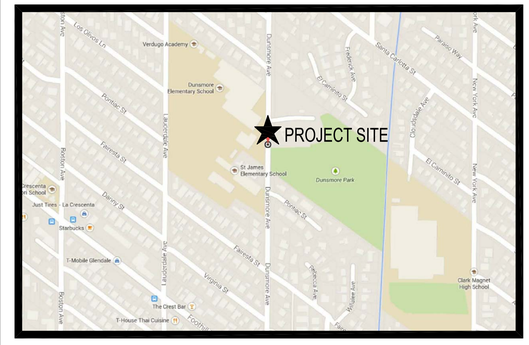
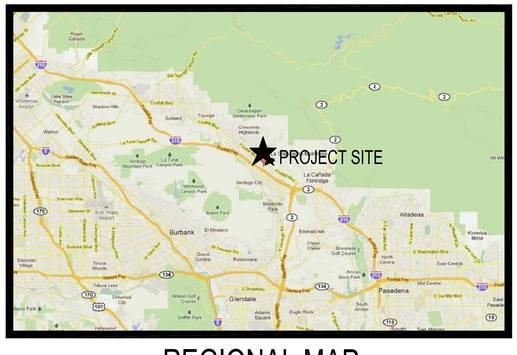
NEW FIRE HYDRANT
DUNSMORE ELEMENTARY SCHOOL

4717 DUNSMORE AVE. LA CRESCENTA, CA

GLENDALE UNIFIED SCHOOL DISTRICT



VICINITY MAP



REGIONAL MAP

north

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architect

consultant

DUNSMORE ELEMENTARY SCHOOL
NEW FIRE HYDRANT

GLENDALE UNIFIED SCHOOL DISTRICT
4717 DUNSMORE AVE.
LA CRESCENTA, CA 91214

owner

tBP project number : 20967.01

file name:

drawn by: checked by:

date: May 10, 2017

Rev:	date:	description:

drawing title:
COVER SHEET

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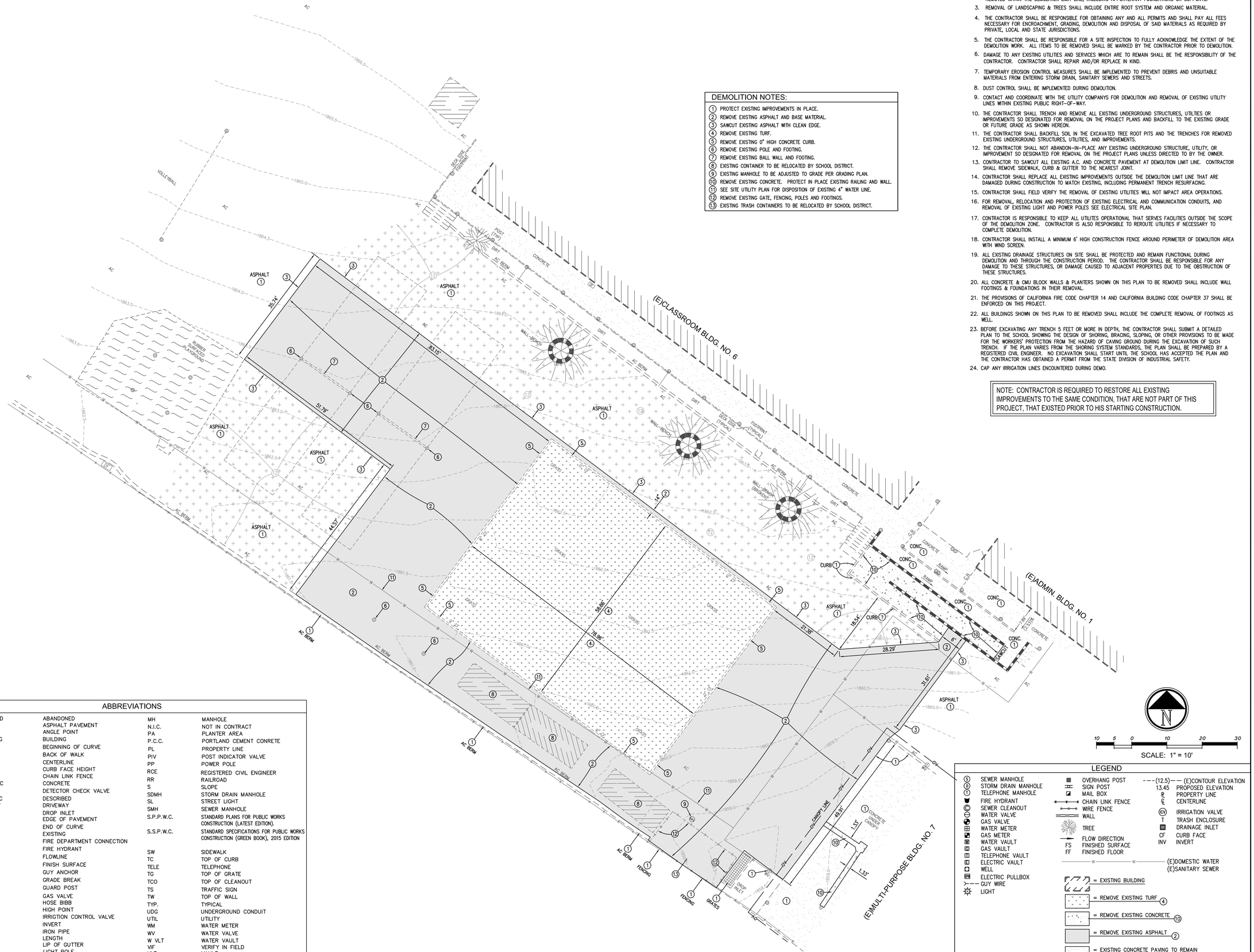
drawing of



DEMOLITION NOTES:

1. PROTECT EXISTING IMPROVEMENTS IN PLACE.
2. REMOVE EXISTING ASPHALT AND BASE MATERIAL.
3. SAWCUT EXISTING ASPHALT WITH CLEAN EDGE.
4. REMOVE EXISTING TURF.
5. REMOVE EXISTING 0" HIGH CONCRETE CURB.
6. REMOVE EXISTING POLE AND FOOTING.
7. REMOVE EXISTING BALL WALL AND FOOTING.
8. EXISTING CONTAINER TO BE RELOCATED BY SCHOOL DISTRICT.
9. EXISTING MANHOLE TO BE ADJUSTED TO GRADE PER GRADING PLAN.
10. REMOVE EXISTING CONCRETE. PROTECT IN PLACE EXISTING RAILING AND WALL.
11. SEE SITE UTILITY PLAN FOR DISPOSITION OF EXISTING 4" WATER LINE.
12. REMOVE EXISTING GATE, FENCING, POLES AND FOOTINGS.
13. EXISTING TRASH CONTAINERS TO BE RELOCATED BY SCHOOL DISTRICT.

DEMOLITION NOTES

1. ALL ITEMS, SHOWN ON THIS PLAN TO BE REMOVED, SHALL BE VERIFIED BY THE GLENDALE UNIFIED SCHOOL DISTRICT PRIOR TO DEMOLITION. THE CONTRACTOR SHALL MEET WITH THE SCHOOLS REPRESENTATIVE PRIOR TO CLEARING AND GRUBBING.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION AND QUANTITY OF EXISTING SURFACE STRUCTURES AND SHALL BE SOLELY RESPONSIBLE FOR ANY UNIDENTIFIED UTILITIES, IMPROVEMENTS, TREES, ETC,. TO BE DEMOLISHED AND REMOVED WITHIN THE DEMOLITION LIMIT LINE, INCLUDING APPURTENANT FOUNDATIONS OR SUPPORTS.
3. REMOVAL OF LANDSCAPING & TREES SHALL INCLUDE ENTIRE ROOT SYSTEM AND ORGANIC MATERIAL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK. ALL ITEMS TO BE REMOVED SHALL BE MARKED BY THE CONTRACTOR PRIOR TO DEMOLITION.
6. DAMAGE TO ANY EXISTING UTILITIES AND SERVICES WHICH ARE TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
7. TEMPORARY EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAIN, SANITARY SEWERS AND STREETS.
8. DUST CONTROL SHALL BE IMPLEMENTED DURING DEMOLITION.
9. CONTACT AND COORDINATE WITH THE UTILITY COMPANYS FOR DEMOLITION AND REMOVAL OF EXISTING UTILITY LINES WITHIN EXISTING PUBLIC RIGHT-OF-WAY.
10. THE CONTRACTOR SHALL TRENCH AND REMOVE ALL EXISTING UNDERGROUND STRUCTURES, UTILTIES OR IMPROVEMENTS SO DESIGNATED FOR REMOVAL ON THE PROJECT PLANS AND BACKFILL TO THE EXISTING GRADE OR FUTURE GRADE AS SHOWN HEREON.
11. THE CONTRACTOR SHALL BACKFILL SOIL IN THE EXCAVATED TREE ROOT PITS AND THE TRENCHES FOR REMOVED EXISTING UNDERGROUND STRUCTURES, UTILITIES, AND IMPROVEMENTS.
12. THE CONTRACTOR SHALL NOT ABANDON-IN-PLACE ANY EXISTING UNDERGROUND STRUCTURE, UTILITY, OR IMPROVEMENT SO DESIGNATED FOR REMOVAL ON THE PROJECT PLANS UNLESS DIRECTED TO BY THE OWNER.
13. CONTRACTOR TO SAWCUT ALL EXISTING A.C. AND CONCRETE PAVEMENT AT DEMOLITION LIMIT LINE. CONTRACTOR SHALL REMOVE SIDEWALK, CURB & GUTTER TO THE NEAREST JOINT.
14. CONTRACTOR SHALL REPLACE ALL EXISTING IMPROVEMENTS OUTSIDE THE DEMOLITION LIMIT LINE THAT ARE DAMAGED DURING CONSTRUCTION TO MATCH EXISTING, INCLUDING PERMANENT TRENCH RESURFACING.
15. CONTRACTOR SHALL FIELD VERIFY THE REMOVAL OF EXISTING UTILITIES WILL NOT IMPACT AREA OPERATIONS.
16. FOR REMOVAL, RELOCATION AND PROTECTION OF EXISTING ELECTRICAL AND COMMUNICATION CONDUITS, AND REMOVAL OF EXISTING LIGHT AND POWER POLES SEE ELECTRICAL SITE PLAN.
17. CONTRACTOR IS RESPONSIBLE TO KEEP ALL UTILITES OPERATIONAL THAT SERVES FACILITIES OUTSIDE THE SCOPE OF THE DEMOLITION ZONE. CONTRACTOR IS ALSO RESPONSIBLE TO REROUTE UTILITIES IF NECESSARY TO COMPLETE DEMOLITION.
18. CONTRACTOR SHALL INSTALL A MINIMUM 6' HIGH CONSTRUCTION FENCE AROUND PERIMETER OF DEMOLITION AREA WITH WIND SCREEN.
19. ALL EXISTING DRAINAGE STRUCTURES ON SITE SHALL BE PROTECTED AND REMAIN FUNCTIONAL DURING DEMOLITION AND THROUGH THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THESE STRUCTURES, OR DAMAGE CAUSED TO ADJACENT PROPERTIES DUE TO THE OBSTRUCTION OF THESE STRUCTURES.
20. ALL CONCRETE & CMU BLOCK WALLS & PLANTERS SHOWN ON THIS PLAN TO BE REMOVED SHALL INCLUDE WALL FOOTINGS & FOUNDATIONS IN THEIR REMOVAL.
21. THE PROVISIONS OF CALIFORNIA FIRE CODE CHAPTER 14 AND CALIFORNIA BUILDING CODE CHAPTER 37 SHALL BE ENFORCED ON THIS PROJECT.
22. ALL BUILDINGS SHOWN ON THIS PLAN TO BE REMOVED SHALL INCLUDE THE COMPLETE REMOVAL OF FOOTINGS AS WELL.
23. BEFORE EXCAVATING ANY TRENCH 5 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN TO THE SCHOOL SHOWING THE DESIGN OF SHORING, BRACING, SLOPING, OR OTHER PROVISIONS TO BE MADE FOR THE WORKERS' PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH. IF THE PLAN VARIES FROM THE SHORING SYSTEM STANDARDS, THE PLAN SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER. NO EXCAVATION SHALL START UNTIL THE SCHOOL HAS ACCEPTED THE PLAN AND THE CONTRACTOR HAS OBTAINED A PERMIT FROM THE STATE DIVISION OF INDUSTRIAL SAFETY.
24. CAP ANY IRRIGATION LINES ENCOUNTERED DURING DEMO.

NOTE: CONTRACTOR IS REQUIRED TO RESTORE ALL EXISTING IMPROVEMENTS TO THE SAME CONDITION, THAT ARE NOT PART OF THIS PROJECT, THAT EXISTED PRIOR TO HIS STARTING CONSTRUCTION.

ABBREVIATIONS

ABND	ABANDONED	MH	MANHOLE
AC	ASPHALT PAVEMENT	N.I.C.	NOT IN CONTRACT
AP	ANGLE POINT	PA	PLANTER AREA
BLDG	BUILDING	P.C.C.	PORTLAND CEMENT CONRETE
BC	BEGINNING OF CURVE	PL	PROPERTY LINE
BW	BACK OF WALK	PIV	POST INDICATOR VALVE
CL	CENTERLINE	PP	POWER POLE
CF	CURB FACE HEIGHT	RCE	REGISTERED CIVIL ENGINEER
CLF	CHAIN LINK FENCE	RR	RAILROAD
CONC	CONCRETE	S	SLOPE
DCV	DETECTOR CHECK VALVE	SDMH	STORM DRAIN MANHOLE
DESC	DESCRIBED	SL	STREET LIGHT
D/W	DRIVEWAY	SMH	SEWER MANHOLE
DI	DROP INLET	S.P.P.W.C.	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
EP	EDGE OF PAVEMENT		
EC	END OF CURVE	S.S.P.W.C.	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK), 2015 EDITION
EX	EXISTING		
FDC	FIRE DEPARTMENT CONNECTION		
FH	FIRE HYDRANT	SW	SIDEWALK
FL	FLOWLINE	TC	TOP OF CURB
FS	FINISH SURFACE	TELE	TELEPHONE
GA	GUY ANCHOR	TG	TOP OF GRATE
GB	GRADE BREAK	TCO	TOP OF CLEANOUT
GP	GUARD POST	TS	TRAFFIC SIGN
GV	GAS VALVE	TW	TOP OF WALL
HB	HOSE BIBB	TYP.	TYPICAL
HP	HIGH POINT	UDG	UNDERGROUND CONDUIT
ICV	IRRIGTION CONTROL VALVE	UTIL	UTILITY
INV	INVERT	WM	WATER METER
IP	IRON PIPE	WV	WATER VALVE
L	LENGTH	W VLT	WATER VAULT
LIP	LIP OF GUTTER	VIF	VERIFY IN FIELD
LP	LIGHT POLE	VLT	VAULT
L T & T	LEAD TACK AND TAG		

LEGEND

- SEWER MANHOLE
- STORM DRAIN MANHOLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- SEWER CLEANOUT
- WATER VALVE
- GAS VALVE
- WATER METER
- GAS METER
- WATER VAULT
- GAS VAULT
- TELEPHONE VAULT
- ELECTRIC VAULT
- WELL
- ELECTRIC PULLBOX
- GUY WIRE
- LIGHT
- OVERHANG POST
- SIGN POST
- MAIL BOX
- CHAIN LINK FENCE
- WIRE FENCE
- WALL
- TREE
- FLOW DIRECTION
- FS FINISHED SURFACE
- FF FINISHED FLOOR
- (12.5) (E)CONTOUR ELEVATION
- 13.45 PROPOSED ELEVATION
- PL PROPERTY LINE
- CL CENTERLINE
- ICV IRRIGATION VALVE
- T TRASH ENCLOSURE
- DRAINAGE INLET
- CF CURB FACE
- INV INVERT
- W W (E)DOMESTIC WATER
- (E)SANITARY SEWER
- = EXISTING BUILDING
- = REMOVE EXISTING TURF (4)
- = REMOVE EXISTING CONCRETE (10)
- = REMOVE EXISTING ASPHALT (2)
- = EXISTING CONCRETE PAVING TO REMAIN

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architect

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consultant

FILE NO.:

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES

AC _____ FLS _____ SS _____

DATE _____

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DUNSMORE ELEMENTARY SCHOOL
RELOCATABLE CLASSROOMS

GLENDALE UNIFIED SCHOOL DISTRICT
4717 DUNSMORE AVE.
LA CRESCENTA, CA 91214

owner

tBP project number : 20967.00

file name:

drawn by: checked by:

date: March 2017

Rev:	date:	description:

drawing title:

DEMOLITION PLAN

drawing no.:

C1.1

drawing of

HORIZONTAL CONTROL

AN AUTOCAD GEOMETRIC ELECTRONIC FILE SHALL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST FOR THE CONTRACTOR'S SURVEYOR TO LAYOUT THE CONSTRUCTION STAKING OF THE PROJECT. THE SURVEYOR OR CONTRACTOR WILL NEED TO SIGN A WAIVER FORM BEFORE RELEASE OF ANY CAD ELECTRONIC DRAWINGS.

BENCHMARK:

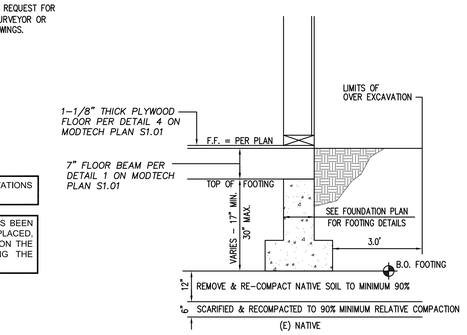
LOS ANGELES COUNTY BENCHMARK "9Y11240"
ELEVATION 1836.498 FEET (NAVD88) QUAD YEAR 2005

"DPW BM TAG IN N CB 3.3 W/O BCR @ NW COR PENNSYLVANIA AVE & ORANGE AVE"

NOTE: CONTRACTOR SHALL RESTORE ALL AREAS ON THE SITE DAMAGED DURING THE COURSE OF WORK TO MATCH EXISTING.

NOTE: STRAIGHT GRADES SHALL BE CONSTRUCTED BETWEEN SPOT ELEVATIONS OR CONTOURS INDICATED, EXCEPT WHERE GRADE BREAKS INTERVENE.

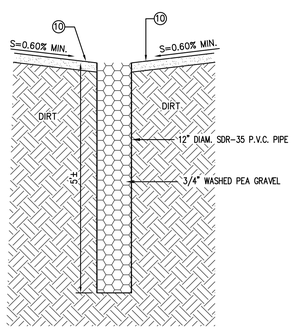
EARTHWORK NOTICE TO CONTRACTOR: NO EARTHWORK ANALYSIS HAS BEEN COMPLETED WITH RESPECT TO VOLUMES OF SOILS TO BE EXCAVATED, PLACED, OR IMPORTED IN ORDER TO PROVIDE THE FINISHED GRADES SHOWN ON THE PLANS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EARTHWORK QUANTITIES NECESSARY TO COMPLETE THE PROJECT.



OVER-EXCAVATION DETAIL
NOT TO SCALE

CONSTRUCTION NOTES:

1. PROTECT EXISTING IMPROVEMENTS IN PLACE.
2. CONSTRUCT ASPHALT PAVEMENT PER DETAIL 2 ON C1.3.
3. CONSTRUCT CONCRETE PAVEMENT PER DETAIL 3 ON SHEET C1.3. PROTECT EXISTING WALL, RAILING & CURBS IN PLACE.
4. CONSTRUCT CONCRETE SWALE PER DETAIL 4 ON SHEET C1.3.
5. ADJUST EXISTING MANHOLE TO BE FLUSH WITH NEW PAVEMENT SURFACE PER S.P.W.C. STANDARD PLAN 205-2.
6. CLEANOUT & REMOVE DEBRIS IN DROP INLET.
7. COAT SIDE OF EXISTING ASPHALT WITH TACK COAT MEETING S.S.P.W.C. SECTION 302-5.4.
8. CONSTRUCT RETAINING CURB PER DETAIL 8 ON C1.3 AND GRADES HEREON.
9. CONSTRUCT DRYWELL PER DETAIL 9 HEREON.
10. CONSTRUCT 2" THICK CONCRETE GOPHER SLAB, NO REBAR. CONCRETE CLASS 520-C-2500 PER S.S.P.W.C. SECTION 201-1.
11. CONSTRUCT PLANTER PER ARCHITECTURAL PLANS.



9 DRYWELL DETAIL
NOT TO SCALE

EARTHWORK NOTICE TO CONTRACTOR: NO EARTHWORK ANALYSIS HAS BEEN COMPLETED WITH RESPECT TO VOLUMES OF SOILS TO BE EXCAVATED, PLACED, OR IMPORTED IN ORDER TO PROVIDE THE FINISHED GRADES SHOWN ON THE PLANS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EARTHWORK QUANTITIES NECESSARY TO COMPLETE THE PROJECT.

NOTE TO CONTRACTOR: THE GENERAL CONTRACTOR IS REQUIRED TO PERFORM ALL SITE PREPARATION WORK, INCLUDING BUT NOT LIMITED TO: EXCAVATION, OVER-EXCAVATION, SCARIFYING, COMPACTION & HAULING AWAY EARTH MATERIAL UNDER PROPOSED BUILDINGS TO FORM PIT FOR FOUNDATIONS. EARTH MATERIAL SHALL BE OVER-EXCAVATED TO A DEPTH OF 1 FOOT BELOW THE BOTTOM OF FOUNDATIONS. FOUNDATION AREAS SHALL BE DEFINED AS THE AREAS EXTENDING FROM THE EDGE OF FOOTINGS, FOR A DISTANCE OF 3 FEET. CONTRACTOR SHALL ALSO INSTALL DRYWELLS, ACCESS WELL VENTS, AIR VENT WELLS & CONCRETE FOUNDATIONS. CONTRACTOR IS REQUIRED TO REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, & DEBRIS AND LEGALLY DISPOSE OF IT OFF THE OWNER'S PROPERTY. SATISFACTORY SOIL MATERIAL IS DEFINED IN GRADING SPECIFICATION SECTION 31 22 00, 2.01D.

GENERAL NOTES FOR GRADING

1. ALL WORK SHALL CONFORM WITH THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), 2015 EDITION AND THE LATEST REVISIONS THERETO, THE WORK AREA TRAFFIC CONTROL HANDBOOK (W.A.T.C.H. MANUAL), A.D.A, TITLE 24 REQUIREMENTS, AND 2016 C.B.C. UNLESS SPECIFIED OTHERWISE IN THE CONTRACT SPECIFICATIONS.
2. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. THE CONTRACTOR SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER AND USING DUST FENCES OR OTHER METHODS AS DIRECTED BY THE CONSTRUCTION MANAGER OR FIELD INSPECTOR THROUGHOUT THE CONSTRUCTION OPERATION AND SHALL INCORPORATE IN BASE BID.
3. THE CONTRACTOR SHALL KEEP A STRICT RECORD OF ALL CHANGES THAT OCCUR DURING CONSTRUCTION PRACTICES AND SUBMIT THIS RECORD TO THE SCHOOL DISTRICT CERTIFIED AS "RECORD DRAWING" PLANS.
4. ALL DAMAGE CAUSED TO PUBLIC STREETS, INCLUDING HAUL ROUTES, ALLEYS, SIDEWALKS, CURBS OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE ENGINEER'S SATISFACTION.
5. THE CONTRACTOR SHALL REMOVE AND REPLACE ANY BROKEN OR DAMAGED SIDEWALK, CURB, GUTTER OR ASPHALT PAVING AND TURF (PATCH, REPAIR OR OVERLAY) CAUSED BY THEIR WORK ON THIS PROJECT AT THE DIRECTION OF THE OWNER.
6. ALL UNDERGROUND SEWER, STORM DRAIN, AND WATER PIPELINES, ELECTRIC POWER, TELEPHONE OR CABLE TV CONDUITS AND CABLE AND GAS PIPELINES SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS, GUTTERS, SIDEWALKS AND PAVEMENT.
7. WHERE JOINING THE EXISTING PAVEMENT, SAWCUT TO SOUND PAVEMENT AND OVERLAY AS REQUIRED TO PROVIDE PROPER GRADE AND 2% MAX. CROSS-SLOPE OR 5% MAX. RUNNING SLOPE AS NOTED ON PLANS. ANY UNSOUND PAVEMENT SHALL BE REPLACED AS REQUIRED BY THE ENGINEER.
8. AT LEAST TWO (2) WORKING DAYS BEFORE COMMENCING EXCAVATION, THE CONTRACTOR SHALL POTHOLE AND EXPOSE THE EXISTING UTILITIES AT ALL CROSSINGS AND AT THE POINT OF TIE-IN; THEN CONTACT THE ENGINEER TO VERIFY THE ELEVATION OF THE EXISTING FACILITIES.
9. ALL UNSUITABLE MATERIAL SHALL BE REMOVED, AS DIRECTED BY THE SOILS ENGINEER, FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.
10. ALL DELETERIOUS MATERIAL (I.E. LUMBER, LOGS, BRUSH, RUBBISH, ETC.) SHALL BE REMOVED FROM ALL AREAS TO RECEIVE COMPACTED FILL AND HAULED TO DUMP-SITE APPROVED BY THE ENGINEER.
11. ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE INSPECTED AND APPROVED BY THE SOILS ENGINEER AFTER REMOVAL OF UNSUITABLE MATERIAL AND EXCAVATION OF KEYWAYS AND BENCHES, AND PRIOR TO PLACEMENT OF SUBSURFACE DRAINAGE SYSTEMS OR ANY FILLS.
12. ALL SOILS OR ROCK MATERIALS DEEMED UNSUITABLE FOR PLACEMENT IN COMPACTED FILL SHALL BE REMOVED FROM THE SITE. ANY IMPORTED MATERIAL SHALL BE APPROVED BY THE SOILS ENGINEER PRIOR TO USE IN COMPACTED FILL. BLOCKY MATERIAL SHALL BE BROKEN INTO SUITABLE PARTICLE SIZES, BEFORE BEING USED AS FILL IN CONFORMANCE WITH THE CITY STANDARDS.
13. ALL TREE ROOTS, ABANDONED IRRIGATION LINES, UTILITY SERVICES AND SIMILAR MATERIALS ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED FROM THE SITE AND VOIDS CREATED THEREBY SHALL BE PROPERLY FILLED AND COMPACTED AS DIRECTED BY THE SOILS ENGINEER.
14. ALL EXCAVATED BACK SLOPES AND KEYS FOR BUTTRESS FILLS MUST BE EXAMINED BY THE ENGINEERING GEOLOGIST AND SOILS ENGINEER TO INSURE ALL POTENTIAL PLANES OF FAILURE HAVE BEEN EXPOSED IN THE EXCAVATION AND WILL BE ADEQUATELY SUPPORTED BY THE PROPOSED BUTTRESS FILLS.
15. THE SOILS ENGINEER SHALL SUBMIT RECOMMENDATIONS FOR CORRECTIVE WORK TO INSURE SLOPE STABILITY WHERE UNSTABLE MATERIAL IS EXPOSED AT THE TOP OF CUTS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STORM DAMAGE PREVENTION MEASURES OR EROSION CONTROL DEVICES AND/OR TO PERFORM CERTAIN GRADING TO PREVENT SOIL OR EXCESS RUNOFF FROM FLOWING INTO PUBLIC STREETS OR ADJACENT PROPERTIES. IN THE EVENT OF SUCH AN OCCURRENCE, CLEANUP SHALL COMMENCE IMMEDIATELY. SHOULD CITY FORCES OR THE CITY CONTRACTOR PERFORM ANY CLEANUP RESULTING FROM THIS DEVELOPMENT, THE CONTRACTOR SHALL PAY THE COST INCURRED WITHIN TEN (10) WORKING DAYS UPON RECEIPT OF BILLING.
17. EITHER WATER OR DUST PALLIATIVE, OR BOTH, MUST BE APPLIED FOR THE ALLEVIATION OR PREVENTION OF EXCESSIVE DUST RESULTING FROM THE LOADING OR TRANSPORTATION OF EARTH FROM OR TO THE PROJECT SITE OR PRIVATE AND PUBLIC ROADWAYS.
18. MAXIMUM SLOPES FOR BOTH CUT AND FILL SHALL BE 2:1.
19. NO OVERSIZE OR OVERWEIGHT LOADS ARE PERMITTED WITHOUT A SEPARATE MOVING PERMIT.
20. ALL EQUIPMENT USED TO HAUL EXCAVATION OR FILL MATERIAL FROM OR TO THE SITE SHALL FOLLOW A DESIGNATED ROUTE OR ROUTES IN GOING TO AND FROM THE SITE. THE CONTRACTOR SHALL BE ENTITLED TO THE DESIGNATION OF A ROUTE PROVIDING ACCESS TO A SPECIFIED PLACE OTHER THAN THE SITE, AFTER SHOWING TO THE SATISFACTION OF THE CITY BUILDING OFFICIAL THAT SUCH SPECIFIED PLACE IS A PLACE WHERE EXCAVATION MATERIAL MAY BE REASONABLY DEPOSITED OR FILL MATERIAL MAY BE OBTAINED. A SEPARATE ENCROACHMENT PERMIT IS REQUIRED WHEN IT IS NECESSARY TO FLAG TRAFFIC OR INSTALL ANY TRAFFIC CONTROL DEVICES ON CITY RIGHT-OF-WAY.
21. ANY EARTH ROCK, GRAVEL, SAND, STONE OR OTHER EXCAVATED MATERIAL DEPOSITED OR CAUSED TO ROLL, FLOW OR WASH UPON ANY PUBLIC PLACE OR PRIVATE PROPERTY SHALL BE REMOVED FROM SUCH PUBLIC PLACE OR PRIVATE PROPERTY BY THE END OF THE WORKDAY BY THE CONTRACTOR RESPONSIBLE FOR THE DEPOSITION. IF AN ADVERSE CONDITION IS CAUSED BY DEPOSIT, THE CONDITION SHALL BE CORRECTED IMMEDIATELY.
22. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORMWATER FROM THE PROJECT SITE AT ALL TIMES.
23. ALL TRUCKS HAULING DIRT, SAND, OIL, OR OTHER LOOSE MATERIALS ARE TO BE COVERED OR SHOULD MAINTAIN AT LEAST TWO FEET OF FREEBOARD IN ACCORDANCE WITH THE REQUIREMENTS OF CVC SECTION 23114.
24. ADJUST UTILITY BOXES TO BE FLUSH WITH ULTIMATE FINISH SURFACE IN PAVING SCOPE OF WORK AREAS.
25. CONTRACTOR SHALL HIRE A LICENSED SURVEYOR TO STAKE ALL CATCH BASINS, STORM DRAIN PIPE, SAW-CUT LINES, BUILDING PADS, FINISH FLOORS, SWALES AND GRADE BREAKS. TWO STAKES SHALL BE PROVIDED FOR ALL CATCH BASINS.
26. IN ORDER TO MITIGATE THE IMPACTS ON CULTURAL RESOURCES OR LANDSCAPING, IF CULTURAL MATERIAL SUGGESTIVE OF PREHISTORIC OR HISTORIC ORIGIN IS ENCOUNTERED, WORK IN THE VICINITY OF THE FIND SHALL BE STOPPED, AND THE OWNER SHALL BE NOTIFIED. GRADING, CONSTRUCTION OR LANDSCAPING SHALL NOT RESUME UNTIL THE FIND IS EVAULATED AND IT IS DETERMINED WHETHER THE MATERIAL IS ARCHAEOLOGICALLY SIGNIFICANT AND ADDITIONAL MITIGATION IS REQUIRED.
27. NO PERSON SHALL, WHEN HAULING ANY EARTH, SAND, GRAVEL, ROCK, STONE OR OTHER EXCAVATED MATERIAL OR DEBRIS OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE, ALLOW SUCH MATERIAL TO BLOW OR SPILL OVER UPON SUCH STREET, ALLEY OR PUBLIC PLACE OR ADJACENT PRIVATE PROPERTY OR ANY WATER BODIES, CREEKS OR STREAMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY CONSTRUCTION OR SOILS MATERIALS DEPOSITED ON THE PUBLIC RIGHT-OF-WAY, PUBLIC WATERS OR ADJACENT PRIVATE PROPERTY.

FLOOD ZONE INFORMATION

Per Flood Insurance Rate Map Number 06037C1335F, dated September 26, 2008, the flood zone for this area is "ZONE X". ZONE X is an area determined to be outside the 0.2% annual chance floodplain.

10 5 0 10 20 30
SCALE: 1" = 10'

LEGEND:

- = EXISTING BUILDING
- = NEW BUILDING / 2" THICK GOHPER SLAB UNDER BUILDING (10)
- = NEW CONCRETE PAVING (3)
- = NEW ASPHALT CONCRETE PAVING (2)
- = EXISTING CONCRETE PAVING
- (E)DOMESTIC WATER
- (E)SANITARY SEWER
- (E)GAS
- (E)ELECTRICAL/POWER
- (E)COMMUNICATIONS

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FILE NO.:
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES
AC ____ FLS ____ SS ____
DATE ____

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DUNSMORE ELEMENTARY SCHOOL RELOCATABLE CLASSROOMS

GLENDALE UNIFIED SCHOOL DISTRICT
4717 DUNSMORE AVE.
LA CRESCENTA, CA 91214

owner

tBP project number : 20967.00
file name:
drawn by: checked by:
date: March 2017

Rev:	date:	description:

drawing title:

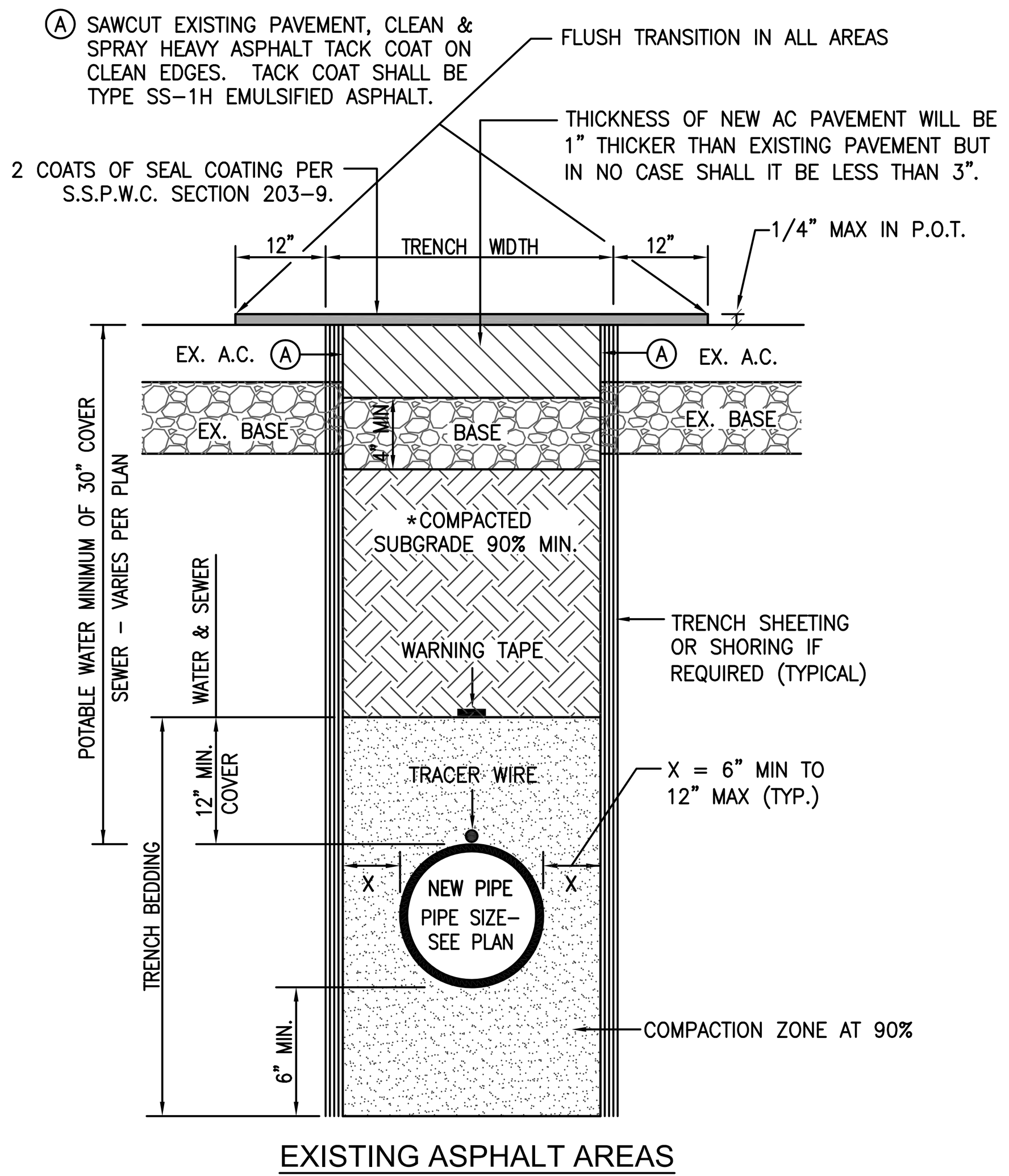
GRADING PLAN

drawing no.:

C1.2

drawing of

TRENCHING DETAILS FOR SEWER & WATER LINES



EXISTING ASPHALT AREAS
N.T.S.

TRENCH EXCAVATION, BEDDING, & BACKFILL NOTES:

EXCAVATION NOTE: THE 2016 CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (CAL/OSHA) WILL REQUIRE A PERMIT FOR THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE (5) FEET OR DEEPER AND INTO WHICH A PERSON IS REQUIRED TO DESCEND. FOR PERMIT PURPOSES, "DESCEND" MEANS TO ENTER ANY PART OF THE TRENCH OR EXCAVATION ONCE THE EXCAVATION HAS ATTAINED A DEPTH OF 5 FEET OR MORE. FOR REGULATIONS RELATING TO PERMITS FOR EXCAVATIONS AND TRENCHES, REFER TO THE CALIFORNIA CODE OF REGULATIONS TITLE 8, CHAPTER 3.2, ARTICLE 2, SECTION 341 OF THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (CAL/OSHA)

THE CONTRACTOR SHALL SUBMIT A DETAIL SHOWING THE DESIGN OR SHORING; BRACING SLOPING OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FROM THE HAZARDS OF CAVING GROUND DURING THE EXCAVATION. THE PLAN SUBMITTED SHALL BE SIGNED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER CERTIFIED THAT THE PLAN COMPLIES WITH ALL OSHA CONSTRUCTION SAFETY ORDERS.

BEDDING & BACKFILL SHALL BE PLACED IN ACCORDANCE WITH SECTION 306-1.2.1 AND 306-1.3 OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (S.S.P.W.C.), 2015 EDITION" AND AS SUPPLEMENTED HEREIN. TRENCH BACKFILL SLURRY PER SECTION 201-1. EXISTING SITE SOILS, WHERE CONDITIONS DICTATE HEREIN, ARE CONSIDERED SUITABLE FOR BACKFILLING OF UTILITY TRENCHES PROVIDED THEY ARE FREE OF DEBRIS, PARTICLES GREATER THAN 4 INCHES IN MAXIMUM DIMENSION, ORGANIC MATTER OR OTHER DELETERIOUS MATERIALS. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO CONDUITS, PIPES, AND ANY APPURTENANCES. PER SECTION 306-1.2.1 OF S..S.P.W.C., IF SOFT, SPONGY, UNSTABLE OR OTHER UNSUITABLE MATERIAL IS ENCOUNTERED UPON WHICH THE BEDDING MATERIAL OR PIPE IS TO BE PLACED, THIS MATERIAL SHALL BE REMOVED TO A DEPTH ORDERED BY THE CIVIL ENGINEER AND REPLACED WITH BEDDING MATERIAL SUITABLY DENSIFIED.

COMPACTION METHODS: ALL BEDDING & BACKFILL COMPACTION SHALL BE BY HAND-OPERATED, PLATE-TYPE, VIBRATORY, OR OTHER SUITABLE HAND-TAMPERS IN AREAS NOT ACCESSIBLE TO LARGER ROLLERS OR COMPACTERS. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO CONDUITS, PIPES, AND ANY APPURTENANCES. WATER DENSIFICATION BY INUNDATION OR JETTING SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM CIVIL ENGINEER.

SHEETING: WHEN EXCAVATION DEPTHS OR SOIL CONDITIONS REQUIRE SHORING OR USE OF A TRENCH BOX, THE BOTTOM OF THE SHORING OR TRENCH BOX SHOULD BE PLACED NO LOWER THEN THE TOP OF THE PIPE. THIS PREVENTS DISRUPTION OF THE BACKFILL ENVELOPE WHEN REMOVING THE SHORING OR TRENCH BOX. IF THIS PRACTICE CANNOT BE FOLLOWED, CONSIDERATION SHOULD BE GIVEN TO LEAVING THE SHORING IN PLACE.

* GENERAL NOTES:

IF 90% COMPACTION IS NOT ATTAINABLE DURING CONSTRUCTION THE USE OF A SLURRY BACKFILL MAY BE SUBSTITUTED. SAND SLURRY SHALL CONSIST OF 1 SACK PORTLAND CEMENT (CLASS 100-E-100) PER CUBIC YARD OF SAND SLURRY MIX.

WARNING TAPE NOTES (ON-SITE WATER):

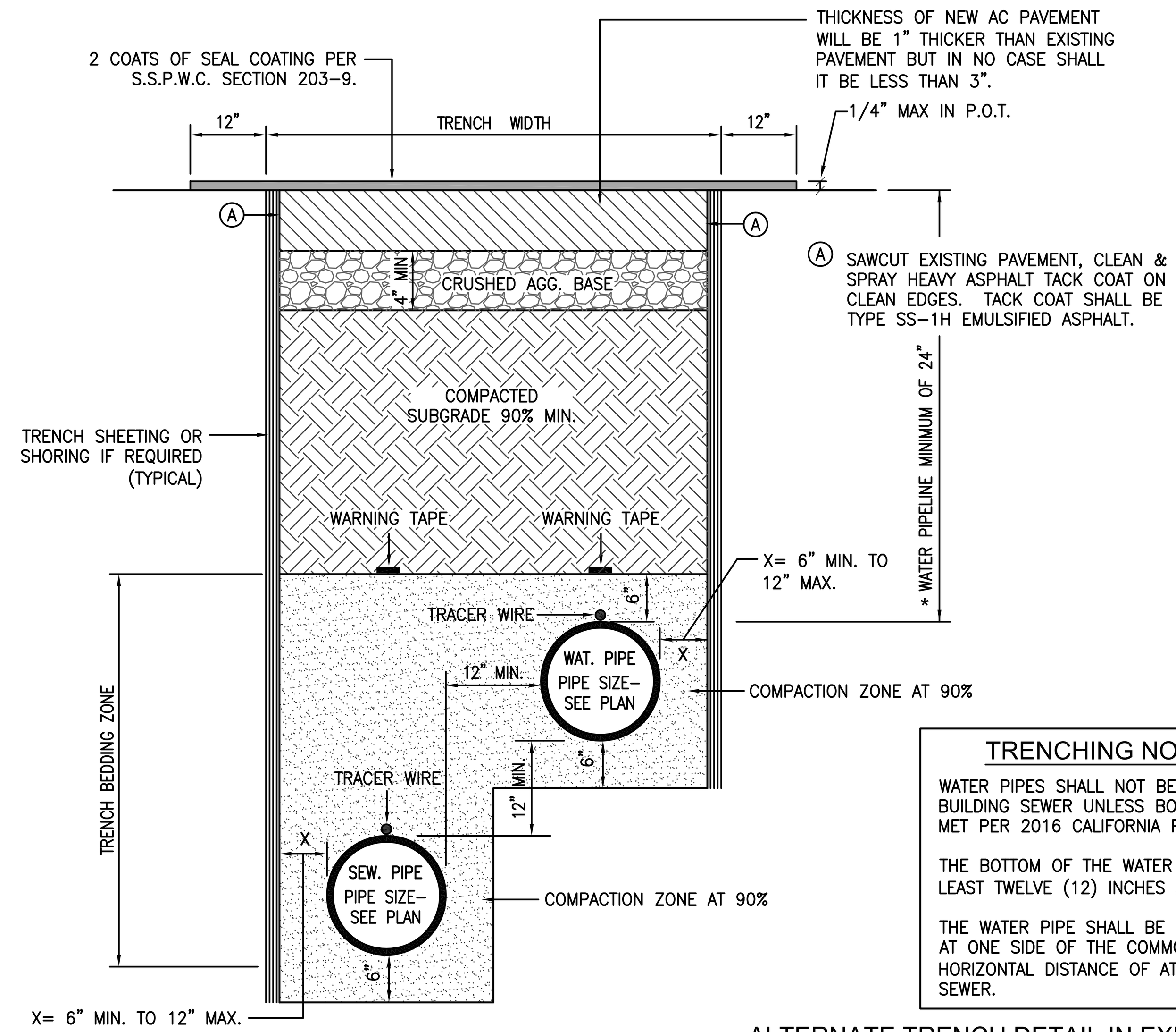
A METALLIC LINED TAPED FOR UNDERGROUND PIPES, MARKED "CAUTION BURIED WATER LINE BELOW", IN POLYETHYLENE FILM COLOR BLUE, INSTALLED ABOVE PIPE, 6" WIDE.

WARNING TAPE NOTES (ON-SITE SEWER):

A METALLIC LINED TAPED FOR UNDERGROUND PIPES, MARKED "CAUTION BURIED SEWER LINE BELOW", IN POLYETHYLENE FILM COLOR GREEN, INSTALLED ABOVE PIPE, 6" WIDE.

TRACER WIRE NOTES:

COPPER TRACER WIRE SHALL BE INSTALLED ON ALL NON-METALLIC PIPELINES, 2" AND GREATER, JUST ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE. THE COPPER WIRE SHALL BE #14 AWG.



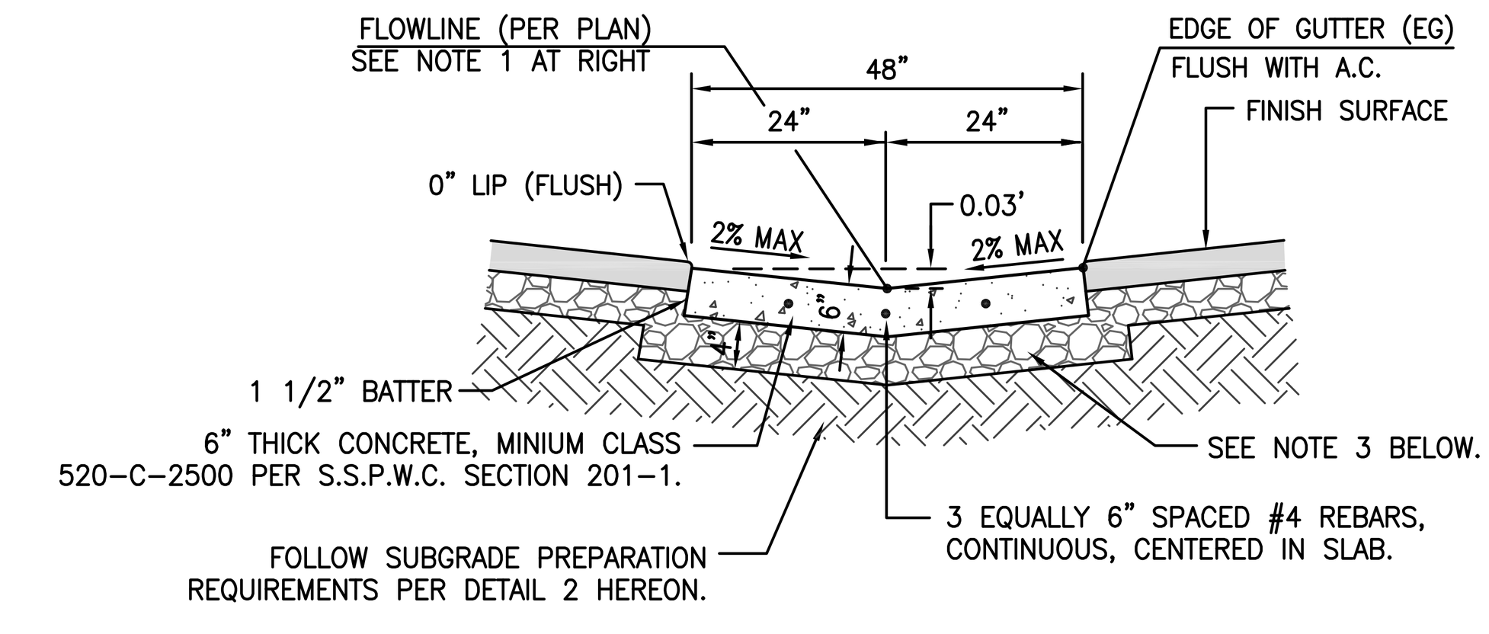
TRENCHING NOTICE TO CONTRACTOR

WATER PIPES SHALL NOT BE RUN OR LAID IN THE SAME TRENCH AS BUILDING SEWER UNLESS BOTH OF THE FOLLOWING CONDITIONS ARE MET PER 2016 CALIFORNIA PLUMBING CODE, SECTION 609.2:

THE BOTTOM OF THE WATER PIPE, AT ALL POINTS, SHALL BE AT LEAST TWELVE (12) INCHES ABOVE THE TOP OF THE SEWER LINE.

THE WATER PIPE SHALL BE PLACED ON A SOLID SHELF EXCAVATED AT ONE SIDE OF THE COMMON TRENCH WITH A MINIMUM CLEAR HORIZONTAL DISTANCE OF AT LEAST TWELVE (12) INCHES FROM THE SEWER.

ALTERNATE TRENCH DETAIL IN EXISTING ASPHALT CONCRETE AREAS
(ALLOWABLE WHERE CONDITIONS APPLY)
NOT TO SCALE



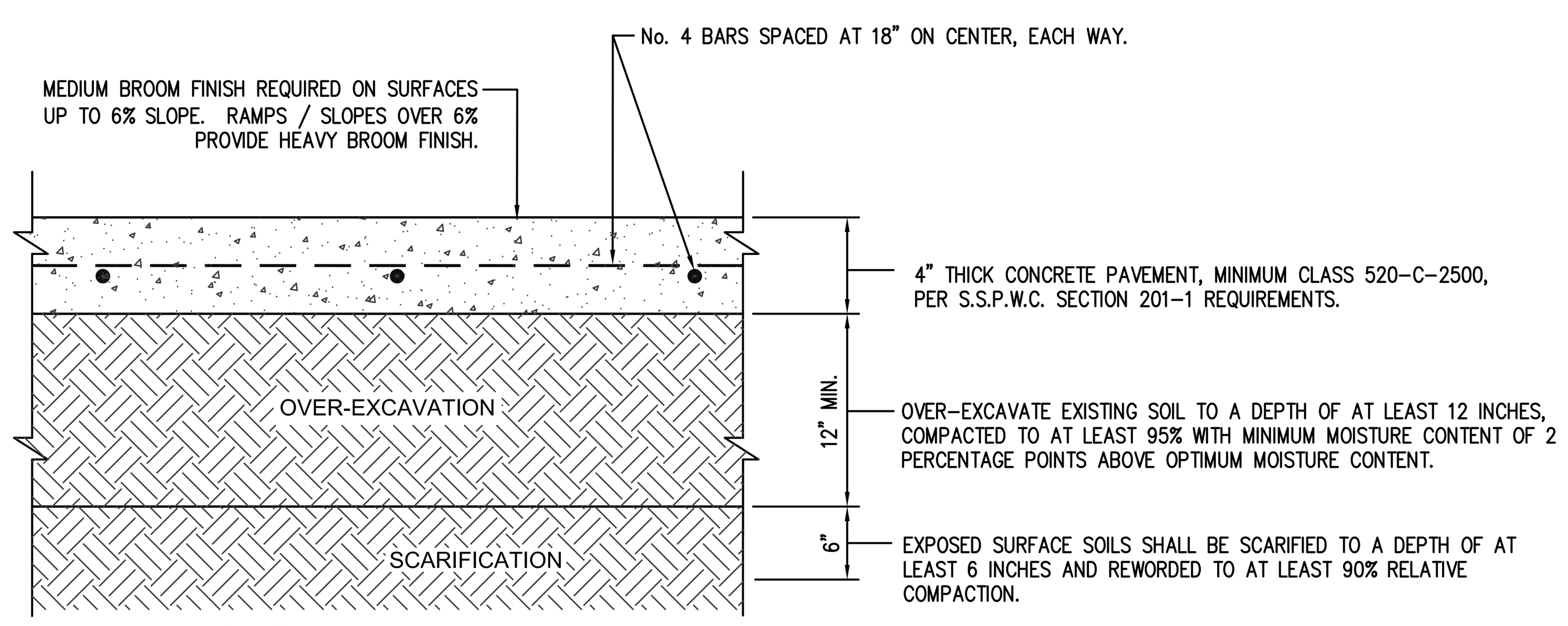
④ CONCRETE SWALE DETAIL
NOT TO SCALE

CONCRETE SWALE NOTES:

1. CONCRETE SWALE SHALL HAVE AN 4" WIDE FLOWLINE SMOOTH STEEL TROWEL FINISH.
2. CONSTRUCT CONTROL JOINTS IN SWALE AT REGULAR INTERVALS OF 8' PER DETAIL HEREON.

   CONSTRUCT EXPANSION JOINTS WITH REBAR IN SWALE AT REGULAR INTERVALS OF 24' PER DETAIL HEREON.
3. A 4" THICK LAYER OF CRUSHED AGGREGATE BASE MATERIAL SHALL BE PLACED UNDER THE SWALE. MINIMUM COMPACTION OF 95% RELATIVE DENSITY IS REQUIRED.
4. CROSS-SLOPE MUST NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL MUST BE LESS THAN 5% IN AREAS DEFINED AS A PEDESTRIAN PATH OF TRAVEL.

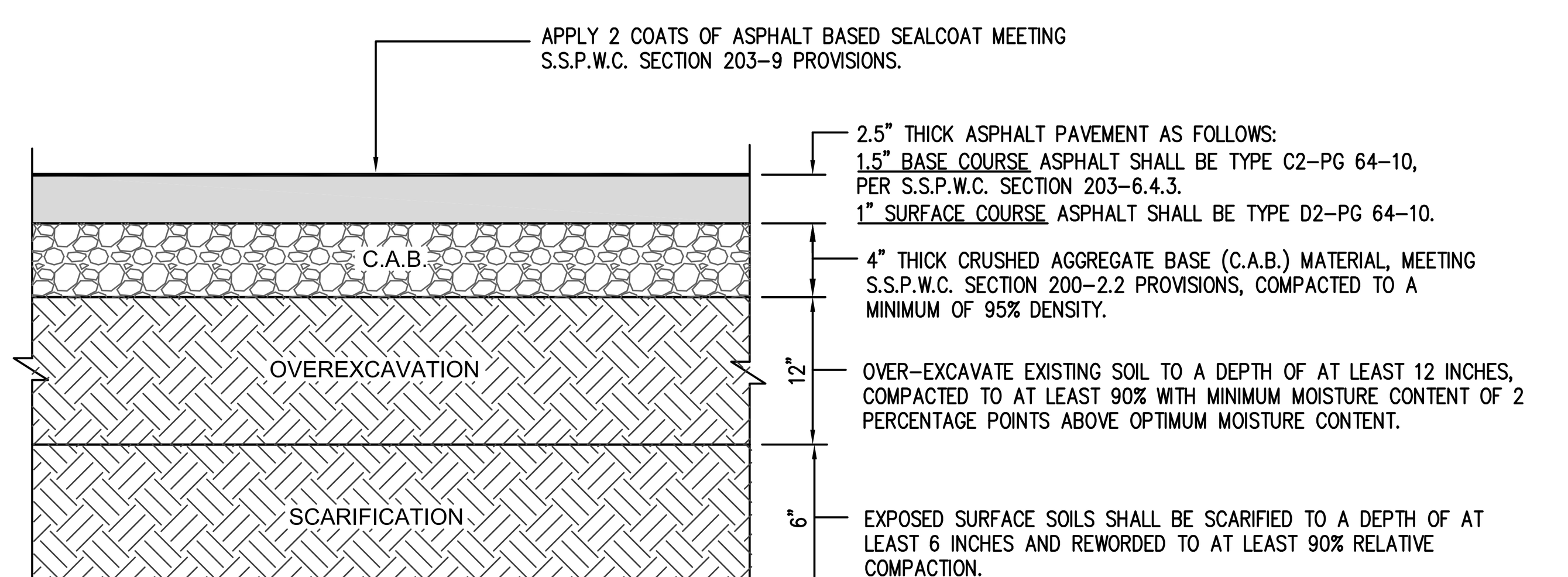
③ CONCRETE PAVEMENT STRUCTURAL SECTION

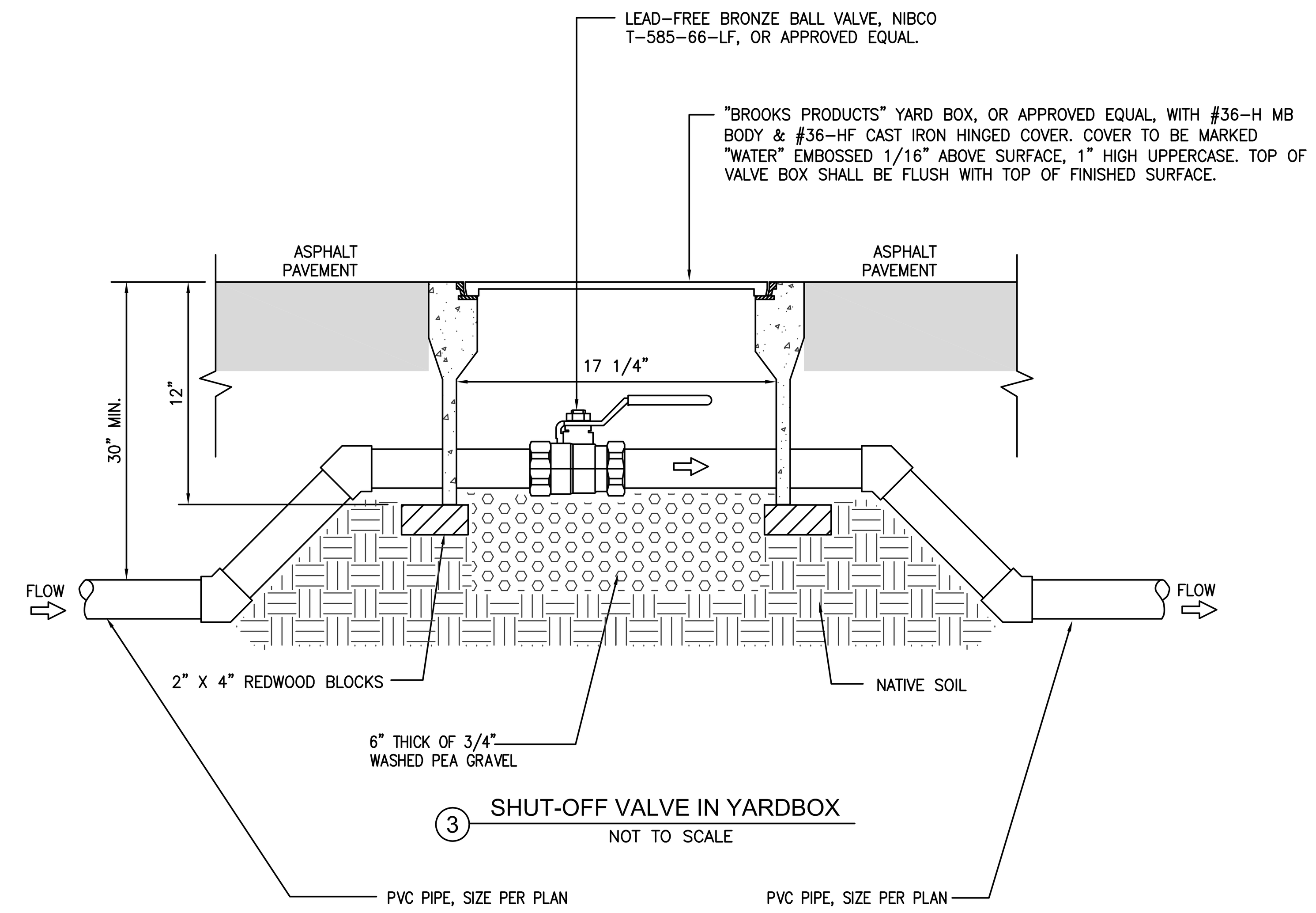


NOTES:

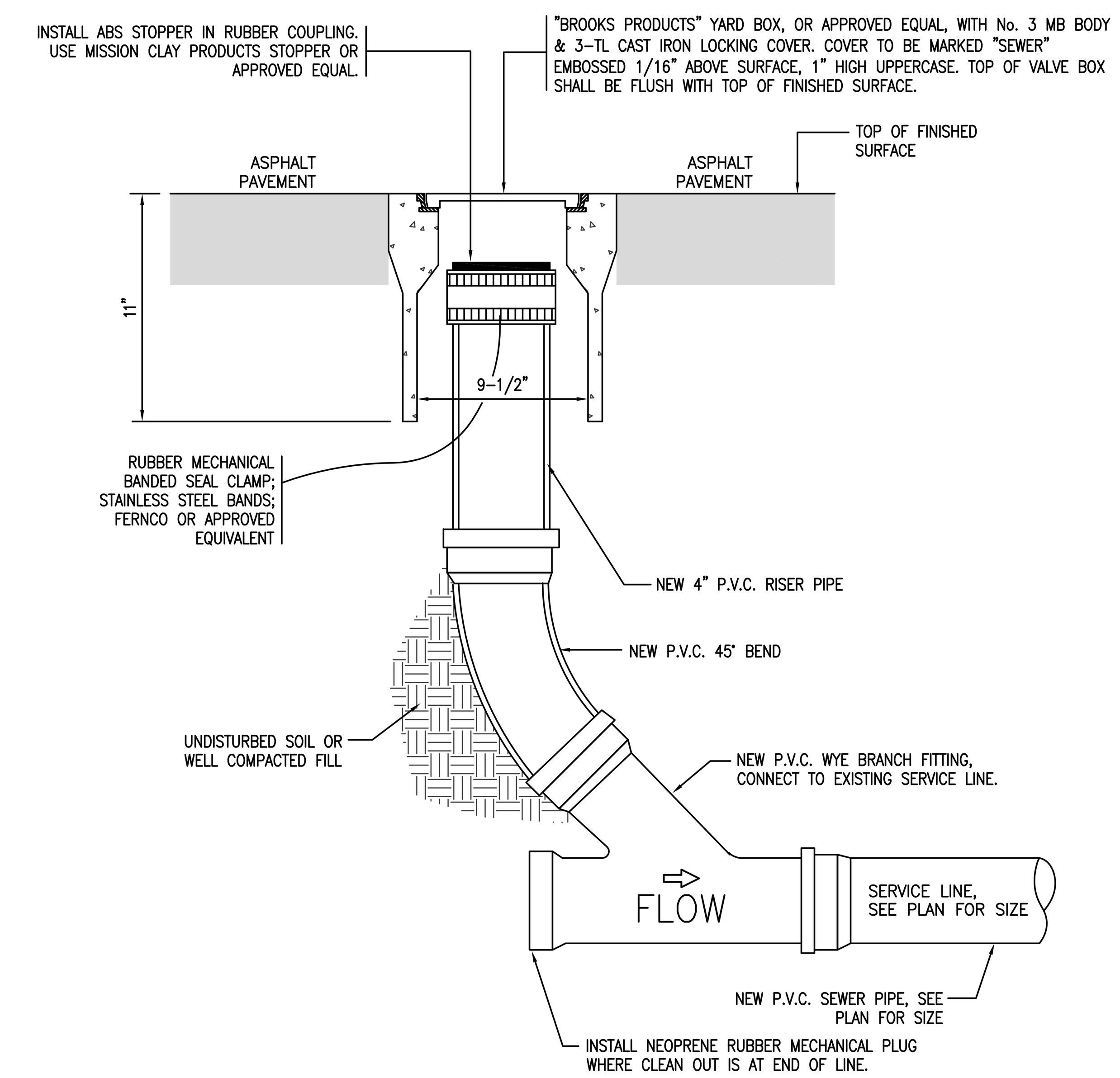
1. MEDIUM BROOM FINISH REQUIRED ON WALK SURFACES UP TO 6% SLOPE.
2. ADJACENT PAVING, WHERE OCCURS, TO BE FLUSH WITH TOP EDGE OF SLAB.
3. ALL CONCRETE WALKS SHALL BE ASTM C-150 TYPE II PORTLAND CEMENT.
4. ALL CONCRETE WALKS SHALL BE 1" MAXIMUM COARSE AGGREGATE SIZE CONFORMING TO GRADING 'C' OF THE S.P.P.W.C. SECTION 201-1.3.2(A).

② ASPHALT CONCRETE PAVEMENT STRUCTURAL SECTION

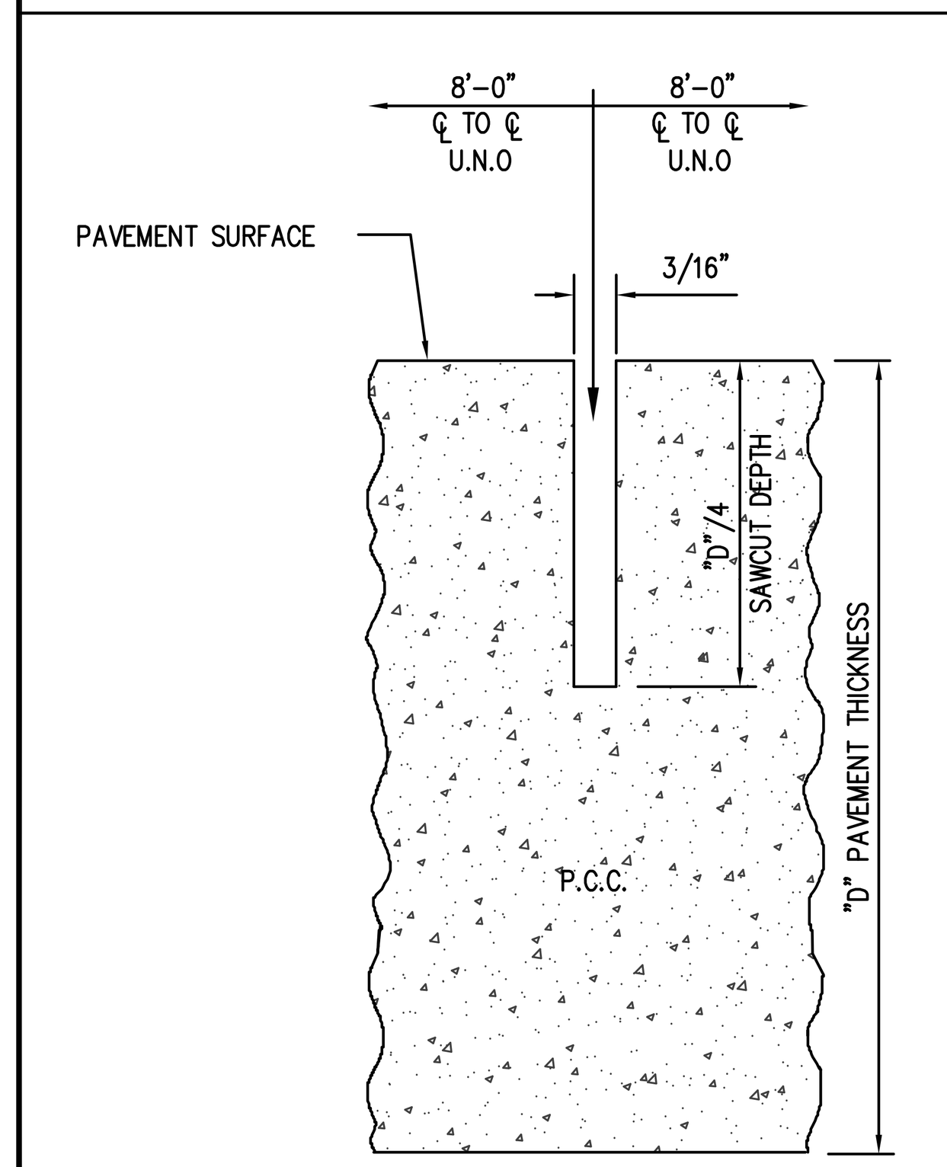




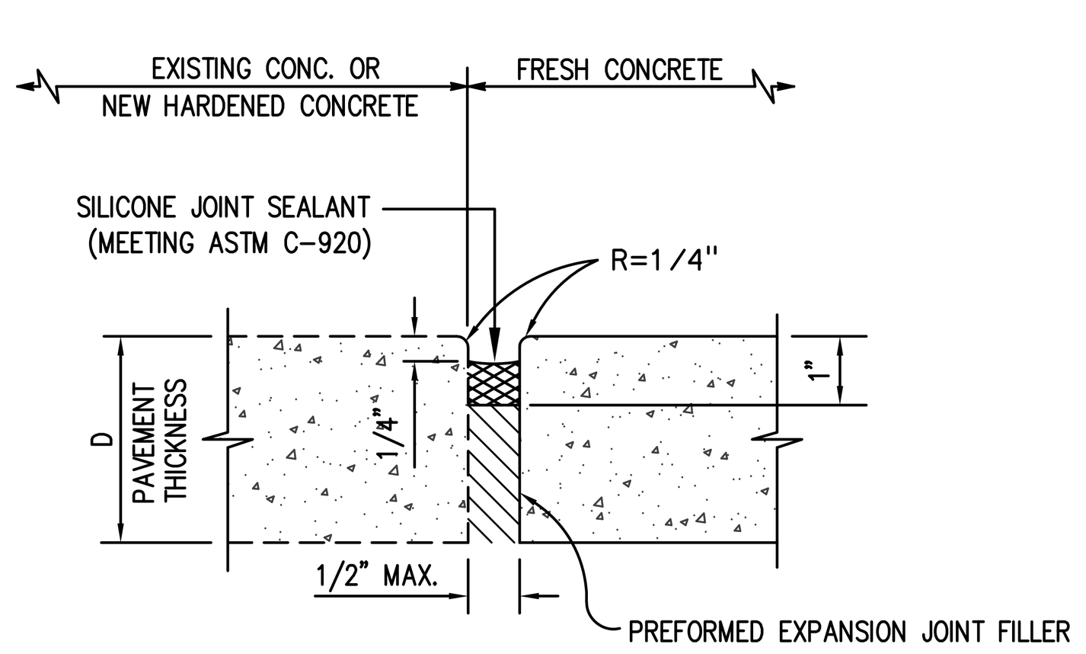
③ SHUT-OFF VALVE IN YARDBOX
NOT TO SCALE



Ⓓ SEWER CLEAN OUT & YARD BOX DETAIL
NOT TO SCALE



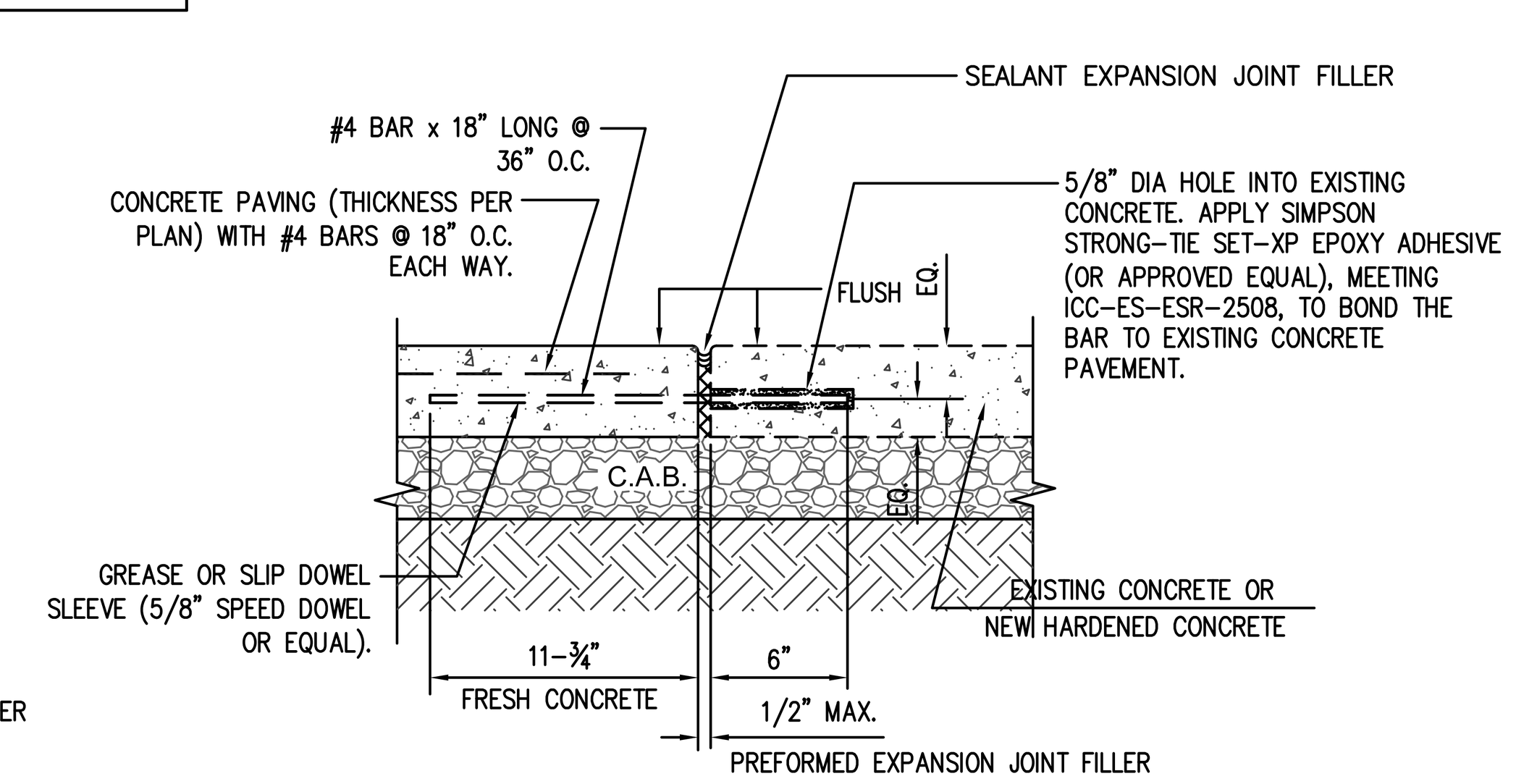
Ⓐ CONTROL JOINT (C.J.)
NOT TO SCALE



Ⓑ EXPANSION JOINT (E.J.) WITHOUT REBAR
NOT TO SCALE

NOTES:

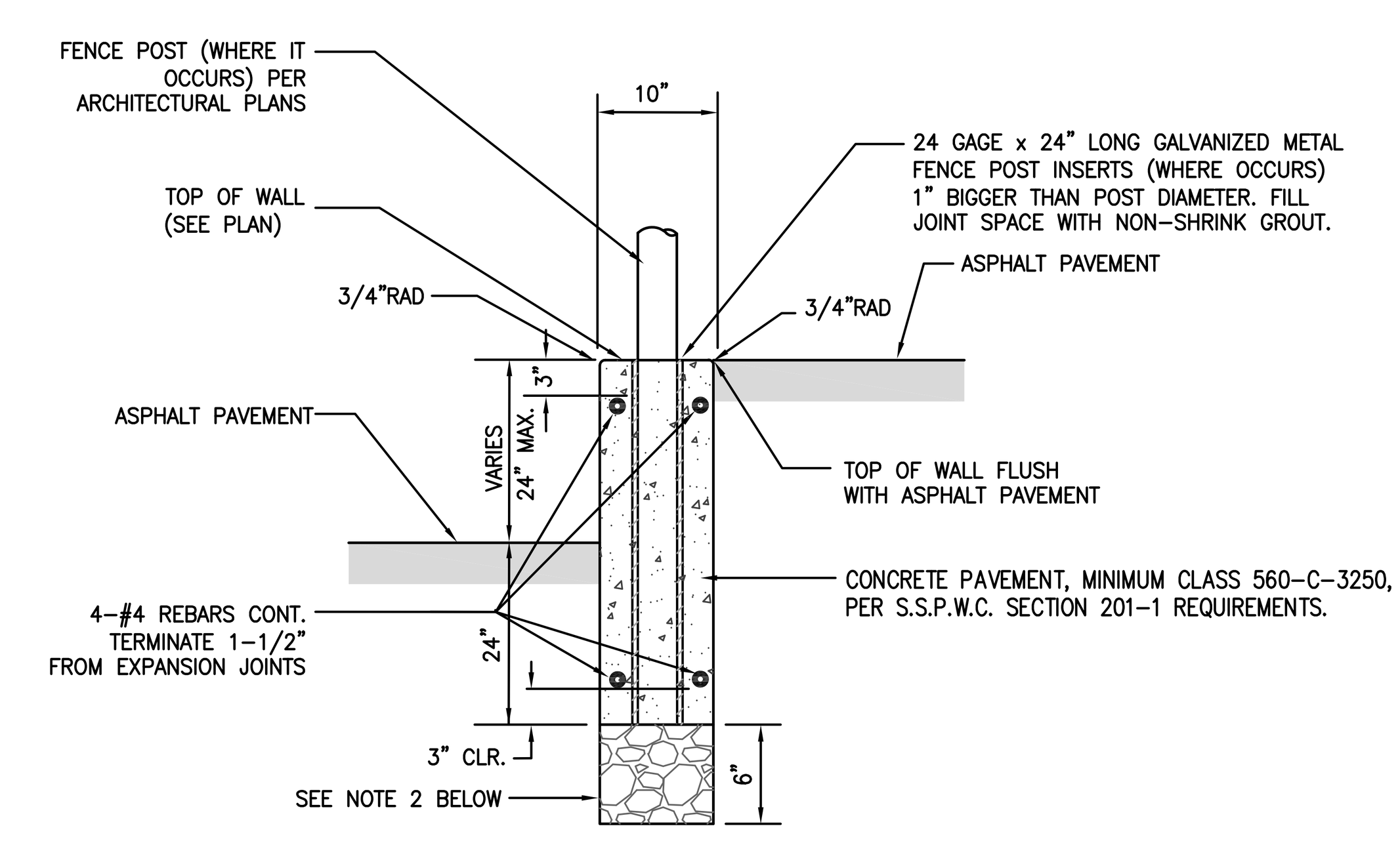
1. MEDIUM BROOM FINISH REQUIRED ON WALK SURFACES UP TO 6% SLOPE.
2. ADJACENT PAVING, WHERE OCCURS, TO BE FLUSH WITH TOP EDGE OF SLAB.
3. ALL CONCRETE WALKS SHALL BE ASTM C-150 TYPE II PORTLAND CEMENT.
4. ALL CONCRETE WALKS SHALL BE 1" MAXIMUM COARSE AGGREGATE SIZE CONFORMING TO GRADING 'C' OF THE S.P.P.W.C. SECTION 201-1.3.2(A).



NOTE: 1. VERTICAL CHANGE IN ELEVATION ALONG ACCESSIBLE PATH OF TRAVEL CANNOT EXCEET 1/4" PER CBC 11B-303.2.

2. LEVEL CHANGE BETWEEN 1/4"-1/2" MUST BE BEVELED AT 1:2 MAX PER CBC 11B-303.2 & 11B-303.3.

Ⓒ EXPANSION JOINT (E.J.) WITH REBAR
NOT TO SCALE



⑧ RETAINING CURB DETAIL
NOT TO SCALE

CURB NOTES:

1. PROVIDE EXPANSION JOINTS AT 30'-0" O.C. MAX
2. CRUSHED BASE MATERIAL, 6" THICK, SHALL BE PLACED UNDER CONCRETE CURB. MINIMUM COMPACTION OF 95% ON SUBGRADE IS REQUIRED UNLESS WAIVED BY CIVIL ENGINEER.

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DUNSMORE ELEMENTARY SCHOOL
RELOCATABLE CLASSROOMS

GLENDALE UNIFIED SCHOOL DISTRICT
4717 DUNSMORE AVE.
LA CRESCENTA, CA 91214

owner

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date: March 2017
Rev: date: description:

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DETAIL SHEET

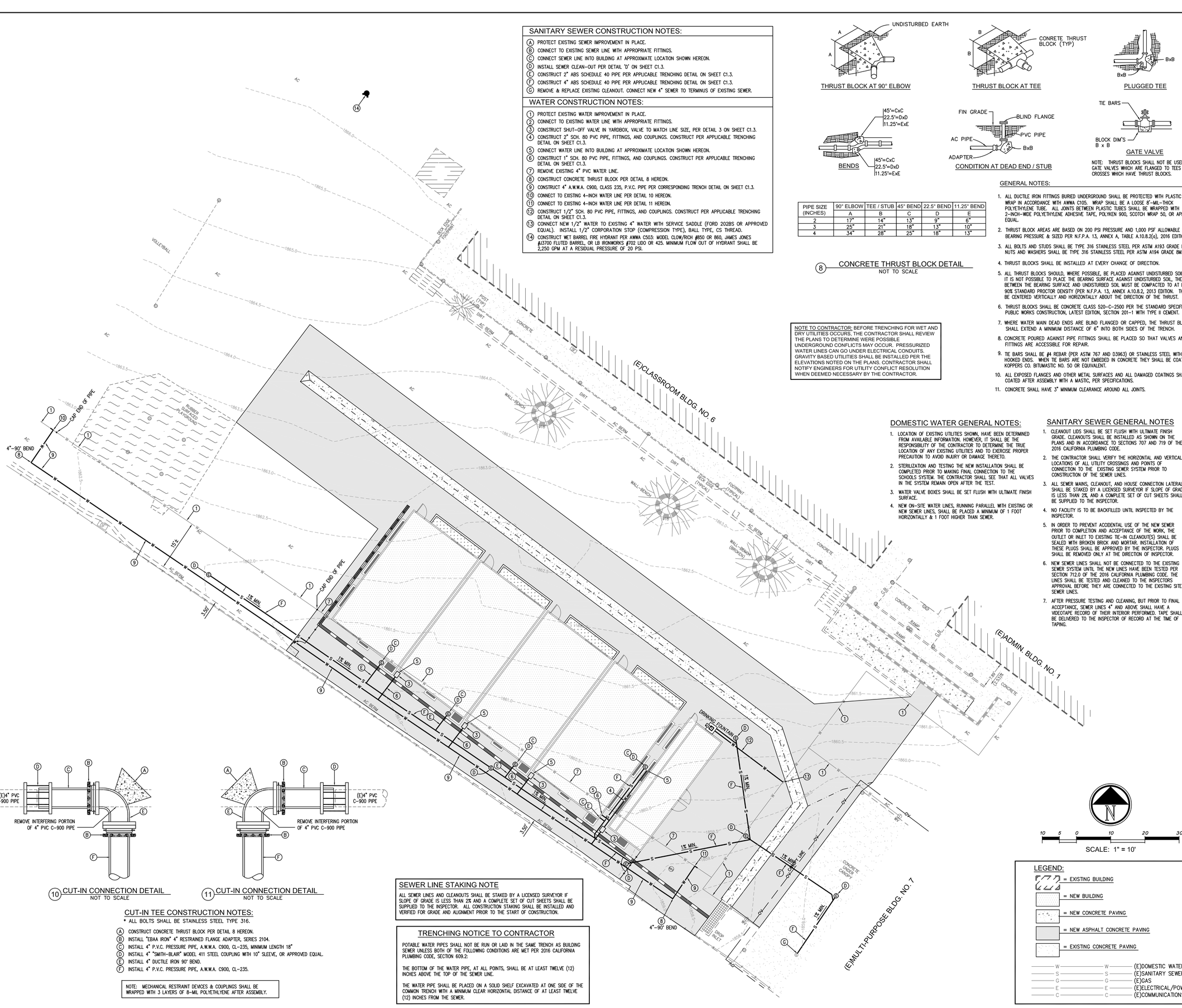
drawing no.:
C1.3
drawing of

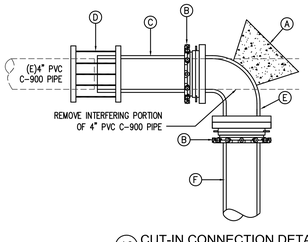
SANITARY SEWER CONSTRUCTION NOTES:

(A) PROTECT EXISTING SEWER IMPROVEMENT IN PLACE.
(B) CONNECT TO EXISTING SEWER LINE WITH APPROPRIATE FITTINGS.
(C) CONNECT SEWER LINE INTO BUILDING AT APPROXIMATE LOCATION SHOWN HEREON.
(D) INSTALL SEWER CLEAN-OUT PER DETAIL 'D' ON SHEET C1.3.
(E) CONSTRUCT 2" ABS SCHEDULE 40 PIPE PER APPLICABLE TRENCHING DETAIL ON SHEET C1.3.
(F) CONSTRUCT 4" ABS SCHEDULE 40 PIPE PER APPLICABLE TRENCHING DETAIL ON SHEET C1.3.
(G) REMOVE & REPLACE EXISTING CLEANOUT. CONNECT NEW 4" SEWER TO TERMINUS OF EXISTING SEWER.

WATER CONSTRUCTION NOTES:

(1) PROTECT EXISTING WATER IMPROVEMENT IN PLACE.
(2) CONNECT TO EXISTING WATER LINE WITH APPROPRIATE FITTINGS.
(3) CONSTRUCT SHUT-OFF VALVE IN YARDBOX, VALVE TO MATCH LINE SIZE, PER DETAIL 3 ON SHEET C1.3.
(4) CONSTRUCT 2" SCH. 80 PVC PIPE, FITTINGS, AND COUPLINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C1.3.
(5) CONNECT WATER LINE INTO BUILDING AT APPROXIMATE LOCATION SHOWN HEREON.
(6) CONSTRUCT 1" SCH. 80 PVC PIPE, FITTINGS, AND COUPLINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C1.3.
(7) REMOVE EXISTING 4" PVC WATER LINE.
(8) CONSTRUCT CONCRETE THRUST BLOCK PER DETAIL 8 HEREON.
(9) CONSTRUCT 4" A.W.W.A. C900, CLASS 235, P.V.C. PIPE PER CORRESPONDING TRENCH DETAIL ON SHEET C1.3.
(10) CONNECT TO EXISTING 4-INCH WATER LINE PER DETAIL 10 HEREON.
(11) CONNECT TO EXISTING 4-INCH WATER LINE PER DETAIL 11 HEREON.
(12) CONSTRUCT 1/2" SCH. 80 PVC PIPE, FITTINGS, AND COUPLINGS. CONSTRUCT PER APPLICABLE TRENCHING DETAIL ON SHEET C1.3.
(13) CONNECT NEW 1/2" WATER TO EXISTING 4" WATER WITH SERVICE SADDLE (FORD 202BS OR APPROVED EQUAL). INSTALL 1/2" CORPORATION STOP (COMPRESSION TYPE), BALL TYPE, CS THREAD.
(14) CONSTRUCT WET BARREL FIRE HYDRANT PER AWWA C503: MODEL CLOW/RICH #850 OR 860, JAMES JONES #J3700 FLUTED BARREL, OR LB IRONWORKS #702 LIDO OR 425. MINIMUM FLOW OUT OF HYDRANT SHALL BE 2,250 GPM AT A RESIDUAL PRESSURE OF 20 PSI.





10 CUT-IN CONNECTION DETAIL
NOT TO SCALE

11 CUT-IN CONNECTION DETAIL
NOT TO SCALE

CUT-IN TEE CONSTRUCTION NOTES:

* ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316.

(A) CONSTRUCT CONCRETE THRUST BLOCK PER DETAIL 8 HEREON.
(B) INSTALL "EBAA IRON" 4" RESTRAINED FLANGE ADAPTER, SERIES 2104.
(C) INSTALL 4" P.V.C. PRESSURE PIPE, A.W.W.A. C900, CL-235, MINIMUM LENGTH 18"
(D) INSTALL 4" "SMITH-BLAIR" MODEL 411 STEEL COUPLING WITH 10" SLEEVE, OR APPROVED EQUAL.
(E) INSTALL 4" DUCTILE IRON 90° BEND.
(F) INSTALL 4" P.V.C. PRESSURE PIPE, A.W.W.A. C900, CL-235.

NOTE: MECHANICAL RESTRAINT DEVICES & COUPLINGS SHALL BE WRAPPED WITH 3 LAYERS OF 8-MIL POLYETHYLENE AFTER ASSEMBLY.

SEWER LINE STAKING NOTE

ALL SEWER LINES AND CLEANOUTS SHALL BE STAKED BY A LICENSED SURVEYOR IF SLOPE OF GRADE IS LESS THAN 2% AND A COMPLETE SET OF CUT SHEETS SHALL BE SUPPLIED TO THE INSPECTOR. ALL CONSTRUCTION STAKING SHALL BE INSTALLED AND VERIFIED FOR GRADE AND ALIGNMENT PRIOR TO THE START OF CONSTRUCTION.

TRENCHING NOTICE TO CONTRACTOR

POTABLE WATER PIPES SHALL NOT BE RUN OR LAID IN THE SAME TRENCH AS BUILDING SEWER UNLESS BOTH OF THE FOLLOWING CONDITIONS ARE MET PER 2016 CALIFORNIA PLUMBING CODE, SECTION 609.2:

THE BOTTOM OF THE WATER PIPE, AT ALL POINTS, SHALL BE AT LEAST TWELVE (12) INCHES ABOVE THE TOP OF THE SEWER LINE.

THE WATER PIPE SHALL BE PLACED ON A SOLID SHELF EXCAVATED AT ONE SIDE OF THE COMMON TRENCH WITH A MINIMUM CLEAR HORIZONTAL DISTANCE OF AT LEAST TWELVE (12) INCHES FROM THE SEWER.

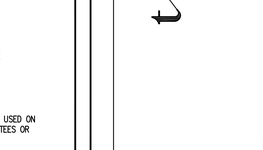
THRUST BLOCK AT 90° ELBOW

THRUST BLOCK AT TEE

PLUGGED TEE

BENDS

CONDITION AT DEAD END / STUB



GATE VALVE

NOTE: THRUST BLOCKS SHALL NOT BE USED ON GATE VALVES WHICH ARE FLANGED TO TEES OR CROSSES WHICH HAVE THRUST BLOCKS.

PIPE SIZE (INCHES)	90° ELBOW	TEE / STUB	45° BEND	22.5° BEND	11.25° BEND
	A	B	C	D	E
2	17"	14"	13"	9"	6"
3	25"	21"	18"	13"	10"
4	34"	28"	25"	18"	13"

8 CONCRETE THRUST BLOCK DETAIL
NOT TO SCALE

NOTE TO CONTRACTOR: BEFORE TRENCHING FOR WET AND DRY UTILITIES OCCURS, THE CONTRACTOR SHALL REVIEW THE PLANS TO DETERMINE WERE POSSIBLE UNDERGROUND CONFLICTS MAY OCCUR. PRESSURIZED WATER LINES CAN GO UNDER ELECTRICAL CONDUITS. GRAVITY BASED UTILITIES SHALL BE INSTALLED PER THE ELEVATIONS NOTED ON THE PLANS. CONTRACTOR SHALL NOTIFY ENGINEERS FOR UTILITY CONFLICT RESOLUTION WHEN DEEMED NECESSARY BY THE CONTRACTOR.

GENERAL NOTES:

1. ALL DUCTILE IRON FITTINGS BURIED UNDERGROUND SHALL BE PROTECTED WITH PLASTIC FILM WRAP IN ACCORDANCE WITH AWWA C105. WRAP SHALL BE A LOOSE 8"-MIL-THICK POLYETHYLENE TUBE. ALL JOINTS BETWEEN PLASTIC TUBES SHALL BE WRAPPED WITH 2-INCH-WIDE POLYETHYLENE ADHESIVE TAPE, POLYKEN 900, SCOTCH WRAP 50, OR APPROVED EQUAL.
2. THRUST BLOCK AREAS ARE BASED ON 200 PSI PRESSURE AND 1,000 PSF ALLOWABLE SOIL BEARING PRESSURE & SIZED PER N.F.P.A. 13, ANNEX A, TABLE A.10.8.2(a), 2016 EDITION.
3. ALL BOLTS AND STUDS SHALL BE TYPE 316 STAINLESS STEEL PER ASTM A193 GRADE B8M. NUTS AND WASHERS SHALL BE TYPE 316 STAINLESS STEEL PER ASTM A194 GRADE 8M.
4. THRUST BLOCKS SHALL BE INSTALLED AT EVERY CHANGE OF DIRECTION.
5. ALL THRUST BLOCKS SHOULD, WHERE POSSIBLE, BE PLACED AGAINST UNDISTURBED SOIL. WHERE IT IS NOT POSSIBLE TO PLACE THE BEARING SURFACE AGAINST UNDISTURBED SOIL, THE FILL BETWEEN THE BEARING SURFACE AND UNDISTURBED SOIL MUST BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY (PER N.F.P.A. 13, ANNEX A.10.8.2, 2013 EDITION. THEY SHALL BE CENTERED VERTICALLY AND HORIZONTALLY ABOUT THE DIRECTION OF THE THRUST.
6. THRUST BLOCKS SHALL BE CONCRETE CLASS 520-C-2500 PER THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION, SECTION 201-1 WITH TYPE II CEMENT.
7. WHERE WATER MAIN DEAD ENDS ARE BLIND FLANGED OR CAPPED, THE THRUST BLOCK SHALL EXTEND A MINIMUM DISTANCE OF 6" INTO BOTH SIDES OF THE TRENCH.
8. CONCRETE POURED AGAINST PIPE FITTINGS SHALL BE PLACED SO THAT VALVES AND FITTINGS ARE ACCESSIBLE FOR REPAIR.
9. TIE BARS SHALL BE #4 REBAR (PER ASTM 767 AND D3963) OR STAINLESS STEEL WITH ACI HOOKED ENDS. WHEN TIE BARS ARE NOT EMBEDED IN CONCRETE THEY SHALL BE COATED WITH KOPPERS CO. BITUMASTIC NO. 50 OR EQUIVALENT.
10. ALL EXPOSED FLANGES AND OTHER METAL SURFACES AND ALL DAMAGED COATINGS SHALL BE COATED AFTER ASSEMBLY WITH A MASTIC, PER SPECIFICATIONS.
11. CONCRETE SHALL HAVE 3" MINIMUM CLEARANCE AROUND ALL JOINTS.

DOMESTIC WATER GENERAL NOTES:

1. LOCATION OF EXISTING UTILITIES SHOWN, HAVE BEEN DETERMINED FROM AVAILABLE INFORMATION. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE TRUE LOCATION OF ANY EXISTING UTILITIES AND TO EXERCISE PROPER PRECAUTION TO AVOID INJURY OR DAMAGE THERETO.
2. STERILIZATION AND TESTING THE NEW INSTALLATION SHALL BE COMPLETED PRIOR TO MAKING FINAL CONNECTION TO THE SCHOOL'S SYSTEM. THE CONTRACTOR SHALL SEE THAT ALL VALVES IN THE SYSTEM REMAIN OPEN AFTER THE TEST.
3. WATER VALVE BOXES SHALL BE SET FLUSH WITH ULTIMATE FINISH SURFACE.
4. NEW ON-SITE WATER LINES, RUNNING PARALLEL WITH EXISTING OR NEW SEWER LINES, SHALL BE PLACED A MINIMUM OF 1 FOOT HORIZONTALLY & 1 FOOT HIGHER THAN SEWER.

SANITARY SEWER GENERAL NOTES

1. CLEANOUT LIDS SHALL BE SET FLUSH WITH ULTIMATE FINISH GRADE. CLEANOUTS SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE TO SECTIONS 707 AND 719 OF THE 2016 CALIFORNIA PLUMBING CODE.
2. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITY CROSSINGS AND POINTS OF CONNECTION TO THE EXISTING SEWER SYSTEM PRIOR TO CONSTRUCTION OF THE SEWER LINES.
3. ALL SEWER MAINS, CLEANOUT, AND HOUSE CONNECTION LATERALS SHALL BE STAKED BY A LICENSED SURVEYOR IF SLOPE OF GRADE IS LESS THAN 2%, AND A COMPLETE SET OF CUT SHEETS SHALL BE SUPPLIED TO THE INSPECTOR.
4. NO FACILITY IS TO BE BACKFILLED UNTIL INSPECTED BY THE INSPECTOR.
5. IN ORDER TO PREVENT ACCIDENTAL USE OF THE NEW SEWER PRIOR TO COMPLETION AND ACCEPTANCE OF THE WORK, THE OUTLET OR INLET TO EXISTING TIE-IN CLEANOUT(S) SHALL BE SEALED WITH BROKEN BRICK AND MORTAR. INSTALLATION OF THESE PLUGS SHALL BE APPROVED BY THE INSPECTOR. PLUGS SHALL BE REMOVED ONLY AT THE DIRECTION OF INSPECTOR.
6. NEW SEWER LINES SHALL NOT BE CONNECTED TO THE EXISTING SEWER SYSTEM UNTIL THE NEW LINES HAVE BEEN TESTED PER SECTION 712.0 OF THE 2016 CALIFORNIA PLUMBING CODE. THE LINES SHALL BE TESTED AND CLEANED TO THE INSPECTORS APPROVAL BEFORE THEY ARE CONNECTED TO THE EXISTING SITE SEWER LINES.
7. AFTER PRESSURE TESTING AND CLEANING, BUT PRIOR TO FINAL ACCEPTANCE, SEWER LINES 4" AND ABOVE SHALL HAVE A VIDEOTAPE RECORD OF THEIR INTERIOR PERFORMED. TAPE SHALL BE DELIVERED TO THE INSPECTOR OF RECORD AT THE TIME OF TAPING.

SCALE: 1" = 10'

LEGEND:

= EXISTING BUILDING
= NEW BUILDING
= NEW CONCRETE PAVING
= NEW ASPHALT CONCRETE PAVING
= EXISTING CONCRETE PAVING

W — W — (E)DOMESTIC WATER
S — S — (E)SANITARY SEWER
G — G — (E)GAS
E — E — (E)ELECTRICAL/POWER
C — C — (E)COMMUNICATIONS

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consultant

FILE NO.:
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES
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DEPARTMENT OF GENERAL SERVICES
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700 N. Alameda Street, Suite 5-500
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DUNSMORE ELEMENTARY SCHOOL RELOCATABLE CLASSROOMS

GLENDALE UNIFIED SCHOOL DISTRICT
4717 DUNSMORE AVE.
LA CRESCENTA, CA 91214

owner

tBP project number : 20967.00
file name:
drawn by: checked by:
date: March 2017

Rev:	date:	description:

drawing title:
SITE UTILITY PLAN

drawing no.:
C1.4
drawing of

EL MORENO STREET

LAUDERDALE AVENUE

LOS OLIVES LANE

NEW 6" SERVICE PER MWD

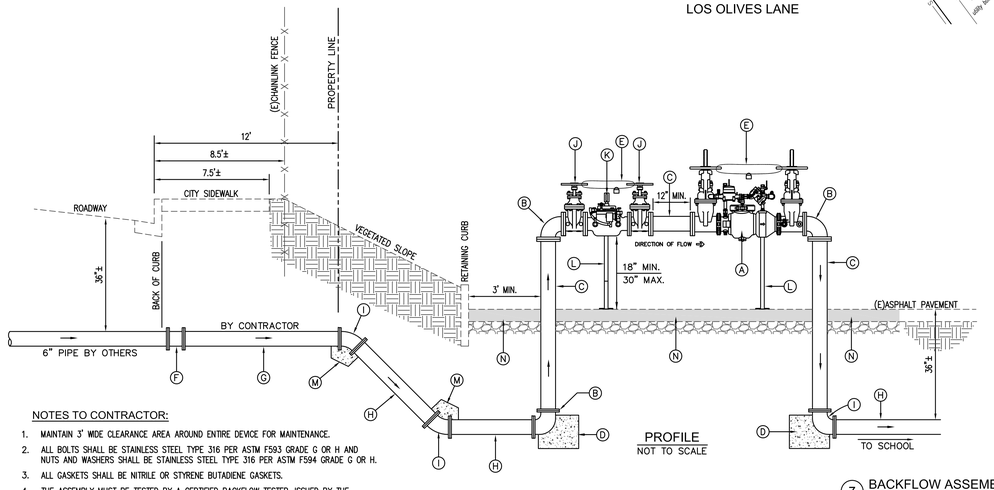
NOTE TO CONTRACTOR: BEFORE TRENCHING, THE CONTRACTOR SHALL UTILIZE GROUND PENETRATING RADAR (GPR) ALONG THE PROPOSED PATH OF TRENCHING. THIS WILL HELP DETERMINE WERE POSSIBLE UNDERGROUND CONFLICTS MAY OCCUR. PRESSURIZED WATER LINES CAN GO UNDER EXISTING UTILITIES IN ORDER TO RESOLVE POTENTIAL CONFLICTS. CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEER FOR UTILITY CONFLICT RESOLUTION WHEN DEEMED NECESSARY.

RESTORE ALL AREAS DAMAGED DURING THE COURSE OF OF WORK TO MATCH EXISTING.

FIRE SERVICE NOTE: INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO 2016 N.F.P.A. 13 AND 2013 N.F.P.A. 24. DISINFECTION OF FIRE MAIN NOT REQUIRED.

BACKFLOW ASSEMBLY CONSTRUCTION NOTES:

- (A) 6" DOUBLE CHECK DETECTOR ASSEMBLY, ZURN WILKINS MODEL 350ADA (OR APPROVED EQUAL) WITH FLANGED OS&Y GATE VALVES.
- (B) 6" CLASS 350, 90° DUCTILE IRON BEND, CEMENT LINED.
- (C) 6" X FIELD LENGTH DUCTILE IRON PIPE, CEMENT LINED.
- (D) THRUST BLOCK PER DETAIL 1 ON C1.6.
- (E) CONTRACTOR TO SUPPLY HOT DIPPED GALVANIZED CHAIN AND LOCK, LOCK HANDWHEEL ON VALVES IN THE OPEN POSITION, PADLOCK SHALL BE BREAKAWAY TYPE.
- (F) CONTRACTOR TO INSTALL EBAA SERIES 3800 RESTRAINED COUPLING (OR APPROVED EQUAL) AT CONNECTION TO PIPE INSTALLED BY GLENDALE WATER & POWER.
- (G) 6" C900, (DR 14) PVC PIPE INTO THE CAMPUS. TRENCH WATER PIPE PER GLENDALE WATER & POWER STANDARD 6722-A ON C1.6.
- (H) 6" A.W.W.A. C900, DR 14, P.V.C. PIPE PER CORRESPONDING TRENCH DETAIL ON SHT. C1.3.
- (I) 6" CLASS 350, 45° DUCTILE IRON BEND, CEMENT LINED.
- (J) 6" FLANGED N.R.S. GATE VALVE.
- (K) 6" DUCTILE IRON CLASS 150 PRESSURE REDUCING VALVE, CLA-VAL MODEL 90A-21 (OR APPROVED EQUAL) WITH EPOXY COATING. SET PRESSURE TO 110 PSI. PROVIDE CUSTOM SIGNAGE TO BE POSTED AT PRV TO IDENTIFY SET PRESSURE RANGE.
- (L) ADJUSTABLE PIPE SUPPORT, GRINNELL MODEL 4000 OR APPROVED. INSTALL BASE PLATE ON LEVELING COURSE OF HIGH STRENGTH EPOXY CEMENT COMPOUND. (PARTS TO BE STAINLESS STEEL OR HOT DIPPED GALVANIZED AFTER FABRICATION).
- (M) VERTICAL BEND ANCHOR PER DETAIL A1 ON C1.6.
- (N) REPLACE EXISTING ASPHALT, WHERE DAMAGED BY CONTRACTOR, PER DETAIL 2 ON C1.3.



PROFILE
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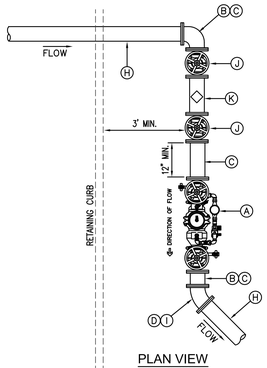

PLAN VIEW
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7 BACKFLOW ASSEMBLY DETAIL
NOT TO SCALE

CONSTRUCTION NOTES:

1. CONSTRUCT CONCRETE THRUST BLOCK PER DETAIL 1 ON C1.6.
2. CONSTRUCT 6" A.W.W.A. C900, DR 14, P.V.C. PIPE PER CORRESPONDING TRENCH DETAIL ON SHEET C1.3.
3. CONSTRUCT FIRE HYDRANT PER DETAIL 3 ON C1.6. MINIMUM FLOW OUT OF HYDRANT SHALL BE 2,250 GPM AT A RESIDUAL PRESSURE OF 20 PSI.
4. CONSTRUCT GATE VALVE IN YARDBOX, VALVE TO MATCH LINE SIZE, PER DETAIL 4 ON SHEET C1.6.
5. CONSTRUCT FIRE HYDRANT BARRICADE PER DETAIL 5 ON C1.6.
6. CONTRACTOR SHALL CONNECT TO 6" DUCTILE IRON PIPE (INSTALLED BY GLENDALE WATER & POWER) AT FACE OF CURB. INSTALL EBAA SERIES 3800 RESTRAINED COUPLING (OR APPROVED EQUAL) AT CONNECTION AND INSTALL 6" C900, (DR 14) PVC PIPE INTO THE CAMPUS. TRENCH WATER PIPE PER GLENDALE WATER & POWER STANDARD 6722-A ON C1.6. CONTRACTOR IS REQUIRED TO OBTAIN AN EXCAVATION PERMIT FROM THE CITY OF GLENDALE FOR THIS WORK. CONTRACTOR SHALL REPAIR ALL DAMAGED SIDEWALK AND CURB TO MATCH EXISTING CONDITIONS.
7. CONSTRUCT BACKFLOW ASSEMBLY PER DETAIL 7 HEREON.
8. CONSTRUCT SIGN NEAR HYDRANT PER DETAIL 8 ON C1.6.

GENERAL NOTES:

1. PRIOR TO INSTALLATION, ALL PLANS AND SPECIFICATIONS SHALL BE APPROVED BY D.S.A. REFER TO DSA IR A-25 FOR DESIGN, INSTALLATION AND MAINTENANCE GENERAL REQUIREMENTS.
2. INSPECTIONS ARE REQUIRED: 1) PRIOR TO POURING THRUST BLOCKS, 2) FOR HDYROSTATIC TESTING, AND 3) FOR FLUSH.
3. INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO 2016 EDITIONS CFC, NFPA 13 AND NFPA 24.

DOUBLE CHECK DETECTOR ASSEMBLY SIGNAGE NOTES

1. DCDA SIGN MUST STATE THE ADDRESS THE HYDRANT SERVES.
2. THE SIGN SHALL BE METAL, PAINTED WHITE WITH ENGRAVED RED LETTERS 1" HIGH.
3. THE SIGN INDICATE ONLY THE ADDRESS AND THAT IT SERVES A HYDRANT.
4. SIGNS SHALL BE A MINIMUM OF FOUR INCHES HIGH BY EIGHT INCHES WIDE.
5. SIGNS SHALL BE PERMANENTLY BANDED TO THE DCDA WITH U-BOLTS.

NOTES TO CONTRACTOR:

1. MAINTAIN 3' WIDE CLEARANCE AREA AROUND ENTIRE DEVICE FOR MAINTENANCE.
2. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 316 PER ASTM F593 GRADE G OR H AND NUTS AND WASHERS SHALL BE STAINLESS STEEL TYPE 316 PER ASTM F594 GRADE G OR H.
3. ALL GASKETS SHALL BE NITRILE OR STYRENE BUTADIENE GASKETS.
4. THE ASSEMBLY MUST BE TESTED BY A CERTIFIED BACKFLOW TESTER, ISSUED BY THE ADMINISTRATIVE AUTHORITY HAVING JURISDICTION.
5. PAINT ABOVE GROUND PIPING AND VALVES WITH ONE COAT OF RED OXIDE PRIMER AND TWO COATS OF HIGH VISIBILITY RED ENAMEL.
6. DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

N

20 10 0 20 40 60

SCALE: 1" = 20'

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LICENSED ARCHITECT ALAN WING-CHI LEE No. C34971 REGISTERED PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA

architect

PLANS PREPARED BY:
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Traffic • Transportation • Civil
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PHONE: 949-252-1688

REGISTERED PROFESSIONAL ENGINEER No. C 34971 Exp. 09-30-17 CIVIL STATE OF CALIFORNIA

ALAN WING-CHI LEE
R.C.E. 34971
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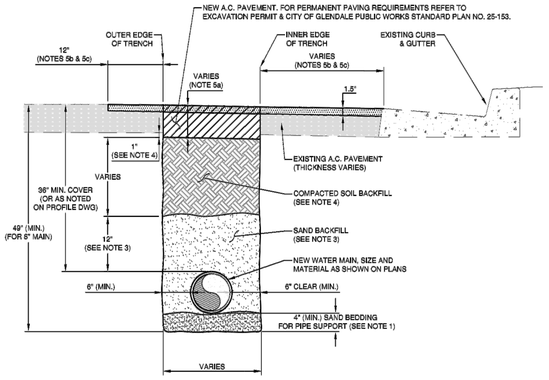


NOTES

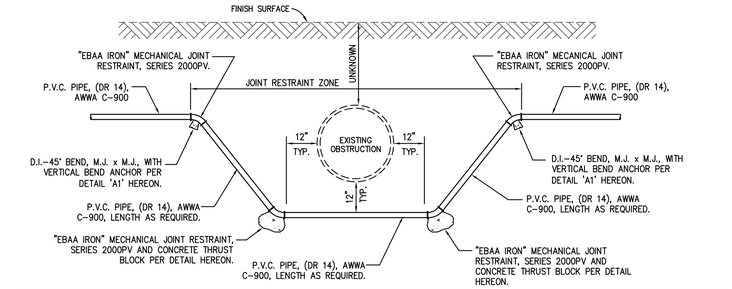
1. FILL THE BOTTOM OF THE TRENCH WITH SAND TO A DEPTH OF 4-INCHES TO PROVIDE BEDDING FOR THE NEW WATER MAIN.
2. INSTALL THE NEW WATER MAIN.
3. BACKFILL THE TRENCH WITH SAND TO A DEPTH OF 12-INCHES ABOVE THE TOP OF THE NEW WATER MAIN.
4. BACKFILL AND COMPACT THE REMAINDER OF THE TRENCH WITH NATIVE SOIL OR APPROVED IMPORTED FILL MATERIAL TO A DEPTH OF 1-INCH BELOW THE BOTTOM OF THE EXISTING PAVEMENT.
5. RESTORE THE TRENCH WITH ASPHALT-CONCRETE PAVEMENT IN THE FOLLOWING ORDER:
   a) BASE PAVE THE TRENCH FLUSH WITH THE EXISTING PAVEMENT SURFACE WITH TYPE 'B' AR-4000 A.C. MIX (PAVEMENT THICKNESS SHALL BE 1" GREATER THAN THE EXISTING PAVEMENT THICKNESS).
   b) GRIND A 1.5"-THICK LAYER OF PAVEMENT OVER THE TRENCH AND 12-INCHES FROM EACH EDGE OF THE TRENCH (T-GRIND) OR AS DIRECTED BY THE ENGINEER.
   c) PLACE A 1.5"-THICK LAYER OF TYPE 'D' AR-4000 A.C. MIX OVER THE GRINDED AREA.

GLENDALE WATER & POWER
CITY OF GLENDALE
CALIFORNIA

STANDARD TRENCH FOR NEW WATER MAIN INSTALLATION
CASE 1: COMPACTED SOIL BACKFILL

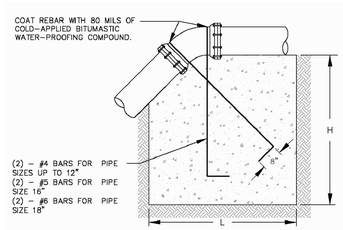
APPROVED 08/24/15
GERALD TOM, SENIOR CIVIL ENGINEER, R.C.E. No. C51209 DATE
GLENDALE WATER AND POWER - WATER DEPARTMENT

DES: KR D: CS C: GT | SCALE: NONE | DATE: 08/24/15 APP: - | SHEET No. 1 OF 2 | 6722-A



CONSTRUCT WHERE CONDITIONS REQUIRE WATER MAIN VERTICAL OFFSET DUE TO EXISTING OBSTRUCTION
DOES NOT APPLY TO SEWER - WATER SHALL ALWAYS CROSS SEWER OVER TOP

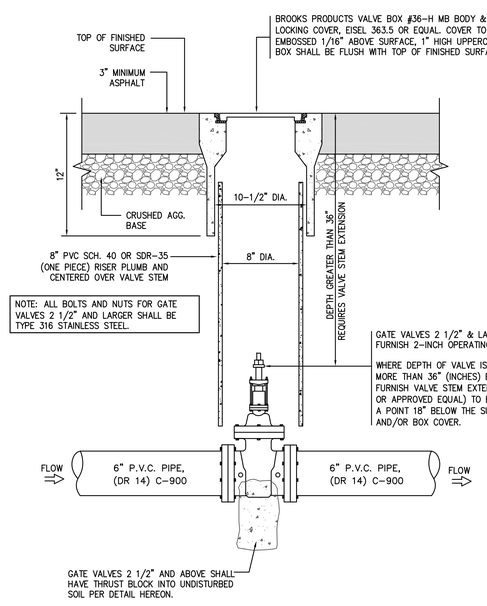
WATER MAIN VERTICAL OFFSET
NOT TO SCALE



VERTICAL BEND ANCHOR

VERTICAL BEND ANCHOR						
PIPE SIZE	22 1/2° BEND L.H. AND W(IN)	VOLUME (YD³)	THRUST (LBS)	45° BEND L.H. AND W(IN)	VOLUME (YD³)	THRUST (LBS)
4"	26	0.4	1104	32	0.7	2165
6"	34	0.8	2483	42	1.6	4871
8"	41	1.5	4414	51	2.8	8659
10"	47	2.2	6897	59	4.4	13529
12"	53	3.2	9932	67	6.4	19482
16"	64	5.6	17657	81	11.4	34635
18"	70	7.4	22347	87	14.1	43835

A1 VERTICAL BEND ANCHOR DETAIL
NOT TO SCALE



4 GATE VALVE IN YARDBOX DETAIL
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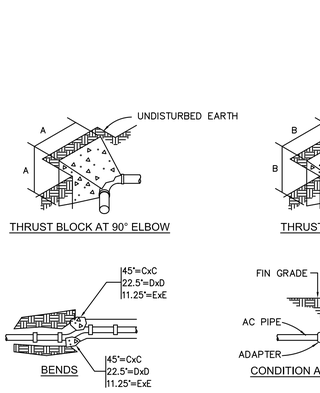


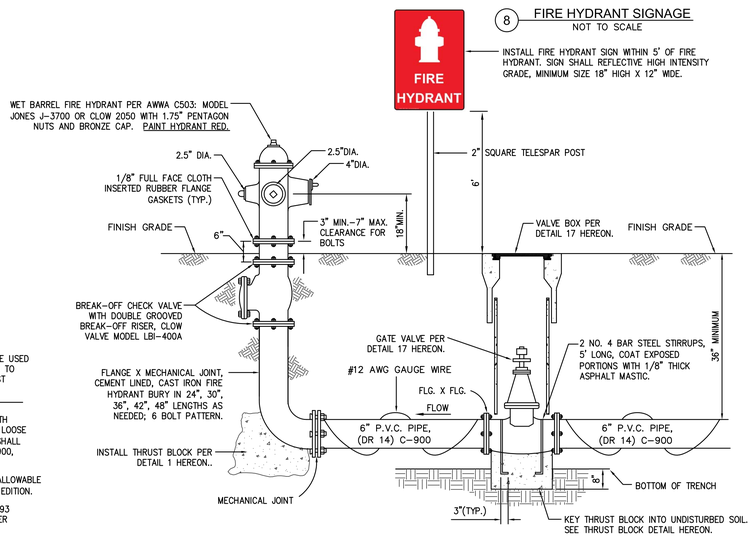
PIPE SIZE (INCHES)	90° ELBOW	TEE / STUB	45° BEND	22.5° BEND	11.25° BEND
	A	B	C	D	E
2	17"	14"	13"	9"	6"
3	25"	21"	18"	13"	10"
4	34"	28"	25"	18"	13"
6	48"	41"	36"	26"	18"
8	63"	53"	47"	33"	24"
10	77"	65"	57"	41"	29"
12	92"	77"	68"	48"	34"

GENERAL NOTES:

1. ALL DUCTILE IRON FITTINGS BURIED UNDERGROUND SHALL BE PROTECTED WITH PLASTIC FILM WRAP IN ACCORDANCE WITH AWWA C105. WRAP SHALL BE A LOOSE 8"-MIL-THICK POLYETHYLENE TUBE. ALL JOINTS BETWEEN PLASTIC TUBES SHALL BE WRAPPED WITH 2-INCH-WIDE POLYETHYLENE ADHESIVE TAPE, POLYKEN 900, SCOTCH WRAP 50, OR APPROVED EQUAL.
2. THRUST BLOCK AREAS ARE BASED ON 200 PSI PRESSURE AND 1,000 PSF ALLOWABLE SOIL BEARING PRESSURE & SIZED PER N.F.P.A. 24 TABLE A.10.6.1(a), 2016 EDITION.
3. ALL BOLTS AND STUDS SHALL BE TYPE 316 STAINLESS STEEL PER ASTM A193 GRADE B8M. NUTS AND WASHERS SHALL BE TYPE 316 STAINLESS STEEL PER ASTM A194 GRADE 8M.
4. THRUST BLOCKS SHALL BE INSTALLED AT EVERY CHANGE OF DIRECTION.
5. ALL THRUST BLOCKS SHOULD, WHERE POSSIBLE, BE PLACED AGAINST UNDISTURBED SOIL. WHERE IT IS NOT POSSIBLE TO PLACE THE BEARING SURFACE AGAINST UNDISTURBED SOIL, THE FILL BETWEEN THE BEARING SURFACE AND UNDISTURBED SOIL MUST BE COMPACTED TO AT LEAST 90% STANDARD PROCTOR DENSITY (PER N.F.P.A. 24, ANNEX A.10.6.1, 2016 EDITION. THEY SHALL BE CENTERED VERTICALLY AND HORIZONTALLY ABOUT THE DIRECTION OF THE THRUST.
6. THRUST BLOCKS SHALL BE CONCRETE CLASS 520-C-2500 PER THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION,2015 EDITION, SECTION 201-1 WITH TYPE II CEMENT.
7. WHERE WATER MAIN DEAD ENDS ARE BLIND FLANGED OR CAPPED, THE THRUST BLOCK SHALL EXTEND A MINIMUM DISTANCE OF 6" INTO BOTH SIDES OF THE TRENCH.
8. CONCRETE POURED AGAINST PIPE FITTINGS SHALL BE PLACED SO THAT VALVES AND FITTINGS ARE ACCESSIBLE FOR REPAIR.
9. TIE BARS SHALL BE #4 REBAR (PER ASTM 767 AND D3963) OR STAINLESS STEEL WITH ACI HOOKED ENDS. WHEN TIE BARS ARE NOT EMBEDED IN CONCRETE THEY SHALL BE COATED WITH KOPPERS CO. BITUMASTIC NO. 50 OR EQUIVALENT.
10. ALL EXPOSED FLANGES AND OTHER METAL SURFACES AND ALL DAMAGED COATINGS SHALL BE COATED AFTER ASSEMBLY WITH A MASTIC, PER SPECIFICATIONS.
11. CONCRETE SHALL HAVE 3" MINIMUM CLEARANCE AROUND ALL JOINTS.

1 CONCRETE THRUST BLOCK DETAIL
NOT TO SCALE

8 FIRE HYDRANT SIGNAGE
NOT TO SCALE



3 FIRE HYDRANT & GATE VALVE DETAIL
NOT TO SCALE

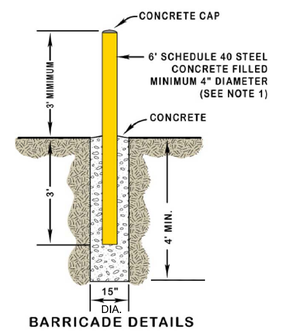
PRIVATE FIRE HYDRANT NOTES:

1. FIRE HYDRANT SUPPLY PIPING SHALL BE A MINIMUM OF SIX INCHES IN DIAMETER. THE LOWEST OPERATING NUT SHALL BE A MINIMUM OF 18" ABOVE GRADE AND THE HYDRANT FLANGE SHALL BE A MINIMUM OF 2" ABOVE GRADE.
2. UNDERGROUND SHUT-OFF VALVES ARE TO BE LOCATED A MINIMUM DISTANCE OF 8 FEET FROM HYDRANT.
3. ALL OUTLETS SHALL BE PROVIDED WITH NATIONAL STANDARD THREADS (NTS).
4. BREAK-AWAY FEATURES OTHER THAN BOLTS WILL NOT BE ACCEPTED.
5. ALL UNDERGROUND BOLTS TO BE COATED WITH KOPPERS BITUMASTIC #50 OR EQUAL.

REV 04/03

COUNTY OF LOS ANGELES FIRE DEPARTMENT
FIRE PREVENTION DIVISION

STANDARD FIRE HYDRANT BARRICADE



BARRICADE DETAILS

Figure 1

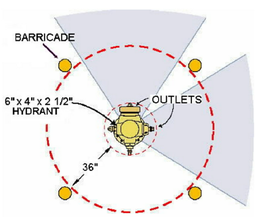


Figure 2

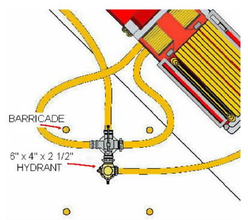


Figure 3

Notes:

1. Figure 1: 6 inch diameter pipe if heavy truck traffic is anticipated. Schedule 40 steel and concrete filled.
2. Posts, fences, vehicles, growth, trash storage and other materials or things shall not be placed or kept near fire hydrants in a manner than would prevent fire hydrants from being immediately discernable.
3. If hydrant to be barricaded; no barricade shall be constructed in front of hydrant outlets. (Figure 2, shaded area)
4. The exact location of barricades may be changed by the Fire Inspector in the field.
5. The steel pipe above ground shall be painted a minimum of two field coats of primer.
6. Two finish coats of "Traffic Signal Yellow" shall be used for Fire Hydrant Barricades.
7. Figure 3 shows hydrant hook up during fire ground operations. Notice apparatus (Hydra-Assist Value) connected to hydrant and the required area. Figure 3 shows the importance of not constructing Barricades or other obstructions in front of hydrant outlets.

5 FIRE HYDRANT BARRICADE DETAIL
NOT TO SCALE

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drawing no.:

C1.6

drawing of

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