KAI- USA

BUILDING ADDITION

TUALATIN, OREGON

KAI - USA LTD. — OWNER/CLIENT

18600 SW TETON AVE.,
TUALATIN, OR., 97062
800-325-2891
CONTACT: CRAIG GREEN

CIDA, INC. — ARCHITECT/ STRUCTURAL ENGINEER

15895 SW 72ND AVE, SUITE 200
PORTLAND OR 97224
503-226-1285
CONTACT: CHRIS WALKER

PERLO CONSTRUCTION — CONTRACTOR

CCB#:189245

11450 SW AMU ST,
TUALATIN, OR. 97062
503-624-2090
BROC VAN VLEET

WEDDLE SURVEYING — SURVEYOR

6950 SW HAMPTON, SUITE 170
TIGARD, OR 97223
503-941-9585
CONTACT: TONY RYAN

GEOTECH SOLUTIONS INC. — GEOTECH ENGINEER

20978 S. SPRINGWATER ROAD,
ESTACADA, OREGON, 97203
503-869-8679
CONTACT: DON RONDEMA

FROELICH ENGINEERS INC. — CIVIL ENGINEER

17700 SW UPPER BOONES FERRY RD, SUITE 115
PORTLAND, OR. 97224
503-624-7005
CONTACT: EVAN EYKELBOSCH

ANDERSON ASSOCIATES — LANDSCAPE ARCHITECT

1723 NW 23RD STREET,
MCMINNVILLE , OREGON, 97128
503-318-0543
CONTACT: DAVE ANDERSON

PROJECT SUMMARY

THIS PROJECT IS A PHASE TWO AN APPROXIMATELY 18,430 SQUARE FOOT CONCRETE TILT-PANEL EXPANSION OF THE EXISTING BUILDING. THE EXPANSION WILL INCLUDE ADDITIONAL WAREHOUSE SPACE TO SUPPORT KAI-USA'S EXISTING OPERATIONS.

THE PROPOSED ADDITION WILL REMOVE EXISTING OVERFLOW PARKING SPACES, BUT THE PROJECT WILL INCLUDE EXTENSIVE WORK TO THE SITE, PROVIDING NEW ADDITIONAL PARKING TO MEET PARKING REQUIREMENTS, ALONG WITH FRONTAGE CHANGES ON SW HEMAN RD.

ZONING CODE INFORMATION

TAX MAP: 2S123B000701

TAX LOT: R1388000

ZONE: ML (LIGHT MANUFACTURING)

SITE AREA: 246,628 SF (5.66 ACRES)

PARKING REQUIRED:

EXISTING PARKING:

TYPE	SIZE	#PROVIDED
STANDARD	9' X 20'	102 STALLS
H/C ACCESSIBLE	9' X 20'	6 STALLS
TOTAL EXISTING STALLS:		108 STALLS

PROPOSED PARKING:

TYPE	SIZE	#PROVIDED
(E) STANDARD	9' X 20'-0"	105 STALLS
(E) ADA	9' X 20'-0"	1 STALL
(N) STANDARD	9' X18'-6"	67 STALLS
(N) CARPOOL	9' X18'-6"	8 STALLS
(N) ADA	9' X18'-6"	4 STALLS
(N) ADA	9' X20'-0"	1 STALL
TOTAL :		186 STALLS

BUILDING SETBACKS REQUIRED:

FRONT SETBACK/ STREET SIDE: 30 FT (41'-11" PROVIDED)
SIDE/ ADJACENT: 50 FT (89'-5" PROVIDED)
REAR/ ADJACENT: 50 FT (70'-6" PROVIDED)

BUILDING HEIGHT LIMIT: 50 FT MAXIMUM (26 FT EXISTING)

BUILDING CODE INFORMATION

DESIGN CODE:	2022 OREGON STRUCTURAL SPECIALTY CODE
CONSTRUCTION TYPE:	III-B (SPRINKLERED)
OCCUPANCY:	S-2
EXISTING BUILDING AREA:	60,982 SF
PROPOSED BUILDING AREA:	18,245 SF
TOTAL BUILDING AREA:	79,227 SF
BUILDING HEIGHT:	26'-0"

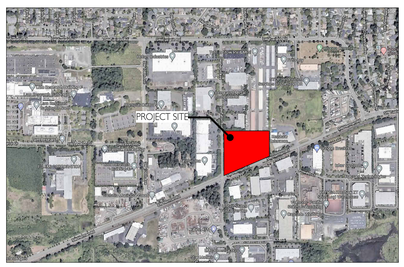
SEPERATE PERMITS

- MECHANICAL
- ELECTRICAL
- PLUMBING
- ROOF TRUSSES
- FIRE ALARM
- SPRINKLERS
- PUBLIC WORKS - RIGHT OF WAY IMPROVEMENTS (REFER TO SEPARATE CIVIL DRAWING SET)

RELEASES

SHEET NUMBER	SHEET NAME	CURRENT DATE	ISSUE #1	ISSUE #2	ISSUE #3	ISSUE #4	ISSUE #5	ISSUE #6	ISSUE #7	ISSUE #8	ISSUE #9	ISSUE #10	MOST CURRENT (BY SHEET)
01_GENERAL													
CS1	COVER SHEET	01/29/2025	X			X							LAND USE PERMIT
FLS1	FIRE & LIFE SAFETY												
FLS2	FIRE & LIFE SAFETY DETAILS												
02_SURVEY													
1 OF 1	SURVEY SHEET	01/29/2025				X							LAND USE PERMIT
03_CIVIL													
C1.0	COVER SHEET	01/29/2025				X							LAND USE PERMIT
C1.1	EXISTING CONDITIONS	01/29/2025				X							LAND USE PERMIT
C1.2	DEMOLITION PLAN	01/29/2025				X							LAND USE PERMIT
C2.0	SITE PLANS	01/29/2025				X							LAND USE PERMIT
C3.0	GRADING PLANS	01/29/2025				X							LAND USE PERMIT
C3.1	GRADING ENLARGMENTS	01/29/2025				X							LAND USE PERMIT
C4.0	UTILITY PLANS	01/29/2025				X							LAND USE PERMIT
C5.0	DETAILS	01/29/2025				X							LAND USE PERMIT
C5.1	DETAILS	01/29/2025				X							LAND USE PERMIT
C5.2	DETAILS	01/29/2025				X							LAND USE PERMIT
C5.3	DETAILS	01/29/2025				X							LAND USE PERMIT
C6.0	EROSION CONTROL COVER SHEET	01/29/2025				X							LAND USE PERMIT
C6.1	CLEARING AND DEMOLITION EROSION CONTROL PLAN	01/29/2025				X							LAND USE PERMIT
C6.2	GRADING, UTILITY, AND SITE CONSTRUCTION EROSION CONTROL PLAN	01/29/2025				X							LAND USE PERMIT
C6.3	VERTICAL CONSTRUCTION EROSION CONROL PLAN	01/29/2025				X							LAND USE PERMIT
C6.4	FINAL STABILIZATION PLAN	01/29/2025				X							LAND USE PERMIT
C6.5	EROSION CONTROL DETAILS	01/29/2025				X							LAND USE PERMIT
ST1.0 - EC1.1	RIGHT OF WAY IMPROVEMENTS - UNDER SEPARATE COVER - 18 PAGES	01/29/2025				X							LAND USE PERMIT
04_LANDSCAPE													
L1	PRELIMINARY LANSCAPE PLAN	01/29/2025				X							LAND USE PERMIT
L2	PRELIMINARY TREE PROTECTION PLAN	01/29/2025				X							LAND USE PERMIT
05_ARCHITECTURAL													
A0.1	EXISTING CONDITIONS	01/29/2025	X	X	X	X							LAND USE PERMIT
A0.2	PROPOSED SITE PLAN	01/29/2025	X	X	X	X							LAND USE PERMIT
A0.3	SITE DETAILS	01/29/2025				X							LAND USE PERMIT
A1.0	OVERALL EXISTING FLOOR PLAN	01/29/2025	X	X		X							LAND USE PERMIT
A1.1	OVERALL PROPOSED FLOOR PLAN	01/29/2025	X	X		X							LAND USE PERMIT
A1.2	ENLARGED PROPOSED FLOOR PLAN	10/04/2024	X										CONTRACTOR PRICING
A1.3	REFLECTED CEILING PLAN	10/04/2024											CONTRACTOR PRICING
A1.4	FINISH FLOOR PLAN												
A1.5	ROOF PLAN	10/04/2024	X										CONTRACTOR PRICING
A2.0	EXTERIOR ELEVATIONS	01/29/2025	X	X		X							LAND USE PERMIT
A3.1	BUILDING SECTIONS	10/04/2024											CONTRACTOR PRICING
A4.1	WALL SECTIONS	10/04/2024	X										CONTRACTOR PRICING
A5.1	EXTERIOR DETAILS	10/04/2024	X										CONTRACTOR PRICING
A5.2	EXTERIOR DETAILS	10/04/2024	X										CONTRACTOR PRICING
A8.1	DOOR TYPES, SCHEDULE AND DETAILS												
06_LIGHTING													
SL1	SIGHT LIGHTING PLAN	01/29/2025				X							LAND USE PERMIT
08_STRUCTURAL													
S0.1	STRUCTURAL NOTES												
S1.1	FOUNDATION PLAN												
S1.2	FRAMING PLAN												
S3.1	FOUNDATION DETAILS												
S4.1	FRAMING DETAILS												

NOTES:
X: INCLUDED IN SET, REVISED FROM PRIOR ISSUE
O: INCLUDED IN SET, NO CHANGES FROM PRIOR ISSUE



TRUE NORTH

VICINITY MAP

NO SCALE

REGISTERED ARCHITECT
CHRISTOPHER M. WALKER
PORTLAND, OR
5641
STATE OF OREGON

Revision Schedule
10/04/2024 CONTRACTOR PRICING
01/29/2025 LAND USE PERMIT
1 4

CIDA
ARCHITECTURE
ENGINEERING
PLANNING
INTERIORS
LANDSCAPE
15895 SW 72ND AVE SUITE 200
PORTLAND, OREGON 97224
TEL: 503.226.1285
FAX: 503.226.1670
WWW.CIDAINC.COM

BUILDING ADDITION FOR:
KAI- USA
18600 SW TETON AVE. TUALATIN, OREGON, 97062

COVER SHEET
CS1
220127.02

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TOPOGRAPHIC SURVEY

18600 S.W. TETON AVENUE

IN THE N.W. 1/4 OF SECTION 23
T. 2 S., R. 1 W., W.M.
CITY OF TUALATIN
WASHINGTON COUNTY
OREGON

OWNER: KAI USA LTD

REQUESTED BY: MARK BOCHSLER

SITE ADDRESS: 18600 S.W. TETON AVE.

WEDDLE SURVEYING

0 30 60 90

SCALE: 1" = 30'
1-FT CONTOUR INTERVAL
SEPTEMBER 20, 2022
REVISED: DECEMBER 5, 2024
REVISED: DECEMBER 12, 2024

SURVEYOR'S NOTES

1. THE BASIS OF BEARINGS FOR THIS SURVEY IS PER SURVEY NO. 34248, WASHINGTON COUNTY SURVEY RECORDS. THIS IS NOT A RECORDABLE SURVEY.
2. UNDERGROUND UTILITIES ARE SHOWN PER SURFACE MARKINGS AND AS-BUILT INFORMATION PROVIDED BY THE CONTROLLING JURISDICTIONS. THE LOCATION OF UNDERGROUND SANITARY SEWER, STORM DRAIN, AND WATER WERE CALLED TO BE LOCATED BUT THERE WAS NO EVIDENCE ON THE GROUND AT THE TIME OF THIS SURVEY. THE SURVEYOR MAKES NO GUARANTEE AS TO THE EXACT LOCATION, EXISTENCE, NON-EXISTENCE OR COMPLETENESS OF ANY SUBSURFACE UTILITIES SHOWN, OR NOT SHOWN ON THE MAP. CALL 811 BEFORE DIGGING.
3. FEMA FLOOD ZONES ARE SHOWN PER F.I.R.M. (FLOOD INSURANCE RATE MAP) #41067C0543E (EFFECTIVE DATE: NOVEMBER 4, 2016)

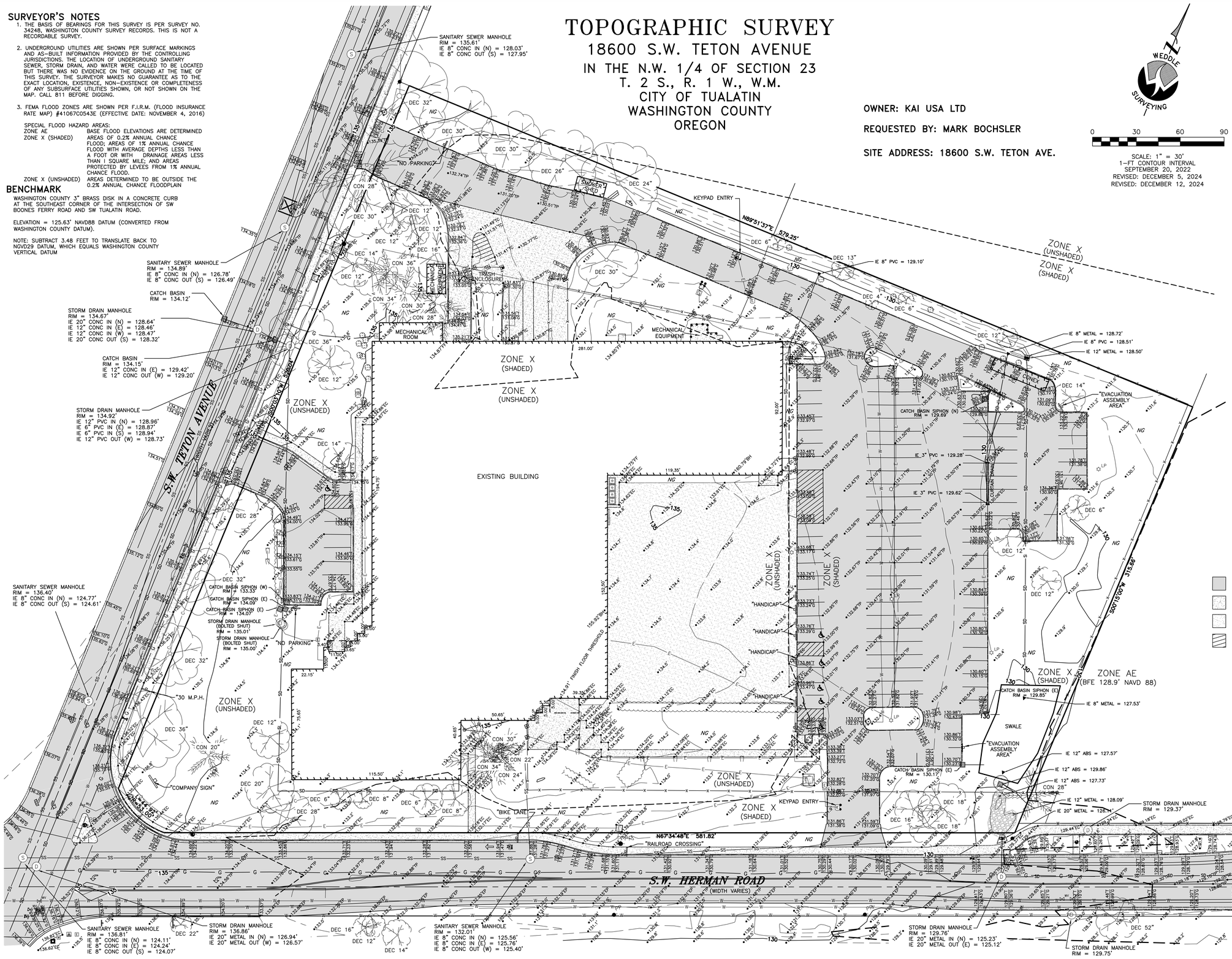
SPECIAL FLOOD HAZARD AREAS:
ZONE AE — BASE FLOOD ELEVATIONS ARE DETERMINED
ZONE X (SHADED) — AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS LESS THAN A FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.
ZONE X (UNSHADED) — AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

BENCHMARK

WASHINGTON COUNTY 3" BRASS DISK IN A CONCRETE CURB AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SW BOONES FERRY ROAD AND SW TUALATIN ROAD.

ELEVATION = 125.63' NAVD88 DATUM (CONVERTED FROM WASHINGTON COUNTY DATUM).

NOTE: SUBTRACT 3.48 FEET TO TRANSLATE BACK TO NGVD29 DATUM, WHICH EQUALS WASHINGTON COUNTY VERTICAL DATUM



LEGEND

- A.B.S. — ACRYLONITRILE BUTADIENE STYRENE
- ARROW (LEFT TURN)
- ARROW (STRAIGHT)
- ARROW (STRAIGHT & RIGHT)
- BOLLARD
- BUSH
- CATCH BASIN
- CLEAN OUT
- COMMUNICATION MANHOLE
- COMMUNICATION VAULT
- ELECTRIC PANEL
- ELECTRIC RISER
- ELECTRIC VAULT
- FIRE DEPARTMENT CONNECT
- FIRE HYDRANT
- FLAG POLE
- GAS METER
- GAS RISER
- GAS VALVE
- GATE POST
- GROUND LIGHT
- GUY ANCHOR
- HANDICAP
- LIGHT POLE
- MECHANICAL EQUIPMENT
- POWER POLE
- RAILROAD CROSSING
- SEWER MANHOLE
- SIGN
- SPOT ELEVATION
  - EC = EDGE OF CONCRETE
  - G = GUTTER LINE
  - T = TOP OF CURB
  - TC = TOP OF CONCRETE
  - TP = TOP OF PAVEMENT
- STORM INVERT
- STORM MANHOLE
- SURVEY MONUMENT
- TRANSFORMER
- WATER METER
- WATER VALVE
- WATER VAULT
- BUILDING
- BUILDING OVERHANG
- FENCE
- GAS
- HEDGE
- UNDERGROUND COMMUNICATIONS
- UNDERGROUND ELECTRIC
- WATER

- ASPHALT
- CONCRETE
- GRAVEL
- HATCH

CON = CONIFEROUS
DEC = DECIDUOUS

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 15, 2004
ANTHONY B. RYAN
58833
EXPIRES: DECEMBER 31, 2026

WEDDLE SURVEYING Inc.
Excellence is our benchmark.
6950 SW HAMPTON ST., STE. 170, TIGARD, OR 97223
PH: (503) 941-9585 FAX: (503) 941-9640
www.weddlesurveying.com

JOB NO. 6

GENERAL NOTES

1. SURVEY PROVIDED BY WEDDLE SURVEYING INC, DATED SEPTEMBER 20, 2022 AND REVISED DECEMBER 12, 2024. ELEVATIONS ARE BASED ON WASHINGTON COUNTY VERTICAL DATUM ESTABLISHED PER BENCH MARK. 3" BRASS DISK LOCATED IN A CONCRETE CURB AT THE SOUTHEAST CORNER OF SW BOONES FERRY ROAD AND SW TUALATIN ROAD WITH AN ELEVATION OF 125.63.
2. CONSTRUCTION LAYOUT (ALL ACTUAL LINES AND GRADES) SHALL BE STAKED BY A PROFESSIONAL SURVEYOR, REGISTERED IN THE STATE OF OREGON, BASED ON COORDINATES, DIMENSIONS, BEARINGS, AND ELEVATIONS, AS SHOWN, ON THE PLANS.
3. PROJECT CONTROL SHALL BE FIELD VERIFIED AND CHECKED FOR RELATIVE HORIZONTAL POSITION PRIOR TO BEGINNING CONSTRUCTION LAYOUT. [SEE SHEET CX.X FOR PROJECT CONTROL INFORMATION.]
4. PROJECT CONTROL SHALL BE FIELD VERIFIED AND CHECKED FOR RELATIVE VERTICAL POSITION BASED ON THE BENCHMARK STATED HEREON, PRIOR TO BEGINNING CONSTRUCTION LAYOUT.
5. WHEN DIMENSIONS AND COORDINATE LOCATIONS ARE REPRESENTED - DIMENSIONS SHALL HOLD OVER COORDINATE LOCATION. NOTIFY THE CIVIL ENGINEER OF RECORD IMMEDIATELY UPON DISCOVERY.
6. BUILDING SETBACK DIMENSIONS FROM PROPERTY LINES SHALL HOLD OVER ALL OTHER CALLOUTS. PROPERTY LINES AND ASSOCIATED BUILDING SETBACKS SHALL BE VERIFIED PRIOR TO CONSTRUCTION LAYOUT.
7. CONTRACTOR SHALL PRESERVE AND PROTECT FROM DAMAGE ALL EXISTING MONUMENTATION DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING FOR THE REPLACEMENT OF ANY MONUMENTS DAMAGED OR REMOVED DURING CONSTRUCTION. NEW MONUMENTS SHALL BE REESTABLISHED BY A LICENSED SURVEYOR.
8. SOME SITE DEMOLITION AND UTILITY RELOCATION HAS BEEN PERFORMED. SURVEY MAY NOT BE COMPLETE OR ACCURATE. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
9. CONTRACTOR TO REFERENCE GEOTECHNICAL ENGINEERING REPORT PREPARED BY GEOTECH SOLUTIONS, INC. DATED SEPTEMBER 5, 2022 FOR THE SITE SOILS RECOMMENDATIONS.
10. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THESE PLANS, THE PROJECT SPECIFICATIONS AND THE APPLICABLE REQUIREMENTS OF THE 2024 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE 2023 OREGON PLUMBING SPECIALTY CODE AND REQUIREMENTS OF THE CITY OF TUALATIN.
11. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS. ALL PERMITS, LICENSES AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES FOR THE EXECUTION AND COMPLETION OF WORK SHALL BE SECURED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION.
12. ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987). EXCAVATORS MUST NOTIFY ALL PERTINENT COMPANIES OR AGENCIES WITH UNDERGROUND UTILITIES IN THE PROJECT AREA AT LEAST 48 BUSINESS-DAY HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS PRIOR TO COMMENCING AN EXCAVATION, SO UTILITIES MAY BE ACCURATELY LOCATED.
13. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL VERIFY ELEVATIONS, PIPE SIZE, AND MATERIAL TYPES OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WITH CONSTRUCTION AND SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF FROELICH ENGINEERS, 72 HOURS PRIOR TO START OF CONSTRUCTION TO PREVENT GRADE AND ALIGNMENT CONFLICTS.
14. THE ENGINEER OR OWNER IS NOT RESPONSIBLE FOR THE SAFETY OF THE CONTRACTOR OR HIS CREW. ALL O.S.H.A. REGULATIONS SHALL BE STRICTLY ADHERED TO IN THE PERFORMANCE OF THE WORK.
15. TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. THE CONTRACTOR SHALL ADHERE TO THE CITY OF TUALATIN, FOR MINIMUM EROSION CONTROL MEASURES. THE ESC FACILITIES SHOWN IN THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.
16. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ROADWAYS, KEEPING THEM CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS, AND PROVIDING DUST CONTROL AS REQUIRED.
17. TRAFFIC CONTROL SHALL BE PROVIDED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN TO CITY OF TUALATIN FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.
18. CONTRACTOR SHALL MAINTAIN ALL UTILITIES TO THE BUILDING AT ALL TIMES DURING CONSTRUCTION.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL WORK WITH THE OWNER.
20. NOTIFY CITY OF TUALATIN INSPECTOR (72) HOURS BEFORE STARTING WORK. A PRECONSTRUCTION MEETING WITH THE OWNER, THE OWNER'S ENGINEER, CONTRACTOR AND THE CITY REPRESENTATIVE SHALL BE REQUIRED.

MATERIAL NOTES

1. GENERAL: MATERIALS SHALL BE NEW. THE USE OF MANUFACTURER'S NAMES, MODELS, AND NUMBERS IS INTENDED TO ESTABLISH STYLE, QUALITY, APPEARANCE, AND USEFULNESS. PROPOSED SUBSTITUTIONS WILL REQUIRE WRITTEN APPROVAL FROM ARCHITECT PRIOR TO INSTALLATION.
2. STORM AND SANITARY SEWER PIPING SHALL BE PVC PIPE, DUCTILE IRON OR HIGH DENSITY POLYETHYLENE (HDPE) PIPE; SHOWN BELOW OR AS INDICATED IN THE PLANS.
   - 2.1. PVC SEWER PIPE NPS 4 TO NPS 15:
     - 2.1.1. PIPE: ASTM D 3034, SDR 35, PVC TYPE PSM SEWER PIPE WITH BELL-AND-SPIGOT ENDS FOR GASKETED JOINTS.
     - 2.1.2. FITTINGS: ASTM D 3034, PVC WITH BELL ENDS.
     - 2.1.3. GASKETS: ASTM F 477, ELASTOMERIC SEALS.
   - 2.2. DUCTILE IRON, GRAVITY SEWER PIPE AND FITTINGS (REQUIRED WITHIN 1:1 ZONE OF INFLUENCE OF THE BUILDING FOUNDATION)
     - 2.1.1. PIPE: ASTM A 746, FOR PUSH ON JOINTS.
     - 2.1.2. STANDARD FITTINGS: ASTM C110, DUCTILE OR GRAY IRON, FOR PUSH ON JOINTS.
     - 2.1.3. COMPACT FITTINGS: ASTM C153, FOR PUSH-ON JOINTS.
     - 2.1.4. GASKETS: AWWA C111, RUBBER
   - 2.2. PE PIPE AND FITTINGS
     - 2.2.1. CORRUGATED PE DRAINAGE PIPE AND FITTINGS NPS 3 TO NPS 10: AASHTO M 252M, TYPE S, WITH SMOOTH WATERWAY FOR COUPLING JOINTS.
       - 2.2.1.1. SOILTIGHT COUPLINGS: AASHTO M 252M, CORRUGATED, MATCHING TUBE AND FITTINGS.
     - 2.2.2. CORRUGATED PE PIPE AND FITTINGS NPS 12 TO NPS 60: AASHTO M 294M, TYPE S, WITH SMOOTH WATERWAY FOR COUPLING JOINTS.
       - 2.2.2.1. SOILTIGHT COUPLINGS: AASHTO M 294M, CORRUGATED, MATCHING PIPE AND FITTINGS.
3. PRIVATE WATER LINES 3-INCH DIAMETER AND SMALLER SHALL BE COPPER OR DUCTILE IRON PIPE AS INDICATED BELOW.
   - 3.1. SOFT COPPER TUBE: ASTM B 88, TYPE K WATER TUBE, ANNEALED TEMPER.
     - 3.1.1. COPPER, SOLDER-JOINT FITTINGS: ASME B16.18, CAST-COPPER-ALLOY OR ASME B16.22, WROUGHT-COPPER, SOLDER-JOINT PRESSURE TYPE. FURNISH ONLY WROUGHT-COPPER FITTINGS IF INDICATED.
     - 3.1.2. HARD COPPER TUBE: ASTM B 88, TYPE K, WATER TUBE, DRAWN TEMPER.
       - 3.1.2.1. COPPER, SOLDER-JOINT FITTINGS: ASME B16.18, CAST-COPPER-ALLOY OR ASME B16.22, WROUGHT-COPPER, SOLDER-JOINT PRESSURE TYPE. FURNISH ONLY WROUGHT-COPPER FITTINGS IF INDICATED.
   - 3.2. MECHANICAL-JOINT, DUCTILE-IRON PIPE: AWWA C151, WITH MECHANICAL-JOINT BELL AND PLAIN SPIGOT END UNLESS GROOVED OR FLANGED ENDS ARE INDICATED.
     - 3.2.1. MECHANICAL-JOINT, DUCTILE-IRON FITTINGS: AWWA C110, DUCTILE- OR GRAY-IRON STANDARD PATTERN OR AWWA C153, DUCTILE-IRON COMPACT PATTERN.
     - 3.2.2. GLANDS, GASKETS, AND BOLTS: AWWA C111, DUCTILE- OR GRAY-IRON GLANDS, RUBBER GASKETS, AND STEEL BOLTS.
4. CONCRETE FOR CURBS, SIDEWALK AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,300 PSI AT 28 DAYS. CONSTRUCT PER CITY OF PORTLAND SPECIFICATIONS.
   - 4.1. CONCRETE AGGREGATE SHALL CONFORM TO ASTM C33 REQUIREMENT
5. CONCRETE MANHOLES AND UTILITY VAULTS: OLD CASTLE OR APPROVED EQUAL. INSTALL PER MANUFACTURER RECOMMENDATIONS.
6. CATCH BASINS: PER PLANS
7. SUBMITTAL: CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH PRODUCT:
   - 7.1. AGGREGATE
   - 7.2. PAVEMENT MATERIAL AND MIX DESIGN (ASPHALT, CONCRETE, PAVERS...)
   - 7.3. STORMWATER AND SANITARY SEWER STRUCTURES (AREA DRAINS, CLEANOUTS, DRYWELLS)
   - 7.4. PIPES AND FITTINGS
   - 7.5. WATER AND FIRE PIPES, FITTINGS, AND STRUCTURES (METER, BACKFLOW, DOUBLE CHECK, FIRE DEPARTMENT CONNECTIONS...)

CONSTRUCTION NOTES

GENERAL

1. SUBGRADE AND TRENCH BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. FLOODING OR JETTING THE BACKFILLED TRENCHES WITH WATER IS NOT PERMITTED.
2. SPECIAL INSPECTION REQUIRED FOR ALL COMPACTION TESTING.

DEMOLITION

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND DISPOSAL OF EXISTING AC, CURBS, SIDEWALKS AND OTHER SITE ELEMENTS WITHIN THE SITE AREA IDENTIFIED IN THE PLANS. DISPOSE OF DEMOLISHED ITEMS OFF-SITE IN A LEGAL MANNER.
2. EXCEPT FOR MATERIALS INDICATED TO BE STOCKPILED OR TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY, REMOVED FROM THE SITE, AND DISPOSED OF PROPERLY.
3. ITEMS INDICATED TO BE SALVAGED SHALL BE CAREFULLY REMOVED AND DELIVERED STORED AT THE PROJECT SITE AS DIRECTED BY THE OWNER.
4. ALL LANDSCAPING, PAVEMENT, CURBS AND SIDEWALKS, BEYOND THE IDENTIFIED SITE AREA, DAMAGED DURING THE CONSTRUCTION SHALL BE REPLACED TO THEIR ORIGINAL CONDITION OR BETTER.
5. CONCRETE SIDEWALKS SHOWN FOR DEMOLITION SHALL BE REMOVED TO THE NEAREST EXISTING CONSTRUCTION JOINT.
6. SAWCUT STRAIGHT MATCHLINES TO CREATE A BUTT JOINT BETWEEN THE EXISTING AND NEW PAVEMENT.

GRADING

1. ALL SURFACES SHALL HAVE MINIMUM 1.5% SLOPE UNLESS OTHERWISE NOTED ON PLANS. ALL SURFACES SHALL MEET EXISTING GRADES SMOOTHLY AND EVENLY AND MAINTAIN CONSTANT SLOPES UNLESS OTHERWISE NOTES ON PLANS.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EXISTING SITE AND DRAINAGE PATTERNS AND PROTECTION OF EXISTING ENGINEERED DRAINAGE FACILITIES.
3. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS ADJACENT TO EXISTING TREES IN ORDER TO MINIMIZE DISTURBANCE TO TREE ROOTS. CONTRACT SHALL INSTALL TREE PROTECTION FENCING AS INDICATED ON PLANS OR DRIP-LINE OF EXISTING TREES. NO PARKING VEHICLES UNDER TREES.

UTILITIES

1. ADJUST ALL INCIDENTAL STRUCTURES, MANHOLES, VALVE BOXES, CATCH BASINS, FRAMES AND COVERS, ETC. TO FINISHED GRADE.
2. CONTRACTOR SHALL ADJUST ALL EXISTING AND/OR NEW FLEXIBLE UTILITIES (WATER, TV, TELEPHONE, ELEC., ETC.) TO CLEAR ANY EXISTING OR NEW GRAVITY DRAIN UTILITIES (STORM DRAIN, SANITARY SEWER, ETC.) IF CONFLICT OCCURS.
3. CONTRACTOR SHALL COORDINATE WITH PRIVATE UTILITY COMPANIES FOR THE INSTALLATION OF OR ADJUSTMENT TO GAS, ELECTRICAL, POWER AND TELEPHONE SERVICE.
4. BEFORE BACKFILLING ANY SUBGRADE UTILITY IMPROVEMENTS CONTRACTOR SHALL SURVEY AND RECORD MEASUREMENTS OF EXACT LOCATION AND DEPTH AND SUBMIT TO ENGINEER AND OWNER.

STORM AND SANITARY

1. CONNECTIONS TO EXISTING STORM AND SANITARY SEWERS SHALL CONFORM TO THE 2018 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 00490, "WORK ON EXISTING SEWERS AND STRUCTURES".
2. BEGIN LAYING STORM DRAIN AND SANITARY SEWER PIPE AT THE LOW POINT OF THE SYSTEM, TRUE TO GRADE AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT. THE CONTRACTOR SHALL ESTABLISH LINE AND GRADE FOR THE STORM AND SANITARY SEWER PIPE USING A LASER.
3. ALL ROOF DRAIN AND CATCH BASIN LEADERS SHALL HAVE A MINIMUM SLOPE OF 2 PERCENT UNLESS NOTED OTHERWISE IN THE PLANS.

WATER

1. ALL WATER AND FIRE PROTECTION PIPE SHALL HAVE A MINIMUM 36-INCH COVER TO THE FINISH GRADE.
2. ALL WATER AND FIRE PRESSURE FITTINGS SHALL BE FULLY RESTRAINED.
3. ALL WATER MAIN / SANITARY SEWER CROSSINGS SHALL CONFORM TO THE OREGON STATE HEALTH DEPARTMENT REGULATIONS, CHAPTER 333.
4. CONTRACTOR TO MAINTAIN A MINIMUM 10' HORIZONTAL AND 18" VERTICAL SEPARATION BETWEEN ALL EXISTING AND PROPOSED WATER AND SEWER LINES.
5. ALL WATER LINES SHALL BE THOROUGHLY FLUSHED, CHLORINATED AND TESTED IN ACCORDANCE WITH OREGON STATE HEALTH DEPARTMENT PRIOR TO ANY METER HOOK UP SERVICE.

EARTHWORK

1. CONTRACTOR SHALL PREVENT SEDIMENTS AND SEDIMENT LADEN WATER FROM ENTERING THE STORM DRAINAGE SYSTEM.
2. FLOODING OR JETTING THE BACKFILLED TRENCHES WITH WATER WILL NOT BE PERMITTED.
3. TRENCH BACKFILL: SHALL MEET ODOT 3/4"-0 CRUSHED ROCK AS INDICATED IN THE PROJECT SOILS REPORT.
4. BASE COURSE: SHALL MEET ODOT 3/4"-0 CRUSHED ROCK.
5. DRAINAGE ROCK: SHALL BE 3/4" TO 2-1/2" WASHED DRAIN ROCK.
6. COMPACTION AND LIFTS: REFERENCE THE PROJECT SOILS REPORT.
7. NONWOVER GEOTEXTILE - MIRAFI 140N, OR APPROVED EQUIVALENT

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.
Call the Oregon One-Call Center
1-800-332-2344

SEPARATION STATEMENT

ALL WATER MAIN CROSSINGS SHALL CONFORM TO THE OREGON STATE HEALTH DEPARTMENT, CHAPTER 333. WATER MAINS SHALL CROSS OVER SANITARY SEWERS WITH A 18" MINIMUM CLEARANCE BETWEEN OUTSIDE DIAMETERS OF PIPE WITH ALL PIPE JOINTS EQUIDISTANT FROM CROSSING. HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWERS IN PARALLEL INSTALLATIONS SHALL BE 10'. MAINTAIN 12" MINIMUM VERTICAL DISTANCE FOR ALL OTHER UTILITY CROSSINGS AND 12" HORIZONTAL PARALLEL DISTANCE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN THE MINIMUM 10' HORIZONTAL SEPARATION, THE WATER MAIN SHALL BE LAID ON A SEPARATE SHELF IN THE TRENCH 18" INCHES ABOVE THE SEWER.

SHEET INDEX

ABBREVIATIONS

AC	ASPHALT CONCRETE	OVH/OH	OVERHEAD
AD	AREA DRAIN	P/L	PROPERTY LINE
APPROX	APPROXIMATE	PC	POINT OF CURVATURE
B	BOLLARD	PCC	POINT OF COMPOUND CURVATURE
BLDG	BUILDING	PCR	POINT OF CURB RETURN
BOW	BACK OF WALK	PED	PEDESTRIAN
BS	BOTTOM OF SWALE	PIV	POST INDICATOR VALVE
	BOTTOM OF STAIR	PM	PARKING METER
BW	BOTTOM OF WALL	POC	POINT ON CURVE
CB	CATCH BASIN	PP	POWER POLE
CL	CENTERLINE	PRC	POINT OF REVERSE CURVATURE
CMP	CORRUGATED METAL PIPE	PT	POINT OF TANGENT
CMU	CONCRETE MASONRY UNIT	P.U.E	PUBLIC UTILITY EASEMENT
CO	CLEANOUT	PVC	POLYVINYL CHLORIDE
CONC.	CONCRETE	PVMT	PAVEMENT
COTG	CLEANOUT TO GRADE	PVT	PRIVATE
CP	CONTROL POINT	R	RIM
Δ	DELTA	RD	ROOF DRAIN
D/W	DRIVEWAY	R.O.W	RIGHT-OF-WAY
DIA.,Ø	DIAMETER	S	SLOPE (FT/FT)
DIP	DUCTILE IRON PIPE	SD	STORM DRAIN
E	EASTING	SDMH	STORM DRAIN MANHOLE
EXIST./EX	EXISTING	SHT	SHEET
FDC	FIRE DEPARTMENT CONNECTION	SS	SANITARY SEWER
FF	FINISH FLOOR ELEVATION	SSMH	SANITARY SEWER MANHOLE
FG	FINISH GRADE	ST	STREET
FH	FIRE HYDRANT	STA	STATION
FL	FLOWLINE	STD	STANDARD
FND	FOUNDATION	S/W	SIDEWALK
G	GUTTER	TC	TOP OF CURB
GB	GRADE BREAK	TD	TRENCH DRAIN
GL	GAS LINE	TG	TOP OF GROUND
GV	GATE VALVE	TP	TOP OF PAVEMENT
H	HEIGHT	TRANS.	TRANSFORMER
HCP	HANDICAP PARKING SPACE	TS	TOP OF STAIR
HP	HIGH POINT	TW	TOP OF WALL
ID	INSIDE DIAMETER		TOP OF WALK
IE	INVERT ELEVATION	TYP	TYPICAL
INV	INVERT	UG	UNDERGROUND
IRR.	IRRIGATION	UGE	UNDERGROUND ELECTRIC
LP	LIGHT POLE	W	WATER
MH	MANHOLE	W/	WITH
MIN	MINIMUM	WCR	WHEEL CHAIR RAMP
N	NORTHING	WM	WATER METER
O.D	OUTSIDE DIAMETER	WV	WATER VALVE
OF	OUTFALL		

VEGETATED STORMWATER FACILITY NOTE

1. SUCCESSFUL CONSTRUCTION OF THE VEGETATED STORMWATER FACILITY DEPEND ON PROPER CONSTRUCTION SEQUENCING, MATERIALS, INSTALLATION, PROTECTION OF SUBGRADE AND EROSION CONTROL.
2. CONTRACTOR SHALL SETUP A PRE-CONSTRUCTION MEETING WITH CIVIL ENGINEER TO SPECIFICALLY DISCUSS THESE ITEMS. CONTACT EVAN EYKELBOSCH WITH FROELICH ENGINEERS 503-624-7005.

REGISTERED PROFESSIONAL ENGINEER
96808PE
OREGON
JAN M. EYKELBOSCH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

01/29/2025
4 LAND USE SUBMITTAL
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FROELICH ENGINEERS
CIVIL STRUCTURAL
Portland, OR. | Bend, OR. | Denver, CO.
(503) 624-7005

CIDA ARCHITECTURE ENGINEERING PLANNING INTERIORS
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FAX: 503.226.1670
WWW.CIDAINC.COM

BUILDING ADDITION FOR:
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

COVER SHEET
C1.0
220277.01

SURVEYOR'S NOTES

1. THE BASIS OF BEARINGS FOR THIS SURVEY IS PER SURVEY NO. 34248, WASHINGTON COUNTY SURVEY RECORDS. THIS IS NOT A RECORDABLE SURVEY.

2. UNDERGROUND UTILITIES ARE SHOWN PER SURFACE MARKINGS AND AS-BUILT INFORMATION PROVIDED BY THE CONTROLLING JURISDICTIONS. THE LOCATION OF UNDERGROUND SANITARY SEWER, STORM DRAIN, AND WATER WERE CALLED TO BE LOCATED BUT THERE WAS NO EVIDENCE ON THE GROUND AT THE TIME OF THIS SURVEY. THE SURVEYOR MAKES NO GUARANTEE AS TO THE EXACT LOCATION, EXISTENCE, NON-EXISTENCE OR COMPLETENESS OF ANY SUBSURFACE UTILITIES SHOWN, OR NOT SHOWN ON THE MAP. CALL 811 BEFORE DIGGING.

3. FEMA FLOOD ZONES ARE SHOWN PER F.I.R.M. (FLOOD INSURANCE RATE MAP) #41067C0543E (EFFECTIVE DATE: NOVEMBER 4, 2016)

SPECIAL FLOOD HAZARD AREAS:

ZONE AE	BASE FLOOD ELEVATIONS ARE DETERMINED
ZONE X (SHADED)	AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS LESS THAN A FOOT OR WITH DRAINAGE AREAS LESS THAN I SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.
ZONE X (UNSHADED)	AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

BENCHMARK

WASHINGTON COUNTY 3" BRASS DISK IN A CONCRETE CURB AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SW BOONES FERRY ROAD AND SW TUALATIN ROAD.

ELEVATION = 125.63' NAVD88 DATUM (CONVERTED FROM WASHINGTON COUNTY DATUM).

NOTE: SUBTRACT 3.48 FEET TO TRANSLATE BACK TO NGVD29 DATUM, WHICH EQUALS WASHINGTON COUNTY VERTICAL DATUM

TOPOGRAPHIC SURVEY

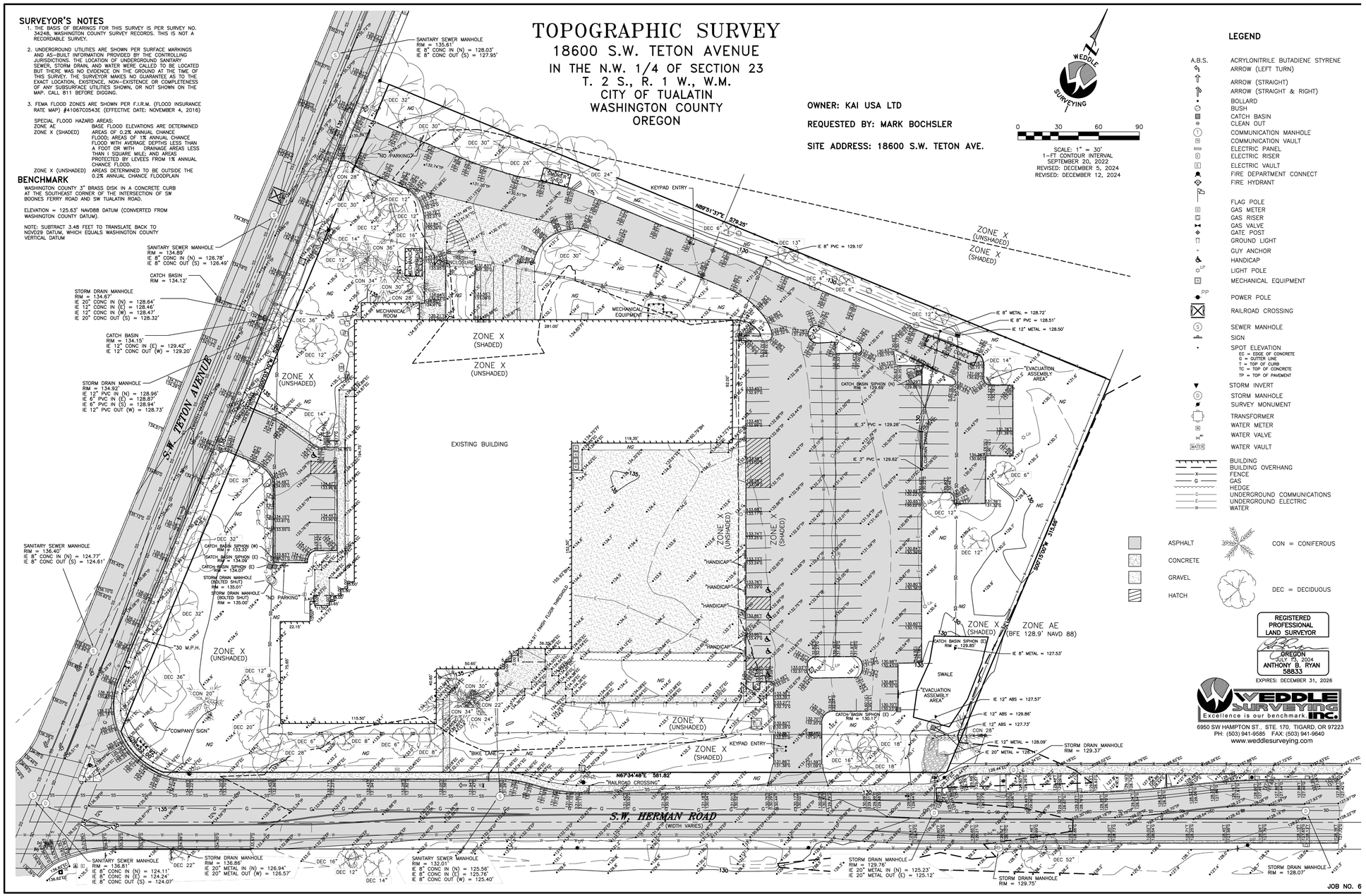
18600 S.W. TETON AVENUE
IN THE N.W. 1/4 OF SECTION 23
T. 2 S., R. 1 W., W.M.
CITY OF TUALATIN
WASHINGTON COUNTY
OREGON

OWNER: KAI USA LTD

REQUESTED BY: MARK BOCHSLER

SITE ADDRESS: 18600 S.W. TETON AVE.

SCALE: 1" = 30'
1-FT CONTOUR INTERVAL
SEPTEMBER 20, 2022
REVISED: DECEMBER 5, 2024
REVISED: DECEMBER 12, 2024



LEGEND

A.B.S.	ACRYLONITRILE BUTADIENE STYRENE
↰	ARROW (LEFT TURN)
⇧	ARROW (STRAIGHT)
⇧	ARROW (STRAIGHT & RIGHT)
•	BOLLARD
✿	BUSH
▤	CATCH BASIN
CO	CLEAN OUT
Ⓣ	COMMUNICATION MANHOLE
TV	COMMUNICATION VAULT
▭	ELECTRIC PANEL
E	ELECTRIC RISER
E	ELECTRIC VAULT
●	FIRE DEPARTMENT CONNECT
◎	FIRE HYDRANT
⚑	FLAG POLE
G	GAS METER
G	GAS RISER
⋈	GAS VALVE
◈	GATE POST
⌓	GROUND LIGHT
⏚	GUY ANCHOR
♿	HANDICAP
☼ LP	LIGHT POLE
▣	MECHANICAL EQUIPMENT
● PP	POWER POLE
R☒R	RAILROAD CROSSING
Ⓢ	SEWER MANHOLE
⊥	SIGN
•	SPOT ELEVATION EC = EDGE OF CONCRETE G = GUTTER LINE T = TOP OF CURB TC = TOP OF CONCRETE TP = TOP OF PAVEMENT
▼	STORM INVERT
Ⓓ	STORM MANHOLE
●	SURVEY MONUMENT
▢	TRANSFORMER
W	WATER METER
⋈ WV	WATER VALVE
WATER	WATER VAULT
┬┬┬	BUILDING
— — —	BUILDING OVERHANG
—X—	FENCE
— G —	GAS
︵︵︵	HEDGE
—C—	UNDERGROUND COMMUNICATIONS
—E—	UNDERGROUND ELECTRIC
—W—	WATER

▩	ASPHALT
▒	CONCRETE
░	GRAVEL
▨	HATCH

CON = CONIFEROUS

DEC = DECIDUOUS

REGISTERED
PROFESSIONAL
LAND SURVEYOR
OREGON
JULY 13, 2004
ANTHONY B. RYAN
58833
EXPIRES: DECEMBER 31, 2026

WEDDLE SURVEYING INC.
Excellence is our benchmark.
6950 SW HAMPTON ST., STE. 170, TIGARD, OR 97223
PH: (503) 941-9585 FAX: (503) 941-9640
www.weddlesurveying.com

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REVISION SCHEDULE	
4 LAND USE SUBMITTAL	01/29/2025

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(503) 624-7005

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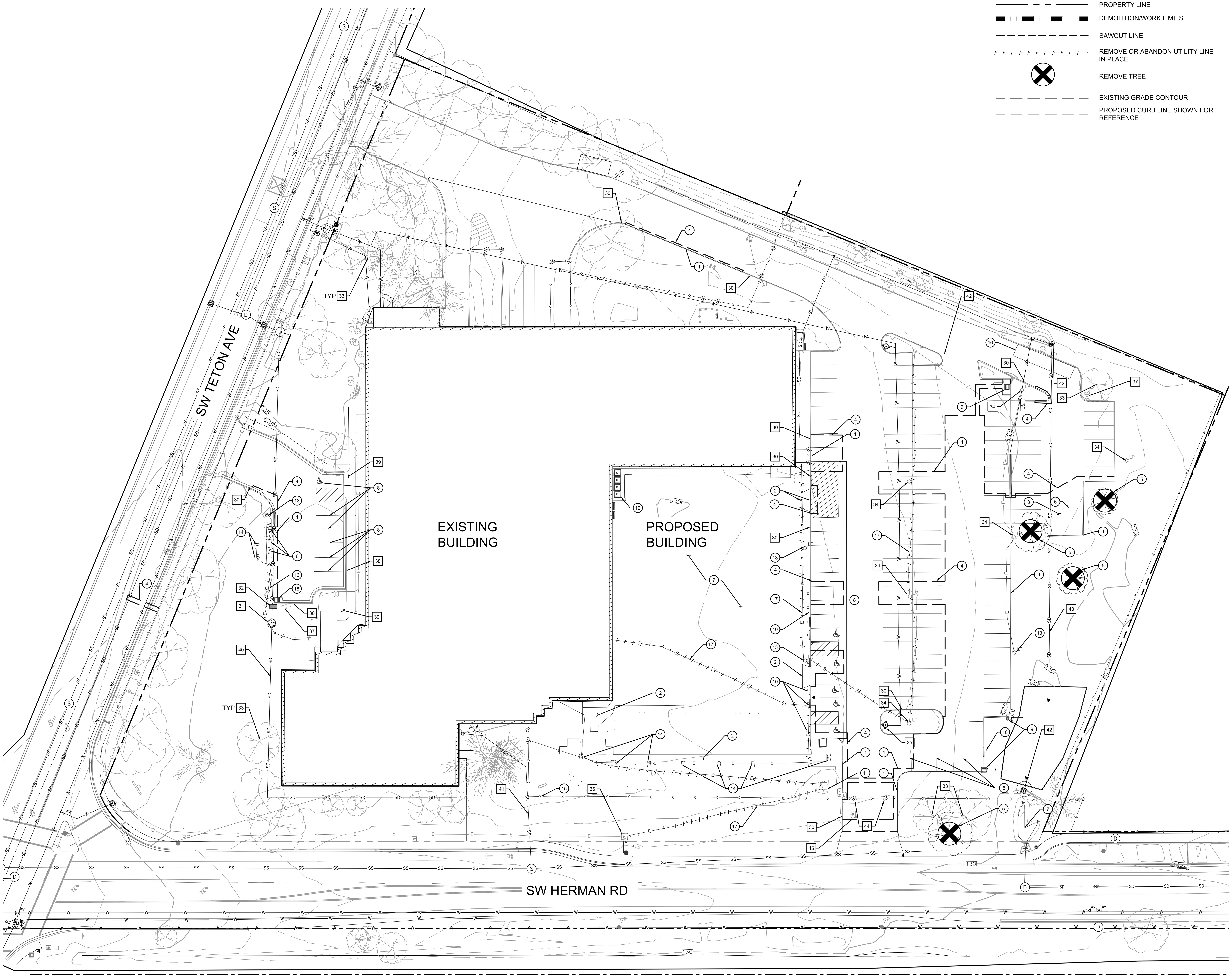
18600 SW TETON AVE, TUALATIN, OREGON 97062

EXISTING CONDITIONS

C1.1

220277.01



SHEET LEGEND

- PROPERTY LINE
- DEMOLITION/WORK LIMITS
- SAWCUT LINE
- REMOVE OR ABANDON UTILITY LINE IN PLACE
- REMOVE TREE
- EXISTING GRADE CONTOUR
- PROPOSED CURB LINE SHOWN FOR REFERENCE

SHEET NOTES

1. CONTRACTOR MAY STAGE WITHIN LIMITS OF DEMOLITION.
2. REMOVE ALL SITE COMPONENTS AND RECYCLE COMPONENTS AS REQUIRED IN THE SPECIFICATIONS.
3. GENERAL DEMOLITION PERMIT SHALL BE SECURED BY THE CONTRACTOR.
4. ALL TRADE LICENSES AND PERMITS NECESSARY FOR THE PROCUREMENT AND COMPLETION OF THE WORK SHALL BE SECURED BY THE CONTRACTOR PRIOR TO COMMENCING DEMOLITION.
5. THE CONTRACTOR SHALL PRESERVE AND PROTECT FROM DAMAGE ALL EXISTING RIGHT-OF-WAY SURVEY MONUMENTATION DURING DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING FOR THE REPLACEMENT BY A LICENSED SURVEYOR OF ANY DAMAGED OR REMOVED MONUMENTS.
6. PROTECT ALL ITEMS ON ADJACENT PROPERTIES AND IN THE RIGHT OF WAY INCLUDING BUT NOT LIMITED TO SIGNAL EQUIPMENT, PARKING METERS, SIDEWALKS, STREET TREES, STREET LIGHTS, CURBS, PAVEMENT AND SIGNS. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DAMAGED ITEMS TO ORIGINAL CONDITION.
7. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, AND OTHER FACILITIES IMMEDIATELY ADJACENT TO EXCAVATIONS FROM DAMAGES CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS.
8. SAWCUT STRAIGHT LINES IN SIDEWALK, AS NECESSARY.
9. CONTRACTOR IS RESPONSIBLE TO CONTROL DUST AND MUD DURING THE DEMOLITION PERIOD, AND DURING TRANSPORTATION OF DEMOLITION DEBRIS. ALL STREET SURFACES OUTSIDE THE CONSTRUCTION ZONE MUST BE KEPT CLEAN.
10. ALL EXPOSED PORTIONS OF UNDERGROUND UTILITIES TO BE ABANDONED SHALL BE PLUGGED PER DETAIL X/CXXX.

DEMOLITION KEY NOTES

1 REMOVE CONCRETE CURB
2 REMOVE CONCRETE SIDEWALK
3 REMOVE ASPHALT PAVEMENT AND CRUSHED ROCK SUBGRADE
4 SAWCUT
5 REMOVE CONCRETE DRIVEWAY
6 RELOCATE FLAG POLE
7 REMOVE GRAVEL
8 REMOVE STRIPING
9 REMOVE CATCH BASIN
10 REMOVE SIGN
11 RELOCATE ELECTRICAL TRANSFORMER
12 RELOCATE EQUIPMENT
13 REMOVE LIGHT POLE
14 REMOVE LIGHT FIXTURES
15 REMOVE FENCE
16 RELOCATE SHIPPING CONTAINER
17 REMOVE ELECTRICAL LINE, COORDINATE WITH ELECTRICAL ENGINEER
18 REMOVE CATCH BASIN

PROTECTION KEY NOTES

30 PROTECT CURB
31 PROTECT STORM WATER FLOW CONTROL MANHOLE
32 PROTECT STORM WATER QUALITY CATCH BASIN
33 PROTECT TREE
34 PROTECT LIGHTPOLE
35 PROTECT HYDRANT
36 PROTECT ELECTRICAL VAULT
37 PROTECT SIGN
38 PROTECT CURB AND GUTTER
39 PROTECT SIDEWALK
40 PROTECT STORMWATER LINE
41 PROTECT SANTIARY SEWER LINE
42 PROTECT DITCH INLET
43 PROTECT OUTFALL PIPE
44 PROTECT GATE
45 PROTECT BOLLARD AND KEYPAD STRUCTURE
46 PROTECT TRENCH DRAIN

SCALE 1 INCH = 30 FEET
30 0 30 60

REGISTERED PROFESSIONAL ENGINEER
83603PE
OREGON
JUNE 2, 2010
EVAN M. EYKELBOSCH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

REVISION SCHEDULE
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FAX: 503.226.1670
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18600 SW TETON AVE, TUALATIN, OREGON 97062

DEMOLITION PLAN
C1.2

220277.01

PUBLIC STREET IMPROVEMENTS ARE SHOWN FOR REFERENCE ONLY.
IMPROVEMENTS TO BE CONSTRUCTED UNDER SEPARATE PERMIT

SW TETON AVE

SW HERMAN RD

EXISTING BUILDING

PROPOSED BUILDING

N=4159.92
E=4423.66

N=4018.92
E=4423.53

N=4410.38
E=4598.00

N=4410.60
E=4670.00

N=4061.07
E=4711.21

N=4090.82
E=4783.31

N=4348.24
E=4894.63

N=4381.62
E=4949.32

N=4331.71
E=4969.91

N=4314.18
E=4975.88

N=4260.18
E=4976.27

N=4223.43
E=4945.04

N=4151.96
E=4909.62

N=4169.12
E=4951.22

SHEET NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL.
2. ALL SIDEWALK PAVEMENT JOINTS SHALL BE CONSTRUCTED PER DETAIL X/C5.X.
3. ON SITE WORK TO BE COORDINATED WITH RIGHT-OF-WAY IMPROVEMENTS UNDER SEPARATE PUBLIC WORKS PERMIT ###.

KEY NOTES

1 SAWCUT LINE
2 STANDARD CURB
3 CURB AND GUTTER
4 CURB ENDING
5 HEAVY CONCRETE PAVEMENT
6 WHEEL STOP
7 CONCRETE SIDEWALK
8 FLAG POLE, SEE ARCHITECTURAL PLANS
9 ADA PARKING STALLS
10 ADA RAMP
11 ADA PARKING SIGN
12 PARKING STRIPING
13 VALLEY GUTTER
14 CURB SPILLWAY
15 FENCE AND GATE, SEE ARCHITECTURAL PLANS
16 BUILDING OVERHANG, SEE ARCHITECTURAL PLANS
17 BIKE PARKING, SEE ARCHITECTURAL PLANS
18 ASPHALT PAVEMENT
19 SCUPPER DRAIN
20 TRANSFORMER
21 SCUPPER DRAIN, SIZE TO ACCOMMODATE GATE
22 FLUSH CURB
23 TREE, SEE ARCHITECTURAL PLANS

SHEET LEGEND

PROPERTY LINE
CONCRETE SIDEWALK
STANDARD ASPHALT PAVEMENT
HEAVY CONCRETE
LANDSCAPING, SEE LANDSCAPE PLANS

SCALE 1 INCH = 30 FEET
30 0 30 60

REGISTERED PROFESSIONAL ENGINEER
OREGON
JAN M. EYKELBOSH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

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SITE PLAN
C2.0

220277.01

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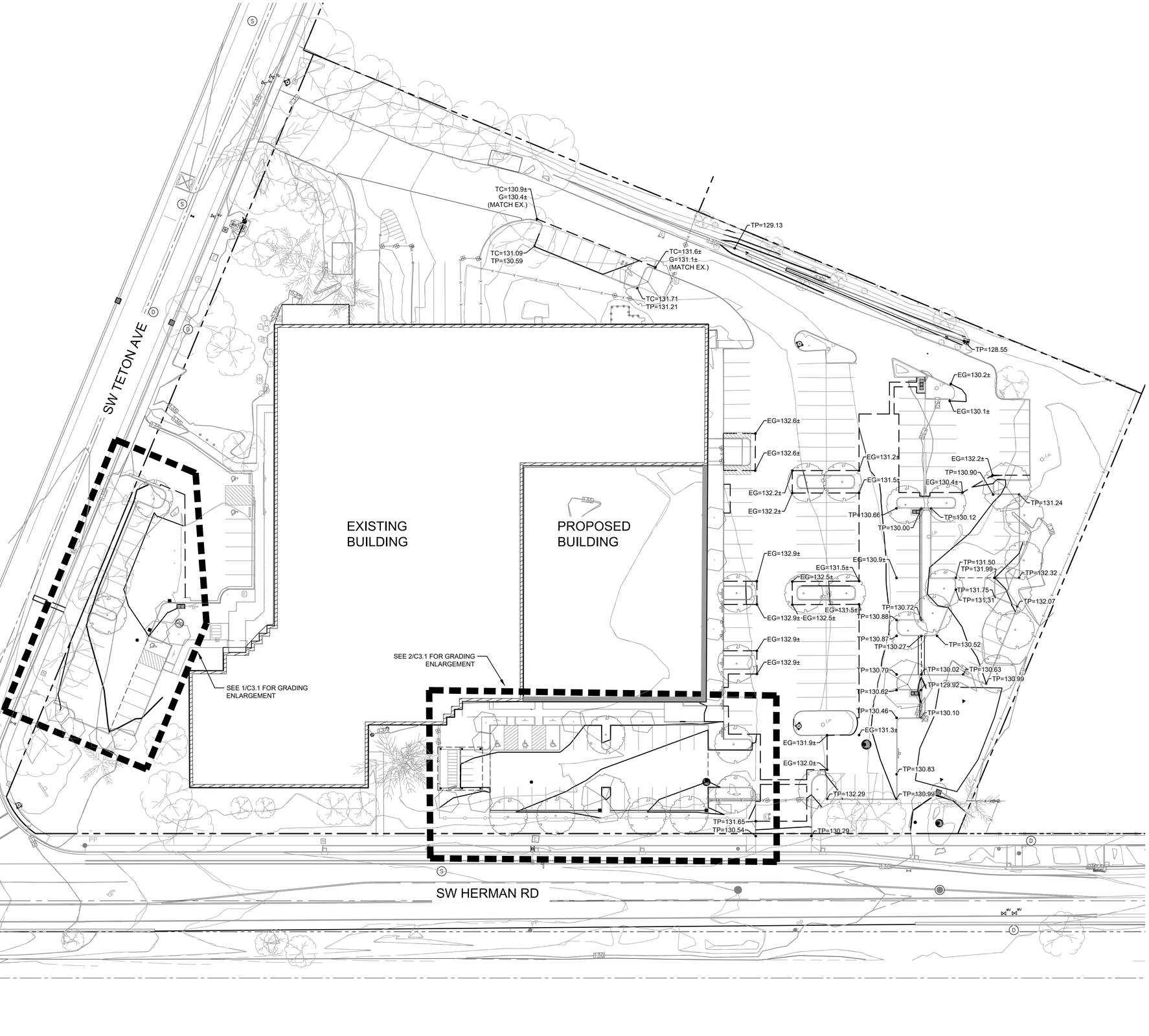

SHEET NOTES

1. SLOPES PROVIDED ON SLOPE ARROW ARE FOR REFERENCE ONLY.
2. LANDINGS ON ACCESSIBLE ROUTES SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
3. ALL ACCESSIBLE ROUTES SHALL COMPLY WITH CURRENT ADA ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES (ADAAG).
4. ALL WALKWAYS FROM ACCESSIBLE UNITS ARE DESIGNED TO NOT REQUIRE HANDRAILS. THEREFORE, RAMPS WITH SLOPES STEEPER THAN 5.0% AND LESS THAN 8.33% SHALL NOT EXCEED 0.5' RISE OR 6.0' LENGTH.
5. TOP OF CONCRETE OUTSIDE DOOR = FF ELEV. MINUS 0.02' SLOPE LANDING 1.5% AWAY FROM BLDG.

KEY NOTES

1 XXXXXXXXXX

GRADING LABEL LEGEND

CALLOUT	DESCRIPTION
X.X%	GRADING SLOPE AND DIRECTION (DOWNHILL)

SPOT ELEVATION
DESCRIPTION LISTED BELOW. NO DESCRIPTION MEANS TP OR TG

XX.XX XX

BOS	BOTTOM OF SWALE
BOW	BACK OF WALK
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
EG	EXISTING GRADE
FF	FINISHED FLOOR
FL	FLOW LINE
G	GUTTER
HP	HIGH POINT
LP	LOW POINT
RIM	RIM OF STRUCTURE
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TS	TOP OF STEP
TW	TOP WALL

SHEET LEGEND

- DRAINAGE FLOW DIRECTION
- GRADE BREAK
- 49 EX. CONTOUR MINOR
- 50 EX. CONTOUR MAJOR
- 49 CONTOUR MINOR (FG)
- 50 CONTOUR MAJOR (FG)
- > CONVEYANCE SWALE

SCALE 1 INCH = 30 FEET
30 0 30 60

REGISTERED PROFESSIONAL ENGINEER
OREGON
JAN 7, 2014
JAN M. EYKELBOSH
RENEWS: 12/31/25

PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION

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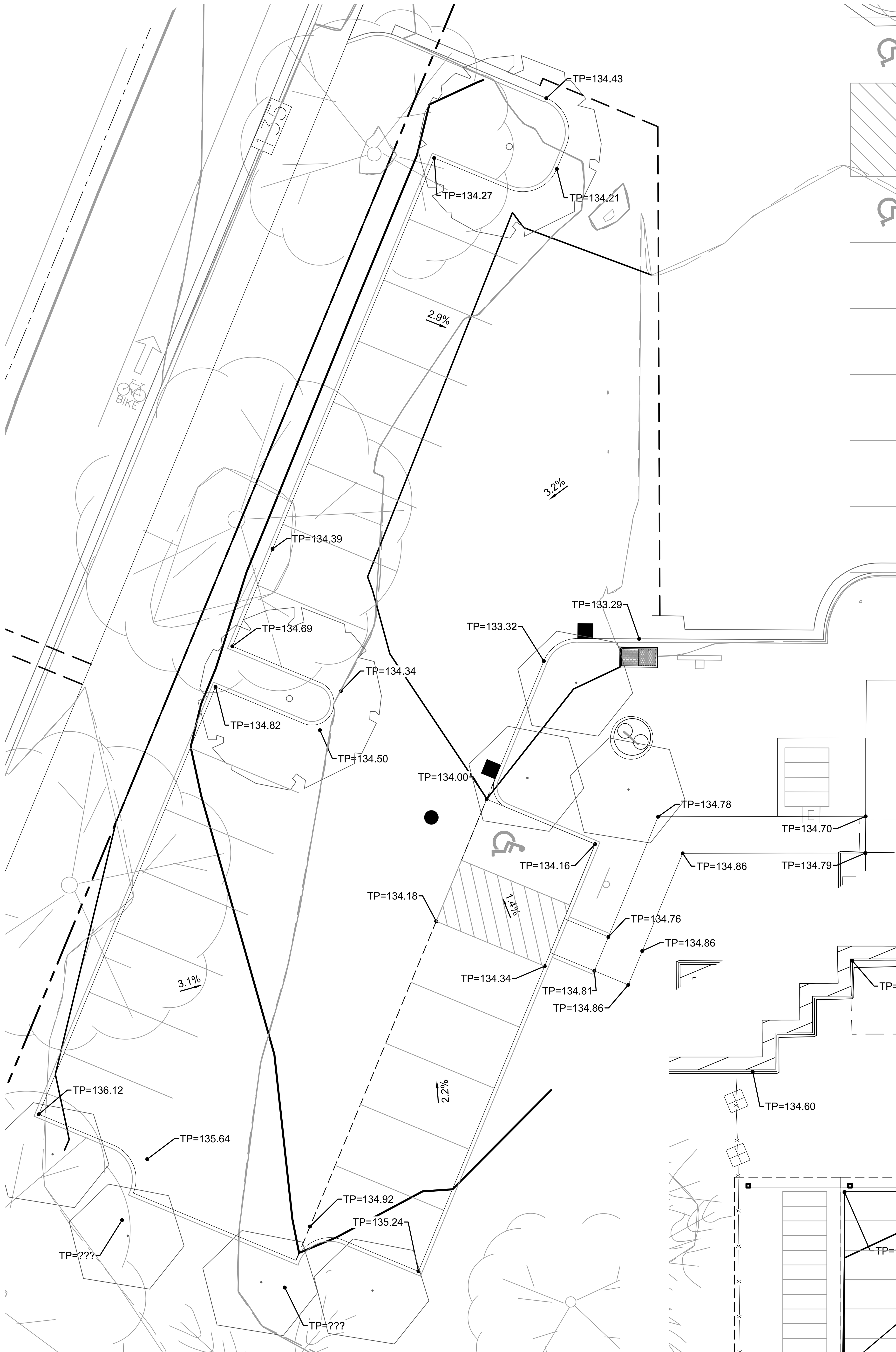
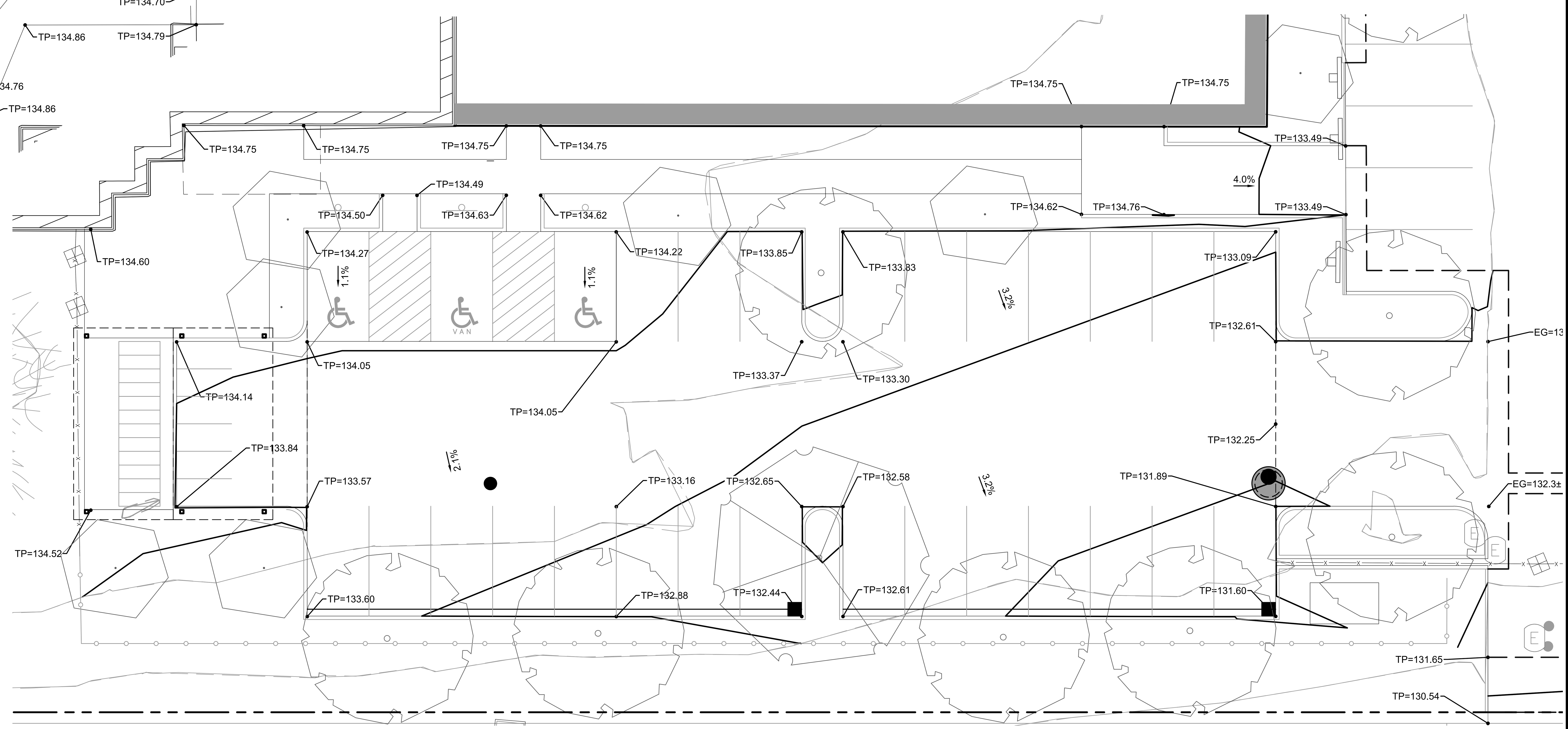
GRADING PLAN
C3.0

220277.01



1 GRADING ENLARGEMENT

SCALE: 1" = 10'



2 GRADING ENLARGEMENT

SCALE: 1" = 10'

SCALE
1 INCH = 10 FEET
10 0 10 20

REGISTERED PROFESSIONAL ENGINEER
OREGON
IAN M. EYKELBOSCH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

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ARCHITECTURE
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INTERIORS

15895 SW 72ND AVE SUITE 200
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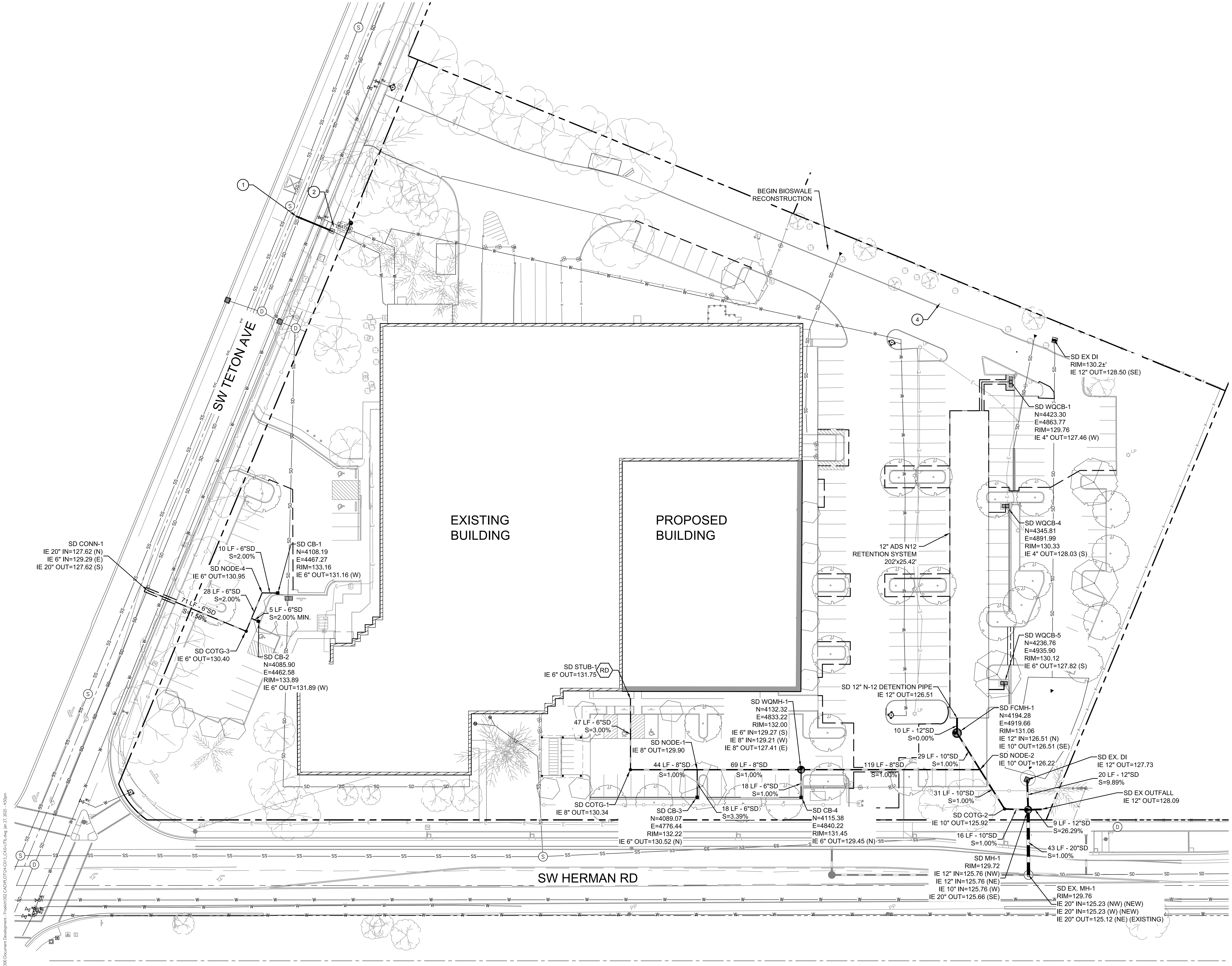
BUILDING ADDITION FOR:
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

GRADING ENLARGEMENTS
C3.1
220277.01



SHEET NOTES

1. PIPE BEDDING AND BACKFILL FOR ALL UTILITIES SHALL BE DONE PER DETAIL X/C5.X.
2. STRUCTURES LOCATIONS ARE BASED ON CENTER OF STRUCTURE.
3. INSTALL TRUST BLOCK ON FIRE AND WATER LINES PER DETAIL X & X/CX.X.

KEY NOTES

1. CONTRACTOR TO COORDINATE WITH TVWD FOR NEW DOMESTIC WATER SERVICE CONNECTION.
2. TVWD TO DISCONNECT AND CAP DOMESTIC SERVICE LATERAL FROM FIRE PROTECTION LINE.
3. IRRIGATION BACKFLOW ASSEMBLY VAULT, SEE LANDSCAPE PLANS.
4. RECONSTRUCT BIOSWALE PER CWS STD DTL 705 ON SHEET 5.2.

UTILITY LABEL LEGEND

STRUCTURE LABEL

XX XX-XX
N=XXXX.XX
E=XXXX.XX
RIM=
IE IN = XX.X
IE OUT = XX.X

- UTILITY TYPE (SD=STORM DRAINAGE, SS=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
- STRUCTURE TYPE CALLOUT
- ID NUMBER (WHERE APPLICABLE)
- LOCATION (WHERE APPLICABLE)
- STRUCTURE INFO (WHERE APPLICABLE)

PIPE LABEL

XXLF - XX" XX

S=X.XX%

- UTILITY LENGTH
- UTILITY SIZE
- UTILITY TYPE
- SLOPE (WHERE APPLICABLE)

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
AD	AREA DRAIN TYPE 1	X / CX.X
BEND	BEND, USE FITTING IF APPLICABLE	X / CX.X
BWV	BACKWATER VALVE	
CB	TRAPPED CATCH BASIN	
CO	CLEANOUT TO GRADE	
CONN	CONNECTION	
DI	DITCH INLET	
FCMH	FLOW CONTROL MANHOLE	
FD	FOUNDATION DRAINAGE POINT OF CONN.	
FDC	FIRE DEPARTMENT CONNECTION	
FH	FIRE HYDRANT	
GV	GATE VALVE	
SDMH	48" DIA. STORM DRAIN MH	
SEDMH	SEDIMENTATION MANHOLE	
TEE	TEE CONNECTION	
WYE	WYE CONNECTION	
WQCB	WATER QUALITY CATCH BASIN	
WQMH	WATER QUALITY MANHOLE	

SHEET LEGEND

RD	CONNECT TO STORM DRAIN/ROOF DRAIN. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AND IE AS NOTED.	X / CX.X
!!	UTILITY CROSSING. PROVIDE 12" MIN. CLEARANCE, U.N.O.	X / CX.X

SCALE 1 INCH = 30 FEET
30 0 30 60

PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER 83603PE OREGON JUNE 2, 2016 IAN M. EYKELBOSH
RENEWS: 12/31/25

REVISION SCHEDULE
4 LAND USE SUBMITTAL 01/29/2025

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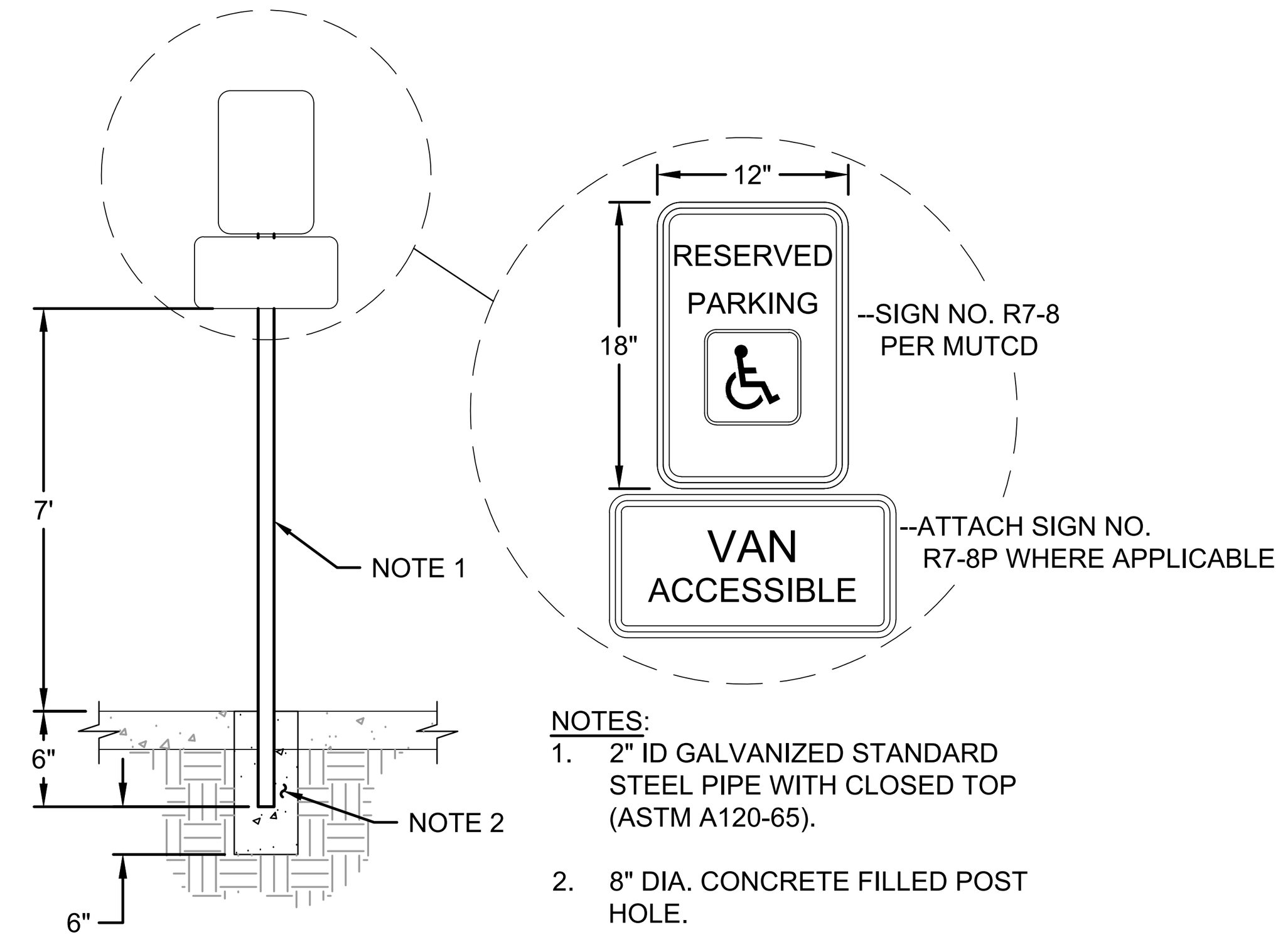
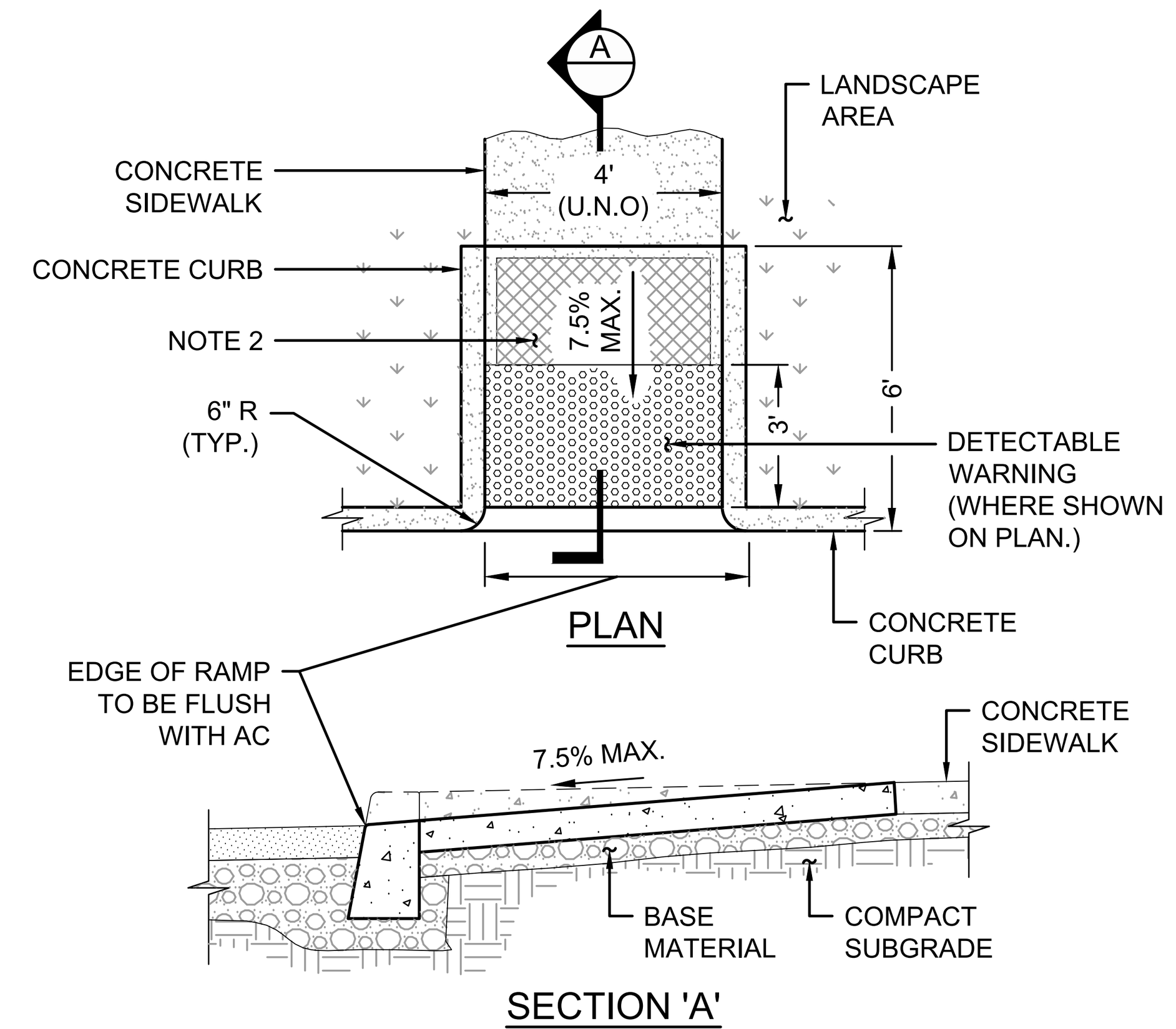


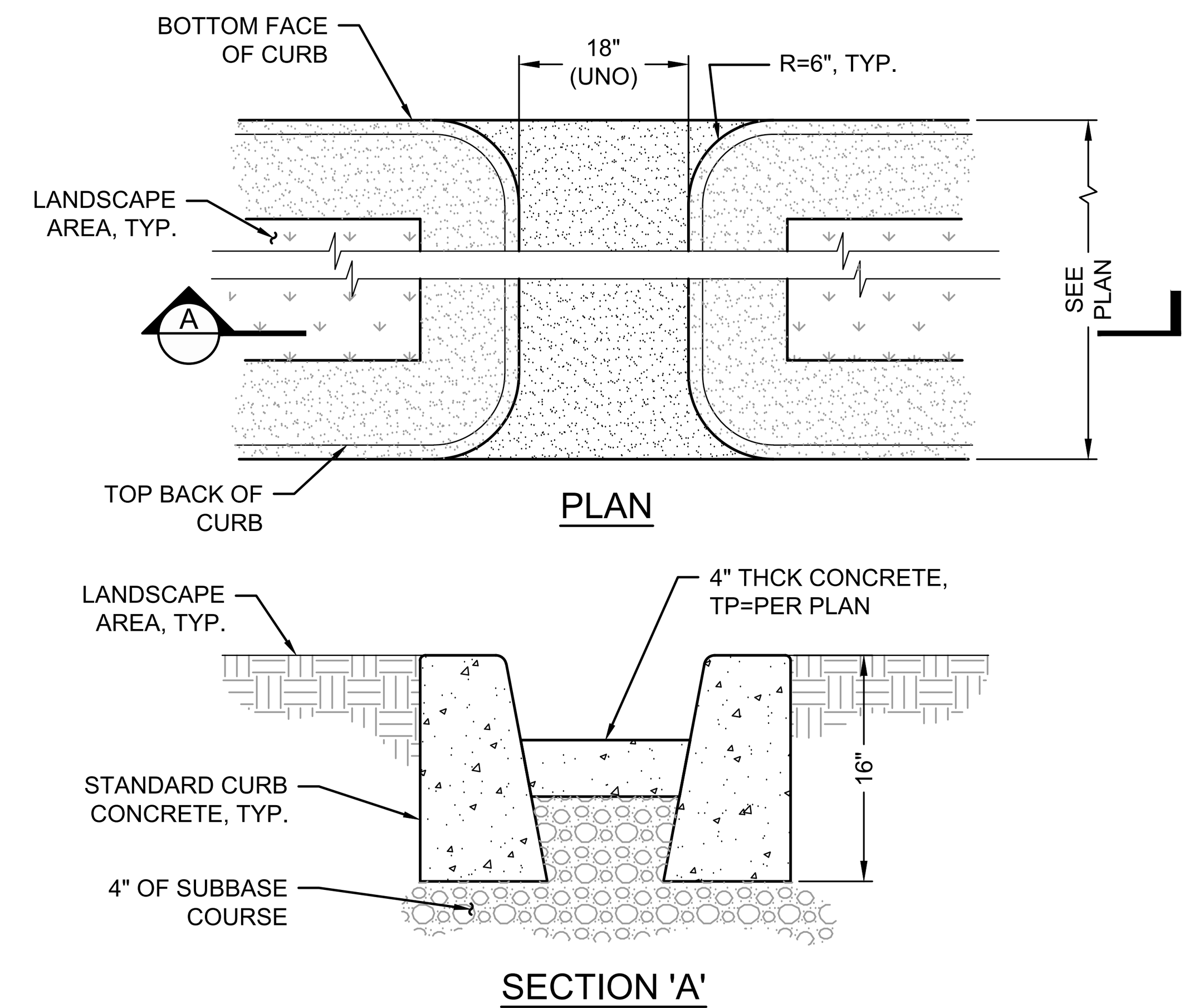
NOTES:
1. 2" ID GALVANIZED STANDARD STEEL PIPE WITH CLOSED TOP (ASTM A120-65).
2. 8" DIA. CONCRETE FILLED POST HOLE.

X ADA PARKING SIGN
SCALE: NTS

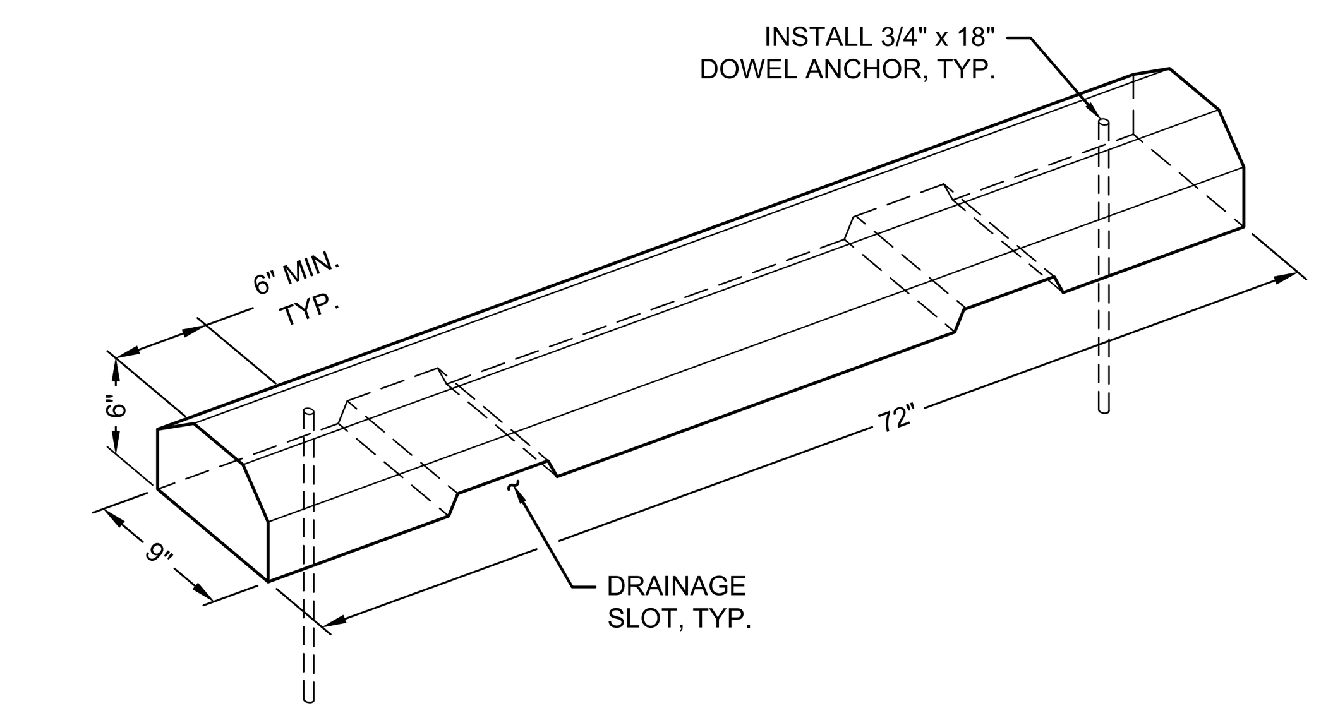


NOTES:
1. CONCRETE SHALL BE 3,000 PSI.
2. PROVIDE RAMP TEXTURING WITH AN EXPANDED METAL GRATE PLACED ON AND REMOVED FROM WET CONCRETE TO LEAVE A DIAMOND PATTERN. EACH DIAMOND SHALL BE 1 1/4" LONG BY 1/2" WIDE WITH THE LONG SECTION AXIS ORIENTED PERPENDICULAR TO THE CURB. THE GROOVES SHALL BE 1/8" DEEP BY 1/4" WIDE.

X CURB RAMP - TYPE 2
SCALE: NTS

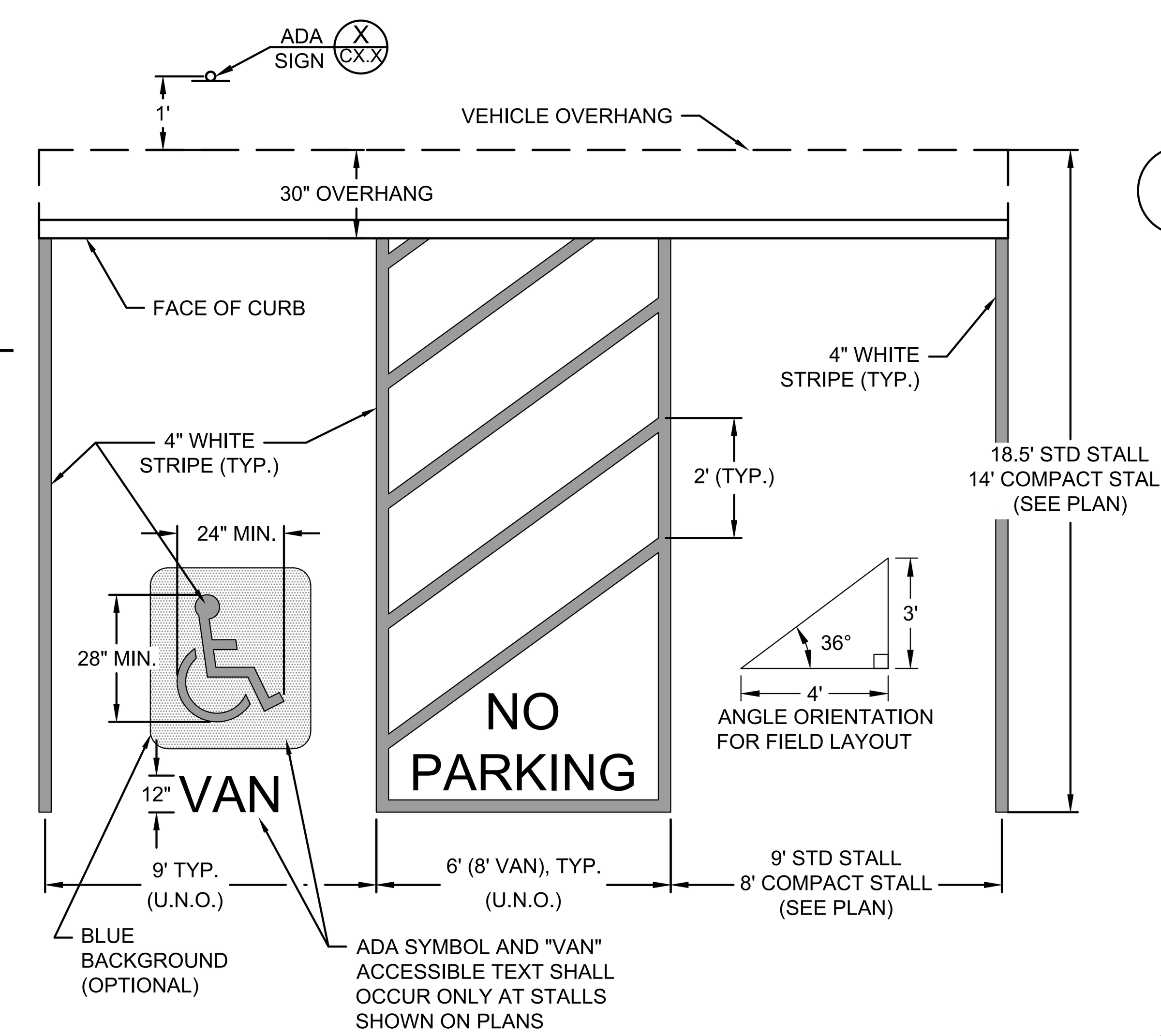


X SCUPPER DRAIN
SCALE: NTS

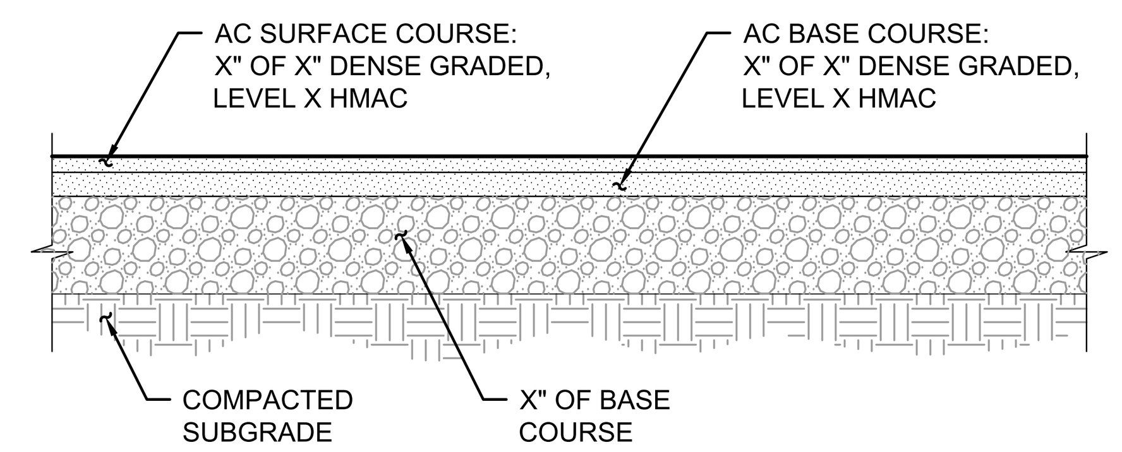


NOTES:
1. DIMENSIONS ARE NOMINAL AND MAY VARY TO CONFORM TO MANUFACTURER'S PRODUCTS APPROVED BY ENGINEER.

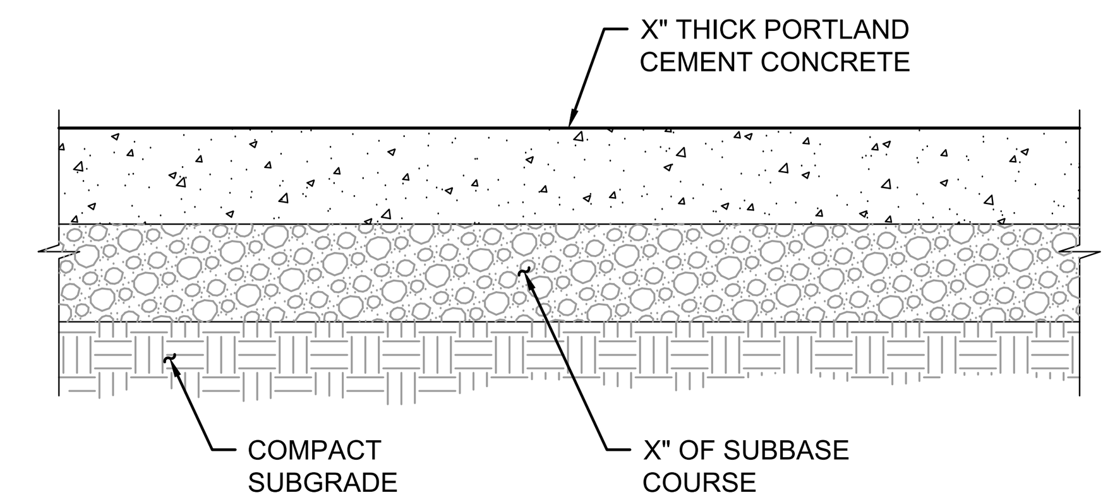
X PRECAST CONCRETE WHEEL STOP
SCALE: NTS



X TYPICAL PARKING LAYOUT
SCALE: NTS

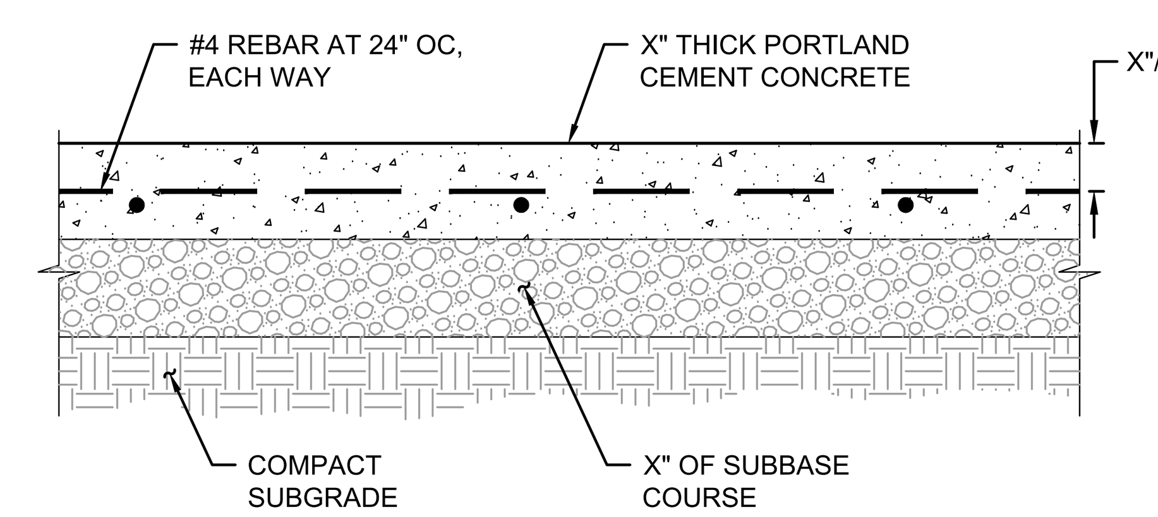


X ASPHALT PAVEMENT SECTION
SCALE: NTS



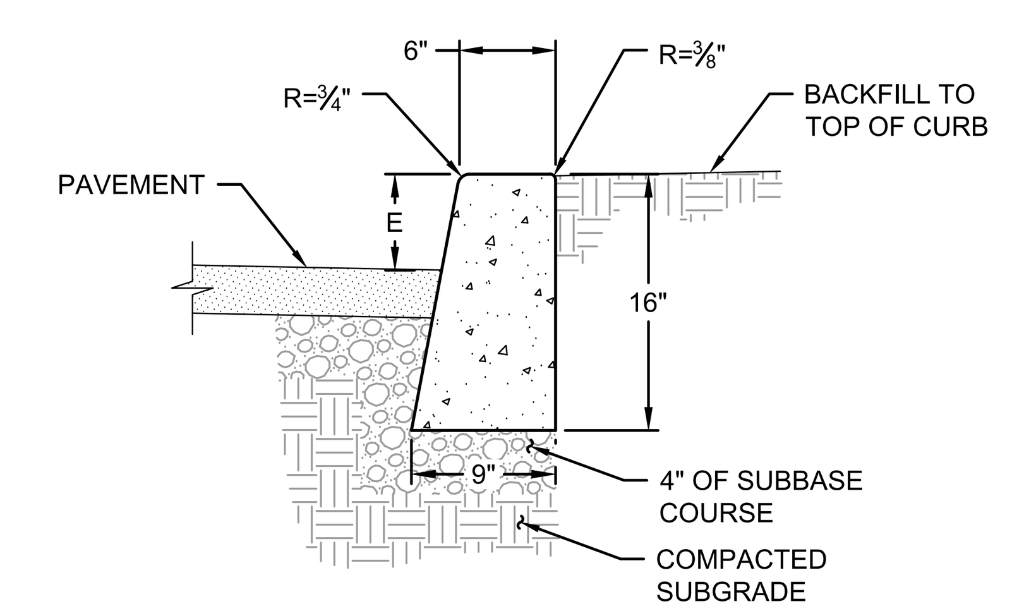
NOTES:
1. - CONSTRUCT CONTRACTION JOINTS AT 15' MAX. SPACING AND AT RAMPS.
   - CONSTRUCT EXPANSION JOINTS AT 200' MAX. SPACING AT POINTS OF TANGENCY AND AT ENDS OF EACH DRIVEWAY.
2. PROVIDE MEDIUM TO COARSE BROOM FINISH.

X CONCRETE SIDEWALK
SCALE: NTS



NOTES:
1. JOINTS:
   - CONSTRUCT CONTRACTION JOINTS AT 15' MAX. SPACING AND AT RAMPS.
   - CONSTRUCT EXPANSION JOINTS AT 200' MAX. SPACING AT POINTS OF TANGENCY AND AT ENDS OF EACH DRIVEWAY.
2. PROVIDE MEDIUM TO COARSE BROOM FINISH.

X HEAVY CONCRETE PAVEMENT SECTION
SCALE: NTS



NOTES:
1. CURB EXPOSURE 'E' = 6", TYP. VARY AS SHOWN ON PLANS OR AS DIRECTED.
2. CONSTRUCT CONTRACTION JOINTS AT 15' MAX. SPACING AND AT RAMPS. CONSTRUCT EXPANSION JOINTS AT 200' MAX SPACING AT POINTS OF TANGENCY AND AT ENDS OF EACH DRIVEWAY.
3. TOPS OF ALL CURBS SHALL SLOPE TOWARD THE ROADWAY AT 2% UNLESS OTHERWISE SHOWN OR AS DIRECTED.
4. DIMENSIONS ARE NOMINAL AND MAY VARY TO CONFORM WITH CURB MACHINE AS APPROVED BY THE ENGINEER.

X STANDARD CONCRETE CURB
SCALE: NTS

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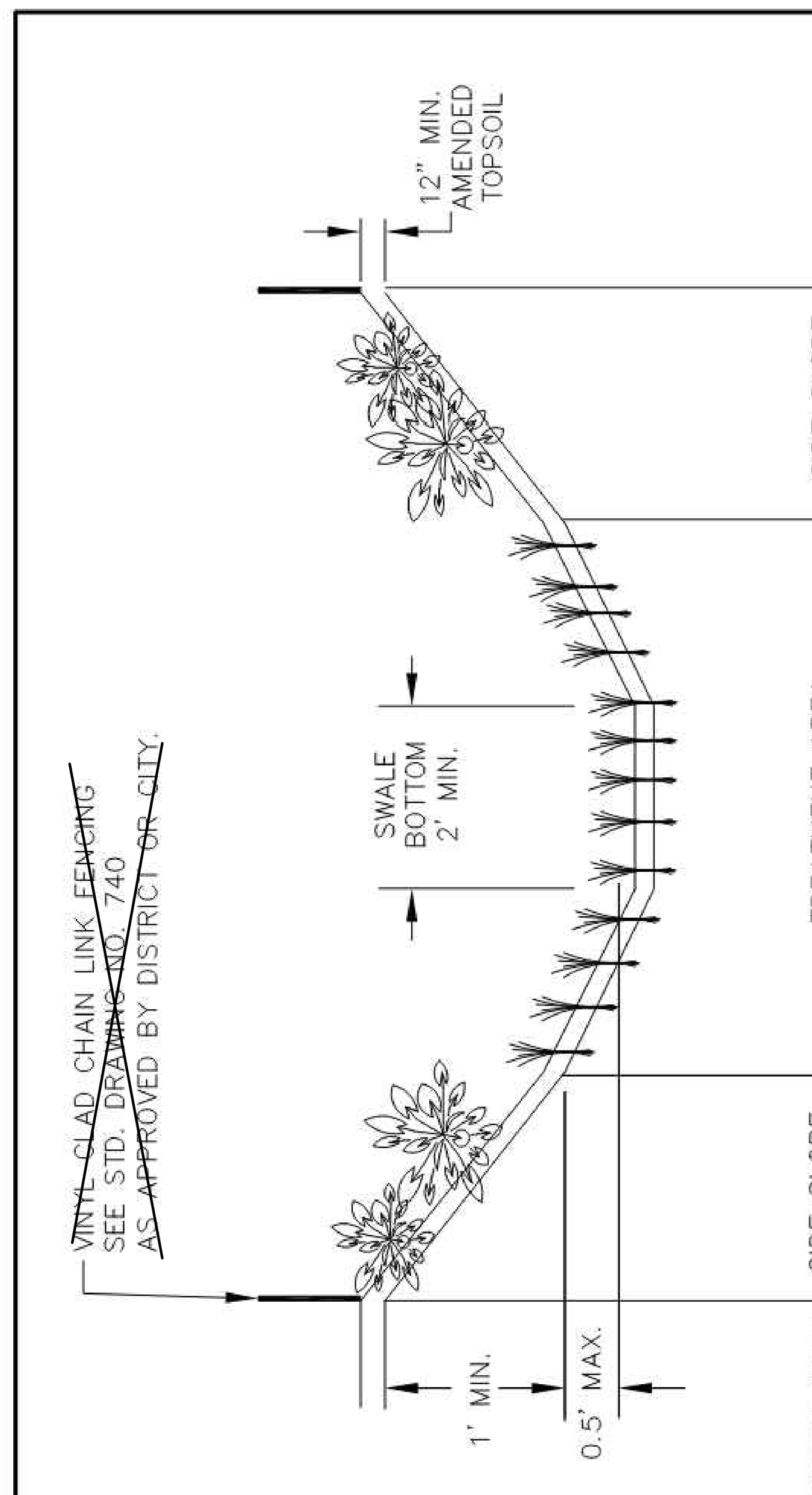


SWALE AREA	SIDE SLOPE AREA	TREATMENT AREA 6" MINIMUM WIDTH			SIDE SLOPE AREA
EC MATTING	ECONOJUTE*	COCONUT FIBER OR GEOJUTE PLUS*			ECONOJUTE*
SEED MIX	LOW GROW MIX SEE NOTE #5	NONE			LOW GROW MIX SEE NOTE #5
MAX. SLOPE	2.5H:1V	4H:1V TYP	FLAT BOTTOM	4H:V1	2.5H:V1

* OR AS APPROVED

NOTES:

1. REFER TO CHAPTER 4, CWS DESIGN & CONSTRUCTION STANDARDS, FOR LANDSCAPING REQUIREMENTS INCLUDING TREE PLACEMENT, TOPSOIL AND PLANTING SPECIFICATIONS.
2. PROVIDE IRRIGATION AS APPROVED BY CWS.
3. JUTE MATTING– GEOJUTE PLUS IN TREATMENT AREA, ECONOJUTE FOR ALL OTHER AREAS, OR SIMILIAR FABRICS. COCONUT FIBER IS ALSO ACCEPTABLE.
4. 12 INCHES OF AMENDED TOPSOIL SHALL BE PLACED THROUGHOUT THE WATER QUALITY FACILITY.
5. FREEBOARD AREA SEED MIX, DWARF TALL FESCUE 40%, DWARF PERENNIAL RYE 30%, CREEPING RED FESCUE 25%, COLONIAL BENT GRASS 5%. APPLY AT A RATE OF 120# / ACRE.

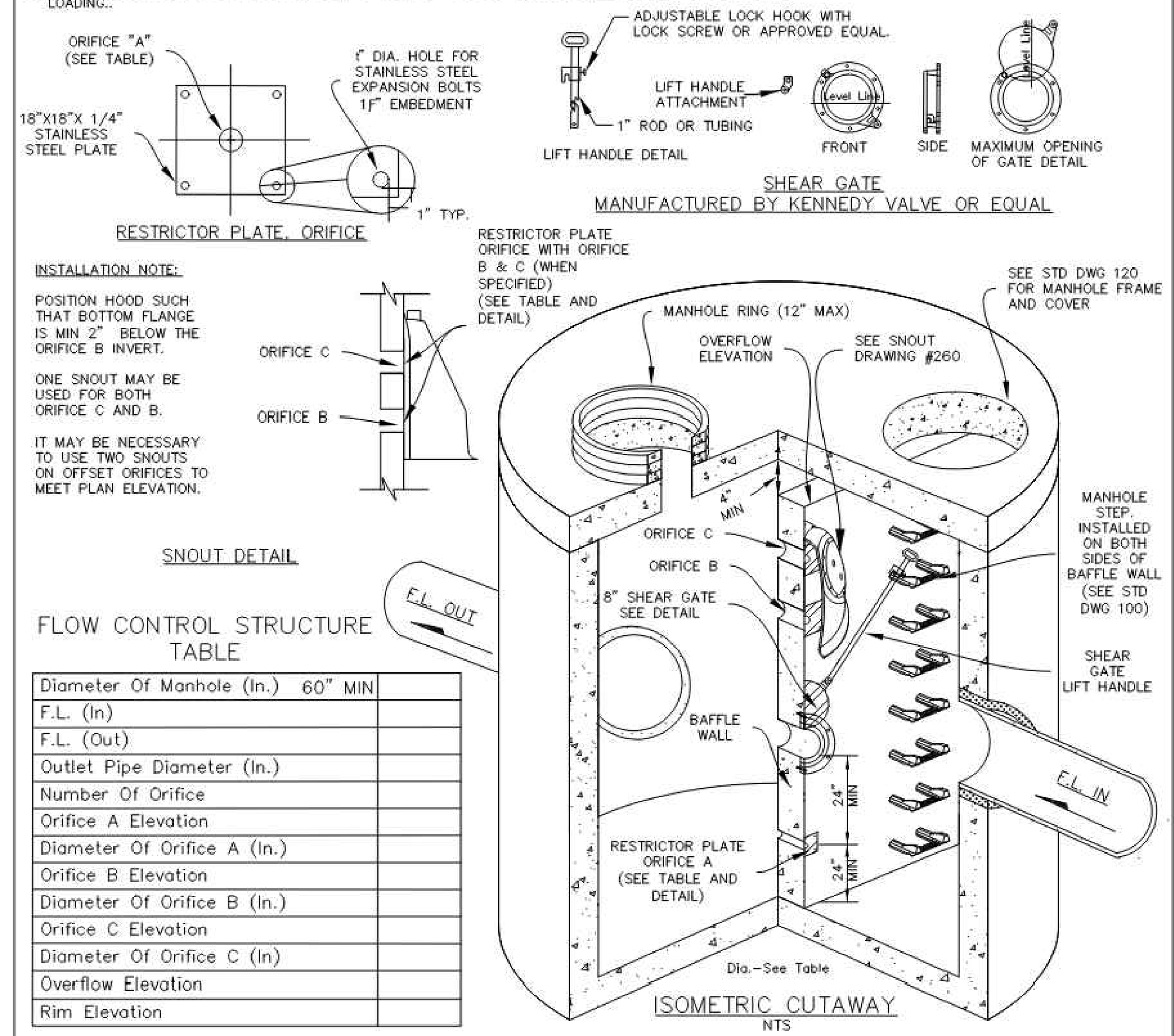
WATER QUALITY SWALE

Clean Water Services

DRAWING NO. 705 — REVISED 10-31-19

NOTES:

1. BAFFLE WALL SHALL HAVE #4 BAR AT 12" SPACING EACH WAY.
2. PRECAST BAFFLE SHALL BE KEYED AND GROUTED IN PLACE. JOINT BETWEEN CONCRETE BAFFLE AND MANHOLE WALL SHALL BE WATERTIGHT.
3. UPPER FLOW ORIFICE SHALL BE ALUMINUM, ALUMINIZED STEEL OR TREATMENT 1 GALVANIZED STEEL.
4. FRAME AND LADDER OR STEPS ARE TO BE OFFSET SO THAT SHEAR GATE IS VISIBLE FROM THE TOP; CLIMB-DOWN SPACE IS CLEAR OF RISER AND GATE; FRAME IS CLEAR OF CURB.
5. RESTRICTOR PLATE WITH ORIFICE AS SPECIFIED IN THE CONTRACT. OPENING IS TO BE CUT ROUND AND SMOOTH. NEOPRENE GASKET SHALL BE INSTALLED BETWEEN THE ORIFICE PLATE AND CONCRETE BAFFLE TO PROVIDE A WATERTIGHT SEAL.
6. SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275,
7. DESIGNATION Zg32A OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. LIFT HANDLE MAY BE SOLID ROD OR HOLLOW TUBING WITH ADJUSTABLE HOOK AS REQUIRED. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE. MATING SURFACES OF LID AND BODY SHALL BE MACHINED FOR PROPER FIT. FLANGE MOUNTING BOLTS SHALL BE 3/8" X 16 X 3" LG SS REDHEADS.
8. SHEAR GATE MAXIMUM OPENING SHALL BE CONTROLLED BY LIMITED HINGE MOVEMENT, STOP TAB OR SOME OTHER DEVISE.
9. ALTERNATE SHEAR GATES DESIGNS ARE ACCEPTABLE, IF MATERIAL SPECIFICATIONS ARE MET AND FLANGE BOLT PATTERN MATCHES.
10. ALL MANHOLE FLAT TOPS SHALL CONFORM TO ASTM C-478 AND ARE DESIGNED TO MEET H-20 TRAFFIC LOADING..



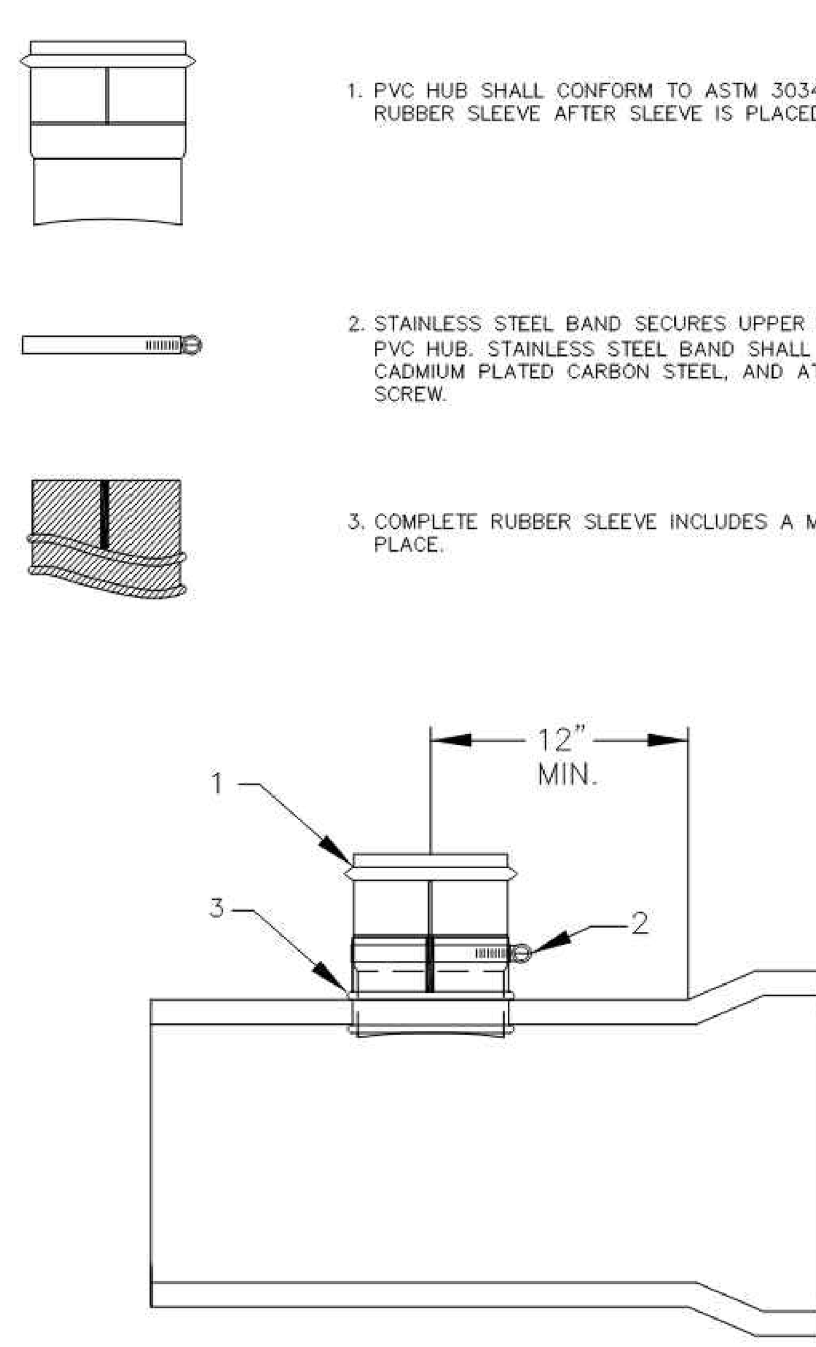
FLOW CONTROL STRUCTURE TABLE

Diameter Of Manhole (In.)	60" MIN
F.L. (In)	
F.L. (Out)	
Outlet Pipe Diameter (In.)	
Number Of Orifice	
Orifice A Elevation	
Diameter Of Orifice A (In.)	
Orifice B Elevation	
Diameter Of Orifice B (In.)	
Orifice C Elevation	
Diameter Of Orifice C (In)	
Overflow Elevation	
Rim Elevation	

FLOW CONTROL STRUCTURE DETAIL

Clean Water Services

DRAWING NO. 270 — REVISED 10-31-19



1. PVC HUB SHALL CONFORM TO ASTM 3034, SDR 35 DRIVE INTO CENTER OF RUBBER SLEEVE AFTER SLEEVE IS PLACED IN HOLE.
2. STAINLESS STEEL BAND SECURES UPPER HALF OF RUBBER SLEEVE TO THE PVC HUB. STAINLESS STEEL BAND SHALL BE 300 SERIES, 9/16" BAND WIDTH, CADMIUM PLATED CARBON STEEL, AND ATTACHED WITH HEX HEAD SLOTTED SCREW.
3. COMPLETE RUBBER SLEEVE INCLUDES A MOLDED SEGMENT THAT HOLDS IT IN PLACE.

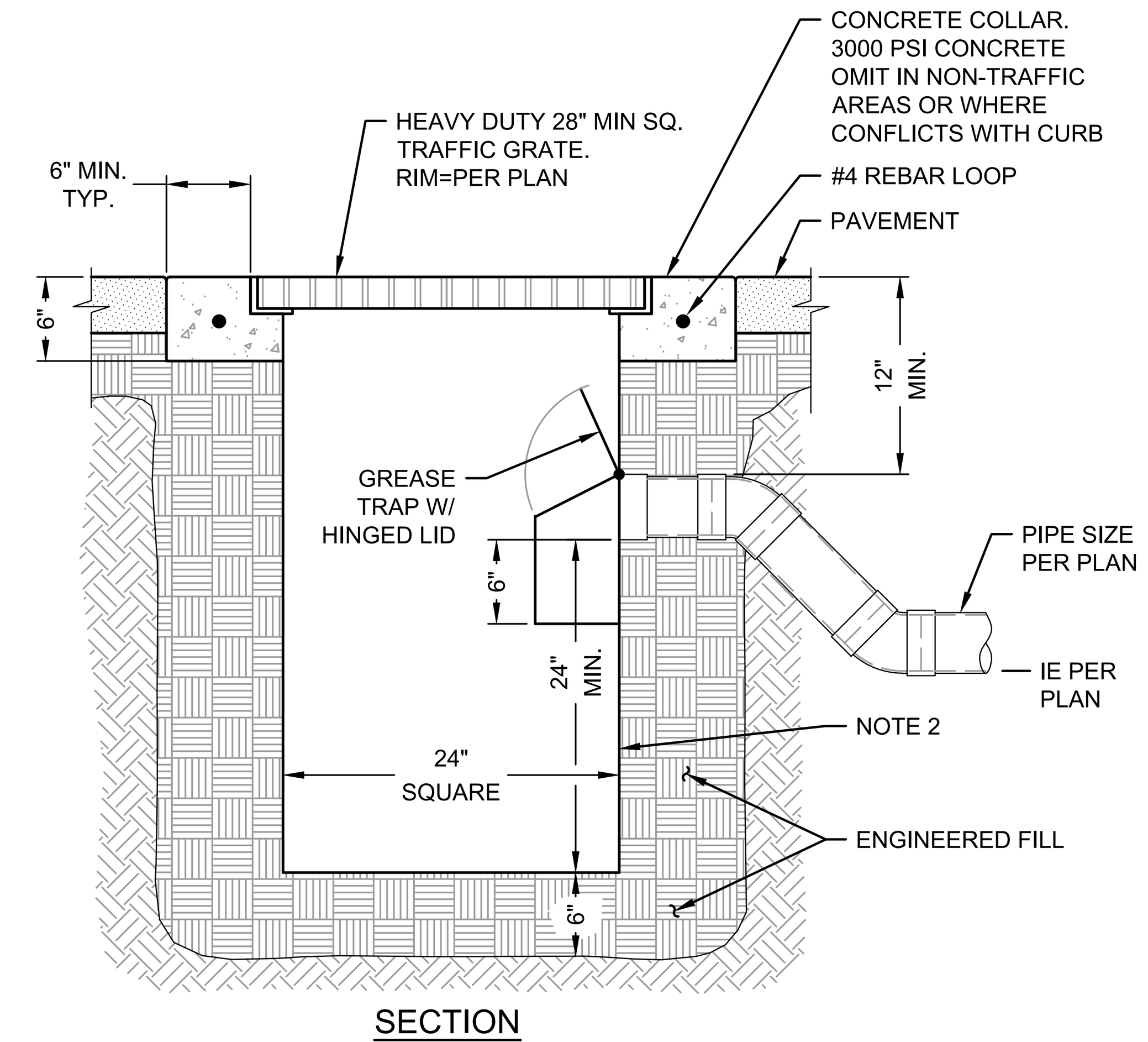
NOTES:

1. ALL INSERTA TEE HOLES SHALL BE MACHINE DRILLED AND CORED.
2. INSERTA TEES ARE NOT ALLOWED IN NEWLY CONSTRUCTED MAINLINES WITH AN INSIDE DIAMETER (I.D.) OF 10 INCHES OR SMALLER.
3. MAINLINE SHALL BE TWO SIZES (NOMINAL I.D.) LARGER THAN THE INSERTA TEE.
4. INSTALLATION SHALL BE PER MANUFACTURER'S INSTRUCTIONS.

INSERTA TEE

Clean Water Services

DRAWING NO. 530 — REVISED 10-31-19

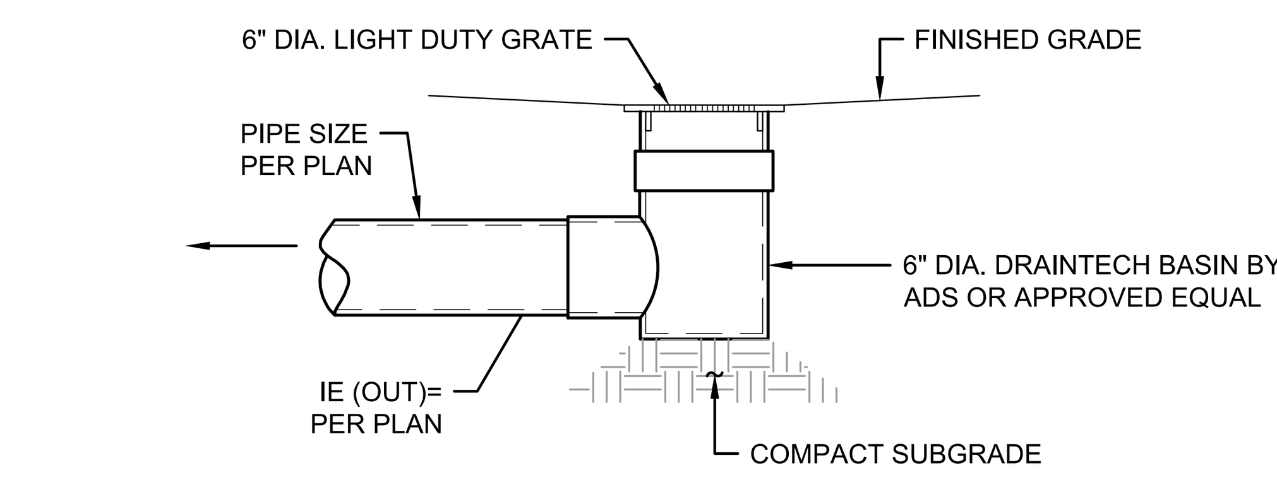


NOTES:

1. CONTRACTOR TO WIDEN EXCAVATION AS REQUIRED TO OBTAIN COMPACTION WITH CONTRACTORS COMPACTION EQUIPMENT.
2. 1/4" STEEL PLATE, BITUMINOUS COATED. AS MANUFACTURED BY GIBSON STEEL BASINS OR APPROVED EQUAL.

X TRAPPED CATCH BASIN

SCALE: NTS

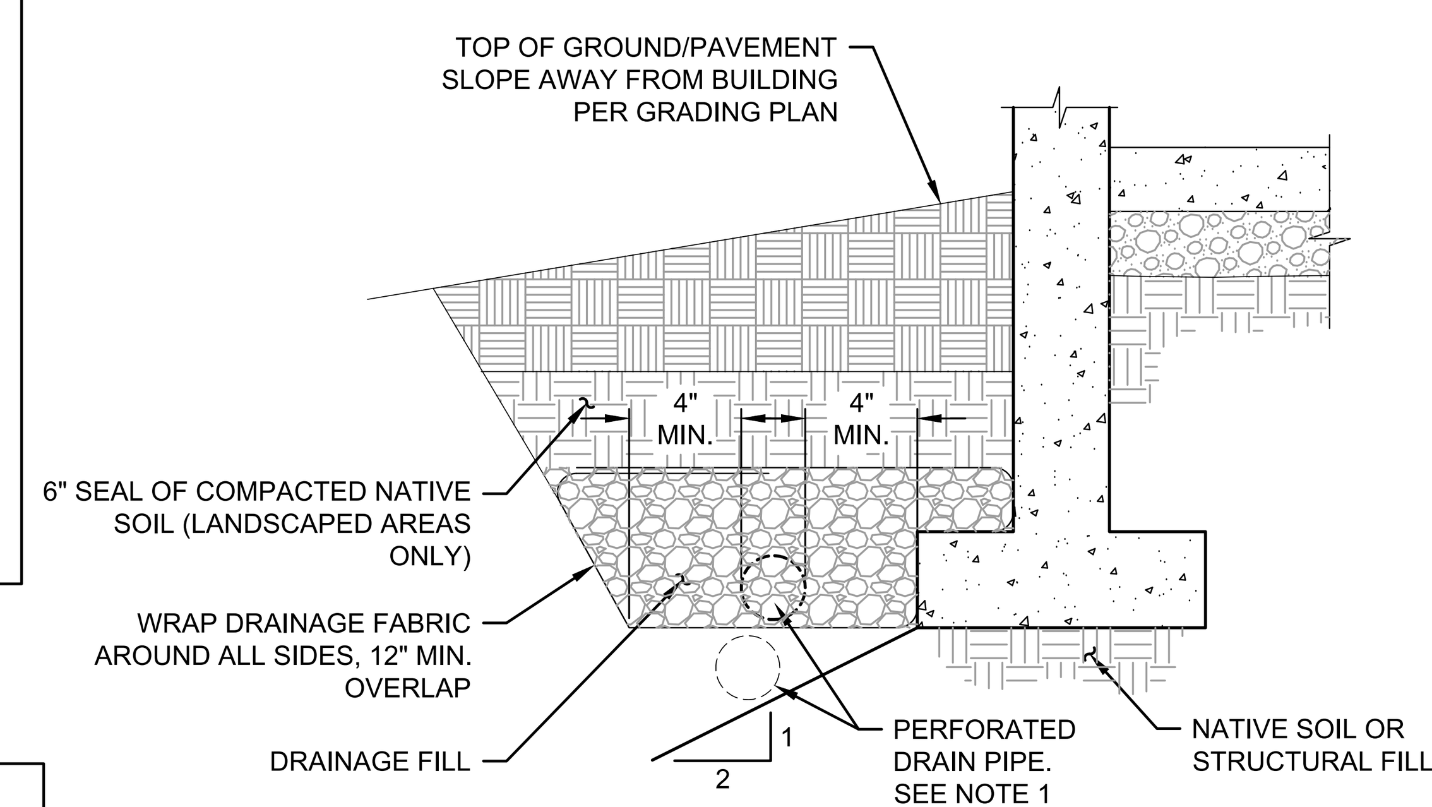


NOTES:

1. DRAIN AND GRATE BY ADS OR APPROVED EQUAL.

X LANDSCAPE DRAIN - TYPE 1

SCALE: NTS

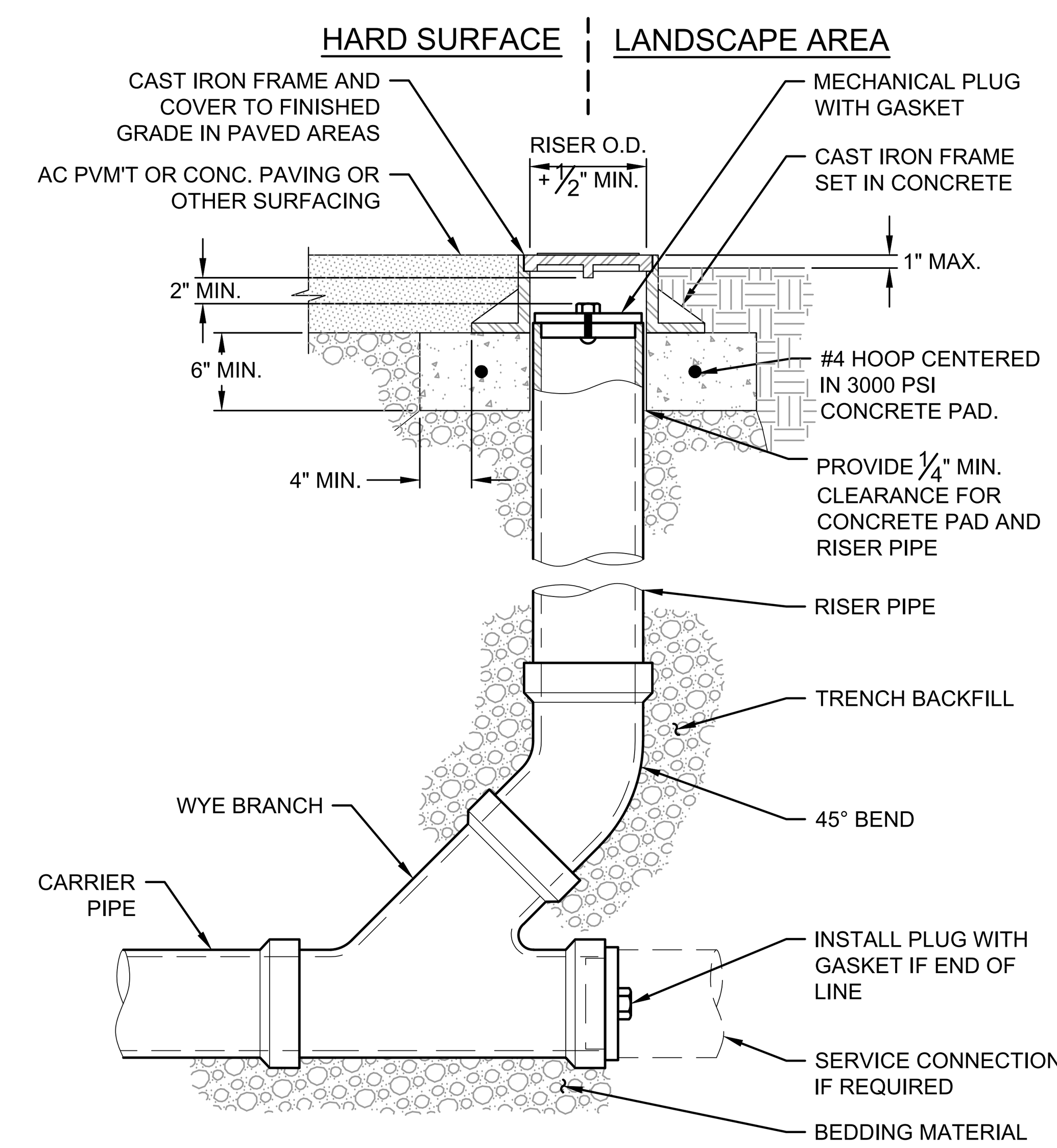


NOTES:

1. LAY PERFORATED DRAIN PIPE ON MIN. 0.5% GRADIENT, WIDENING EXCAVATION AS REQUIRED. MAINTAIN PIPE ABOVE 2:1 SLOPE AS SHOWN.
2. CONNECT TO FOUNDATION DRAIN STUBOUT SHOWN ON PLANS.

X PERIMETER FOUNDATION DRAIN

SCALE: NTS

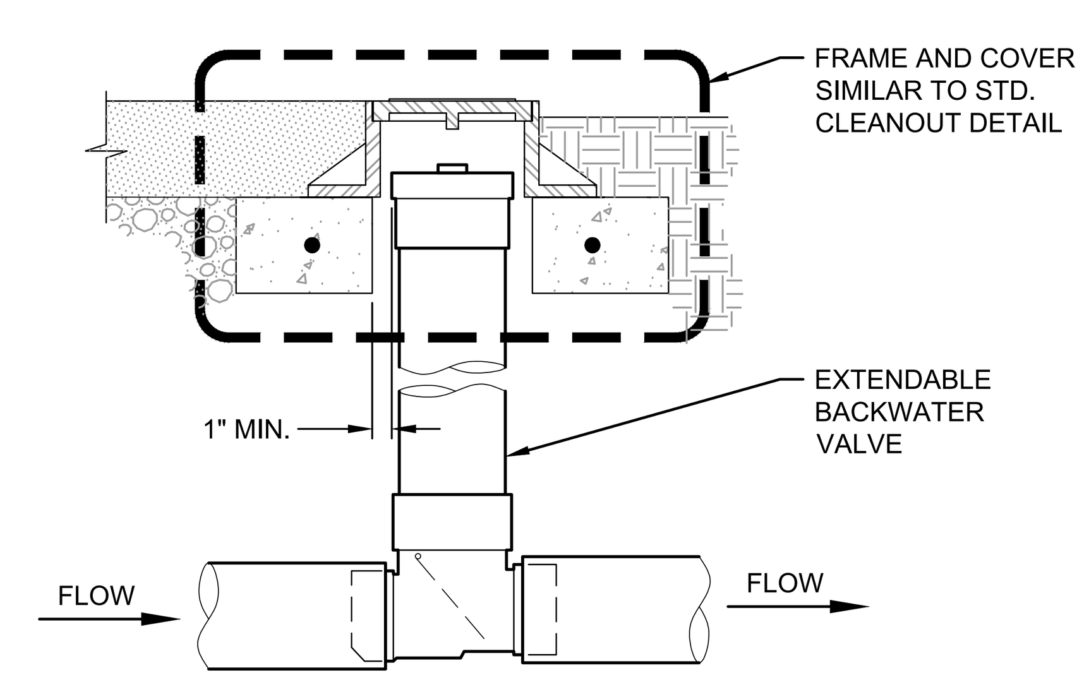


NOTES:

1. CAST IRON FRAME AND COVER SHALL MEET H-20 LOAD REQUIREMENT.
2. FOR CARRIER PIPE SIZE 6"Ø AND LESS, PROVIDE RISER PIPE SIZE TO MATCH CARRIER PIPE.
3. FOR CARRIER PIPE SIZE 8"Ø AND LARGER, RISER PIPE SHALL BE 6"Ø.
4. RISER PIPE MATERIAL TO MATCH CARRIER PIPE MATERIAL.

X STANDARD CLEANOUT (COTG)

SCALE: NTS

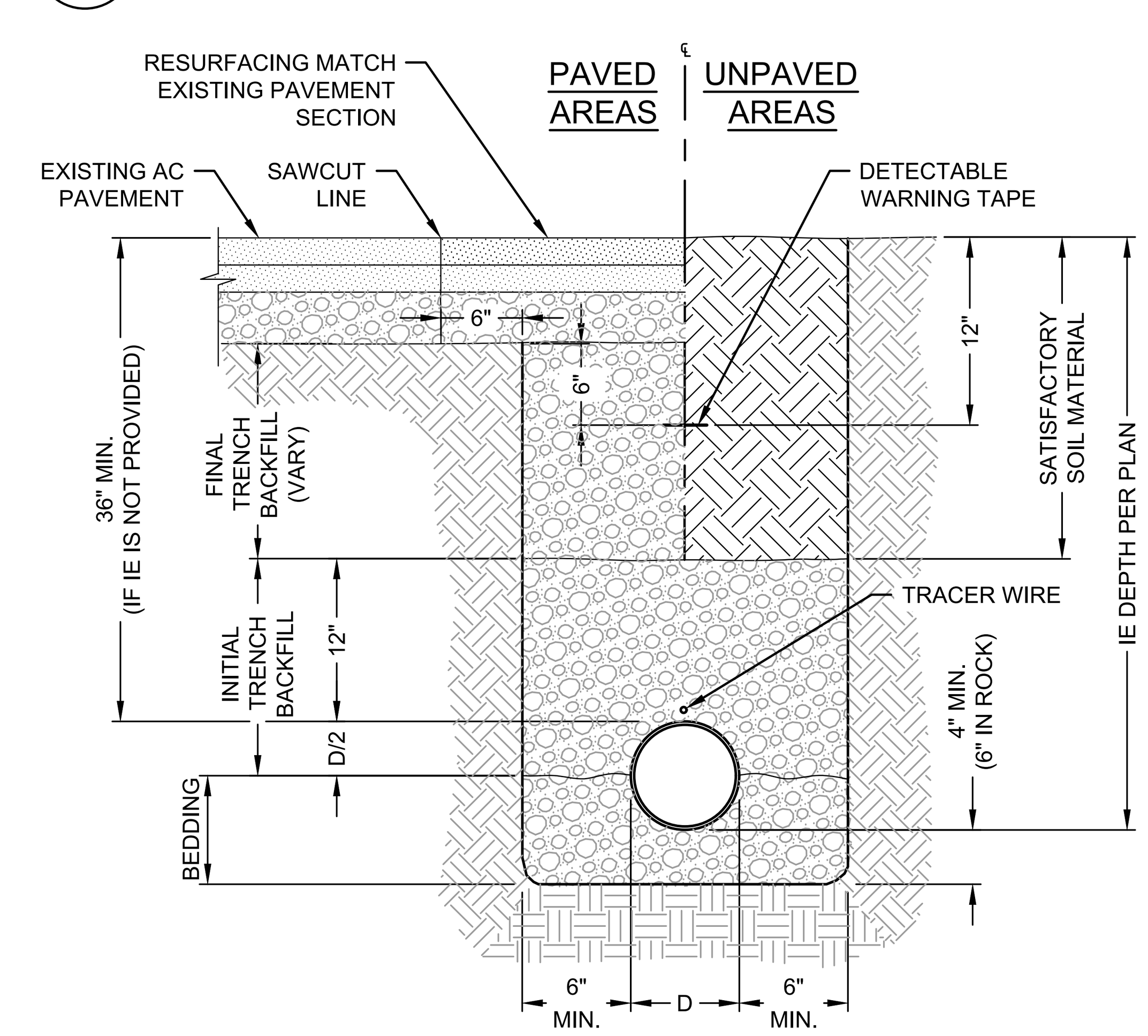


NOTES:

1. EXTENDABLE BACKWATER VALVE TO BE MANUFACTURED BY CLEAN CHECK OR APPROVED EQUAL AND SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

X EXTENDABLE BACKWATER VALVE

SCALE: NTS



X TYPICAL PIPE BEDDING AND BACKFILL

SCALE: NTS

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REGISTERED PROFESSIONAL ENGINEER — OREGON — JAN M. EYKELBOSH

RENEWS: 12/31/25

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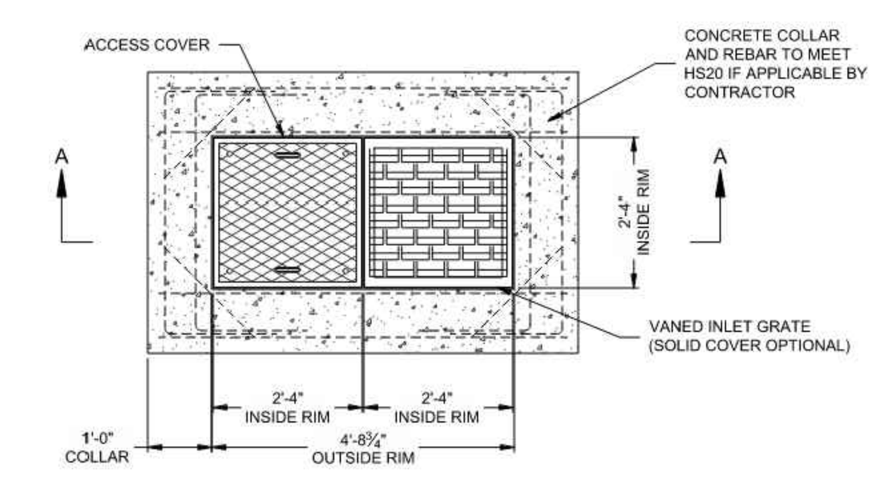
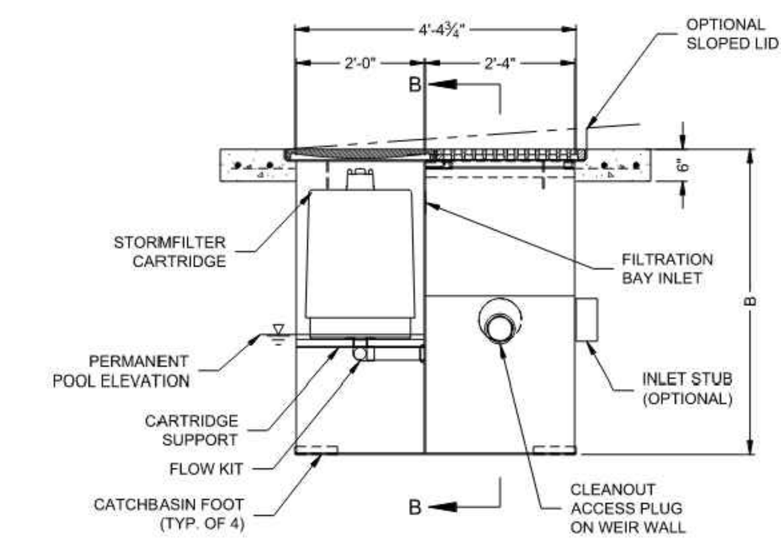
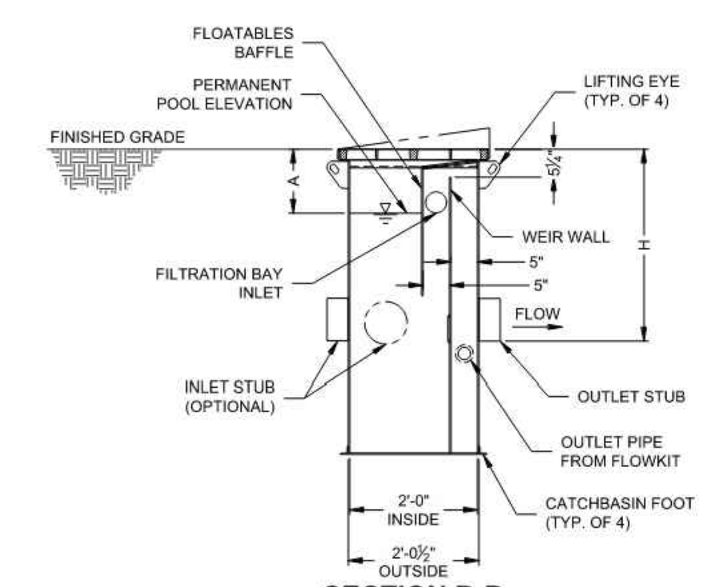


PLAN VIEW



SECTION A-A



SECTION B-B

STORMFILTER STEEL CATCHBASIN DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 1 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF ONE CARTRIDGE. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL.
PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"			18"			18" DEEP		
RECOMMENDED HYDRAULIC DROP (H)	3.05'			2.3'			3.3'		
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.25	15	12.53	7.5	15	12.53	7.5
PEAK HYDRAULIC CAPACITY	1.0			1.0			2.25		
INLET PERMANENT POOL LEVEL (A)	1'-0"			1'-0"			2'-0"		
OVERALL STRUCTURE HEIGHT (B)	4'-9"			3'-9"			4'-9"		

* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
3. STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
5. MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SFCB.
6. STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
7. STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M306 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
8. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
9. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

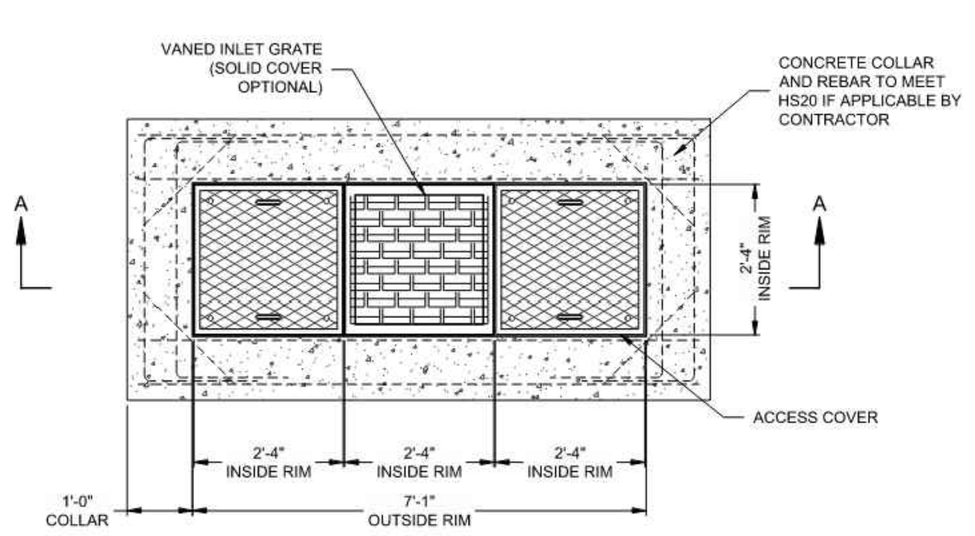
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

1-CARTRIDGE CATCHBASIN STORMFILTER DATA

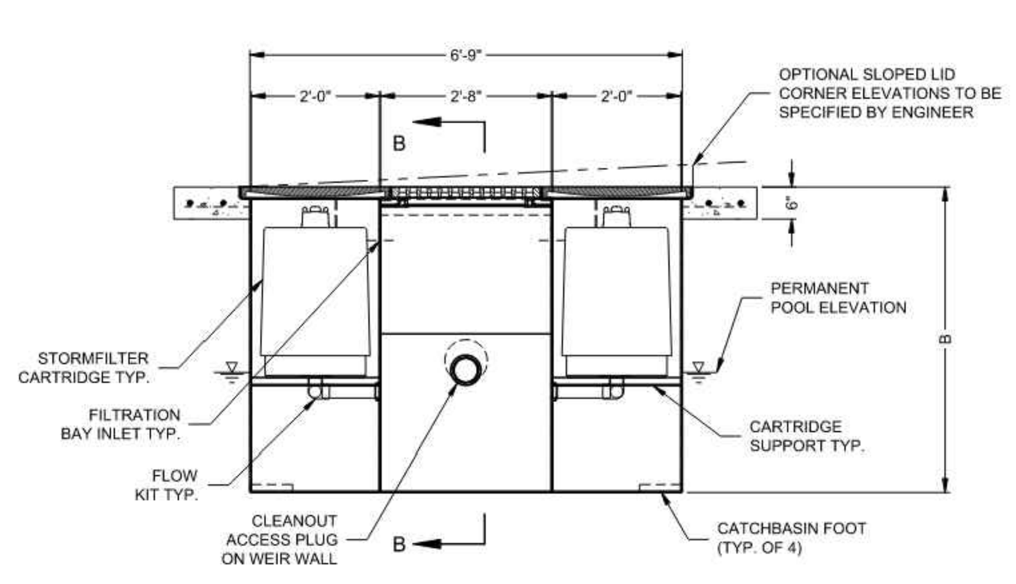
STRUCTURE ID		XXX
WATER QUALITY FLOW RATE (cfs)		X.XX
PEAK FLOW RATE (<1 cfs)		X.XX
RETURN PERIOD OF PEAK FLOW (yrs)		XXX
CARTRIDGE HEIGHT (27", 18", 18" DEEP)		XX
CARTRIDGE FLOW RATE (gpm)		XX
MEDIA TYPE (PERLITE, ZPG, PSORB)		XXXXX
RIM ELEVATION		XXX.XX'
PIPE DATA:	I.E.	DIAMETER
INLET STUB	XXX.XX'	XX"
OUTLET STUB	XXX.XX'	XX"
CONFIGURATION (OUTLET / INLET diagrams)		
SLOPED LID		YES\NO
SOLID COVER		YES\NO
NOTES/SPECIAL REQUIREMENTS:		

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

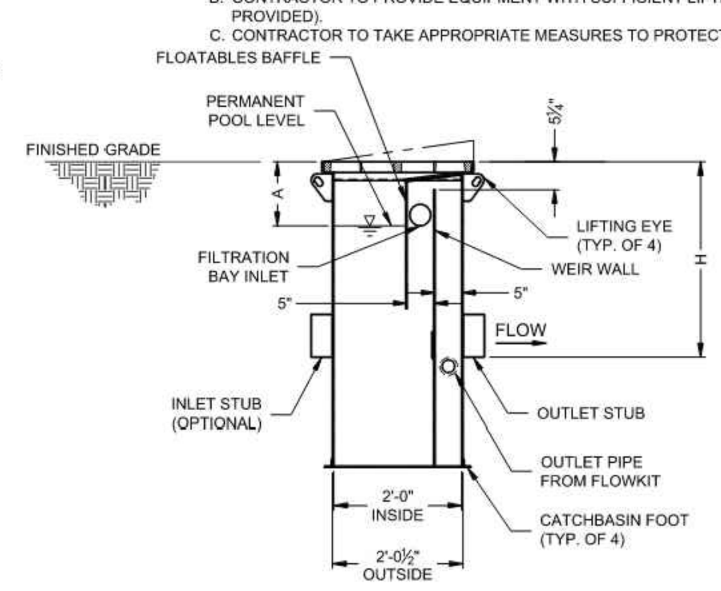
1 CARTRIDGE CATCHBASIN
STORMFILTER
STANDARD DETAIL



PLAN VIEW



SECTION A-A



SECTION B-B

STORMFILTER STEEL CATCHBASIN DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 2 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF TWO CARTRIDGES. SYSTEM IS SHOWN WITH A 27" CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18" CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL.
PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"			18"			18" DEEP		
RECOMMENDED HYDRAULIC DROP (H)	3.05'			2.3'			3.3'		
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf	2 gpm/sf	1.67* gpm/sf	1 gpm/sf
CARTRIDGE FLOW RATE (gpm)	22.5	18.79	11.25	15	12.53	7.5	15	12.53	7.5
PEAK HYDRAULIC CAPACITY	1.0			1.0			2.25		
INLET PERMANENT POOL LEVEL (A)	1'-0"			1'-0"			2'-0"		
OVERALL STRUCTURE HEIGHT (B)	4'-9"			3'-9"			4'-9"		

* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. WWW.CONTECHES.COM
3. STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
5. MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SFCB.
6. STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
7. STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M306 LOAD RATING. TO MEET HS20 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
8. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
9. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

2-CARTRIDGE DEEP CATCHBASIN STORMFILTER DATA

STRUCTURE ID		XXX
WATER QUALITY FLOW RATE (cfs)		X.XX
PEAK FLOW RATE (<1.8 cfs)		X.XX
RETURN PERIOD OF PEAK FLOW (yrs)		XXX
CARTRIDGE FLOW RATE (gpm)		XX
MEDIA TYPE (PERLITE, ZPG, PSORB)		XXXXX
RIM ELEVATION		XXX.XX'
PIPE DATA:	I.E.	DIAMETER
INLET STUB	XXX.XX'	XX"
OUTLET STUB	XXX.XX'	XX"
CONFIGURATIONS (OUTLET / INLET diagrams)		
SLOPED LID		YES\NO
SOLID COVER		YES\NO
NOTES/SPECIAL REQUIREMENTS:		

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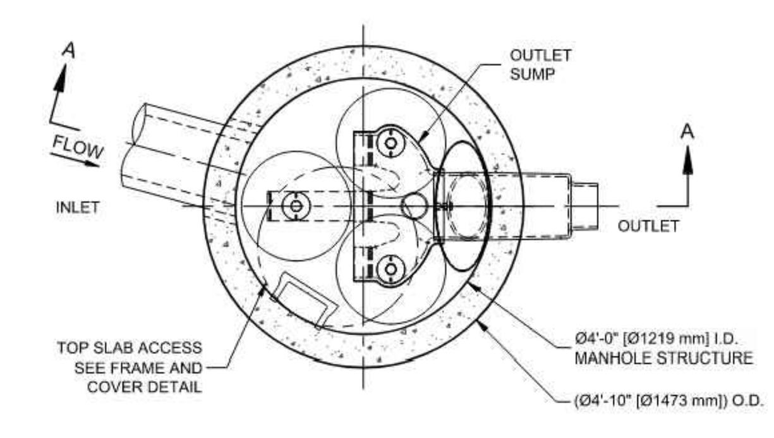
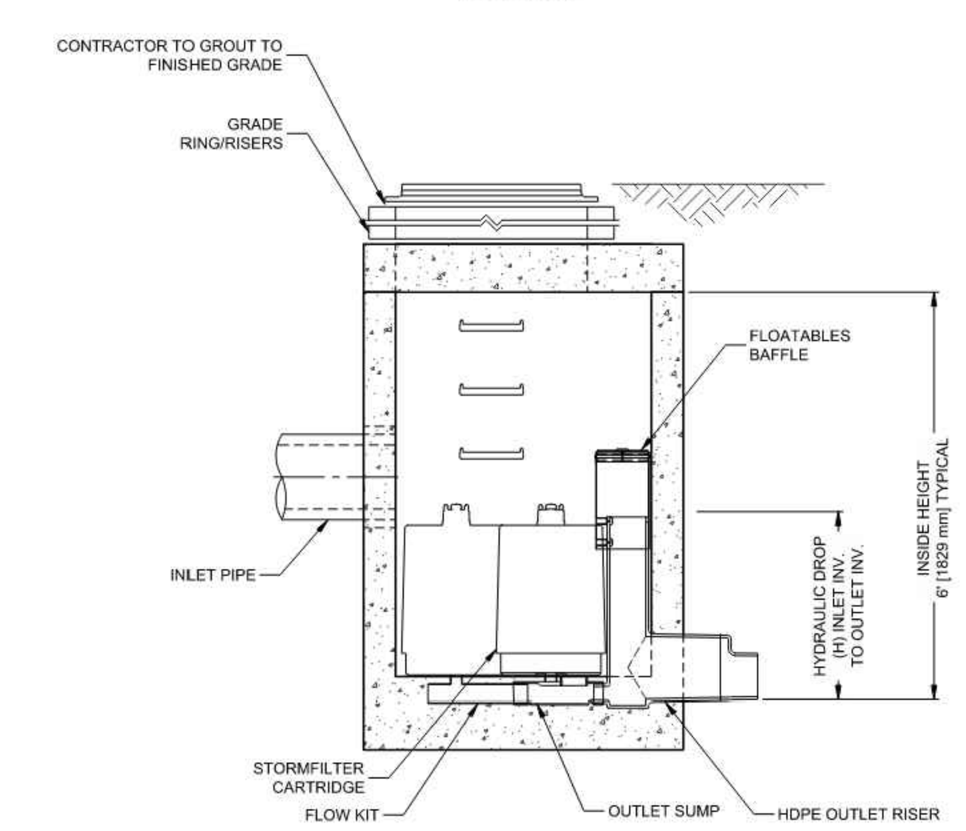
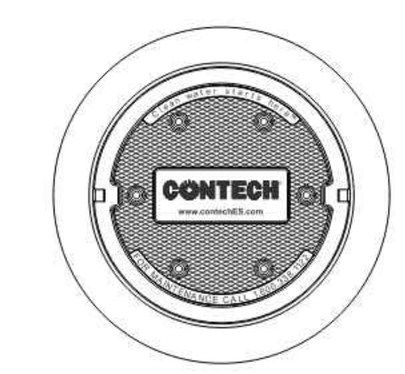
2 CARTRIDGE CATCHBASIN
STORMFILTER
STANDARD DETAIL



PLAN VIEW
STANDARD OUTLET RISER
FLOWKIT: 40A



SECTION A-A



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

STORMFILTER DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (3). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 3 CARTRIDGES. Ø4 [1219 mm] MANHOLE STORMFILTER PEAK HYDRAULIC CAPACITY IS 1.0 CFS [28.3 L/s] . IF THE SITE CONDITIONS EXCEED 1.0 CFS [28.3 L/s] AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27" [686 mm]			18" [458 mm]			LOW DROP		
RECOMMENDED HYDRAULIC DROP (H)	3.05' [930 mm]			2.3' [700 mm]			1.8' [550 mm]		
SPECIFIC FLOW RATE (gpm/sf) [L/s/m²]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]
CARTRIDGE FLOW RATE (gpm) [L/s]	22.5 [1.42]	18.79 [1.19]	11.25 [0.71]	15 [0.95]	12.53 [0.79]	7.5 [0.44]	10 [0.63]	8.35 [0.54]	5 [0.32]

* 1.67 gpm/sf [1.08 L/s/m²] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			*
WATER QUALITY FLOW RATE (cfs) [L/s]			*
PEAK FLOW RATE (cfs) [L/s]			*
RETURN PERIOD OF PEAK FLOW (yrs)			*
CARTRIDGE HEIGHT (SEE TABLE ABOVE)			*
NUMBER OF CARTRIDGES REQUIRED			*
CARTRIDGE FLOW RATE			*
MEDIA TYPE (PERLITE, ZPG, PSORB)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' [1524 mm] AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES [178 mm]. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) [L/s] DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft)[m²].
8. STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES [200 mm], CONTRACTOR TO REMOVE THE 8 INCH [200 mm] OUTLET STUB AT MOLDED-IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

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SFMH48
STORMFILTER
STANDARD DETAIL

REGISTERED PROFESSIONAL ENGINEER 83603PE OREGON JUNE 2, 20.. EVAN M. EYKELBOSCH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

REVISION SCHEDULE
4 LAND USE SUBMITTAL 01/29/2025

FROELICH ENGINEERS CIVIL · STRUCTURAL
Portland, OR. | Bend, OR. | Denver, CO.
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15895 SW 72ND AVE SUITE 200
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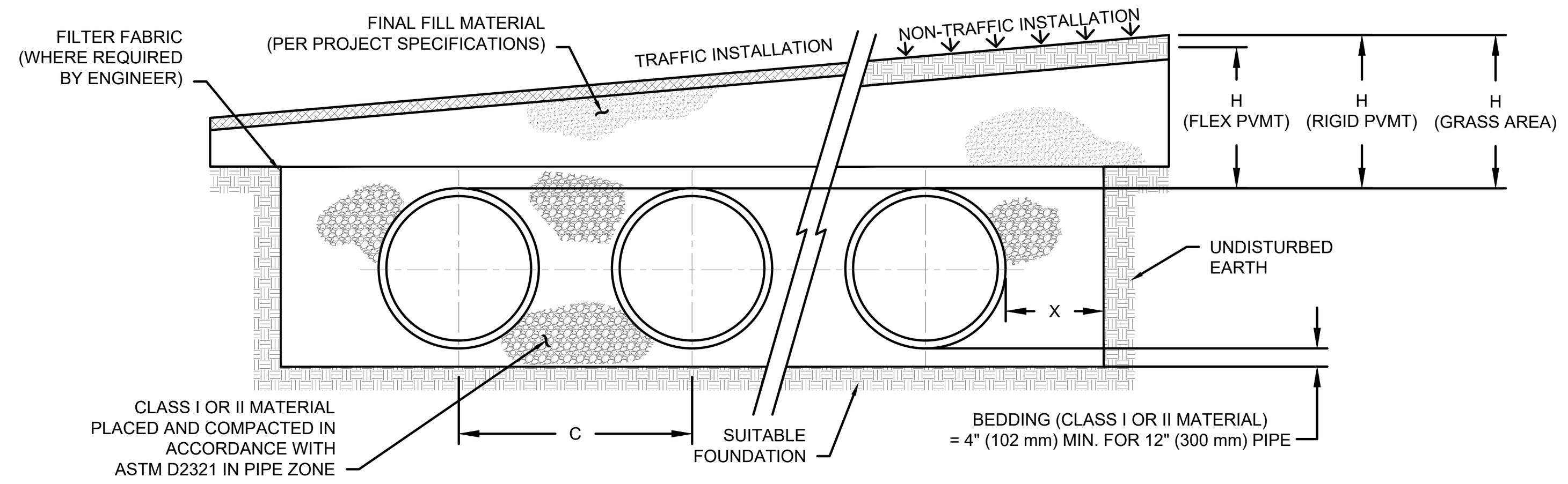
FAX: 503.226.1670
WWW.CIDAINC.COM

BUILDING ADDITION FOR:
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

DETAILS
C5.2

220277.01



NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	MIN. H (NON-TRAFFIC)	MIN. H (TRAFFIC)	MAX. H*
12" (300 mm)	14.5" (368 mm)	25.4" (645 mm)	8" (203 mm)	12" (305 mm)	12" (305 mm)	8' (2.4 m)

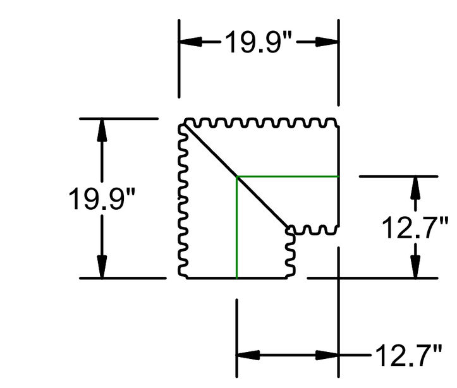
* MAXIMUM FILL HEIGHTS OVER MANIFOLD FITTINGS. CONTACT MANUFACTURER'S REPRESENTATIVE FOR INSTALLATION CONSIDERATIONS WHEN COVER EXCEEDS 8 FT (2.4 m).

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE. THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (102 mm) FOR 4"-24" (100-600 mm); 6" (152 mm) FOR 30-60" (750-900 mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" (152 mm) ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (305 mm) FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" (305 mm) UP TO 36" (900 mm) DIAMETER PIPE AND 24" (610 mm) OF COVER FOR 42-60" (1050-1500 mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. MAXIMUM FILL HEIGHT LIMITED TO 8 FT (2.4 m) OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM FILL HEIGHTS EXCEED 8 FT (2.4 m) FOR INSTALLATION CONSIDERATIONS.

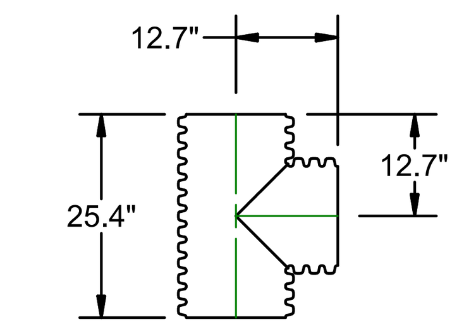
24-C013 KAI KNIVES
TUALATIN
DATE: 01/14/2025 | DRAWN: CC
PROJECT #: | CHECKED: N/A
DATE | DRW | CHK | DESCRIPTION
12" STIB PERF DETENTION SYSTEM
LandMax Stormwater Management System
ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473
SHEET 5 OF 5

12" X 90° MANIFOLD BEND [1298AN]



ITEM #: 3
QTY: 4
1298AN

12" SINGLE MANIFOLD TEE [1251AN]



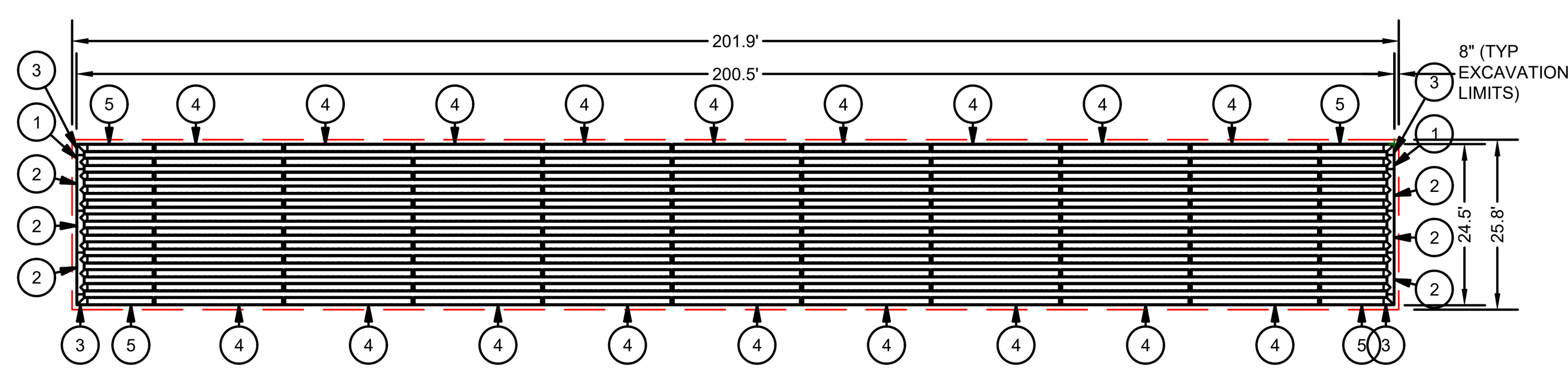
ITEM #: 1
QTY: 2
1251AN

24-C013 KAI KNIVES
TUALATIN
DATE: 01/14/2025 | DRAWN: CC
PROJECT #: | CHECKED: N/A
DATE | DRW | CHK | DESCRIPTION
12" STIB PERF DETENTION SYSTEM
LandMax Stormwater Management System
ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473
SHEET 3 OF 5

ITEM	QTY	ALT. QTY	PART #	DESCRIPTION	STAN.	VENDOR	NOTE
1	2		1251AN	12".SINGLE MANIFOLD TEE	STAN	ADS	SEE DETAIL
2	6		1253AN	12".TRIPLE MANIFOLD TEE	STAN	ADS	SEE DETAIL
3	4		1298AN	12".MANIFOLD 90 DEG BEND	STAN	ADS	SEE DETAIL
4	108 STICKS	2129 LF	12810020IB	12".N12 HWY.STIB.PERF.20'	STAN	ADS	AS SHOWN
5	13 STICKS	239 LF	12810020IB	12".N12 HWY.STIB.PERF.20'	STAN	ADS	FIELD CUT
6	34		1265AA	12".SPLIT COUPLER.(200/PALLET)	STAN	ADS	NOT SHOWN
7	4 ROLLS	2000 SY	0601TG	601.15' X 300'.(500 SY).(NTPEP SCAN) (20% OVERAGE)	STAN	ADS	SEE DETAIL
8	534 TONS	382 CY	BY OTHERS	STONE (0% OVERAGE)	NA	BY OTHERS	NOT SHOWN
9	12770 CF	473 CY	NA	EXCAVATION	NA	NA	NOT SHOWN

NOTES

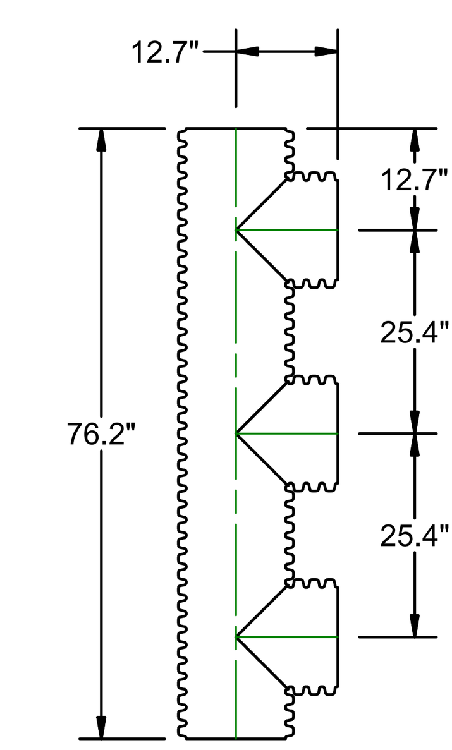
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 36" (900 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
- LAYOUT SHOWN DOES NOT INCLUDE ADDITIONAL PIPE & MANIFOLD NEEDED FOR PROPER PIPE INSERTION INTO STRUCTURES.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.



ADS GEOTEXTILE FABRIC

24-C013 KAI KNIVES
TUALATIN
DATE: 01/14/2025 | DRAWN: CC
PROJECT #: | CHECKED: N/A
DATE | DRW | CHK | DESCRIPTION
12" STIB PERF DETENTION SYSTEM
LandMax Stormwater Management System
ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473
SHEET 2 OF 5

12" TRIPLE MANIFOLD TEE [1253AN]



ITEM #: 2
QTY: 6
1253AN

24-C013 KAI KNIVES
TUALATIN
DATE: 01/14/2025 | DRAWN: CC
PROJECT #: | CHECKED: N/A
DATE | DRW | CHK | DESCRIPTION
12" STIB PERF DETENTION SYSTEM
LandMax Stormwater Management System
ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473
SHEET 4 OF 5

PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

REVISION SCHEDULE
4 LAND USE SUBMITTAL 01/29/2025

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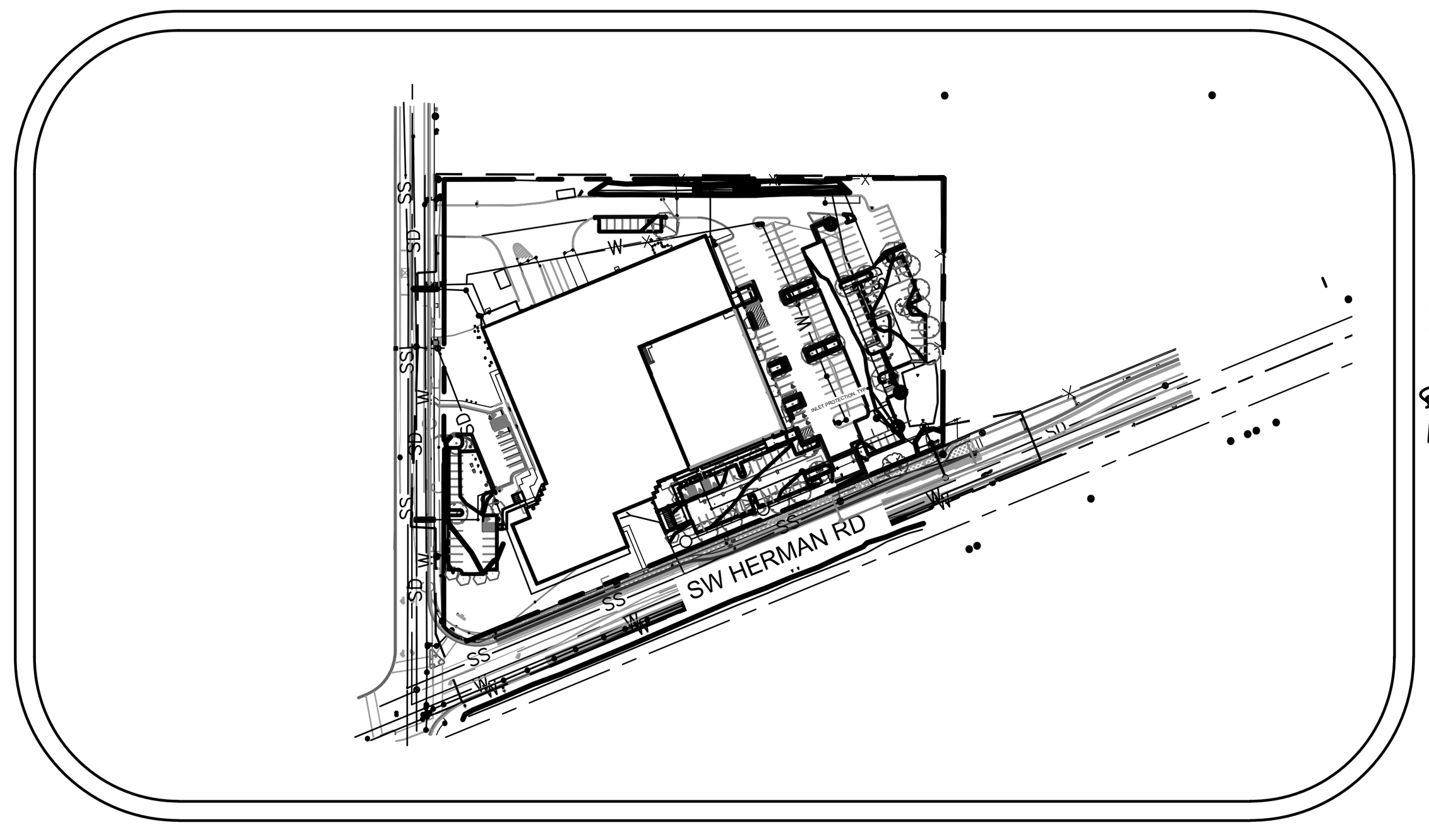
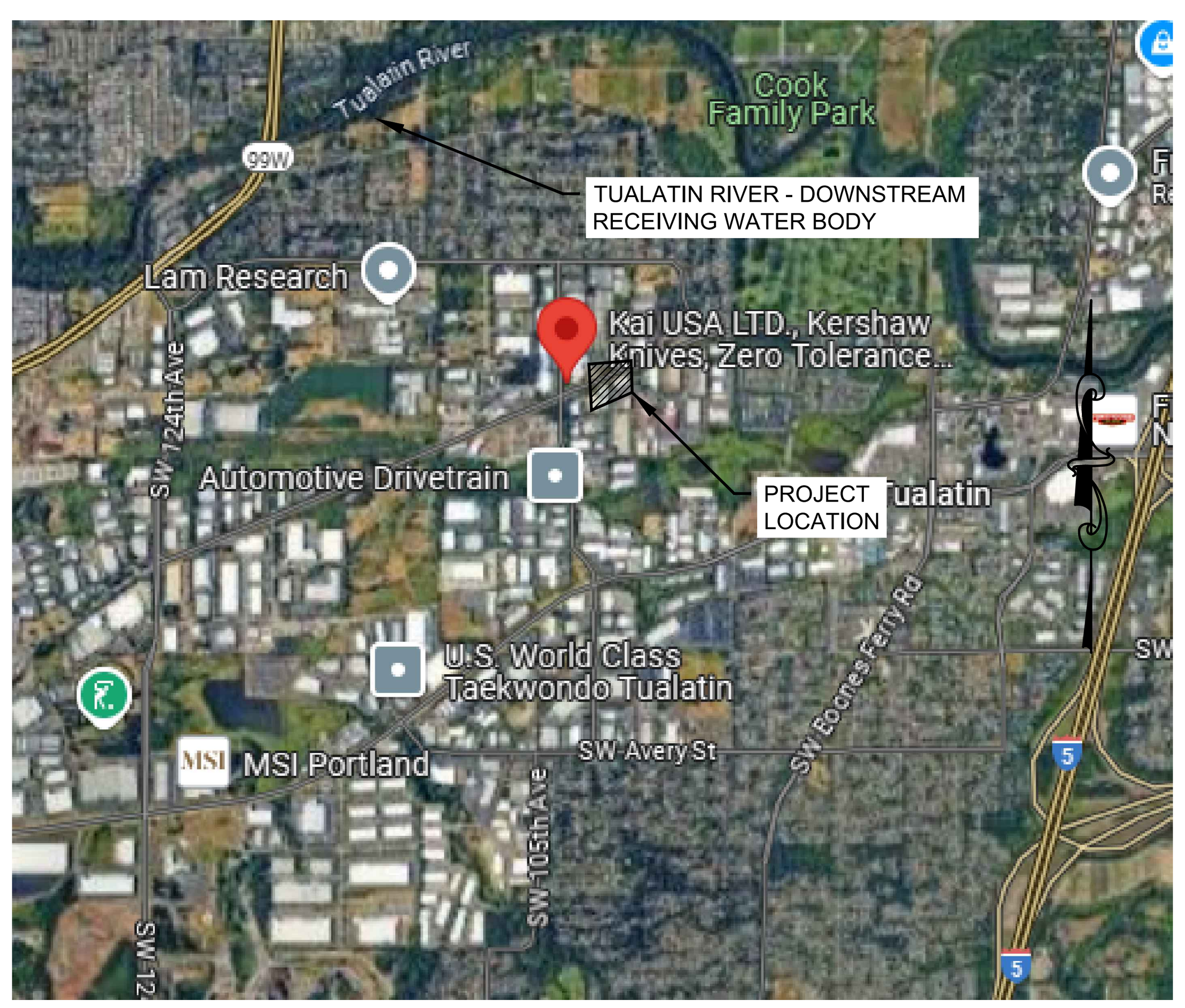
BUILDING ADDITION FOR:
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

DETAILS
C5.3
220277.01

DEQ 1200CN ESC PLAN



SITE MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

MAP: © 2013 NATIONAL GEOGRAPHIC SOCIETY

BMP MATRIX: CONSTRUCTION PHASES

REFER TO DEQ GUIDANCE MANUAL FOR A COMPREHENSIVE LIST OF AVAILABLE BMP'S.

	CLEARING AND DEMOLITION	GRADING, UTILITY, AND SITE	VERTICAL CONSTRUCTION	FINAL STABILIZATION
EROSION PREVENTION				
PRESERVE NATURAL VEGETATION	** X	X	X	X
GROUND COVER			X	X
PLASTIC SHEETING	X	X		
MATTING				
DUST CONTROL	X	X	X	
TEMPORARY/PERMANENT SEEDING		X		
PERMANENT STABILIZATION				X
SEDIMENT CONTROL				
SEDIMENT FENCE (PERIMETER)	** X	X	X	
STRAW WATTLES	** X	X	X	
INLET PROTECTION	** X	X	X	
DEWATERING				
RUN OFF CONTROL				
CONSTRUCTION ENTRANCE	** X	X		
OUTLET PROTECTION				
SURFACE ROUGHENING				
CHECK DAMS				
POLLUTION PREVENTION				
PROPER SIGNAGE	X	X	X	X
HAZ WASTE MGMT	X	X	X	X
SPILL KIT ON-SITE	X	X	X	X
CONCRETE WASHOUT AREA		X	X	

** SIGNIFIES BMP THAT WILL BE INSTALLED PRIOR TO ANY GROUND DISTURBING ACTIVITY.

P:\2024\24-c013 (kai addition)\300 document development - froelich\302 CAD\PLOT\24-C013_C6.0-ERSC.dwg Jan 27, 2025 - 4:51pm

APPLICANT
CIDA INC.
CONTACT: CHRIS W.
15895 SW 72ND AVE #200,
PORTLAND, OR 97224
PHONE: 503-226-1285

CONTRACTOR
PERLO
CONTACT: XXXX
11450 SW AMU ST.
TUALATIN, OR 97062
PHONE: 503-624-2090

ENGINEERING FIRM
FROELICH ENGINEERS
CONTACT: EVAN EYKELBOSCH, PE
17700 SW UPPER BOONES FERRY RD
SUITE 115
PORTLAND, OR 97224
PHONE: 503-624-7005

INSPECTION FREQUENCY:

SITE CONDITION	MINIMUM FREQUENCY
1. ACTIVE PERIOD	- ON INITIAL DATE THAT LAND DISTURBANCE ACTIVITIES COMMENCE. - WITH 24 HOURS OF ANY STORM EVENT, INCLUDING RUNOFF FROM SNOW MELT, THAT RESULTS IN DISCHARGE TO THE SITE. - AT LEAST ONCE EVERY 14 DAYS, REGARDLESS OF WHETHER STORMWATER RUNOFF IS OCCURRING.
2. INACTIVE PERIODS GREATER THAN FOURTEEN (14) CONSECUTIVE CALENDAR DAYS.	THE INSPECTOR MAY REDUCE THE FREQUENCY OF INSPECTIONS IN ANY AREA OF THE SITE WHERE THE STABILIZATION STEPS IN SECTION 2.2.20 HAVE BEEN COMPLETED TO TWICE PER MONTH FOR THE FIRST MONTH, NO LESS THAN 14 CALENDAR DAYS APART, THEN ONCE PER MONTH
3. PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER.	IF SAFE, ACCESSIBLE AND PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT DISCHARGE POINT OR DOWNSTREAM LOCATION OF THE RECEIVING WATERBODY.
4. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE SUSPENDED AND RUNOFF IS UNLIKELY DUE TO FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE TEMPORARILY SUSPENDED. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.
5. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE SUSPENDED AND RUNOFF IS UNLIKELY DUE TO FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE REDUCED TO ONCE A MONTH. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

THE PERMITTEE IS REQUIRED TO MEET ALL THE CONDITIONS OF THE 1200-C PERMIT. THIS ESCP AND GENERAL CONDITIONS HAVE BEEN DEVELOPED TO FACILITATE COMPLIANCE WITH THE 1200-C PERMIT REQUIREMENTS. IN CASES OF DISCREPANCIES OR OMISSIONS, THE 1200-C PERMIT REQUIREMENTS SUPERCEDE REQUIREMENTS OF THIS PLAN.

* HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS. (SCHEDULE A.8.C.I.(3))
* ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SCHEDULE A.12.B AND SCHEDULE B.1)
* INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SCHEDULE B.1.C AND B.2)
* RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. DURING INACTIVE PERIODS OF GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS, THE ABOVE RECORDS MUST BE RETAINED BY THE PERMIT REGISTRANT BUT DO NOT NEED TO BE AT THE CONSTRUCTION SITE. (SCHEDULE B.2.C)

PROJECT LOCATION:
NEAR THE INTERSECTION OF SW HERMAN RD AND SW TETON AVE, WASHINGTON COUNTY, OREGON, 97062
LATITUDE = 45.38551
LONGITUDE = -122.78375

PROPERTY DESCRIPTION:
TAX LOT 701 (CITY OF TUALATIN TAX MAP)
SECTION 23, TOWNSHIP 2 SOUTH, RANGE 1
WEST WILLAMETTE MERIDIAN
TUALATIN, WASHINGTON COUNTY, OREGON

NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS

* DEVELOPED WITH BUILDING, PARKING LOT, AND DITCH

DEVELOPED CONDITIONS

* NEW DRIVEWAY, EXPANDED PARKING LOT, FRONTAGE IMPROVEMENTS, STORMWATER SYSTEM UPGRADES, AND WATER
CONNECT TO MUNICIPAL UTILITIES
* NEW ADDITION AND NEW BUILDNG

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

* CLEARING AND MASS GRADING (DATES, FROM & TO: X/XX - X/XX)
* UTILITY INSTALLATION AND SITE CONSTRUCTION (DATES, FROM & TO: X/XX - X/XX)
* VERTICAL CONSTRUCTION (DATES, FROM & TO: XX/XX - XX/XX)
* FINAL STABILIZATION (DATES, FROM & TO: XX/XX - XX/XX)

ESTIMATE OF TOTAL PERMITTED PROJECT AREA

TOTAL ESTIMATED PERMITTED SITE AREA = 307,623 SF = 7.06 ACRES

TOTAL DISTURBED AREA

DISTURBED AREA = 206,730 SF = 4.75 ACRES

SITE SOIL CLASSIFICATION:

*HILLSBORO LOAM, 3 - 7 PERCENT SLOPES, QUATAMA LOAM, UP TO 3 PERCENT SLOPES
* HYDROLOGIC SOIL GROUP B & C

RECEIVING WATER BODIES:

COLLECTED SITE RUNOFF: ONSITE COLLECTION AND CONVEYANCE TO PUBLIC SYSTEM
MAJOR DRAINAGE BASIN: HEDGES CREEK-TUALATIN RIVER
RECEIVING WATERS: WILLAMETTE RIVER- APPROX 10 MI. DOWNSTREAM OF SITE
RECEIVING WATER BODY WITH TMDL OR 303d FOR TURBIDITY OR SEDIMENTATION: NO

CONTRACTOR SHALL KEEP A RAIN GUAGE ONSITE OR REFERENCE THE ONLINE RAIN GUAGE KB RANCH - KORTUALA51
AT HTTPS://WWW.WUNDERGROUND.COM/DASHBOARD/PWS/KORTUALA51

NO AMENDED SOILS ARE TO BE USED ONSITE

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES:

1. ONCE KNOWN, INCLUDE A LIST OF ALL CONTRACTORS THAT WILL ENGAGE IN CONSTRUCTION ACTIVITIES ON SITE, AND THE AREAS OF THE SITE WHERE THE CONTRACTOR(S) WILL ENGAGE IN CONSTRUCTION ACTIVITIES. REVISE THE LIST AS APPROPRIATE UNTIL PERMIT COVERAGE IS TERMINATED (SECTION 4.4.C.I). IN ADDITION, INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G. ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS THEIR INDIVIDUAL RESPONSIBILITIES. (SECTION 4.4.C.II)
2. VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
3. INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.Q)
4. RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. (SECTION 4.7)
5. THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTIONS 4 AND 4.11)
6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
7. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SECTION 4.9)
8. SEQUENCE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2)
9. CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVENT STORMWATER FROM BYPASSING CONTROLS AND PONDING. (SECTION 2.2.3)
10. IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SECTION 2.2.1)
11. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SECTION 2.2.5)
12. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FEET OF WATERS OF THE STATE. (SECTION 2.2.4)
13. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3)
14. CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAM BANKS. (SECTIONS 2.1.1. AND 2.2.16)
15. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION, BOTH INTERNALLY AND AT THE SITE BOUNDARY. (SECTIONS 2.2.6 AND 2.2.13)
16. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SECTION 2.2.14)
17. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATIONS MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS.(SECTIONS 2.2.20 AND 2.2.21)
18. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SECTION 2.3.7)
19. KEEP WASTE CONTAINER LIDS CLOSED WHEN NOT IN USE AND CLOSE LIDS AT THE END OF THE BUSINESS DAY FOR THOSE CONTAINERS THAT ARE ACTIVELY USED THROUGHOUT THE DAY. FOR WASTE CONTAINERS THAT DO NOT HAVE LIDS, PROVIDE EITHER (1) COVER (E.G., A TARP, PLASTIC SHEETING, TEMPORARY ROOF) TO PREVENT EXPOSURE OF WASTES TO PRECIPITATION, OR (2) A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS (E.G., SECONDARY CONTAINMENT). (SECTION 2.3.7)
20. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND-DISTURBING ACTIVITIES. (SECTION 2.2.7)
21. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SECTION 2.2.7.F)
22. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
23. ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED. (SECTION 2.2.10)
24. PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED. (SECTION 2.2.12)
25. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENTS, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS. (SECTIONS 2.2.15 AND 2.3)
26. PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A)
27. IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
28. PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
29. IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SECTION 2.3)
30. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SECTION 2.2.9)
31. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SECTION 2.3.5)
32. IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION 1.2.9)
33. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SECTION 2.2)
34. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SECTION 2.2.8)
35. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
36. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C)
37. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT. (SECTION 2.1.5.D)
38. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIMEFRAME. (SECTION 2.2.19.A)
39. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SECTION 2.2.19)
40. 40. DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F.)
41. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SECTION 2.2.20)
42. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED SOILS MUST BE REMOVED AND DISPOSED OF PROPERLY, UNLESS NEEDED FOR LONG TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE. (SECTION 2.2.21)

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ's GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP's WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS, AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

____
INITIAL

AUTHORIZED NON-STORMWATER DISCHARGE

- WATER AND ASSOCIATED DISCHARGES FROM EMERGENCY FIREFIGHTING ACTIVITIES
- FIRE HYDRANT FLUSHING
- PROPERLY MANAGED LANDSCAPE IRRIGATION
- WATER USED TO CONTROL DUST
- WATER USED TO WASH EQUIPMENT AND VEHICLES (EXCLUDEING TEH ENGINE, UNDERCARRIAGE, ADN WHEELS/TIRES) PROIVIDED THERE IS NO DISCHARGE OF SOAPS, SOLVENTS, AND DETERGENTS USED
- POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING
- EXTERNAL BUILDING WASHDOWN, PROVIDED SOAPS, SOLVENTS, AND DETERGENTS ARE NOT USED, AND EXTERNAL SURFACES DO NO DONTAIN HAZARDOUS SUBSTANCES.
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE
- UNCONTAMINATED, NON-TURBID DISCHARGES OF GROUNDWATER OR SPRING WATER
- FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NO CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENT OR CONTAMINATED GROUNDWATER

PERMITTEE'S SITE INSPECTOR: ____________
COMPANY/AGENCY: ____________
PHONE: ____________
E-MAIL: ____________
DESCRIPTION OF EXPERIENCE: ____________
____

SHEET INDEX

ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.

Call the Oregon One-Call Center
1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	
M-F 7am-6pm	503-226-4211 Ext.4313
AFTER HOURS	503-226-4211
PGE	503-464-7777
QWEST	1-800-573-1311
CITY BUREAU OF MAINTENANCE	503-823-1700
CITY WATER	503-823-4874
VERIZON	1-800-483-1000

REGISTERED PROFESSIONAL ENGINEER
83603PE
OREGON
JUNE 2, 20..
EVAN M. EYKELBOSCH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

REVISION SCHEDULE
4 LAND USE SUBMITTAL 01/29/2025

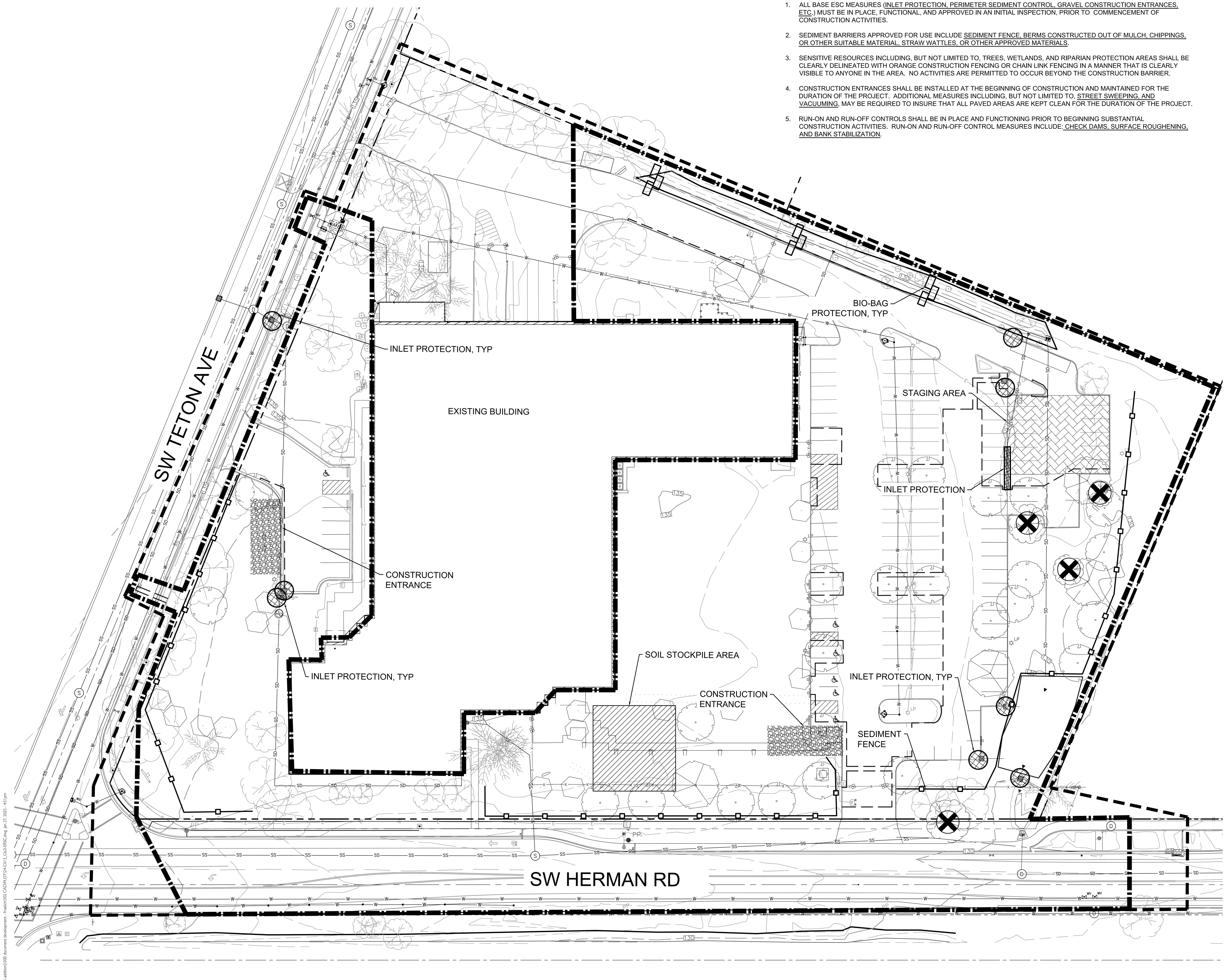
FROELICH ENGINEERS
CIVIL · STRUCTURAL
Portland, OR. | Bend, OR. | Denver, CO.
(503) 624-7005

CIDA
ARCHITECTURE ENGINEERING PLANNING INTERIORS
15895 SW 72ND AVE SUITE 200
PORTLAND, OREGON 97224
TEL: 503.226.1285
FAX: 503.226.1670
WWW.CIDAINC.COM

BUILDING ADDITION FOR:
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

EROSION CONTROL COVER SHEET
C6.0

220277.01



PRE-CONSTRUCTION, CLEARING AND DEMOLITION NOTES:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. SEDIMENT BARRIERS APPROVED FOR USE INCLUDE SEDIMENT FENCE, BERMS CONSTRUCTED OUT OF MULCH, CHIPPINGS, OR OTHER SUITABLE MATERIAL, STRAW WATTLES, OR OTHER APPROVED MATERIALS.
3. SENSITIVE RESOURCES INCLUDING, BUT NOT LIMITED TO, TREES, WETLANDS, AND RIPARIAN PROTECTION AREAS SHALL BE CLEARLY DELINEATED WITH ORANGE CONSTRUCTION FENCING OR CHAIN LINK FENCING IN A MANNER THAT IS CLEARLY VISIBLE TO ANYONE IN THE AREA. NO ACTIVITIES ARE PERMITTED TO OCCUR BEYOND THE CONSTRUCTION BARRIER.
4. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, STREET SWEEPING, AND VACUUMING, MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
5. RUN-ON AND RUN-OFF CONTROLS SHALL BE IN PLACE AND FUNCTIONING PRIOR TO BEGINNING SUBSTANTIAL CONSTRUCTION ACTIVITIES. RUN-ON AND RUN-OFF CONTROL MEASURES INCLUDE: CHECK DAMS, SURFACE ROUGHENING, AND BANK STABILIZATION.

SHEET NOTES

1. PROVIDE COMBINATION INLET PROTECTION AND BIOBAGS AT ALL CATCH BASINS AND STORM INLETS ONSITE.

SHEET LEGEND

- PROPERTY LINE
- EX. CONTOUR MINOR
- EX. CONTOUR MAJOR
- PROJECT LIMITS
- LIMITS OF DISTURBANCE
- SEDIMENT CONTROL FENCE. PLACE AT LIMIT OF WORK, UNO (SHOWN OFFSET FOR CLARITY).
- BIO-BAG PROTECTION IN DITCHES, SWALES
- CONSTRUCTION ENTRANCE
- STAGING AREA
- SOIL STOCKPILE AREA
- INLET PROTECTION
- TRENCH DRAIN PROTECTION
- INLET PROTECTION

EROSION AND SEDIMENT CONTROL BMP IMPLEMENTATION:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. STOCK PILE AREAS MAY BE MOVED AS NECESSARY TO ALLOW FOR CONSTRUCTION ACTIVITIES.
3. THE STAGING, EQUIPMENT MAINTENANCE, FUELING, PORT-A-POTTY, AND SOLID WASTE AREA MAY BE MOVED AS NECESSARY TO ALLOW FOR CONSTRUCTION ACTIVITIES.
4. ALL "SEDIMENT BARRIERS (TO BE INSTALLED AFTER GRADING)" SHALL BE INSTALLED IMMEDIATELY FOLLOWING ESTABLISHMENT OF FINISHED GRADE AS SHOWN ON THESE PLANS.
5. LONG TERM SLOPE STABILIZATION MEASURES "INCLUDING MATTING" SHALL BE IN PLACE OVER ALL EXPOSED SOILS.
6. THE STORM WATER FACILITY SHALL BE CONSTRUCTED AND LANDSCAPED PRIOR TO THE STORM WATER SYSTEM FUNCTIONING AND SITE PAVING.
7. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.

EXISTING RUN-OFF:
- SOUTHWEST CORNER OF THE BUILDING IS COLLECTED WITHIN A DETENTION PIPE AND TREATED IN A WQCB PRIOR TO DISCHARGE TO CITY SYSTEM. WEST PARKING LOT IS COLLECTED IN A CATCH BASIN AND DISCHARGED INTO THE PUBLIC SYSTEM IN SW HERMAN RD.
- NORTHEAST BUILDING AND NORTHERN DRIVE TO A BIO SWALE PRIOR TO ROUTING TO A STORMWATER POND.
-EAST PARKING LOT IS COLLECTED IN A SERIES OF CATCH BASINS AND ROUTED TO STORMWATER POND.
-STORMWATERPOND DRAINS TO PUBLIC SYSTEM IN SW HERMAN RD.

FOR STAGING AREA (NOT ON ASPHALT) PROVIDE 18" COMPACTED CRUSHED ROCK FOR JOB TRAILERS, MATERIAL STAGING, AND PORTABLE RESTROOMS.

ANTICIPATED SITE POLLUTANTS INCLUDE PAINTS, CAULKS, SEALANTS, AND OTHER COMMON BUILDING MATERIALS USED FOR CONSTRUCTION. ALL POLLUTANT GENERATING PRODUCTS SHALL BE CONTAINED AND STORED IN THIS LOCATION TO AVOID CONTAMINATION WITH SITE STORMWATER RUNOFF.

SCALE
1 INCH = 30 FEET
30 0 30 60

PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER 83603PE OREGON JUNE 2, 2015 EVAN M. EYKELBOSCH
RENEWS: 12/31/25

REVISION SCHEDULE
4 LAND USE SUBMITTAL 01/29/2025

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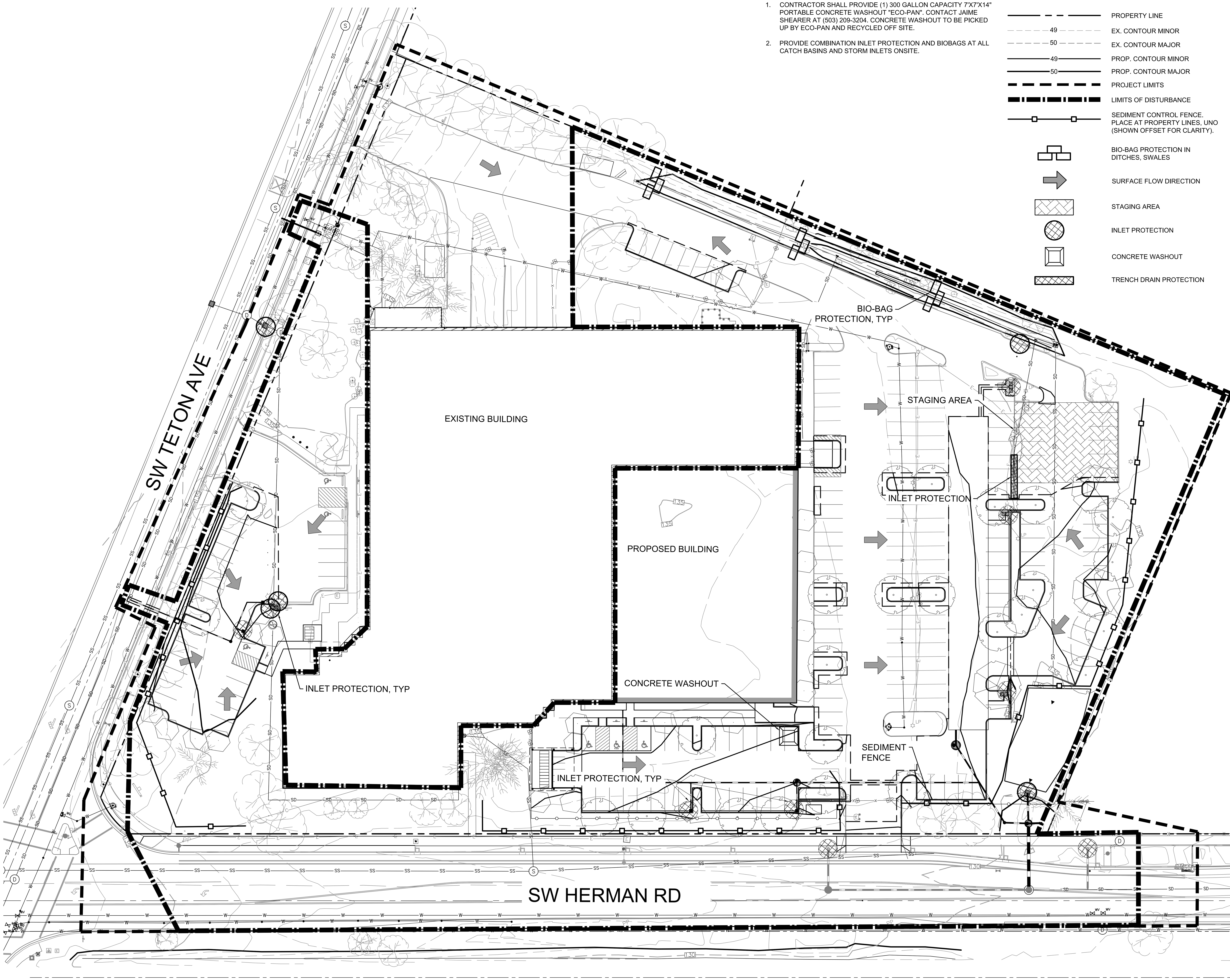
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

CLEARING AND DEMOLITION EROSION CONTROL PLAN
C6.1

220277.01



SHEET NOTES

1. CONTRACTOR SHALL PROVIDE (1) 300 GALLON CAPACITY 7'X7'X14" PORTABLE CONCRETE WASHOUT "ECO-PAN". CONTACT JAIME SHEARER AT (503) 209-3204. CONCRETE WASHOUT TO BE PICKED UP BY ECO-PAN AND RECYCLED OFF SITE.
2. PROVIDE COMBINATION INLET PROTECTION AND BIOBAGS AT ALL CATCH BASINS AND STORM INLETS ONSITE.

SHEET LEGEND

- PROPERTY LINE
- EX. CONTOUR MINOR (49)
- EX. CONTOUR MAJOR (50)
- PROP. CONTOUR MINOR (49)
- PROP. CONTOUR MAJOR (50)
- PROJECT LIMITS
- LIMITS OF DISTURBANCE
- SEDIMENT CONTROL FENCE. PLACE AT PROPERTY LINES, UNO (SHOWN OFFSET FOR CLARITY).
- BIO-BAG PROTECTION IN DITCHES, SWALES
- SURFACE FLOW DIRECTION
- STAGING AREA
- INLET PROTECTION
- CONCRETE WASHOUT
- TRENCH DRAIN PROTECTION

GRADING, UTILITY, AND SITE CONSTRUCTION NOTES:

1. SEED USED FOR TEMPORARY OR PERMANENT SEEDING SHALL BE COMPOSED OF ONE OF THE FOLLOWING MIXTURES, UNLESS OTHERWISE AUTHORIZED:
   A. VEGETATED CORRIDOR AREAS REQUIRE NATIVE SEED MIXES. SEE RESTORATION PLAN FOR APPROPRIATE SEED MIX.
   B. DWARF GRASS MIX (MIN. 100 LB./AC.)
      1. DWARF PERENNIAL RYEGRASS (80% BY WEIGHT)
      2. CREEPING RED FESCUE (20% BY WEIGHT)
   C. STANDARD HEIGHT GRASS MIX (MIN. 100LB./AC.)
      1. ANNUAL RYEGRASS (40% BY WEIGHT)
      2. TURF-TYPE FESCUE (60% BY WEIGHT)
2. SLOPE TO RECEIVE TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK-WALKING OR THE USE OF OTHER APPROVED IMPLEMENTS. SURFACE ROUGHENING IMPROVES SEED BEDDING AND REDUCES RUN-OFF VELOCITY.
3. LONG TERM SLOPE STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA SEEDING WITH APPROVED MIX AND APPLICATION RATE.
4. TEMPORARY SLOPE STABILIZATION MEASURES SHALL INCLUDE: COVERING EXPOSED SOIL WITH PLASTIC SHEETING, STRAW MULCHING, WOOD CHIPS, OR OTHER APPROVED MEASURES.
5. STOCKPILED SOIL OR STRIPPINGS SHALL BE PLACED IN A STABLE LOCATION AND CONFIGURATION. STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING OR STRAW MULCH. SEDIMENT FENCE IS REQUIRED AROUND THE PERIMETER OF THE STOCKPILE.
6. EXPOSED CUT OR FILL AREAS SHALL BE STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS OR MATS, MID-SLOPE SEDIMENT FENCES OR WATTLES, OR OTHER APPROPRIATE MEASURES.
7. AREAS SUBJECT TO WIND EROSION SHALL USE APPROPRIATE DUST CONTROL MEASURES INCLUDING THE APPLICATION OF A FINE SPRAY OF WATER, PLASTIC SHEETING, STRAW MULCHING, OR OTHER APPROVED MEASURES.
8. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, TIRE WASHES, STREET SWEEPING, AND VACUUMING MAY BE BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. ACTIVE INLETS TO STORM WATER SYSTEMS SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.
10. SATURATED MATERIALS THAT ARE HAULED OFF-SITE MUST BE TRANSPORTED IN WATER-TIGHT TRUCKS TO ELIMINATE SPILLAGE OF SEDIMENT AND SEDIMENT-LADEN WATER.
11. AN AREA SHALL BE PROVIDED FOR THE WASHING OUT OF CONCRETE TRUCKS IN A LOCATION THAT DOES NOT PROVIDE RUN-OFF THAT CAN ENTER THE STORM WATER SYSTEM. IF THE CONCRETE WASH-OUT AREA CAN NOT BE CONSTRUCTED GREATER THAN 50' FROM ANY DISCHARGE POINT, SECONDARY MEASURES SUCH AS BERMS OR TEMPORARY SETTLING PITS MAY BE REQUIRED. THE WASH-OUT SHALL BE LOCATED WITHIN SIX FEET OF TRUCK ACCESS AND BE CLEANED WHEN IT REACHES 50% OF THE CAPACITY.
12. SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE SHALL NOT BE TRANSFERRED TO THE STORM WATER SYSTEM. SWEEPINGS SHALL BE PICKED UP AND DISPOSED IN THE TRASH.
13. AVOID PAVING IN WET WEATHER WHEN PAVING CHEMICALS CAN RUN-OFF INTO THE STORM WATER SYSTEM.
14. USE BMPs SUCH AS CHECK-DAMS, BERMS, AND INLET PROTECTION TO PREVENT RUN-OFF FROM REACHING DISCHARGE POINTS.
15. COVER CATCH BASINS, MANHOLES, AND OTHER DISCHARGE POINTS WHEN APPLYING SEAL COAT, TACK COAT, ETC. TO PREVENT INTRODUCING THESE MATERIALS TO THE STORM WATER SYSTEM.

EROSION AND SEDIMENT CONTROL BMP IMPLEMENTATION:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. STOCK PILE AREAS MAY BE MOVED AS NECESSARY TO ALLOW FOR CONSTRUCTION ACTIVITIES.
3. THE STAGING, EQUIPMENT MAINTENANCE, FUELING, PORT-A-POTTY, AND SOLID WASTE AREA MAY BE MOVED AS NECESSARY TO ALLOW FOR CONSTRUCTION ACTIVITIES.
4. ALL "SEDIMENT BARRIERS (TO BE INSTALLED AFTER GRADING)" SHALL BE INSTALLED IMMEDIATELY FOLLOWING ESTABLISHMENT OF FINISHED GRADE AS SHOWN ON THESE PLANS.
5. LONG TERM SLOPE STABILIZATION MEASURES "INCLUDING MATTING" SHALL BE IN PLACE OVER ALL EXPOSED SOILS.
6. THE STORM WATER FACILITY SHALL BE CONSTRUCTED AND LANDSCAPED PRIOR TO THE STORM WATER SYSTEM FUNCTIONING AND SITE PAVING.
7. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.

POST-DEVELOPMENT STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT IS MANAGED IN A VARIETY OF WAYS. A MAJORITY OF THE PAVED DEVELOPMENT WILL BE COLLECTED AND TREATED VIA WQCB AND THEN DETAINED IN A BELOW GRADE DETENTION FACILITY. SOME PORTIONS OF THE SITE WILL DRAIN TO THE EXISTING BIOSWALES FOR TREATMENT. AND SOME AREAS WILL BE COLLECTED BY CATCH BASINS FOR DISCHARGE INTO THE EXISTING STORMWATER POND.

FOR STAGING AREA (NOT IN ASPHALT) PROVIDE 18" COMPACTED CRUSHED ROCK FOR JOB TRAILERS, MATERIAL STAGING, AND PORTABLE RESTROOMS.

ANTICIPATED SITE POLLUTANTS INCLUDE PAINTS, CAULKS, SEALANTS, AND OTHER COMMON BUILDING MATERIALS USED FOR CONSTRUCTION. ALL POLLUTANT GENERATING PRODUCTS SHALL BE CONTAINED AND STORED IN THIS LOCATION TO AVOID CONTAMINATION WITH SITE STORMWATER RUNOFF.

SCALE 1 INCH = 30 FEET
30 0 30 60

N

REGISTERED PROFESSIONAL ENGINEER
83603PE
OREGON
JUNE 2, 2010
EVAN M. EYKELBOSCH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

REVISION SCHEDULE
4 LAND USE SUBMITTAL 01/29/2025

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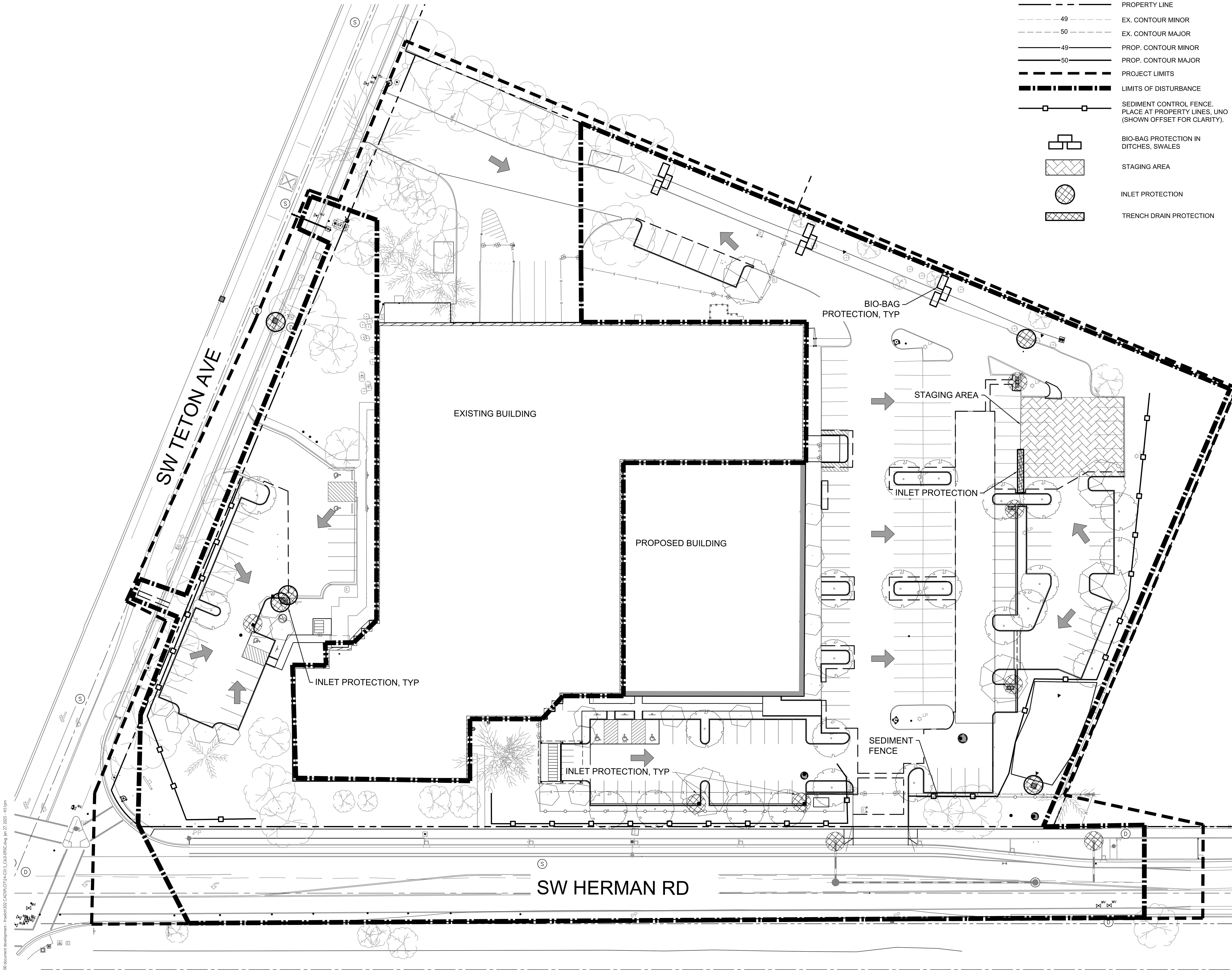
BUILDING ADDITION FOR:
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

GRADING, UTILITY, AND SITE CONSTRUCTION EROSION CONTROL PLAN
C6.2
220277.01



SHEET LEGEND

- PROPERTY LINE
- EX. CONTOUR MINOR (49)
- EX. CONTOUR MAJOR (50)
- PROP. CONTOUR MINOR (49)
- PROP. CONTOUR MAJOR (50)
- PROJECT LIMITS
- LIMITS OF DISTURBANCE
- SEDIMENT CONTROL FENCE. PLACE AT PROPERTY LINES, UNO (SHOWN OFFSET FOR CLARITY).
- BIO-BAG PROTECTION IN DITCHES, SWALES
- STAGING AREA
- INLET PROTECTION
- TRENCH DRAIN PROTECTION

SHEET NOTES

1. CONTRACTOR SHALL PROVIDE A MINIMUM OF (1) 300 GALLON CAPACITY 7'X7'X14" PORTABLE CONCRETE WASHOUT "ECO-PAN", OR APPROVED EQUAL. CONTACT R.T. CULLER AT (503) 209-3204. CONCRETE WASHOUT TO BE PICKED UP BY ECO-PAN AND RECYCLED OFF SITE. ADJUST LOCATION AS REQUIRED.
2. PROVIDE COMBINATION INLET PROTECTION AND BIOBAGS AT ALL CATCH BASINS AND STORM INLETS ONSITE.

POST-DEVELOPMENT STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT AREA IS COLLECTED VIA CATCH BASINS, TRENCH DRAINS AND ROOF DRAINS. RUNOFF WILL BE ROUTED THROUGH A STORMWATER TREATMENT AND DETENTION SYSTEM PRIOR TO BEING RELEASED INTO THE PUBLIC SYSTEM.

FOR STAGING AREA PROVIDE 18" COMPACTED CRUSHED ROCK FOR JOB TRAILERS, MATERIAL STAGING, AND PORTABLE RESTROOMS.

ANTICIPATED SITE POLLUTANTS INCLUDE PAINTS, CAULKS, SEALANTS, AND OTHER COMMON BUILDING MATERIALS USED FOR CONSTRUCTION. ALL POLLUTANT GENERATING PRODUCTS SHALL BE CONTAINED AND STORED IN THIS LOCATION TO AVOID CONTAMINATION WITH SITE STORMWATER RUNOFF.

VERTICAL CONSTRUCTION NOTES:

1. LONG TERM SLOPE STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA SEEDING WITH APPROVED MIX AND APPLICATION RATE.
2. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, TIRE WASHES, STREET SWEEPING, AND VACUUMING MAY BE BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
3. ACTIVE INLETS TO STORM WATER SYSTEMS SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.
4. SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE SHALL NOT BE TRANSFERRED TO THE STORM WATER SYSTEM. SWEEPINGS SHALL BE PICKED UP AND DISPOSED IN THE TRASH.
5. AVOID PAVING IN WET WEATHER WHEN PAVING CHEMICALS CAN RUN-OFF INTO THE STORM WATER SYSTEM.
6. USE BMPs SUCH AS CHECK-DAMS, BERMS, AND INLET PROTECTION TO PREVENT RUN-OFF FROM REACHING DISCHARGE POINTS.
7. COVER CATCH BASINS, MANHOLES, AND OTHER DISCHARGE POINTS WHEN APPLYING SEAL COAT, TACK COAT, ETC. TO PREVENT INTRODUCING THESE MATERIALS TO THE STORM WATER SYSTEM.
8. REMOTE VEHICLE FUELING AREAS SHALL BE EQUIPPED WITH SECONDARY CONTAINMENT STRUCTURES AND A SPILL KIT. OPERATORS SHALL REVIEW AND ADHERE TO THE REFUELING SAFETY PLAN PROVIDING BY THE CONTRACTOR PRIOR TO ANY FUELING OR REFUELING ACTIVITY.

EROSION AND SEDIMENT CONTROL BMP IMPLEMENTATION:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. STOCK PILE AREAS MAY BE MOVED AS NECESSARY TO ALLOW FOR CONSTRUCTION ACTIVITIES.
3. THE STAGING, EQUIPMENT MAINTENANCE, FUELING, PORT-A-POTTY, AND SOLID WASTE AREA MAY BE MOVED AS NECESSARY TO ALLOW FOR CONSTRUCTION ACTIVITIES.
4. ALL "SEDIMENT BARRIERS (TO BE INSTALLED AFTER GRADING)" SHALL BE INSTALLED IMMEDIATELY FOLLOWING ESTABLISHMENT OF FINISHED GRADE AS SHOWN ON THESE PLANS.
5. LONG TERM SLOPE STABILIZATION MEASURES "INCLUDING MATTING" SHALL BE IN PLACE OVER ALL EXPOSED SOILS.
6. THE STORM WATER FACILITY SHALL BE CONSTRUCTED AND LANDSCAPED PRIOR TO THE STORM WATER SYSTEM FUNCTIONING AND SITE PAVING.
7. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.

SCALE 1 INCH = 30 FEET
30 0 30 60

REGISTERED PROFESSIONAL ENGINEER 83603PE OREGON JUNE 2, 2009 IAN M. EYKELBOSCH
PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION
RENEWS: 12/31/25

REVISION SCHEDULE
4 LAND USE SUBMITTAL 01/29/2025

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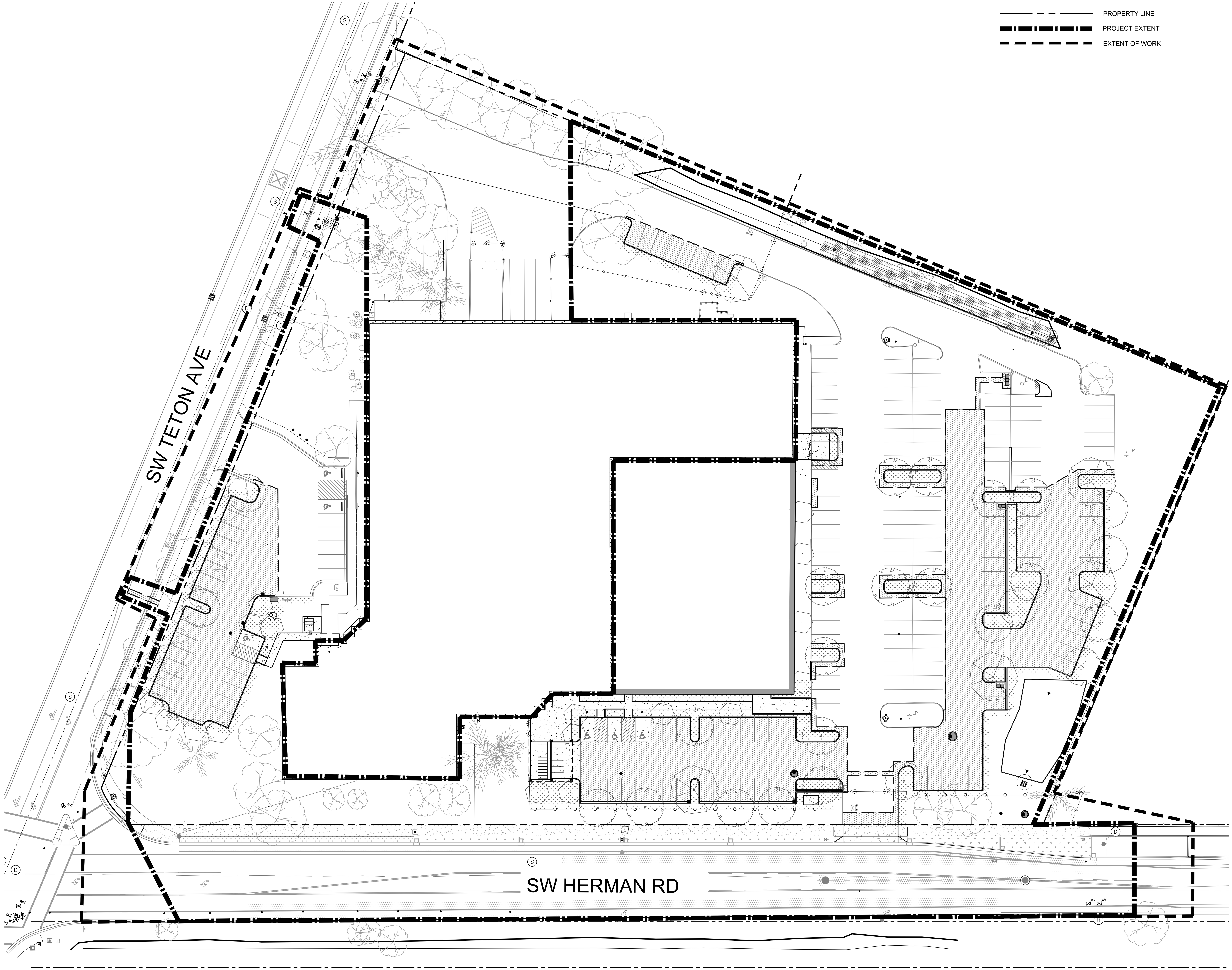
BUILDING ADDITION FOR:
KAI - USA
18600 SW TETON AVE, TUALATIN, OREGON 97062

VERTICAL CONSTRUCTION EROSION CONTROL PLAN
C6.3
220277.01



SHEET LEGEND

- PROPERTY LINE
- PROJECT EXTENT
- EXTENT OF WORK

SHEET NOTES

1. ALL EXPOSED SURFACES SHOULD BE PERMANENTLY STABILIZED PER LANDSCAPE PLANS. INCLUDES GROUND COVER, TREES, AND STANDARD SEEDING.
2. UPON COMPLETION OF PHASE ALL TEMPORARY EROSION CONTROL SHALL BE REMOVED. INCLUDES INLET PROTECTION AND SEDIMENT FENCE.

SCALE 1 INCH = 30 FEET
30 0 30 60

REGISTERED PROFESSIONAL ENGINEER
83603PE
OREGON
JUNE 2, 2010
IVAN M. EYKELBOSCH
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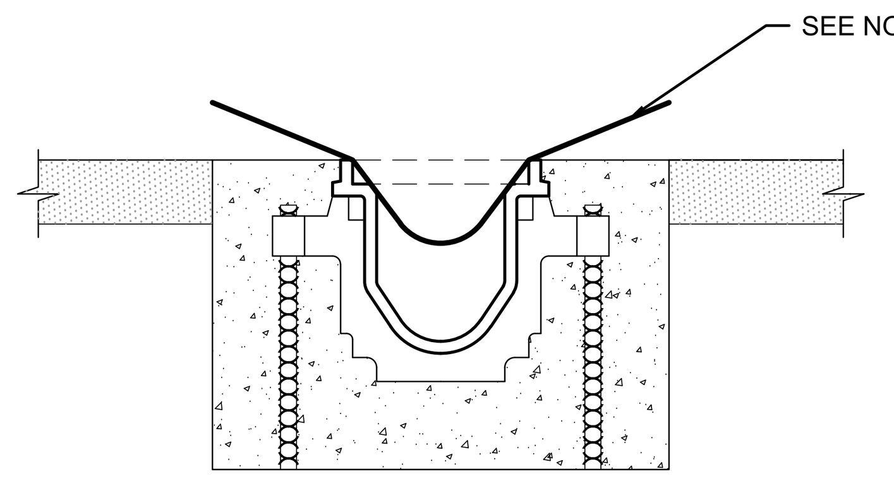
FINAL STABILIZATION PLAN

C6.4

220277.01

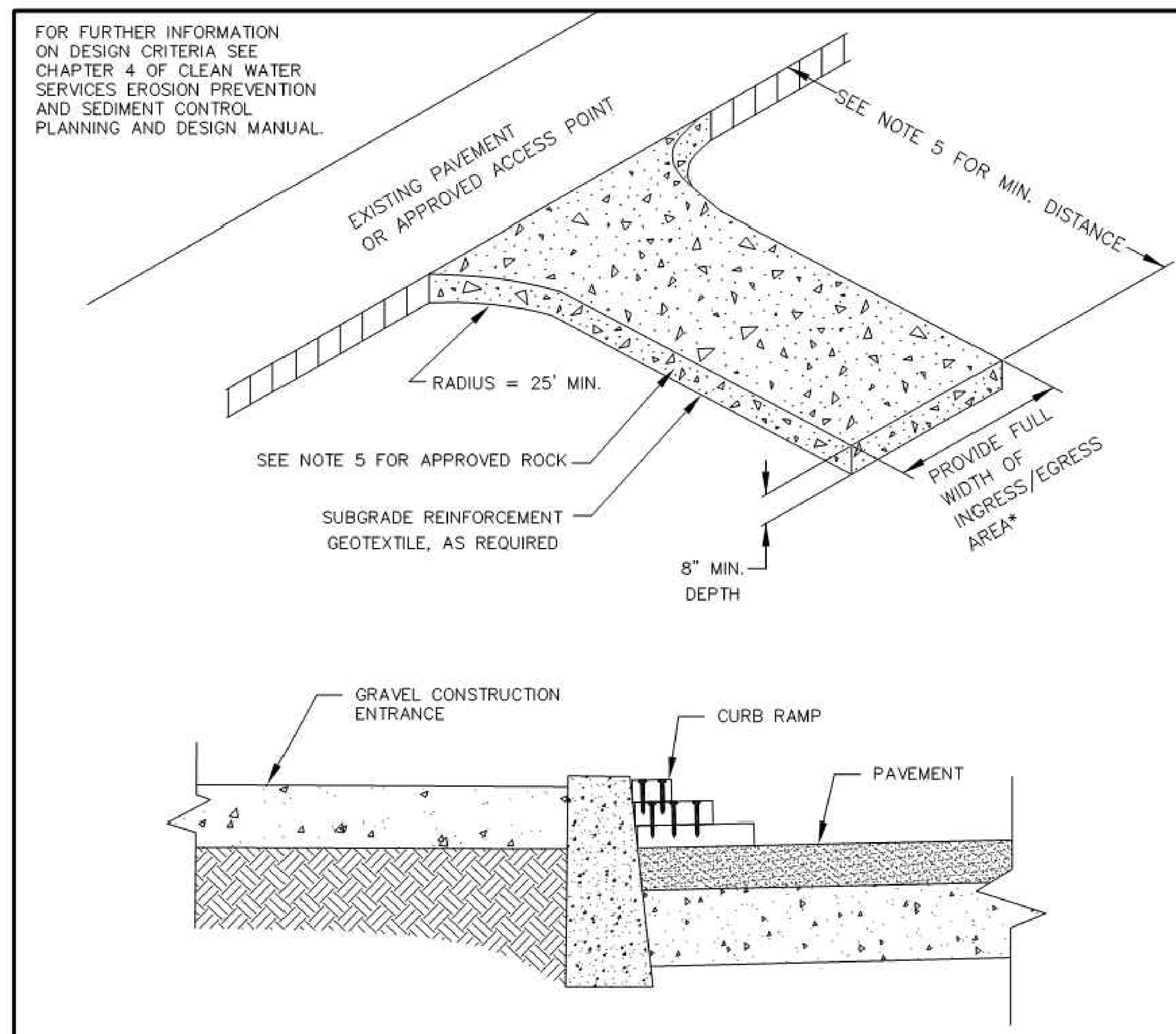


NOTES:
1. INSTALL GEOTEXTILE FABRIC BELOW TRENCH DRAIN GRATE.
2. CLEAN AND MAINATAIN GEOTEXTILE FABRIC AS NECESSARY.

1 TRENCH DRAIN - INLET PROTECTION

SCALE: NTS

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.



NOTES:

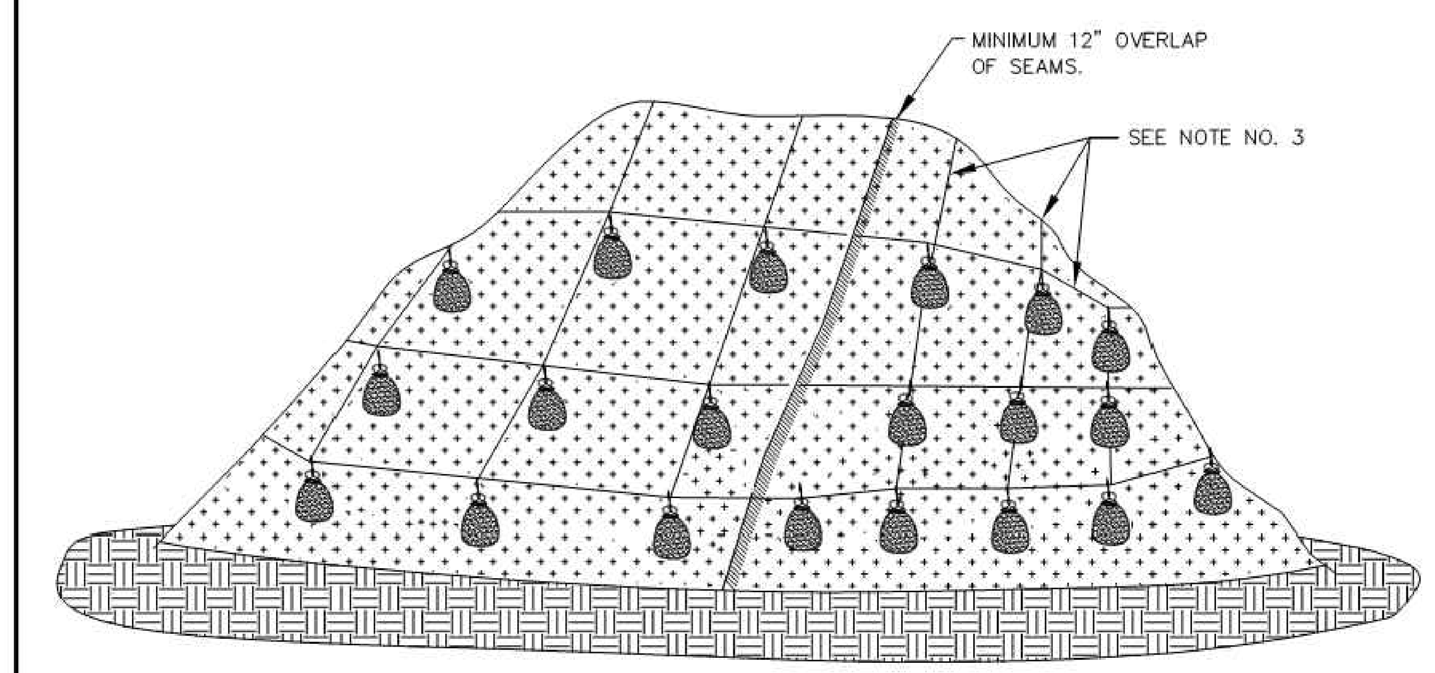
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF- WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
4. WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.
5. DIMENSIONS
   SINGLE FAMILY
   20' LONG BY 20' WIDE 8" DEEP OF ¾" MINUS CLEAN ROCK.
   COMMERCIAL/SITE DEVELOPMENT
   50' LONG BY 20' WIDE 3-6" CLEAN ROCK, GOVERNING AUTHORITY MAY REQUIRE GEOTEXTILE FABRIC TO PREVENT SUB-SOIL PUMPING.

CONSTRUCTION ENTRANCE

Clean Water Services

DRAWING NO. 855 REVISED 10-31-19

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.



PLASTIC SHEETING

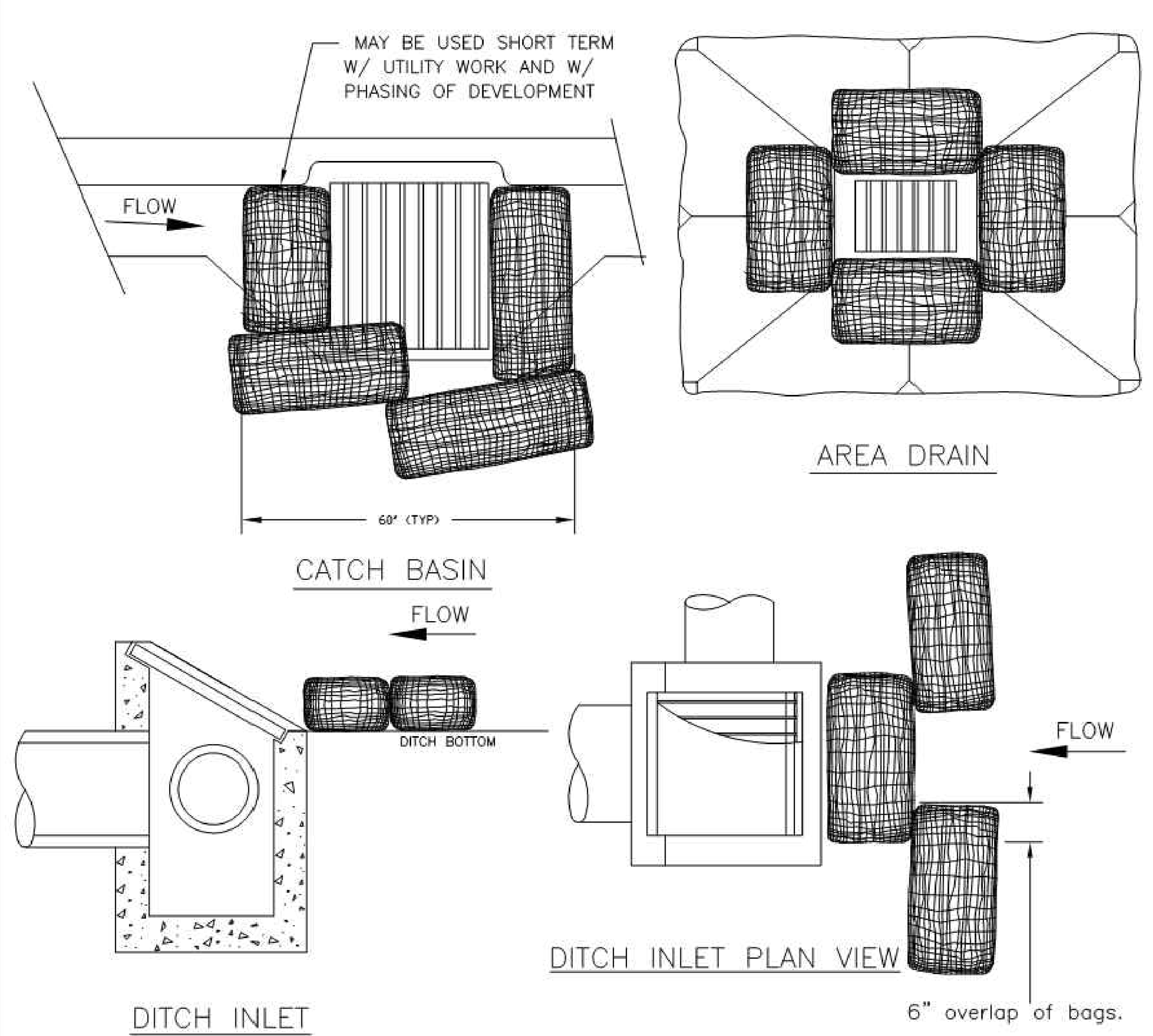
NOTES:

1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
2. PERIMETER SEDIMENT CONTROL BMP TO BE INSTALLED A MIINIMUM OF 3' FROM TOE OF STOCKPILE.
3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR APPROVED EQUAL ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.
4. PLASTIC TO EXTEND MINIMUM 1' BEYOND TOE OF SLOPE.
5. AS APPROPRIATE, BMP'S SHALL BE INSTALLED TO CONVEY WATER DISCHARGE FROM STOCKPILE AREAS.

PLASTIC SHEETING

Clean Water Services

DRAWING NO. 810 REVISED 10-31-19



NOTES:

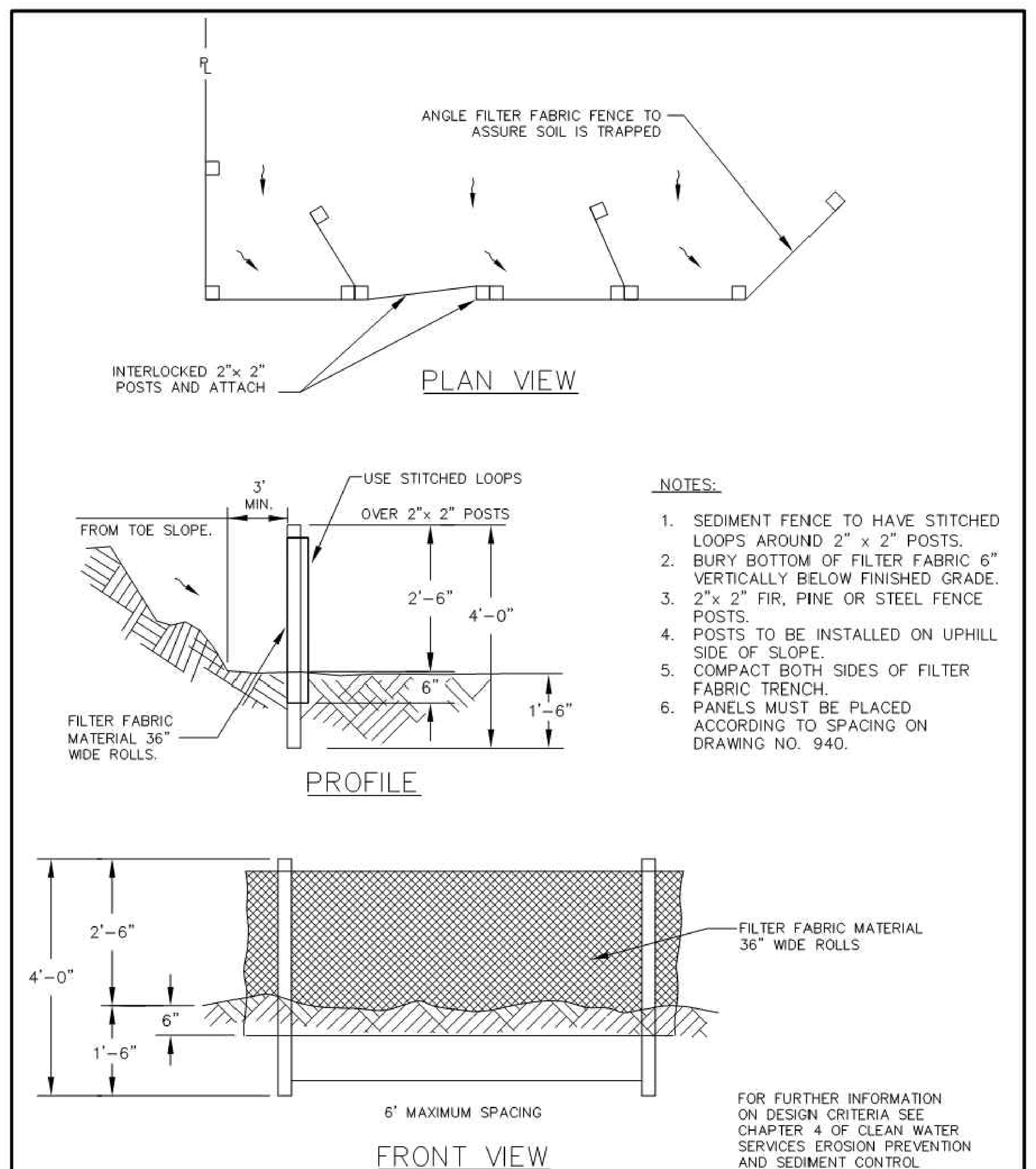
1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPES.
2. BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1"x2" WOODEN STAKES OR APPROVED EQUAL PER BAG.
3. WHEN USING 30" BIO-BAGS TO PROTECT A CATCH BASIN YOU HAVE 4 BAGS AND THEY SHALL BE OVERLAPPED BY 6".

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

INLET PROTECTION TYPE 4

Clean Water Services

DRAWING NO. 915 REVISED 10-31-19



NOTES:

1. SEDIMENT FENCE TO HAVE STITCHED LOOPS AROUND 2" x 2" POSTS.
2. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
3. 2"x 2" FIR, PINE OR STEEL FENCE POSTS.
4. POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
5. COMPACT BOTH SIDES OF FILTER FABRIC TRENCH.
6. PANELS MUST BE PLACED ACCORDING TO SPACING ON DRAWING NO. 940.

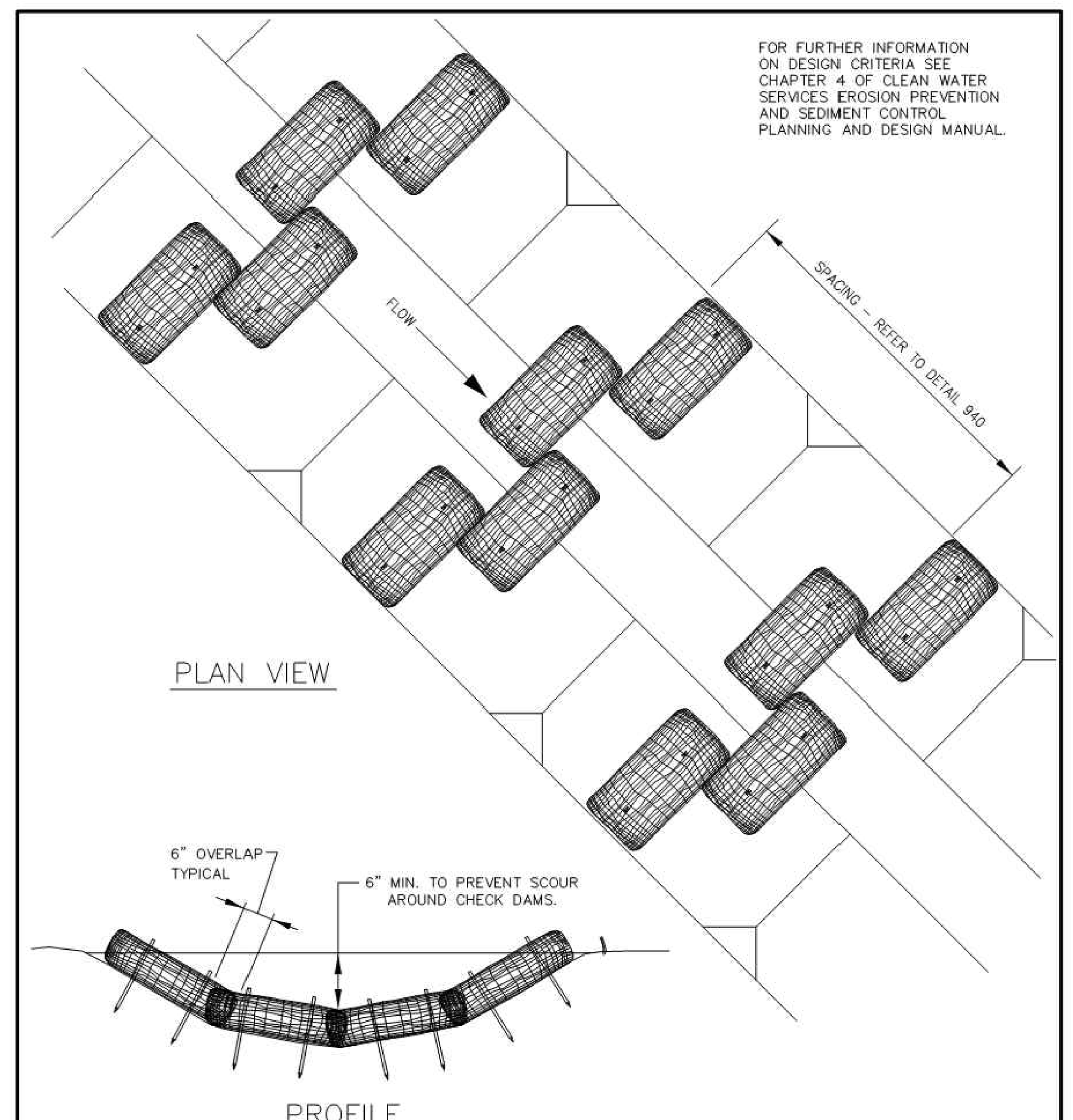
FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

SEDIMENT FENCE

Clean Water Services

DRAWING NO. 875 REVISED 10-31-19

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.



NOTES:

1. STAKING OF BAGS REQUIRED USING (2) 1"X2" WOOD STAKES OR APPROVED EQUAL PER BAG.
2. SURFACE MUST BE SMOOTH BEFORE APPLICATION.
3. CHECK DAMS CAN BE CONSTRUCTED USING STRAW WATTLES OR OTHER MATERIALS AS APPROVED BY THE DISTRICT OR CITY.

CHECK DAM BIO-FILTER BAG

DRAWING NO. 845 REVISED 10-31-19

REGISTERED PROFESSIONAL ENGINEER 83603PE OREGON JUNE 2, 2010 EVAN M. EYKELBOSCH

PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION

RENEWS: 12/31/25

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4 LAND USE SUBMITTAL 01/29/2025

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BUILDING ADDITION FOR:

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18600 SW TETON AVE, TUALATIN, OREGON 97062

EROSION CONTROL DETAILS

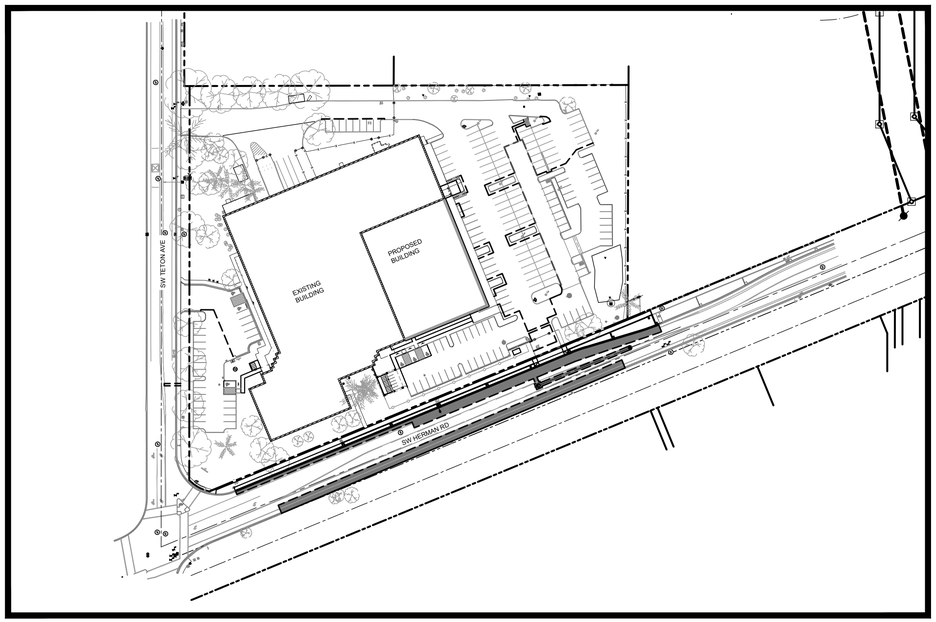
C6.5

220277.01

CITY OF TUALATIN

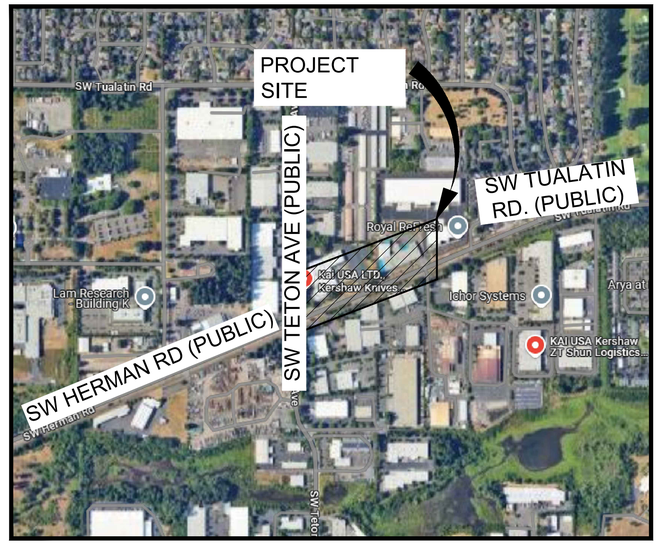
SW HERMAN RD

PUBLIC STREET IMPROVEMENTS



SITE MAP

SCALE: 1" = 100'



VICINITY MAP

SCALE: NTS

MAP FROM: GOOGLEMAPS ©

LEGEND

PROPOSED	DESCRIPTION	EXISTING
	PROPERTY LINE	
	RIGHT OF WAY	
	EASEMENT LINE	
	CENTERLINE	
	BUILDING OUTLINE	
	BUILDING OVERHANG	
	SIDEWALK/CONCRETE	
	CURB	
	CURB & GUTTER	
	EDGE OF ASPHALT	
	GRADE BREAK	
	SAWCUT	
	FENCE	
125	MAJOR CONTOUR	125
124	MINOR CONTOUR	124
	STORM DRAIN	SD
	IRRIGATION	W
	SANITARY SEWER	SS
	WATER MAIN	W
	CABLE TV	CTV
	FIBEROPTICS	C
	TELECOMMUNICATIONS	C
	POWER	E
	GAS MAIN	
	SWALE FLOWLINE	
	FIRE PROTECTION	W
	UTILITY TO BE REMOVED	
	CATCH BASIN	
	AREA DRAIN	PP
	UTILITY POLE	LP
	LIGHT POLE	
	JUNCTION BOX	E
	CLEANOUT (COTG)	
	MANHOLE	S
	WATER METER	W
	FIRE HYDRANT	
	FDC	
	GAS METER	G
	SIGN	
	TREE	
	UTILITY VAULT	
	THRUST BLOCK	
	AC PAVEMENT	
	SCORING PATTERN	
	LANDSCAPE AREA	

ABBREVIATIONS

AC	ASPHALT CONCRETE	GL	GAS LINE	R	RIM
AD	AREA DRAIN	GV	GATE VALVE	RD	ROOF DRAIN
APPROX	APPROXIMATE	H	HEIGHT	R.O.W	RIGHT-OF-WAY
B	BOLLARD	HCP	HANDICAP PARKING SPACE	S	SLOPE (FT/FT)
BLDG	BUILDING	HP	HIGH POINT	SD	STORM DRAIN
BOW	BACK OF WALK	ID	INSIDE DIAMETER	SDMH	STORM DRAIN MANHOLE
BS	BOTTOM OF SWALE	IE	INVERT ELEVATION	SHT	SHEET
	BOTTOM OF STAIR	INV	INVERT	SS	SANITARY SEWER
BW	BOTTOM OF WALL	IRR.	IRRIGATION	SSMH	SANITARY SEWER MANHOLE
CB	CATCH BASIN	LP	LIGHT POLE	ST	STREET
CL	CENTERLINE	MH	MANHOLE	STA	STATION
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	STD	STANDARD
CMU	CONCRETE MASONRY UNIT	N	NORTHING	S/W	SIDEWALK
CO	CLEANOUT	O.D	OUTSIDE DIAMETER	TC	TOP OF CURB
CONC.	CONCRETE	OF	OUTFALL	TD	TRENCH DRAIN
COTG	CLEANOUT TO GRADE	OVH/OH	OVERHEAD	TG	TOP OF GROUND
CP	CONTROL POINT	P/L	PROPERTY LINE	TP	TOP OF PAVEMENT
Δ	DELTA	PC	POINT OF CURVATURE	TRANS.	TRANSFORMER
D/W	DRIVEWAY	PCC	POINT OF COMPOUND CURVATURE	TS	TOP OF STAIR
DIA.,Ø	DIAMETER	PCR	POINT OF CURB RETURN	TW	TOP OF WALL
DIP	DUCTILE IRON PIPE	PED	PEDESTRIAN		TOP OF WALK
E	EASTING	PIV	POST INDICATOR VALVE	TYP	TYPICAL
EXIST./EX	EXISTING	PM	PARKING METER	UG	UNDERGROUND
FDC	FIRE DEPARTMENT CONNECTION	POC	POINT ON CURVE	UGE	UNDERGROUND ELECTRIC
FF	FINISH FLOOR ELEVATION	PP	POWER POLE	W	WATER
FG	FINISH GRADE	PRC	POINT OF REVERSE CURVATURE	W/	WITH
FH	FIRE HYDRANT	PT	POINT OF TANGENT	WCR	WHEEL CHAIR RAMP
FL	FLOWLINE	P.U.E	PUBLIC UTILITY EASEMENT	WM	WATER METER
FND	FOUNDATION	PVC	POLYVINYL CHLORIDE	WV	WATER VALVE
G	GUTTER	PVMT	PAVEMENT		
GB	GRADE BREAK	PVT	PRIVATE		

PROJECT CONTACTS

OWNER:
KAI USA, LTD.
18600 SW TETON AVE
TUALATIN, OREGON 97062
TEL: 800-325-2891
CONTACT: CRAIG GREEN

ARCHITECT:
CIDA
15895 SW 72ND AVE SUITE 200
PORTLAND, OREGON 97224
TEL: 503-226-1285
CONTACT: CHRIS WALKER, RA

CIVIL ENGINEER:
FROELICH ENGINEERS, INC.
17700 SW UPPER BOONES FERRY RD.
PORTLAND, OREGON 97224
TEL: 503-624-7005
CONTACT: EVAN EYKELBOSCH, PE

LANDSCAPE ARCHITECT:
ANDERSON ASSOCIATES
1723 NW 23RD ST
MCMINNVILLE, OREGON 97128
TEL: 503-318-0549
CONTACT: DAVID ANDERSON

PROJECT INFORMATION

{LIST ANY RELEVANT PROJECT INFORMATION HERE IF NECESSARY}

SHEET INDEX

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.
Call the Oregon One-Call Center
1-800-332-2344

NOT FOR CONSTRUCTION - PENDING GOVERNMENT APPROVAL

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CITY OF TUALATIN
PUBLIC WORKS DEPARTMENT
18880 SW MARTINAZZI AVENUE
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WWW.FROELICH-ENGINEERS.COM

PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

COVER SHEET

JOB NO.

SHEET NO.
ST1.0
1 OF 18

FILE: 24-C013_ST1.0_COVR.DWG ST1.0 1/23/2025 11:14:02 AM - BULLMANN

GENERAL NOTES

1. SURVEY PROVIDED BY WEDDLE SURVEYING, DATED 12/12/24. ELEVATIONS ARE BASED ON NAVD DATUM CONVERTED FROM WASHINGTON COUNTY DATUM. ESTABLISHED PER BENCH MARK LOCATED IN A CONCRETE CURB AT THE SOUTHEAST CORNER OF THE INTERSECTION OF SW BOONES FERRY ROAD AND SW TUALATIN ROAD WITH AN ELEVATION OF 125.63'.

2. CONSTRUCTION LAYOUT (ALL ACTUAL LINES AND GRADES) SHALL BE STAKED BY A PROFESSIONAL SURVEYOR, REGISTERED IN THE STATE OF OREGON, BASED ON COORDINATES, DIMENSIONS, BEARINGS, AND ELEVATIONS, AS SHOWN, ON THE PLANS.

3. PROJECT CONTROL SHALL BE FIELD VERIFIED AND CHECKED FOR RELATIVE HORIZONTAL POSITION PRIOR TO BEGINNING CONSTRUCTION LAYOUT. [SEE SHEET CX.X FOR PROJECT CONTROL INFORMATION.]

4. PROJECT CONTROL SHALL BE FIELD VERIFIED AND CHECKED FOR RELATIVE VERTICAL POSITION BASED ON THE BENCHMARK STATED HEREON, PRIOR TO BEGINNING CONSTRUCTION LAYOUT.

5. WHEN DIMENSIONS AND COORDINATE LOCATIONS ARE REPRESENTED - DIMENSIONS SHALL HOLD OVER COORDINATE LOCATION. NOTIFY THE CIVIL ENGINEER OF RECORD IMMEDIATELY UPON DISCOVERY.

6. BUILDING SETBACK DIMENSIONS FROM PROPERTY LINES SHALL HOLD OVER ALL OTHER CALLOUTS. PROPERTY LINES AND ASSOCIATED BUILDING SETBACKS SHALL BE VERIFIED PRIOR TO CONSTRUCTION LAYOUT.

7. CONTRACTOR SHALL PRESERVE AND PROTECT FROM DAMAGE ALL EXISTING MONUMENTATION DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING FOR THE REPLACEMENT OF ANY MONUMENTS DAMAGED OR REMOVED DURING CONSTRUCTION. NEW MONUMENTS SHALL BE REESTABLISHED BY A LICENSED SURVEYOR.

8. SOME SITE DEMOLITION AND UTILITY RELOCATION HAS BEEN PERFORMED. SURVEY MAY NOT BE COMPLETE OR ACCURATE. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.

9. CONTRACTOR TO REFERENCE GEOTECHNICAL ENGINEERING REPORT PREPARED BY GEOTECH SOLUTIONS DATED 09/05/22 FOR THE SITE SOILS RECOMMENDATIONS.

10. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THESE PLANS, THE PROJECT SPECIFICATIONS AND THE APPLICABLE REQUIREMENTS OF THE 2024 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE 2023 OREGON PLUMBING SPECIALTY CODE AND REQUIREMENTS OF THE CITY OF TUALATIN.

11. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS. ALL PERMITS, LICENSES AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES FOR THE EXECUTION AND COMPLETION OF WORK SHALL BE SECURED BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION.

12. ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987). EXCAVATORS MUST NOTIFY ALL PERTINENT COMPANIES OR AGENCIES WITH UNDERGROUND UTILITIES IN THE PROJECT AREA AT LEAST 48 BUSINESS-DAY HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS PRIOR TO COMMENCING AN EXCAVATION, SO UTILITIES MAY BE ACCURATELY LOCATED.

13. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL VERIFY ELEVATIONS, PIPE SIZE, AND MATERIAL TYPES OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WITH CONSTRUCTION AND SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF FROELICH ENGINEERS, 72 HOURS PRIOR TO START OF CONSTRUCTION TO PREVENT GRADE AND ALIGNMENT CONFLICTS.

14. THE ENGINEER OR OWNER IS NOT RESPONSIBLE FOR THE SAFETY OF THE CONTRACTOR OR THEIR CREW. ALL O.S.H.A. REGULATIONS SHALL BE STRICTLY ADHERED TO IN THE PERFORMANCE OF THE WORK.

15. TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. THE CONTRACTOR SHALL ADHERE TO CITY OF TUALATIN FOR MINIMUM EROSION CONTROL MEASURES. THE ESC FACILITIES SHOWN IN THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.

16. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ROADWAYS, KEEPING THEM CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS, AND PROVIDING DUST CONTROL AS REQUIRED.

17. TRAFFIC CONTROL SHALL BE PROVIDED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN TO CITY OF TUALATIN FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION.

18. CONTRACTOR SHALL MAINTAIN ALL UTILITIES TO BUSINESS AT ALL TIMES DURING CONSTRUCTION.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL WORK WITH THE OWNER.

20. NOTIFY CITY OF TUALATIN INSPECTOR 72 HOURS BEFORE STARTING WORK. A PRECONSTRUCTION MEETING WITH THE OWNER, THE OWNER'S ENGINEER, CONTRACTOR AND THE CITY OF TUALATIN REPRESENTATIVE SHALL BE REQUIRED.

CONSTRUCTION NOTES

GENERAL

1. SUBGRADE AND TRENCH BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. FLOODING OR JETTING THE BACKFILLED TRENCHES WITH WATER IS NOT PERMITTED.

2. SPECIAL INSPECTION REQUIRED FOR ALL COMPACTION TESTING.

DEMOLITION

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND DISPOSAL OF EXISTING AC, CURBS, SIDEWALKS AND OTHER SITE ELEMENTS WITHIN THE SITE AREA IDENTIFIED IN THE PLANS. DISPOSE OF DEMOLISHED ITEMS OFF-SITE IN A LEGAL MANNER.

2. EXCEPT FOR MATERIALS INDICATED TO BE STOCKPILED OR TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY, REMOVED FROM THE SITE, AND DISPOSED OF PROPERLY.

3. ITEMS INDICATED TO BE SALVAGED SHALL BE CAREFULLY REMOVED AND DELIVERED STORED AT THE PROJECT SITE AS DIRECTED BY THE OWNER.

4. ALL LANDSCAPING, PAVEMENT, CURBS AND SIDEWALKS, BEYOND THE IDENTIFIED SITE AREA, DAMAGED DURING THE CONSTRUCTION SHALL BE REPLACED TO THEIR ORIGINAL CONDITION OR BETTER.

5. CONCRETE SIDEWALKS SHOWN FOR DEMOLITION SHALL BE REMOVED TO THE NEAREST EXISTING CONSTRUCTION JOINT.

6. SAWCUT STRAIGHT MATCHLINES TO CREATE A BUTT JOINT BETWEEN THE EXISTING AND NEW PAVEMENT.

GRADING

1. ALL SURFACES SHALL HAVE MINIMUM 1.5% SLOPE UNLESS OTHERWISE NOTED ON PLANS. ALL SURFACES SHALL MEET EXISTING GRADES SMOOTHLY AND EVENLY AND MAINTAIN CONSTANT SLOPES UNLESS OTHERWISE NOTES ON PLANS.

2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EXISTING SITE AND DRAINAGE PATTERNS AND PROTECTION OF EXISTING ENGINEERED DRAINAGE FACILITIES.

3. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS ADJACENT TO EXISTING TREES IN ORDER TO MINIMIZE DISTURBANCE TO TREE ROOTS. CONTRACT SHALL INSTALL TREE PROTECTION FENCING AS INDICATED ON PLANS OR DRIP-LINE OF EXISTING TREES. NO PARKING VEHICLES UNDER TREES.

UTILITIES

1. ADJUST ALL INCIDENTAL STRUCTURES, MANHOLES, VALVE BOXES, CATCH BASINS, FRAMES AND COVERS, ETC. TO FINISHED GRADE.

2. CONTRACTOR SHALL ADJUST ALL EXISTING AND/OR NEW FLEXIBLE UTILITIES (WATER, TV, TELEPHONE, ELEC., ETC.) TO CLEAR ANY EXISTING OR NEW GRAVITY DRAIN UTILITIES (STORM DRAIN, SANITARY SEWER, ETC.) IF CONFLICT OCCURS.

3. CONTRACTOR SHALL COORDINATE WITH PRIVATE UTILITY COMPANIES FOR THE INSTALLATION OF OR ADJUSTMENT TO GAS, ELECTRICAL, POWER AND TELEPHONE SERVICE.

4. BEFORE BACKFILLING ANY SUBGRADE UTILITY IMPROVEMENTS CONTRACTOR SHALL SURVEY AND RECORD MEASUREMENTS OF EXACT LOCATION AND DEPTH AND SUBMIT TO ENGINEER AND OWNER.

STORM AND SANITARY

1. CONNECTIONS TO EXISTING STORM AND SANITARY SEWERS SHALL CONFORM TO THE 2024 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 00490, "WORK ON EXISTING SEWERS AND STRUCTURES".

2. BEGIN LAYING STORM DRAIN AND SANITARY SEWER PIPE AT THE LOW POINT OF THE SYSTEM, TRUE TO GRADE AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT. THE CONTRACTOR SHALL ESTABLISH LINE AND GRADE FOR THE STORM AND SANITARY SEWER PIPE USING A LASER.

3. ALL ROOF DRAIN AND CATCH BASIN LEADERS SHALL HAVE A MINIMUM SLOPE OF 2 PERCENT UNLESS NOTED OTHERWISE IN THE PLANS.

WATER

1. ALL WATER MAIN / SANITARY SEWER CROSSINGS SHALL CONFORM TO THE OREGON STATE HEALTH DEPARTMENT REGULATIONS, CHAPTER 333.

2. CONTRACTOR TO MAINTAIN A MINIMUM 10' HORIZONTAL AND 18" VERTICAL SEPARATION BETWEEN ALL EXISTING AND PROPOSED WATER AND SEWER LINES.

EARTHWORK

1. CONTRACTOR SHALL PREVENT SEDIMENTS AND SEDIMENT LADEN WATER FROM ENTERING THE STORM DRAINAGE SYSTEM.

2. FLOODING OR JETTING THE BACKFILLED TRENCHES WITH WATER WILL NOT BE PERMITTED.

3. TRENCH BACKFILL: SHALL MEET ODOT 3/4"-0 CRUSHED ROCK AS INDICATED IN THE PROJECT SOILS REPORT.

4. BASE COURSE: SHALL MEET ODOT 3/4"-0 CRUSHED ROCK.

5. DRAINAGE ROCK: SHALL BE 3/4" TO 2-1/2" WASHED DRAIN ROCK.

6. COMPACTION AND LIFTS: REFERENCE THE PROJECT SOILS REPORT.

7. NONWOVEN GEOTEXTILE - MIRAFI 140N, OR APPROVED EQUIVALENT

UNDERGROUND INJECTION CONTROL (UIC) NOTE

THIS PROJECT CONTAINS A UIC (UNDERGROUND INJECTION CONTROL) FACILITY TO DISPOSE OF STORMWATER RUNOFF BY INFILTRATING STORMWATER BELOW THE GROUND SURFACE. UICS ARE REGULATED UNDER THE SAFE DRINKING WATER ACT WHICH IS ADMINISTERED BY DEQ. ALL UICS MUST BE REGISTERED WITH DEQ AND RECORDED WITH THE CITY OF PORTLAND. THIS FACILITY MUST BE INSTALLED CORRECTLY AND PROTECTED DURING CONSTRUCTION TO PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE FACILITY.

SEPARATION STATEMENT

ALL WATER MAIN CROSSINGS SHALL CONFORM TO THE OREGON STATE HEALTH DEPARTMENT, CHAPTER 333. WATER MAINS SHALL CROSS OVER SANITARY SEWERS WITH A 18" MINIMUM CLEARANCE BETWEEN OUTSIDE DIAMETERS OF PIPE WITH ALL PIPE JOINTS EQUIDISTANT FROM CROSSING. HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWERS IN PARALLEL INSTALLATIONS SHALL BE 10'. MAINTAIN 12" MINIMUM VERTICAL DISTANCE FOR ALL OTHER UTILITY CROSSINGS AND 12" HORIZONTAL PARALLEL DISTANCE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN THE MINIMUM 10' HORIZONTAL SEPARATION, THE WATER MAIN SHALL BE LAID ON A SEPARATE SHELF IN THE TRENCH 18" INCHES ABOVE THE SEWER.

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CITY OF TUALATIN
PUBLIC WORKS DEPARTMENT
18880 SW MARTINAZZI AVENUE
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17700 SW UPPER BOONES FERRY RD, STE 115
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PHONE (503) 624-7005
WWW.FROELICH-ENGINEERS.COM

PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

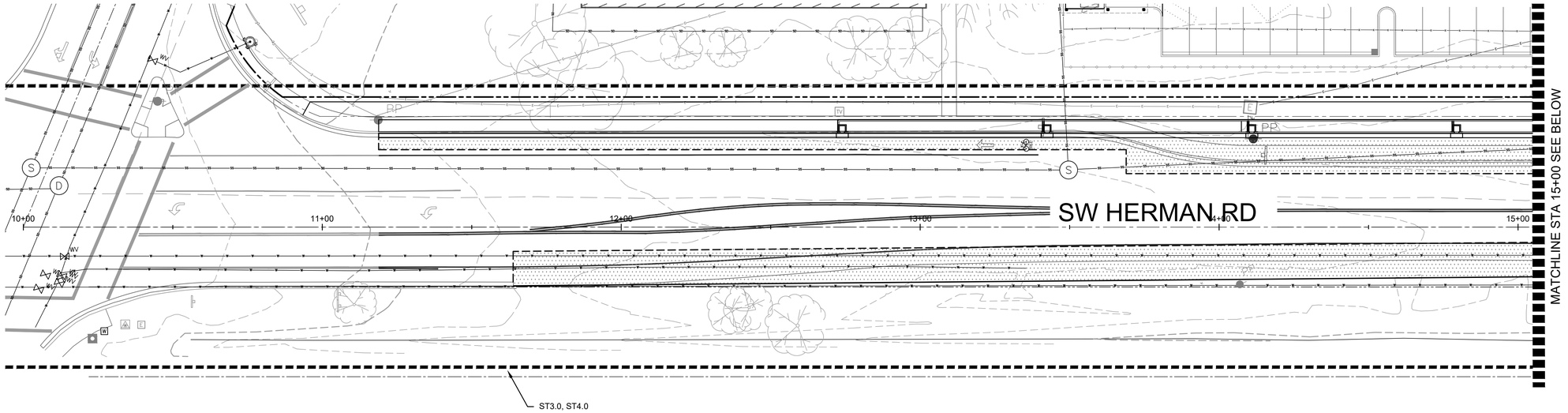
GENERAL NOTES

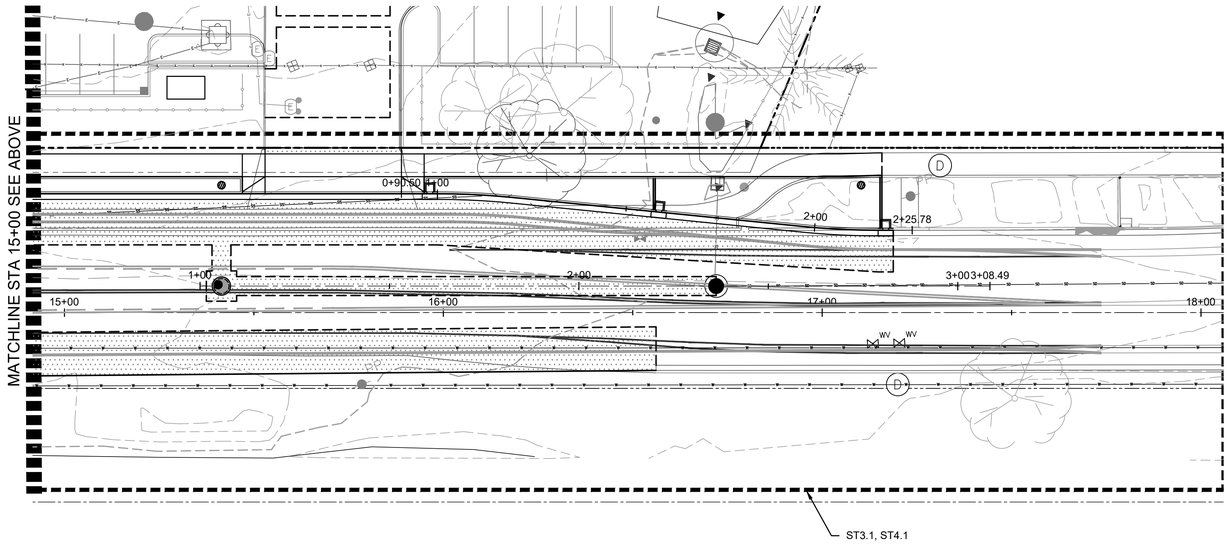
JOB NO.

SHEET NO.
ST1.1
2 OF 18

FILE: 24-C013_ST1.0_COVR.DWG ST1.1 1/23/2025 11:14:05 AM - BULLMANN

NOT FOR CONSTRUCTION - PENDING GOVERNMENT APPROVAL





SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

PROJECT OVERVIEW

JOB NO.

SHEET NO.
ST1.2
3 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL

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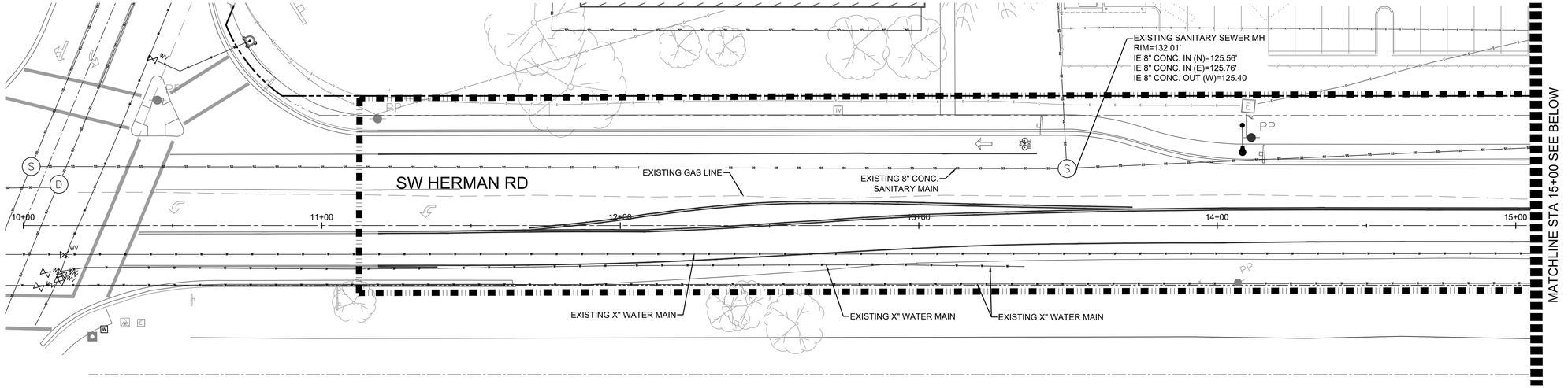

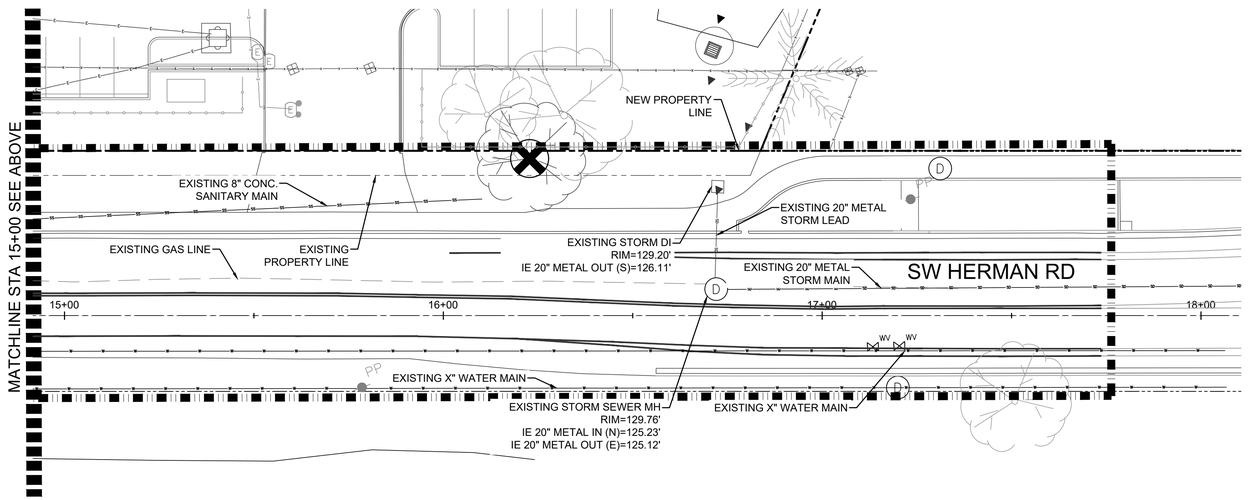

SHEET LEGEND

LIMITS OF WORK

SCALE 1 INCH = 20 FEET

20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD PUBLIC STREET IMPROVEMENTS

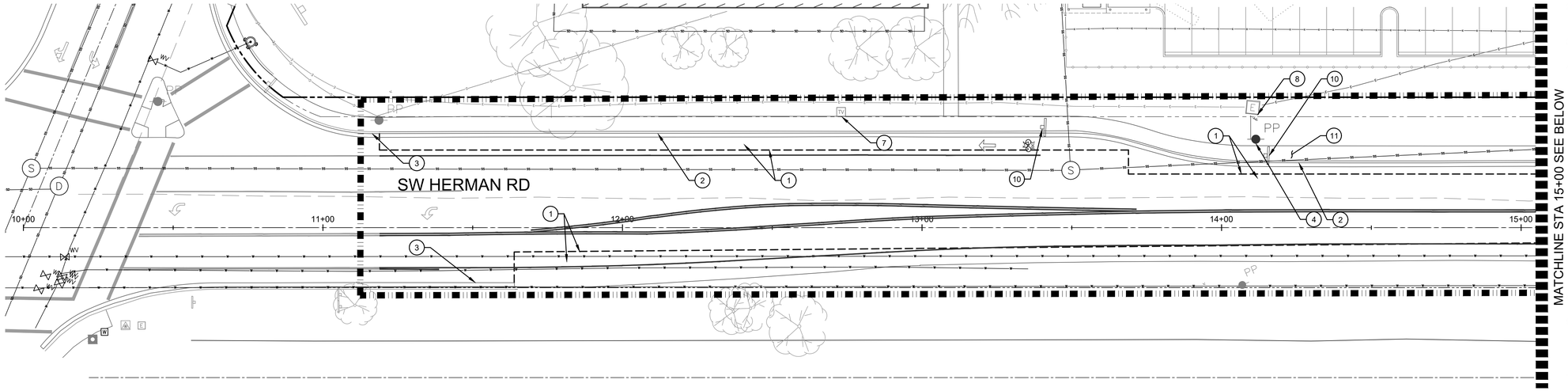
EXISTING CONDITIONS

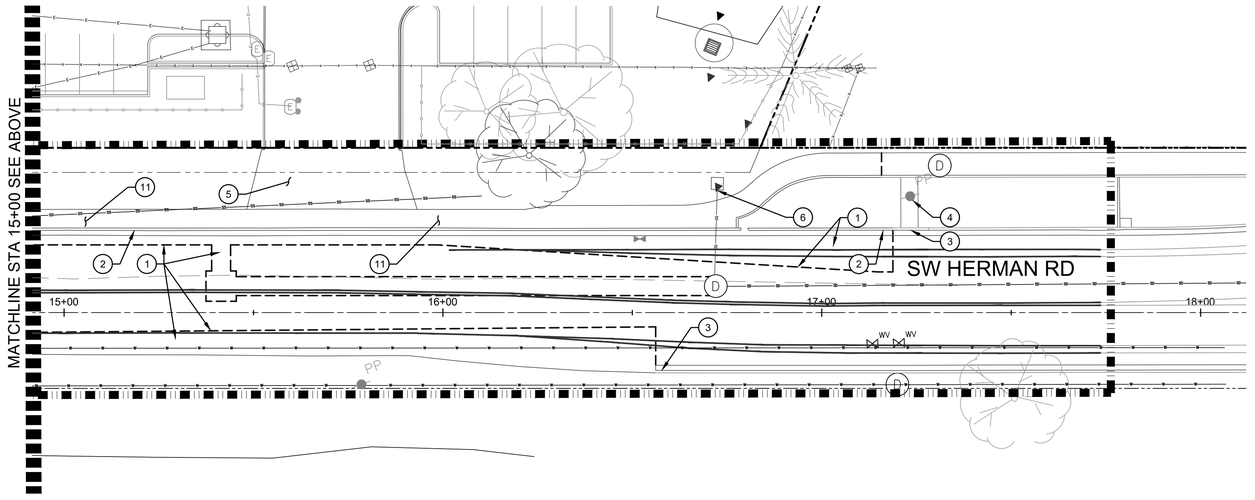
JOB NO.

SHEET NO. ST1.3

4 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL





SHEET NOTES

1. CONTRACTOR MAY STAGE WITHIN LIMITS OF DEMOLITION.
2. REMOVE ALL SITE COMPONENTS AND RECYCLE COMPONENTS AS REQUIRED IN THE SPECIFICATIONS.
3. GENERAL DEMOLITION PERMIT SHALL BE SECURED BY THE CONTRACTOR.
4. ALL TRADE LICENSES AND PERMITS NECESSARY FOR THE PROCUREMENT AND COMPLETION OF THE WORK SHALL BE SECURED BY THE CONTRACTOR PRIOR TO COMMENCING DEMOLITION.
5. THE CONTRACTOR SHALL PRESERVE AND PROTECT FROM DAMAGE ALL EXISTING RIGHT-OF-WAY SURVEY MONUMENTATION DURING DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PAYING FOR THE REPLACEMENT BY A LICENSED SURVEYOR OF ANY DAMAGED OR REMOVED MONUMENTS.
6. PROTECT ALL ITEMS ON ADJACENT PROPERTIES AND IN THE RIGHT OF WAY INCLUDING BUT NOT LIMITED TO SIGNAL EQUIPMENT, PARKING METERS, SIDEWALKS, STREET TREES, STREET LIGHTS, CURBS, PAVEMENT AND SIGNS. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DAMAGED ITEMS TO ORIGINAL CONDITION.
7. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, AND OTHER FACILITIES IMMEDIATELY ADJACENT TO EXCAVATIONS FROM DAMAGES CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS.
8. SAWCUT STRAIGHT LINES IN SIDEWALK, AS NECESSARY.
9. CONTRACTOR IS RESPONSIBLE TO CONTROL DUST AND MUD DURING THE DEMOLITION PERIOD, AND DURING TRANSPORTATION OF DEMOLITION DEBRIS. ALL STREET SURFACES OUTSIDE THE CONSTRUCTION ZONE MUST BE KEPT CLEAN.
10. ALL EXPOSED PORTIONS OF UNDERGROUND UTILITIES TO BE ABANDONED SHALL BE PLUGGED PER DETAIL X/CXXX.

(x) DEMOLITION KEY NOTES

1 SAWCUT AND REMOVE PAVEMENT.

2 REMOVE CURB

3 PRESERVE CURB AND PROTECT IN PLACE.

4 RELOCATE POLE (BY PGE). CONTRACTOR TO COORDINATE RELOCATION WITH PGE PRIOR TO CONSTRUCTION.

5 REMOVE CONCRETE DRIVEWAY

6 REMOVE STORM SEWER STRUCTURE.

7 RELOCATE UTILITY BOX (BY LUMEN). CONTRACTOR TO COORDINATE RELOCATION WITH LUMEN NATIONAL PRIOR TO CONSTRUCTION.

8 RELOCATE TRANSFORMER (BY PGE) AND REMOVE CONCRETE PAD. CONTRACTOR TO COORDINATE RELOCATION WITH PGE PRIOR TO CONSTRUCTION.

9 REMOVE STRIPING

10 REMOVE SIGN

11 REMOVE SIDEWALK

SHEET LEGEND

REMOVE TREE

DEMO LIMITS

SAWCUT LINE

SCALE 1 INCH = 20 FEET

20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD PUBLIC STREET IMPROVEMENTS

DEMOLITION PLAN

JOB NO.

SHEET NO. ST1.4

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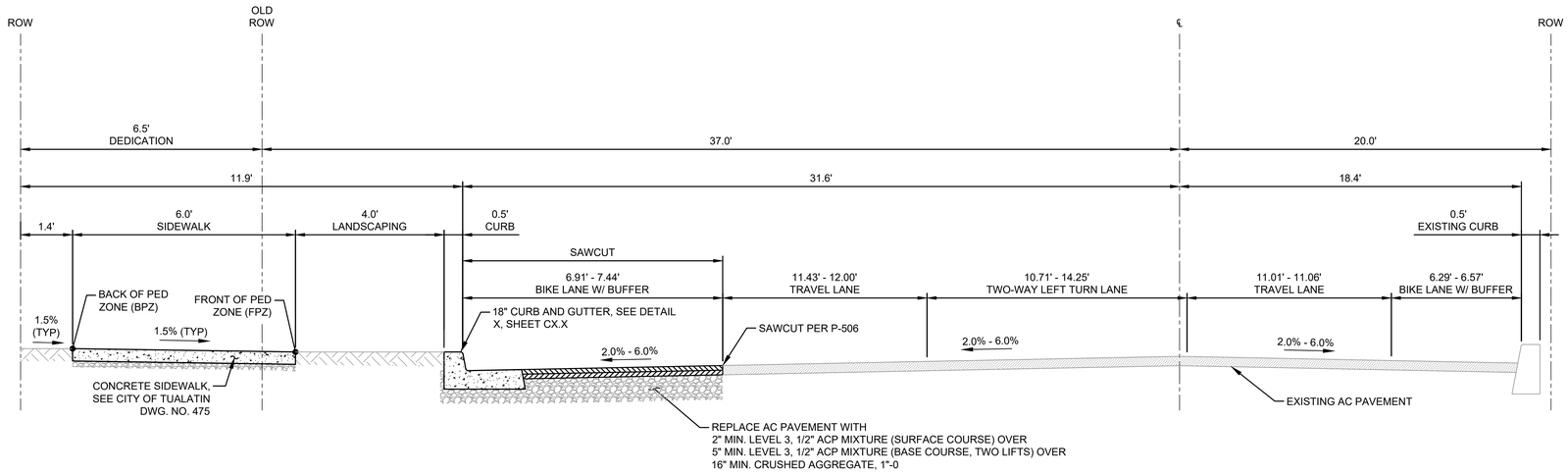
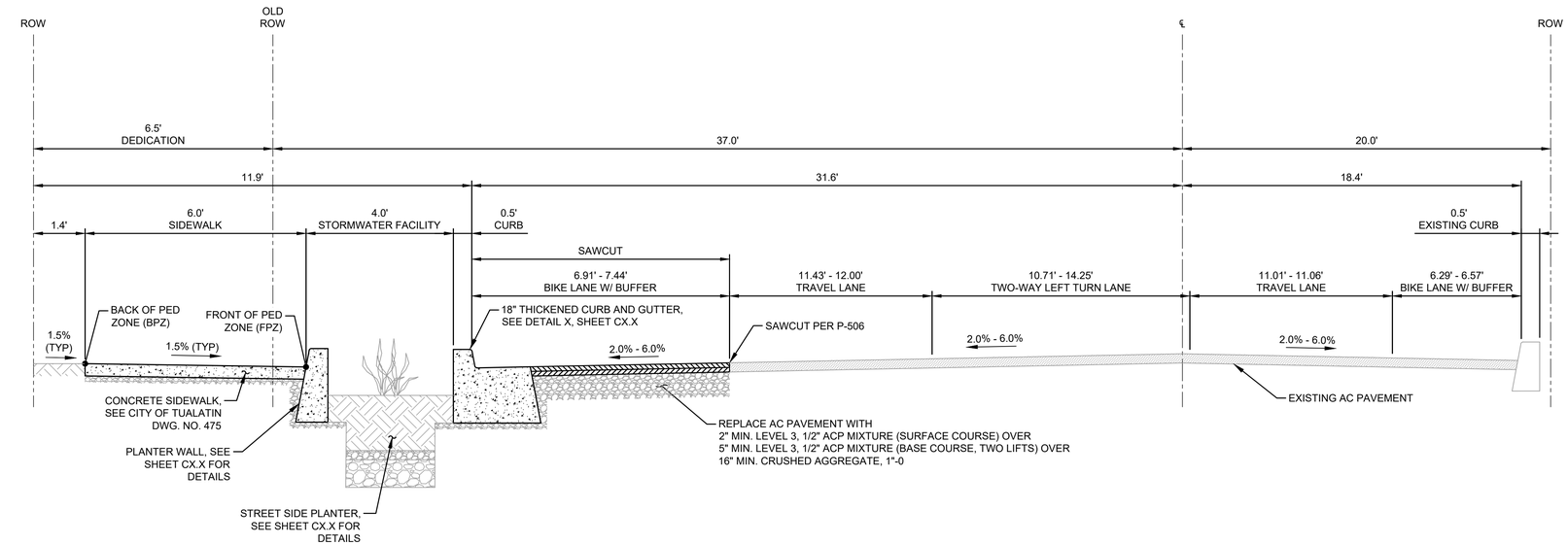
NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL



X TYP. SECTION - SW HERMAN RD

SCALE: NTS



X TYP. SECTION W/ STORMWATER FACILITY - SW HERMAN RD

SCALE: NTS

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

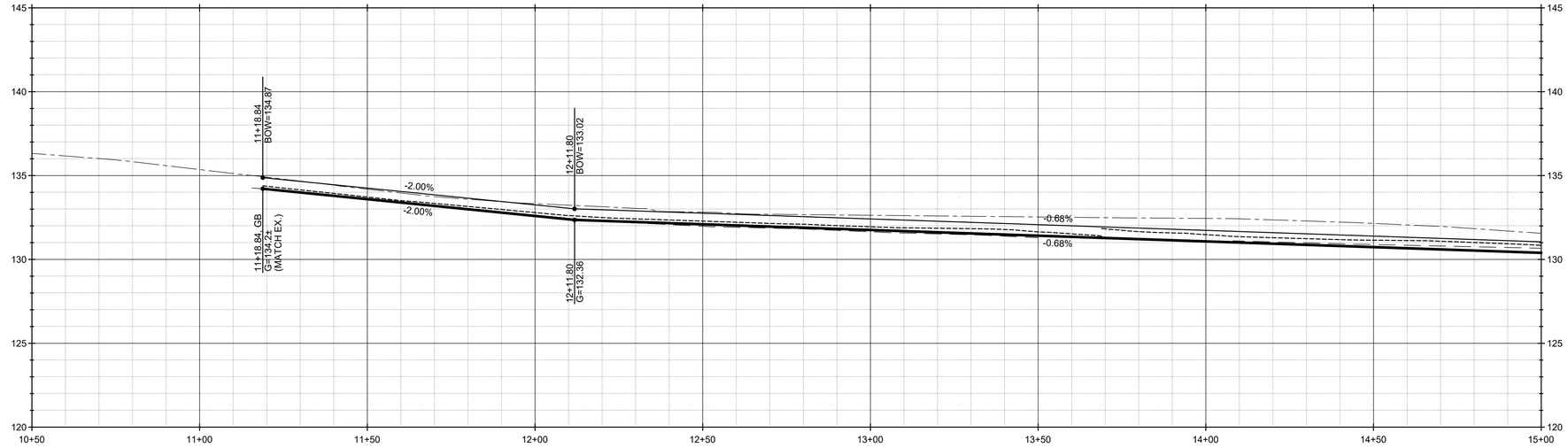
SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

TYPICAL CROSS SECTIONS

JOB NO.

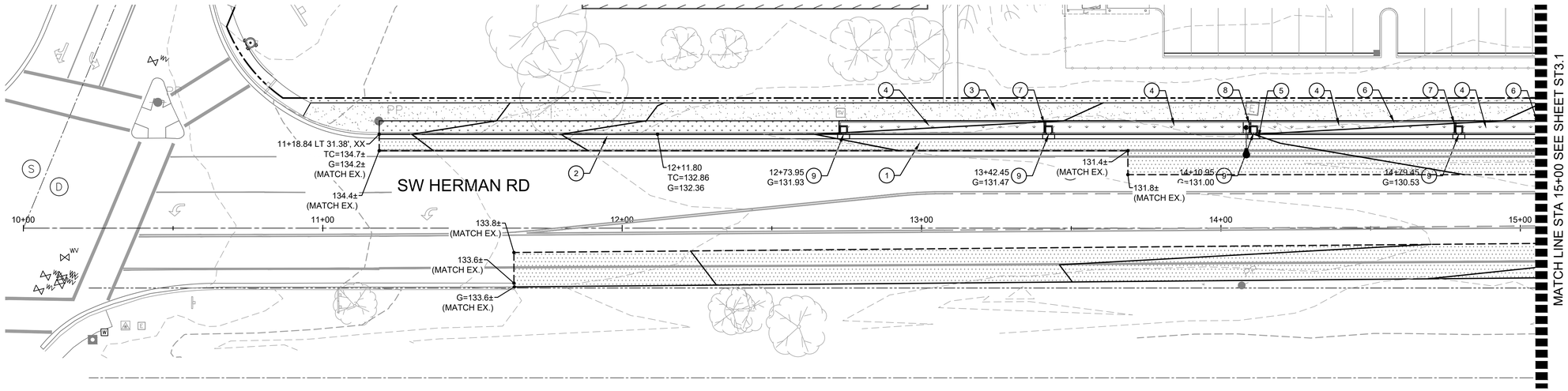
SHEET NO.
ST2.0
6 OF 18

NOT FOR CONSTRUCTION - PENDING GOVERNMENT APPROVAL



SW HERMAN RD PROFILE

SCALE: HORZ: 1" = 20'
VERT: 1" = 4'



SHEET NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL.
2. ALL SIDEWALK PAVEMENT JOINTS SHALL BE CONSTRUCTED PER DETAIL 1/C6.4.

(X) KEY NOTES

1 LOCAL STREET AC PAVEMENT RESTORATION PER CITY OF TUALATIN STANDARD DRAWING 440, SEE SHEET ST3.3, AND TYPICAL SECTIONS.

2 CONSTRUCT TYPICAL MONOLITHIC CURB AND GUTTER PER CITY OF TUALATIN STANDARD DRAWING 470, SEE SHEET ST3.3

3 CONSTRUCT CONCRETE SIDEWALK PER CITY OF TUALATIN STANDARD DRAWING 475. SEE SHEET ST3.3

4 CONSTRUCT STREET SIDE PLANTER, SEE STORMWATER AND PLANTING PLANS.

5 UTILITY POLE AND OR GUY WIRE TO BE RELOCATED BY PGE, CONTRACTOR TO COORDINATE WITH PGE

6 CONSTRUCT PLANTER WALL, SEE STORMWATER PLANS

7 INSTALL CHECK DAMN, SEE STORMWATER PLANS

8 INSTALL 4'-6" WIDE CHECK DAM, SEE STORMWATER PLANS

9 CURB SPILLWAY AND SPLASH PAD, SEE CITY OF EUGENE DWG. RD700(F) ON SHEET X.XX

ABBREVIATIONS

G	GRADE ELEVATION
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TW	TOP OF WALL

SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CITY OF TUALATIN
PUBLIC WORKS DEPARTMENT
18880 SW MARTINAZZI AVENUE
TUALATIN, OR 97062
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PRELIMINARY NOT FOR CONSTRUCTION

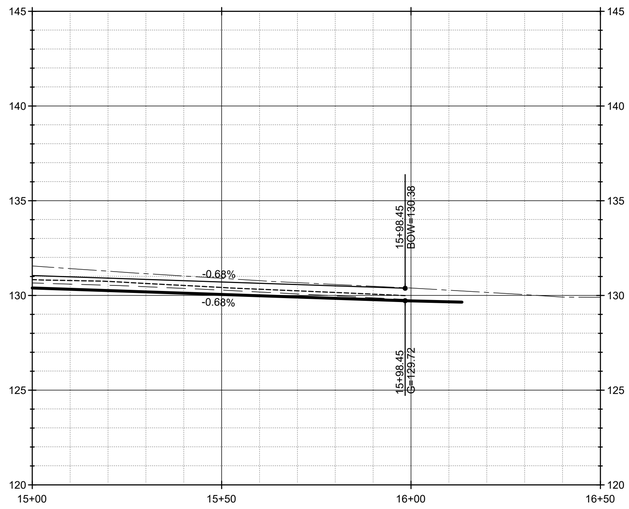
SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

ROADWAY STA 10+00 – 15+00
PLAN AND PROFILE

JOB NO.

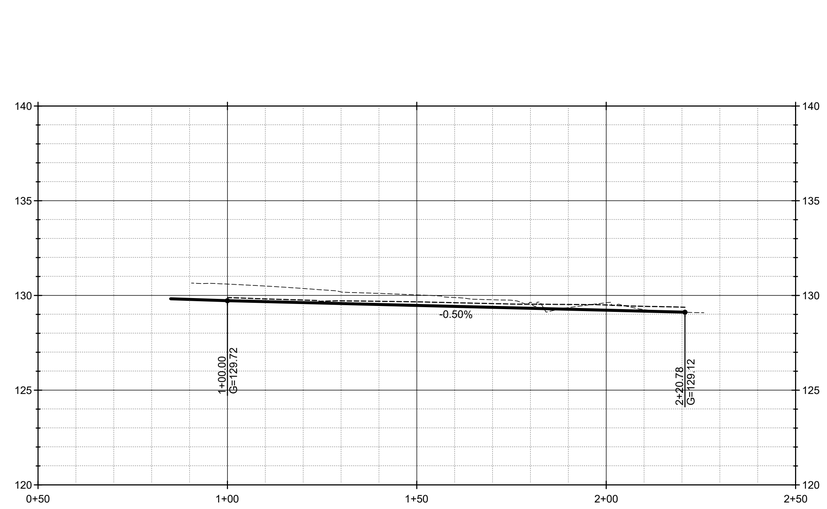
SHEET NO.
ST3.0
7 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL



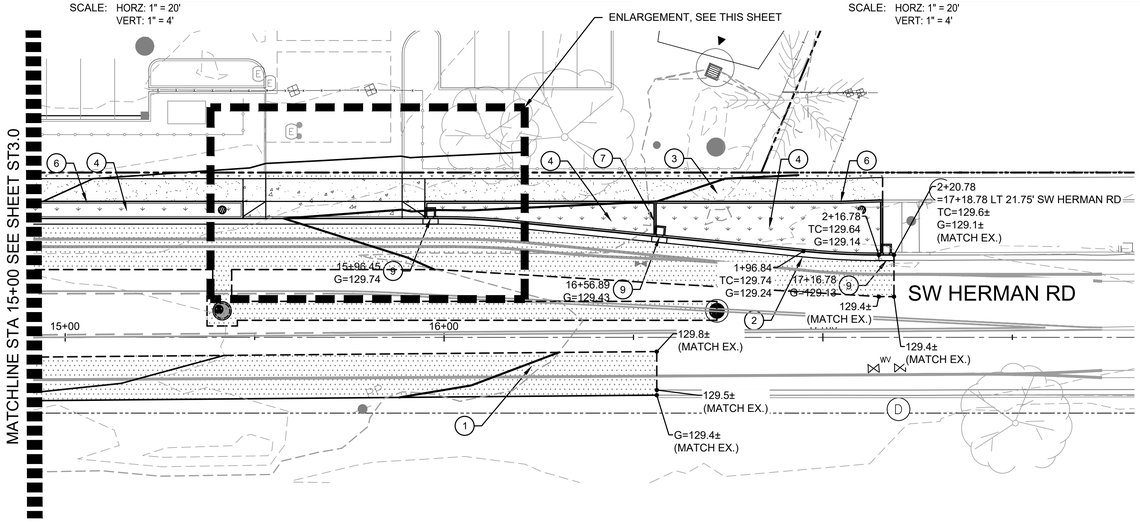
SW HERMAN RD PROFILE

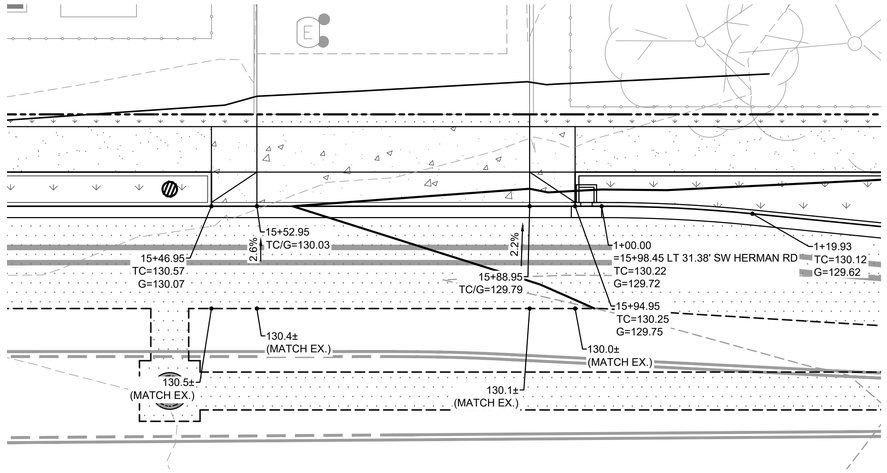
SCALE: HORZ: 1" = 20'
VERT: 1" = 4'



CURB EXTENSION GRADING PROFILE

SCALE: HORZ: 1" = 20'
VERT: 1" = 4'





DRIVEWAY ENLARGEMENT

SCALE: 1" = 10'

SHEET NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL.
2. ALL SIDEWALK PAVEMENT JOINTS SHALL BE CONSTRUCTED PER DETAIL 1/C6.4.

(X) KEY NOTES

1 LOCAL STREET AC PAVEMENT RESTORATION PER CITY OF TUALATIN STANDARD DRAWING 440, SEE SHEET ST3.3, AND TYPICAL SECTIONS.

2 CONSTRUCT TYPICAL MONOLITHIC CURB AND GUTTER PER CITY OF TUALATIN STANDARD DRAWING 470, SEE SHEET ST3.3

3 CONSTRUCT CONCRETE SIDEWALK PER CITY OF TUALATIN STANDARD DRAWING 475. SEE SHEET ST3.3

4 CONSTRUCT STREET SIDE PLANTER, SEE STORMWATER AND PLANTING PLANS.

5 UTILITY POLE AND OR GUY WIRE TO BE RELOCATED BY PGE, CONTRACTOR TO COORDINATE WITH PGE

6 CONSTRUCT PLANTER WALL, SEE STORMWATER PLANS

7 INSTALL CHECK DAMN, SEE STORMWATER PLANS

9 CURB SPILLWAY AND SPLASH PAD, SEE CITY OF EUGENE DWG. RD700(F) ON SHEET X.XX

ABBREVIATIONS

G	GRADE ELEVATION
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TW	TOP OF WALL

SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

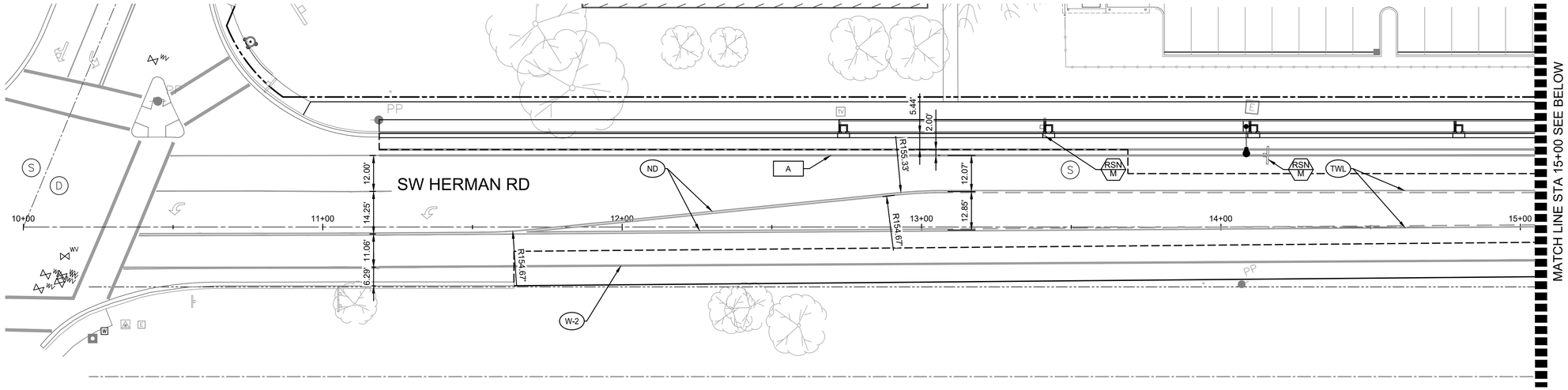
ROADWAY STA 15+00 – 18+00
PLAN AND PROFILE

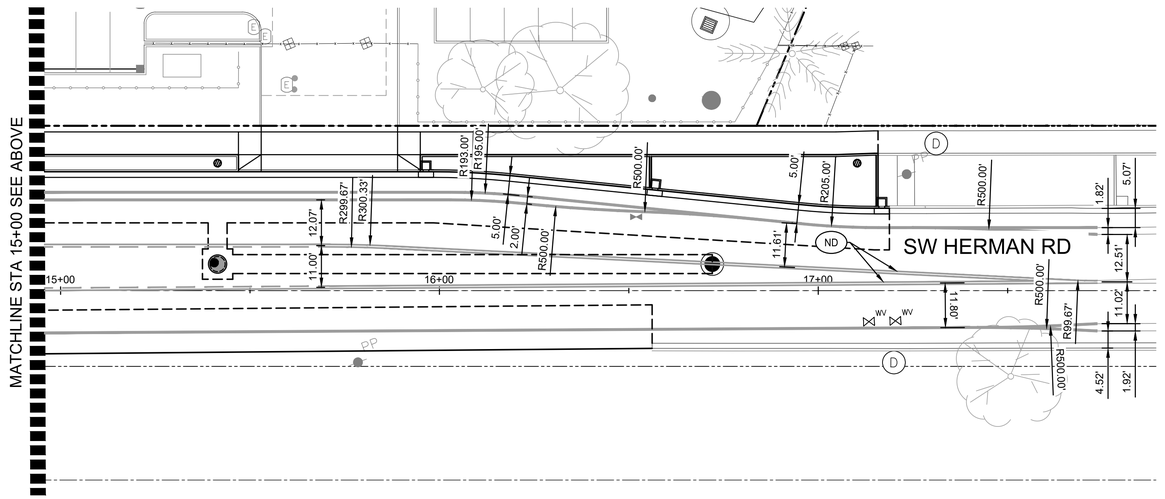
JOB NO.

SHEET NO.
ST3.1
8 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL

FILE: 24-C013_ST3.0_RD-P&P.DWG ST3.1 1/23/2025 11:14:46 AM – BULLMANN





STRIPING LEGEND

- (XX) PROVIDE STRIPING ODOT STD DTL TM500 AND ODOT STD DTL TM503.
- [XX] PROVIDE STRIPING PER COT STD DTL 430

SIGN LEGEND

- (N) INSTALL NEW SIGN (N)
- (N/M) INSTALL NEW SIGN (N) ON NEW SIGN SUPPORT (M)
- (RSN) REMOVE AND SAVE EXISTING SIGN (N)
- (RSN/M) REMOVE AND SAVE EXISTING SIGN (N) AND REMOVE SIGN SUPPORT (M)
- (RIN) REINSTALL EXISTING SIGN (N)
- (RIN/M) REINSTALL EXISTING SIGN (N) ON NEW SIGN SUPPORT (M)
- (RXN) REMOVE EXISTING SIGN (N)
- (RXN/M) REMOVE EXISTING SIGN (N) AND SIGN SUPPORT (M)
- (EXN/M) MAINTAIN AND PROTECT EXISTING SIGN (N) AND SIGN SUPPORT (M)

N = SIGN NUMBER
M = POLE OR POST MATERIAL
- B = MODIFIED BIKE RACK
- BA = POST ON BREAKAWAY ANCHOR
- BD = POST ON BREAKAWAY DOME
- P = STEEL POLE
- U = UTILITY POLE

SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

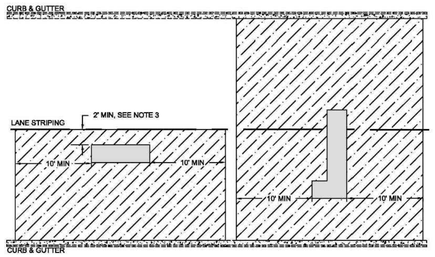
SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

SIGNAGE AND STRIPING PLAN

JOB NO.

SHEET NO. ST3.2
9 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL



LEGEND:

TRENCH AREA

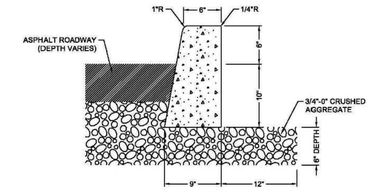
GRIND & INLAY AREA

NOTES:

1. THIS STANDARD DRAWING APPLIES TO ROADS PAVED WITHIN THE LAST 5 YEARS.
2. ALL CUTS INTO ANY LANE REQUIRE A VERTICAL CUT AND A 2" GRIND AND INLAY REPLACEMENT EXTENDING FROM THE CURB AND GUTTER TO THE ROAD CENTERLINE, OR OTHER LANE STRIPING AS APPROVED BY THE CITY ENGINEER. EXTEND THE LENGTH OF THE GRIND AND INLAY TO 10' BEYOND THE EDGES OF THE TRENCH.
3. IF A TRENCH CUT IS MADE WITHIN 2' OF THE ROAD CENTERLINE OR IF A CUT CROSSES THE ROAD CENTERLINE, EXTEND THE GRIND AND INLAY THE ENTIRE WIDTH OF THE ROAD.
4. GRIND AND INLAY MUST BE AT LEAST 2" DEEP FOR THE ENTIRE AREA. AN INSPECTION IS REQUIRED BEFORE ASPHALT MAY BE APPLIED.
5. RESTORE ALL STRIPING.
6. REFERENCE STANDARD DRAWING NO. 241 FOR TRENCH REPAIR.

CITY OF TUALATIN, OR — ASPHALT REPAIR FOR NEWLY PAVED ROADS

REVISED:	2/12/2018	DRAFTED BY:	S. STRASSER	SCALE:	NTS	DRAWING NO.	480
		APPROVED BY:	J. FUCHS				

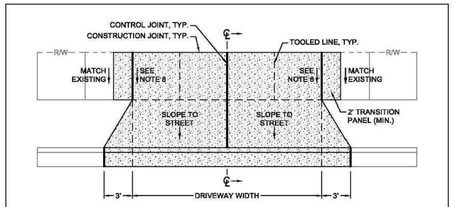


NOTES:

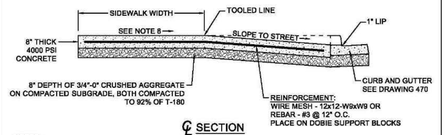
1. CONCRETE SHALL ATTAIN 3300 PSI COMPRESSIVE STRENGTH AT 28 DAYS, ENTRAINED AIR 4% - 7%.
2. CONTROL JOINTS OF THE WEAKENED PLANE TYPE, DOWN THROUGH THE CURB TO HALF THE DEPTH OF THE CURB, SHALL BE SPACED AT 15' INTERVALS AND AT POINTS OF TANGENCY. FINISH THE EXPOSED EDGE WITH 1/4" RADIUS EDGER. DO NOT USE EXPANSION JOINTS.
3. CONSTRUCTION JOINTS SHALL BE FORMED WITH A SMOOTH FACE SQUARE TO THE CURB AND DOWN THROUGH HALF THE DEPTH OF THE CURB. FINISH FUTURE EXPOSED EDGE WITH 1/4" RADIUS EDGER. THE LOWER HALF OF THE CURB CROSS SECTION SHALL BE LEFT WITH A ROUGH EXPOSED AGGREGATE SURFACE TO INTERLOCK WITH A FUTURE EXTENSION OF THE CURB.
4. BASE ROCK UNDER THE CURB AND ALSO PLACED 12" BEYOND THE BACK OF THE CURB SHALL BE COMPACTED TO 92% OF T-180.
5. DRAINAGE WEEP HOLES OF 3" DIAMETER PVC SCHEDULE 40 PIPE SHALL BE PLACED THROUGH THE CURB WITH INVERT 5½" BELOW THE CURB TOP AND EXTEND 3" BEYOND THE BACK OF THE CURB AT POSITIONS SHOWN ON THE PLANS, LOW POINTS IN THE CURB, OR WHERE DETERMINED BY THE ENGINEER.
6. THE BACK OF THE CURB SHALL BE BACKFILLED NOT EARLIER THAN 7 DAYS AFTER CONCRETE PLACEMENT AND PRIOR TO THE COMPACTION OF BASE AND TOP COURSE ROCK AND PAVEMENT.
7. THE EXPOSED SURFACES SHALL BE BROOM FINISHED LONGITUDINALLY.

CITY OF TUALATIN, OR — CURB

REVISED:	11/2020	SCALE:	NOT TO SCALE	DRAFTED BY:	C. FERGESON	DRAWING NO:	471
EFFECTIVE:	12/2020			APPROVED BY:	K. MCMILLAN		



PLAN



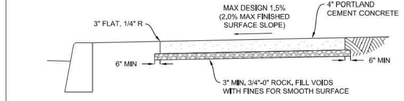
℄ SECTION

NOTES:

1. CONTROL JOINTS SHALL BE WEAKENED PLANE TYPE FORMED TO A DEPTH 2-3/4" WITH TOOLED EDGES (1/4"R EDGE, 3" FLAT) EXCEPT IN CURB AND GUTTER (1/4"R EDGE ONLY). NO MESH ACROSS CONTROL JOINTS.
2. TOOLED LINES ARE FOR COMESTIC PURPOSES ONLY, 1/4"R EDGE, 3" FLAT.
3. FOR LOCATION AND WIDTH OF DRIVEWAYS, MEET THE REQUIREMENTS OF THE TUALATIN DEVELOPMENT CODE.
4. FINISH CONCRETE APPROACH RAMP WITH BRUSH FINISH TRANSVERSE TO CENTERLINE.
5. POUR APPROACH SLAB AND WINGS (BOTH 8" THICK) MONOLITHIC WITH CURB AND GUTTER IF SO DIRECTED BY ENGINEER.
6. BEFORE OPENING TO TRAFFIC, ATTAIN 4,000 PSI COMPRESSIVE STRENGTH, ENTRAINED AIR 4% - 7%.
7. REMOVE THE CURB AND GUTTER IN ITS ENTIRETY AND POUR BACK AS A MONOLITHIC POUR IF AN EXISTING CURB AND GUTTER IS MODIFIED AS PART OF A DRIVEWAY APPROACH.
8. SIDEWALK CROSS SLOPE TO BE MAX 1.5% DESIGN SLOPE (2.0% MAX FINISHED SURFACE SLOPE).

CITY OF TUALATIN, OR — COMMERCIAL DRIVEWAY APPROACH CURBSIDE PLANTER STRIP

REVISED:	11/2020	SCALE:	NOT TO SCALE	DRAFTED BY:	C. FERGESON	DRAWING NO:	440
EFFECTIVE:	12/2020			APPROVED BY:	K. MCMILLAN		



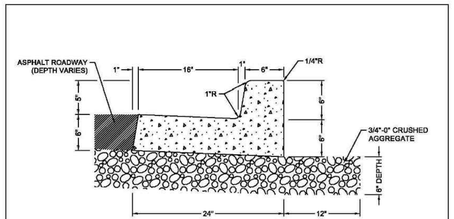
CROSS SECTION

NOTES:

1. PLATE COMPACT THE SIDEWALK SUBGRADE AND BASE ROCK TO SATISFACTION OF THE CITY ENGINEER. DO NOT COMPACT EARLIER THAN 7 DAYS AFTER CONSTRUCTING CURB OR BEFORE COMPLETING THE PLACEMENT OF PAVEMENT BASE ROCK. FILL VOIDS WITH FINES WHERE NECESSARY TO PROVIDE SMOOTH SURFACE.
2. USE PORTLAND CEMENT CONCRETE WITH 4-7% AIR ENTRAINMENT AND A 28 DAY COMPRESSIVE STRENGTH OF AT LEAST 3,300 PSI.
3. CONSTRUCT TRANSVERSE CONTROL JOINTS OF THE WEAKENED PLANE TYPE, 1-1/2" CONCRETE DEPTH AND SPACE AT 5' INTERVALS AND AT POINTS OF TANGENCY.
4. FORM CONTROL JOINTS WITH A SMOOTH FACE SQUARE TO THE SIDEWALK.
5. WHERE A STRUCTURE IS SURROUNDED BY OR IS ADJACENT TO THE SIDEWALK (EXCLUDING CURB), PROVIDE SEPARATION WITH ½" PREMOLDED ASPHALT-IMPREGNATED, NON-EXTRUDING EXPANSION JOINT MATERIAL.
6. BROOM FINISH THE SURFACE TRANSVERSE TO THE DIRECTION OF TRAFFIC.
7. FINISH ALL EDGES WITH ½" RADIUS EDGER WITH 3" FLAT.
8. WHERE PRACTICAL, ALIGN SIDEWALK CONTROL JOINTS WITH CURB JOINTS.
9. IN ACCORDANCE WITH THE UNITED STATES ACCESS BOARD PROPOSED PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES, IF THE EXISTING ADJACENT SIDEWALK PANEL CROSS SLOPE IS GREATER THAN 2.0%, CONSTRUCT A TRANSITIONAL PANEL THAT IS AT LEAST 2' LONG BETWEEN THE NEW SIDEWALK PANEL AND THE EXISTING SIDEWALK. EXTEND TRANSITION PANEL TO THE NEAREST CONTROL JOINT IF LESS THAN 2' OF THE EXISTING PANEL REMAINS.

CITY OF TUALATIN, OR — CONCRETE SIDEWALK

REVISED:	7/23/2018	DRAFTED BY:	S. STRASSER	SCALE:	NTS	DRAWING NO.	475
		APPROVED BY:	J. FUCHS				



NOTES:

1. CONCRETE SHALL ATTAIN 3300 PSI COMPRESSIVE STRENGTH AT 28 DAYS, ENTRAINED AIR 4% - 7%.
2. CONTROL JOINTS OF THE WEAKENED PLANE TYPE, DOWN THROUGH THE CURB TO HALF THE DEPTH OF THE GUTTER, SHALL BE SPACED AT 15' INTERVALS AND AT POINTS OF TANGENCY. FINISH THE EXPOSED EDGE WITH 1/4" RADIUS EDGER. DO NOT USE EXPANSION JOINTS.
3. CONSTRUCTION JOINTS SHALL BE FORMED WITH A SMOOTH FACE SQUARE TO THE CURB AND DOWN THROUGH HALF THE DEPTH OF THE GUTTER. FINISH FUTURE EXPOSED EDGE WITH 1/4" RADIUS EDGER. THE LOWER HALF OF THE GUTTER CROSS SECTION SHALL BE LEFT WITH A ROUGH EXPOSED AGGREGATE SURFACE TO INTERLOCK WITH A FUTURE EXTENSION OF THE CURB AND GUTTER.
4. BASE ROCK UNDER THE CURB AND ALSO PLACED 12" BEYOND THE BACK OF THE CURB SHALL BE COMPACTED TO 92% OF T-180.
5. DRAINAGE WEEP HOLES OF 3" DIAMETER PVC SCHEDULE 40 PIPE SHALL BE PLACED THROUGH THE CURB 1/2" ABOVE THE GUTTER INVERT AND EXTEND 3" BEYOND THE BACK OF THE CURB AT POSITIONS SHOWN ON THE PLANS, LOW POINTS IN THE CURB, OR WHERE DETERMINED BY THE ENGINEER.
6. THE BACK OF THE CURB SHALL BE BACKFILLED NOT EARLIER THAN 7 DAYS AFTER CONCRETE PLACEMENT AND PRIOR TO THE COMPACTION OF BASE AND TOP COURSE ROCK AND PAVEMENT.
7. THE EXPOSED SURFACES SHALL BE BROOM FINISHED IN THE DIRECTION OF GUTTER FLOW.

CITY OF TUALATIN, OR — CURB AND GUTTER

REVISED:	11/2020	SCALE:	NOT TO SCALE	DRAFTED BY:	C. FERGESON	DRAWING NO:	470
EFFECTIVE:	12/2020			APPROVED BY:	K. MCMILLAN		

NO.	DATE	DESCRIPTION	APPD.

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SW HERMAN ROAD PUBLIC STREET IMPROVEMENTS

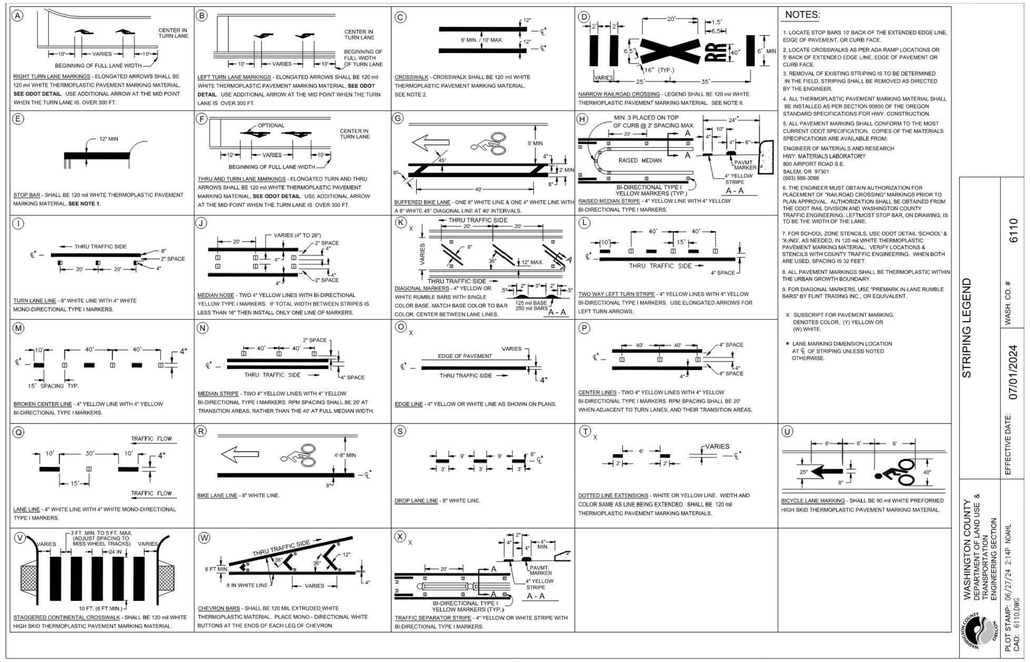
DETAILS

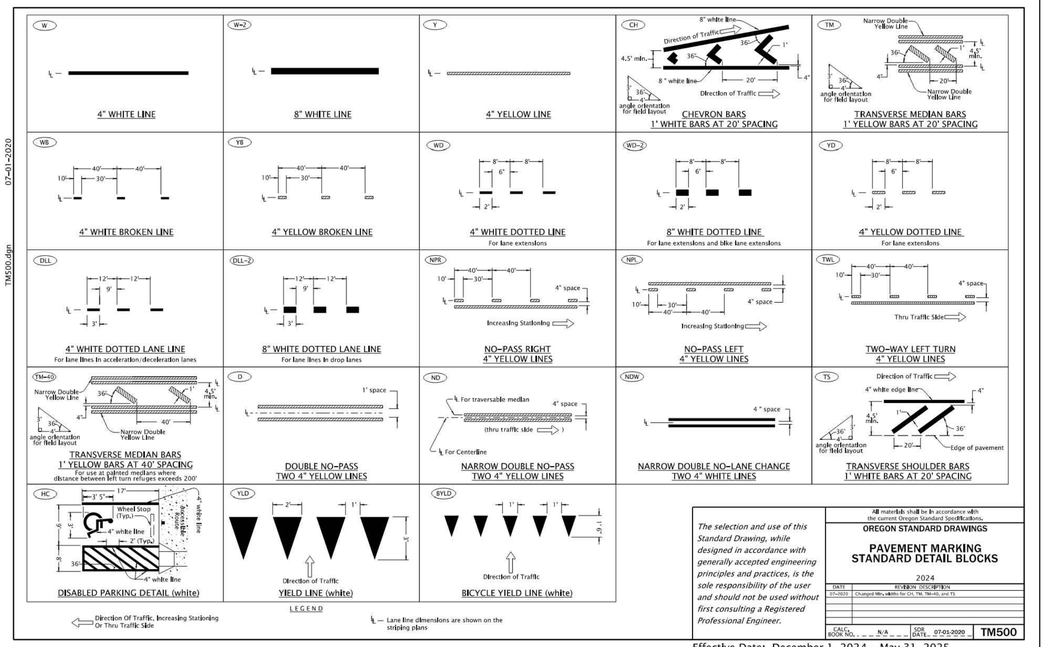
JOB NO.

SHEET NO. ST3.3

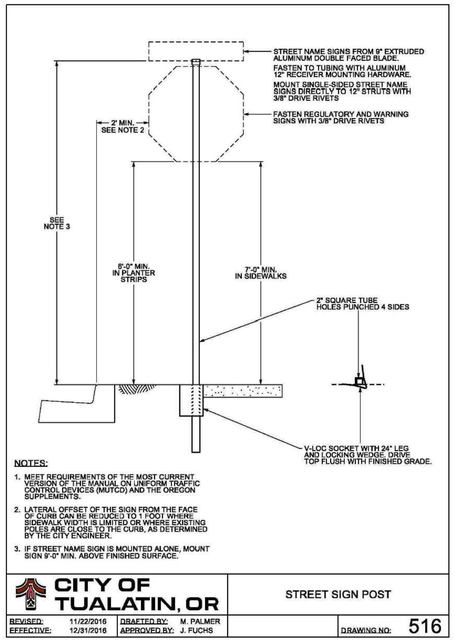
10 OF 18

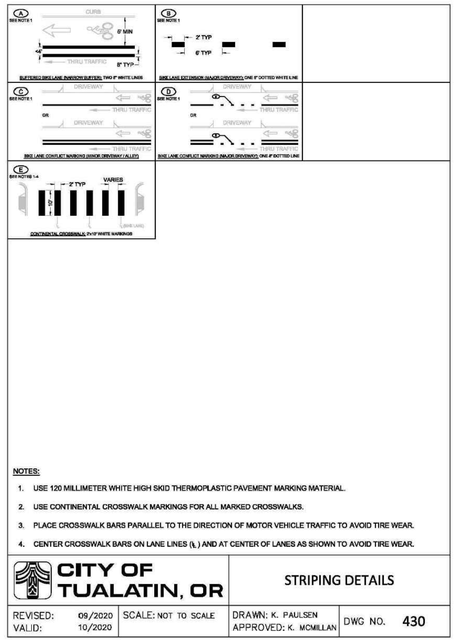
NOT FOR CONSTRUCTION - PENDING GOVERNMENT APPROVAL

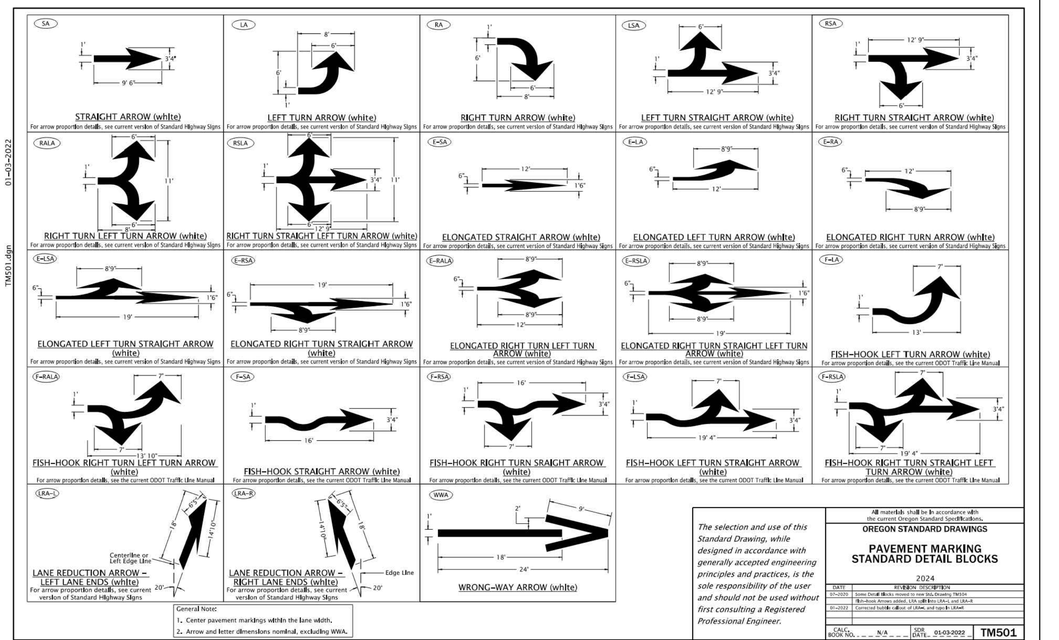




Effective Date: December 1, 2024 – May 31, 2025







Effective Date: December 1, 2024 – May 31, 2025

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

SIGNAGE AND STRIPING DETAILS

JOB NO.

SHEET NO. ST3.4
11 OF 18

FILE: 24-C013_ST3.3_DETL.DWG ST3.4 1/23/2025 11:15:05 AM — BULLMANN

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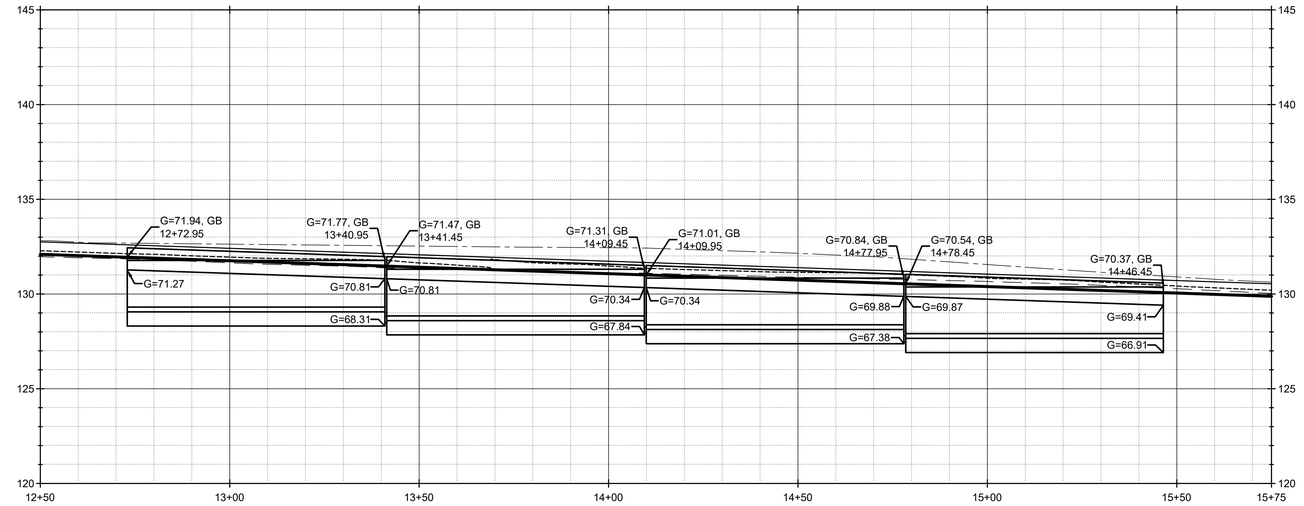
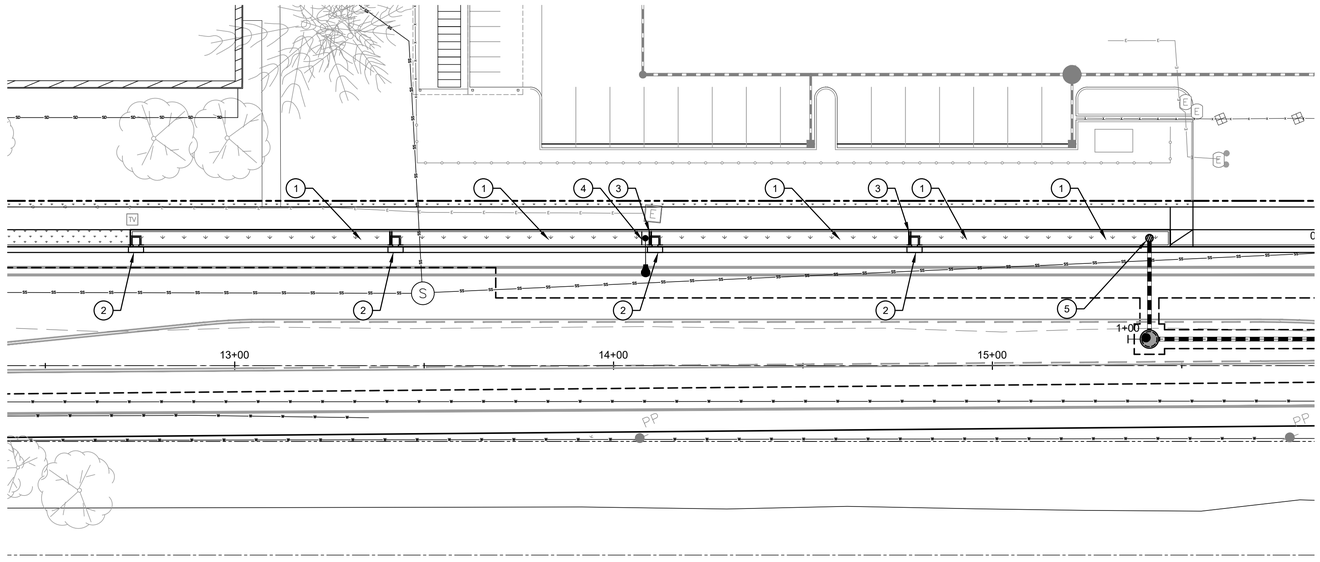


STORMWATER FACILIITY #1 PROFILE

SCALE: HORZ: 1" = 20'
VERT: 1" = 4'



SHEET NOTES

1. SEE SHEET ST4.1 FOR STORMWATER FACILITY GRADING PLAN

KEY NOTES

1 CONSTRUCT STORMWATER FACILITY PER STD DTL XXX
2 CONSTRUCT CURB SPILLWAY AND SPLASH PAD. SEE ROADWAY PLANS
3 CONSTRUCT CHECK DAM PER DETAIL X/ST4.3
4 CONSTRUCT 4'-6" WIDE CHECK DAM PER DETAIL X/ST4.3

ABBREVIATIONS

BI	BEEHIVE INLET
G	GUTTER
IE	INVERT ELEVATION
MH	MANHOLE
SWF	STORMWATER FACILITY
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TW	TOP OF WALL

SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

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SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

STORMWATER FACILITY #1
PLAN AND PROFILE

JOB NO.

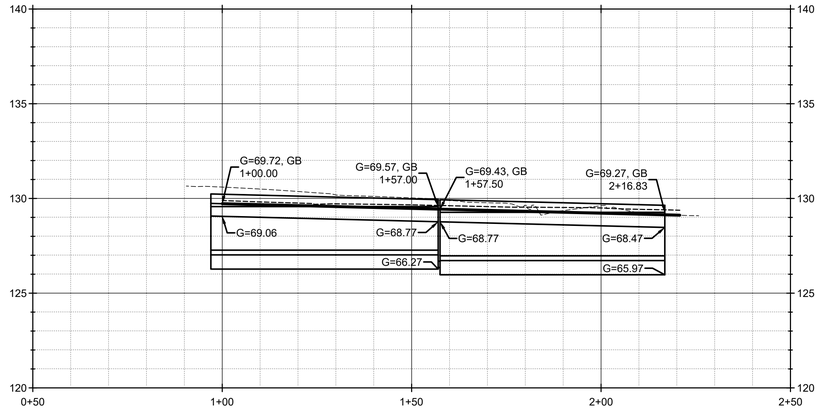
SHEET NO.
ST4.0
12 OF 18

SHEET NOTES

1. SEE SHEET ST4.1 FOR STORMWATER FACILITY GRADING PLAN

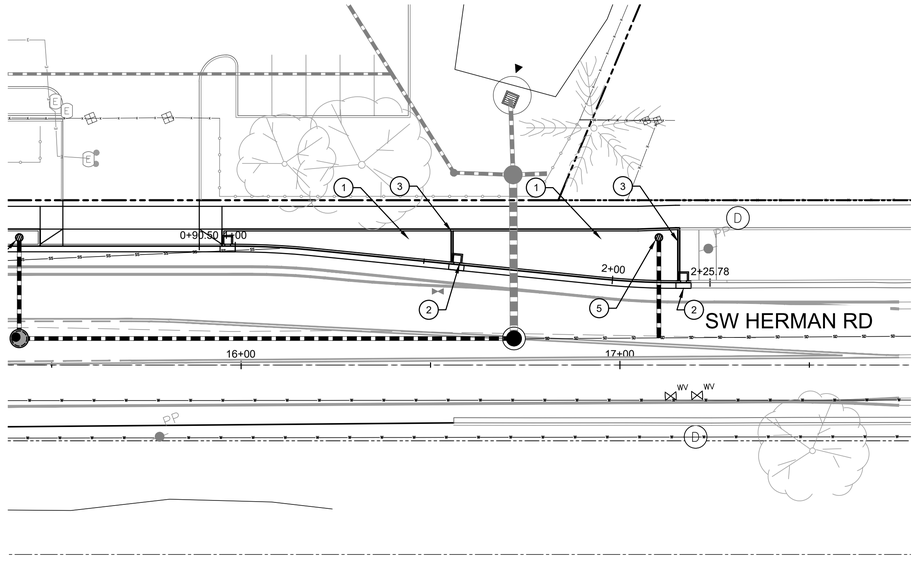
KEY NOTES

1 CONSTRUCT STORMWATER FACILITY PER STD DTL XXX
2 CONSTRUCT CURB SPILLWAY AND SPLASH PAD. SEE ROADWAY PLANS
3 CONSTRUCT CHECK DAM PER DETAIL X/ST4.3
4 CONSTRUCT 4'-6" WIDE CHECK DAM PER DETAIL X/ST4.3
5 CONSTRUCT NEW BEEHIVE INLET PER CLEANWATER SERVICES STANDARD DETAIL 405. SEE SHEET ST4.4



STORMWATER FACILIITY #2 PROFILE

SCALE: HORZ: 1" = 20'
VERT: 1" = 4'



ABBREVIATIONS

BI	BEEHIVE INLET
G	GUTTER
IE	INVERT ELEVATION
MH	MANHOLE
SWF	STORMWATER FACILITY
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TW	TOP OF WALL

SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CITY OF TUALATIN
PUBLIC WORKS DEPARTMENT
18880 SW MARTINAZZI AVENUE
TUALATIN, OR 97062
503.691.3674 OFFICE

FROELICH ENGINEERS PW
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17700 SW UPPER BOONES FERRY RD, STE 115
PORTLAND, OREGON 97224
PHONE (503) 624-7005
WWW.FROELICH-ENGINEERS.COM

PRELIMINARY NOT FOR CONSTRUCTION

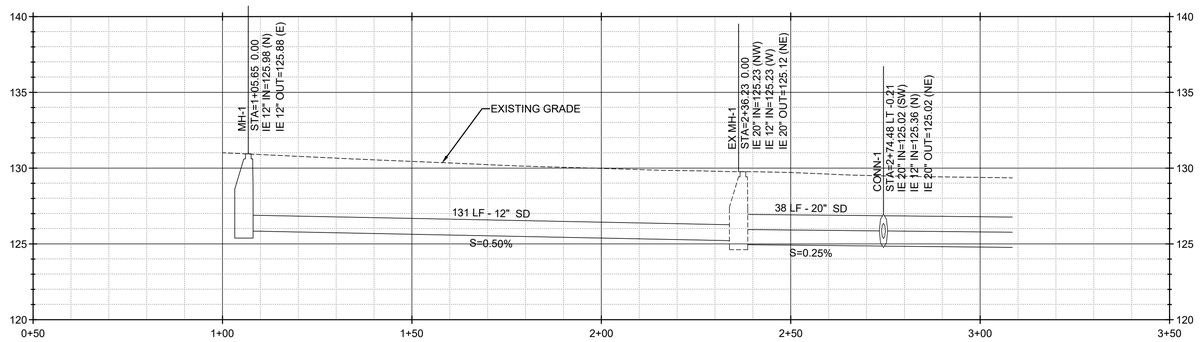
SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

STORMWATER FACILITY #2
PLAN AND PROFILE

JOB NO.

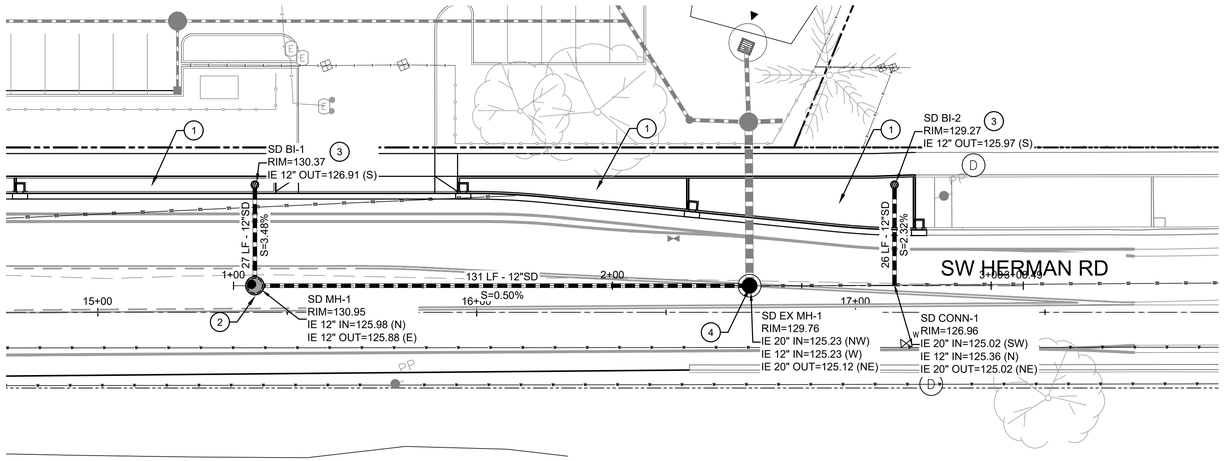
SHEET NO.
ST4.1
13 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL



STORM SEWER EXTENSION PROFILE

SCALE: HORZ: 1" = 20'
VERT: 1" = 5'



SHEET NOTES

1. SEE SHEET ST4.1 FOR STORMWATER FACILITY GRADING PLAN

③ KEY NOTES

1 CONSTRUCT STORMWATER FACILITY PER STD DTL XXX
2 CONSTRUCT NEW STORMWATER MANHOLE PER STD DTL XXX
3 CONSTRUCT NEW BEEHIVE INLET PER STORMWATER PLANTER PLAN
4 CONNECT STORM SEWER LAIN TO EXISTING STORM SEWER MANHOLE

ABBREVIATIONS

BI	BEEHIVE INLET
G	GUTTER
IE	INVERT ELEVATION
MH	MANHOLE
SWF	STORMWATER FACILITY
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TW	TOP OF WALL

SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

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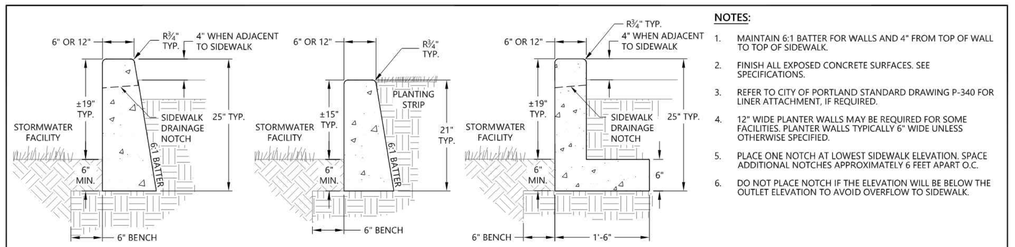
SW HERMAN ROAD PUBLIC STREET IMPROVEMENTS

STORM SEWER EXTENSION
PLAN AND PROFILE

JOB NO.

SHEET NO.
ST4.2
14 OF 18



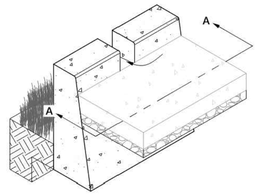
PLANTER WALL A
(ADJACENT TO SIDEWALK)

PLANTER WALL B
(ADJACENT TO PLANTER STRIP)

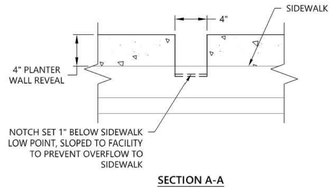
PLANTER WALL C
(ADJACENT TO SIDEWALK)

NOTES:

1. MAINTAIN 6:1 BATTER FOR WALLS AND 4" FROM TOP OF WALL TO TOP OF SIDEWALK.
2. FINISH ALL EXPOSED CONCRETE SURFACES. SEE SPECIFICATIONS.
3. REFER TO CITY OF PORTLAND STANDARD DRAWING P-340 FOR LINER ATTACHMENT, IF REQUIRED.
4. 12" WIDE PLANTER WALLS MAY BE REQUIRED FOR SOME FACILITIES. PLANTER WALLS TYPICALLY 6" WIDE UNLESS OTHERWISE SPECIFIED.
5. PLACE ONE NOTCH AT LOWEST SIDEWALK ELEVATION. SPACE ADDITIONAL NOTCHES APPROXIMATELY 6 FEET APART O.C.
6. DO NOT PLACE NOTCH IF THE ELEVATION WILL BE BELOW THE OUTLET ELEVATION TO AVOID OVERFLOW TO SIDEWALK.



SIDEWALK DRAINAGE NOTCH PERSPECTIVE



SECTION A-A

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.

Bureau of Environmental Services
CITY OF PORTLAND, OREGON
William Ryan
Digitally signed by William Ryan
Date: 2020.09.01 10:30:15 -07'00'
Chief Engineer

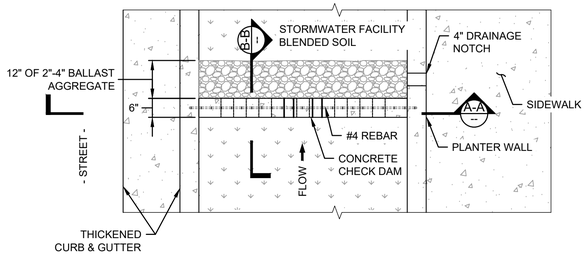
STANDARD DRAWING Title

PLANTER WALLS

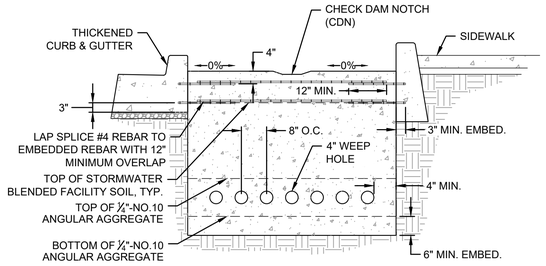
Note:
All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.

Effective Date: 07-31-20	Standard Drawing No.
Calc. Book No.: N/A	P-307
Baseline Report Date: N/A	

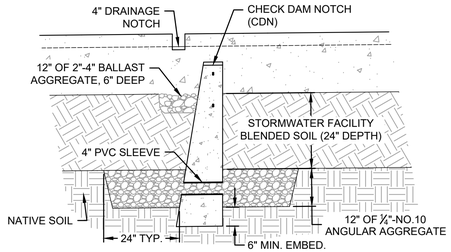
P-307_PLANTER_WALLS.DWG 8/24/20 7:46 AM DANPE



PLAN VIEW



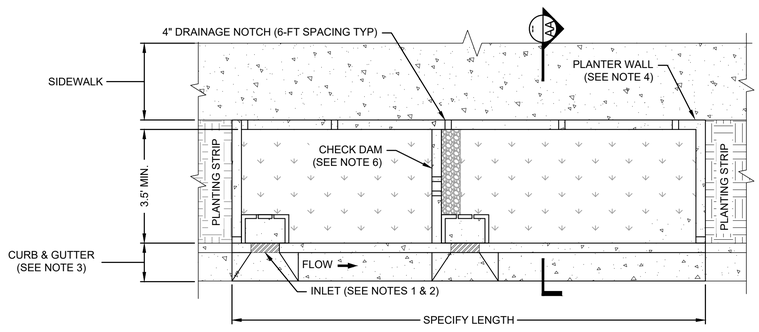
SECTION A-A



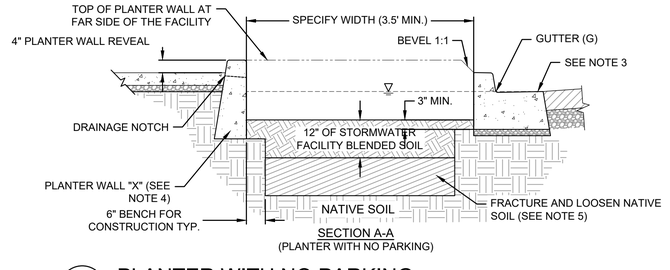
SECTION B-B

(X) CHECK DAM - PARTIAL INFILTRATION FACILITY WITH WEEP HOLES

SCALE: NTS



PLAN VIEW
(PLANTER WITH NO PARKING)



SECTION A-A
(PLANTER WITH NO PARKING)

(AA) PLANTER WITH NO PARKING

SCALE: NTS

NOTES

1. CONSTRUCT CONCRETE CURB INLET, TYPE METAL PER COP STD DTL P-304.
2. DEPRESS GUTTER PAN BOTTOM 2" BELOW CURB FLOW LINE TO BOTTOM OF INLET.
3. CONSTRUCT 18" MODIFIED CURB AND GUTTER PER COP STD DTL P-540.
4. CONSTRUCT PLANTER WALL PER COP STD DTL P-307.
5. FRACTURE AND LOOSEN SOIL (DO NOT TILL) TO A DEPTH OF 12" BELOW STORMWATER FACILITY BLENDED SOIL EXCAVATION BEFORE INSTALLING AGGREGATE OR BLENDED SOIL.
6. CONSTRUCT CHECK DAM PER DETAIL X/CX.X

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

STORMWATER DETAILS

JOB NO.

SHEET NO.
ST4.3
15 OF 18

FILE: 24-C013_ST3.3_DETL.DWG ST4.3 1/23/2025 11:15:37 AM – BULLMANN

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL

STORMWATER FACILITY GROWING MEDIUM

FURNISH IMPORTED BLENDED SOIL FOR ALL VEGETATED LIDA FACILITIES CONFORMING TO THE FOLLOWING:

- GENERAL COMPOSITION – USE MATERIAL THAT IS ANY BLEND OF LOAMY SOIL, SAND, AND COMPOST THAT IS 30–40% COMPOST (BY VOLUME) AND MEETS THE OTHER CRITERIA IN THIS SPECIFICATION.
- ANALYSIS REQUIREMENTS FOR THE BLENDED MATERIAL:
  PARTICLE GRADATION – A SIEVE ANALYSIS OF THE BLENDED MATERIAL, NOT INCLUDING COMPOST, SHALL BE CONDUCTED IN CONFORMANCE WITH ASTM C117/C136, AASHTO T11/T27, ASTM D422/D1140, OR ASTM D6913. THE ANALYSIS SHALL INCLUDE THE FOLLOWING SIEVE SIZES: 1 INCH, 3/8 INCH, #4, #10, #20, #40, #60, #100, #200. THE GRADATION OF THE BLEND SHALL MEET THE FOLLOWING GRADATION CRITERIA.

SIEVE SIZE	PERCENT PASSING
1 INCH	100
# 4	85 –100
# 10	50–100
# 40	20–60
# 100	10–40
# 200	10–20

- THE MATERIAL SHALL BE LOOSE AND EASILY BROKEN INTO SMALL PIECES
- IT SHALL BE WELL MIXED AND HOMOGENOUS.
- IT SHALL BE FREE OF WOOD PIECES, PLASTIC, AND OTHER FOREIGN MATTER.
- IT SHALL HAVE NO VISIBLE FREE WATER.
- THE PH (POWER OF HYDROGEN) OF THE BLENDED MATERIAL SHALL BE TESTED AND BE BETWEEN 6 TO 8.

COMPOST

THE COMPOST SHALL BE DERIVED FROM PLANT MATERIAL AND PROVIDED BY A MEMBER OF THE US COMPOSTING COUNCIL SEAL OF TESTING ASSURANCE (STA) PROGRAM. SEE WWW.COMPOSTINGCOUNCIL.ORG FOR A LIST OF LOCAL PROVIDERS.

THE COMPOST SHALL BE THE RESULT OF THE BIOLOGICAL DEGRADATION AND TRANSFORMATION OF PLANT–DERIVED MATERIALS UNDER CONDITIONS DESIGNED TO PROMOTE AEROBIC DECOMPOSITION. THE MATERIAL SHALL BE WELL COMPOSTED, FREE OF VIABLE WEED SEEDS, AND STABLE WITH REGARD TO OXYGEN CONSUMPTION AND CARBON DIOXIDE GENERATION. THE COMPOST SHALL HAVE NO VISIBLE FREE WATER AND PRODUCE NO DUST WHEN HANDLED. IT SHALL MEET THE FOLLOWING CRITERIA, AS REPORTED BY THE US COMPOSTING COUNCIL STA COMPOST TECHNICAL DATA SHEET PROVIDED BY THE VENDOR.

- 100% OF THE MATERIAL MUST PASS THROUGH A 1/2–INCH SCREEN.
- THE PH OF THE MATERIAL SHALL BE BETWEEN 6 MIN. AND 8 MAX.
- MANUFACTURED INERT MATERIAL (PLASTIC, CONCRETE, CERAMICS, METAL, ETC.) SHALL BE LESS THAN 1.0% BY WEIGHT.
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 30 AND 70% (DRY WEIGHT BASIS).
- SOLUBLE SALT CONTENT SHALL BE LESS THAN 6.0 MMHOS/CM.
- MATURITY INDICATION SHALL BE GREATER THAN 80% FOR GERMINATION AND VIGOR.
- STABILITY SHALL BE "STABLE" TO "VERY STABLE".
- CARBON/NITROGEN (C/N) RATIO SHALL BE LESS THAN 25:1.
- TRACE METALS TEST RESULT = "PASS."

CONSTRUCTION

STORMWATER FACILITY GROWING MEDIUM:

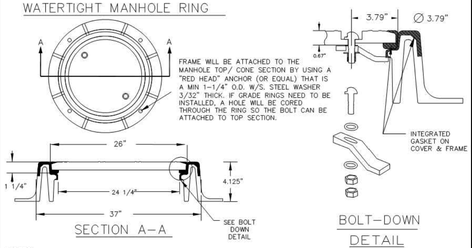
- PROTECTION OF THE SOIL – THE MATERIAL SHALL BE PROTECTED FROM ALL SOURCES OF CONTAMINATION, INCLUDING WEED SEEDS, WHILE AT THE SUPPLIER, IN CONVEYANCE, AND AT THE PROJECT SITE.
- WET AND WINTER CONDITIONS – HAULING AND PLACEMENT OF THE MATERIAL WILL NOT BE ALLOWED WHEN THE WEATHER IS TOO WET OR THE GROUND IS FROZEN OR SATURATED AS DETERMINED BY THE OWNERS REPRESENTATIVE.
- PLACEMENT OF THE SOIL – PLACE THE MATERIAL IN LOOSE LIFTS, NOT TO EXCEED 8 INCHES EACH AND EACH LIFT SHALL BE COMPACTED WITH A WATER–FILLED LANDSCAPE ROLLER. DO NOT OTHERWISE MECHANICALLY COMPACT THE MATERIAL.
- TIMING OF PLANT INSTALLATION – WEATHER PERMITTING AND AS APPROVED, INSTALL PLANTS AS SOON AS POSSIBLE AFTER PLACING AND GRADING THE SOIL IN ORDER TO MINIMIZE EROSION AND FURTHER COMPACTION.
- EROSION CONTROL – TEMPORARY EROSION CONTROL MEASURES ARE REQUIRED UNTIL PERMANENT STABILIZATION MEASURES ARE FUNCTIONAL.
- PROTECTION OF THE INSTALLED SOIL – IN ALL CASES, THE PROTECT INSTALLED MATERIAL FROM FOOT OR EQUIPMENT TRAFFIC AND SURFACE WATER RUNOFF. INSTALL TEMPORARY FENCING OR WALKWAYS AS NEEDED TO KEEP WORKERS, PEDESTRIANS, AND EQUIPMENT OUT OF THE AREA. UNDER NO CIRCUMSTANCES SHOULD MATERIALS AND EQUIPMENT BE STORED ON TOP OF THE INSTALLATION AREA.

GROWING MEDIUM SPECIFICATION FOR VEGETATED FACILITIES

DRAWING NO. 742 REVISED 10–31–19

Clean Water Services

WATERTIGHT MANHOLE RING



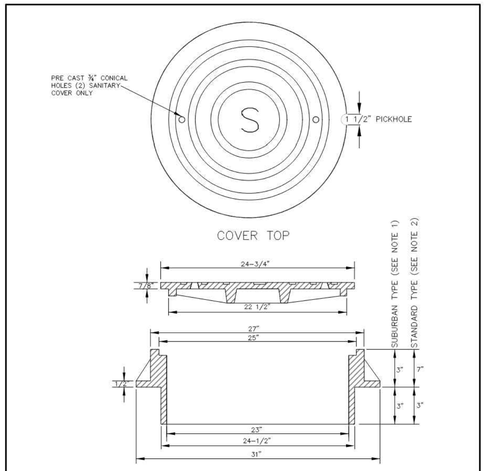
NOTES:

1. COMPOSITE WATERTIGHT/TAMPER PROOF MANHOLE FRAME AND COVER SHALL BE USED IN ALL EASEMENT AND OFF STREET AREAS.
2. THE WATERTIGHT MANHOLE COVER FRAME SHALL BE GMI 2600 SERIES COMPOSITE FRAME AND COVER MANUFACTURED BY TITUS INDUSTRIAL GROUP, INC. OR ITS EQUAL.
3. THE LOCKING MECHANISM SHALL BE A TWISTLIFT® MANUFACTURED BY TITUS INDUSTRIAL GROUP, INC.OR ITS EQUAL.
4. THE TWISTLIFT® COMPOSITE ACCESS COVER LOCK IS DESIGNED AS A SECURITY BOLT REQUIRING A SPECIAL TOOL TO OPERATE THE QUARTER TURN BOLT AND LIFT THE COVER FROM THE FRAME. IT FUNCTIONS WITH EITHER THE STANDARD CAM LOCK QUARTER TURN PADDLE, OR THE EXTENDED "SURCHARGE" PADDLE.
5. THE BOLT SHALL BE MACHINED FROM 316 STAINLESS STEEL.
6. THE BOLT FEATURES A DOMED HEAD WITH 3 EQUALLY SPACED 'J' SLOTS RUNNING HORIZONTALLY AROUND THE BOLT HEAD.
7. STANDARD BOLT SIZES ARE 14 MM COARSE THREAD WITH A FLAT MACHINED ON TWO SIDES TO ENGAGE PADDLE.
8. THE PADDLE IS DIE CAST FROM 304 STAINLESS STEEL AND ALSO AVAILABLE IN BOTH STANDARD CAM LOCK DESIGN, OR EXTENDED SURCHARGE CONFIGURATION.
9. THE BOLT AND PADDLE WILL BE ASSEMBLED USING TWO STAINLESS STEEL 14 MM NUT'S, THE BOTTOM NUT IS A STANDARD NUT THAT WILL BE TORQUE TO 35 FT. LBS. TO GIVE THE DESIRED TENSION ON THE BOLT. A SECOND NYLOCK™ LOCK NUT IS USED AS A JAM NUT, AND TORQUE TO 90 FT. LBS. STAINLESS STEEL WASHERS ARE USED TO PROVIDE CONSISTENT TURNING RESISTANCE.
10. A 5/16 STAINLESS STEEL SET SCREW, SET IN A THREADED HOLE IN THE COVER PROVIDES FOR A STOP AT ¼ TURN OF OPERATION.
11. THE BOLT WILL BE OPERATED BY MEANS OF A SPECIALLY MADE OPENING KEY CONSISTING OF A SPECIAL SOCKET ATTACHED TO A 'T' HANDLE USED TO BOTH TURN THE BOLT, AND LIFT OUT THE COVER.
12. ONE SET OF REPLACEMENT OPENING KEYS WILL BE PROVIDED TO CLEAN WATER SERVICES AT TIME OF INSTALLATION.
13. THE BOLT HEAD IS PROTECTED BY A WEATHER RESISTANT PLASTIC DEBRIS CAP. THE CAP IS INCLUDED WITH EACH LOCK.
14. SEE LOCAL JURISDICTION REQUIREMENTS FOR USE IN TRAFFIC AREAS.

WATERTIGHT MANHOLE FRAME AND COVER

DRAWING NO. 130 REVISED 10–31–19

Clean Water Services



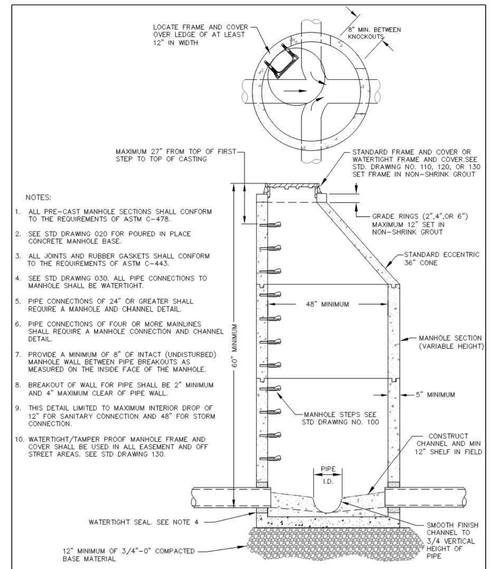
NOTES:

1. SUBURBAN TYPE FOR USE IN TRAFFIC AREAS OF LOCAL AND NEIGHBORHOOD STREETS.
2. STANDARD TYPE FOR USE IN TRAFFIC AREAS OF COLLECTOR AND ARTERIAL STREETS.
3. COVER AND FRAME SHALL BE GRAY CAST IRON ASTM A–48 CLASS 30.
4. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
5. 1 1/2" PICKHOLE IN LID FOR LIFTING HOOK.

SUBURBAN AND STANDARD MANHOLE FRAME AND COVER SANITARY

DRAWING NO. 110 REVISED 10–31–19

Clean Water Services



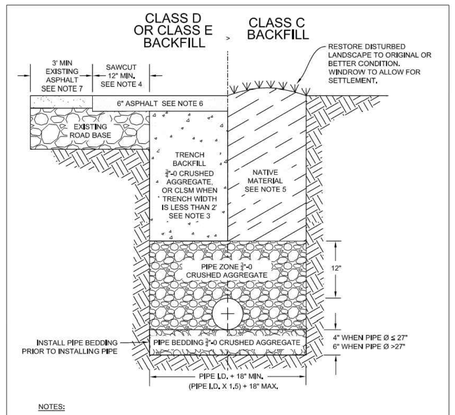
NOTES:

1. ALL PRE–CAST MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C–478.
2. SEE STD DRAWING 020 FOR POURED IN PLACE CONCRETE MANHOLE BASE.
3. ALL JOINTS AND RUBBER GASKETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C–443.
4. SEE STD DRAWING 030. ALL PIPE CONNECTIONS TO MANHOLE SHALL BE WATERTIGHT.
5. PIPE CONNECTIONS OF 24" OR GREATER SHALL REQUIRE A MANHOLE AND CHANNEL DETAIL.
6. PIPE CONNECTIONS OF FOUR OR MORE MAINLINES SHALL REQUIRE A MANHOLE CONNECTION AND CHANNEL DETAIL.
7. PROVIDE A MINIMUM OF 8" OF INTACT (UNDISTURBED) MANHOLE WALL BETWEEN PIPE BREAKOUTS AS MEASURED ON THE INSIDE FACE OF THE MANHOLE.
8. BREAKOUT OF WALL FOR PIPE SHALL BE 2" MINIMUM AND 4" MAXIMUM CLEAR OF PIPE WALL.
9. THIS DETAIL LIMITED TO MAXIMUM INTERIOR DROP OF 12" FOR SANITARY CONNECTION AND 48" FOR STORM CONNECTION.
10. WATERTIGHT/TAMPER PROOF MANHOLE FRAME AND COVER SHALL BE USED IN ALL EASEMENT AND OFF STREET AREAS. SEE STD DRAWING 130.

STANDARD MANHOLE

DRAWING NO. 010 REVISED 10–31–19

Clean Water Services



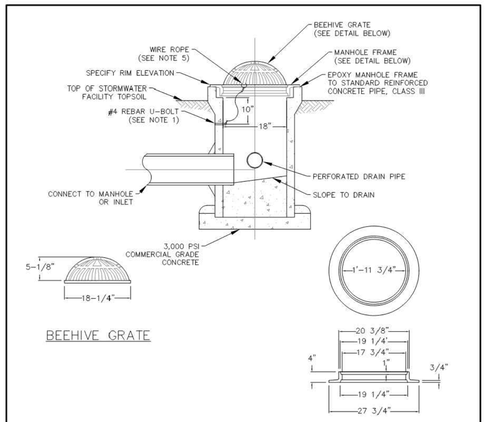
NOTES:

1. SEE STANDARD DRAWING NO. 480 FOR ROADS PAVED WITHIN THE LAST 5 YEARS.
2. SEE STANDARD DRAWING NO. 481 FOR CONCRETE ROADWAY RESTORATION.
3. WHEN TRENCH WIDTH IS LESS THAN 2' WIDE, BACKFILL WITH CLASS E, CONTROLLED LOW STRENGTH MATERIAL (CLSM) WITH A 28–DAY DESIGN STRENGTH OF 100–200 PSI.
4. SAWCUT A MINIMUM OF 12" OF PAVEMENT FROM EDGE OF TRENCH.
5. COMPACT CRUSHED AGGREGATE BACKFILL TO 92% AASHTO T 180, AND COMPACT NATIVE MATERIAL TO 90% AASHTO T 99, OR TO SATISFACTION OF CITY ENGINEER.
6. PROVIDE A MINIMUM ASPHALT THICKNESS OF 6" OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
7. IF LESS THAN 3' OF UNDISTURBED ASPHALT REMAINS BETWEEN THE EXCAVATION AND EDGE OF THE ROADWAY, REMOVE AND REPAIR THE REMAINING AREA.

CITY OF TUALATIN, OR

TRENCH & SURFACE RESTORATION

REVISED:	2/12/2018	DRAFTED BY:	S. STRASSER
		APPROVED BY:	J. FUCHS
SCALE:	NTS	DRAWING NO.	241



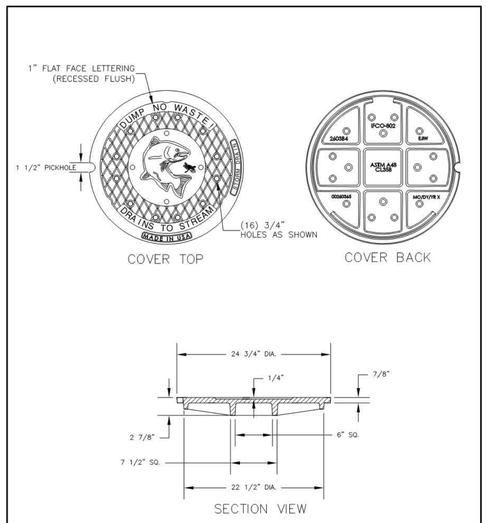
NOTES:

1. SECURE GRATE IN PLACE WITH 54" OF WIRE ROPE. LOOP ENDS OF WIRE ROPE AROUND U–BOLT AND GRATE. CRIMP EACH END OF WIRE ROPE WITH 3" OVERLAP.
2. DRILL 2" DEEP HOLES INTO PIPE AND EPOXY #4 REBAR U–BOLT (2"X 4") IN HOLES.
3. GRATE TO BE CAST IRON, ASTM A48 CL30.
4. SIZE INLET BASED ON CALCULATED FLOWS AND MANUFACTURERS RECOMMENDATIONS.
5. WIRE ROPE BETWEEN 1/8"–3/16" DIAMETER, STAINLESS STEEL, 7 STRANDS OF 19 WIRES.

BEEHIVE INLET

DRAWING NO. 405 REVISED 10–31–19

Clean Water Services

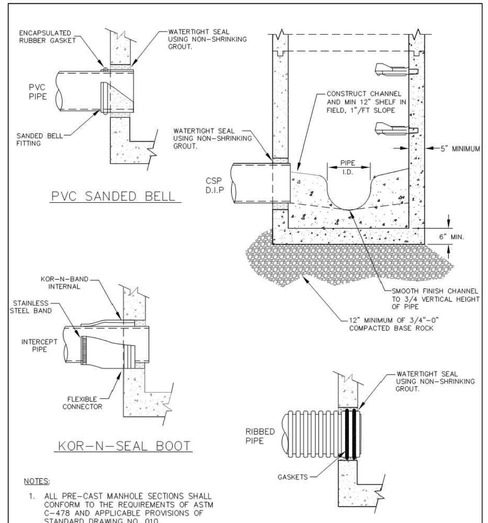


SEE DETAIL #110 FOR MANHOLE FRAME SPECIFICATIONS.

STORM WATER MANHOLE LID

DRAWING NO. 120 REVISED 10–31–19

Clean Water Services



NOTES:

1. ALL PRE–CAST MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C–478 AND APPLICABLE PROVISIONS OF STANDARD DRAWING NO. 010.
2. ALTERNATE METHODS TO BE APPROVED BY CITY/DISTRICT.
3. BOOTS TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS/SPECIFICATIONS.

MANHOLE CONNECTIONS

DRAWING NO. 030 REVISED 10–31–19

Clean Water Services

NO.	DATE	DESCRIPTION	APPD.

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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

STORMWATER DETAILS

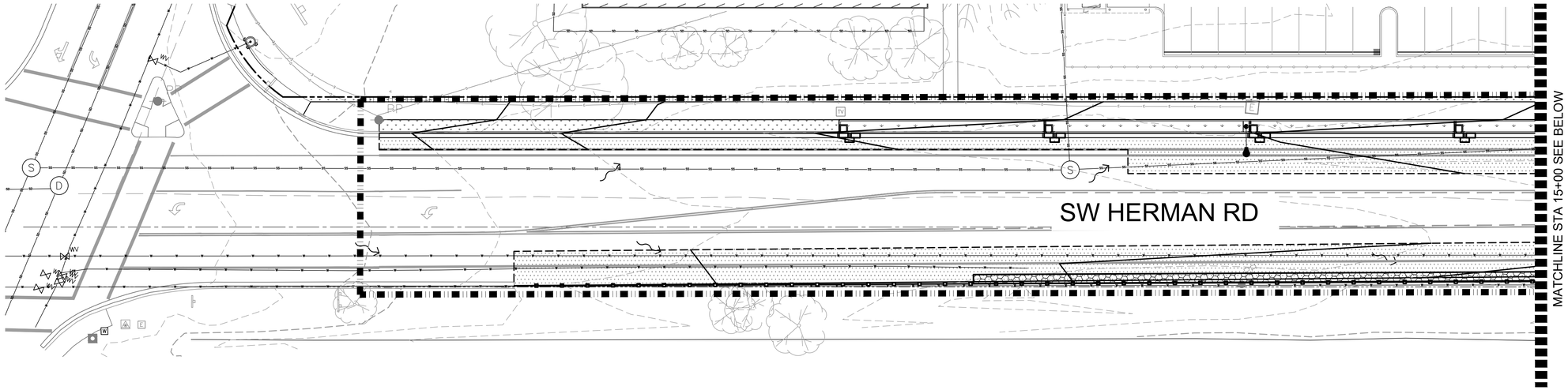
JOB NO.

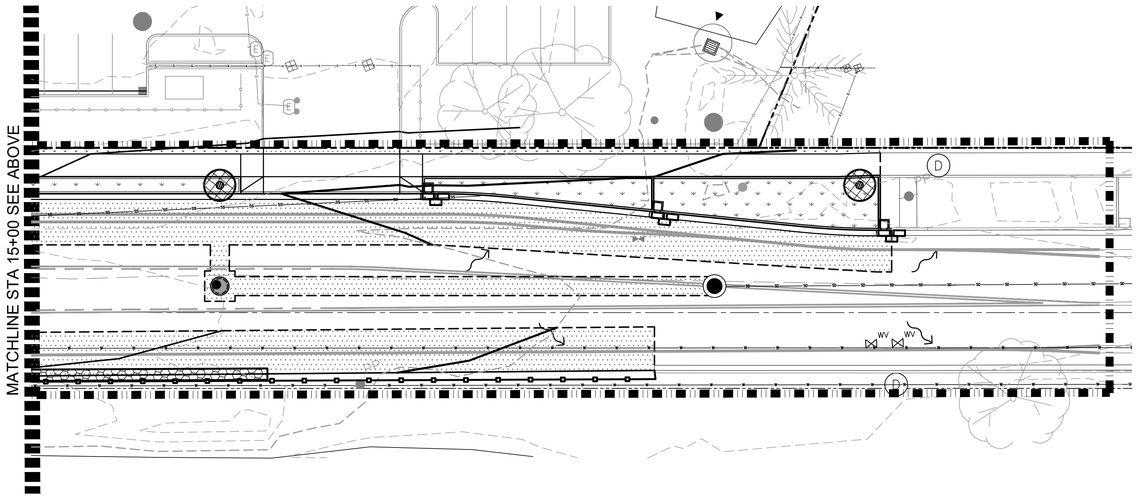
SHEET NO. ST4.4

16 OF 18

FILE: 24–C013_ST3.3_DETL.DWG ST4.4 1/23/2025 11:15:40 AM – BULLMANN

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL





SHEET LEGEND

- PROPERTY LINE
- 49 EX. CONTOUR MINOR
- 50 EX. CONTOUR MAJOR
- 49 PROP. CONTOUR MINOR
- 50 PROP. CONTOUR MAJOR
- LIMITS OF WORK
- INLET PROTECTION — 3 / EC1.1
- BIO-BAG PROTECTION IN CURB INLETS — X / EC1.1
- DRAINAGE FLOW DIRECTION
- SEDIMENT FENCE. PLACE AT LIMIT OF WORK, UNO (SHOWN OFFSET FOR CLARITY).
- STRAW WATTLE — X / EC1.1

SCALE 1 INCH = 20 FEET
20 0 20 40

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CITY OF TUALATIN
PUBLIC WORKS DEPARTMENT
18880 SW MARTINAZZI AVENUE
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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD PUBLIC STREET IMPROVEMENTS

EROSION CONTROL PLAN

JOB NO.

SHEET NO. EC1.0
17 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL

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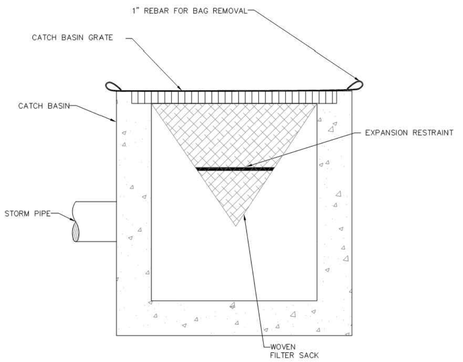


CATCH BASIN INSERT

NOTE:

1. RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS. SIZE OF FILTER FABRIC INLET SACKS TO BE DETERMINED BY MANUFACTURER.

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

INLET PROTECTION
TYPE 5

DRAWING NO. 920 REVISED 10-31-19

CleanWater Services

STORMWATER FACILITY GROWING MEDIUM

FURNISH IMPORTED BLENDED SOIL FOR ALL VEGETATED LIDA FACILITIES CONFORMING TO THE FOLLOWING:

- GENERAL COMPOSITION – USE MATERIAL THAT IS ANY BLEND OF LOAMY SOIL, SAND, AND COMPOST THAT IS 30-40% COMPOST (BY VOLUME) AND MEETS THE OTHER CRITERIA IN THIS SPECIFICATION.
- ANALYSIS REQUIREMENTS FOR THE BLENDED MATERIAL:
  PARTICLE GRADATION – A SIEVE ANALYSIS OF THE BLENDED MATERIAL, NOT INCLUDING COMPOST, SHALL BE CONDUCTED IN CONFORMANCE WITH ASTM C117/C136, AASHTO T11/T27, ASTM D422/D1140, OR ASTM D6913. THE ANALYSIS SHALL INCLUDE THE FOLLOWING SIEVE SIZES: 1 INCH, 3/8 INCH, #4, #10, #20, #40, #60, #100, #200. THE GRADATION OF THE BLEND SHALL MEET THE FOLLOWING GRADATION CRITERIA.

SIEVE SIZE	PERCENT PASSING
1 INCH	100
# 4	85 -100
# 10	50-100
# 40	20-60
# 100	10-40
# 200	10-20

- THE MATERIAL SHALL BE LOOSE AND EASILY BROKEN INTO SMALL PIECES
- IT SHALL BE WELL MIXED AND HOMOGENOUS.
- IT SHALL BE FREE OF WOOD PIECES, PLASTIC, AND OTHER FOREIGN MATTER.
- IT SHALL HAVE NO VISIBLE FREE WATER.
- THE PH (POWER OF HYDROGEN) OF THE BLENDED MATERIAL SHALL BE TESTED AND BE BETWEEN 6 TO 8.

COMPOST

THE COMPOST SHALL BE DERIVED FROM PLANT MATERIAL AND PROVIDED BY A MEMBER OF THE US COMPOSTING COUNCIL SEAL OF TESTING ASSURANCE (STA) PROGRAM. SEE WWW.COMPOSTINGCOUNCIL.ORG FOR A LIST OF LOCAL PROVIDERS.

THE COMPOST SHALL BE THE RESULT OF THE BIOLOGICAL DEGRADATION AND TRANSFORMATION OF PLANT-DERIVED MATERIALS UNDER CONDITIONS DESIGNED TO PROMOTE AEROBIC DECOMPOSITION. THE MATERIAL SHALL BE WELL COMPOSTED, FREE OF VIABLE WEED SEEDS, AND STABLE WITH REGARD TO OXYGEN CONSUMPTION AND CARBON DIOXIDE GENERATION. THE COMPOST SHALL HAVE NO VISIBLE FREE WATER AND PRODUCE NO DUST WHEN HANDLED. IT SHALL MEET THE FOLLOWING CRITERIA, AS REPORTED BY THE US COMPOSTING COUNCIL STA COMPOST TECHNICAL DATA SHEET PROVIDED BY THE VENDOR.

- 100% OF THE MATERIAL MUST PASS THROUGH A 1/2-INCH SCREEN.
- THE PH OF THE MATERIAL SHALL BE BETWEEN 6 MIN. AND 8 MAX.
- MANUFACTURED INERT MATERIAL (PLASTIC, CONCRETE, CERAMICS, METAL, ETC.) SHALL BE LESS THAN 1.0% BY WEIGHT.
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 30 AND 70% (DRY WEIGHT BASIS).
- SOLUBLE SALT CONTENT SHALL BE LESS THAN 6.0 MMHOS/CM.
- MATURITY INDICATOR SHALL BE GREATER THAN 80% FOR GERMINATION AND VIGOR.
- STABILITY SHALL BE "STABLE TO "VERY STABLE".
- CARBON/NITROGEN (C/N) RATIO SHALL BE LESS THAN 25:1.
- TRACE METALS TEST RESULT = "PASS."

CONSTRUCTION

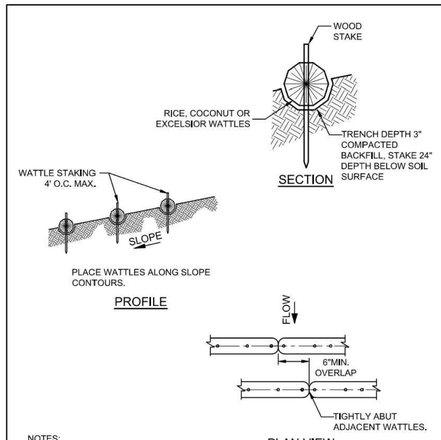
STORMWATER FACILITY GROWING MEDIUM:

- PROTECTION OF THE SOIL – THE MATERIAL SHALL BE PROTECTED FROM ALL SOURCES OF CONTAMINATION, INCLUDING WEED SEEDS, WHILE AT THE SUPPLIER, IN CONVEYANCE, AND AT THE PROJECT SITE.
- WET AND WINTER CONDITIONS – HAULING AND PLACEMENT OF THE MATERIAL WILL NOT BE ALLOWED WHEN THE WEATHER IS TOO WET OR THE GROUND IS FROZEN OR SATURATED AS DETERMINED BY THE OWNERS REPRESENTATIVE.
- PLACEMENT OF THE SOIL – PLACE THE MATERIAL IN LOOSE LIFTS, NOT TO EXCEED 8 INCHES EACH AND EACH LIFT SHALL BE COMPACTED WITH A WATER-FILLED LANDSCAPE ROLLER; DO NOT OTHERWISE MECHANICALLY COMPACT THE MATERIAL.
- TIMING OF PLANT INSTALLATION – WEATHER PERMITTING AND AS APPROVED, INSTALL PLANTS AS SOON AS POSSIBLE AFTER PLACING AND GRADING THE SOIL IN ORDER TO MINIMIZE EROSION AND FURTHER COMPACTION.
- EROSION CONTROL – TEMPORARY EROSION CONTROL MEASURES ARE REQUIRED UNTIL PERMANENT STABILIZATION MEASURES ARE FUNCTIONAL.
- PROTECTION OF THE INSTALLED SOIL – IN ALL CASES, THE PROTECT INSTALLED MATERIAL FROM FOOT OR EQUIPMENT TRAFFIC AND SURFACE WATER RUNOFF. INSTALL TEMPORARY FENCING OR WALKWAYS AS NEEDED TO KEEP WORKERS, PEDESTRIANS, AND EQUIPMENT OUT OF THE AREA. UNDER NO CIRCUMSTANCES SHOULD MATERIALS AND EQUIPMENT BE STORED ON TOP OF THE INSTALLATION AREA.

GROWING MEDIUM SPECIFICATION
FOR VEGETATED FACILITIES

DRAWING NO. 742 REVISED 10-31-19

CleanWater Services



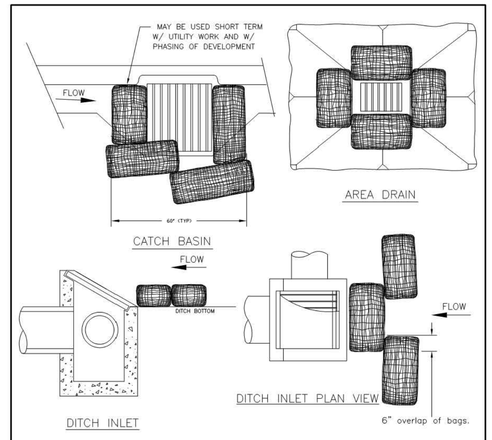
NOTES:
1. STAKING SPECIFICATIONS:
   a. 1"x2" WOODEN STAKES
   b. ADDITIONAL STAKES MAY BE INSTALLED ON DOWNHILL SIDE OF WATTLES, ON STEEP SLOPE OR HIGHLY EROSIVE SOILS.

EROSION CONTROL MANUAL

FIBER ROLLS AND WATTLES:
SLOPE INSTALLATION

Detail Drawing 3.17-A

FILE DRAFT:INSPECTORS GRAPHICS DRAWING PLOT 1:1



NOTES:

1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPES.
2. BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1"x2" WOODEN STAKES OR APPROVED EQUAL PER BAG.
3. WHEN USING 30" BIO-BAGS TO PROTECT A CATCH BASIN YOU HAVE 4 BAGS AND THEY SHALL BE OVERLAPPED BY 6".

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

INLET PROTECTION
TYPE 4

DRAWING NO. 915 REVISED 10-31-19

CleanWater Services

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CITY OF TUALATIN
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18880 SW MARTINAZZI AVENUE
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PRELIMINARY NOT FOR CONSTRUCTION

SW HERMAN ROAD
PUBLIC STREET IMPROVEMENTS

EROSION CONTROL DETAILS

JOB NO.

SHEET NO.
EC1.1
18 OF 18

NOT FOR CONSTRUCTION – PENDING GOVERNMENT APPROVAL

FILE: 24-C013_EC1.0_ERSC.DWG EC1.1 1/23/2025 11:15:55 AM – BULLMANN

PROPOSED PLANT LIST

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE AT PLANTING
	TREES		
A	Green Vase Zelkova	Zelkova serrata 'Green Vase'	2" cal
B	Shademaster Honeylocust	Gleditsla trlcanthos 'Shademaster'	2" cal
C	American Hophornbeam	Ostrya virginiana 30x25	1.5" cal
D	Eastern Redbud	Cercis canadensis 25 x 30	1.5" cal
E	Persian Ironwood	Parrotia persica 30x20	1.5" cal
F	Red Obelisk European Beech	Fagus sylvatica 'Red Obelisk'	1,5" cal
G	Pacific Fire Vine Maple	Acer circinatum 'Pacific Fire'	6-8'
H	Japanese Styrax	Styrax japonica	1.5" cal
J	Skyrocket Juniper	Juniperus scopulorum 'Skyrocket'	6-8'
	SHRUBS		
a	MEDIUM EVERGREEN SHRUBS - PARKING LOT SCREENING		
	Wiri Blush Hebe	Hebe 'Wiri Blush' 3-4X3-4	5 gal
	Canadale Gold Wintercreeper	Euonymus fortunei 'Canadale Gold' 4X4	5 gal
	Radiance Abelia	Abelia g. 'Radiance' 3x5	5 gal
	Snowcap Indian Hawthorne	Raphiolepis x delacourii 'Corleyscourii' 4x4	5 gal
	SMALL SHRUBS /GROUNDCOVER		
	Gulf Stream Nandina	Nandina domestica 'Gulf Stream'	3 gal
	Hexe Azalea	Rhodo, Hexe Azalea (assorted)	3 gal
	Indian Princess Hawthorne	Rhaphiolepis indica 'Indian Princess'	3 gal
	Ornamental Grasses	Varies	2 gal
	Bumalda Spiraea	Spiraea japonica 'Bumalda'	3 gal
	Kelsey Dogwood	Cornus sericea 'Kelseyi'	3 gal
	Gold Splash Wintercreeper	Euonymous fortunei 'Roemertwo'	3 gal
			SIZE, SPACING
	Kinnickinnick	Arctostaphylos uva ursi	1 gal, 3' o.c.
	Vinca	Vinca minor	4" pot, 30" o.c.
	Variegated Pachysandra	Pachysandra terminalis 'Variegata'	4" pot, 12" o.c.

VEGETATED SWALE PLANT LIST

SYMBOL	COMMON NAME	BOTANICAL NAME	MATURE HEIGHT	SIZE	ZONE
	SMALL SHRUBS				
sa	Kelsey Dogwood	Cornus sericea 'Kelseyii'	24"	1 gal	B
sc	Dull Oregon Grape	Mahonia nervosa	24"	1 gal	B
sd	Wild Mock Orange	Philadelphus lewisii	6'	1 gal	B
	HERBACEOUS PLANTS				
ha	Dense Sedge	Carex densa	24"	plug	A
hb	Inflated Sedge	Carex vesicaria	36"	plug	A
hc	Baltic Rush	Juncus balticus	20"	plug	A
	GROUNDCOVER - 70 per 100 sf				
	Coastal Strawberry	Fragaria chiloensis	4"	1 gal	B

STORMWATER PLANTER PLANT LIST

SYMBOL	COMMON NAME	BOTANICAL NAME	MATURE HEIGHT	SIZE	ZONE
	HERBACEOUS PLANTS				
ha	Dense Sedge	Carex densa	24"	6" Pot	A
hb	Inflated Sedge	Carex vesicaria	36"	6" Pot	A
hc	Baltic Rush	Juncus balticus	20"	6" Pot	A

WATER QUALITY NOTES

1. SEE CIVIL DRAWINGS FOR STORMWATER PLANTER NOTES AND DETAILS.
2. CALCULATIONS PER C.W.S. LIDA STORMWATER MANAGEMENT MANUAL HANDBOOK.
3. VEGETATED SWALE: ZONE A - TREATMENT AREA: NUMBER OF HERBACEOUS PLANTS; 6 PLUGS / SF AND ZONE B: NUMBER OF PLANTS: SHRUBS PER ACRE = AREA IN SQUARE FEET X O.O5.
4. STORMWATER INFILTRATIONS PLANTERS: PER 100 S.F. - 115 HERBACEOUS PLANTS, 1' O.C. SPACING, 6" CONTAINER SIZE.

LANDSCAPE NOTES

1. ADD MINIMUM 5" LOAM TOPSOIL IN ALL LANDSCAPE AREAS. SCARIFY SUBGRADE TO 6" DEPTH PRIOR TO ADDING SOIL.
2. ROTOTILL 3" OF ORGANIC SOIL AMENDMENT INTO ALL PLANTERS. ADD 5 LB/1000 S.F. OF 13-13-13 FERTILIZER PRIOR TO PLANTING.
3. BERM ALL PLANTER ISLANDS TO AVOID PONDING OF WATER.
4. MULCH ALL SHRUB BEDS A MINIMUM OF 3" DEEP WITH LOCAL SOURCE BARK MULCH.
5. STAKE TREES AS REQUIRED. REMOVE STAKING FOLLOWING SECOND SEASON AFTER PLANTING.
6. ALL PLANT MATERIAL TO MEET OR EXCEED CURRENT O.A.N. STANDARDS.
7. CONTRACTOR TO VERIFY SITE CONDITIONS, PLANT MATERIAL QUANTITIES, AND MEASUREMENTS PRIOR TO BIDDING PROJECT.
8. GRADE ALL LANDSCAPE AREAS TO DRAIN AWAY FROM BUILDINGS AT A 2% MINIMUM SLOPE.
9. ALL PROPOSED LANDSCAPING WILL BE WATERED WITH AN AUTOMATIC, SUB-SURFACE IRRIGATION SYSTEM.
10. SEE SHEET L-2 FOR PRELIMINARY TREE PROTECTION PLAN. FOR LOCATION AND CALIPER SIZE OF EXISTING TREES ON SITE AND TREES TO BE PROTECTED DURING CONSTRUCTION.

WATER QUALITY FACILITY PLANT COUNT TABLE

STORMWATER FACILITIES	SQUARE FEET	HERBACEOUS PLANTS	#	SMALL SHRUBS	#	SIZE
A						
ZONE A	1685	ha	646			
		hb	646			
		hc	645			
B						
ZONE A	985	ha	378			
		hb	378			
		hc	378			
VEGETATED SWALE						
ZONE A TREATMENT AREA	320	ha	640	sa	25	1 gal.
		hb	640	sc	25	1 gal.
		hc	640	sd	25	1 gal.
ZONE B	1488			TOTAL	75	SHRUBS
TOTAL	1808 SF					

EXISTING TREE LEGEND

SYMBOL	DESCRIPTION
DEC 12" / CDN 28"	EXISTING TREES PER SURVEY
DEC 12" / CDN 28"	EXISTING TREES BE REMOVED
DEC 12" / CDN 28"	EXISTING TREES BE PROTECTED DURING CONSTRUCTION

S.W. TETON AVENUE (WIDTH VARIES)

S.W. HERMAN ROAD (WIDTH VARIES)

EXISTING BUILDING

PROPOSED BUILDING

STORMWATER PLANTER A

STORMWATER PLANTER B

VEGETATED SWALE

1 L-1 PRELIMINARY LANDSCAPE PLAN

SCALE: 1" = 30'-0"

PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION

ISSUED DATE
LAND USE SUBMITTAL
01-29-2025
1 2 3

ANDERSON ASSOCIATES
LANDSCAPE ARCHITECTURE
1723 NW 23rd Street, McMinnville, OR
Ph. 503-314-2949
dave@andersonassoc-la.net

CIDA
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NEW CONSTRUCTION FOR:
KAI ADDITION
600 SW TETON AVE, TUALATIN, OR 97062

L-1

PRELIMINARY LANDSCAPE PLAN

EXISTING TREE PROTECTION LEGEND

SYMBOL	DESCRIPTION
CON 28"	EXISTING TREES TO BE PROTECTED WITH CALIPER SIZE.
	PROTECTIVE FENCING AREA AROUND TREES TO BE PROTECTED DURING CONSTRUCTION.
DEC 12"	EXISTING TREES WITH PROPOSED PROTECTIVE FENCING AREA.

TREE NOTES

1. REMOVAL AND PROTECTION OF EXISTING TREES TO FOLLOW TDC 33.110 - TREE REMOVAL PERMIT / REVIEW.
2. FOUR TREES ARE PROPOSED FOR REMOVAL, AND PER SECTION 3 a) EXEMPTIONS; A TREE REMOVAL PERMIT IS NOT REQUIRED
3. AN ARBORIST WILL BE RETAINED TO PROVIDE A FINAL TREE PRESERVATION PLAN (SECTION 5a) AND A TREE ASSESSMENT REPORT (SECTION 5b) TO DETERMINE IF TREE PROPOSED FOR PRESERVATION MAY BE PRESERVED.
4. SEE SHEET L-1, PRELIMINARY LANDSCAPE PLAN, FOR PROPOSED TREE LAYOUT.

LEGEND

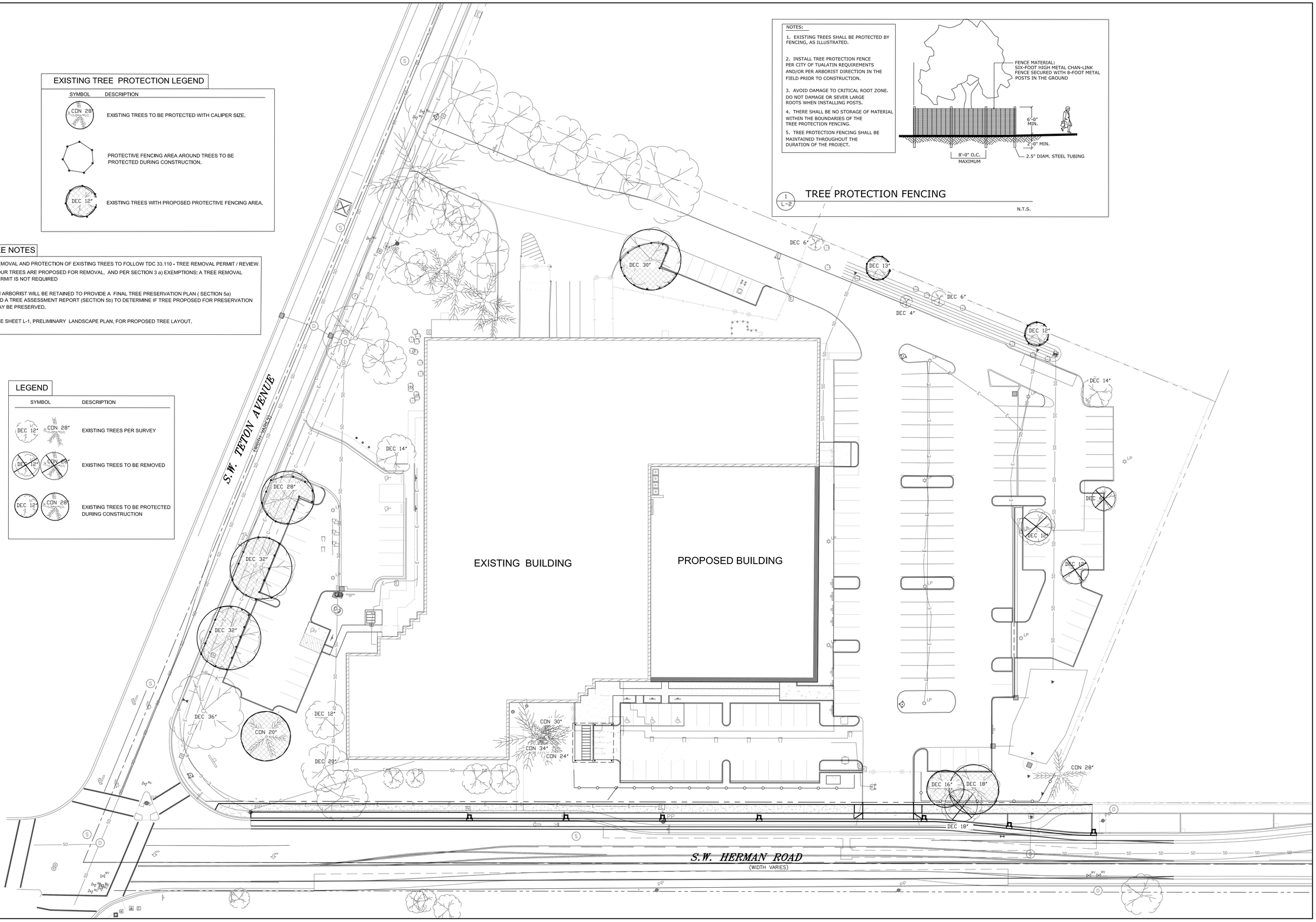
SYMBOL	DESCRIPTION
DEC 12" CON 28"	EXISTING TREES PER SURVEY
DEC 12" CON 28"	EXISTING TREES TO BE REMOVED
DEC 12" CON 28"	EXISTING TREES TO BE PROTECTED DURING CONSTRUCTION

NOTES:

1. EXISTING TREES SHALL BE PROTECTED BY FENCING, AS ILLUSTRATED.
2. INSTALL TREE PROTECTION FENCE PER CITY OF TUALATIN REQUIREMENTS AND/OR PER ARBORIST DIRECTION IN THE FIELD PRIOR TO CONSTRUCTION.
3. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
4. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING.
5. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

1 / L-2 TREE PROTECTION FENCING

N.T.S.



1 / L-2 PRELIMINARY TREE PROTECTION PLAN

SCALE: 1" = 30'-0"

PRELIMINARY PLAN ONLY-NOT FOR CONSTRUCTION

ISSUED DATE
1 LAND USE SUBMITTAL 01-29-2025
1 2 3

ANDERSON ASSOCIATES
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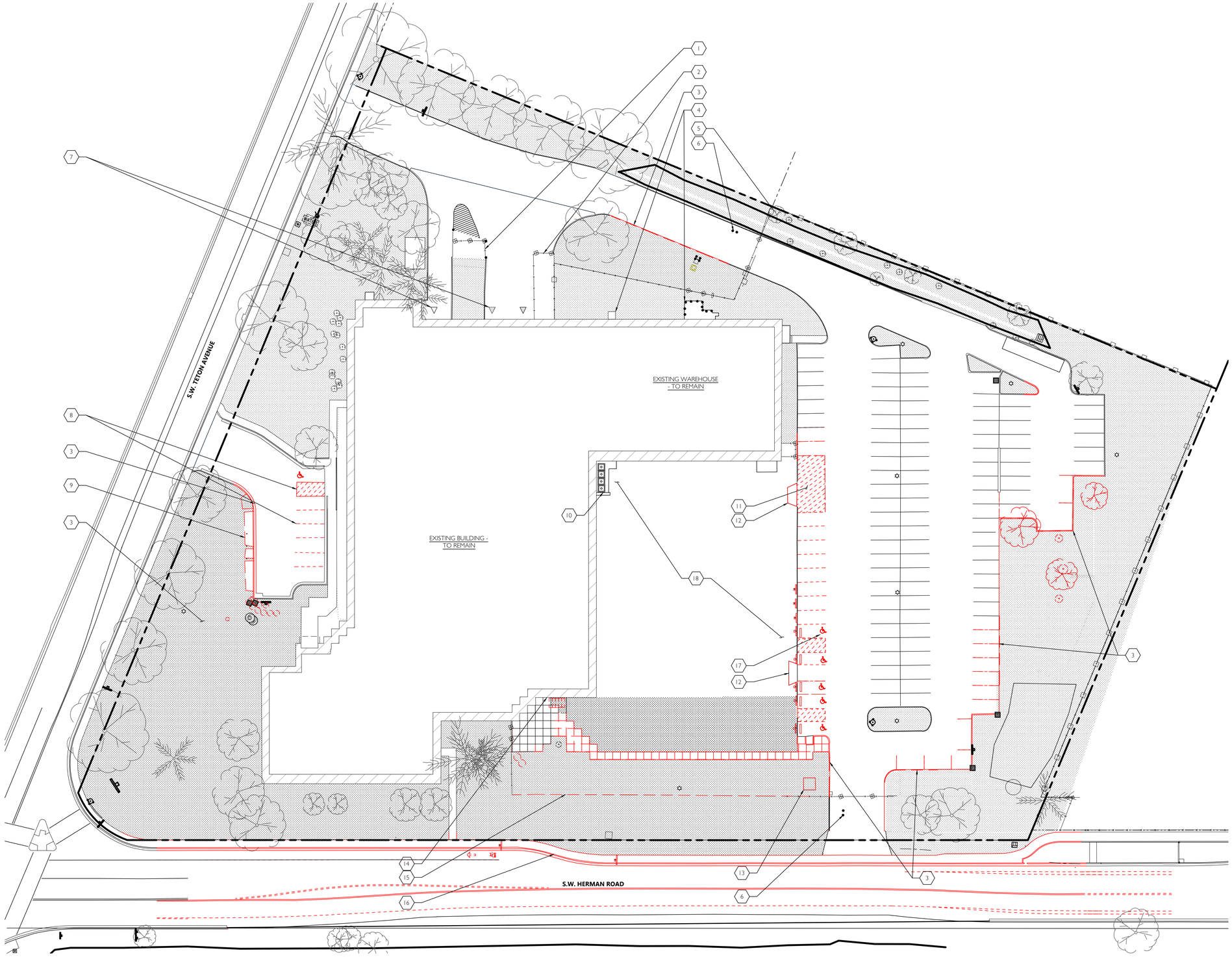
NEW CONSTRUCTION FOR:
KAI ADDITION
600 SW TETON AVE, TUALATIN, OR 97062

L-2

PRELIMINARY TREE PROTECTION PLAN



NORTH

1 / A0.1 **EXISTING SITE PLAN**

1" = 30'-0"

LEGEND

- CURBING AND LANDSCAPING TO BE REMOVED
- PROPERTY LINE

ABBREVIATIONS

(N)	NEW
(E)	EXISTING

KEYNOTES

1. EXISTING RECYCLING ENCLOSURE TO REMAIN.
2. EXISTING ENCLOSURE TO REMAIN.
3. REMOVE EXISTING CURB AND LANDSCAPE FOR NEW ASPHALT PAVING/PARKING.
4. EXISTING MECHANICAL EQUIPMENT CONCRETE PADS TO REMAIN.
5. EXISTING FENCE AND GATE TO REMAIN.
6. EXISTING KEYPAD ENTRY TO REMAIN.
7. EXISTING LOADING AREAS.
8. PARKING STRIPES TO BE REPAINTED, SEE A0.2.
9. RELOCATE EXISTING FLAGPOLES, SEE A0.2 FOR NEW LOCATION.
10. EXISTING DUST COLLECTOR TO BE RELOCATED BY OWNER.
11. EXISTING STRIPING TO BE REMOVED.
12. EXISTING DRIVE APRON TO BE REMOVED.
13. EXISTING TRANSFORMER TO BE RELOCATED AND RESIZED.
14. EXISTING COVERED EMPLOYEE ENTRY.
15. EXISTING FENCE TO BE RELOCATED, SEE A0.2.
16. SIDEWALK TO BE DEMOLISHED FOR UPDATED EASEMENT. SEE CIVIL SHEETS.
17. ADA PARKING TO BE RELOCATED. SEE A0.2..
18. EXISTING OVERFLOW PARKING

REGISTERED ARCHITECT
CHRISTOPHER M. WALKER
PORTLAND, OR
5641
STATE OF OREGON

ISSUED DATE

1	CONTRACTOR PRICING	10/04/2024
2	NEIGHBORHOOD MEETING	10/31/2024
3	TUALATIN VALLEY FIRE & RESCUE PERMIT	12/12/2024
4	LAND USE PERMIT	01/29/2025

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TENANT IMPROVEMENT FOR:

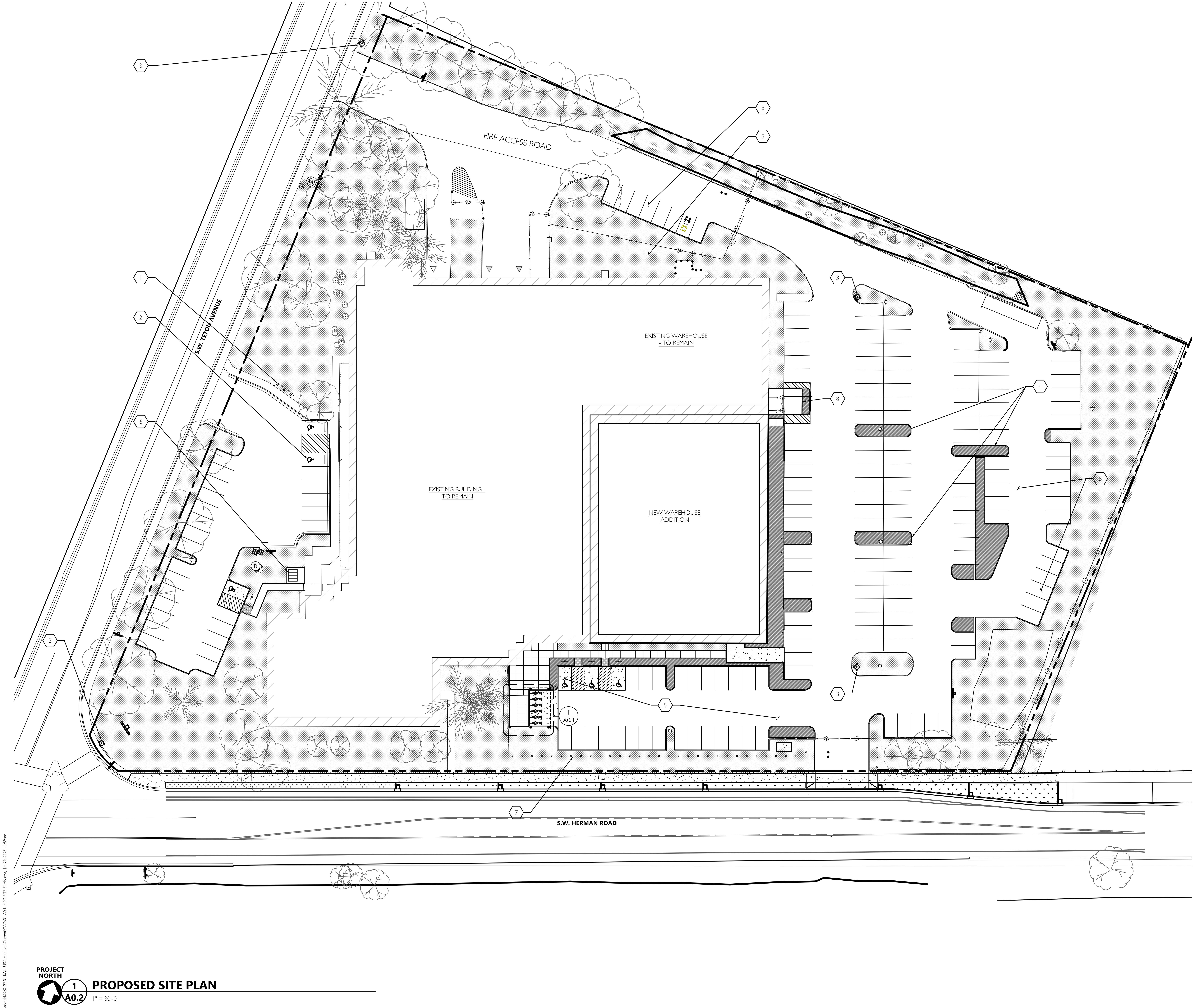
KAI - USA ADDITION

18600 SW TETON AVE
TUALATIN, OREGON

EXISTING SITE PLAN

A0.1

220127.02



1 A0.2 **PROPOSED SITE PLAN**
1" = 30'-0"

LANDSCAPING REQUIRED

PERCENT OF SITE AREA REQUIRED TO BE LANDSCAPED:	15%
PERCENT OF SITE AREA LANDSCAPED AFTER PARKING:	30%

SITE PLAN LEGEND

- CURBING AND LANDSCAPING TO BE REMOVED
- PROPERTY LINE
- EXISTING LANDSCAPING
- NEW LANDSCAPING

ABBREVIATIONS

(N)	NEW
(E)	EXISTING

PARKING MATRIX

PARKING STALL:

TYPE	SIZE	# PROVIDED
(E) STANDARD	9' X 20'-0"	105 STALLS
(E) ADA	9' X 20'-0"	1 STALLS
(N) STANDARD	9' X 16'-0"	67 STALLS
(N) VANPOOL / CARPOOL	9' X 16'-0"	8 STALLS
(N) ADA	9' X 16'-0"	4 STALLS
(N) ADA	9' X 16'-0"	1 STALL

TOTAL REQUIRED PARKING BASED ON OCCUPANCY AFTER EXPANSION: 110 STALLS

TOTAL PARKING PROVIDED: TOTAL VEHICLE PARKING 186 STALLS

TOTAL REQUIRED COVERED MOTORCYCLE STALLS: 6 STALLS

TOTAL REQUIRED BICYCLE STALLS BASED ON OCCUPANCY: 16 SPACES
TOTAL REQUIRED BICYCLE STALLS TO BE COVERED: 10 STALLS
TOTAL PROVIDED BICYCLE STALLS: 16 STALLS
TOTAL PROVIDED COVERED BICYCLE STALLS: 12 STALLS

NOTE: 1 ADA SPACE TO BE DESIGNATED "WHEELCHAIR USER ONLY"

KEYNOTES

1. NEW LOCATION FOR FLAG POLES.
2. NEW ADA PARKING STALL ADDITION.
3. EXISTING FIRE HYDRANT LOCATION.
4. NEW LANDSCAPE ISLANDS.
5. NEW ASPHALT PARKING & CAST-IN-PLACE CURBING.
6. NEW VISITOR BICYCLE PARKING - 4 STALLS.
7. NEW FENCE LOCATION
8. EXISTING MECHANICAL PAD TO BE EXPANDED

REGISTERED ARCHITECT · CHRISTOPHER M. WALKER · PORTLAND, OR · 5641 · STATE OF OREGON

	ISSUED	DATE
1	CONTRACTOR PRICING	10/04/2024
2	NEIGHBORHOOD MEETING	10/31/2024
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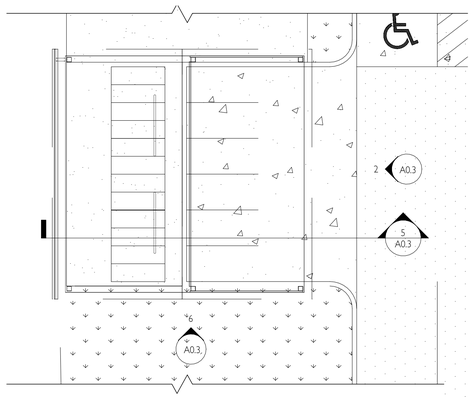
TENANT IMPROVEMENT FOR:
KAI - USA ADDITION
18600 SW TETON AVE
TUALATIN, OREGON

PROPOSED SITE PLAN

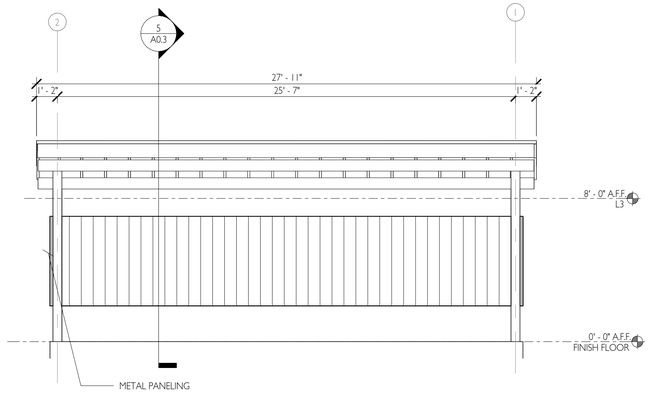
A0.2

220127.02



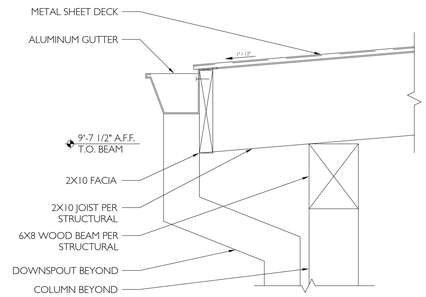
1 A0.3 ENLARGED SITE PLAN - COVERED MOTORCYCLE PARKING

1/8" = 1'-0"



2 A0.3 COVERED MOTORCYCLE PARKING - EAST ELEVATION

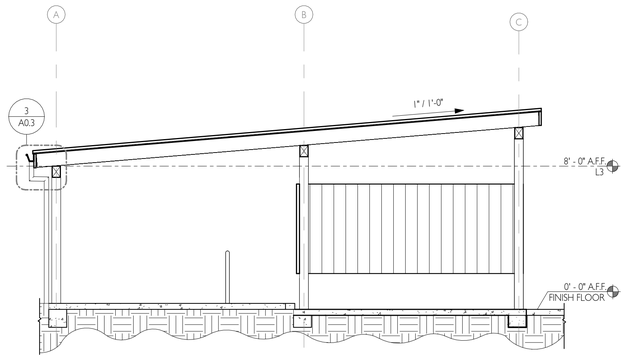
1/4" = 1'-0"



3 A0.3 MOTORCYCLE COVER GUTTER

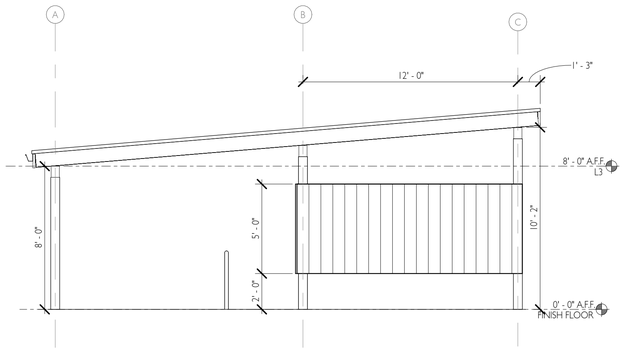
1 1/2" = 1'-0"

9126



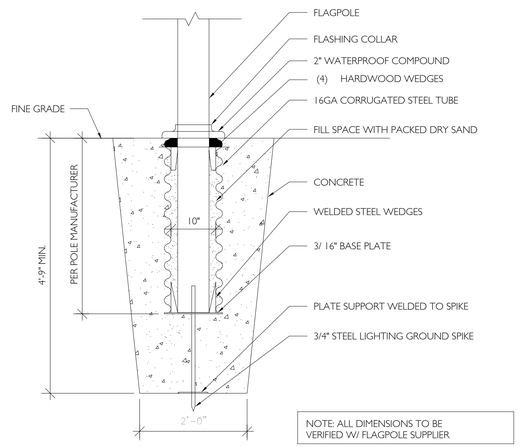
5 A0.3 PARKING COVER - SECTION

1/4" = 1'-0"



6 A0.3 COVERED MOTORCYCLE PARKING - SOUTH ELEVATION

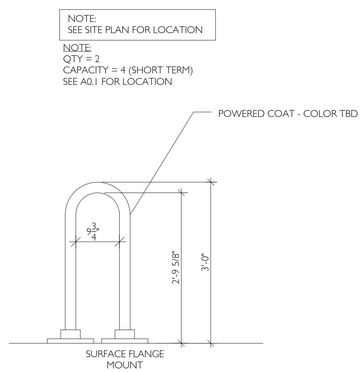
1/4" = 1'-0"



9 A0.3 FLAG POLE DETAIL

3/4" = 1'-0"

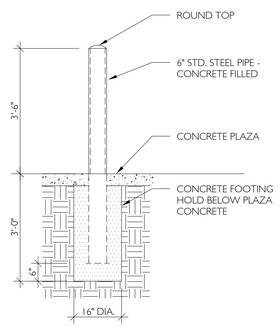
006



10 A0.3 BICYCLE RACK

3/4" = 1'-0"

002



11 A0.3 PIPE BOLLARD

1/2" = 1'-0"

009

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REGISTERED ARCHITECT
CHRISTOPHER M. WALKER
PORTLAND, OR
5641
STATE OF OREGON

ISSUE DATE

4 LAND USE PERMIT 01/29/2025

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WWW.CIDAINC.COM

BUILDING ADDITION FOR:

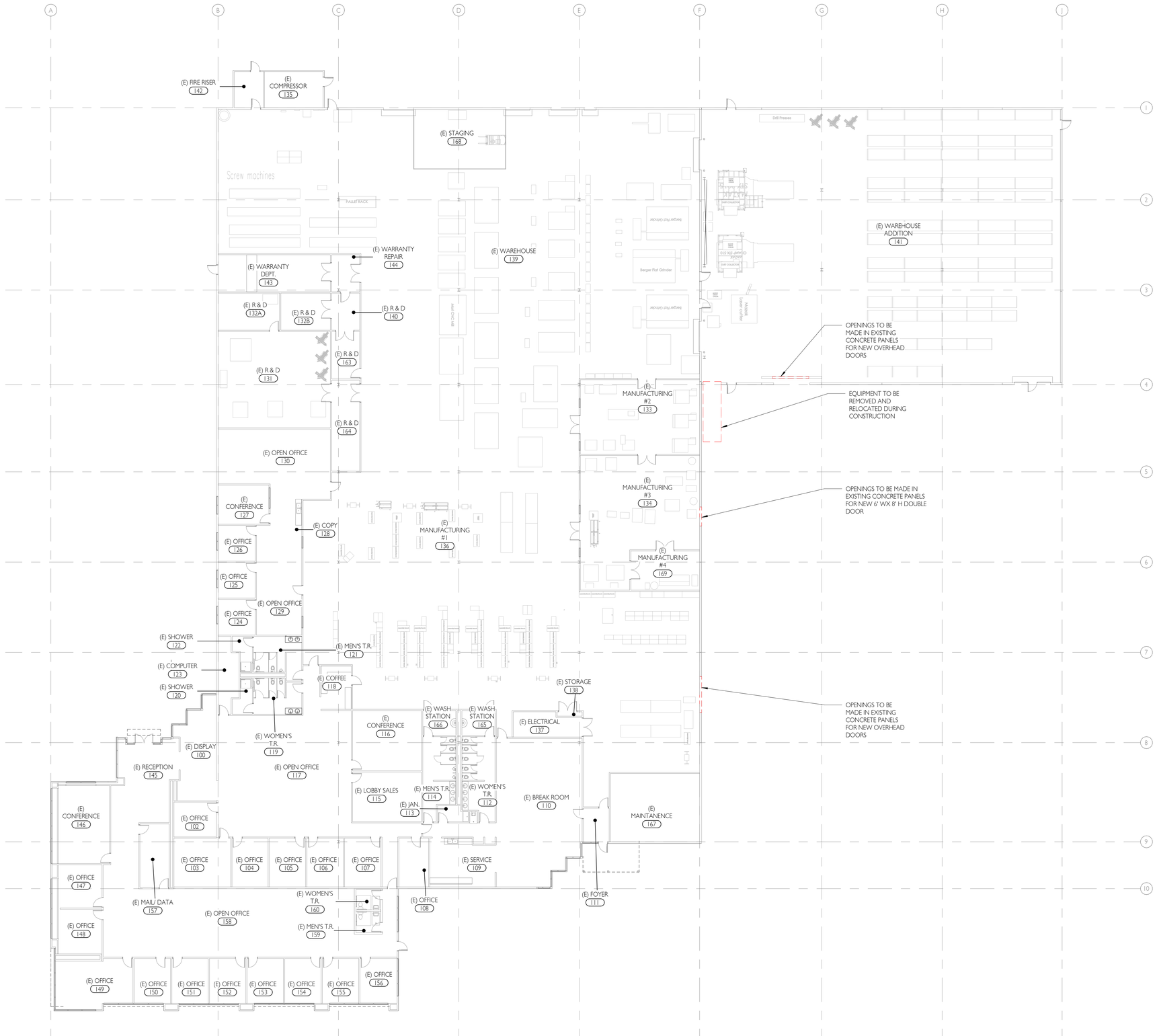
KAI- USA

18600 SW TETON AVE. TUALATIN, OREGON, 97062

SITE DETAILS

A0.3

220127.02



PROJECT NORTH

1 A1.0

OVERALL EXISTING FLOOR PLAN

1/16" = 1'-0"

DEMO & EXST. COND. PLAN LEGEND

- 1.2 GRID LINE
- (E) WALL TO REMAIN
- (E) WALL TO BE REMOVED
- DS (E) DOWNSPOUT

ABBREVIATIONS

(E)	EXISTING
U.N.O.	UNLESS NOTED OTHERWISE
TYP.	TYPICAL
SIM.	SIMILAR
F.O.	FRAMED OPENING

KEYNOTES

DEMO & EXST. COND. FLOOR PLAN NOTES

1. CONTRACTOR SHALL VERIFY AND CONFIRM EXISTING CONDITIONS SHOWN OR IMPLIED ON DRAWINGS PRIOR TO START OF CONSTRUCTION. NOTIFY A/E OF ANY DISCREPANCIES.
2. APPLICABLE CODES: ALL WORK SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES. ALL CODE REFERENCES IN THE DRAWINGS AND SPECIFICATIONS SHALL MEAN, AND ARE INTENDED TO BE THE LATEST EDITION, AMENDMENT OR REVISION OF SUCH REFERENCED STANDARD IN EFFECT AS OF THE DATE OF THE CONTRACT DOCUMENTS.
3. CONTRACTOR SHALL COORDINATE ALL REQUIRED TESTING AND INSPECTIONS.
4. COORDINATE SALVAGE AND/OR REUSE OF MATERIALS WITH OWNER.
5. WHERE PATCH AND REPAIR WORK IS INDICATED, CONTRACTOR SHALL PATCH AFFECTED AREA TO MATCH ADJACENT FINISHES FOR 'LIKE NEW' APPEARANCE UNLESS OTHERWISE NOTED
6. CAP ALL REMOVED PLUMBING FIXTURES AS REQUIRED.
7. CONTRACTOR TO COORDENATE WITH OWNER ON SEPARATION OF DEMOLITION AND CONSTRUCTION AREAS IN ORDER TO KEEP DESIGNATED AREAS IN CONTINOUS OPERATION AND ISOLATED FROM CONSTRUCTION DUST AND MATERIALS
8. COORDINATE ALL DOOR HARDWARE REMOVAL AND / OR REPLACEMENT WITH CONTRACT DOCUMENTS AND OWNER.
9. REFER TO SHEET XXX FOR CEILING DEMOLITION INFORMATION.
10. COORDINATE DEMOLITION OF EXISTING HVAC, PLUMBING AND ELECTRICAL EQUIPMENT WITH OWNER AND MECHANICAL, ELECTRICAL AND PLUMBING DESIGN PROFESSIONALS IN CHARGE.
11. COORDINATE DEMOLITION OF EXISTING HVAC, PLUMBING AND ELECTRICAL EQUIPMENT WITH OWNER AND MECHANICAL, ELECTRICAL AND PLUMBING DESIGN PROFESSIONALS IN CHARGE.

REGISTERED ARCHITECT
CHRISTOPHER M. WALKER
PORTLAND, OR
5641
STATE OF OREGON

ISSUE DATE
1 CONTRACTOR PRICING 10/04/2024
2 NEIGHBORHOOD MEETING 10/31/2024
4 LAND USE PERMIT 01/29/2025

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BUILDING ADDITION FOR:
KAI- USA
18600 SW TETON AVE. TUALATIN, OREGON, 97062

OVERALL EXISTING FLOOR PLAN
A1.0

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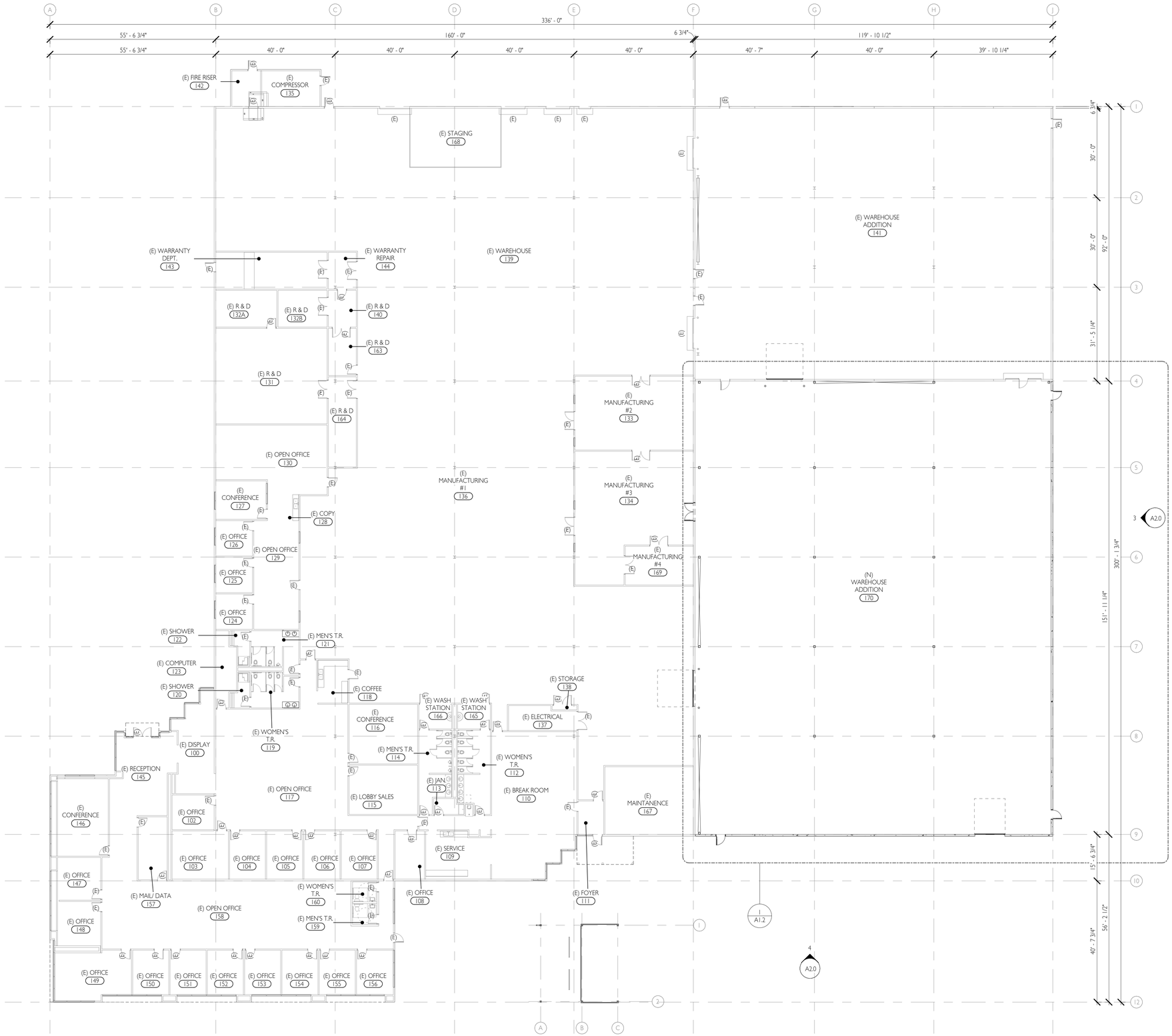

PROJECT NORTH

1 A1.1 **OVERALL PROPOSED FLOOR PLAN**

1/16" = 1'-0"

FLOOR PLAN LEGEND

- 1.2 — GRID LINE
- (E) WALL TO REMAIN
- (N) EXTERIOR WALL
- (N) INTERIOR PARTITION
- (N) PARTIAL HEIGHT INTERIOR PARTITION
- A 1 — WALL TYPE-- SEE WALL TYPES THIS SHEET
- DS — DOWNSPOUT-- REFER TO A1.3 FOR DS CALCS
- B — STOREFRONT TYPE-- SEE A5.2 FOR STOREFRONT TYPES
- 101-A — DOOR NUMBER-- SEE A5.1 FOR DOOR SCHEDULE AND TYPES
- HB — HOSE BIBB

ABBREVIATIONS

(E)	EXISTING
(N)	NEW
U.N.O.	UNLESS NOTED OTHERWISE
TYP.	TYPICAL
SIM.	SIMILAR
F.O.	FRAMED OPENING

KEYNOTES

REGISTERED ARCHITECT · CHRISTOPHER M. WALKER · PORTLAND, OR 5641 · STATE OF OREGON

ISSUE DATE

1	CONTRACTOR PRICING	10/04/2024
2	NEIGHBORHOOD MEETING	10/31/2024
4	LAND USE PERMIT	01/29/2025

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BUILDING ADDITION FOR:

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OVERALL PROPOSED FLOOR PLAN

A1.1

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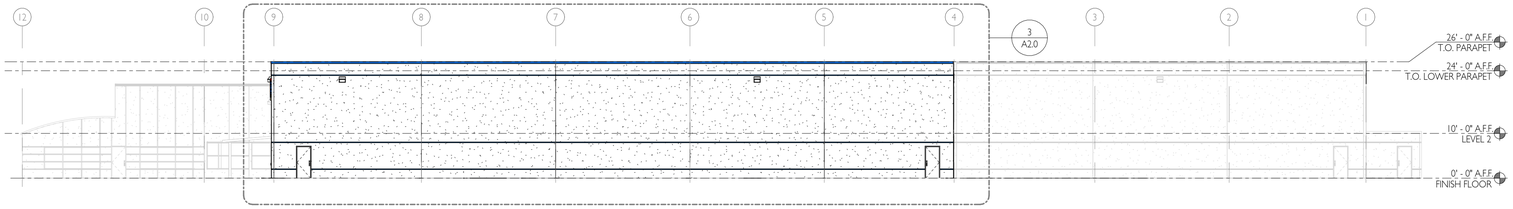
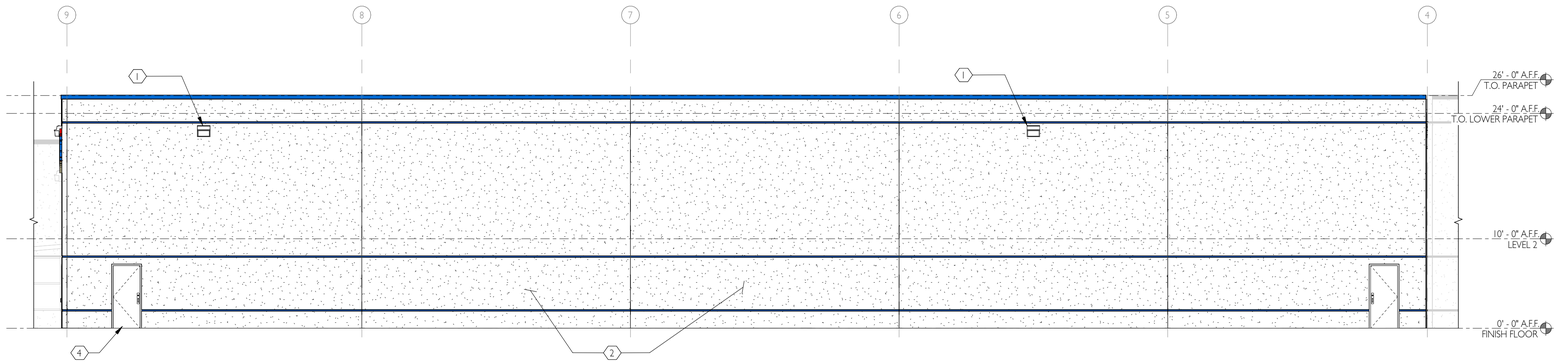


1 A2.0 BUILDING ELEVATION - EAST

1/16" = 1'-0"

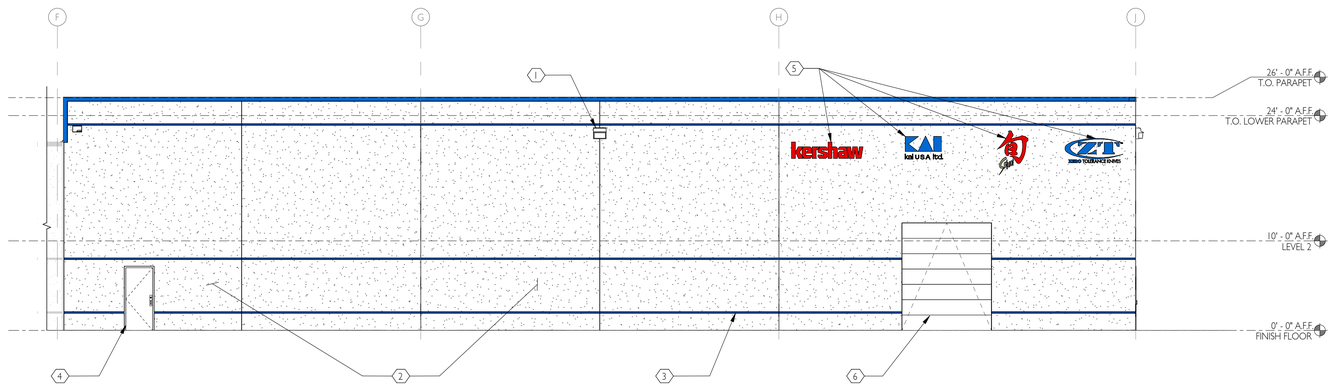
2 A2.0 BUILDING ELEVATION - SOUTH

1/16" = 1'-0"



3 A2.0 ENLARGED EAST ELEVATION

1/8" = 1'-0"



4 A2.0 ENLARGED SOUTH ELEVATION

1/8" = 1'-0"

ELEVATION NOTES

1. NOTES

KEYNOTES

1	EXTERIOR BUILDING LIGHT - REFER TO ELECTRICAL DRAWINGS.
2	EXTERIOR WALL PAINT: TO MATCH EXISTING WHITE PAINT
3	2" REVEAL STRIP - PAINT COLOR: MATCH TO EXISTING
4	HM DOOR: COLOR TO MATCH EXISTING DOORS - WHITE
5	MULTI - KAI BUILDING SIGNAGE
6	SECTIONAL OVERHEAD DOOR - PAINT, COLOR: TBD

ELEVATION MATERIAL LEGEND

HATCH	TAG	MATERIAL TYPE	MANUFACTURER	PRODUCT LINE	COLOR	NOTES
	CONC.	CONRETE TILT PANEL	---	---	WHITE	COLOR TO MATCH EXISTING

REGISTERED ARCHITECT
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5641
STATE OF OREGON

ISSUE DATE

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2	NEIGHBORHOOD MEETING	10/31/2024
3	TUALATIN VALLEY FIRE & RESCUE PERMIT	12/12/2024
4	LAND USE PERMIT	01/29/2025

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BUILDING ADDITION FOR:

KAI- USA

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EXTERIOR ELEVATIONS

A2.0

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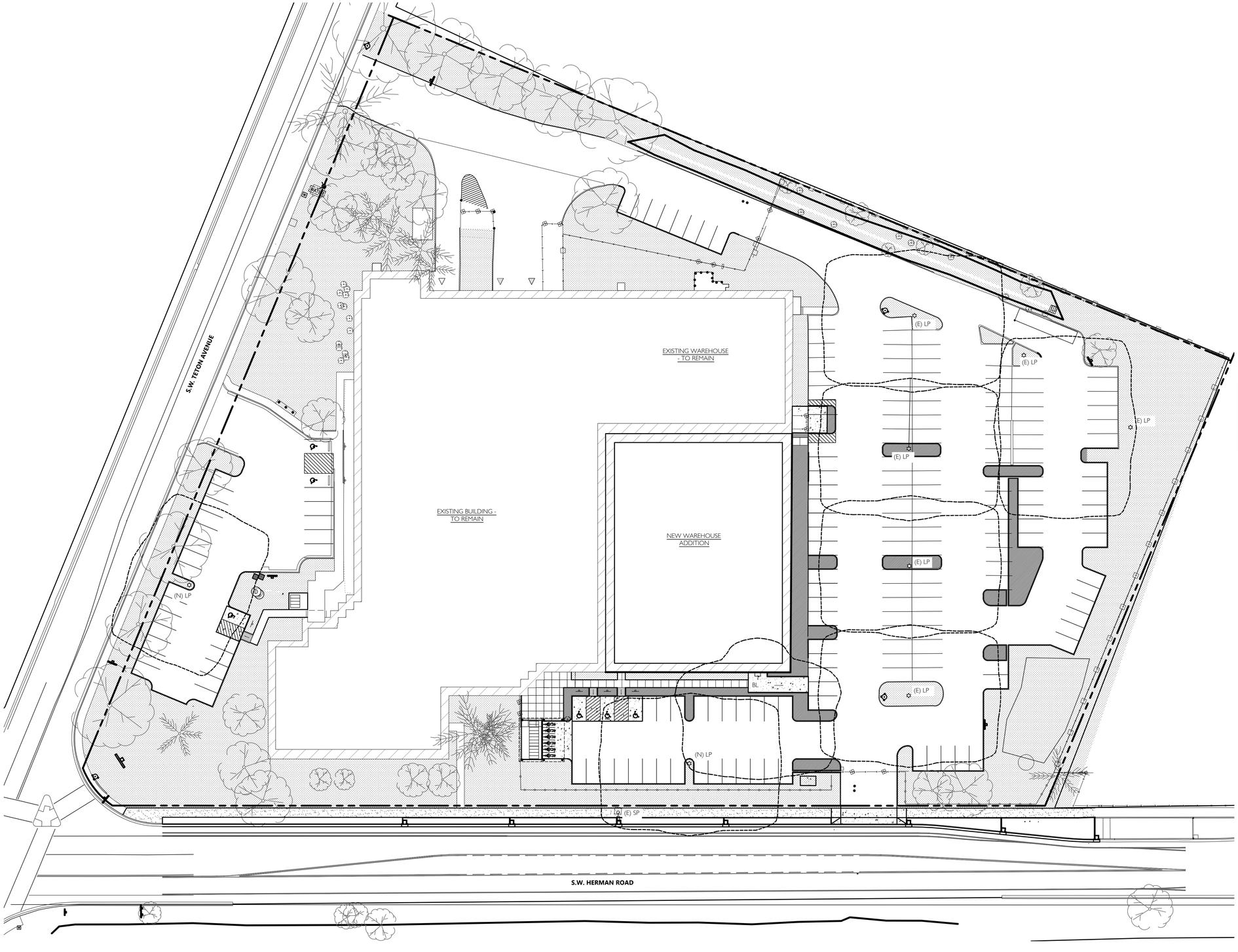

GENERAL NOTES

CONTRACTOR SHALL VERIFY AND CONFIRM EXISTING CONDITIONS SHOWN OR IMPLIED ON DRAWINGS PRIOR TO START OF CONSTRUCTION. NOTIFY A/E OF ANY DISCREPANCIES.

EXISTING CONDITIONS BASED ON SURVEY BY WEDDLE SURVEYING INC. ON DECEMBER, 2024 INCLUDED AS SHEET SURVEY 1.

SITE LIGHTING PLAN IS DIAGRAMMATIC. FINAL DESIGN SHALL BE BY ELECTRICAL CONTRACTOR. CONTRACTOR TO VERIFY THAT MINIMUM LIGHTING LEVELS ARE MAINTAINED.

LIGHTING STANDARDS SHOWN IN PARKING AREAS SHALL BE ENCASED IN 1'-6" DIAMETER x 3'-0" TALL SOLID CONCRETE BASES

ALL LIGHTING SHOWN SHALL BE MODIFIED WITH CUTOFF FIXTURES AS REQUIRED TO PREVENT LIGHT FROM SHINNING DIRECTLY OFF DEVELOPED AREA TO NEIGHBORING PROPERTIES AND RIGHT-OF-WAY. ALL FIXTURES TO BE CUTOFF FOR NIGHT SKY REQUIREMENTS.

FIXTURES FINISHES INCLUDING POLES AND MOUNTING ARMS SHALL BE BRONZE ANODIZED UNLESS NOTED OTHERWISE

ALL LIGHTING DESIGN TO BE BASED ON MEAN LUMEN OUTPUT OF ALL FIXTURES

ALL EXTERIOR LIGHTING TO MEET OREGON ENERGY CODE REQUIREMENTS INCLUDING SWITCHING AND DIMMING (1/3 ENERGY USE) DURING OFF-PEAK USE

COORDINATE FINAL LIGHTING DESIGN WITH LANDSCAPE PLAN - VERIFY EXISTING AND NEW PLANTING LOCATIONS ARE PLACED WITHOUT INTERFERENCE WITH FIXTURES

COORDINATE FINAL LIGHTING DESIGN WITH SITE UTILITIES INCLUDING LOCATION OF METERS, HYDRANTS AND LINES

CENTER OF LIGHT POLES MINIMUM 8' FROM FACE OF CURB AT DRIVE AISLE/WAYS. CENTER IN LANDSCAPE BEDS BETWEEN PARKING STALLS

FOOTCANDLE ISOLUMS SHOWN ARE APPROXIMATE

PRIVATE LIGHTING NOTES

1. NEW POLE MOUNTED LIGHT FIXTURES TO MATCH EXISTING
2. NEW WALLPACKS WILL MATCH EXISTING

SITE LIGHTING PLAN LEGEND

- ACCESSIBLE PARKING STALL (VAN WHERE NOTED)
- GRADE LEVEL OVERHEAD DOOR
- ADA COMPLIANT DIAMOND TEXTURE SURFACE - PROVIDE AT ACCESSIBLE CURB RAMPS
- PAINT STRIPED ACCESSIBLE AISLE AND NO PARKING AREA
- FE — FIRE HYDRANT
- (E) LP — EXISTING POLE MOUNTED LIGHT FIXTURE
- (N) LP — NEW POLE MOUNTED LIGHT FIXTURE, MOUNT TO MATCH EXISTING POLE LIGHT FIXTURE HEIGHT - CONTRACTOR INSTALLED
- SL — STREET LIGHT FIXTURE TO CITY OF TUALATIN STANDARDS- LOCATION TO BE FINALIZED -CONTRACTOR INSTALLED
- BL — BUILDING MOUNTED LIGHT FIXTURE MOUNT AT ELEVATION INDICATED ON EXTERIOR ELEVATIONS IMPACT ELITE WEDGE LED BY McGRAW-EDISON, OR APPROVED EQUAL
- 1.0 FOOT CANDLE ISOLUM

PROJECT NORTH

1 SL1.0 **PROPOSED SITE LIGHTING PLAN**

1" = 30'-0"

REGISTERED ARCHITECT
CHRISTOPHER M. WALKER
PORTLAND, OR
5641
STATE OF OREGON

ISSUED DATE		
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TENANT IMPROVEMENT FOR:

KAI - USA ADDITION

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TUALATIN, OREGON

SITE LIGHTING PLAN

SL1.0

220127.02