2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR, REPLACEMENT, AND MAINTENANCE OF EROSION CONTROL PLAN.

- 3. IF AT ANY TIME DURING THE GRADING AND EXCAVATION OPERATIONS, UNFAVORABLE SOILS CONDITIONS ARE ENCOUNTERED, THE WORK SHALL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED.
- 4. ALL GRADES AND CONTOURS INDICATED ON THE PLANS ARE TO FINISHED SURFACE, AND NOT ROUGH GRADES. CONTRACTOR SHALL SUBTRACT THE STRUCTURAL THICKNESS OF PAVEMENTS AND TOP—SOIL THICKNESS IN LANDSCAPED AREAS, TO OBTAIN DESIRED ROUGH GRADES.
- 5. NO FILL TO BE PLACED, UNTIL THE PROJECT INSPECTOR HAS INSPECTED AND APPROVED THE BOTTOM EXCAVATION.
- 6. ALL CONCENTRATED DRAINAGE MUST BE CONDUCTED TO THE STREET IN APPROVED NON-EROSIVE DEVICES OR TO EXISTING STORM DRAIN SYSTEM.
- 7. EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE REGULATIONS OF THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY. ALL EXCAVATIONS SHALL BE STABILIZED WITHIN 30 DAYS OF INITIAL EXCAVATION. ALL TEMPORARY EXCAVATIONS SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL DEPORT
- 8. MAN MADE FILL SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90% MAX. DRY DENSITY.
- 9. THIS PLAN IS FOR GRADING PURPOSES ONLY AND DOES NOT CONSTITUTE APPROVAL OF BUILDINGS.
- 10. ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.
- 11. EXISTING TOPOGRAPHY SHOWN HEREON WAS TAKEN FROM A SURVEY DATED SEPTEMBER 20, 2018 BY GUIDA SURVEYING INC.
- 12. CONSTRUCTION STAKING FOR IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR.
- 13. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON THE PLANS.
- 14. DIMENSIONS TO PIPELINES ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
- 15. ALL DIMENSIONS ARE IN FEET OR DECIMALS THEREOF.
- 16. ALL CURB DIMENSIONS AND RADII ARE TO BOTTOM OF CURB FACE.
- 17. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800-422-4133) PRIOR TO ANY EXCAVATION.
- 18. CONTRACTOR TO BE AWARE OF ALL OVERHEAD LINES AT ALL TIMES, SO AS NOT TO DISTURB THEM.
- 19. CONTRACTOR SHALL COORDINATE REMOVAL OR RELOCATION OF ANY PUBLIC UTILITY LINES (IF ENCOUNTERED DURING CONSTRUCTION) WITH THEIR RESPECTIVE OWNERS. SEPARATE PERMITS MAY BE REQUIRED.
- 20. THE CONTRACTOR SHALL REPLACE ALL EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER. MATCH EXISTING MATERIALS, SURFACE TREATMENT, AND COLORS. SAME SHALL APPLY TO PERMANENT UTILITY TRENCH RESURFACING.
- 21. STORM DRAINAGE SHOWN ON THESE PLANS HAVE BEEN DESIGNED FOR THE FINAL SITE CONDITION AT COMPLETION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE OF THE SITE, DURING INTERIM CONDITIONS OF
- 22. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL ONE VERTICAL.

 23. ANY TEMPORARY STOCKPILING OF EXCESS MATERIAL ON SITE SHALL BE APPROVED BY

THE PROJECT INSPECTOR AND THE OWNER'S AUTHORIZED REPRESENTATIVE, INCLUDING

- PROTECTION AND EROSION CONTROL, PRIOR TO EXCAVATION.

 24. PROJECT INSPECTOR IS REQUIRED ON GRADING AND FOUNDATION EARTHWORK.
- 25. STAKE AND FLAG THE PROPERTY LINES IN ACCORDANCE WITH A LICENSED SURVEY MAP.

NOTICE TO CONTRACTORS:

- 1. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL JOIN ELEVATION CONDITIONS FOR GRADING AND DRAINAGE WORK. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED.
- 2. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

THE CONTRACTOR FURTHER SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR

- JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT
- 4. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR THE ENGINEER, PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND NOT TO THE EXPENSE OF THE OWNER OR ENGINEER.
- 6. ALL CHANGES TO THE CONSTRUCTION DOCUMENTS FOR THIS PROJECT SHALL BE DONE IN WRITING AND APPROVED BY THE ENGINEER OF RECORD. THE ENGINEER SHALL NOT BE RESPONSIBLE, OR LIABLE FOR UNAUTHORIZED CHANGES OR USES OF THE CONSTRUCTION DOCUMENTS.
- SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE PROJECT ARCHITECT OR ENGINEER BEFORE PROCEEDING WITH THE WORK IN QUESTION.
- 8. THE CONTRACTOR SHALL OBTAIN AN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.) PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE 5
- 9. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

ENVIRONMENTAL QUALITY NOTES:

- A. ALL UNPAVED DEMOLITION AND CONSTRUCTION AREAS SHALL BE WETTED AT LEAST TWICE DAILY DURING EXCAVATION AND CONSTRUCTION, AND TEMPORARY DUST COVERS SHALL BE USED TO REDUCE DUST EMISSIONS AND MEET SCAQMD DISTRICT RULE 403.
- B. THE CONTRACTOR SHALL KEEP THE CONSTRUCTION AREA SUFFICIENTLY DAMPENED TO CONTROL DUST CAUSED BY CONSTRUCTION AND HAULING, AND AT ALL TIMES PROVIDE REASONABLE CONTROL OF DUST CAUSED BY WIND.
- C. EROSION CONTROL TO BE INSTALLED YEAR ROUND THROUGHOUT ENTIRE PROJECT.
 OBTAIN GRADING INSPECTOR'S APPROVAL OF PROPOSED PROCEDURES.
- D. ALL LOADS SHALL BE SECURED BY TRIMMING, WATERING OR OTHER APPROPRIATE
- MEANS TO PREVENT SPILLAGE AND DUST.

 E. ALL MATERIALS TRANSPORTED OFF—SITE SHALL BE EITHER SUFFICIENTLY WATERED OR
- F. ALL CLEARING, EARTH MOVING, OR EXCAVATION ACTIVITIES SHALL BE DISCONTINUED DURING PERIODS OF HIGH WINDS (I.E., GREATER THAN 15 MPH), SO AS TO PREVENT EXCESSIVE AMOUNTS OF DUST.

SECURELY COVERED TO PREVENT EXCESSIVE AMOUNT OF DUST.

- G. GENERAL CONTRACTORS SHALL MAINTAIN AND OPERATE CONSTRUCTION EQUIPMENT SO AS TO MINIMIZE EXHAUST EMISSIONS.
- H. THE PROJECT SHALL COMPLY WITH THE NOISE ORDINANCES WHICH PROHIBIT THE EMISSION OR CREATION OF NOISE BEYOND CERTAIN LEVELS AT ADJACENT USES UNLESS TECHNICALLY INFEASIBLE.
- I. CONSTRUCTION AND DEMOLITION SHALL BE RESTRICTED TO THE HOURS OF 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY, AND 8:00 AM TO 6:00 PM ON SATURDAY.
- J. CONSTRUCTION AND DEMOLITION ACTIVITIES SHALL BE SCHEDULED SO AS TO AVOID OPERATING SEVERAL PIECES OF EQUIPMENT SIMULTANEOUSLY.
- K. THE PROJECT CONTRACTOR SHALL USE POWER CONSTRUCTION EQUIPMENT WITH STATE-OF-THE-ART NOISE SHIELDING AND MUFFLING DEVICES.
- L. THE CONTRACTOR SHALL COMPLY WITH THE NOISE INSULATION STANDARDS OF TITLE 24 OF THE CALIFORNIA CODE REGULATIONS, WHICH INSURE AN ACCEPTABLE INTERIOR NOISE ENVIRONMENT.
- M. ALL WASTE SHALL BE DISPOSED OF PROPERLY. USE APPROPRIATELY LABELED RECYCLING BINS TO RECYCLE CONSTRUCTION MATERIALS INCLUDING: SOLVENTS, WATER-BASED PAINTS, VEHICLE FLUIDS, BROKEN ASPHALT AND CONCRETE, WOOD, AND VEGETARIAN. NON RECYCLABLE MATERIALS/WASTES SHALL BE TAKEN TO AN APPROPRIATE LANDFILL. TOXIC WASTES MUST BE DISCARDED AT A LICENSED REGULATED DISPOSAL SITE.
- O. PAVEMENT SHALL NOT BE HOSED DOWN AT MATERIAL SPILLS. DRY CLEANUP METHODS SHALL BE USED WHENEVER POSSIBLE.
- P. DUMPSTERS SHALL BE COVERED AND MAINTAINED. UNCOVERED DUMPSTERS SHALL BE PLACED UNDER A ROOF OR BE COVERED WITH TARPS OR PLASTIC SHEETING.
- Q. GRAVEL APPROACHES SHALL BE USED WHERE TRUCK TRAFFIC IS FREQUENT TO REDUCE SOIL COMPACTION AND THE TRACKING OF SEDIMENT INTO STREETS SHALL BE LIMITED.
- R. ALL VEHICLE/EQUIPMENT MAINTENANCE, REPAIR, AND WASHING SHALL BE CONDUCTED AWAY FROM STORM DRAINS. ALL MAJOR REPAIRS SHALL BE CONDUCTED OFF—SITE. DRIP PANS OR DROP CLOTHES SHALL BE USED TO CATCH DRIPS AND SPILLS.

ACCESSIBILITY NOTES:

- CALIFORNIA ACCESS COMPLIANCE, TITLE 24 CCR
- 1. WALKS AND SIDEWALK SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4" PER FOOT (2% GRADIENT) (SEC. 11B-403.3)
- 2. WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1:20 (5% GRADIENT) IT SHALL COMPLY WITH THE PROVISIONS OF SECTION 11B-405 AS A PEDESTRIAN RAMP (SEC. 11B-405.2)
- 3. WALK AND SIDEWALK SURFACES WITH A SLOPE OF LESS THAN 6% GRADIENT SHALL BE AT LEAST AS SLIP—RESISTANT AS THAT DESCRIBED AS A MEDIUM SALTED FINISH. (SEC. 11B—403.2)
- 4. WALK & SIDEWALK SURFACES WITH A SLOPE OF 6% OR MORE GRADIENT SHALL BE SLIP-RESISTANT. (SEC. 11B-403.2)
- 5. ALL WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE LEVEL AREAS AT LEAST 5' IN LENGTH AT INTERVALS OF' AT LEAST EVERY 400'. (SEC. 11B-403.7)
- 6. WALKS SHALL BE PROVIDED WITH A LEVEL AREA NOT LESS THAN 60" WIDE AND DOOR+36" DEEP AT A DOOR OR GATE THAT SWINGS TOWARD THE WALK, AND NOT LESS THAN 48" WIDE AND DOOR+12" DEEP AT A DOOR OR GATE THAT SWINGS AWAY FROM THE WALK. (SEC. 11B-404.2.4.1 (c) OR (d))
- . WALKS AND SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE, NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2", AND SHALL BE A MINIMUM OF 48" WIDE. (SEC. 11B-403.1, 11B-403.2, 11B-403.5.1, 11B-403.5.3, 11B-302.1)
- 8. WHEN ABRUPT CHANGES IN LEVEL NOT EXCEEDING 1/2" OCCUR, THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL (50%), EXCEPT THAT LEVEL CHANGES NOT EXCEEDING 1/4" MAY BE VERTICAL (SEC. 11B-403.4 AND FIGURES 11B-5E (c) AND (d))
- ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE EXCEEDING 1/2" SHALL COMPLY WITH THE REQUIREMENTS FOR CURB RAMPS. (SEC. 11B-303.4)
- 10. WALKS SHALL EXTEND A MINIMUM OF 36" TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARD THE WALL (SEC. 11B-404.2.4.1 (d))
- 11. WALKS, SIDEWALKS, AND PEDESTRIAN WAYS SHALL BE FREE OF GRATINGS WHEREVER POSSIBLE. GRID OPENINGS IN GRATINGS SHALL BE 1/2" WIDE MAX IN THE DIRECTION OF TRAFFIC FLOW. ELONGATED OPENINGS, IF PROVIDED SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL (SEC. 11B-302.3)
- 12. ABRUPT CHANGES IN LEVEL, 4" OR MORE, EXCEPT BETWEEN A WALK OR A SIDEWALK AND ADJACENT STREETS OR DRIVEWAYS SHALL BE IDENTIFIED BY A 6" HIGH CURBS ABOVE WALK SURFACE (SEC. 11B-303.5)
- 13. PROVIDE SIGNS DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AT EVERY PRIMARY PUBLIC ENTRANCE AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO AN ACCESSIBLE ROUTE OF TRAVEL. SIGNS SHALL INDICATE THE DIRECTION TO ACCESSIBLE BUILDING ENTRANCES AND SHALL COMPLY WITH SECTION 11B-703 (SEC. 11B-216.6)

PAVING NOTES:

- 1. A PRE-PAVING MEETING WITH PROJECT INSPECTOR AND ENGINEER IS REQUIRED 48 HOURS PRIOR TO PAVING.
- CRUSHED AGGREGATE BASE SHOULD CONFORM TO SECTION 200-2.2 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND SHOULD BE COMPACTED TO A DRY DENSITY OF AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AT NEAR OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 1557-12e1.
- 3. THE PCC PAVEMENT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF APPROXIMATELY 3,000 PSI FOR PEDESTRIAN AREAS.
- 4. ADJACENT PAVEMENTS SLAB SECTIONS SHALL HAVE A TRAPEZOIDAL KEYED CONSTRUCTION JOINT. AS AN ALTERNATIVE TO THE KEYED JOINT, DOWELING BETWEEN CONSTRUCTION JOINTS CAN BE USED. DOWELS SHALL CONSIST OF SMOOTH, #4bar REINFORCING STEEL, 18 INCHES LONG, EMBEDDED A MINIMUM OF SIX INCHES INTO THE SLAB ON EITHER SIDE OF THE CONSTRUCTION JOINT.

GENERAL UTILITY NOTES:

- 1. CONTRACTOR TO PROTECT IN PLACE ALL EXISTING UTILITY LINES AND UNDERGROUND STRUCTURES, SHOWN ON THESE PLANS THAT LAY WITHIN THE LIMITS OF THE NEW CONSTRUCTION, AND ARE NOT SPECIFICALLY MARKED TO BE REMOVED OR ABANDONED. SEE NOTICE TO CONTRACTORS #2 FOR ADDITIONAL INFORMATION.
- 2. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10.4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE AMENDMENTS IN REGARD TO SAFETY ORDERS.
- 3. INSTALLATION OF PIPES IN TRENCHES SHALL BE IN ACCORDANCE WITH SECTION 306 OF THE STANDARD SPECIFICATIONS, AND APPLICABLE SPPWC.
- 4. PIPE BEDDING SHALL BE CLEAN SAND. SEE DETAIL 3 ON SHEET C202.
- 5. THE CONTRACTOR MAY VARY THE GRADE AND/OR ALIGNMENT OF THE WATER AND GAS LINES IF FIELD CONDITIONS WARRANT WITH APPROVAL OF THE ENGINEER.
- 6. ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS FROM BOTTOM TO TOP WITH A DOUBLE ROW OF SANDBAGS PRIOR TO BACKFILL. SEWER TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF SANDBAGS EXTENDING DOWNWARD, TWO SANDBAGS FROM THE GRADED SURFACE OF THE STREET. SANDBAGS ARE TO BE PLACED WITH ALTERNATE HEADER AND STRETCHER COURSES. THE INTERVALS PRESCRIBED BETWEEN SANDBAG BLOCKINGS, SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE, BUT SHALL NOT EXCEED THE FOLLOWING:

GRADE OF THE STREET

LESS THAN 2%

2% TO 4%

4% TO 10%

OVER 10%

INTERVAL

AS REQUIRED

100 FEET

50 FEET

25 FEET

- 7. THE CONTRACTOR SHALL PROVIDE THE DESIGN OF, OBTAIN THE REQUIRED PERMITS FOR, AND FURNISH AND INSTALL ALL THE TEMPORARY SHORING, UNDERPINNING AND BRACING REQUIRED TO SAFELY EXECUTE THE WORK AND PROTECT EXISTING IMPROVEMENTS.
- 8. CONTRACTOR SHALL EXPOSE EXISTING UTILITY LINES AT THE DOWNSTREAM CONNECTION LOCATIONS FOR VERIFICATION OF JOIN ELEVATIONS. DISCREPANCIES WITH THE PLANS SHALL BE REPORTED TO THE ENGINEER, PRIOR TO CONTINUING WITH CONSTRUCTION.
- 9. SPECIAL PROVISIONS SUCH AS FLEXIBLE OR SWIVEL JOINTS SHALL BE MADE FOR BURIED UTILITIES TO ALLOW FOR DIFFERENTIAL VERTICAL DISPLACEMENT.
- 10. CONSTRUCTION INSPECTION SHALL BE DONE FOR SUBBEDDING, BEDDING, PIPE LAYING, PIPE TESTING, AND MANHOLE CONSTRUCTION, TRENCHING, CONSOLIDATION OF BACKFILL, PAVING, RESURFACING.
- 11. NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAVE BEEN PLACED, INSPECTED AND APPROVED BY THE INSPECTOR.
- 12. CONCRETE FOR UTILITY STRUCTURES SHALL BE PORTLAND CEMENT CONCRETE WITH AN ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 3250 P.S.I. UNLESS OTHERWISE
- 13. FINAL CLEANOUT RIM ELEVATIONS SHALL BE ADJUSTED TO MEET FINAL GRADES.
 SEE CONSTRUCTION NOTE 18 ON SHEET C401 FOR LOCATIONS.
- 14. ALL WATER LINES SHALL BE INSTALLED WITH 36" MINIMUM COVER FROM TOP OF PIPE TO FINISHED GRADE, UNLESS OTHERWISE NOTED.

ABBREVIATIONS:

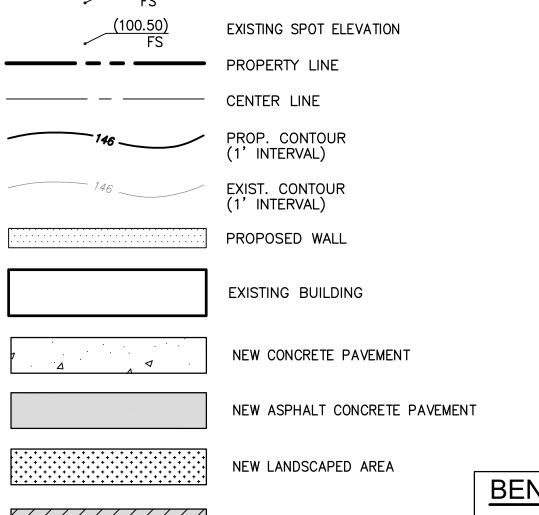
AC	ASPHALTIC CONCRETE	NTS	NOT TO SCALE
BW	BACK OF WALK	PA	PLANTER AREA
BLDG	BUILDING	POC	POINT OF CONNECTION
ВМ	BENCH MARK	PIV	POST INDICATOR VALVE
СВ	CATCH BASIN	PCC	PORTLAND CEMENT CONCRETE
CAB	CRUSHED AGGREGATE BASE	PRV	PRESSURE REDUCING VALVE
CL	CENTER LINE	PVC	POLYVINYL CHLORIDE
CMU	CONCRETE MASONRY UNIT	R/RAD	RADIUS
СО	CLEANOUT	RP	REDUCED PRESSURE
CONC	CONCRETE		PRINCIPAL BACKFLOW
CF	CURB FACE	SD	STORM DRAIN
DI	DRAIN INLET	SF	SQUARE FEET
DS	DOWN SPOUT	SSMH	SANITARY SEWER MANHOLE
ELEC		SS	SANITARY SEWER
(E)	EXISTING	STD	STANDARD
FF	FINISHED FLOOR	SDMH	STORM DRAIN MANHOLE
FG	FINISHED GRADE (LANDSCAPE)	TC	TOP OF CURB
FS	FINISHED SURFACE (HARDSCAPE)	TEL	TELEPHONE
FH	FIRE HYDRANT	TF	TOP OF FOOTING
FL	FLOW LINE	TG	TOP OF GRATE
FT	FOOT OR FEET	TW	TOP OF WALL
GV	GATE VALVE	TYP	TYPICAL
GW	GREASE WASTE	TV	TELEVISION
HP	HIGH POINT	U.N.O	UNLESS NOTED OTHERWISE
HDPE	HIGH-DENSITY POLYETHYLENE	VLT	VAULT
INV.	INVERT	VCP	VITRIFIED CLAY PIPE
LP	LOW POINT	W	WATER
MAX.	MAXIMUM	WM	WATER METER
MIN.	MINIMUM	WV	WATER VALVE
МН	MANHOLE		

LEGEND:

__ __ __ __ __

__ __ __ __ __

PATH OF TRAVEL



NEW UTILITY TRENCHING

PROPOSED SPOT ELEVATION

BENCH MARK

ELEVATIONS ARE BASED UPON THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS HAWTHORNE/TORRANCE QUAD.
BENCHMARK NUMBER 10970, ELEVATION: 96.875
FEET, PER DWP BA TAG IN W CB 1M(3.3FT) N/O BCR @ NW COR LA CIENEGA BL Y 10970, 29.528 & HILLCREST BL. (NAVD 88 DATUM) 2005
ADJUSTMENT.

W. HILLCHEST BLVD. W. ELM AVE. W. SPRUCE AVE. W. SPRUCE AVE. W. MAGNOLIA AVE. W. BUCKTHORN ST. VICINITY MAP SCALE: NTS

PREPARED BY

PREPARED FOR

BRANDOW & JOHNSTON
700 SOUTH FLOWER ST. SUITE 1800
LOS ANGELES, CA. 90017
TEL (213) 596-4500
FAX (213) 596-4599

INGLEWOOD UNIFIED SCHOOL DISTRICT
401 S. INGLEWOOD AVENUE
LOS ANGELES, CA 90601

REPRESENTATIVE:

ED MELO, PE DIRECTOR OF CIVIL ENGINEERING

INDEX OF DRAWINGS

C101 TITLE SHEET AND GENERAL NOTES C201 TYPICAL DETAILS C202 TYPICAL DETAILS C301 SITE DEMOLITION PLAN C302 SITE DEMOLITION PLAN C303 SITE DEMOLITION PLAN C401 GRADING AND DRAINAGE PLAN GRADING AND DRAINAGE PLAN C403 GRADING AND DRAINAGE PLAN C501 EROSION CONTROL PLAN C502 EROSION CONTROL PLAN C503 EROSION CONTROL PLAN C504 EROSION CONTROL PLAN

CALIFORNIA CODE OF REGULATIONS:

APPLICABLE CODES AS OF JULY 1, 2018
2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, CBSC
2016 CALIFORNIA BUILDING CODE (CSC), PART 2, CBSC
(2015 IBC AND CALIFORNIA AMENDMENTS)
2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, CBSC
(2015 UNIFORM PLUMBING CODE AND CALIFORNIA AMENDMENTS)
2016 CALIFORNIA FIRE CODE, PART 9, CBSC
(2015 INTERNATIONAL FIRE CODE AND CALIFORNIA AMENDMENTS)

LIST OF FEDERAL CODES AND STANDARDS

- AMERICANS WITH DISABILITIES ACT (ADA), TITLE II, OR TITLE III

- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SPPWC)

- FOR TITLE II: UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) OR ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36). (28 CFR 35,151(c))

NOTE: TITLE II APPLIES TO PROJECTS FUNDED AND/OR USED BY STATE

AND LOCAL GOVERNMENT SERVICES. TITLE III COVERS PUBLIC

ACCOMMODATIONS AND COMMERCIAL FACILITIES.

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF SPRUCE AVENUE BEING NORTH 89*55'70" EAST, PER TRACT NO.12511, M.B. 236/35, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY.



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 03-119485 INC:
REVIEWED FOR
SS FLS ACS
DATE: 8/14/2019

DATE: 8/14/2019

155 S. Fair Oaks, 2nd Floor
Pasadena California 91108

t 626.666.6906 f 626.666.3940 www.cannondesign.com

JAVAN NABILI

NO. C24035

REN.: 7/31/21

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CORDOBA CORPORATION
SAN FRANCISCO • LOS ANGELES • SANTA ANA • SAN DI



...

EMENTARY SCHOOL

OAK STREET633 South Oak Street
A PROJECT FOR:

PROJECT NUMBER: C18-0041

 DRAWN:
 V. TANTCHEVA

 CHECKED:
 ED MELO

 ISSUE/REVISION:
 08/21/2018

 08/21/2018
 30% - SCHEMATIC DESIGN

 10/10/2018
 50% - CD-SUBMITTAL

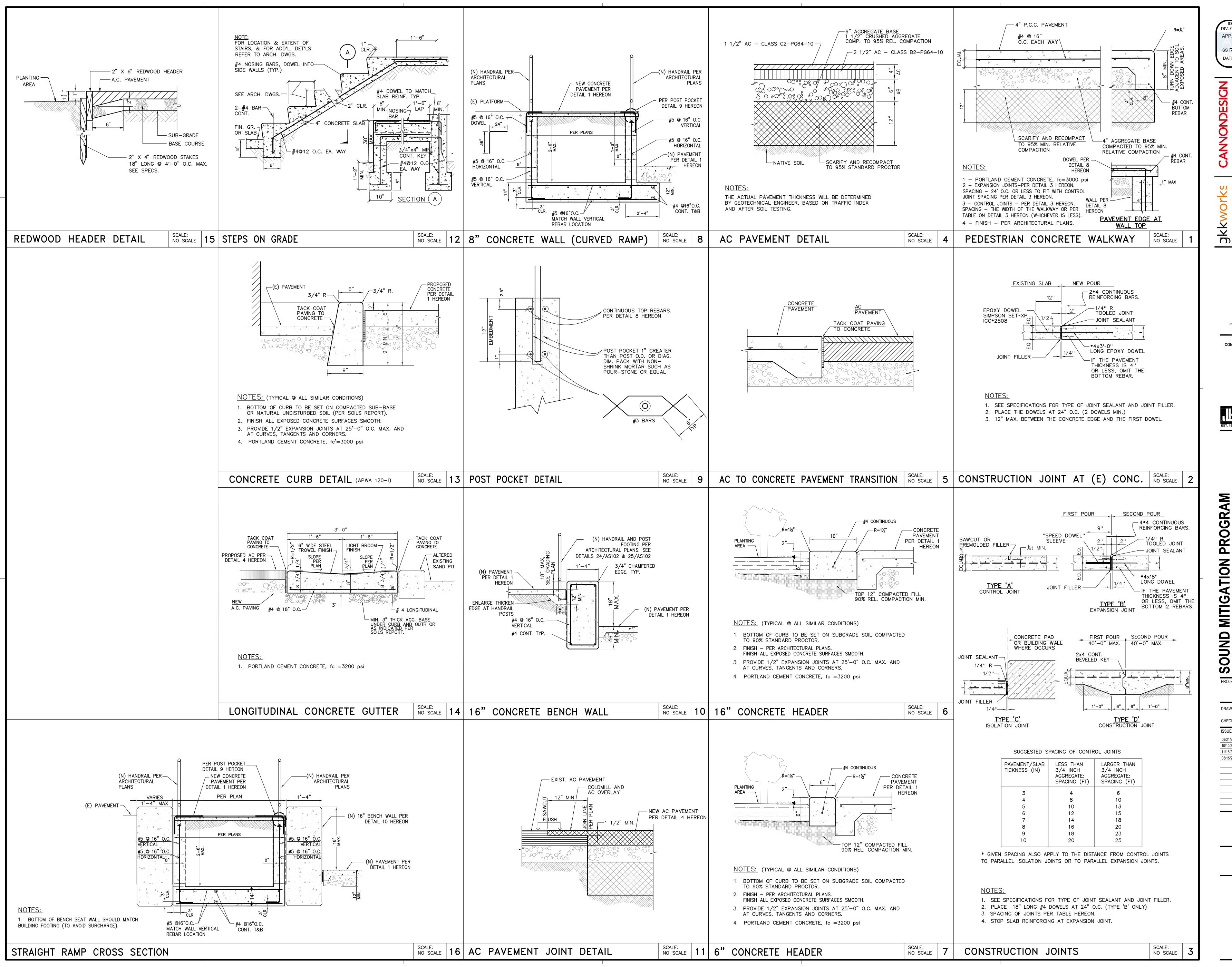
 08/21/2018
 30% - SCHEMATIC DESIGN

 10/10/2018
 50% - CD-SUBMITTAL

 11/15/2018
 100% - CD-DSA SUBMITTAL

 03/15/2019
 DSA APPROVAL

TITLE SHEET AND GENERAL NOTES



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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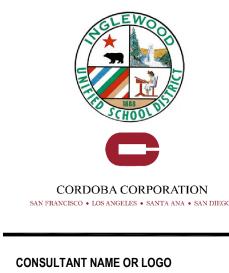
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JAVAN NABILI
NO. C24035
REN.: 7/31/21
CF CALLED

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FOR BRANDOW & JOHNSTON

BRANDOW & JOHNSTON

STRUCTURAL+CIVIL ENGINEERS (B&J HBK, INC.)
700 S FLOWER ST #1800, LOS ANGELES, CA 90017
T. (213) 596-4500

WWW.BJSCE.COM

OAK STREET ELEMENTARY SCHOOL
633 South Oak Street
A PROJECT FOR:
INGLEWOOD UNIFIED SCHOOL DISTRICT

PROJECT NUMBER:

C18-0041

 DRAWN:
 V. TANTCHEVA

 CHECKED:
 ED MELO

 ISSUE/REVISION:
 SCHEMATIC DESIGN

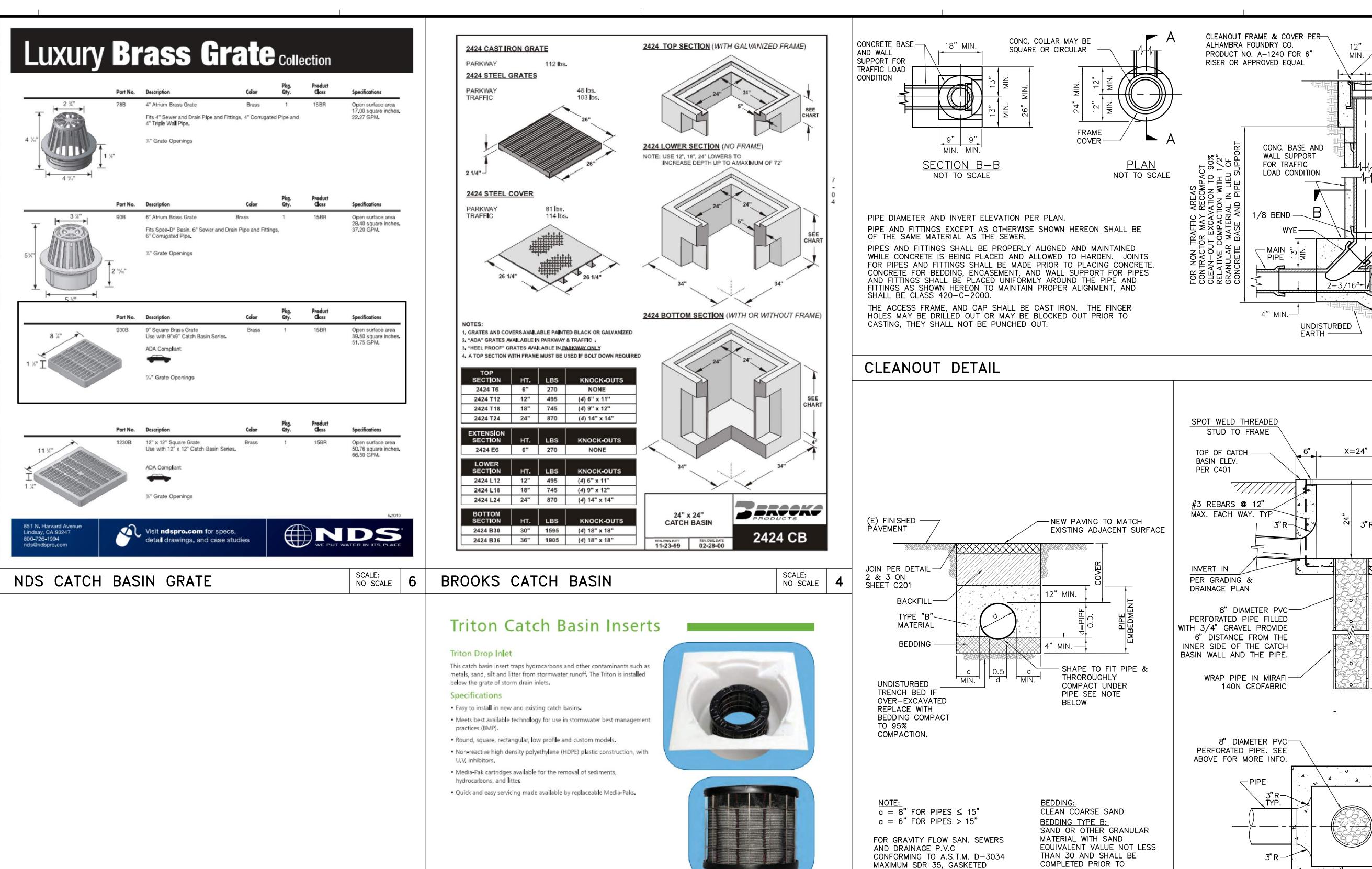
 08/21/2018
 30% - SCHEMATIC DESIGN

 10/10/2018
 50% - CD-SUBMITTAL

 11/15/2018
 100% - CD-DSA SUBMITTAL

 03/15/2019
 DSA APPROVAL

TYPICAL DETAILS



Standard Dimensions (in inches)

TR1212 15.0 15.0 11.0 11.0 6.75 3.50 6.0 1 Short 4.5 HDPE

TR12RD Ø15.0 Ø11.0 6.75 3.5 6.0 1 Short 4.5 HDPE

TR1616 20.0 20.0 14.0 14.0 6.75 3.5 10.5 1 Std 8.5 HDPE

TR24SR 27.0 27.0 23.5 23.5 14.0 10.0 13.0 1 Std 8.5 HDPE

TR36SR 36.0 36.0 33.0 33.0 14.0 10.0 22.0 1 Tall 16.5 FIBRG

TR4848 48.0 48.0 42.0 42.0 24.0 19.75 22.0 1 Tall 17.5 FIBRG

Ø21.0 14.0 10.0 13.0 1 Std

TR1818 24.0 24.0 18.0 18.0 10.0 6.25 10.5 1 Std

TR1824 19.0 25.0 18.0 18.0 10.0 6.25 10.5 1 Std

TR2024 21.0 25.0 18.0 18.0 10.0 6.25 10.5 1 Std

TR2436 32.0 40.0 22.0 29.0 14.0 10.0 21.0 1 Tall

TR3030 34.0 34.0 22.0 29.0 14.0 10.0 21.0 1 Tall

TRITON CATCH BASIN INSERT

* Dimenions "A" and "B" can be adjusted to suit varying sizes of each basins.

** Dimension "G" is basin depth.

*** Dimension "H" is cartridge height

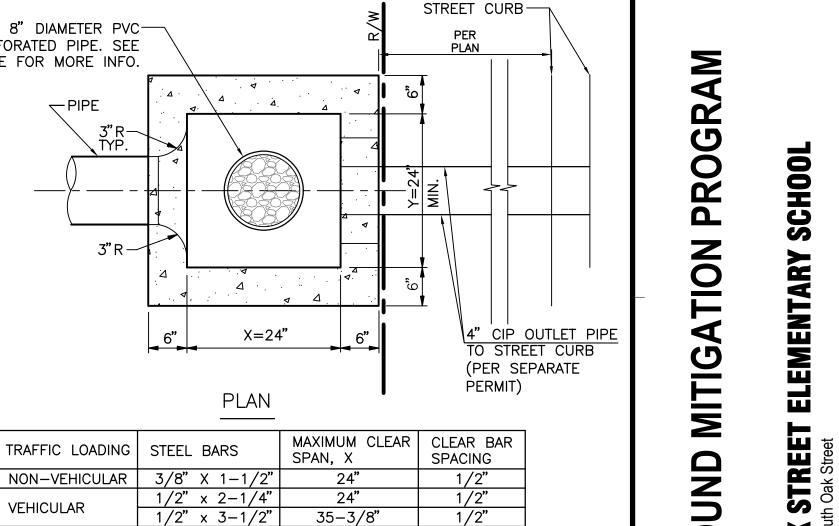
Ø11.0 6.75 3.5 6.0 1 Short 4.5 HDPE

Ø16.5 6.75 3.5 10.5 1 Std 8.5 HDPE

Ø33.0 14.0 10.0 22.0 1 Tall 16.5 FIBRG

Ø33.0 14.0 10.0 22.0 1 Tall 16.5 FIBRG

14.0 10.0 22.0 1 Tall 16.5 FIBRG



NO SCALE 2

PLACING THE BALANCE OF

GREATEST DIMÉNSION.

BE PERMITTED.

TRENCH BACKFILL:

THE BACKFILL. THE MAXIMUM

NESTING OF ROCKS WILL NOT

BACKFILL WITH ONSITE OR

IMPORT SOILS TO MINIMUM

95% RELATIVE COMPACTION

NO SCALE

TRAFFIC LOADING | STEEL BARS

WITH THREADS AND NUTS AT BOTH ENDS.

TRAFFIC RATED AND ADA COMPLIANT MODELS.

4. GRATES SHALL BE OF VANDAL-RESISTANT CONSTRUCTION.

AND WELDING, AND BEFORE ASSEMBLY.

5. FORM "X" AND "Y" TO FIT FRAME.

OVERFLOW CATCH BASIN

1. USE 3/4" DIA. PIPE BAR SPACERS ASSEMBLED ON (2) 1/2" DIA RODS

2. ALL STEEL PARTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION

SERIES OR BROOKS PRODUCTS, INC. OR APPROVED EQUAL. USE

6. INSTALL TRITON CATCH BASIN INSERT FILTER, OR APPROVED EQUIVALENT.

3. FRAME AND GRATE SHALL BE SIMILAR TO ALHAMBRA FOUNDRY CO., LTD.

VEHICULAR

ROCK SIZE FOR BEDDING TYPE B SHALL BE 3/4" IN THE

JOINT, 15" DIA. MAXIMUM PIPE

COMPACTION:
PIPE EMBEDMENT AND TRENCH

BACKFILL SHALL BE COMPACTED

IN ACCORDANCE WITH SECTION

WORKS CONSTRUCTION, LATEST

BACKFILL SHALL NOT BE USED.

FLEXIBLE PIPE BEDDING

AND TRENCH DETAIL

306-1.3 OF THE STANDARD

SPECIFICATIONS FOR PUBLIC

EDITION. WATER DENSIFIED

All dimenions are in inches

plastic with U.V. inhibitors

applications

2. Units are constructed from HDPE

3. Media cartridges can be interchanged with Geotrap series as site conditions

Low profile cartridges are also available

5. Custom sizes are available to fit most

7. Dual stage and dual capacity cartridges

NO SCALE

Optional trash and debris guard

TOP OF CLEAN-OUT

SURFACE

— ACCESS CAP. 11" DIA. x

1/2" THICK FOR 8" &

- DIAMETER OF RISER SHALL

AS MAIN PIPE DIAMETER

- INSTALL CAP & SEAL

NO SCALE

4" CIP OUTLET PIPE

(PER SEPARATE PERMIT)

TO STREET CURB

INVERT OUT

PER GRADING

& DRAINAGE

✓ IF TERMINAL CLEANOUT.

-2" MIN. - INSTALL PIPE IF IN-LINE

HOLE IN CENTER

CONSTRUCTION JOINT

BE THE SAME

OR 6" MAXIMUM

 $9-1/2" \times 1/2"$ THICK FOR

6" WITH 3/4" DIA. FINGER

DIV. OF THE STATE ARCHITEC

REVIEWED FOR

SS I FLS I ACS I

t 626.666.6906

f 626.666.3940

155 S. Fair Oaks, 2nd Floor,

www.cannondesign.com

NO. C24035

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CORDOBA CORPORATION

SAN FRANCISCO · LOS ANGELES · SANTA ANA · SAN DIEGO

FOR BRANDOW & JOHNSTON

BRANDOW & JOHNSTON STRUCTURAL+CIVIL ENGINEERS (B&J HBK, INC.)

700 S FLOWER ST #1800, LOS ANGELES, CA 90017 T: (213) 596-4500 WWW.BJSCE.COM

SCHOOL

UNIFIED

CONSULTANT NAME OR LOGO

Pasadena California 91105

APP. 03-119485 INC:

DATE: 8/14/2019

OAK 633 Sour PROJECT NUMBER:

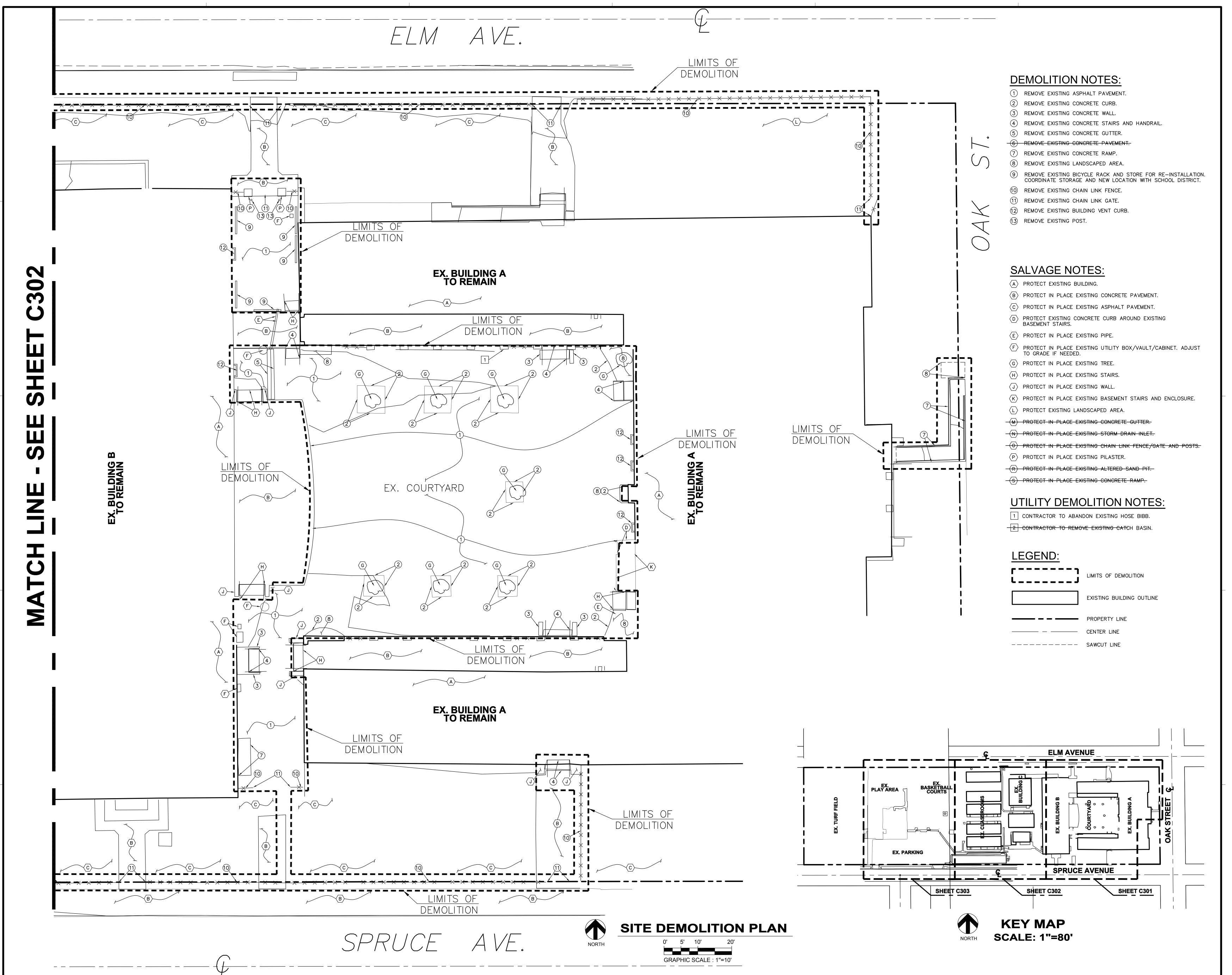
C18-0041 V. TANTCHEVA CHECKED: ED MELO ISSUE/REVISION:

08/21/2018 30% - SCHEMATIC DESIGN 10/10/2018 50% - CD-SUBMITTAL 11/15/2018 100% - CD-DSA SUBMITTAL 03/15/2019 DSA APPROVAL

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TYPICAL DETAILS



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APP. 03-119485 INC:
REVIEWED FOR
SS FLS ACS
DATE: 8/14/2019

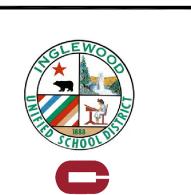
155 S. Fair Oaks, 2nd Floor, Pasadena California 91105 t 626.666.6906

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REN.: 7/31/21

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STREET ELEMENTARY SCHOOL th Oak Street

SOUND SAME STREE 633 South Oak Street

DRAWN: V. TANTCHEVA

CHECKED: ED MELO

SSUE/REVISION:

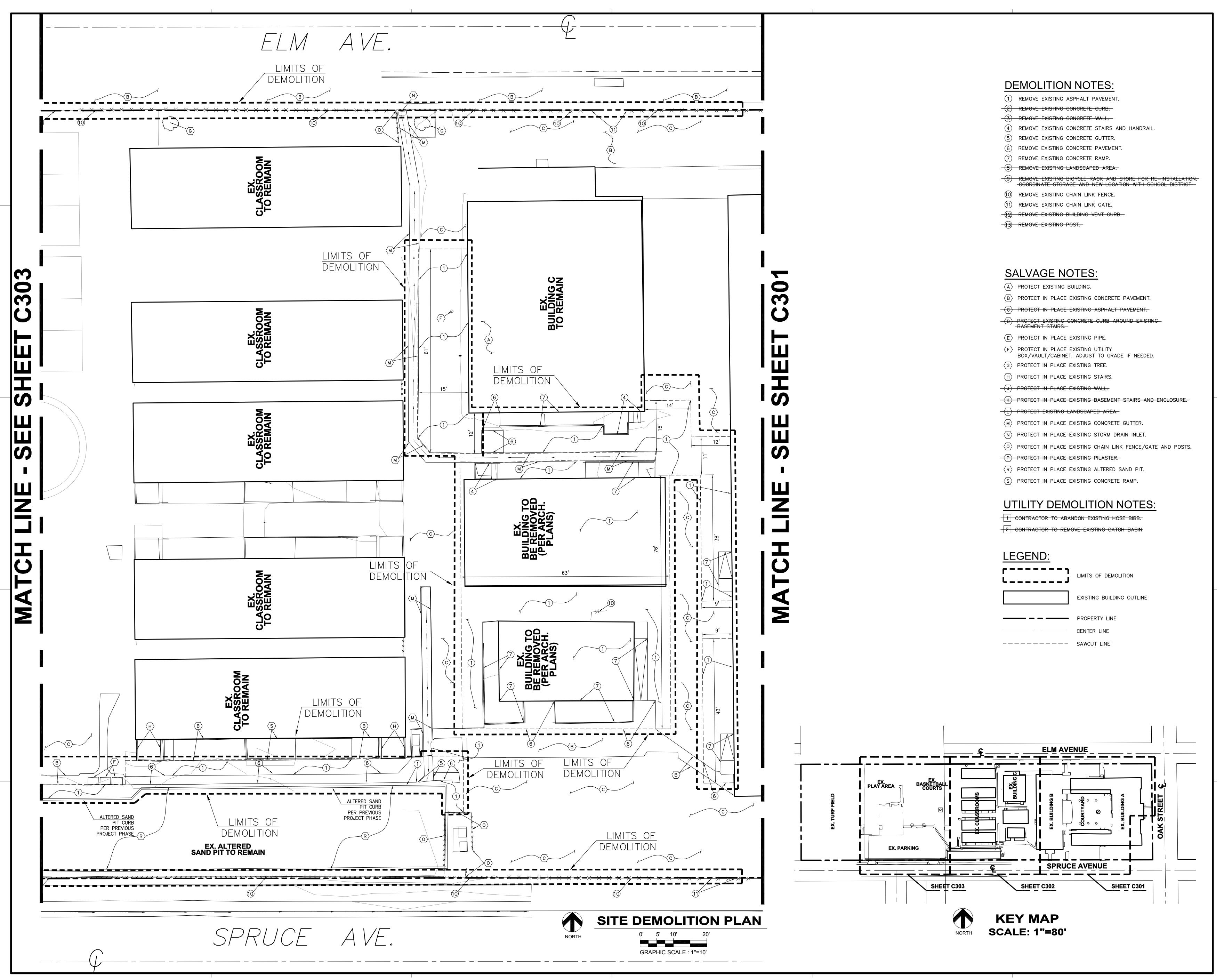
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11/15/2018 100% - CD-DSA SUBMITTAL

DSA APPROVAL

SITE DEMOLITION PLAN



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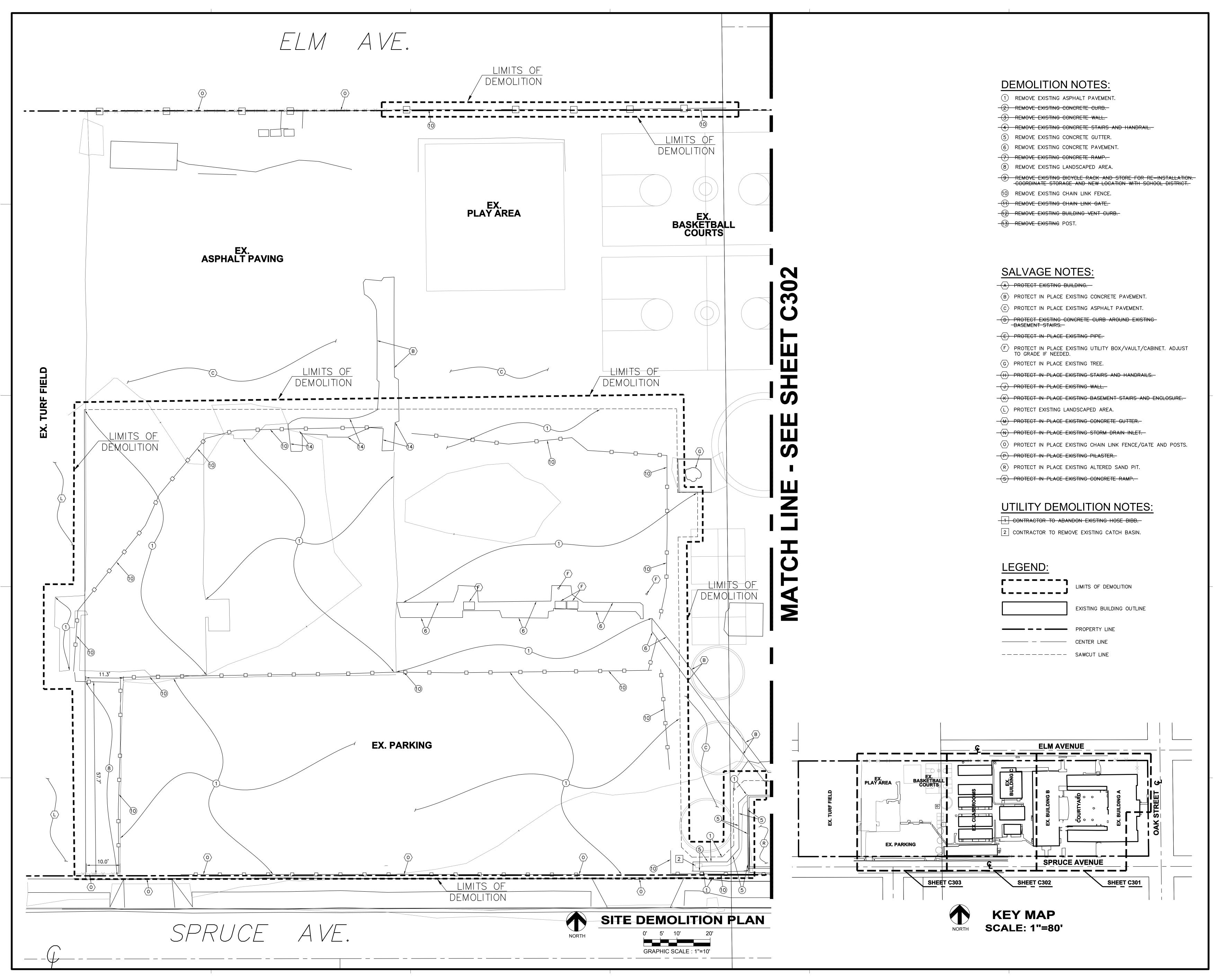
CONSULTANT NAME OR LOGO BRANDOW & JOHNSTON STRUCTURAL+CIVIL ENGINEERS (B&J HBK, INC.) 700 S FLOWER ST #1800, LOS ANGELES, CA 90017 T: (213) 596-4500 WWW.BJSCE.COM

PROJECT NUMBER:

C18-0041

100% - CD-DSA SUBMITTAL

SITE DEMOLITION PLAN

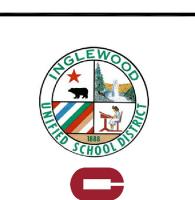


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CORDOBA CORPORATION **CONSULTANT NAME OR LOGO**

FOR BRANDOW & JOHNSTON

BRANDOW & JOHNSTON

STRUCTURAL+CIVIL ENGINEERS (B&J HBK, INC.)

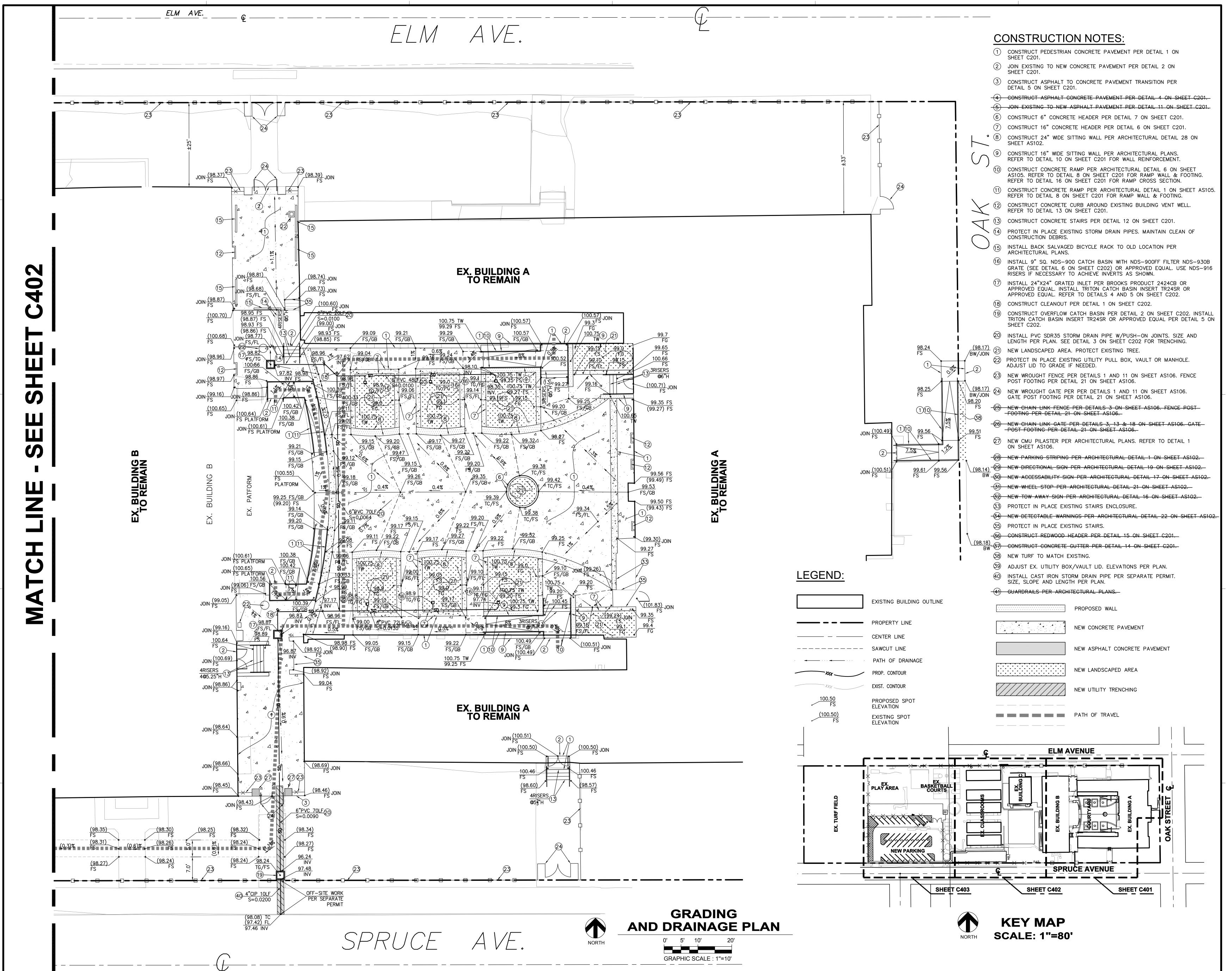
700 S FLOWER ST #1800, LOS ANGELES, CA 90017

T: (213) 596-4500 WWW.BJSCE.COM

C18-0041

SOUND

SITE DEMOLITION PLAN



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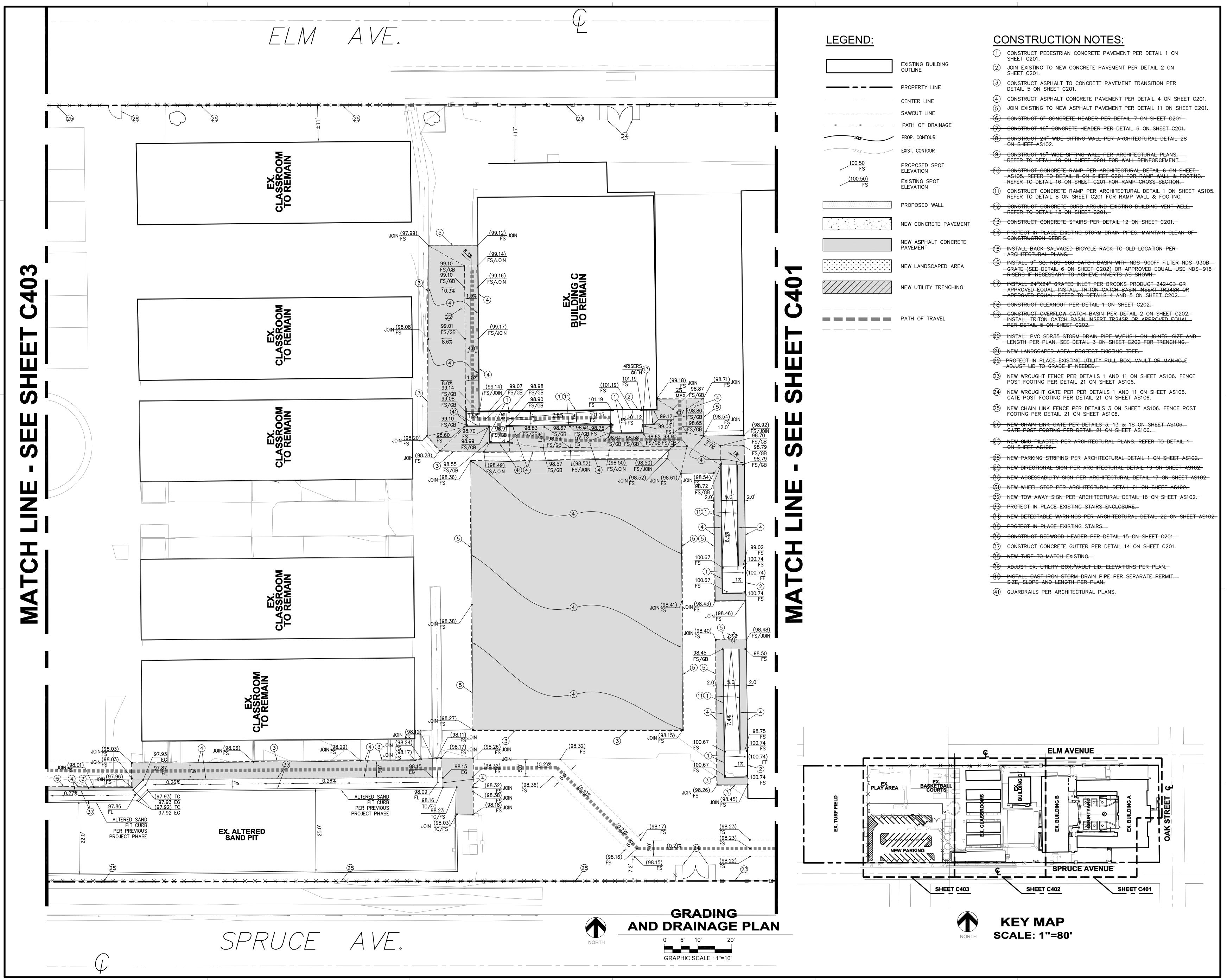
BRANDOW & JOHNSTON STRUCTURAL+CIVIL ENGINEERS (B&J HBK, INC.) 700 S FLOWER ST #1800, LOS ANGELES, CA 90017

PROJECT NUMBER: C18-0041

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V. TANTCHEVA 11/15/2018 100% - CD-DSA SUBMITTAL

GRADING AND DRAINAGE PLAN



DIV. OF THE STATE ARCHITEC APP. 03-119485 INC: REVIEWED FOR SS I FLS I ACS I DATE: 8/14/2019

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CONSULTANT NAME OR LOGO FOR BRANDOW & JOHNSTON BRANDOW & JOHNSTON STRUCTURAL+CIVIL ENGINEERS (B&J HBK, INC.) 700 S FLOWER ST #1800, LOS ANGELES, CA 90017 T: (213) 596-4500 WWW.BJSCE.COM

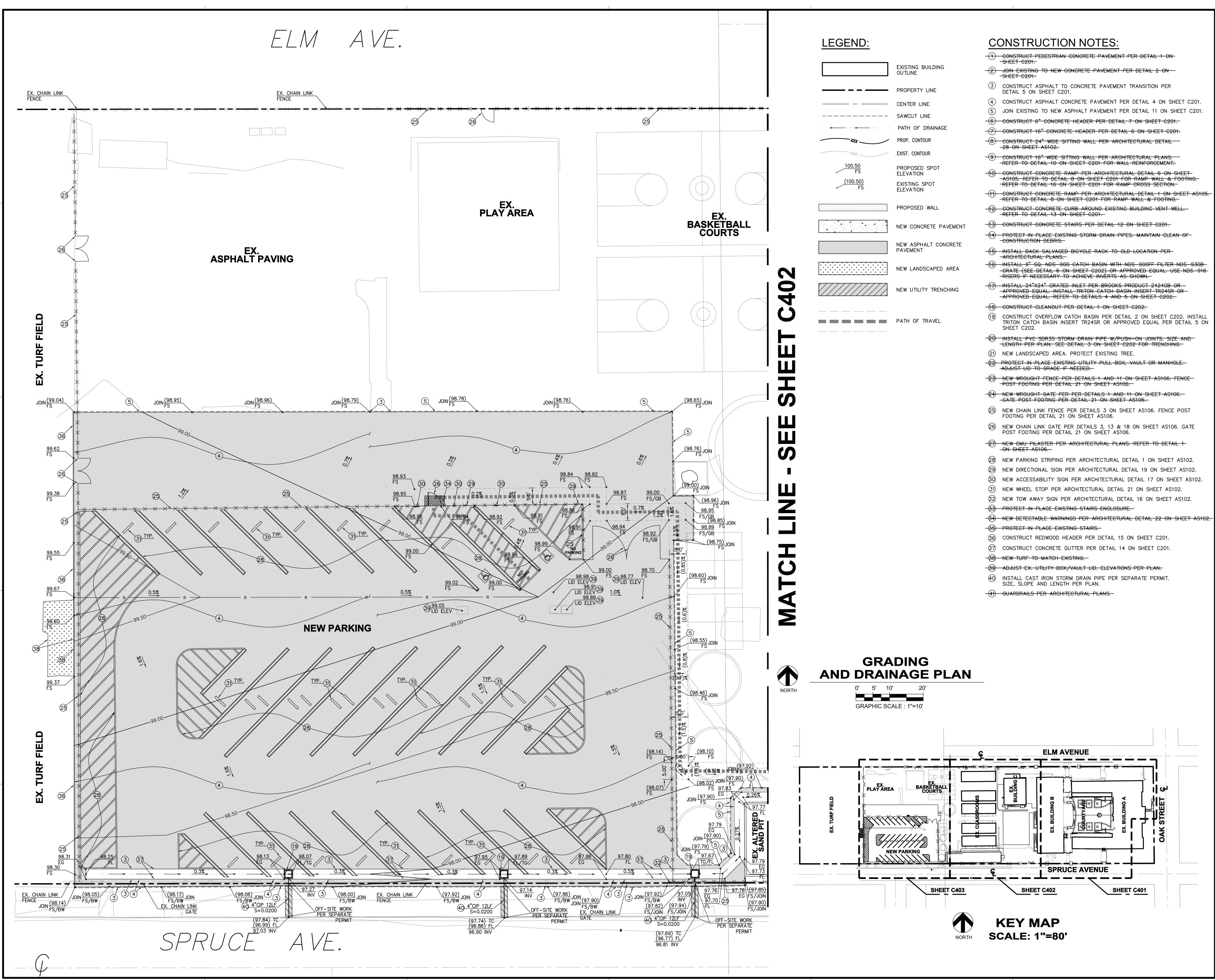
PROJECT NUMBER: C18-0041

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08/21/2018 30% - SCHEMATIC DESIGN

11/15/2018 100% - CD-DSA SUBMITTAL

GRADING AND DRAINAGE PLAN



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DIV. OF THE STATE ARCHITECT
APP. 03-119485 INC:
REVIEWED FOR
SS FLS ACS
DATE: 8/14/2019

SS D DE FLS D HEST ACS DECIDED AND THE SERVICES DATE: 8/14/2019

155 S. Fair Oaks, 2nd Floor,
Pasadona California 91105

Pasadena California 91105 t 626.666.6906 f 626.666.3940 www.cannondesign.com

JAVAN NABILI
NO. C24035
REN.: 7/31/21

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CONSULTANT NAME OR LOGO

ROFESSION

No. C80534

FOR BRANDOW & JOHNSTON

BRANDOW & JOHNSTON

STRUCTURAL+CIVIL ENGINEERS (B&J HBK, INC.)
700 S FLOWER ST #1800, LOS ANGELES, CA 90017
T. (213) 596-4500

T. 1046

LEMENTARY SCHOOL

OAK STREET ELEN

PROJECT NUMBER:

C18-0041

DRAWN: V. TANTCHEVA

CHECKED: ED MELO

ISSUE/REVISION:

08/21/2018 30% - SCHEMATIC DESIGN

10/10/2018 50% - CD-SUBMITTAL

11/15/2018 100% - CD-DSA SUBMITTAL

03/15/2019 DSA APPROVAL

GRADING AND DRAINAGE PLAN

BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES

DETAILED IN THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICES HANDBOOK — CONSTRUCTION.

EROSION CONTROL EC-1 SCHEDULING

SEDIMENT CONTROL
SE-8 SANDBAGS BARRIER
SE-10 STORM DRAIN INLET PROTECTION

NON-STORM WATER CONTROL
NS-3 PAVING AND GRINDING OPERATIONS

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL
WM-1 MATERIAL DELIVERY AND STORAGE
WM-2 MATERIAL USE

SECTION 2 OF THE CASQA BMP CONSTRUCTION HANDBOOK, JULY 2012, IS PART OF THESE EROSION CONTROL PLANS, INCLUDING BUT NOT LIMITED TO:

- MINIMUM REQUIREMENTSGOOD HOUSEKEEPING PRACTICES
- STAFF TRAININGSITE INSPECTIONS
- BMP MONITORING AND MAINTENANCESTORMWATER POLLUTION CONTROL DOCUMENTATION

TYPICAL DEMOLITION DEBRIS NOTES

- EROSION CONTROL DEVICES SHOWN ON THE PLAN MAY BE REMOVED WHEN APPROVED BY THE PROJECT INSPECTOR IF THE DEMOLITION OPERATION HAS PROGRESSED TO THE POINT WHERE THEY ARE NO LONGER REQUIRED.
- 2. ALL SILT AND DEBRIS SHALL BE REMOVED FROM ALL DEVICES WITHIN 24 HOURS AFTER EACH RAINSTORM AND BE DISPOSED OF PROPERLY.
- 3. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO FEET. THE DEVICE SHALL BE DRAINED OR PUMPED WITHIN 24 HOURS AFTER EACH RAINSTORM. PUMPING AND DRAINING OF ALL BASINS AND DRAINAGE DEVICES MUST COMPLY WITH THE APPROPRIATE BMP FOR DEWATERING OPERATIONS.
- 4. STORM WATER POLLUTION DEVICES ARE TO BE MODIFIED, AS NEEDED, AS THE PROJECT PROGRESSES, THE DESIGN AND PLACEMENT OF THESE DEVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. PLANS REPRESENTING CHANGES MUST BE SUBMITTED FOR APPROVAL IF REQUESTED BY THE PROJECT INSPECTOR.
- 5. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORM WATER FROM THE PROJECT SITE AT ALL TIMES.
- 6. POLLUTANTS MUST BE RETAINED ON—SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA PUMPS, SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
- 7. CONTRACTORS ARE RESPONSIBLE TO INSPECT THAT ALL BMPS ARE INSTALLED AND FUNCTIONING PROPERLY IF THERE IS A 40% CHANCE OF 0.25 INCHES OR GREATER OF PREDICTED PRECIPITATION, AND AFTER ACTUAL PRECIPITATION. A CONSTRUCTION SITE INSPECTION CHECKLIST AND INSPECTION LOG SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES AND AVAILABLE FOR REVIEW BY THE BUILDING OFFICIAL.
- 8. MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
- 9. A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (NOVEMBER 1 TO APRIL 15). NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERBENCY DEVICES WHEN RAIN IS IMMINENT.

STORM WATER POLLUTION CONTROL

CONSTRUCTION MEANS CONSTRUCTING, CLEARING, GRADING OR EXCAVATION THAT RESULT IN SOIL DISTURBANCE. CONSTRUCTION INCLUDES STRUCTURE TEARDOWN (DEMOLITION). IT DOES NOT INCLUDE ROUTINE MAINTENANCE TO MAINTAIN ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, OR ORIGINAL PURPOSE OF FACILITY; EMERGENCY CONSTRUCTION ACTIVITIES REQUIRED TO IMMEDIATELY PROTECT PUBLIC HEALTH AND SAFETY; INTERIOR REMODELING WITH NO OUTSIDE EXPOSURE OF CONSTRUCTION MATERIAL OR CONSTRUCTION WASTE TO STORM WATER; MECHANICAL PERMIT WORK; OR SIGN PERMIT WORK. (ORDER NO. 01–182, NPDES PERMIT NO. CASOO4001 - PART 5: DEFINITIONS)

- ERODED SEDIMENTS AND POLLUTANTS SHALL BE RETAINED ON SITE AND SHALL NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE OR WIND.
- 2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION—RELATED MATERIALS SHALL BE COVERED AND/OR PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY WIND OR WATER.
- 3. FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND SHALL NOT CONTAMINATE THE SOIL NOR THE SURFACE WATERS. ALL APPROVED TOXIC STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY AND SHALL NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- 4. NON-STORM WATER RUNOFF FROM EQUIPMENT AND VEHICLE WASHING AND ANY OTHER ACTIVITY SHALL BE CONTAINED ON THE PROJECT SITE.
- 5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTE ON—SITE UNTIL IT CAN BE APPROPRIATELY DISPOSED OF OR RECYCLED.
- 6. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF STORM WATER AND DISPERSAL BY WIND.
- 7. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE STREET/PUBLIC WAYS. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR BY ANY OTHER MEANS.
- 8. RETENTION BASINS OF SUFFICIENT SIZE SHALL BE PROVIDED TO RETAIN STORM WATER RUNOFF ON—SITE AND SHALL BE PROPERLY LOCATED TO COLLECT ALL TRIBUTARY SITE RUNOFF.
- 9. WHERE RETENTION OF STORM WATER RUNOFF ON—SITE IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, RUNOFF MAY BE CONVEYED TO THE STREET AND THE STORM DRAIN SYSTEM PROVIDED THAT AN APPROVED FILTERING SYSTEM IS INSTALLED AND MAINTAINED ON—SITE DURING THE CONSTRUCTION DURATION.

- WOVEN FABRIC SANDBAG

EROSION CONTROL KEY NOTES

- 1 COVER CATCH BASIN INLET WITH PERMEABLE FILTER PER DETAIL 2 (REFER TO SE-10 OF CASQA BMP MANUAL OR ON SHEET C503).
- 2) SINGLE ROW GRAVEL BAGS 2 BAGS HIGH (PER SE-8 OF CASQA BMP MANUAL OR
- ON SHEET C503).
- 3 INSTALL TEMPORARY WIND SCREEN TO EXISTING FENCE AND GATES.
 4 INSTALL TEMPORARY CONSTRUCTION FENCE WITH WIND SCREEN.
- (5) SEDIMENT TRAP OUTLET PER DETAIL 1 HEREON.
- 6 PROTECT EXISTING TREES DURING CONSTRUCTION. REFER TO LANDSCAPE PLANS.
- 7 PREVENT OR REDUCE DISCHARGE OF POLLUTANTS FROM PAVING OPERATIONS PER NS-3 OF CASQA BMP MANUAL OR ON SHEET C503.
- 8 MATERIAL STORAGE AREA.
- PREVENT, REDUCE OR ELIMINATE DISCHARGE OF POLLUTANTS TO STORMDRAIN SYSTEM FROM MATERIAL DELIVERY AND STORAGE PER WM-1 OF CASQA BMP MANUAL OR ON SHEET C504.
- 10) PREVENT OR REDUCE DISCHARGE OF POLLUTANTS TO STORMDRAIN SYSTEM FROM MATERIAL USE PER WM-1 OF CASQA BMP MANUAL OR ON SHEET C504.

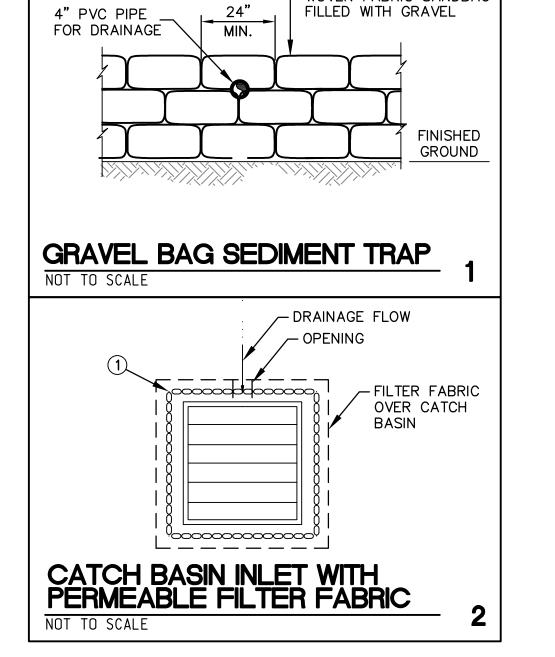
LEGEND

GRAVEL BAGS OR STRAW WADDLE

SCREENED FENCE

DRAINAGE FLOW

__o___o___ TREE PROTECTION FENCE



ELM AVENUE

PLAYAREA

BASKETBALL
COURTS

SPRUCE AVENUE

SHEET C501



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APP. 03-119485 INC:
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DATE: 8/14/2019

DATE: 8/14/2019

155 S. Fair Oaks, 2nd Floor,
Pasadena California 91105

Pasadena California 917 t 626.666.6906 f 626.666.3940 www.cannondesign.com

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REN.: 7/31/21

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STREET ELEMENTARY SCHOOL

Oak Street

TFOR:

PROJECT NUMBER:

C18-0041

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 DRAWN:
 V. TANTCHEVA

 CHECKED:
 ED MELO

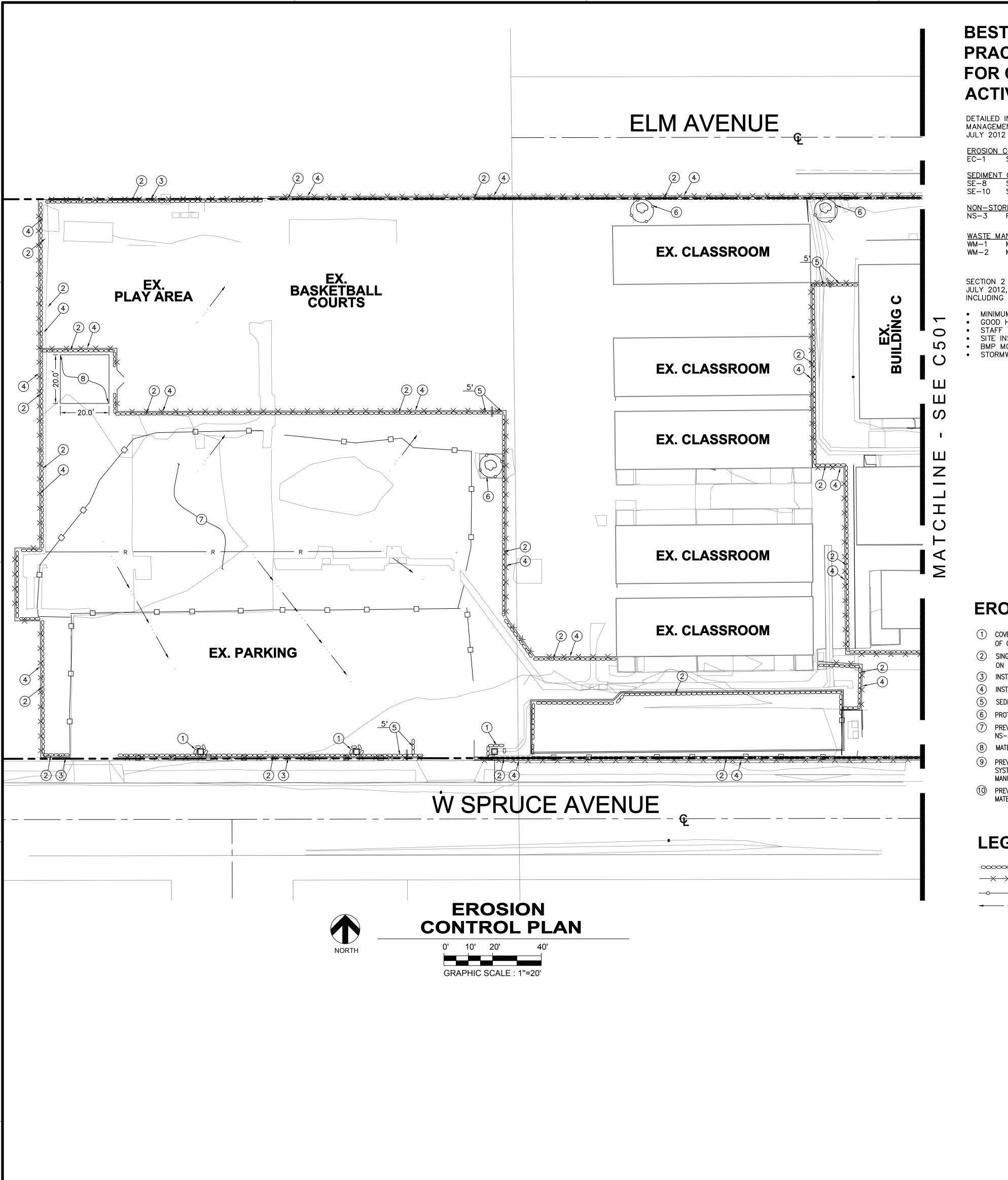
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 11/15/2018
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 03/15/2019
 DSA APPROVAL

EROSION CONTROL PLAN



BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES

DETAILED IN THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICES HANDBOOK — CONSTRUCTION.

EROSION CONTROL EC-1 SCHEDULING

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- STAFF TRAINING
 SITE INSPECTIONS
 BMP MONITORING AND MAINTENANCE
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REQUIRED TO IMMEDIATELY PROTECT PUBLIC HEALTH AND SAFETY; INTERIOR REMODELING WITH NO OUTSIDE EXPOSURE OF CONSTRUCTION MATERIAL OR CONSTRUCTION WASTE TO STORM WATER; MECHANICAL PERMIT WORK; OR SIGN PERMIT WORK. (ORDER NO. 01–182, NPDES PERMIT NO. CASO04001 · PART 5: DEFINITIONS)

- 1. ERODED SEDIMENTS AND POLLUTANTS SHALL BE RETAINED ON SITE AND SHALL NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE OR WIND.
- 2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION—RELATED MATERIALS SHALL BE COVERED AND/OR PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY WIND OR WATER.
- 3. FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND SHALL NOT CONTAMINATE THE SOIL NOR THE SURFACE WATERS. ALL APPROVED TOXIC STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY AND SHALL NOT BE WASHED INTO THE DRAINAGE SYSTEM.

4. NON-STORM WATER RUNOFF FROM EQUIPMENT AND VEHICLE WASHING AND ANY OTHER ACTIVITY SHALL BE CONTAINED ON THE PROJECT SITE.

- 5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTE ON—SITE UNTIL IT CAN BE APPROPRIATELY DISPOSED OF OR RECYCLED.
- 6. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF STORM WATER AND DISPERSAL BY WIND.
- 7. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE STREET/PUBLIC WAYS. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR BY ANY OTHER MEANS.
- 8. RETENTION BASINS OF SUFFICIENT SIZE SHALL BE PROVIDED TO RETAIN STORM WATER RUNOFF ON—SITE AND SHALL BE PROPERLY LOCATED TO COLLECT ALL TRIBUTARY SITE
- 9. WHERE RETENTION OF STORM WATER RUNOFF ON—SITE IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, RUNOFF MAY BE CONVEYED TO THE STREET AND THE STORM DRAIN SYSTEM PROVIDED THAT AN APPROVED FILTERING SYSTEM IS INSTALLED AND MAINTAINED ON—SITE DURING THE CONSTRUCTION DURATION.

EROSION CONTROL KEY NOTES

- 1 COVER CATCH BASIN INLET WITH PERMEABLE FILTER PER DETAIL 2 (REFER TO SE-10 OF CASQA BMP MANUAL OR ON SHEET C503).
- 2 SINGLE ROW GRAVEL BAGS 2 BAGS HIGH (PER SE—8 OF CASQA BMP MANUAL OR ON SHEET C503).
- 3 INSTALL TEMPORARY WIND SCREEN TO EXISTING FENCE AND GATES.
- (4) INSTALL TEMPORARY CONSTRUCTION FENCE WITH WIND SCREEN.
 (5) SEDIMENT TRAP OUTLET PER DETAIL 1 HEREON.
- 6 PROTECT EXISTING TREES DURING CONSTRUCTION. REFER TO LANDSCAPE PLANS.
- PREVENT OR REDUCE DISCHARGE OF POLLUTANTS FROM PAVING OPERATIONS PER NS-3 OF CASQA BMP MANUAL OR ON SHEET C503.
- (8) MATERIAL STORAGE AREA.(9) PREVENT, REDUCE OR ELIMINATE DISCHARGE OF POLLUTANTS TO STORMDRAIN
- SYSTEM FROM MATERIAL DELIVERY AND STORAGE PER WM-1 OF CASQA BMP MANUAL OR ON SHEET C504.
- 10 PREVENT OR REDUCE DISCHARGE OF POLLUTANTS TO STORMDRAIN SYSTEM FROM MATERIAL USE PER WM-1 OF CASQA BMP MANUAL OR ON SHEET C504.

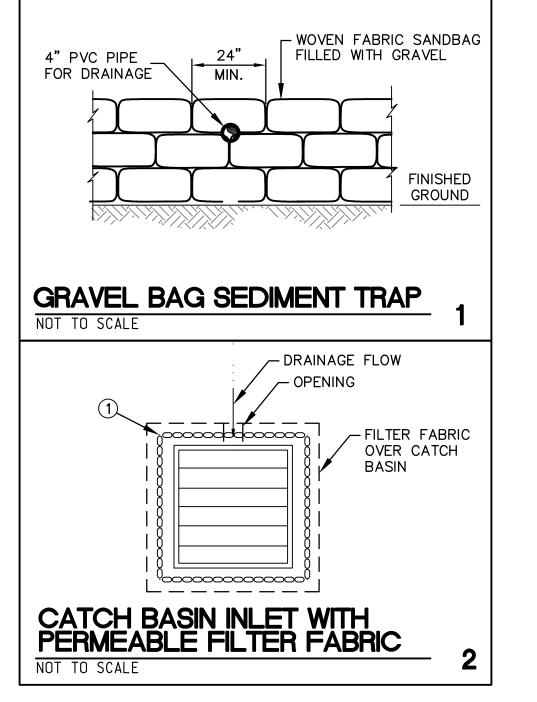
LEGEND

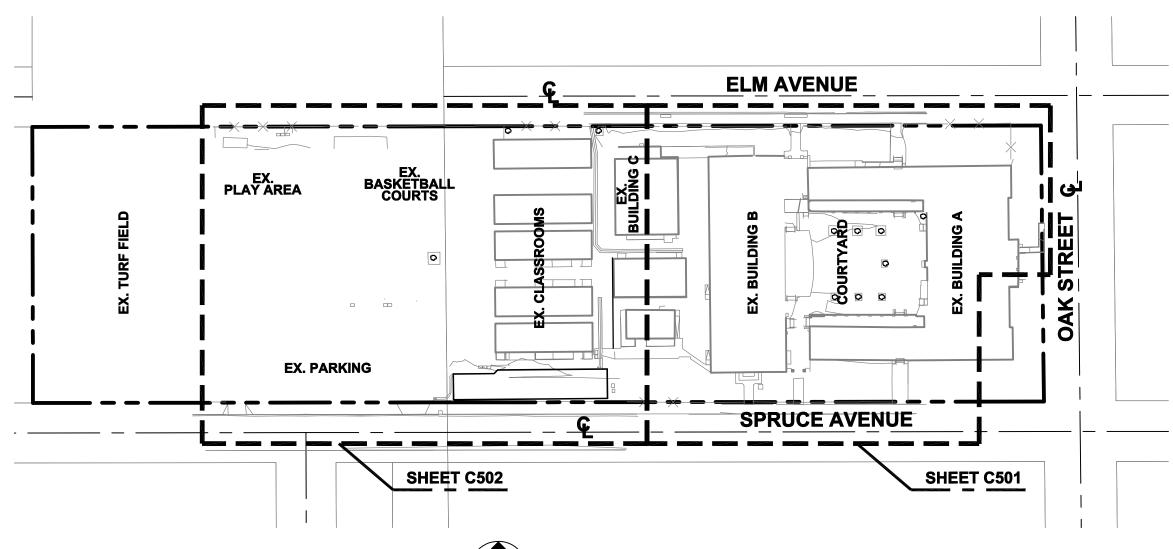
GRAVEL BAGS OR STRAW WADDLE

SCREENED FENCE

TREE PROTECTION FENCE

DRAINAGE FLOW







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DIV. OF THE STATE ARCHITECT
APP. 03-119485 INC:
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DATE: 8/14/2019

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Oak Street

PROGI

NOIL

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PROJECT NUMBER:

C18-0041

DRAWN: V. TANTCHEVA

CHECKED: ED MELO

ISSUE/REVISION:

08/21/2018 30% - SCHEMATIC DESIGN

10/10/2018 50% - CD-SUBMITTAL

10/10/2018 50% - CD-SUBMITTAL

11/15/2018 100% - CD-DSA SUBMITTAL

03/15/2019 DSA APPROVAL

EROSION CONTRO

SE-10 Storm Drain Inlet Protection ■ DI Protection Type 6 - Biofilter bags — Biofilter bags may be used as a substitute for Backfill the trench with gravel or compacted earth all the way around. gravel bags in low-flow situations. Biofilter bags should conform to specifications detailed ■ DI Protection Type 2 - Excavated Drop Inlet Sediment Trap - Install filter fabric fence in accordance with DI Protection Type 1. Size excavated trap to provide a minimum storage capacity calculated at the rate 67 yd3/acre of drainage area. See typical Type 2 installation details at the end of this fact sheet. Biofilter bags should be placed around inlets to intercept runoff flows. ■ DI Protection Type 3 - Gravel bag - Flow from a severe storm should not overtop the curb. In areas of high clay and silts, use filter fabric and gravel as additional filter media. Construct gravel bags in accordance with SE-6, Gravel Bag Berm. Gravel bags should be 4. Leave room upstream for water to pond and for sediment to settle out. used due to their high permeability. See typical Type 3 installation details at the end of this 5. Stake bags to the ground as described in the following detail. Stakes may be omitted Construct on gently sloping street. Leave room upstream of barrier for water to pond and sediment to settle. Average annual cost for installation and maintenance of DI Type 1-4 and 6 (one year useful Place several layers of gravel bags – overlapping the bags and packing them tightly Temporary geotextile inserts are proprietary and cost varies by region. These inserts can 4. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm

SE-8

typical Type 4 installation details at the end of this fact sheet. project type and risk level. It is recommended that at a minimum, BMPs be inspected 1. Place hardware cloth or comparable wire mesh with 0.5 in. openings over the drop inlet weekly, prior to forecasted rain events, daily during extended rain events, and after the so that the wire extends a minimum of 1 ft beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place woven geotextile over the wire Silt Fences. If the fabric becomes clogged, torn, or degrades, it should be replaced. Make sure the stakes are securely driven in the ground and are in good shape (i.e., not bent, 2. Place concrete blocks lengthwise on their sides in a single row around the perimeter of cracked, or splintered, and are reasonably perpendicular to the ground). Replace damaged the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks stakes. At a minimum, remove the sediment behind the fabric fence when accumulation stacking combinations of blocks that are 4 in., 8 in., and 12 in. wide. The row of blocks should be at least 12 in. but no greater than 24 in. high. Gravel Filters. If the gravel becomes clogged with sediment, it should be carefully removed from the inlet and either cleaned or replaced. Since cleaning gravel at a construction site 3. Place wire mesh over the outside vertical face (open end) of the concrete blocks to may be difficult, consider using the sediment-laden stone as fill material and put fresh stone prevent stone from being washed through the blocks. Use hardware cloth or comparable around the inlet. Inspect bags for holes, gashes, and snags, and replace bags as needed. wire mesh with 0.5 in. opening. 4. Pile washed stone against the wire mesh to the top of the blocks. Use 0.75 to 3 in. • Sediment that accumulates in the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches ■ DI Protection Type 5 - Temporary Geotextile Insert (proprietary) - Many types of temporary inserts are available. Most inserts fit underneath the grate of a drop inlet or inside of a curb inlet and are fastened to the outside of the grate or curb. These inserts are Inspect and maintain temporary geotextile insert devices according to manufacturer's removable and many can be cleaned and reused. Installation of these inserts differs between manufacturers. Please refer to manufacturer instruction for installation of

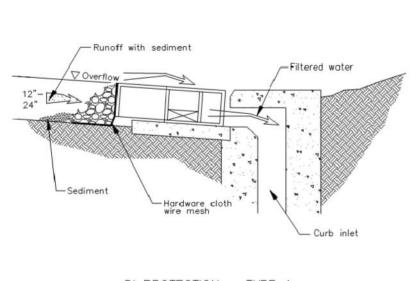
> www.casqa.org Storm Drain Inlet Protection SE-10

proprietary devices.

e.g., 10 year storm) should not overtop the curb.

■ DI Protection Type 4 - Block and Gravel Filter - Block and gravel filters are suitable

for curb inlets commonly used in residential, commercial, and industrial construction. See



- Hardware cloth or wire mesh

Construction www.casqa.org

Paving and Grinding Operations

 Thermoplastic striper and pre-heater equipment shutoff valves should be inspected to ensure that they are working properly to prevent leaking thermoplastic from entering drain inlets, the stormwater drainage system, or watercourses. Pre-heaters should be filled carefully to prevent splashing or spilling of hot thermoplastic. Leave six inches of space at the top of the pre-heater container when filling thermoplastic to

allow room for material to move. Do not pre-heat, transfer, or load thermoplastic near drain inlets or watercourses. Clean truck beds daily of loose debris and melted thermoplastic. When possible, recycle thermoplastic material.

Raised/Recessed Pavement Marker Application and Removal Do not transfer or load bituminous material near drain inlets, the stormwater drainage system, or watercourses.

 Melting tanks should be loaded with care and not filled to beyond six inches from the top to leave room for splashing. When servicing or filling melting tanks, ensure all pressure is released before removing lids

 On large-scale projects, use mechanical or manual methods to collect excess bituminous material from the roadway after removal of markers. All of the above are low cost measures.

Inspection and Maintenance

Sandbag Barrier

Slope inclination 2:1 (H:V) or greater: Sandbags should be placed at a maximum interval of 10 ft. (a closer spacing is more effective), with the first row near the slope toe. ■ Turn the ends of the sandbag barrier up slope to prevent runoff from going around the

 Allow sufficient space up slope from the barrier to allow ponding, and to provide room for sediment storage. For installation near the toe of the slope, sand bag barriers should be set back from the slope toe to facilitate cleaning. Where specific site conditions do not allow for a set-back, the sand bag barrier may be constructed on the toe of the slope. To prevent flows behind the barrier,

Top width = 24 in. minimum for three or more layer construction

Top width = 24 in. minimum for three or more layer construction.

See typical sandbag barrier installation details at the end of this fact sheet.

Sandbag Material: Sandbag should be woven polypropylene, polyethylene or polyamide

conformance with the requirements in ASTM designation D3786, and ultraviolet stability

burlap is not an acceptable substitute, as sand can more easily mobilize out of burlap.

Sandbag Size: Each sand-filled bag should have a length of 18 in., width of 12 in.,

exceeding 70% in conformance with the requirements in ASTM designation D4355. Use of

thickness of 3 in., and mass of approximately 33 lbs. Bag dimensions are nominal, and may

fabric, minimum unit weight of 4 ounces/yd², Mullen burst strength exceeding 300 lb/in² in

■ BMPs must be inspected in accordance with General Permit requirements for the associated bags can be placed perpendicular to a berm to serve as cross barriers. weekly, prior to forecasted rain events, daily during extended rain events, and after the Drainage area should not exceed 5 acres. Sandbags exposed to sunlight will need to be replaced every two to three months due to Butt ends of bags tightly.

Side slope = 2:1 (H:V) or flatter

Height = 12 in. maximum

Side slopes = 2:1 (H:V) or flatter.

vary based on locally available materials.

In construction traffic areas

 Overlap butt joints of row beneath with each successive row. Use a pyramid approach when stacking bags. Repair washouts or other damage as needed. In non-traffic areas Sediment that accumulates behind the BMP should be periodically removed in order to Height = 18 in. maximum

maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height. Remove sandbags when no longer needed and recycle sand fill whenever possible and properly dispose of bag material. Remove sediment accumulation, and clean, re-grade, and

Standard Specifications for Construction of Local Streets and Roads, California Department of Transportation (Caltrans), July 2002. Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003. Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February

Fill Material: All sandbag fill material should be non-cohesive, Class 3 (Caltrans Standard

Specification, Section 25) or similar permeable material free from clay and deleterious

Empty sandbags cost \$0.25 - \$0.75. Average cost of fill material is \$8 per yd3. Additional labor

is required to fill the bags. Pre-filled sandbags are more expensive at \$1.50 - \$2.00 per bag.

project type and risk level. It is recommended that at a minimum, BMPs be inspected

Sandbag Barrier

material, such as recycled concrete or asphalt.

These costs are based upon vendor research.

Reshape or replace sandbags as needed.

Inspection and Maintenance

conclusion of rain events.

degradation of the bags.

SE-10

SE-8

Storm Drain Inlet Protection

• Six types of inlet protection are presented below. However, it is recognized that other effective methods and proprietary devices exist and may be selected. Silt Fence: Appropriate for drainage basins with less than a 5% slope, sheet flows, and flows under 0.5 cfs.

Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (SE-3). Gravel bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets. Appropriate for sheet flow or when concentrated flow may exceed 0.5 cfs, and where overtopping is required to prevent flooding. Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.

Temporary Geotextile Storm drain Inserts: Different products provide different features. Refer to manufacturer details for targeted pollutants and additional features. Biofilter Bag Barrier: Used to create a small retention area upstream of inlets and can be located on pavement or soil. Biofilter bags slowly filter runoff allowing sediment to settle out. Appropriate for flows under 0.5 cfs.

SE-10

 Select the appropriate type of inlet protection and design as referred to or as described in Provide area around the inlet for water to pond without flooding structures and property.

 Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden Excavate sediment sumps (where needed) 1 to 2 ft with 2:1 side slopes around the inlet.

■ DI Protection Type 1 - Silt Fence - Similar to constructing a silt fence; see BMP SE-1, fall into the drain inlet when the fabric is removed or replaced and water flow through the grate will be blocked resulting in flooding. See typical Type 1 installation details at the end of this fact sheet. 1. Excavate a trench approximately 6 in. wide and 6 in. deep along the line of the silt fence inlet protection device.

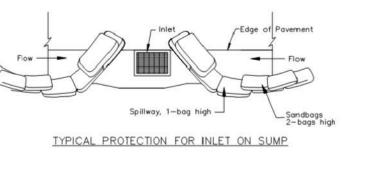
2. Place 2 in. by 2 in. wooden stakes around the perimeter of the inlet a maximum of 3 ft apart and drive them at least 18 in. into the ground or 12 in. below the bottom of the trench. The stakes should be at least 48 in.

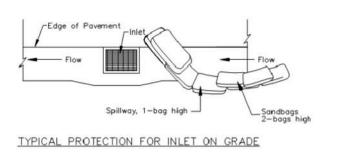
3. Lay fabric along bottom of trench, up side of trench, and then up stakes. See SE-1, Silt Fence, for details. The maximum silt fence height around the inlet is 24 in. 4. Staple the filter fabric (for materials and specifications, see SE-1, Silt Fence) to wooden

stakes. Use heavy-duty wire staples at least 1 in. in length.

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Storm Drain Inlet Protection SE-10





 Intended for short—term use.
 Use to inhibit non—storm water flow.
 Allow for proper maintenance and cleanup. Bags must be removed after adjacent operation is completed
 Not applicable in areas with high silts and clays without filter fabric. DI PROTECTION TYPE 3

the site and recycle whenever possible.

Paving and Grinding Operations

 If removed pavement material cannot be recycled, transport the material back to an approved storage site.

Asphaltic Concrete Paving If paving involves asphaltic cement concrete, follow these steps: Do not allow sand or gravel placed over new asphalt to wash into storm drains, streets, or creeks. Vacuum or sweep loose sand and gravel and properly dispose of this waste by referring to WM-5, Solid Waste Management. Old asphalt should be disposed of properly. Collect and remove all broken asphalt from

Portland Cement Concrete Paving Do not wash sweepings from exposed aggregate concrete into a storm drain system. Collect waste materials by dry methods, such as sweeping or shoveling, and return to aggregate base stockpile or dispose of properly. Allow aggregate rinse to settle. Then, either allow rinse pump the water to the sanitary sewer if authorized by the local wastewater authority.

 During chip seal application and sweeping operations, petroleum or petroleum covered aggregate should not be allowed to enter any storm drain or water courses. Apply temporary perimeter controls until structure is stabilized (i.e. all sealing operations are complete and cured and loose materials have been properly removed and disposed).

■ Inlet protection (SE-10, Storm Drain Inlet Protection) should be used during application of seal coat, tack coat, slurry seal, and fog seal. Seal coat, tack coat, slurry seal, or fog seal should not be applied if rainfall is predicted to occur during the application or curing period.

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Sandbag Barrier

As linear erosion control measure

Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow. At the top of slopes to divert runoff away from disturbed slopes.

SE-8

It is necessary to limit the drainage area upstream of the barrier to 5 acres.

As check dams across mildly sloped construction roads.

Sandbags are not intended to be used as filtration devices.

Easily damaged by construction equipment.

 Degraded sandbags may rupture when removed, spilling sand. Installation can be labor intensive.

 Durability of sandbags is somewhat limited and bags will need to be replaced when there are signs of damage or wear. Burlap should not be used for sandbags.

Implementation

A sandbag barrier consists of a row of sand-filled bags placed on a level contour. When appropriately placed, a sandbag barrier intercepts and slows sheet flow runoff, causing temporary ponding. The temporary ponding allows sediment to settle. Sand-filled bags have limited porosity, which is further limited as the fine sand tends to quickly plug with sediment, limiting or completely blocking the rate of flow through the barrier. If a porous barrier is desired, consider SE-1, Silt Fence, SE-5, Fiber Rolls, SE-6, Gravel Bag Berms or SE-14, Biofilter Bags. Sandbag barriers also interrupt the slope length and thereby reduce erosion by reducing the tendency of sheet flows to concentrate into rivulets which erode rills, and ultimately gullies, into disturbed, sloped soils. Sandbag barriers are similar to gravel bag berms, but less porous. Generally, sandbag barriers should be used in conjunction with temporary soil stabilization controls up slope to provide effective erosion and sediment control.

Design and Layout Locate sandbag barriers on a level contour.

 When used for slope interruption, the following slope/sheet flow length combinations apply: Slope inclination of 4:1 (H:V) or flatter: Sandbags should be placed at a maximum interval of 20 ft, with the first row near the slope toe.

Slope inclination between 4:1 and 2:1 (H:V): Sandbags should be placed at a maximum interval of 15 ft. (a closer spacing is more effective), with the first row near the slope toe.

Storm Drain Inlet Protection SE-10

 Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use other onsite sediment trapping techniques in conjunction with inlet protection. Frequent maintenance is required.

 Limit drainage area to 1 acre maximum. For drainage areas larger than 1 acre, runoff should be routed to a sediment-trapping device designed for larger flows. See BMPs SE-2, Sediment Basin, and SE-3, Sediment Traps. Excavated drop inlet sediment traps are appropriate where relatively heavy flows are

expected, and overflow capability is needed.

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through SE-2, Sediment Basin or SE-3, Sediment Trap and/or used in conjunction with other drainage control, erosion control, and sediment control BMPs to protect the site. Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Alternative methods are available in addition to the methods described/shown herein such as prefabricated inlet insert devices, or gutter protection devices.

Identify existing and planned storm drain inlets that have the potential to receive sedimentladen surface runoff. Determine if storm drain inlet protection is needed and which method to

 The key to successful and safe use of storm drain inlet protection devices is to know where unoff that is directed toward the inlet to be protected will pond or be diverted as a result of installing the protection device. Determine the acceptable location and extent of ponding in the vicinity of the drain inlet.

storm drain inlet protection device. Determine the extent of potential runoff diversion caused by the storm drain inlet protection device. Runoff ponded by inlet protection devices may flow around the device and towards the next downstream inlet. In some cases, this is acceptable; in other cases, serious erosion or downstream property damage can be caused by these diversions. The possibility of runoff diversions will influence whether or not storm drain inlet protection is suitable; and, if suitable, the type and design of the device.

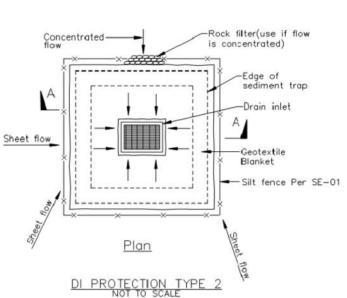
■ The location and extent of ponding, and the extent of diversion, can usually be controlled through appropriate placement of the inlet protection device. In some cases, moving the inlet protection device a short distance upstream of the actual inlet can provide more efficient sediment control, limit ponding to desired areas, and prevent or control diversions.

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SE-10

Storm Drain Inlet Protection

grade uniformly around perimeter Silt fence Per SE-01 Section A-A



1. For use in cleared and grubbed and in graded areas. . Shape basin so that longest inflow area faces longest length of trap For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.

Paving and Grinding Operations

Implementation Avoid paving during the wet season when feasible.

 Reschedule paving and grinding activities if rain is forecasted. Train employees and sub-contractors in pollution prevention and reduction.

 Store materials away from drainage courses to prevent stormwater runon (see WM-1, Material Delivery and Storage). · Protect drainage courses, particularly in areas with a grade, by employing BMPs to divert runoff or to trap and filter sediment.

 Stockpile material removed from roadways away from drain inlets, drainage ditches, and watercourses. These materials should be stored consistent with WM-3, Stockpile Management. conformance with WM-8, Concrete Waste Management.

Saw Cutting, Grinding, and Pavement Removal Shovel or vacuum saw-cut slurry and remove from site. Cover or barricade storm drains during saw cutting to contain slurry. When paving involves AC, the following steps should be implemented to prevent the

unrelated paving materials: AC grindings, pieces, or chunks used in embankments or shoulder backing should not be allowed to enter any storm drains or watercourses. Install inlet protection and perimeter

discharge of grinding residue, uncompacted or loose AC, tack coats, equipment cleaners, or

Sandbag Barrier

Description and Purpose

allowing sediment to settle out.

Suitable Applications

ability to maintain the BMP.

As a linear sediment control measure:

Below the toe of slopes and erodible slopes.

Around temporary stockpiles and spoil areas.

Parallel to a roadway to keep sediment off paved areas

Storm Drain Inlet Protection

Storm drain inlet protection consists of a sediment filter or an

inlet, or curb inlet. Storm drain inlet protection measures

allowing sediment to settle. Some filter configurations also

remove sediment by filtering, but usually the ponding action

geotextile storm drain inserts attach underneath storm drain

Every storm drain inlet receiving runoff from unstabilized or

otection should be used in conjunction with other erosion

and sediment controls to prevent sediment-laden stormwater

and non-stormwater discharges from entering the storm drain SE-14 Biofilter Bags

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otherwise active work areas should be protected. Inlet

temporarily pond runoff before it enters the storm drain,

results in the greatest sediment reduction. Temporary

grates to capture and filter storm water.

Drainage area should not exceed 1 acre.

In general straw bales should not be used as inlet

Requires an adequate area for water to pond without

encroaching into portions of the roadway subject to traffic.

Suitable Applications

system.

Limitations

impounding area in, around or upstream of a storm drain, drop

As sediment traps at culvert/pipe outlets.

Below other small cleared areas.

Down slope of exposed soil areas.

Along the perimeter of a site.

Along streams and channels.

Description and Purpose

argeted Constituents A sandbag barrier is a series of sand-filled bags placed on a level contour to intercept or to divert sheet flows. Sandbag barriers placed on a level contour pond sheet flow runoff,

Sandbag barriers may be a suitable control measure for the applications described below. It is important to consider that sand bags are less porous than gravel bags and ponding or flooding can occur behind the barrier. Also, sand is easily **Potential Alternatives** transported by runoff if bags are damaged or ruptured. The SWPPP Preparer should select the location of a sandbag barrier with respect to the potential for flooding, damage, and the SE-6 Gravel Bag Berm SE-12 Manufactured Linear Sediment Controls

SE-8

EC Erosion Control

WE Wind Erosion Control

SE Sediment Control

Management Control

Primary Category

Secondary Category

Waste Management and

Materials Pollution Contro

SE-14 Biofilter Bags If User/Subscriber modifies this fact sheet in any way, the CASQA removed from each page and not appear on the modified version.

C Erosion Control

SE Sediment Control

C Tracking Control

WE Wind Erosion Centrol

☑ Primary Category

Secondary Category

Targeted Constituents

Potential Alternatives

SE-1 Silt Fence

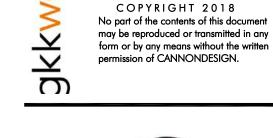
SE-8 Sandbag Barrier

SE-6 Gravel Bag Berm

SE-5 Fiber Rolls

Materials Pollution Control





IDENTIFICATION STAM DIV. OF THE STATE ARCHITEC

APP. 03-119485 INC:

DATE: 8/14/2019

REVIEWED FOR

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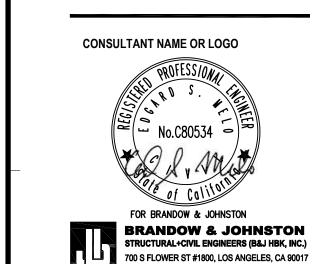
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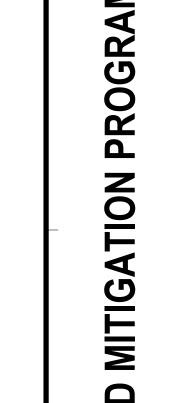
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Storm Drain Inlet Protection SE-10



STREET OND 0

> PROJECT NUMBER: C18-0041 V. TANTCHEVA

ISSUF/REVISION 08/21/2018 30% - SCHEMATIC DESIGN 10/10/2018 50% - CD-SUBMITTAL 11/15/2018 100% - CD-DSA SUBMITTAL 03/15/2019 DSA APPROVAL ____

Targeted Constituents Oil and Grease

C Erosion Control

SE Sediment Control

C Tracking Control

☑ Primary Category

Secondary Category

WE Wind Erosion Control

Management Control

Waste Management and Materials Pollution Control

Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent runon and runoff pollution, properly disposing of wastes, and training employees The General Permit incorporates Numeric Effluent Limits

(NEL) and Numeric Action Levels (NAL) for pH and turbidity (see Section 2 of this handbook to determine your project's risk Potential Alternatives Many types of construction materials associated with paving

and grinding operations, including mortar, concrete, and Inspect and verify that activity-based BMPs are in place prior to the commencement of controls until area is stabilized (i.e. cutting, grinding or other removal activities are cement and their associated wastes have basic chemical complete and loose material has been properly removed and disposed of)or permanent paving and grinding operations. Paving Equipment properties that can raise pH levels outside of the permitted controls are in place. Examples of temporary perimeter controls can be found in EC-9. Leaks and spills from paving equipment can contain toxic levels of heavy metals and oil and range. Additional care should be taken when managing these BMPs must be inspected in accordance with General Permit requirements for the associated Earth Dikes and Drainage Swales; SE-1, Silt Fence; SE-5, Fiber Rolls, or SE-13 Compost grease. Place drip pans or absorbent materials under paving equipment when not in use. materials to prevent them from coming into contact with project type and risk level. It is recommended that at a minimum, BMPs be inspected Clean up spills with absorbent materials and dispose of in accordance with the applicable weekly, prior to forecasted rain events, daily during extended rain events, and after the stormwater flows, which could lead to exceedances of the regulations. See NS-10, Vehicle and Equipment Maintenance, WM-4, Spill Prevention and Collect and remove all broken as phalt and recycle when practical. Old or spilled as phalt $\,$ General Permit requirements. Control, and WM-10, Liquid Waste Management. should be recycled or disposed of properly. Suitable Applications Sample stormwater runoff required by the General Permit. Substances used to coat asphalt transport trucks and asphalt spreading equipment should Do not allow saw-cut slurry to enter storm drains or watercourses. Residue from grinding These procedures are implemented where paving, surfacing, not contain soap and should be non-foaming and non-toxic. Keep ample supplies of drip pans or absorbent materials onsite. operations should be picked up by a vacuum attachment to the grinding machine, or by resurfacing, or sawcutting, may pollute stormwater runoff or sweeping, should not be allowed to flow across the pavement, and should not be left on the · Paving equipment parked onsite should be parked over plastic to prevent soil discharge to the storm drain system or watercourses. Inspect and maintain machinery regularly to minimize leaks and drips. urface of the pavement. See also WM-8, Concrete Waste Management, and WM-10, Liquid Waste Management. Clean asphalt coated equipment offsite whenever possible. When cleaning dry, hardened Paving opportunities may be limited during wet weather. Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Pavement removal activities should not be conducted in the rain. asphalt from equipment, manage hardened asphalt debris as described in WM-5, Solid Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, Discharges of freshly paved surfaces may raise pH to Waste Management. Any cleaning onsite should follow NS-8, Vehicle and Equipment Collect removed pavement material by mechanical or manual methods. This material may environmentally harmful levels and trigger permit violations. be recycled for use as shoulder backing or base material. Construction www.casqa.org Construction www.casqa.org Construction www.casqa.org

-Silt Fence per SE-01 SECTION A-A overlap at ends -Silt Fence per SE-01 DI PROTECTION TYPE 1 NOTES: 1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.

2. Not applicable in paved areas.

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Paving and Grinding Operations

Description and Purpose

level and if you are subject to these requirements).

and subcontractors.

 Bagged and boxed materials should be stored on pallets and should not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials should be covered during non-working days and prior to

Materials should be stored indoors within existing structures or completely enclosed storage

Proper storage instructions should be posted at all times in an open and conspicuous

An ample supply of appropriate spill clean up material should be kept near storage areas.

Keep an accurate, up-to-date inventory of material delivered and stored onsite.

 Properly remove and dispose of any hazardous materials or contaminated soil if significant residual materials remain on the ground after construction is complete. See WM-7,

■ If spills or leaks of materials occur that are not contained and could discharge to surface waters, non-visible sampling of site discharge may be required. Refer to the General Permit

■ The largest cost of implementation may be in the construction of a materials storage area

project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the Keep storage areas clean and well organized, including a current list of all materials onsite.

Inspect labels on containers for legibility and accuracy.

WM-2

Inspect and verify that activity-based BMPs are in place prior to the commencement of

project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program,

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance,

Comments on Risk Assessments Risk Reduction Options for Cypermethrin: Docket No. OPP-2005-0293; California Stormwater Quality Association (CASQA) letter to USEPA, 2006.Environmental Hazard and General Labeling for Pyrethroid Non-Agricultural Outdoor

State of California Department of Transportation (Caltrans), March 2003. Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Stockpiles should be protected in accordance with WM-3, Stockpile Management.

Also see WM-6, Hazardous Waste Management, for storing of hazardous wastes.

Arrange for employees trained in emergency spill cleanup procedures to be present when

dangerous materials or liquid chemicals are unloaded.

See WM-4, Spill Prevention and Control, for spills of chemicals and/or hazardous materials.

application (if different than the contractor). If notice is provided to the contractor or the person commissioning the application, then they are responsible under the Federal Insecticide Fungicide, and Rodenticide Act (FIFRA) to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application, the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled

Train employees and subcontractors in proper material use.

Dispose of latex paint and paint cans, used brushes, rags, absorbent materials, and drop

Do not remove the original product label; it contains important safety and disposal

Mix paint indoors or in a containment area. Never clean paintbrushes or rinse paint

residue, and sludge(s) that cannot be recycled, as hazardous waste.

 Use materials only where and when needed to complete the construction activity. Use safer onsite when practical.

 Avoid exposing applied materials to rainfall and runoff unless sufficient time has been allowed for them to dry.

Material Delivery and Storage

Hazardous materials storage onsite should be minimized.

Scheduling

corrective actions.

of Water, September 1992.

Inspection and Maintenance

Amend the schedule when changes are warranted.

deployment and implementation of construction site BMPs.

Verify that work is progressing in accordance with the schedule. If progress deviates, take

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual,

Stormwater Management for Construction Activities Developing Pollution Prevention Plans and

Best Management Practices (EPA 832-R-92-005), U.S. Environmental Protection Agency, Office

Amend the schedule prior to the rainy season to show updated information on the

State of California Department of Transportation (Caltrans), November 2000

Hazardous materials should be handled as infrequently as possible.

 Keep ample spill cleanup supplies appropriate for the materials being stored. Ensure that cleanup supplies are in a conspicuous, labeled area.

Employees and subcontractors should be trained on the proper material delivery and storage

 Employees trained in emergency spill cleanup procedures must be present when dangerous materials or liquid chemicals are unloaded. If significant residual materials remain on the ground after construction is complete,

properly remove and dispose of materials and any contaminated soil. See WM-7, Contaminated Soil Management. If the area is to be paved, pave as soon as materials are removed to stabilize the soil.

Material Storage Areas and Practices Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 should be stored in approved containers and drums and should not be overfilled. Containers and

drums should be placed in temporary containment facilities for storage. A temporary containment facility should provide for a spill containment volume able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary,

whichever is greater. A temporary containment facility should be impervious to the materials stored therein for a minimum contact time of 72 hours.

 A temporary containment facility should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be collected and placed into drums. These liquids should be handled as a hazardous waste unless testing be sent to an approved disposal site.

 Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.

 Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.

 Materials should be covered prior to, and during rain events. Materials should be stored in their original containers and the original product labels should be maintained in place in a legible condition. Damaged or otherwise illegible labels should

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WM-2 Material Use

 Do not over-apply fertilizers, herbicides, and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Unless on steep slopes, till fertilizers into the soil rather than hydraulic application. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried

offsite by runoff. Do not apply these chemicals before predicted rainfall.

Supply Material Safety Data Sheets (MSDS) for all materials.

cloths, when thoroughly dry and are no longer hazardous, with other construction debris.

information. Use the entire product before disposing of the container.

containers into a street, gutter, storm drain, or watercourse. Dispose of any paint thinners, • For water-based paint, clean brushes to the extent practicable, and rinse to a drain leading to

a sanitary sewer where permitted, or contain for proper disposal off site. For oil-based paints, clean brushes to the extent practicable, and filter and reuse thinners and solvents.

 Use recycled and less hazardous products when practical. Recycle residual paints, solvents, non-treated lumber, and other materials.

alternative materials as much as possible. Reduce or eliminate use of hazardous materials Document the location, time, chemicals applied, and applicator's name and qualifications.

 Keep an ample supply of spill clean up material near use areas. Train employees in spill clean up procedures.

 Discontinue use of erodible landscape material within 2 days prior to a forecasted rain event and materials should be covered and/or bermed.

Erosion control BMPs

of construction. Clearly show how the rainy season relates to soil disturbing and re-

stabilization activities. Incorporate the construction schedule into the SWPPP Include on the schedule, details on the rainy season implementation and deployment of:

Sediment control BMPs Tracking control BMPs

Scheduling

EC-1

Wind erosion control BMPs Non-stormwater BMPs Waste management and materials pollution control BMPs

 Include dates for activities that may require non-stormwater discharges such as dewatering, sawcutting, grinding, drilling, boring, crushing, blasting, painting, hydro-demolition, mortar mixing, pavement cleaning, etc. Work out the sequencing and timetable for the start and completion of each item such as site

clearing and grubbing, grading, excavation, paving, foundation pouring utilities installation, etc., to minimize the active construction area during the rainy season. Sequence trenching activities so that most open portions are closed before new trenching begins. Incorporate staged seeding and re-vegetation of graded slopes as work progresses.

EC-1

Schedule establishment of permanent vegetation during appropriate planting time for specified vegetation. Non-active areas should be stabilized as soon as practical after the cessation of soil disturbing activities or one day prior to the onset of precipitation.

 Monitor the weather forecast for rainfall. When rainfall is predicted, adjust the construction schedule to allow the implementation of

soil stabilization and sediment treatment controls on all disturbed areas prior to the onset of

 Be prepared year round to deploy erosion control and sediment control BMPs. Erosion may be caused during dry seasons by un-seasonal rainfall, wind, and vehicle tracking. Keep the site stabilized year round, and retain and maintain rainy season sediment trapping devices in operational condition.

 Apply permanent erosion control to areas deemed substantially complete during the project's defined seeding window. Construction scheduling to reduce erosion may increase other construction costs due to reduced

economies of scale in performing site grading. The cost effectiveness of scheduling techniques

should be compared with the other less effective erosion and sedimentation controls to achieve a

cost effective balance

Material Delivery and Storage

Asphalt and concrete components

Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing

Other materials that may be detrimental if released to the environment

 Space limitation may preclude indoor storage. Storage sheds often must meet building and fire code requirements.

Chemicals must be stored in water tight containers with appropriate secondary containment

Use containment pallets or other practical and available solutions, such as storing materials

Stack erodible landscape material on pallets and cover when not in use.

Contain all fertilizers and other landscape materials when not in use.

 Material Safety Data Sheets (MSDS) should be available on-site for all materials stored that have the potential to effect water quality. Construction site areas should be designated for material delivery and storage.

Avoid transport near drainage paths or waterways.

Place in an area that will be paved. · Storage of reactive, ignitable, or flammable liquids must comply with the fire codes of your

storage area to determine specific requirements. See the Flammable and Combustible Liquid Code, NFPA30.

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Material Use

Follow manufacturer instructions regarding uses, protective equipment, ventilation,

and conduct onsite inspections.

 The preferred method of termiticide application is soil injection near the existing or proposed structure foundation/slab; however, if not feasible, soil drench application of termiticides should follow EPA label guidelines and the following recommendations (most

of which are applicable to most pesticide applications):

 Application shall not commence within 24-hours of a predicted precipitation event with a 40% or greater probability. Weather tracking must be performed on a daily basis prior to termiticide application and during the period of termiticide application.

and commercial fish farm ponds) unless a vegetative buffer is present (if so, refer to dry

application site) at nozzle end height.

 Cover treatment site prior to a rain event in order to prevent run-off of the pesticide into non-target areas. The treated area should be limited to a size that can be backfilled and/or covered by the end of the work shift. Backfilling or covering of the treated area shall be done by the end of the same work shift in which the application is made.

WM-1

within newly constructed buildings or garages, to meet material storage requirements.

Temporary storage areas should be located away from vehicular traffic.

Material delivery and storage areas should be located away from waterways, if possible.

Dikes and Drainage Swales.

An up to date inventory of materials delivered and stored onsite should be kept.

Safer alternative building and construction products may not be available or suitable in every

flammability, and mixing of chemicals.

county agricultural commissioners license pesticide dealers, certify pesticide applicators,

 Dry season: Do not apply within 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent

Do not make on-grade applications when sustained wind speeds are above 10 mph (at

Concrete compounds

The following steps should be taken to minimize risk:

When a material storage area is located on bare soil, the area should be lined and bermed.

Surround with earth berms or other appropriate containment BMP. See EC-9, Earth

area. Contact the local Fire Marshal to review site materials, quantities, and proposed

WM-2

The following steps should be taken to minimize risk: Minimize use of hazardous materials onsite.

Train personnel who use pesticides. The California Department of Pesticide Regulation and

Do not treat soil that is water-saturated or frozen.

 Do not allow treatment chemicals to runoff from the target area. Apply proper quantity to prevent excess runoff. Provide containment for and divert stormwater from application areas using berms or diversion ditches during application.

streams; marshes or ponds; estuaries; and commercial fish farm ponds). · Wet season: Do not apply within 50 feet of storm drains or aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries;

· The applicator must either cover the soil him/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the

prohibitions reduce the full capabilities of this BMP. Avoid rainy periods. Schedule major grading operations during dry months when practical. Allow enough time

Scheduling

Description and Purpose

in accordance with the planned schedule.

Suitable Applications

construction sequencing.

Limitations

Scheduling is the development of a written plan that includes

BMPs such as erosion control and sediment control while

taking local climate (rainfall, wind, etc.) into consideration.

and to perform the construction activities and control practices

Proper sequencing of construction activities to reduce erosion

before rainfall begins to stabilize the soil with vegetation or

Material Delivery and Storage

potential should be incorporated into the schedule of every construction project especially during rainy season. Use of

other, more costly yet less effective, erosion and sediment

control BMPs may often be reduced through proper

Environmental constraints such as nesting season

The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking,

sequencing of construction activities and the implementation of

physical means or to install sediment trapping devices. Plan the project and develop a schedule showing each phase

Erosion Control

SE Sediment Control

Primary Category

Secondary Category

C Tracking Control WE Wind Erosion Control WM Waste Management and Materials Pollution Control

WM-1

EC-1

E Sediment Control

C Tracking Control

WE Wind Erosion Control

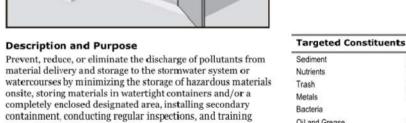
Management Control

WM Waste Management and Materials Pollution Control

✓ Primary Objective

■ Secondary Objective

Potential Alternatives



Oil and Grease

Potential Alternatives

WM-2

C Erosion Control

Tracking Control

Management Control

Materials Pollution Control

Targeted Constituents

information on wastes, see the waste management BMPs in this None Suitable Applications These procedures are suitable for use at all construction sites

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 Soil stabilizers and binders Pesticides and herbicides Fertilizers

Detergents

Plaster

Description and Purpose

employees and subcontractors.

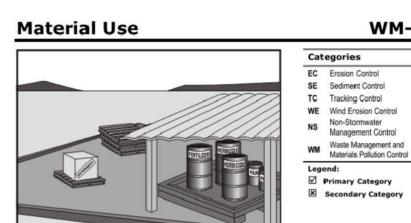
Petroleum products such as fuel, oil, and grease

This best management practice covers only material delivery

and storage. For other information on materials, see WM-2,

Material Use, or WM-4, Spill Prevention and Control. For

with delivery and storage of the following materials:



Description and Purpose Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors. Suitable Applications

Petroleum products such as fuel, oil, and grease

Other hazardous chemicals such as acids, lime, glues,

adhesives, paints, solvents, and curing compounds

Other materials that may be detrimental if released to the

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Asphalt and other concrete components

prepared onsite:

Fertilizers

Detergents

Pesticides and herbicides

This BMP is suitable for use at all construction projects. These Organics procedures apply when the following materials are used or Potential Alternatives

IDENTIFICATION STAM DIV. OF THE STATE ARCHITEC APP. 03-119485 INC: REVIEWED FOR SS V DIFLS VIESTACS VI DATE: 8/14/2019

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8 PROJECT NUMBER: C18-0041

ED MELO ISSUE/REVISION: 08/21/2018 30% - SCHEMATIC DESIGN 10/10/2018 50% - CD-SUBMITTAL 11/15/2018 100% - CD-DSA SUBMITTAL 03/15/2019 DSA APPROVAL

V. TANTCHEVA

EROSION CONTROL PLAN