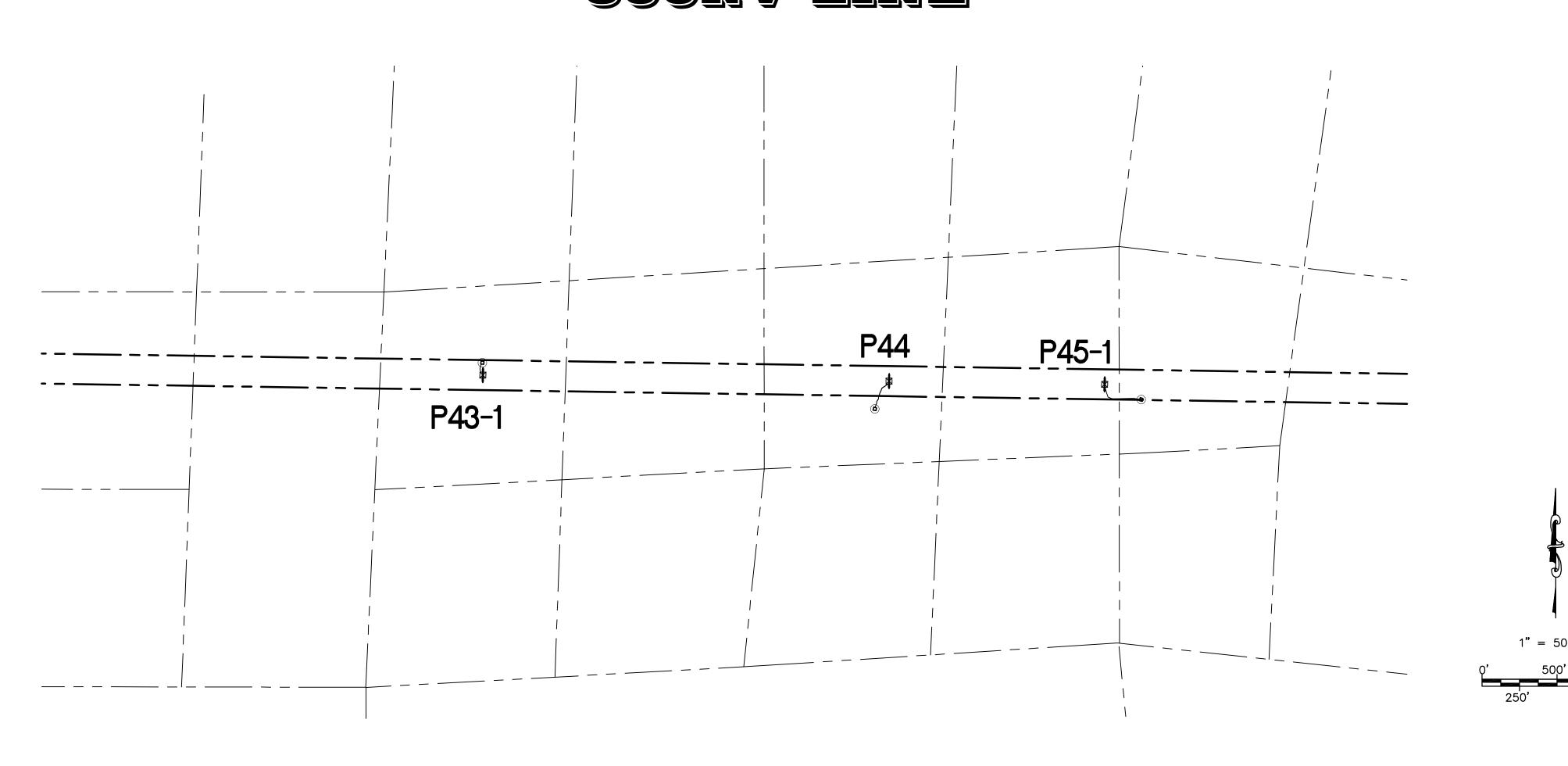
# SUNRISE POWERLINK PROJECT SECTION 08B (LINK 2) 500kv Line



<u>OFF-SITE WORK TO BE DONE</u>

SITE / ACCESS ROAD

KEY MAP + MINOR ACCESS ROAD IMPROVEMENTS

SHEET NUMBER

08B-P43-1-P45-1-KEY01

TOWER STAGING / ACCESS PAD ON-SITE WORK TO BE DONE

SITE / ACCESS ROAD SITE P-43-1

SITE P-44 SITE P-45-1 SHEET NUMBER 08B-P43-1-TSAP 08B-P44-TSAP 08B-P45-1-TSAP

#### DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH THE CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY SDG&E IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

STEPHEN K. SMITH R.C.E. NO. 29708 EXP. 03-31-11

CHECKED BY:

CAD NO.:

APPROVED BY:

DATE: -/-/-

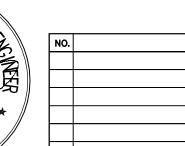
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SAN DIEGO GAS & ELECTRIC COMPANY SAN DIEGO, CALIFORNIA

PLOT SCALE: 1 = 1

SPL-08B (LINK 2)

SCALE: AS NOTED W.O.

TITLE SHEET

SPL-08B-001

REV.

- 1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE PORTIONS OF THE PROJECT SPECIFICATIONS.
- NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
- 3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE, SPREAD, WATER AND COMPACT ALL FILL IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS. A GEOTECHNICAL ENGINEER WILL BE THE OWNER'S REPRESENTATIVE TO INSPECT THE CONSTRUCTION OF FILLS. THE EXCAVATION AND THE PLACEMENT OF FILL WILL BE UNDER THE DIRECT INSPECTION OF THE GEOTECHNICAL ENGINEER, AND HE WILL GIVE WRITTEN NOTICE OF CONFORMANCE WITH THE SPECIFICATIONS UPON COMPLETION OF GRADING. DEVIATIONS FROM PROJECT SPECIFICATIONS WILL BE PERMITTED ONLY UPON WRITTEN AUTHORIZATION FROM THE GEOTECHNICAL ENGINEER OR THE SDG&E REPRESENTATIVE.
- 4. OBSERVATIONS AND COMPACTION TESTS WILL BE MADE BY THE GEOTECHNICAL ENGINEER DURING THE FILLING AND COMPACTING OPERATIONS SO THAT HE CAN STATE HIS OPINION THAT THE FILL WAS CONSTRUCTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- 5. DURING CONSTRUCTION: THE CONTRACTOR SHALL GRADE ALL EXCAVATED AND FILLED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER. HE SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISH WORK ON THE SITE. THE CONTRACTOR SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS. AND UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. AFTER GRADING IS COMPLETED AND THE GEOTECHNICAL ENGINEER HAS FINISHED HIS OBSERVATIONS OF THE WORK, NO FURTHER EXCAVATION OR FILLING SHALL BE DONE, EXCEPT UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER.
- 6. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.
- 7. BRUSH AND TREES SHALL BE REMOVED ONLY WITHIN THE AREA TO BE GRADED. WHEN TREES ARE REMOVED, THE ROOT SYSTEMS SHALL ALSO BE REMOVED AND THE RESULTING EXCAVATION FILLED WITH PROPERLY COMPACTED FILL SOILS.
- 8. CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE TO PRODUCE A SMOOTH AND UNIFORM SURFACE OR CROSS-SECTION. THE SLOPES OF EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED AS DIRECTED BY THE SDG&E REPRESENTATIVE AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, OR OTHER WASTE MATTER EXPOSED ON EXCAVATION OR EMBANKMENT SLOPE SHALL BE REMOVED AND DISPOSED OF.
- GRADING SHALL BE DONE WITHIN A TOLERANCE OF ±0.1' OF THE GRADES AND ELEVATIONS SHOWN ON THESE PLANS AND ALL SLOPES SHALL BE CONSTRUCTED WITHIN ±0.5' OF THE LOCATION SHOWN ON THESE PLANS. IN NO WAY SHALL THE ABOVE TOLERANCES RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PROVIDING A FINISH THAT WILL NOT POND WATER.
- 10. ANY QUANTITIES INDICATED ON THESE PLANS ARE ENGINEERS' ESTIMATES ONLY AND ARE NOT TO BE USED BY CONTRACTOR FOR BIDDING PURPOSES.
- 11. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD AND BRING DISCREPANCIES TO THE ATTENTION OF THE SDG&E REPRESENTATIVE PRIOR TO STARTING CONSTRUCTION.
- 12. STANDARD DRAWINGS SHALL CONFORM TO SAN DIEGO REGIONAL STANDARD DRAWINGS (SDRSD), APRIL 2006.
- 13. THERE ARE ENVIRONMENTALLY SENSITIVE AREAS THROUGHOUT THE PROJECT THAT ARE NOT SHOWN ON THESE PLANS. YOU ARE RESPONSIBLE FOR KNOWING WHERE THESE AREAS ARE. REFER TO YOUR ENVIRONMENTAL MAPBOOK AND ONE TOUCH FOR UP TO DATE INFORMATION.

#### **EROSION CONTROL NOTES**

- 1. ALL POLE & TOWER MAINTENANCE PADS TO BE DIKED AND THE DIKES MAINTAINED TO PREVENT WATER FROM FLOWING FROM THE PADS WITHOUT CAUSING EROSION, OR CONSTRUCT DRAINAGE FACILITIES TO THE SATISFACTION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS THAT WILL ALLOW WATER TO DRAIN FROM THE PAD WITHOUT CAUSING EROSION.
- 2. TOPS OF ALL SLOPES TO BE DIKED OR TRENCHED TO PREVENT WATER FROM FLOWING OVER THE CREST OF SLOPES.
- 3. ALL GRADED CUT OR FILL SLOPES SHALL BE HYDROSEEDED TO PROTECT THE SLOPE FROM EROSION AND INSTABILITY IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- 4. FIBER ROLLS SHALL BE PLACED AT TOP, TOE AND FACE (15 FOOT INTERVALS) OF GRADED ALL CUT AND FILL SLOPES TO INTERCEPT RUNOFF AND REDUCE EROSION IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

#### **ABBREVIATIONS**

- EXISTING GRADE
- FINISHED GRADE TOP OF WALL
- BOTTOM OF WALL AT FINISHED GROUND
- FLOW LINE UP STREAM
- DOWN STREAM D/S CORRUGATED METAL PIPE
- RELATIVE COMPACTION

#### <u>LEGEND</u>

INDICATES NEW TOWER

INDICATES EXISTING STEEL POLE

 $\Rightarrow \Rightarrow \Rightarrow$ 

\_\_\_\_\_

(206.2)

CUT

FILL = BROW DITCH OR DETAIL

DIP SECTION PER DETAIL

→ VERTICAL PROFILE E.G. ELEV. BELOW

NEW TRANSMISSION LINE

(F.G.) FINISH GRADE CONTOURS

(E.G.) EXISTING GRADE CONTOURS

→ VERTICAL PROFILE F.G. ELEV. ABOVE

EXISTING GROUND ELEVATION

FILL SLOPE 2:1 UNLESS SHOWN OTHERWISE

CUT SLOPE 2:1 UNLESS SHOWN OTHERWISE

RIDGE LINE

DAYLIGHT LINE

DIRECTION OF FLOW

CUT/FILL LINE

CONCRETE DOWN DRAIN, SEE DETAIL

RIPRAP ENERGY DISSIPATOR, SEE DETAIL  $\left(\frac{2}{3}\right)$ 

CORRUGATED METAL PIPE WITH FLARED END SECTIONS, SEE PLANS FOR. PIPE SIZES, AND ENERGY DISSIPATOR.

 $\begin{pmatrix} X \\ XX \end{pmatrix}$ 

DRAWN BY: JJP

DATE:

DATE:

CHECKED BY:

CAD NO.:

APPROVED BY:

SAN DIEGO GAS & ELECTRIC COMPANY

SPL-08B (LINK 2)

LEGEND & GENERAL NOTES

SCALE: AS NOTED W.O.

REV. O

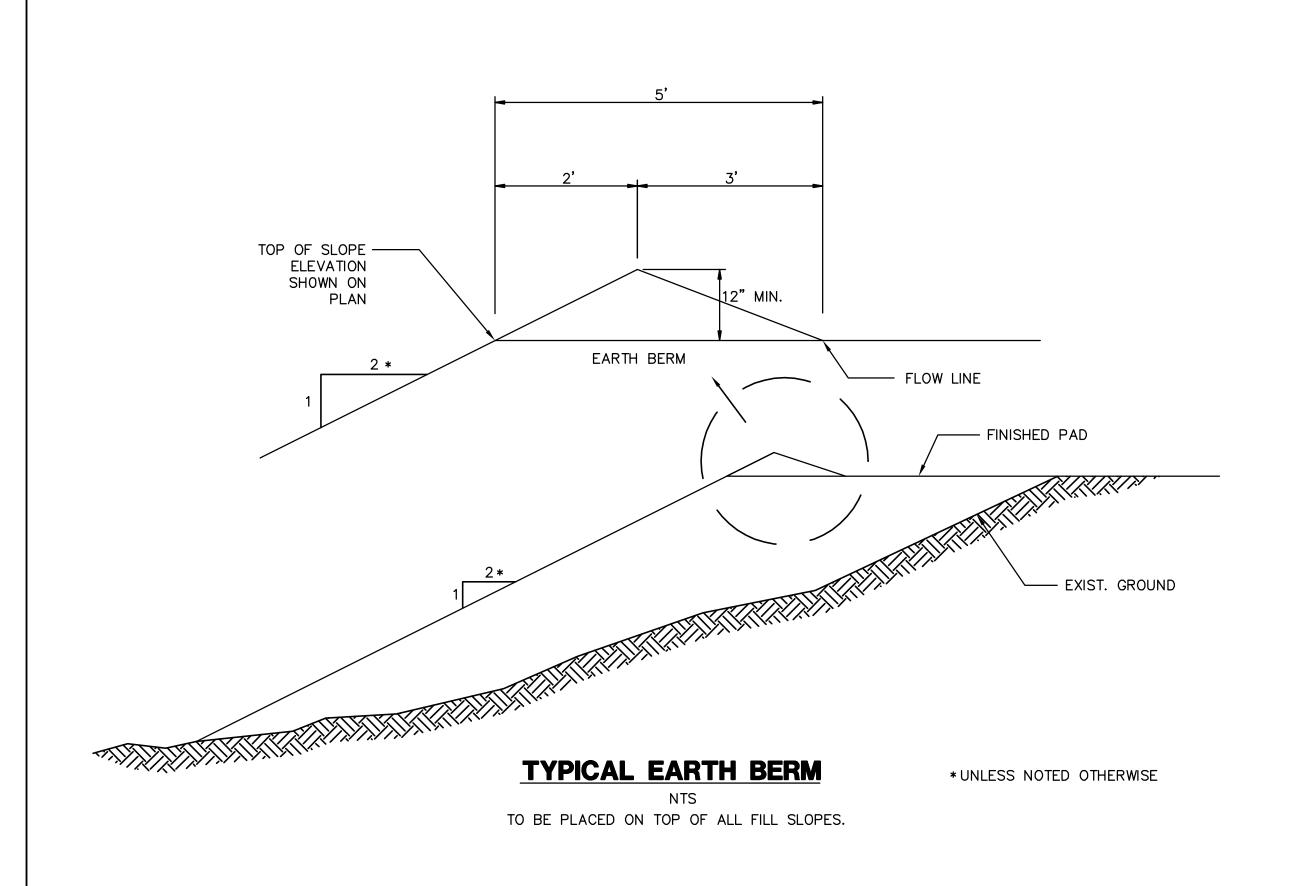
SPL-08B-002

SAN DIEGO, CALIFORNIA

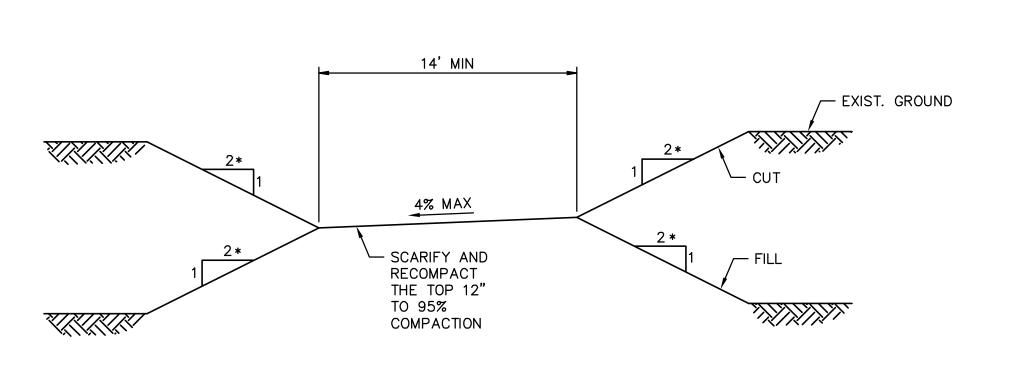
PLOT SCALE: 1=1



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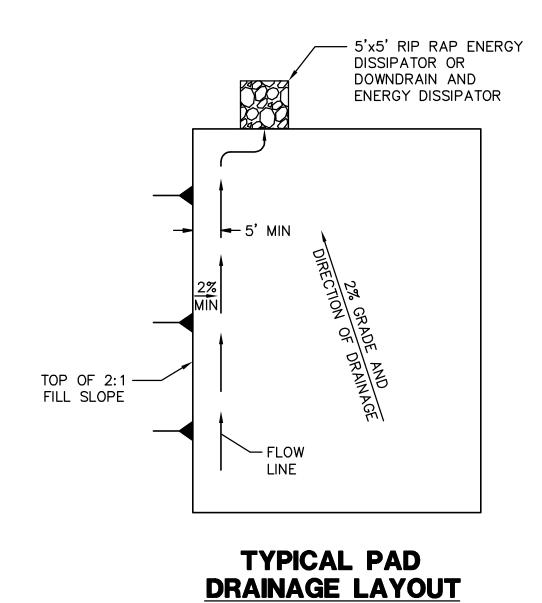


DOWN DRAIN (1)

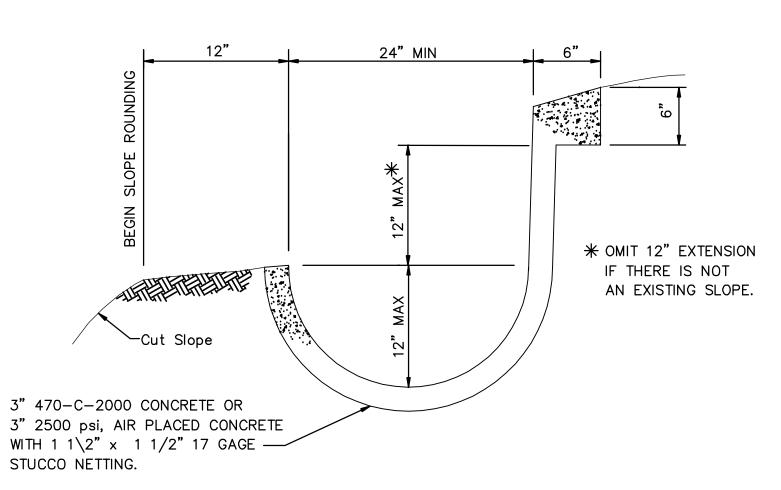


TYPICAL NEW ACCESS ROAD SECTION

\* UNLESS NOTED OTHERWISE



NOTE: THE LENGTH AND LOCATION OF SPLASH WALL IS SHOWN ON SITE GRADING PLAN. — 2-8"x8"x16" MASONRY CONCRETE BLOCKS 16" HIGH -6" × 6" - W 1.4 × W 1.4 W.W.M. — #4 BARS @ 16" O.C. 3" 470-C-2000 CONCRETE - EXTEND TO 8" WIDE SPLASH WALL OPTIONAL— SEE SDRSD D-40, TYPE 2 FOR NOTES. DOWN DRAIN — ANCHOR \_ EXIST. GROUND - DOWN DRAIN ANCHOR CONSTRUCTED EVERY 10' IN VERTICAL HEIGHT AND - NON-WOVEN FILTER FABRIC AT TOP & TOE OF DOWN SECTION A-A SECTION A-A



## BROW AND/OR DRAINAGE DITCH 3

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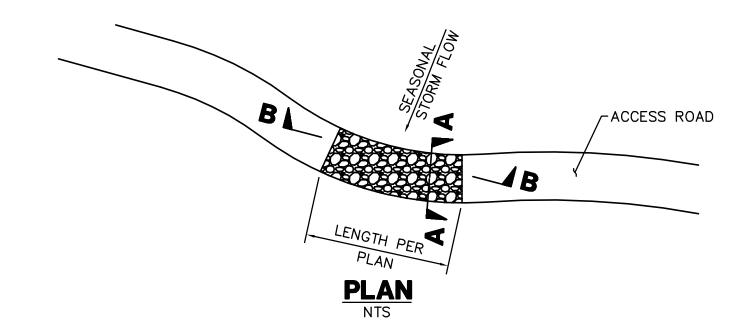
LONGITUDINAL SLOPE OF LINED DITCH SHALL BE 2% MINIMUM.

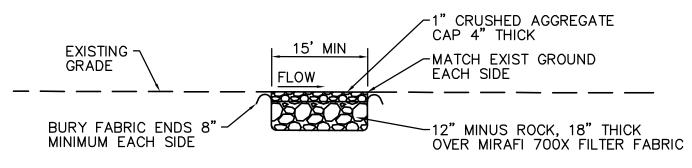
### **GENERAL DETAILS**



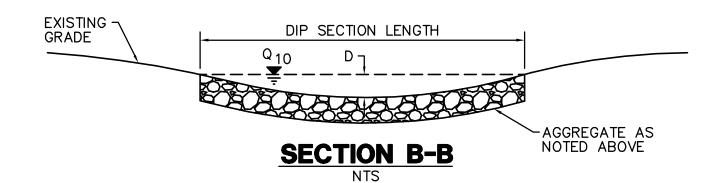
REVISIONS SAN DIEGO, CALIFORNIA DATE BY: APP'D: NO. DATE BY: APP'D: NO. DATE BY: APP'D: WORK DONE WORK DONE SPL-08B (LINK 2) Bureau Veritas North America 11590 West Bernardo Court Suite 100 San Diego, CA 92127-1624 Tel: (858) 451-6100 Fax: (858) 451-2846 DETAIL SHEET 1 OF 2 SCALE: NTS W.O. REV. O DRAWN BY: 00 www.us.bureauveritas.com CHECKED BY: DATE: SPL-08B-003 DATE: PLOT SCALE: 1 = 1 CAD NO.:

RIPRAP ENERGY DISSIPATOR 2



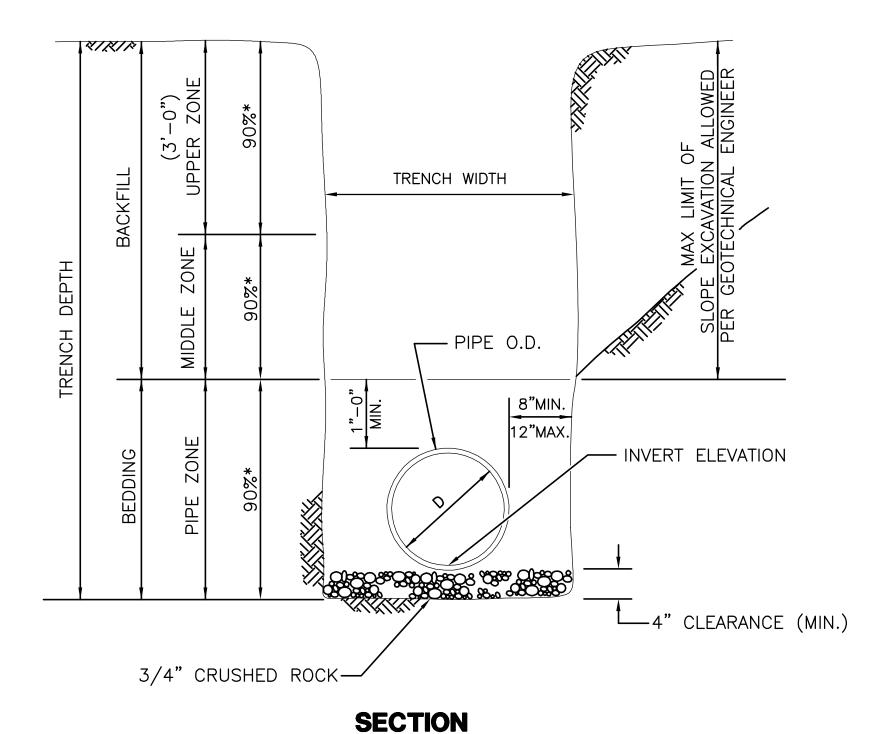


### **SECTION A-A**

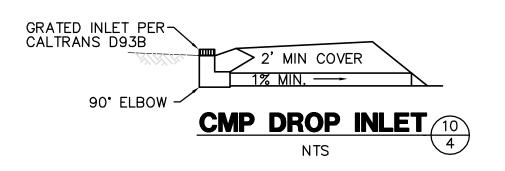


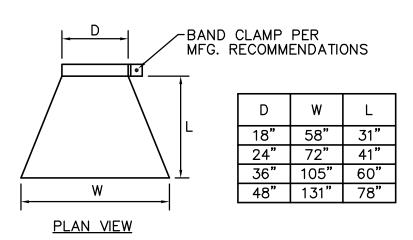
- 1. THE MAXIMUM WATER DEPTH, BASED ON A 10 YEAR FREQUENCY STORM. SHALL BE 10". THE DEPTH (D) IN FEET MULTIPLIED BY THE VELOCITY (V) IN FEET PER SECOND SHALL BE EQUAL TO SIX OR LESS. (DXV=6)
- 2. EXCAVATION AND DISPOSAL OF EXISTING MATERIALS IS TO BE INCLUDED IN CONSTRUCTION OF THE DIP SECTION.

### DIP SECTION 4

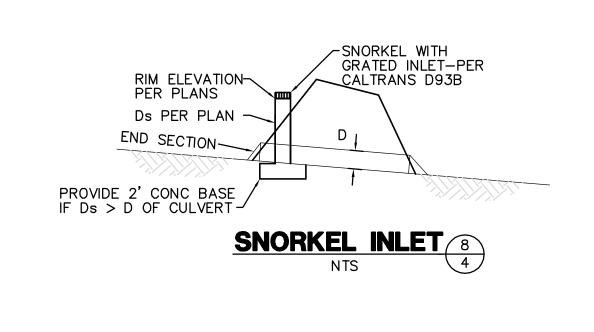


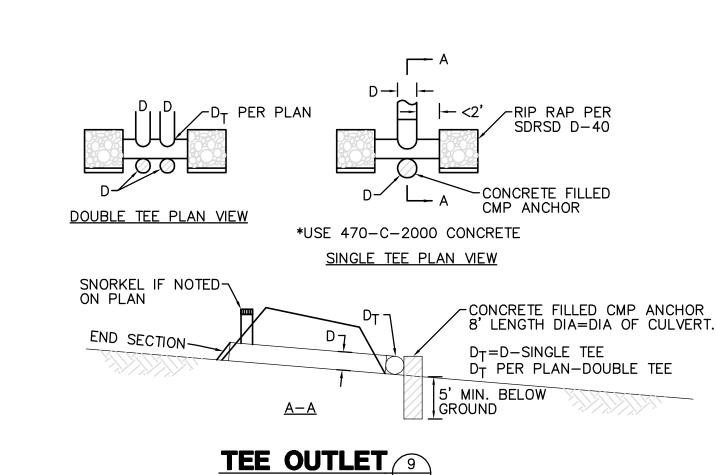
\* INDICATE MINIMUM RELATIVE COMPACTION

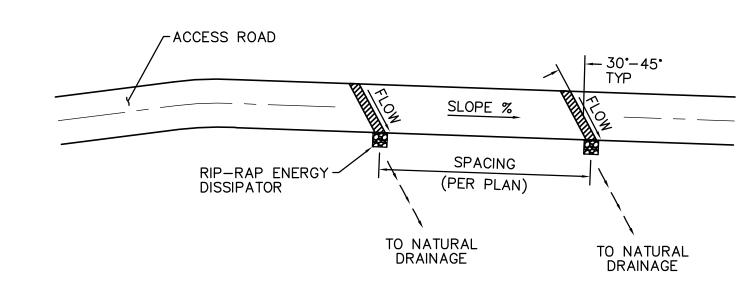




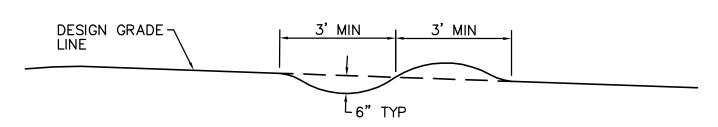
### **CULVERT END SECTION INLET AND/OR OUTLET**







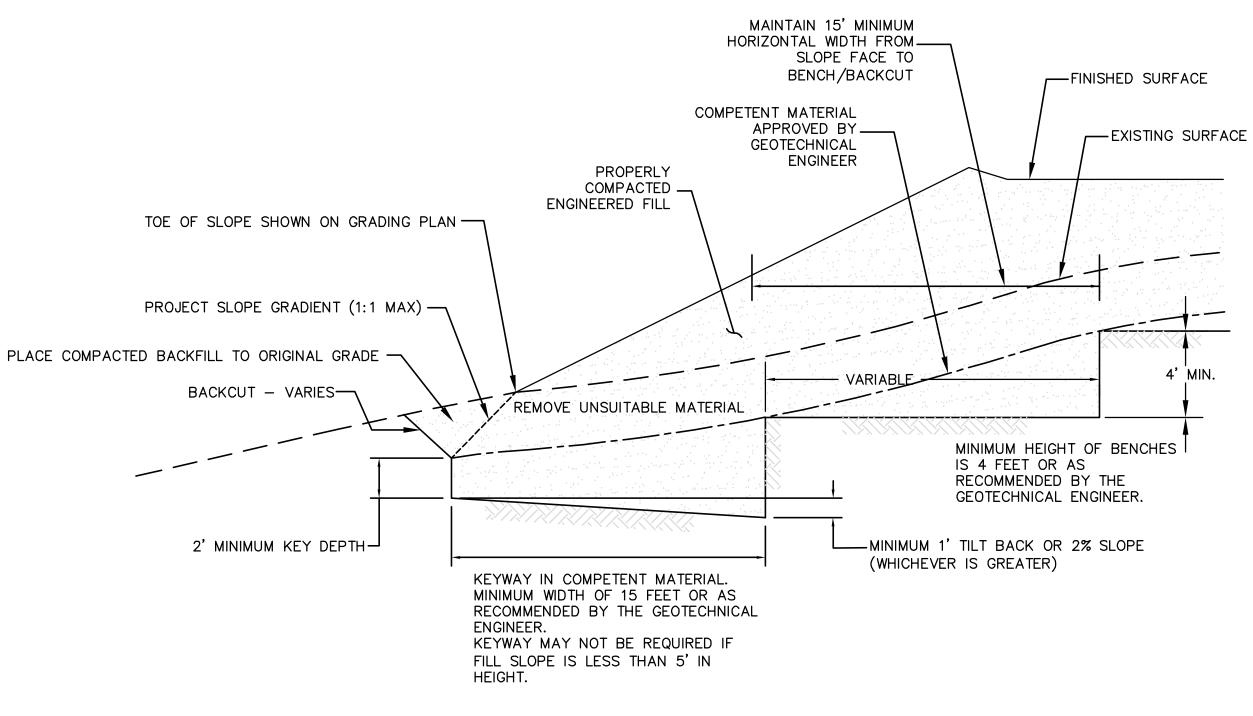
### **PLAN**



THE RIDGE OF EACH WATERBAR IS TO BE MAINTAINED AT AN ELEVATION AT LEAST 6 INCHES ABOVE THE ADJACENT DEPRESSION

#### TYPICAL SECTION

# WATER BAR 5



BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL

WHERE THE NATURAL SLOPE APPROACHES OR EXCEEDS THE DESIGN SLOPE RATIO, SPECIAL RECOMMENDATIONS WILL BE PROVIDED BY THE GEOTECHNICAL ENGINEER

#### FILL SLOPE BENCHING

CHECKED BY:

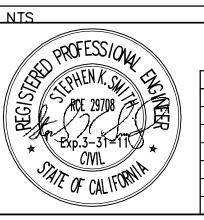
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APPROVED BY:

PIPE BEDDING AND TRENCH BACKFILL FOR STORM DRAINS 6



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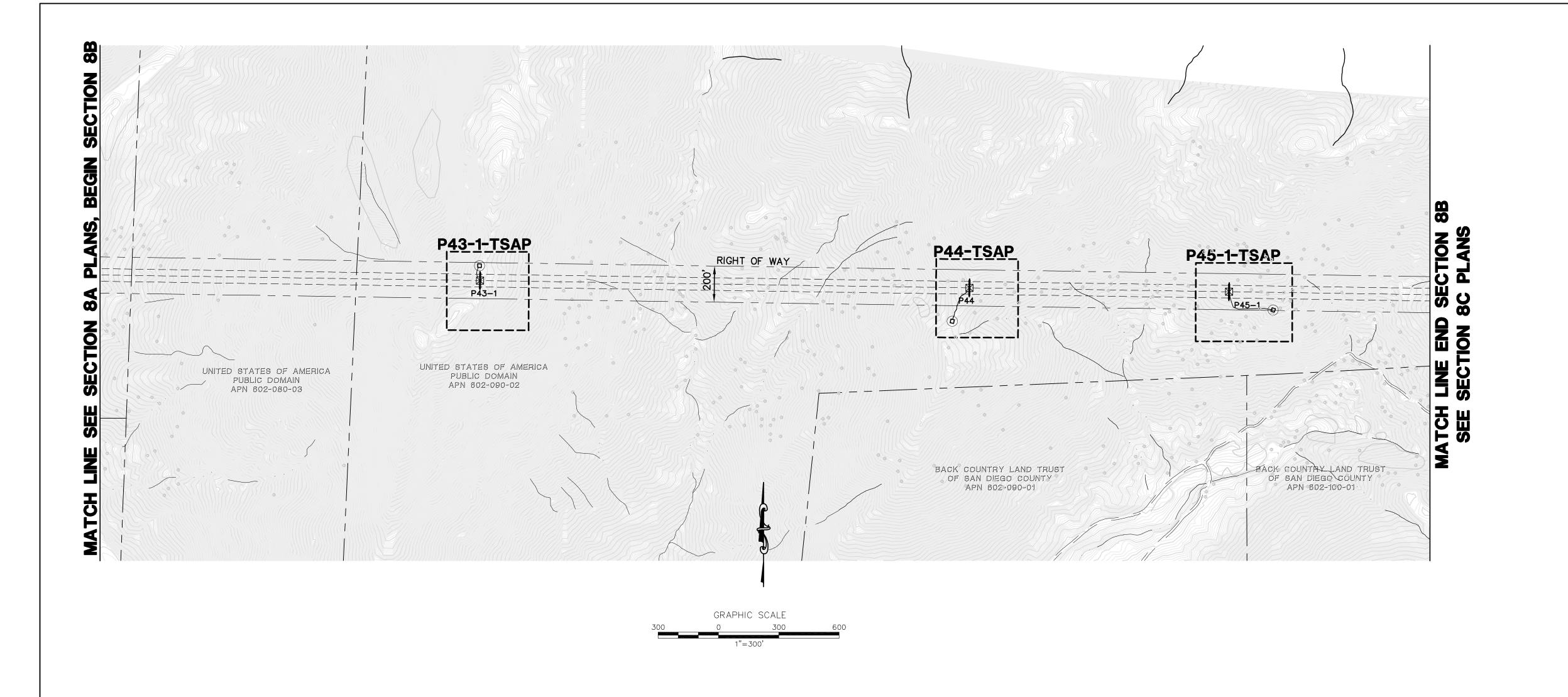
DIEGO GAS & ELECTRIC COMPANY SAN DIEGO, CALIFORNIA SPL-08B (LINK 2)

DETAIL SHEET 2 OF 2 SCALE: NONE W.O.

PLOT SCALE: 1 = 1

SPL-08B-004

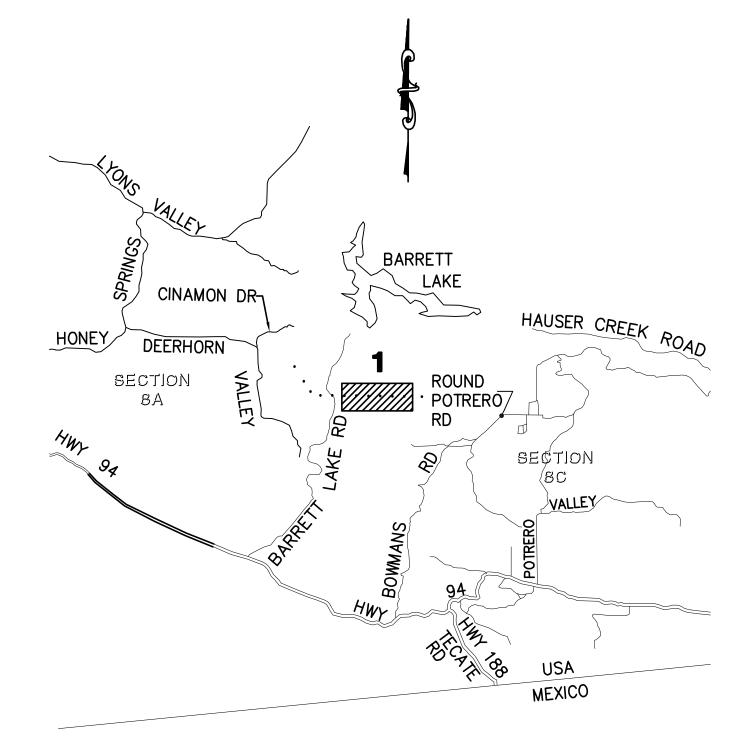
DATE: DATE:



**LEGEND** AREA OF ENLARGED PLAN WITH SHEET NAME REFERENCE (ACTUAL SHEET NAMES INCLUDE THE SECTION # AS A PREFIX) P218-1-S1 MINOR ROAD MAINTENANCE - SEE PLAN AND CONSTRUCTION NOTES HEREON MINOR ROAD IMPROVEMENTS - SEE PLAN AND CONSTRUCTION NOTES HEREON MAJOR ROAD IMPROVEMENTS - SEE SHEET AS INDICATED SITE IMPROVEMENTS - SEE SHEET AS INDICATED PULL SITE IMPROVEMENTS - SEE SHEET AS INDICATED CONSTRUCTION YARD IMPROVEMENTS - SEE · • • • • • CONSTRUCTION YARD PLANS PROPOSED TRANSMISSION LINES P218-1 PROPOSED LATTICE TOWER AND TOWER # PROPOSED TOWER STAGING ACCESS PAD ( TSAP

EXISTING 10' CONTOURS

EXISTING 2' CONTOURS



**SECTION 8B LOCATION MAP** 

DATE:

CAD NO.:

SAN DIEGO, CALIFORNIA

PLOT SCALE: 1 = 1

SPL-8B (LINK 2)

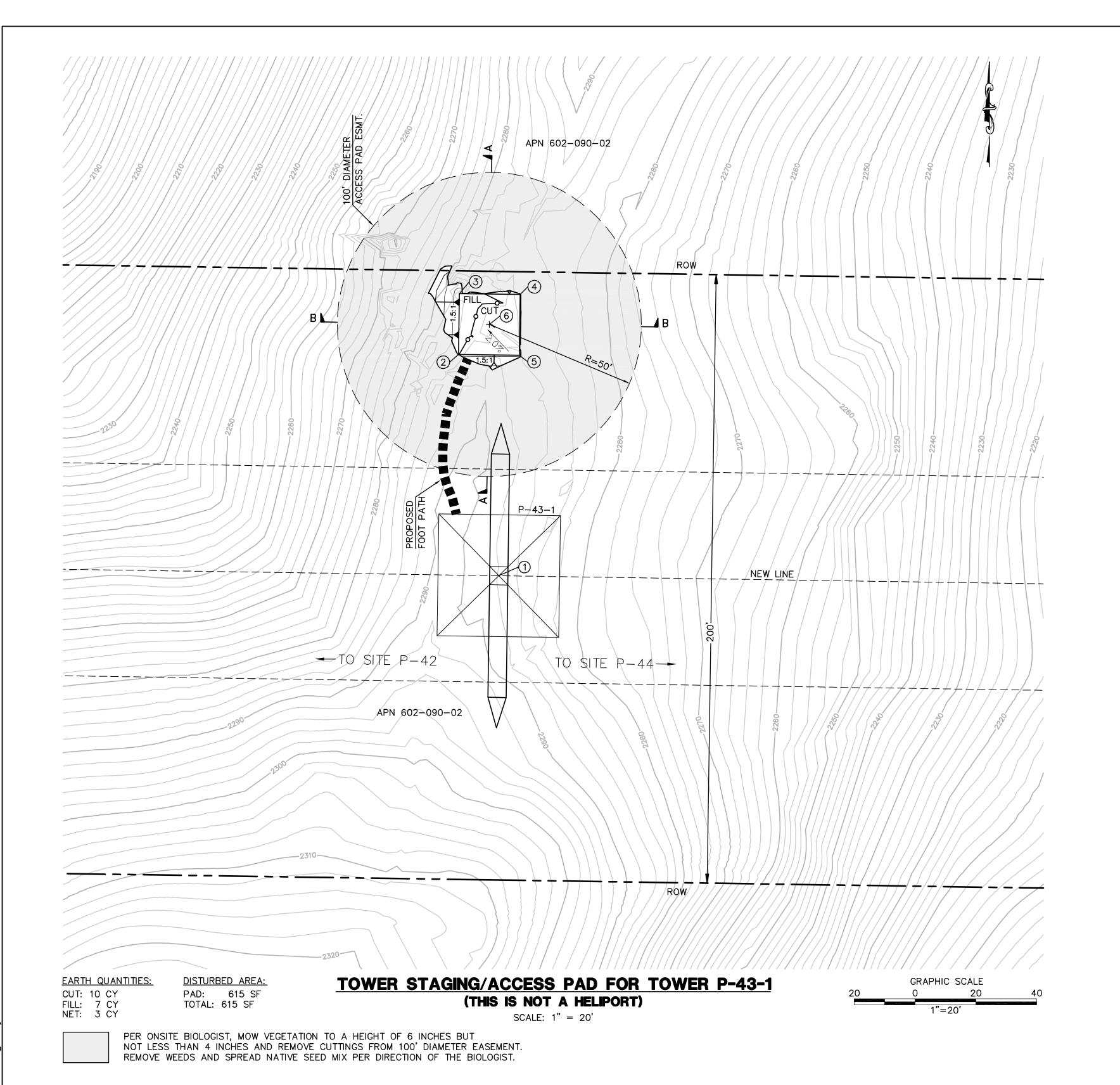
**SCALE**: 1=300 **W.O.** 

08B-P43-1-P45-1-KEY01

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SAN DIEGO GAS & ELECTRIC COMPANY REVISIONS DATE BY: APP'D: WORK DONE DATE BY: APP'D: NO. DATE BY: APP'D: NO. WORK DONE KEY MAP + MINOR ACCESS ROAD IMPROVEMENTS CHECKED BY:



NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1819984.04	6431600.69	(2287.75)	P-43-1
2	1820056.78	6431587.43	2285.48	FG
3	1820076.78	6431587.73	2285.20	FG
4	1820076.48	6431607.73	2285.48	FG
5	1820056.49	6431607.43	2285.76	FG
6	1820066.63	6431597.58		RP

5	STRUCTURE	STRUCTURE	STRUCTURE	TOWER
	NUMBER	TYPE	LINE ANGLE	HEIGHT
	P-43-1	500 KV EXHD Lattice Dead—end Tower	0.00	159.75

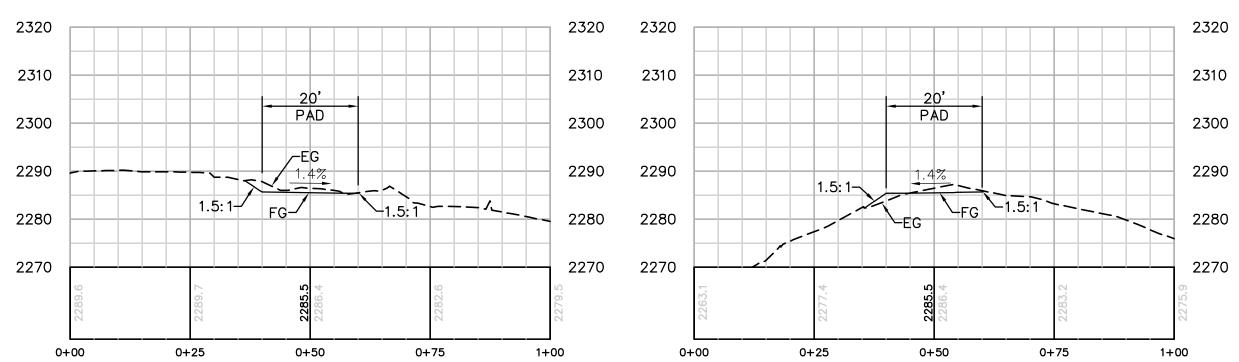
SAN DIEGO, CALIFORNIA

PLOT SCALE: 1 = 1

DATE:

SPL-8B (LINK 2)

08B-P43-1-TSAP



**SECTION A-A** HORIZ. & VERT. SCALE: 1"=20'

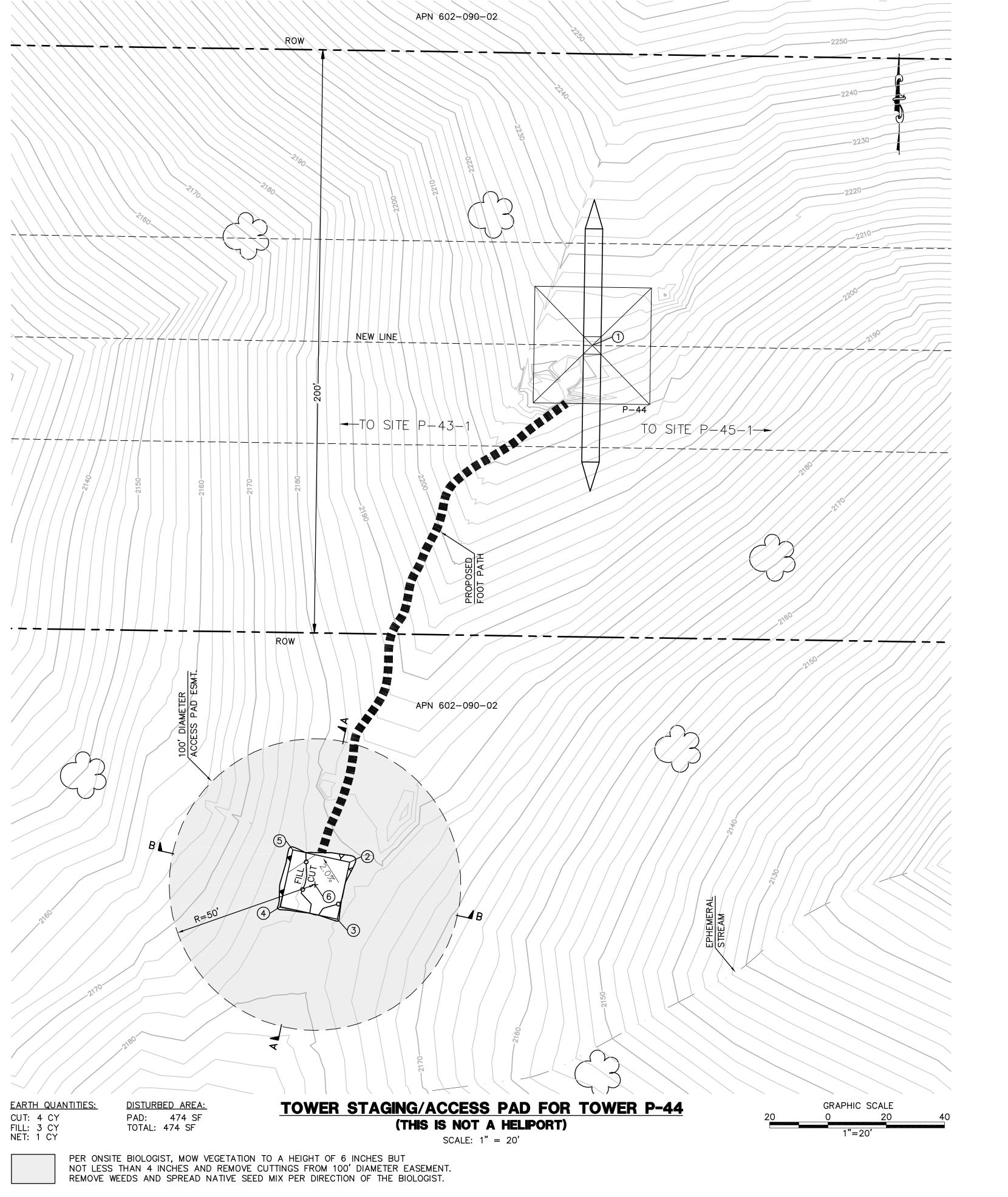
SECTION B-B HORIZ. & VERT. SCALE: 1"=20'

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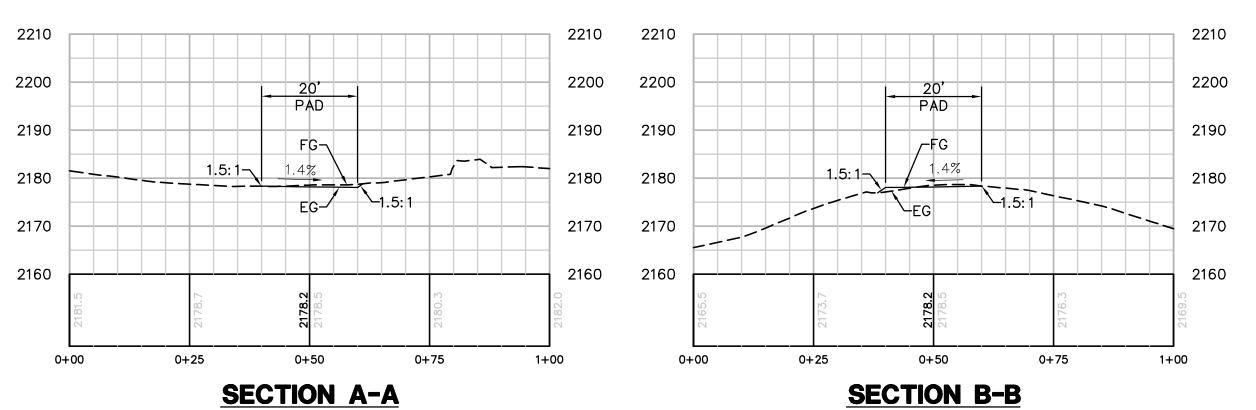
SAN DIEGO GAS & ELECTRIC COMPANY REVISIONS DATE BY: APP'D: WORK DONE DATE BY: APP'D: NO. DATE BY: APP'D: NO. WORK DONE TOWER STAGING/ACCESS PAD FOR SITE P-43-1 CHECKED BY:



NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1819943.85	6434308.37	(2221.67)	P-44
2	1819766.60	6434225.16	2178.17	FG
3	1819747.05	6434220.91	2178.45	FG
4	1819751.31	6434201.36	2178.17	FG
5	1819770.85	6434205.62	2177.89	FG
6	1819758.95	6434213.26		RP

HORIZ. & VERT. SCALE: 1"=20'

STRUCTURE	STRUCTURE	STRUCTURE	TOWER
NUMBER	TYPE	LINE ANGLE	HEIGHT
P-44	500 KV EXHD Lattice Dead—end Tower	0.00	



HORIZ. & VERT. SCALE: 1"=20'

SAN DIEGO GAS & ELECTRIC COMPANY REVISIONS DATE BY: APP'D: DATE BY: APP'D: NO. WORK DONE

SAN DIEGO, CALIFORNIA SPL-8B (LINK 2)

TOWER STAGING/ACCESS PAD FOR SITE P-44

DATE:

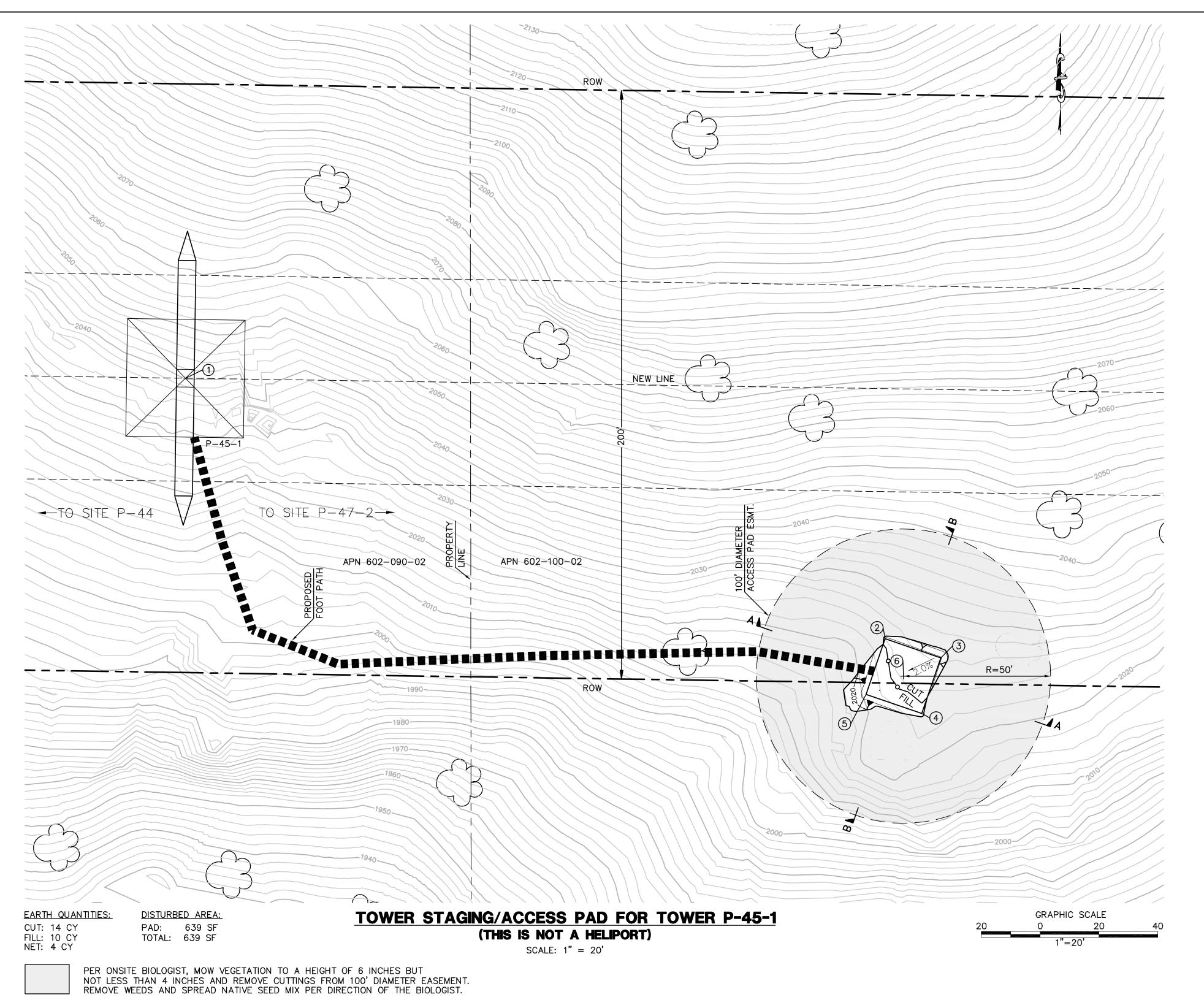
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WORK DONE DATE BY: APP'D: NO.

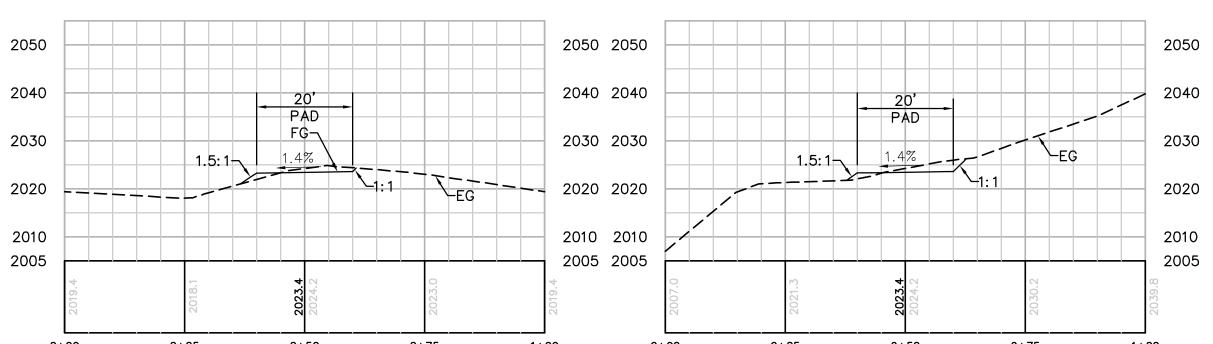
CHECKED BY: DATE: CAD NO.: PLOT SCALE: 1 = 1

08B-P44-TSAP



NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1819922.52	6435745.20	(2040.18)	P-45-1
2	1819834.02	6435982.99	2023.43	FG
3	1819827.51	6436001.90	2023.71	FG
4	1819808.60	6435995.39	2023.43	FG
5	1819815.11	6435976.48	2023.15	FG

STRUCTURE	STRUCTURE	STRUCTURE	TOWER
NUMBER	TYPE	LINE ANGLE	HEIGHT
P-45-1	500 KV EXLD Lattice Dead-end Tower	0.00	156.75



SECTION A-A HORIZ. & VERT. SCALE: 1"=20'

6 | 1819821.31 | 6435989.19 | 2023.43

HORIZ. & VERT. SCALE: 1"=20'

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SAN DIEGO GAS & ELECTRIC COMPANY SAN DIEGO, CALIFORNIA

PLOT SCALE: 1 = 1

CHECKED BY:

SPL-8B (LINK 2)

TOWER STAGING/ACCESS PAD FOR SITE P-45-1

DATE:

08B-P45-1-TSAP