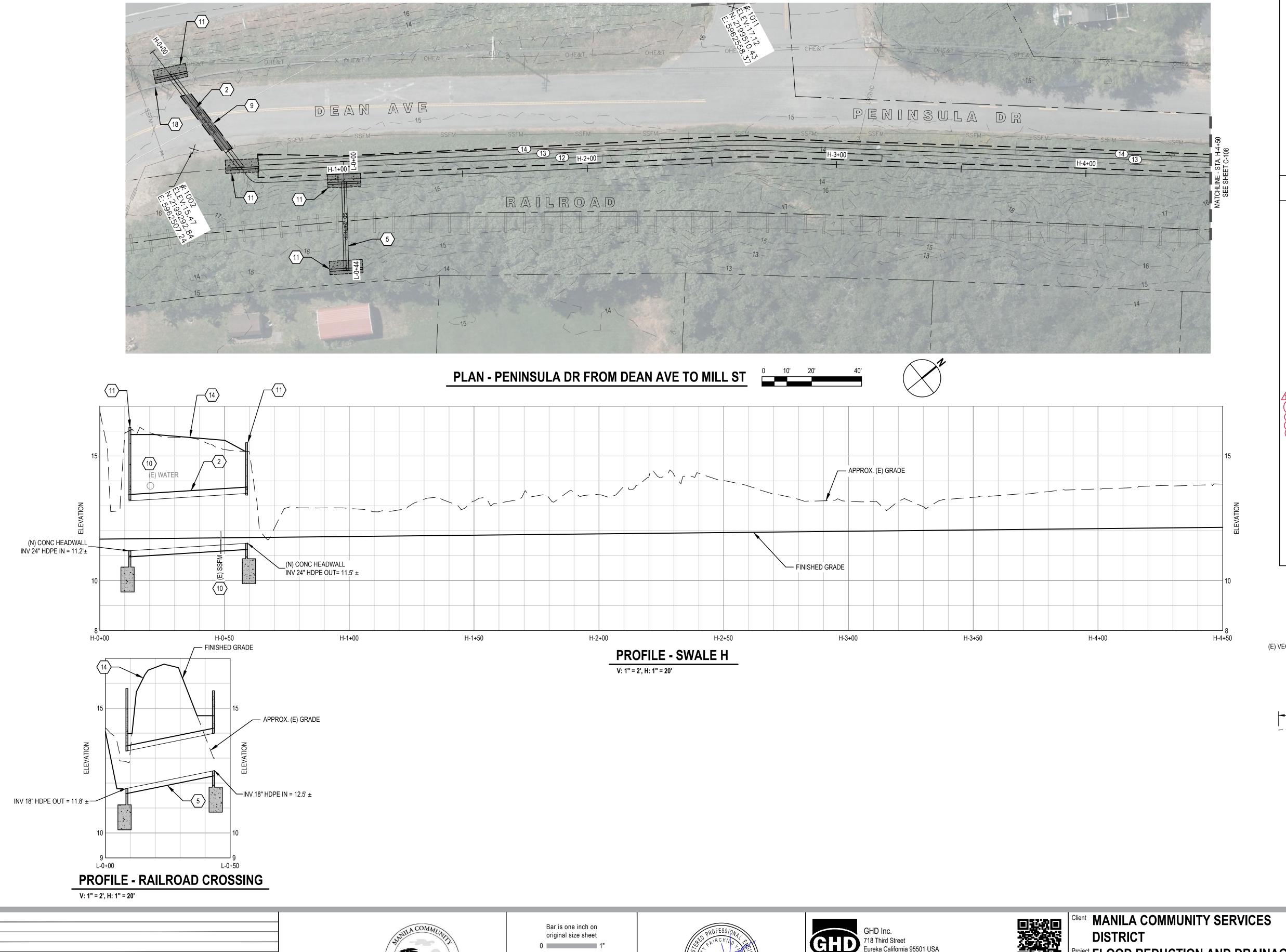
**ENHANCEMENT PROJECT** 

2025-02-01 **AS SHOWN**  Title PENINSULA DR TO MANILA **COMMUNITY PARK (4 OF 4)** 

Plot Date: 28 July 2025 - 6:46 AM

Plotted By: Brett Vivyan

Filename: \ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-C SHEETS.dwg



# **SHEET GENERAL NOTES**

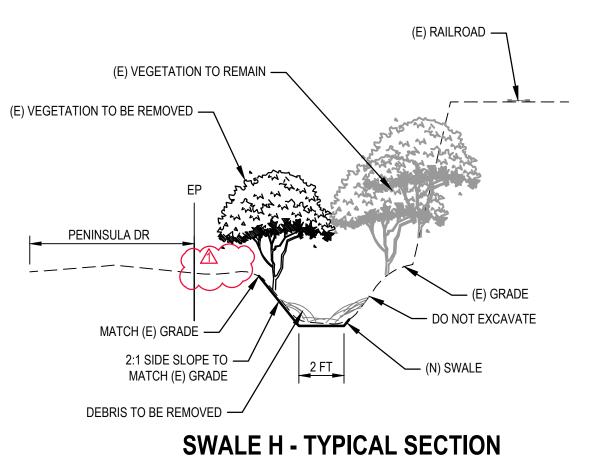
- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
- PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.
- CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, UNO.
- 5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

# **SHEET KEYNOTES (C-101 - C-114)**

- (N) 36" DUAL-WALL HDPE SD PIPE.
- (N) 24" DUAL-WALL HDPE SD PIPE.
- 3. (N) 24" RCP SD PIPE.
- 4. (N) 18" DUAL-WALL HDPE SD PIPE.
- (N) 18" RCP SD PIPE.
- 6. (N) THICKENED CURB PER DETAIL 4/C-503.
- 7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.
- 8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.
- 9. AC PATCH PAVING, PER DETAIL 4/C-501.
- 10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.
- 11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504. 12. (N) FLARED END SECTION.
- 13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
- 15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.
- 16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.
- 17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED
- 18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.
- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- 20. (N) BERM.

Scale

**AS SHOWN** 



CONFORM SET

CONFORM CCO2 BV 2025-07-27 2025-02-01 0 BID SET No. Issue Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN

Designer R. RIOS

Plot Date: 28 July 2025 - 6:48 AM









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pject FLOOD REDUCTION AND DRAINAGE

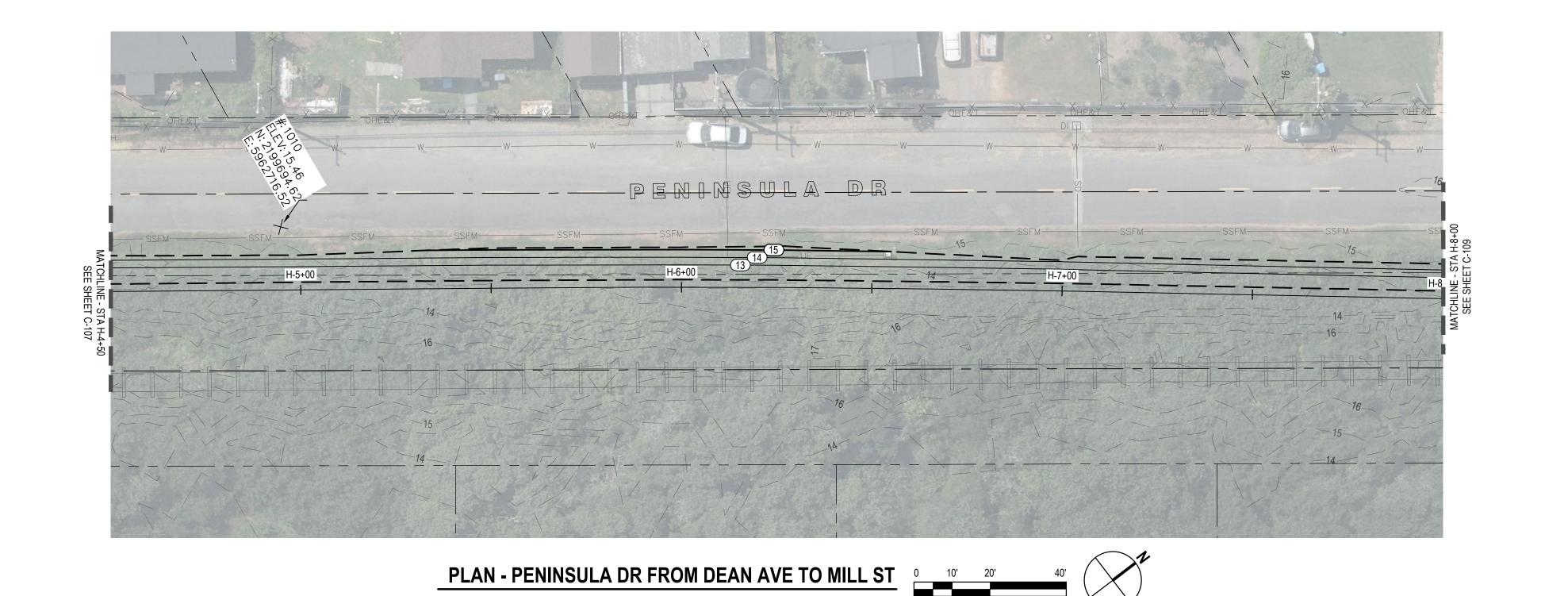
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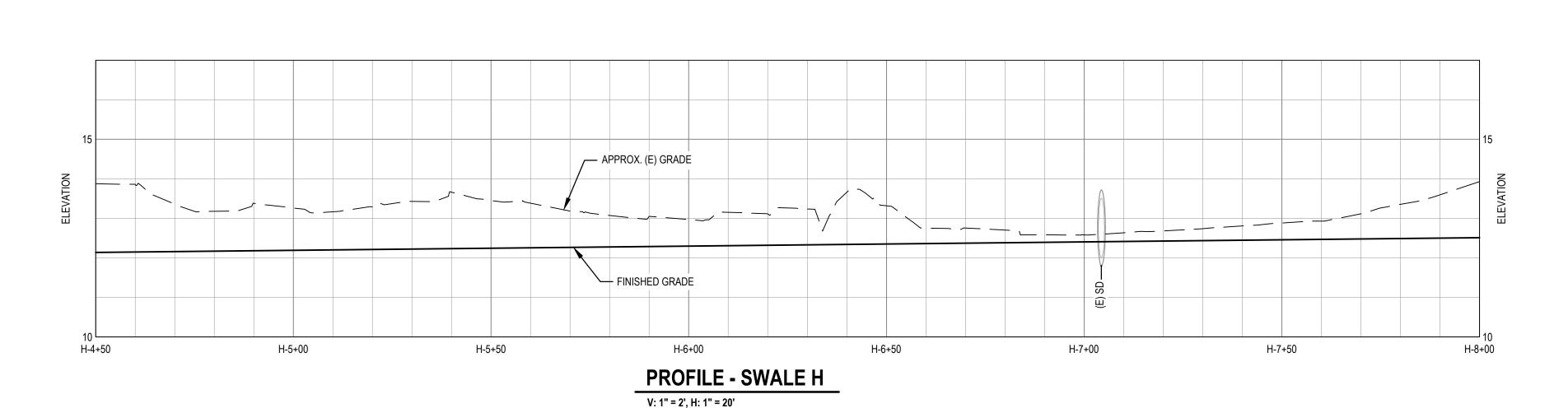
2025-02-01

Title PENINSULA DR FROM DEAN AVE TO MILL ST (1 OF 6)

STA H-00+68 TO STA H-19+40

Design Check B. VIVYAN Project Director J. SVEHLA Plotted By: Brett Vivyan Filename: \\ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-C SHEETS.dwg





### SHEET GENERAL NOTES

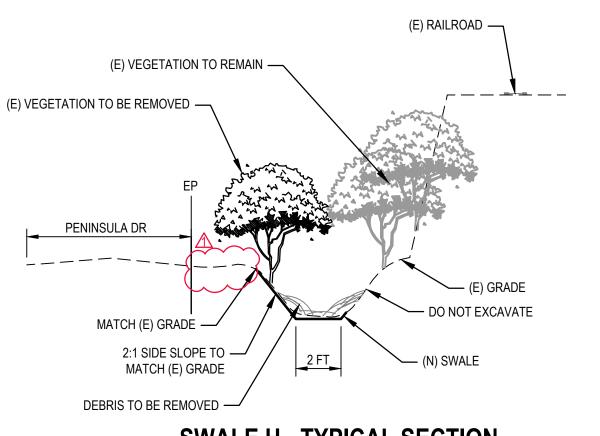
- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
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# **○** SHEET KEYNOTES (C-101 - C-114)

- 1. (N) 36" DUAL-WALL HDPE SD PIPE.
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- (N) 24" RCP SD PIPE.
- 4. (N) 18" DUAL-WALL HDPE SD PIPE.
- (N) 18" RCP SD PIPE.
- 6. (N) THICKENED CURB PER DETAIL 4/C-503.
- 7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.
- 8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.
- 9. AC PATCH PAVING, PER DETAIL 4/C-501.
- 10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.
- 11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504. (N) FLARED END SECTION.
- 13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
- 15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.
- 16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.
- 17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED
- 18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.
- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- 20. (N) BERM.

Scale

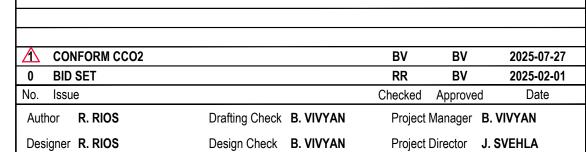
AS SHOWN



**SWALE H - TYPICAL SECTION** TYP STA H-00+68 TO STA H-19+40

10:1 VERTICAL EXAGGERATION

# CONFORM SET



Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:48 AM



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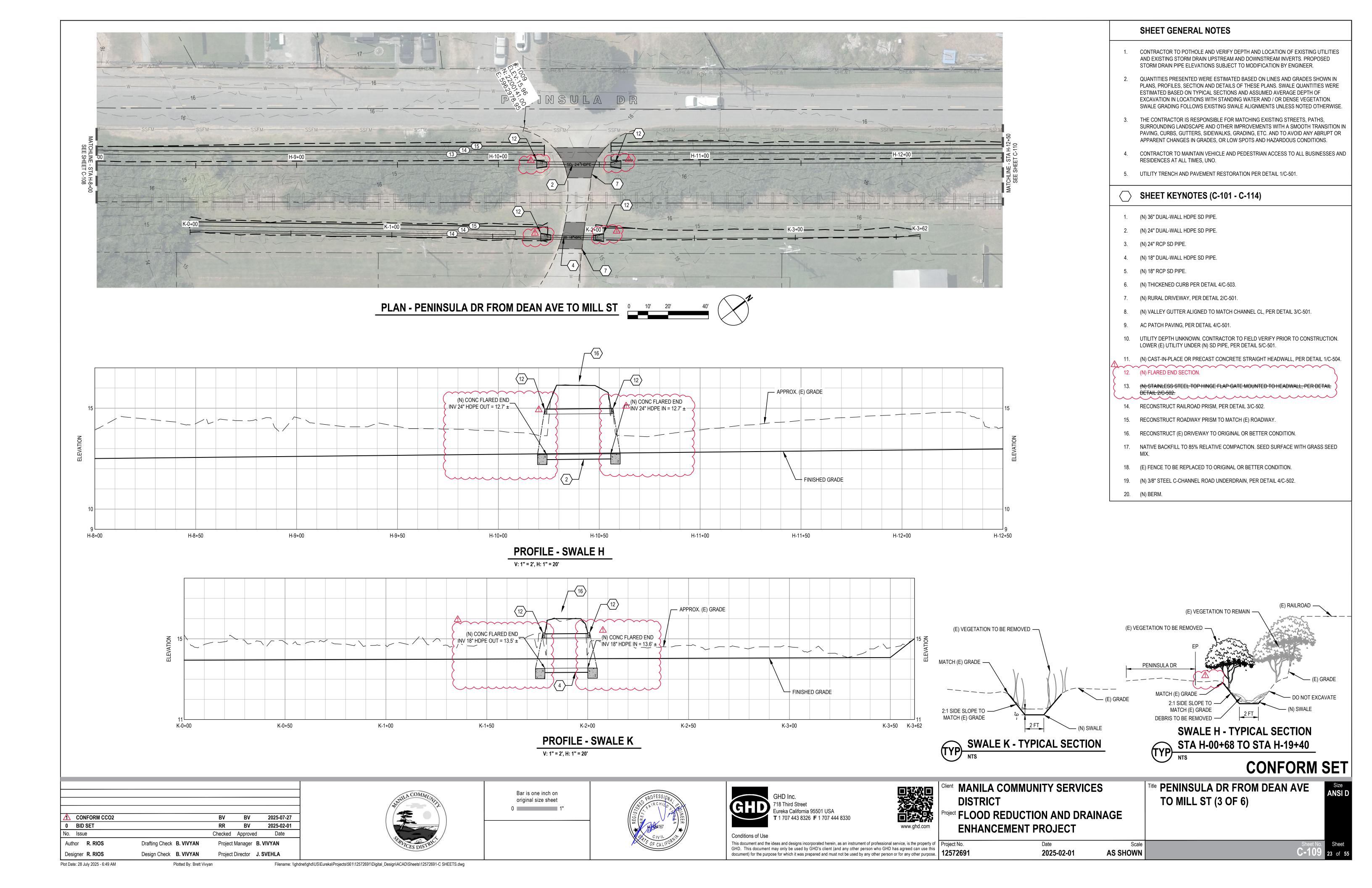
Client MANILA COMMUNITY SERVICES **DISTRICT** 

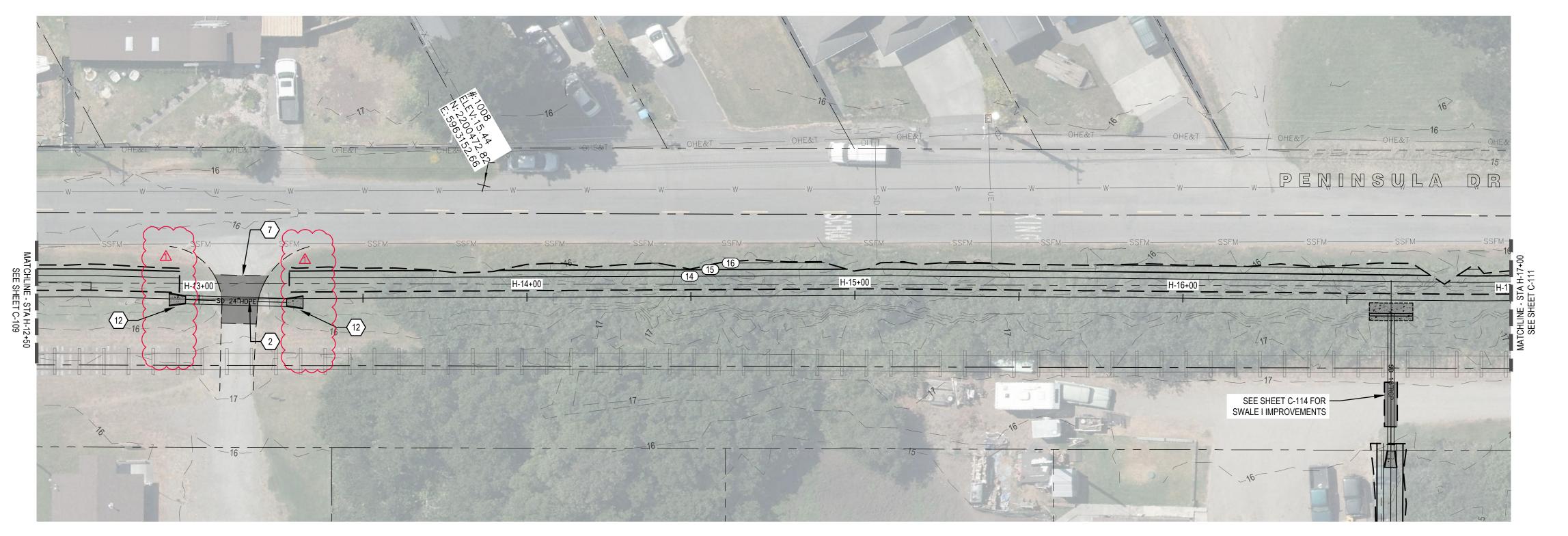
ject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

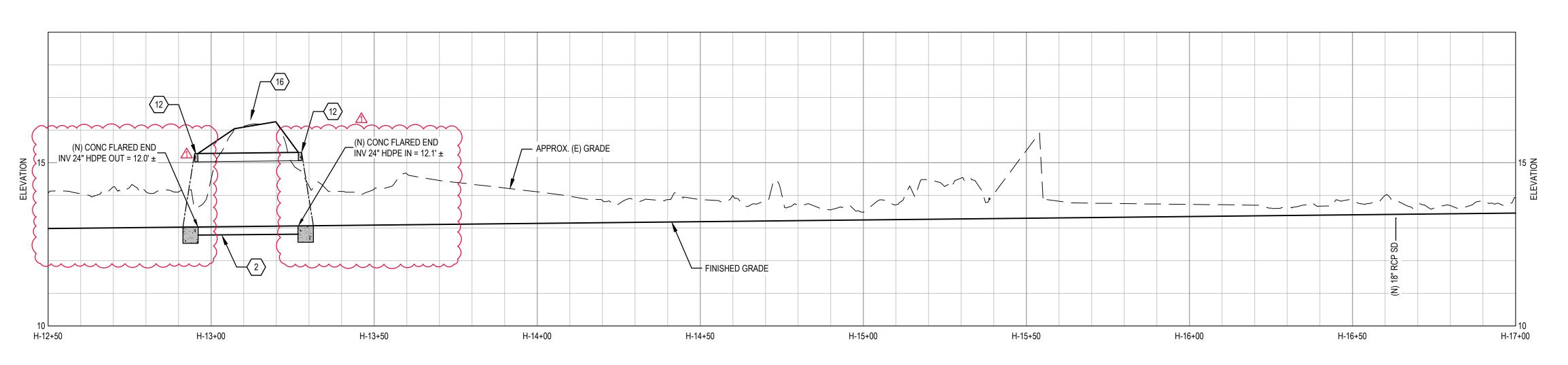
2025-02-01

Title PENINSULA DR FROM DEAN AVE TO MILL ST (2 OF 6)

Filename: \ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-C SHEETS.dwg







PROFILE - SWALE H

# **SHEET GENERAL NOTES**

- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
- QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION.
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- CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, UNO.
- 5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

# **SHEET KEYNOTES (C-101 - C-114)**

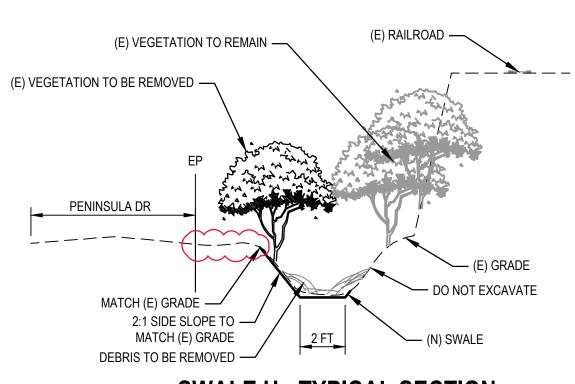
- 1. (N) 36" DUAL-WALL HDPE SD PIPE.
- 2. (N) 24" DUAL-WALL HDPE SD PIPE.
- 4. (N) 18" DUAL-WALL HDPE SD PIPE.
- (N) 18" RCP SD PIPE.

(N) 24" RCP SD PIPE.

- 6. (N) THICKENED CURB PER DETAIL 4/C-503.
- (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.
- 8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.
- 9. AC PATCH PAVING, PER DETAIL 4/C-501.
- 10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.
- 11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504. 12. (N) FLARED END SECTION.
- 13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del> DETAIL 2/C-502.
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
- 15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.
- 16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.
- 17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED
- 18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.
- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- 20. (N) BERM.

Scale

AS SHOWN





# CONFORM SET

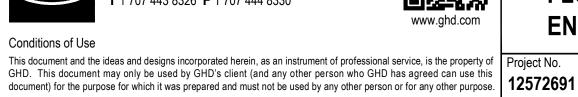
⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B.	VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director J.	SVFHI A



Bar is one inch on original size sheet 0 1"







Client MANILA COMMUNITY SERVICES **DISTRICT** 

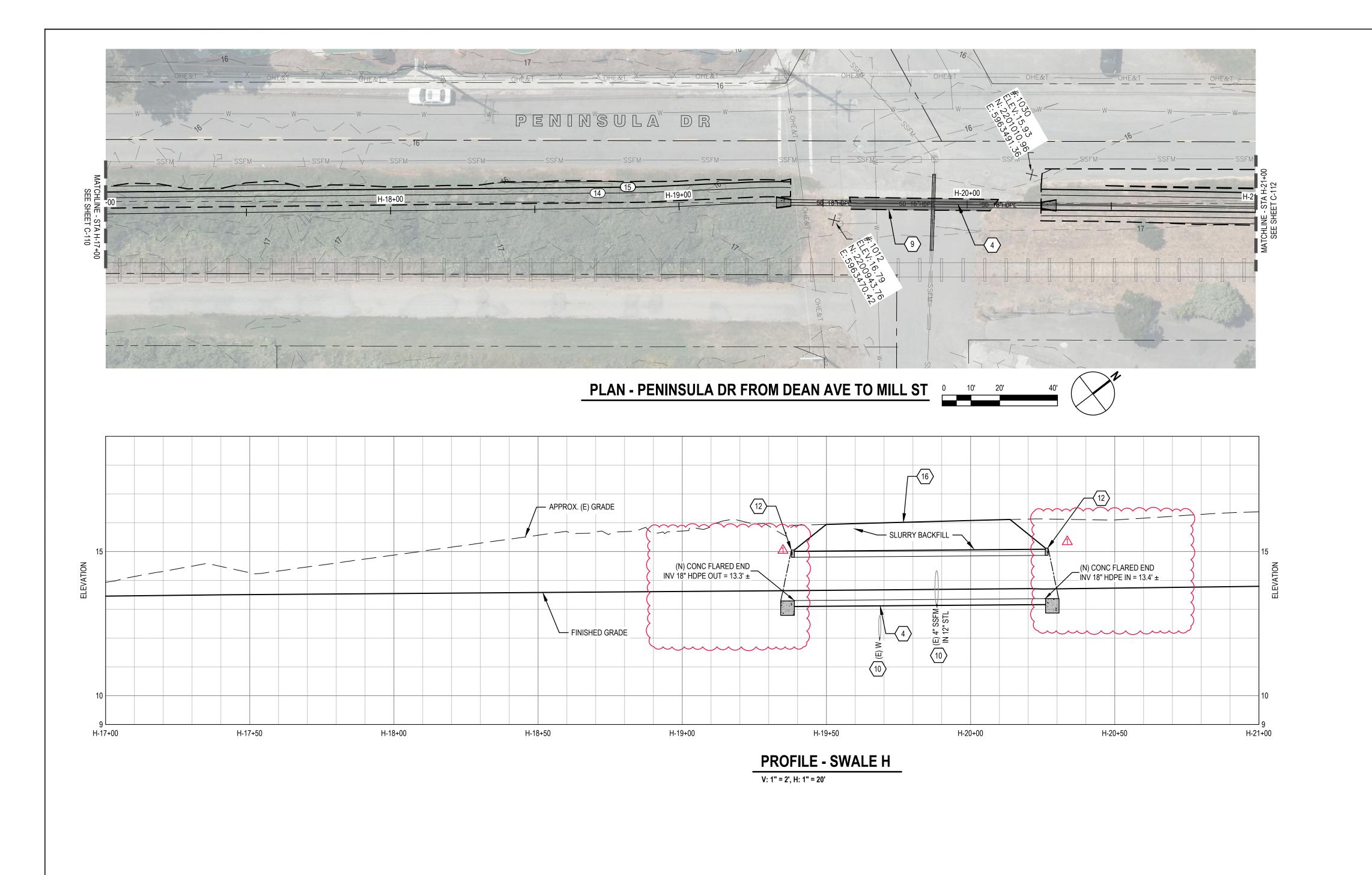
ject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

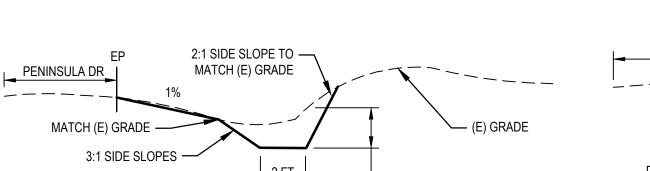
2025-02-01

Title PENINSULA DR FROM DEAN AVE TO MILL ST (4 OF 6)

 $Filename: \verb|\ghd| uS\Eureka| Projects \verb|\scale=1| 12572691 \verb|\display| Design \verb|\acada| ACAD \verb|\scale=1| 12572691-C SHEETS. dwg$ 

Plot Date: 28 July 2025 - 6:51 AM





**SWALE H - TYPICAL SECTION** STA H-20+21 TO STA H-22+65

### SHEET GENERAL NOTES

- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
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- 5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

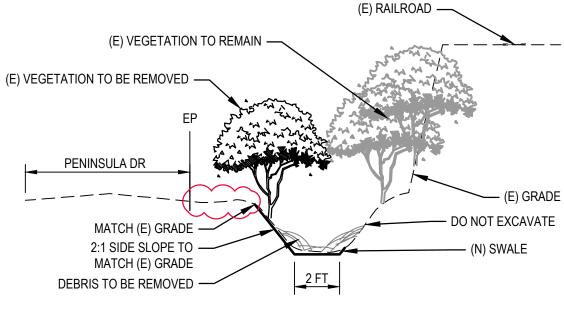
# **○** SHEET KEYNOTES (C-101 - C-114)

- 1. (N) 36" DUAL-WALL HDPE SD PIPE.
- 2. (N) 24" DUAL-WALL HDPE SD PIPE.
- 4. (N) 18" DUAL-WALL HDPE SD PIPE.
- (N) 18" RCP SD PIPE.

(N) 24" RCP SD PIPE.

- 6. (N) THICKENED CURB PER DETAIL 4/C-503.
- (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.
- 8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.
- 9. AC PATCH PAVING, PER DETAIL 4/C-501.
- 10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.
- 11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.
- (N) FLARED END SECTION.
- 13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
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- 18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.
- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- (N) BERM.

Scale



**SWALE H - TYPICAL SECTION** TYP STA H-00+68 TO STA H-19+40

NTS

# CONFORM SET

⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B.	VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Proiect	Director J.	SVEHLA



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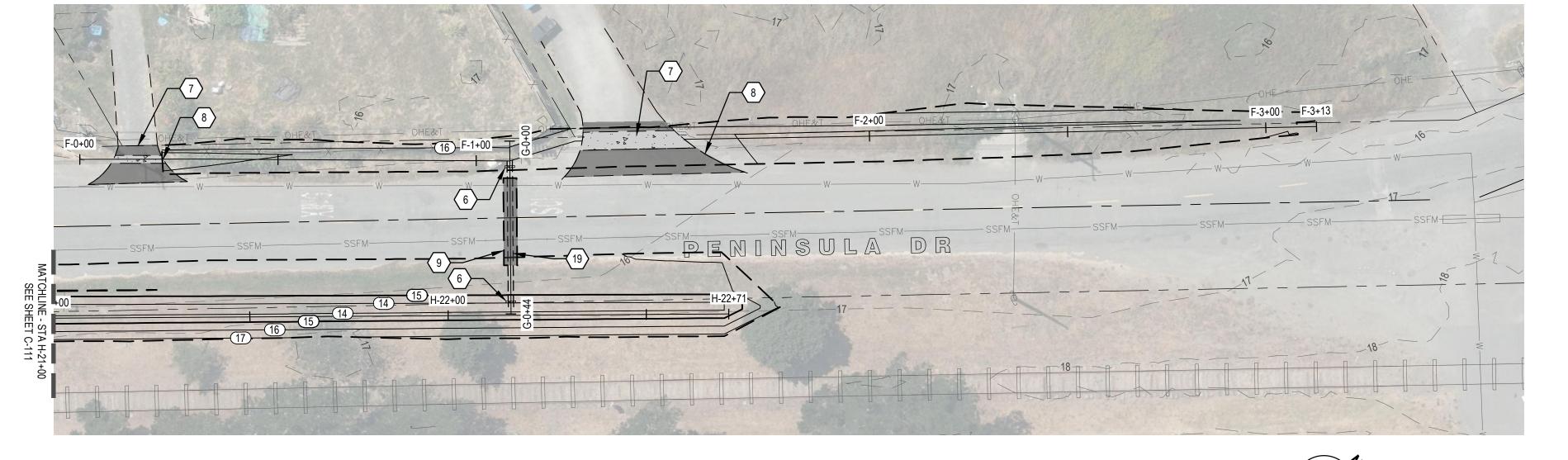
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v.ghd.com		<b>FNH</b>

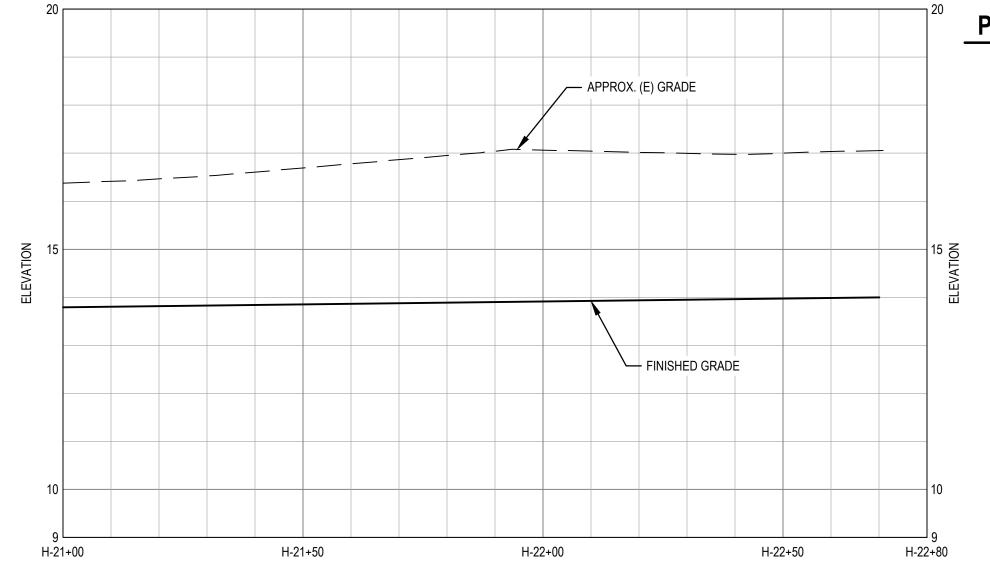
Client MANILA COMMUNITY SERVICES OOD REDUCTION AND DRAINAGE

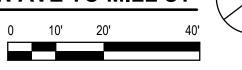
**ENHANCEMENT PROJECT** 

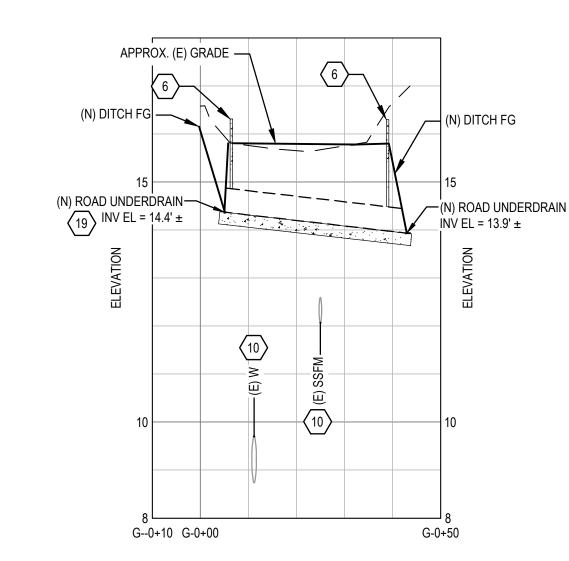
Title PENINSULA DR FROM DEAN AVE TO MILL ST (5 OF 6)

2025-02-01 **AS SHOWN** 









# PROFILE -PENINSULA DR SD CROSSING

### SHEET GENERAL NOTES

- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
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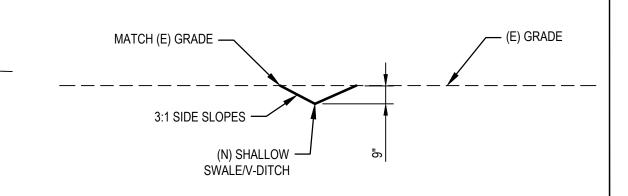
- 1. (N) 36" DUAL-WALL HDPE SD PIPE.
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- 12. (N) FLARED END SECTION.
- 13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
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- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- 20. (N) BERM.

# PENINSULA DR FINISHED GRADE —

**SWALE H - TYPICAL SECTION** STA H-20+21 TO STA H-22+65

NTS

2:1 SIDE SLOPE TO -MATCH (E) GRADE



SWALE F - TYPICAL SECTION

NTS

# PROFILE - SWALE F

F-2+00

PROFILE - SWALE H

APPROX. (E) GRADE —

# V: 1" = 2', H: 1" = 20'

Bar is one inch on original size sheet 0 1"

F-1+50



F-2+50



F-3+00



MATCH (E) GRADE

3:1 SIDE SLOPES

Client MANILA COMMUNITY SERVICES **DISTRICT** pject FLOOD REDUCTION AND DRAINAGE

- (E) GRADE

TO MILL ST (6 OF 6)

Scale

AS SHOWN

CONFORM SET Title PENINSULA DR FROM DEAN AVE

0 BID SET No. Issue Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Project Director J. SVEHLA Designer R. RIOS Design Check B. VIVYAN

CONFORM CCO2

Plot Date: 28 July 2025 - 6:53 AM

F-0+00

Plotted By: Brett Vivyan

 $Filename: \verb|\ghdnet|\ghd\\| US\Eureka|\Projects|561\\| 12572691\\| Digital\_Design\\| ACAD\\| Sheets\\| 12572691-C\ SHEETS.dwg$ 

F-1+00

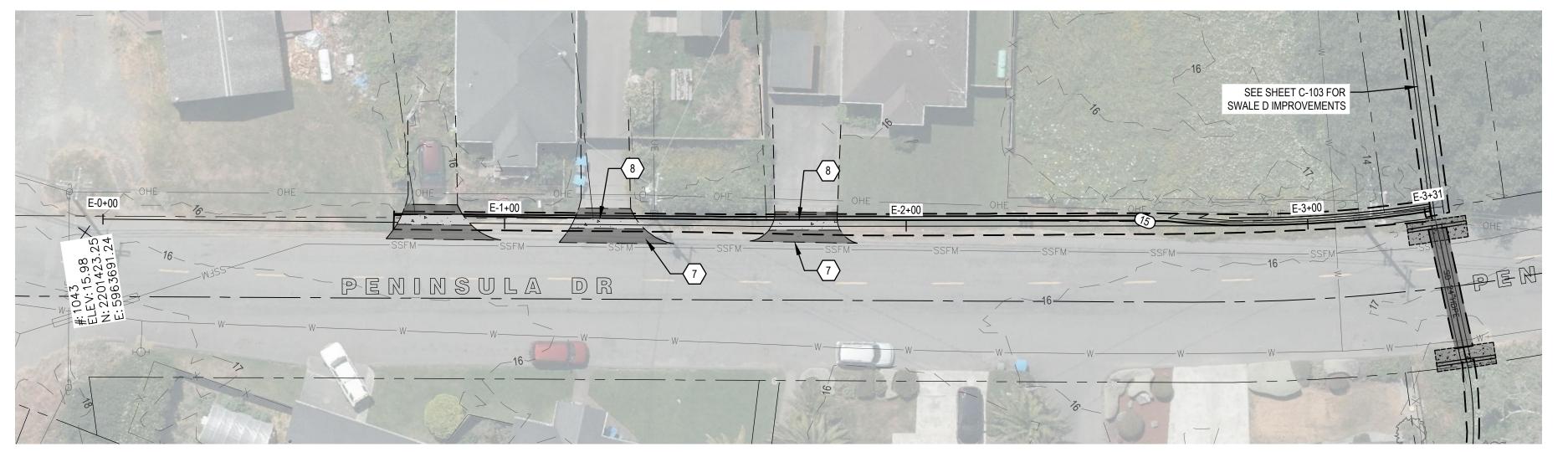
F-0+50

2025-07-27

2025-02-01

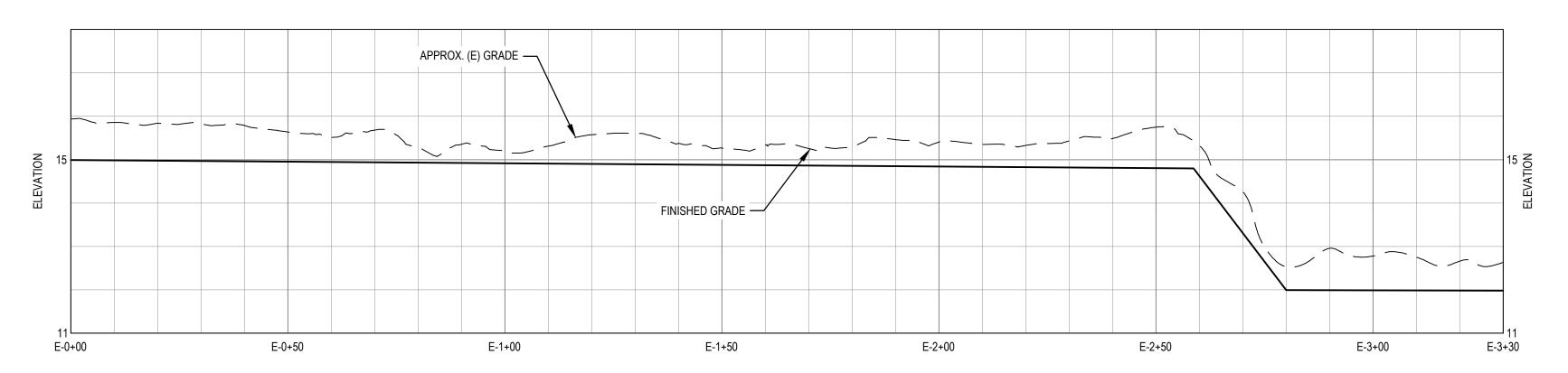
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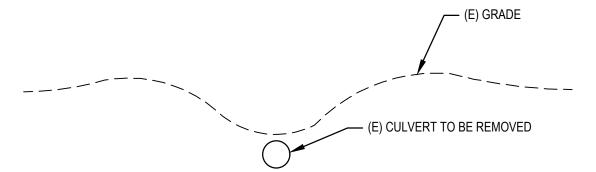
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# PLAN - PENINSULA DR BETWEEN MILL ST & CARLSON DR

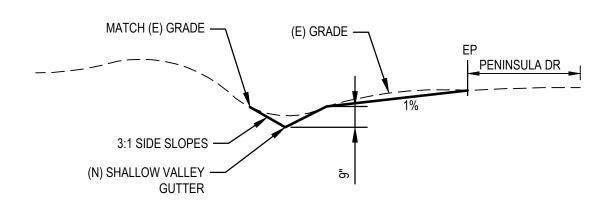






# V: 1" = 2', H: 1" = 20'

# **EXISTING**



# SWALE E - TYPICAL SECTION NTS

# PROFILE - SWALE E

# **PROPOSED**

# Bar is one inch on original size sheet 0 1"

CONFORM CCO2 BV 2025-07-27 2025-02-01 0 BID SET No. Issue Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Designer R. RIOS Design Check B. VIVYAN Project Director J. SVEHLA









**DISTRICT** pject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

**Client MANILA COMMUNITY SERVICES** 

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Title PENINSULA DR BETWEEN MILL ST & CARLSON DR

SHEET GENERAL NOTES

RESIDENCES AT ALL TIMES, UNO.

1. (N) 36" DUAL-WALL HDPE SD PIPE.

2. (N) 24" DUAL-WALL HDPE SD PIPE.

4. (N) 18" DUAL-WALL HDPE SD PIPE.

6. (N) THICKENED CURB PER DETAIL 4/C-503.

7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.

9. AC PATCH PAVING, PER DETAIL 4/C-501.

12. (N) FLARED END SECTION.

20. (N) BERM.

(N) 24" RCP SD PIPE.

(N) 18" RCP SD PIPE.

**○ SHEET KEYNOTES (C-101 - C-114)** 

CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.

QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN

ESTIMATED BASED ON TYPICAL SECTIONS AND ASSUMED AVERAGE DEPTH OF EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION. SWALE GRADING FOLLOWS EXISTING SWALE ALIGNMENTS UNLESS NOTED OTHERWISE

THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS,

4. CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND

5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.

LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.

14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.

15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.

16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.

18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.

19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.

10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.

13. <del>(N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL</del>

17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED

SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.

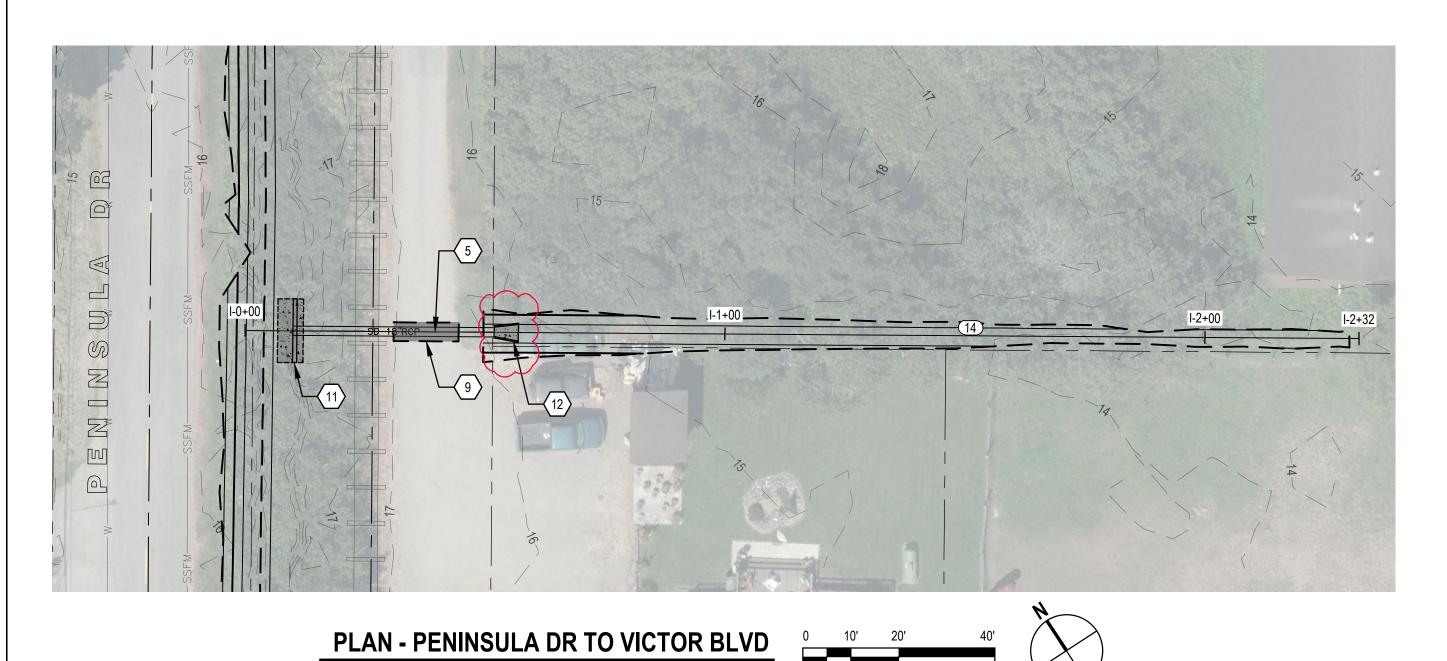
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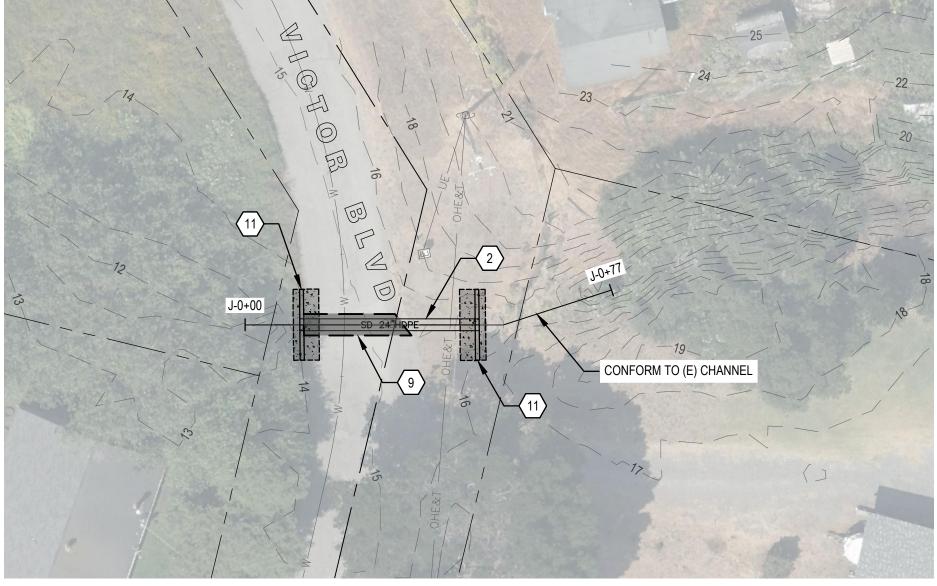
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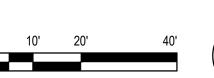
Plot Date: 28 July 2025 - 6:53 AM Plotted By: Brett Vivyan

Filename: \\ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-C SHEETS.dwg

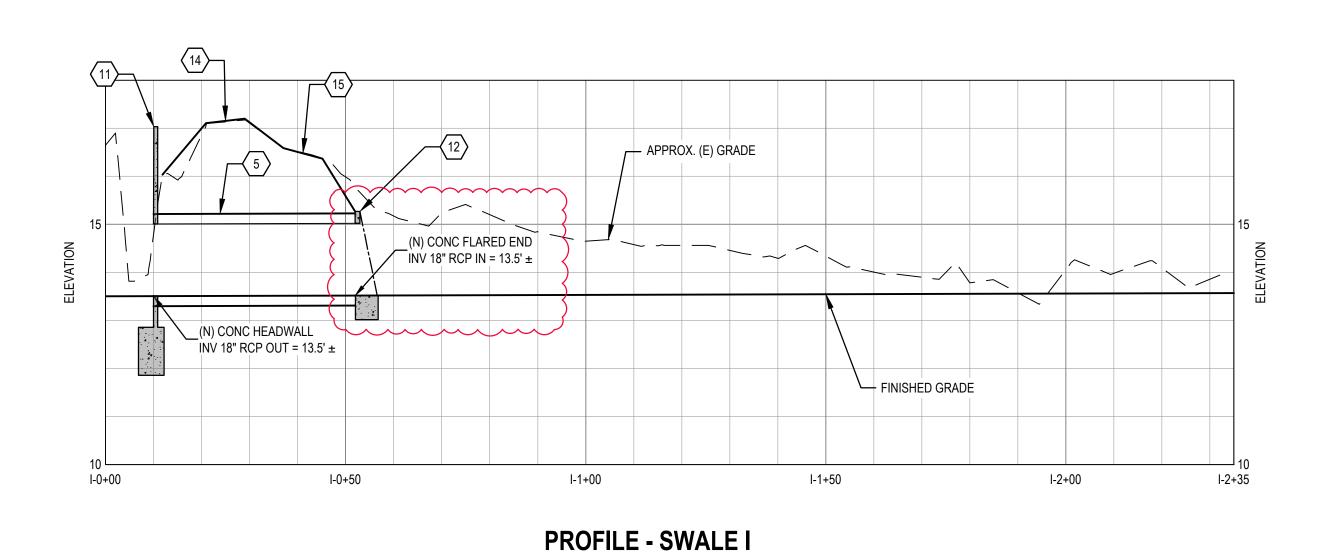




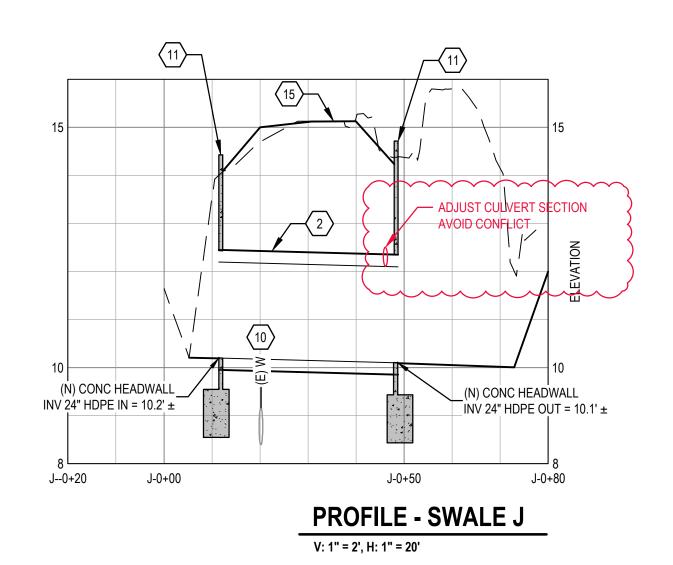
PLAN - VICTOR BLVD







V: 1" = 2', H: 1" = 20'



# **SHEET GENERAL NOTES**

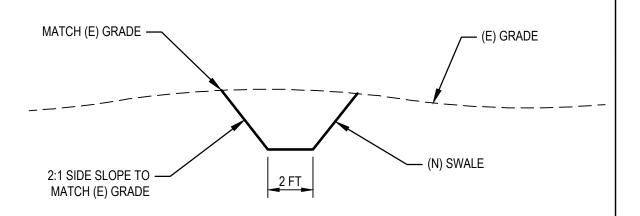
- CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND EXISTING STORM DRAIN UPSTREAM AND DOWNSTREAM INVERTS. PROPOSED STORM DRAIN PIPE ELEVATIONS SUBJECT TO MODIFICATION BY ENGINEER.
- QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN ESTIMATED BASED ON TYPICAL SECTIONS AND ASSUMED AVERAGE DEPTH OF EXCAVATION IN LOCATIONS WITH STANDING WATER AND / OR DENSE VEGETATION.
- THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.
- CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, UNO.
- 5. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

# **○** SHEET KEYNOTES (C-101 - C-114)

- 1. (N) 36" DUAL-WALL HDPE SD PIPE.
- 2. (N) 24" DUAL-WALL HDPE SD PIPE.
- (N) 24" RCP SD PIPE.
- 4. (N) 18" DUAL-WALL HDPE SD PIPE.
- (N) 18" RCP SD PIPE.
- 6. (N) THICKENED CURB PER DETAIL 4/C-503.
- 7. (N) RURAL DRIVEWAY, PER DETAIL 2/C-501.
- 8. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.
- 9. AC PATCH PAVING, PER DETAIL 4/C-501.
- 10. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.
- 11. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504. 12. (N) FLARED END SECTION.
- 13. (N) STAINLESS STEEL TOP HINGE FLAP GATE MOUNTED TO HEADWALL, PER DETAIL
- 14. RECONSTRUCT RAILROAD PRISM, PER DETAIL 3/C-502.
- 15. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.
- 16. RECONSTRUCT (E) DRIVEWAY TO ORIGINAL OR BETTER CONDITION.
- 17. NATIVE BACKFILL TO 85% RELATIVE COMPACTION. SEED SURFACE WITH GRASS SEED
- 18. (E) FENCE TO BE REPLACED TO ORIGINAL OR BETTER CONDITION.
- 19. (N) 3/8" STEEL C-CHANNEL ROAD UNDERDRAIN, PER DETAIL 4/C-502.
- 20. (N) BERM.

Scale

AS SHOWN





# CONFORM SET

		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B.	VIVYAN



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original size sheet

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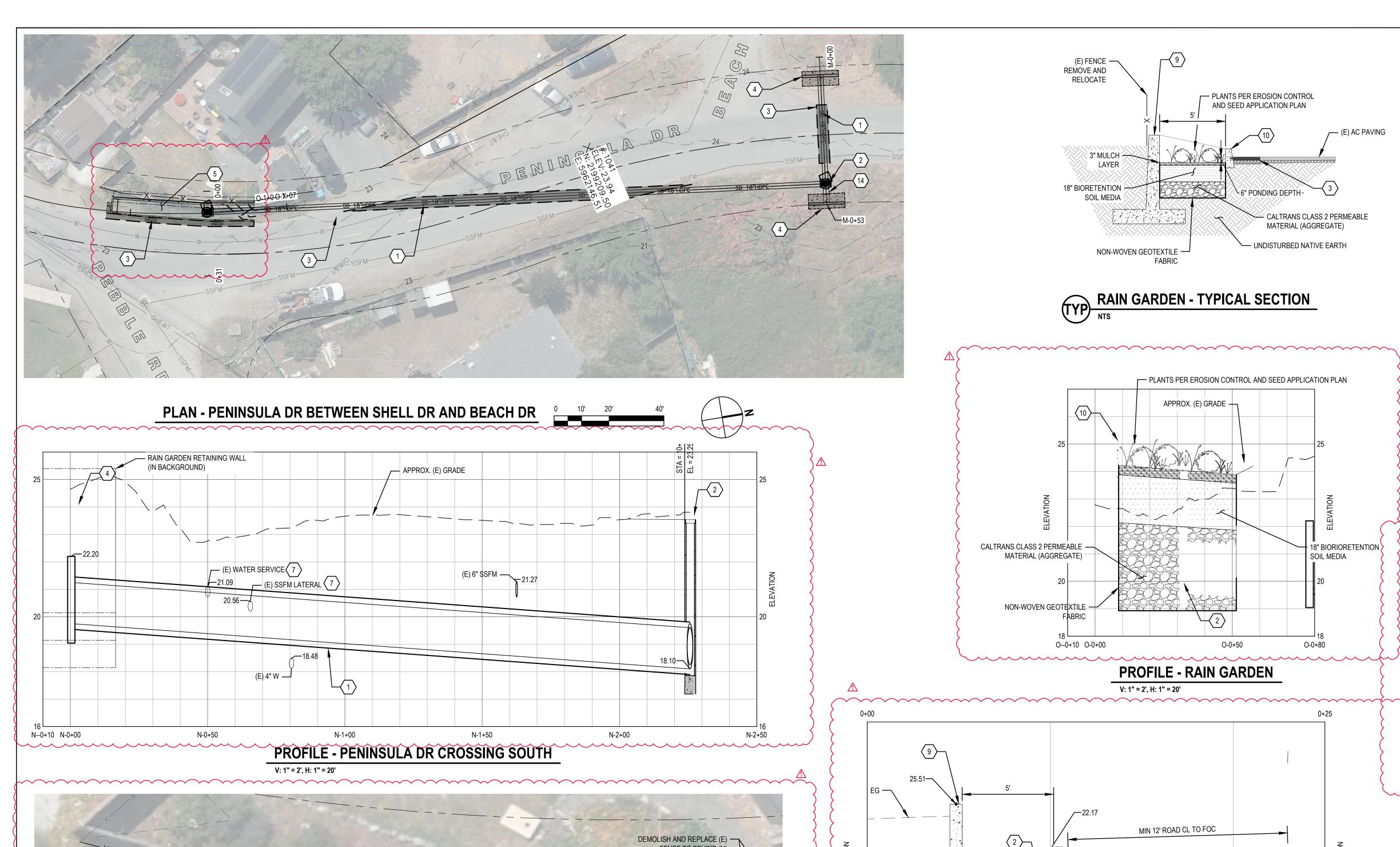
Client MANILA COMMUNITY SERVICES DISTRICT

pject FLOOD REDUCTION AND DRAINAGE

2025-02-01

**ENHANCEMENT PROJECT** 

Title PENINSULA TO VICTOR BLVD



RETAINING WALL, FIELD VERIFY SLOPE TO DRAIN INTO

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· 18" BIORIORETENTION

- CALTRANS CLASS 2 PERMEABLE MATERIAL (AGGREGATE)

SOIL MEDIA

NON-WOVEN GEOTEXTILE

RAIN GARDEN - DI SECTION

Client MANILA COMMUNITY SERVICES **DISTRICT** ject FLOOD REDUCTION AND DRAINAGE

**ENHANCEMENT PROJECT** 

AND BEACH DR

SHEET GENERAL NOTES

RESIDENCES AT ALL TIMES, UNO.

(N) 18" DUAL-WALL HDPE SD PIPE.

AC PATCH PAVING, PER DETAIL 4/C-501.

9. (N) RETAINING WALL PER DETAIL 1/C-505.

10. (N) STANDARD CURB, PER DETAIL 3/C-503.

14. (N) 24" DUAL WALL HDPE SD PIPE.

(N) DI HDPE IN =18.1'

V: 1" = 2', H: 1" = 20'

Scale

M--0+20

11. (N) RURAL DRIVEWAY, PER TYPICAL DETAIL 2/C-501.

THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS

SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR

QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN

2. (N) 24" X 24" PRECAST CONCRETE OR CALTRANS TYPE G1 STORM DRAIN DROP INLET

(N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.

UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

PLANS, PROFILES, SECTION AND DETAILS OF THESE PLANS.

SHEET KEYNOTES (C-115 - C-116)

JENSEN PRECAST OR EQUAL, PER DETAIL 5/C-502.

(N) DEPRESSED INLET, PER DETAIL 1/C-503.

8. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.

(N) RAIN GARDEN LID. SEE TYPICAL SECTION FOR DETAILS.

LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.

12. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.

13. (N) CAST-IN-PLACE OR PRECAST CONCRETE "L" HEADWALL, PER DETAIL 2/C-504.

- FINISHED GRADE

— (N) CONC HEADWALL

INV =18.0'

M-0+50

PROFILE - PENINSULA DR CROSSING NORTH

CONFORM SET

CONFORM CCO2 2025-07-27 2025-02-01 0 BID SET No. Issue Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN

Design Check B. VIVYAN



2025-02-01 **AS SHOWN**  itle PENINSULA DR BETWEEN SHELL

Plot Date: 28 July 2025 - 6:55 AM

Designer R. RIOS

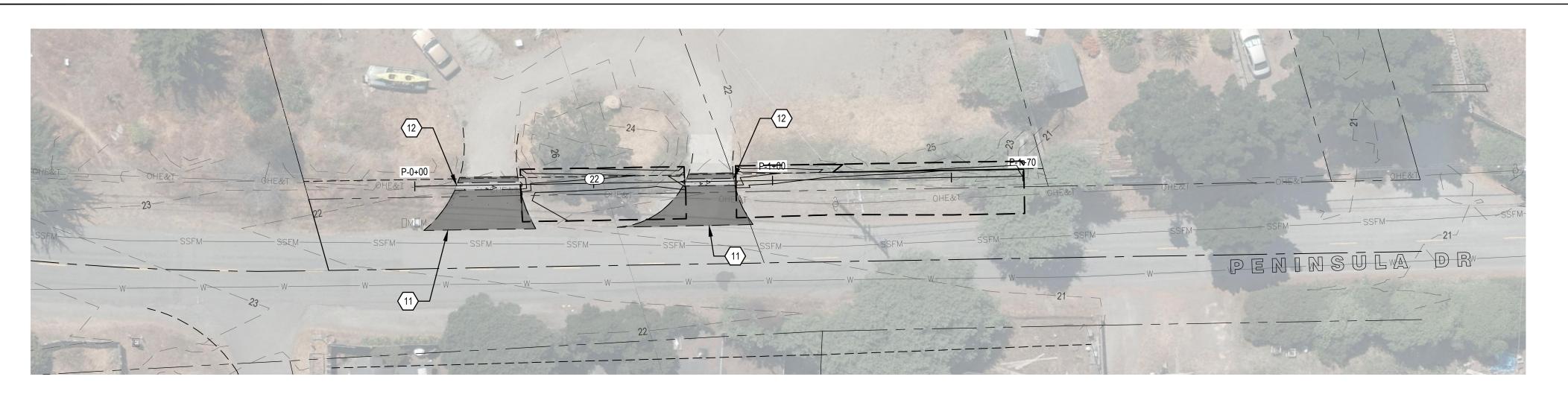
GRADE (E) DRIVEWAY TO DRAIN TO RAIN GARDEN

Plotted By: Brett Vivyan

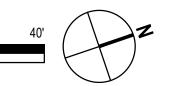
Project Director J. SVEHLA

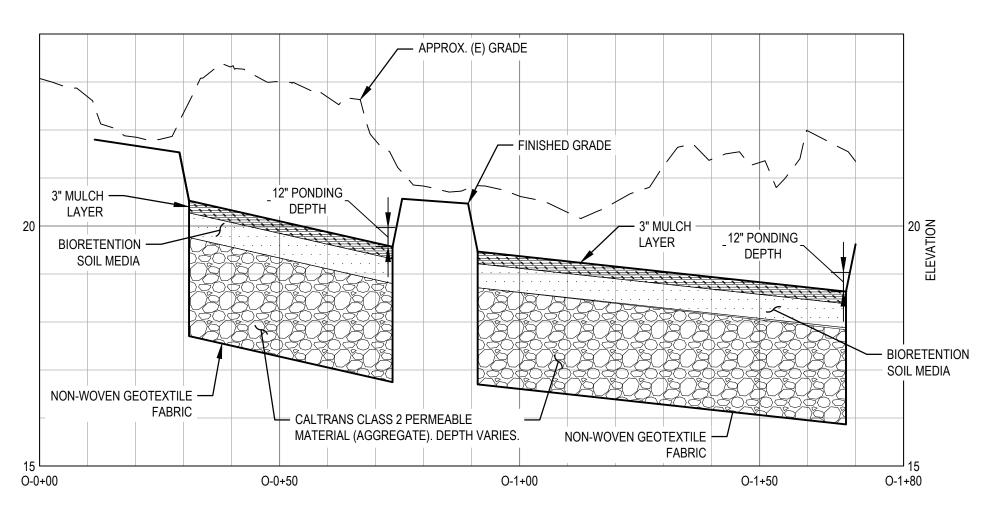
**ENLARGED PLAN - RAIN GARDEN** 

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# PLAN - PENINSULA DR BETWEEN TAYLOR CT AND JEWELL LN





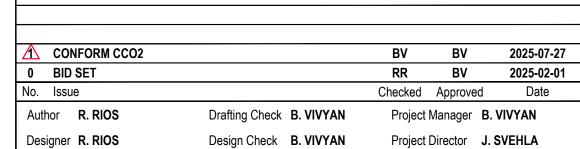
PLANTS PER EROSION CONTROL AND SEED APPLICATION PLAN FINISHED GRADE — 9' SPACE FOR PARKING (E) AC PAVING 3" MULCH — BIORETENTION — — 2:1 SIDE SLOPE SOIL MEDIA CALTRANS CLASS 2 PERMEABLE MATERIAL (AGGREGATE). DEPTH VARIES. NON-WOVEN GEOTEXTILE —

# PROFILE - PENINSULA DR BETWEEN TAYLOR CT AND JEWELL LN

V: 1" = 2', H: 1" = 20'



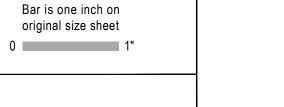
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Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:56 AM









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Project No.

12572691

DISTRICT Piect FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

**Client MANILA COMMUNITY SERVICES** 

2025-02-01

Scale

AS SHOWN

Title PENINSULA DR BETWEEN TAYLOR CT AND JEWELL LN

SHEET GENERAL NOTES

RESIDENCES AT ALL TIMES, UNO.

1. (N) 18" DUAL-WALL HDPE SD PIPE.

AC PATCH PAVING, PER DETAIL 4/C-501.

6. (N) DEPRESSED INLET, PER DETAIL 1/C-503.

9. (N) RETAINING WALL PER DETAIL 1/C-505.

10. (N) STANDARD CURB, PER DETAIL 3/C-503.

14. (N) 24" DUAL WALL HDPE SD PIPE.

11. (N) RURAL DRIVEWAY, PER TYPICAL DETAIL 2/C-501.

**○** SHEET KEYNOTES (C-115 - C-116)

JENSEN PRECAST OR EQUAL, PER DETAIL 5/C-502.

5. (N) RAIN GARDEN LID. SEE TYPICAL SECTION FOR DETAILS.

8. RECONSTRUCT ROADWAY PRISM TO MATCH (E) ROADWAY.

LOWER (E) UTILITY UNDER (N) SD PIPE, PER DETAIL 5/C-501.

12. (N) VALLEY GUTTER ALIGNED TO MATCH CHANNEL CL, PER DETAIL 3/C-501.

13. (N) CAST-IN-PLACE OR PRECAST CONCRETE "L" HEADWALL, PER DETAIL 2/C-504.

THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS,

2. CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND

QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN

2. (N) 24" X 24" PRECAST CONCRETE OR CALTRANS TYPE G1 STORM DRAIN DROP INLET,

4. (N) CAST-IN-PLACE OR PRECAST CONCRETE STRAIGHT HEADWALL, PER DETAIL 1/C-504.

7. UTILITY DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

PLANS, PROFILES, SECTION AND DETAILS OF THESE PLANS.

SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.



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### SHEET GENERAL NOTES

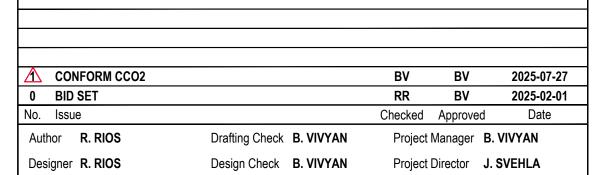
- THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, PATHS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC. AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, OR LOW SPOTS AND HAZARDOUS CONDITIONS.
- 2. CONTRACTOR TO MAINTAIN VEHICLE AND PEDESTRIAN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES, UNO.
- 3. QUANTITIES PRESENTED WERE ESTIMATED BASED ON LINES AND GRADES SHOWN IN PLANS, PROFILES, SECTION AND DETAILS OF THESE PLANS.
- 4. UTILITY TRENCH AND PAVEMENT RESTORATION PER DETAIL 1/C-501.

# SHEET KEYNOTES (C-117)

- 1. (N) 12" DUAL WALL HDPE SD PIPE, MATCH (E) RCP PIPE INVERT AND DISCHARGE LOCATION. CONTRACTOR TO POTHOLE AND VERIFY DEPTH AND ALIGNMENT.
- 2. (N) 24" X 24" PRECAST CONCRETE STORM DRAIN DROP INLET, JENSEN PRECAST OR EQUAL, PER DETAIL 5/C-502.
- 3. (N) 6" SEWER (SDR35) WITH CLEANOUTS (4 LOCATIONS) MATCH EXISTING ALIGNMENT AND CONNECTIONS
- 4. (N) 4" SEWER (SDR35) MATCH EXISTING ALIGNMENT AND REPLACE ALL CONNECTIONS
- 5. (N) 2" SCH 40 PVC DRAIN TO SEWER, MATCH EXISTING ALIGNMENT AND REPLACE ALL
- 6. (N) 4" WATER (C900), MATCH EXISTING ALIGNMENT AND REPLACE ALL CONNECTIONS
- 7. (N) 3" WATER (SCH 40 PVC), MATCH EXISTING ALIGNMENT AND REPLACE ALL CONNECTIONS
- 8. (N)  $2\frac{1}{2}$ " WATER (SCH 40 PVC), MATCH EXISTING ALIGNMENT AND REPLACE ALL CONNECTIONS

- 1. SEE LANDSCAPING SHEETS FOR ALL ADDITIONAL COMMUNITY CENTER
- 2. CONTRACTOR TO ASSUME (E) WATER PIPES TO BE ASBESTOS CEMENT AND (E) SEWER PIPES TO BE VITRIFIED CLAY
- 3. CONTRACTOR TO VERIFY DEPTH, MATERIAL AND ALIGNMENT OF ALL UTILITIES SHOWN PRIOR TO PROCUREMENT AND INSTALLATION OF NEW TO CONFIRM FITTINGS AND APPURTENANCE COMPATIBILITY.

# CONFORM SET





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12572691

Client	MANILA COMMUNITY SERVICES
	DISTRICT
Project	FLOOD REDUCTION AND DRAINA

ND DRAINAGE

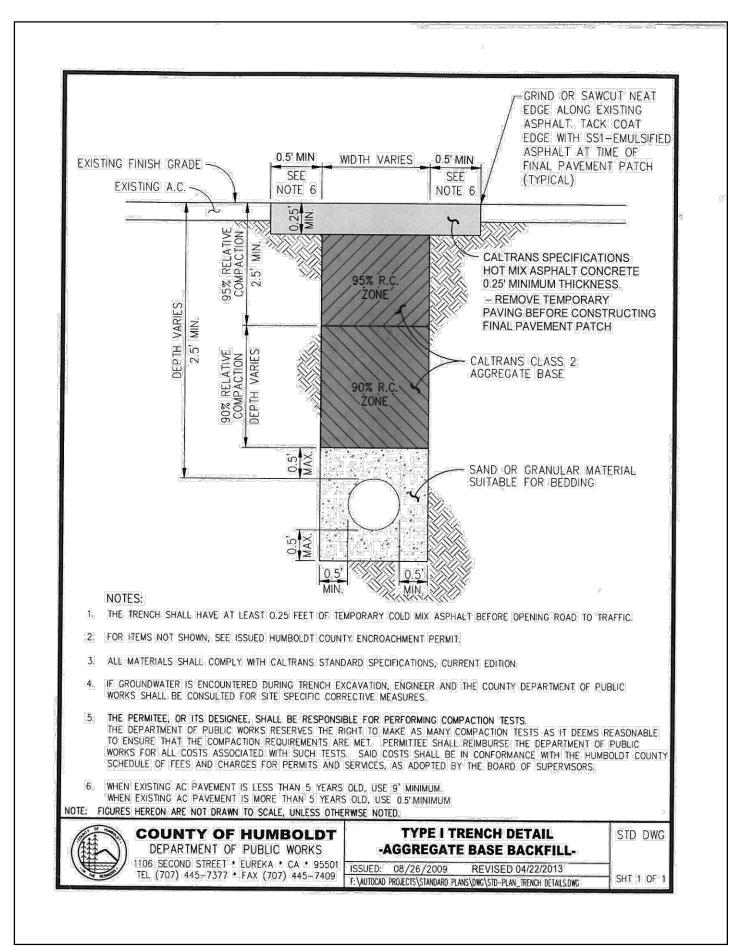
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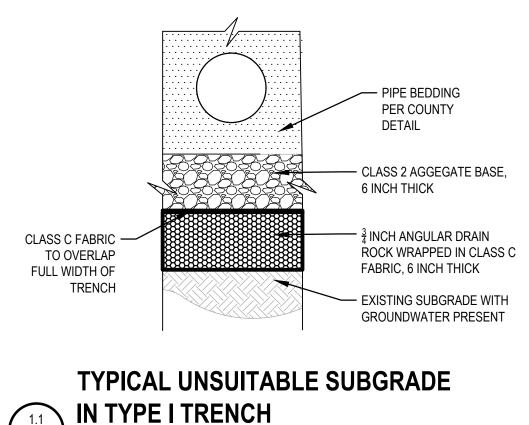
Title MANILA COMMUNITY CENTER

2025-02-01

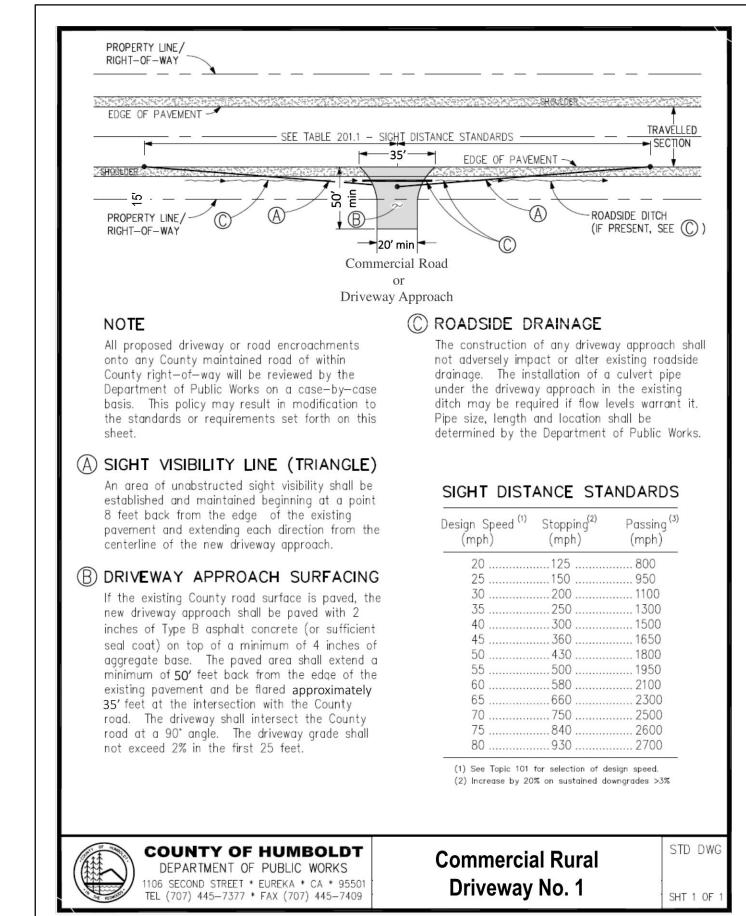
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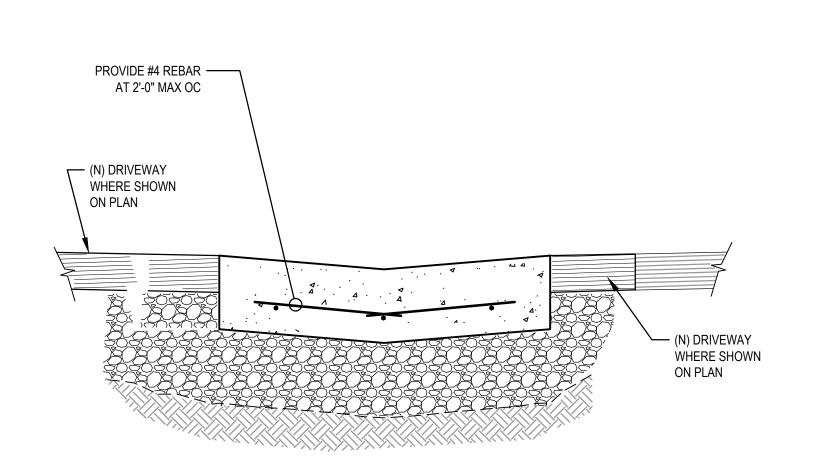




C-501 SCALE: NTS

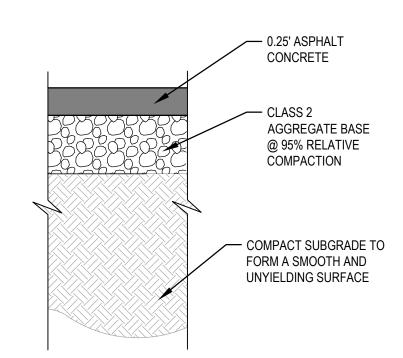


**COMMERCIAL RURAL DRIVEWAY NO. 1** 



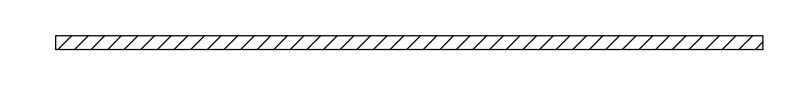


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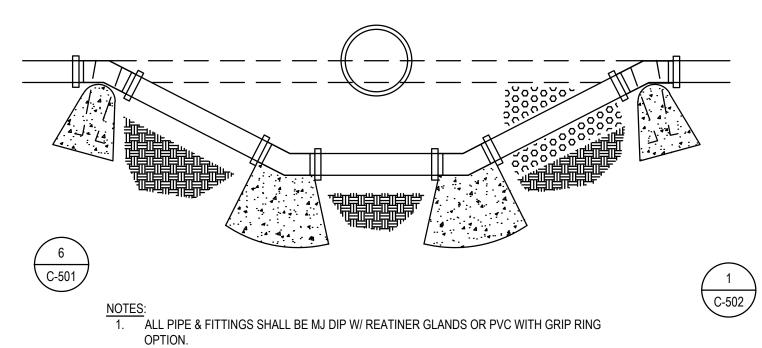


1. PROVIDE TACK COAT TO ALL VERTICAL SURFACES OF EXISTING PAVEMENT, CURBS, GUTTERS AND CONSTRUCTION JOINTS IN THE SURFACING AGAINST WHICH NEW ASPHALT CONCRETE PAVING IS





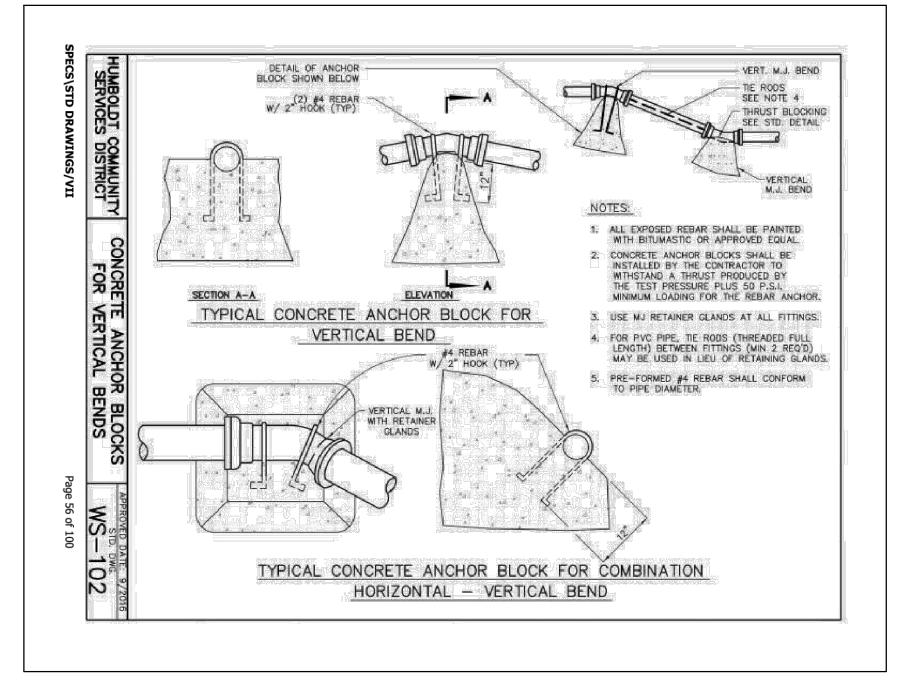
SCALE: NTS



OPTION.

- 2. ALL BENDS SHALL BE 45° OR 22.5° FITTINGS
- ALTERNATIVE DESIGNS SHALL BE REVIEWING AND APPROVED BY DISTRICT.
- RESTRAINED JOINTS BETWEEN START AND END OF LOWERED SECTION MAY BE USED IN
- LIEU OF THE (2) MIDDLE THRUST BLOCKS. 5. CENTER A FULL STICK OF PIPE UNDER (N) SD CROSSING.

TYPICAL UTILITY LOWERING DETAIL SCALE: NTS



TYPICAL ANCHOR BLOCK DETAIL C-501 SCALE: NTS

Scale

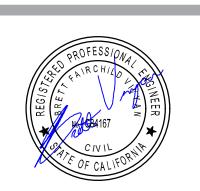
**AS SHOWN** 

# **CONFORM SET**

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CONFORM CCO2  0 BID SET		BV RR	BV BV	2025-07-27
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project Manager B. VIVYAN		
Designer R. RIOS	Design Check B. VIVYAN	Project	Director J.	SVEHLA



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Client MANILA COMMUNITY SERVICES
DISTRICT
Project FLOOD REDUCTION AND DRAINAGE
<b>ENHANCEMENT PROJECT</b>

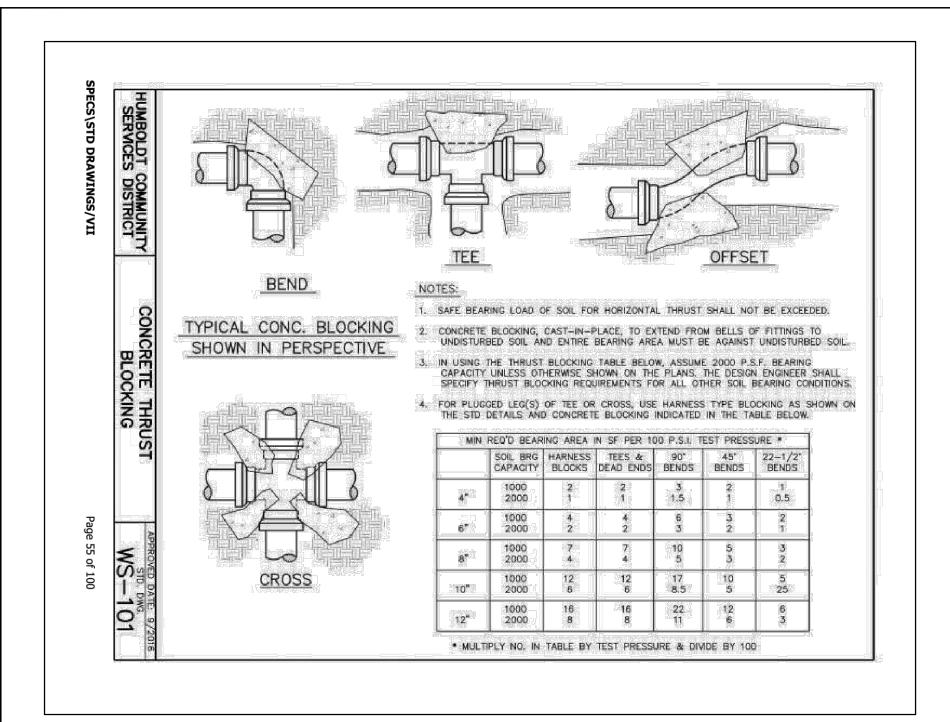
2025-02-01

Project No.

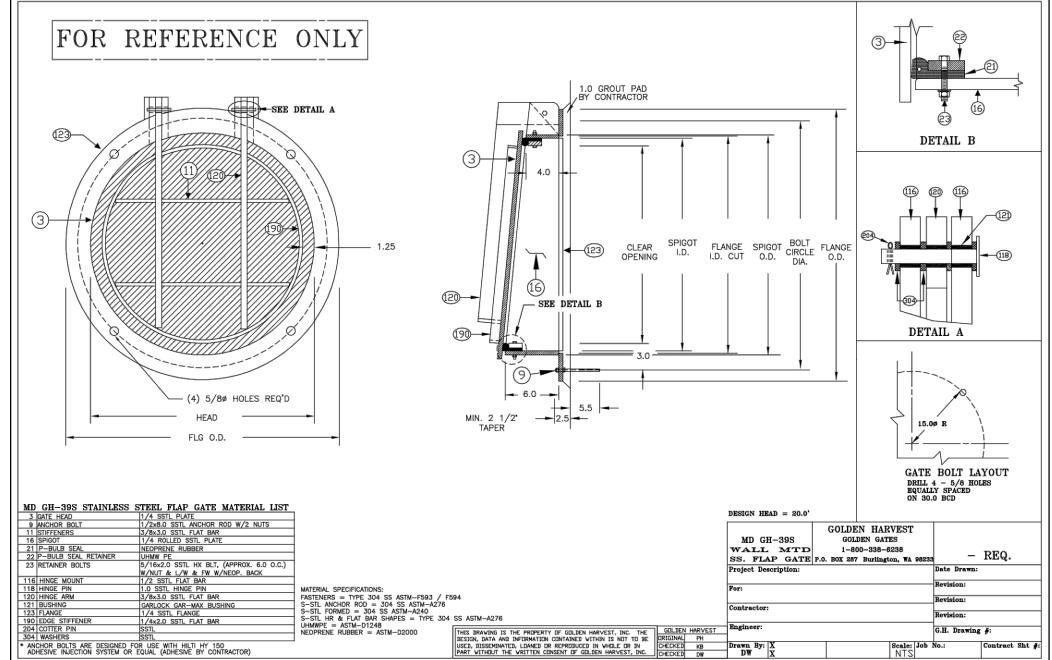
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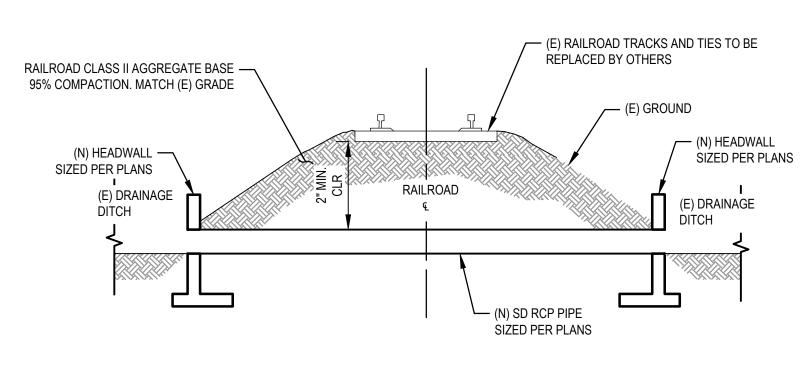
Title CIVIL DETAILS (1 OF 4)

Plot Date: 28 July 2025 - 6:57 AM Plotted By: Brett Vivyan Filename: \ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-C-501 DETAILS.dwg



TYPICAL THRUST BLOCK DETAIL



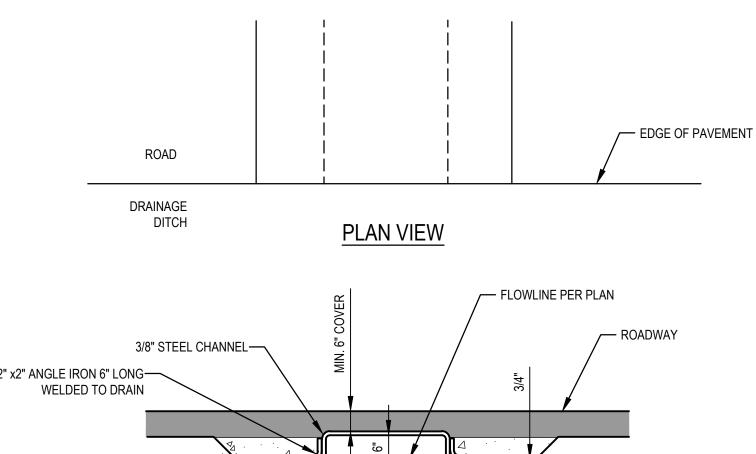


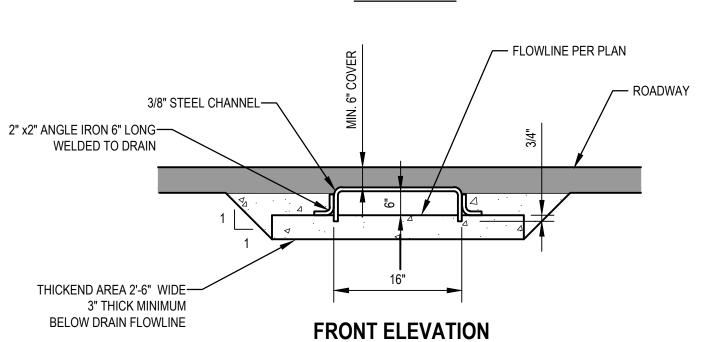
1. SD PIPE TO BE REINFORCED CONCRETE PIPE (RCP) WHEN CROSSING UNDER EXISTING RAIL

- 2. BACKFILL TRENCH UNDER RAILROAD WITH 100% CLASS 2 AB COMPACTED TO 95% MAXIMUM
- 3. 2' MINIMUM CLEARANCE UNDER (E) RAILROAD
- 4. SLOPE BALLAST AND SUBBALLAST TO MATCH (E).









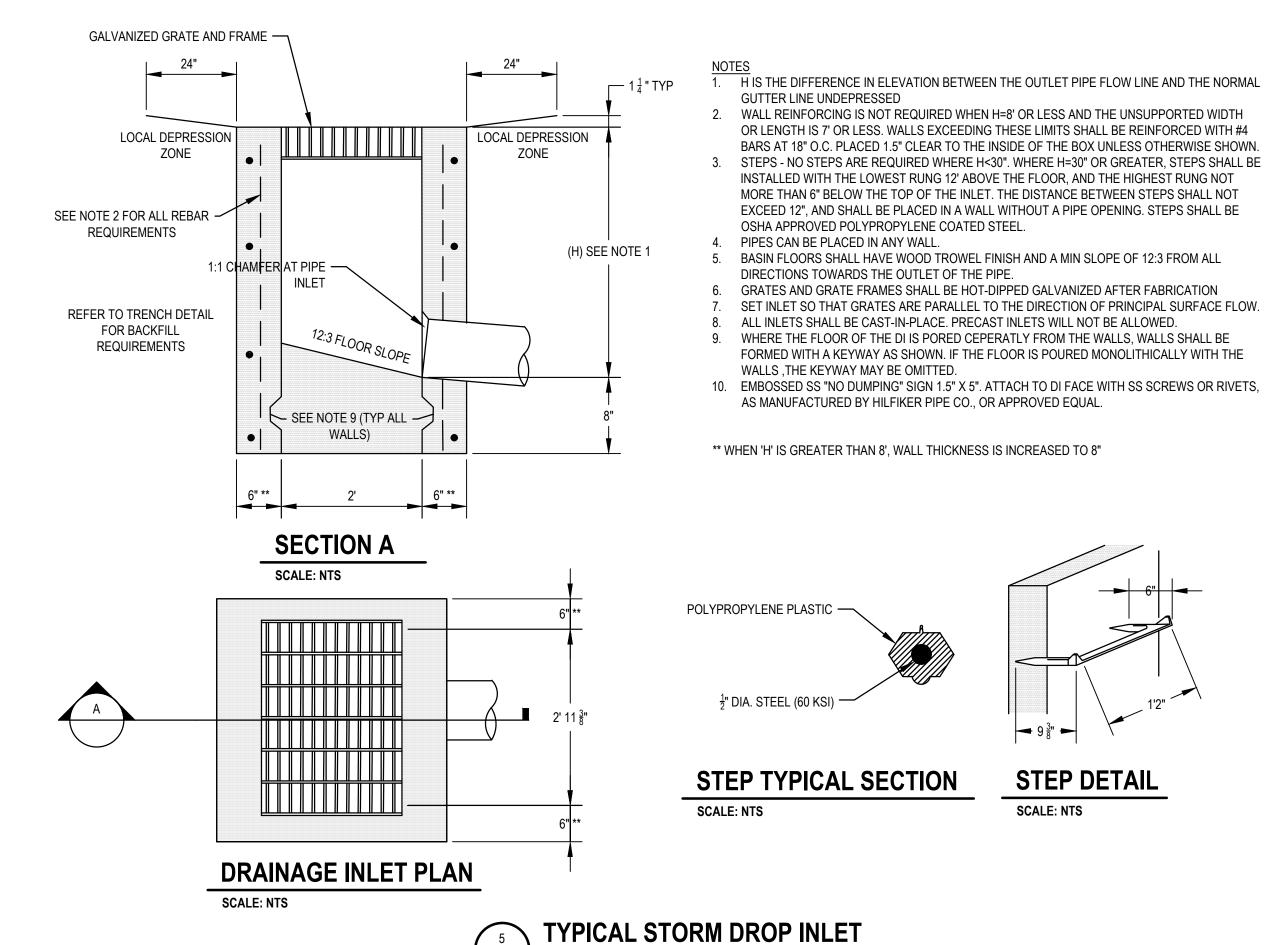
# NOTES:

C-502

SCALE: NTS

- 1. BOTTOM OF DRAIN SHALL BE SLOPED AT 1% MIN. TOWARDS THE ROAD GUTTER AND SHALL BE SMOOTHED PRIOR TO SETTING CHANNEL IN WET CONCRETE.
- 2. AFTER SETTING CHANNEL, THICKENED AREA WILL BE ALLOWED TO SET UP ENOUGH TO PREVENT FURTHER SINKING OF CHANNEL. A COLD JOINT IS ACCEPTABLE.
- 3. THICKENED AREA TO EXTEND 12" BEYOND EITHER END OF THE STEEL CHANNEL.



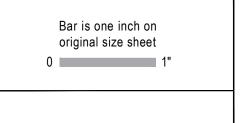


CONFORM CCO2 BV BV 2025-07-27 2025-02-01 BV 0 BID SET Checked Approved No. Issue Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Designer R. RIOS Design Check B. VIVYAN Project Director J. SVEHLA

Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:57 AM









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_,		MANILA COMMUNITY SERVICES
		DISTRICT
Ţ	Project	FLOOD REDUCTION AND DRAINAGE

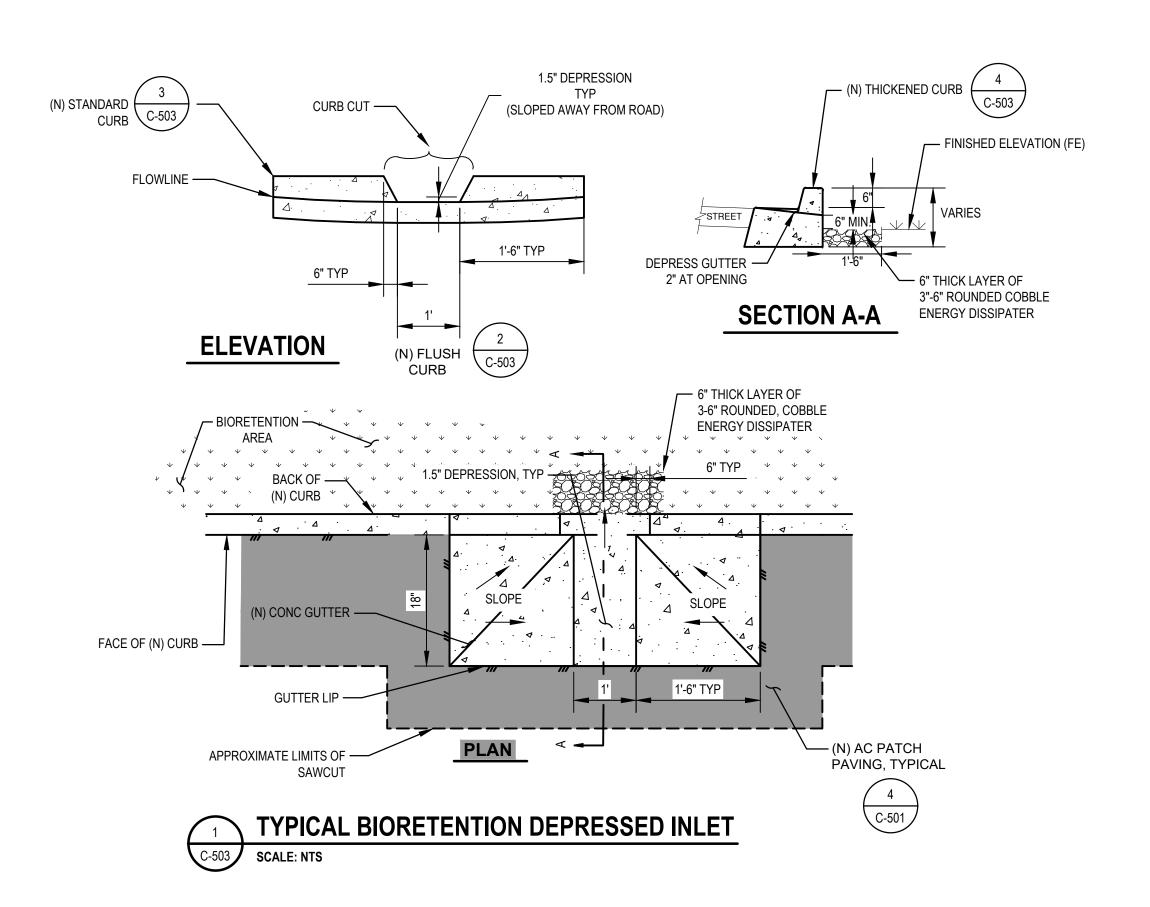
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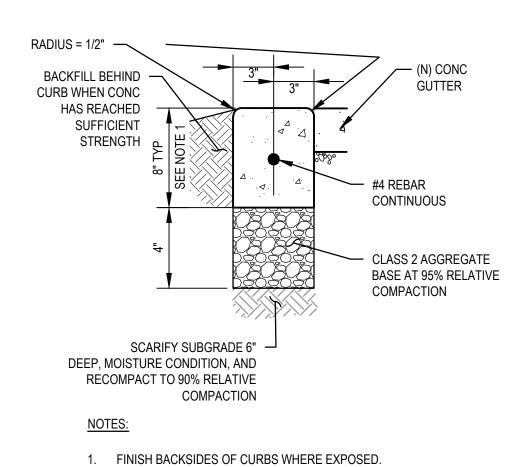
2025-02-01

CONFORM SET Title CIVIL DETAILS (2 OF 4)

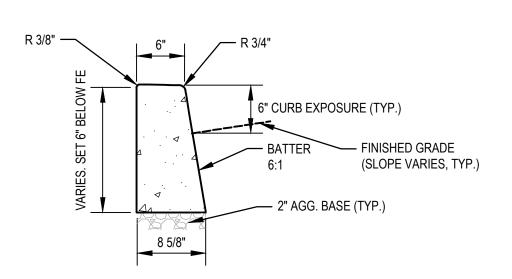
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**AS SHOWN** 





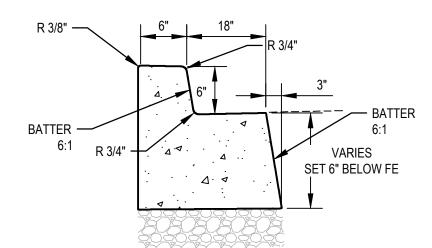
STANDARD CONCRETE FLUSH CURB SCALE: NTS



NOTE:

- 1. TRANSITION CURBS OF DIFFERENT EXPOSURES OVER A LENGTH EQUAL TO 2' FOR EACH INCH IN DIFFERENCE OF EXPOSURE.
- 2. TOPS OF ALL CURBS SHALL SLOPE TOWARD THE ROADWAY AT 2% MAX.



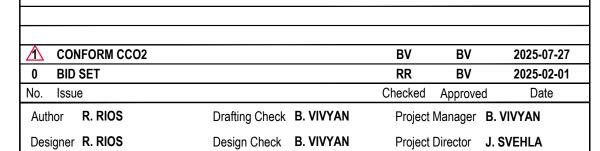


NOTE:

- 1. TRANSITION CURBS OF DIFFERENT EXPOSURES OVER A LENGTH EQUAL TO 2' FOR EACH INCH IN DIFFERENCE OF EXPOSURE.
- 2. TOPS OF ALL CURBS SHALL SLOPE TOWARD THE ROADWAY AT 2% MAX.
- 3. GUTTER PAN SLOPE TO MATCH EXISTING STREET CROSS SLOPE UP TO A MAXIMUM OF 5%.



# CONFORM SET



Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 6:57 AM



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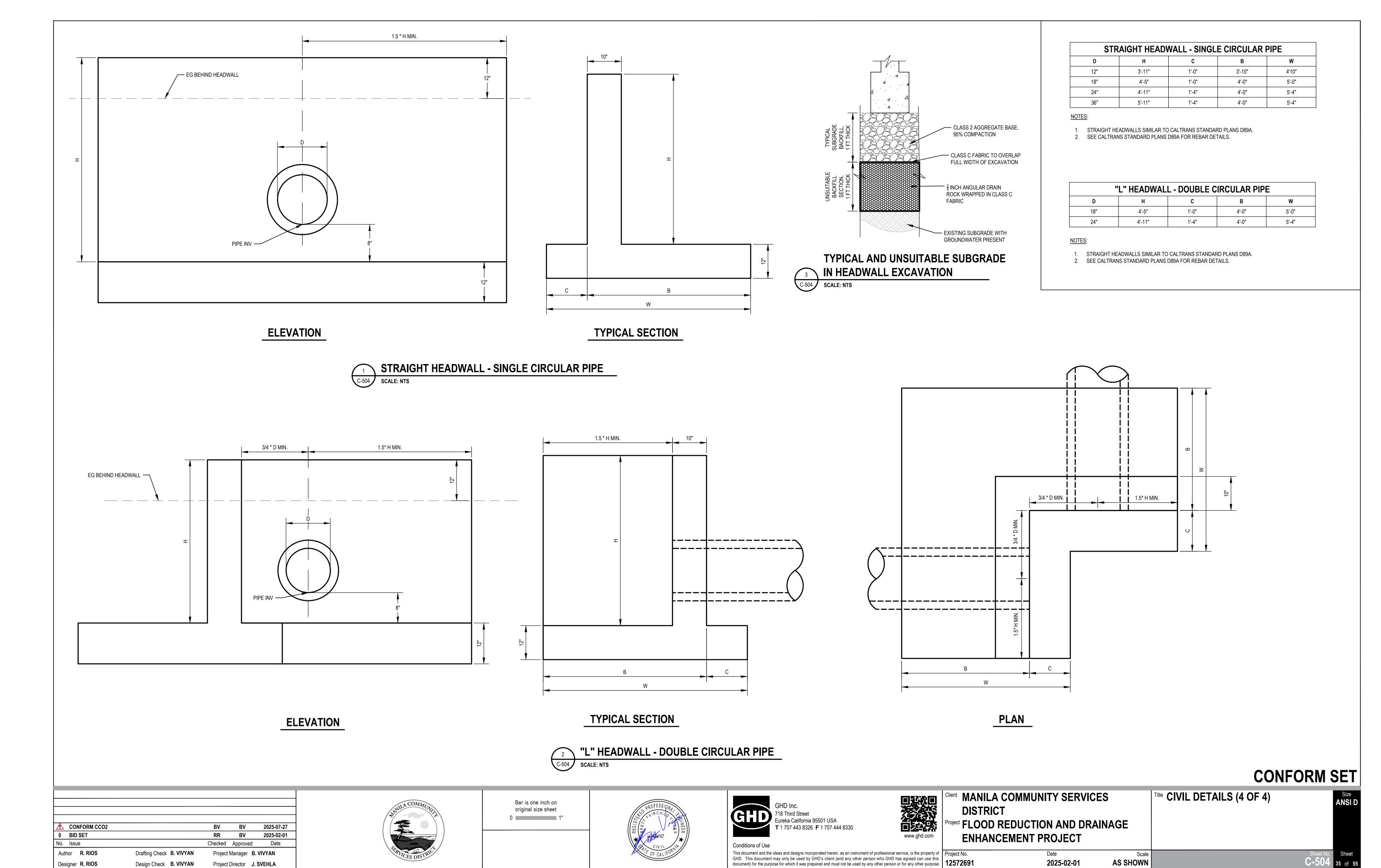
	Client MANILA COMMUNITY SERVICES DISTRICT Project FLOOD REDUCTION AND DRAINAGE
	DISTRICT
	Project FLOOD REDUCTION AND DRAINAGE
com	ENHANCEMENT DRO IECT

GE ENHANCEMENT PROJECT

AS SHOWN

2025-02-01

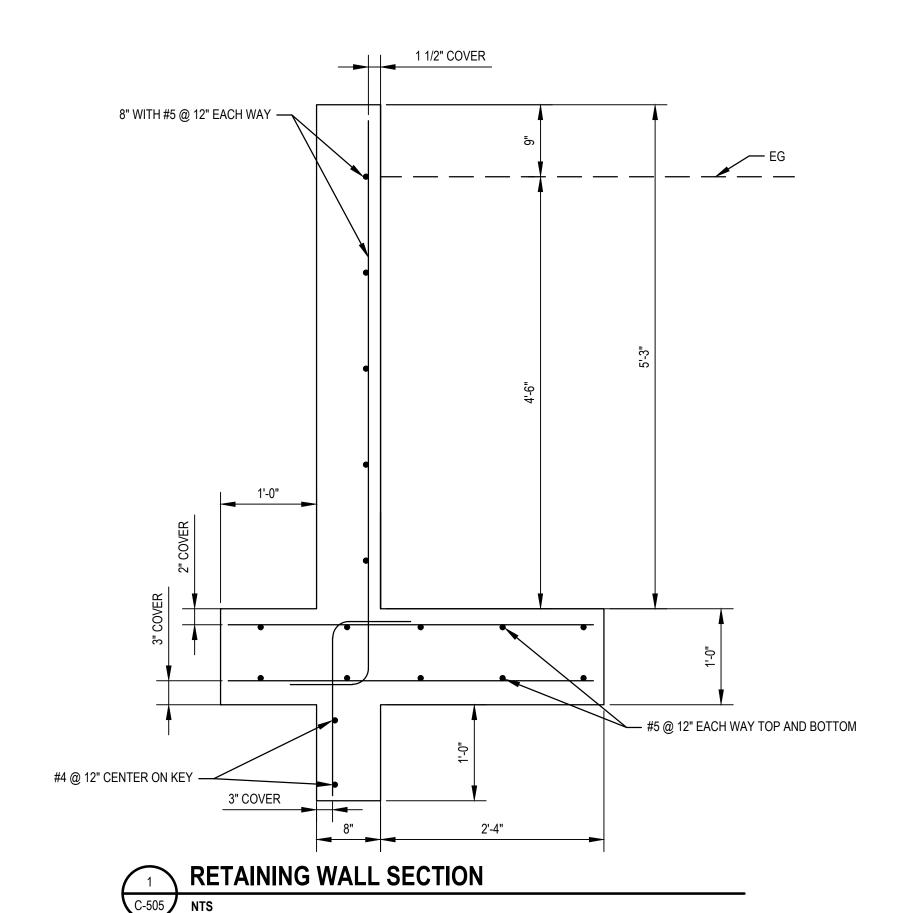
Title CIVIL DETAILS (3 OF 4)



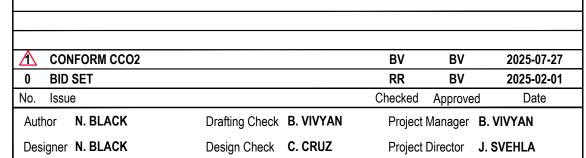
Plot Date: 28 July 2025 - 6:58 AM

Plotted By: Brett Vivyan

Filename: \\ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-C-501 DETAILS.dwg



CONFORM SET





Bar is one inch on original size sheet 0 \_\_\_\_\_\_1"







Client	MANILA COMMUNITY SERVICES
	DISTRICT
Projec	* FLOOD REDUCTION AND DRAINAGE
	ENHANCEMENT PROJECT

Title CIVIL DETAILS 5

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12572691 Date Scale 2025-02-01 **AS SHOWN** 



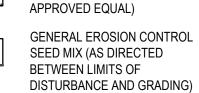
SHEET GENERAL NOTES

- THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURE TO ENSURE THAT NO SEDIMENT LADEN WATER EXITS THE SITE, ENTERS THE EXISTING STORMWATER SYSTEM, OR ENTERS AND PREVENT SEDIMENT DISCHARGE IN THE EVENT OF SUMMER RAINSTORMS, WHEN RAINFALL IS FORECAST, OR AT THE LATEST BY OCTOBER 15TH AND UNTIL APRIL 15TH.
- 2. SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.
- AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS, PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

#### **LEGEND**



BIOSWALE SEED AND MULCH LAWN GRASS SEED (GROUNDWORK FAST LAWN OR



MARINE WETLAND AND PLUG PLANTING 1 PARAMETER WETLAND PLANTING

RAIN GARDEN PLANTING (GRASSES)

FRESHWATER FORESTED SHRUB WETLAND PLUG PLANTING AREA

1 11 11 11 11

---- LIMITS OF DISTURBANCE

#### **SEED NOTES**

BIOSWALE SEED MIX (0.76 ACRES TOTAL ALL SHEETS)					
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS		
ACHILLEA MILLEFOLIUM	YARROW	1	0.76		
DESCHAMPSIA CESPITOSA SSP. CESPITOSA	TUFTED HAIRGRASS	4	3.04		
ELEOCHARIS MACROSTACHYS	SPIKE RUSH	2	1.52		
ELYMUS GLAUCUS	BLUE WILDRYE	4	3.04		
FESTUCA RUBRA	RED FESCUE	4	3.04		
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	4	3.04		
JUNCUS EFFUSUS	PACIFIC SOFT RUSH	2	1.52		
SYMPHYOTRICHUM CHILENSE	CALIFORNIA ASTER	1	0.76		

GENERAL EROSION	CONTROL SEED MIX (A	SSUMED 1.0 ACRES TOTA	L)	
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE POUN		
BROMUS CARINATUS	CALIFORNIA FESCUE	2.0	2.0	
ELYMUS GLAUCUS	BLUE WILDRYE	2.0	2.0	
FESTUCA RUBRA	RED FESCUE	2.0	2.0	
ESCHSCHOLZIA CLAIFORNICA SSP. MARITIMA	SEASIDE CALIFORNIA POPPY	1.0	1.0	
CORETHROGYNE FILAGINIFOLIA	FALIFORNIA ASTER	1.0	1.00	
ACILLEA MILLEFOLIYUM	YARROW	2.0	2.0	

### **PLANTING NOTES**

	PLUG PLANTING			
SCIENTIFIC NAME	COMMON NAME	UNIT	SPACING	QTY
FRESHWATER FORESTED SHRUB WETLAND ( 5,310 SF TOTAL ALL SHEETS)				
SCIRPUS MICROCARPUS	SMALL FRUIT BULRUSH	PLUG	2 FT	95
CAREX OBNUPTA	SLOUGH SEDGE	PLUG	2 FT	95
OENANTHE SARMENTOSA	WATER PARSLEY	PLUG	2 FT	95
RUBUS URSINUS	CALIFORNIA BLACKBERRY	PLUG	7.5 FT	100

## CONFORM SET

BV 2025-07-27 CONFORM CCO2 0 BID SET 2025-02-01 Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Project Director J. SVEHLA Designer R. RIOS Design Check B. VIVYAN



Bar is one inch on original size sheet 0 1"

PLAN - YOUNG LN & PENINSULA DR





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Client MANILA COMMUNITY SERVICES DISTRICT

roject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

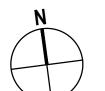
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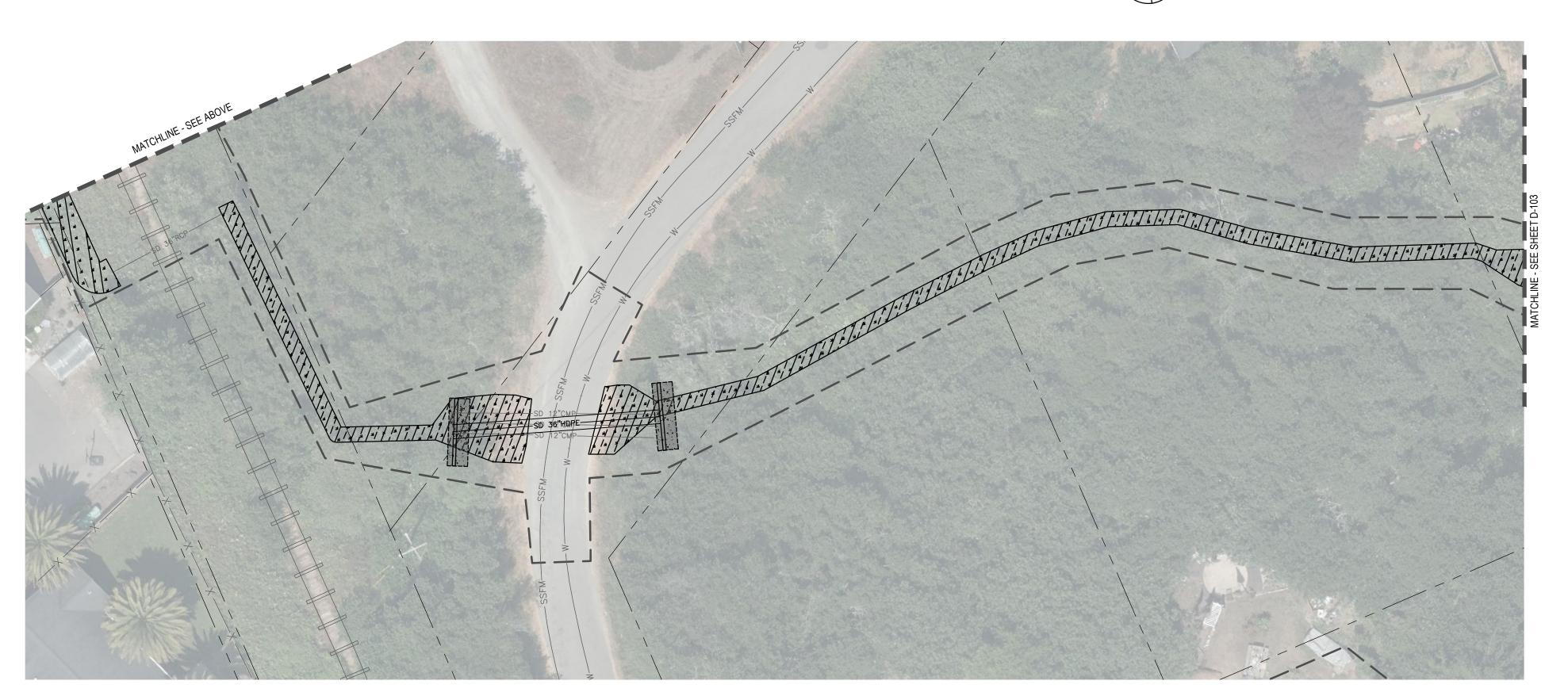
Title EROSION CONTROL & SEED **APPLICATION PLAN (1 OF 10)** 



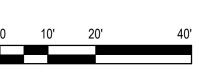
PLAN - PENINSULA DR TO MANILA COMMUNITY PARK







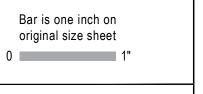
PLAN - PENINSULA DR TO MANILA COMMUNITY PARK





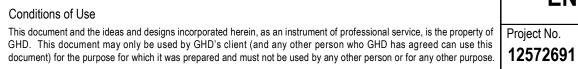
⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B	. VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director J.	SVEHLA













Client MANILA COMMUNITY SERVICES DISTRICT

pject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

Fitle EROSION CONTROL & SEED

**SHEET GENERAL NOTES** 

BIOSWALE SEED AND MULCH

(GROUNDWORK FAST LAWN OR

GENERAL EROSION CONTROL SEED MIX (AS DIRECTED

DISTURBANCE AND GRADING)

LAWN GRASS SEED

APPROVED EQUAL)

BETWEEN LIMITS OF

**SEED NOTES** 

SCIENTIFIC NAME

DESCHAMPSIA CESPITOSA SSP.

HORDEUM BRACHYANTHERUM

SYMPHYOTRICHUM CHILENSE

SCIENTIFIC NAME

ESCHSCHOLZIA CLAIFORNICA

CORETHROGYNE FILAGINIFOLIA

SCIENTIFIC NAME

SCIRPUS MICROCARPUS

OENANTHE SARMENTOSA

CAREX OBNUPTA

RUBUS URSINUS

**PLANTING NOTES** 

ACILLEA MILLEFOLIYUM

**BROMUS CARINATUS** 

**ELYMUS GLAUCUS** 

FESTUCA RUBRA

SSP. MARITIMA

ELEOCHARIS MACROSTACHYS SPIKE RUSH

ACHILLEA MILLEFOLIUM

CESPITOSA

**ELYMUS GLAUCUS** 

FESTUCA RUBRA

JUNCUS EFFUSUS

**LEGEND** 

THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A

MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURE TO ENSURE THAT NO SEDIMENT LADEN

SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES

AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS,

11 11 11 11

MARINE WETLAND AND

1 PARAMETER WETLAND

RAIN GARDEN PLANTING

FRESHWATER FORESTED

POUNDS

0.76

1.52 3.04

3.04

3.04

1.52

**POUNDS** 

SHRUB WETLAND PLUG

PLANTING AREA

PLUG PLANTING

PLANTING

(GRASSES)

---- LIMITS OF DISTURBANCE

POUNDS OF PURE

LIVE SEED/ACRE

POUNDS OF PURE

LIVE SEED/ACRE

2.0

2.0

UNIT | SPACING | QTY

PLUG 2 FT

PLUG 2 FT

PLUG 2 FT

PLUG 7.5 FT

TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.

PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

BIOSWALE SEED MIX (0.76 ACRES TOTAL ALL SHEETS)

COMMON NAME

YARROW

TUFTED

HAIRGRASS

**BLUE WILDRYE** 

RED FESCUE MEADOW BARLEY

PACIFIC SOFT

CALIFORNIA

GENERAL EROSION CONTROL SEED MIX (ASSUMED 1.0 ACRES TOTAL)

COMMON NAME

CALIFORNIA

BLUE WILDRYE

RED FESCUE

CALIFORNIA

SEASIDE

POPPY

ASTER

FRESHWATER FORESTED SHRUB WETLAND (5,310 SF TOTAL ALL SHEETS)

YARROW

PLUG PLANTING

COMMON NAME

SMALL FRUIT BULRUSH

SLOUGH SEDGE

WATER PARSLEY

CALIFORNIA

BLACKBERRY

**FESCUE** 

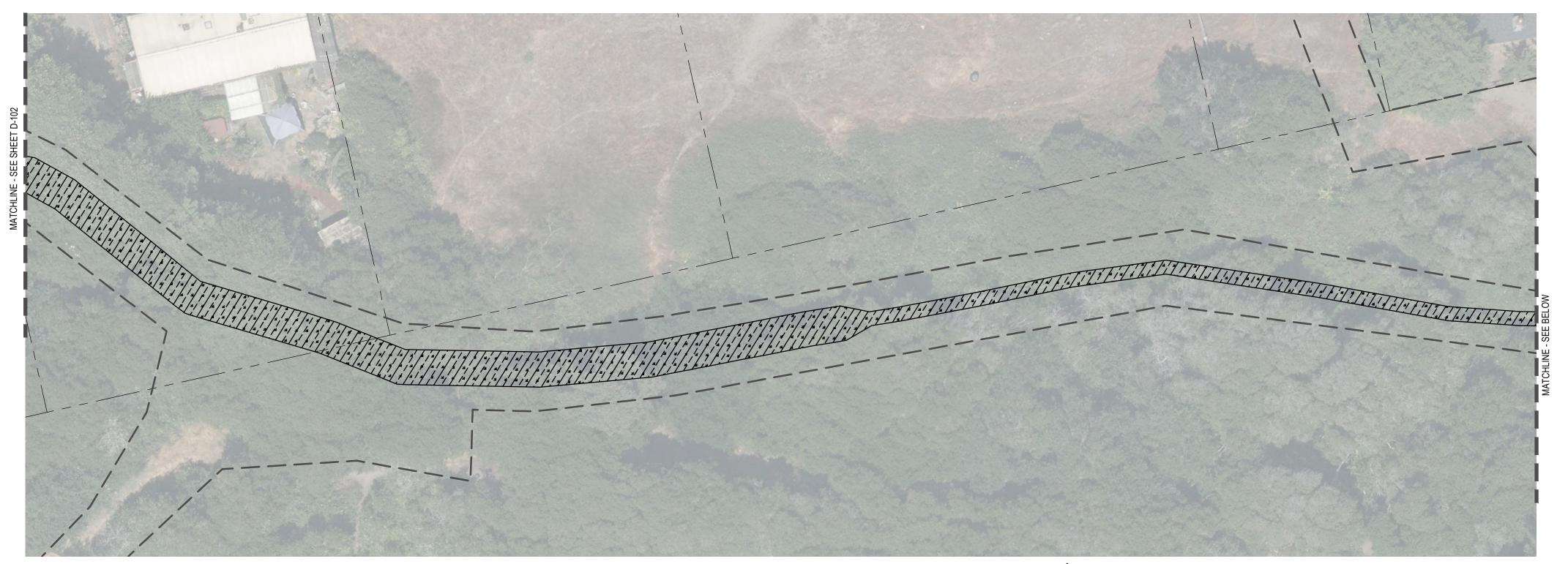
RUSH

CONFORM SET

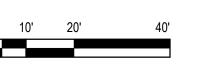
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**APPLICATION PLAN (2 OF 10)** 

Plot Date: 28 July 2025 - 7:06 AM Plotted By: Brett Vivyan Filename: \\ghdnet\ghd\US\Eureka\Projects\561\12572691\Digital\_Design\ACAD\Sheets\12572691-EC SHEETS.dwg











PLAN - PENINSULA DR TO MANILA COMMUNITY PARK

Bar is one inch on

original size sheet
0 1"



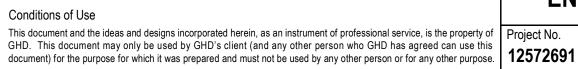


⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B.	VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director J.	SVEHLA









Client MANILA COMMUNITY SERVICES
DISTRICT

DISTRICT

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Project No.
Date Scale
2025-02-01

AS SHOWN

itle EROSION CONTROL & SEED APPLICATION PLAN (3 OF 10)

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Plotted By: Brett Vivyan

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# SERVICES Title FROSION CONTROL & SEED Size

**SHEET GENERAL NOTES** 

BIOSWALE SEED AND MULCH

(GROUNDWORK FAST LAWN OR

GENERAL EROSION CONTROL SEED MIX (AS DIRECTED

DISTURBANCE AND GRADING)

LAWN GRASS SEED

APPROVED EQUAL)

BETWEEN LIMITS OF

**SEED NOTES** 

SCIENTIFIC NAME

DESCHAMPSIA CESPITOSA SSP.

HORDEUM BRACHYANTHERUM

SYMPHYOTRICHUM CHILENSE

SCIENTIFIC NAME

ESCHSCHOLZIA CLAIFORNICA

CORETHROGYNE FILAGINIFOLIA

SCIENTIFIC NAME

SCIRPUS MICROCARPUS

OENANTHE SARMENTOSA

CAREX OBNUPTA

RUBUS URSINUS

**PLANTING NOTES** 

ACILLEA MILLEFOLIYUM

**BROMUS CARINATUS** 

**ELYMUS GLAUCUS** 

FESTUCA RUBRA

SSP. MARITIMA

ELEOCHARIS MACROSTACHYS SPIKE RUSH

ACHILLEA MILLEFOLIUM

CESPITOSA

**ELYMUS GLAUCUS** 

FESTUCA RUBRA

JUNCUS EFFUSUS

**LEGEND** 

THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A

MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE

SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES

AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS,

11 11 11 11

MARINE WETLAND AND

1 PARAMETER WETLAND

RAIN GARDEN PLANTING

FRESHWATER FORESTED

POUNDS

0.76

1.52

3.04

3.04

3.04

1.52

POUNDS

SHRUB WETLAND PLUG

PLANTING AREA

PLUG PLANTING

PLANTING

(GRASSES)

---- LIMITS OF DISTURBANCE

POUNDS OF PURE

LIVE SEED/ACRE

POUNDS OF PURE

LIVE SEED/ACRE

2.0

2.0

UNIT | SPACING | QTY

PLUG 2 FT

PLUG 2 FT

PLUG 2 FT

PLUG 7.5 FT

TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.

PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

BIOSWALE SEED MIX (0.76 ACRES TOTAL ALL SHEETS)

COMMON NAME

YARROW

TUFTED HAIRGRASS

**BLUE WILDRYE** 

MEADOW BARLEY

RED FESCUE

PACIFIC SOFT

CALIFORNIA

GENERAL EROSION CONTROL SEED MIX (ASSUMED 1.0 ACRES TOTAL)

COMMON NAME

CALIFORNIA

BLUE WILDRYE

RED FESCUE SEASIDE

CALIFORNIA

POPPY

**ASTER** 

FRESHWATER FORESTED SHRUB WETLAND (5,310 SF TOTAL ALL SHEETS)

YARROW

PLUG PLANTING

COMMON NAME

SMALL FRUIT BULRUSH

SLOUGH SEDGE

WATER PARSLEY

CALIFORNIA

BLACKBERRY

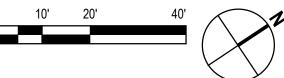
**FESCUE** 

RUSH

ASTER

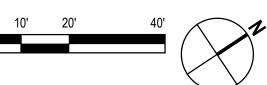








PLAN - PENINSULA DR FROM DEAN AVE TO MILL ST



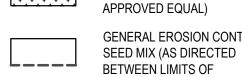
#### **SHEET GENERAL NOTES**

- THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE
- SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.
- AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS, PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

#### **LEGEND**



BIOSWALE SEED AND MULCH LAWN GRASS SEED



(GROUNDWORK FAST LAWN OR APPROVED EQUAL) GENERAL EROSION CONTROL

DISTURBANCE AND GRADING)



1 PARAMETER WETLAND PLANTING RAIN GARDEN PLANTING

MARINE WETLAND AND

(GRASSES)

FRESHWATER FORESTED SHRUB WETLAND PLUG

PLANTING AREA ---- LIMITS OF DISTURBANCE

#### **SEED NOTES**

BIOSWALES	SEED MIX (0.76 ACRES	TOTAL ALL SHEETS)	
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS
ACHILLEA MILLEFOLIUM	YARROW	1	0.
DESCHAMPSIA CESPITOSA SSP. CESPITOSA	TUFTED HAIRGRASS	4	3.
ELEOCHARIS MACROSTACHYS	SPIKE RUSH	2	1.
ELYMUS GLAUCUS	BLUE WILDRYE	4	3.
FESTUCA RUBRA	RED FESCUE	4	3.
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	4	3.
JUNCUS EFFUSUS	PACIFIC SOFT RUSH	2	1.
SYMPHYOTRICHUM CHILENSE	CALIFORNIA ASTER	1	0

GENERAL EROSION	CONTROL SEED MIX (A	SSUMED 1.0 ACRES TOTA	L)		
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE POU			
BROMUS CARINATUS	CALIFORNIA FESCUE	2.0	2.0		
ELYMUS GLAUCUS	BLUE WILDRYE	2.0	2.0		
FESTUCA RUBRA	RED FESCUE	2.0	2.0		
ESCHSCHOLZIA CLAIFORNICA SSP. MARITIMA	SEASIDE CALIFORNIA POPPY	1.0	1.0		
CORETHROGYNE FILAGINIFOLIA	FALIFORNIA ASTER	1.0	1.00		
ACILLEA MILLEFOLIYUM	YARROW	2.0	2.0		

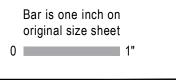
#### **PLANTING NOTES**

	PLUG PLANTING				
SCIENTIFIC NAME	COMMON NAME	UNIT	SPACING	QTY	
FRESHWATER FORESTED SHRUB W	FRESHWATER FORESTED SHRUB WETLAND ( 5,310 SF TOTAL ALL SHEETS)				
SCIRPUS MICROCARPUS	SMALL FRUIT BULRUSH	PLUG	2 FT	95	
CAREX OBNUPTA	SLOUGH SEDGE	PLUG	2 FT	95	
OENANTHE SARMENTOSA	WATER PARSLEY	PLUG	2 FT	95	
RUBUS URSINUS	CALIFORNIA BLACKBERRY	PLUG	7.5 FT	100	

## CONFORM SET

⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-0
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager <b>B</b>	. VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director <b>J</b> .	SVEHLA









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Client MANILA COMMUNITY SERVICES DISTRICT

roject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

Title EROSION CONTROL & SEED **APPLICATION PLAN (4 OF 10)** 

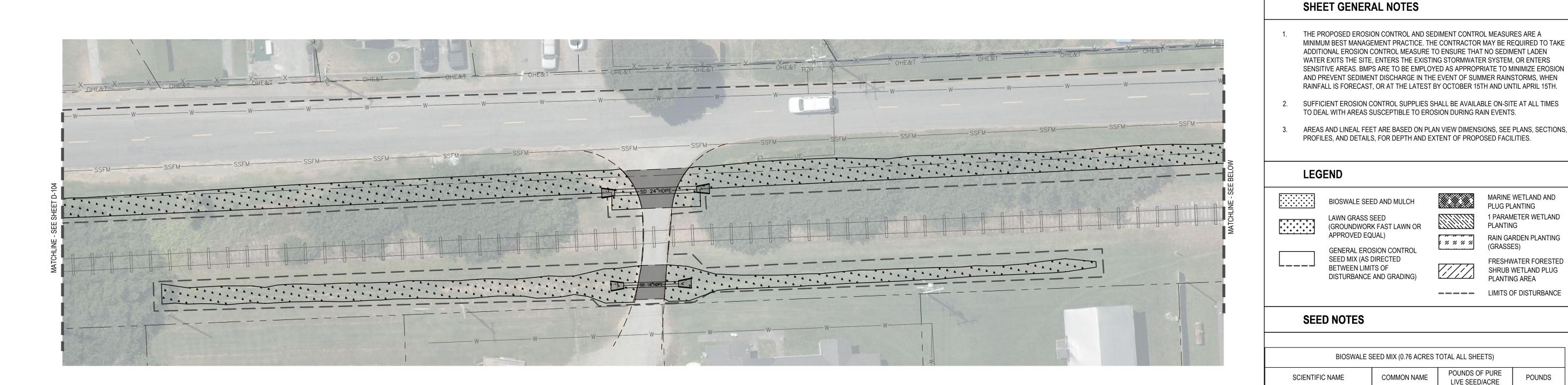
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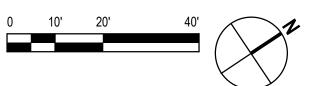








### PLAN - PENINSULA DR FROM DEAN AVE TO MILL ST



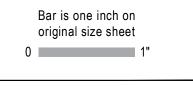


### PLAN - PENINSULA DR FROM DEAN AVE TO MILL ST



⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager <b>B</b>	. VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director <b>J</b> .	. SVEHLA









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## **Client MANILA COMMUNITY SERVICES** DISTRICT

pject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

**APPLICATION PLAN (5 OF 10)** 

THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A

MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURE TO ENSURE THAT NO SEDIMENT LADEN

RAINFALL IS FORECAST, OR AT THE LATEST BY OCTOBER 15TH AND UNTIL APRIL 15TH

MARINE WETLAND AND

1 PARAMETER WETLAND

RAIN GARDEN PLANTING

FRESHWATER FORESTED

POUNDS

0.76

3.04

1.52 3.04

3.04

3.04

1.52

0.76

**POUNDS** 

SHRUB WETLAND PLUG

PLANTING AREA

PLUG PLANTING

PLANTING

(GRASSES)

---- LIMITS OF DISTURBANCE

POUNDS OF PURE

LIVE SEED/ACRE

POUNDS OF PURE

LIVE SEED/ACRE

2.0

2.0

UNIT | SPACING | QTY

PLUG 2 FT

PLUG 2 FT

PLUG 2 FT

PLUG 7.5 FT

11 11 11 11

TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.

BIOSWALE SEED AND MULCH

(GROUNDWORK FAST LAWN OR

GENERAL EROSION CONTROL SEED MIX (AS DIRECTED

DISTURBANCE AND GRADING)

LAWN GRASS SEED

APPROVED EQUAL)

BETWEEN LIMITS OF

ACHILLEA MILLEFOLIUM

CESPITOSA

**ELYMUS GLAUCUS** 

JUNCUS EFFUSUS

FESTUCA RUBRA

DESCHAMPSIA CESPITOSA SSP.

HORDEUM BRACHYANTHERUM

SYMPHYOTRICHUM CHILENSE

SCIENTIFIC NAME

ESCHSCHOLZIA CLAIFORNICA

CORETHROGYNE FILAGINIFOLIA

SCIENTIFIC NAME

SCIRPUS MICROCARPUS

OENANTHE SARMENTOSA

CAREX OBNUPTA

RUBUS URSINUS

Scale

**AS SHOWN** 

**PLANTING NOTES** 

ACILLEA MILLEFOLIYUM

**BROMUS CARINATUS** 

**ELYMUS GLAUCUS** 

FESTUCA RUBRA

SSP. MARITIMA

ELEOCHARIS MACROSTACHYS | SPIKE RUSH

PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

BIOSWALE SEED MIX (0.76 ACRES TOTAL ALL SHEETS)

COMMON NAME

YARROW

TUFTED

HAIRGRASS

**BLUE WILDRYE** 

MEADOW BARLEY

PACIFIC SOFT

CALIFORNIA

GENERAL EROSION CONTROL SEED MIX (ASSUMED 1.0 ACRES TOTAL)

COMMON NAME

CALIFORNIA

**BLUE WILDRYE** 

RED FESCUE

CALIFORNIA

SEASIDE

POPPY **FALIFORNIA** 

**ASTER** 

FRESHWATER FORESTED SHRUB WETLAND (5,310 SF TOTAL ALL SHEETS)

YARROW

PLUG PLANTING

COMMON NAME

SMALL FRUIT BULRUSH

SLOUGH SEDGE

WATER PARSLEY

CALIFORNIA

BLACKBERRY

**FESCUE** 

RUSH

ASTER

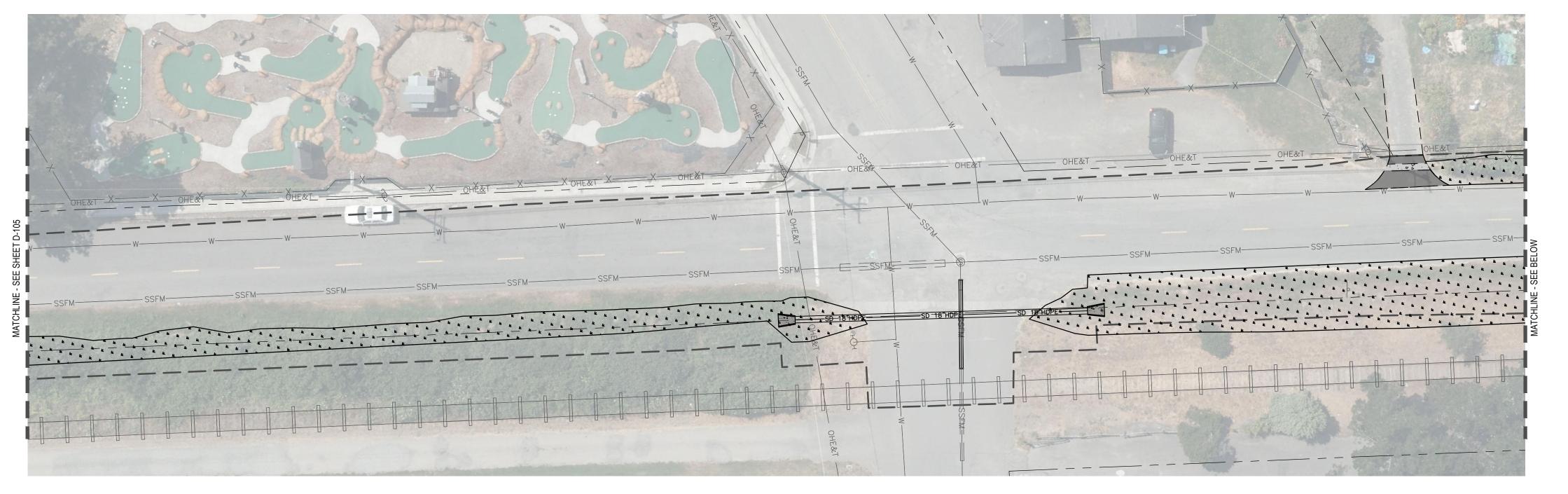
RED FESCUE

**CONFORM SET** itle EROSION CONTROL & SEED

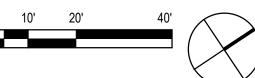


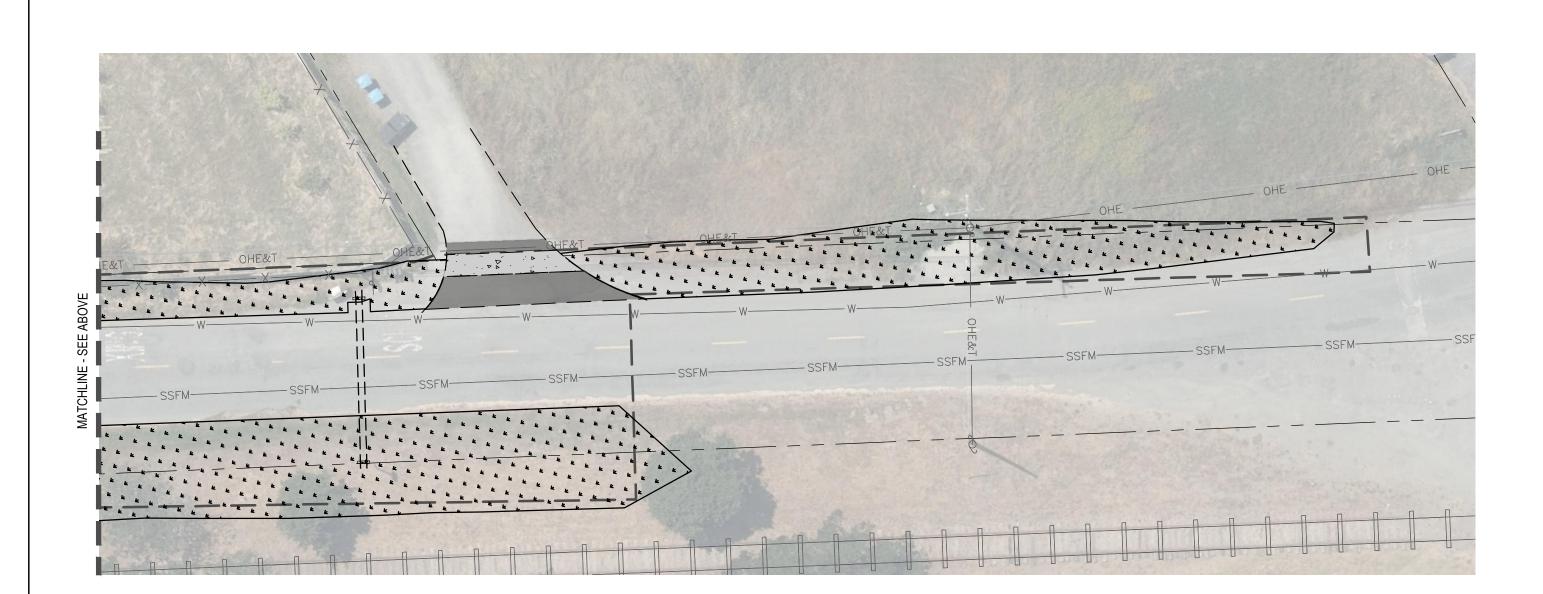




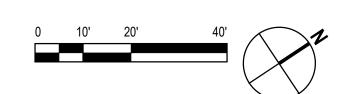








### PLAN - PENINSULA DR FROM DEAN AVE TO MILL ST

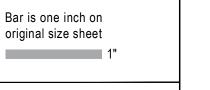


CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B	. VIVYAN
Designer R. RIOS	Design Check B. VIVYAN	Project	Director <b>J</b>	. SVEHLA

Plotted By: Brett Vivyan

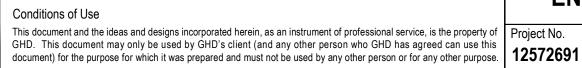
Plot Date: 28 July 2025 - 7:13 AM











# DISTRICT

pject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

itle EROSION CONTROL & SEED **APPLICATION PLAN (6 OF 10)** 

**SHEET GENERAL NOTES** 

BIOSWALE SEED AND MULCH

(GROUNDWORK FAST LAWN OR

GENERAL EROSION CONTROL SEED MIX (AS DIRECTED

DISTURBANCE AND GRADING)

LAWN GRASS SEED

APPROVED EQUAL)

BETWEEN LIMITS OF

**SEED NOTES** 

SCIENTIFIC NAME

DESCHAMPSIA CESPITOSA SSP.

HORDEUM BRACHYANTHERUM

SYMPHYOTRICHUM CHILENSE

SCIENTIFIC NAME

ESCHSCHOLZIA CLAIFORNICA

CORETHROGYNE FILAGINIFOLIA

SCIENTIFIC NAME

SCIRPUS MICROCARPUS

OENANTHE SARMENTOSA

CAREX OBNUPTA

RUBUS URSINUS

**PLANTING NOTES** 

ACILLEA MILLEFOLIYUM

**BROMUS CARINATUS** 

**ELYMUS GLAUCUS** 

FESTUCA RUBRA

SSP. MARITIMA

ELEOCHARIS MACROSTACHYS SPIKE RUSH

ACHILLEA MILLEFOLIUM

CESPITOSA

**ELYMUS GLAUCUS** 

JUNCUS EFFUSUS

FESTUCA RUBRA

**LEGEND** 

THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A

MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURE TO ENSURE THAT NO SEDIMENT LADEN

AND PREVENT SEDIMENT DISCHARGE IN THE EVENT OF SUMMER RAINSTORMS, WHEN RAINFALL IS FORECAST, OR AT THE LATEST BY OCTOBER 15TH AND UNTIL APRIL 15TH

SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES

AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS,

11 11 11 11

MARINE WETLAND AND

1 PARAMETER WETLAND

RAIN GARDEN PLANTING

FRESHWATER FORESTED

POUNDS

0.76

1.52 3.04

3.04

3.04

1.52

0.76

1.00

**POUNDS** 

SHRUB WETLAND PLUG

PLANTING AREA

PLUG PLANTING

PLANTING

(GRASSES)

---- LIMITS OF DISTURBANCE

POUNDS OF PURE

LIVE SEED/ACRE

POUNDS OF PURE

LIVE SEED/ACRE

2.0

2.0

UNIT | SPACING | QTY

PLUG | 2 FT

PLUG 2 FT

PLUG 2 FT

PLUG 7.5 FT

TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.

PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

BIOSWALE SEED MIX (0.76 ACRES TOTAL ALL SHEETS)

COMMON NAME

YARROW

TUFTED

HAIRGRASS

**BLUE WILDRYE** 

MEADOW BARLEY

PACIFIC SOFT

CALIFORNIA

GENERAL EROSION CONTROL SEED MIX (ASSUMED 1.0 ACRES TOTAL)

COMMON NAME

CALIFORNIA

**BLUE WILDRYE** 

RED FESCUE

CALIFORNIA

SEASIDE

POPPY **FALIFORNIA** 

**ASTER** 

FRESHWATER FORESTED SHRUB WETLAND (5,310 SF TOTAL ALL SHEETS)

YARROW

PLUG PLANTING

COMMON NAME

SMALL FRUIT BULRUSH

SLOUGH SEDGE

WATER PARSLEY

CALIFORNIA

BLACKBERRY

**FESCUE** 

RUSH

ASTER

RED FESCUE

**CONFORM SET** 

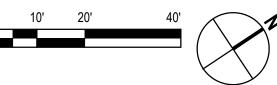
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**Client MANILA COMMUNITY SERVICES** 

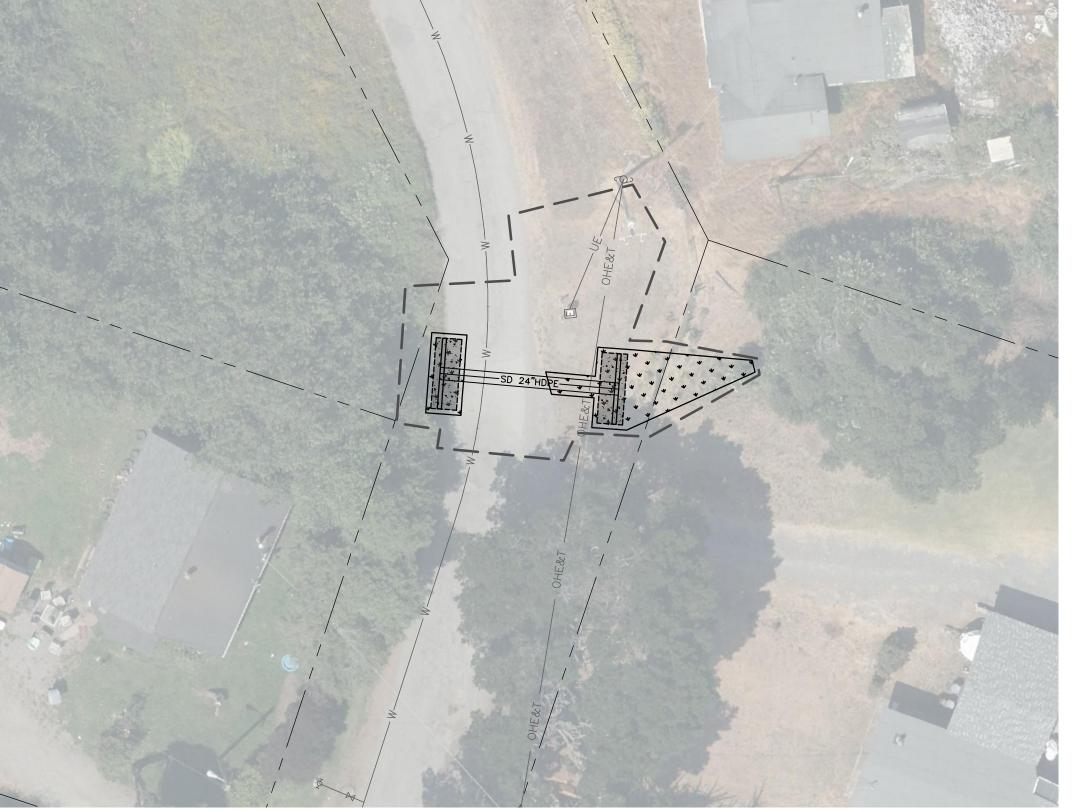
Scale 2025-02-01 **AS SHOWN** 



### PLAN - PENINSULA DR BETWEEN MILL ST & CARLSON DR







PLAN - PENINSULA DR TO VICTOR BLVD





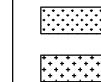




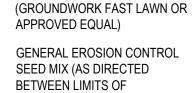
#### **SHEET GENERAL NOTES**

- THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A
- SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES
- AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS, PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

#### **LEGEND**



BIOSWALE SEED AND MULCH LAWN GRASS SEED



DISTURBANCE AND GRADING)

PLUG PLANTING 1 PARAMETER WETLAND PLANTING 111111111

RAIN GARDEN PLANTING (GRASSES) FRESHWATER FORESTED

MARINE WETLAND AND

SHRUB WETLAND PLUG

PLANTING AREA ---- LIMITS OF DISTURBANCE

#### **SEED NOTES**

BIOSWALE SEED MIX (0.76 ACRES TOTAL ALL SHEETS)					
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE POUN			
ACHILLEA MILLEFOLIUM	YARROW	1	0.76		
DESCHAMPSIA CESPITOSA SSP. CESPITOSA	TUFTED HAIRGRASS	4	3.04		
ELEOCHARIS MACROSTACHYS	SPIKE RUSH	2	1.52		
ELYMUS GLAUCUS	BLUE WILDRYE	4	3.04		
FESTUCA RUBRA	RED FESCUE	4	3.04		
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	4	3.04		
JUNCUS EFFUSUS	PACIFIC SOFT RUSH	2	1.52		
SYMPHYOTRICHUM CHILENSE	CALIFORNIA ASTER	1	0.76		

GENERAL EROSION CONTROL SEED MIX (ASSUMED 1.0 ACRES TOTAL)					
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS		
BROMUS CARINATUS	CALIFORNIA FESCUE	2.0	2.0		
ELYMUS GLAUCUS	BLUE WILDRYE	2.0	2.0		
FESTUCA RUBRA	RED FESCUE	2.0	2.0		
ESCHSCHOLZIA CLAIFORNICA SSP. MARITIMA	SEASIDE CALIFORNIA POPPY	1.0	1.0		
CORETHROGYNE FILAGINIFOLIA	FALIFORNIA ASTER	1.0	1.00		
ACILLEA MILLEFOLIYUM	YARROW	2.0	2.0		

### **PLANTING NOTES**

PLUG PLANTING					
SCIENTIFIC NAME	COMMON NAME	UNIT	SPACING	QTY	
FRESHWATER FORESTED SHRUB WETLAND ( 5,310 SF TOTAL ALL SHEETS)					
SCIRPUS MICROCARPUS	SMALL FRUIT BULRUSH	PLUG	2 FT	95	
CAREX OBNUPTA	SLOUGH SEDGE	PLUG	2 FT	95	
OENANTHE SARMENTOSA	WATER PARSLEY	PLUG	2 FT	95	
RUBUS URSINUS	CALIFORNIA BLACKBERRY	PLUG	7.5 FT	100	

## CONFORM SET

⚠ CONFORM CCO2		BV	BV	2025-07-27
0 BID SET		RR	BV	2025-02-01
No. Issue		Checked	Approved	Date
Author R. RIOS	Drafting Check B. VIVYAN	Project	Manager B.	VIVYAN
Designer P PIOS	Dosign Chook P VIVVAN	Project	Director I	C/EUI A



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12572691



Client MANILA COMMUNITY SERVICES

pject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

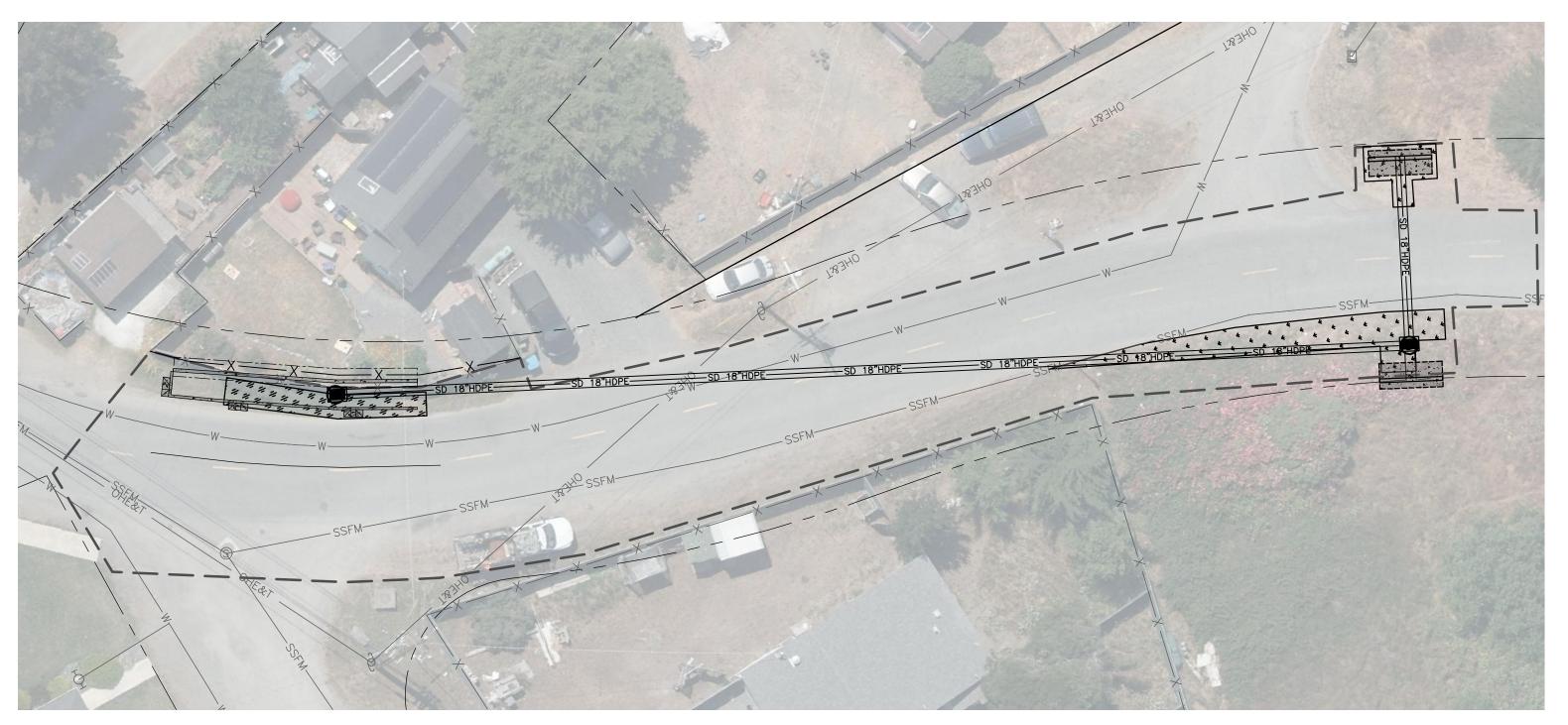
Scale

AS SHOWN

itle EROSION CONTROL & SEED **APPLICATION PLAN (7 OF 10)** 



 $Filename: \verb|\ghdnet| ghd \verb|\US| Eureka| Projects \verb|\561| 12572691 \verb|\Digital\_Design| ACAD \verb|\Sheets| 12572691-EC SHEETS. dwg$ 



PLAN - PENINSULA DR BETWEEN SHELL DR AND BEACH DR

RAIN GARDEN PLANTING (THIS SHEET)						
SCIENTIFIC NAME	COMMON NAME	QUANTITY	SPACING	ROW		
JUNCUS LESCURII	SALT RUSH	150	2 FT	FRONT		
FESTUCA RUBRA	PACIFIC SOFT RUSH	150	2 FT	MIDDLE		
CALAMAGROSTIS NUTKAENSIS	PACIFIC REED-GRASS	150	3-4 FT	BACK		



(GROUNDWORK FAST LAWN OR APPROVED EQUAL) GENERAL EROSION CONTROL

DISTURBANCE AND GRADING)

SEED MIX (AS DIRECTED

BETWEEN LIMITS OF

BIOSWALE SEED AND MULCH

**SHEET GENERAL NOTES** 

THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A

SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES

PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

PLUG PLANTING 1 11 11 11 11

1 PARAMETER WETLAND PLANTING RAIN GARDEN PLANTING

MARINE WETLAND AND

(GRASSES) FRESHWATER FORESTED

SHRUB WETLAND PLUG PLANTING AREA

---- LIMITS OF DISTURBANCE

#### **SEED NOTES**

BIOSWALE S	SEED MIX (0.76 ACRES 1	TOTAL ALL SHEETS)	
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS
ACHILLEA MILLEFOLIUM	YARROW	1	0.76
DESCHAMPSIA CESPITOSA SSP. CESPITOSA	TUFTED HAIRGRASS	4	3.04
ELEOCHARIS MACROSTACHYS	SPIKE RUSH	2	1.52
ELYMUS GLAUCUS	BLUE WILDRYE	4	3.04
FESTUCA RUBRA	RED FESCUE	4	3.04
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	4	3.04
JUNCUS EFFUSUS	PACIFIC SOFT RUSH	2	1.52
SYMPHYOTRICHUM CHILENSE	CALIFORNIA ASTER	1	0.76

GENERAL EROSION	CONTROL SEED MIX (A	SSUMED 1.0 ACRES TOTA	L)
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS
BROMUS CARINATUS	CALIFORNIA FESCUE	2.0	2.0
ELYMUS GLAUCUS	BLUE WILDRYE	2.0	2.0
FESTUCA RUBRA	RED FESCUE	2.0	2.0
ESCHSCHOLZIA CLAIFORNICA SSP. MARITIMA	SEASIDE CALIFORNIA POPPY	1.0	1.0
CORETHROGYNE FILAGINIFOLIA	FALIFORNIA ASTER	1.0	1.00
ACILLEA MILLEFOLIYUM	YARROW	2.0	2.0

#### **PLANTING NOTES**

Scale

PLUG PLANTING					
SCIENTIFIC NAME	COMMON NAME	UNIT	SPACING	QTY	
FRESHWATER FORESTED SHRUB WETLAND ( 5,310 SF TOTAL ALL SHEETS)					
SCIRPUS MICROCARPUS	SMALL FRUIT BULRUSH	PLUG	2 FT	95	
CAREX OBNUPTA	SLOUGH SEDGE	PLUG	2 FT	95	
OENANTHE SARMENTOSA	WATER PARSLEY	PLUG	2 FT	95	
RUBUS URSINUS	CALIFORNIA BLACKBERRY	PLUG	7.5 FT	100	

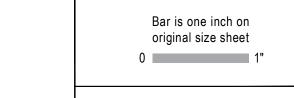
## CONFORM SET

CONFORM CCO2 BV BV 2025-07-27 2025-02-01 0 BID SET Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Project Director J. SVEHLA Designer R. RIOS Design Check B. VIVYAN

Plotted By: Brett Vivyan

Plot Date: 28 July 2025 - 7:15 AM





PLAN - PENINSULA DR BETWEEN TAYLOR CT AND JEWELL LN





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Client MANILA COMMUNITY SERVICES DISTRICT

pject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

AS SHOWN

Title EROSION CONTROL & SEED **APPLICATION PLAN (8 OF 10)** 



 $Filename: \verb|\ghdnet| ghd \verb|\US| Eureka| Projects \verb|\561| 12572691 \verb|\Digital\_Design| ACAD \verb|\Sheets| 12572691-EC SHEETS. dwg$ 



PLAN - MANILA COMMUNITY CENTER

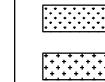


NOTE:
SEE LANDSCAPING SHEETS FOR COMMUNITY
CENTER DEMOLITION PLAN, SITE PLAN, GRADING
AND DRAINAGE PLAN, AND PLANTING PLAN.

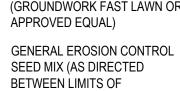
#### SHEET GENERAL NOTES

- THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURE TO ENSURE THAT NO SEDIMENT LADEN WATER EXITS THE SITE, ENTERS THE EXISTING STORMWATER SYSTEM, OR ENTERS AND PREVENT SEDIMENT DISCHARGE IN THE EVENT OF SUMMER RAINSTORMS, WHEN RAINFALL IS FORECAST, OR AT THE LATEST BY OCTOBER 15TH AND UNTIL APRIL 15TH.
- 2. SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.
- AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS, PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

#### **LEGEND**



BIOSWALE SEED AND MULCH LAWN GRASS SEED (GROUNDWORK FAST LAWN OR



DISTURBANCE AND GRADING)



PLUG PLANTING 1 PARAMETER WETLAND PLANTING

RAIN GARDEN PLANTING (GRASSES) FRESHWATER FORESTED

SHRUB WETLAND PLUG PLANTING AREA

---- LIMITS OF DISTURBANCE

#### **SEED NOTES**

BIOSWALE S	SEED MIX (0.76 ACRES 1	TOTAL ALL SHEETS)	
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS
ACHILLEA MILLEFOLIUM	YARROW	1	0.76
DESCHAMPSIA CESPITOSA SSP. CESPITOSA	TUFTED HAIRGRASS	4	3.04
ELEOCHARIS MACROSTACHYS	SPIKE RUSH	2	1.52
ELYMUS GLAUCUS	BLUE WILDRYE	4	3.04
FESTUCA RUBRA	RED FESCUE	4	3.04
HORDEUM BRACHYANTHERUM	MEADOW BARLEY	4	3.04
JUNCUS EFFUSUS	PACIFIC SOFT RUSH	2	1.52
SYMPHYOTRICHUM CHILENSE	CALIFORNIA ASTER	1	0.76

GENERAL EROSION	CONTROL SEED MIX (A	SSUMED 1.0 ACRES TOTA	L)
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS
BROMUS CARINATUS	CALIFORNIA FESCUE	2.0	2.0
ELYMUS GLAUCUS	BLUE WILDRYE	2.0	2.0
FESTUCA RUBRA	RED FESCUE	2.0	2.0
ESCHSCHOLZIA CLAIFORNICA SSP. MARITIMA	SEASIDE CALIFORNIA POPPY	1.0	1.0
CORETHROGYNE FILAGINIFOLIA	FALIFORNIA ASTER	1.0	1.00
ACILLEA MILLEFOLIYUM	YARROW	2.0	2.0

#### **PLANTING NOTES**

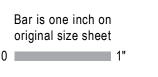
Scale

PLUG PLANTING					
SCIENTIFIC NAME	COMMON NAME	UNIT	SPACING	QTY	
FRESHWATER FORESTED SHRUB WETLAND ( 5,310 SF TOTAL ALL SHEETS)					
SCIRPUS MICROCARPUS	SMALL FRUIT BULRUSH	PLUG	2 FT	95	
CAREX OBNUPTA	SLOUGH SEDGE	PLUG	2 FT	95	
OENANTHE SARMENTOSA	WATER PARSLEY	PLUG	2 FT	95	
RUBUS URSINUS	CALIFORNIA BLACKBERRY	PLUG	7.5 FT	100	

## CONFORM SET

CONFORM CCO2 BV BV 2025-07-27 RR BV 2025-02-01 No. Issue Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Project Director J. SVEHLA Designer R. RIOS Design Check B. VIVYAN









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Project No.

12572691

Client MANILA COMMUNITY SERVICES DISTRICT

roject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

Title EROSION CONTROL & SEED **APPLICATION PLAN (9 OF 10)** 



2025-02-01 AS SHOWN



#### SHEET GENERAL NOTES

- THE PROPOSED EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE A MINIMUM BEST MANAGEMENT PRACTICE. THE CONTRACTOR MAY BE REQUIRED TO TAKE ADDITIONAL EROSION CONTROL MEASURE TO ENSURE THAT NO SEDIMENT LADEN WATER EXITS THE SITE, ENTERS THE EXISTING STORMWATER SYSTEM, OR ENTERS SENSITIVE AREAS. BMPS ARE TO BE EMPLOYED AS APPROPRIATE TO MINIMIZE EROSION AND PREVENT SEDIMENT DISCHARGE IN THE EVENT OF SUMMER RAINSTORMS, WHEN RAINFALL IS FORECAST, OR AT THE LATEST BY OCTOBER 15TH AND UNTIL APRIL 15TH.
- 2. SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.
- 3. AREAS AND LINEAL FEET ARE BASED ON PLAN VIEW DIMENSIONS, SEE PLANS, SECTIONS, PROFILES, AND DETAILS, FOR DEPTH AND EXTENT OF PROPOSED FACILITIES.

#### **LEGEND**

LAWN GRASS SEED (GROUNDWORK FAST LAWN OR APPROVED EQUAL)

BETWEEN LIMITS OF

BIOSWALE SEED AND MULCH

GENERAL EROSION CONTROL SEED MIX (AS DIRECTED

DISTURBANCE AND GRADING)

1 11 11 11 11

PLUG PLANTING

1 PARAMETER WETLAND PLANTING RAIN GARDEN PLANTING (GRASSES)

FRESHWATER FORESTED SHRUB WETLAND PLUG

MARINE WETLAND AND

PLANTING AREA ---- LIMITS OF DISTURBANCE

#### **SEED NOTES**

GENERAL EROSION	CONTROL SEED MIX (A	SSUMED 1.0 ACRES TOTAL	_)
SCIENTIFIC NAME	COMMON NAME	POUNDS OF PURE LIVE SEED/ACRE	POUNDS
BROMUS CARINATUS	CALIFORNIA FESCUE	2.0	2
ELYMUS GLAUCUS	BLUE WILDRYE	2.0	2
FESTUCA RUBRA	RED FESCUE	2.0	2
ESCHSCHOLZIA CLAIFORNICA SSP. MARITIMA	SEASIDE CALIFORNIA POPPY	1.0	1
CORETHROGYNE FILAGINIFOLIA	FALIFORNIA ASTER	1.0	1.
ACILLEA MILLEFOLIYUM	YARROW	2.0	2

#### **PLANTING NOTES**

	PLUG PLANTING			
SCIENTIFIC NAME	COMMON NAME	UNIT	SPACING	QTY
MARINE WETLAND (1,550 SF TOTAL ALL SHEETS)				
CAREX LYNGBYEI	LYNGBYE'S SEDGE	PLUG	2 FT	247
DISTICHLIS SPICATA	SALT GRASS	PLUG	2 FT	247

	MANILA COMMUNITY PARK - 1 PARAMETER WETLAND PLANTING							
5	SCIENTIFIC NAME	COMMON NAME	STRATUM	UNIT	SPACING	TOTAL NUMBER		
_	SALIX HOOKERIANA	HOOKER'S WILLOW	TREE	CUTTING	15 FT (FROM OTHER TREES)	50		
	MORELLA CALIFORNICA	WAX MYRTLE	TREE	DEEPOT 40	15 FT (FROM OTHER TREES)	50		
	ONICERA NVOLUCRATA	TWINBERRY	SHRUB	DEEPOT 16	20 FT (FROM OTHER SHRUBS)	56		
C	CAREX OBNUPTA	SLOUGH SEDGE	HERB	PLUG	5 FT (FROM OTHER HERBS)	441		
-	DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	HERB	PLUG	5 FT (FROM OTHER HERBS)	441		

## CONFORM SET

CONFORM CCO2 BV BV 2025-07-27 RR BV 2025-02-01 0 BID SET No. Issue Author R. RIOS Drafting Check B. VIVYAN Project Manager B. VIVYAN Project Director J. SVEHLA Designer R. RIOS Design Check B. VIVYAN



Bar is one inch on original size sheet 0 1"

**PLAN - MANILA COMMUNITY PARK** 





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Project No.

12572691

Client MANILA COMMUNITY SERVICES **DISTRICT** 

roject FLOOD REDUCTION AND DRAINAGE **ENHANCEMENT PROJECT** 

2025-02-01

Title EROSION CONTROL & SEED **APPLICATION PLAN (10 OF 10)** 

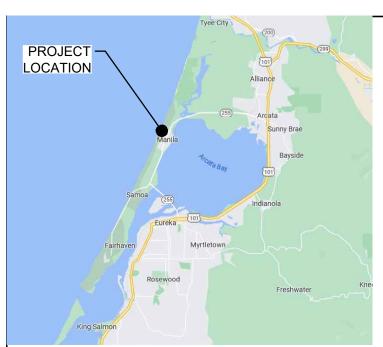
Scale

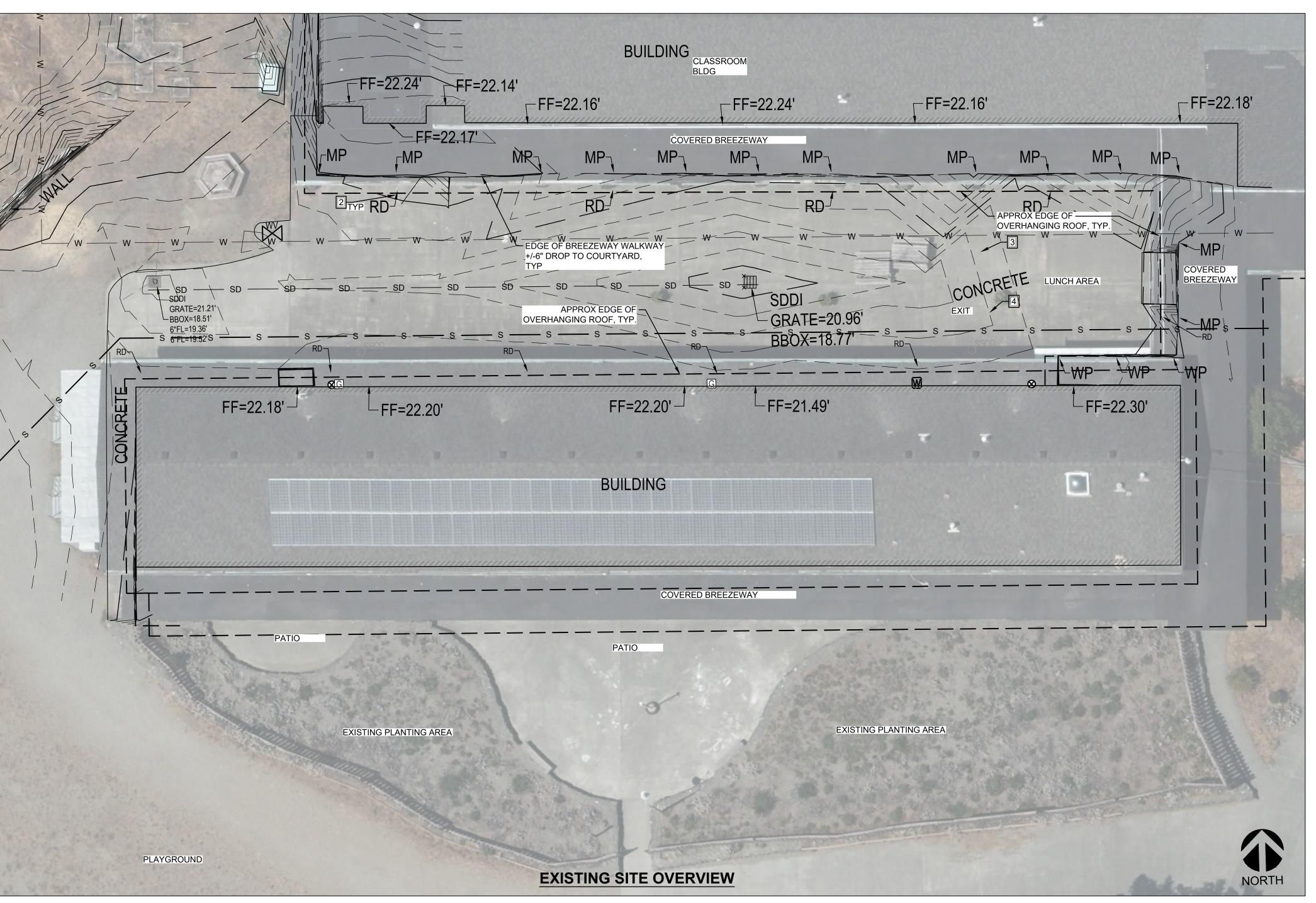
AS SHOWN

Plot Date: 28 July 2025 - 7:18 AM

Plotted By: Brett Vivyan

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**ABBREVIATIONS** PVR PAVER AND FINISH FLOOR RADIUS, RADIUS FG FINISH GRADE ANGLE POINT REINFORCED RCP FIN FINISH CONCRETE PIPE FL FLOWLINE ROOF DRAIN DIAMETER OR FACE OF REFERENCE ROUND FOC FACE OF CONCRETE REV REVISION, REVISED AGGREGATE BASE FOF FACE OF FINISH REQUIRED RIGHT OF WAY ASPHALT CONCRETE ADA FOOT OR FEET SOLID BLOCKING DISABILITY ACT FTG FOOTING ADJACENT SEALED CONCRETE GAS LINE AGG AGGREGATE SCHED SCHEDULE STORM DRAIN APPROX APPROXIMATE STORM DRAIN DRAIN GALV GALVANIZED SDDI BBOX BOTTOM OF BOX INLET STORM DRAIN GB GRADE BREAK BUILDING MANHOLE GENERAL BOTTOM OF CURB SQUARE FEET CONTRACTOR GRADE SHEET BETW, B/W BETWEEN GAS VALVE SIMILAR SCORE JOINT BENCHMARK HIGH HOSE BIB SEALANT BACKFLOW HEIGHT SPECS SPECIFICATIONS PREVENTION VALVE HORIZ HORIZONTAL SQUARE INTERIOR DIAMETER STAINLESS STEEL CATCH BASIN SANITARY SEWER CAST IN PLACE INCH MANHOLE INCLUDE, INCLUDED. CONSTRUCTION INCL STAINLESS STEEL INCLUDING STATION CONCRETE LINEAR FEET STANDARD CMU STD MASONRY LOD UNIT CLEAN-OUT STEEL DISTURBANCE COL COLUMN MAX MAXIMUM STRUCTURAL SYMMETRICAL, CONC CONCRETE MANUF MANUFACTURER SYMMETRY CONTINUE CONT MAN HOLE SIDEWALK TOP AND BOTTOM MINIMUM DEPTH, DIAMETER MISC MISCELLANEOUS TO BE DETERMINED MP METAL POST TOP OF CURB DEMOLITION DEMOLISH DIAMETER TOP OF TOP OF CONCRETE TOP OF SLOPE TOP OF WALL TYPICAL U/G. UG UNDERGROUND OC, O/C ON CENTER **UNDERWRITERS** EACH OD OUTSIDE DIAMETER LABORATORY UNLESS OTHERWISE EXPANSION JOINT PLANTING AREA VERTICAL VERIFY IN FIELD PROPERTY LINE WDE, WDTH WOOD POST **WTHOUT** EACH WAY CHLORIDE EXTERIOR PVG PAVING FOUNDATION PVMT PAVEMENT WATER VALVE

**ABBREVIATIONS** 

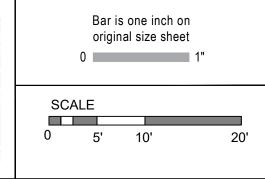
**BID SET** 

0 BID SET JH BV 2025-02-01 No. Issue Date Author J. HALL Drafting Check R. RIOS Project Manager B. VIVYAN Project Director J. SVEHLA Designer J. HALL Design Check B. VIVYAN

Plot Date: 28 July 2025 - 6:08 AM











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]	Client MANILA COMMUNITY SERVICES
	DISTRICT
	Project FLOOD REDUCTION AND DRAINAGE
	ENHANCEMENT PROJECT

Project No.

12572691

LANDSCAPE COVER SHEET & **EXISTING SITE** 

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LANDSCAPE COVER SHEET & EXISTING SITE

LANDSCAPE NOTES

LANDSCAPE NOTES

MISC SITE DETAILS MISC SITE DETAILS

MISC SITE DETAILS

PLANTING DETAILS

LANDSCAPE SITE PLAN

LANDSCAPE DEMOLITION PLANS

LANDSCAPE GRADING PLAN

LANDSCAPE PLANTING PLAN

Filename: \ghdnet\ghd\US\Eureka\Projects\561\12572691\Doc\_Transfer\Incoming\2024-10-01 JHall Final W CAD\MANILA-SW-100 - Standard\L001.dwg

Date Scale 2024-09-12 **AS SHOWN** 

#### LANDSCAPE NOTES

#### SCOPE OF WORK:

- WORK SHALL CONSIST OF FURNISHING ALL MATERIALS, SERVICES AND EQUIPMENT NECESSARY TO COMPLETELY INSTALL ALL LANDSCAPE WORK AS
- INDICATED IN THE CONSTRUCTION DOCUMENTS AND HEREIN SPECIFIED. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND INSPECTIONS. WORK NOT INCLUDED WILL BE INDICATED ON THE DRAWING AS 'FUTURE,
- 'EXISTING', 'N.I.C' OR 'BY OTHERS'. 4. THE CONTRACTOR SHALL OBTAIN (AND KEEP IN FORCE DURING THE PERIOD OF THE CONTRACT) LIABILITY INSURANCE, AS REQUIRED BY ALL APPLICABLE CODES AND

**QUALIFICATIONS** THE WORK SHALL BE UNDERTAKEN BY A LICENSED C-27 LANDSCAPE CONTRACTOR OR GENERAL "A" LICENSE CONTRACTOR WITH DEMONSTRATED EXPERIENCE IN ROUGH AND FINE GRADING, STORMWATER GARDENS, CONCRETE CONSTRUCTION INCLUDING FORMING AND FINISHING, PERMEABLE PAVING SYSTEMS, DECKING SYSTEMS, DOWNSPOUT CONVERSIONS, STORM DRAIN INLET ADJUSTMENTS AND GRATE INSTALLATION, WOOD FENCE CONSTRUCTION AND DETAILING, AND NATIVE PLANT

**VERIFICATIONS OF DIMENSIONS AND QUANTITIES:** 5. ALL SCALED DIMENSIONS ARE APPROXIMATED. BEFORE PROCEEDING WITH ANY WORK, CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES AND INFORM LANDSCAPE ARCHITECT OF ANY DISCREPANCY BETWEEN THE DRAWINGS OR SPECIFICATIONS AND ACTUAL CONDITIONS. REFRAIN FROM DOING ANY WORK IN SAID AREAS UNTIL GIVEN APPROVAL TO DO SO. MATERIALS:

- ALL MATERIALS SHALL BE OF THE BEST GRADE OF THEIR REPRESENTATIVE KIND, AND SHALL BE FURNISHED IN AMPLE QUANTITIES AT THE PROPER TIME. IT SHALL BE UP TO THE CONTRACTOR TO SHOW THAT AMPLE QUANTITIES OF THE REQUIRED MATERIALS WERE USED AND INSTALLED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
- 6. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF MATERIALS ARE NOT AVAILABLE AS SPECIFIED. ALL SUBSTITUTIONS ARE SUBJECT TO THE WRITTEN APPROVAL OF THE RECORD LANDSCAPE ARCHITECT.
- 7. CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER FOR PARTICIPATION OR OBSERVATION BY THE PROJECT LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE AT THE FOLLOWING STAGES OF WORK:
- 7.1.LIMITS OF DEMOLITION
- 7.2. GRADING AND DRAINAGE
- 7.3. SITE LAYOUT AND CONCRETE FORMWORK
- 7.4. CONCRETE SAND PLAY AREA FINISHING
- 7.5. CONCRETE PLANK TEST STAINS AND TEST INSTALLATION
- 7.6.DECK AND PATIO INSTALLATION
- 7.7.FENCE INSTALLATION
- 7.8. PLANTING SOIL PREPARATION AND COMPACTION
- 7.9.PLANT INSPECTION NURSERY OBSERVATION
- 7.10. PLANT DELIVERY 7.11. PLANT LAYOUT
- 7.12. SUBSTANTIAL COMPLETION PUNCHLISTING
- 7.13. FINAL ACCEPTANCE

8. THE FOLLOWING SUBMITTALS ARE REQUIRED AND SHALL BE PROVIDED WITH AMPLE TIME FOR THE PROJECT MANAGER TO REVIEW AND PROVIDE COMMENTS OR APPROVALS:

#### 8.1. AGRONOMIC SOILS TESTS

- 8.2.PRODUCTS INCLUDING BUT NOT LIMITED TO CONCRETE PLANKS AND STAIN OPTIONS, CHANNEL DRAIN AND GRATE, ETC
- 8.3.DECORATIVE BOULDERS 8.4.RIVER SAND
- 8.5.COMPOST
- 8.6.MULCHES

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Designer J. HALL

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- 8.7.BLENDED SOILS
- 8.8. SHOP DRAWINGS AS REQUIRED 8.9.PLANTINGS
- 8.10. CERTIFICATES FOR BULK MATERIALS
- 8.11. PLANTING ACCESSORIES, INCLUDING TREE STAKES

#### **GENERAL LANDSCAPE NOTES:**

- 9. CONTRACTOR SHALL BECOME FAMILIAR WITH AND REVIEW ALL DISCIPLINES AND PARTS OF THE CONSTRUCTION DOCUMENT PACKAGE INCLUDING (BUT NOT LIMITED TO) CIVIL, ELECTRICAL, STRUCTURAL AND ENVIRONMENTAL MITIGATION PLANS, AND RELATED NOTES AND DETAILS. CONTRACTOR SHALL REFERENCE ALL THESE PLANS TO UNDERTAKE THE WORK, INCLUDING ESTIMATING QUANTITIES, BIDS, LAYOUT OF SITE, COORDINATION OF WORK AND ALL TRADES, ETC.
- 10. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ISSUING A COMPLETE SET OF PLANS AND SPECIFICATIONS TO ALL SUBCONTRACTORS.
- 11. SEE LANDSCAPE INSTALLATION NOTES. THE CONTRACTOR SHALL CONFORM TO ALL CONDITIONS AND REQUIREMENTS CONTAINED WITHIN. THE CONTRACTOR SHALL HAVE AVAILABLE ON THE JOB SITE AT ALL TIMES THE CONSTRUCTION ISSUE DRAWINGS AND SPECIFICATIONS FOR INSPECTION BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ATTACH TO THE DRAWING ALL OFFICIAL/ APPROVED ADDENDUM AND/OR CHANGE ORDERS RELATIVE TO THE LANDSCAPE INSTALLATION IN CHRONOLOGICAL ORDER.
- 12. THE CONTRACTOR SHALL EXAMINE THE SITE, COMPARE IT WITH THE PLANS AND SPECIFICATIONS AND SATISFY HIM/HERSELF AS TO THE CONDITIONS UNDER CONTRACT. WHERE CONFLICTS OCCUR BETWEEN PLANS, SPECIFICATIONS AND/OR SITE CONDITIONS, CONTACT THE PROJECT MANAGER FOR CLARIFICATION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY ACTIONS TAKEN WITHOUT SEEKING CLARIFICATION. THE IMPROVEMENT CONSISTS ONLY OF WORK CALLED FOR ON THESE PLANS.
- 13. THE CONTRACTOR SHALL ESTABLISH THE LIMIT OF WORK AND CLEARLY STAKE THE AREA IN THE FIELD.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING SIDEWALKS, STREETS, SIGNS, LANDSCAPING, ETC ASSOCIATED WITH THE PROJECT AND SHALL REPAIR SUCH DAMAGE TO THE SATISFACTION OF THE OWNER AT NO EXTRA COST TO THE OWNER. THE CONTRACTOR SHALL ADEQUATELY DOCUMENT EXISTING CONDITIONS PRIOR TO WORK TO PROVIDE A RECORD AGAINST WHICH TO COMPARE ANY DAMAGE.

- 15. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE UTILITY COMPANIES AND IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE TEMPORARY UTILITIES NECESSARY DURING CONSTRUCTION AND DURING THE MAINTENANCE
- 16. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SITE AND THE ASSOCIATED STREETS CLEAN AND FREE FROM RUBBISH AND DEBRIS. THE CONTRACTOR SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING, AND SPRINKLING WITH WATER, OR OTHER MEANS AS NECESSARY. THE USE OF WATER RESULTING IN MUD ON PUBLIC STREETS WILL NOT BE PERMITTED AS A SUBSTITUTE FOR SWEEPING OR OTHER METHODS.

#### **EXISTING UTILITIES**

- 13. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL UNDERGROUND FACILITIES. HOWEVER, WDS ASSUMES NO LIABILITY FOR THE ACCURACY OR COMPLETENESS OF THE FACILITIES SHOWN HERE OR FOR THE EXISTENCE OF OTHER UNDERGROUND UTILITIES OR OBJECTS WHICH MAY BE DISCOVERED BUT ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ANY EXISTING UTILITIES BEFORE COMMENCING WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POTHOLE ALL EXISTING FACILITIES TO DETERMINE THE DEPTH AND DIRECTION OF UNDERGROUND FACILITIES. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO POTHOLE ALL EXISTING FACILITIES FAR ENOUGH AHEAD OF CONSTRUCTION TO ALLOW FOR VERTICAL ADJUSTMENTS TO GRADE TO AVOID CONFLICTS WITH EXISTING FACILITIES. ALL FIELD ADJUSTMENTS SHALL BE ACCOMPLISHED AT THE SOLE EXPENSE OF THE CONTRACTOR. CONTRACTOR SHALL ALSO NOTIFY UNDERGROUND SERVICE ALERT (USA/DIGALERT) PRIOR TO BEGINNING ANY WORK ON SITE.
- 14. THE PLANS CALL FOR THE REMOVAL OF ONE STORMDRAIN LINE AND CATCH BASIN, AND THE PLUGGING OF ITS INLET TO THE REMAINING CATCH BASIN. A SECOND PIPE CONNECTION TO THE STORMDRAIN IS EXPECTED TO REMAIN IN PLACE. THE GRADING PLAN INCLUDES LOWERING THE ELEVATION OF SOIL ON THE SIDE OF THE CATCH BASIN THAT IS TO BE PLUGGED TO ALLOW FOR GREATER INFILTRATION ONSITE THIS SIDE OF THE CATCH BASIN IS TO BE PROTECTED WITH A PARTIALLY BURIED LOG OR DRIFTWOOD. THE CONTRACTOR SHALL ASSESS THE CONDITION OF THE CATCH BASIN AT THE TIME OF DEMO AND REPORT ANY POTENTIAL CONFLICTS THAT MAY RESULT FROM THIS GRADING APPROACH.
- 15. GAS LINES RUN ALONG THE BACK WALL OF THE SOUTHERLY CLASSROOM BUILDING. CARE SHOULD BE TAKEN WHEN APPLYING WATERPROOFING SEALANT AND PAINT TO THE WALL OF THE BUILDING.

- 16. THE PLANT PROTECTION AREA IS DEFINED AS ALL AREAS INDICATED ON THE LANDSCAPE DEMOLITION PLAN. WHERE NO LIMIT OF THE PLANT PROTECTION AREA IS DEFINED ON THE DRAWINGS, THE LIMIT SHALL BE 1.5X THE DIAMETER OF THE DRIP LINE (OUTER EDGE OF THE BRANCH CROWN) OF EACH PLANT.
- 17. PRIOR TO THE PRECONSTRUCTION MEETING, LAYOUT THE LIMITS OF THE PLANT PROTECTION AREA. OBTAIN THE OWNER'S REPRESENTATIVE'S APPROVAL OF THE LIMITS OF THE PROTECTION AREA.
- 17.1. THE CONTRACTOR SHALL MAINTAIN A BARRIER BETWEEN THE WORK AREA AND PROTECTED AREA THROUGHOUT THE PROJECT AND ENSURE THAT EQUIPMENT AND WORKERS REMAIN CONFINED TO THE WORK AREA
- 18. IT SHALL BE ASSUMED THAT PLANTS WITHIN THE WORK AREA SHALL BE REMOVED AS NEEDED TO PERFORM THE INSTALLATION OF A DRAIN PIPE.
- 19. THE PLANTING SOILS WITHIN THE WORK AREA SHALL BE DECOMPACTED AND AMENDED PER THE PLANTING SOILS NOTES AND REPLANTED PER THE PLANTING PLAN.
- 20. ANY PLANTS DAMAGED OR DESTROYED WITHIN THE PLANT PROTECTION AREA SHALL BE REPLACED IN KIND AND GUARANTEED THROUGH ESTABLISHMENT AT THE CONTRACTOR'S EXPENSE

#### LANDSCAPE DEMOLITION

- SITE PROTECTION
- 21. PRIOR TO LANDSCAPE DEMOLITION IMPLEMENT PLANT PROTECTION AS INDICATED IN THE SECTION ABOVE, AND ANY ADDITIONAL INSTRUCTIONS IN PLANS OR DETAILS.

#### **CLEARING AND GRUBBING**

- 22. CLEARING AND GRUBBING SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REMOVAL FROM THE AREAS OF WORK ALL WEEDS, DEBRIS, CONCRETE RUBBLE, VEGETATION INCLUDING TREES ROOTS AND STUMPS AS NECESSARY TO ACCOMMODATE CONSTRUCTION OPERATIONS, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE, UNLESS NOTED OTHERWISE ON THE PLANS OR BY FIELD DIRECTIVE. IN ADDITION, MINOR CLEARING OF TRASH AND DEBRIS MAY BE NECESSARY FOR WITHIN THE LIMITS OF WORK.
- 23. GRUBBING IS DEFINED AS REMOVING LOGS, BRANCHES, TWIGS, STICKS, BRUSH, STUMPS, GRASS, WEEDS, ROOTS, DECAYED VEGETABLE MATTER, DUFF, AND WOODY DEBRIS RESTING ON OR PROTRUDING THROUGH THE GROUND SURFACE AND ALL OBJECTIONABLE WOODY MATTER WHICH IS EMBEDDED IN THE UNDERLYING SOIL. GRUBBING SHALL INCLUDE INCIDENTAL VEGETATION CLEARING WITHIN THE GRUBBING
- 23.1. ALL WOODY MATERIAL GENERATED DURING GRUBBING SHALL BE EVALUATED FOR REUSE AS A LANDSCAPE EDGING MATERIAL OR CHIPPED AND EITHER STOCKPILED IN A PRE-APPROVED STAGING AREA, HAULED OFF-SITE TO AN AUTHORIZED SITE OR USED AS DIRECTED BY THE OWNER.
- 24. MISCELLANEOUS DEBRIS REMOVAL IS DEFINED AS ALL MATERIALS LOCATED WITHIN THE DESIGNATED WORK AREA NOT COVERED IN THE OTHER DEFINITIONS AND SHALL INCLUDE BUT NOT BE LIMITED TO ITEMS LIKE EQUIPMENT, APPLIANCES, BUILDING MATERIALS OR REMAINS THEREOF, TIRES, ANY SOLID OR LIQUID CHEMICALS OR PRODUCTS STORED OR FOUND IN CONTAINERS OR SPILLED ON THE GROUND. IF HAZARDOUS MATERIALS ARE ENCOUNTERED, PROPER DISPOSAL TECHNIQUES AND FACILITIES MUST BE UTILIZED.
- FROM THE PLANNED CONSTRUCTION AREA. SOIL CONTAINING MORE THAN TWO PERCENT BY WEIGHT OR ORGANIC MATTER SHOULD BE CONSIDERED ORGANIC. ACTUAL STRIPPING DEPTH MAY BE DETERMINED BY THE OWNER IN THE FIELD AT THE TIME OF STRIPPING. STRIPPING IS DEFINED AS REMOVING AND DISPOSING OF THE UPPER 4-INCHES OF VEGETATIVE SOIL. 26. BEYOND THE 4-INCH DEPTH OF STRIPPED VEGETATIVE SOIL, STOCKPILE ANY

25. VEGETATION AND ORGANIC MATERIAL SHOULD BE CLEARED AND STRIPPED

- ADDITIONAL EXCAVATED TOPSOIL FOR REUSE. COORDINATE WITH CIVIL FOR AREAS OF WHERE THIS MAY OCCUR. 27. NO MISCELLANEOUS DEBRIS REMOVAL, CLEARING, GRUBBING OR STRIPPING
- SHALL OCCUR OUTSIDE CONSTRUCTION LIMITS OF DISTURBANCE WITHOUT PRIOR APPROVAL FROM THE OWNER.

#### **DEMOLITION OF EXISTING FACILITIES**

28. EXISTING CURBS, GUTTERS, DRIVEWAYS, WALKWAYS, CONCRETE SLABS, CULVERTS, SIGNS, POSTS, FOUNDATIONS, AND OTHER ITEMS WHERE SPECIFIED ON

- THE PLANS SHALL BE REMOVED AND DISPOSED OF AT APPROPRIATE FACILITIES. CONCRETE AND ASPHALT PAVEMENT SHALL BE SAW-CUT AND REMOVED WITHIN EXISTING JOINTS AS NECESSARY. ALL MATERIAL REMOVED SHALL BE CONSIDERED THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE ALL APPLICABLE LAWS AT THE CONTRACTOR'S EXPENSE.
- 28.1. THE CONTRACTOR SHALL RESERVE AND PREPARE A QUANTITY OF CONCRETE PAVEMENT FOR REUSE AS "URBANITE":
- 28.1.1. BREAK CONCRETE INTO 400 SF of 14-18" X 24" SECTIONS AND 120 SF OF 8-10" X 12" SECTIONS.
- 28.1.2. UNEVEN EDGES ARE ACCEPTABLE.
- 28.1.3. DULL EDGES OF URBANITE TO REMOVE SHARP PROTRUSIONS INCLUDING REBAR, WIRE, OR CONCRETE.
- 29. THE CONTRACTOR SHALL RESTORE AT HIS OR HER EXPENSE ALL LANDSCAPING INCLUDING SOD, IRRIGATION LINES, MISCELLANEOUS CONCRETE AND/OR OTHER ITEM OF WORK TO PRECONSTRUCTION STATUS, IN LIKE KIND OR BETTER, DAMAGED BY HIS/HER OPERATIONS.

#### GRADING AND DRAINAGE

- 30. ROUGH GRADING SHALL CONFORM TO THE CIVIL PROJECT SPECIFICATIONS, WITH THE FOLLOWING ADDITIONAL STIPULATIONS:
- 30.1. ROUGH GRADES WITHIN PLANTING AREAS SHALL BE COMPACTED TO NO LESS THAN 80% AND NO GREATER THAN 85% STANDARD PROCTOR.
- 30.2. SOIL COMPACTION UNDER CONCRETE FOOTINGS SHALL BE MIN 90% AND MAX 95% COMPACTION STANDARD PROCTOR. 30.3. PLANTING SOILS SHALL BE COMPACTED PER SOIL MANAGEMENT NOTES
- 30.4. THE CONTRACTOR IS ADVISED TO ALSO REVIEW PROJECT PLANS, DETAILS AND FINE GRADING AND SOIL PREPARATION NOTES

#### SITE CONCRETE INCLUDING CURBS, DECK AND FENCE FOOTINGS AND SUPPORTS, SAND PLAY AREA STRUCTURE ETC SHALL CONFORM TO THE CIVIL

#### SOIL MANAGEMENT, FINE GRADING, AMENDMENTS AND MULCH:

PROJECT SPECIFICATION.

32. ACCEPTABLE DRAINAGE: DRAINAGE RATE IS SUFFICIENT FOR THE PLANTS TO BE GROWN. NOT TOO FAST AND NOT TOO SLOW. TYPICAL RATES FOR INSTALLED PLANTING SOIL ARE BETWEEN 1 - 5 INCHES PER HOUR. TURF SOILS ARE OFTEN HIGHER, BUT DRAINAGE RATES ABOVE 2 - 3 INCHES PER HOUR WILL DRY OUT VERY FAST. IN NATURAL UNDISTURBED SOIL A MUCH LOWER DRAINAGE RATE, AS LOW AS 1/8<sup>1H</sup> INCH PER HOUR CAN STILL SUPPORT GOOD PLANT GROWTH. WETLAND PLANTS CAN GROW ON TOP OF PERCHED WATER LAYERS OR EVEN WITHIN SEASONAL PERCHED WATER LAYERS, BUT COULD BECOME UNSTABLE IN HIGH WIND EVENTS. 33. AMENDMENT: MATERIAL ADDED TO TOPSOIL TO PRODUCE PLANTING SOIL MIX.

- AMENDMENTS ARE CLASSIFIED AS GENERAL SOIL AMENDMENTS, FERTILIZERS, BIOLOGICAL, AND PH AMENDMENTS. 34. BIOLOGICAL AMENDMENT: AMENDMENTS SUCH AS MYCORRHIZAL ADDITIVES COMPOST TEA OR OTHER PRODUCTS INTENDED TO CHANGE THE SOIL BIOLOGY.
- COMPACTED SOIL: SOIL WHERE THE DENSITY OF THE SOIL IS GREATER THAT THE THRESHOLD FOR ROOT LIMITING, AND FURTHER DEFINED IN THIS SPECIFICATION. 36. COMPOST: WELL DECOMPOSED STABLE ORGANIC MATERIAL AS DEFINED BY
- THE US COMPOSTING COUNCIL AND FURTHER DEFINED IN THIS SPECIFICATION. 37. DRAINAGE: THE RATE AT WHICH SOIL WATER MOVES THROUGH THE SOIL TRANSITIONING THE SOIL FROM SATURATED CONDITION TO FIELD CAPACITY. MOST OFTEN EXPRESSED AS SATURATED HYDRAULIC CONDUCTIVITY (KSAT; UNITS ARE INCHES PER HOUR).
- 38. END OF WARRANTY ACCEPTANCE: THE DATE WHEN THE OWNER'S REPRESENTATIVE ACCEPTS THAT THE PLANTS AND WORK IN THIS SECTION MEET ALL THE REQUIREMENTS OF THE WARRANTY. IT IS INTENDED THAT THE MATERIALS AND WORKMANSHIP WARRANTY FOR PLANTING, PLANTING SOIL, AND IRRIGATION (IF APPLICABLE) WORK RUN CONCURRENT WITH EACH OTHER, AND FURTHER DEFINED IN
- 39. EXISTING SOIL: MINERAL SOIL EXISTING AT THE LOCATIONS OF PROPOSED PLANTING AFTER THE MAJORITY OF THE CONSTRUCTION WITHIN AND AROUND THE PLANTING SITE IS COMPLETED AND JUST PRIOR TO THE START OF WORK TO PREPARE THE PLANTING AREA FOR SOIL MODIFICATION AND/OR PLANTING, AND FURTHER DEFINED IN THIS SPECIFICATION.
- 40. FERTILIZER: AMENDMENT USED FOR THE PURPOSE OF ADJUSTING SOIL NUTRIENT COMPOSITION AND BALANCE.
- 41. FINE GRADING: THE FINAL GRADING OF THE SOIL TO ACHIEVE EXACT CONTOURS AND POSITIVE DRAINAGE, OFTEN ACCOMPLISHED BY HAND RAKES OR DRAG RAKES OTHER SUITABLE DEVICES, AND FURTHER DEFINED IN THIS SPECIFICATION, AND FURTHER DEFINED IN THIS SPECIFICATION.
- 42. FINISHED GRADE: SURFACE OR ELEVATION OF PLANTING SOIL AFTER FINAL GRADING AND 12 MONTHS OF SETTLEMENT OF THE SOIL, AND FURTHER DEFINED IN THIS SPECIFICATION.
- 43. GRADED SOIL: SOIL WHERE THE A HORIZON HAS BEEN STRIPPED AND RELOCATED OR RE-SPREAD; CUTS AND FILLS DEEPER THAN 12 INCHES, AND FURTHER DEFINED IN THIS SPECIFICATION.
- 44. INSTALLED SOIL: PLANTING SOIL AND EXISTING SITE SOIL THAT IS SPREAD AND OR GRADED TO FORM A PLANTING SOIL, AND FURTHER DEFINED IN THIS MINOR DISTURBANCE: MINOR GRADING AS PART OF AGRICULTURAL WORK THAT
- ONLY ADJUSTS THE A HORIZON SOIL. MINOR SURFACE COMPACTION IN THE TOP 6 INCHES OF THE SOIL, APPLICATIONS OF FERTILIZERS, INSTALLATION OF UTILITY PIPES SMALLER THAN 18 INCHES IN DIAMETER THRU THE SOIL ZONE. 46. PED: A CLUMP OR CLOD OF SOIL HELD TOGETHER BY A COMBINATION OF CLAY, ORGANIC MATTER, AND FUNGAL HYPHAE, RETAINING THE ORIGINAL STRUCTURE OF

THE HARVESTED SOIL.

- 47. PLANTING SOIL: TOPSOIL, OR PLANTING SOIL MIXES WHICH ARE IMPORTED OR EXISTING AT THE SITE, OR MADE FROM COMPONENTS THAT EXIST AT THE SITE, OR ARE IMPORTED TO THE SITE; AND FURTHER DEFINED IN THIS SPECIFICATION. 48. POOR DRAINAGE: SOIL DRAINAGE THAT IS SLOWER THAN THAT TO WHICH THE
- PLANTS CAN ADAPT. 49. SCARIFY: LOOSENING AND ROUGHENING THE SURFACE OF SOIL AND SUB SOIL PRIOR TO ADDING ADDITIONAL SOIL ON TOP, AND FURTHER DEFINED IN THIS
- 50. SOIL FRACTURING: DEEP LOOSENING THE SOIL TO THE DEPTHS SPECIFIED BY

USING A BACK HOE, AND FURTHER DEFINED IN THIS SPECIFICATION.

51. SOIL HORIZONS: AS DEFINED IN THE USDA NATIONAL SOIL SURVEY HANDBOOK:

- HTTP://WWW.NRCS.USDA.GOV/WPS/PORTAL/NRCS/DETAIL/SOILS/SCIENTISTS/ ?CID=NRCS142P2 054242.
- 52. SOIL MOISTURE THRESHOLDS:

	PERMANENT	FIELD SOIL
<u>XTURE</u>	WILTING POINT	CAPACITY
ND, LOAMY SAND, SANDY LOAM	5-8%	12-18%
AM, SANDY CLAY, SANDY CLAY LOAM	14-25%	27-36%
AY LOAM, SILT LOAM	11-22%	31-36%
TY CLAY, SILTY CLAY LOAM	22-27%	38-41%
2.1. VOLUMETRIC SOIL MOISTURE SHA		•

- CONDUCTIVITY METER. THE METER SHALL BE THE DIGITAL SOIL MOISTURE METER, DSMM500 BY GENERAL SPECIALTY TOOLS AND INSTRUMENTS, OR APPROVED EQUIVALENT METER.
- 53. SOIL RIPPING: LOOSENING THE SOIL BY DRAGGING A RIPPING SHANK OR CHISEL THRU THE SOIL TO THE DEPTHS AND SPACING SPECIFIED, AND FURTHER DEFINED IN THIS SPECIFICATION.
- 54. SOIL TILLING: LOOSENING THE SURFACE OF THE SOIL TO THE DEPTHS SPECIFIED WITH A ROTARY TINE TILLING MACHINE, ROTO TILLER, (OR SPADE TILLER), AND FURTHER DEFINED IN THIS SPECIFICATION.
- 55. SOIL TRENCHING: CUTTING NARROW TRENCHES THRU THE SOIL AT THE DEPTHS AND SPACING SPECIFIED TO LOOSEN THE SOIL PROFILE, AND FURTHER DEFINED IN
- 56. SUBGRADE: SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER COMPLETING EXCAVATION, OR TOP SURFACE OF A FILL OR BACKFILL, BEFORE PLACING PLANTING SOIL.
- 57. SUBSTANTIAL COMPLETION ACCEPTANCE: THE DATE AT THE END OF THE PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION (IF APPLICABLE) WHERE THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN THESE SECTIONS IS COMPLETE AND THE WARRANTY PERIOD HAS BEGUN. THIS DATE MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT, AND FURTHER DEFINED IN THIS SPECIFICATION.
- TOPSOIL: NATURALLY PRODUCED AND HARVESTED SOIL FROM THE A HORIZON OR UPPER LAYERS OR THE SOIL, INCLUDING THE SITE'S NATIVE TOPSOIL.
- 59. UNDISTURBED SOIL: SOILS WITH THE ORIGINAL A HORIZON INTACT THAT HAVE NOT BEEN GRADED OR COMPACTED. SOILS THAT HAVE BEEN FARMED, SUBJECTED TO FIRE OR LOGGED BUT NOT GRADED, AND NATURAL FORESTED LAND WILL BE CONSIDERED AS UNDISTURBED.

60. SUBMIT ALL PRODUCT SUBMITTALS AND SAMPLES EIGHT WEEKS PRIOR TO THE START OF THE SOIL WORK.

61. PRODUCT DATA AND CERTIFICATES: FOR EACH TYPE OF MANUFACTURED PRODUCT, SUBMIT DATA AND CERTIFICATES THAT THE PRODUCT MEETS THE SPECIFICATION REQUIREMENTS, SIGNED BY THE PRODUCT MANUFACTURER, AND COMPLYING WITH THE FOLLOWING:

- 62. SUBMIT MANUFACTURERS OR SUPPLIER'S PRODUCT DATA AND LITERATURE CERTIFIED ANALYSIS FOR STANDARD PRODUCTS AND BULK MATERIALS, COMPLYING WITH TESTING REQUIREMENTS AND REFERENCED STANDARDS AND SPECIFIC REQUESTED TESTING.
- 62.1. ORGANIC SOIL AMENDMENT (COMPOST). ORGANIC SOIL AMENDMENT SHALL MEET THE FOLLOWING CRITERIA
- 62.1.1. HUMUS MATERIAL SHALL HAVE AN ACID-SOLUBLE ASH CONTENT OF NO LESS THAN 6% AND NO MORE THAN 20%.
- 62.1.2. ORGANIC MATTER SHALL BE AT LEAST 50% ON A DRY WEIGHT BASIS. 62.1.3. THE PH OF THE MATERIAL SHALL BE BETWEEN 6.5 AND 7.5 UNLESS REQUIRED OTHERWISE TO ATTAIN A SPECIFIC PH INDICATED IN THE SOIL
- 62.1.4. THE SALT CONTENT SHALL BE LESS THAN 10 MILLIMHO/CM AT 25° C ON A SATURATED PASTE EXTRACT. BORON CONTENT OF THE SATURATED EXTRACT SHALL BE LESS THAN 1.0 PARTS PER MILLION. SILICON CONTENT (ACID-INSOLUBLE ASH) SHALL BE LESS THAN 50%
- 62.1.5. CALCIUM CARBONATE SHALL NOT BE PRESENT IF TO BE APPLIED ON ALKALINE SOILS.
- 62.1.6. TYPES OF ACCEPTABLE PRODUCTS FOR COMPOSTS, MANURES, MUSHROOM COMPOSTS, STRAW, ALFALFA, PEAT MOSSES, ETC LOW IN SALTS, LOW IN HEAVY METALS, FREE FROM WEED SEEDS, FREE OF PATHOGENS, DEBRIS, TRASH, AND OTHER DELETERIOUS MATERIALS.
- 62.1.7. COMPOSTED WOOD PRODUCTS ARE CONDITIONALLY ACCEPTABLE (STABLE HUMUS MUST BE PRESENT). WOOD BASED PRODUCTS WHICH ARE BASED ON REDWOOD OR CEDAR ARE NOT ACCEPTABLE.
- 62.1.8. SLUDGE BASED MATERIALS ARE NOT ACCEPTABLE.
- 62.1.9. CARBON: NITROGEN RATIO IS LESS THAN 25:1
- 62.1.10. COMPOST SHALL BE AEROBIC WITHOUT MALODOROUS PRESENCE OF DECOMPOSITION PRODUCTS 62.1.11. THE MAXIMUM PARTICLE SIZE SHALL BE 0.5 INCH, 80% OR MORE SHALL
- PASS A NO. 4 SCREEN FOR SOIL AMENDING. 62.1.12. MAXIMUM TOTAL PERMISSIBLE POLLUTANT CONCENTRATIONS IN AMENDMENT IN PARTS PER MILLION ON A DRY WEIGHT BASIS:
- ARSENIC, 20 MOLYBDENUM, 20 CADMIUM, 15 SELENIUM, 50 CHROMIUM, 300 SILVER, 10 COPPER, 150 COBALT, 50 ZINC, 300 VANADIUM, 500 LEAD, 200

#### MERCURY, 10 62.2. COARSE SAND

FOR COARSE RIVER SAND PRODUCT SUBMIT THE FOLLOWING ANALYSIS BY A RECOGNIZED LABORATORY:

62.2.2. PARTICLE SIZE DISTRIBUTION (PERCENT PASSING THE FOLLOWING SIEVE

- NO 8 (2.36 MM) 3/8 INCH (9.5 MM) NO 4 (4.75 MM) NO 50 (.30 MM) NO 16(1.18 MM) NO 30 (.60 MM)
- NO 100 (.15 MM) NO 200 (.075 MM)] 62.2.3. SAND SHALL BE FREE OF SALTS AND SOURCED FROM FRESHWATER
- SAMPLES OF ALL TOPSOIL, COARSE SAND, COMPOST AND PLANTING SOIL SHALL

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BE SUBMITTED AT THE SAME TIME AS THE PARTICLE SIZE AND PHYSICAL ANALYSIS OF THAT MATERIAL.

#### SOIL TESTING

 EXISTING SITE SOIL(TOPSOIL) AND PLANTING SOIL MIX TESTING: SUBMIT SOIL TEST ANALYSIS REPORT FOR EACH SAMPLE OF EXISTING SITE SOIL AND PLANTING SOIL FROM AN APPROVED SOIL-TESTING LABORATORY AS FOLLOWS:

- 64.1. SOIL TESTING LABORATORY QUALIFICATIONS: AN INDEPENDENT LABORATORY, WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE TESTING INDICATED AND THAT SPECIALIZES IN USDA AGRICULTURAL SOIL TESTING, PLANTING SOIL MIXES, AND THE TYPES OF TESTS TO BE PERFORMED. GEOTECHNICAL ENGINEERING TESTING LABS SHALL NOT BE USED.
- 64.2. SUBMIT TOPSOIL, PLANTING SOIL, COMPOST, AND COARSE SAND FOR TESTING AT LEAST 8 WEEKS BEFORE SCHEDULED INSTALLATION OF PLANTING SOIL MIXES. SUBMIT PLANTING SOIL MIX TEST NO MORE THAN 2 WEEKS AFTER THE APPROVAL OF THE TOPSOIL, COMPOST AND COARSE SAND. DO NOT SUBMIT TO THE TESTING LABORATORY, PLANTING SOIL MIXES, FOR TESTING UNTIL ALL TOPSOIL, COMPOST AND COARSE SAND HAVE BEEN APPROVED.
- 64.3. IF TESTS FAIL TO MEET THE SPECIFICATIONS, OBTAIN OTHER SOURCES OF MATERIAL, RETEST AND RESUBMIT UNTIL ACCEPTED BY THE OWNER'S
- 64.4. ALL SOIL TESTING WILL BE AT THE EXPENSE OF THE CONTRACTOR.
- 65. SUBMIT ALL TESTING REQUIRED BY CALIFORNIA CODE OF REGULATION TITLE 23 WATERS, DIVISION 2 DEPARTMENT OF WATER RESOURCES CHAPTER 2.7 MODEL WATER EFFICIENT LANDSCAPE ORDINANCE, 492.5 SOIL MANAGEMENT REPORT
- 66. PROVIDE A PARTICLE SIZE ANALYSIS (% DRY WEIGHT) AND USDA SOIL TEXTURE ANALYSIS. SOIL TESTING OF PLANTING SOIL MIXES SHALL ALSO INCLUDE USDA GRADATION (PERCENTAGE) OF GRAVEL, COARSE SAND, MEDIUM SAND, AND FINE SAND IN ADDITION TO SILT AND CLAY.
- 66.1. PROVIDE THE FOLLOWING OTHER SOIL PROPERTIES:
- 66.2. PH AND BUFFER PH.
- 66.3. PERCENT ORGANIC CONTENT BY OVEN DRIED WEIGHT.
- 66.4. NUTRIENT LEVELS BY PARTS PER MILLION INCLUDING: PHOSPHORUS. POTASSIUM, MAGNESIUM, MANGANESE, IRON, ZINC AND CALCIUM. NUTRIENT TEST SHALL INCLUDE THE TESTING LABORATORY RECOMMENDATIONS FOR SUPPLEMENTAL ADDITIONS TO THE SOIL FOR OPTIMUM GROWTH OF THE PLANTINGS SPECIFIED.
- 66.5. SOLUBLE SALT BY ELECTRICAL CONDUCTIVITY OF A 1:2 SOIL WATER SAMPLE

#### MEASURED IN MILLIOHM PER CM. 66.6. CATION EXCHANGE CAPACITY (CEC).

- 67. MYCORRHIZAL INNOCULANT. APPLY MYCOAPPLY ENDO/ECTO (MYCORRYHZAL APPLICATIONS, 866-476-7800) OR EQ AT RATES INDICATED BY MANUFACTURER IN ALL PLANTING AREAS.
- 68. MULCH: AS INDICATED IN DETAILS AND SPECS

### SOIL AMENDMENT PLANNING

SOIL ENHANCEMENTS TO ACHIEVE DESIRED SOIL CHARACTERISTICS SHALL BE CONFIRMED AFTER AGRONOMIC SOILS TESTING BY CONTRACTOR. FOR THE PURPOSES OF BIDDING, CONTRACTOR TO PROVIDE BUDGET FOR THE FOLLOWING AMENDMENTS WHICH WILL BE SUBJECT TO REVISION. RATES EXPRESSED PER CUBIC YARD OF SOIL:

-POTASSIUM SULFATE (0-0-50). 1/3 POUND

-AGRICULTURAL GYPSUM - 1 POUND -ORGANIC SOIL AMENDMENT - ABOUT 20% BY VOLUME, SUFFICIENT FOR 6% SOIL

PROGRESS OF WORK - SOIL AND GRADING:

ORGANIC MATTER ON A DRY WEIGHT BASIS

- COORDINATION WITH PROJECT WORK 70. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK.
- 71. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES. SITE CONDITIONS 72. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF ALL SURFACE

AND SUBSURFACE CONDITIONS, AND TO NOTIFY THE OWNER'S REPRESENTATIVE, IN

WRITING OF ANY CIRCUMSTANCES THAT WOULD NEGATIVELY IMPACT THE HEALTH OF PLANTINGS. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. 73. SHOULD SUBSURFACE DRAINAGE OR SOIL CONDITIONS BE ENCOUNTERED WHICH WOULD BE DETRIMENTAL TO GROWTH OR SURVIVAL OF PLANT MATERIAL, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING, STATING

THE CONDITIONS AND SUBMIT A PROPOSAL COVERING COST OF CORRECTIONS. IF THE

CONDITIONS, THEY SHALL REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTEE CLAUSE OF THE SPECIFICATIONS. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. WHERE UNDERDRAINS ARE PART OF THE PROJECT PLANS AND SPECIFICATIONS, SUBGRADE ELEVATIONS SHALL SLOPE TOWARD THE UNDER DRAIN

CONTRACTOR FAILS TO NOTIFY THE OWNER'S REPRESENTATIVE OF SUCH

- LINES AS SHOWN ON THE DRAWINGS. 74. CONFIRM THAT ALL SURFACE AREAS TO BE FILLED WITH PLANTING SOIL ARE FREE OF CONSTRUCTION DEBRIS, REFUSE, COMPRESSIBLE OR BIODEGRADABLE MATERIALS, STONES GREATER THAN 2 INCHES DIAMETER, SOIL CRUSTING FILMS OF SILT OR CLAY THAT REDUCES OR STOPS DRAINAGE FROM THE PLANTING SOIL INTO
- 75. CONFIRM THAT NO ADVERSE DRAINAGE CONDITIONS ARE PRESENT, SUCH AS DRAINAGE FLOW DIRECTED TOWARDS INSTEAD OF AWAY FROM BUILDINGS, UNINTENDED SUMPS, ETC.

THE SUBSOIL; AND/OR STANDING WATER. REMOVE UNSUITABLE MATERIAL FROM THE

- 75.1. NOTE THAT THESE PLANS DO INCLUDE NATURALISTIC SUMPS FOR WATER TO INFILTRATE. THESE ARE NOT CONSIDERED ADVERSE.
- 76. CONFIRM THAT NO CONDITIONS ARE PRESENT WHICH ARE DETRIMENTAL TO PLANT GROWTH.
- 77. CONFIRM THAT UTILITY WORK HAS BEEN COMPLETED PER THE DRAWINGS. 78. THIS SPECIFICATION REQUIRES THAT ALL PLANTING SOIL AND IRRIGATION (IF APPLICABLE) WORK BE COMPLETED AND ACCEPTED PRIOR TO THE INSTALLATION OF
- 78.1. UNLESS OTHERWISE INDICATED IN THE PLANS, DECOMPACTION AND AMENDMENT OF PLANTING SOILS IS TO COVER THE ENTIRETY OF THE PLANTING AREA AT THE RATES INDICATED ON THE PLANS. FAILURE TO CORRECTLY
- IMPLEMENT SOIL INSTALLATION WILL NOT BE ACCEPTED. 79. CONFIRM THAT IRRIGATION WORK, IF INCLUDED IN THE PROJECT, AND WHICH IS

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SHOWN TO BE INSTALLED BELOW PREPARED SOIL LEVELS, HAS BEEN COMPLETED. 80. IF UNSATISFACTORY CONDITIONS ARE ENCOUNTERED, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY TO DETERMINE CORRECTIVE ACTION BEFORE PROCEEDING.

81. VOLUMETRIC SOIL MOISTURE LEVEL, IN BOTH THE PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS, PRIOR TO, DURING AND AFTER PLANTING SHALL BE ABOVE PERMANENT WILT POINT AND BELOW FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE WITHIN THE FOLLOWING RANGES.SEE DEFINITIONS, SOIL MOISTURE THRESHOLDS.

#### SOIL COMPACTION TESTING

82. FOLLOWING INSTALLATION OR MODIFICATION OF SOIL, TEST SOIL COMPACTION WITH A PENETROMETER.

MAINTAIN AT THE SITE AT ALL TIMES A SOIL CONE PENETROMETER WITH PRESSURE DIAL AND A SOIL MOISTURE METER TO CHECK SOIL COMPACTION AND SOIL

- 83.1. PENETROMETER SHALL BE AGRATRONIX SOIL COMPACTION METER DISTRIBUTED BY BEN MEADOWS, WWW.BENMEADOWS.COM OR APPROVED
- 83.2. MOISTURE METER SHALL BE "GENERAL DIGITAL SOIL MOISTURE METER" DISTRIBUTED BY BEN MEADOWS, WWW.BENMEADOWS.COM OR APPROVED
- 84. PRIOR TO TESTING THE SOIL WITH THE PENETROMETER CHECK THE SOIL MOISTURE AND PENETROMETER READINGS IN THE MOCKUP SOILS. PENETROMETER READINGS ARE IMPACTED BY SOIL MOISTURE AND EXCESSIVELY WET OR DRY SOILS WILL READ SIGNIFICANTLY LOWER OR HIGHER THAN SOILS AT OPTIMUM MOISTURE.
- ACCEPTABLE COMPACTION THRESHOLDS. 86. THE FOLLOWING ARE THRESHOLD LEVELS OF COMPACTION AS DETERMINED BY EACH METHOD.

85. THE PENETROMETER READINGS SHALL BE WITHIN 20% PLUS OR MINUS OF THE

86.1. ACCEPTABLE COMPACTION: GOOD ROOTING ANTICIPATED, BUT INCREASING SETTLEMENT EXPECTED AS COMPACTION IS REDUCED AND/OR IN SOIL WITH A HIGH ORGANIC MATTER CONTENT.

86.1.1. PENETRATION RESISTANCE METHOD - ABOUT 75-250 PSI, BELOW 75 PSI SOIL

BECOMES INCREASINGLY UNSTABLE AND WILL SETTLE EXCESSIVELY.

- 86.2. ROOT LIMITING COMPACTION: ROOT GROWTH IS LIMITED WITH FEWER, SHORTER AND SLOWER GROWING ROOTS.
- 86.2.1. PENETRATION RESISTANCE METHOD ABOUT 300 PSI. 86.3. EXCESSIVE COMPACTION: ROOTS NOT LIKELY TO GROW BUT CAN PENETRATE
- SOIL WHEN SOIL IS ABOVE FIELD CAPACITY. 86.3.1. PENETRATION RESISTANCE METHOD - APPROXIMATELY ABOVE 400 PSI
- 87. PROVIDE GRADE AND ELEVATION CONTROL DURING INSTALLATION OF PLANTING SOIL. UTILIZE GRADE STAKES, SURVEYING EQUIPMENT, AND OTHER MEANS AND METHODS TO ASSURE THAT GRADES AND CONTOURS CONFORM TO THE GRADES INDICATED ON THE PLANS.
- SOIL PREPARATION 88. CONTRACTOR SHALL FOLLOW SOIL SCHEDULE, NOTES AND TESTING
- REQUIREMENTS PRELIMINARY GRADING:

GRADE AND ELEVATION CONTROL

- 89. THE SITE SHALL BE DELIVERED TO THE LANDSCAPE CONTRACTOR IN ROUGH GRADED CONDITION, UNLESS OTHER, WRITTEN, ARRANGEMENTS HAVE BEEN MADE BETWEEN THE CLIENT AND THE CONTRACTOR.
- 90. GRADING MAY PROVIDE FOR SLIGHT IRREGULARITIES TO PROVIDE AREAS OF TEMPORARY
- PONDING OR LOW SPOTS. OVERALL GRADES SHOULD DRAIN TOWARDS VEGETATED BASINS OR BASIN OUTLETS AND AWAY FROM BUILDINGS. 90.1. EXCAVATE TO THE PROPOSED SUBGRADE. MAINTAIN ALL REQUIRED ANGLES OF REPOSE OF THE ADJACENT MATERIALS AS SHOWN ON THE DRAWINGS OR AS REQUIRED BY THIS SPECIFICATION. DO NOT OVER EXCAVATE COMPACTED SUBGRADES OF ADJACENT PAVEMENT OR STRUCTURES. MAINTAIN A SUPPORTING 1:1 SIDE SLOPE OF COMPACTED SUBGRADE MATERIAL ALONG THE

EDGES OF ALL PAVING AND STRUCTURES WHERE THE BOTTOM OF THE PAVING

- OR STRUCTURE IS ABOVE THE BOTTOM ELEVATION OF THE EXCAVATED PLANTING
- 90.2. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIAL INCLUDING ANY CONSTRUCTION MATERIALS FROM THE SUBGRADE. 90.3. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. SUBGRADE ELEVATIONS SHALL SLOPE APPROXIMATELY PARALLEL

TO THE FINISHED GRADE AND/OR TOWARD THE SUBSURFACE DRAIN LINES AS

- SHOWN ON THE DRAWINGS. 90.4. IN AREAS WHERE PLANTING SOIL IS TO BE SPREAD, CONFIRM SUBGRADE HAS
- BEEN SCARIFIED. 90.5. PROTECT ADJACENT WALLS, WALKS AND UTILITIES FROM DAMAGE OR STAINING BY THE SOIL. USE 1/2 INCH PLYWOOD AND OR PLASTIC SHEETING AS DIRECTED TO COVER EXISTING CONCRETE, METAL AND MASONRY WORK AND OTHER ITEMS AS DIRECTED DURING THE PROGRESS OF THE WORK.

91. AT THE END OF EACH WORKING DAY, CLEAN UP ANY SOIL OR DIRT SPILLED ON

ANY PAVED SURFACE. 92. ANY DAMAGE TO THE PAVING OR SITE FEATURES OR WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

93. WHERE DRAINAGE IS POOR OR SOIL IS COMPACTED, CONTRACTOR SHALL

LANDSCAPE NOTES (1 OF 2)

DECOMPACT SOILS TO A DEPTH OF 2', PRESERVING THE SUBSOIL (B HORIZON)

SEPARATE FROM THE TOPSOIL (O HORIZON). 93.1. SOIL SHOULD CONFORM WITH ACCEPTABLE COMPACTION THRESHOLDS

CONTINUED, L-003

IDENTIFIED PREVIOUSLY.

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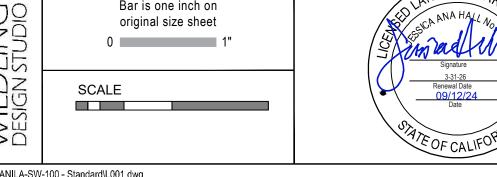
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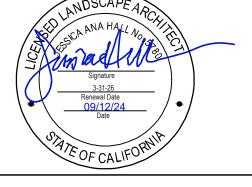
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ANY PLANTS.

**DISTRICT POT FLOOD REDUCTION AND DRAINAGE ENHANCEMENT PROJECT** 

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2024-09-12

Scale **AS SHOWN** 

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#### PLANTING SOIL INSTALLATION

- PRIOR TO INSTALLING ANY PLANTING SOIL FROM STOCKPILES OR PLANTING SOIL MIXES BLENDED OFF SITE, THE OWNER'S REPRESENTATIVE SHALL APPROVE THE CONDITION OF THE SUBGRADE AND THE PREVIOUSLY INSTALLED SUBGRADE PREPARATION AND THE INSTALLATION OF SUBSURFACE DRAINAGE.
- 1.1. ALL EQUIPMENT UTILIZED TO INSTALL OR GRADE PLANTING SOILS SHALL BE WIDE TRACK OR BALLOON TIRE MACHINES RATED WITH A GROUND PRESSURE OF 4 PSI 12. INSTALLATION OF COMPOST TILL LAYER OR LESS. ALL GRADING AND SOIL DELIVERY EQUIPMENT SHALL HAVE BUCKETS EQUIPPED WITH 6 INCH LONG TEETH TO SCARIFY ANY SOIL THAT BECOMES COMPACTED.
- 1.2. IN AREAS OF SOIL INSTALLATION ABOVE EXISTING SUBSOIL, SCARIFY THE SUBGRADE MATERIAL PRIOR TO INSTALLING PLANTING SOIL.
- 2. SCARIFY THE SUBSOIL OF THE SUBGRADE TO A DEPTH OF 3 6 INCHES WITH THE TEETH OF THE BACK HOE OR LOADER BUCKET, TILLER OR OTHER SUITABLE
- 3. IMMEDIATELY INSTALL THE PLANTING SOIL. PROTECT THE LOOSENED AREA FROM TRAFFIC. DO NOT ALLOW THE LOOSENED SUBGRADE TO BECOME COMPACTED. 4. IN THE EVENT THAT THE LOOSENED AREA BECOMES OVERLY COMPACTED,

LOOSEN THE AREA AGAIN PRIOR TO INSTALLING THE PLANTING SOIL.

- 4.1.INSTALL THE PLANTING SOIL IN 12 18 INCH LIFTS TO THE REQUIRED DEPTHS. APPLY COMPACTING FORCES TO EACH LIFT AS REQUIRED TO ATTAIN THE REQUIRED COMPACTION. SCARIFY THE TOP OF EACH LIFT PRIOR TO ADDING MORE PLANTING SOIL BY DRAGGING THE TEETH OF A LOADER BUCKET OR BACKHOE ACROSS THE SOIL SURFACE TO ROUGHEN THE SURFACE.
- 4.2.PHASE WORK SUCH THAT EQUIPMENT TO DELIVER OR GRADE SOIL DOES NOT HAVE TO OPERATE OVER PREVIOUSLY INSTALLED PLANTING SOIL. WORK IN ROWS OF LIFTS THE WIDTH OF THE EXTENSION OF THE BUCKET ON THE LOADER. INSTALL ALL LIFTS IN ONE ROW BEFORE PROCEEDING TO THE NEXT. WORK OUT FROM THE FURTHEST PART OF EACH BED FROM THE SOIL DELIVERY POINT TO THE EDGE OF THE EACH BED AREA.
- 4.3. WHERE POSSIBLE PLACE LARGE TREES FIRST AND FILL PLANTING SOIL AROUND THE ROOT BALL.
- 4.4.INSTALLING SOIL WITH SOIL OR MULCH BLOWERS OR SOIL SLINGERS SHALL NOT BE PERMITTED DUE TO THE OVER MIXING AND SOIL PED BREAKDOWN CAUSE BY THIS TYPE OF EQUIPMENT.
- 4.5. WHERE TRAVEL OVER INSTALLED SOIL IS UNAVOIDABLE, LIMIT PATHS OF TRAFFIC TO REDUCE THE IMPACT OF COMPACTION IN PLANTING SOIL. EACH TIME EQUIPMENT PASSES OVER THE INSTALLED SOIL IT SHALL REVERSE OUT OF THE AREA ALONG THE SAME PATH WITH THE TEETH OF THE BUCKET DROPPED TO SCARIFY THE SOIL. THE FINAL CONDITION OF THIS SOIL INCLUDING LEVEL OF COMPACTION SHALL CONFORM TO OVERALL REQUIREMENTS OF PLANTING SOILS.
- 4.6. THE DEPTHS AND GRADES SHOWN ON THE DRAWINGS ARE THE FINAL GRADES AFTER SETTLEMENT AND SHRINKAGE OF THE COMPOST MATERIAL. THE CONTRACTOR SHALL INSTALL THE PLANTING SOIL AT A HIGHER LEVEL TO ANTICIPATE THIS REDUCTION OF PLANTING SOIL VOLUME. A MINIMUM SETTLEMENT OF APPROXIMATELY 10 - 15% OF THE SOIL DEPTH IS EXPECTED. ALL GRADE INCREASES ARE ASSUMED TO BE AS MEASURED PRIOR TO ADDITION OF SURFACE COMPOST TILL LAYER, MULCH, OR SOD.
- 5. COMPACTION REQUIREMENTS FOR INSTALLED OR MODIFIED PLANTING SOIL 5.1. COMPACT INSTALLED PLANTING SOIL TO THE COMPACTION RATES INDICATED AND USING THE METHODS APPROVED FOR THE SOIL MOCKUP. COMPACT EACH SOIL LIFT AS THE SOIL IS INSTALLED.
- 5.2. EXISTING SOIL THAT IS MODIFIED BY TILLING, RIPPING OR FRACTURING SHALL HAVE A DENSITY TO THE DEPTH OF THE MODIFICATION, AFTER COMPLETION OF THE LOOSENING, SUCH THAT THE PENETROMETER READS APPROXIMATELY 75 TO 250 PSI AT SOIL MOISTURE APPROXIMATELY THE MID-POINT BETWEEN WILTING POINT AND FIELD CAPACITY.
- 5.3.INSTALLED PLANTING SOIL MIX AND RE-SPREAD EXISTING SOIL SHALL HAVE A SOIL DENSITY THROUGH THE REQUIRED DEPTH OF THE INSTALLED LAYERS OF SOIL, SUCH THAT THE PENETROMETER READS APPROXIMATELY 75 TO 250 PSI AT SOIL MOISTURE APPROXIMATELY THE MID-POINT BETWEEN WILT POINT AND FIELD
- 5.4. PLANTING SOIL COMPACTION SHALL BE TESTED AT EACH LIFT USING A PENETROMETER CALIBRATED SOIL AND MOISTURE LEVEL. THE SAME PENETROMETER AND MOISTURE METER USED FOR THE TESTING OF THE MOCKUP SHALL BE USED TO TEST INSTALLED SOIL THROUGHOUT THE WORK.
- 5.5. MAINTAIN MOISTURE CONDITIONS WITHIN THE PLANTING SOIL DURING INSTALLATION OR MODIFICATION TO ALLOW FOR SATISFACTORY COMPACTION. SUSPEND OPERATIONS IF THE PLANTING SOIL BECOMES WET. APPLY WATER IF THE SOIL IS OVERLY DRY.
- 5.6.PROVIDE ADEQUATE EQUIPMENT TO ACHIEVE CONSISTENT AND UNIFORM COMPACTION OF THE PLANTING SOILS. USE THE SMALLEST EQUIPMENT THAT CAN REASONABLY PERFORM THE TASK OF SPREADING AND COMPACTION. USE THE SAME EQUIPMENT AND METHODS OF COMPACTION USED TO CONSTRUCT THE PLANTING SOIL MOCKUP.
- 5.7.DO NOT PASS MOTORIZED EQUIPMENT OVER PREVIOUSLY INSTALLED AND COMPACTED SOIL EXCEPT AS AUTHORIZED BELOW.
- 5.7.1. LIGHT WEIGHT EQUIPMENT SUCH AS TRENCHING MACHINES OR MOTORIZED WHEEL BARROWS IS PERMITTED TO PASS OVER FINISHED SOIL WORK.

#### FINE GRADING

- THE OWNER'S REPRESENTATIVE SHALL APPROVE ALL ROUGH GRADING PRIOR TO THE INSTALLATION OF COMPOST, FINE GRADING, PLANTING, AND MULCHING.
- GRADE THE FINISH SURFACE OF ALL PLANTED AREAS TO MEET THE GRADES SHOWN ON THE DRAWINGS, ALLOWING THE FINISHED GRADES TO REMAIN HIGHER (10 -15% OF DEPTH OF SOIL MODIFICATION) THAN THE GRADES ON THE GRADING PLAN, AS DEFINED IN PARAGRAPH PLANTING SOIL INSTALLATION, TO ANTICIPATE SETTLEMENT OVER THE FIRST YEAR.
- 8. UTILIZE HAND EQUIPMENT, SMALL GARDEN TRACTORS WITH RAKES, OR SMALL GARDEN TRACTORS WITH BUCKETS WITH TEETH FOR FINE GRADING TO KEEP SURFACE ROUGH WITHOUT FURTHER COMPACTION. DO NOT USE THE FLAT BOTTOM OF A LOADER BUCKET TO FINE GRADE, AS IT WILL CAUSE THE FINISHED GRADE TO BECOME OVERLY SMOOTH AND OR SLIGHTLY COMPRESSED.
- 9. PROVIDE FOR POSITIVE DRAINAGE FROM ALL AREAS TOWARD THE EXISTING INLETS, DRAINAGE STRUCTURES AND OR THE EDGES OF PLANTING BEDS. ADJUST GRADES AS DIRECTED TO REFLECT ACTUAL CONSTRUCTED FIELD CONDITIONS OF PAVING, WALL AND INLET ELEVATIONS. NOTIFY THE OWNER'S REPRESENTATIVE IN THE EVENT THAT CONDITIONS MAKE IT IMPOSSIBLE TO ACHIEVE POSITIVE DRAINAGE.
- 10. PROVIDE SMOOTH, ROUNDED TRANSITIONS BETWEEN SLOPES OF DIFFERENT GRADIENTS AND DIRECTION. MODIFY THE GRADE SO THAT THE FINISH GRADE BEFORE ADDING MULCH AND AFTER SETTLEMENT IS ONE OR TWO INCHES BELOW ALL PAVING

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#### SURFACES OR AS DIRECTED BY THE DRAWINGS.

- 11. FILL ALL DIPS AND REMOVE ANY BUMPS IN THE OVERALL PLANE OF THE SLOPE. THE TOLERANCE FOR DIPS AND BUMPS IN SHRUB AND GROUND COVER PLANTING AREAS SHALL BE A 2 INCH DEVIATION FROM THE PLANE IN 10 FEET. THE TOLERANCE FOR DIPS AND BUMPS IN LAWN AREAS SHALL BE A 1 INCH DEVIATION FROM THE PLANE
- 12.1. AFTER PLANTING SOIL MIXES ARE INSTALLED IN PLANTING BED AREAS AND JUST PRIOR TO THE INSTALLATION OF UNDERSTORY PLANTINGS, SPREAD 3 - 4 INCHES OF COMPOST OVER THE BEDS AND ROTO TILL INTO THE TOP 4 - 6 INCHES OF THE PLANTING SOIL. THIS STEP WILL RAISE GRADES SLIGHTLY ABOVE THE GRADES REQUIRED IN PARAGRAPH "FINE GRADING". THIS SPECIFICATION ANTICIPATES THAT THE RAISE IN GRADE DUE TO THIS TILLING WILL SETTLE WITHIN A FEW MONTHS AFTER INSTALLATION AS COMPOST BREAKS DOWN. ADDITIONAL SETTLEMENT AS DEFINED IN PARAGRAPH "PLANTING SOIL AND PLANTING SOIL MIX INSTALLATION" MUST STILL BE ACCOUNTED FOR IN THE SETTING OF FINAL GRADES.
- 13.1. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONCE A WEEK.
- 13.1.1. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.
- 13.1.2. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE OWNER'S REPRESENTATIVE SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF THE WARRANTY PERIOD.
- 13.2. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE TO THE WORK OR OTHER WORK AT THE SITE.
- 13.3. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.
- PLANTING SOIL AND MODIFIED EXISTING SOIL PROTECTION
- 14. THE CONTRACTOR SHALL PROTECT INSTALLED AND/OR MODIFIED PLANTING SOIL, PLANTINGS AND RELATED SITE WORK FROM DAMAGE INCLUDING CONTAMINATION AND OVER COMPACTION DUE TO OTHER SOIL INSTALLATION, PLANTING OPERATIONS, AND OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL ACCEPTANCE. UTILIZE FENCING AND MATTING AS REQUIRED OR DIRECTED TO PROTECT THE FINISHED WORK. TREAT, REPAIR OR REPLACE DAMAGED PLANTING SOIL, PLANTS OR OTHER LANDSCAPE IMPROVEMENTS IMMEDIATELY.
- 15. PROVIDE TEMPORARY EROSION CONTROL AS NEEDED TO STOP SOIL EROSION UNTIL THE SITE IS STABILIZED WITH MULCH, PLANTINGS OR TURF.
- 16. DAMAGE DONE BY THE CONTRACTOR, OR ANY OF THEIR SUB-CONTRACTORS TO EXISTING OR INSTALLED PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHEN SUCH CLEANING, REPLACEMENT OR REPAIR IS SATISFACTORY. DAMAGE TO EXISTING TREES SHALL BE ASSESSED BY A CERTIFIED ARBORIST.
- CONCRETE PLANK DECKING 17. MATERIAL: PRESTRESSED CONCRETE WOOD-STAMPED PLANKS
- 17.1. SIZES: 2" X 8" X12' DECKING
  - 2" X12" X12' JOISTS, OPTIONAL SUBSTITUTION @ 4' O/C FOR BASE AGGREGATE SUPPORT OF PLANKS,
- 17.2.MANUFACTURER: LUMBERCON OR APPROVED EQUAL.

PER NOTE 4/L-101.

- 17.3.PATTERN: GREY WOODGRAIN.
- STAIN: SIKACOLOR 430 ELEMENTS OR APPROVED EQUAL. 19. STAIN COLOR: PROVIDE UP TO THREE STAIN COLOR OPTIONS
- FOR APPROVAL. 20. STAIN MOCK UPS: USING A SPARE 2X8 CONCRETE PLANK, APPLY
- EACH STAIN OPTION TO MIN 2' AREA, USING DIFFERENT COLORS AND APPLICATION RATES TO SELECT APPROACH TO USE ON PLANKS PRIOR TO INSTALLATION.
- 21. APPLY STAIN ACCORDING TO STAIN MANUFACTURER'S INSTRUCTIONS.
- 22. INSTALLATION
- 23. REFER TO MANUFACTURER'S WEBSITE FOR INSTALLATION INSTRUCTIONS. TAKE CAREFUL NOTE OF DRILL BIT AND CAUTIONS FOR TOOLS TO USE.
- 24. DUE TO COASTAL ENVIRONMENT, USE STAINLESS STEEL ATTACHMENTS (SCREWS, BOLTS, NUTS, ETC).

**BID SET** 

LANDSCAPE NOTES (2 OF 2)

JH BV 2025-02-01 Date Project Manager B. VIVYAN



OF CALIFO

Bar is one inch on original size sheet

0 1"

SCALE





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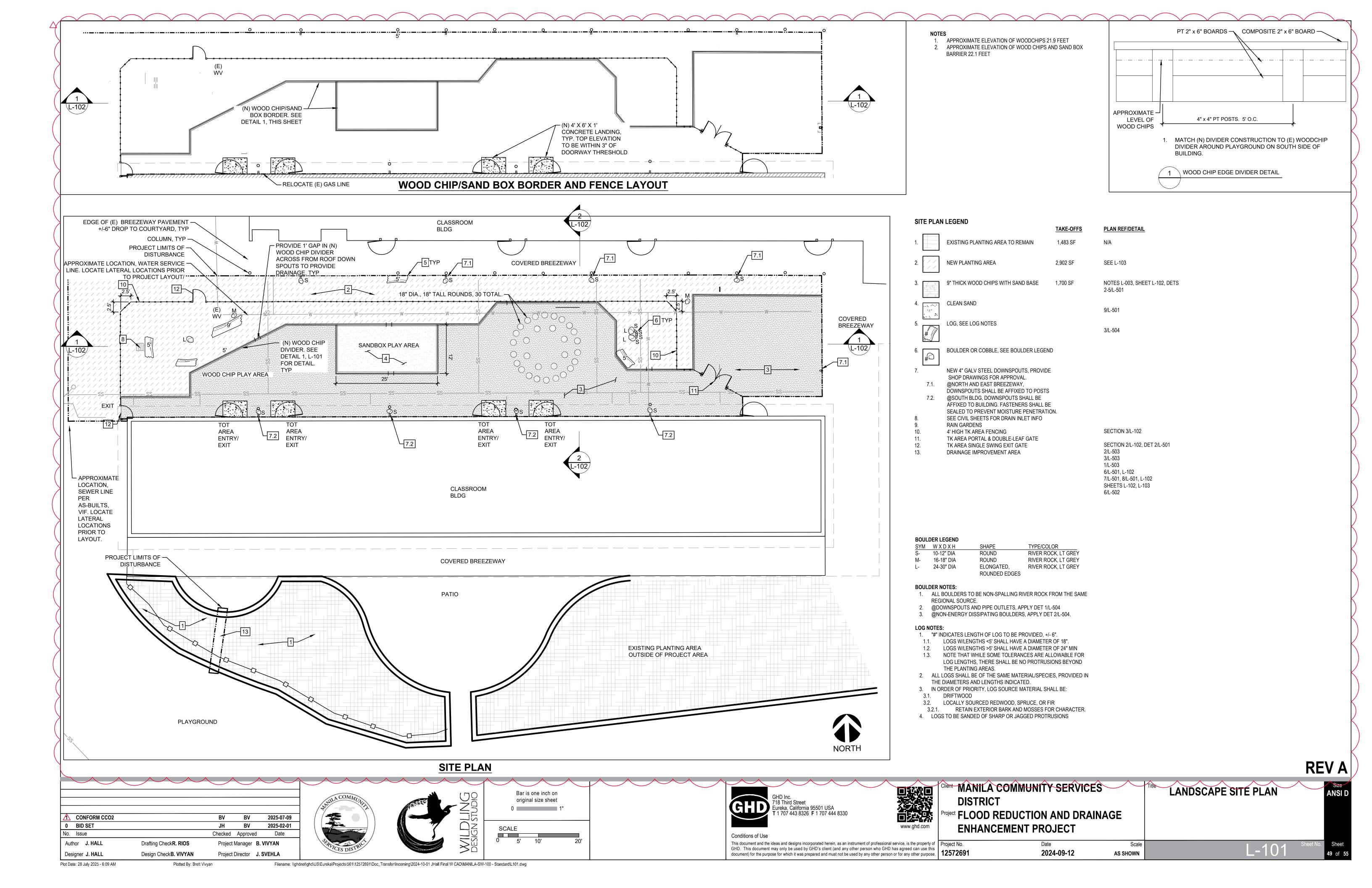
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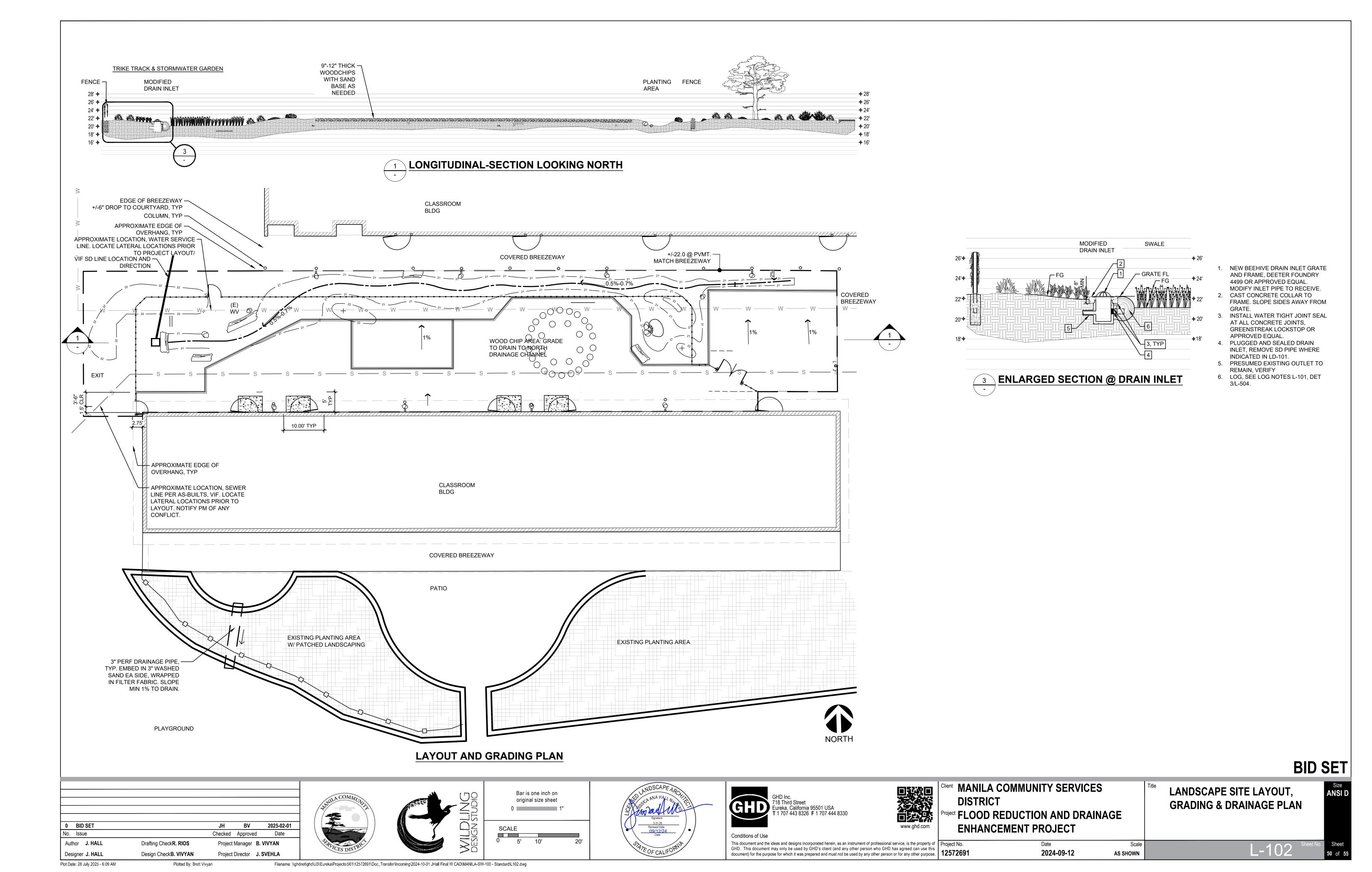
Author J. HALL

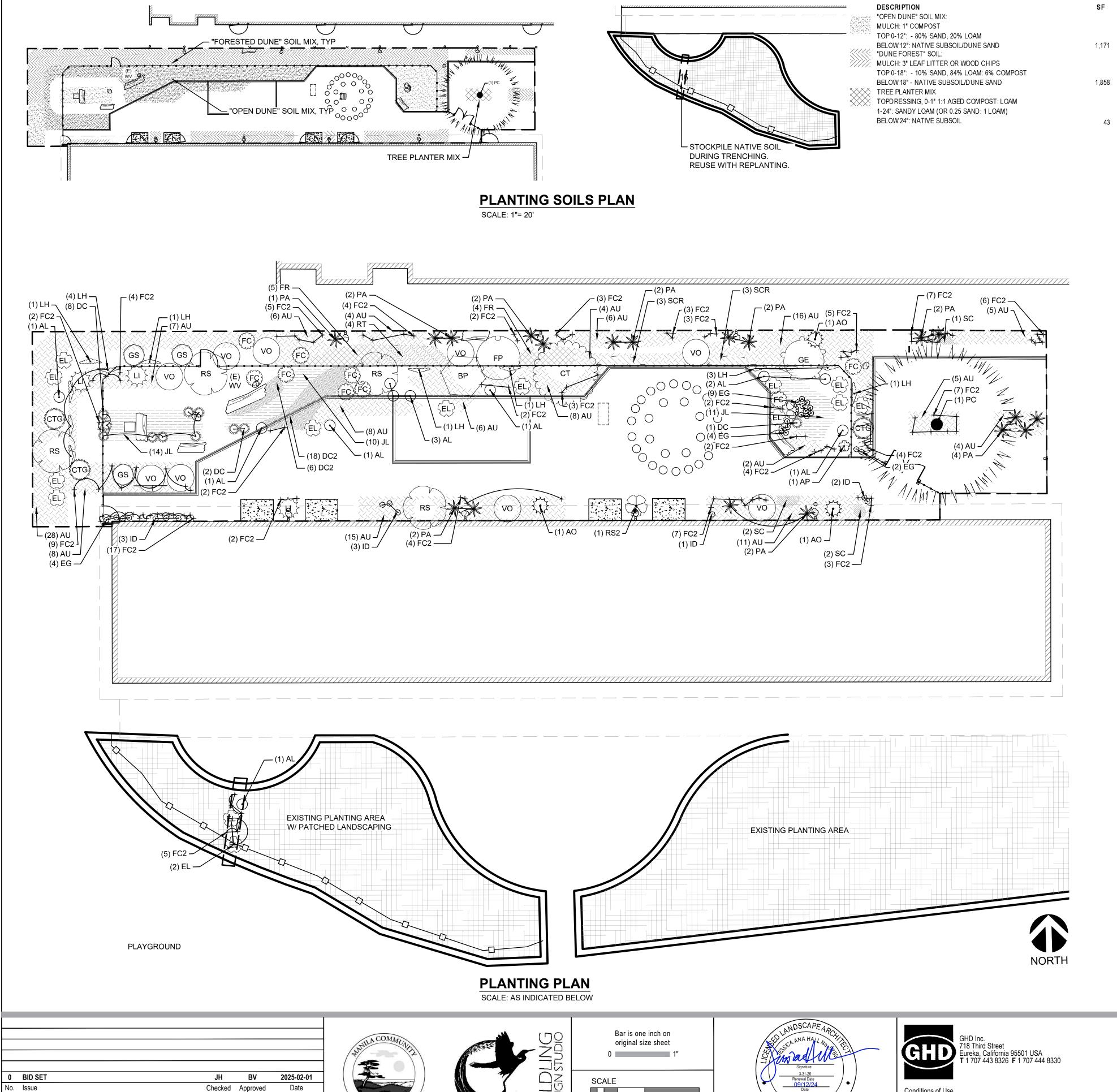
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Checked Approved

Project Director J. SVEHLA







SF SOIL NOTES SOIL NOTES, CONT'D SEE SOIL MANAGEMENT NOTES, SHEETS L-002 AND L-003, AND DET 5/L-504

LOAM IS DEFINED AS 40% SAND, 40% SILT, 20% CLAY. SHOULD LOAM NOT BE AVAILABLE, THE RATIO SHOULD BE ADJUSTED TO 2 MAINTAIN THE INDICATED SOIL TEXTURE AND QUALITY. PROVIDE DOCUMENTATION INDICATING CONFORMANCE PRIOR TO MIXING AND INSTALLING SOIL.

NATIVE DUNE MICROFLORA (DUFF, TOP 1-2" OF SOIL) SHALL BE MIXED INTO PLANTING SOIL. CONTACT THE OWNER (MANILA COMMUNITY SERVICES DISTRICT) FOR OPEN DUNE AND DUNE FOREST LOCATION FOR COLLECTION. OBSERVE SITES AND COLLECT FROM AREAS WITH LEAST/NO NON-NATIVES,  $^{\circ}$  ESPECIALLY INVASIVE NON-NATIVES. COLLECT ONE PINT FOR OPEN DUNE SOIL, TWO PINTS FOR DUNE FOREST FROM EACH LOCATION, AND BLEND EVENLY INTO SOIL MIXES. INCLUDE A SMALL QUANTITY OF DUNE FOREST COLLECTION (APPROX 4 TB) IN TREE PLANTER MIX.

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	
TREES	PC	PINUS CONTORTA CONTORTA WATER USE LOW IN COASTAL HUMBOLDT	SHORE PINE	15 GAL	1	DETS 8 AND 9/L-504
SHRUBS •	AL	ABRONIA LATIFOLIA	YELLOW SAND VERBENA	4"	11	DET 4/L-504
, · · ·	AO	ANTHOXANTHUM OCCIDENTALE	CALIFORNIA SWEETGRASS	1 GAL	3	DET 4/L-504
	AP	ARTEMISIA PYCNOCEPHALA	BEACH SAGEWORT	4"	1	DET 4/L-504
ВР	BP	BACCHARIS PILULARIS	COYOTE BRUSH	1 GAL	1	DET 6/L-504
£ c1 }	СТ	CEANOTHUS THYRSIFLORUS	BLUE BLOSSOM	5 GAL	1	DET 6/L-504
CTG**	CTG	CEANOTHUS THYRSIFLORUS THYRSIFLORUS	BLUE GROUNDCOVER CEANOTHUS	1 GAL	3	DET 4/L-504
3000 P	DC	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	11	DET 4/L-504
(0)	EG	ERIGERON GLAUCUS	BEACH DAISY	4"	19	DET 4/L-504
SEL?	EL	ERIOGONUM LATIFOLIUM	COAST BUCKWHEAT	1 GAL	14	DET 4/L-504
{FC}	FC	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL	9	DET 4/L-504
Warry .	FC2	FRAGARIA CHILOENSIS WATER USE LOW IN COASTAL HUMBOLDT.	BEACH STRAWBERRY	4"	117	DET 4/L-504
FP	FP	FRANGULA PURSHIANA	CASCARA BUCKTHORN	1 GAL	1	DET 6/L-504
GE	GE	GARRYA ELLIPTICA	COAST SILKTASSEL	5 GAL	1	DET 6/L-504
GS	GS	GAULTHERIA SHALLON	SALAL	1 GAL	3	DET 6/L-504
$\bigcirc$	ID	IRIS DOUGLASIANA	DOUGLAS IRIS	BULB	9	DET 7 SIM/L-504
	LH	LONICERA HISPIDULA	CALIFORNIA HONEYSUCKLE	1 GAL	12	DET 6/L-504
LI	LI	LONICERA INVOLUCRATA LEDEBOURII	COAST TWINBERRY	1 GAL	3	DET 6/L-504
*	PA	PTERIDIUM AQUILINUM	WESTERN BRACKEN FERN	1 GAL	19	DET 6/L-504
RS	RS	RIBES SANGUINEUM	RED FLOWERING CURRANT	5 GAL	4	DET 6/L-504
	RS2	RUBUS SPECTABILIS	SALMONBERRY	5 GAL	1	DET 6/L-504
VO	VO	VACCINIUM OVATUM WATER USE LOW IN COASTAL HUMBOLDT	EVERGREEN HUCKLEBERRY	5 GAL	9	DET 6/L-504
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	
SHRUB AF						DET 0/1 504
	RT	RUBUS PARVIFLORUS	THIMBLEBERRY	1 GAL.	4	DET 6/L-504 DET 4/L-504
	SCR	SCROPHULARIA CALIFORNICA	CALIFORNIA FIGWORT	4"	6	DE1 1/2 001
GROUND (				4.0.4	4.40	DET 4/L-504
	AU DC2	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	1 GAL	143	DET 4/L-504
	DC2	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	24 9	DET 4/L-504
	FR	FESTUCA RUBRA	RED FESCUE	1 GAL 4"	9 35	DET 4/L-504
	JL SC	JUNCUS LESCURII	SAN FRANCISCO RUSH			DET 4/L-504
	SC	STACHYS CHAMISSONIS	COASTAL HEDGE NETTLE	4"	5	DL14/L-304

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DISTRICT
Project FLOOD REDUCTION AND DRAINAGE
ENHANCEMENT PROJECT

2024-09-12

LANDSCAPE PLANTING PLAN

Scale

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Project Manager B. VIVYAN

Project Director J. SVEHLA

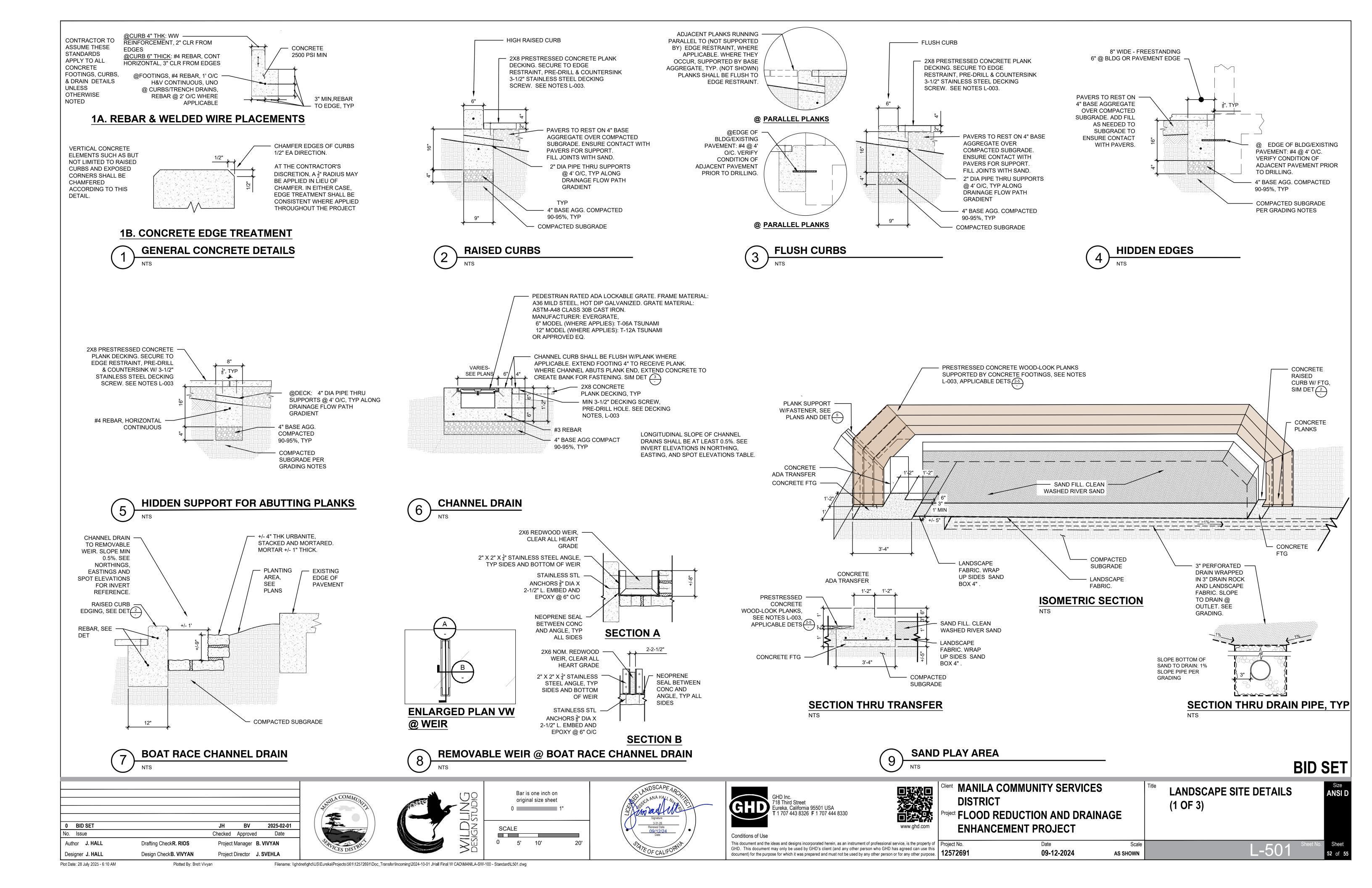
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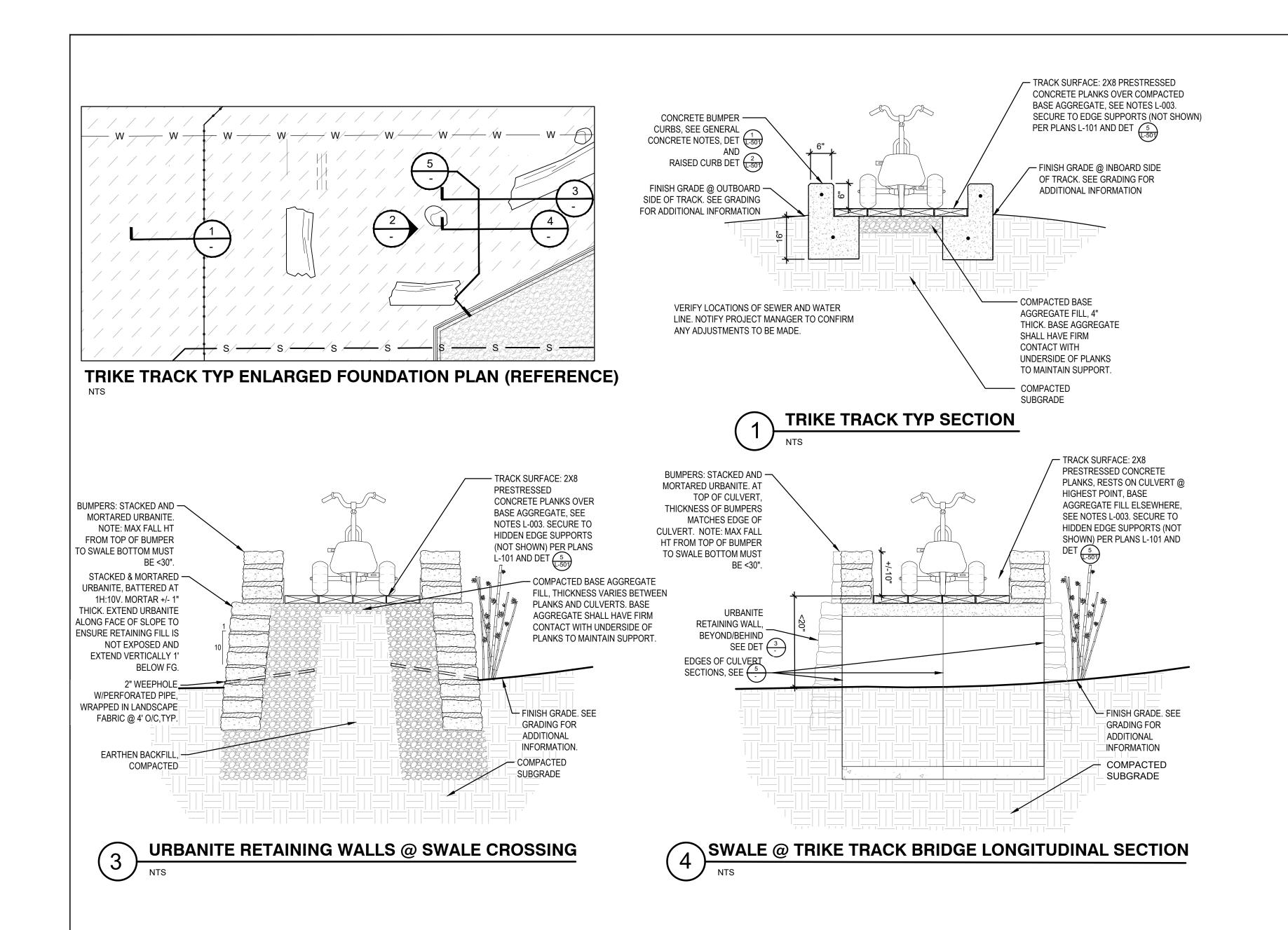
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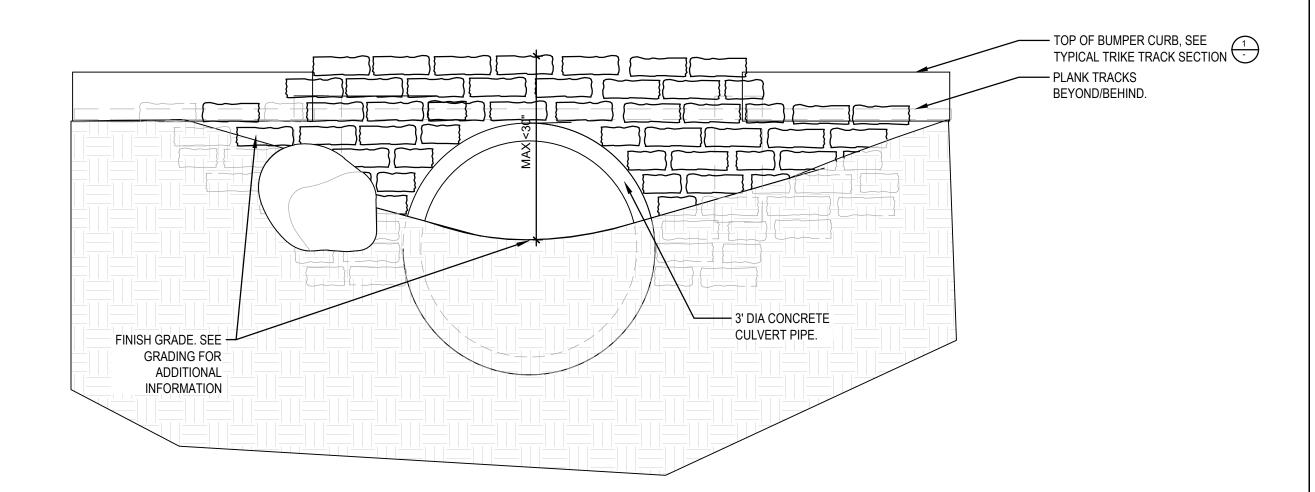
Author J. HALL

Designer J. HALL

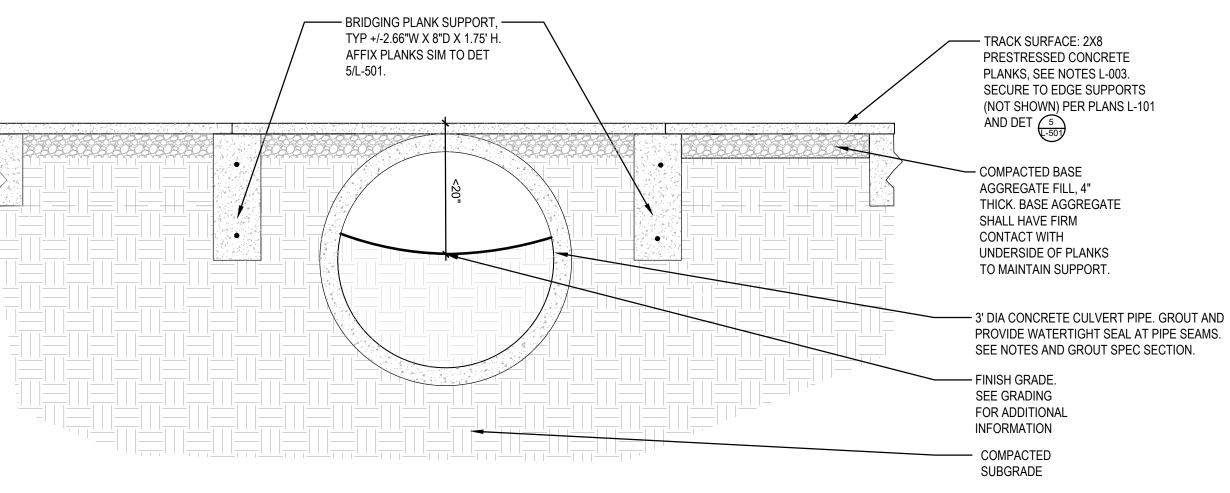
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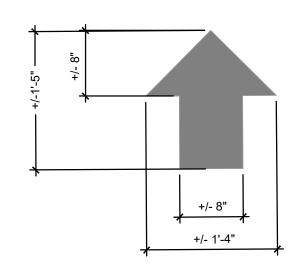




TRIKE TRACK SWALE CROSSING WEST FACING ELEVATION (EAST SIM)



SWALE @ TRIKE TRACK BRIDGE CROSS SECTION



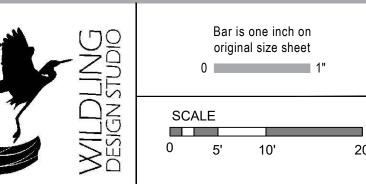
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**ARROW STENCIL** 

0 BID SET JH BV 2025-02-01 No. Issue Date Checked Approved Author J. HALL Drafting Check**R. RIOS** Project Manager B. VIVYAN Design CheckB. VIVYAN Project Director J. SVEHLA Designer J. HALL











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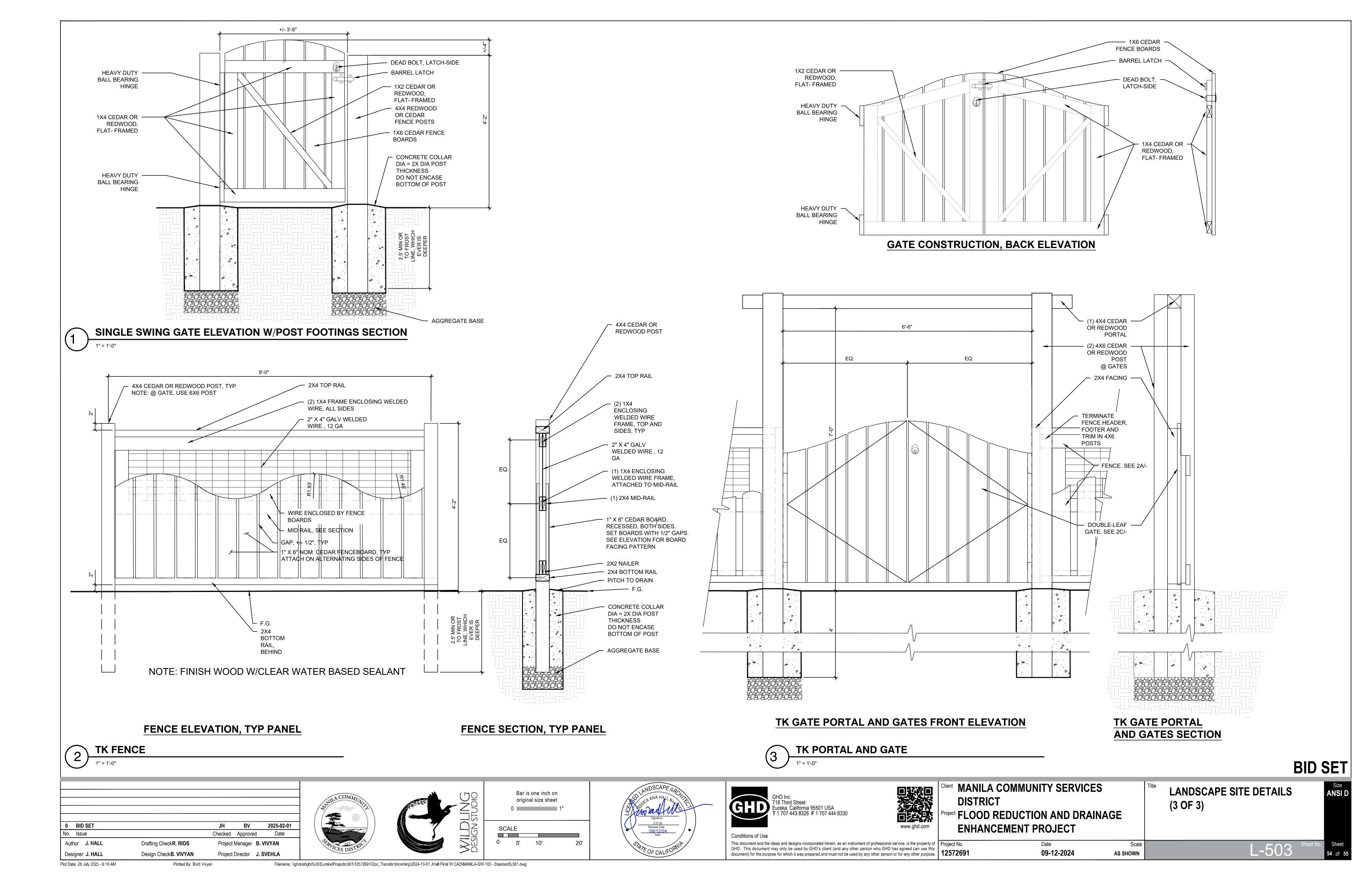
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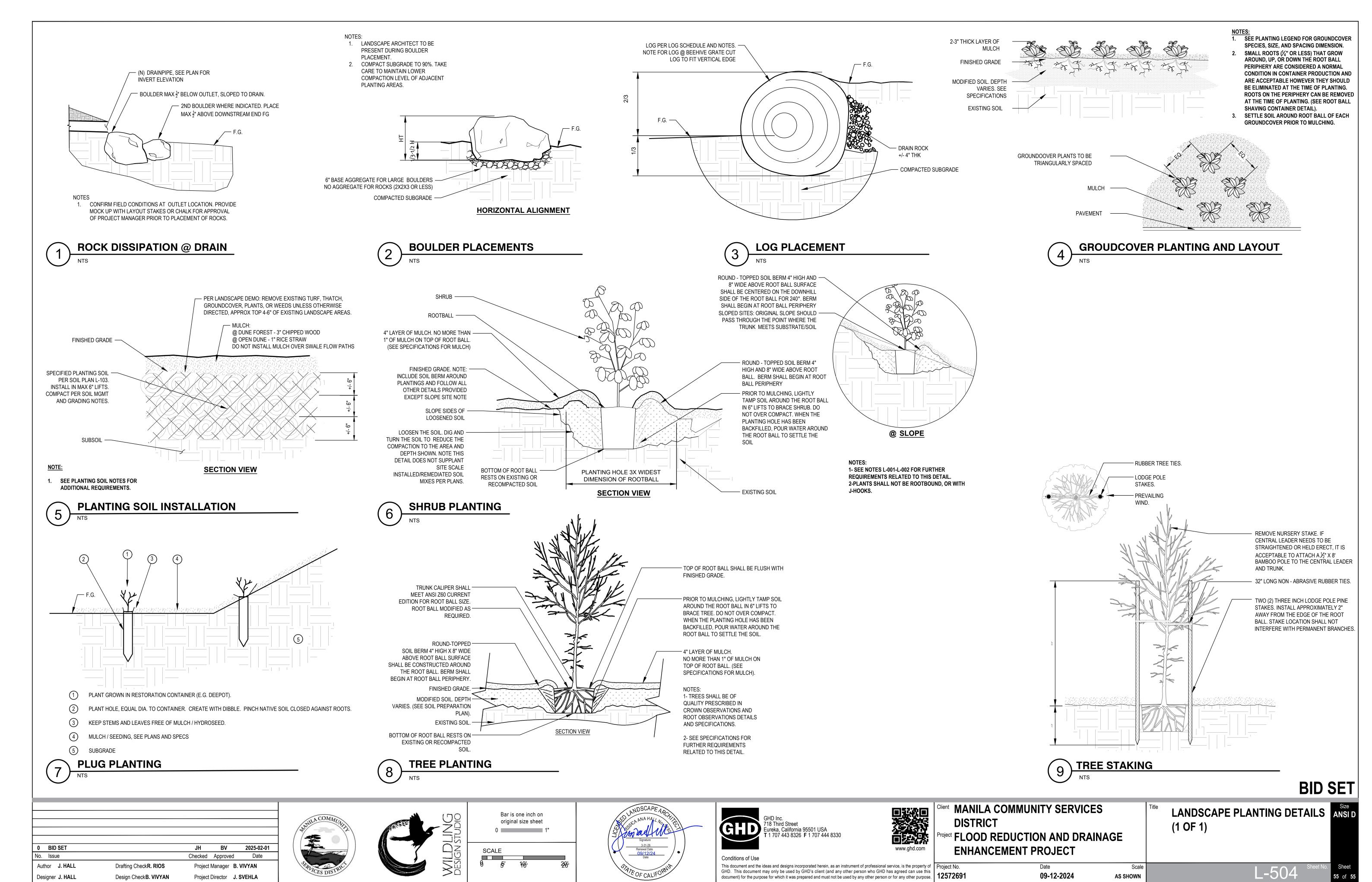
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