

STANDARD UTILITY AGREEMENT

U-0006: Comcast
County: Fort Bend
Highway: FM 1093 Westpark Extension

This Agreement by and between the County of Fort Bend, Texas, ("County"), and Comcast ("Utility"), acting by and through its duly authorized representative, shall be effective on the date of approval and execution by and on behalf of the County.

WHEREAS, the County has deemed it necessary to make certain highway improvements as designated by the County and approved by the Federal Highway Administration within the limits of the highway as indicated above;

WHEREAS, the proposed highway improvements will necessitate the adjustment, removal, and/or relocation of certain facilities of Utility as indicated in the following statement of work: relocation of assets (underground fiber optic cable and overhead lines) into a predesignated corridor according to the following schedule:

Start Date - November 24, 2015 (Approx.)
Completion Date - February 22, 2016 (Approx.)

WHEREAS, Subchapter E of Chapter 203 of the Texas Transportation Code regarding the relocation of utilities does not apply to this Project, but the County wishes to negotiate in good faith and enter into agreements with all affected utility companies for the participation in the costs of the adjustment, removal, and/or relocation of certain facilities as authorized under such subchapter.

WHEREAS, the County, upon receipt of evidence it deems sufficient, acknowledges Utility's interest in certain lands and/or facilities and determined it is appropriate to enter an agreement with Utility to govern the terms for participation in the costs of the adjustment, removal, and relocation of certain of its facilities located upon the lands as indicated in the statement of work above.

NOW, THEREFORE, BE IT AGREED:

The County will pay to Utility fifty percent (50%) of the documented actual costs incurred for relocation of the utility in adjustment, removal, and/or relocation of Utility's facilities up to the amount said costs may be eligible for County participation.

All conduct under this agreement, including but not limited to the adjustment, removal and relocation of the facility, the development and reimbursement of costs, any environmental requirements, and retention of records will be in accordance with all applicable federal and state laws, rules and regulations, including, without limitation, the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, 42 U.S.C. §§ 4601, et seq., the National Environmental Policy Act, 42 U.S.C. §§ 4231, et seq., the Buy America provisions of 23 U.S.C. § 313 and 23 CFR 635.410, the Utility Relocations, Adjustments, and Reimbursements provisions of 23 CFR 645, Subpart A, and with the Utility Accommodation provisions of 23 CFR 645, Subpart B. Utility shall supply, upon request by the County, proof of compliance with the aforementioned laws, rules and regulations prior to the commencement of construction.

The Utility agrees to develop relocation or adjustment costs by accumulating actual direct and related indirect costs in accordance with a work order accounting procedure prescribed by County, or may, with the County's approval, accumulate actual direct and related indirect costs in accordance with an established accounting procedure developed by Utility. Bills for work hereunder will be submitted to County not later than 90 days after completion of the work.

When requested, the County will make intermediate payments at not less than monthly intervals to Utility when properly billed and such payments will not exceed 90 percent (90%) of the eligible cost as shown in each such billing. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

Handwritten signatures and dates for Fort Bend County (12/7/15) and Comcast (11/17/15).

Upon execution of this agreement by both parties hereto, the **County** will, by written notice, authorize the **Utility** to perform such work diligently, and to conclude said adjustment, removal, or relocation by the stated completion date. The completion date shall be extended for delays caused by events outside **Utility's** control, including an event of Force Majeure, which shall include a strike, war or act of war (whether an actual declaration of war is made or not), insurrection, riot, act of public enemy, accident, fire, flood or other act of God, sabotage, or other events, interference by the **County** or any other party with **Utility's** ability to proceed with the relocation, or any other event in which **Utility** has exercised all due care in the prevention thereof so that the causes or other events are beyond the control and without the fault or negligence of **Utility**.

However, for any failure by **Utility** to conclude said adjustment, removal, or relocation by the stated completion date not caused by events outside **Utility's** control, the **County** may elect to: (1) reduce the reimbursement to **Utility** by one percent (1%) each day delayed; or (2) relocate the facility at the sole cost and expense of **Utility**.

The **County** will, upon satisfactory completion of the relocation or adjustment and upon receipt of final billing prepared in an approved form and manner, make payment in the amount of 90 percent (90%) of the eligible costs as shown in the final billing prior to audit and after such audit shall make an additional final payment totaling the reimbursement amount found eligible for **County** reimbursement.

Unless an item below is stricken and initialed by the **County and Utility**, this agreement in its entirety consists of the following:

1. Standard Utility Agreement;
2. Plans & Specifications (Exhibit "A");
3. Utility Construction Cost Estimate (Exhibit "B");
4. Utility's Schedule of Work and Estimated Date of Completion (Exhibit "C").

All attachments are included herein as if fully set forth. In the event it is determined that a substantial change from the statement of work contained in this agreement is required, reimbursement therefore shall be limited to costs covered by a modification or amendment of this agreement or a written change or extra work order approved by the **County and Utility**.

This agreement is subject to cancellation by the **County** at any time up to the date that work under this agreement has been authorized and that such cancellation will not create any liability on the part of the **County**. However, the **County** will review and reimburse the **Utility** for eligible costs incurred by the **Utility** in preparation of this Agreement.


The **Utility** acknowledges to and for the benefit of the **County** and State of Texas that it understands the project under this Agreement is eligible for Federal-aid highway funds and as such, requires all of the iron, steel, and manufactured goods used in the project be produced in the United States ("Buy American Requirements") including iron, steel, and manufactured goods provided by the **Utility** pursuant to this Agreement.


The State Auditor may conduct an audit or investigation of any entity receiving funds from the **County** directly under this contract or indirectly through a subcontract under this contract. Acceptance of funds directly under this contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the State Auditor, under the direction of the Legislative Audit Committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

The **Utility** by execution of this agreement does not waive any of the rights which **Utility** may have within the limits of the law.

It is expressly understood that the **Utility** conducts the adjustment, removal, or relocation at its own risk, and that Fort Bend County, Texas makes no warranties or representations regarding the existence or location of utilities currently within its right of way.

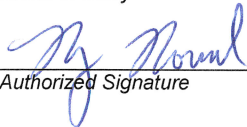
The signatories to this agreement warrant that each has the authority to enter into this agreement on behalf of the party represented.

  
Date 12/7/15  
Fort Bend County

  
Initial  
Date 11/17/15  
Comcast

**UTILITY**

Utility: Comcast  
*Name of Utility*

By:   
*Authorized Signature*


Roy Novosel  
*Print or Type Name*

Title: Director of Construction

Date: 11/17/15

**EXECUTION RECOMMENDED:**

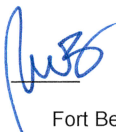
Fort Bend  
COUNTY

By:   
*Authorized Signature*

Robert Hebert  
*Print or Type Name*

Title: County Judge

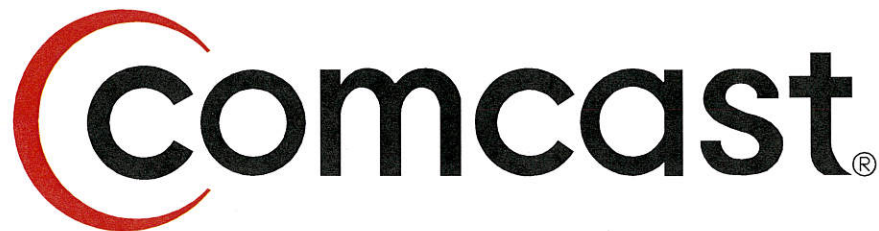
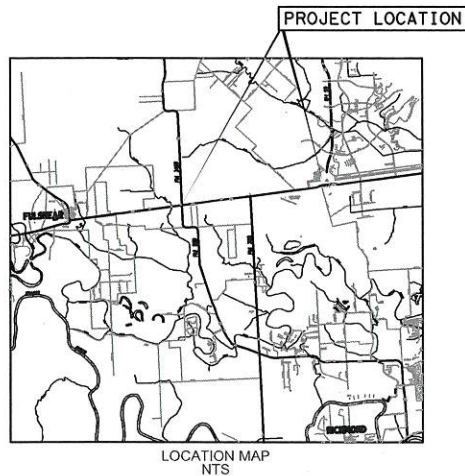
Date: 12-15-2015

 12/7/15  
*Date*  
Fort Bend County

RGW 11/17/15  
*Initial* *Date*  
Comcast

EXHIBIT "A"  
PLANS AND SPECIFICATIONS

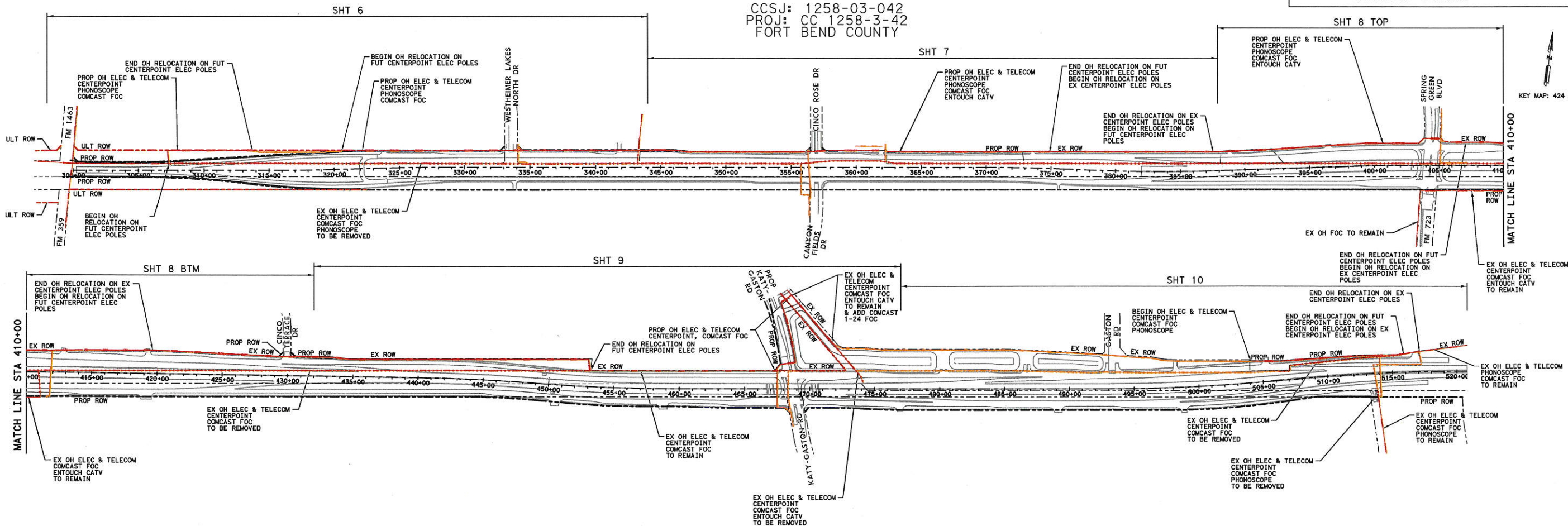
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# PROPOSED AERIAL AND UNDERGROUND CABLE FM 1093 WESTPARK EXTENSION FROM WEST OF KATY-GASTON RD TO WEST OF SH 99

CCSJ: 1258-03-042  
PROJ: CC 1258-3-42  
FORT BEND COUNTY

SHEET INDEX	
SHT NO	DESCRIPTION
1	COVER
2	UNDERGROUND LAYOUT
3	GENERAL NOTES
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6	LEGEND
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REVIEWED AND APPROVED FOR CONSTRUCTION BY: *Margie Blackwell* 11/17/15  
MANAGER MARGIE BLACKWELL DATE: COMCAST

NOTE: THESE DRAWINGS WERE DEVELOPED FROM PLANS PROVIDED BY DANNENBAUM ON OR BEFORE SEPT 9, 2015

CONTRACTOR TO COORDINATE CONSTRUCTION WITH FORT BEND COUNTY ENGINEERING.

FIELD CONDITIONS IN WORK AREA CHANGE DAILY

ONE-CALL NOTIFICATION SYSTEM  
CALL 811  
BEFORE YOU DIG !!!

PLANS PREPARED BY  
**CobbFendley**  
TBPE Firm Registration No. 274  
TBPLS Firm Registration No. 100467  
13430 Northwest Freeway, Suite 1100  
Houston, Texas 77040  
713.462.3242 | fax 713.462.3262  
www.cobbhendley.com

SHEET 1

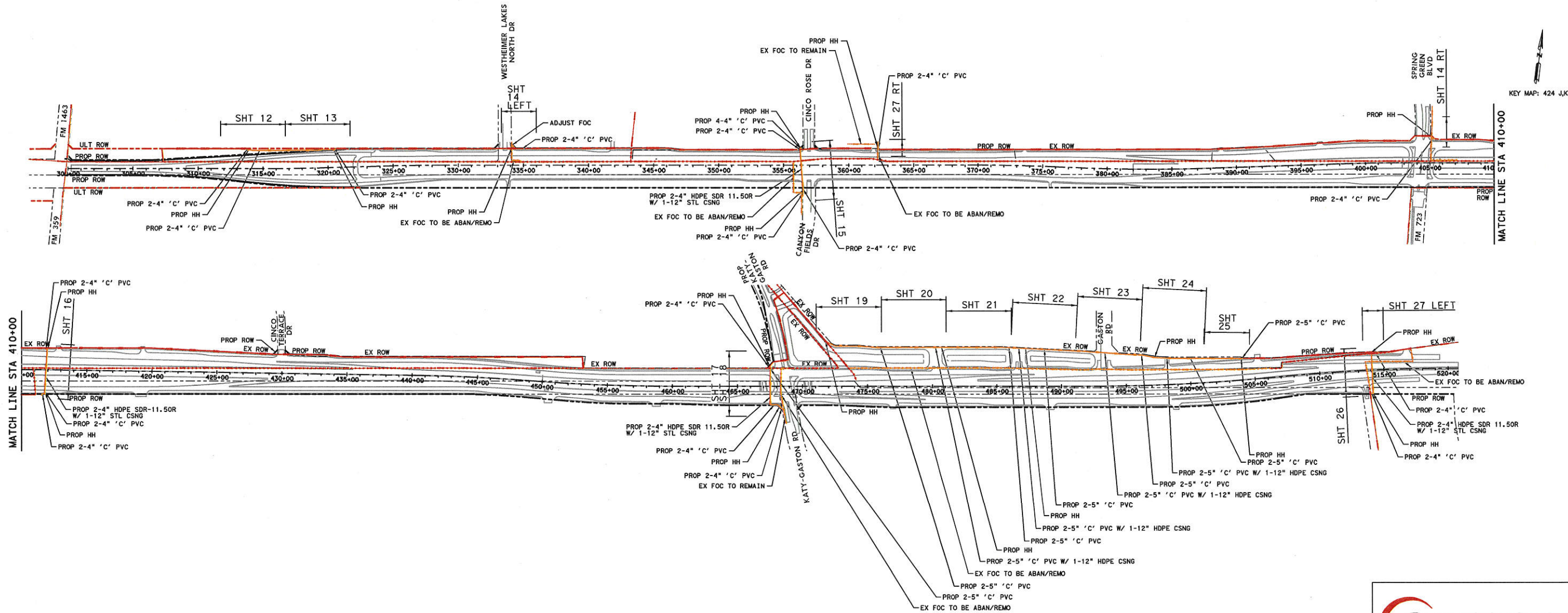
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\*USER: 150340\*Comcast\*FM1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

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KEY MAP: 424 J,K,L



**INTERIM REVIEW**  
 Not intended for construction,  
 bidding or permit purposes.  
 Engineer: VINEETA JAYARAM  
 P.E. Serial No.: 101121  
 Date: 11/12/2015

**CobbFendley**  
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 www.cobbendley.com

FM 1093 WESTPARK EXTENSION  
 UNDERGROUND LAYOUT  
 SHT 1 OF 1

SCALE: NTS	DRAWN BY EMC	SHEET 2
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\*USER: 150340\*Comcast\*FM\*1093\*  
 \*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

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**GENERAL CONSTRUCTION NOTES**

1. ALL EXISTING FACILITIES CURRENTLY IN SERVICE MUST REMAIN IN SERVICE, UNLESS OTHERWISE NOTED IN THE DRAWINGS.
2. ALL EFFORTS HAVE BEEN MADE TO INDICATE ALL EXISTING UTILITIES ON PLANS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL SAID UTILITIES AS WELL AS SERVICE CONNECTIONS (WHETHER OR NOT INDICATED ON PLANS), PRIOR TO CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY LOCATION OF EXISTING UTILITIES.
3. CONTRACTOR SHALL CONTACT THE TEXAS EXCAVATION SAFETY SYSTEM INC. (TEXAS811 CALL BEFORE YOU DIG) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO REQUEST UNDERGROUND UTILITIES BE LOCATED. CONTRACTOR SHALL CALL 811 OR VISIT WWW.TEXAS811.ORG BY CLICKING ON THE DIGGING IN TEXAS TAB TO INITIATE A LOCATE REQUEST.
4. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH GAS, OIL, ELECTRIC, TELEPHONE, FIBER OPTIC, CABLE TV, SEWER AND WATER UTILITY OWNERS, ETC. FOR ANY RELOCATION AND/OR PROTECTION OF EXISTING LINES OR CABLES AS REQUIRED, DUE TO CONSTRUCTION ACTIVITIES.
5. CONTRACTOR TO PROVIDE A MINIMUM OF 1' OF CLEARANCE AT ALL CROSSINGS OF SANITARY SEWERS, STORM SEWERS, ELECTRIC, WATER LINES AND LEADS.
6. CONTRACTOR MUST COMPLY WITH OSHA SPECIFICATIONS AND PRACTICES ON TRENCH SAFETY, EXCAVATION AND SHORING REQUIREMENTS.
7. THE CONSTRUCTION CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, SEQUENCE, PROCEDURES, TECHNIQUES OR SCHEDULING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONSTRUCTION CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR SAFETY IN OR ABOUT THE JOB SITE IN ACCORDANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS, REGULATIONS, STANDARDS OR CODES REQUIRED BY O.S.H.A. OR ANY OTHER REGULATORY AGENCY.
8. NO MORE TRENCH CAN BE OPENED AT ONE TIME THAN CAN BE BACKFILLED AND COMPACTED IN 8" LIFTS AS PER TXDOT ITEM NO. 400 (EXCAVATION AND BACKFILL FOR STRUCTURES). AT THE END OF EACH WORK PERIOD, NO TRENCH SHALL BE LEFT OPEN OVERNIGHT.
9. EXISTING PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED BY BONDED CONTRACTOR IN CONFORMANCE WITH LOCAL STANDARDS. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED AT ALL PEDESTRIAN CROSSINGS WHERE CURB REMOVAL IS REQUIRED FOR INSTALLATION OF THE UNDERGROUND CONDUIT SYSTEM. ALL PAVEMENT REMOVED WILL BE WET SAW CUT PRIOR TO REMOVAL.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING BORE PIT LOCATIONS AND DIMENSIONS, INFORMATION SHOWN ON PLANS ARE FOR REFERENCE PURPOSE ONLY. ANY DEVIATIONS SHALL BE APPROVED BY DEVELOPER. SITE SHALL BE RESTORED TO EXISTING CONDITIONS WITH MATERIAL COMPACTED TO DESIGN DOCUMENT REQUIREMENTS.
11. IF IT BECOMES NECESSARY TO OPERATE MACHINERY ON A PORTION OF THE PAVEMENT, PRECAUTIONS MUST BE TAKEN TO PREVENT ANY DAMAGE WHATSOEVER TO THE PAVEMENT. DAMAGED PAVEMENT WILL BE REPLACED IN ACCORDANCE WITH THE PAVEMENT DESIGN.
12. ALL TRAFFIC CONTROL MEASURES AND DEVICES REQUIRED FOR CONSTRUCTION OF THIS RELOCATION MUST CONFORM TO THE COMPREHENSIVE DEVELOPMENT AGREEMENT AND THE 2011 EDITION OF THE TMUTCD. TRAFFIC CONTROL PLANS AND FLAGMEN TO BE PROVIDED BY DEVELOPER.
13. BORE PITS WITHIN CLEAR ZONE MUST BE PROTECTED BY CONCRETE TRAFFIC BARRIERS (CTB'S). OPEN PITS MUST BE COMPLETELY COVERED AND CLEARLY DELINEATED BY SURROUNDING THE PIT WITH CAUTION TAPE OR SEALED OFF BY ORANGE PLASTIC MESH FENCING AND CONES OR DRUMS.
14. CONSTRUCTION EQUIPMENT LEFT OVERNIGHT IN RIGHT-OF-WAY SHALL BE PLACED AT LEAST 30' FROM EDGE OF PAVEMENT (CLEAR ZONE).
15. CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING AND MAINTAINING TRAFFIC SIGNS AND PAVEMENT MARKINGS, INCLUDING CENTERLINES, BARRIER LINES, LANE LINES, RAISED PAVEMENT MARKING, ETC.
16. INSTALLATION AND MAINTENANCE OF SWPPP TO BE PERFORMED BY DEVELOPER. CONTRACTOR SHALL REPAIR OR REPLACE ANY STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DEVICES DAMAGED OR REMOVED BY THIS OPERATION. CONTRACTOR SHALL KEEP ALL DEBRIS & SPOIL OUT OF DRAINS, CULVERTS, AND DROP INLETS AND ENSURE THAT THEY DO NOT BECOME CLOGGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
17. ANY DISCREPANCIES IN THE FIELD DURING CONSTRUCTION FROM WHAT IS SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE UTILITY DESIGN ENGINEER AND DEVELOPER. ALL CHANGES SHALL FOLLOW COMPREHENSIVE DEVELOPMENT AGREEMENT REQUIREMENTS. AS-BUILTS WILL BE PROVIDED BY CONTRACTOR TO DEVELOPER.
18. THE CONDUIT, FITTINGS, CONDUIT BODIES AND ACCESSORIES SHALL BE INSPECTED UPON DELIVERY AND DURING THE PROGRESS OF THE WORK. ANY MATERIAL FOUND TO BE DEFECTIVE WILL BE REJECTED BY THE UTILITY OWNER'S REPRESENTATIVE AND THE CONTRACTOR SHALL REMOVE SUCH DEFECTIVE MATERIAL FROM THE SITE OF THE WORK.
19. CONTRACTOR SHALL COORDINATE AND VERIFY ANY UTILITY ABANDONMENT WITH THE UTILITY COMPANY, WITH DEVELOPER AND TXDOT. NO FACILITY MAY BE CONSIDERED ABANDONED WITHOUT WRITTEN CONSENT FROM THE UTILITY OWNER AND PER UAR 21.39(C)(A).
20. CONTRACTOR IS TO PLUG ALL INSTALLED DUCTS.
21. THE CONSTRUCTION CONTRACTOR SHALL PLACE WARNING TAPE OVER ALL CONDUIT.
22. ALL PROPOSED BENDS SHALL BE GRADUAL SWEEPS WITH A MINIMUM 5-FOOT RADIUS.
23. CONTRACTOR SHALL CONSTRUCT HORIZONTAL DIRECTIONAL DRILL IN ACCORDANCE WITH THE INDUSTRY GUIDELINES AND PROCEDURES APPROPRIATE IN ASTM, ASCE, PPI, NO-DIG PUBLICATIONS, NASTT AND AMERICAN SOCIETY FOR TRENCHLESS TECHNOLOGY.

24. TEMPORARY CONSTRUCTION EASEMENTS TO BE SECURED BY THE DEVELOPER IF NECESSARY. IF APPLICABLE THE CONTRACTOR IS TO CONFIRM ACQUISITION PRIOR TO SCHEDULING WORK. REFER TO SPECIAL PROVISIONS FOR EASEMENT DETAILS.

25. CONTRACTOR TO PROVIDE AND PLACE MULE TAPE IN EACH INSTALLED DUCT.

26. CONTRACTOR SHALL PLACE MARKER SIGNS AT EACH MANHOLE AND HANDHOLE INSTALLED PROVIDED BY UTILITY OWNER.

27. CONTRACTOR TO CONTACT UTILITY OWNER A MINIMUM OF 48 HOURS PRIOR TO CONNECTION TO EXISTING HANDHOLE OR DUCTS TO COORDINATE ON-SITE INSPECTION BY UTILITY PERSONNEL.

28. CONTRACTOR TO ENCASE ALL 90° HORIZONTAL BENDS FOR CONDUITS WITH CONCRETE OF 2500 PSI COMPRESSIVE STRENGTH OR AS INDICATED ON THE DRAWINGS.

29. ALL PROPOSED TELECOM FACILITIES SHOULD BE INSTALLED AT A MINIMUM OF 4-FEET BELOW FINISH GRADE ELEVATION AT ALL LOCATIONS, UNLESS NOTED ON THE PLANS.

30. THE ROW WILL BE CLEARED AND STAKED BY THE DEVELOPER PRIOR TO THE UTILITY RELOCATION.

31. IN CASE OF UTILITY DAMAGE, CONTRACTOR IS TO EVACUATE AND SECURE AREA IF NECESSARY, CALLING 911 WHEN APPROPRIATE (PETROLEUM PIPELINE DAMAGE).

32. CONTRACTOR IS TO NOTIFY TEXAS 811 AND REPORT DAMAGE.

**UTILITY OWNER CONTACTS**

1. CONTRACTOR TO CONTACT TELECOM OWNER A MINIMUM 2-WEEKS PRIOR TO CONSTRUCTION.

2. A PRECONSTRUCTION MEETING SHALL BE SCHEDULED A MINIMUM OF ONE WEEK PRIOR TO CONSTRUCTION.

3. CONTRACTOR IS TO CALL UTILITY OWNER AND REPORT DAMAGE.

4. CONTRACTOR IS TO NOTIFY UTILITY MANGER OR DEPUTY UTILITY MANAGER AND REPORT DAMAGE.

**AT&T LEGACY**  
IKE BUTLER  
3910 SAN JACINTO ST  
DALLAS, TX 75204  
TEL 214-205-8922

**AT&T TEXAS**  
DIANA WARD  
6500 WEST LOOP SOUTH  
ZONE 1.3  
BELLAIRE, TX 77401  
TEL 713-660-5304  
FAX 713-660-5342  
DC8581@ATT.COM

**CENTERPOINT ENERGY ELECTRIC**  
ED HULSEY  
TEL 713-945-4662  
ED.HULSEY@CENTERPOINTENERGY.COM

**CENTERPOINT ENERGY GAS**  
LOUIS CARDENAS  
TEL 713-207-4605  
FAX 713-207-0877  
LOUIS.CARDENAS@CENTERPOINTENERGY.COM

**COMCAST**  
MARGIE BLACKWELL  
7703 AIRPORT BOULEVARD  
HOUSTON, TX 77061  
TEL 281-624-3021  
MOBILE 281-831-8109  
MARGARET\_BLACKWELL@CABLE.COMCAST.COM

**CONOCO PHILLIPS/PHILLIPS 66/SEAWAY**  
RICHARD ALLEN  
P.O. BOX 4428  
HOUSTON, TX 77210  
TEL 832-765-1422  
RICHARD.D.ALLEN@P66.COM

**COPANO/KINDER MORGAN**  
JIM EPHRAIM  
500 DALLAS ST, STE 1000  
HOUSTON, TX 77002  
OFC 713-369-8851  
MOBILE 713-201-0549  
JIM\_EPHRAIM@KINDERMORGAN.COM

**DOW PIPELINE**  
JEFF CASH  
727 OLD UNDERWOOD RD  
LA PORTE, TX 77571  
OFC 281-966-4581  
MOBILE 281-804-5330  
JCASH@DOW.COM

**ENTERPRISE PRODUCTS**  
JAY JOHNSON  
JARJOHNSON@EPROD.COM

**ENTOUCH SYSTEMS**  
WESLEY PENNIX  
11011 RICHMOND AVE #400  
HOUSTON, TX 77042  
MOBILE 281-225-9350  
WPENNIX@ENTOUCHSYSTEMS.NET

**EXXONMOBIL**  
MICHAEL HLUZA  
22777 SPRINGWOODS VILLAGE PKWY  
E3.5A.556  
SPRING, TX 77389  
TEL 832-624-7933

**GULF SOUTH PIPELINE**  
JEFF PENDLETON  
11115 INDUSTRIPLEX BLVD  
BATON ROUGE, LA 70809  
TEL 225-292-6944

**LEVEL 3 COMMUNICATIONS**  
CLAYTON EKSTROM  
12001 IH 45 NORTH FREEWAY  
HOUSTON, TX 77060  
TEL 281-618-3932  
MOBILE 832-752-9543  
CLAYTON.EKSTROM@LEVEL3.COM

**MCIMETRO**  
MIKE WILLIAMS  
14503 LUTHE ROAD  
HOUSTON, TX 77039  
TEL 281-901-3324  
MOBILE 972-795-4277  
FAX 281-901-3565  
MIKE.WILLIAMS1@VERIZON.COM

**PHONOSCOPE LIGHTWAVE**  
FRANK TORRES  
6105 WESTLINE DRIVE  
HOUSTON, TX 77036  
TEL 713-272-4600  
MOBILE 713-240-2800  
FAX 713-271-4334  
FTORRES@PHONOSCOPE.COM

**SOUTHCROSS ENERGY**  
700 TOWN AND COUNTRY BLVD STE 950  
HOUSTON, TX 77024  
TEL 713-580-0262

**TEXAS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR PLACING UTILITY LINES WITHIN THE RIGHT-OF-WAY OF STATE-MAINTAINED HIGHWAYS:**

1. ALL EXCAVATIONS WITHIN THE RIGHT-OF-WAY AND NOT UNDER SURFACING SHALL BE BACKFILLED BY TAMPING IN 8-INCH HORIZONTAL LAYERS AND/OR AS PER TXDOT SPEC ITEM 400. ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE RIGHT-OF-WAY AND THE EXCAVATION FINISHED FLUSH WITH THE SURROUNDING NATURAL GROUND. BACKFILL PLACED UNDER PROPOSED PAVEMENT AREAS SHALL BE DENSITY CONTROLLED.

2. WHERE SODDING IS DISTURBED BY EXCAVATION OR BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING. SLOPES 4:1 OR STEEPER, SHALL BE REPLACED BY BLOCK SODDING. THIS WORK SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATIONS.

3. HIGHWAY CROSSINGS UNDER SURFACED ROADS AND SURFACED CROSSROADS WITHIN THE RIGHT-OF-WAY SHALL BE PLACED BY OPEN TRENCH OR BORING. CASING SHALL EXTEND MINIMUM 5-FEET FROM BACK OF CURB, 5-FEET BEYOND THE TOE OF SLOPE FOR FILLS OR FROM TOP OF BACKSLOPE TO TOP OF BACKSLOPE FOR CUT SECTIONS. ALL LINES CARRYING PRESSURE SHALL BE ENCLOSED IN SATISFACTORY CASING.

4. USE OF WATER AND OTHER FLUIDS IN CONNECTION WITH BORING OPERATIONS WILL BE PERMITTED ONLY IN SUFFICIENT QUANTITY TO LUBRICATE BORING BIT AND FOR EASE OF REMOVING CUTTINGS. JETTING WILL NOT BE PERMITTED. CARE WILL BE TAKEN TO PREVENT POUR FLUIDS FROM ENTERING STORM WATER SYSTEM.

5. PIPELINE MATERIAL AND DESIGN FOR HIGH PRESSURE LINES MUST MEET THE MINIMUM FEDERAL SAFETY STANDARDS FOR LIQUID AND GAS PIPELINES.

6. WORK PERFORMED ON RAILROAD RIGHT-OF-WAY IS SUBJECT TO THE CONCURRENCE OF THE RAILROAD COMPANY. WORK PERFORMED WITHIN WATERWAYS, SUCH AS RIVERS, CREEKS, BAYOUS, AND DRAINAGE DITCHES IS SUBJECT TO THE RULES & REQUIREMENTS OF THAT APPROPRIATE GOVERNMENTAL AGENCY.

7. ALL MANHOLE COVERS SHALL BE INSTALLED FLUSH WITH FINISHED GROUND LEVEL. THE TOP OF ROOF OF COMMUNICATIONS MANHOLES SHALL BE AT LEAST FIVE FEET BELOW FINAL GRADE WITHIN STATE RIGHT-OF-WAY.

8. TRENCH BACKFILL SHALL COMPLY WITH TXDOT STANDARD SPECIFICATION ITEM 400.

9. UTILITY INSTALLATION SHALL COMPLY WITH THE TXDOT UTILITY ACCOMMODATION RULES.

**WILLIAMS PIPELINE**  
KEVIN BRADSHAW  
16930 WALLISVILLE RD  
HOUSTON, TX 77049  
TEL 281-457-4048  
KEVIN.BRADSHAW@WILLIAMS.COM

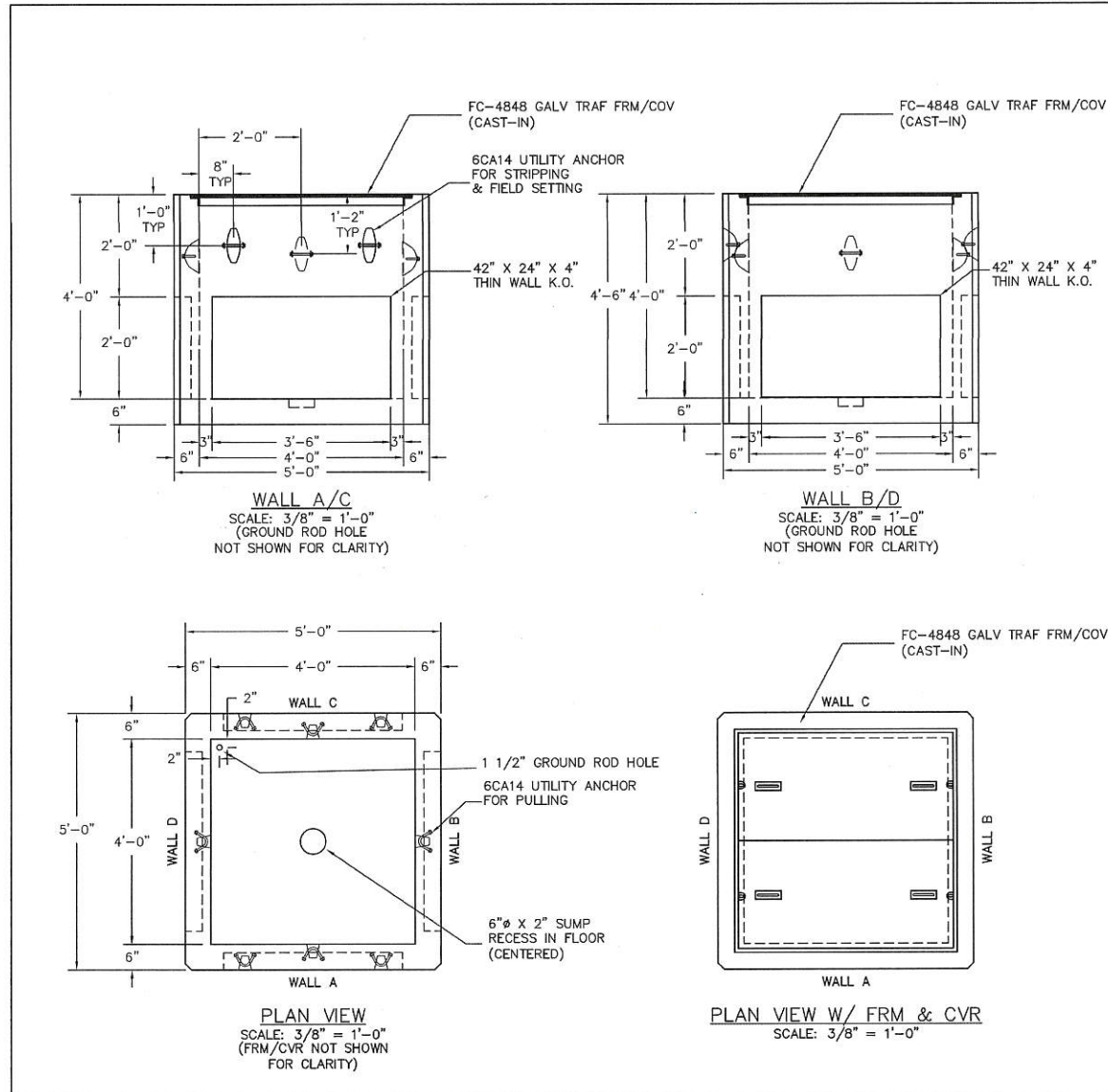
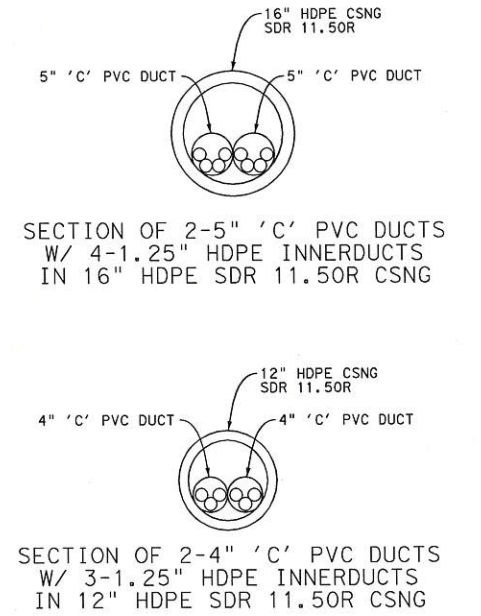
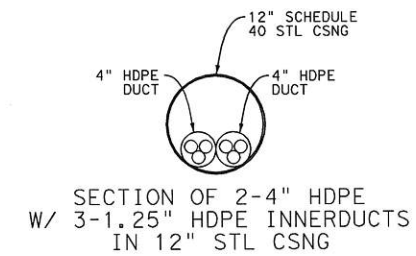
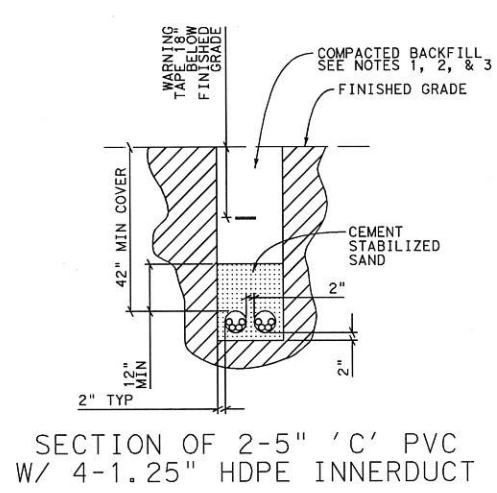
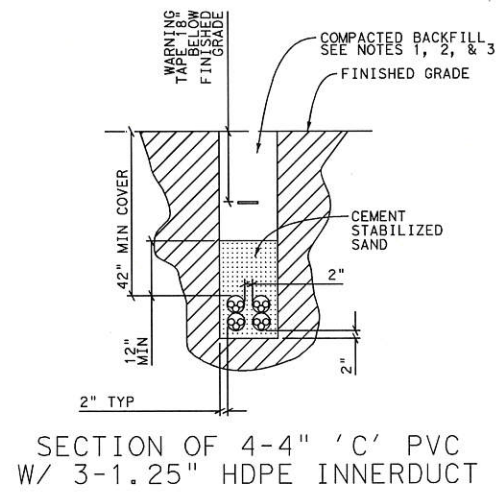
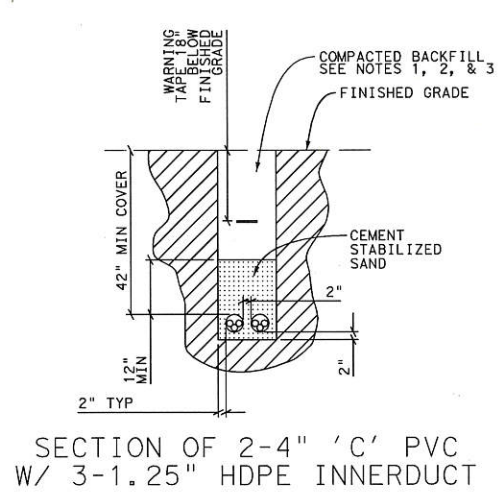


**INTERIM REVIEW**  
Not intended for construction,  
bidding or permit purposes.  
Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

**CobbFendley**  
TBPE Firm Registration No. 274  
TBPLS Firm Registration No. 100467  
13430 Northwest Freeway, Suite 1100  
Houston, Texas 77040  
713.462.3242 | fax 713.462.3262  
www.cobbfindley.com

FM 1093 WESTPARK EXTENSION  
GENERAL NOTES  
SHT 1 OF 1

SCALE: NTS  
DRAWN BY  
EMC  
SHEET  
3



**DESIGN NOTES**

- DESIGN CRITERIA IS MINIMUM USED UNLESS OTHERWISE SPECIFIED
- DESIGN LOADINGS:
  - A. AASHTO HS-20-44, W/ IMPACT.
  - B. SOIL WEIGHT = 120 PCF.
  - C. DEPTH OF OVERBURDEN 0.0' MIN, 0.0' MAX.
  - D. ASSUMED WATER TABLE: 3 FT. BELOW GRADE
  - E. EQUIV. FLUID PRESSURE = 45 PCF.
  - F. 80 PSF LATERAL LIVE LOAD SURCHARGE
- CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 5500 PSI (MIN.)
- STEEL REINFORCEMENT: REBAR, ASTM A-615 GRADE 60
- CEMENT: ASTM C-150 SPECIFICATIONS
- FABRICATION OF STRUCTURE SHALL BE IN ACCORDANCE WITH ASTM C 858. STRUCTURAL DESIGN LOADING SHALL BE IN ACCORDANCE TO ASTM C 857, CLASS A-16.

**BILL OF MATERIALS**

TYPE	QTY
8590120: CONCRETE MIX (PB)	1.45 CU.YDS.
6CA14 UTILITY ANCHOR	8
FC-4848 GALV TRAF FRM/COV	1
6" SUMP RECESS	1
1 1/2" GROUND ROD HOLE	1

**PRODUCT WEIGHTS**

PULL BOX	5,875 LBS.
TOTAL	5,875 LBS.

DRAWN BY: S ESCALONA    SOLD BY: JT  
 DATE: 08/07/2013    SCALE: 3/8" = 1'-0"  
 DWG NAME: 264-4X4X4-UEP-SO#21335    PAGE 1 OF 1

4'-0" X 4'-0" X 4'-0" PULLBOX W/ FRAME REF-CHEM SO#21335

CHECKED BY:    DATE:   

REVISIONS:

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**Oldcastle® Precast, Inc.**  
 13600 S. Wayside Houston TX 77048  
 PHONE: (713) 991-2400 FAX: (713) 991-0815

**INWESCO INCORPORATED**

746 North Coney Avenue Azusa, CA 91702  
 Telephone: (626) 334-9304 Fax: (626) 969-3404

INWESCO, Inc - Texas  
 2824 N. Sylvania Ave. Ft. Worth, TX 76111  
 Telephone: (817) 834-3310 Fax: (817) 834-3315

WEIGHTS		
	STEEL	GALV.
FRAME	109.00 LBS	116.00 LBS
COVER	190.00 LBS/EACH	201.00 LBS/EACH

4'-0" X 4'-0" Shock Assist Type  
 90 Degrees, H-20 Loading  
 Frame & Cover Assembly

**LOADING:**  
 Suitable For H-20 Wheel Loading  
 in Off-Street Locations Where not  
 Subjected To High Density Traffic.

**COMPONENT PARTS:**  
 A. Shock assist covers available in diamond or slip resistance plate.  
 B. Frame assembly available: Cast in, bolt down, or skirting.  
 C. Kick stand.  
 D. Locking mechanism (Square Nut 1/2").  
 E. Mechanical Shock.  
 F. Cast in rebar.  
 G. ID plate (Per request).  
 H. Lift handles.

**NOTES:**  
 -FOR BOLT DOWN FRAME TYPE  
 USE SLOTS  
 -FOR CAST-IN FRAME TYPE  
 USE REBAR.

**FEATURES:**  
 - Shock assist to reduce the lifting weight of cover.  
 - Locking kickstand prevents the covers from accidentally closing.  
 - Frame and covers available galvanized or painted.  
 - Covers available with security bolts or locking mechanisms.  
 - Covers available with either lifting handles or pick holes.  
 - Other sizes available upon request.

**INWESCO** Prepared By: H.T.H.  
 Date: 12-12-12

4'-0" X 4'-0" Shock Assist Type  
 90 Degrees, H-20 Loading  
 Frame & Cover Assembly

**Comcast**

**INTERIM REVIEW**  
 Not intended for construction,  
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 Engineer: VINEETA JAYARAM  
 P.E. Serial No.: 101121  
 Date: 11/12/2015

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FM 1093 WESTPARK EXTENSION  
 HANDHOLE & TRENCH DETAILS  
 4'0"X4'0"X4'0" HR  
 SHT 1 OF 2

SCALE: NTS    DRAWN BY: EMC    SHEET: 4

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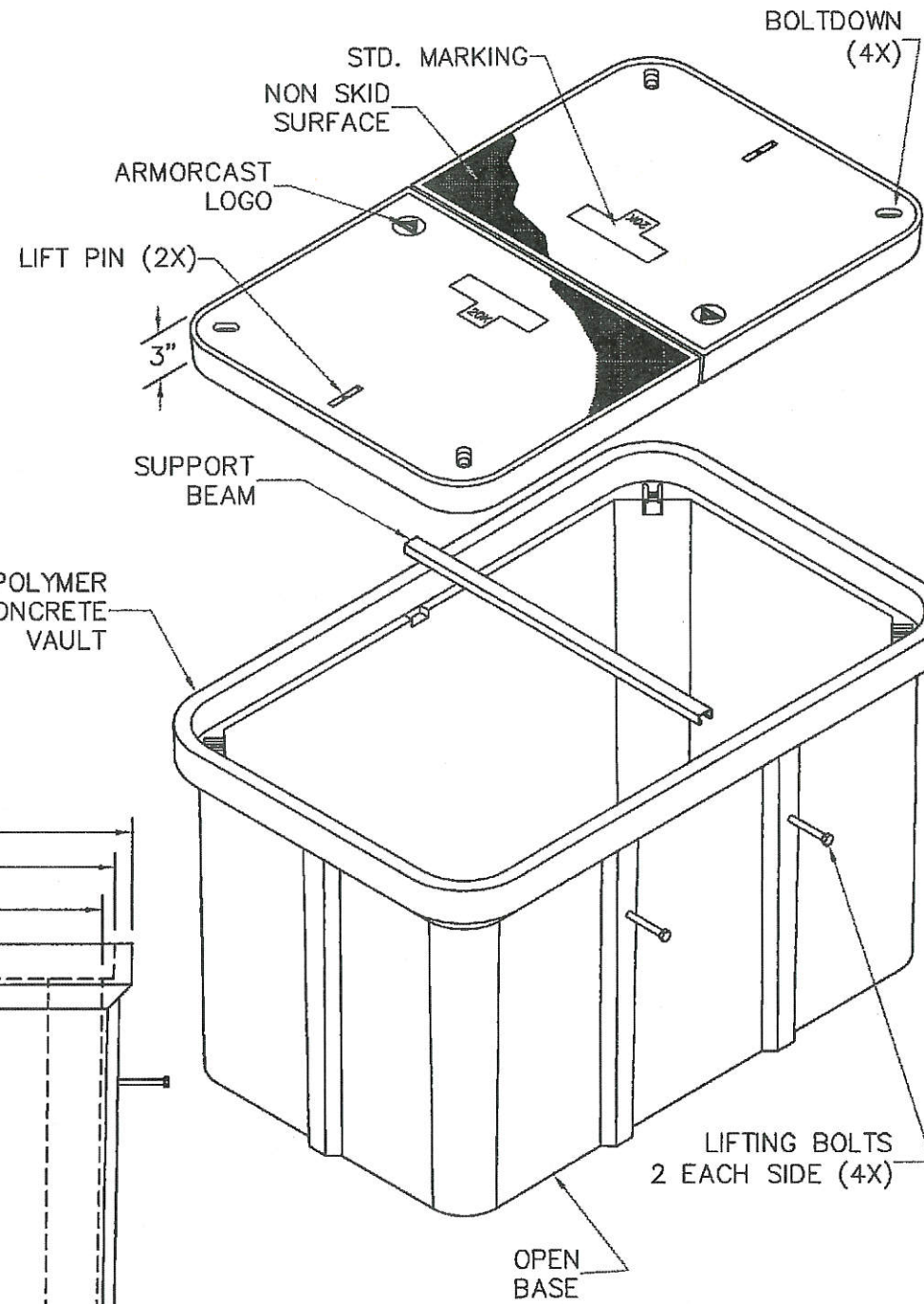
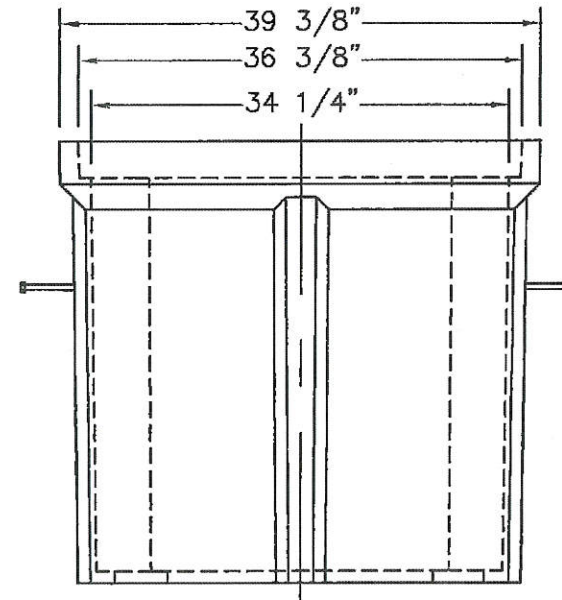
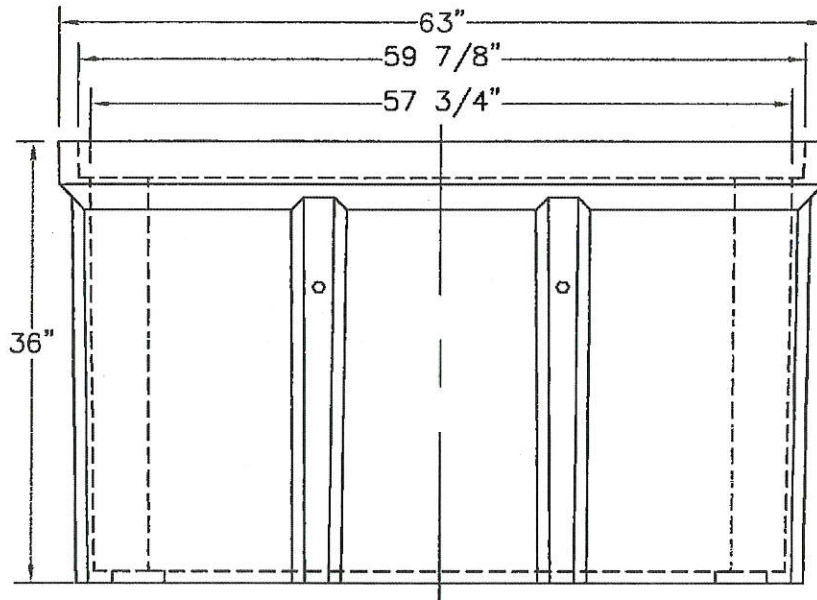
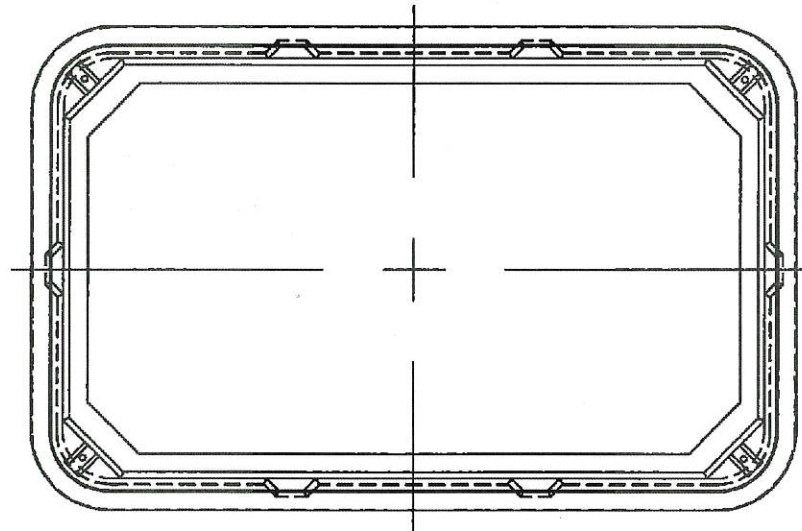
FM 1093 WESTPARK EXTENSION

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8:34:55 AM

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FILE NAME  
A6-1436TAPCX36

APPROX. WT. = 818 LBS.



13230 Saticoy Street, North Hollywood, CA 91605 (818) 982-3600 ARMORCAST PRODUCTS COMPANY		PART DESCRIPTION <b>36" X 60" X 36" POLYMER CONCRETE VAULT ASSEMBLY</b>	
THE INFORMATION IN THIS DRAWING IS CONFIDENTIAL. THE DRAWING IS NOT TO BE REPRODUCED OR ITS CONTENTS DIVULGED IN ANY WAY WHATSOEVER EXCEPT WITH THE PRIOR WRITTEN APPROVAL OF ARMORCAST PRODUCTS COMPANY. IT IS THE PROPERTY OF AND MUST BE RETURNED TO ARMORCAST PRODUCTS COMPANY, 13230 SATICOY STREET, NORTH HOLLYWOOD, CALIFORNIA 91605.		CUSTOMER	MAX. LOAD <b>20,800 POUNDS</b>
DRAWN GL	DATE 02/00	SCALE NONE	DRAWING NUMBER <b>A6001436TAPCX36</b>
APPROV. WS	DATE 02/00	MATERIAL POLYMER CONCRETE	



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 Date: 11/13/2015

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FM 1093 WESTPARK EXTENSION  
 HANDHOLE & TRENCH DETAILS  
 3'0"X5'0"X3'0" HR  
 SHT 2 OF 2

SCALE: NTS	DRAWN BY EMC	SHEET 5
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# LEGEND

----- OE1/T2/FOC4 -----	OH ELECTRIC, TELEPHONE, FOC: CENTERPOINT, PHONOSCOPE, COMCAST
----- OE1/T2/FOC4/CTV1 -----	OH ELECTRIC, TELEPHONE, FOC, CATV: CENTERPOINT, PHONOSCOPE, COMCAST, COMCAST
----- OE1/T2/FOC1/FOC4 -----	OH ELECTRIC, TELEPHONE, FOC, FOC: CENTERPOINT, PHONOSCOPE, AT&T, COMCAST
----- OE1/T2/CTV1 -----	OH ELECTRIC, TELEPHONE, CATV: CENTERPOINT, PHONOSCOPE, COMCAST
----- OE1/CTV1 -----	OH ELECTRIC, CATV: CENTERPOINT, COMCAST
----- OE1/FOC1 -----	OH ELECTRIC, FOC: CENTERPOINT, AT&T
----- OHCTV1 -----	OH CATV: COMCAST
----- OHCTV2 -----	OH CATV: ENTOUCH
----- OHT2 -----	OH TELEPHONE: PHONOSCOPE
----- OE1 -----	OH ELECTRIC: CENTERPOINT
----- E1 -----	ELECTRIC: CENTERPOINT
----- E1 (D) ----- E1 (D) -----	ELECTRIC: CENTERPOINT
----- G1 -----	GAS: CENTERPOINT
----- G1 (D) ----- G1 (D) -----	GAS: CENTERPOINT
----- PL1 -----	PIPELINE: CONOCO
----- PL1 (D) ----- PL1 (D) -----	PIPELINE: CONOCO
----- PL2 -----	PIPELINE: COPANO
----- PL2 (D) ----- PL2 (D) -----	PIPELINE: COPANO
----- PL3 -----	PIPELINE: DOW
----- PL3 (D) ----- PL3 (D) -----	PIPELINE: DOW
----- PL4 -----	PIPELINE: ENTERPRISE
----- PL4 (D) ----- PL4 (D) -----	PIPELINE: ENTERPRISE
----- PL5 -----	PIPELINE: EXXON
----- PL5 (D) ----- PL5 (D) -----	PIPELINE: EXXON
----- PL6 -----	PIPELINE: GULF SOUTH
----- PL6 (D) ----- PL6 (D) -----	PIPELINE: GULF SOUTH
----- PL7 -----	PIPELINE: SOUTHCROSS GULF COAST
----- PL7 (D) ----- PL7 (D) -----	PIPELINE: SOUTHCROSS GULF COAST
----- PL8 -----	PIPELINE: WILLIAMS
----- PL8 (D) ----- PL8 (D) -----	PIPELINE: WILLIAMS
----- PL9 -----	PIPELINE: ACACIA
----- PL9 (D) ----- PL9 (D) -----	PIPELINE: ACACIA
----- PL10 -----	PIPELINE: PHILLIPS 66
----- PL10 (D) ----- PL10 (D) -----	PIPELINE: PHILLIPS 66
----- PL11 -----	PIPELINE: HARRIS
----- PL11 (D) ----- PL11 (D) -----	PIPELINE: HARRIS
----- PL12 -----	PIPELINE: SEAWAY
----- PL12 (D) ----- PL12 (D) -----	PIPELINE: SEAWAY

----- FOC1 -----	FOC: AT&T
----- FOC1 (D) ----- FOC1 (D) -----	FOC: AT&T
----- FOC2 -----	FOC: MCI
----- FOC2 (D) ----- FOC2 (D) -----	FOC: MCI
----- FOC3 -----	FOC: LEVEL 3
----- FOC3 (D) ----- FOC3 (D) -----	FOC: LEVEL 3
----- T1 -----	TELEPHONE: AT&T
----- T1 (D) ----- T1 (D) ----- T1 (D) -----	TELEPHONE: AT&T
----- T2 -----	TELEPHONE: PHONOSCOPE
----- T2 (D) ----- T2 (D) ----- T2 (D) -----	TELEPHONE: PHONOSCOPE
----- T-DUCT1 -----	T-DUCT: AT&T LEGACY
----- T-DUCT1 (D) ----- T-DUCT1 (D) -----	T-DUCT: AT&T LEGACY
----- CTV1 -----	CATV: COMCAST
----- CTV1 (D) ----- CTV1 (D) -----	CATV: COMCAST
----- CTV2 -----	CATV: ENTOUCH
----- CTV2 (D) ----- CTV2 (D) -----	CATV: ENTOUCH
----- W1 -----	WATER: CITY OF
----- W1 (D) ----- W1 (D) ----- W1 (D) -----	WATER: CITY OF
----- WW1 -----	WASTE WATER: CITY OF
----- WW1 (C) ----- WW1 (C) ----- WW1 -----	WASTE WATER: CITY OF
----- WW1 (D) ----- WW1 (D) ----- WW1 -----	WASTE WATER: CITY OF

## QUALITY LEVEL LEGEND

----- WW1 -----	QUALITY LEVEL 'B'
----- WW1 (C) ----- WW1 (C) ----- WW1 -----	QUALITY LEVEL 'C'
----- WW1 (D) ----- WW1 (D) ----- WW1 -----	QUALITY LEVEL 'D'

TYPICAL FOR ALL UTILITIES

## EXISTING OR PROPOSED

----- CTV1 -----	EXISTING UG
----- OE1/T2/CTV1 -----	EXISTING OH
----- OE1/T2/CTV1 -----	PROPOSED OH
----- CTV1 -----	PROPOSED UG

TYPICAL FOR ALL COMCAST

----- WW1 -----	EXISTING
----- WW1 -----	PROPOSED

TYPICAL FOR ALL UTILITIES

- ELECTRICAL TRANSFORMER BOX
- ELECTRICAL POWER BOX
- TRAFFIC SIGNAL LIGHT
- TRAFFIC SIGNAL POWER BOX
- POWER POLE
- LIGHT POLE
- TELEPHONE MANHOLE
- TELEPHONE VAULT
- TELEPHONE PEDESTAL

- HYDRANT
- WATER MANHOLE
- WATER VALVE
- WATER METER
- WATER VAULT
- WASTE WATER MANHOLE
- CLEAN OUT
- GAS METER
- END OF LINE
- ~ OUT OF SCOPE



**INTERIM REVIEW**  
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P.E. Serial No.: 101121  
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FM 1093 WESTPARK EXTENSION  
LEGEND

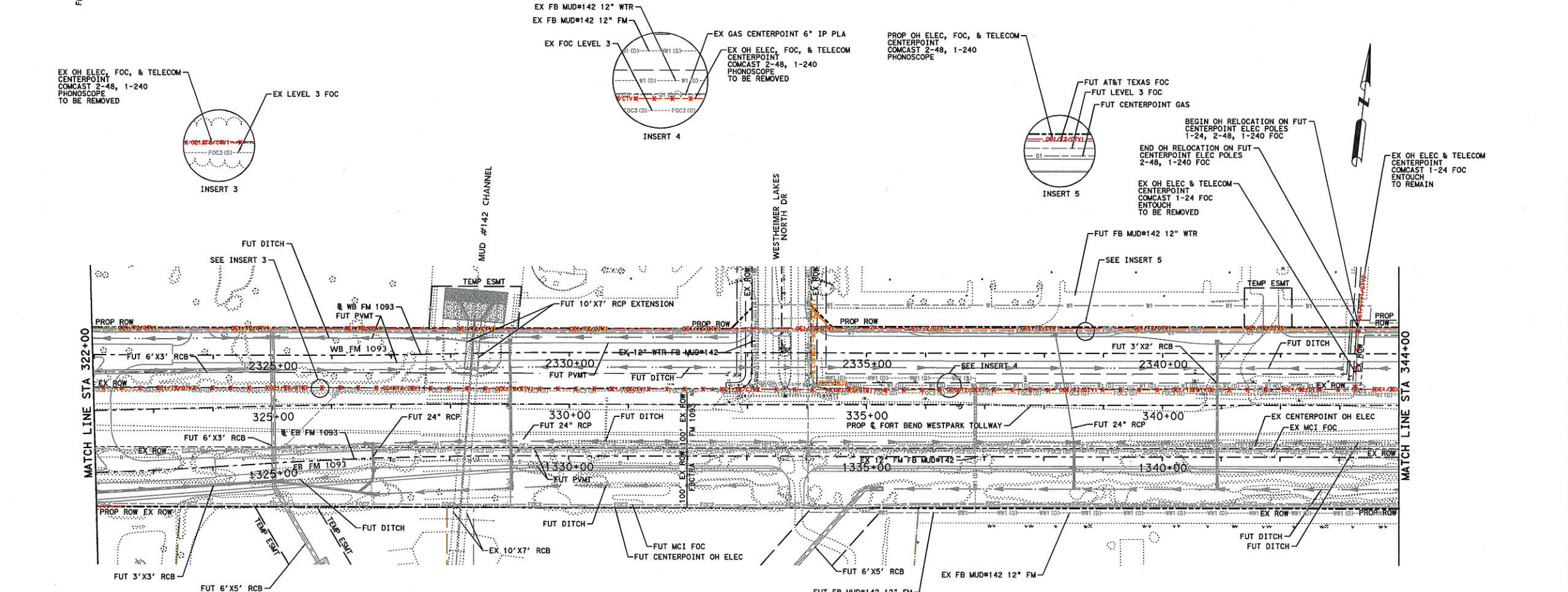
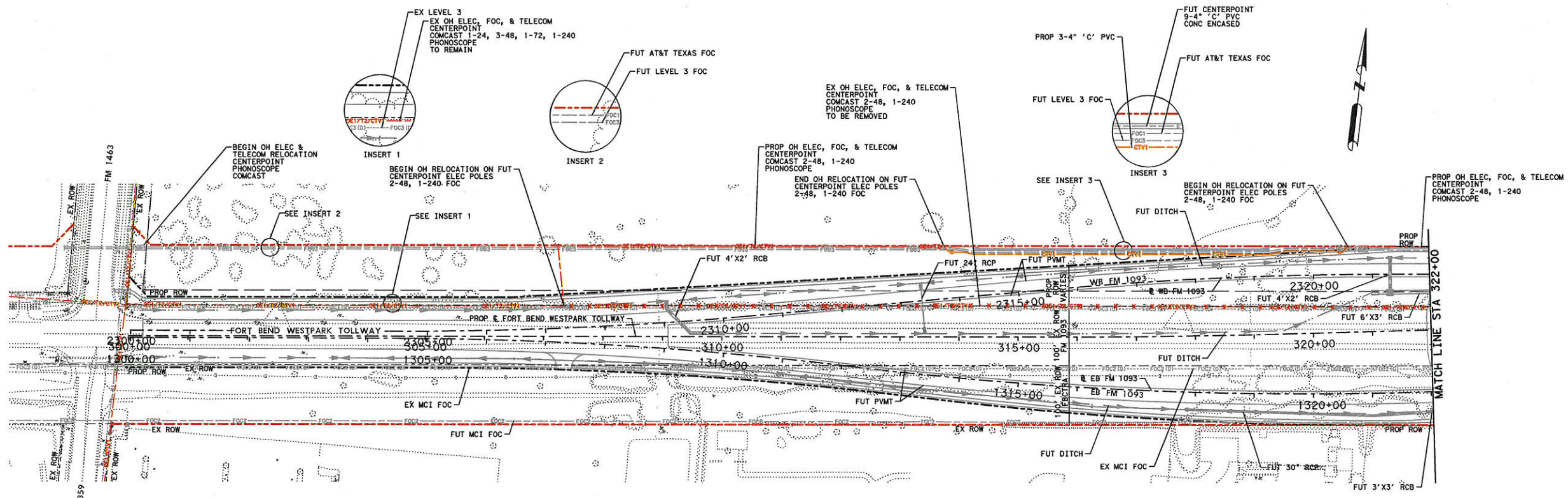
SHT 1 OF 1

SCALE: NTS	DRAWN BY EMC	SHEET 6
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NOTE:  
SEE SHT 2 FOR OVERALL  
UNDERGROUND PLAN.



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FM 1093 WESTPARK EXTENSION  
 OVERHEAD CABLE INSTALLATION  
 AND REMOVAL LAYOUT  
 SHT 1 OF 5

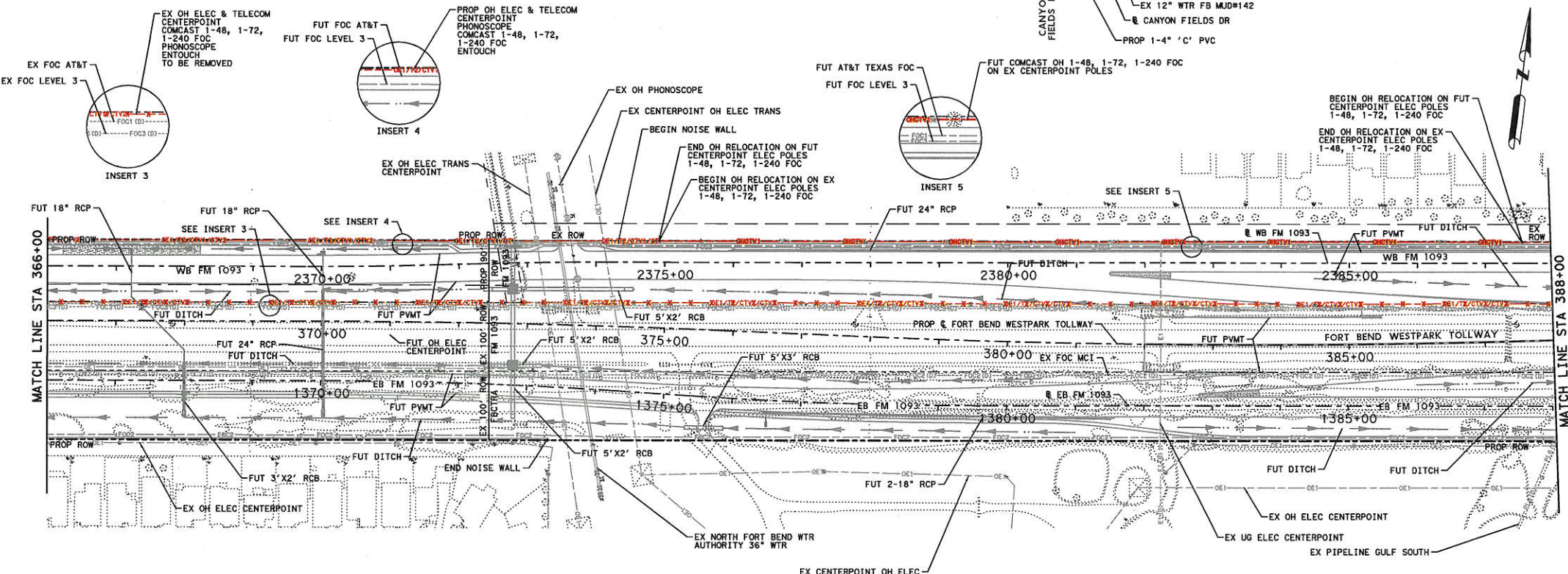
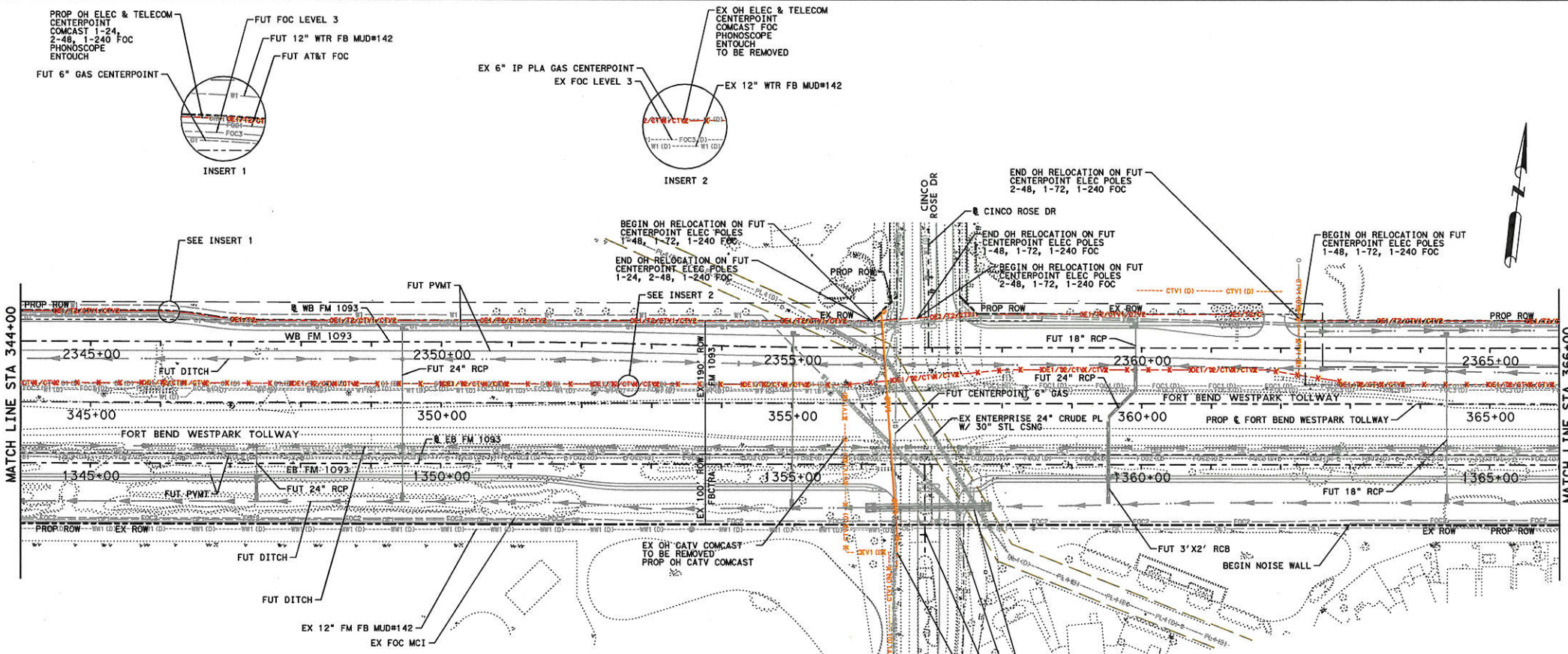
STA 300+00 TO STA 344+00

SCALE: PLAN: 1"=200'	DRAWN BY EMC	SHEET 7
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FM 1093 WESTPARK EXTENSION

11/12/2015  
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NOTE:  
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FM 1093 WESTPARK EXTENSION  
 OVERHEAD CABLE INSTALLATION  
 AND REMOVAL LAYOUT  
 SHT 2 OF 5

STA 344+00 TO STA 388+00  
 SCALE: PLAN: 1"=200'  
 DRAWN BY: EMC  
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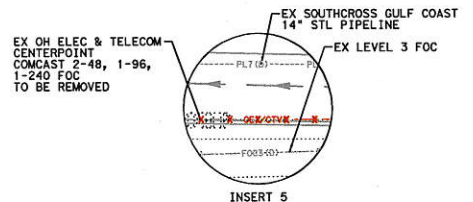
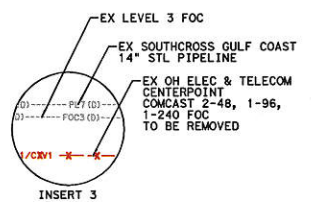
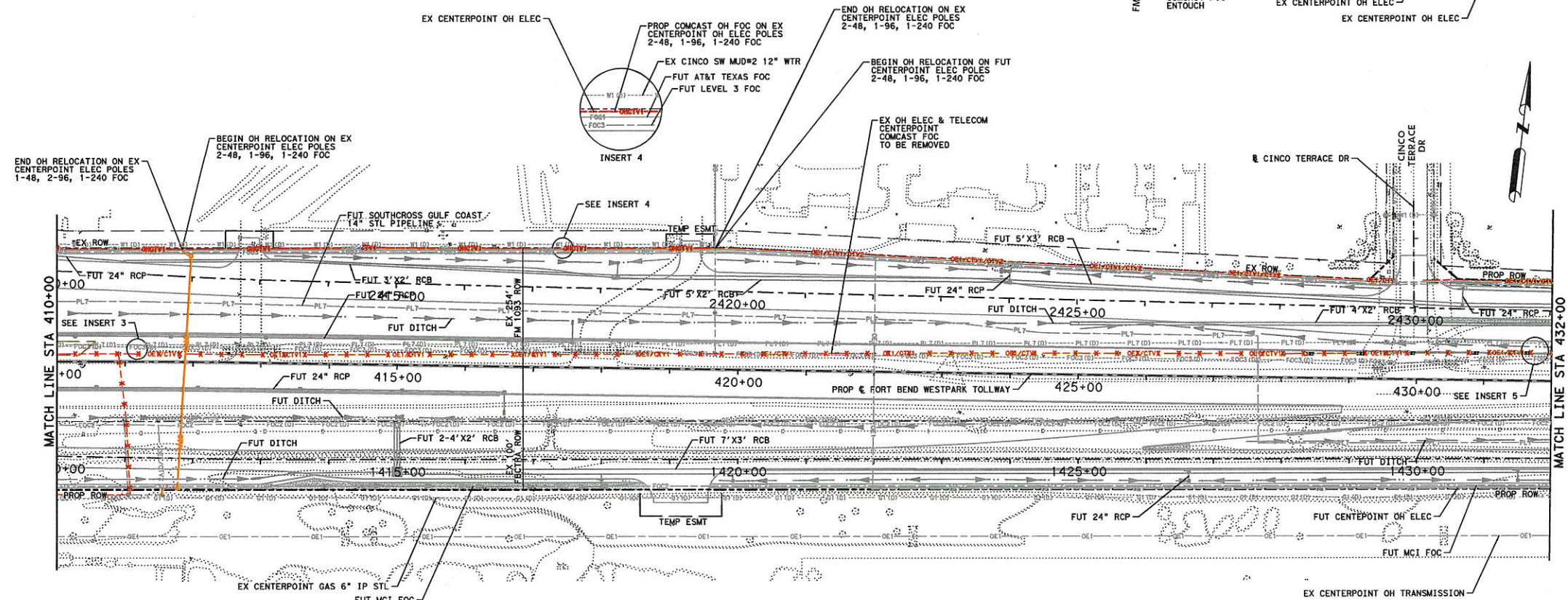
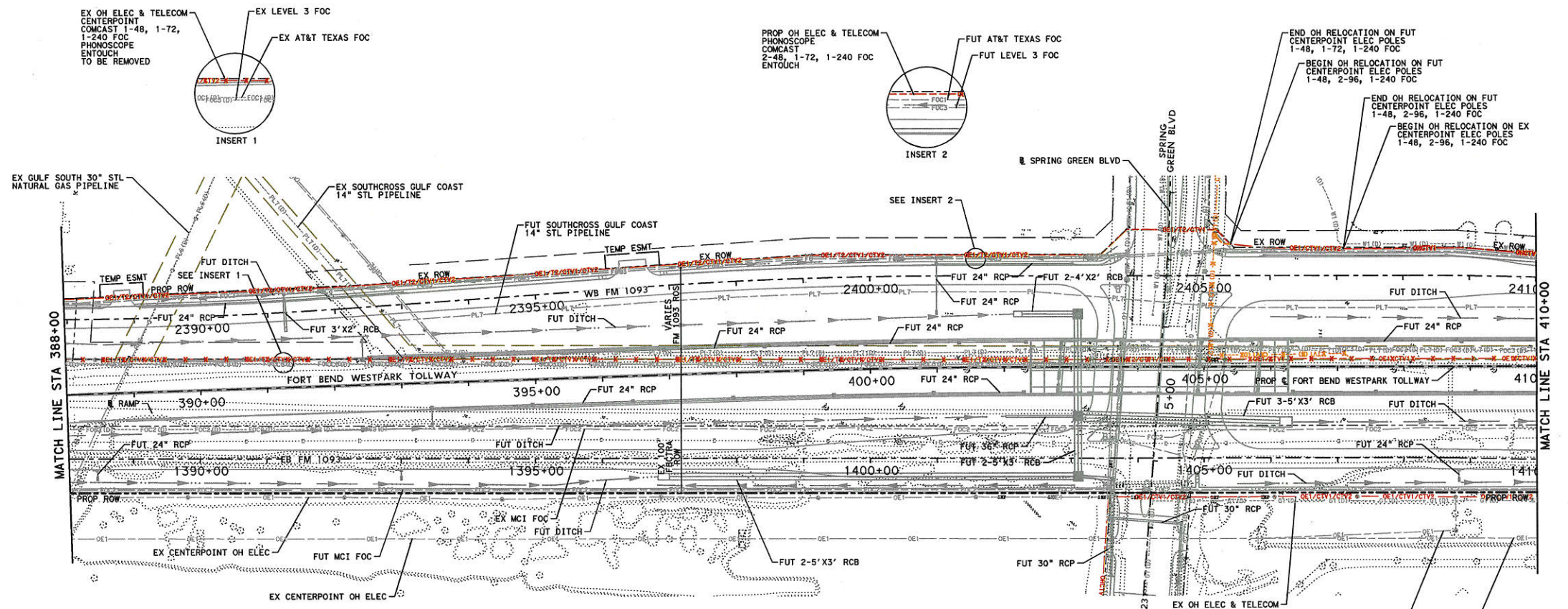
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 \*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

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NOTE:  
SEE SHT 2 FOR OVERALL  
UNDERGROUND PLAN.



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FM 1093 WESTPARK EXTENSION  
OVERHEAD CABLE INSTALLATION  
AND REMOVAL LAYOUT  
SHT 3 OF 5

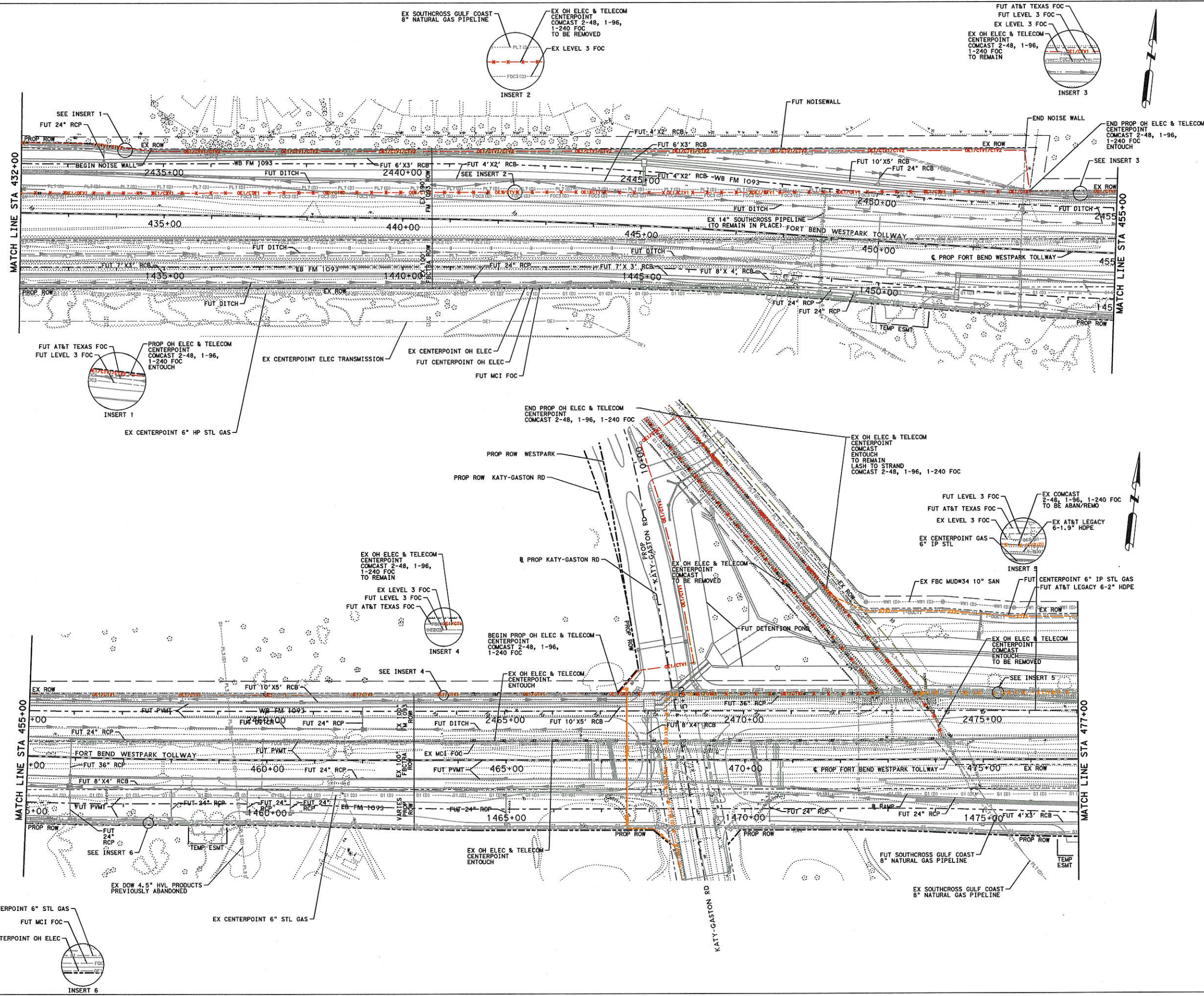
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SCALE: PLAN 1"=200' DRAWN BY EMC SHEET 9

FM 1093 WESTPARK EXTENSION

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NOTE:  
SEE SHT 2 FOR OVERALL  
UNDERGROUND PLAN.



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FM 1093 WESTPARK EXTENSION  
 OVERHEAD CABLE INSTALLATION  
 AND REMOVAL LAYOUT  
 SHT 4 OF 5

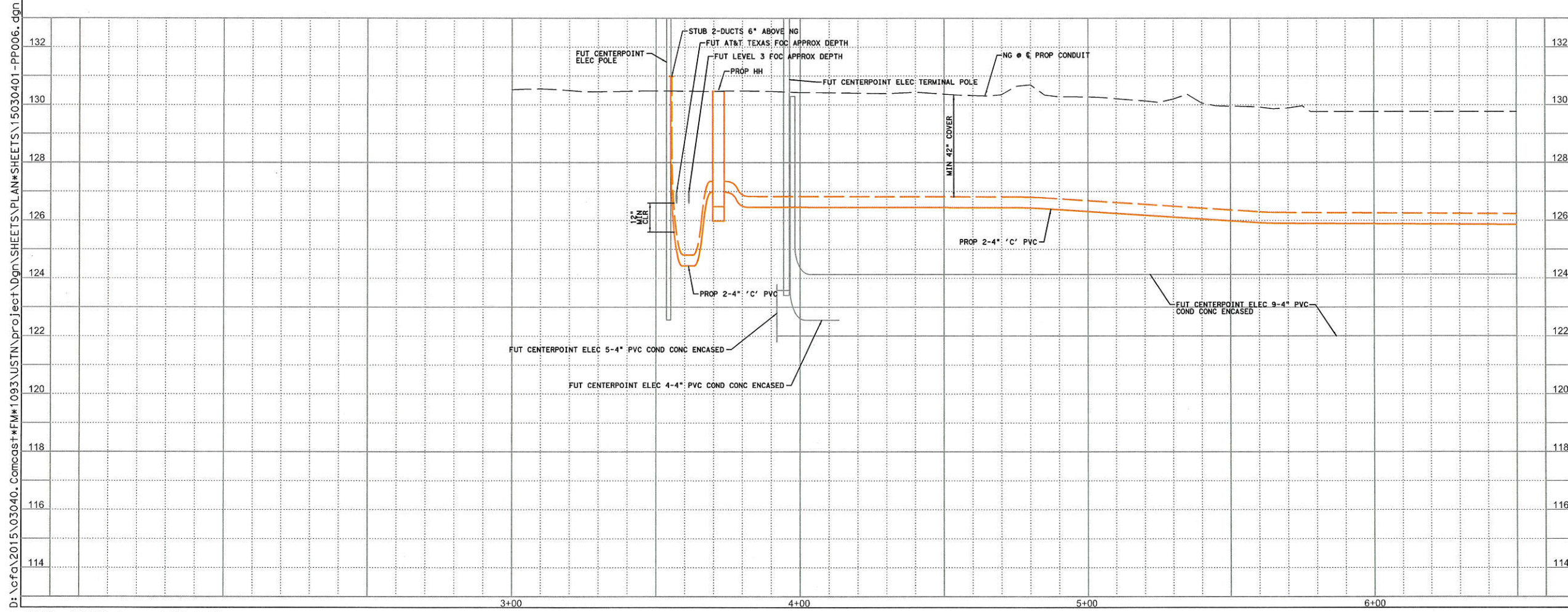
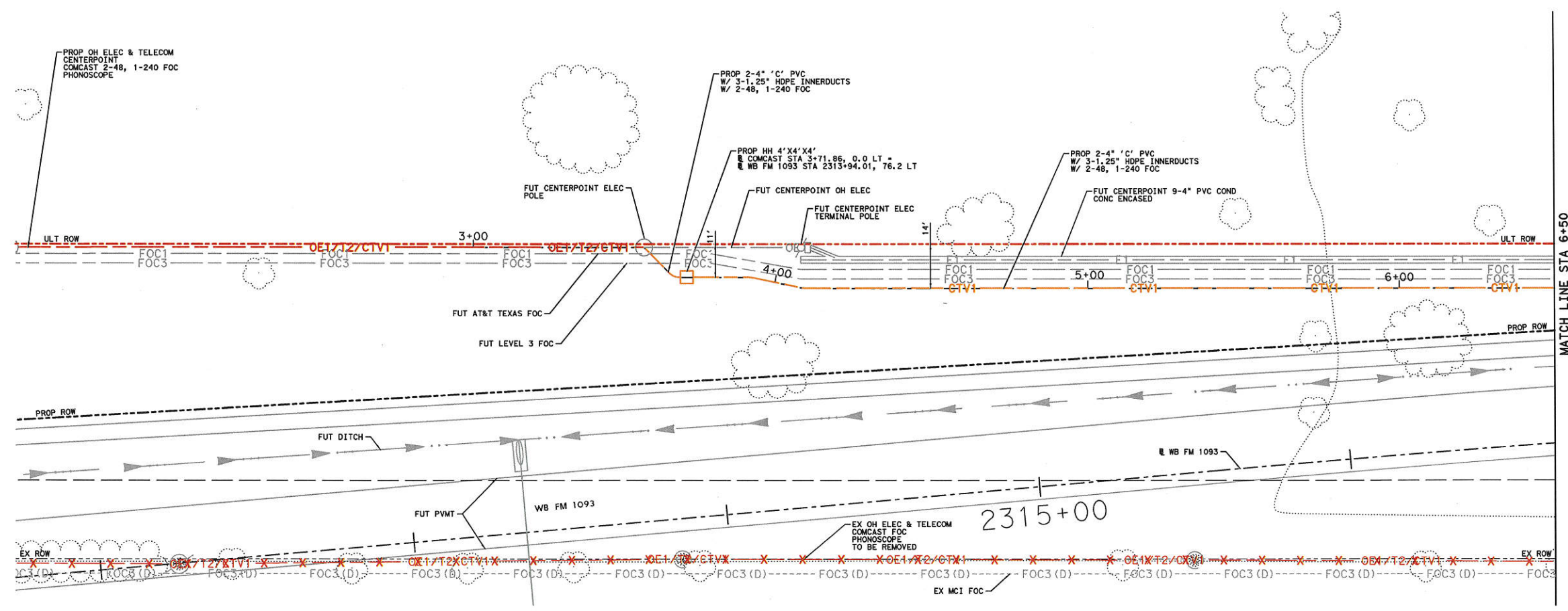
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FM 1093 WESTPARK EXTENSION



11/12/2015 3:35:56 PM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE LOCATIONS ARE BASED ON PRELIMINARY DESIGN. CONTRACTOR TO CONTACT GARY BRAXTON AT (713) 945-4583 PRIOR TO CONSTRUCTION TO CONFIRM POLE LOCATIONS.



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FM 1093 WESTPARK EXTENSION  
 WESTPARK N ROW  
 PLAN & PROFILE  
 SHT 1 OF 16  
 STA 1+50 TO STA 6+50

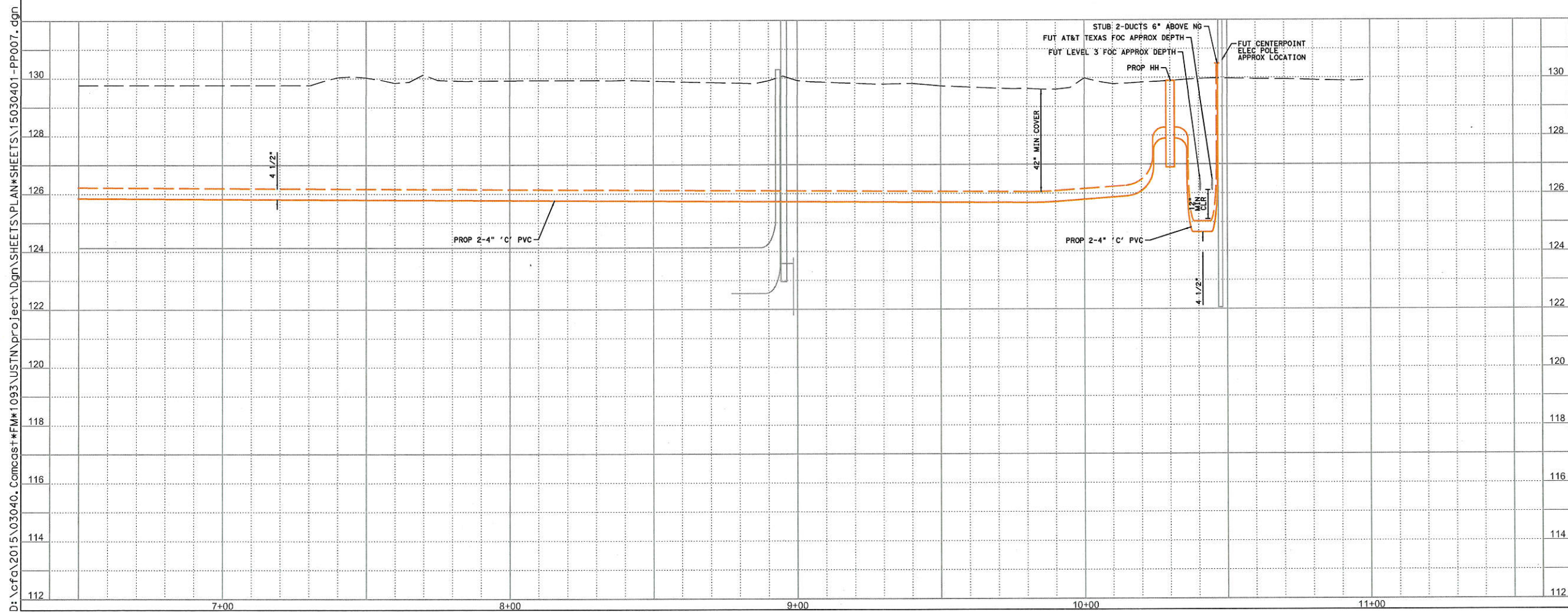
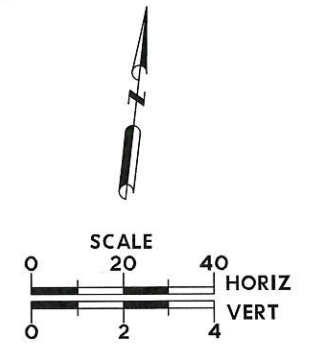
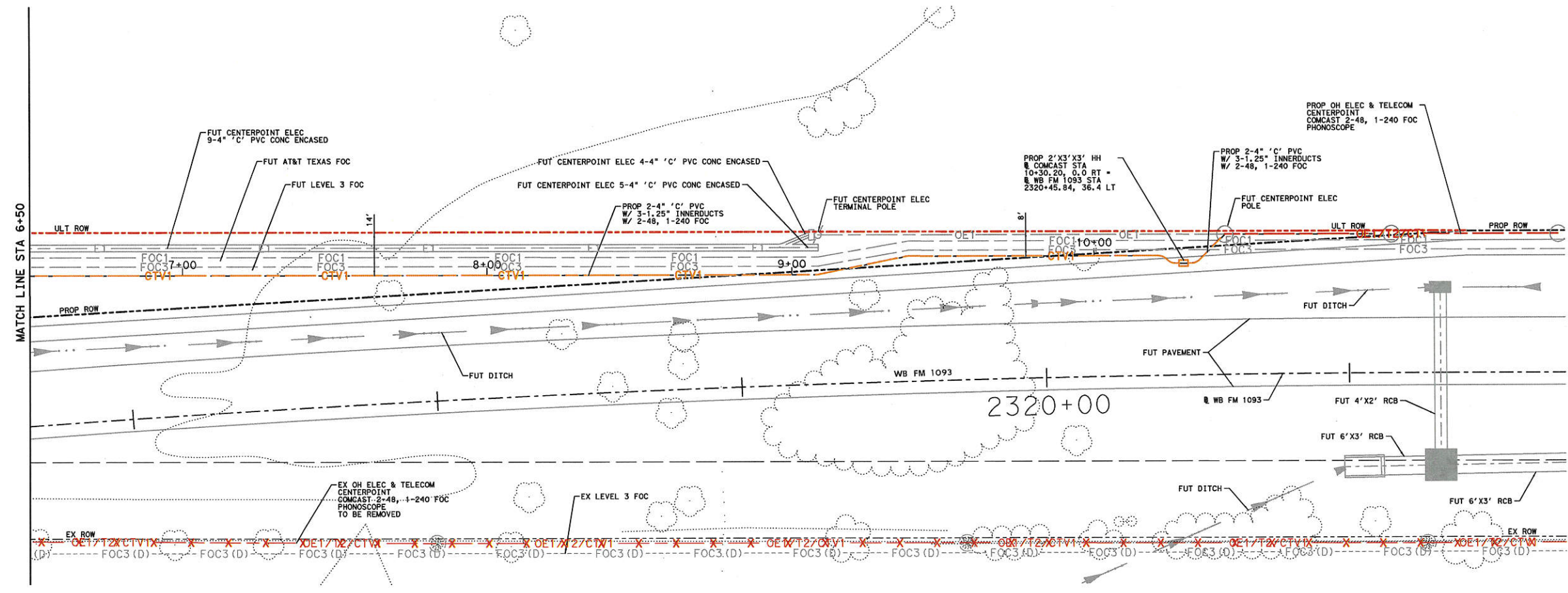
SCALE: PLAN: 1"=40' PROFILE VERT: 1"=4' PROFILE HORZ: 1"=40'	DRAWN BY EMC	SHEET 12
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\*USER: 150340\*Comcast\*FM\*1093\*  
 \*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
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NOTE:  
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FM 1093 WESTPARK EXTENSION  
WESTPARK N ROW  
PLAN & PROFILE  
SHT 2 OF 16

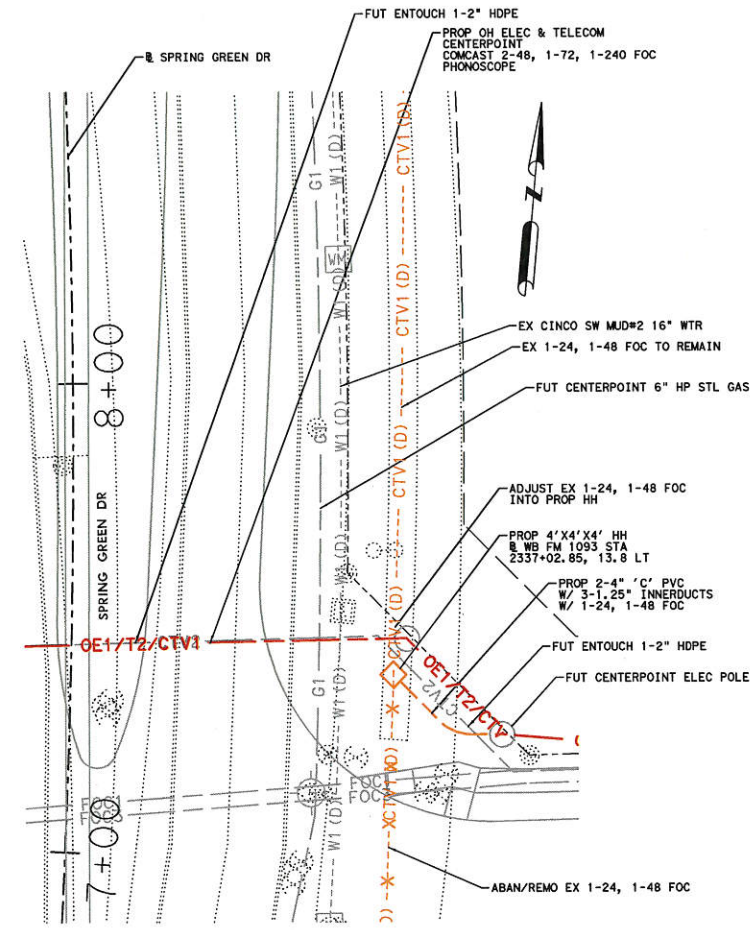
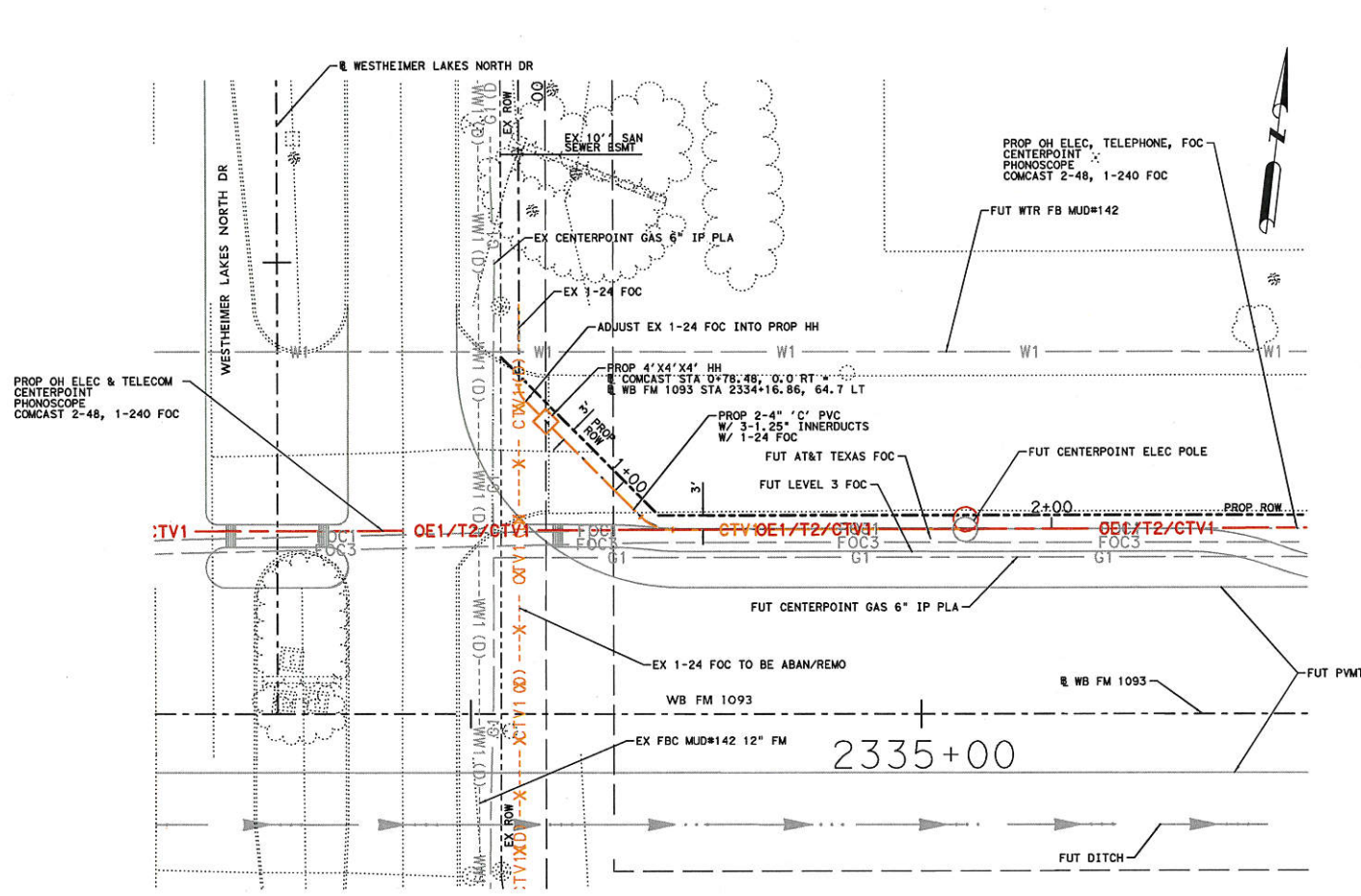
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SCALE: PLAN: 1"=40'  
PROFILE VERT: 1"=4'  
PROFILE HORZ: 1"=40'  
DRAWN BY  
EMC  
SHEET  
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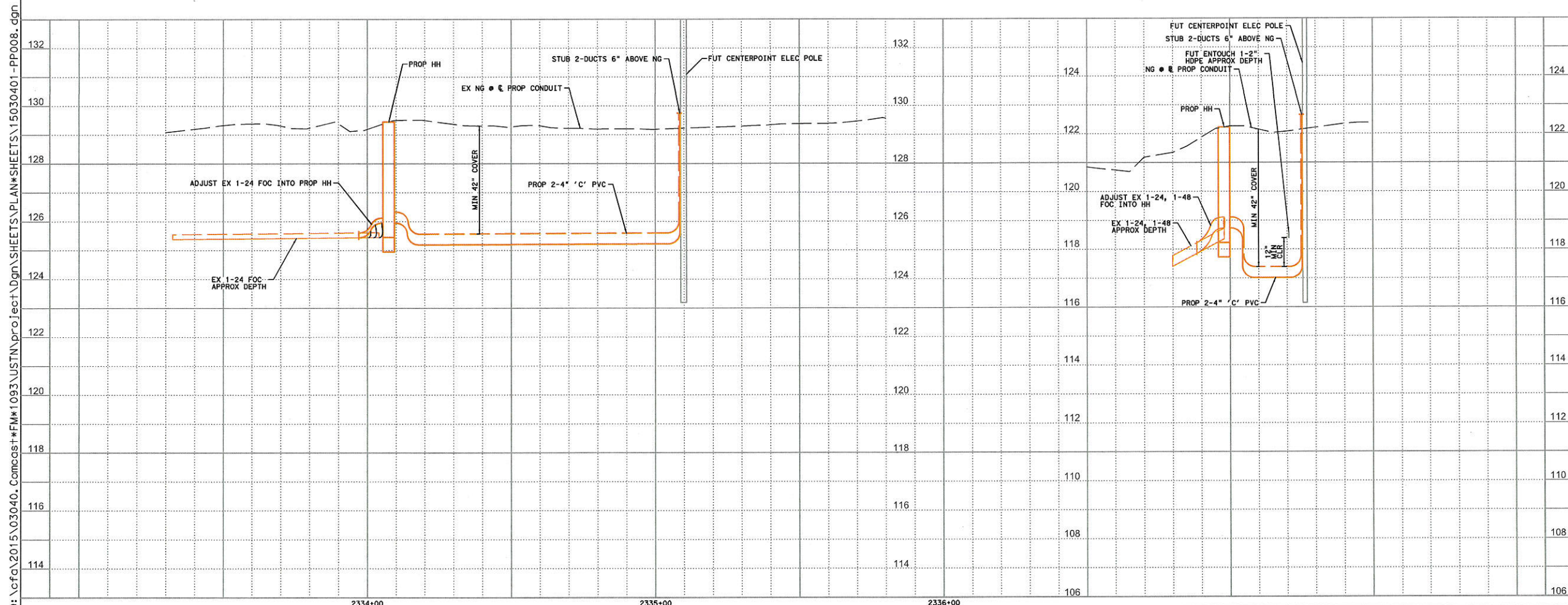
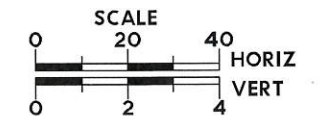
\*USER: 150340\*Comcast\*FM\*1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:00 PM



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BRAXTON AT (713) 945-4583 PRIOR TO  
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LOCATIONS.



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FM 1093 WESTPARK EXTENSION  
WESTHEIMER L. N. & SPRING G.  
PLAN & PROFILE  
SHT 3 OF 16

STA 2334+11 & STA 2405+18

SCALE: PLAN 1"=40' PROFILE VERT: 1"=4' PROFILE HORZ: 1"=40'	DRAWN BY EMC	SHEET 14
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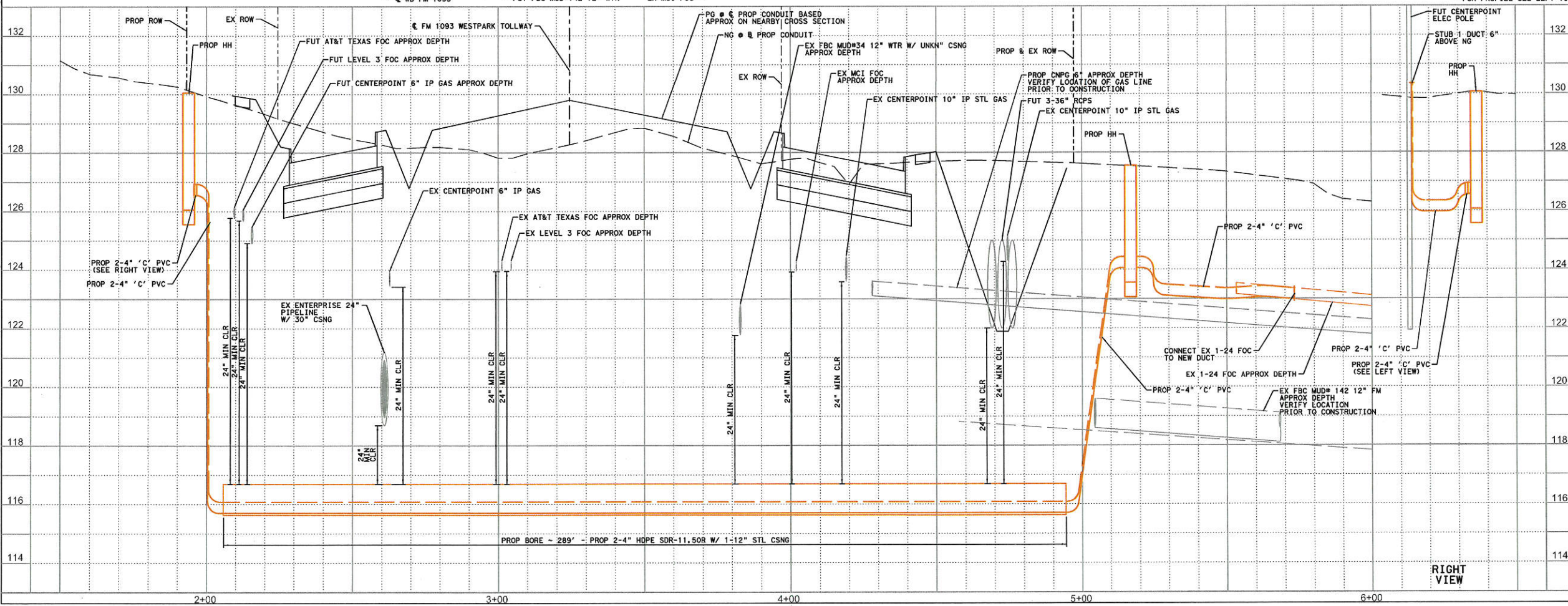
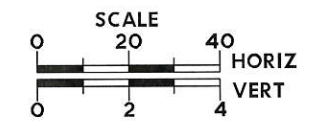
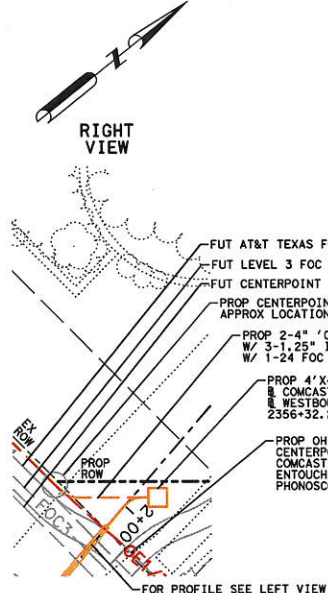
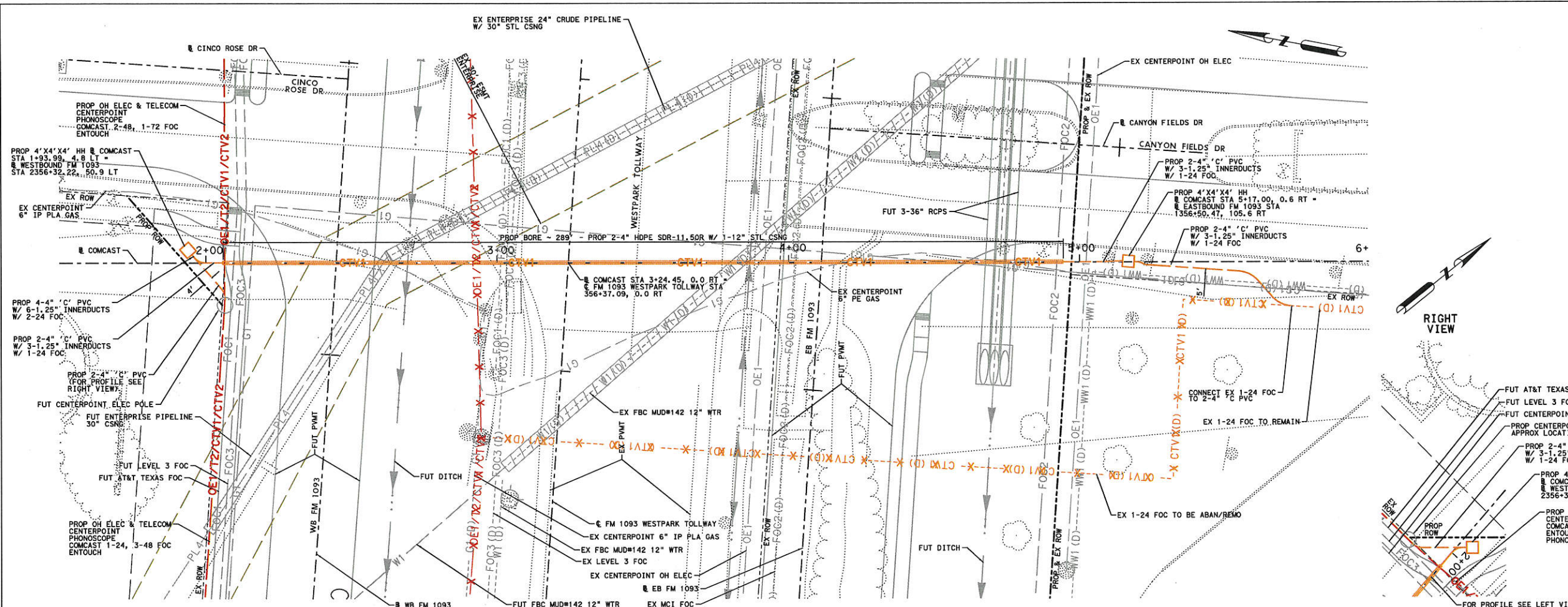
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\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:02 PM

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NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
LOCATIONS ARE BASED ON PRELIMINARY  
DESIGN. CONTRACTOR TO CONTACT GARY  
BRAXTON AT (713) 945-4583 PRIOR TO  
CONSTRUCTION TO CONFIRM POLE  
LOCATIONS.



INTERIM REVIEW  
Not intended for construction,  
bidding or permit purposes.  
Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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TBPE Firm Registration No. 274  
TBPLS Firm Registration No. 100467  
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FM 1093 WESTPARK EXTENSION  
CANYON FIELDS DR  
PLAN & PROFILE  
SHT 4 OF 16

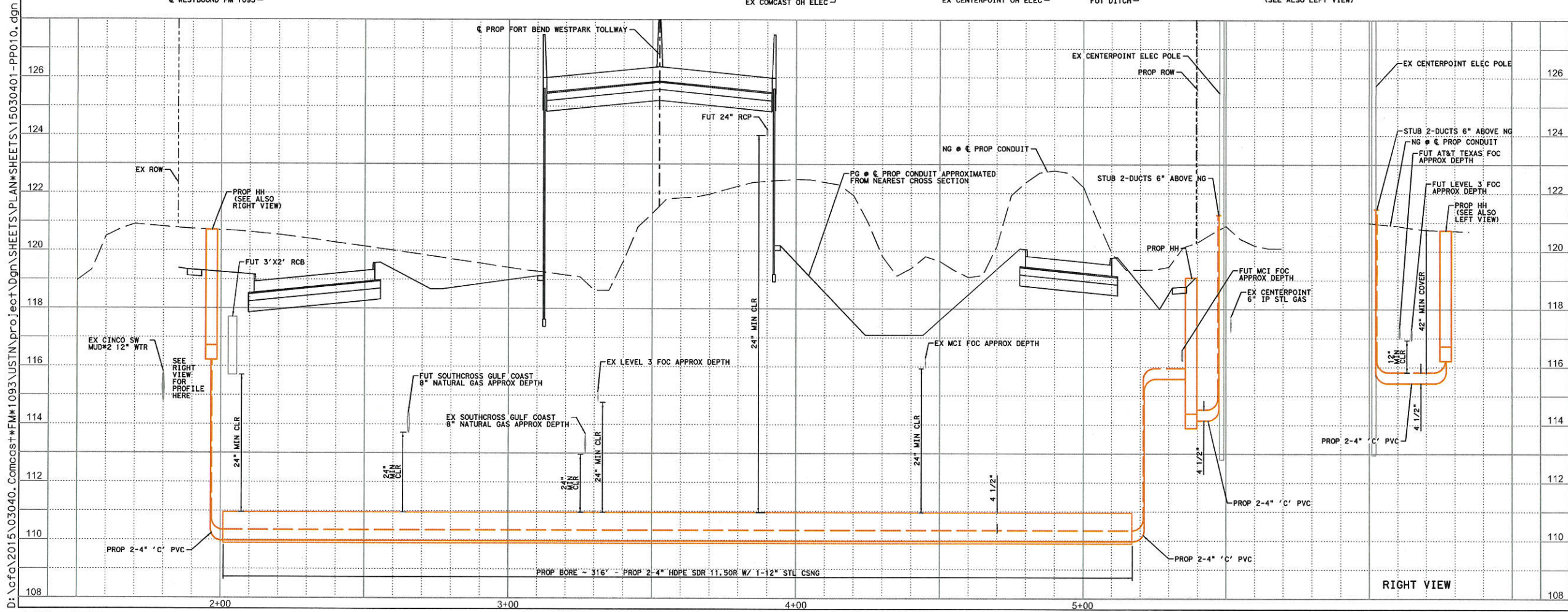
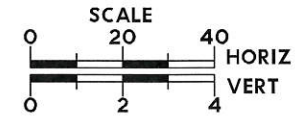
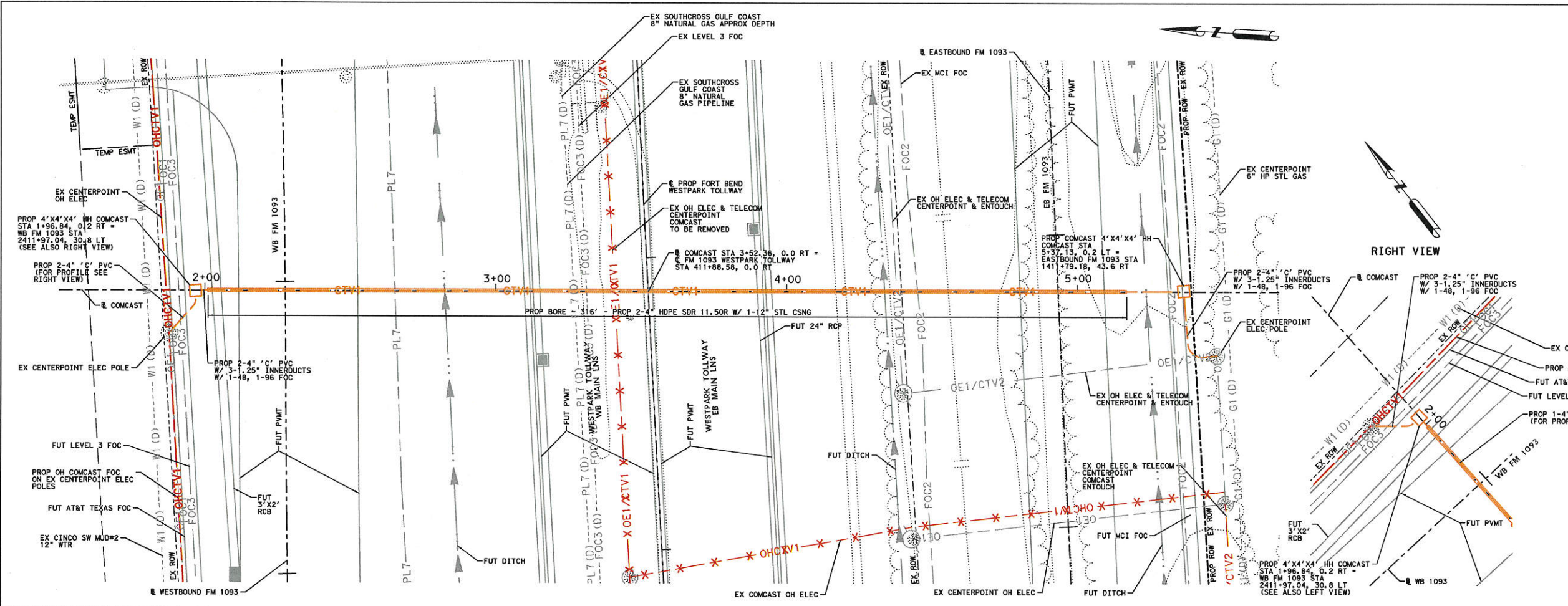
STA 356+43.08	DRAWN BY EMC	SHEET 15
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\*USER: 150340\*Comcast\*FM1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/13/2015  
9:17:13 AM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
LOCATIONS ARE BASED ON PRELIMINARY  
DESIGN. CONTRACTOR TO CONTACT GARY  
BRAXTON AT (713) 945-4583 PRIOR TO  
CONSTRUCTION TO CONFIRM POLE  
LOCATIONS.



INTERIM REVIEW  
Not intended for construction,  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/13/2015

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FM 1093 WESTPARK EXTENSION  
SPRING GREEN BLVD  
PLAN & PROFILE  
SHT 5 OF 16

STA 411+88.58  
SCALE: PLAN: 1"=40'  
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PROFILE HORZ: 1"=40'  
DRAWN BY: EMC  
SHEET: 16

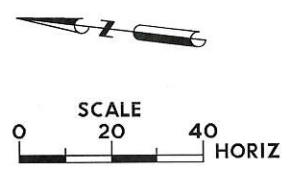
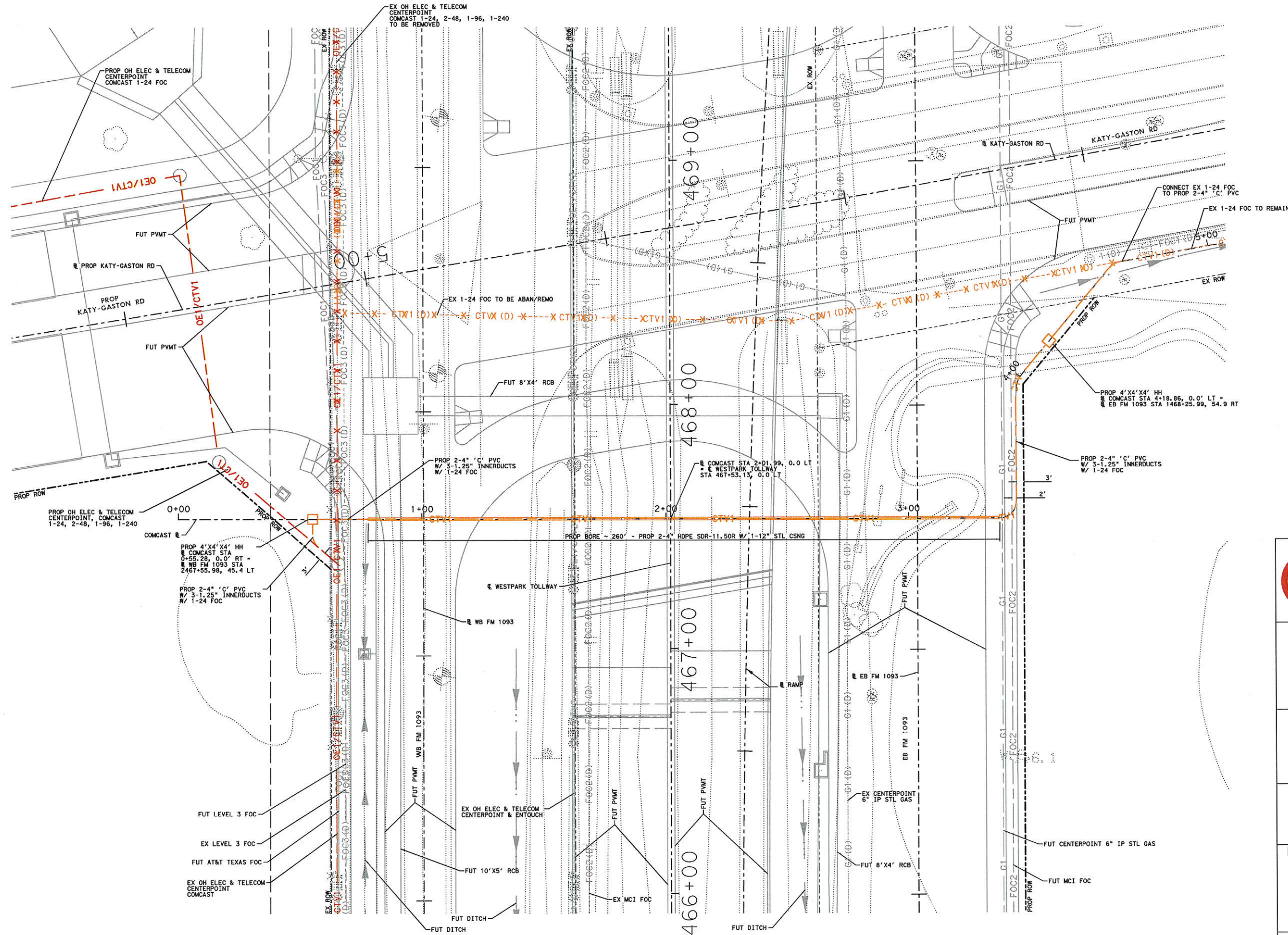
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\*USER: 150340\*Comcast\*FM1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:08 PM

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**INTERIM REVIEW**  
 Not intended for construction, bidding or permit purposes.  
 Engineer: VINEETA JAYARAM  
 P.E. Serial No.: 101121  
 Date: 11/12/2015

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 TBPLS Firm Registration No. 100467  
 13430 Northwest Freeway, Suite 1100  
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FM 1093 WESTPARK EXTENSION  
 KATY-GASTON RD  
 PLAN & PROFILE  
 SHT 6 OF 16

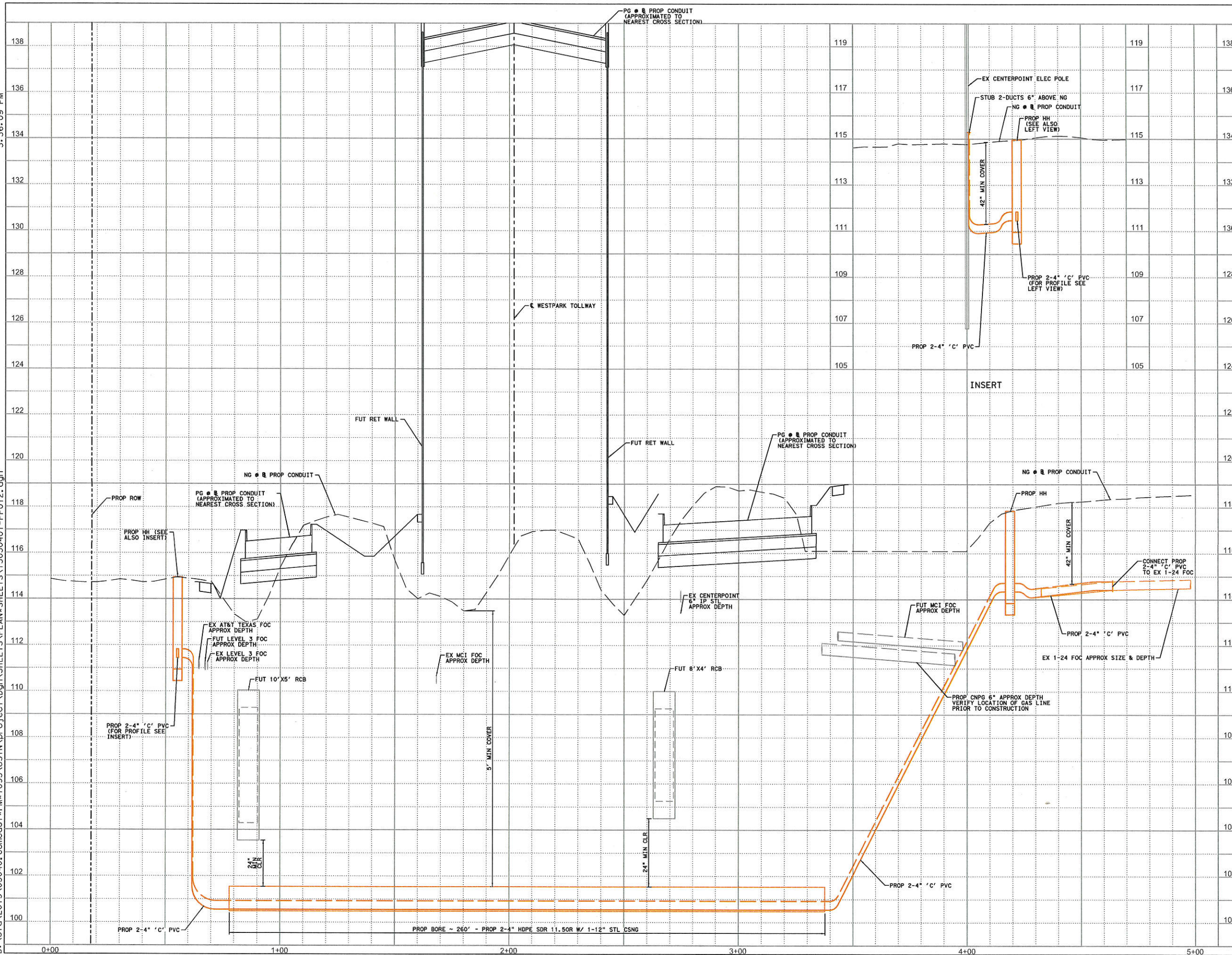
SCALE: PLAN 1"=40'	DRAWN BY EMC	SHEET 17
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\*USER: 150340\*Comcast+\*FM\*1093\*  
 \*PROJECT: COMCAST\*

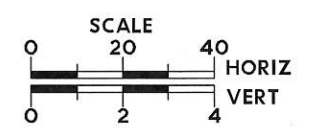
FM 1093 WESTPARK EXTENSION

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NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
LOCATIONS ARE BASED ON PRELIMINARY  
DESIGN. CONTRACTOR TO CONTACT GARY  
BRAXTON AT (713) 945-4583 PRIOR TO  
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**INTERIM REVIEW**  
Not intended for construction,  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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FM 1093 WESTPARK EXTENSION  
KATY-GASTON RD  
PLAN & PROFILE  
SHT 7 OF 16

STA 467+53.13

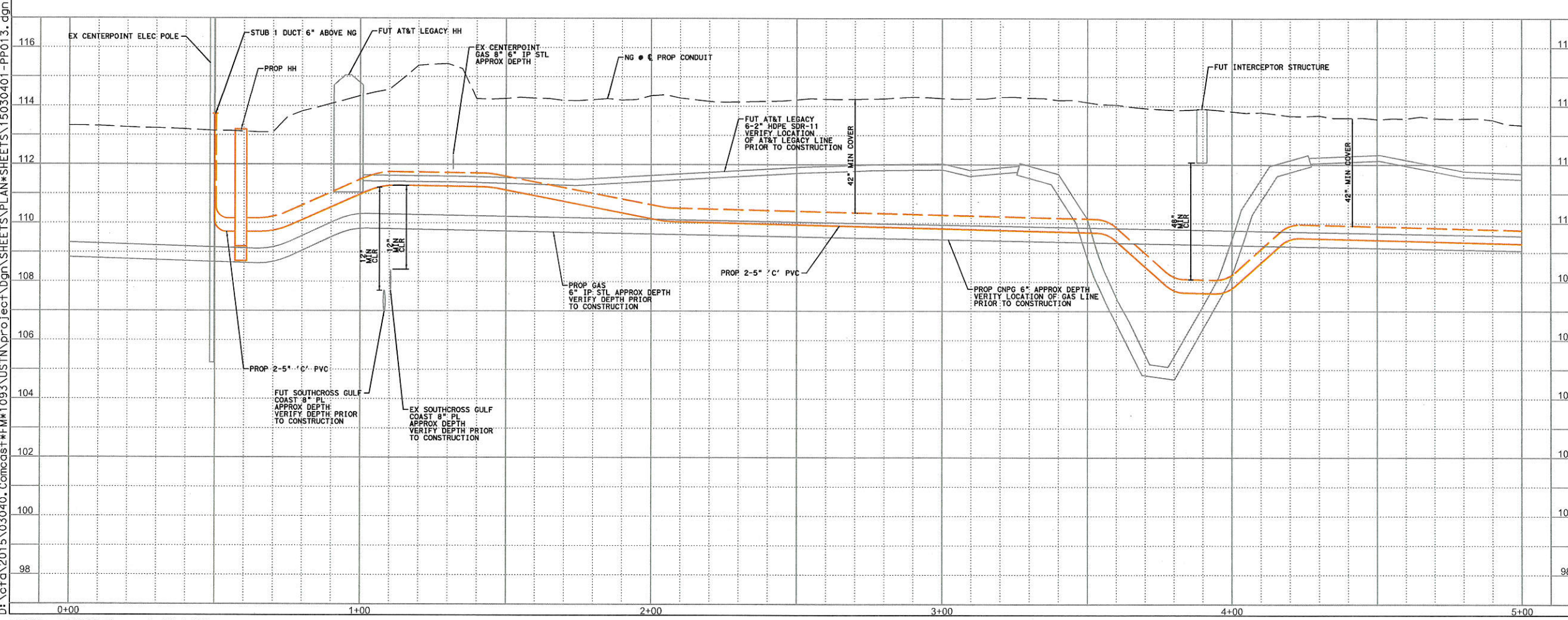
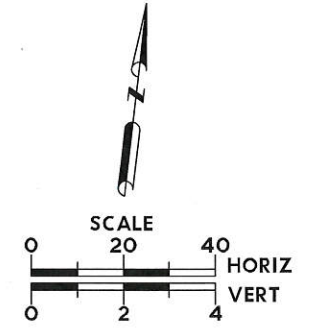
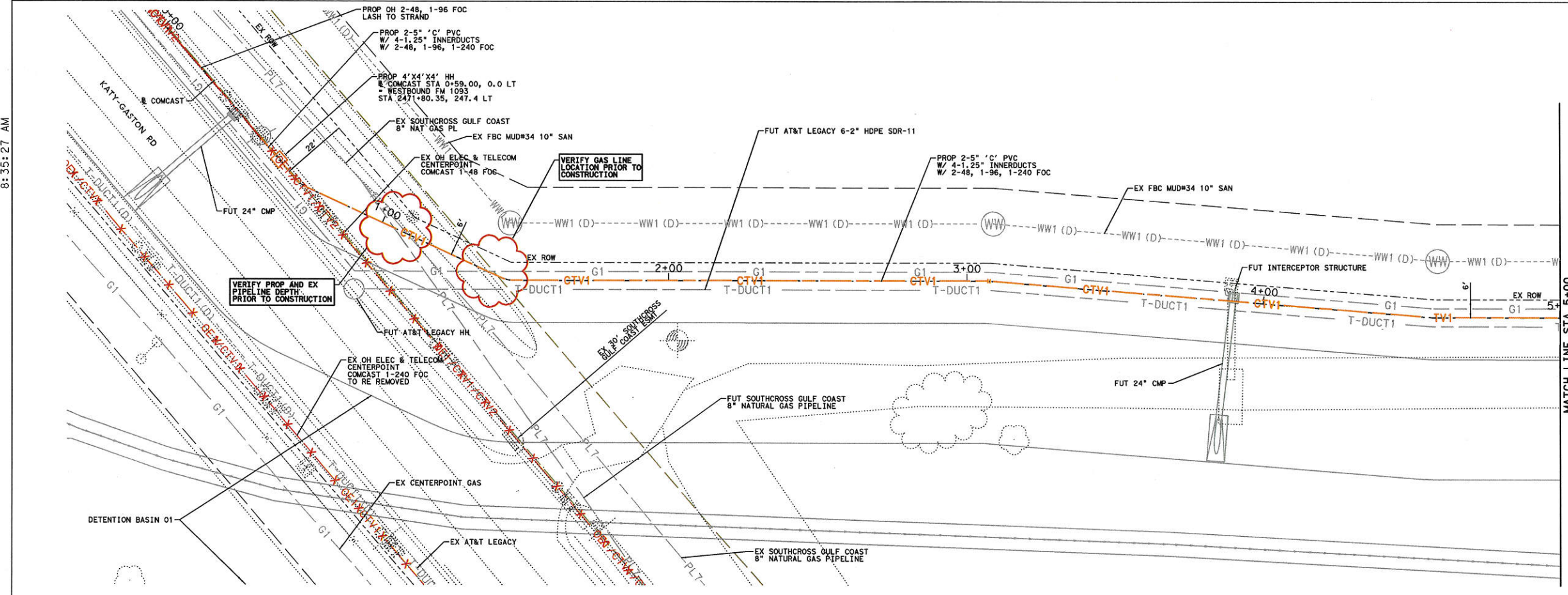
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PROFILE VERT: 1"=4'	EMC	18
PROFILE HORIZ: 1"=40'		

\*USER: 150340\*Comcast\*FM#1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/13/2015  
8:35:27 AM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
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DESIGN. CONTRACTOR TO CONTACT GARY  
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INTERIM REVIEW  
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Engineer: VINEETA JAYARAM  
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Date: 11/13/2015

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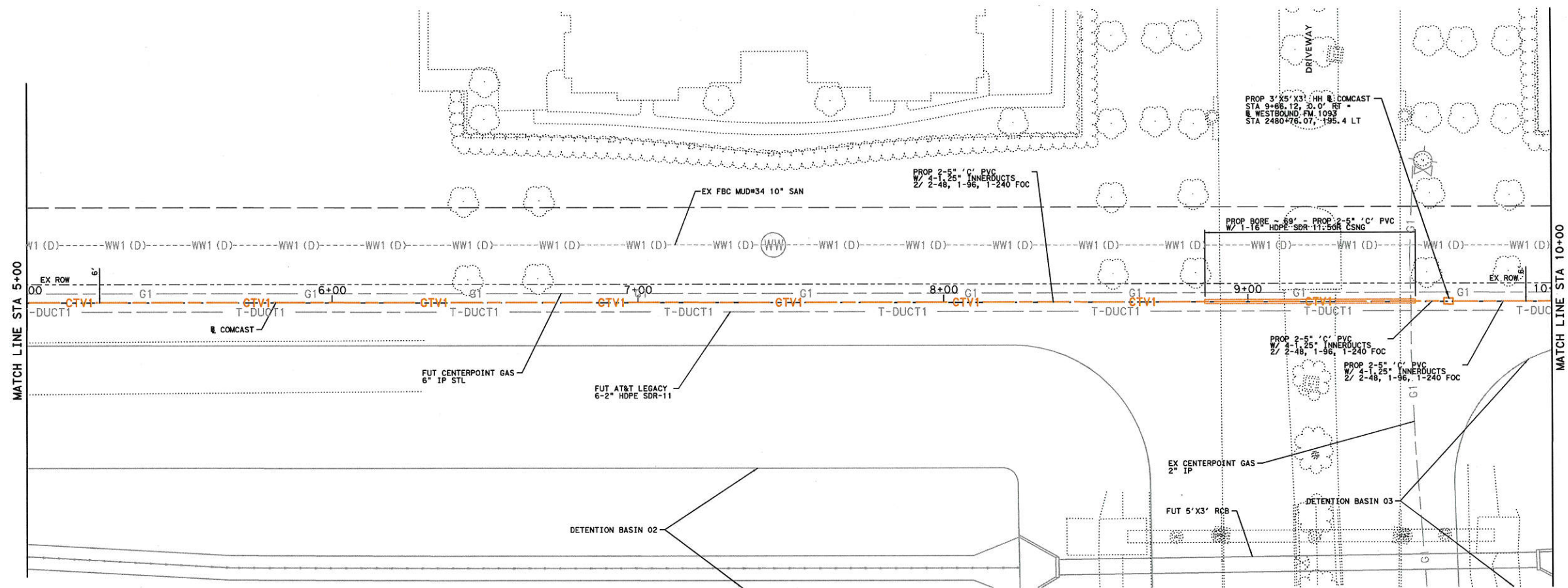
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WESTPARK N ROW  
PLAN & PROFILE  
SHT 8 OF 16

STA 0+00 TO STA 5+00  
SCALE: PLAN: 1"=40'  
PROFILE VERT: 1"=4'  
PROFILE HORIZ: 1"=40'  
DRAWN BY: EMC  
SHEET: 19

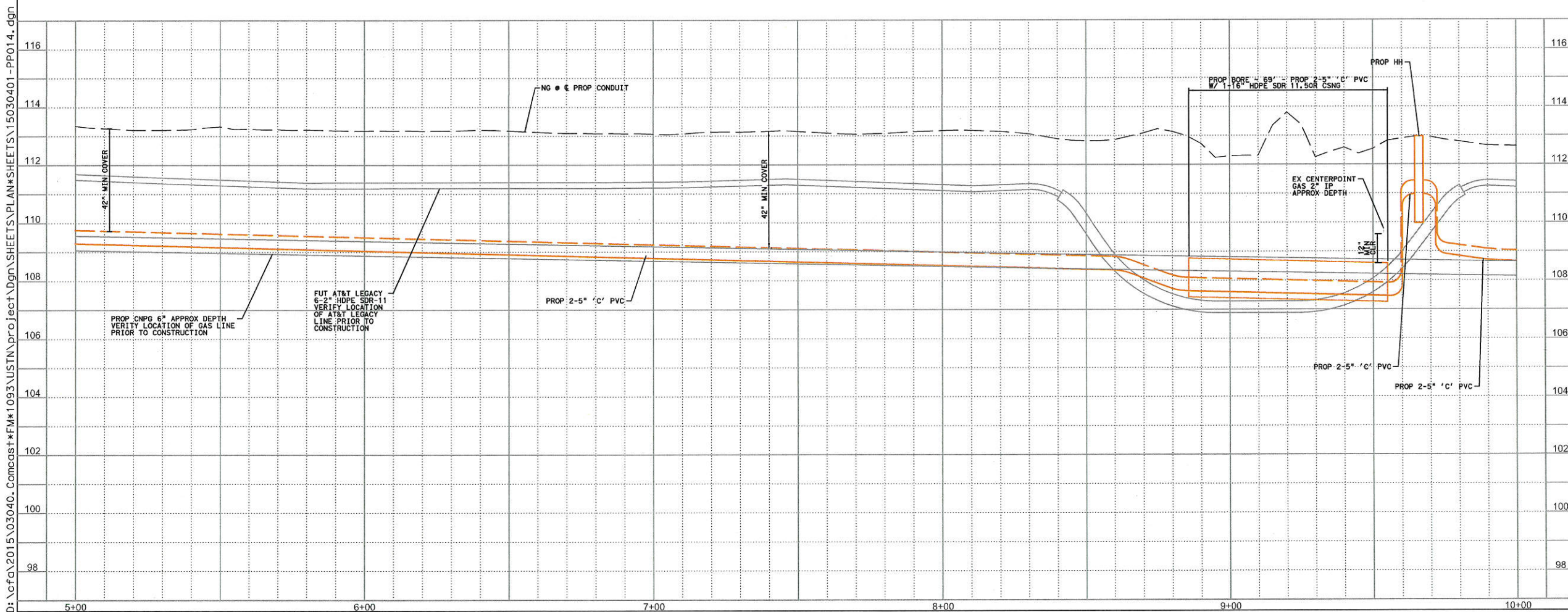
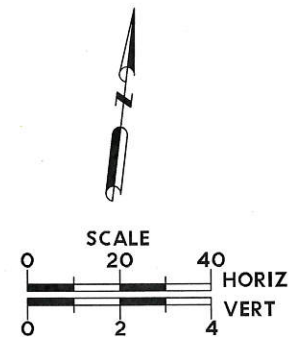
\*USER: 150340\*Comcast\*FM\*1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:12 PM



**NOTE:**  
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Not intended for construction,  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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FM 1093 WESTPARK EXTENSION

WESTPARK N ROW  
PLAN & PROFILE  
SHT 9 OF 16

STA 5+00 TO STA 10+00

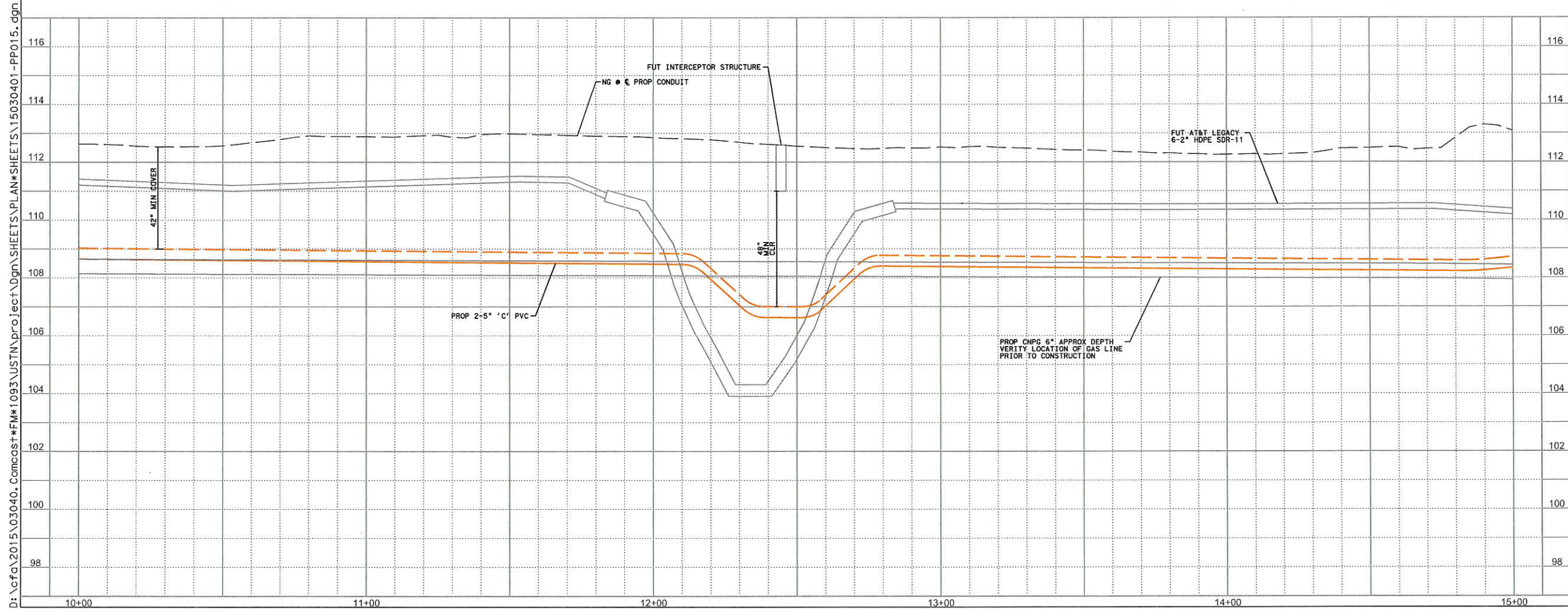
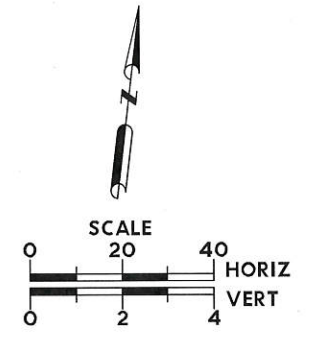
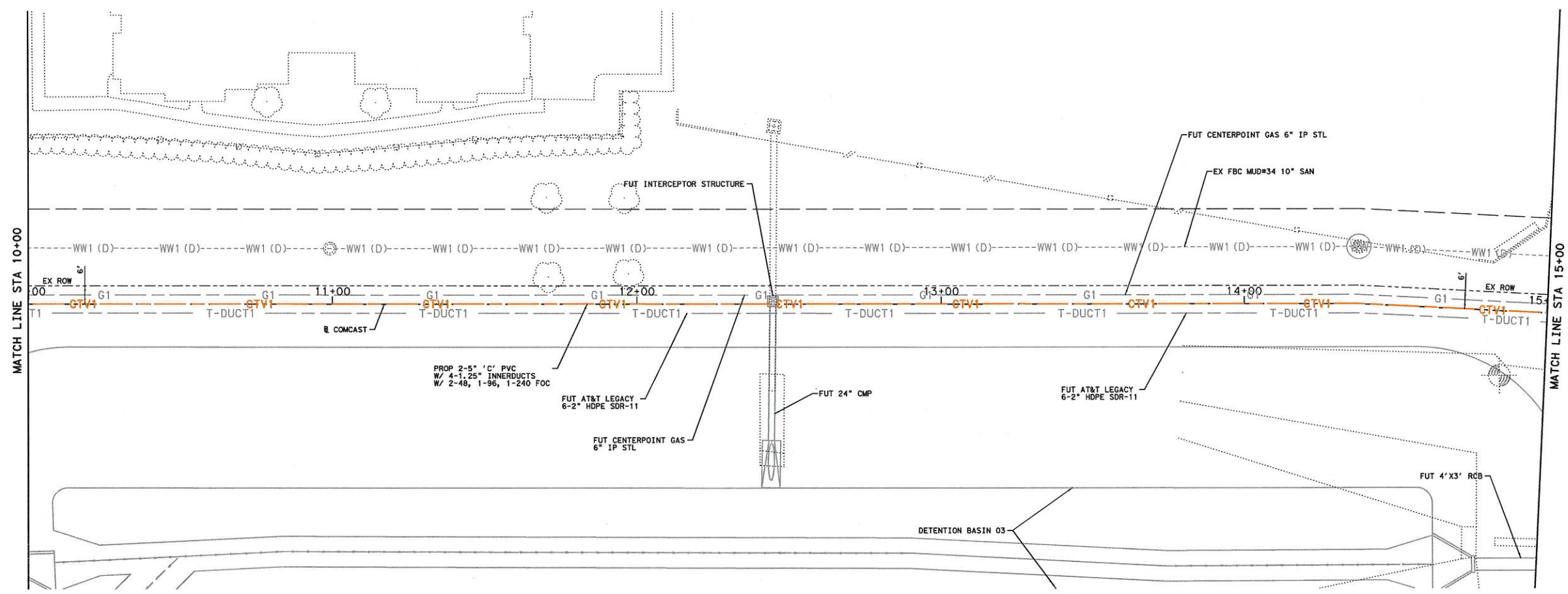
SCALE: PLAN: 1"=40' PROFILE VERT: 1"=4' PROFILE HORIZ: 1"=40'	DRAWN BY EMC	SHEET 20
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\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:14 PM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
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DESIGN. CONTRACTOR TO CONTACT GARY  
BRAXTON AT (713) 945-4583 PRIOR TO  
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**INTERIM REVIEW**  
Not intended for construction,  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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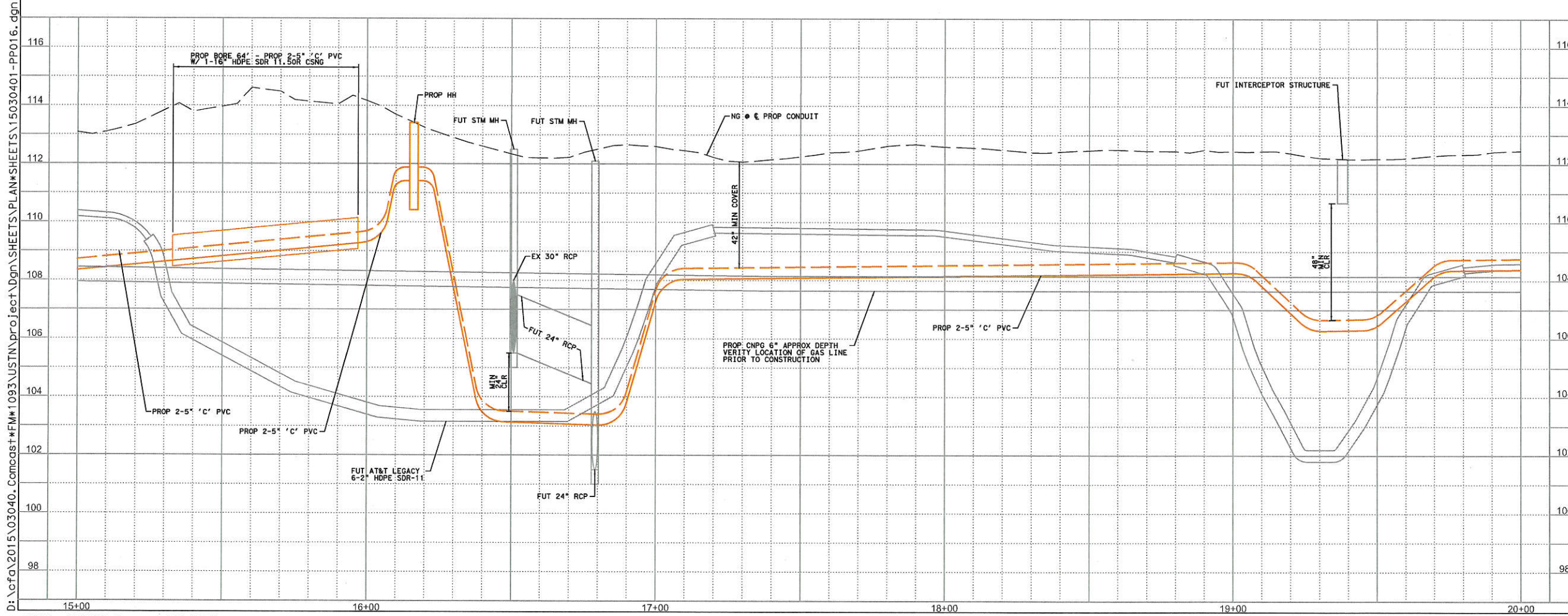
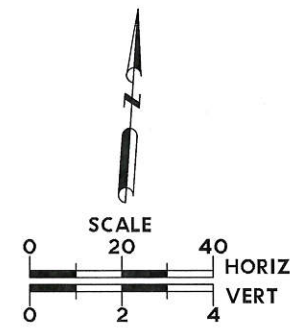
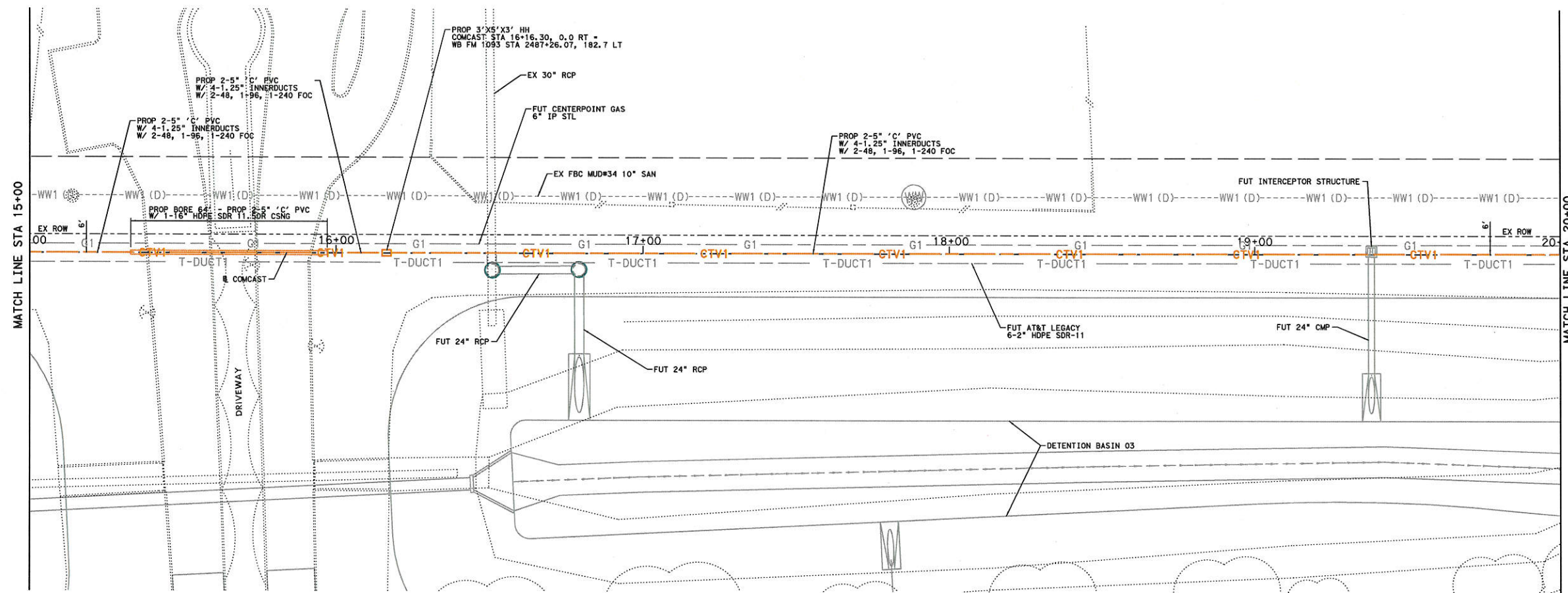
FM 1093 WESTPARK EXTENSION  
WESTPARK N ROW  
PLAN & PROFILE  
SHT 10 OF 16

STA 10+00 TO STA 15+00  
SCALE: PLAN: 1"=40'  
PROFILE VERT: 1"=4'  
PROFILE HORIZ: 1"=40'  
DRAWN BY: EMC  
SHEET: 21

FM 1093 WESTPARK EXTENSION

11/12/2015  
4:06:45 PM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
LOCATIONS ARE BASED ON PRELIMINARY  
DESIGN. CONTRACTOR TO CONTACT GARY  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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FM 1093 WESTPARK EXTENSION  
WESTPARK N ROW  
PLAN & PROFILE  
SHT 11 OF 16

STA 15+00 TO STA 20+00

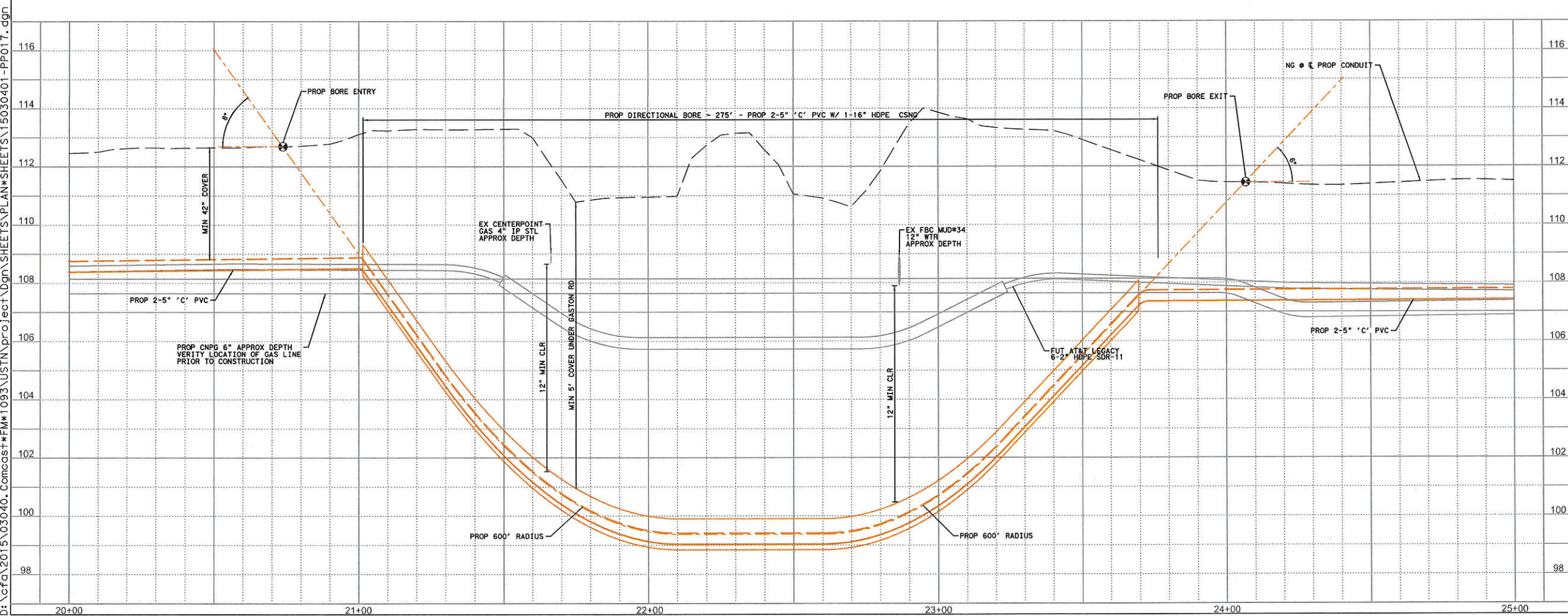
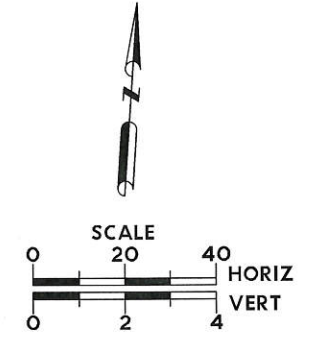
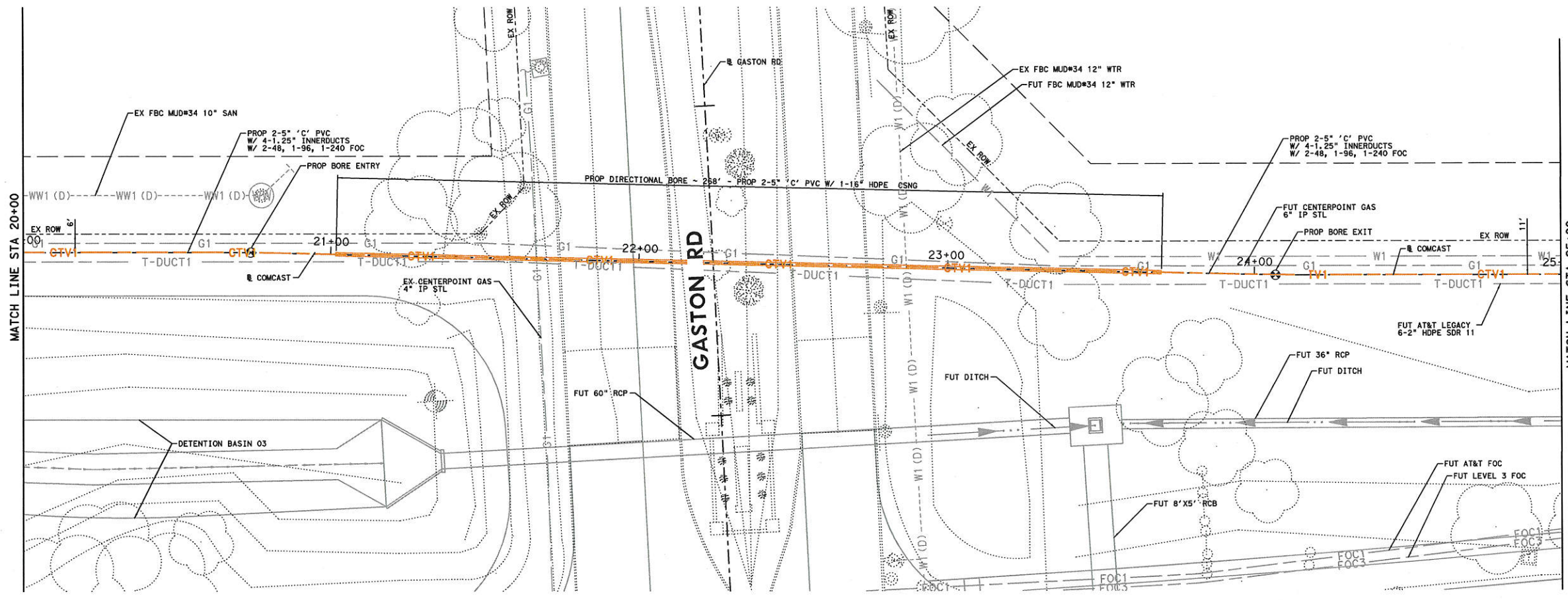
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\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:16 PM

NOTE:  
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LOCATIONS ARE BASED ON PRELIMINARY  
DESIGN. CONTRACTOR TO CONTACT GARY  
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CONSTRUCTION TO CONFIRM POLE  
LOCATIONS.



**INTERIM REVIEW**  
Not intended for construction,  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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TBPLS Firm Registration No. 100467  
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FM 1093 WESTPARK EXTENSION  
WESTPARK N ROW  
PLAN & PROFILE  
SHT 12 OF 16

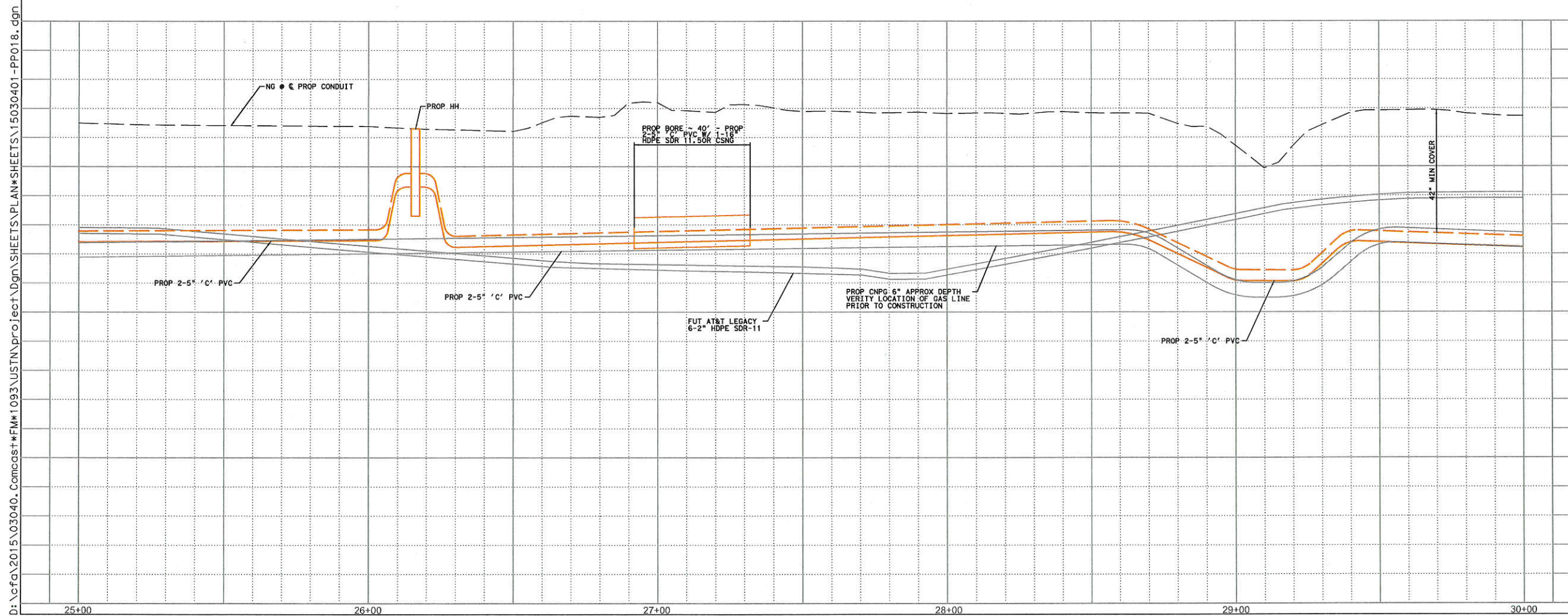
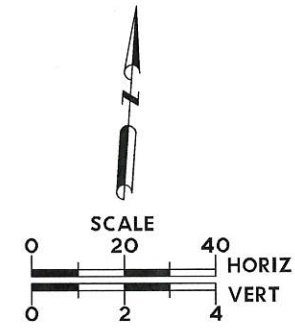
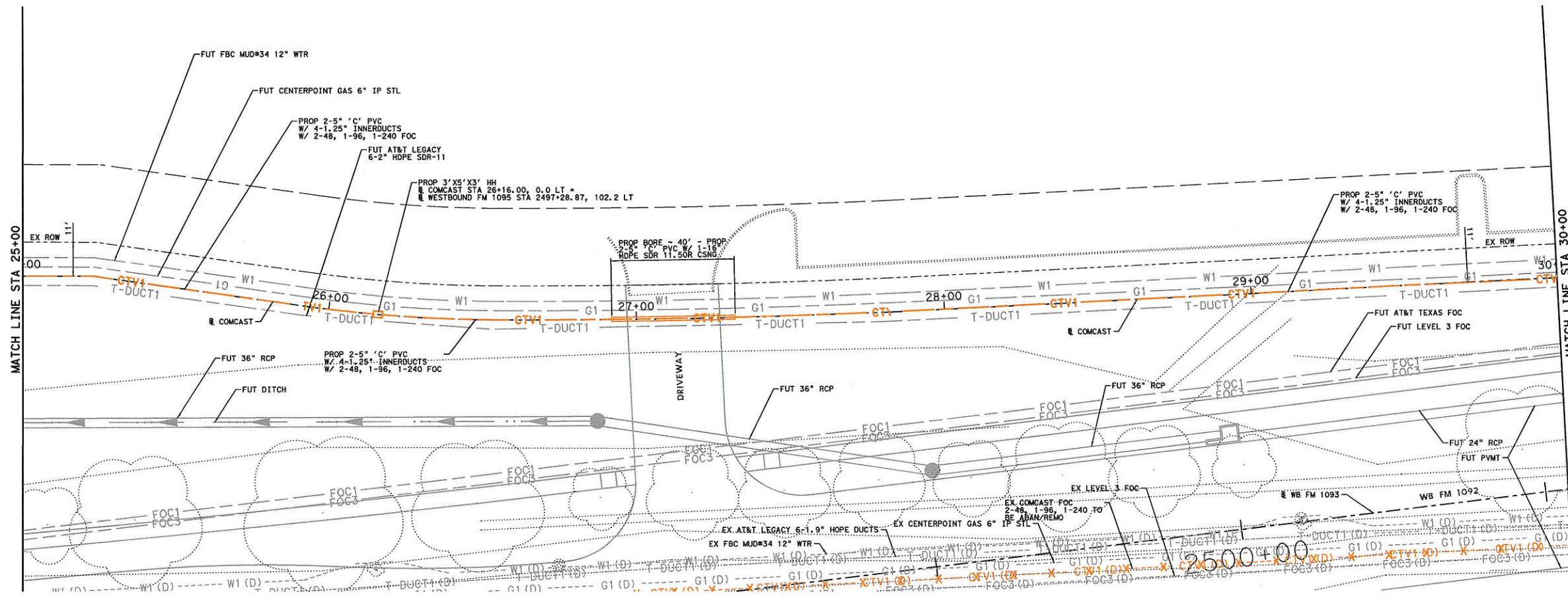
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DRAWN BY: EMC  
SHEET: 23

\*USER: 150340\*Comcast\*FM1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:18 PM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
LOCATIONS ARE BASED ON PRELIMINARY  
DESIGN. CONTRACTOR TO CONTACT GARY  
BRAXTON AT (713) 945-4583 PRIOR TO  
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LOCATIONS.



**INTERIM REVIEW**  
Not intended for construction,  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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TBPES Firm Registration No. 100467  
13430 Northwest Freeway, Suite 1100  
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FM 1093 WESTPARK EXTENSION  
WESTPARK N ROW  
PLAN & PROFILE  
SHT 13 OF 16

STA 25+00 TO STA 30+00

SCALE: PLAN: 1"=40'	DRAWN BY	SHEET
PROFILE VERT: 1"=4'	EMC	24
PROFILE HORZ: 1"=40'		

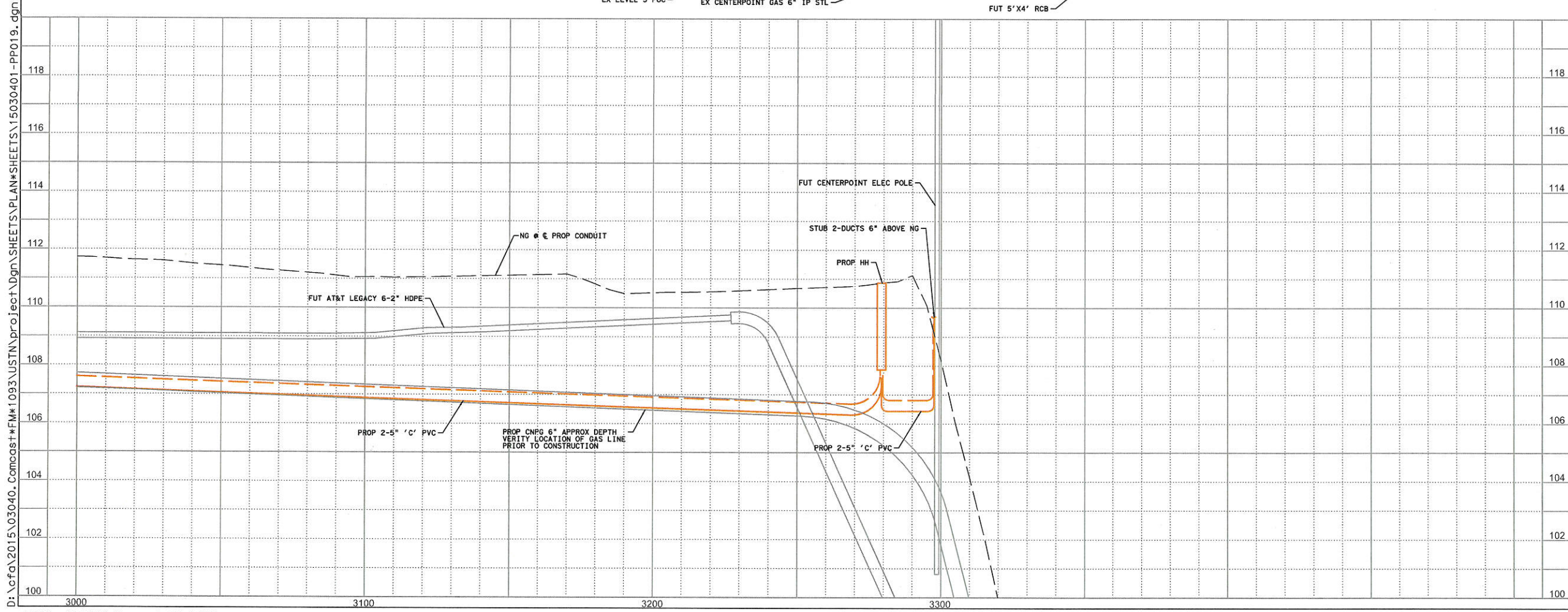
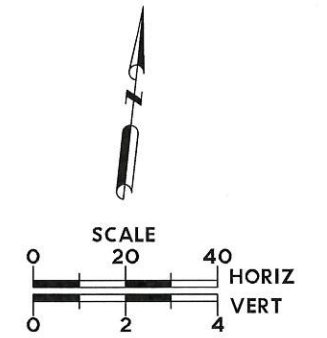
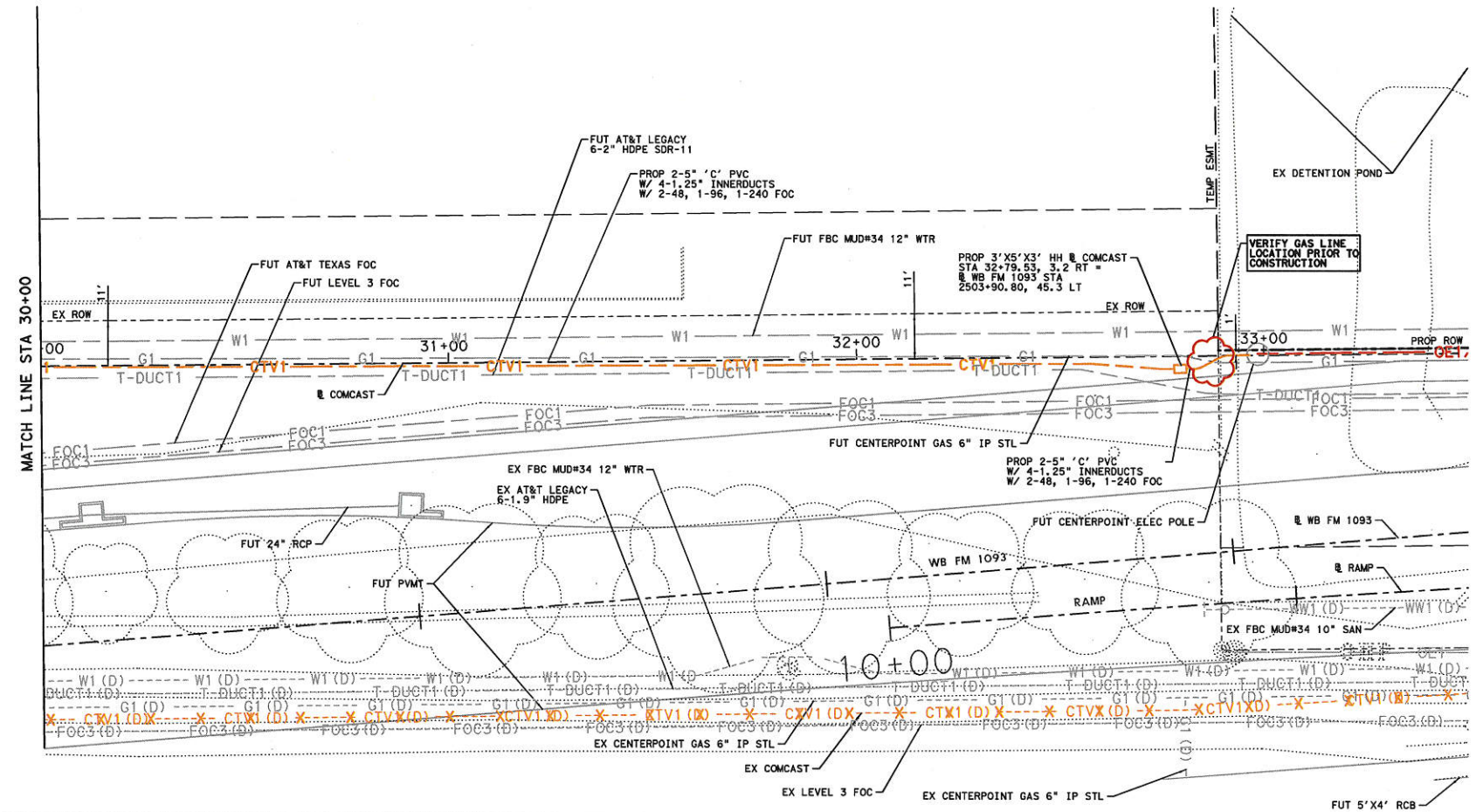
\*USER: 150340\*Comcast\*FM\*1093\*  
\*PROJECT: COMCAST\*

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FM 1093 WESTPARK EXTENSION

11/12/2015  
3:55:53 PM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
LOCATIONS ARE BASED ON PRELIMINARY  
DESIGN. CONTRACTOR TO CONTACT GARY  
BRAXTON AT (713) 945-4583 PRIOR TO  
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LOCATIONS.



**INTERIM REVIEW**  
Not intended for construction,  
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Engineer: VINEETA JAYARAM  
P.E. Serial No.: 101121  
Date: 11/12/2015

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FM 1093 WESTPARK EXTENSION  
WESTPARK N ROW  
PLAN & PROFILE  
SHT 14 OF 16

STA 30+00 TO STA 33+50

SCALE: PLAN: 1"=40' PROFILE VERT: 1"=4' PROFILE HORIZ: 1"=40'	DRAWN BY EMC	SHEET 25
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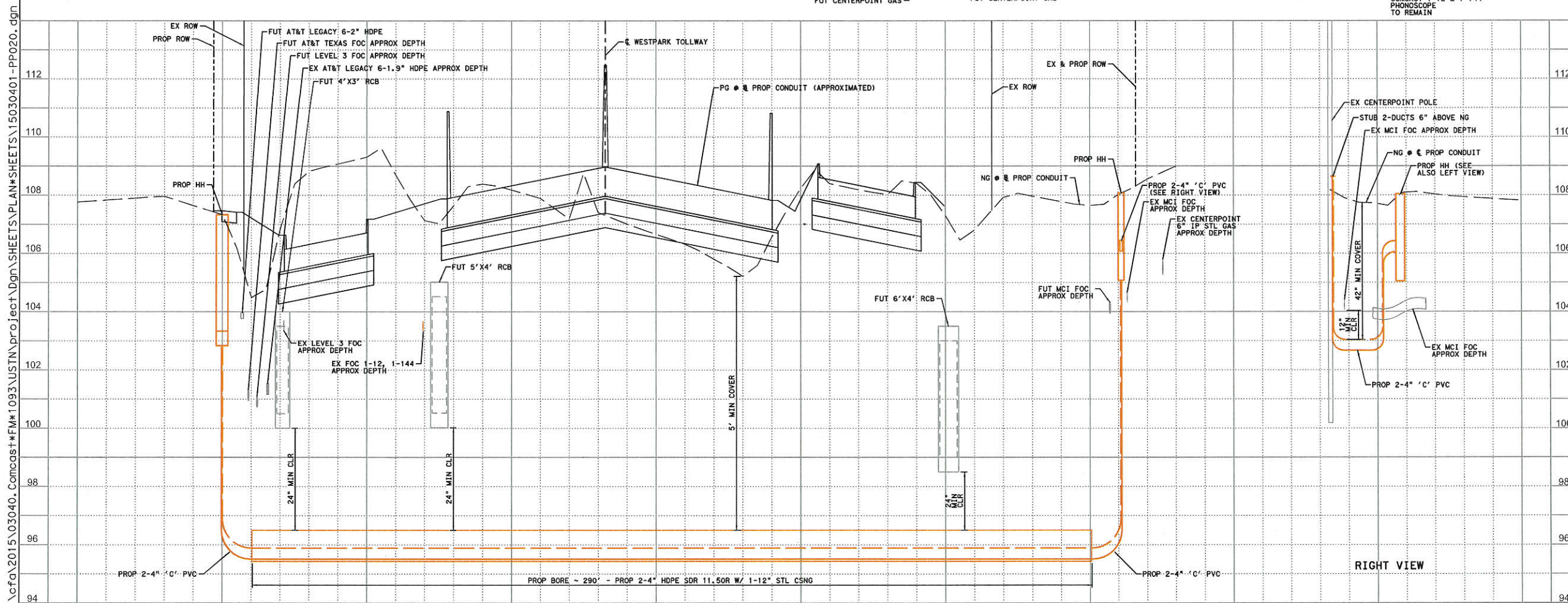
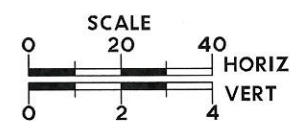
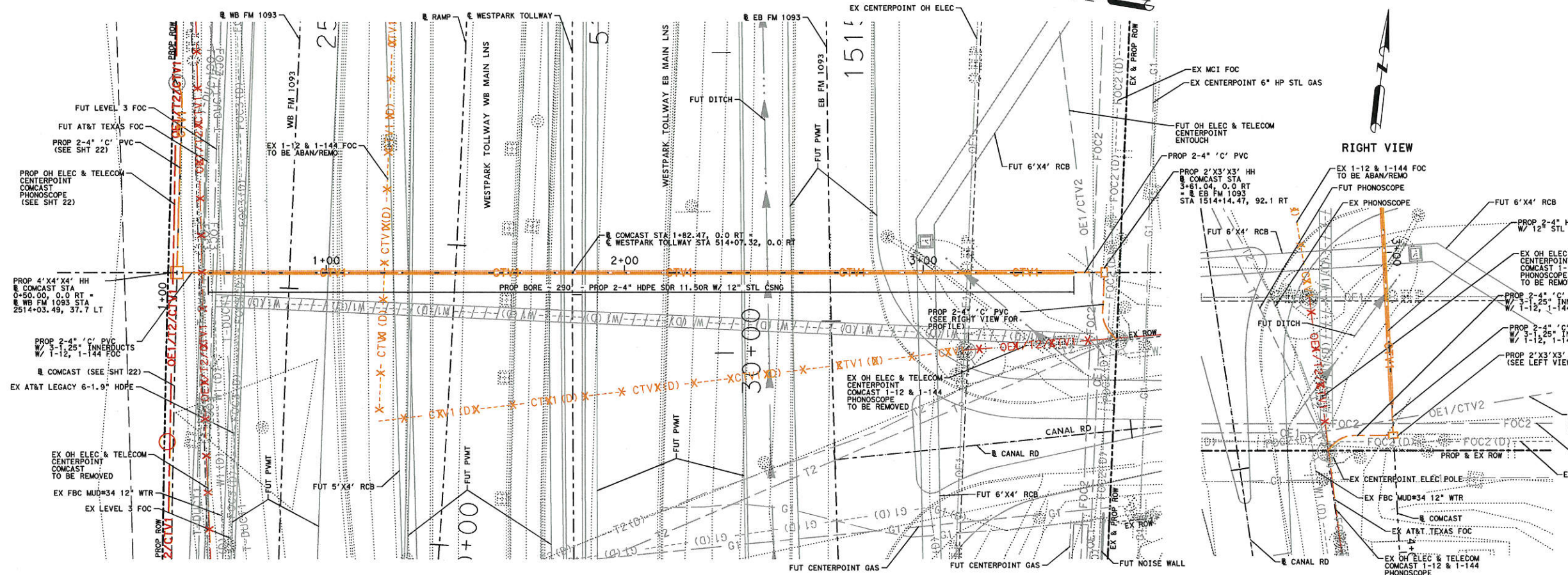
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\*USER: 150340\*Comcast\*FM\*1093\*  
\*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION

11/12/2015  
3:36:22 PM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE  
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DESIGN. CONTRACTOR TO CONTACT GARY  
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Engineer: VINEETA JAYARAM  
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FM 1093 WESTPARK EXTENSION  
KATY-GASTON RD  
PLAN & PROFILE  
SHT 15 OF 16

STA 514+07.32  
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PROFILE HORIZ: 1"=40'  
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SHEET: 26

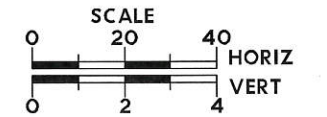
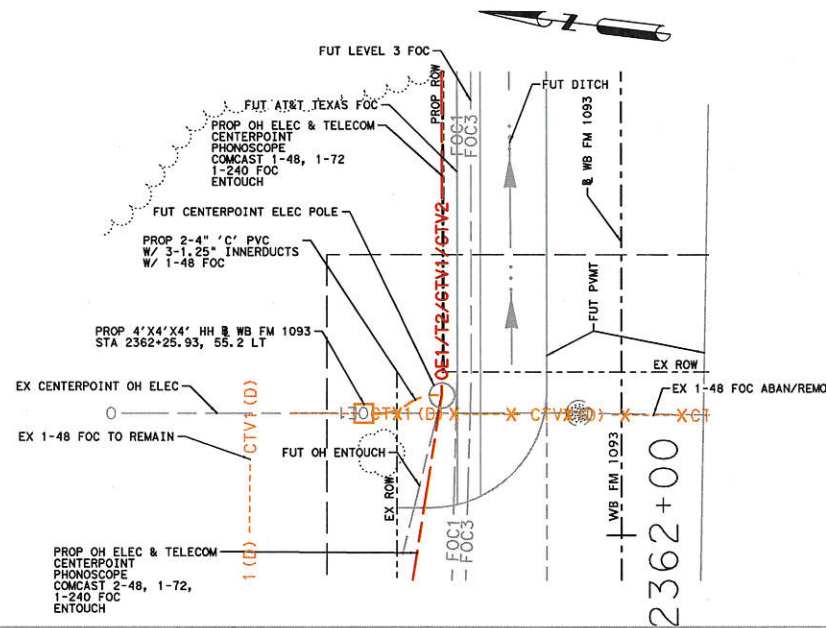
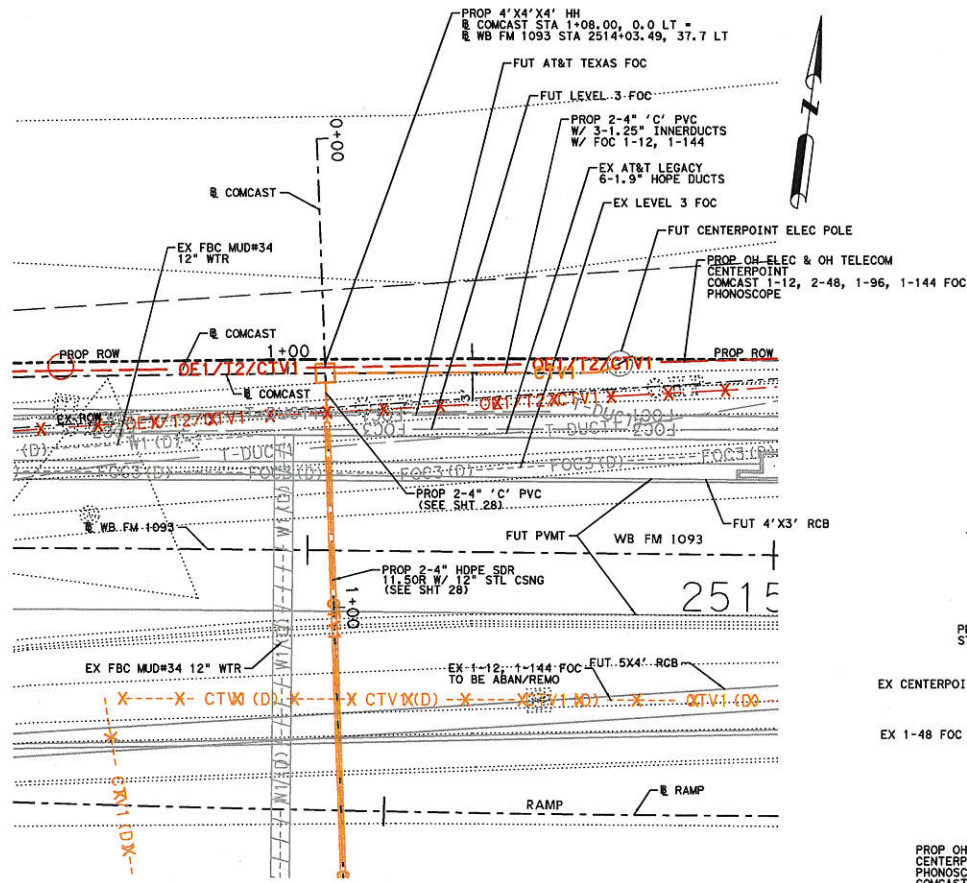
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\*USER: 150340\*Comcast\*FM\*1093\*  
\*PROJECT: COMCAST\*

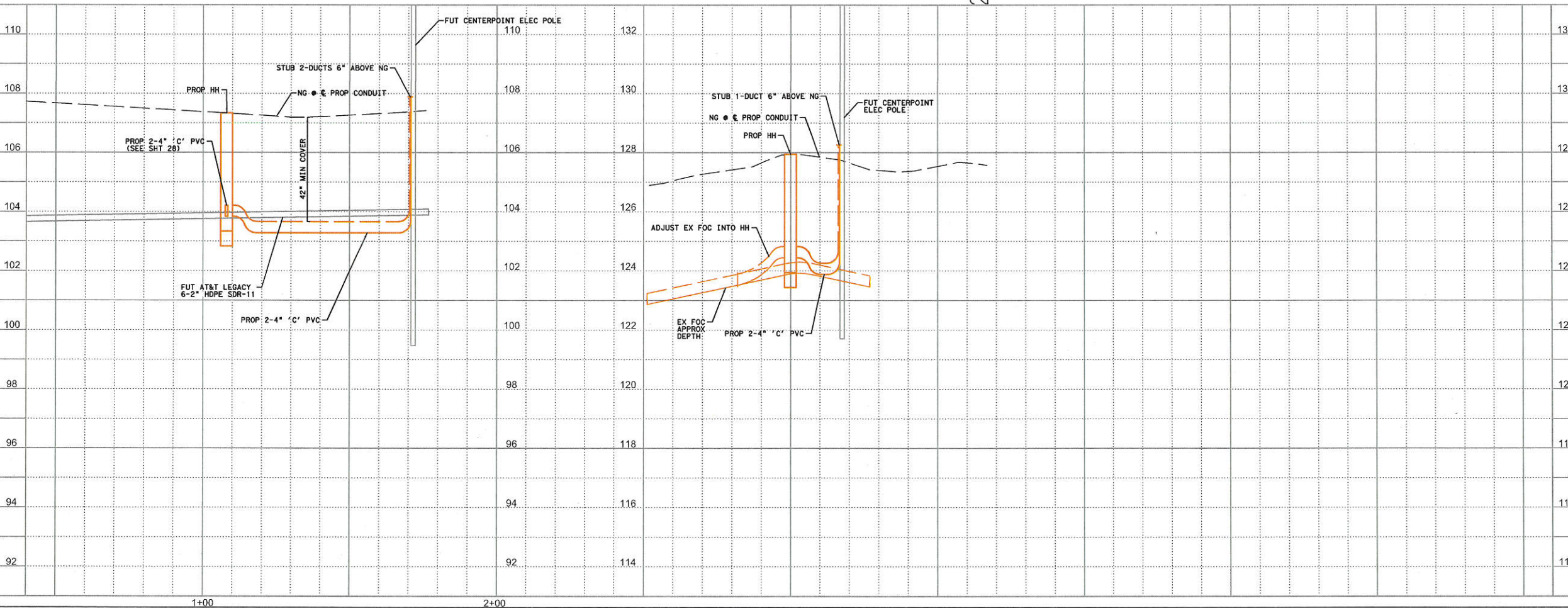
FM 1093 WESTPARK EXTENSION

11/12/2015 3:36:24 PM

NOTE:  
ALL CENTERPOINT ELECTRIC POLE LOCATIONS ARE BASED ON PRELIMINARY DESIGN. CONTRACTOR TO CONTACT GARY BRAXTON AT (713) 945-4583 PRIOR TO CONSTRUCTION TO CONFIRM POLE LOCATIONS.



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**INTERIM REVIEW**  
 Not intended for construction, bidding or permit purposes.  
 Engineer: VINEETA JAYARAM  
 P.E. Serial No.: 101121  
 Date: 11/12/2015

**CobbFendley**  
 TBPE Firm Registration No. 274  
 TBPLS Firm Registration No. 100467  
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FM 1093 WESTPARK EXTENSION  
 WESTPARK N ROW  
 PLAN & PROFILE  
 SHT 16 OF 16


STA 2514+03 & STA 2362+30  
 SCALE: PLAN: 1"=40'  
 PROFILE VERT: 1"=4'  
 PROFILE HORZ: 1"=40'  
 DRAWN BY: EMC  
 SHEET: 27

\*USER: 150340\*Comcast\*FM1093\*  
 \*PROJECT: COMCAST\*

FM 1093 WESTPARK EXTENSION


UNDERGROUND QUANTITIES																
SHT NO	STATION LIMITS	TRENCH EXCAVATION PROTECTION	ADJUST BURIED CABLE	CONDUIT 2-4" 'C' PVC EQUIPPED W/ (3-1.25" HDPE)	CONDUIT 2-5" 'C' PVC EQUIPPED W/ (4-1.25" HDPE)	CONDUIT 2-4" HDPE SDR 11.50R EQUIPPED W/ (3-1.25" HDPE)	CSNG 16" HDPE SDR 11.50R	CSNG 12" STL SCHED 40	BURIED CABLE 12 FOC	BURIED CABLE 24 FOC	BURIED CABLE 48 FOC	BURIED CABLE 96 FOC	BURIED CABLE 144 FOC	BURIED CABLE 240 FOC	4X4X4 HANDHOLE	3X5X3 HANDHOLE
	STA XXX+XX TO STA XXX+XX	LF	LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) EA	(TELE) EA
12	STA 313+75, 150' LT TO STA 316+74, 137' LT	291	0	291	0	0	0	0	0	0	782	0	0	395	1	0
13	316+74, 137' LT TO 320+63, 142' LT	395	0	395	0	0	0	0	0	0	980	0	0	395	1	0
14 LT	334+11, 159' LT TO 335+10, 127' LT	108	10	108	0	0	0	0	0	208	0	0	0	0	1	0
14 RT	405+16, 195' LT TO 405+40, 182' LT	25	0	25	0	0	0	0	0	125	125	0	0	0	1	0
15	356+37	113	0	113	0	289	0	289	0	489	0	0	0	0	2	0
16	411+88	54	0	54	0	316	0	316	0	0	570	570	0	0	2	0
17	467+53	164	0	164	0	260	0	260	0	424	0	0	0	0	2	0
18	467+53 profile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	471+71, 355' LT TO 476+07, 296' LT	446	0	0	446	0	0	0	0	0	892	496	0	496	1	0
20	476+07, 296' LT TO 481+07, 296' LT	427	0	0	496	0	69	0	0	0	1092	546	0	546	0	1
21	481+07, 296' LT TO 486+07, 293' LT	500	0	0	500	0	0	0	0	0	1000	500	0	500	0	0
22	486+07, 293' LT TO 491+06, 269' LT	436	0	0	495	0	64	0	0	0	1090	545	0	545	0	1
23	491+06, 269' LT TO 496+11, 232' LT	232	0	0	500	0	268	0	0	0	1000	500	0	500	0	0
24	496+11, 232' LT TO 501+15, 185' LT	445	0	0	495	0	40	0	0	0	1090	545	0	545	0	1
25	501+15, 185' LT TO 504+16, 164' LT	296	0	0	296	0	0	0	0	0	692	346	0	346	0	1
26	514+07	40	0	40	0	290	0	290	530	0	0	0	530	0	2	0
27 RT	362+26, 134' LT TO 362+30, 117' LT	15	0	15	0	0	0	0	0	0	115	0	0	0	1	0
27 LT	514+07, 132' LT TO 514+70, 132' LT	60	0	60	0	0	0	0	60	0	0	0	60	0	0	0
<b>TOTALS</b>		<b>4047</b>	<b>10</b>	<b>1265</b>	<b>3228</b>	<b>1155</b>	<b>441</b>	<b>1155</b>	<b>590</b>	<b>1246</b>	<b>9428</b>	<b>4048</b>	<b>590</b>	<b>4268</b>	<b>14</b>	<b>4</b>

AERIAL QUANTITIES											
SHT NO	STATION LIMITS	OH CABLE 12 FOC	OH CABLE 24 FOC	OH CABLE 48 FOC	OH CABLE 72 FOC	OH CABLE 96 FOC	OH CABLE 144 FOC	OH CABLE 240 FOC	PLACE STRAND	OH CA REMOVAL	UG REMOVAL/ ABANDONED
	STA XXX+XX TO STA XXX+XX	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF	(TELE) LF
7	STA 300+00 TO STA 344+00	0	70	6187	0	0	0	3093	3093	3664	202
8	STA 344+00 TO STA 388+00	0	1215	6223	3182	0	0	4397	4397	4400	425
9	STA 388+00 TO STA 432+00	0	0	6676	1770	3309	0	4434	4434	4609	389
10	STA 432+00 TO STA 477+00	0	0	6856	0	3428	0	3428	3428	3821	729
11	STA 477+00 TO STA 521+00	608	0	3336	0	1668	608	1668	1668	968	3583
<b>TOTAL</b>		<b>608</b>	<b>1285</b>	<b>29278</b>	<b>4952</b>	<b>8405</b>	<b>608</b>	<b>17020</b>	<b>17020</b>	<b>17462</b>	<b>5328</b>



**INTERIM REVIEW**

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 Engineer: VINEETA JAYARAM  
 P.E. Serial No.: 101121  
 Date: 11/12/2015



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FM 1093 WESTPARK EXTENSION

QUANTITY SUMMARY  
SHT 1 OF 1

SCALE: NTS	DRAWN BY EMC	SHEET 28
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# EXHIBIT "B"

## UTILITY CONSTRUCTION COST ESTIMATE

**Comcast FM 1093 - Construction and Material Estimate**

Item #	Description	Quantities	Units	Labor		Material		Combined	
				Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal
1	Trench Excavation Protection	4047	LF	\$ 2.00	\$ 8,094.00	\$ -	\$ -	\$ 2.00	\$ 8,094.00
2	Trench (2) 4" 'C' PVC	1265	LF	\$ 50.00	\$ 63,250.00	\$ 9.00	\$ 11,385.00	\$ 59.00	\$ 74,635.00
3	Trench (2) 5" 'C' PVC	2787	LF	\$ 55.00	\$ 153,285.00	\$ 10.00	\$ 27,870.00	\$ 65.00	\$ 181,155.00
3	Bore 12" Steel Casing equipped with (2) 4" HDPE	1155	LF	\$ 150.00	\$ 173,250.00	\$ 100.00	\$ 115,500.00	\$ 250.00	\$ 288,750.00
4	Bore 16" HDPE Casing equipped with (2) 5" PVC	441	LF	\$ 190.00	\$ 83,790.00	\$ 100.00	\$ 44,100.00	\$ 290.00	\$ 127,890.00
5	Pull (3) 1.25" Innerduct	2420	LF	\$ 0.92	\$ 13,358.40	\$ 0.90	\$ 4,356.00	\$ 1.82	\$ 17,714.40
6	Pull (4) 1.25" Innerduct	3228	LF	\$ 0.92	\$ 23,758.08	\$ 0.90	\$ 5,810.40	\$ 1.82	\$ 29,568.48
7	Place 3'x5'x3' Handhole	4	EA	\$ 700.00	\$ 2,800.00	\$ 600.00	\$ 2,400.00	\$ 1,300.00	\$ 5,200.00
8	Place 4'x4'x4' Handhole	14	EA	\$ 800.00	\$ 11,200.00	\$ 700.00	\$ 9,800.00	\$ 1,500.00	\$ 21,000.00
9	Place UG 12 ct. Fiber Optic Cable	590	LF	\$ 1.00	\$ 590.00	\$ 0.22	\$ 129.80	\$ 1.22	\$ 719.80
10	Place UG 24 ct. Fiber Optic Cable	1246	LF	\$ 1.00	\$ 1,246.00	\$ 0.28	\$ 348.88	\$ 1.28	\$ 1,594.88
11	Place UG 48 ct. Fiber Optic Cable	9428	LF	\$ 1.00	\$ 9,428.00	\$ 0.37	\$ 3,488.36	\$ 1.37	\$ 12,916.36
12	Place UG 96 ct. Fiber Optic Cable	4048	LF	\$ 1.00	\$ 4,048.00	\$ 0.65	\$ 2,631.20	\$ 1.65	\$ 6,679.20
13	Place UG 144 ct. Fiber Optic Cable	590	LF	\$ 1.00	\$ 590.00	\$ 0.85	\$ 501.50	\$ 1.85	\$ 1,091.50
14	Place UG 240 ct. Fiber Optic Cable	4268	LF	\$ 1.00	\$ 4,268.00	\$ 1.05	\$ 4,481.40	\$ 2.05	\$ 8,749.40
15	Place Aerial Cables (2-48 FOC, 240 FOC)	3023	LF	\$ 1.50	\$ 4,534.50	\$ 1.79	\$ 5,411.17	\$ 3.29	\$ 9,945.67
16	Place Aerial Cables (24 FOC, 2-48 FOC, 240 FOC)	1285	LF	\$ 1.50	\$ 1,927.50	\$ 2.07	\$ 2,659.95	\$ 3.57	\$ 4,587.45
17	Place Aerial Cables (2-48 FOC, 72 FOC, 240 FOC)	611	LF	\$ 1.50	\$ 916.50	\$ 2.29	\$ 1,399.19	\$ 3.79	\$ 2,315.69
18	Place Aerial Cables (48 FOC, 72 FOC, 240 FOC)	4120	LF	\$ 1.50	\$ 6,180.00	\$ 1.92	\$ 7,910.40	\$ 3.42	\$ 14,090.40
19	Place Aerial Cables (48 FOC, 2-72 FOC, 240 FOC)	220	LF	\$ 1.50	\$ 330.00	\$ 2.50	\$ 550.00	\$ 4.00	\$ 880.00
20	Place Aerial Cables (48 FOC, 2-96 FOC, 240 FOC)	643	LF	\$ 1.50	\$ 964.50	\$ 2.72	\$ 1,748.96	\$ 4.22	\$ 2,713.46
21	Place Aerial Cables (2-48 FOC, 96 FOC, 240 FOC)	6510	LF	\$ 1.50	\$ 9,765.00	\$ 2.44	\$ 15,884.40	\$ 3.94	\$ 25,649.40
22	Place Aerial Cables (12 FOC, 2-48 FOC, 96 FOC, 144 FOC, 240 FOC)	608	LF	\$ 1.50	\$ 912.00	\$ 3.51	\$ 2,134.08	\$ 5.01	\$ 3,046.08
23	Remove OH Cables	17462	LF	\$ 2.00	\$ 34,924.00	\$ -	\$ -	\$ 2.00	\$ 34,924.00
24	Removal/abandonment UG cable	5328	LF	\$ 2.00	\$ 10,656.00	\$ -	\$ -	\$ 2.00	\$ 10,656.00

**Comcast FM 1093 - Construction and Material Estimate**

Item #	Description	Quantities	Units	Labor		Material		Combined	
				Unit Cost	Subtotal	Unit Cost	Subtotal	Unit Cost	Subtotal
25	Splice - 12 FOC - 1 cables (unit is based on splicing each end of cable. (times 2 per cable))	24	EA	\$ 30.00	\$ 720.00	\$ -	\$ -	\$ 30.00	\$ 720.00
26	Splice - 24 FOC - 4 cables (unit is based on splicing each end of cable. (times 2 per cable))	192	EA	\$ 30.00	\$ 5,760.00	\$ -	\$ -	\$ 30.00	\$ 5,760.00
27	Splice - 48 FOC - 10 cables (unit is based on splicing each end of cable. (times 2 per cable))	960	EA	\$ 30.00	\$ 28,800.00	\$ -	\$ -	\$ 30.00	\$ 28,800.00
28	Splice - 72 FOC - 1 cables (unit is based on splicing each end of cable. (times 2 per cable))	144	EA	\$ 30.00	\$ 4,320.00	\$ -	\$ -	\$ 30.00	\$ 4,320.00
29	Splice - 96 FOC - 4 cables (unit is based on splicing each end of cable. (times 2 per cable))	768	EA	\$ 30.00	\$ 23,040.00	\$ -	\$ -	\$ 30.00	\$ 23,040.00
30	Splice - 144 FOC - 1 cables (unit is based on splicing each end of cable. (times 2 per cable))	288	EA	\$ 30.00	\$ 8,640.00	\$ -	\$ -	\$ 30.00	\$ 8,640.00
31	Splice - 240 FOC - 5 cables (unit is based on splicing each end of cable. (times 2 per cable))	2400	EA	\$ 30.00	\$ 72,000.00	\$ -	\$ -	\$ 30.00	\$ 72,000.00
<b>Total</b>									<b>\$ 1,037,846.17</b>

## Comcast FM 1093 - Design

Description	Hours	Rate	Subtotal	Cost
Utility Coordination/Conflict Analysis				\$ 9,717.84
Project Manager	20	\$ 193.50	\$ 3,870.00	
Utility Specialist	32	\$ 134.37	\$ 4,299.84	
Administrative	16	\$ 96.75	\$ 1,548.00	
Utility Agreement Preparation/Estimate				\$ 12,354.00
Project Manager	4	\$ 195.00	\$ 780.00	
Utility Specialist	80	\$ 135.00	\$10,800.00	
Administrative	8	\$ 96.75	\$ 774.00	
Underground Design				\$ 38,255.00
Project Manager	20	\$ 195.00	\$ 3,900.00	
Utility Specialist	85	\$ 135.00	\$11,475.00	
Senior Project Designer	208	\$ 110.00	\$22,880.00	
Overhead Plans				\$ 33,690.00
Project Manager	16	\$ 195.00	\$ 3,120.00	
Utility Specialist	70	\$ 135.00	\$ 9,450.00	
Senior Project Designer	192	\$ 110.00	\$21,120.00	
<b>Subtotal for design</b>				<b>\$ 94,016.84</b>
<b>Reimbursables</b>				<b>\$ 983.16</b>
<b>Total</b>				<b>\$ 95,000.00</b>

## EXHIBIT "C"

UTILITY'S SCHEDULE OF WORK AND  
ESTIMATED DATE OF COMPLETION

FM 1093 - Comcast schedule

Task Name	Duration	Start	Finish	Nov	Dec	Jan	Feb	Mar	Apr
Agreement approval	6 wks	Mon 11/2/15	Fri 12/11/15						
Submit and obtain TXDOT Permit for overhead and underground work	4 wks	Mon 12/14/15	Fri 1/8/16						
Underground conduit construction	40 days	Mon 1/11/16	Fri 3/4/16						
Install fiber optic cable into conduits and manholes	5 days	Mon 3/7/16	Fri 3/11/16						
Aerial construction	45 days	Mon 1/11/16	Fri 3/11/16						
Splice fiber optic cable for both underground and aerial lines	30 days	Mon 3/14/16	Fri 4/22/16						

\*\*\* Schedule is contingent upon the completion of the approved agreement